

Hunting Wild Animals L.P.Sabaneev





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TABLE OF CONTENTS

FUREWURDS	
INTRODUCTION	11
Chapter 1 - Geographical distribution of the wolf	18
Notes on Chapter I	32
Chapter 2 - Description of the wolf	46
Notes on Chapter II	
Chapter 3 - Wolves' life in wintertime	
Notes on Chapter III	
Chapter 4 - Wolves' summer	
Notes on Chapter IV	
Chapter 5 - Wolves' food	
Animals not eaten by humans	
Feathered game	
Four-legged game	
Domestic animals	101
Notes on Chapter V	110
HOW TO EXTERMINATE WOLVES	115
Chapter 1 - Hunting with dogs	117
Chapter 2 - Ancient hunting	122
Chapter 3 - Inconveniences in hunting with dogs	129
Chapter 4 - Hunting with guns	135
Chapter 5 - Hunting raids	140
Chapter 6 - Autumn hunting	146
Chapter 7 - Winter hunting	150
Chapter 8 - Hunting with PSKOV	157
Chapter 9 - Pigs and carrion	168
Chapter 10 - Hunting with the golden eagle	174
Chapter 11 - Chasing wolves	181
Chapter 12 - Extermination of wolves and wolf cubs	
Chapter 13 - Hunting With Traps	200
Catching wolves with snares	201
Trapping	204
Articles and essays about the wolf question	217



Introduction

FOREWORDS

This volume contains the works of Leonid Pavlovich Sabaneyev on "hunting wild animals". The first part consists of an extensive monograph "The Wolf", the second included essays and articles on the biology of certain game animals and on the ways of hunting for them.

The basic information about the work on the monograph on the wolf is found in 1876, when the 2nd congress of rifle hunters took place in Moscow on the agenda of which the question of "measures to exterminate wolves" was the first. In the "Protocol of the Congress of Messrs. hunters, held May 6, 1876 in the hall of the Polytechnic Museum, published as an annex to the May issue of the Journal of Hunting, summarizes the speech of L. P. Sabaneyev, who at the previous congress (January 8, 1876) was instructed to make the main presentation about this topic. L.P. Sabaneyev said that "a detailed report on the instructions of the Imperial Society will soon be published in the appendix to the Journal of Hunting." This work, entitled "Wolf Question and Critical Review of Measures to the Destruction of the Wolf," consists of 4 parts.

The first part examines the importance of the wolf question and provides statistics on the annual losses caused by this predator, equal to at least 3 million, which is likely to reach a much larger figure. Then they understand the reasons for the propagation of wolves, the main ones being cheapness of wolf fur, the prohibition of traps and poison, dog hunting and a lack of initiative on the part of not only the peasant population, but also the hunters themselves.

The second part encompasses the natural history of the wolf, as far as it is needed to understand hunting and trapping these predators.

In the third, all the known methods of catching wolves are described in more or less detail, and all the advantages and disadvantages of each are pointed out, in particular, attention is paid to the description of drive hunting and generally the least known methods of catching.

The last part examines all the measures taken hitherto and proposed projects for the extermination of wolves.

During the process, the initial project changed significantly. Above all, LP Sabaneyev began to work with the natural history of the wolf, which became the first part of the monograph "The Wolf" and was not printed as an appendix to the "Journal of Hunting" but was published in the 2nd edition of the collection "Nature" from 1877. Accordingly, the methods of wolf extermination were now in part 2 of the monograph, but at the time of its publication neither the collection "Nature" nor the "Journal of Hunting" existed anymore: they merged and laid the foundation for the journal Nature and Hunt, which during 1878 - 1879 published 12 chapters from the second part. In the October issue of 1881 there was another article - "Ways of exterminating wolves", but without continuing the numbering of previous chapters. Only a footnote on other ways of hunting, described in the previous chapters, published in 1878 and 1879, indicates the connection of this essay with the second part of the monograph "The Wolf".

The work on the wolf remained unfinished. In the above-mentioned last publication (the October issue of the journal Nature and Hunting from the year 1881), the author notes: "This latter method is, as it were, a transition to the poisoning of wolves, which is the subject of the following article." However, the "next article" was not published either then or later.

None of the third part (originally the first one) was written by L.P. Sabaneyev, in which he promised the readers to "cover some issues of the wolf propagation", nor the 4th about various projects of wolf extermination.

For a modern reader-hunter, such incompleteness of the monograph has absolutely no significance. The parts written by L.P. Sabaneyev had an important fundamental significance for the author's contemporaries, for the solution of the "wolf question", which was so vigorously discussed in the pages of hunting publications in the 70s of the last century. In our own days, these parts would be of interest only to a limited number of hunting historians, and the "wolf question" of our time, which once again agitated the hunting minds almost a hundred years later, has completely different aspects.

A hundred years ago, before the contemporaries of L.P. Sabaneyev, there was no question: to destroy or not to destroy wolves?

The answer was: destroy!

The only question was how to do it best in order to stop the growth of the wolf population, which became irrepressible after the elimination of landowner hunting. At the same time, the noble idea of protecting nature hit another extreme, agreed on a complete ban on hunting wolves. The result was not slow in affect: in the wolf habitat areas, public and individual farms began to suffer from wolves' attacks.

The fact is that nature is built on the principles of natural self-regulation. Being a medic of the forest, the wolf destroys inferior animals, but as soon as the population of the wolf grows enough that natural food begins to be missed, the surplus population must either migrate to other places, or weaken from hunger and eventually perish.

Under conditions of human intervention in nature, when the number of animals decreases as a result of human activity, the wolf "turns its attention" to the "food reserve" that a human has - the livestock. The defenders of the wolves did not consider that as soon as humans intervened in the natural process of self-regulation of nature, they must take the function of regulating the number of wolves. But as long as this reasonable idea paved its way, hunting artels that specialized in the extermination of wolves were disbanded, the skilled craftsmen retrained or retired, not raising a new generation, and giving the young hunters a rich experience. It was necessary to start it all over again. That is why one can hope that along with the publications of contemporary authors about wolves and hunting for them, the monograph by L.P. Sabaneyev will also be useful for a modern hunter, despite the fact that over the past 100 years some of the provisions of the remarkable Russian hunter and scientist have become obsolete.

The second section of this volume contains descriptions of biology and hunting for the bear, elk, sable and roe deer, essays of hunting in the Ural mountains and small notes on the fox and wild cat. Attention is drawn to the fact that the essays "The Bear and the Bearish Fishery in the Urals" and "The Elk and Obtaining It in the Perm government" were originally published (in the journal Zarya in 1871) under one heading - "Animal Hunting in Russia". Two more essays, "Sable and Sable Hunting" (1874) and "Roe Deer and Goat in the Ural Mountains" (1875), which were similar in their construction to the first two, appeared some time later, suggesting some sort of trunk concept for L.P. Sabaneyev - to prepare essays on all or the most popular hunting species. The description of the various hunts forms the book "Hunting calendar", where L.P. Sabaneyev made a colossal work on dogs (two volumes from the conceived three are about hunting dogs). Finally, according to the memoirs of contemporaries and friends of L. P. Sabaneyev, he wanted to proceed to work on a multi volume book on Russian hunting. It only remains to regret that the premature death of a remarkable Russian game expert (he was 54 years old) did not allow preparing such a publication. It is quite possible that the four essays with which the reader first gets acquainted in this volume were supposed to serve as the basis for a fundamental work on Russian hunting.

Despite the certain regional limitations of the essays on the bear, moose and roe deer, written on the material of the Urals and the Western Urals, where the author has long worked as part of a scientific expedition, these works of L.P. Sabaneyev are of interest to the modern reader, since the biology of these hunting of animals in the whole country has much in common, and hunting methods, although not all, are close to hunting methods in other regions. The same can be said about the popular essay "Animal Fishery in the Ural Mountains". However, in this essay there is also a section on hunting birds, which, of course, gets out of the subject of this volume, but to isolate from the whole essay this section for publication in the next volume would obviously be wrong.

Somewhat apart in the second section is the article "The Wolf Question". It is written in the form of a review of V.M. Lazarevsky's pamphlet "On the Destruction of the Wolf by the Wolf of Livestock and Game and on the Destruction of the Wolf", but goes far beyond a simple review: L.P. Sabaneyev explores both the purely hunting and social reasons for the appearance called the "wolf question". This article is useful and instructive for us, because some aspects of the "wolf question" that arose in our time were relevant even at Sabaneyev's time.

L.P. Sabaneyev raises the question of reducing the number of hunters specializing in wolves, and the meagerness of premiums for the destruction of wolves, and the inferiority of wolves' hides, and the passivity of hunting organizations. Instructive statistical calculations of the author, which instructs us to take into account not only

direct losses from the attack of wolves on livestock, but also indirect damage to game hunting, shows what mistakes can be made when determining the number of wolves in the area. Valuable in the article and the fact that the author determines the role of various ways of hunting in the extermination of wolves, while paying attention to those methods that are now considered being for sporting-lovers.

The principles of the publication of L.P. Sabaneyev's texts in this volume are remain the same as in the previous books of this author. The text is brought in line with modern grammatical norms, but at the same time the editors tried to preserve the author's style and peculiarities of the usage of that time, only errors and misprints were subjected to editing. Some, very few, additions necessary for correct understanding of the text, belonging to the editorial staff, are enclosed in angular (<>) brackets.

In addition, for a better understanding of the text, the editors had to make their notes, which are marked in the text, as was done in previous volumes by an outward small number without the bracket C 2 3 ... etc.). Having met such a figure, the reader should turn to the end of the book, where the notes marked by this figure, belonging to the editorial office, are placed.

In the second part of the monograph "The Wolf" L.P. Sabaneyev refrained from using such notes and returned to the usual paginate footnotes marked with an asterisk.

The editorial board found it possible to add to the volume some illustrations that were not part of the text of L.P. Sabaneyev. The experience of the publication of previous volumes ("Hunting calendar", "Hunting dogs ...") showed that by publishing in the journal the chapters of his future books, L.P. Sabaneyev simply used the illustrative material, placed mostly technical drawings, and then in a separate edition added illustrations not specially booked for the book, but selected from already published in periodicals (mostly in his journal Nature and Hunt) and even from books by other authors. Taking into account this peculiarity of L.P. Sabaneyev's work, the compiler proposed to supplement the texts of this volume with several illustrations from the journal Nature and Hunting, as indicated by references to this journal in the signatures

The text written more than a hundred years ago should not present special difficulties for the modern reader. A better understanding of some outdated realities will be assisted by a help device placed at the end of the volume.

The editorial board encountered great difficulties in the preparation of this publication in connection with the absence of works on the history of hunting, reference books, encyclopedias, etc. and it was not possible to compare all the author's references to Russian and foreign publications, especially since L.P. Sabaneyev often used

his own personal library and libraries of individuals, as well as materials that came to the editors of his publications and were not published, but contained some useful information. It should be said that L.P. Sabaneyev did not observe unity in his works, printing, for example, names that are full names, only with initials, and even without them. Often the names of printed works, both Russian and foreign, are not exact, the abbreviations in names are not identical, which sometimes makes accurate attribution of works difficult. Therefore, the editors decided not to interfere in the author's text, but to give explanations and clarifications in the annexes when it was possible to do so.

The editors will be grateful to those readers who will be able to send their comments, clarifications and additions that will help in the future work on the publication of the works of Leonid Pavlovich Sabaneyev.



INTRODUCTION

The value of the wolf question. - Common causes of the spread of the wolf.

At first glance, it may seem to many that the significance of the so-called wolf question has been exaggerated, that wolves bring us no more, but, less harm than 20-30 years ago. And indeed it may seem from the first, superficial glance that anyone who wants to go deeper into the matter will, after a closer examination, discover that it is during the last decades that the number of wolves has increased to a great extent and it continues to increase each year. Wolves become a public ulcer, a people's whip; their insolence has no limits: they run into cities and even capitals in broad daylight, and into villages without danger and fear where they approach herds and choke cattle with impunity.

Innumerable complaints of losses arising from the destruction of livestock by wolves have been heard for a long time from all the localities of Russia, but these complaints were not documented. The numbers of losses were not checked by anyone, hence, its up to the each one whether to trust them or not. Recently, the government and part of the Zemstvo, vaguely aware of the significance of the harm caused by the wolf, were forced to collect full information. The number of livestock they destroyed, and the information obtained was fully confirmed by vague rumors about the enormity of losses. Thus, now doubts are scattered and we have no right to reject the existence of the wolf question anymore or to consider its value exaggerated. The extermination of wolves is really a question, and besides, a question that has been ignored for too long and therefore requires an early resolution. A large number of figures clearly demonstrate the significance of losses caused by wolves to the rural population.

Despite the inevitable shortcomings of the statistics available to us on this issue, it allows us to calculate the approximate number of cattle destroyed by the wolves, which gives a total of one million. Millions devoured by wolves! Millions of peasants, working hard in collecting pennies! Do not these millions of millions die as proof of the economic chaos that reigns in us? Are they evidence of incompetence, and most importantly, of indifference with which we treat the common good? It's ridiculous to say, but it's extremely sad to admit that our peasants, who just managed to get rid of slavery, who hardly stopped paying a heavy tribute to the landlords, again fell into bondage and again bear their mites, not only to people, but to a predatory beast.

The initiative for tax evasion, collected annually in European Russia by our new, so to speak, uninvited landlords, was made by Mr. G. Lazarevsky! Who processed the statistical material collected by the government from Zemstvo and published his works in the form of a brochure in a separate appendix to the "Government Bulletin" for 1876 year. Although this tax is exaggerated by several authors of the pamphlet and does not reach the sum of 15 million, of course, but nevertheless Mr. Lazarevsky is absolutely right when comparing losses from wolves to other permanent and daily losses of the rural population. Evidence for this will be given below, in a later chapter. Now we only notice that neither the destruction of game, nor the impoverishment of fisheries is so common for the rural estate and have a similar overwhelming influence on its welfare, as the reproduction of the wolf. Most importantly, the quantity of food, distributed evenly between the more than sufficient population, do not place such a heavy burden on producers, and they never bring them to complete ruin.

Needless to say, these complex issues are more important than the question that occupies us, but we should not forget that, firstly, they concern not just one breed, more precisely a species, but a whole set of wild animals useful to man, and that the decline of hunting is determined to increase the wolf population.

The question concerns such an evil, with which it is impossible to be reconciled either because it can be almost is destroyed, and because it affects the interests of the vast majority of the population of Russia: the northern tundra on the Middle Asian steppes, from Poland to the mouths of the Amur, very few terrains have been completely and permanently freed from the predatory raids of wolves depriving the peasant of his main asset, the main engine of his uncomplicated and poor economy - cattle and horses. So the wolf, no matter how strange and even paradoxical it may seem, occupies, undoubtedly, the first place among a number of wild animals that are important in the economic life of our homeland. Its significance here is, of course, negative, in terms of the harm it brings, but the more palpable it is, the more important is the role of this predator, worth millions, destroying dozens, if not hundreds, of people every year; the more obligatory it becomes for us to come to an early resolution of the wolf question, to take measures, if not to final destruction, then at least to a significant weakening of this gradually increasing social disaster.

At the present time, the evil has already reached such dimensions that the struggle against it is difficult, and if we continue to be indifferent to it, if we continue to regard the wolf question as exaggerated, then the evil can increase to the extent that it will is able to bring the rural population to final ruin. We still do not fully realize that the harm done by the wolf is a clear evidence of the indifference with which most of the zemstvos and even hunters took this damage; the first one ignored the wolf question due of lack of data, while the latter often did not pay attention to it. But now the statistical data of losses is evident and the data is so sad that, in view of their time, it should be time to sacrifice personal egoism in favor of preserving public security; it is time to realize that the wolf is the main enemy of our wellfare and, having dropped from ourselves the usual apathy and indifference, to declare a predator cruel, irreconcilable war.

But how, is it possible that this enemy of human culture could become more numerous? How to agree about this contradiction if you consider the wolf being a measure of civilization, for which the example of Western Europe, where this predator is either destroyed, or is close to its final extermination? Do not facts prove to us that its temporary reproduction took place only in periods of decline in people's welfare, in the epoch of social disasters and wars, mainly as a swarm and inevitable consequence of any dislocation, and that the wolf is thus a formidable symbol of ignorance, poverty, insecurity and oppression of the masses? How is it possible that an incomprehensible phenomenon occurs in our civilized age? How to explain such absurdity - the multiplication of the predatory beast at a time when the population is increasing, the steppe is populated, the vast forest areas are cleared and even disappear?

The answer to this question is not so simple, as some hunters, reckless and short-sighted, believe in their judgments, selfishly measuring everything by their own gauge.

Their remarks are more or less justified - it is true, but they look too narrowly and unilaterally at the matter. The explanations they give are far from exhausting the whole essence of the matter, almost without going into the fundamental questions, and are only more or less links in a long chain of direct and indirect causes of reproduction of some predatory and some generally harmful animals. Nevertheless, I still did not pay much attention to the main motives for this important biological issue.

The point is that the whole world of animals is divided into two divisions. The existence of some animals, is completely independent, and they, strictly speaking, do not only live a completely independent life, but even find in us the most formidable, the most inexorable of their enemies. Man, invading their undivided possessions at that time, cutting down the forests, plowing up the steppes, does not give them anything in return; on the contrary, he pushes them out and often, when he directly benefits them, even exterminates them - in a word, brings them an indirect or direct harm. By virtue of the inexorable law of nature, animals that cannot adapt to the changing conditions of existence, sooner or later must disappear from the earth, and this fate sooner befalls those that do not change at all. The more stable the signs of a given species are, the more it is persecuted.

There are, however, many animals that, on the contrary, not only reconcile themselves with the growing culture, but find in it their unwitting ally and patron. Not needing dense forests and virgin steppes, when applied to changed conditions, instead of wild animals and plants they get easier prey among domestic animals, much more abundant food in cereals bred by man. These parasites live on man's account, their existence becomes even stronger than the former's, they multiply even more, and while the extermination of the first group it is a matter of one time, the complete destruction of the latter is extremely difficult and sometimes not even in the power of man.

If such easily hunted animals as the hare and the gray partridge, living not completely at the expense of man, can not disappear, it will be clear to us that in order to fight with parasites, the extraction that involves significant difficulties, which do not directly serve the needs of the person and do not provide him with a direct, obvious benefit, great efforts are required, and most importantly, general and permanent, and not single-handed and random efforts must be made. It should not be forgotten that each person cares only about his own personal benefit and that the majority is much more aware of his own benefits and profits than harm and losses that do not directly affect him or his interests.

The wolf belongs to the second category of animals. Undoubtedly, antagonism between the wolf and civilization is not subject to any doubt, but the fact is that civilization, as everyone knows, goes through many periods; The wolf is a parasite, living

exclusively at the expense of man. The prosperity of the wolves require some degree of culture and populations grow in those countries that have reached a certain level of civilization. Much of Western Europe has already experienced this period, but no one, of course, will deny that we are just entering into it, and we are now living in a transitional stage, and difficult time. The emancipation of the peasants, which gave us a strong impetus in the way how civilization violated the old order of our life, combined with the influences of rapid progress, it was necessary to attract the reproduction of wolves. Despite the fact that direct and indirect harms causes by the wolves can be counted, all of them have the same main root: the development of culture, a drastic change in the structure of human life and the consequent economic dislocation, which is as good as possible for any four-footed predator.

The first, albeit indirect, consequence of the disturbed social order and the most striking feature of our economic turmoil was the exorbitant extermination of forests over the past two decades. Extermination of the forests, in turn, was favoring the reproduction of the wolf: on the one hand, it helped to expand the area of wolves' distribution, on the other, it increased the number of wolf dens. The wolf is difficult to hunt and it is not a valuable prey for the hunter. Although there are insignificant bonuses for a killed wolf, its hide is much cheaper than 20-30 years ago. Consequently we see that the industrialist - the main enemy of the wolf, only competes with wolves in the extermination of the game animals.

The change in the social system, and the closer the system is tied to the landlord, peasants completely distracted their attention from the wolf. Busy cleaning up their own frustrated affairs, they selfishly ignored wolves' invasion and left unpunished their predatory raids. In addition, the peasants still ruled by the landlords, deprived them of the opportunity to maintain large dog hunting, which favoured the reproduction of the wolf. From this point of view, it is impossible not to give justice to the dying hunting. But in the ruins of the old system the favorite pastime of the old barbarians was almost lost, and, of course, it does not resurface in its former absurdly grandiose dimensions. Only here and there, and then only in the black earth zone, where the crisis was less perceptible, did its remnants remain intact, but these few hunters no longer had the same strength and resources to fight the wolf and, despite all their will, they were unable to counteract the growing disaster. They do not nowadays have a tenth of their former value, and they had to give primacy to some of the rifle hunters that replaced them.

Not denying the future, perhaps the very important role of rifle hunters in the extermination of the wolf, we consider ourselves fully justified in asserting that they unconsciously and guided by very good motives, often contributed to the reproduction of the beast. Dog hunters, forbidding hunting in their cottages, saving the wolves for

themselves, had another reason for this prohibition; Gun hunters and increasingly proliferating hunting circles and societies, forbidding hunting in their rented forests and marshes, are unwitting protectors of the wolves emerging from there, and they could not be relied upon with which the tenants themselves had no means or desire. Thus, the prohibition of hunting in landlord's cottages, the leasing of forests, marshes and hunting grounds in general, and even the hampering of hunting and fishing in the state forests of the central strip-all measures that in their essence favor the reproduction of game, at the same time favored the wolf. Here, therefore, unwitting concealers of predators are those on whose moral duty is to take care of the continuous and most effective destruction of this predatory animal.

Finally, the reasons for the well-being of the wolf, the causes that had been in force from the very beginning and remained almost unchanged up to the present time, consist in the incompetence of our commoner, immersed in ignorance and prejudice, and in the indifference with which our intellectual class refers to special calamities.

Our peasants, because of a lack of enterprise, and moreover deprived of experienced leaders, are almost defenseless against wolves. Meanwhile, as in Germany, at the first news of the appearance of a predator, all the huge villages are completely besieged and make a right attack on it, for us such a common exception is rare. In addition, our villagers are still extremely careless: an entire village, for example, entrusts its flock to a mutilated or holy fool shepherd or a boy-podarka, which, of course, can not serve as a reliable defense in the attack of predators. With this together, in our rural population lives a strange, unjustified belief about the wolf's revenge, and because of this prejudice our peasants do not kill the cubs whose whereabouts are almost always well known to them, but they even hinder their extermination. This belief, to which we will return, is far from the only one. Until now, peasants have a superstitious fear of the wolf, and both the Great Russians and the Little Russians have an ancient tale of wolf-werewolves and vovkolaks who still find their gullible defenders. Hence it is understandable why the wolf is credited with so much intelligence, why it is considered a fatal, inevitable, irresistible evil. The wolf takes only that cattle that is dedicated to him by the god: the meat belongs to him by right, and if he takes away the slaughtered cow or sheep, he will take another. This view, which is most conducive to the impunity of the robber, exists almost everywhere, not only in one South-West region, and we do not eat, but often nven don't not remove the hide from the dead cattle, and this only encourages the wolf to further exploits. The commoner has not gone far from the samoyedz who believes that a wolf wounded by a wolf will sooner or later inevitably become its victim, and leaving the wolf-killed cattle to the undivided use of a predator is bith a careless and a helpless act.

"But are we right to judge this carelessness and helplessness of our poor peasant, burdened with work, completely absorbed in the cares of obtaining daily bread?" Is it right for us blame him for his underdevelopment and superstition, for not understanding the importance of the dreadlings brought by the wolf? Do we have the right to demand from him an initiative in the destruction of evil? Do not we have a moral obligation to be the leaders of the ignorant rural estate? And meanwhile, we still have little thought about the importance of the wolf question, on the ways in which we can get rid of the importunate cohabitation of predators.

We are still too indifferent and apathetic to look at the increase in the public calamity, because it does not concern us directly, and this indifference and this apathy indisputably served, albeit indirectly, but nevertheless a very important reason for the reproduction of the wolf. The removal of this cause is entirely within our power. We can not, of course, make the wolf become a herbivore, but we can easily overcome our usual indifference, overcome prejudices and superstitions, impartially evaluate and reasonably apply the most expedient ways to get a wolf, artificially raise wolves and so, therefore, if not to exterminate completely, at least to prevent the reproduction of the wolf and to reduce the expenses which the state annually spends on it!

CHAPTER 1 - GEOGRAPHICAL DISTRIBUTION OF THE WOLF

The wolf is not found everywhere. - The reason for its absence in the northern coniferous forests. - The highland steppes of Central Asia, the birthplace of the wolf. - Northern region: tundra and forests and the difference between them. The reason for the rarity of wolves in Western Europe. - In South-Eastern Europe. the wolf is found here everywhere and its quantity is proportional to the amount of losses from it. - Reasons to the largest number of wolves in the middle provinces. - Provinces of the Kingdom of Poland and densely populated chernozem. - Central Asia. - North Africa and South Asia.

Everyone knows very well that before starting a fight with an enemy, one must know his weaknesses, learn his habits - in short, find out with whom you are dealing. Therefore, before proceeding to a detailed critical exposition of all the old and new ways of war with the wolf, let us see what kind of animal the wolf is, where and how it lives, we can describe in more detail the external appearance of it, its whereabouts and lifestyle in different seasons. We begin, of course, with the definition of the boundaries of the vast wolf republic, which does not recognize any authorities and laws, we will indicate where to look for our internal enemies, where the root and the beginning of the wolf-hostile to us are, what are the reasons for its existence, distribution and a greater or lesser number.

It is completely mistaken for many people that there is not a single corner of Europe and Asia in which these predators ever existed, and those who believe that humans won their place and drove them out are completely mistaken. On the contrary, as it was already noted in the introduction, the wolf in most cases is an animal of the past, living and breeding at the expense of man and spreading after him. In the deaf and continuous forests of the northern countries it is not present until now, and if in European Russia there are already a few places in the European part of the country that are still completely free of wolves, in Siberia there are still enormous spaces of maidens, taiga, where the foot of this beast has not yet trod ¹.

¹ Notes to the words marked with a bracketed digit belong to LP Sabaneyev and are placed, like the author, at the end of each chapter. - Ed

How can we explain to ourselves the strange contradiction arising from this? On one hand, we meet a wolf, and in a very significant amount, in the almost uninhabited tundras of the far north - wherever the forest borders end, from Lapland to the Chukchi Land; on the other - according to the testimony of Western European authors, the most important, its exclusive residence is the forests of Central and Southern Europe.

But the contradiction is only apparent, and the explanation does not present any difficulties. The wolf cannot exist in the continuous plain forests, not because of a lack of food, since they abound in all sorts of wild animals, but because getting food in winter time gets too dearly. The deep and friable snow of dense coniferous forests is not covered by an ice-cold koroi and, collapsing of the heaviness of the beast, the snow becomes its grave, and therefore constitute for being an irresistible obstacle to wolves' spread. Even in the middle and eastern provinces of Russia, in a very snowy winter, due to the absence of snowstorms and thaws, wolves never stay in large coniferous forests, but live more in deciduous or mixed small forests and use their own roads for raids. But in the continuous taiga, the distribution of deciduous forests, especially shallow forests, except for river valleys, is determined by the presence of man cutting down spruce, pine and fir, replaced by black forest, meadows or arable land, thereby saving the wolf from starving to death. The wolves feed more and more on their own - thus directly promoting their spread of reproduction. With a decrease in the amount of moisture that is most dependent on the continent on the abundance of forests, the number of falling snows also decreases; These snow, being exposed to the direct influence of the wind, lose their former looseness and uniform depth, and the action of the sun's rays thickens even more. Gradually and mutually, a man and a wolf conquer more in large forest areas, and finally a moment comes when, as a result of the almost complete destruction of forests and climate change, that the wolf can safely live in the redwood forest.

And so, along with the spread of man, the most evil enemy inevitably spreads and multiplies; this is most noticeable in countries that were once covered in forests. But as already mentioned above, such an abnormal order of things can not continue constantly and sooner or later it must be disrupted. A man who is almost defenseless at first, when the wolf is exterminated by the vastness of common possessions, understands his forces little by little, violates this difficult balance at first sight, displaces the predator, and finally, under favorable conditions, completely exterminates it.

While we are not so much in powerlessness, as we are in carelessness and ineptitude, we are in the middle of our country in a period of greatest prosperity of the wolf population. In the more civilized and densely populated states, the wolf has become either an extremely rare phenomenon or even a legacy. The predator is not given mercy here, and because of necessity he is compelled to hide in the almost uninhabited corners

of the country - to the highland red-wood, where he sooner or later is expected to be completely exterminated. But if the wolves in Western Europe can survive their last days, then they will continue to be an ordinary phenomenon for a long time, and for a long time new spirits from the vast and desolate steppes of Central Asia will form the center of the geographical distribution of this beast.

That the wolf is a resident of the steppes, and mainly on the mountainous, that the birthplace of its Central Asia, is indirectly proved, on the one hand, by its absence in the continuous redwood forest of the plains, its rarity in the mountain forests, and on the other - the antiquity of these flat elevations, lowlands. Here, in the lowsnow steppes, hot in the summer, cold winters, the wolves originally hunted wild and hoofed mammals, but as time went on, the herds of wild animals were replaced by the herds of domesticated ones, and if the wolf and man had previously hunted the same kind of game, without interfering with each other, and did not depend on each other, then from the moment of the destruction and domestication of the animals that served as its main food, the wolf becomes hostile to human, sometimes not only not acknowledging, but even challenging his dominion over the country. Together with the progressive movement of the Central Asian nomads to the north and west, gradually, along the heels of them, this evil enemy of humanity spread. But the coniferous forests were equally inconvenient for the pastoral peoples who settled primarily along the banks of the large northern rivers so that predators, passing these forests, eventually moved across the natural wide river valleys to the polar tundra, where they found similar conditions - herds of wild, countless variegated animals², different game and, in contrast to the broad band of redwood that separated the northern plains from the southern, shallow and not so loose bliss. Here the wolf fully acclimatized and reproducing even more freely, it found a second homeland on the wide expanse of the swampy plains, that could be considered a true one, if it were not contradicted by the insignificant antiquity of the tundra, which is the bottom of the relatively recently receded sea.

For the same last reason, i.e., due to the recent origin of the tundra and then due to the sharp extremes of the completely continental climate of the sublime steppes of Central Asia, the wolf of the tundra and forests differs from its genus only by a few secondary characters - the color of the wool and the size. But in South Asia, North Africa and North America? Wolves, having encountered entirely different climatic conditions and, evidently, in incomparably more remote epochs, are so different even by their behavior from ours, which with great reason are classified by many zoologists to individual species, rather than to subspecies. This question, however, is far from resolved, and on these basis we will only touch lightly the distribution of wolves in

² The genus of large mice (Muoyev)

southern rocks and their differences from the northern type, especially since these tropical breeds of the wolf, as well as the North American, are of no importance to us.

Currently, the area of distribution of the wolf with all its subspecies is extremely extensive and occupies, with some minor exceptions, the entire cold belt of the northern hemisphere in both the Old and New Worlds. For greater convenience, we will divide this area, although, of course, somewhat artificially, into 4 main bands:

- 1. Northern a strip of tundra and forests of Europe and Asia;
- 2. Central and Southern Europe and Central Asia;
- 3. North Africa and South Asia, and finally,
- 4. North America.

We will consider here in more detail only the first two strips, and we will try to avoid small, uninteresting for most particulars and supporting details that the curious reader will find in the notes attached to the end chapter.

The first strip - a strip of tundra and forests - includes the Scandinavian Peninsula, almost the entire northern half of European Russia³ and most of Siberia⁴.

As far as I know, neither in Iceland nor in Spitsbergen (4) are wolves, the reason of which is the significant distance of these islands from the mainland. Nevertheless, judging by the finding of a wolf on Novaya Zemlya (5), Bear Islands and New Siberia, this animal is now spread to 75 ° N.W. and most probably, it is spreading towards the north, so it is quite possible that in the future it will appear on Svalbard. Wolves have become numerous on the Scandinavian Peninsula since the twenties of the last century, and before that they were relatively rare. Currently, they are found in more or less significant quantities in all of Sweden and Norway except for the island of Gotland (6).

Further in the east, in Lapland, wolves live in even greater numbers, and the harm from them becomes more and more obvious there, although this does not depend on their reproduction, but on the decrease in the amount of food that predominantly is reindeer (7). The same phenomenon is seen almost throughout the entire Siberian tundra, and, apparently, due to the decrease in the number of wild and tame deer for the wolves, hard times have already come, and now, with few exceptions, they should be fewer than the former.

³ Exactly: Finland, Petersburg, Novgorod and Olonets provinces and the whole region east of the river. Mologa and north from the Volga to the entrance into it of Kama, and further to the north-east from the river. Ufa.

⁴ Namely: almost the entire Tobolsk, the northern part of Tomsk, almost the entire Yenisei, northern part of the Irkutsk province, then the Yakut, Kamchatka, Amur and Primorye regions of Eastern Siberia.

But already in Northern Finland, where the border of the distribution of the domestic reindeer is passing and the continuous coniferous forests begin, the wolf becomes an extremely rare beast (8). It occurs only in the middle, more populated part of the region, (9) and, apparently, is more numerous near the shores of the Baltic Sea, the Finnish Gulf and Lake Ladoga (10), where wolves run in winter to nearby and even significantly remote islands, such as Aland, (11).

The wolf experiences the same dependence on the distribution of forests, and the same antagonism between the wolf and the bear is seen further east (12), where a strip of continuous coniferous forests is almost completely avoided by a predator, gradually, although unevenly, expands and occupies about 10 ° in Eastern Siberia latitude. Here in the kingdom of the bear, the wolf is a rare phenomenon, and if wolves occur, then predominantly only in the valleys of large rivers, where a small group of animals is grouped, which, thanks to deep snow, easily extract it and prevent it from multiplying. The wolf does not have a permanent residence here, but only runs here from the north - from the tundra or, more often, from the south - from the more crowded areas.

But whereas in the north this strip has rather definite and almost unchanging contours and forests are sharply delimited from the marshy plains, the southern boundary of the taiga is extremely vague, twisting and changeable. From the south, and not from the north, the colonization of this strip was going on, and along with the increase in population and the dilution of forests on its outskirts, the wolf reproduction is increasingly apparent. The southern boundary of continuous forests gradually moves to the north, and the area populated by the wolves increases. It appears in areas where it has not been observed before.

Thus, the entire northern area of the wolf distribution in European and Asian Russia can be divided into three parts. The first includes tundra, where the wolf found itself more favorable conditions of existence than in the mountain steppe. Here it is found everywhere and in huge quantities. The second - taiga where it is found only sporadically, in places, in river valleys but in general it is an extreme rarity. The third where the wolf though has appeared already in historical times and is less numerous, than in tundra. However, it is distributed so, that few terrains are released from it and these areas, which are like oases, are rapidly decreasing and even disappearing.

So, based on the above facts and on the many-dimensional data placed in the notes, we can summarize the distribution of the wolf in the tundra area of the Old World in the following way.

The border of the distribution of wolves towards the north cannot be accurately determined, but probably almost coincides with the northern boundary of the reindeer.

- 1. In general, wolves are more in the tundra belt, on the shores of the sea, and further into the interior of the continent except places the mountains.
- 2. In the continuous coniferous forests, the wolf is extremely rare or even never seen. It appears in the forest belt only where the forests are sparse and interspersed with open spaces.
- 3. The wolves are in places where there are no bears, that is, the number of wolves and other predatory animals are inversely related to each other.
- 4. The number of wolves in the tundra at the present moment does not increase, but probably decreases, which is due to the decrease in the number of wild and domesticated reindeer.
- 5. The distribution of wolves in the north is not yet completely related to the presence of humans and domestic animals and is mainly determined by the convenience of obtaining food in the winter season. Their food in these extreme limits of its distribution consists exclusively in wild reindeer, and in many parts of Eastern Siberia in wild goats.

Almost completely inverse conditions of distribution we encounter in the second area occupied by the wolf, namely in Western Europe, Middle and Southern Russia, the Aral-Caspian steppes and in general in all of Central Asia. But this central band appears in the main parts of its so diverse and so important for us that for greater convenience it is necessary to consider each of these parts separately. Let's start with Western Europe.

In the extreme northwest of Europe, on the islands of Great Britain, wolves have been exterminated since ancient times and for reasons quite understandable they could not go there again (13). The same applies to other islands - Corsica, Sardinia and Crete (14), where there are no wolves either, although nothing is known about the time of their extermination.

But on the mainland the obstacle represented by the sea does not exist; therefore in all other countries of Western Europe we meet wolves in larger or smaller numbers, since extermination here is very difficult, sometimes even impossible. In most cases, wolves are also found in places where other local predators have long been destroyed, in times of wars and internal troubles. In France, wolves are still found in almost all departments, although their permanent residence is exclusively mountain forests, generally the least populated areas, mainly the Alps, the Sevens and the Pyrenees (15). The number of wolves, judging by the often repeated complaints, increased significantly after the Franco-Prussian war. In the less populated Spain (16), which has suffered for

so many years from disorder, wolves are very common and occur in all the mountains, even large plains, reaching the southernmost part of Andalusia, and in any case much more numerous than in Portugal. In Italy, they are found in many places, but mostly in the mountains (17). There are large numbers of wolves, on the Balkan Peninsula, where they live more on the plains than in the mountains.

In Central Europe, where states enjoy relatively large improvements, wolves are exterminated as quickly as possible, and here we see entire provinces and large countries where native wolves retreated. In Switzerland they are found only in the upper part, the so-called the mountainous region (Verggeon) and the lower Alpine (Alregrion), but in many cantons they are very rare or completely destroyed (18). Within the Austrian Empire, wolves are found in a few places of Cisleithania, and in the plains of Hungary, in Transylvania and Galicia (19), regions adjacent to Russia and the Danube principalities and favoring the existence of predators according to their local conditions, they are often met (20). In the German Empire and in Belgium, wolves form a very rare phenomenon, and in Holland and Denmark, they are finally exterminated (21).

It is known that even in times comparatively close to our time, Western Europe, for the most part, at least throughout the whole area to the north of the Alps and Pyrenees, was covered with almost continuous forests where there were no wolves; Only a small part of it in the southeast corner represented some resemblance to the steppe stripe. Over time, extensive forests were gradually cut down and the area was populated. At a certain time of transition the wolves were numerous here. Now the whole country is the most populated on the globe, but a dense population determines not their multiplication, but extermination and repression. Constant persecution makes wolves choose more remote places for shelters, and therefore wolves come across most often where, under other favorable conditions, they almost never met, namely in the mountains and forests. Here it is necessary, however, to make a reservation that the forests of Western Europe, neither in size nor in the depth of the snows, can be compared with our northern forests and even the forests of Central Russia. In general, regarding the distribution of wolves in Western Europe, one can observe the following.

- 1. Wolves are found here on the whole continent and are completely exterminated only on the islands.
- 2. In the eastern part of Western Europe, wolves are more numerous than in the west, in the south more than in the north, in the interior of the continent more than on the shores of the sea, in mountainous areas more than in sparsely populated countries.

- 3. Wolves of Western Europe, displaced by the population, live exclusively in the forests.
- 4. The number of wolves is here in direct relation to their safety from persecution of humans and in the reverse to the culture and duration of the country's welfare.

We have already seen that both in the forest belt of the northern region, and in Western Europe, the wolf is found only in places - sporadically. The reasons for this similar phenomenon, however, are very different, even opposite. In the first locality, the scarcity of the predator is explained by the fact that it did not have time to multiply here, in the second - by its extermination and displacement. In short, in the forest belt the wolf is just beginning its existence, in Western Europe its days are already numbered.

A quite different view is seen in South-Eastern Europe, that is, in the South, West, East, and especially in Central Russia. The wolf-domination is reaching or has already reached its apogee. Wolves are found not only everywhere, except for a few places bordering with Prussia, but, as already noted, they are so common and numerous, that they annually cause losses worth millions to the rural population.

This widespread distribution of wolves and the significant harm caused by them, give the full right to dwell in more detail on the conditions of their distribution in this most important part of the European Russia.

Obviously, the relative abundance of wolves can be judged only on the basis of the amount of harm they bring, that is, from a very simple and completely logical consideration. The more wolves in a given locality, the more significant is the tax (22) they charge of the population. There is no dispute that there cannot be a completely correct relationship between the number of wolves and this tax. The estimate has deviations and fluctuations in one direction or another, and in those areas where wolves act with impunity, where livestock is less protected from their attacks, where there are a lot game (23), there must be less wolves than you would expect, and vice versa. Moreover, one can not fail to take into account the fact that the reliability of statistical information about losses, regardless of the integrity of their collectors, is not everywhere the same, and that in some localities, namely, more northern and forest, a significant part of the damage from wolves should be attributed to the dol of bears. In the steppe, where the owners themselves are often unable to correctly determine the number of small animals belonging to them, harm from wolves is shown by them somewhat below the real one. In the first case, wolf damages are actually smaller and in the second case, somewhat greater.

But in spite of all these secondary conditions complicating the question of their relative strength in a given locality, the essence of the situation is.

The more wolves, the more damage they bring to the population, and this fact remains beyond all doubt and is not subject to any disputes.

Its correctness is confirmed, as we shall now see, by many other sources (24).

The abundance of each species in a given locality is determined by two main factors the abundance of food and safety in the broad sense of the word, especially during the breeding season. Hence it follows that wolves must be the most numerous and cause the greatest harm where, with a certain degree of population and with an abundance of livestock, there are more localities that are convenient for withdrawal, which in turn indicates that, with the same conditions, the terrain where the cultivated land is most correctly alternated with small but dense forests, marsh thickets and stakes - wolf dens, this locality will be most favorable for the reproduction of the wolf and in the same place the harm caused to them will be only significant her.

The fidelity of this conclusion is proved by the tenfold losses caused by wolves, cited by Mr. Lazarevsky in his famous pamphlet 5. It is the largest losses that fall on Kaluga Bay. (8.6 cents per tithe), then to Volyn and Mogilev (7th cents.), Orel and Ryazan (6.4 cents.), Chernigov, Tula, Penza, Samara and Kazan (4.5 cents.) (25). All the named provinces form one almost continuous strip along the border to areas of spruce and chernozem (black soil) where there is the best relation between forests and arable land with meadows on the one hand, and forests and the number of domestic animals on the other. (26)

In addition to these two common causes of the numerous wolves in these provinces the abundance of safe shelters and the abundance of food, there are still other, indirect, but sometimes equally important. Among them a uniform, but not too dense population, an abundance of settlements, which determines a larger number of individual flocks and a large number of winter roads that save the wolf from starvation. The defenselessness of herds, supervised by an inappropriate shepherd or a little boy, a herd that does not have the unity of steppe herds, cannot defend itself against the wolf 6.

Herds are grazed here only in the bushes and copses, where it is more convenient for a predator to sneak up, especially since in the middle provinces the custom of confusing horses is widespread 7. Finally, in no part of Russia the wolf is so persecuted. Here there is only a wolf hunt where a few hunters of the privileged classes hunt the wolf with dogs only, and 5-10 years ago such "fighters" were even less. Secondly, as Mr. Lazarevsky rightly observes, "hunting and extermination are two terms that exclude

⁵ On the extermination of livestock and game by a wolf .2pb., 1876,

⁶ Of course, this does not apply to sheep.
7 Hence, together with the extreme degree of weakness and exhaustion from the field.

one another." There is almost no wild hunting here, and it is only the hunter-owners who are responsible of this, who have guarded the beast in their own, even neighboring owner's dachas, generally occupying at least one third, sometimes half of the total number of lands and having a large part of small forests and therefore, wolf dens 8. In the past numerous hunting with dogs was not able to significantly reduce the wolf population in these provinces, which included the former center of the dog hunters, then such a monopoly on the wolfs' skin does not find the former justification and is often, as it were, a permanent order. Now, not only dog hunters, but entire societies of gun hunters indirectly protect this predator from extermination.

What we have said is the key to explaining the abundance of wolves in this locality, the multiplicity, which is also confirmed by statistical, although not entirely accurate, data. A detailed exposition of these direct and indirect reasons also explains the small harm caused by the wolves and their small number in other provinces, which are from the first view under similar conditions.

Now it is easy to prove the inconsistency of Mr. Lazarevsky's the opinions. Equating, contrary to figures, the processing of which, apparently, cost him a lot of work, "not only all the other provinces of the middle and Volga groups, but all the provinces of the West, to these 11 provinces. Moscow, Vladimir 9 and Tambov (the southern, the largest part), on the one hand, nor Tverskaya, Yaroslavl, Kostroma, Nizhny Novgorod ¹⁰, Saratov - on the other, can not be fully compared with the 11 provinces mentioned, due to various reasons. For example, for the greater steppe part of Tambov and Saratoy, the small number of wolf shelters, the rarity of settlements and the small number of separate, albeit large, herds, large forest areas in the northern part of the Kostroma, Nizhny Novgorod and parts in Tver and Yaroslav, and finally a large number of trappers in the forest counties and in the steppe districts of Tambov and Saratov.

As for the western provinces 11, the original reason for the relatively small number of wolves and the lesser harm that they bring here, as evidenced by the statements, should be sought in the still recent vastness of Lithuania's forests, in the uneven distribution of rare animals relative to the population and its companions. The snow, which does not reach a considerable depth here, never constituted such an important

⁸ Completely in vain because the landowners in general, and in particular the hunters are looking for wolf dens not in their own lands, but in state forests. This is true only for the steppe areas where the wolf is involuntarily forced to seek refuge in the surviving forests, exclusively state properties. The latter in the middle belt are relatively more solid and tall plantings and do not give wolves comfort. The absurdity of this accusation is proved by the fact that in the Kaluga and Mogilev provinces, which are more tolerated by wolves, state forests constitute only 1/6 and 1/7 part of the total forest area belong to landlords.

9 It is not known on what grounds Mr. Lazarevsky attributes Vladimirsky to the chernozem (black soil)

middle provinces (see page 8 of the pamphlet). 10 This belongs to Kazan, for the reasons stated in note (26).

¹¹ To a group of western provinces, except Minsk, Grodno. Kovno, Vitebsk, Pskov, even the part of Smolensk, can be included.

obstacle for the wolf, as in the forest areas of the Great Russian provinces. Even now in the Minsk, Vitebsk and Pskov (27) forests and marshes are not only larger than in the provinces of the middle belt ¹², but the areas of these forests and marshes, taken separately, are much larger. Thus, wolves can not and could not be here as ordinary as in provinces lying on the border of chernozem (black soil).

In addition to these, reasons for the small number of wolves in many western provinces were that hunting areas were everywhere. Since ancient times, the wolf has been persistently persecuted here not only by hunters, but by numerous "thinkers", never guarded by anyone. Hunting was not the property of the owner of the dacha - in a word, the wolf was not considered a red beast - an expensive prey for hunters of privileged classes, but was the property of everyone. This correct view of the wolf as a predator nickname and robber, was conditioned, in addition to the multiplicity of trappers, by an even greater degree of development of these "thinkers", a part of the small gentry, then an example of neighboring Prussia. The glorious methods of hunting, on the one hand, manufacturing poison and strychnine, on the other 13, have been practiced since ancient times and have reached a high degree of perfection in the western and Baltic provinces, and in these latter they showed in a brilliant way that there is every possibility to limit wolf reproduction, and even in spite of many conditions to bring the number of these animals to a possible minimum. Already in the Vilna and Grodno provinces wolves are fewer in number than in Minsk and Pskov, and closer to the borders of Prussia, in Kovenskaya (28), the harm from them is even less, although this, the last, the province in terms of the number of cattle and the proportion of forests represents many conditions for their reproduction.

Even better results were achieved in the provinces of Ostsee (29), in which wolf extermination began in the first quarter of this century and where the first experience of statistics of losses from them was made (30). This harm in the Kurland and Liflyandsk is now null and void. Here the wolves seem to be close to extinction. This cannot be said of Estonia, where the number of cattle is incomparably less than in the first two, which is explained by the neighborhood of the Petersburg and Novgorod provinces.

Until now, the provinces with an average population (over 20 and not more than 43 souls per square verst=1,00668 km) have been considered. It was noted above that a dense population, displacing the wolf from its last shelters, in itself is an antidote to its reproduction. Here, and independently of the others, the main reason for the small number of wolves in the Kingdom of Poland, is that here they have been persecuted for a long time (31) and would be even rarer if they were not favored by the often

¹² Some forests here are up to 50%.
13 G. Lazarevsky, attributing to the wolves of the western provinces three times and four times more harm than it follows from the same compiled statements, thereby falls into contradiction with himself, because he considers strychnine the only true means of extermination of all wolves of European Russia.

recurring troubles in densely populated black earth area of Kiev (the most significant part of it), Kursk, Poltava (32) and, probably, Podolskaya. The reason can be seen from the fact that the number of losses in the Polish provinces decreases as the population increases. This is shown most clearly in figures deduced from the statement of Mr. Lazarevsky (see Table).

Deviations from this rule are noticed only in two provinces, namely Plock and Radom. But in the first case, this evasion can be explained by the juxtaposition with Prussia and the Kalish province, where wolves are exterminated or constitute a rare phenomenon, and this is very important on the grounds that there is already less chance of wolves from neighboring provinces, and even their own, having crossed for the Prussian border or even for the Kalish province, in all probability, they do not return. As for Radomskaya, we allow ourselves to doubt that "the quantity of livestock killed by wolves is very insignificant", on the grounds that the author of the pamphlet tells of a half-frozen wolf who, having woken up, strangled or wounded 80 sheep ¹⁴.

It remains to now consider the southern provinces, namely the Bessarabian region, the Kherson, Taurida, Ekaterinoslav, and Astrakhan provinces, where the harm from wolves in general is very insignificant. This southern strip of land should be attributed by the same conditions as the Land of the Don Army, about which there is no information (see Table).

As can be seen from the table, all these areas, with the exception of Bessarabia, have a more or less rare population, all except the Orenburg (where the forest, however, grows exclusively in the mountains, as in Tavricheskaya), small or even treeless and in relation to the space, they occupy the average number of cattle (33). How can we explain the insignificance of losses from wolves and the scarcity of the latter in this strip?

If we discuss impartially the whole set of conditions for the existence of wolves in the steppes, then it is not difficult to conclude that there can not be any other way at this time and that Mr. Lazarevsky in vain exaggerates his fears of the fidelity of the losses shown. If the figures for these losses are lower than the actual ones, then its a minor problem. Of course, with the multiplicity of individual steppe herds, the fidelity of the number of cattle slaughtered by wolves, especially of sheep, decreases. Losses from wolves, shown for the entire southern strip, are only slightly below the real ones which is proved by the following.

These herds are much better protected by the herdsmen themselves. Shepherds, sheep shepherds keep strong and tall dogs (mostly sheep dogs) with each herd, which not only warn them of the impending attack, but are able to protect the sheep from many wolves or at least to drive away the predators. The latter also meet strong resistance in 14 B. with, p. 16; reference to the "Russian World", 1874 g

the steppes both from equestrian herds, cattle herds and even pigs, which will be discussed in detail later. Then the plains do not give them such safe shelters as the areas of Central Russia, especially the bare and fully plowed steppes of Novorossia, where the least damage is seen from the wolves. Burian, in places reeds can not completely replace them with the former forests and bushes along the beams, there is no doubt that the number of wolves has recently greatly decreased here. Just as in the forties, wolves were so numerous in the entire Novorossiysk region that local authorities were forced to resort to extreme measures (34). Due to these extreme unfavorable conditions, it is necessary to accept that even now in the Kherson and Ekaterinoslavskaya regions, adjacent to the most saline (Podolsky, Kiev, Poltava), the wolves are encountered less frequently than in Bessarabia, Orenburg province and the Land of the Don Army.

But besides, the steppes do not favor the existence of the wolf for the reason that here wolves are less than elsewhere, where they are safe against the persecution of a humans. Since ancient times the inhabitants of the steppes used every opportunity to exterminate wolves. Devastation of the wolves's nests, persecution, and especially wolf hunting with horses are practiced all times. In any case, nowhere in European Russia does the wolf have so many active, direct enemies, and wolves would be very rare here if the extinction of the steppes did not prevent their extermination.

So, we summarize what we said about the distribution of wolves in Southeast Europe.

- 1. Wolves are found everywhere in Southeast Europe, and there is not a single province, even not a county, completely spared from their raids. There are no sedentary wolves only near the Prussian borders.
- 2. South-Eastern Europe can be divided into four groups that represent different conditions for the existence of this beast. The middle strip is the outskirts of the chernozem (black soil), the strip of western provinces, the densely populated provinces of the Kingdom of Poland and the chernozem strip and, finally, the strip of the southern steppes.
- 3. The number of wolves is, generally speaking, directly proportional to the losses they cause to the population. Relative fidelity to the figures of these losses is confirmed by many considerations.
- 4. The number of wolves is determined by their safety in a broad sense and the convenience of obtaining domestic animals.
- 5. Volkov is on the outskirts of the black soil, where all favorable conditions for wolves existence are combined, so there is no other place where the wolves were so numerous.

- 6. Wolves' prey consists solely of livestock. Wild animals and feathered game in particular serve them only as a secondary supply.
- 7. Wolves in South-Eastern Europe, just like in the forest belt, avoid mountainous, large and battle forests, except for almost treeless places.

Let us conclude this chapter with a brief survey of the geographical distribution of the wolf in the middle latitudes of Asia, where flat heights are located - the wolves' abode.

The wolf is found everywhere here and it has spread throughout the Caucasus, in the Kirghiz steppes, the Turkestan Krai and neighboring khanates, throughout South Siberia and Mongolia and lives in both dry, almost barren steppes, and in the mountains at the border of arboreal vegetation.

But the more common it is in meadow plains, near villages, following nomads, although even here it does not strike with its relative size and does not bring such harm to the population as it does in the steppes of Southern Russia. Everywhere, wolves get food at the cost of heavy effort, although for various reasons. In the mountains of the Caucasus and Central Asia, he hunts exclusively wild 4 -legged animals. In the Caspian reeds the main prey is made up by the nesting and wintering masses of water and swamp game. The herds of horses and cattle herds are better protected here than elsewhere. Nevertheless, the boundless steppes, impenetrable reeds and uninhabited mountains make wolf extermination completely unthinkable, and it will be, perhaps, for centuries before these Central Asian deserts stop emigrating new settlers to the southeastern outskirts of Europe.

By all indications, the number of wolves increases here gradually as the population increases. This is most notably in southern Siberia, where they were still were so rare in the days of Pallas, that is, in the last quarter of the 18th century, that one could imagine they already had been exterminated completely: "Wolves, as in Krasnoyarsk, so and in all of Siberia almost deliberately etched." Thus, wolves here, as well as in the taiga belt where they appeared in recent times, have not yet reached the highest limit and therefore no measures can prove their final destruction in those areas of South-Eastern Europe, where they can be replenished with new immigrants first from the east, and then from the north.

With regard to the third area of the geographic distribution of the wolf, North Africa and South Asia, it is sufficient to note here that species close to Sasha Erie, or its varieties, are found in Northeast Africa, in most of Asia Turkey and Persia, in Afghanistan and India to Nepal. Apparently, wolves are very rare in the densely populated areas of China proper (36). In the fourth area, North America, the wolf is found, from the deep north to Mexico.

Notes on Chapter I

- 1. Even in many areas of the Amur region, ie, in the southeast of Siberia, as L. Schrenck ("Reise", I, 8. 45) testifies, the wolf appeared in very recent times as soon as they moved closer to other Russian settlements, the Tungus gathered around them with their deer. In the valley of Vilyui (Maak, 2Puteshest. Prib", P. 100) and ramifications of the Stanovoi Range (Middendorf), where the population is more dense and appeared earlier, the wolf nevertheless, despite the large number of foxes, belongs to the exceptional phenomena.
- 2. Mikhailov (Essays on Nature and Life of the White Sea Territory, p. 209) says that wolves come out on the road in the snow winters, staggering from exhaustion. There is no doubt that many of them are victims of starvation. Deep snow, causing prolonged famine, of course, the reason why in the more southern provinces wolves were found half-dead. Such cases are described, for example, by Mr. Lazarevsky (1. e., P. 16), but he is cruelly mistaken, suggesting that the wolves here are cunning or cheeky. These cases of rigidity are simply explained by hunger and exhaustion, and hunger is the cause of their incredible courage after coming to life.
- 3. Middendorf first explained the absence of wolves in the continuous forests of the north by the depth and friability of the snow. Prior to this, L. Schrenk and Radde believed that this lack depends on the country's relief (Middendorf, "Journey", Part II, "Siberian Fauna," pp. 88-90).
- 4. On the absence of wolves on the island of Iceland, see in Thenelemannia. «Nur-Nig. Veshegk, I, 8. 11. There are no wolves on Spitsbergen mentioned by any of the travelers and Swedish authors.
- 5. According to Baer (Bull. Schent, III, 343), wolves come to the western shores of Novaya Zemlya. Svensk (Novaya Zemlya, p. 104) says that they are not seen there as much as polar bears. Geiglin ("Reise", Th. III, 8. 28) believes that wolves run here, chasing deer, when the Kara Gates was covered with ice. On the wolves on Novaya Zemlya, see also Sproberg. "Mowa) a Sembla," 98; Pakhtusov. "Notes hydrograph, Department.", I, p. 152; they are also mentioned in the manuscript of the archive of the Imp. geogr. Society: Chernyshov. "On the possibility of an expedition to the New Earth." They are undoubtedly found on Vaigach and Kolguev Island.
- 6. See Linnaeus. "Fauna Suecica. Quadrup.", p. 9; Billberg. "Fauna Sccandinavia", p. 9; Nilsson. "Scandinavian fauna, Däggdjuren", "III. It is not known on the basis of what data Mr. Lazarevsky says that wolves in Sweden are found only in Lapland (1.

- e., p. 12). If they are a rarity on the Scandinavian Peninsula, then only in Southern Sweden.
- 7. About the abundance of wolves in Lapland and their significance in the life of the Lapps says Nemirovich-Danchenko ("The Country of the Cold," pp. 284, 295, 303).
- 8. According to Middendorf (1. e., P. 204), in Northern Finland there are no wolves.
- 9. See Valennius. "Fauna Fennica", p. 9; Acerbi ("Voy. Au Cap Nord", II, p. 304; III, p. 121) mentions wolves in the Erwenkil forest, north of Åbo.
- 10. Count NN Tolstoy ("Hunting stories," p. 28) speaks of an extraordinary number of wolves in this area. He told we could see that on the Ladoga Lake. During the estrus we could see flocks with up to 500 animals.
- 11. Acerb, 1. e., I, p. 258.
- 12. According to L. Schrenk ("Reis im Nord. Ost. d. Europ. Russland", I, 8. 405), wolves are found in almost all tundras of Arkhangelsk Province, but in Mezensky the krai were no wolves (in the forties, 1. e., I, 8. 471). They began to appear here, only in the fifties (Maksimov, "The Year in the North," p. 403), but in a small number, and only recently they have become more common. Shabunin ("People and Life in the Mezenskaya Tundra." - "Dawn" 1872, book. I, pp. 229 and 235) speaks of the large number of wolves in the Mezenskaya tundra and that they go here in packs of 15-20 animals. However, immediately he contradicts himself, speaking of the safety of the tundra and large clean swamps with wolves and bears. In any case, the tundra, as will be seen later, now constitute one of the main wolf habitats, and Mr. Lazarevsky, responding to my remark about the variegation as the wolves' food is the far in north: "After all, tundra is not the place for wolves"proves his ignorance of the fact that the variegation is exclusively in the tundra, and the fact that the tundra is a wolf's place (see" Zh. Hunt", 1876, December). In addition to the tundra, wolves are found in the northern, treeless extremity of the Urals (Hoffmann, "The Northern Urals." - Zoologist, added by Brandt, p. 13), and also on Izhma, the tributary of Pechora (A. Schrenk, 1. e. II, 8. 406; compare also Latkin's "Diary", Part I, p. 57). According to Mikhailov (1. e., P. 128), they are found on the islands of the White Sea. In general, in the forests of the Arkhangelsk province they are extremely rare and in a few places they are found all year round: in most cases they are very busy here (see Voropai, "Hunting in the North of Russia", p. 123). The same applies to most of the Northern and Middle Urals; even within the Ufa and Orenburg lips. the wolf is a rare phenomenon in the Urals (see Eversmann, "Eat Eastern Orenb.", II, p. 22; "Remarks" by Karpinsky and Volegov

in the "Russian Fauna" Simashko, II, pp. 488-489; P. Sabaneyev, "Vertebrates of the Middle Urals", p. 13). As for the distribution of the wolf in the southern part of the northern region (in Europe, Russia), there are so many indications that it would be unnecessary to bring them up. The wolf is already quite common in the southern half of the Olonets lips. In Vologda it is found mainly in the southwestern and southern, more populated counties, but in general has a sporadic distribution (according to Baer, "Beitz. z. Kenntn. d. Russ. Reichs" VIII, 8. 251), in the Vologda province. In the 30's soe 500-600 wolfskins were collected here annually. Blasius ("Dieus euror.Kusalang", I, 8. 214, 261) found a wolf in the forties near Yarensk and between the rivers Sukhona and the South. In the northern part of the Permian Gubernia the wolf is generally rare (see Vomelov's Note, 1. s., and L.P. Sabaneyey, 1. e.). According to Pallas, wolves were rare (at the end of the last century), even in the Ufa province (Pallas, "Travel", Russian translation, Part II, Book 1, p. 25). At present, they are the most numerous in St. Petersburg and even more in Novgorod and Vyatka (actually in its central part), as it is also proved by the number of losses they incur (see Lazarevsky's pamphlet No. 1). However, harm caused by wolves should be blamed on bears, which will be proved in the third part of the monograph. In western Siberia (the northern part of it), wolves are the most numerous in the tundra (see Islavin, "Samoyeds", Kushelevsky, "The North Pole and the Land of Yamal", p. 87; Belyavsky, "Journey to the Arctic Sea", p 11) and in the middle part of Tobolsk (Pallas, "Zoographia", I, 36) and northern Tomsk (Zavalishin, "Western Sib."), it occurs in places or, as, for example, in the Narym region, does not occur at all (Messerschmidt. "Neue Nord. Beitr.", III, 8. 158, 1782). In the last trip of Polyakov ("Letters and reports on the journey to the valley of the Ob River", pp. 125-126) it is said that "the distribution of wolves in the valley of the river. Obi is very peculiar, from being numerous in the middle part of Irtysh, it is very rare in the north, especially in the wooded belt of the middle areas of the Ob River. In the vicinity of Obdorsk the wolf becomes numerous again." In Eastern Siberia, the wolf lives exclusively in the tundra and along the sea coasts. According to Middendorf (1. e., P. 89), wolves do not occur at all or only accidentally, starting from the Yenisei Bay up to the Arctic Circle (Middendorf. "Reise", Theil I, P. 71). About the wolves in the northern part of the Yenisei Bay, Ehrmann (Reis, No. 81), Thiel I, 8. 1223, 649) and Pallas ("Zoographia", I, P. 37) speak of this. According to Maak ("Travel to the Amur", annex, p. 100), the wolf is very rare in the Vilyui valley, but it is common in the upper part of the Lower Tunguska. Polyakov speaks of the numerous wolves on the entire upper areas of the Lena river and explains this by their dependence of wild goats. Below Kirensk, except for the vicinities of the Machin residence, where goats again appear, there are no more wolves, just as in the Olekminsko-Vitim mountainous country, despite the abundance of domesticated and wild reindeer (I. Polyakov, "Report of the Olekma-Vitim expedition." - "Western Imperial Russian Geographical Society in geographic location", vol. III, 1873, 2, pp. 27-28) Wolves are not found from here to the northern limits of the North-Muya Ridge (north of Lake Baikal). This absence of wolves and goats can only be explained by the greater depth of the snow, which does not constitute an obstacle to deer. According to Middendorf, wolves do not occur on the northern slopes of the Stanovoi Range (1. e., P. 71), and Goncharov (Frigate Pallada, II, 577, 642) testifies to their extreme rarity in the middle part of the Yakutsk region. In the tundra, wolves, contrary to the opinion of IS Polyakov (1. e., P. 28), are ubiquitous and very numerous (compare above). Middendorf (1. e., 8. 71) found them in a large number, beginning at 67 '/ 2 ° S.W. and throughout the Avam and the Great Lower Tundra, and in the Taimyr met 74 ° N.W. Maak (1. e., P. 100) in the vicinity of the Lake of Jesse, in the middle part of Olenek and below Zhigansk on the river Mune. According to other travelers, wolves are common not only throughout the northern part of the Yakut region and along the coasts of the Arctic Ocean (Erdmann. "Reisen um d. Erde", Th., 1.1 ALL., 8. 213; Billings. "Voyage dans la mer glaciale" I, P. 143; Wrangel. "Reise", I, P. 97,; II, 123, 188, 225, 328), but even on the islands of the Bear and New Siberia (Wrangel, 1.) at the mouth of the Chaun Bay (Argents, "Pathways, notes", see "Zap.-Sib., Geogr. Obshch.", Book IV, 1857, p. 39). Wolves were met in the extreme North-East of Siberia about a hundred years ago in the land of the Chukchi (Pallas., "Zoographia", I, P. 38), near the Anadyr's lip (Müller, "Samml. Russisch. Gesch.", III, 546). They were observed on the ice to the Kurile Islands and to America (Pallas, 1. P. 37). Further wolves are numerous throughout Kamchatka, as in former times (Krasheninnikov, "The Description of Kamchatka", Part I, pp. 220, 225), and now ("The Northern Urals." - "Addition" by Brandt, p. 13), and are found near Petropavlovsk (Markov, "Russians in the East", p. 18) and throughout the Okhotsk Pomorie, along shores covered by a rare forest ("The North Urals", 1. e., L. Schrenk, "Reise", I, P. 45, about the wolves on the river Tome, it is said in the West Siberian Division of the Civil War, 1857, mixture, p. 5). Wolves on the Shantar Islands are as numerous as bears, but here they both feed on fish (Middendorf, 1. e., I, P. 71). In the country by the Amur, wolves also adhere to more open areas and are rare in the mountains and forests; for the same reason they are more numerous in northern half of Sakhalin, where the forest is rare (L. Schrenk, "Reise", I, 8. 45.46).

13. They were exterminated before in England, in which King Edgar (966) forgave his people for indignation under the condition that the rioters would pay him with wolf heads, and, in addition, ordered landowners to pay various penalties, taxes and duties for wolves (see E1 .Blare, "ChaSteretz au chien coirat," pp. 123-124).

In Scotland, the last wolf was killed in 1680, in Ireland - in 1710 (Blasius., "Fauna Deutschl.", P. 82).

- 14. Blasius 1. P.
- 15. See Gervais. "Zoologie et Paléontol. Francaises", p. 212; Picot Lapeyrouse. "Ttabl. méth. des anim. de la Haute Garonne", p. 4; Millet. "Faune de maine et de Loire", I, p. 31; Sincity (Seine and Martha) in "Revue et Magaz. et de Zoolog" No. 1854, 6, p. 138.
- 16. See Bremen. "Living Animals", T. I. "Rosenhauer". Die Tiere Andalusiens", P. 2.
- 17. See Bonaparte. "Iconographia della Fauna Italica, "Introducio; Costa. "Fauna del Regni di Napoli", 1860, p. 11; Risso ("Hist. nat. des product. de l'Europe méridion", III, p. 9) says that they are found (formerly) near Nice and in the Maritime Alps.
- 18. See T. Schubbeck, "Das Thierleben d. Alpenwelt", P. 416, 417, 419. Wolves are the rarer in the Eastern, most commonly in South and West Switzerland. In the cantons of Lucerne, Glarisse, San Gallen and Appenzell, wolves have been completely exterminated in recent times.
- 19. At the time of Bechstein, that is, at the end of the last century (see his "Gemeinützl. Naturgesch. Deutschl.", I, 164), they were still very common in Lower Austria, Styria and Carinthia, and recently in Krain (Freyer. "Fauna d. Krain." 1842, P. 4). According to Fitzinger (Syst. Verzeichn d. einig, Erzg. Oesterreich vorkom, Säugethiere, etc., P. 295), wolves lived (in the middle of this century) in the mountains and in the dense forests of the plains of the Archduke of Austria and were not infrequent in the localities of Schneeberg, Otescher, Gustenstein, Lilienfweld, etc., and also in the Alpine mountain range of Upper Austria. In 1826 a wolf was killed near Vienna itself. Undoubtedly, wolves are found in Bohemia and Moravia, but we have no direct indications of this. Wolves are particularly numerous in the Zenre and Kashau districts of Upper Hungary ("In Verh. d. Zool. Bot. Geselsch. in Wien", Bd XII, 1862, P. 256), along the marshes and islands of the Danube, Drava and Sava (Grossinger. "Hist. Phys. Hungariae", Th. I. P. 410). In the Semigrad region, as early as 1857, 952 wolves were killed (see Mina's Hunting, 1858, I, p. 223). For the abundance of wolves in Galicia, see Zawasky. "Fauna d. Galizien", P. 23.
- 20. Nowhere in Germany, wolves are seen outside packs. They fled from France (from the Ardennes, see Blasius, P. 182), Bohemia and Poland. In Hanover, Braunschweig, Holstein, Mecklenburg and Pomerania, they appeared only occasionally in the forties (see Boll. "Archiv f. Naturgesch.", 1850, II, P. 5). In Brandenburg, the last wolf was killed in the winter of 1840-1841 (Wagner, "Yllustz Jagdzeitung")

1876, No. 10, also see Schutz., "Fauna Marchica," 108). Wolves ran occasionally from Poland to Silesia (Cloger, "Schles, Wirthbelth. Fauna", P. 9) In 1845, two wolves were killed near Görlitz (Kaumann. «Versuch ein. Naturgesch. d. Umgeg. v. Görlitz, s. 2). In the time of Bechstein the wolves were still in the Thuringian forest, where they came from Bohemia, Moravia and Franconia (1. s, I, 8. 614), in the latter, judging by the fact that the wolf is not mentioned in the fauna of the Erlangen neighborhoods, they no longer occur (Kuster. «System. Verzeichn. d. im Umgeg. Erlangens beobacht. Thiere», 1840). In Wirtemberg, wolves were seen only in the winter as far back as the forties ((Yäger. «Jahresheft d. Vereins v. Vaterl. Naturg. in Wurtemb.», 1845 s. 238). but in Saxony, it seems, time (Ludwig. «Fauna Saxonica», P. 6). In Bavaria (Schrank. «Fauna Boica», P. 51), there were no local wolves at the end of the last century, and occasionally they came from Bohemia and Tyrolya, on the extermination of wolves in Bavaria (see the reference of Middendorf, Sib. Fauna, II, p. 72), is quoted in "Gelehrte Anzeig. d. Königl. Bayer. Acad. d. Wissensch", 1846, N:o 81.

- 21. In Belgium, wolves are already exterminated. According to Selevis-Longschamp ("Faune Beige", p. 6, 7,1842), they were found in the Ardennes and the Duchenwald and spread throughout the wooded and mountainous country on the right bank of the Moselle in the winter. There were examples of killed wolves in Brabant. As for Holland and Denmark, then, taking into account the neighboring countries, there is nothing to doubt that there are no wolves and they hardly even run here accidentally.
- 22. The air tax, of course, cannot serve as a criterion for judging the number of wolves, since it depends on the abundance of wolves and on the population of the given province. The largest tax, according to Lazarevsky's calculations (55.3 kopecks per capita), falls precisely on the Vologda Gubernia, where, however, the losses are exaggerated and some of them should be attributed to bears.
- 23. As for game, mostly feathered, it has here only the value of help for the wolf, but no more, and therefore we do not attach special importance to it. If the indirect losses brought by the wolf to feathered game as calculated by Mr. Lazarevsky at 50 million rubles, that is almost fourfold the harm caused to domestic animals. This is due to the author's mistakes in his calculations of the total number of wolves, the daily portion each of them consume, an arbitrary evaluation of wolves' game and many other misses, which will be examined in detail in our here. The role of wild animals serving as food for the wolf, will be discussed in the fifth chapter.
- 24. The determination of the relative abundance of wolves in terms of the number of skins collected in each given locality cannot even have an approximate fidelity, at

least for the time being. First, information of this kind is available only for those counties where premiums are awarded for killed wolves. Secondly, they do not deserve any credence because of abuses in the issue of bonuses (see the observations of Kolchin in his article "The Wolf Question." - "J. Imp. General Hunting" 6, 1877, January). Thirdly, from the fact that wolves are actually extracted twice in one locality, than in the other, it can not be concluded that in the first, not only twice, but even more generally, since this depends on the methods of obtaining, the available quantity of hunting and fishing forces, the degree of encouragement (that is, the size of the premium) and many other conditions (see this in the third part of the monograph).

- 25. In terms of the number of losses in the northern districts of the Tambov Gubernia. (Yelatemsky, Temnikovsky and Shatsky), Elyatsky and part Temnikovsky are more or less known to me, and I can say positively that wolves are more numerous here than in the more southern counties. Unfortunately, Mr. Lazarevskiy does not give the figures, but gives only results on governorate level in his report, which makes it much more difficult to verify with people who are well acquainted with the district. They have given figures only for some counties, which are allegedly too inconsistent with the figures given by other, sometimes neighboring, but these figures prove that the author did not particularly stand on ceremony with the results in the provinces and tried at all costs to increase them without taking them in calculation the existence of convenient habitats for wolves. Of course, it is inconceivable that in Shadrinsky, Perm Governorate, well known to me, there was not a single case of the death of cattle from wolves, but nothing gives Mr. Lazarevsky the right to "set average in the province" and equalize the figures (p. 5) of almost treeless counties with counties most favorable number of predators. I can assure you that in the Bryansk and Karachev county of the Orel province (according to the information collected on the spot) and in the Ranenburg u. Ryazan Province (according to the testimony of local hunters), wolves are much more numerous than in Cromsky, Orel and Sapozhkovsky, and that they really and have to destroy much more livestock. Likewise, it is impossible to equalize the figures of losses of Yarensky district Volog being completely covered with forests, with losses in the more populated and less wooded Totems, it is impossible to compare the absolutely treeless county of Evpatoria with Theodosia, where wolves hide in mountain forests and, no doubt, should be much more numerous.
- 26. Of this number of provinces, it is probably necessary to exclude its extreme member, namely the Kazan, or rather the northern, Zavolzhskaya part of it, covered with forests (especially in Kozmodemyansk and Tsarevokokshaisky counties) and completely belonging to the northern area of the wolf's distribution. Wolves in

these counties are fewer than bears, but nevertheless most of the "losses from predatory animals" here, of course, as in the Vologda province, are attributed to the wolves. In addition, Mr. Kozmin ("The Wolf Question" -J. I., Public Hunt, 6, 1877, January, p. 55-57) rightly indicates a discrepancy between digital cattle being wiped out in the Kazan district in 1875, according to information collected by the county zemstvo administration (950 cases), reported by Mr. Lazarevsky for all 12 counties in 1873 (31,000 cases). Meanwhile, the Kazan district having large numbers of wolves, according to Mr. Kozmin's testimony, and in these two years the number of wolves could not in any way diminish to such a large extent (an average of 2500 cases only for each county).

- 27. According to the statement of Mr. Lazarevsky, the loss caused by wolves in the Minsk and Vitebsk governorate is tenfold on 3,4 κ ., in Pskov almost 3 κ .
- 28. In the Vilna and Grodno area for each tithe there is a $2.5~\mbox{K}$ wolf tax; in Kovenskaya, only $1.5~\mbox{K}$. The rarity of the wolves in the latter is also confirmed by Dmitri V. ("The Zh.I., General Hunting", 6, 1876, July), and Mr. Afanasyev (Kovenskaya Governorate, 1861) even says that they have no wolves in Telchevskiy near the border of Prussia. The Kovno governorate, with an average most favorable population (33 souls per square verst) and average number of forests (21.9 dessiatins per square verst), occupies one of the first places according to the relative number of cattle, for every square verst there are 23 heads of large and almost 20 heads of small.
- 29. The wolves were very numerous in the Ostsee region at the end of the last century (see Fischer "Naturgeschichte von Lievland", p. 136) and at the beginning of the present century, the enormous losses from wolves in Livonia were given in 1823 by Chudy ("Das Thierleben von Alpenwelt", p. 421) and in Brem ("Life of the belly". Volume I). In Courland, wolves began to decline earlier than in Livonia (see. Lichtenstein "Bulletin des Natur der Moscow", 1829, 1, p. 289; 9; Derschau und Keyserling. "Beschreib. Curland", s. 128), which is proved by insignificant losses in the first (in Courland for tithe 0.03, in Livonia 0.34 and in Estland 1.06). However, the insignificance of the harm brought here by wolves, is explained, apart from their large number, and by the fact that they are satisfied with wild goats and elks, which is indicated (albeit indirectly) by Cavall (Zoologisch. Miscellen", s. 121). The losses caused by wolves in Courland, should be much more than shown, since it is impossible that during 1873 wolves killed 1 piece of cattle, and in 1875 they killed 10 people! (see Lazarevsky, 1. e, p. 10 and 26). On the islands of the Baltic Sea, for example Ezele, wolves sometimes run across the ice and were immediately exterminated. The same was noticed on the Carla Island, which is in the close to Uleaborg (Middendorf, "The Siberian Fauna", p. 55). On wolves in

- Livonia, see gr. Nolken's "Hunting in Livonia" ("The Moscow Society of General Hunting", 1870, No. 6).
- 30. The very first detailed, it is even possible to say, an exemplary sheet of damages from wolves, of which, unfortunately, Mr. Lazarevsky had no concept, was compiled for the 1st camp of the Rogachev district of the Mogilev province. ("A few words about what wolves do for us." "Mogilev Governorate Ved.", 1866, No. 35). An earlier attempt was made to collect such information in the Novgorod Governorate, and the Agricultural newspaper for 1843 (p. 146) shows the number of cattle slaughtered by wolves in Belozersky for the year 1842.
- 31. The abundance of wolves in the last century is indicated by Rachinsky (Rzaczynski. "Hist. Nat. Curios. Regn. Polon.", p. 228 231, 1721).
- 32. In the Kiev and Kursk wolf tax is $2.5 \, \kappa$. from tithing, and in Poltava it is less than a penny.
- 33. In this respect, Voronezh, Kovno, Kurlyandsky, Kursk, Poltava, Saratov and Tambov lips surpass them. According to the estimate adopted by Mr. Lazarevsky for cattle in 30 and small livestock in 4 rivers, in the southern provinces for each tenth will have cattle an average of 6 rubles, and in the named above about 8 rubles.
- 34. It was at the same time that round-ups were organized around the region (on April 14 and 15 and on April 24 and 25), which resulted in: Kherson Province. 478 killed wolves, 324 in Ekaterinoslavskaya, 259 in Tavricheska and 343 in Bessarabskaya. (See "The Ministry of State Property", 1845, pp. 159-168). Wolves in the Crimea, according to Shatilov ("Izvestiya obshch., Vol., Vol. III, vol. I, p. 31-34), are exceptionally kept in the mountains. As for Orenburg Province, Mr. Lazarevsky is mistaken, arguing that wolves prefer open spaces here. Except for the spruce forests of the Urals (Eversmann, 1. e., P. 32), wolves in the Orenburg steppes adhere, if possible, to the forest.
- 35. In the Kuban and Urals regions wolves are distributed almost everywhere, they keep more in the reeds near the banks of rivers and lakes and in general meet here almost the same conditions as in the Astrakhan Province, the Land of the Don Army and in most of the Orenburg Bay. On the shores and islands of the Caspian Sea, the wolf, according to Eversman ("Eat Orenb. Edge, Part II, p. 23), causes terrible devastation between young water birds. In the Urals region, in an Urals district each year, an average of 14,000 sheep, except for large livestock, is exterminated (see "Ural troops, Ved.", 1874, given by Lazarevsky), but the amount is relatively small.

In the Caucasus, wolves, although not as numerous and "predatory" as in Russia (Eichwald. "Fauna Caspio Caucasica", p. 20), are very common throughout the Caucasus, both Western and Eastern (Ménétrés. «Catal, raison», p. 19), but most numerous in the forests along the Kura and in Hyrcania (Eichwald, I. e., p. 32). To the east, they reach the Caspian Sea, finding themselves in the forests of the Talyshin khanate (Ménétrés, I, e., P. 19); Gogenacker ("Bulletin des Natur. d. Moscou", 1837, p. 136) mentions them among the beasts of the Karabakh region. Garrel ("The Hunting in the Transcaucasian Territory." - "The Horse Hunt", 1849, p. 97) tells of a wolf, who was poisoned near the Greater Ararat. Wagner observed wolves everywhere, where he only passed with his caravan (though nowhere attacked), even higher than Anamur, and believes that the limit of their vertical distribution in the mountains coincides with the limit of the forests (B. M. Wagner. «Reise nach Colchis», s. 319). The wolves in the Caucasus are also mentioned in Vuchetich's article "Hunting with Turkmens" in Zap. Kavk. Society. from. 1867, No. 5 and 6 and Shcherbakov "Hunting in the vicinity of Derbent and Cuba" in "J. hunting", 1875, November, p. 35.

The same thing is said by Severtsov ("Horizon and the vertical distribution of Turkestan animals." - "Famous Society, Nature", Vol. VIII, issue 2, p. 61). From the table it can be seen that the wolf is found throughout the province, even in the snow belt of alpine grasses (ie 10,500 to 14,000 feet), at least in the summer. Lehmann ("Reise and Bucara", "Zoological Auch, V. Brent", p. 301) found wolves in Bukhara, along the upper part of Zaravshan. According to the observations of Gebler ("Katunische Gebirge", P. 82), wolves are numerous in the Altai Territory along the Katun, especially where the inhabitants keep the herds, and also in the ridge. Even more they harm the wild deer, whom they drive, gathering in packs. In the Kirghiz and Barabinsk steppes, wolves are very ordinary and bring much more harm (see Middendorf, "The Siberian Fauna", Pallas "Zoographia", I, 37, Struve and Potanin.) "Journey through Eastern Tarbagatayu" West Geophysical Society, Vol. I, 1867, Kalachov, "Hunting in the Kirghiz-Kaisatsky Steppe" in the "Newspaper of Forests and Hunting", 1859, p. 513). Further to the east, wolves are found throughout the southern part of the Yenisei province, but they appeared relatively recently (see the reference to "Putesh", Pallas) and in the 30's were relatively few. So, in 1830, there were killed 100 in the Krasnoyarsk region, in Kansk and Minusinsk - 200 and Achinsk - 50 wolves (Pestoy, "Notes on the Yenisei province", p. 259).

In the Sayan Mountains wolves are not often found and the higher and steeper the mountains are, the broader and deeper are the forests and less frequent are the wolves (Radde, "Reise", I, p. 58). This remark remains valid for the mountains of

the Transbaikalian (1. e.). Wolves are scarce in the Irkutsk Region (Shvedov, "Zh. Okhoty", 1877), but in the Transbaikal Region, especially in its southern part, they are much more common than further to the east (see Kayoe, 1. e., p. 57; Shcherkin, "Kesene", 1.8, 46, Kashin - "Acclimatización J.", 1862.6, p. 259, Cherkasov, "Western Hunter of the Eastern Siberia", p. 147). In the Ussuri region, wolves are not particularly numerous, and in the winter they stay more in the forests, and in the summer - along the meadow plains, where wild goats and other animals lead young (Przhevalsky, "Travel to Ussuriisk, edge", p. 251). In Manjuria, wolves are common at the rivers Sungari (Kayoe, 1. e.), and in the Gobi steppe they are very abundant (Przhevalsky, Mongolia and the Tangut Land, I, p. 20), as well as in Mongolia (1. e., P. 114) and Ordos (1. e., pp. 146, 189). There are too many of them in Tsaidam, but another species (yellow-white wool), which completely replaces the first one in Tibet (1 e., pp. 328, 397, 241) joins the ordinary gray wolf in the mountains of Gansu. Most probably wolves are found in all other countries of Central Asia.

The Japanese species, Canis hodophilax, as L. Schrenk has proved, does not differ from the Amur wolf.

36. Still, Buffon mentions African wolves ("Hist. natur. gener. et part.", VII, p. 51), referring to Prevost ("Hist. natur. d. Voyages", V, p. 85) and Adanson; then Schreber ("Naturg. d. Säugethiere"), Cuvier ("Regne anim.", I, p. 179) and others. In West Africa, wolves are found (according to Adanson) in Senegal, that is, under 15 ° N. and, in the opinion of Ruppel, these Senegalese wolves are identical with the wolves of East Africa (Canis anthus = Canis lupus). In Algeria, according to Gervais ("Hist. natur. d. Mammif.", II, 57) there are no wolves at all, and in general information about the wolves of North-West Africa still requires verification. But in North-East Africa the wolf is very ordinary and has been mentioned by very many travelers, although the existence of Canis lupus or a species very close to it became a fact quite certain after Brem's journey to Abyssinia ("Ergebnisse ein. Reise n. Habesch.", 1863, s. 51). The wolves of Egypt are mentioned by Buffon, Cuvier (1. e.), Then by Ehrenberg ("Symbol, physic", Leitf., II, 13, XV), Ruppel ("Fauna v. Abissinien»), Giedenborg ("Isis", 1845, p. 581).

In southern Asia, the wolf is being bred in Syria ("Symb, physics.", E. II, B. XII, Tschichatscheff. "L'Asie Mineure", II, p. 602; Freyer. "Natur. Hist. of Aleppo", II, p. 183), occasionally in Mesopotamia and Assyria (Ainwort. "Reisen in Assirien, Babylon and Chaldeen", V, p. 36), although very numerous in the Havre Mountains (1st century) and Antitavria. Wolves are also very common in Asia Minor, for example. in Armenia, on the elevated plane near Erzerum (Tschichatscheff, 1. e., II, p. 599, 601-602); according to M. Wagner (1. e., p. 297), also in Persia, where,

according to Fraser, they are tamed and flaunt. Gutton found them in Afghanistan. Probably wolves are also found in Arabia, but at the present time we do not have any information about it, nor about the spread of the wolf in India. We can say that wolves (or species close to it) are widespread up to Nepal, although it is not found in the Himalayan mountains (Schlaginweit. "Archiv f. Naturg.", 1862, p. 253, given by Middendorf - "Puteshest.", Part I, p. 90, "The Siberian Fauna").



CHAPTER 2 - DESCRIPTION OF THE WOLF

Description of the wolf. - Podvidy wolf. Mountain, forest, steppe and tundra rock. White and black geeks. A cross between a wolf and a dog. - Organs of the senses: taste, sight, smell and hearing. - The wolf's intelligence. - Strength and endurance. - Age of the wolf. Causes of its fragility

The wolf, as is well known, belongs to the sharply outlined group of the order of predators: namely, to the family of Canidae, to the genus (Canis). Indeed, the genetic relationship between the wolf and the dog is obvious. There is no doubt that many breeds of dogs have a more or less wolfish origin, that is, if there are not domesticated and slightly modified wolves, then at least they exhibit the traits of the latter one. This relationship is more affected by Eskimo dogs, but in many other breeds, even hunting dogs, wolf blood is still visible.

Although the wolf in general resembles a large, sharp-pointed mongrel, this similarity is very superficial, and it is different from any dog breed with its high scruff, thick neck, some swagger, depending on the habit of bending the hind legs, and finally, evenly fluffy tail, never bending upward.

On closer examination there are no less important differences. The muzzle of a wolf, although it has much in common with the Borzoi also called the Russian wolfhound, but relatively shorter and wider. The forehead reaches, especially in an old male, an extraordinary width, unthinkable in dogs of equal height; the eyes are rather large, round and convex; they shine in the dark with greenish phosphoric light (2), the ears are strong, sharp, always alert and never bend (3), the jaws, that is, the muscles of the jaws, are developed in perfection; teeth, especially fangs, are remarkably sharp and reach a tremendous size, so that in this respect no species from the whole family can compare to a wolf. The cheeks and lower part of the neck of the male are often bordered by a thicker and longer coat, so-called whiskers, which gives the wolfish expression of ferocity. The width of the forehead and generally the posterior part of the skull is determined by the size of the cervical muscles and ligaments, the thickness and strength of which determines the inflexibility of the neck, which distinguishes the wolf from the dog. A strong, almost straight and also relatively inflexible spine turns slightly to the rear, which makes it seem that the butt should be weak, whereas,

on the contrary, this swinging means the strength of the hind legs, in which the wolf has no rivals; "The wolf feeds the legs," the proverb says justifiably, and indeed, the strength and width of the cervical and spinal muscles prove the remarkable physical strength of the wolf, and the picked up groin, high sinewy legs and broad chest testify to its quickness and indefatigability. The tail of the wolf is somewhat more than one-third the length of the trunk (with the head) and very fluffy, with a dark brown or black tip, never has so-called hanging, ie, longer hair on the underside, the end is made somewhat thinner; it is almost completely straight and devoid of the mobility and flexibility that we notice in hunting dogs, and especially in dogs of ignoble breeds, the wolf never lifts it above the back, but mostly keeps it low, even pinched (4). Female wolves are always much smaller and weaker than males. Their muzzles are sharper and the tail is less bushy.

Here are the common signs of a wolf, distinguishing it from other species of the family. But as in the relative sizes of various parts of the body, the more so in the growth and color of the wool (5). It is subject to such abrupt modifications that it is not surprising with such an abstract and subjective concept that African, Indian, Tibetan, Japanese (6) and North American wolves by many zoologists are taken for separate species. The various, contradictory descriptions of these wolves, the transitional forms connecting these "species" to their indigenous type and finally, the disagreement of naturalists' opinions clearly prove to us that these are only emerging, yet not fully isolated species, and sometimes simple variations formed under the influence of special climatic and local conditions.

We will not dwell on these southern and North American subspecies of wolves, which have only zoological interest and, moreover, have not been fully studied. For us, much more important are variations of European and North Asian wolves, differing mainly in the color of wool and in size, that is, the signs are the most volatile and unstable.

It should be noted, however, that since wolves do not lead a sedentary life and in winter run from very remote areas, the wolf breeds mix so often that it is difficult to find a place where all wolves belong to one completely pure race.

There are four such breeds: forest, mountain, steppe and northern tundra. Each of them can easily be distinguished from the others. But, of course, the mountain wolves of Western Europe can not be quite similar to mountain wolves, for example, in Eastern Siberia. Similarly, the steppes and tundra are so diverse conditions for the existence of the beast that here again it would be strange to expect identity. In general, these breeds are characterized by the following features.

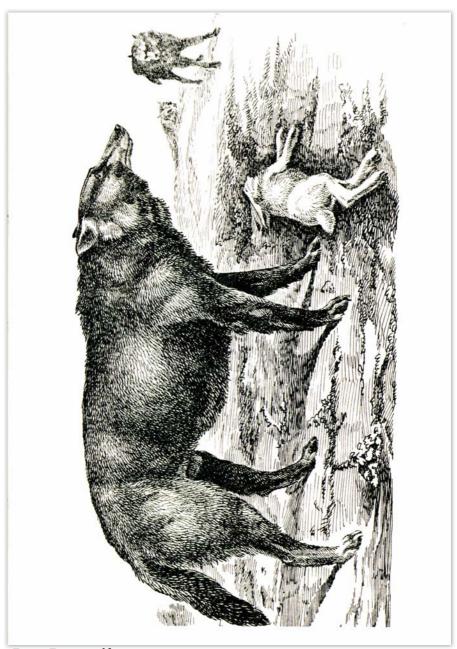


Fig. 2. Forest wolf

The Mountain wolf is medium or even small and relatively tall on legs, but with a rather short tail; muzzle short, with a short or almost imperceptible beard; The color of the coat on the back is very dark, and therefore the dark strap on the back is implicit. It is found in the mountains of Western Europe (7), the Caucasus and the upland forests of Central Asia.

The Forest wolf is the largest and very high on the legs; tail relatively longer; muzzle sharp, bordered (in males) with very thick and long beard; the color of the coat is rather light, especially in winter; The dark belt on the back is sharply separated from the light sides. This breed is found in forest areas, where snow reaches a considerable depth, and is peculiar only to Middle Russia. Some individuals reach a little more than an arshin (arshin = 71 cm or 2 1/3 feet) in eight (in the nape), almost 3 arshin lengths from the muzzle to the end of the tail and weigh up to 4 poods (pood = 6.38 kg or 36.12 lb.) (8).

The Steppe wolf is the smallest and the lowest on the legs, which makes the body longer, the tail is relatively short, the muzzle is much wider and shorter than in the forest and the whiskers are invisible. The overall color of the coat is light-tan, with no dark belt on its back. It is found in the steppes of South-Eastern Europe and Central Asia. In this latter locality sometimes even approaches the jackal and has a great similarity with the African subspecies Canis Anthus (9).

The tundra wolf is of medium size and quite high on the legs, the beard is barely noticeable. On the back is a brownish and vague belt. It differs mainly in whiteness and fluffiness of wool (10).

Whitish tundra wolves and dark mountains should not be confused with white and black wolves. This is nothing but random individual changes known in biology under the name of albinism and melanism and seen in many animals. Moreover, you can not consider these odd variants as being special breeds, or even species, as was done by many zoologists with regard to black wolves (Canis Lyacon).

For very understandable reasons, white variants are most often found in the far north, but here they are not so ordinary as one may think, and completely white wolves are extremely rare. For such are often accepted tundra wolves, which have shed their winter coat (in the spring) with the already insignificant dark tips of the guard hairs, and sometimes wolves, graying by age, which they very rarely reach in more populated areas. Crossbreeds between such variants with forest and mountain wolves are very rare (11).

More often variants of black, not observed in the north and, on the contrary, quite often seen in mountain wolves. These are the same mountain wolves, with the only

difference is that they have the dark tips of guard hairs occupying most of the hair. They are very small, with long legs, dull muzzle and short tail. The coat is almost black on the back, sometimes with an admixture of gray hair. The undercoat is more or less dark in color.

By color and many other signs mentioned by some zoologists, such as the larger size of the ears, the white spot on the chest, the less dense tail - these black wolves approach the dog, and there is no doubt that often the black wolves, once considered a special subspecies (Canis Lyacon) are wolf and a dog crossbreeds or simply feral dogs (12).

As for the crossbreed between a wolf and a dog, it is known that despite the long-standing, seemingly innate enmity (13) between the dog and the wolf, they occasion-ally cross both in captivity and liberty (14) and give fruitful bastards. In the first case, the crossbreeding occurs mainly between female wolves and male dogs of various breeds, often outside and with greyhounds. Another likely crossbreed is between a



wolf and a mongrel. The crossbreed very often exhibits a strong resemblance to black wolves; in general, these bastards differ in a darker color than ordinary wolves. As for the external appearance, they are closer to the wolf than to the dog, and many of the signs of the former persist even when they are crossed with dogs for three generations

or more. Usually bastards of the first litter in their savagery and anger almost do not differ from the wolf and do not bark, but howl. For these reasons, few bastards experiencing the plague rarely hold out for long periods of time.

Let us now turn to the internal properties of the wolf, to the external manifestations of its nervous system, expressed in taste, sight, smell and hearing.

The taste of the wolf is developed at a very low level. This is proved by his extreme indiscrimination in food and the fact that he prefers already rotten, even decaying carrion before fresh, and mainly because he does not feel bitter. "No matter how meat is stuffed with strychnine, and therefore unbearably bitter," L. Lvov says, "he will still eat it and only stop when he is about vomiting." This weak development of taste and indiscrimination in food is fully explained by the gluttony of the wolf, which is included in the proverb:



The wolf always swallows food with big pieces.

And this insatiability of the wolf in turn depends on the imperfection of development and other senses except for the rumor that makes the wolf rely on its strength and tirelessness and to get its food at the price of constant movement. (15)

Indeed, the wilderness and scent of the wolf are not developed to the extent that most zoologists and hunters suggest. This erroneous opinion is due to the fact that both feelings, scent especially, were mixed with sensitivity. The wolf vision in the day is no better than an ordinary yard dog and positively inferior in this respect to the breed of Laika, whose hearing, sight and even smell are more developed than other hunting dogs.

Night is another thing. Although a wolf cannot be called a completely nocturnal animal, but since a sense of self-preservation has long been encouraging them to look for food primarily at night, this have affected their night vision. This explains why the wolf's eyes have a completely different expression, and like many other nocturnal animals, shine in the dark with phosphoric light. However, in sparsely populated countries, for example in Central Asia, where wolves often scour the day, they probably have a different vision. The same is observed in the steppes, where in general the vision develops more and the eye adapts to longer distances than in the areas crossed. There is no doubt that the steppe breeds of dogs, for example, steppe greyhounds, have a better vision than others.

The most striking proof of the injustice of the opinion about the extraordinary visual acuity of the wolf is that on round-up hunting where the wolf approaches a motionless hunter and even at the closest distance does not distinguish a person from a bush or tree.

An even more erroneous opinion exists about the wolf. We can say that in this respect it is far inferior to almost all hunting dogs, except for greyhounds, which in general represent many analogies with it. First, no animal can hear the smell of wind and only sense smell against the wind, only in one direction (16). Secondly, and against the wind, the strongest smell can never be sensed at such a considerable distance as, for example, the sound of medium strength, and this sensitivity of animals, their susceptibility to sound. Of course, the a smell against the wind is sensed at a considerable distance, but no matter how strong it may be, a wolf cannot sense it at distances of 8 miles, because at that distance the best dog cannot sense it either. The furthest limit for a wolf to sense a smell is 3 versts, and during hot periods, when animal substances are most exposed to rot, and then only in open, non-intersected terrain. That the scent of the wolf is developed to a lesser degree than that of the dog and many other animals is proved by the fact that, according to L. Lvov's just remark, it is almost the first hunter critical of wolf abilities, he does not always find the right bait, but behind the hare chasing, only while he meant; losing it, immediately stops the chase, while the lynx and fox act quite the opposite. In the winter, of course, it is much easier for him to track down his prey, which was the cause of the exaggerated opinion of the wolf's scent.

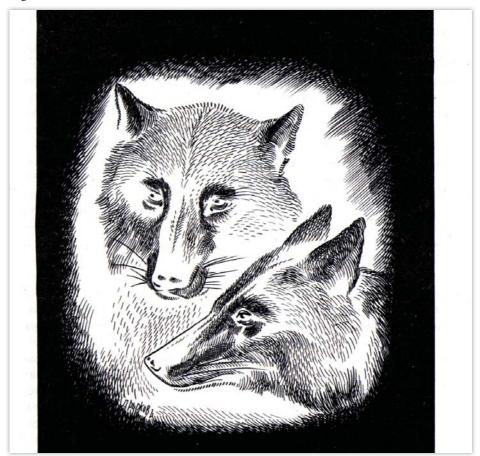


Fig. 4. The head of a forest wolf

The imperfection of his instinct proves his idea and that it is much easier to catch in a trap than a fox. It would, however, be completely unfair to assume that the sense of smell of all wolves is equally developed. On the contrary, it is necessary to conclude from what we have said above that the steppe (probably the tundra) wolves feel much further than the forest, and probably also the mountain. Each hunter knows that the steppe greyhound has a better scent than the dog (forest breed), which almost does not have it (17).

But nature, which greatly offended the wolf with a touch, vision and taste, instead of these feelings developed a highly delicate hearing in him, all naturalists and hunters agree on the evaluation of this last quality. Lyov first only gave him the proper advan-

tage. "The rumor of a wolf," says Dmitriev-Mamonov, "is so developed that the slightest rustle can shuffle it, that is, lift it off and hijack it elsewhere." Lvov says that one day wolves heard in the forest for 2 versts of shrieking a small piglet, and he even believed that the wolf found the carrion by listening to the scream of birds. Special attention is paid by the wolf to the cry of the crow, and this connection of the crow and the wolf has already been noticed by the common folk and hunters, the cawing of the crow and often the crows portend a carrion, which they open and reach before the wolf. The rumors say that the wolves may even follow the direction of crows' flight (18).

That the wolf hears much further than it smells with his nose - this should be known to all hunters.

For example, dog hunters know very well that the main condition for the complete success of hunting wolves is the observance of silence and that the direction of the wind is important only in that the wolf hears much more against the wind. The same condition of silence and for the same reason is also observed in the case of other hunting methods. The proof is that, as in the beehive, and in the hunting game, the beast's value is of extreme importance. Here again, it should be noted that sensitivity, or rather susceptibility, to various kinds of sounds is determined by the nature of the terrain.

In forest areas, sounds are not only more diverse than in the steppe, but they are audible with a wind of moderate strength for a longer distance and their direction is less limited. For this reason, the hearing of the forest wolf is stronger than in the steppe forest. In the forest or in the bush it is quite difficult to approach the wolf for a short distance, but not so much because the forest wolf, not relying on his sight and scent that are less useful than on the steppe, but because they solely rely on the fineness of the hearing, thereby exaggerating this ability. Even a sleeping wolf does not lose it completely, and every suspicious sound turns him into flight.

As for the wolf's mental abilities, so many anecdotes are narrated and repeated about his mind, cunning and caution, that you do not know what surprises you more. Whether the fantasies of writers or the credulity of persons repeating these absurdities are rich. According to some authors, the wolves in the mind and cunning surpass all animals, and are not even inferior to man in these abilities.

"Wolves," Mr. Lazarevsky repeats, following the chatterbox and the visionary Toussinel. This "Balzac of animals", repeating the laws of association, discipline and strict justice. They are slaves of their word. There is no example, that in a pack of wolves there were disputes and fights concerning individual shares of their prey. "Wolves,

according to all the same Mr. Lazarevsky, who owns the merit of the meeting of all the most outstanding absurdities, collect gatherings, confer, rationally selects between alternate plans. In the steppes they sneak up to the herd of horses in the wind, having grasped the bush of katun (rolled-fields) in the teeth. The grass seems to roll itself. Wolves hide on the border (Chinese), because they know that they can not be prosecuted. In Little Russia, they attack the horses, for a greater burden, they are full of earth; the wolf does not rush to the cattle attached to the forest, etc. Even the well-known habit of many animals to walk in winter one by one, a trace to the track, Mr. Lazarevsky considers being a proof of the high development of wolves' mental abilities. Moreover, he attributes to the wolf the trick of pretending to be dead.

There is nothing to prove that all this is pure nonsense. Who does not know that the wolves are only strong, that they do not show any chivalrous nobility, but, on the contrary, constantly bicker each other and even eat each other. They do not collect any artels, and the wolf pack consists of a brood, i.e. it is an organic whole, and not a rabble. In very rare, exceptional cases, the opposite is noted. Crawl with the katun to the wind they also cannot simply because only then the horses will most likely smell them. As for the land that the wolves eat, how much will it take to eat it to achieve greater gravity? And that the wolves go in the same track in the winter - this is explained not by the mind, but by simple necessity, since this greatly facilitates their movement. In the summer, even in the winter in the steppes, this rule is far from certain. In any case, wolves do not go so far as to not be able to guess how many passed them here - "two or three or two or three dozen." It would be much wiser for them to reverse the actions: on here, how many of us here have passed! If they did not go exactly along the strings, but made notes aside, like a fox or a hare, which, therefore, show much more cunning and caution here.

Everyone knows that the mental abilities of the animal are in accordance with the development of known parts of the brain and sense organs. But the broad forehead of the wolf does not tell us much of its mind, but depends on the thickness of the cranial bones; the capacity of the wolf's skull is insignificant, and the sense organs, speaking generally, are at a low degree of development. There is no doubt that wolves use some tricks to get their food, but these are the same tricks and they are solely in the so-called luring stupid doggies and attacks on the herd from two or three different directions. That they sometimes crawl to the prey, of course, it is not worth talking about. The wolf is cautious - this is true, but this caution is not a reasonable self-preservation of the fox, never lost in moments of danger, like a wolf, but there is only cowardice. "Is this allegedly cowardly rather a highly developed distrust?" - Asks Mr. Lazarevsky. Quite right, we will answer, distrustfulness to one's mental faculties. The proof of this is that all cowardly behaving are young wolves. Only a strong hunger is able to drown

out this ordinary cowardice of a wolf, but then he becomes bold until recklessness. The full wolf is afraid of everything, even horses, cows, sheep in those parts of Eastern Siberia, where it feeds only on wild animals and has never seen a domestic one (20). Hence it is understandable why the Siberian forest wolf never touches cattle attached to the forest, but try to catch it in winter in Central Russia or at any time of the year in the steppe to a cola or shrubbery - and then you will be sure that the wolf will not at consider the rope as a trap.

Of course, experience is of great importance to the wolf and only the inexperience can explain the boldness of a mongrel, known to all hunters, i.e., a one-year-old wolf. With the latter in mind his forces are much more brash than his mother's, whose experience made her see the most dangerous enemy in man.

However, caution-cowardice of the wolf is determined only by his experience and the abundance of food.

So, there is no doubt that in the summer this fear is purely instinctive. The wolf does not attack at this time dogs, foxes, in general animals that can cause wounds to him, because due to the inflexibility of the cervical and spinal vertebrae, he can not lick wounds on his back and sides. In the summer, the slightest scratch on these places gives blood for a long time and turns into a infected sore, in which worms are born (21).

In any case, the wolf relies most of all on his strength in both teeth and legs (22), his whole mind, and that's why, as we shall see later, it is much easier to catch and poison wolves than a fox. In regard to the mind, he has much in common with the greyhound, which is considerably inferior in its mental abilities to other breeds of dogs. The strength and stamina of a wolf is really amazing, although here it was not without exaggerations and anecdotes. The wolf, of course, is able to run fairly quickly trot, throwing a sheep on the back and he easily fights off many greyhounds, which are higher than his height, and from a whole pack of hounds. It is very likely that together the old wolves can pull the horse out of the mud to a steep bank, as Toussaintle asserts. A large number of wolves attack moose, bison, bear, wild boar and very often achieve its goal, that is, they are the winner (23). As might be expected, the advantage of strength and together dodge on the side of the forest wolf, which at the same time is faster than the steppe. The latter, on the contrary, is incomparably sturdier and can run much longer distances than the first. In general, because of its tirelessness, the wolf has no equal among other predatory animals. Within a day, it easily runs a distance of 40-50 versts. In the plains, according to the testimony of Brem, the wolf makes crossings in winter to 100 miles. The wolf can roar 2-3 versts at full speed, even

more, and very rare greyhounds and hounds catch up with the wolf, and you can drive it only on an excellent horse or in very deep snow and hunting with a whole gang of hunters (24). In addition, the wolf has extraordinary vitality. Its fortress on the wound is known to all hunters.

After all that has been said, we understand that the wolf must live longer than the dog, especially since it reaches full maturity later than any breed of dogs, namely, wolves no earlier than 21-22 months, and males even in the third year. The wolf-age is accepted by the majority at 15, even 20 years (25). Wolves are generally strongest at 5 to 7 years of age, but by the age of ten, teeth, especially fangs, wear off and turn yellow. In deep old age they become completely blunt or even invisible, so that such old wolves are no longer able to cause serious damage to their victims. They live alone, they are single and have great growth, extreme thinness, sunken eyes and rare hard wool with considerable graying (26). Such individuals are very rare for very understandable reasons, and between males are encountered more often than between females, which in general are much more likely to die in the protection of young wolves, harassment, raid, etc. In the difficult struggle for their existence, few wolves survive. Their main enemy, of course, is a man, but many die in attacks on stronger animals (such as the elk, bear, wild boar, bison, even horses and cattle), starve or finally become a victim of hungry fellows (27). Nothing else, like starvation and exhaustion of forces, can explain the freezing of wolves into snowy winters; From the cold, only the earliest litters die, and that is quite rare. Apparently, cubs are prone to the plague, although not as much as puppies, but we have very unrelenting sobs about this. In general, almost the only disease of the wolf is rabies (28) with most of the rabid wolves being killed by man. The causes of this terrible disease are still little known, but the main one, undoubtedly, is the hunger, why the mad wolves are more frequent in the winter and early spring and a prolonged drought and unfulfilled sexual desire. The latter explains why males are furious more often than females. As for the very popular opinion that if the wolf is killed or stolen, the she-wolf must surely get mad (29), then, without completely rejecting the influence of this cause, we will notice that this happens extremely rarely, no more often than in bitches, at which the puppies abandoned, and that the wolf's fury is possible only when cubs were born very recently. At least in all cases of the devastation of the wolf's nests known to us, even when the blind and newly sighted wolf cubs were carried away and killed, the she-wolves did not rave once. Here it should be noted that there are areas where wild wolves make up an almost unheard of phenomenon. In Yekaterinburg and Shadrinsky districts of the Permian government, for example, they are hardly known about them. This fact can be explained solely by the excess of food in all seasons and at the same time by the abundance of water. In most cases, mad wolves are seen in the middle provinces, less often in the steppes, in

Siberia and in the tundra, in part because they probably die earlier than they will be able to cause any harm to a person (30).

Notes on Chapter II

- 1. For completeness of the monograph we consider it useful to bring some of the names of the wolves known to us, used in European and Asian Russia. Most of them, of course, belong to different alien tribes: Russians, or, to put it more correctly, Slavic - very few. The wolf among the Great Russians is known almost everywhere under this nickname, which, incidentally, hardly comes from the ox, as it may seem from the first time. In places only the usual gray adjective is used, and it is only in South-Eastern Russia and South-West Siberia that it is called a lone wolf from the Tatar storm. Very often where the wolf constitutes the main beast, in the sense of chicanery (in Siberia they are called the animal and moose - elk), it is known by this very characteristic name. The title of Timofeich is given to the wolf as a joke, like Bear for Bear and Patrikeevna for the fox. The Little Russian and Polish names of the wolf almost do not differ from the Great Russian ones. In Ukraine his name is Vovk, Scroop, Syry, and in Poland - Vilak. In the case of Latvians, it is also wilks, sometimes meschalunkis. In the Est - hunt; Mordvin. - wirgas, wiarges, riwas; Cheremis. – pirae, pirje pire; Votyakov – kijon, kion; Permyakov - koin; Zyryan - kain; Chuvash. - kaskar, kaschar; in the Tatars - bure, buró byrý; in the Caucasus. tat. - kurd, tschanawar; on the Yenisei - burö; among the Nogais - beroe, burokbyru; Meshcheryakov - bure; the Bashka. and Barabints. - karschan; Koibalov and Siberian. tatar - tyr; Vogul - tschas, gäs, siäsä, söhsch; on the river. Obi – purne ui; Armenians – kiel, gül; Georgians - mgeli; Osetian – birach, borts; The spelling of the names here is left in the same form as it is used by Pallas, Middendorf, Radde, Schrenk and others.
- The wolf's eye is rounder and convex than the dog's, yellow or light-brown (in the old) color. The superciliary arches are convex, which makes the eye seem hollow from a distance. A very important difference between a wolf and a dog lies in the width of its mouth.
- 3. Ears are never as sharp as those of withered dogs; They are bluntly rounded, and the outer edge forms a much more convex and a longer arc. Usually they are directed a little forward or (with fright, running- are laid directly back, almost pressed against the skull. The ear is very thick. The strong hair inside it (whitish color) is dense, but not so long, as in dogs; the back convex side of the ear is almost always reddish.

- 4. The black or dark end of the tail is a very important feature, almost never found in domestic animals, it grows very long for wolf bastards. Sometimes this black end of the tail reaches a length of 3 vershoks (vershok = 4.445 cm or 1 3/4 inch) or more. In general, the tail of the wolf is somewhat pointed, that is, the hair at the end becomes shorter. The wolves I saw when they were caressed or fed, the end of the tail bent slightly to the side and down together.
- The color of the wolf's wool is subject to numerous modifications and, in addition, it is very difficult to describe. In general, the wolf's back is darker than the lower part of the body. The muzzle and limbs more or less yellowish. More or less dense undercoat grayish-white or yellowish in color, at the root grayish. A thick hair, at the base of an almost identical color with an undercoat, and at the end a part of a brown, dark brown or even quite black color. In winter, the wool is lighter and longer than in the summer. More about the wolf's fur will, however, be discussed in more detail in the third part. The size of the wolf (without tail) ranges from 3 ½ feet, even less - to 4½. According to Tretyakov (Turukhin Kray, p. 86), the largest measured length of a wolf skin with a tail was 2 arshins and 12 vertices in the Shlisselburg. The giant-wolf wolf, stretched 3½ poods, whose skin (without a tail) was 2 arsh. 2 vertices. (Proceedings of the Free Trade Union Committee, 1852, Vol. I, 138). According to L. Lvov ("The Hunt", 1877, May, p. 35), wolves reach a length (with a tail) only 2 arshin (1 arshin = 0,71,2 m) 8 vershok, the largest wolf with a greyhound of medium size, and rarely more than an arshin. The African wolves only have 3 feet 4 inches in length, that is, they approach the ordinary jackal in their growth (cf. Rüpple., "Reise in Nord Africa", 8. 44).
- 6. The Japanese wolf (Canis hodophilax), described by Temminck in the "Fauna Japonica" (p. 38), and then in the "Tijdschrift voor natuurli. Gesch.", V, 1839, p. 284. According to the study of Schrenk ("Reise", p. 47), it does not differ from the Amur, except for a somewhat smaller amount. Apparently, it belongs to the mountain variety. Severtsov (Acclimatization, 1861, Book 2, p. 65) distinguishes a wolfish wolf found in the Land of the Ural Army as does Karelin (Met, 1862, Book 2, page 71). According to the description of the first, this horny wolf of small stature, high on legs, short-tailed, with a lot of black guard hair on the back and with dorsal mane therefore, significantly differs from the ordinary steppe wolf. Wolves with very long dorsal fur are also found along the middle Amur (Kayoe, I, 56).
- 7. In general, Western European wolves, based upon the descriptions and drawings, are much darker than the Middle Russian, which depends on a large number of guard hair with black tips. The sizes varies from 3 ½ to 3'9 "(Grossinger," Hist. Phys. Hungar.", I, 410, Blasius." Säugethiere", 181, etc.) and their weight (adults

- males) never exceeds 3 poods, and the b.ch. equals 2 poods with a small one. In the mountains of Eastern Siberia wolves are also small (Cherkasov, "Western Siberia," p. 147, L. Schrenk. "Reise", I, 8. 45).
- 8. A large breed of wolves, distinguished by hunters (see Dmitriev-Mamonov-Zh. Hohty, 1874, No. 2, pp. 32 and 1876, August, p. 46) corresponds to the forest breed, and in Southwest Russia these wolves are known under the name of horses (or horses, see Lvov in Zh. oh., 1877, May, 35), due to the preference, given to them by horses and, in general, to large animals (see SF Dvich's article in «Zh. Oh», 1876, No. 2, page 42). Probably, the gray wolves with a blackish longitudinal strip on their back, mentioned by Tretyakov (Turukhansk Territory, p. 86) belong to the same breed. In the foothills of the Ural Mountains, wolves, according to my observations, are closer to forest than mountain, but generally quite dark in color, and on their back, three dark bands are often seen, of which lateral ones are implicit. The belt of forest wolves (continuing and on the upper side of the tail), however, is never continuous: here only the black tips of the guard hairs are much more numerous. Its width is from 2-3 vershoks. This belt is more sharply separated from the old wolves; in young people, which are generally darker, it is barely noticeable. Forest wolves retain the black tips of the guard hair on the back, forehead, tail tip and in summer, and they reach up to ½ the length of the hair, and on the tail even more. In addition, the forest (also tundra) skin is much thicker than in the steppe, which depends, of course, on the greater severity of the climate. As for the growth of forest wolves, they appear to be larger than tundra wolves. In general, the wolf of this breed weighs no less than 2 ½ poods (pood = 16,3807 kg) and reaches 3½ poods (see "Proceedings of the Free Voluntary Society", 1852, v. 1.158), even 4 poods (Dmitriev-Mamonov-Zh. oh. ", 1876, July, p. 51; compare also the 5th note).
- 9. The Hungarian Pythoglio and Rhodoproi belong to the steppe breed in terms of growth and color (Grossinger, 1.c). Also, probably, so-called pigs of the South-West Region, cutting b. ("Zh. oh.", 1876, No. 2, page 42) and the dark (that is, red?) wolves of Bessarabia, mentioned by Stamati ("Hunting in Bessarabia", p. 48), although it is very likely that mountainous, darker, wolves from the Carpathians run here. Kohl ("Reise", III, 8.120) first mentions that steppe wolves are lower on the legs and relatively longer (see also Göber. "Reise in d. Steppen", 1.8.194), which, according to my observations in Trans-Ural steppes. Shatilov ("Izvestiia obshchii nate, nast.", Vol. III, v. 1, p. 33) says that the Crimean steppe wolves are incomparably smaller than the mountain wolves. In general, steppe wolves almost never reach more than 2 poods of weight and 4 feet long (without a tail). According to Falck ("Reise", III, 8. 322), the steppe wolves (to the east of the Ural range) are smaller than the mountain and forest wolves. Small Syrdarya wolves with a small

head and yellow-red limbs (although they are also yellower in summer), although they have a lot of black guard hair on their backs (see Severtsoy, Acclimatization, 1861, 2, p. 6), also belong to the steppe rock. The shortened muzzle was also different from the wolves of the southern part of the Shadrinsky and Yekaterinburg districts, which were seen by me, but they were approaching the tundra by the whitish color of the wool and a smaller amount of red hair, which, however, is quite understandable, since these are the northernmost steppes. Eversmann ("Bullet. d. natur. Moscou ", 1855, Vol. X, p. 269) speaks about light wolves in the steppes of Southwestern Siberia. In Eastern Siberia, they are also distinguished by steppe whitish wolves (see Bauie, 1. and Cherkasov, 1. c), and in general, apparently, the reddishness is intensified in the more southerly localities. In all likelihood, this breed also includes a small breed of wolves, mentioned by Dmitriev-Mamonov (Zh. oh., 1874, No. 2, page 32), a "yellowish, almost sandy, dark canary color" with a barely visible and narrow black stripe on the back. These small wolves, according to L. Lvov (1.s), the name Also in the Pskov government, also with swedes and lozenges, which indicates their whereabouts, have only 2 arshins in length and weigh only 2 poods (according to Dmitriev-Mamonov). The yellowness of these wolves is determined by the brown color of the tips of guard hair. The tip of the tail is also dark brown, the undercoat is yellowish, the wool is generally softer than at the forest wolf. The tail is not so rigid.

10. On the whiteness of the northern wolves, see Acerbius. "Wow. au Sar. 14th ", II, 304; III, 121; Pallaa. "Zoologia", I, 37; Ermann. "Reeb, Shl", Th. I, 1223, 649; Steler. "K.See, 8. 118; Krasheninnikov "Description of Kamchatka", I, 220, 225. Wolves undoubtedly belong to the tundra wolves "with a longer soft and fluffy coat and differing with reddish stripes and white hair on their belly and under their throats" (Tretyakov, , p. 86). In northern wolves, whiteness of the muzzle in general sharply separates from the dark forehead and cheeks; the legs are also almost white (in winter), and the black tips of the guard hair on the back are much shorter than in the forest. According to Gmelin (see Simashko, 1. s, I, 164), wolves at the Lena river are more grown than on Kolyma (tundra).

As for the drawings of wolves placed under this chapter, we note that they have many shortcomings and even infidelities, which, however, is all the more excusable, that there are no perfectly flawless images of this animal. So, the original drawing of A. S. Vysheslavtsev represents the wolf rather of a steppe than a forest breed, but the tail and ears are somewhat short. The second (from Bulychev's original drawing) refers to the wolf of a purely forest species, but he, by mistake of an engraver, came out much darker than it should have been. The third, borrowed from the "La Chasse de l'homme", is more suited to the wolves of the rock.

- The head of the wolf of the forest breed (from the original picture of Weinberger placed in the Niva) is also not completely satisfactory, and the ears and the general expression of the muzzle are incorrect in it.
- 11. White wolves are more often found to the north of Turukhansk ("Zogorhia", I, 37), but, according to Middendorf, the expensive skins of Turkhan wolves are pre-bleached in the sun before they go on sale. White wolves in Kamchatka, are a great rarity, says Steller (1. s, 118) and Krasheninnikov (1. s, I, 220, 225). In Transbaikalia, according to Cherkasov (1. s, 148), pure white variations are more often in the steppes. In the forest part of the Northern Urals they are encountered as an exception (Middendorf, "Siba Fauna", 205), however, according to Polyakov ("Letters and Reports on the Journey to the Ob Valley", p. 126), in the lower reaches of the Ob "The specimens are often found partly or completely white." In European Russia, references to white wolves, as far as we know, are found only in Fischer ("Naturg. v. Livland", p. 137) and Dryian ("Notes of the Small-Haired," p. 173). The latter tells of a brood, in which there was only one white between black, ordinary and gray-piebald. In Western Europe, it seems, absolutely white wolves has not been seen. In general, it is still unknown whether the whiteness of wolves is accompanied by other signs of complete albinism, for example, the redness of the eyes.
- 12. Black wolves were found in almost all countries of Western Europe, even so often that Cuvier separated the black wolf into a special species - Canis lyacon, a name that later erroneously belonged to the black and brown fox, that is, Canis vulpes var. argentatus (see Erxleben, "Sist. regn Anim.", p. 561, Schreber, "Säugethiere", p. 353, No. 4, and from Russian zoologists - from Dwigubsky in the "Prodom.Faun Rossica.", Pp. I). However, already Griffit ("Animal kingdom", 1827), A. Wagner (Schreber, "Säugethiere. Suppl.", B. II, p. 367), and others did not retain this species and, referring it was considered a modification of the latter to Linnaeus's Canis lupus. The descriptions of Canis Scotson are quite contradictory. According to Cuvier, its color is completely black, with small white spots on the end of the muzzle and on the chest; the same is said of Billberg (1. c.) and of Pallas ("Zoographia", 1. c., Dobenton (Buffon, "Hist. natur.", t. IX, p. 364), Radda ("Reise", I, 56), and others do not mention this important feature, some, however, as, for example, Braith (see A. Wagner, 1.c), consider him sexual. A small black wolf and a smaller tail density are confirmed both as a copy of the Museum of the Academy, and descriptions of Dobenton (1.s, namely: without a tail, only 2 feet 11 in.) and Pallas (1.c.) Both zoologists also mention a longer coat on the back, and a large amount of ears and short and dull. The muzzle was seen by Dobenton and on a specimen of a black wolf from Siberia in the Museum of the Academy of Sciences.

What black wolves do not constitute a special species is proved by the fact that they meet in the same brood with ordinary wolves (see above and below.) At the Paris zoo lived two tame black the wolf (from the Pyrenees) that were bred, but the cubs were never the same color, some were not even black (see Simashko, "Russian Fauna," II, 490).

Descriptions of black wolves in European Russia and Siberia are not many-syllable. In Siberia, they are seen (in Irkutsk) by Pallas (1.s), Falk ("Raise", III, 322, in Tobolsk). Most often they occur, it seems, on the upper reaches of the Amur (Kayoe, 1. s, 8. 56) and in Transbaikalia (Cherkasov, 1. p. 148), where they occur only in the mountains. According to the information I gathered, a black wolf was killed in Shadrinsky (near the Cross) and another time in the Urals (near the village of Poldneva in Ekaterinburg). Both copies were much smaller than ordinary wolves. Pallas saw black wolves on the Kama, that is, on the western slope of the Urals ("Ka'e", II, p. 209). They are found in this locality (precisely under Chistopol) and up to the present time (see Zh. okh. i konnoz., 1874, No. 2, p. 32, mixture). According to Middendorf ("Siberian fauna", p. 206), black wolves are not infrequent in the Orenburg Bay and in the Kirghiz steppe (see also Severtsov, "Akklimatiz", 1861, 2, p. 16). Eversmann (1, p. 20-21) says that "in the Buzuluk there are absolutely black wolves, whom they call Siberian dogs as they say, these animals really are more like a dog than a wolf, and the local inhabitants believe that they come from Siberia. As you can hear, they meet only in the winter, they do not go together with other wolves, so they usually see a couple of them together at one drop ... Judging by the stuffed animal delivered to me from there, they are really closer to the dog than to the wolf. "All this makes it very likely that black wolves were often mistaken in Russia for wild dogs or bastards for dogs and wolves. Black (black-brown) wolf, sent by Dahl from Birskoy to the Museum of the Academy of Sciences, was recognized here as a dog (although Cossack Luganskii, "Zverinets, Wolf." - Literaturnaya gazeta, 1844, No. 9, p. 159), although he was killed in a pack of ordinary wolves. Black Crimean wolves belong to these bastards, of course (see Shatilov, "Izvestiia obshchei nast, nast.", Vol. III, issue 1, pp. 31-34). Black wolves are sometimes found in the Caucasus (Simashko, "Russian Fauna", II, 490). In general, real black wolves, contrary to the opinion of Middendorf ("Sib fauna", p. 31), in Russia should meet less frequently than in Western Europe. About the hand-woven black she-wolf in Kuskovo (in the vicinity of Moscow) says Pallas ("20gorg.", I, p. 38). Dryansky ("The West Little-Haired", p. 173) mentions a litter of 11 pups, of which 2 black, 1 white, 2 ordinary and 3 grayshaded, were captured in the Novokhopersky. About black wolves in the Voronezh province says Severtsov ("The period is manifested," etc., p. 16). Even less often there are redheads, sometimes in the same litter with gray (1.s). In Western Russia, black wolves occasionally come across in Livonia (Middendorf, 1. s, p. 206), in the Kovno Gubernia. ("Zh. Oh.", 1876, July, p. 22), in Lithuania (Eichwald, "Naturh. Skizze", p. 37).

To the number of variations it is necessary to add wolves of enormous growth. Mikhailov, who saw him personally ("Hunting in the forests of the Archangel's Gubernia," pp. 208-209), speaks of such a giant wolf. This wolf was almost white, and the whole hand from the index finger to the elbow was placed in its jaws. Giants are seen in very many animals, and there is nothing impossible that they occasionally come across between wolves.

- 13. The origin of this enmity between the wolf and the dog in the Vilnius Herald (from 1867) In the article "traits from the Zhmud people" it cites a curious Zhmudin story (reprinted in the St. Petersburg Gazette for 1867 and in the newspaper Vostok ", 1867, No. 52), entitled:" Why the wolf is not a nobleman ". We quote it here in its entirety, although it appears to have been written down by an unskillful hand: "Once the wolf was a nobleman (a hint of an analogy between a wolf and a former landowner), and he entrusted his documents to the dog, and this dog was married. The dog went to his wife's parents, and assigned documents to guard the cat. The cat hid them under the roof, and the mice ate them in the roof. Then, when the dog returned home, she asks the cat for the documents. The cat answers: "Eaten by mice", and so begins to catch mice. The dog, after running with the cat, first sniffs - then, asks for paper, and then starts to gnaw the cat (explanation of the hostility of the dog and the cat). The wolf drove the dog into the barn so that she could get the documents. The dog, not delivering them, entered the service (ie, under the protection of a man), and the wolf, thus, was left without papers, and so now, hearing the ringing bell, runs from the road: thinks - the police is coming."
- 14. On the wild wolf and dog wanderings cf. note. 12. Black wolves of the Crimean steppe, described by Shatilov (1.s.), Most probably they were crossbreeds between a tatar dog and a wolf, as evidenced by the elongated fur of the muzzle (like the sheep-dogs), on the other erected wolflike ears . The specimen, which is in the Zoological Museum of the Moscow University, is very short (young). Its general color is yellowish with numerous black tips of guard hair. The muzzle is completely black. Kol (Reise, III, 125-127) says that wolf and dog bastards are found in the Novorossiysk steppes, and explains this (according to local residents) by the fact that female wolves, when they go looking for a partner, do not find a male in the steppe (much more faithfully take the opposite) and knit with semi-wild steppe dogs. According to popular opinion, traces of wolf blood persist in the third generation (1. s, 126), and this wolf breed of dogs differs from its wolf feud. Wild bastards are very often encountered in Hungary ("Jagd Zeitung", 1875, No. 9, 268), and to them, apparently, belong to the lupus-septs of France. The magazine

Konnozavodstva i Okhota, 1862, No. 3 cites, according to Clamorgan (an ancient French hunting writer), the case that the greyhounds, having caught the wolf in a hunt, covered it. In general, the information given by the famous zoologisttraveler I.S. Polyakov (1.s, p. 5), which received two skins of animals (caught in the vicinity of Surgut), occupied the middle between the wolf and the dog. By the motley color of the wool they approached the dogs. From the eyebrows to the ears they had a red or dark strip. The entire front part of the trunk and belly were white, with a pinkish hue between the hind legs, almost from the middle of the back to the base of the tail, the male had a wide dark band, the female - reddish. In general, the pattern and shape of the strips in both hides were identical. Their average appearance was between a wolf and an ordinary dog. A pack of such animals, some 10 of them hunted reindeer together. The third animal of a similar crossbreed, was killed in the vicinity of Tobolsk. It was close in size to the wolf, but was comparatively low on the legs. The wool on the upper side was black-brown, and below white, with a pinkish tint behind the belly. On top it had a rather long and soft fur, than differed from the wolf. The same is noticed in Eastern Siberia, and Cherkasov (1. s, 151) says that wolves occasionally knit dogs. Instructions for pairing wolves with dogs are very numerous. About a black female wolf, which gave an offspring from the dog, says Pallas ("Zoog.", i, p. 38), that it is not known on what Smith's opinion is based on (see Simashko, "Russian Fauna", II, p. 489) that black wolves do not mix with ordinary wolves. According to Brinken, in Lithuania, excellent hunting dogs are obtained from the admixture of wolf blood, s. ("Mem. sur la foret de Bielowieza", p. 47). This circumstance was very well known by ancient dog hunters, and it is used to this day. So, according to the legend, the greyhounds of the Timashevs from the Ufa province, famous for their spitefulness, came from a cross between the greyhounds and the wolf (see "The Hunting", 1876, April, N. Kuroedov's article "NB Nagatkin", p. 4). In the Timsky u. Kursk, g., Even recently there was a case that a captive wolf knitted with greyhounds ("Zh. Hunt", 1876, February, p. 80). Recently, a wolf - dog breed was deduced by the famous Tver hunter PI Balovensky, who crossed the female wolf with a sheepdog, then a bastard-bitch with a sheep-dog, and from this third litter of a male with a bitch of the breed of bulldogs ("Zh. Okhoty", 1876, August, p. 52).

About the cross between a wolf and a dog and the results of this crossbreed are discussed in detail in Bronn in his "Geschichte d. Natur", Theb III, Band 2, 8. 177, but we did not have this composition under our hands.

Occasionally, wolves, kept in captivity, also mate (see "The Russian Fauna" by Simashko, 1. c), even caught by adults ("Horse Breeding and Hunting", 1847, No. 7, pp. 754-755, mixture: "About love of wolves for their pups"). According to the

description of the latter, the skin of such a bastard, killed near Samara, had an average value between both animals, the muzzle is more fox, the legs are low, the tail is more wolfish, wool is reddish-brown and gray, softer than wolf, stiffer than fox. Rather, it was just a small, more southern (Kyrgyz) breed of wolf, or, perhaps, a runaway jackal.

15. Despite this, it is often possible to find ridiculous opinions about the unusual legibility and whimsical wolf taste. Thus, for example, the cannibalism is credited with a special love for human meat. Eeveryone, however, will easily understand that if a wolf, forced by hunger, dares attack an unarmed man and as he is convinced of the mans defenselessness, he will prefer this easy prey to another. The dog and the pig still bite. Even Mr. Lazarevsky did not avoid hobbies in this respect, and based on the testimony of SFD ("The Hunt", 1876, Feb., p. 42), he says: "There are areas where the wolf in this respect (that is, in relation to food) even chooses. In the South-West region he brought up himself some refinement, exacting taste. There, they say, are wolves who eat mostly, almost exclusively, sheep, pigs and birds."

But the author himself says only (from the words of the peasants) that wolves "have an obvious preference for a certain kind of food." Does Mr. Lazarevsky think that the pig will not eat calves? Every wolf, first, chooses his prey by attacking. Then he takes the one that is more convenient to him and he has already knows how to hunt.

- 16. The nasal conchs of the wolf are relatively less developed than those of the dogs, and this directly proves that they can not have a strong sense. That the wolf senses carrion for 8 miles, says Levshin ("The Book for Hunters", II, 33), even Cherkasov (1. p. 163). However, from the words of the latter author, whom he apparently used to compile his book, G. Lazarevsky says only that the wolf senses a carrion in the wind for several miles, and the hunter senses in the forest more often than three hundred steps. Here, apparently, he mixes his flair with sensitivity.
- 17. It should also be noted that in the summer, when the smell from carrion is much stronger, wolves go to it only in the absence of live prey. In winter, in general, in cold weather, they only feel carrion at a close distance and in seeking it, they really follow the screaming of birds, as Mr. Lvov notes (Zh. Oh., 1877, June, 37). That in the steppe wolves the sense of smell must still be less developed than vision is proved by the testimony of Middendorff ("Reise", Th. III), according to which, in Mongolian dogs, vision is more developed than smell.
- 18. "The crow's croak is extremely familiar to the wolf," says Cherkasov (1.s, 162-163). He only listens if the crows do not croak somewhere, and he never makes a mis-

- take if the raven cries in an empty way. The ear of a wolf is well acquainted with the motives of the voice of a crow. " It may be that this is so, but we believe that the wolf is guided by sight, it is watching the flight of these birds. The fact that the wolf follows the crow is also mentioned in Radda (1. s, I, 59).
- 19. Next we will return to anecdotes about the wolf's mind. Olenin says about how the wolves are caught unawares, says Olenin (see "The Hunt", 1877, March, p. 37): "... the old wolf galloping after a female wolf, hearing a shot and thinking, that the black coat, which lay to the right, is shooting, rushed on me ... the rest of the wolves were completely taken aback. They were seized by the characteristic panic in which they, despite the obvious danger and shots, run ahead. At this time, the wolves finally become deaf, they throw to the right and then to the left, frantically twist their tails and, lifting all the fur on their backs, laying their ears, constantly defecate."
- 20. About this fear of the wolf not seen by pets see in Middendorf ("Siberian Fauna"). Why does the wolf always think, according to Lazarevsky, that the cattle are tied to the trap in the forest, when the wolf, at the so-called hunting with a pig often runs after hay in a sack drawn by a rope behind a sledge, taken by him for a pig, which, of course, does not do a special honor to his mind, his sight, or smell and proves his complete failure in these relations, since you can not explain this only by extreme hunger.
- 21. The explanation of this cowardness of the wolf in the summer was given by Severtsov ("The period, the appearance of animals, birds and reptiles and crows"), Then Dmitriev-Mamonov ("The Hunt", 1876, August, p. 50). The wolf cannot really lick wounds on his back and sides like a dog or fox, which depends on the thickness of his neck muscles and the relative shortness of the neck and on the small flexibility of the spine. However, the wolf is not at all as sluggish as some zoologists and hunters think. This opinion, according to Al. Blas ("Chasseur au chien courant"), originates from Aristotle, who assured that the wolf has only one cervical vertebra.
- 22. The very name of the wolf lupus occurs, according to El. Blaise (1. c), from the word "leo" and the great leg, when the Romans wanted to express the extraordinary strength of his legs.
- 23. Protas'ev ("The Wolf Power" "The Horse and the Hunt", 1853, No. 2, pp. 142-145) tells that the mother wolf carried on the front shoulder blade. This is quite possible, but the author, of course, was somewhat carried away, telling how the old wolf dragged "Bogdanov a man about 12 poods in weight".

- 24. A hungry wolf always runs faster than a satiated one.
- 25. See Simashko. "Russian Fauna" (1. c); Kessler. "Fauna of the gubernias of Kiev. training. district "; Cherkasov, 1. s, p. 168; Leiver und Lea Coleten. "L'ecole de la chasse aux chiens courants", p. 276. Also articles by Olenin, Dmytroeva-Mamonova and a friend.
- 26. About such wolves, whose teeth almost did not separate from the jaws and which could not crush the caught domestic animal, say Cherkasov (1. s, 167-168) and others. In captivity, wolves live, probably, more than 10 years. In any case, the wolfish age should be longer than the canine, we known as two small house dogs, one of which lived 13 and the other 17 years.
- 27. For the protection of other animals, see below. The frozen wolves and the meaning of deep snows were mentioned above, but wolves before being caught by the eyes of a man will be eaten by other wolves. Much less often wolves die during floods and large spills, since they generally swim no worse than a dog and swim in large rivers, for example, Neman (Strokovsky, "Hunting for wolves in Polesye." "Gas Forest and Hunt", 1859), drowned wolves were found after the Dnieper flood this year (see "Odessa Herald" and "Northern Star", M "21). In mountainous areas, wolves, carried fleeing persecution, sometimes fall into panic (see Cherkasova, p. 197, Middendorf, "Siberian Fauna", p. 206, etc.).
- 28. According to Kushelevsky ("The North Pole and the Land of Yamal", p. 61), wolves having eaten the carrion of a death of deer, die in turn. However, this is hardly fair.
- 29. It should also be noted that with a very close vicinity of broods the female wolf eats each other's pups (see Rezantsev's article "Dog hunting for wolves." "Zh. Hunt", 1876, December).
- 30. The cases of attack of rabid wolves on people will be discussed in Part 3.



CHAPTER 3 - WOLVES' LIFE IN WINTERTIME

The beginning of a nomad life. -Linesign. - Transitions and migrations. The reasons for them. - The wolf pack and its strength. - Wolf trail and wolf paw prints. - The heat of mothers and peryarykov. - Wolf - animal pairing

The wolf's annua cycle can be divided into two almost equal periods, extremely different from each other. The period of nomad life or winter, and the period of reproduction or summer. The first covers, depending on the terrain, a more or less significant part of the autumn, throughout the winter and sometimes part of the spring. The second contains in itself all or nearly all of the spring, summer and the beginning of autumn. The nomadic life of wolves is explained by a lack of food, so they are forced

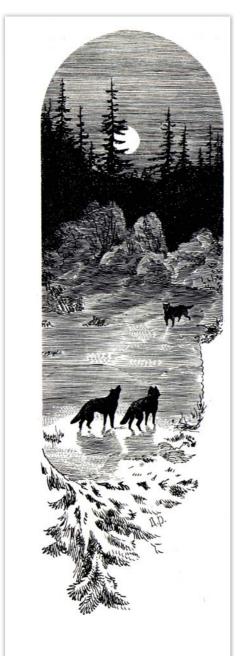
to look for it in a much more extensive space and often even move to very remote areas for hundreds of miles from their territory (1).

Of course, the sedentary life of the wolf family turns slowly into a stray with a certain gradualness, and its passages are preceded by more and more remote transitions, absences from summer lairs. We are talking here about young wolves who by the end of the summer, are roaming closer and closer to the lair and do not spare, as before, in the kind of integrity of their young offspring, the domestic animals of the surrounding villages. The transitions with the entire litter begin only from the moment when the cubs reach 4-5 months of age and are so strong that they are already in a position to provide the old people with some help in their heavy efforts of feeding. The lucrative wolves are leaving the den along with the old ones not earlier than the first days of September, usually later. Although they are moved a few versts (1,0668 km) from their native marsh, ravine, etc., they return to it continously the first two or three weeks, and the whole family spends most of the day there. The devastation caused by wolves in the flocks of sheep begins only in the autumn. But since, for all their carelessness, our peasants sooner or later accept at least passive, to counteract predators, then the wolves' bunch of self-preservation instincts are not limited to more foraging in the immediate vicinity of the withdrawal site, but finds the prey in more remote areas, at least at a distance that does not allow to return home in the morning. Thus, they spend the day in swampy mounds, dense bushes, reeds and ravines close to the site of their new exploits, and here they catch small prey.

Nevertheless, the wolf family continues, as a matter of habit, to visit its lair. In fact, at least as long as it only increases the area of its raids.

The real nomadic life of wolves begins when the newcomers are fully strengthened and able to endure long voyages. Fainting here is much more important than it usually is thought. The wolf becomes bolder, since winter fur better protects him from wounds than summer wool. Summer wool begins to fall in September, mostly in the middle, even at the end of this month. In November its fur becomes extremely fluffy and dense, which probably depends on the summer heat, which enhances the nutrition of the hair. This rule is common to all animals moulting twice a year, and the more obvious where there are more differences between summer and winter temperatures, than the continental climate (2). As for the color of winter wool, it is generally much lighter, cleaner than summer, and the black tips of guard hair are much larger and longer.

In total, the wolves' nomad life is determined by a decrease in food (3). With the first strong snow, that is, rarely earlier than the middle of October, and in more southern areas in November, the grazing of cattle ceases and wolves are forced to settle



leave domestic animals except of the village dogs and hunt for quadrupeds and feathered game. But since the extraction of this species either soon becomes scanty or it turns out to be beyond the power of predators due to their small numbers, the depth of snow and some other reasons, then packs, especially single wolves who would not survive the pogrom, little by little roam up to hundreds of miles from their summer residence. Such distant wanderings are noticed, however, not everywhere and not every year.

In the steppes and in the north the wolf lives a much more nomadic life than, for instance, in Central Russia. It depends on their sparseness. In the snowy winters, the wolves stick to the country roads, almost harmless to the game, and therefore roam more than in shallow snow. The most distant migrations are carried out by wolves in the tundra, following the migrations of tame and wild deer and variegated (Myodes) (7). Under such exceptional conditions, wolves collect several litters into large packs.

Currently, despite the large number of wolves, in the central provinces it is rare to find more than 15 wolves in the pack, even during the so-called wolf weddings.

Each pack here is an organic whole - a wolf family, and large gatherings are extremely rare, under very special conditions. This family life is usually broken only for a while during the heat of the wolf. Winter hunting in the Pskov way, that is, with the help of a small number of beaters, almost completely explained the winter life of the wolf and showed that wolf packs in most cases do not have the random behavior that was attributed

to them. This is much more logical, since if wolves for certain purposes are groomed in winter by societies. There is no doubt that the wolf pack consists of an old alpha male who, as we shall see later, helps the female wolf in the summer in the care of the young rarely more than five, and finally, one to three perevars (one-year-olds) which in the summer keep nearby the den (4). Thus, at the beginning of winter the whole "artel" contains from 6 to 10 individuals of different ages, rarely more, since it is almost impossible that by then both generations remain in the original composition.

Leaders of the pack are, of course, parent wolves. One of them always goes in front and the other follows in the rear and in some cases succeeds the front. This order is explained more by caution and experience of the elderly, and the change is caused by necessity, since when laying a new track in more or less deep snow the main difficulty falls on the first wolf. For this last reason, all members of the family go by a string, one by one, stepping on the trail.

The wolf's trail is very similar to the track of a large dog, but since the wolf holds the paw more in the lump, ie, tightens the fingers more tightly, the soles of his fingers are convex, the trace is much longer and sharper than the print on snow or mud (5). The main difference lies in the perfect correctness of the trace and the straightforwardness of its direction. The wolf walks with a step or a trumpet in such a way that every time the foot of the right front foot moves along the left rear and vice versa, so that the tracks are drawn by a tape, each (double) imprint being 6-8 vershoks from the other, depending on the age of the beast, the depth of the snow and whether an old wolf or a whole pack has passed by. The following are already accurately placing their paws on the prints made by the leader, so that the number of wolves passing can be recognized when the entire string enters the forest or when it bypasses any obstacle. While the males move aside, to the bush, the tree, the stone, and raise the hind leg. The last attribute also serves to determine the sex of a single wolf (6). As for the freshness of the track, then if there was no powder, this freshness is recognized by the friability of the snow, crushed by the foot. At the same old trail both depressions and edges become frozen and hard to the touch.

The most recent trace has a so-called povoloku (ie, a thin dash from the trace to the track), disappearing after several hours and is due to the fact that on the loose snow the wolf drags the hind legs. The wolf is less likely to walk, that is, it prefers a small trot. This very ordinary wolf step seems very wrong, since the wolf seems to plait with its hind legs. Despite this, it is laying a more correct footprint than with a quiet pace, which is noticed most often in deep snow. When the wolf jumps, its trace becomes even more incorrect and the print of the rear paw falls on the finger of three from the corresponding anterior (7). When escaping dogs, the wolf relies on its strength and flies into the snowdrifts, wide-spreading the fingers of the forelegs, and the rear legs

forms a pancake. Probably it does the same thing in very deep snow. This, of course, shows him some skill, but nevertheless, going on a couch, the wolf never makes loops and gaits, that is, he does not try to jump to the side and confuse his track. The pack rest only during the day and returns to its temporary shelter, which usually lasts for several days, with dawn or when it is absolutely encouraging, and scouts all night from dawn to dusk in the vicinity in search of prey.

We can not say that peace and harmony reigned in a wolf family, especially during a hunger strike. The lion's share in the division of food always goes to the old, especially the male. They cruelly offend the young wolves and alpha female, who, in turn, raise a terrible bickering when they share the leftovers. Often it happens that the weakest individuals are torn to shreds by their more powerful brethren. It is necessary to show blood - and the fate of the unfortunate is solved. The sight of blood causes frenzy of the whole flock. Even more often, the weak die in fights during the wolf's estrus, when several males take care of it, which, as we shall see, is more often between the young-sters running for the first time. This explains why a wounded wolf always avoids the neighborhood of his own kind, at least the first days, and joins the pack only when his wounds heal, which in winter takes much less time than in the summer. The wolves are fighting together like dogs. Bristles on the nape of the neck, teeth are bared, their nose is wrinkled, they grumble and, rushing at each other, often get up on their hind legs. In general they try to grab one's throat.

This family life, although not completely peaceful, continues until the end of December, when old wolves come in the estrus (8), which in the more northern provinces happens a whole month later (9). With the onset of estrus, the old wolves are separated from the pack or, rather, drive it away. Profitable wolves spend some time together with the yearlings. If there were no yearlings, or could not be (when the first litter is profitable), the young ones left to themselves are completely lost and for a few days they wander and walk apart. In January, when hunting with Pskov it happens that they encounter solitary wolves.

Having driven away the young, the old wolves begin to mate. If there are no idle males in that area, the mating is done very peacefully. Otherwise, for the possession of a female between the males there is a cruel squabbling, and the strongest of them, driving away the others, finally remains with the female wolf. This happens, however, very rarely, since in general the number of females is not very significant, and moreover the female prefers to mate with the wolf with which she has already been breeding.

G. Dmitriev-Mamonov says that in his hunting practice he managed to trace a wolf, who for four years in a row mated with the same wolf, despite the presence of other wolves in the same area and that this wolf was not very great and, moreover, limped on

one leg, therefore, was not a dangerous rival. The testicle seems to last no more than two weeks (10). At this time the male is extremely caring about his female and does not leave it for a minute. In the case of persecution, he goes ahead, traces a wide trail over deep snow and turns around to see if she has not fallen behind (11).

Soon after the onset of the chase of the females, two or three weeks later, young wolves or mongrels begin to emerge, and the first pairing taking place from this moment.

The pairing of young wolves is never possible without bloody fights, especially when there were two or three mating males in the pack or when idle males or mongrels from another flock take care of the female, who, like dogs, search for hunting wolves - following their trail. Here, too, the strongest remain the ultimate owners of young beauties and, after mating with them, begin to lead the same lifestyle as the elderly. All the more true, young wolves mate with stronger female wolves, left alone or deprived of their girlfriends, and with older puffers from other litters. This is proved by the fact that females go searching for partners, apparently before their peers (12), namely on the 21-22th month from birth (13).

It goes without saying that the young wolves, who until that time strolled around with their mates, are finally driven away from their laird. Some of them probably die of starvation or during attacks on village dogs, fall into traps, etc., but the survivors may, though not always, search for their litter or return to their lair in the spring or early summer and stay close to their parnts. At the end of winter, wolves often meet with the yearlings roams until March, gradually coming closer to the laird in summer.

There is no doubt that wolves, even if they last year had lost the whole litter, they occupy the same swamp again, although sometimes a female wolf swears young males in another place. This attachment to the place, contrary to the usual caution of the beast and not speaking in favor of his mental abilities, can be justified only by the lack of places convenient for mating and by the fact that wolves do not tolerate the very close proximity of other packs. Old lairs are not occupied, only when the elderly, especially the female, were killed, but even then for a short while, as early as the following year, young wolves are again found in it. This explains to us why in the Transbaikalia there is a very strange opinion among local animal producers that a she-wolf is dreaming in a year.

From all that we have said about the winter life of the wolves and their heat, it is obvious that the wolf, contrary to the opinion of naturalists, is really an animal pair. A further review of the annual cycle of his life will finally confirm this conclusion. The presence of a female and a male in each or almost every litter is not subject to any disputes and is an established truth accepted by all Russian hunting writers (14). In

Western Europe, where wolves are very rare, where they are in very special, extremely unfavorable conditions, it is of course difficult to expect a wolf family to remain in its entirety. That is why in zoological literature we meet a completely wrong opinion about the role of the male, based on the analogy of the wolf with the dogs. However, if we look at the essence of importance of the male wolf, we will see that it cannot be otherwise, that his participation and assistance is absolutely necessary for the wolf tribe, because wolves feed exclusively on large four-footed, whose hunting requires total effort. Otherwise the she-wolf, without the help of a male, would not be able to feed the young. The same authors who reject this nepotism (16) admit, however, that wolves gather in flocks, endow them with almost human intelligence and abilities, recognize for them the ability to pretend to be dead, attribute to them acquaintance with the rights of civil association, see they have proceedings, assemblies and a right trial (17). Why do they refuse the wolf in a much more necessary, more reasonable actions?

When we constantly meet adult males in the pack and find the hunters' instructions for this presence and for the help rendered to them by the female, we can refer to the testimony of German naturalists, who undoubtedly reject the wolf pairing. We tried first to explain this strange contradiction in part to their accidental cohabitation for a lack of summer shelters, in part because most of these males are not fathers of the family. The assumption is that we based on the fact that by analogy with dogs, males should reach sexual maturity later than females, and therefore they do not have time to run away in the same year, but are hunting the next winter, staying with their pack over the summer and indirectly helping her in feeding a new (third) brood. But the unanimous statements of the old hunters, both oral and printed, caused by the controversy raised on this issue in the "Journal of Hunting", finally, our recent observations and testimonies of the ancient hunting authors of Western Europe have proved to us the infidelity of our theory reconciling this disagreement, and we fully support the unconditional pairing of the wolf.

We end this chapter with the words of Mr. Dmitriev-Mamonov, who most of all contributed to explaining this dark side in the life of the wolf: "If, together with Mr. Lazarevsky, we accept for this sign (pairness) the exclusive and unconditional fidelity of the female to his male, then, perhaps, we will come to that sad result, is that our planet is not able to produce a pair of animals. If we take for this sign the assistance rendered by the male to the female in caring for the children then, without a doubt, the wolf should be called a twin animal in the full sense of this meaning. It seems to me that the male's participation in the care of children is the only norm that science can take to determine the animal's duality, for here it deals with a fact occurring in nature that is easy to verify. As for the fidelity of the females to their males, this is a

question so complex, hidden and elusive that in science there is not a single theoretical or practical method by which it can be reliably investigated."

Notes on Chapter III

- 1. In the steppes, wolves in autumn first go into large forests and return to the steppe when snow falls, which is smaller and denser here. This is seen, for example, in Orenburg Bay. ("Hunting in Orenbaum." "Horse Transport and Hunting", 1845, p. 1206), in the southeastern part of Perm and in many black-earth areas and depends, of course, on the fact that in the big forests they are almost safe in from the persecution and by this time are already too shy toextend their raids far away.
- 2. Of course, the time of shedding is consistent with the latitude of the terrain and the weather conditions. In the north, wolves shed their fur much earlier than in the south, and receive their winterfur in September.
- 3. The nomadic life of a wolf is also determined by more or less loose snow. Therefore, at the end of winter they wander less than in the beginning and in the middle. The dependence of wolf migration on other wild animals is noticed everywhere where the latter make up their main prey. Even in the Middle Urals, where wild goats gather hundreds of miles away from the fall to the Kasli camp (Ekaterinburg county), attracted by little snow in this area, wolves in the late autumn and winter are much more numerous than in the summer.
- 4. Ordinary wolves, together with the old ones, are called a brood, or a flock. If a mover is attached to the brood, a flock or an artel is compiled (see Dmitriev-Mamonov, 1. s).
- 5. Since knowledge of the wolf track is very important for hunters, we will report the following details. In general, the heel of the wolf is wider, convex than the dog, behind with a small notch (heart-shaped). According to Léverrier (1. c, 279), it forms (on the snow) three rather sharp pits. The prints of the claws (seen rarely) are shorter and wider. The trace of the female is longer than in the male. Her claws are even shorter. Traces of young wolves are generally rounder and (especially in males) do not have such a correctness (straightness), as in the old, and are more similar to canines.
 - Dogs, however, never put their hind legs on the front track.
- 6. Males always urinate and defecate to the side. Their stools are sturdy and dry, dark in color and are always seen on a bump or other elevation. Like dogs, a wolf often tries to throw feces with soil or snow, and by the magnitude of his scratches

on the ground and the depressions in the snow one can judge his age. The farther from the path the litter of the male is, the closer is the place where he lies. Females (probably, also the profitable males) urinate and defecate on the path itself, and their feces are much softer, flat cake (see Dmitriev-Mamonov, "Zh. Hunt", 1876, August, Léverrier de la Conterie, 1. c, p. 279 et seq., "Horse-riding and hunting", 1862, No. 3).

- 7. Then you can see that the footprint left by the front paw is significantly larger and wider than the footprint.
- 8. See the article by Dmitriev-Mamonov ("The Hunt", 1876, August, p. 46), from which we borrowed most of the details concerning estrus. Let us note, by the way, that the estrus is also called a chase, a void. Sometimes they say wolves run. The name of the wolf wedding is given generally to a wolf pack in the middle and late winter.
- 9. According to Rezantsev ("The Hunt", 1876, December), the beginning of the heat of the wolves depends on the weather conditions, and he explains this by instinct, proving the ability to anticipate a prolonged winter by the fact that the cubs are never found in the snow (see also Severtsov, 1. c). However, it must be assumed that the beginning of the estrus is determined only by the more less northern position of the given locality. In all likelihood, he was deceived by young wolvespavers, which run later than the old ones. In the time of estrus, all zoologists and hunters agree.

Only Simashko ("The Russian Fauna", II, 487) has an indication of the heat of wolves in late autumn, which, incidentally, was due to the fact that in Western Europe it begins earlier than in Russia, even in November. That the tether of wolves continues all year round, it is said only in the compilation, placed in "J. hunting, and konnoz.", 1871, No. 6. We have a reference to Mr. Lazarevsky for Melnikov, who in his" Forests "(Part I, p. 254) says that, according to a popular remark, wolves celebrate their wedding to On the 18th of February. It really (in Middle Russia) is the heat of heat, but it does not send it off, as Mr. Lazarevsky (1. s, p. 17). In the north, the estrus begins no earlier than the middle of February, as noted, for example, in Sweden (Dietrich., "Handbuch für Jäger", V. 1, 5. 322).

- 10. For the duration of the estrus, see Göbel's article (1.c), Blasius ("Säugthiere", 183), and a friend. Or rather, together with Dietrich (1. p.) Take it in 4-10 days.
- 11. The wolves knit like dogs, most of the night, and the male, taken by surprise, jumped off the female and ran alongside her, grabbing her by the ear, until she completely disconnected (see Cherkasov, 1. p. 153).

- 12. According to Léverrier de la Conterie (1. c, p. 274), males reach maturity 3-4 months later than females. See also Cherkasova (1. s, p. 155). This can also be concluded by analogy with dogs in which bitches reach puberty earlier than males (one breed and littermates). Let us note here, by the way, that it is completely unnatural that wolves should ever bite a wolf in a hunt, as described by Cherkasov (p. 152). According to this latter, if the she-wolf constantly prefers one male to other fans, then wolves often annoyed by this inattention, tear her apart. If this ever happened, then it would be more correct to assume such an effect on the part of wolf-sheep who simultaneously come to the hunt. On the contrary, it is known reliably that if, for example, when hunting with a piglet on a carrion, etc., kill a she-wolf, then the wolves with frenzy rush at the wolf and forget all caution. Cherkasov himself (p. 154) tells about this case.
- 13. This is proved by the fact that the chasing of young she-wolves is seen from the first of February (rarely from the end of January it was born in March of the third year) and to the middle, even the end of March (the latest broods, ie born in May and early June of the third of the year). In "J. hunting "for 1876 refers to a hand wolf, who came in the hunt for the 21st month from birth. In any case, the opinion of Levenner de la Coletene (1. c, 284) that young wolves are empty, reaching 18 months, is not credible.
- 14. In all the hunting articles, where it is written about the wolf, its participation in the care of the brood is accepted for all as the known truth, and therefore there is no need to list these articles. Even Mr. Cherkasov, who repeats Levshin's words, cites facts that speak for the wolf's pairing. In Russian, the opposite is said only in the "Book for the Hunters" (II, 25) Levshin, but it is compiled according to German sources, and he made few additions (about hunting, Tula poultry and some others). Of Russian zoologists, N.A. Severtsov fell into the same mistake, asserting that wolf broods begin to wander already from the end of April. The participation of the male in caring for the young is not even denied by Simashko (1. s, p. 487).
- 15. The famous hunting writer of the last century (18th century), Léverrier de la Conterie, in his "Ecole de la chasse aux chine de coutral de Venérie Normande" (see above), the first edition of which was issued to the press, directly speaks of the cohabitation of the mothers, although he denies the opinion that the male shares the care of the brood (1. s, p. 274). Of the old German hunting authors about the pairing of wolves says the famous Dietrich aus d. Winkel ("Handbuch f. Jäger etc.", IV Aghgaby, 1865, B.I., p. 322).
- 16. G. Lazarevsky, in his arguments in refuting the wolf's pairness forgets first that a hungry mother wolf, even more exhausted by the chase, cannot be more lustful

than a full-fledged male, and therefore he might knit with all she-wolves. Second, he does not know that there are more males than females, and that she-wolves, even though they were abducted "from the flock of the bridegrooms of a happy husband", only in exceptional cases run the risk of remaining without a candidate (see his pamphlet, p. 19-20).

17. See Lazarevsky, 1. s, Brem, Toussainel and others. This strange contradiction is pointed out by Lvov ("Zh. Hunt", 1877, May, p. 33).



CHAPTER 4 - WOLVES' SUMMER

Wolves' summer residence. - The Wolf's Nest. - The cubs' life. - Number of broods. - Prevalence of males over females. - Nutrition of the wolf cubs. - The role of the male in brood. - Reasons for the presence of pewers. - Idle wolves. - Area of wolf raids. - Beginning of absences of the brood and wolf day. - Captive wolves

So, in the beginning of spring the maturing wolves wander little by little to their former lairs and begin to lead an almost settled life, while young couples continue to wander occasionally until the end of April in search of a safe summer shelter and a place for withdrawal. From what we have said about the wolves' territory, it is already evident that the summer residence must be consistent with the surrounding country. In fact, in the mountains in the middle zone of Russia, in the steppe and tundra, wolves live and raise their young ones in very diverse localities, having in common only that all are inaccessible or at rarely visited by humans and they are located near water (1).

So, in the mountainous part of the country wolves live in summer at a considerable height, sometimes above the border of forests. In the lower part of the Alpine region they hold most of the gorges, logs, near mountain streams and springs. In the more northern provinces wolves move to, peat bogs with dry manes, like islands, marshy swamps covered with a small and rare pine. In the more southerly parts the move to deep forest ravines, a young dense forest or shrubbery in the lowlands and impassable brushwood, even called the wolf reaper. In the steppes the wolf, as was said above, lives in overgrown beams or in the wilderness of the high-scaffolding forests, sometimes it lives in high grass of virgin lands, in reeds and along the shores of lakes and streams.

Finally, in the tundra, wolves breed their cubs in dry meadows (2). In the continuous northern forests, just as in the barren dry steppes of Central Asia. Here idle wolves meet in the summer very rarely.

From this diversity of localities serving as summer dens for wolves, it follows that the wolf remains the nest where it is feeding her cubs. In the stony mountains, where piles of rocks and slabs, numerous cracks, crevasses, even small caves represent ready protection for wolves against rains and dangers, they understandably prefer these shelters to all others. Even in the stony ravines of Central Russia, they sometimes wander under the slabs or large stones but this, however, is a rare exception. In most cases, in the wooded provinces, they prefer based on terrain, flat ground where they prefer a dry and solid place in the scrub, under a bush or stone (in ravines) or dig small caves (3). This is actually the wolf's lair, the name which is later given more extensive significance. In rare cases, wolves use foxes and badgers' burrows. They almost never dig these burrows by themselves but instead expand a ready one. On the contrary, in the steppes and, as it seems, in the tundra, wolves constantly expand ready burrows. In the steppes they also occupy badgers, more often fox burrows, as do arctic wolves in Eastern Siberia - and tarbagans, or tundras (4). Often the she-wolf digs holes (5), but never make them very deep. The male, apparently, does not participate in the work at all. In any case, the lair or burrow is not far from the water - whether it is a stream, a lake, a spring, a well that peasants harvest at distant mowing, or even a swamp.

This watering hole is rarely more than half a verst (500 m), usually closer, but never at the nest itself, and it is easy to recognize by the paths traced to it. Without water, wolves can not stay for days, and therefore during a drought, when the swamps dry up, they move closer to the water, not far away from the old places, but in rare cases move to another island or ravine. It goes without saying that in the steppes, this happens more often than in the middle of the country.

The wolf, having chosen a place for a nest, having fixed an old burrow or even having dug a new burrow, will shortly be here, usually without any support (6). In the middle

provinces the earliest litters are seen already in March, even at the beginning of this month, but most of the blind cubs are born in the end of April and early May, which is quite understandable, since young wolves are more depending on warm than old wolves. The latest litters occur in late May, sometimes even (in the north) in the first half of June. Hence it is necessary to conclude that she-wolves carry at most puppies 2½ months. If, as many naturalists and hunters believe, that wolves' gestation is 3-3½ months, then in that case the estrus of the she-wolves should begin in the first days of November, which, however, no one has noticed in Russia. Accurate observations of the period of whelping have not been observed so far, but since this period in dogs is 9-10 weeks and it is known that tame wolves brought bastards from dogs after 10 weeks with little, one can assume that the wolf's pregnancy lasts from 10 to 11 weeks or at most 80 days, and the difference in this period is determined, as in all animals, by the youth and strength of the female.

The age of the wolf also determines the number of puppies of each litter. The older the wolf is, the more she brings cubs, but there are rarely more than 8 (7). There are, however, cases where 10 or even 12 cubs (8) has been found in the nest. The influence of age on the size of the litter is a well-known fact in all animals. It is confirmed that the greatest number of wolves are found in early litters, and the smallest in late May (9). In the vast majority of cases, wolves give birth to 4-6 cubs, which is self-explanatory, since the alpha-females are usually not less than two- and three-year-old. In the beginning of autumn it is rare to see more than 5 lucrative wolves, even very old ones. This is due to the difficulty of feeding a big family (10), as well as the fact that wolves of early litters are often killed by spring frosts (11).

Almost always there are more males than females in the litter, very rarely on the contrary, as it is with dogs and in general with predators. This relationship subsequently increases even more because of the great difficulties in the struggle for existence, experienced by females, which die more often than males. Despite the fact that the she-wolves, as we have seen, that mate the idle males are very numerous, while the idle wolves extremely rare. Most of them are females that for some reason lost brood.

The cubs, born blind, differ for their birth time mainly with their soft and fluffy hair, the color of which varies according to the terrain, but is always much darker than the fur of old ones. All of the young cubs that we saw expressed more or less clear marks, that is, a reddish color of the muzzle and paws; These features bring them closer to the dogs' puppies, however, not always noticed and later these variations disappear. On two-three-month-old cubs, we never noticed them (12). Until the pups after ten to twelve days see a glimpse of what happens (13), they lie quietly on the den or in the hole, closely pressed against each other. During the first few days the wolf the burrow or the lair very rarely, only on warm nights or when there is for some reason no male

around, which is extremely rare. As the cubs grow up, the absences become more frequent and prolonged. In June, by the dawn, it is often possible to meet a she-wolf leaving for prey or returning to her lair. Thin, with a bent back, saggy breasts almost reaching the ground, with a disheveled and often wiped hair - at this difficult time for feeding milk, the she-wolf has a very unattractive appearance.

After three-weeks cubs already creep out of the hole and run away from the nest. Like puppies they are frolic and play, usually in the presence of one of the parents. However, most of the day, especially the night, they are still lying in the den and sleeping. After a month, the she-wolf little starts to accustom them to meat food, and pre-chews it or even regurgitates already swallowed meat (14). The cubs suck for five to six weeks, but the one and a half month old wolf cub is already so strong and sharp that he is able to bite the bones of and adult hare (15). Around this time, the parents drag various small animals to the cubs. First dead, and then half-dead, just as a cat brings mice to kittens. Then they start to take the cubs to the water place and then little by little they are taught to walk in single queue along the paved trail (16). At an age of 3-4 months puppies, are already able, with the help of their parents, to pick up a lamb or a young sheep, which the parents bring to their lair for training (17). By this time, the lair does no longer serve as a place where to rest but completely changes its appearance, as young constantly harness the grass. On frequent stools, as well as on scraps and the presence of crows and forty, using the remnants of a wolf meal, it's easy to find out the intimacy of the brood and even get to the nest itself, the hideous smell of which is felt for a few sazhens (sazhens = 2,1336 m). In addition, since the middle or the end of June, the cubs, hearing the uterus or the male, returning to the den and giving voice in order to let them know about their intimacy and together make sure that everything is all right on the dens, they respond and raise terrible howling and bickering, audible in the dawns for a very long distance.

The wolf is a very tender mother. She carefully protects her offspring from attacks from other wolves. If a person that at his approach first tries to move away from the nest, but then returns, the wolf might attack the destroyer, especially if the person is unarmed (18). There are many similar examples, but in general this happens only when the cubs are still very small. Much more often the wolf simply flies.

Similarly, the wolf does not always drag the young to another place, especially from burrows. If the cubs just lay in the groove or if they are already quite big and may follow it. In the first case the wolf often carries them by its teeth, but not very far. In the second case - leads the litter to another more or less remote place (19).

Most of the worries about their offspring, of course, falls on the she-wolf. However, there are no doubts that the first days of its food is supplied by its male, which brings

small animals to the lair. This is proved both by the testimony of the hunters and by the fact that otherwise the early litters would certainly die from the cold, especially when they are not in a hole, but lie directly on the ground. And later, when the shewolf is already hunting prey along with the male wolf, and more often separately, the male wolf continues to help the she-wolf in feeding the cubs, then, at the end of the summer, walks with the whole family to eat up the large cattle seized by him or the she-wolf, which is an indisputable fact.

Of course, the wolf cares primarily about himself, brings to the lair, so to say, the excesses from his meal, at first eaten alone. In autumn no one, even a she-wolf, dares to approach and eat with him, nevertheless his habit to constant stay together with the brood and the assistance rendered to the female already speak enough for the fact that he can really be called the father of the family. Of course, the male cannot feed very young cubs, and if the female is killed, then they die a starving death. Later, when they can already eat by themselves, he often alone feeds the children. Cherkasov says that in Transbaikalia, an trapper killed a wolf with cubs, cut the tendons of its hind legs, and in late autumn found the pups together with an old wolf, who evidently fed them. In general, this fact is well known to all trappers and is confirmed by many hunters. Even in captivity, males show love for their children. So, in the "Journal of Horse Breeding and Hunting" the following case is told. In 1835, near St. Petersburg, several wolves were caught for the zoo. The she-wolf mated with one of the wolves, and gave birth to wolf cubs and dag the burrow in a specially arranged wolf court.

The cubs were taken to a specially arranged department and trying to drive a she-wolf in there, they let in the old male. Seeing the wolf cubs creeping apart and plaintively screaming, the male began to whine himself, thinking that he would summon them to one place, and then, taking one wolf cub gently with his teeth, he laid it on the straw, then another, and probably dragged everyone if hunters would not have time to catch the female (20).

Thus, the role of the male as a whole in the brood is very clear for us. There is a much more vague notion of the meaning of the yearlings (that is, the wolves of last year's litter), which, although not always, are around. Foreign writers do not say a word about their attitude to the pack, which is quite understandable, but in our hunting literature opinions about them are quite divisive. Some hunters assume that the younger males keep with the brood all the time and, joining the old ones at the end of the heat, serve as baby sitters and look after the young ones during the absence of the mothers, in some cases even help the female, especially if she does not have an old man. Others, on the contrary, believe that these young wolves join the brood much later, at the end of the summer, when the whole family starts to leave the lair. All the more true, these wolves join their parents when they find them - whether it will be at the end of winter

or in the summer. While the cubs are very small, the female does not admit them to the nest. Only later they maybe seen together with the pups. Since they constantly offend these pups, this also gave rise to the assumption that they are gnawing the latter when they respond to the voice of the hunter who lures the wolves with the voice of the old wolves. In general, the supervision of the cubs, their protection, and the help of the female in the present meaning of these words can not be discussed here, and the presence of last year's young wolves is explained solely by the fact that, not knowing how to get their food yet, they try to profit from the lucrative and use the leftovers animals brought by the elderly to the den. They themselves rarely go on prey and only later help the mothers in their attacks on large livestock (21).

Yearlings should not, however, be mixed with idle males and females that have lost their broods. These latter do not have a permanent shelter. They live a more or less stray life, rest in thickets and ravines, in a word, in shelters nearest to that place where the dawn catches them. If these wolves when hitting a herd will kill several sheep, then you can be sure that this is the work of bachelors (22).

On the contrary, wolves with broods, at first, while young are small, never touch livestock in the immediate neighborhood (23). The adult wolves often go for prey for 10 or more versts, which, however, does not mean anything to them. They hardly have a certain area in which they would not tolerate the presence of other old wolves, although it is reliably known that in the case of very close dens wolves eat each other's pups. Wolves protect their pets in the neighborhood of their lairs because they are afraid to expose the dens to man and when there is plenty of food everywhere, cattle may graze safely almost next to the wolf's nest. This explains why the peasants of neighboring villages usually not only do not try to exterminate young cubs, but even try to hide their location. Of course, the wolves who lost their children are no longer embarrassed by the place and slaughter cattle nearby, sometimes without any purpose or need, like bachelors, simply because of their inherent vampirism, and because they have nothing to fear for the integrity of their brood (24). Later, when the cubs grow up with the parents are unable to satisfy their appetite and often may kill a horse or a cow on their lairs, generally begin to hunt exclusively large cattle, preparing dinner, finally leading their gluttonous family to the carcass. They do it because the cubs are not yet able to endure long-distance transitions, which also might be unsafe.

In order to fully describe the life style of the wolf family and determine the significance of its individual members and at the same time explain the causes of howling wolves in the summer, we give here a picture description of the day spent by the brood.

"Until the time when the parents begin to hunt to feed the young, the broods are almost not audible. About 8-15 July when the young wolves grown up, their parents do not

train them small animals any longer. On one fine July morning the mainland,waiting for the herds to be driven out into the field, the wolf went looking for prey. A subtle flair warns the him of the proximity of the herd. It is necessary to be careful. There is a she-wolf right behind its hind legs. He sees the little shepherd being busy with the tinder box and forgot watching the cattle. He dismissed it near the very edge of the forest.

The wolf goes out onto the road and stops. Then hiding behind the meadows, overgrown with wormwood and wild mountain ash, he makes his way to the forest near which the cattle graze. Here it is in the forest. Quietly he sneaks to the edge, looking for the victim, but suddenly he hears a rustle behind him. He looks around and sees that in the bushes, not noticing him, a full-fat one-year-old heifer grazes. There was no time to think about it. The next moment four long canines (tooth) stabbed into the throat of the unfortunate heifer. Not having time to cry it falls - poor. The sheep having walked close to were shy and closed in a heap while stamping their feet. Here, only Orelku (a guarding dog), who until now looked only at the bag and was scraping for the cake noticed that something was not right. She barked twice times abruptly, somehow inquiringly, but sensing the wolf she began to bark with an unusual voice and rush (not very bravely) to the edge of the forest.

Pastushonko, who has been hired for another year seeing that Eagle, with his tail tucked up and bristling, rushes to the edge with a furious cry of "tu-tu" rushes to the forest and the pack collects the herd. Then the shepherd, thinking that this is a false alarm, calms down and again takes the pipe, until some cow that has escaped into the forest stumbling upon the heifer, will not blare. The shepherd, pestering Orelku, now runs into the forest, stumbles on the heifer with a bitten throat and guts released ...

Having bitten a bit with the entrails, the wolf returns to the brood the same way. Shaking the pesky flies from his ears he goes straight to the watering place. Finally he is back at the lair where the young ones using the imperturbable silence of the noon, play and frolic.

One of them, noticing the old male, ran up to him and began to lick his bloody face, not being washed at the watering place. Then the rest of the youth sprinkled to the old male. First, he patiently shows his affection, but soon he got bored. Having laid his ears back, the old male clenches its teeth. Derived from patience, he gnawed one. The other hide under a thick bush to sleep at leisure. The flies that wagged over the still fresh bones, smelled the blood and began to bore the wolf. He several times viciously clicked his mouth, then he shook himself and trotted into the bushes. After running a while, he chose a place where, despite the scorching heat, the grass still retained some moisture and began to roll, carefully wiping his muzzle. Having finished the operation, he ran into such a wilderness, where, as they say, he will not crawl, and

falls asleep. This is how he spends the day with the only difference is that, despite the young bored and flies, he keeps close to the lair.

The sun had set. The bird choir was already almost silent, the sky was clear and the silence is unperturbed. The wolf stood up, stretched and arched his back. Only a barely noticeable movement of his ears shows that he is listening to something. He hears the creaking of the gates shut in the nearby village and the sound of the postal bell that is dying away in the distance. The wolf raised his head up and howled. The forest seemed to come alive. In different places young people, a female and mongrels responded to the old man's howl. Here all gathered in a heap and went, playing and jumping, behind the old man to the smothered calf. Another 20 steps - and dinner is ready.

But the experienced ear of the mother hears something ahead.

What is it? Could it be that a bachelor managed to sniff out a ready dinner? Not at all. This is the first Orelka who came to eat a free dinner. Sensing the approach of the wolves, she somehow screamed in a wrong way, either barking and rushing headlong from the heifer. One of the youngsters chased her, but unsuccessfully. The little dog managed to slip away. Without thinking too long, the wolves began to doze, and in the stillness of the night the only sound was a jerky snarl and a bump of bones.

After a quarter of an hour then only thing that left of a full calf were the gnawed head and legs. Then the brood went to the place where the wolf killed the colt. Soon there was nothing more left than from the heifer. In the east, the dawn flushed, the wolves started on their return trip. Coming to the den, the adults howled again and again the whole brood responded to it.

And so, day after day, the monotonous life of the brood was flowing, not perturbed by anything, except that some hunter with a stub would wander into the lair, looking for black grouses, and any wolf hunting shooting could violate his intentions (25).

Most of these family walks begin with the first of August, with the onset of light frosts, and gradually become more distant and prolonged. At the same time, the lucrative wolves are trained in various predatory tricks and little by little they begin to help the old wolves to choke the cattle. In September when the brood sometimes leaves its lair it may, occasionally return to it. Later it relocates to another, neighboring area - to the steppe, reeds or a forest pike. Soon it begins to live a more or less wandering life.

Let's summarize and say a few words about wolves in captivity. Caught cubs are soon tamed if they are taken very small, even better - blind.

However, it is very difficult to feed the blind, since a she-wolf lets the cubs come to her (26). The four weeks of the first days are pretty wild, grumbling and snarling, but then they also get used to the person who feeds them they become affectionate and attached to him. If he keeps them with him all time, they walk with him just like a dog, and learn it after a long absence (27). As it seems, females are tamed more easily than males. In general cubs of the same litter show a big difference, and while some flatter and lick their hands, others, on the contrary, try to hide in a dark corner. A greater or lesser degree of their savagery depends also on the food they are fed. If possible, avoid giving them raw meat, because it develops bloodthirstiness in them, which certainly can bring a lot of trouble, especially since sooner or later this bloodthirsty affects them so that six-month-old cubs start fighting with dogs. Exceptions are rare and are conditioned only by constant attentive care and supervision. As for wolves caught in the fall, although they can be taught to take bread from their hands, they are impossible to tame.

Notes on Chapter IV

- 1) Klimov ("Hunting in the Mogilev Gubernia." "The Western Free Economic Society", 1852) cites a very curious belief of the Mogilev peasants that lair will be there where if was the night before Egor (April 23). Around this time, most of the shewolves pregnant.
- 2) At the wolves' summer residence, see Cherkasova, 1. s, p. 155; Göbel, 1. s, p. 29; Rezantseva, 1. s, p. 53; Severtsova, 1. with; Kessler, 1. s, p. 38; Kushelevsky, 1. s, p. 60, and a friend. In the valleys of large rivers, flooded with water for a long time, only late broods are found.
- 3) Dmitriev-Mamonov denies this (1. p.) and says that the depression is formed after the legs; but this is hardly fair.
- 4) Holes occupied by wolves in the middle provinces are not very rare where there are a lot of badgers and foxes, and Dmitriev-Mamonov unfairly doubts this based upon that wolves are allegedly on the run until the time of giving birth tho the cubs. Such holes were seen in the Vladimirskaya Gubernia. (see Gavrilov's article in the Yearbook of the Vladimir Statistic Committee, 1876, p. 51), in the vicinity of Derpt (Middendorf, Sib. Fauna, II, p. 206), in the Chernigov Gubernia. ("J. Conn. And Oh.", 1843, No. 1, pp. 56-58). Dal (Literary Gazette, 1844, No. 9, p. 161) says (about the eastern provinces) that the wolf chooses pits or ravines, old burrows and caves for the nest so that water does not flood into it, and they often dig out decent burrows. Even in the Middle Urals, in the Kasli dacha, a few wolves use exclusively badger burrows.

In the foothills of the Urals, in the Yekaterinburg district, I myself found a hole (with a depth of less than 2 arshins) with cubs in the middle of a field that was surrounded by forest. The she-wolf had been disturbed and forced to such a strange action by the fact that the land in the forest thawed not so deep, as in the fields. In the steppes of Shadrinsky u. wolves b. h. dig themselves holes, up to 4 sazhens depth. This is more than doubtful, just as the wolves always arrange their burrows, as described by Mr. Gavrilov (1. c). He says precisely that (mainly in deep ravines) "a hole is pulled out by a depth more than a sazhen, a shape similar to an overturned cone. At the bottom of this pit, the she-wolf pulls out a hole, which runs horizontally in the ground, round, a quarter of a half in diameter, and a length of a half. The fact that steppe wolves are constantly rushing in burrows say: Cherkasov (1. s, p. 156), it is in Transbaikalia mainly in Tarbaganyh, i.e., marsh, burrows that the wolf makes more spaciously); Kohl ("Reise", III, 8. 120), according to which, they tear out them themselves. In the burrows on the tundra wolf there is an indication only of Kushelevsky (1. s).

- 5) Most of the wolves occupy old burrows, but sometimes they are expelled by their owners, who, in this case, often are taken as prey to new tenants, sometimes with the whole family. Gr. AT in his note "The Wolves' Reception" ("The Horse and Hunting", 1843, No. 1, pp. 56-58) tells, however, that in 1839 in the Mllinsk district of the Chernigov government 6 wolves were dragged from the hole and together with them one fox, a little older and almost the same height. All 7 crawled near the dead she-wolf. All signs indicated that the hole originally belonged to a fox.
- 6) However, the lair (especially the burrow) is sometimes littered. Cherkasov (1. s, p. 156) says that, at least, the she-wolf in her nest is dragging a lot of moss, grass, and wool. See also Simashko, 1. s, II, p. 487; Léverrier de la Conterie, 1. c, p. 274; "Help, chasseur. book ", p. 57 and" Karm. book for gamekeepers and poultry. ", p. 46.
- 7) Most zoologists and hunters agree about this term. It is Kessler (1. s, p. 33) who takes it from 9 to 11 weeks; 11 weeks Simashko (1. s, II, p. 467); 70-75 days Lvov (1.s); 75-80 days Dmitriev-Mamonov (1.s). The nine-week period indicated by Kessler (1.s), and the 62-day period adopted by the compiler of the article "The Wolf and the Wolf hunting" in "J. Conn. and hunting ", 1862 (No. 3, page 88), however, is too insignificant, since large breeds of dogs are worn for up to 10 weeks. Leeverner de la Coletene (1. c, 274) also says that wolves wear the same amount of time as dogs: according to Dietrich (1.s, 8. 322) 12 weeks. Levshin takes a 13-week and even more than a one-hundred-day period (1. sec, II, pp. 25-100 days), Pat-funder ("Jaeger notes", part I, page 84 3½ months), author " (P. 57 the same), Blazius ("Säugethiere", 8. 183-13 weeks), author of "Karm, books for gamekeepers and poultry" (p. 46 3 months with little), Göbel ("Algemeine Forst- und Jagd Zeitung", 1. p. slightly more than 100 days), Brem (1. pp. 13-14 weeks).

8) It is obvious without saying that the more a wolf is persecuted in a given locality, the less frequent are the occurrences of large litters. G. Lvov (1. p.) says that he never met more than 5 in the brood, and only two times flogged 7 embryos.

Dmitriev-Mamonov (1. p.) says that he did not see more than 6 cubs. The same with Dahl (1.s), Simashko (1.c.), and Levenner de la Coletene (1.c, 274) - take 3-7; Cherkasov (1. p.) and author of "Karm, books for rangers and poultry" (p. 46) - 3-6; Vavilov ("Hunting in Russia", III, 100) - from 3 to 9, usually 4-6; in the "Help, Jaegersk. book "- 5-8, rarely 9 (page 57); Levshin (1.s, II, 28) - 5-6, sometimes 7 and 8, even 9, but never less than 3; Dietrich ("Hahn., 1.auger", 1.322) and Kessler (1 p.) - 4-9; Rezantsev (1. p.) - 5-10. In the Urals, Yaroslavl and Moscow Government we found mostly 5 cubs, often less than 6 and only once 8 (in March, 3 of them were frozen); However, the famous Kasli industrialist (in Yekaterinburg, Perm Region) Lev Novgorodtsev told me that he cut 9 embryos once, and another time even 13. In such large litters all the cubs could remain alive, but some died soon after their birth. However, Baron Nolde found eleven cubs in one nest ("Auers der lager-Pratens," I, 20-30), the Dryian (I. s, p. 173) and Mr. Valevsky (Lazarevsky, 1. s, p. 18, callout); Mr. Shumovsky once found 12 puppies (in Lozarevsky, 1.s) in the Kozelsky u. Kaluga Government. But all these are exceptional cases, like 12-15, even 17 puppies (Lvov, 1.s.).

- 9) Young wolves give birth to 4, sometimes only 3 puppies. Balovensky (1. s.) brought for the first time proof of that the older the she-wolf is (of course, up to certain limits), the more fruitful is it. Chisians consistently found first 9, on the second 10, and on the third year-11 puppies.
- 10) G. Lazarevsky, denying the help of the male, in his original calculations of the number of wolves in Russia (1. s, p. 23) he uses on an average 7 pups and falls into an obvious contradiction. Can a she-wolf feed so many (and more) wolf cubs without the participation of the male wolf, when a more domesticated dog cannot do this and, moreover, with ready-made meals.
- 11) Such a case is known to us in the Urals, when in March three frozen wolf cubs out of eight were found. It's clear, without the participation of the male, all the early litters would have been deceased.
- 12) In all the broods we only recorded (and), the preponderance was on the side of the males. Once out of 6 wolf cubs there was only one female. Cherkasov (1. s, 158) and Dietrich (1. c, I, 8. 322) come to the same conclusion. In other books and articles known to us, nothing is said about the relation of the sexes, and only Mr. Lazarevsky accepts in his calculations an absolutely unqualified number of males ("Zh.", 1876, December, appendix, see also Novoye Vremya 1877 of the year).

- 13) According to others, the cubs start seeing after 9-14 days (see Vavilov, 1. s, p. 100; Lazarevsky, 1.c., P. 18, Olexandria, I, 323). According to Göbel (1.s), they are blind for 14 days, and according to Dmitriev-Mamonov, only 10 (1.s).
- 14) This wolf cannot, due to the distance to the nest cannot bring to the lair very large prey. Prokudin-Gorsky ("The Wolf Concert" "The Moscow Society of Public Hunting", 1870, No. 8, p. 14) says that in this case the wolf swallows large pieces, which cannot be digested in the womb. "With such a stock of food, the wolf quietly goes to the nest and at times lets the cubs know that she is close.

The cubs, hearing her voice, immediately raise a terrible howling and bickering, and as soon as the she-wolf appears in their midst, the cubs rush to her. If the mother does not bring a whole piece, but only a pieces of lamb in her belly, she starts to regurgitate swallowed pieces, which are instantly destroyed with greed by the cubs trying to pick up pieces on the fly and often such a squabble rises that "the wool flies in tatters." It is also known that a newly wounded wolf, pursued by dogs, eats out the swallowed food with vomiting.

- 15) See Dmitrieva-Mamonova, 1. p. All authors agree about the 5-6 week milking period, and only Cherkasov (1. s, p. 156) says that the mother feeds them for 2 weeks. In the Yekaterinburg county, trappers usually assume that they suck up to Elijah day (June 20) but this is true only for the latest litters.
- 16) See Prokudin-Gorsky, Wenceslas, Klimov and a friend. According to Smith, wolves punish their children when they scream in pain, bite, beat them, drag them by the tail until they are taught (Simashko, p. 487). Of course, this accustomization to pain is perfect nonsense.
- 17) Of course, at this time the cubs are still so small that they are physically unable to step on the trail of the elderly wolves, as, however, Mr. Lazarevsk believes (I, p. 15). This habit is subsequently acquired, probably due to the lack of snow, in the summer, when wolves dos not go in the trail, because there is no need to do so. If they goes between the watering place and the lairs using trails, then this habit is guided by the same motives that force a person to follow a trail.
- 18) Many researchers write about how the wolves protect their cubs. So, for example, Dmitriev-Mamonov says that one day the she-wolf went into battle with a whole pack of hounds and rushed at people who came to rescue the dogs (1.s). Cherkasov (1, p. 159, 161) tells in detail how the she-wolf first led people away from the hole and when they began smoking cubs out, the she-wolf quietly ran up to the hole and, despite the misfire (made by Cherkasov), ran up down to one of the diggers and tried to grab him,

but he grabbed the she-wolf by the ears. The she-wolf, breaking free, ran with a howl from the nest. After all the cubs had been harvested from the burrow, the she-wolf appeared again at a distance of 200 from the hunters, not alone, but with another wolf. They both sat side by side on the slope of a mountain and started a piercing, soul-rending duo. The she-wolf and the male wolf came all the way to the very outskirts of the village running almost on the heels of the hunters. Sometimes even the male protects his cubs (Cherkasov, 1. s, p. 158), but this is an exceptional case. Usually he takes hunters away from the nest, and later, in the autumn, often tries to approach the dogs and leads them not far away from the brood. Here he acts different from the single wolves, who always take dogs far away (see Shumovsky in Lazarevsky's pamphlet, p. 18). In general, not every wolf protects its puppies, even if they are very small, and therefore many hunters deny this protection.

- 19) Even those authors who deny the wolf's mating and believe that the she-wolf does not leave the nest for the first time out of fear assuming that the male helps the she-wolf (see Gobel, Simashko , Levenner de la Coletene). Why does the male wolf not help the she-wolf during the first days when she can hardly do without this help. The cubs, of course, maybe eaten by bachelors or wolves from another brood.
- 20) See "J. konoz. and hunting ", 1847, No. 7, pp. 754-755," On the Love of Wolves for their Children".
- 21) Rezantsev says (1. s, p. 53) that yearlings join the brood later. Strokovsky ("The Wolves in Polesye" "The Newspaper of Forests and Hunting", 1859) states that there are 1-2 pestoons in the brood that protect the young cubs. They never go to the prey with the old ones and if they misbehave then they gnaw the young. The Dryyan (1. s, 84-85) speaks of the yearlings as rods and mentions the old male that went hunting together with yearlings. We met yearlings that differed in smaller growth, close to the brood of newly sighted wolf cubs.
- 22) See Rezantseva, 1. p., P. 54. These bachelors wandered alone or several together. In the latter case, they were mostly part of the yearlings that separated from old ones.
- 23) All authors agree. Kushelevsky (1. p.) also says that deer safely graze near the hole itself. However, if the lair is in a very firm place, in an inaccessible and large swamp, then wolves often attack the nearby villages in early summer. In general, the range of wolf raids depends more or less on the safety of the den.
- 24) About the wolf's revenge and the probability of rabies, we will speak further, in the second part (in the chapter on howling wolves).
- 25) See Rezantsev, 1. s., Pp. 54-56.

- 26) Once we managed, however, to allow 3 weeks old cubs to suck a pointer, who showed no resistance.
- 27) Read the well-known story of Cuvier, cited in all popular works. The same is the case published in the Swedish journal of hunters and naturalists, mentioned in Vavilov's book ("Hunting in Russia", issue III, p. 101), etc. In general, the life of a wolf in captivity could be used to say much more than our own observations, since we have in mind the life of a wolf in freedom and the domestication of it has an indirect significance only in the types of observation of his breeding with dogs and the improvement of some hunting breeds. We leave these omens to a more convenient case.



CHAPTER 5 - WOLVES' FOOD

The gluttony of a wolf. - Ways of attack: stealth and harassment. - The wolves' food by the seasons. - Animals harmful and not eaten. - Feathered game. "Fourfooted game." - Livestock and pets: poultry, dogs, goats, pigs, sheep, deer, cattle and horses

It was noted above that a wolf, while earning himself food at the cost of a constant movement, must consume it in huge quantities. Indeed, no other predatory beast can make such large transitions, and the wolfish appetite, being the necessary consequence of this, makes the wolf the most harmful and dangerous predator.

However, the gluttony of the wolf, the insatiability of the wolf's womb is in most cases extremely exaggerated. Of course, a wolf can eat a small calf, a wild goat or a sheep, but this does not mean that he is able eat these which are approximately equal in weight, without residue and that he was able to devour that amount of pure meat every day

and all times around the year. This is physically impossible, since despite all its elasticity the wolf's stomach cannot contain a whole sheep or digest such a mass of food in a short time. The quantity of food consumed by a wolf depends on the time of the year. In the summer, when a wolf leads an almost sedentary life, when prey - whether it is game or domestic livestock - approaches him easier, so to say, is at his fingertips, thus making him less gluttonous. It is another matter - early spring, late autumn and winter, when the struggle for existence is very hard and when the food he earns through the long search or chase, however, is not to be found every day. The wolf, of course, can easily consume up to four times its normal portion, but these happy days are rarely given to him thus it might be forced to starve for days, sometimes for a week or even more.

As is known, the wolf's food consists exclusively of animals and birds, most of them live. Carrion does not be of importance as many attribute to it, and carrion is only its accidental prey. Of the vertebrates mentioned above, the wolf gives a clear preference to large animals, which is a sharp contrast to the fox, feeding mainly rodents and feathered game. This preference is determined not only by the size of the predator and its voracity, but also by the fact that the wolf, as has been seen, does not have the faintest flair of a fox that reveals to it both the mouse hiding in the snow and the bird sitting on the ground, when stalking prey. The wolf, in seeking food for himself, is guided chiefly by hearing and then takes it by brute power and most of all counts on its strong teeth. True, he goes always hunting against the wind, that is, towards him, but nevertheless it is again done not because then he smells better with his nose, but because he can hear every suspicious rustle. To see this, it is only worthwhile to see the fox and wolf walking calmly and compare them. Meanwhile, as the fox continually leads its sharp little muzzle and raises it upward, the wolf, on the contrary, constantly keeps his head on one side and down, guarding one ear forward, and the other backwards.

It is clear that the wolf relies on its sensitivity much more than its instinct, and under such conditions it is incomparably more difficult for him to open a hiding petty animal or a bird sitting motionless on the ground, and both can not always be his food, but make up the casual, temporary and, at the most, local prey of the wolf.

In addition to the fact that the wolf has neither the dexterity, nor the agility in movements, nor the dexterity necessary for the yield of small animals, because its organism, so to speak, is fully adapted to attacking large animals, and the wolf does not need to resort to various kinds of tricks to which, for instance, the lynx and the wolverine resort on while hiding and awaiting their prey. The wolf, for the most part, acts by brute power and relatively rarely sneaks on the intended victim. This happens only when the wolf attacks its prey alone and, moreover, an animal that is able to give him a rebuff or to flee. But, as is known, raids by solitary wolves happen only at the end

of spring and in summer, but for most of the year wolves act together in packs, that is in families, which obviously cannot promote the development of mental abilities and cunning, required in different ways when sneaking on prey to obtain food.

The concealment of booty, which is rarely seen by a wolf, is misunderstood by some as a way of misleading the victim. So they say that the wolf often tries to deceive an inexperienced dog or a foal by skating and wagging its tail and generally trying to portray himself as the innocent and playful dog. But these tricks are known only by hearsay, and stories about them are repeated from the words of the shepherds. They have not been tested by any hunters and zoologists and are therefore are very doubtful. The conclusion about wolves' cunning is probably derived from what often is seen when he is lurking in the grass and waiting for a convenient moment to attack or crawl towards the prey. Why should he do all these things, when he can wait with less risk, crawl closer or directly throw himself at the intended victim? Likewise, it is very doubtful to lure village dogs in the winter. It happens, they say, in such a way that some of the wolves remain in the ambush, while one or a couple of them goes towards the village, trying to attract the attention of the dogs and then, having lashed the tail, run away. Only some bold little dog will run too far from its dwelling and the whole pack will rush at it and tear it into pieces.

But this way of acting, as it seems to us, does not give us any more reason to suppose there is any knowledge of tactics and in the wolves' brain but it can be explained much easier. From what earlier is said, it is known that in the winter wolves go in packs consisting of two old wolves, a couple of adults and the yearlings. It is obvious that young wolves are too weak and coward to strongly repel large dogs. So they do not take any risks and instead give it to old wolves who are able to fight off the dogs of the whole village. Of course, wolves are applied to the circumstances that without encountering resistance, they drag the dog that has come across and run with it to the outskirts. If the forces are unequal, then they don't due to their innate cowardice, especially in the presence of a person, engage in battle but prefer fleeing. It is not surprising if some inexperienced or overly lively dog will try to catch a fugitive and then becomes a prey to himself for the hungry wolf family waiting for the outcome of the expedition.

Much more often wolves directly pursue their prey. This is the most usual method to which they resort when they obtain large animals and even hares. Attacking a herd of cows, horses, deer, or wild goats, wolves primarily try to approach the herd after wind as close as possible, then suddenly rush into one or more animals and, after discouraging them from the herd, chase their prey, until they finally break out of strength or weaken from the loss of blood. There are no observations of any kind of plans for a proper attack by the wolves, no ambushes and shifts where tired wolves are replaced by fresh wolves. The wolf pack consists of individuals from two or three different

generations. Therefore, both strength and speed are different, so they cannot hunt so amicably as, for example, a well-trained flock of hounds. The old wolves run ahead of the pack, especially in the rugged areas. Wolves rarely have the opportunity to chase their prey straight forward but most of the time they are forced to circle in the same area. Thus, it is obvious that the rear wolves, as always, by hearing and seeing, may be the closest, straining all their strengths and crossing the fugitives road and, if they do not have time to stop it, they can force it to turn the other way where the other wolves repeat the same maneuver.

The main reason for wolves hunting in a flock is not because of the helplessness of the young wolves, as in the fact that the wolves chase their prey. This is not noticed by our other predators who hunt quite independently of each other. Therefore, it is necessary for the individual wolves to save their forces. This is reached by hunting in packs, since in a pack every wolf has, of course, to run through a space smaller than that of the pursued animal.

So, wolves attack large animals directly rather than sneaking up to them. First of all they try to bite through the throat of their victim. If they do not succeed at once, they will weaken it by chasing while biting whole pieces of meat from its hind legs. The wounds inflicted on the prey animals are very deep and difficult to heal, so the expression "the wolf cuts" is completely thorough. Small animals, starting with a small dog, wolves usually grab at the ridge and kill them by striking them to the ground, i.e. breaking the vertebral ridge. With birds, they bite through the throat, doing this completely instinctively even when these animals already are killed by them or found dead. There is a rumor saying that strangling is the favorite method used by wolves, and that the wolf is also very fond of the sounds of large (injured) animals, but it is difficult to expect such a clarity of taste. It is clear that he ate soft parts first, and then he takes up bones, sometimes also the skin.

However, he eats the skin only under extreme circumstances, more in the winter. With abundant food in late summer and early autumn, he usually rips it more or less accurately.

Although the wolf feeds mainly on large mammals, it does not give mercy and takes everything it meets. Except for the living, as is known, he eats dead animals, sometimes when lacking livestock he feeds carrion only which, of course, brings unquestionable benefit (1). He does not even disdain vegetarian food, but he does not eat grass, unless instinctively, in the form of medicine, as dogs do. Before berries and fruits (2) he is a great hunter and enjoys them in summer and autumn, despite there is no shortage of meat food.

We see, therefore, that the wolf's food is extremely diverse. The variety depends on the conditions of the terrain and the time of the year. In most cases, one kind of prey is replaced by another in the following order: from early spring, just pasture of cattle in meadows, in March (in the south) and early May (in the north) wolves having starved during the winter, foals and young cattle in particular suffer from them. Later when the cattle are already beginning to graze in pairs on pastures, wolves are content with young rabbits (in places - wild goats and pigs), birds nesting on the ground and their eggs, domestic geese, if they feed far away from housing, mice, even reptiles and amphibians.

At this time, they rarely attack cattle not so much because they are afraid to reveal their dens. but because it is not so convenient to hunt as before. In addition, they do not have the same lack of food, so in summer they are afraid to attack animals capable of inflicting even causing minor injuries on them. For this last reason they do not touch the dogs. Thus, in May (part of) and throughout June the presence of wolves is almost imperceptible. Occasionally they will tear down some sheep. But the bunnies, feathered game and birds in general, nesting on the ground in the vicinity of the den, will have their populations considerably reduced. Later, the wolves being unable to satisfy the needs of both their own stomach and the stomachs of their offspring, are forced to feed exclusively livestock, so that from the middle or end of July to October or November, they are the most harmful to herds. In winter, livestock, except for those areas where pasture is available around the year, is rarely attacked by wolves, which at this difficult time begin to feed on dogs. They also catch foxes, hares, wild goats, attack wild boars, moose, even bear, although not always successfully. Occasionally they catch game, namely black grouses, partridges at their overnight stays, but, as we shall see below, wolves are much less dangerous for fowl than foxes are.

Turning now to a detailed enumeration of all the animals serving the prey of the wolf, we will also consider the most interesting ways of both attacking the wolves, as well as protecting the victims, mainly domestic animals. For convenience, we divide all animals into four categories, according to the degree of importance they are to humans. At first we identify animals less harmful to humans and not eaten, to the second - feathered game, the third - game four-legged and, finally, the fourth - domestic animals, which we will pay the main attention.

Animals not eaten by humans

The number of animals of this first category is much more significant than is commonly thought. This includes various reptiles, frogs, all nesting birds and birds of prey (3), most of the rodents and some predatory animals. The latter become prey to wolves only in the winter and in the spring, but in the autumn and summer wolves do

not dare attacking them, fearing to be wounded, and at the same time they have an excess in food. On the contrary, reptiles (4) and various small rodents make up places, mainly in the steppes, where they are especially numerous, more or less important, to the summer food of wolves and are caught by them incessantly. Lizards, mice, ground squirrels, hamsters and pikas (8) very often serve as the main summer prey for the steppe wolf.

In the tundra, wolves exterminate a huge number of variegated voles (9) and during the years of the migration of these animals, caused by their excessive reproduction, wolves follow them over great distances and feed exclusively on them (5).

Of the predatory beasts the fox is easiest to reach, for which the wolf is the most important enemy everywhere. This is proved by direct observations of many hunters and zoologists and, moreover, indirectly - by the reduction of foxes in the last twenty years and by the complete absence of them in those areas where wolves are numerous (6). In the tundra, in addition to foxes, wolves devour a lot of arctic foxes, in the steppes - corsac fox (*Vulpes corsac*), ferrets (*Mustela putorius furo*), stoats (*Mustela erminea*). Badgers (*Meles meles*), are also often eaten by them, despite their stubborn resistance. There are several cases of wolf packs' attacks on bear (7), but wolves are forced to such an unequal struggle only by extreme hunger. By extermination of all these animals, the wolf, of course, does not harm a person, but rather benefit humans by the destruction of epizootic diseases carried by these animals. But this drop is completely lost in the sea of harm caused to them.

Feathered game

The wolf brings us significant harm by the destruction of game, and there is no doubt that:

Russia would be much richer with various wild animals if it did not have so many wolves.

However, the significance of this harm in relation to game birds is rather exaggerated and it was still misunderstood (8). The fact is that feathered game cannot have such a dangerous enemy in the wolf as it has in a fox, which with its subtle instinct, dexterity and skill is incomparably more harmful than a wolf. Especially since a fox can catch birds at any time of the year, even in winter. In addition, it is more numerous than the wolf and has a much more extensive distribution, since it is equally found in both open and in wooded areas (9). The wolf, not having the above properties, is forced to feed on game and generally birds found in the nests or fledgling young birds in spring and in the beginning of summer. In autumn, the bird is almost inaccessible to him, and he

does not need it. In the winter it becomes so rare that it requires very long searches, which are extremely difficult for a wolf due to the friability and depth of snow (10).

In most of the middle and steppe provinces, where the number of nesting game birds is relatively insignificant, this kind of food serve the wolf only as an insignificant help in the summer.

In places where this game is still abundant, the wolf causes terrible devastation and exterminates a lot of eggs as well as nestlings and molting birds, but again, this lasts only a few months. In the tundra and along the shores of the Arctic Sea, wolves attack white partridge and many different breeds of especially water-birds, mostly geese and seagulls, which nest here in huge colonies. However, these seagulls are not used for food by human and should more correctly belong to the first category. Eggs of water and swamp game are exterminated by predators in huge numbers also along the shores of large lakes and seas of the Caspian and Aral. In the forest zone, that is, in areas where feathered game has the most important commercial significance, there are no wolves, or they are very rare (11).

Four-legged game

Of course, if we count the number of game that the wolf exterminates individually, then the odds will certainly be on the birds' side. If we count it as poods (one pood = 16.3807 kg), then the predominance will be on the beasts' side and indeed, the reproduction of the wolf affects mostly feathered game, but decreases wild animals. This is understandable, firstly, because the four-legged game is available almost any time of the year, and secondly, it gives wolves more nutritive material. As a consequence, the distribution of wolves in Eastern Siberia is closely related to the distribution of wild goats and reindeer, but is nowhere determined by the distribution of birds.

Starting with the hare (12) and ending with the elk and the bison, all the animals are cruelly pursued by the wolf, and neither speed nor strength can save them from the teeth of the predator. In the middle and southern part of European Russia wolves exterminate hares. In the South-West Russia roe deer (13) and wild boar (14), in the mountains of Siberia and the Turkestan region - even wild sheep and musk-ox populations (15), and in the steppes of Central Asia - the Saiga antelope and generally various other antelopes (16).

Domestic animals

But all animals of these three categories - animals that are harmful and not eaten, feathered and four-legged game - in no way constitute the main food of the wolf and have only local significance or are hunted by the wolf in the summer season. In East-

ern Siberia, there are still areas where wolves feed exclusively on wild animals and it is even afraid of attacking unknown cattle and horses. In European Russia there is hardly a "happy corner" where the main part of the predation counted by weight would not be domestic animals. Knowing the manners of a predator and having before his eyes eloquently speaking figures of livestock that he destroyed, there is no doubt that the existence of a wolf is determined in European Russia not by wild, but mainly domestic animals, beginning with the goose and ending with the horse.

In any case, this harm is more tangible and sensitive, and for us the wolf does not matter as a game fighter, in which he meets many rivals, but as the main, often the only enemy of those animals that either deliver us the main food, or serve as the main working power. On this basis, we consider ourselves fully entitled to dwell in greater detail on this most important department of animals that serve as the prey for the wolf.

Of domestic poultry, only geese are attacked predator. This is understandable, since chickens and turkeys are constantly in the village itself, but ducks keep closer to the water, where the they are convenient. But geese, large herds of which almost half a year is grazing in the meadows, sometimes without any supervision or under the supervision of a boy or girl, and often away from villages, in flooded meadows, near lakes. These geese are exterminated by wolves in a huge amount, which reach up to hundreds of thousands. Wolves kidnap them not only at night but also in broad daylight and as well youngsters as older wolves participate in the extermination. If the gees were not able to use their wings to escape, it would not be possible neither in European Russia nor other similar countries keep this very beneficial poultry in farms. Usually a wolf do not attack geese directly, but creep towards the geese from behind the bushes and rushes into the herd. It is worth noticing that where there are a lot of geese, that is where the villages are located near large meadows, these birds make up wolves' main food supply in the summer.

Wolves' most important winter food, especially in populated areas, are dogs that in their importance for humans and for the insignificant value represented by them in the majority of cases occupy the last place among the four-legged ones (17). How many dogs perish in European Russia, it is not known for certain, since when collecting information of this kind, they were also almost completely overlooked, like geese.

In any case, the amount dogs killed by wolves should be very high.

There are many localities in which there are very mongrels in the spring, and it is not uncommon to find such settlements where you should not keep them. In general, the smaller the village is, the less dogs are in it and the more boldly wolves attack them. It

happens, however, that wolves run to cities in winter and drag dogs, but such boldness is caused by extreme hunger.

Usually near a large village, wolves lie and wait for dogs to leave the carrion. However, near their homes or when they follow their master in the villages, wolves, as said earlier, seeing the inequality of forces, avoid direct attacks and are content with the fact that they sometimes manage to catch a bold little dog and carry it away. Such raids are usually made at night, when they have nothing to fear from humans that they are most afraid of. The wolf catches mongrels in the same way as the greyhound, and if the unfortunate little dog does not succeed in slipping into the nearest gateway, then inevitable death awaits her. The wolf instantly grabs her by the collar and strikes back without looking back. However, an agile little dog is not immediately caught by the predator, but he catches it with a few hijacks. Few dogs can stand up for themselves in this struggle, especially since they have to deal more with mothers. The old wolves rarely take part in this hunt, except outside the village.

In total, the captured hounds and greyhounds are better defended. Here the wolf sometimes gets into bad trouble and he only has to think about saving his own skin. However, there were examples that strong and large mongrels with a bold and amicable onslaught not only drove away the robbers and the young wolves, but bit them to death. The old wolf easily fights off a whole pack, and therefore, hoping for his strength, he dares to do reconnaissance in such villages where he has very little chance of successful hunting.

Of all kinds of livestock, no one tolerates so little from the wolf as goats do. They are very rarely caught by wolves not because they are small in number and almost never scattered, but because they are much more agile than sheep and cows and having sensed the danger or especially when they see their enemy, they immediately flee. The wolf rarely pursues goats, as they are both fast and dodgy, and catch them requires greater efforts than other sheep and pigs.

Pigs, however, are far from defenseless. At the sight of the wolf, they immediately raise a terrible screech and grunt, gather in one or several heaps. Pigs are hiding in the middle between their legs and, turning their snouts in the direction of danger, often repel attacks, even bite single wolves. There were examples that the pig defended its offspring, and large boars sometimes successfully repel several wolves, even rush them and inflict fierce wounds on their fangs. In any case, the wolf has a lot of trouble with older boars, since it cannot catch and immediately crush a large and powerful animal, and for the screeching squeal of the victim, all the pigs of the herd immediately attack to the rescue - and the predator has to retire.

Therefore, in the summer, wolves, for the most part, are limited to dragging pigs from the herd, crawling to them with great care and against the wind. Only in the autumn, when they go to the prey with whole packs, they become bolder, and while the mothers deal with older pigs, wolves usually catch young ones (18).

Incredibly easier is it for a wolf to catch sheep. No animal behaves so stupidly when in danger, none gives it so little resistance. Protection of a sheep herd is only depen ding on the courage of the shepherd and strong dogs, and since this happens far from everywhere, it is not surprising that wolves cut sheep by dozens and generally prefer them to any other prey. You can even say that more sheep are killed by wolves than all other cattle taken together. Here, more than anywhere, the sheep show their excessive stupidity. As soon as the wolf that has crept up and rushes towards the nearest lamb or sheep, the rest who noticed it rush headlong to one side, but no more than two or three hundred paces. Then they stop, huddle together, crowd themselves into a pile. Turning their heads in the direction of danger, they just stamp their feet. It even happens that the flock, instead of fleeing from the wolf, rushes after him. The wolf uses this, drops his burden, which jumps around as if bewitched, while the wolf manages to kill several more sheep. In the autumn, wolf packs attack from different directions almost simultaneously, and at that time dogs and shepherds are irrigated in one direction, following one kidnapper, forcing him to throw his victim and flee, while others produce terrible devastation in the camp. In such cases, wolves always bite throats or inflict heavy wounds on sheep in a single attack. Namely: the wolf grabs the sheep by the scruff, throws it on its back and holding it with its teeth, runs to the nearest edge where it is already relatively safe. Small lambs, he easily carries in his teeth like a dog. Hiding out of sight and not hearing the pursuit behind him, the wolf usually bites the throat of the victim, deftly rips off her skin and having eaten enough drags the leftovers to the den. If the den is close, then especially the she-wolf drops her burden, slightly grasps the lamb with her teeth by the side near the throat and drags it forward. The stupid animal shows no resistance at all (19).

Almost equally defenseless is the reindeer. The wild reindeer sometimes seem to be defending themselves with their front legs and fighting off single wolves while they are looking for salvation in a hasty flight, but the tame ones do not even escape to the last resort, and when attacked by a whole pack from only different sides they crowd themselves - in a word, behave like sheep.

However, in the summer wolves cause little damage to reindeer herders partly because they are well fed and partly for the reason that they cannot catch up a fast-moving animal. But in the winter, when hungry wolves are trotting in the tundra in large packs, there are not nights without an attack from the wolves, and it happens that they cut a reindeer in tens, even hundreds.

Behind every large herd of reindeer, there are several separate wolf packs that in the daytime keep at a considerable distance from the herd, and at night wait for a convenient opportunity to attack.

It is worth the shoal of deer separated by the mistake of shepherds and guard dogs, to fight themselves back to the main flock, as wolves immediately rush at them from two or three different sides. Scared deer crowd and climb on each other, and wolves meanwhile do not yawn but instead using the confusion, separate them one by one. Then, when the deer finally flee in different directions, they pursue the fugitives and, with the help of other wolves coming to their help, they destroy the whole herd. Few rescued reindeer rarely return to their herd and sooner or later they are caught by predators. Such massacres usually occur during a blizzard. Being alone or two together, wolves attack only one deer from a whole herd.

Kushelevsky says that they never seem to take the first from the line, but always choose a victim from the middle and bypassing those deer that come near the selected victim and chase it in the herd until they catch it. A wounded deer is repulsed by others as if they this way could avoid death from wolf teeth on one of the following nights. This is very likely, since the wolf senses the smell of blood, and with a wounded animal, it can cope much more quickly than with a healthy one.

Cattle is much more difficult to catch by the wolves than sheep and deer, because cattle often gives wolves a strong rebuff and even kills them with their horns. Therefore, in the autumn a whole wolf pack attack cows rather than single wolves. Alone, they may creep to individuals who have strayed from the herd, mostly young ones. While crawling on the ground and lying motionless for a long time, waiting for the cattle to come even closer. Then crawl again in the same way and, having crept up close enough, suddenly rush to the throat. The cow, hearing the plaintive mumbling of her calf, rushes to the voice, lowers her head and tries to run her horns into the predator. Sometimes she hits the wolf under the belly. For this reason, if she is nearby, the wolf does not dare to attack the calf but instead rushes on her.

However, it seems that the semi-wild cows living on the steppe seem to dare to join a fight with wolves while ordinary peasants, especially after the winter fodder, are not able to defend themselves. Sensing or seeing a wolf pack, the herd gathers with a roar and mooing into one or more heaps with their heads outwards and putting out their horns. They take a defensive position without making an attack. All the efforts of the wolf pack is then focused on driving away one animal before the arrival of the shepherds. Having succeeded in this, the wolves pursue the victim grabbing it by the side, by the udder, by the tail, and when the cow or bull weakens from the loss of blood

and falls to the ground, one of the old wolves gnaws through the throat, and the others are already letting out the intestines of the still living victim. In exactly the same way, wolves attack the bison of the Belovezhskaya Pushcha, only with much smaller chance of success and with greater losses, since the bison is not only protecting himself by horns, but one blow with the foot often kills the predator that has stuck to it.

Yet attacks on the herd of bison remain unsuccessful, as the bison square works with horns like a good infantry bayonets, and after such a massacre there are always a few corpses of dead wolves (20).

Wolf attacks on horses and protection of the latter are described by Kohl in his "Journey through Southern Russia". With the exception of those places where the author speaks of how the wolf pretends to be an innocent dog, this description is quite close to the truth and requires only a few additions, and therefore we will quote it here in its entirety.

In the spring, the steppe wakes up and the greatest pleasures come for the steppe herds. Along with pleasures and joys the spring's happy time also brings a lot of grief and suffering to the horses. In April and May, the wolves who fed themselves on winter fodder, feel a particularly strong desire to eat meat from young foals, especially since they prefer the lambs and calves, and fierce battles between wolves and horses are fired up. These battles are of much interest here since in all their power, the cunning and hungry greed of wolves and the gallant courage of horses are manifested.

Wolves, being the weakest party, are naturally guided by cunning in their advancing actions and are approaching the horses in an indirect way. The horses, like the besieged, rely on mutual assistance in their defense and thus act as a mass, all together. As a result, wolves develop extraordinary sneakiness and briskness, and horses have the noble spirit of their herd, which in most cases saves them and their foals.

Although the wolves might have attacked the horses several times in broad daylight, there were no such examples, no matter how much hunger tormented them. They would never dare venture into such a dangerous enterprise, knowing in advance that they would not be able to escape from such a fight and that the horses would trample them like grass. Night is another thing if the circumstances are favorable, that is, if, for example, the wolf pack is very numerous, and that part of the herd on which the raid is planned is rather weak, then the wolves attack the herd and the battle begins. It occurs in the following way: the horses being first attacked or sensed the approach of wolves or saw the glittering wolf eyes that were enchanted in the steppe before others, echoed their ears, began to snort, and then uttered special piercing sounds through the nostrils. "Sounds far on the steppe and all horses close to come running towards

the signal: stallions, geldings, mares - during the wolf danger there is no difference between the sexes, and treat is equally encouraging all - and amicably puts pressure on the wolves. "Wolves are frightened by the first fierce onslaught but the alarm in the herd does not stop. The horses never escape in different directions, but jump madly from all sides to the place of attack and gather in a heap, the rams call their foals, the foals jump awkwardly behind the mares and they all seek protection by hiding in the dense mass of closely crowded horses. If the wolves are numerous, if in addition they are hungry too, to they do not retreat completely, but move slowly from one side to the other. Sometimes they manage to grab a colt, if any mare not knowing where the danger is, and hurrying to hide in the herd with her baby, will run too close to the wolves. The unfortunate mother rushes out of despair towards the flock trying to save her dying child, but in vain. Two or three hungry mouths grasp their teeth in the throat, and she falls on the grass. Now the horses no longer yawn. Mares and geldings form a circle, in the middle of which all the foals gather. The horses that form the circle never stand still, resting front legs on the ground and lifting the rear ones, as it is depicted in many paintings. If they stood so still, then the wolves would be very fortunate, because they would be able to protect themselves from the horses' hind legs, and the worst that would await them in such a case is the disappointment, that is, they would only have to empty their heads from the thought of the delicious meat of young foals.

In fact, it is much more expensive for them to continue with their fun. Horses are not only concentrated on defense alone, but also on breaking up the enemy. They are moving the whole phalanx towards the enemy so that many wolves might have to close their brilliant eyes forever. Stallions in the circle do not enter, they remain free and, snorting, shaking the mane, raising their tails, racing madly around the herd, portraying themselves generals, flag-bearers and trumpeters. Having seen a crawling wolf in the grass, they rush at him chest by chest and kill him with their front legs.

Concerning this method, we also seem to have a false opinion that horses have all the strength in their hind legs. This is completely wrong. On the contrary, when attacking, they always start up the front legs, and they use the rear legs only in case of defense. Even as it already was noticed, they do not leave their teeth inactive, and it is not known yet whether the thousand-toothed Rhodian dragon rushed with such fury at its victims, with which the herd's stallions rushes at the wolf. Sometimes the stallion inflicts the first and last blow with the front hooves from one time. Sometimes he will only stun wolf with a blow of his feet and then grab it by the neck without ceremony and throw it to the mares, which beat the wolf's skin so that there is not the slightest speck of dust left in it.

This is how courageous, stallions act, and they are constantly, almost all of them. There are, of course, also the coward ones, hawking only because of the crowd does

so. There are also awkward and unwieldy who rushing at the wolf, misses it. Well, here it's bad. In those seconds, while the horse neighing, the wolves will have time to bite such a daredevils throat and stretch it on the ground. No matter how deft the horses are, the wolves are not in this respect inferior to them, and they use every favorable moment to attack with the speed of lightning.

When the battle goes on, the wolves have no time to straighten out on the spot with their prey, because the horses never leave without vengeance its dead warriors. The horses don't give a moment's rest to the wolves but continue to rage and they rage until the wolf's spirit is totally blown away. As a result wolves act according to the rule: "sauve qui peut" (a frantic rush to escape). In such a dump, when there is rumble and stamping on all sides their appetite soon passes and they bite not for the satisfaction of their stomachs, but for the sole purpose of preserving their life. It is clear that after such a massacre many horses remain with eternal marks, many of the four-footed turn into three-legged cripples. Many wolves suffer life-long injuries, and all the survivors hurry to howl with wailing to get home.

However, such desperate battles rarely ignite and they are always against wolves' will. They generally prefer to wage war using Cossack mode with uninterrupted skirmishes, but they never enter into large battles. It's their business to take a secluded post - this is their business, and they are very adept in that. Then the wolf usually acts like the feline itself. Extremely quiet and cautious he sneaks in the tall grass, always against the wind, being fully aware of how unpleasant all horses smell. He looks for the location of the herd and outlines some mare that grazes with their colts at some distance from the others. Having planned it, he never rushes at mare and the colt. He knows that the thief who is breaking into the house through the doors is unreasonable. No, slowly approaches the colt and, just as a lover of innocence, admires the small creation. Carefully, like a mother, he follows the colt with almost enchanted looks. He even tries to imitate the colt's movements, so, for example, if the foal is tired and lies down in the grass, the wolf does the same with the most simple-minded look. Meanwhile, the mare, having noticed something wrong in the grass, jumps frighted towards his colt. At the sight of it, the wolf gives the most tender expression to his eyes, puts his face on the front paws like a dog, and starts to hit the ground with its tail. The results of such meetings vary. It happens that the clumsy mare directly attacks the wolf who jumps towards her neck trying to strangles her by the throat, grabs the foal and runs away. All this is done extremely vividly, because wolves practice such attacks more often than others of his art. It also happens, that if the mare is cautious and evil, it raises a hubbub and with the help of other members of the herd that she turns the wolf into an immediate flight. Sometimes it happens that the mare is neither evil nor clumsy, but just stupid. Seeing how the wolf waves his tail affectionately, she takes him for a peaceful dog, which in the steppe may look as a wolf. She draws a few towards her colt but she does not leave from him. If she does not immediately calm down, then the wolf moves away for a while, showing that it has nothing to do here and that it does not prevent her from grazing peacefully without worrying. Meanwhile, after a number of roundabouts, he returns back again and lies down in a place from where it would be possible to go straight to the colt. The foal in the meantime will have time to get tired and, like the Easter lamb, serenely falls asleep in the tall grass.

The wolf watches tensely. He could long ago have strangled his victim but he would like to drag it away and eat it, and this time has not come yet, because the steps of the mare are yet heard too close. He looks carefully at the foal, while he listens to the steps of the mare. Soon the mare's steps are farther and fainter and while choosing delicious juicy herbs, she quietly moves away. Suddenly there is a snort, a rustle - and the foal is already in the teeth of a wolf. Who has not seen it cannot imagine how quickly the wolf devours this little creature. Often the colt does not even have time to snort or shout, and the wolf eats parts of it in complete silence and then drags it to its lair. Usually, when the mare raises an alarm and the whole herd seems to fly like a wolf! - Immediately the sleeping near the herd spring up, quickly wipes their sleepy eyes. As a saber easily and quickly is pulled from the scabbard, as easily and quickly he rushes into the saddle and as lightning rides in the midst of turmoil in pursuit.²

So wolves attack horses in the steppes and so the herds are defending. But in Central Russia, where horses do not have such a unity, where they often graze in the forest or bushes with fagots at their feet. Here they are first depleted by winter fodder and then exhausted by the fieldwork, while the wolves are incomparably bolder and attack with much greater success. This is why horses die much more than cattle, which is grazed only in the daytime, while working horses are driven out to pasture at night. The confused horse is almost defenseless, since it can not defend itself neither with its front or hind legs. Thus it is easily cut by one wolf, which directly attacks the horse's throat and hangs on it until the animal is exhausted. (21)

From here, probably, and there was a fable that wolves due to greater weight are more effective. In such wolves have no need, since the main role is played by the teeth, and not by the weight of the predator.

With this, we finish the first, natural historical part of our monograph and turn to the second one - a description of the various ways of obtaining the beast that we are investigating.

¹ Steppe dogs, as already mentioned, are usually so similar to wolves that it is very difficult to distinguish one from the other.

² KohI. «Reise in Sud-Russland», 2. Auff. (1847, III Th., p. 210-216.

Notes on Chapter V

- 1. In addition to the case of the epizootic, caused by the loss of livestock, the wolf gets a significant part of wild and domestic animals that has died a natural death, as well as animals and birds shot by man. On the Shantar Islands (Mileyeniego, "Reise", I, 71), wolves, along with bears, feed on fish, and the same is likely to happen on the shores of the (eastern) Caspian where the fish often swim in shallow waters. It is quite possible that in Kamchatka during the season when various salmonids swim up the rivers to lay eggs, the wolves catch fish. In the northeast of Asia, even whales that have been thrown ashore serve as food to wolves (Krasheninnikov, "Description of Kamchatka", I, 225).
- 2. In Central Russia, a wolf eats a dove (see also Cherkasov, 1. c). According to observations of Radde (1. s, 60), on the Amur wolves love berries very much Merrimerini, 10 in Tsaidam (Przhevalsky, "Mongolia and the Land of the Tanguts" I, 297), wolves sometimes eat sweet-salted harmur berries (Nigra Schoenberg) 11. In southern Europe (probably in the Caucasus), they also eat various fruits wild apples and pears predominantly already rotten (see Simashko, 1. s, 481). Bastards of a wolf and a dog, which Watched Shatilov in the Crimea (1. s), ate even watermelons. In the Trans-Ural steppes hungry wolves eat reeds in the winter.
- 3. The eggs and chicks of birds that nest on the ground, become wolves' prey. From predators, the wolf catches the moons (*Circus*), the Kratchuns (*Ciraetos*) and some owls (Aegolius brachyotus, *Surnia Nyctea*), even the owls (*Bubo Maximus*) roaming on the ground (12). There are a lot of birds that have nests on the ground, but nevertheless, due to their small size, despite their numerical strength, they cannot be wolves' favorite food.
- 4. Most numerous are reptiles in the Central Asian steppes, and probably wolves destroy a large number of different lizards.
 - There may be snakes too. The fact that wolves eat different reptiles and frogs, is confirmed by Blazius, Brem, and others. Since they catch them only in the spring and summer, it is beyond reasonable doubt that they were forced to do so by famine.
- 5. According to Radda (1. e., 58 and 232), Cherkasov (1. e., 636) and Polyakov ("Western Geographic Society", 1873, p. 27), in the steppes of Eastern Siberia wolves feed in summer on marmots (*Arctomys*), gophers (*Sphermophilus*) and pika (*Lagomys octona*) (13). Especially he loves marmots as larger gnawers, and for hours watches their way out (Kayoe, 1. e (See also Cherkasov, p. 636). Of the steppe animals, the wolves' summer food in the South Russian steppes, Gobel (1 c.) and Severtsov

- (1. e., 189) also speak of the significance for the wolf to variegate their food and voles in the tundra are mentioned by Maximov ("Year in the North") and Islavin in ("Samoyeds"), which both say that the wolf should be here because of the voles. In addition, other Russian and foreign writers wrote about this and of the north.
- 6. Krasheninnikov (1. e., I, 225), E1. Blair (1. e., II, 86). Göbel (1. p.) say that if a wolf finds a fox in a field or a woodland, its death is inevitable. According to Dmitriev-Mamonov ("Zh. Oh.", 1876, August, p. 50), foxes, like dogs, make up wolves' most favorite and tasty dish and they are afraid of a wolf more than anything else, so "they prefer to throw themselves at their feet hunter, just to avoid to meet their main and irreconcilable enemy. "Middendorf (Siberian Fauna, p. 83) talks about foxes hunting down a hare and are in turn pursued by a wolf. He explains this by the rarity of foxes in places where wolves are scouring for whole centuries. In Scandinavia, wolves are considered to be the sworn enemies of foxes (1. c, reference to "J. F. Ornithol", 1861, 8. 64).
 - Middendorf (Siberian Fauna, p. 83) talks about foxes who hunt down a hare and are in turn traced by a wolf and explains this by the rarity of foxes in places where wolves are scouring still whole centuries. In Scandinavia, wolves are considered to be the sworn enemies of foxes (1. c, reference to "I. F. Ornithol", 1861, 8. 64).
- 7. See the graph. N. N. Tolstoy. "Hunting stories," p. 21. A detailed description of the attack of a wolf pack on a bear is given in Vavilov ("Hunting in Russia," Part III, p. 99). About 20 wolves drove (late autumn) a huge vulture, who, fled persecution and climbed on a pile of firewood and began to defend himself, hurling logs on the wolves. When he had turned the whole pile, the whole wolf pack ran amicably at him, but an eyewitness an old trapper hastened out of the house as soon as possible. The next day, he found the heads of three wolves in the fire and two torn wolves beside him.
- 8. Birds sitting on eggs are not so easy to find, as many think. It does not give a trace near the nest, and therefore the wolf can only smell it against the wind and at a short distance. Even hunting dogs may pass just a few steps from the nest. It requires skills in order to catch a hen and this is not always possible to the wolf.
- 9. About the distribution of foxes in the silent coniferous forests of Siberia, where there are no wolves at all, Middendorf says in ("Siberian fauna"): "The fact is that the depth and friability of the snow does not have such an impact on foxes as it has on wolves, since the fox is much lighter than the wolf.
- 10. Still Goebel (1. p) expressed his opinion that without the large number of wolves, Russia would be the country, the richest game. L. G. Lazarevsky went even further

and boldly calculated that the wolf in European Russia alone destroys annually 5 million poods of meat and at least 200 million game animals. Such an absurd calculus was due to the fact that the author decided to count all our wolves and feed them to their fill. To this calculus of Russian wolves and game they exterminate, we will return in the third part of the monograph(5).

- 11. In the middle provinces, the black grouse, gray partridges and also ducks, nesting in the marshes, some waders, especially the bearded ones birds in general sitting firmly in the nests, are most often eaten. Eggs and young chicks are also eaten by wolves. Wolves exterminate a lot of eggs and chicks, often masses of nesting birds. Feathers and tails of cranes are also found on wolf lairs. In the steppes, wolves catch bustards (*Otididae*) in the summer.
- 12. Beginning in early spring and until autumn, the wolf feeds mainly on young hares. Then, at the beginning of winter, hunts down the hares in the snow and shambles them, and later traps them on the paths or on the threshed fields (see Pelyeshevsky, "Memoirs of the Borzoi", "The Hunt" 1876). Wolves catch hares like greyhounds do. Having lost the hare from sight, the wolf always gives up the hunt (see Lvov, 1. p, and Cherkasov, 1. s, p. 659).
- 13. Of all the animals of the genus of deer and the wild goat suffer from the wolf more than all others. In the middle part of the Ural Mountains wolves contrive to even pull them out of the pits, but never attack those caught in a trap. Similarly, wolves catch goats in Eastern Siberia (see Cherkasova, 1. s, p. 529). In southern and southeastern Siberia, wolves also defile the deer (*Cervus elaphus*) (14). Cherkasov also tells how the pursued animals jump into haystacks, and sometimes jump down steep mountain ridges and are killed to death. In Crimea and the Caucasus red deer is probably the main victim of these predators. Wild reindeer in the Far North and in some areas of Eastern Siberia, as is known, is wolves' main food source.
- 14. An adult male boar is rarely attacked by wolves, because wolves are afraid of his sharp fangs. But the piglets are exterminated by wolves in a multitude.
- 15. For wild sheep, see Severtsova ("The distribution of Turkestan, animals", p. 90). On the wolves' attack on cabbages, see Polyakov (Zapad Imp., 1873, p. 27) and Cherkasov (1. s, p. 568). In the Alps of Middle Europe, wolves pursue Chamois goat (see Chudi).
- 16. It seems as if wolves mostly attack young antelopes. The old ones are rarely caught.
- 17. Wenceslawski ("The Horse and the Hunt", 1853, December) also speaks about the fact that wolves do not attack dogs in the summer. 18) . See "Journal. horse-

- breeding factory. and hunting ", 1851, May, pp. 73 and 1853, December; Obel ("Alg. Perls-une lag-Zeitung", 1. c).
- 18. Wolves often climb into the sheepfold in the winter, using snow drifts. (See Karneev, "From the Usman Uyezd" "Zh. Hunt", 1876, July, mixture, Neber., "From the village of Petrovskaya Buda." "Chernigov Guberniy Ved.", 1877, No. 12, and other).
- 19. See V. Krestovsky "Belovezhskaya Pushcha". "The Russian Herald", 1876, November, pp. 123-124.
- 20. There are a lot of fables told about tricks used by the wolf in attacking cows and horses. For instance, about the fact that wolves eat soil to gain more weight as we talked about wolves' sneaking up with the colt. Wenceslas (W. Horse and Hunt, 1853, December) also says that the wolf, when attacking large cattle, pre-eats the soil. These absurdities are repeated even by zoologists. According to Blazius (1. p, 182), wolves dip their tail into the water and try to blind the animal with it, and according to Brem, they are lying in the mud and throwing it in their eyes. Of all these stories, there is some probability that the wolf, when attacking a tired peasant's horse may stops the horse by grabbing its tail with the teeth. It is quite possible that a weak animal, hardly moving its legs, falls on its knees after such a sudden attack.





HOW TO EXTERMINATE WOLVES

There was a time when a man did not see the wolf as a robber and his deadly enemy, but only a rival in the hunt for wild animals. The wolf often used animals hunted by man. Between the two-legged and four-footed hunters, then there was a fairly peaceful relation. The wolf, if persecuted, was because of his own skin, and that could hardly have been a tempting trophy for the primitive man. But a resident of the steppes and wide river valleys man quickly exterminated wild animals (in which the wolf also helped him), who brought him the main food, and he had to resort to taming many of the animals that he had previously hunted.

The former hunters became shepherds, and as a result the wolf, who was only a rival to the hunter, became a thief, a robber in relation to the shepherd. He lives from this time waging a constant war against wolves ever since. Here enmity is irreconcilable - it is the war between the owner and the robber.

The wolf was first persecuted by open force. He was trashed on horses, deer, even on skis, then they were hunted by dogs, perhaps by tamed wolves. As the former nomads turned into sedentary farmers, many other ways of exterminating a predator come into use, which for all their diversity have one goal - to make the extraction of the wolf more easy and handy. Thus, there were raids, different types of traps, and finally, although dangerous, but the most reliable and convenient method, poison. All these methods to fight the predator have been applied to the present day. Their multiplicity proves the great importance of the wolf's extermination and how difficult it is to fight a cautious and sensitive animal.

Ways of obtaining a wolf are numerous and diverse in our country. The reasons for this are clear: Russia with Siberia and its Central Asian possessions occupies half of the entire region of the of the Canis lupus of the Old World, so the wolf did not bring anywhere as much harm as we have. Then, in no other country is there such a diverse population, such a diversity in topographical and climatic conditions, and consequently, the means for destroying the beast must be very diverse, since the methods convenient and used in one locality prove to be unsuitable for another.

We disassemble all our various available means of combating the predator, indicate their advantages and disadvantages and note the most practical and expedient of these means. Obviously, we will only consider in detail the types of hunting that have limited distribution.

All known methods of obtaining wolves can be divided into hunting and commercial, although strictly speaking, this division does not stand up to criticism, because it is difficult to show where hunting ends and trapping begins - and vice versa. Usually motive of hunting shows passion. The hunter acts unselfishly, the trapper in order to obtain monetary benefits. In relation to the wolf population, this division is wrong. The wolf presents a difficult and still relatively low-value prey, so it is more correct to assume that the wolf-worker acts more under the influence of hunting passion, driven more by the consciousness of the harm brought by them, the need for their destruction, rather than the calculation of profits. Therefore, the wolf-trappers are relatively few, and hunters in the extermination of wolves, compete incomparably with trappers in the extermination of any other useful game. In most of the provinces of European Russia, the percentage of wolves harvested with dogs and guns is probably at least half of the total number of wolves killed each year. Thus, a wolf may more likely be called a hunted animal than a game animal.

CHAPTER 1 - HUNTING WITH DOGS

Dog hunting is the best means in exterminating wolves. - Advantage of her before the gun. - Imaginary harm brought by dog hunters. - Reasons for the decline of dog hunting; Moving the center of dog hunters; Change in hunting conditions; Cross-breeds and the destruction of dog breeds. - Reproduction of wolves and the compulsion of hunting for them. - Current dog hunters

Until now, the best means for reducing wolves by hunters is dog hunting, that is, hounding beast greyhounds and hounds. We probably will not be far from the truth if we assume that at least three times more wolves than at the rifle hunters get to the share of dog hunters. During the same prosperity of hunting, that is, in the first half of this century, this advantage was even more significant. Now, thanks to the Pskov method of hunting (with fladry), that is, using a simplified round-up so that the wolf will become more accessible to rifle hunters. Still in Russia the dogs will remain the main wolf destroyers for a long time,

This is proved by the following consideration.

1. A bad pack of greyhounds from an inexperienced dog hunter will catch and stop a profitable wolf at a distance much greater than what a best shotgun can take. In addition, the wolf is seldom killed by the first shot and it is extremely tenacious and strong even when wounded, so only a very good shooter can kill or mortally wound him. Anyone of the dog hunters can poison wolves, but how many rifles does it take to kill this prey? ¹

"Many times, I went with other hunters hunting for wolves with a live pig, many times guarding the wolves in the marshes, many times lying and waiting for the same wolves running ahead of the dogs, standing on the best climb in which there was a whole wolf brood - and I did not see a single wolf with my eyes. "This is said by the famous "rifle hunter of the Orenburg province" who talks about a happy event that gave him the opportunity to completely kill one wolf by accident.

¹ The vitality of a wolf, even a puppy, is truly amazing. To shoot once with the pellets No. 2 or 3, of the two-month-old cubs who ran out of the hole at a very close distance. The pellets stop in a thick layer of fat, partly in muscles and thus did not damage any internal organs.

- 2. The rules of this dog hunting have been worked out for a long time and are observed pedantry strictly by hound hunters, who have long been used to hunt together, by society, and consequently, are accustomed to discipline. The rules of rifle hunting are not yet fully defined in detail, and besides, everyone is accustomed to hunt alone, rifles do not always know how to harmonize their actions with the actions of other participants in the hunt. And since the observance of silence, order and discipline is an indispensable condition for the success of hunting for such a sensitive beast, it is understandable why the autumn round-up shoots end with us (with the exception of the western provinces) almost always unsuccessfully.²
- 3. Dog hunting is carried out in the autumn and destroys wolves when they are still on logs and when the harm from them is just beginning to become palpable. Applicable hunting in the winter is rifle hunting, as mentioned above but unsuccessful in the fall. Winter raids thanks to the Pskov chasers still cannot bring such benefits as hunting dogs.

Hence the advantages of dog hunting before the rifle to exterminate wolves are obvious. Many, however, reduce the merit in this method with dog hunters and find that the latter do not so much benefit as much harm, but this opinion does not stand up to criticism.

First of all, dog hunters are reproached because their greyhounds and even other hounds, instead of being protectors of domestic animals, they cut sheep, foals, pigs as wolves do.

There is no doubt that such cases have happened during the blessed times of serfdom, but even then, the landowners strongly persecuted this trait in dogs. The more than rifles pursue the incompetence, the less it is possible to keep such dogs at the present time, when one has to pay for every gnawed sheep more than its market value.

The second complaint made to the hound hunters, neither before nor now, had no basis. Dog hunters, their haters and envious people say that chasing some kind of cheesy bunny, trample on other people's fields with impunity, and they are not brought to court and get no punishment. It is enough to notice that dog hunting begins only on September 1, that is, when the crops are already harvested, and that dog hunters observe the opening time of their season much more strictly than rifle hunters who often hunt at unreasoned time and very rarely skip convenient cases of shooting quails and partridges.

² See "Stories and memories of the hunter" S. Aksakov, ed. 2 nd, p. 229, "Lucky chance".

Finally, many see the harm of dog hunting in that it seems to frighten away the game, and that hounds in particular make terrible devastation in the forest and leave no nest, not a single young bird, but this reproach is neither sound:

It is known that neither in September, nor even in August, it is very difficult to find eggs or even chicks. In addition, as is known, the hound, having found the trace of the beast, no longer pays attention to the birds and, in any case, is much less harmful than the mongrel. If even a hound uses full freedom, which is very rare among hunters, then even then she drives and catches exceptionally certain animals.

Similar conclusions about the dangers of hounds can be made based upon the devastation carried out in the forest by half-wild dogs abandoned to the mercy of fate and forced to live on their own grub. But such semi-savage dogs do not belong to hunters. Strictly speaking, the mastiff can do more harm. In summer, during hunting, she more often manages to catch a lynx than a hound in the fall. She also often catches chicks that a hunter did not see. The hound does not sneak up, does not stand up and therefore can only disperse the young game.

So, all the accusations against dog hunters are completely groundless, and hounds should be recognized as being the most useful of all hunts, since it pursues only the wolf, fox and hare, that is, animals more or less harmful. The wolf is undoubtedly harmful, the fox in most cases is more harmful than useful. From the hunting point of view, as the main game destroyer, the wolf is most harmful. The hare is at first sight harmless and innocent but it causes great losses to agriculture.³ Consequently, dog hunters deserve a complete and general respect. With the extermination of harmful animals, they save game and reduce the number of cattle that die from wolves. The rural population has always, before and now, been aware of the benefits of well-organized canine hunting and saw the hunters as rescuers from wolves, which began to multiply excessively precisely from the moment when the number of dog hunters began to decrease and the dog hunting began to decline.

The reasons for this decay, as I already said in the first article on the wolf, consist primarily in reducing the money of the landlords, especially the non-chernozem provinces (outside the black soil) that served as the former centers for dog hunters.

However, I am quite sure that the number of hunts has decreased far from commensurate with the number of people who have full ability to support the hunts. The fact is that with the announcement of the will, order and discipline could not be observed as

³ The hare harms shoots of oats, vegetable gardens, orchards, even forests. This damage is sometimes so significant that in the forties some people, such as Samoilovich (Zh.Kotcn and Hunt, 1845, Dec., p. 1206), expressed the opinion that they bring (in Orenburg province) more losses than wolves.

before, and most hunters threw hunting not for its high cost, but because they did not want or could not apply to the new conditions of life. Some of them waved their hands on everything and outweighed dogs that had escaped the plague that had developed on the kennels as a result of poor care. Others, rich hunter-tyrants, hampered by the content of hunting in former large sizes, destroyed their kennels due to empty vanity. So, if you look at the matter properly, you will probably come to the conclusion that the main reason for the destruction of large hunting is not a lack of funds, but just laziness, gentility and the wide Russian nature. They did not like living in the countryside and farming on newer grounds. The nationwide relocation of wealthy landlords to capitals began, where life, cost them much more than the old one did, and where dog hunting was replaced by other, more expensive and more piquant pleasures.

In this way, the old generation of bar hunters left the stage, and only few of them survived, the true hunters-the last Mohicans of the dog hunt. In the eyes of the masses, the dog hunting carried out by old barbarians became a symbol of unbridled, wild passions, and a new generation of landowners became ashamed of their Russian hunting. As before many fathers kept kennels only because of the unwillingness to lag behind others, so until recently the emancipated and anglicized children did not cease to condemn hunting with dogs that in their opinion was barbaric. The stock exchange, joint-stock companies, the pursuit of concessions and profit in all its forms, intrigues for a career, intrigues with French women - in short, hunting of a completely different kind absorbed all the attention and leisure of the young ones in the 60's. In a quarter of a century, both the old hunters and former dashing dogs managed to disappear. The old hunters and travelers wandered around in white light, drunk off the circle, or went to the Champs-Elysee. The former breeds of greyhounds and hounds finally degenerated and mixed up. Greyhounds became too stupid and hounds too lazy for driving.

It is not necessary to study, and teaching is unpleasant, but following the stupid ones is even less pleasant.

The abolition of serfdom for the landowners of the non-chernozem governorates had much less influence. There were a lot of dog hunters, but with the destruction of forests, the conditions of hunting itself changed. The hounds were almost unnecessary. The greyhound, suitable only with a pack of hounds and intended for baiting in forest glades, proved unable to meet the new requirements. Under the changed conditions, a greyhound that partly served the hound would be tireless. In this circumstance, it is necessary to search for explanations and justifications of using crossbreeds of thick-bush greyhounds with steppe breeds of greyhounds. Unfortunately, one can not just justify the fact that these hybrids, with rare exceptions, were carried out with the highest degree of recklessness, without the slightest understanding of the basic rules of breeding and mixing of breeds. This resulted in the complete disappearance of pure-

bred greyhounds. The old breed was destroyed. The latter required labor, knowledge and patience, but to preserve the old breed, until it was replaced by a well-established and more suitable new, would not have been difficult.

Thus, the complete destruction of large-scale hunting, the reduction in the number of dog hunters that remained, perhaps only one-tenth of the original amount, in part also the degeneration of greyhounds, adapted for island hunting⁴, constitute the main reasons for the multiplication of wolves, especially in the non-chernozem governorates. In the forties, during the previous large hunt, that is, the big marsh hunting, to which the so-called small-horned ones joined, several hundreds of foxes and hundreds of wolves were harvested in the autumn,5 the number of wolves decreased. But as the wolves were not disturbed by anyone during the period after the abolition of serfdom, predators multiplied with terrible force. With today's weak forces and means, dog hunters were not only unable to exterminate wolves, but sometimes they were not even able to keep the population from expanding, that is, to prevent their progressive reproduction. Perhaps the current dog hunters turned their attention to the persecution of wolves and began to kill them in more significant quantities compared to the recent past only because they have nothing else to hunt because wolves and foxes during the last decade had destroyed rabbit populations. We do not care. The results of hunting are important for us. We do not care whether the dog breeders are deliberately or unconsciously inhibiting the reproduction of wolves, it is important to us that wolves began to be persecuted in a most severe way. Therefore, we should gladly greet that new phase in which, judging by all signs, hounds come back. Hunting is being transformed in accordance with the spirit of the time and is increasingly pursuing the goal of protecting public interests.

Consequently, we do not have to reproach the dog hunters for the development of wolf hate among them, as some, even many amateurs of greyhounds do, but we should instead rejoice this and all the measures we depend on to promote the dissemination of all the modified methods to destroy wolf. Similarly, the Zemstvos should, if possible, encourage such a hunt and promote its further development.

^{4.} The hunters call any forest space on which hunting is performed an island. Depending on the size of its area, the islands have different names.

 $^{5. \, \}text{See N.}$ Samoilovich "Hunting in Some Counties of the Orenburg Province." - "J. horse breeding and hunting", $1845, \, \text{December}, \, \text{p.} \, 1206.$

CHAPTER 2 - ANCIENT HUNTING

Ancient ways of hunting dogs. Dog hunting complete. Hunting for horns. Steppe hunt for wolves in the race. New hunting methods. Winter hunt in the sledging. Hunting for the hunt

The most rational way to catch wolves is, of course, with a well-organized hunting with visitors, a pack of hounds, a sufficient number of hunters with packs of greyhounds. Here every wolf's nest, well-developed, counted and evaluated, is a hunting target, and the hunt was conducted (where large hunting still was practiced) with full knowledge of methods and with strict discipline.

This indigenous Russian hunting is so famous that it is completely unnecessary to describe it in detail, therefore we will say only a few words about it. Its essence lies in the fact that the hunters takes the beagle to the wolf's track. Then these hounds drive the wolves out of the forest, the swamp or the ravine - in a word, from any kind of shelter to an open place where hunters with greyhounds wait for them. At a convenient moment, the hunter, closest to the running beast, lets his pack of greyhounds loose, which stop the beast and hold it with their teeth until the hunter pinning the beast comes the greyhounds. Sometimes, however, the wolf is not stabbed, but taken alive. When the beast runs to the side where there are no hunters, then the clever fellow hunter with his assistants jumps in, that is, they force him to go towards the hunters.

Hunting with horns is an old, but less known method of hunting, used in Ufa and probably also in other provinces. The essence is that three hunter-borers go to and island where the wolves are supposed to be, from the opposite side to where the hunters are and trying not to make noise while slowly rush out the beast, letting the hunters know the adopted direction by using horns. Such hunting requires even more knowledge of the terrain, greater skill and dexterity than when hunting with hounds. For these reasons, and also because it did not deliver such pleasure, hunting for horns was used extremely rare and most hunters do not know it at all.

The usual steppe hunting in the horseback is known to consist in the fact that several hunters ride carefully, without noise, at a considerable distance from each other,

^{6.} See the article of N. B. Kuroyedov "Boris Petrovich Nagatkin" ("Zh. Zhovti", 1876, April).

against the wind. Greyhounds usually look for the beast themselves.⁷ The hunters do not go in line, but in such a way that the extreme on the flanks, proceed a little bit ahead in order for the beast to be less likely to hide from the pursuit. The rest of the hunters, "although they are equal, do not go far ahead and do not fall behind, but go to the right and left, looking for the beast, not missing a single suspicious and strong place." In this way, most of the hares and foxes are driven out and killed but wolves become prey comparatively rarely, since in the beginning of autumn they keep in strong places, where they cannot be driven out without hounds. Later the wolf goes where it wants to. In addition, the sensitive beast sees, and even more often hears the hunters at a considerable distance, why it is awakened, it jumps up while hunters still are far away and is reached after a prolonged horse racing and exhausted by horses, dogs and hunters. This hunt is engaged in the steppe not only amateurs, but also by trappers. A significant part of the hunters are here Cossacks, peasants and Tatars who are chasing predators for their fur. Hunting wolves, as it is said, is extremely difficult and besides it's fur os less valuable on the steppe than in the forest belt, therefore, it does not represent anything attractive to the local population. But since in the steppe the number of hunters hunting is very significant, it cannot be denied that this method used in the extermination of wolves is of the tremendous benefit. Hunting in the village was made only in the autumn. During the rest of the year, wolves were usually not pursued by hounds. But now a new way of hunting is spreading around, namely, on a sleigh with riding beaters. The honor of the discovery or of this original winter hunting for wolves belongs to the well-known hunter from Bezhetsky district (a subdivisions of the Tver Governorate of the Russian Empire), A. V. Nazimova.8

Winter hunting in the race can be successful only with evil borzois. Do not interfere this with the success of using baits (carrion). The latter condition is not necessary, but serves only as a superfluous chance of success because the bait keeps wolves in a known place. In winter wolves usually do not live in the same place for a long time but roam in their territory due to lack of food. In addition, bait has the convenience

^{7.} When hunting, most of the greyhounds are not kept in the packs; sometimes, however, the beast is not driven out by the greyhounds, but by the hunters themselves (hunt for claps, only for rabbits) or dogs - hounds, foot, even mongrels. Dressage should not be confused with the so-called equinoctial, which is sometimes used by the hounds of the hills when moving from one island to another in the places where the animals keep. Here, the hunters go by the front in close proximity to each other (about 50 sozh.) With bent flanks where they expect to meet a red beast. A flock of hounds follows the hunters in the middle of the front line (see "Western dogs, hunting", p. 125)

^{8.} On winter hunting in the village, see the articles gg. Zh. And Novikova ("Zh. Hunt", 1875, September, and 1876, January and May, "Nature and Hunt", March, pp. 264-268). Unfortunately, there is still no detailed description of this wonderful hunt.

^{9.} A.V. Nazimov puts the bait on October 1 and no more than a verst from the house (manor) so that in winter it is possible to observe it daily without difficulty, whether there were wolves.

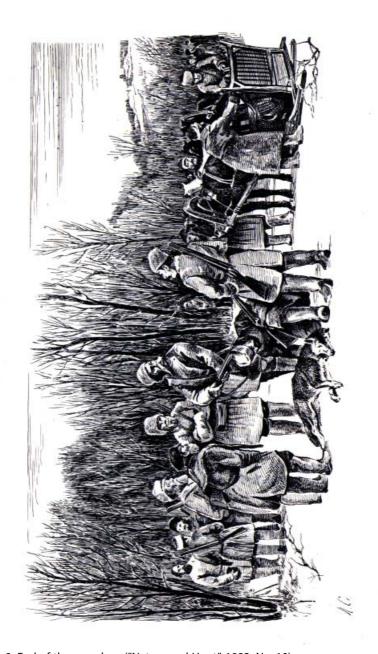


Fig. 9. End of the round-up ("Nature and Hunt", 1882, No. 10)

that then most of the hunting has to deal with well-fed wolves, that is heavy, and not with hungry wolves, which is very important in the persecution of yearlings, especially wolves.

Usually hunting is as follows. In the beginning of winter a bait (carrion) is left in certain places. As soon as the reconnaissance shows that the wolves approach the bait, two or three drafts are immediately harnessed, depending on each need, with hunters and hordes of greyhounds settling in¹⁰ and the whole train with one, two, but rarely three, is riding at full speed towards the wolves. It happens that the wolves still are on the move, but more often they already are found on their lairs. At some distance from the island or the swamp, in which the wolves lay, the horsemen separate from the hunters, who usually go further, to the opposite lazu (island).¹¹

One of the corvéeurs follows the trail and the duty of the other one (or two) is to follow the beasts and guide them into the wood. The first (sometimes the only one), raising the wolves, drives them out into the field with shouting and clapping. Each pack until the beginning of the rut runs at a distance of 100 and up to 300 fathoms (fathom = 2,13 meter) from the other. The wolves, hearing the beaters shout and seeing that some peasant's carts are moving quietly along the road and run to them without fear with the intention of getting between the travelers or ahead of the front sledge. The latter cannot do it, since the second knocks it off the intended direction. Seeing the running wolves, the nearest hunter rides in a large circle and at a convenient moment throws greyhounds after the wolves. In order for the wolf not to suspect the danger of a rider, it is necessary that the hunters observe the maximum silence and not fuss with each other. It is also necessary that the dogs lay quietly in a sleigh and do not scream and betray their presence prematurely. To this end, the greyhounds are sometimes covered. Success, like everywhere else, depends on the hunter's skill, who must arrive on time and release the dogs, which necessarily should be spiteful, otherwise nothing will come of it. In deep snow, baiting is much more difficult. When dogs are required except for anger and great playfulness, they must catch up with the wolf while he is running along the road, or until it has turned away a little further, otherwise the wolf will inevitably leave, because he deliberately climbs into the snowdrifts. There it spreads the paws of his front legs and almost sitting down on the back, he easily makes his way where the dogs are stuck in the snow. Deep snow represents another disadvantage explaining why it is necessary to follow the road, and in deep snow the hunter may not always be able to help the dogs and protect them against the beast. With bad borzois, which the wolf cannot hold, there's absolutely nothing you can do about it.

^{10.} Most with 3 dogs. It must be assumed that, in addition to the hunter, there must be a guide, or horses must be accustomed to grasses.

^{11.} With very deep snow, the beast is driven not by foot, but by skis.

In this way, A.V. Nazimov annually catches from 1861 on, 2-3 wolf packs of at least ten, but there were winters when he managed to kill up to 28 wolves. Winter hunting in the village deserves attention also because it is cheaper than all and preyed out of all other species of dog hunting, except for the complete one. Therefore, the widest possible spread of this method is desirable, especially in the steppe provinces, where it should be applied even more successfully, with the necessary, however, the condition that the steppe dogs be replaced by psi. Of course, there is a need for skill, but what kind of hunting can do without it. In addition, hunting in the hare meets all hunting requirements, that is, it can give hunters great pleasure.

I quote here an extremely picturesque description of it, borrowing it from the article of Mr. Zh. ("The Journal of Hunting", 1875, September).

Footnote page 125: It was reported by AV Nazimov himself. In this number, wolves caught in autumn are not considered. According to the method he invented, A.N. Novikov, Baron NA Zhomini, A.S. Paskin, N.N. Bibikov and, probably, other hunters are currently hunted.

"... On a quiet winter day, 2-3-4 packs of greyhounds are riding in a sleigh at a distance from each other. Every eye looks with a tension at every dark hummock, every brown stain, as suspecting them being wolves. Far away at the opposite side are two horsemen or skiers, looking for paw prints in the snows. Their voices are heard in the winter air.

Monotonous pines and small alder are seen behind yellow horsetails - all monotonous, dead, motionless ... But suddenly one dark dot rose, moved to the right, then darted to the left, at first quietly, then soon ... another one appeared from the bushes. "Wolves!" - Your beating heart is telling you. "Wolves!" Whispered to your stepladder, sitting with you in a sleigh. The wolves, driven from behind and seeing that some carts are moving at a distance from each other along the road, run without fear with the intention either to get through between two carts, or to get ahead of the one in front. The wolves are approaching more and more and you can already distinguish their ears and the straight ridges. Your heart beats ever harder and the dogs reel tighter. One of them, fainter, shivering with impatience, weakly squealing. At the same time the wolves, petrified on the spot and throw a sharp and suspicious glance at your sleigh. For an instant as if in indecision they immediately rushed even more resolutely towards the road, intending to slip in front of you. You let the horse go in a large trot. The wolves wander more and more resolutely, occasionally stopping and looking at you attentively. The horse rushes a full career, the dogs are rushing while the wolves are coming closer and closer. The dogs are moderate, like a stretched string. Suddenly the pack breaks out of your hand and at once the quick, spiteful and habitual males fly out in gallop from the sleigh to the road.

- Ulu-lju!! sounded like an unnatural voice in the frosty air ...
- Ulyu-lyu-lyu!!

Here your best male dog was in action and with a mighty, dashing blow knocked down a wolf. The dogs that came running have covered your wolf. Almost in every race you rush from the sledge to the dogs, from under the sharp long knife a bright crimson jet bursts out onto the white snow, two times the helpless teeth whispered trying to catch anything, everything froze ... The scared dogs tear the lifeless corpse without detachment, for a long time your best furious dog holds the dead wolf, despite the fact that a terrible grasp has cut half the wolf's cheeks ... "

Recently, a new method of hunting has also been introduced. This time with hounds alone and without greyhounds. It is used with great success by some hunters in the Tula province. This hunting is the same as the foreign medieval hunting. Here the hounds chase the hunted beast and, when the animal was finally at bay, the hounds would either be the instrument of attack, or distract the quarry while the hunter moved in for the kill. The hounds used are an intelligent mixture of Russian, so-called Kostroma and the breed of hounds used in English fox hunting, with the predominance of English blood. In dog hunting, the hounds have a completely passive role. To catch the beast for hunters with greyhounds in comfortable hunting it was by no means permitted that the beast should be taken from the hounds, and the hounds, which were carried out from the island and driven by the beast in the field, were severely persecuted. Quite the contrary in the hunts of the years. Glebov, Bibikova, Norova, Stulov (in the Tula province), all the success depends on a pack of hounds, which must be flawlessly run and drive together. Otherwise wolves will be fought off from them.

Despite some rather important inconveniences of the medieval hunting with the hounds, which is not used everywhere and for many reasons not liked by our dog hunters, it cannot be denied that this method of hunting belongs to one of the best means of exterminating broods. Therefore, it is possible to spread it as much as possible, especially in those areas of the chernozem strip where large forest areas are found that serve as breeding areas for wolves and unapproachable for small hounds with medium hawks, especially for hunters with only greyhounds.

¹²Footenote page 127: Hunting with some hounds for obvious reasons, all the more prey in the late summer and early autumn. To what results does it lead, can be seen from the following figures: in 1869 the hunting of S.M. Glebov and N.N. Bibikov was taken by 30, in 1871 - 65, in 1872 - 32, in 1873 - 43, in 1874 - 42 wolf, and only 5 years - 203 wolves (most of them, of course, are profitable ones). Of this number, 21 wolves were shot and a small (?) Part was taken from under the hounds; most of them are hounded by the hounds (see "Zh. okh. and Konnoz.", 1870, No. 41, and "Zh. Hunt", 1875, May - article by N.N. Bibikov, and also "Notes of the old hunter "SM Glebov in" Zh. Hunting ", 1876, October and November).

So, winter hunting on horseback with the hounds is a worthy of the last years. These new but little-known methods, obviously, have a brilliant future.

At the same time, they serve as clear evidence that hunters are beginning to take an increasingly active part in the extermination of wolves, and the guarantee that later other modifications and simplifications of hunting means of combating predators will appear.

We should not go in chaos and drive you but unite in a united flock.
P. M. Machevarianov.
"Notes of the Dog Hunter", p. 106

CHAPTER 3 - INCONVENIENCES IN HUNTING WITH DOGS

Measures necessary to remove the inconvenience of various kinds of dog hunting.

- Complete hunting, indispensable in the middle zone of Russia. Necessity of formation of circles. Hunting in the village as the best way to hunt in the steppes. Necessity of application and distribution of winter hunting in a race in the steppe.
- Medieval hunting as the most useful and expedient hunting in the southern and western provinces. The need to permit hunting for wolves in state forests and the dissemination of existing rules on medieval hunting for the whole of Russia.
- Necessity of exhibitions, congresses, gardens and the withdrawal of the breed of vicious and frisky greyhounds

Having expounded all the methods with which wolves can be wiped using dogs, we will now point out some inconveniences that prevent from spreading these methods and affecting dog hunting in the extermination of predators.

In the provinces of the central zone of Russia the greatest benefit is achieved in hunting with hounds and greyhounds, because the conditions of the terrain favors this hunting. However, such hunting represents a huge inconvenience because of its high cost, as a result of which it is available only to a selected part of the population. For poor people it is necessary to spend every kopek with caution, thus it is impossible to keep even a small kennel with some two dozen greyhounds and hounds, with traveling and two or three persons (Borzhevniks) who manages the packs of greyhounds, not to mention hunts with all of them.

Such hunters inevitably have to deny themselves the pleasure to hunt with greyhounds and hounds and be content to hunt with a horse. But for a party hunting in the middle zone of Russia cannot bring any tangible benefits. Therefore, it is necessary to try to make island hunting more accessible. To achieve this, ordinary people can, by of joining hunting parties and keeping common beagles. Taking into account that the war,

which is now being waged by hunters and wolf, does not bring the desired results, and that hunting the beast with the hounds is the most pleasant and joyful hunt. It must be assumed that the arrangement of the circles will bring much more to the hunters pleasure, and benefit society.

These societies or circles should not have the character of institutions for which it is necessary to seek permission and approval by the government. Here any officiality is completely superfluous and can only cause damage, because everything must be based on trust, mutual respect and full comradely equality. Similar circles already exist, but there are too few of them. On what basis can they be formed, what rules should they be guided by, those who wish can learn from the sole capital guide to Russian hunting dogs under the modest name "Notes of the Huntsman of the Simbirsk government".

And in order for the success of the hunt to be certain and the success would be fully assured, the hounds and rifles should, in my opinion, conclude an alliance for the joint pursuit of the wolves. It should jointly participate in island hunting, and the rifles should be provided with lights in the strongest places, that are not convenient for persecution. Mature wolves always prefer these places, and therefore most of them escape unscathed. Such a connection in the service would benefit the society and would not only facilitate the total extermination of the wolf brood, but also significantly reduce the costs of each shareholder. It would enable the circles to contain the best and more numerous flocks. This arrangement would probably cause dog and rifle hunters to abandon the hostility that they for some reason nourish each other, just like the cavalry in relation to the infantry, and sacrifice for the common good mutual prejudices.

The persecution of the beast by the greyhounds and hounds is, however, suitable only in the middle provinces. The conditions of steppe hunting are completely different from the hunting of the island. There is no forest in the steppe, or it is so vast that with it there are almost nothing to be done with 5-10 public bows. In addition, steppe hunters have hounds quite different from greyhounds, which are required for hunting by the island and to require small-scale hunters to keep special greyhounds for hunting with hounds is, of course, impossible. So the team-hunting and flock of hounds can hardly be of great use and distribution. It is much more rational to make some important changes and improvements, more, so to say, adapt to a certain goal of the extermination of wolves a purely steppe hunt with horses and several sleds, circling wolves that had been previously drawn to the carrion.

It was already said above that the main disadvantage of hunting with sleds is that a wolf can be a rare and accidental prey of, so it is rarely pursued by amateurs. The dog managers and the trappers do not even chase the wolf, because the skin is not worth

the candle. Therefore, in order to develop a wolf-hunt in the steppes, it is necessary to make it less difficult and give more prey.

As stated above, in late summer and early autumn the steppe wolf dwell in reeds, ravines, and in general in places where hunting with greyhounds is almost unthinkable. An early hunt for a wolf is therefore impossible without hounds. It would be good for circles to maintain large flocks of hounds to the public account. For those people who are able to keep different kind of greyhounds, they could have hounds for wolf and others for hunting hare. With frosts coming, wolf become more accessible to hunters, but they still have many chances to escape from the persecution. Therefore, for the



Fig. 10. The persecution of a wolf ("The Journal of Hunting", 1876, Vol. V, No. 5)

ultimate success it is necessary to collect information in advance, where, in fact, the brood is kept, in what direction does it go for prey and on which the pack attacks.

But even if such conditions are met, one should not expect that the autumn hunting in the village would noticeable decrease the wolf population. It is much more likely to achieve this goal in the steppe by winter hunting by using "the Nazim method".

The spread of this method is not only desirable, but even necessary, and there is no doubt that this method will subsequently be introduced there in the widest possible

scale. The main advantage with the method is that it excludes accidents or gives them, at least, very little space. Firstly, hunting with bait does not make sense in the fall, during the grazing of cattle. This hunting is successful in the winter, attracting wolves from distant areas, thereby limiting the area of persecution. Secondly, the wolves can easily be traced in the winter. Thirdly, snow in the steppe is never deep (at least not as in the Tver province, where winter hunting in the area is successfully) and thus it cannot present great difficulties for baiting. It is quite possible that this method applied to the steppe will require some changes, but practice will show what is needed. Our task is only to point out that "the Nazim method" winter hunting in theory meets the requirements of steppe hunting more than all the others, and therefore we highly recommend the steppe hunters to pay some attention to it.

As for dog hunters and trappers, who hunt not so much because of pleasure, but because of the skin, to induce them to exterminate wolves, it is necessary to make this extermination profitable. We will talk about the meaning and the size of premiums below. It remains to consider the disadvantages and inconveniences of medieval hunting, i.e., riding with some hounds. As everyone knows, this hunt is borrowed from Western Europe. But the forests of Germany, France, especially England, have almost nothing in common with ours, using the words of Mr. Machevarianov to describe it:

"Forests, wilds, slums, in which, not to mention the frequent, continuous spruce forest, juniper and various shrubs, enough one crippled, steep bottomless gullies to turtle with a horse and break the horseman's legs, hands, ribs or break his neck."

Suppose that the wolves do not run away from ordinary beagles. Real medieval hunting does not mean hunting only wolf cubs, but yearlings and even mothers. And here are all the difficulties and inconveniences of the medieval chase. Firstly, the most paralyzed hounds can pile the most stalwart hounds very soon. The pursuit continues for several versts, sometimes ten times or even much longer¹³, and if the hounds are driven hard and some dogs are less and others are more paralyzed, then the chase can end in failure. Secondly, most hunters do not take part in this frenzied race because of their sense of self-preservation. This hunting is only for the most ardent fans of medieval riding, who can not only drive, drown in the swamp or mutilate their expensive horses, but even break their necks. A more important circumstance is that an unsettling beast can take the beagles to such dachas where hunting is forbidden by the owners and where it is possible to risk a large fine and the confiscation of as well dogs as horses. Mr. Bibikov complains about these problems connected with medieval hunting.

Eliminating all these inconveniences is a rather difficult thing. Despite the fact that <u>Bibikov and Glebo</u>v hunted this way in the Tula region, I do not think that this hunting 13. So, according to N.N. Bibikov, once the wolf was driven to 30 versts.

represented significant comfort because this hunting is suitable only where there are few forests and the hunting is kept in order. Such are the southern and southwestern provinces and the Kingdom of Poland, where this hunting can indeed be carried out with greater convenience than all the others.

But since most of the forests of the chernozem (black soil) provinces belong to the state's treasury, it is necessary that the hunt for the wolf in general, and medieval hunting in particular are unconditionally brought to an end and in the extreme case it should be possible to pursue wolves who ran into other dachas. The Kingdom of Poland has for a long time permitted medieval hunting of game in other people's plots. We still have owners who cannot understand that the beast raised where it lives permanently, and driven into an adjacent dacha, does not belong to the owner of this adjacent dacha. The wolf, being a predator and a robber is outlaw. Thus hunting wolves is a public good and duty, as well as a duty of everyone to help in every possible way, and not to interfere with the extermination of this harmful animal.

Such benefits and benefits are really provided by the medieval hunting in Poland, but these benefits, unfortunately, are completely paralyzed by another government measure, namely an extremely high and, in fact, excessive or premature tax. Namely, according to the rules of hunting in the Kingdom of Poland, for each greyhound is levied a tax of 15 rubles, and for each hound 5 rubles while pointer breeds pay only 3 rubles. After this, it is not surprising that the indigenous Polish wolf hunting with hunting hounds having been almost a tradition, including medieval hunting, began to decline. Therefore, taking into account the benefits that can be brought by hounds, it is necessary at least to charge the tax of greyhounds and hounds to the same tax as pointers pay.

Wolf hunting should be allowed in state forests at all seasons. The right to pursuit wolves running into neighboring dachas and the reduction of tax on greyhounds and hounds in Poland are the actions to be taken by the government can take to encourage dog hunters to exterminate predators. To expect any other more substantial support would be obvious absurdity.

The failed experience in the establishment of provincial hunters has shown that the government cannot take an active part in the hunting business. Likewise, there is nothing to think that Zemstvos, who already have much to do, have ever been brought up by the Zemstvo flocks of hounds and Zemstvo hordes of greyhounds, as some of the hunters suggested. The participation of both the government and the Zemstvos must be indirect, and hunters must take care of their own needs. The government can, as stated, only facilitate the organization of hunting groups and societies aiming at the

^{14. &}quot;Rules for hunting in the Kingdom of Poland," § 7.

proper hunting and extermination of harmful animals, can allow hunting for wolves and bears in state dachas, can reduce the tax on dogs - the Zemstvo has a moral duty to award bonuses for extermination predators, and grant grants to those societies that pursued this pursuit primarily for themselves (as, for example, the Kaluga Society), of course, considering the actual benefits brought by such societies.

It is clear that in the extermination of wolves, dog hunters, pursuing solely animals, are more important than rifle hunters. Consequently, societies need to take care of raising hounds, and for this, arrange exhibitions of dogs, congresses, cages, and tests of speed and anger. The breeds of dogs in our country have become so mixed up, and from the wrong mix the old hounds have lost their creativity so most of the dog hunters simply poison young wolves, while they miss old wolves and complain about the degeneration of dashing dogs. Instead of complaining, it would be better to act, as Mr. Machhevaryanov rightly says on page 134 of his "Notes":

"Instead of losing ones heart due to the complete loss of hope, would it not be better, after thinking, to persistently tackle the withdrawal of such dog breeds that would satisfy all hunting requirements. "The attempt is not a torture", says the proverb and this business is not impossible (though all old-school men claim otherwise), the Beast Wolfhound, which belonged to the brigadier Prince Gavril Fedorovich Boryatinsky in 1785¹⁵, can prove this. I also knew three males during my forty-year career (Grubian, Ahid and Kosmach), who were catching up and driving and old hungry wolf. Derive the same English animals of the same species: bony and fleshy, huge and tiny, liquid and dry, light and heavy: they don't live on the moon, but in this very same land. The whole point is in the unwillingness of rich hunters to tackle this issue because of laziness and disapproving of a zealous and knowledgeable business of a passionate hunter - and of course, in a lack of funds ...

Thus, if the "Mister dog hunters" use diligence and time to bring out extremely malicious and frisky dogs and aim on the wolf's extermination, dog hunting will take its first place in a series of measures that contribute to the destruction of predators and will receive high meaning and significance in the eyes of all those who feel and understand enormous harm caused by wolves to the rural population, and hence, to the entire state. "

^{15.} See "J. konoz. and hunting", 1842, February, p. 63, the article" The Beast - the Wolfhound Wolfhound. "-P.M. G.S.N. also tells how a mother wolf, hounded by a hawk ("Horse and Hunt", 1848, April, "Wolves on the Kennel", pp. 399-405) was adopted from under one dog. The same is said by P. T-o about the famous Saigake (Idem, 1850, p. 210, "The famous dog Saigak"). - L. S.

CHAPTER 4 - HUNTING WITH GUNS

The origin and origin of gun hunting in Russia. - Ways of hunting wolf hunts. - Rifle hunting with the hounds on wolves. - The convenience and inconvenience for us of this hunt. - Its general composition and rules

Rifle hunting, as one of the sports that came to Russia very recently, hardly more than a century ago. Up to that time nothing is mentioned about it. Originally it had a purely commercial nature, that is, it was the exclusive property of peasants, domestic people, petty bourgeois and, perhaps, petty clerks. No wonder it was said then: hunting with falconry belonged to the royal, hunting with dogs to the members of the aristocracy and rifle hunting rifle rangers or dog managers. Indeed, before the reign of Catherine the Great, birds were preyed mainly with falcons and hawks, wolves - with dogs, greyhounds and hounds. Later, when the falconry was almost destroyed, the gentry was still long and almost up to the 40s, considered humiliating to be used for the huntsman and sent hunters or special hunters to hunt for feathered game, which had to supply game to the landlord's table. But times have changed - morals have also become different. At the present time, gun hunting is already in public opinion above the dog, probably because it has a democratic character. However, this is among urban estates. The peasants gun hunting is still contemptuous. The hunters themselves began to give gun hunting preference following the saying "stretch out the legs for clothes", others because the dog hunting does not correspond to their character and inclinations. At last, those living without a possibility to a holiday in cities and suburban dachas, do not have any ideas about dog hunting, because it is not available to them.

That rifle hunting passed to us from Poland and the Baltic provinces - can hardly be called into question. It came to us, along with the dogs, who were lying in front of the

game, and the oldest breeds of dugouts were called Polish (came from the French epics) with brusbarts¹⁶, which indicates their immediate origin. French, German pointers and their hybrids have appeared, it is supposed, even later, after 12 years. With the advent of these dogs, rifle hunting began to develop mainly among urban residents. In the forties, the invention of the cartridges, greatly facilitated both shooting of flying birds and a running beast. This immediately increased the number of rifle hunters in a way that dog hunting finally remained in the background.

Like rifle hunting for birds, so was hunting wolves with guns, imported to us from the provinces and Poland. The Germans and Poles were the most important teachers in this art. First of all, as it seems, as the usual round-up of wolves has become known to us. It may have originated on its own, but not in the form in which it is carried out now. Before, the main role in it was played not by fences, but by nets. The correct way of round-up has its origin in the provinces at the Baltic Sea. The hunting with the hounds, the so-called winter round-up in the Pskov way and, finally, hunting with the piglet has their origins in Lithuania and Poland in a relatively recent time.

If we add to the above-mentioned types of hunting for wolves to commercial hunting with shooting from an ambush, then all the available means of rifle hunters will be exhausted for the destruction of the predator. Which of these tools are most suitable for the latter purpose - this is a very controversial issue, and therefore we do not dare to classify them according to the number of prey caught. Similarly, it is difficult to say which delivers the most pleasure and can be called the best hunting method. Such a view is more or less personal and, therefore, cannot be unquestionably true either.

Therefore, we will not consider them from this point of view but we divide them simply by the seasons. Since there is no real spring and summer rifle hunting for wolves, all known types of hunting can be divided into autumn and winter hunting. The former are sometimes carried out at the end of summer and the latter at the beginning of spring, but this does not violate the correct division.

Only two types belong to autumn hunts: gun hunting with the hounds and the autumn round-up. In winter, hunting in the Pskov way with a pig and finally ambush hunting.

Hunting with the hounds constitutes a direct transition from dog hunting to gun hunting, forming, as it were, a link linking riflemen to dog managers and tracking hunters. In some cases, it may even be difficult to decide where one type of hunting ends and another begins, because at the end of the summer young wolves are betrayed by female wolves, that is, pursuing the beast is relatively quieter than hunting with

^{16.} V.A. Levshin wrote in his book "General and Complete Housekeeping" (1795) about brusbarts: "bred hounds, They have a dense coat on their muzzle, or a hunting mustache; the legs are lower, but thicker."

hounds, using complete dog hunting, especially in the medieval hunting (parforce hunting). Gun hunters with hounds may therefore be called "half-breeds".

Strictly speaking, hunting with a hound, under all its conditions, simply seen from a hunting point of view, cannot become the master of all other types of hunting with a gun. Who will dispute that famous axiom that the dog is the soul of all hunting and without this faithful companion, hunting loses its charm, sometimes even its meaning and significance. No beaters, whether there are two hundred written Pskovians or dozens, even hundreds of ordinary people, cannot deliver such pleasure as a well-coordinated flock of hounds. This is beyond any doubt, and a rare rifleman does not admit that such an opinion is valid. The question of the extraction of this or that hunt, is a controversial issue, but one can only say that every work of a master is scaring and everything is good in its place and in time.

The Pskov people will not be able to do anything in the autumn, and if we draw a parallel between the hounds and an ordinary autumn, then on the side of the hounds it will be the important advantage that they can smell and track down every wolf.

In view of these important advantages of hunting with hounds, it is rather strange that it is so rare in our country, in purely Russian provinces, and is still used almost exclusively in Western Russia, including the Baltic provinces, the Kingdom of Poland, the Northwest and South-Western edge. Hunting with a hound and a gun is one of the oldest Polish and Lithuanian methods of getting a prey, from a deer to a hare, and moved there in the Middle Ages from France, which is also is indicated by the breeds of Polish hounds being more suitable for French hounds. Until now, despite the high taxation of hounds, it remains the Poles' most favorite hunt. They hunt with one or two bows mainly for goats and hares. In Lithuania hunting has such deep roots that it has became commercial where peasants shoot animals only from one or a pair of hounds. But the wolf, of course, such a small number of dogs do not have the power hunt wolves. Gun hunting with the hounds in a roundabout way on the wolf is being forced out both in Poland and in general in the western part of the Russian empire.

In Russia, gun hunting with the hounds became known in the middle provinces, as it seems, in the thirties. For that time, at least in the provinces around Moscow, they did not even have a clue about it. The first female hounds were brought to Russia by Polish students, and exiled Poles introduced this kind of hunting in many areas of Russia. However, until the last Polish uprising, hunters with hounds were almost exclusively city hunters, and hunted exclusively foxes and a hare with one or two leashed dogs.

This same hunting began to spread from the sixties and there were some landowners, and later in many hunting societies small packs of hounds (mostly hybrids with old

Polish Russian and Kostroma hounds), which sometimes succeeded in taking the wolf and the broods. Until now, however, these half-hunters do not have any noticeable effect on the decrease in the number of wolves, and the female hunting with beagles has been relatively incomprehensible to us, which is quite understandable and completely explained by the conditions of Russian hunting.

True lovers of wolf hunting and people with means to hunt prefer complete hunting with hounds and greyhounds, or even hunting with greyhounds alone. Riflemen until recently did not hunt the beasts at all, except for the bear. Until now animal hunting has a few admirers between pure rifle hunters who devote their winter leisure to it and are satisfied with it. Hunting with hounds is the same as we have with a span of red game. It is possible only in the fall. In the winter hunting due to deep snow and severe frosts it is almost unthinkable. That is why this kind of hunting, however sad it may be, can flourish only in Western and South-Western Russia, where the climate is much more moderate, the snow is shallow and where, in addition, real dog hunting has almost disappeared.

Meanwhile hunting with the hounds brings a lot of pleasure and it gives a lot of benefit destroying the wolves, which is why we should pay attention to it and for its sake sacrifice a few dozen superfluous snipes. It is true that many riflemen are not able to approach with 3 to 5 bow hounds necessary for successful hunting of wolves, but many are quite accessible. We still do not have only individual hunters, but even entire hunting societies, with very few exceptions, that find it unnecessary to keep at least a small flock. In fact, the content of a pack of hounds would not hurt to make it compulsory for societies, because for many reasons, the female hounds can be more useful and even cheaper than the usual raids, arranged in a hailstorm. Start with the fact that the cry of beaters in round-ups cannot even be compared with the amicable rut of the pack. In addition, you can meet a good traveler (although this is a very rare phenomenon) and decent hounds, than an intelligent steward of the round-up and an experienced corps-keeper needed for the wolf hunt. Finally, at the end of the summer and early autumn, when it is easier to achieve the goal, that is, to destroy the entire brood, it sometimes happens that the beaters will not do it for any money.

In general, wolf hunting with rifle and hounds is carried out exactly as in dog hunting. Wolf broods usually checked in advance and on the previous eve verified again. Then the hunter (mostly on horseback, sometimes, however, and on foot) throws a flock of hounds on the den - and the wolves, hearing the hounds, escape towards hunters, placed under the cover of trees and bushes, at the edge of the island or in places where it is most accurate to expect the wolves to leave. Wolves escaping the hounds usually come out of the forest cowardly or even in line, which is of great importance for the ultimate shot. It goes without saying that when hunting a wolf brood, shooting at birds

and hares is in no way permitted. Similarly, it does not allow riflemen to run from one place to another. These rules are common and for all raiding methods of rifle hunting for wolves. The pack should not be chased away, when many hunters do not only tolerate, but even prefer to hunt rabbits and foxes. No matter how spiteful and strong the dogs are, they can easily get into the teeth of the old wolf if they drive unnecessarily.

Wolves often try to pull dogs away from wolf cubs and lead the flock for a rather long time. In such cases it is a matter of traveling direct to true path. The correctly directed beagles search for the wolves, especially if they are small and hiding, and often even end up with them, without the help of hunters, who then (or earlier) catch old wolves and youngsters. When the hunt is successful, that is, when the dogs are good and the shooters are skilled, then it is easy to destroy all or almost the entire brood and any failure in hunting becomes almost impossible. That is why there is nothing surprising in that in Poland and in the southwestern provinces, many hunters consider hunting with hounds as the surest and best way to exterminate wolf nests in late summer and early autumn.

CHAPTER 5 - HUNTING RAIDS

The raids. - Identifying them. - The origin of the common hunting method. - Autumn round-up. - Its significance in Western Russia. - Season raids. - The manager. - The shooters. - The drivers. - Aids for raids

In a vast sense, hunting is an action where the hunted animal is expelled to a more or less definite and limited place where hunters are waiting for it. These raids take place mainly, almost exclusively, on animals. Strictly speaking, hunting with hounds, a rifle or a dog, is nothing but the same round-up. The only difference is that in the last raid the dogs play the role of beaters, and in simple, ordinary hunting the animals are driven out with the help of people called beaters or screamers.

The simplest kind of round-up is that one hunter goes around the beast and drives it to another hunter, standing in a convenient place. Such a round-up can be carried out in the winter, when it is easy to find the beast's trail and stand on this trail, waiting for the beast to appear, which uses to follow the same path especially in winter, when the snow is very deep. Besides, this simple round-up is possible in a gorge or a ravine, in general in a narrow place, wherever the beast has no choice to leave. Hunter and his weapons can be replaced here, too, with a loop or a trap - the essence of the matter will not change at all. This fit, without a doubt, is the prototype of all raids. The more extensive the area occupied by the beasts is, the less the chances that these animals will go in a certain direction, and the more people are required to drive them out, and the more arrows or any catching tools should waiting for the wolves. Looking at the terrain, the number of beaters can vary from one to several hundred, even thousands. The number of shooters up to several tens. The length, for example, of a hunting net is up to several hundred yards. The raids are also divided according to the season. They can be autumnal, winter, even spring and summer. Finally, the round-ups are mobile and immobile. When the beaters, having encircled the greater part of the area occupied by the wolves, they gradually advance and narrow the circle in which the animals are, then the round-up is called mobile. When, on the contrary, the beaters do not move from their place, and they drive the animals out only by noise - then it is called immobile.

Pursuing the beast with a dog is simplest way of hunting that has been used in use since long ago. Now it is used preferably in wooded and mountainous areas of Siberia and the Caucasus. Real raids arose much later, because they are determined, on the one hand, by a rather dense population, on the other, by a lesser degree of harm to the beast. True, the catching of animals by snares was used, as is well known, in Ancient

Russia. Hunting raids arose in Western Europe during the feudal lords and moved from Germany to the present-day region of the Baltic Sea and to Poland, and from here they have already penetrated, or rather continue to penetrate into purely Russian areas.

The roundup hunting was known to us, probably much earlier than the hunting with hounds, but with the lack of firearms, the lack of good shooters and the abundance of dog hunters, the beaters only substituted for the hounds, or they formed, so to speak, an external flock. As the dog hunters started using rifles, the common hunting method of hunting mainly wolves with a large number of beaters, became more popular and in the fifties it was already widespread. With the liberation of the peasants it was impossible to get free beaters, so that the bander hunting fell into utter decay and required significant changes and simplifications.

Meanwhile, round-up hunting is the very real method for exterminating wolves. In Western Europe wolves were exterminated exclusively by raiding, and the same method mainly helped to reduce the number of predators in the Kingdom of Poland and the Baltic region, Thus it would be very useful if the raid had wider use in Russia. Of course, our round-up hunting team cannot have such a significance as it has, for example, in Germany, where it corresponds to local conditions and the national character. But it can also be used with full success and benefit from us. The evidence of successful round-ups that we have, from the South-Western Territory to Finland, and excellent results of the so-called officer raids.

In Poland, Finland, the Baltic Sea and the North-West and Southwestern regions round-up hunting is purely a public matter, in which all the classes take part. However, during the last fifteen years the round-up hunting in the Kingdom of Poland fell into decay. There is still round-up hunting by authorities but private hunts are only carried out with the knowledge of local authorities¹⁷. The local population is so conscious of the benefits of round-up hunting and masters this hunt in a way that the raids still are considered the most important method of destroying wolf broods. In general, throughout the western part of Russia, peasants are raiding wolves with great willingness at the behest of the police or village authorities, at the request of local landowners or often on their own initiative.

In general, it seems better organized in Finland. There, each rural municipality, depending on the available area, is divided into more or less extensive hunting districts 17. See §§ 23, 25 and 57 of the "Rules of hunting for the provinces of the Kingdom of Poland, published until the adoption of the general law of hunting for the whole empire," 1871: "§ 23. The raids on predatory animals are appointed either by order of the authorities (police) or at the request of the owners of the hunting areas (private) ... § 25. No local residents have the right to refuse to participate in the police raid without particularly valid reasons ... § 57. For raids organized without the knowledge of the police authority, the perpetrator is fined 5 to 25 rubles. "

and must maintain a hunting headman (wolf-keeper) at their own expense, the duty of which is to dispose the round-up hunting. The collection of beaters takes place with surprising speed after a military alarm. Speed, however, is a necessary requirement, because there hunting in winter is mainly done with snares, and in winter, as is known, wolves do not live long in one place.

While in Finland the round-up is being held at the first call on the place where the wolves have just been seen. In our middle provinces the neighborhood of the wolf's nests is tolerated quite indifferently, even when the grown up wolves, having no purpose to conceal their shelter, together with their offspring kill mercilessly livestock of nearby villages in the fall.

In earlier times, the dogs of the neighboring landowners came to the rescue, but now the local population has to choose between two alternates: either to let wolves rob them or to be content with their available forces and means and make hunting raids on predators. Up to now, we prefer the former and leave the wolves unpunished. If, however, where raids are organized, it is not done by the peasants, who seem to be the most interested in the extermination of predators, but by a privileged class of landlords and townspeople who hire beaters. Independent peasant round-up hunts in our country are rare exceptions, while it would be very useful to make it a rule.

Taking into account the good results that are being caused by the hunt for wolves, and then the inadequacy of the information available to the majority of hunters about the rules of the hunt, I find it useful to give here as detailed a description of this kind of hunting as possible. I'll start with the autumn raids.

The autumn round-up usually begins not earlier than the second half of August and lasts no more than to the end of September. The hunt is successful as long as the wolf brood is kept in one place, therefore, it is possible to accurately determine this place of the lair and the ways by which the wolves come out of the forest, shrub or swamp that they occupy. Earlier in the half of August the raid is inconvenient, because, firstly, the wolf's lair often is not yet known, since the old wolves dwell on the side of their territory, sometimes as far as ten or more versts. Secondly, even if the location of the lair is known with precision, the locals usually fear the vengeance of the elderly and in particular the she-wolf. Third, the population is then too busy harvesting hay and crops. Finally, the wolves in the summer are still so small that they do not run at all, but hide in dense bushes or under fallen trees that finding them without the help of dogs is very difficult. At this time, medieval hunting with hounds is a much more effective method to destroying the brood. Later, that is, in October, the round-up is also inconvenient, because wolves already live a nomadic life everywhere and locating their presence in a given locality, when there is still no snow and no traces are visible,

it is very difficult. In addition, at the end of August and in the first half of September, there are many festive days (August 29 and August 30, September 8 and 14) during which it is easier to gather people for the round-up, but we must already make sure that the beaters at this festive time are sober. The hunt must be started no earlier than 10 am and no later than noon. If you start earlier, you can may not find old wolves at the nest, and perhaps the whole brood with puppies have grown are gone. If you start later, you don't have time to make the second or third hunt in the case where the wolves break through to the neighboring island.

The round-up hunt includes: 1) the hunter and his assistants; 2) shooters; 3) beaters, or screamers. The beaters sometimes join the hounds and some shooters can be replaced by nets or hunters with greyhounds, but all this is happening in the background.

The most important person is the leader of the round-up. It takes a lot from him, and for this reason we have only a few persons fit for this role. In our hunts, when deprived of skilled leaders may end in complete failure. The manager must thoroughly study and know the terrain and habits of the wolf. He must be able to determine the location of the lair. He should be administratively skilful and respected by both hunters and the local population. We have to recall the deceased Prokudin-Gorsky, who was an exemplary leader and, from the beginning of preparations to the end of the round-up, disposed of everything himself, personally, without using the services of sometimes unreliable fortune hunters. With a significant number of actors, it is difficult, if not even impossible, to take care of everything without assistants, so it is necessary to choose the assistants with great circumspection and certainly from the most sensible and knowledgeable peasant hunters. Two assistants are quite enough, but you may limit yourself to just one.

The choice and number of shooters are also of great importance for the success of the round-up. In any case, it's better to pay attention to the quality of them than to the quantity, to avoid too young, inexperienced and hot blooded hunters, who rather can target a person than a wolf, which, unfortunately, happens very often and is a reverse one medals in all our common rifle hunts. As with hounds, the hunter depends on himself, that is, any accident that can happen to him, for example, the awkward fall from a horse or falling into a ravine depends on himself, on his carelessness, fervor or myopia. As with the gunshot, the most experienced, prudent, cautious and skillful shooter can be injured by a neighbor, and therefore safety is an important factor in dog hunting. It is also necessary to try to avoid such hunters who do not have the habit of obeying any rules and operate at their own discretion, only observing their own benefits and do not think about the success of a common enterprise. The wolf is not a hare, on which running from one place to another is permitted. Here everything is

based on a strict order. Much also means armament: double-barrel rifles, of course, should be preferred single-barreled. They are charged only in large pellets¹⁸ or, at the extreme, with canister shots. Since it is not always possible to carry the buckshots, the supply must lie on the person on whose initiative the raid is arranged, or on the leader, that is, on persons, most interested in the outcome of the round-up.

Finally, the clothes of hunters should in no way be conspicuous and have any bright or shiny decorations. This condition is much more important than usually thought, because the wolf is very circumspect when going out towards the edge. The number of shooters depends on the length of the rifle line. If they are not close enough, then this can still be corrected by placing on the flanks of the chain a fixed fence. If the shooters are very many and if they are placed too closely, it may create more harm than advantages, because there is a chance of somebody being shot. In general, it is necessary to count one rifle for every 20-30 yards in the chain, conforming, of course, with the conditions of the terrain. How many hunters are required is determined in advance by the leader. All the better, when they are 10-15 people. More than 30 can be admitted only in very rare circumstances.

Anyone can be a conqueror, since except obedience nothing is required from him. Of course, it is better to choose those who were already on the paddock and to avoid old people, women and young children. If the round-up is not familiar to the population, then boys from 12 to 15 years old serve as the best beaters, because they unquestioningly obey orders. Adult muzhiks (a Russian peasant) smoke and women gather in heaps but boys do what they are told. In every hunt overseers are needed watching the beaters. The entire corral is usually divided into several parts, and each of them has its own senior whose duty is only to observe the order. The supervisors of the tenants, of course, are chosen from the most efficient and sensible. Unlike simple beaters, supervisors are sometimes given guns, mostly with empty cartridges. Screamers are best served with ratchets. Ratchet is the best tool for beaters. If the rattle is small and not large enough, then the beaters who did not get a rattle should have at least axes and clubs. Only cudgels should be prepared in advance, before the beginning of the paddock, or in the village, or at the collecting point, but should not be broken or cut down near the lair. The more things beaters carry with which they can make noise and crack, the better. The number of beaters is commensurate with the circumference of the circle. Less than 50 people and more than 200 are used quite rarely.

In a well-organized raid, dogs can only bring harm, not good. The exceptions are such hounds, which are driven by the wolf well, and then in the number of 1 or 2. If there are more, then it is better to hunt without a round-up. Hounds, not accustomed to the chase of the wolf, are completely superfluous, not to mention the mongrels, who, with

^{18.} Dmitriev-Mamonov advises charging the guns with medium pellets, that is, the size of a large pea.

their premature squealing and barking, can only force wolves (especially the hardest ones) to break through before the beaters and shooters have time to take their places. Another thing about the net. They can bring very great benefits, especially in strong places, where it is very difficult to shoot, and also with a lack of hunters, when it is necessary to narrow the shooting line. In the absence of tenets, ropes are used with color patches applied to them¹⁹ (fladry) or simply hang rags on more prominent trees and bushes. The beast frightens of them and turns towards hunters. It must be noted, however, that the shooter line can be narrowed only in late autumn or winter, when the thicket is considerably thinner. At the end of the summer and early autumn, it is almost useless, since wolves cannot notice the flags and thus ignore them.

Il est généralement reconnu, que les battues bien combinées et bien conduits, seraient un moyen très efficace pour opérer la destruction des loups; mais il est rare qu'elles réussissent complètement et elles ne servent souvent qu'à déplacer ces animaux. Le désordre avec lequel elles s'opèrent, le peu d'habileté ou d'expérience des tireurs, quelquefois des considérations particulières, sont des causes de ce défaut de succès...

p. 143²⁰

^{19.} These flaps and ropes are very useful, even necessary, to grease with powdered silt or to fumigate with gunpowder, sulfur.

^{20. &}lt;sup>1</sup>The raids with a good composition and, if properly managed, are prized in general for funds very effective in the extermination of wolves; but they are rarely quite successful and the results of their often only the movement of animals. The reasons for such failures are lack of order, lack of skill and experience in arrows and, sometimes, exceptional circumstances ... ""Code of laws on hunting." Appendix, page 143. (Instruction of the Minister of the Interior Lane, 1818)

CHAPTER 6 - AUTUMN HUNTING

The order of autumn raids. - Check the wolf's nest and reconnaissance the terrain. - Collection of beaters and shooters. - Rehearsal round-up. - Distribution of beaters and shooters. - General rules. - The meaning of the hole. - Wings raided or fixed. - Putting animals on the line of shooters. "The usual course of wolves." - Rules of shooting on wolf raids

Now that we have become to some extent acquainted with the main composition of the round-up hunting and with what is required from the participants in the roundup, we will consider how the proper round-up is prepared and how.

First of all, it is appointed by common agreement, a round-up day and a gathering point for both shooters and beaters. If the beaters are not volunteers, it is necessary to agree with them on the eve or even earlier on the price or what kind of food they should need, and also how many people should be exposed to them. All these negotiations lie on the duties of the leader or the person on whose initiative the raid is done. The leader or his assistants should check in advance whether the wolves really are where they were supposed to or whether the wolf family has moved to any neighboring terrain. Checking the nest²¹ should be done either on the eve, or early in the morning on the appointed day. Verification is necessary because the success of the round-up is depending on this information. Because an attack plan is drawn up in advance, as well as the dimensions of the steppe, the hounds, the length and direction of the lines of beaters and shooters, even the places where each hunter must stand and where follows put the nets. When raiding the leader should take into consideration the state of the weather and, in particular, the direction of the wind. The rifle line should always stand against the wind whenever possible. In the case of an unfavorable wind it is better to push the line away from the lair. It is even better cover the lodge with a stationary fence than to leave the line in the wind. Under the last condition wolves will inevitably sense the hunters, break through the line of beaters and all the labor and costs will be wasted. If the terrain for some reason does not allow a change in the

^{21.} The verification will be discussed in detail below, as well as about the sub weighing.

location of the line, it is necessary to significantly increase the number of screams and provide some of the beaters with rifles.

Early in the morning, no later than 8-9 hours, all beaters and hunters should be at the gathering site. All the better, when the collection point is located three versts from the lair and, in any case, no closer than 2 versts. The leader should by that time have returned with verification. Here a briefing is made both with the beaters and hunters. They take out foals, meet landowners, rattles, guns, pistols and charges are distributed. Lame and crippled persons are rejected. If you have to deal with completely inexperienced beaters who do not have any idea about any rules, then he has to practice with, if the terrain and time permits, a trial round-up. This rehearsal gives a better chance of success in the forthcoming hunt for wolves, and sometimes it gives hunters, in addition, the pleasure to shoot several rabbits.

When all preparations are completed, the beaters under the leadership of the assistant leaders, and the shooters led by the leader himself are sent to the lair, all on foot.

For a verst, even 1 ½, from the nest, any noise and scream should stop. It is forbidden even to speak loudly. When the conditions of the terrain make it possible to place the shooters against the wind, then they are set up before the beaters. When it is necessary to put them by the wind, then beaters are put before, but they are in a hurry to put the riflemen as soon as possible. Sometimes, in order to quickly surround the wolves, the corral is divided into two halves, which are conducted towards each other. The chain of beaters should have the form of a more or less steep arc, facing the line of the shooters with a curved side. This chain is located at a distance of one verst from the den serving as an approximate center. In a clean and level forest the screamers are placed further. On the contrary, if the nest is in a dense forest or in reeds, then closer. Each beater stands still where he was placed, and he must neither make noise, nor echo, nor break a branch before the signal is sent. Smoking is also prohibited. The distance from one beater to another depends on the terrain, partly also on the direction of the wind. In a dense forest and in cases where the wind blows directly from the line of hunters to the lair, it is necessary to rearrange them when needed or to divide them into two chains, one being stationary and the other moving. In general, the distance between the screamers should not be more than 100 steps. There is no need to have them closer than 25 steps.

The rifle chain is usually placed on the circumference of the circle as far as possible, into a straight line or in the form of a shallow arc, which is turned by its concavity towards the lair. Hunters are placed one near the other no closer than to the distance of the gun shot. Exceptions to this rule are made only in strong places, especially near

the main entrance. But in such a case only experienced, skilled, reliable and prudent shooters, appointed by the leader or by general choice, without the "coin flipping".

This deviation from the basic rules of the round-up hunting should be allowed for the success of the hunt. In my opinion, on wolves rounds always should place shooters not by lot, but by dignity. The placement of shooters should be carried out as soon as possible and with the observance of the greatest silence. Conversations, and even more so the arguments here are completely out of place. Each hunter hides behind a bush or a tree, generally under protection, and not in sight. Until the end of the paddock, it is strictly forbidden to talk with neighbors, chop off boughs or smoke, if the line of shooters stands in the wind. Usually the leader, assigning the place to the last shooter, comes back, checks the chain and reminds the hunters that they are not allowed to shoot at hares and birds. Then he goes over to the chain of beaters, where his assistant reports the position of the chain of beaters. If everything is all right, the leader gives a signal with a shot from a gun or blows a horn, the last one less often.

According to the signals, the entire chain of beaters immediately starts shouting unanimously, knocking with sticks, pounding axes on the trunks of trees and rattle with ratchets. At the same time, it moves evenly forward, each beater being equal to being at a certain specified distance from his right and from his left neighbor. Seniors supervise the order. The beaters in the middle of the chain, with one of the assistant managers, must always go behind the extreme ones, so that the chain constantly retains the shape of the arc. When there is reason to believe that the wolf can break out from the side, i.e., between the chain of beaters or the chain of shooters, then there are so called wings on the sides, that is, 5-10 men on each side. These wings stand completely silent and motionless all the time until the extreme beacons of the main chain approaches them. Then they join with those coming up and go together towards the line of shooters. If the beast intends to break through the wings, the wing warriors must break their silence and, remaining in their places, meet the beast with a shout and shots and thus force him to take the proper direction.

Usually at the first screams of beaters makes the whole wolf family to leave its shelter and run to the side where no noise is heard, mostly strong places, that is, ridges between thick forests and shrubs, and if possible, adhere to the usual path by which it always went to the booty and went back to the den. In front of everyone, often stopping and looking around run the old wolves, followed in the heels by the cubs and finally the younger wolves. The latter, however, do not particularly adhere to the direction adopted by the old, and act more independently. But still it is rare for wolves to go out on both flanks of the rifle chain. For the most part it is necessary to shoot a few shots, namely (obeying all the rules and with a favorable wind) on those standing near the lair. The best is when the wolves do not come out in line, but gradually,

one by one. However, this happens only in the beginning of autumn. Later, when the forest is almost completely exposed and the corral is visible at a longer distance, the wolves do not hesitate and run out almost at once towards one of the hunters, so that they often manage to break through the line of beaters or shooters, usually it happens through the wings. At this time the wolves rely on their speed, and thus it's much harder to shoot them. This is one of the great inconveniences of late autumn hunts. The early summer round-up is even more uncomfortable due to the fact that the lucrative wolves hide in bushes and the corral can easily pass by them. Even old wolves, using thick foliage, imperceptibly slip between the shooters or the beaters. The density of the foliage prevents the hunters from seeing each other, which causes many accidents.

To avoid disputes, misunderstandings, and unsuccessful shots, the following rules are strictly observed in round-ups, both autumn and winter:

- 1. Only the hunter being approached by the wolves is allowed to shoot. The maximum distance should not be more than 60-70 steps and then only if the shooter cannot wait for a shorter distance.
- 2. It is not allowed to shoot a beast when it is goes along a line to an adjacent shooter, in which case the wolf must be ignored outside a 10-20 steps range.
- 3. If the wolf runs parallel to the chain, then the nearest hunter shoots.
- 4. To stop shooting, when the chain of beaters comes already close to the edge.
- 5. Before the end of the hunt it is forbidden to leave the scene and pursue even a severely injured animal. The last rule is based on the fact that the next wolf can forget the direction of the shot (which often happens) and, without seeing the hunter and the killed or wounded fellow, follows the same track and approaches the edge at almost the same place.

When the raid is conducted correctly, with knowledge of the case, then all the wolves are put on the line. But in Central Russia, to this day, it is seldom possible to find experienced managers and it's difficult to get a good line-up of hunters. Therefore, it is not surprising that this method of hunting, considered in Germany and in many localities of Western Russia as the main means for the extermination of wolves, is here still in disregard. There are, however, no doubts that over time, both the autumn and winter raids will receive much more extensive applications and development, and that they will be given the proper place among the means that contribute to the extermination of predators.

CHAPTER 7 - WINTER HUNTING

Their inconvenience and little fame. - General rules of winter raids. - Hunting with baits and the benefits of it. - Imposition of the beast. - Determination of freshness and straightening of the track. - Shooters clothes. - Weighing. - Relative value of the wind and the wind. - Correct winter raid. - Its advantages over the autumn

As we have already seen, autumn raids can be quite successful only in the beginning of autumn. Beginning with the end of September or the first days of October, wolves are already entering the roaming lifestyle and hence, the round-up is subject to many failures. Today the wolves are here, tomorrow - a few versts away. It is only possible after the snow falls to find out where they are and that happens only in more northern places in during autumn. Thus, wolves in large parts of Russia are almost insured against the pursuit of rifle hunters until the onset of winter.

In winter, it is very easy to locate the beast because of their traces in snow, but nevertheless winter raids on wolves has some drawbacks. Firstly, the wolf does not live long in one place and therefore it is necessary to set up the corral immediately upon the imposition of the beast (not postponing raids until a more convenient time). This is not always convenient and possible, nor is it possible to keep wolves in a particular place with the use of bait. Secondly, deep snow and severe frosts in the second half of winter often constitute an almost insurmountable obstacle to the round-up and discourage the most ardent hunter.

This explains why we in the middle provinces have winter raids, that is, an ordinary raid and hunting with Pskov spread out even less than hunting in the fall, and began to enter into fashion only very recently, thanks to the so-called Pskov beaters. We can positively say that winter raids on wolves before the 60s were not known to us at all, and that they came to us from Poland, Lithuania and the south-western provinces, where the winter raids are generally at favoured, because the snow is shallow and cannot have great influence on the success of hunting. A real winter raid on wolves still does not enjoy fame among us, and it seems even impossible for many Great Russian hunters. This opinion, however, is completely incorrect, and as we shall see later, an

ordinary winter round-up, if all its rules and conditions are observed, and though it is more troublesome than another kind of winter hunting for wolves, the Pskov method a surge in winter hunting and much cheaper. This also means that it is available to poor hunters.

Let us first consider the conditions common to both types of island hunting in winter, and to notice what is necessary both in what only in the other case. These conditions are chiefly in the organization of the seizure and the method of imposing wolves, which is completely different from the summer and autumn and checking the wolf's nest.

Carrion for wolves is much more important in winter raids than it otherwise is. Its benefits are very significant. It saves a lot of time, necessary for reconnaissance and tracking down the beast, so to speak, is tied to a certain locality. It is convenient for as well raiding as overtaking, and carrion keeps wolves in place for several days, so that there is aplenty of time to collect beaters and hunters. Hunting with carrion minimizes the risks of accidents and is makes the outcome sure. Finally, if the carrion is gradually renewed, the same terrain can give several hunting opportunities during the season, and often it can be carried out almost at home. I mean here hunter-landlords in general rural, and not urban hunters, whose participation in the extermination of wolves, in spite of the Pskovites they employ, is relatively insignificant and cannot be taken into account. Until now, city hunters of the middle and parts of the northern strip kill far more bears than wolves.

Usually, the carrion is placed shortly before the onset of winter, i.e. in the beginning or in the middle of October, depending on the terrain. Thus, wolves learn to walk to carrion in advance and when snow is falling, it will be possible to overlay them. It is only necessary to put a new carcass, and you can be almost certain that the wolves will come the next night. For wolves, most horse or cow carcasses are used. Another meat carrion, for example, a calf, a sheep, a dog, can be used for salting only in extreme cases, since otherwise it is not enough for a pack of wolves. The carrion is always placed in open places, in a paddock or in a field, at some distance from bushes, marshes, islands or detached small forests, in general a good place for the beast and at the same time convenient for hunting. In this case, the beast, after eating, probably go there on a couch, and here it is very easy to impose it. Some hunters, for example, LA Lvov, advised to hide the carrion from the ravens by hiding it in cottages made of poles, but in my opinion, this precaution is not necessary, because of the birds, the wolves go to the carrion much more reluctantly while they may consider a log house being a trap.

When the carrion is set and the wolves already attend it, it is very easy to determine by track the direction taken by them, and one can be almost certain that the wolves that have been eaten are near to the carrion, in ravine, etc. Nevertheless, for greater fidelity, the track itself is usually straightened and, as the saying goes, it reveals the beast, i.e. with greater or lesser accuracy determines its location. It is clear, when there are no seals, without this correction of the trail and approximation of the beasts location it is impossible to find it. This procedure, as can be seen, fully corresponds to the subduction and verification of the wolf's nest in late summer and early autumn. Late in the autumn, wolves very rarely respond to the voice of the hunter, luring the beast by imitating of their howling, which is the main reason for the failures of the October and November raids. When the snow falls, it is once again a perfect opportunity to determine, although with less fidelity, where the wolves are. The imposition of the beast also requires great knowledge and experience, and therefore we consider it necessary to dwell on it. The wolf's track has already been described in some detail in the natural history of the wolf, and here we will make only necessary additions to what has already been said. As for the correction of the track and the imposition of the beast, we will speak from the words of N.A. Dmitriev-Mamonov.²

The most important role in winter hunting is played by the definition of the freshness of the track. Since the wolf, when walking in step or trotting, it drags its hind legs slightly and touches them with snow. Then on the loose and soft snow from the trail a thin line is formed, called "pogoloka", which disappears much earlier than the trace itself, so if the trace has this line, then you can almost certainly say that it is fresh. It goes without saying that the freshness and clarity of the track are directly dependent on the powder (type of snow), and during powder snow, all the tracks will be fresh and clear. If the powder disappear in the evening - the trail will be long, if it ends at midnight - the track will be average and, finally, if it ends before the light, i.e. before the animal after nightly adventures goes to rest, - the trail will be short, and in this case, you can be sure that the beast will be found very soon. But since this line is not always noticed and, moreover, smoothed out at the slightest wind, then, if it has not snowed for a long time, all the old and new tracks seem to be quite the same.

In this case, the freshness of the trace is recognized by groping; all old traces will have icy edges, and new ones - smooth and friable. This requires some experience and skill.

As is known, in open areas wolves walk in a line, stepping in each others paw prints with mathematical fidelity, so that even an experienced hunter very rarely is able to determine the number of animals that have passed through such a trail. A correct estimation of the number of wolves can be done only when the whole family or flock

^{1.} See "Nature", Book 2, 1877, pp. 289-290 (in this edition - pp. 73-75.- Ed.)

^{2.} See his article "Hunting with Pskovians for wolves and foxes". - "The Journal of Hunting", 1874, September.

enters the bushes or passes some object that they meet halfway, because in wilderness areas and when some obstacle occurs, wolves tend to separate apart. At the same time, an experienced pawnbroker can also determine the sex and age of the past animals in the footsteps.³

Having made sure of the freshness of the track, it must straighten it, that is, trace it to the place where the they went to rest. When the trace reaches any solid place in which it can be assumed that the wolves will lie down, the tracker begins to look for a detour, i.e. he must bypass this strong place and make sure there are no tracks out of it. When walking around, you should observe all possible silence, in order not to frighten the wolves, and when the tracker returns to the place from where he started, and once more makes sure that no wolves have escaped, then the wolves are registered. 4If there are several fresh inputs and several similar outputs when going around, then all inputs and outputs must be considered in which case the wolves will only be encased when the number of inputs exceeds at least one number of outputs. If the number is equal, then the beast is not here and then you have to start straightening one of the output tracks to the next strong place. The beast must be found to be in the area before the hunting can take place. When the wolves are accustomed to the carrion, the bypass is greatly simplified and has only the value of a final check. Immediately, the planner also compiles the plan of the attack, i.e. he takes into account the animal's location, assigns places from which to start the pen and where the shooters should be placed. With deep snow, the rider straightens the track and searches the beast on skis. To find the same wolves and straighten the found fresh trail can also be on the sled, harnessed to one horse.

In snowy winters it is necessary to drive on high-standard runners of the sled, because such runners go freely along the deepest snow, without taking it away, and freely pass stones, hummocks, stumps and small bushes between runners.

Carrion and taxation of the beast make up only the preparatory part of the winter raids. As for the raids themselves, they also represent some very important differences from the autumn ones. In winter, because trees and shrubs are exposed from leaves and the ground is covered with snow, wolves hear and see very far. Moreover, the prosperous wolves, having gained enough, no longer need the possibility to hide somewhere, and therefore like the old ones, rely on their feet and seek salvation in an

^{3.} L. A. Lvov in his article "The advantages of a proper winter raid before the overtaking of the beast by the method of the island peasants" (Journal of Hunting, 1876, December, p. 36) gives a detailed description and drawing (figure 3) of the sled used by him and advises harness the horses in the English blinders, without an arc, so that when driving a forest, they do not touch the boughs. Let us note, by the way, that horses used for winter hunting should willing to work in the woods, and do not be afraid of the wolf's trail and wolf, and also not have the habit of neighing.

^{4. &}quot;The mittens, warm gloves, or the so-called hunting clutch, must also be of a light color." We also note that in very cold weather it is necessary to grease the hands with fat.

immediate flight. At the first cry of the beaters all the wolves immediately run. For this reasons, the beaters require only little movement during winter raids and, in addition, it is sometimes possible to confine the hunt to a fixed corral, which is very important in deep snow. In this respect, winter raids have a great advantage over the autumn raid. Shooters are located in the most sheltered areas and in such a way that most of them stand on both sides of the exit track. In winter all kinds of so-called curtains are necessary, which in autumn are almost useless. Curtains represent the convenience that you can reduce the number of shooters. So, we see that winter raids require relatively small numbers of beaters and hunters compared to the autumn hunt, and this alone gives a lot more chances for success.

The shooters clothing in the winter raids should be "warm, light, convenient for shooting and, most importantly, invisible to the wolf." Dmitriev-Mamonov advises wearing a sheepskin covered with a light-gray cloth, white felt boots and a cap of white or light gray lambskin. Many hunters wear white canvas or a s.c. balakhony⁵, and some bring their pedantry to the point of absurdity. They make white covers on their beard and paint both trunks and guns white.

But such exaggerated precautions are completely superfluous, since the hunter usually hides behind a bush or a tree, and the most important thing here is not the color of clothing, but immobility, that is, the excerpt that is important in all the hunts where you have to wait for the exit of the beast. If the shooter stands still and motionless, then the beast does not examine it, even if the hunter's clothes were not white, but only dark without bright colors, and at least the bush concealing the hunter is not particularly dense. The wolf will approach even almost in an emphasis to the motionless standing shooter, of course, if it only goes in the wind instead of against.

Curtains, on the contrary, should be dark and bright colors, and more fit to the shape of a human figure, the more prominent, the better. It's best to use a dress for the curtains and only in extreme cases to replace the dress with the pieces of cloth. The dress should be hang on bushes or put on sticks. Other scraps hung on bushes and branches of trees or attached on ropes, which in this case are stretched between trees above the surface of snow.⁶ The more the curtains the better but, of course, to a certain extent, since hanging them out takes time. Time in a short winter's day is very expensive, and besides, you should not keep the hunters freezing. Dmitriev-Mamonov recommends using 5 curtains on each side. However, it is also of great importance how the hunters stand - near the beast's trail or not, because with an unfavorable wind it might be necessary to chase the beast in the opposite direction opposite to the one where the exit is.

^{5.} A loose peasant overgarment made of sackcloth or twill.

^{6.} These ropes, in any case, are better than poles with multi-colored flags, since according to Dmitriev-Mamonov, wolves sometimes did not pay any attention to these.

In winter hunts, as in the autumn, the direction of the wind is taken into account, and the habit of the beast to use the same way - the main exit. When the wind blows directly from the hunters standing on the exit, the wolf will not go towards it, but rather it will turn in the opposite direction, to hunters standing though far from the main exit, but so that the wind blows on them, and not from them. In all other cases it is difficult to say at all, what is more important, the main exit or the wind and it will depend on how the round-up is planned. The main exit in general during a hunting raid is more important than in the case of the Pskov, and in winter hunts it is more than in the autumn. In the wolf hunt with the Pskovians, as we shall see, they drive quietly, without the usual hurry, and the beast goes towards the edge in a hurry, rarely jogging and has time to look around, smell and choose direction.

Meanwhile, on ordinary round-ups, hearing a frenzied cry and rattle of beaters, especially on a small area of a few acres, the frightened wolves gallop without looking back, without examining it, directly to their main exit.⁷

Here are the basic rules common to both types of winter raids.

Ordinary round-up is performed in the same way as in autumn, with slight differences. One leader arranges beaters with ratchets and the other - shooters at a distance of 60-100, even 150 steps from each other, facing the terrain. Between them, a tracker, especially in strong places where the beast can break through, Mr. Lvov advises putting the beater on a more reliable basis, with a pistol loaded with a reinforced single charge. Sometimes it might be worth giving firearms to two middle beaters and the last one. With a small ring, from 1/2 to 1 versts in circumference, you can limit the numbers of beaters to 8-10, and not even adults, but boys, since the raid is stationary,. There is no need to move, but only stand still and twirl with ratchets, for which no skill is required. When the leader who led the corral will come up with his comrade who has set up the shooters, he returns to the place where, from his assumption, the beast should be touched, and gives a signal that the beaters, standing on the ground, simultaneously begin to twirl with ratchets and shoot in order, one by one, as they were ordered to advance by the lineman. Tired of twisting - they shout or bang as loudly as possible. If, in spite of the screams and shots, the wolf does not go out to the hunters, one of the cadets enters the circle and pushes the beast with various cunning maneuvers, that is, forces him to go out to the shooters' line.

The benefits of a proper winter round-up before the fall are obvious. The winter round-up is much cheaper and ends more often successfully, because it requires less

^{7.} This explains the reason why Mr. Lvov, the defender of the customary round-up, and Mr. Dmitriyev-Mamonov, the supporter of the surge in the Pskov method, had completely opposite opinions about the meaning of the wind, and both were absolutely right.

people, therefore, there is more order, and the latter is a necessary condition for the success of the round-up.

But in comparison with the Pskov hunting method, the winter common raid is inconvenient in that shooters shoot at a running beast rather than one walking slowly, and therefore the percentage of wolves killed is much less. In addition, the advantage of overtaking before the raid is that it can be used in completely open areas and can be done without any preparations.



CHAPTER 8 - HUNTING WITH PSKOV

Hunting in the north and in Lithuania and improving this hunt. - Art of Pskov. - Differences between hunting with Pskov and winter raiding. - Rules of Pskov hunting in the forest. - The place is aggravated and unaffected. - The drivers. - Scream and the progress of beaters. - Putting the beast on the line. - Animal beating in open areas. "Her rules." Formation of beaters

The Pskov wagon is the most remarkable, the most reliable, in many respects the most convenient, but, unfortunately, still very expensive way of winter rifle hunting for wolves. The hunt with the Pskovians represents a great analogy with the well-known winter hunting with a sleigh ride and greyhounds and serves with small forces the highest degree of hunting art and skill. The difference and advantage of hunting before the hunt with the Pskov people is only that in the first the hunters do not stand in one place, they do not hide from the beast and do not need curtains, while in the second rifle hunters wait for the wolf, hiding in a secluded place, and avoid to expose themselves in a frightening dress.

The hunt with the Pskovites, no doubt, derived its origin from the beast's simple habit, to follow the same paths, especially in winter time in deep snow. Until now, in many wooded and mountainous regions of Russia and Siberia, in the winter and sometimes even in the late fall, one or two trappers can circle around the beast and quietly, without hurrying, drive him to the hidden hunter who shoots.

This is the simplest method of obtaining, slightly different from the trappings of the beast at the watering place, generally on the trails in the continuous coniferous forests of the Russian north. This hunt has been in use since immemorial times and has not been subjected to any changes or improvements. The main drawback of this simple hunting is that the success is directly dependent on the direction of the wind. It is successful only when the wind blows from the walking beast to the hided hunter. In the

north, this shortcoming is not very noticeable due to deep snow and continuous forest, but in Lithuania it was noticed a long time ago. As you know, the snow here is shallow, the forests mostly deciduous, cut by relatively numerous swamps and meadows.

Consequently, here the beast does not need to walk along the same winter path, and therefore does not value it. Then, it sees better and further than in a continuous and fragrant redwood, in which, moreover, there is often no air flow. The Lithuanian thought has long understood the importance of the wind, especially in winter, in a bare forest, as a result of which they almost ceased to use the simple method of corrals.

Hunting with small artels⁸, they took it as a rule, having located the beast, to drive it directly downwind. In order to make the wolf go in the desired direction, that is, downwind, they drive the beast quietly, almost without shouting, so that it proceeds a short distance from the beaters in the opposite direction, approximately to a place of the edge or glade, where it waits for the hunters. On the same places there are no shooters, but ropes with flaps⁹ (long used in round-ups in Germany and from here transferred to Western Russia) were hung first. A wolf, calmly moving away from a person's unpleasant neighborhood, must notice suspicious objects to him, but he goes where he sees the way free, and not being able to sense the hidden shooters, approaches them at the closest distance. Consequently, the hunt required a few beaters and shooters. So, according to the testimony of some West Russian hunters, hitherto hunted in many localities of the northwestern provinces. An artel of 6-10 people kill during a winter many moose, wild goats, especially wolves and foxes.

But from here it is still far from the real hunting on the Pskov way, in which it is possible to say that the wolf or fox go exactly obeying the order or precisely tied to a rope, exactly to the place where the shooter is waiting. The Pskov people improved and simplified the nagging as much as possible. The best of them could put the wolves and the fox out of the island to any of the hunters participating in the hunt. There are such Pskov artists who alone on a sleigh drive a wolf into the field to one hunter. It is not surprising after the fact that this art seemed to be something incomprehensible, and some even supernatural.

This art has passed to us, undoubtedly, from Lithuania. It is familiar in all its subtlety only to the peasants of the village on the Island of the Porkhov, a district of the Pskov province.¹⁰ This village is inhabited by the grandsons of the Lithuanian descendants of Luke and Peter, known under the name of Lukash and Petrovs, why St. Petersburg

^{8.} An artel was a semiformal associations for different collective operations. Often artels were seasonal and its members worked far from home and lived as a commune.

^{9.} Also called fladry.

^{10.} According to the testimony of LA Lvov, the peasants of Khokhly village of Opochetsky district hunt in the same way.

hunters and the method of Pskov hunting for wolves is often called hunting with crescents. The hunting world of Lukashi became known no more than 20 years ago. Until then, only local hunters used their services: Count Pyotr Petrovich Palen, Prince Dondukov-Korsakov, Urvan, P. P. Balovenky. Their popularity began about ten years ago, after N. A. Dmitriev-Mamonov got acquainted with hunting in the Pskov way through P. P. Balovensky and Novotorzh landowner N. A. Olenin. He wrote about Pskov for the Moscow Society of Hunting. Since that time the Pskovites have entered

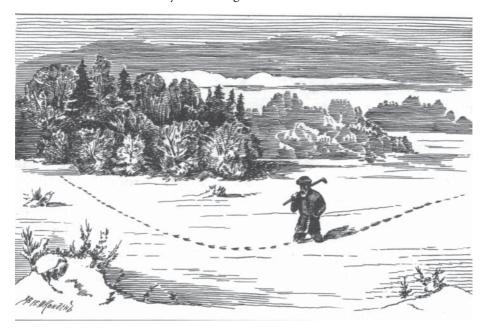


Fig. 11. The tracker straightens the track

into such a fashion and the request for them so quickly increased that the old fee of 20 rubles for their services increased to 75 and even to 100 rubles a month. Now the number of Pskov people was only a little more than forty people, who made up 14-15 artels, usually three people each, and all were employed by rich people. Of these, however, it is unlikely that even half knew their business well, since there are always one or two inexperienced guys in the artel who are still learning from the elderly hunters. However, now some hunters who have thoroughly studied this method of hunting begin to form beacons themselves from local "bunnies", and it must be assumed that in the future the name of hunting with Pskov will lose its meaning and significance.

^{11.} See brochure C. M. Lazarevsky "On the destruction of the wolf by livestock and game", 1876, page 28, in a note.

Hunting according to the Pskov method differs from the round-up in that circle is not a necessary condition for success and the beast can be imposed, so to speak, impromptu, even stray and on the move. Under such circumstances, it is not necessary to cut the circle too much, since time is too expensive, and the beast, that unnecessary escaping through the circle, is easy to frighten off.¹²

Hunting with Pskovians requires almost the same preparations as the winter raid, so they will not have much to talk about. How to hunt the beast - already said in the previous chapter, to what has been said about the alignment of shooters and the hanging of curtains at the same time, it can only be added that this is done for speed simultaneously from both sides.

The leader and the most experienced beater places the hunters, the other two hang the curtains - one on the right and the other on the left, and then, after more or less distance along the edge, enters the forest behind the place where the beast lays. The number of curtains should be all the more, the less there are shooters and the less skilled the beaters, the more expensive the cover. When describing the actual hunting with the Pskovites, we will exclusively use the articles of Mr. Dmitriev-Mamonov and Mr. Olenin (The Journal of Hunting, 1874-1877).

The ease with which the beast is placed on the line of shooters is directly dependent on whether the chase position is aggravated or unaffected. A crooked place can be called an island that has the form of a wedge, i.e., stretches out in length, tapering to the line of shooters. In such a place the beast cannot catch up with anything. According to Mr. Dmitriev-Mamonov's successful expression, it is in a sack. But when the island is more widespread in width and is set in one direction, then such a place will be unrestricted. In this case, it is not easy to expose the beast and the beaters must use all their skill and all their sharpness. Hunting in a continuous forests is possible only when there are roads, glades, etc. in the forests. It requires even more skills and sometimes a very large number of curtains. Wolves, however, never go deep into a large forest, but always lie either near the edge, or near roads and glades. Therefore, it is necessary to reduce the circle and determine the location of the beast as accurately as possible. Dmitriev-Mamonov believes that in the case when the forest has no more than 6-8 versts in circumference, and there are no roads and glades inside it, then it is possible to put the beast on a line and, without cutting off a circle, drive it the whole island through.

Usually the beaters are placed in such a way that the best ones are in the middle of the chain and the other two are at a greater or lesser distance from the middle, depending

^{12.} Thus, Mr. Lvov, who stands for a small amount of a few dessiatines for ordinary winter raids on privatized wolves, and Mr. Dmitriev-Mamonov, who allows a few versts of circumference for Pskov hunting. In most cases, on wandering wolves, still quite right.

on the width of the island. Only in a very non-agonist place, the most experienced beater takes the edges, the most convenient for breaking through the beast and it is most important is to prevent the wolf from retreating into the depths of the forest.

The success of the hunting depends on the uniformity of screaming and correctness of the beaters' progress. Therefore, for hunters who are unable to use expensive Pskovians, and wish to form beacons for winter hunting with local trappers, we believe it is not superfluous to give a detailed description of the actual overtaking made by Mr. Dmitriev-Mamonov. Let's start with screaming.



Fig. 12. A hidden shooter

"No matter how unimportant it seems, at first glance, this condition," says N. A. Dmitriev-Mamonov, "I advise you to pay special attention to it, because the whole success of hunting often depends on it. The cry of all three beaters in their strength must be exactly the same, as well as the intervals between the cry of each beater, during which he listens to the voices of his comrades and conforms with them. Each gap should last approximately five seconds. The most convenient cry is a four-syllable with an accent on the last syllable, almost like a rooster's singing. These monotonous and equivalent exclamations are called ordinary screams. But when the terrain demands that the voice of one of the beaters be heard more strongly, then the beater should be ordered to shout with a cry and clap.

A correct and sensible cry in this hunt is so important that when standing on the line, one immediately knows whether the hunt ends in failure or success. Success here depends on the vocalization of all three beaters, and if even one of them fails there is no use to continue the hunt. If the beaters hear shots, they should not stop crying, but instead they must intensify it, because it often happens that a lightly wounded beast rushes in the pen, and it is possible that it returns to the gunners. "

The start signal is always given by the senior beater, loudly and severely crying: "Start!". The other two beaters immediately respond to this signal, standing in place, crying their usual cry once (on the advice of DM.-M., a good cry "ta-ta-ta-tao!") Then, still standing still, all three scream ten times. Finally, on to the cry from the lead beater "go!" all three move forward.

"The correct course is that all three beaters, having parted with a small net, from the end of the race place from which the gong should begin, move forward at exactly at the same speed and, so that the distance between the middle runner and both flanks remains entirely equal. Any slight deviation in either direction by the middle racer should immediately be corrected during the intervals in the cry of his comrades that he listens to.

This rule must be followed with all possible accuracy, because if the middle beater deviates from one of the flankers, there will be an excessively large space between him and another flank driver through which the wolf can easily escape. The flanks must constantly listen to the crying of the middle beater and adjust their speed this beater. It sometimes happens that the middle beater end up in a difficult terrain where he has to move very slowly. At this time the flank beaters may overtake him and the whole thing will be spoiled. Having reached the fladry, the flank beaters, continuing to scream, should pause a bit and align themselves with the beater in the middle and form a straight line. Then they proceed in a straight line up to the line of shooters.

Hearing a cry, the wolf immediately rises, listens to the sound and tries to go direct in the opposite direction with very little wagging, that is, he is getting lost from the direct direction. If he hits the other side then, after observing the curtain, he again takes the same direction and eventually goes straight to the line. In this respect, a stupid hare may seem incomparably more cunning than a wolf and a fox, because of the large voice of three beaters, it could only accidentally be placed on the line of shooters. The reason for this, however, is not his cunning, but the fact that he is running in vain without being able to figure out what is going on in front of him. The wolf can crawl around everywhere, but no curtains can keep him. Sly animals as the wolf and the fox always go carefully, vigilantly inspecting the terrain and trying to avoid the slightest sign of danger. Going out to the line of shooters and not noticing any danger, both

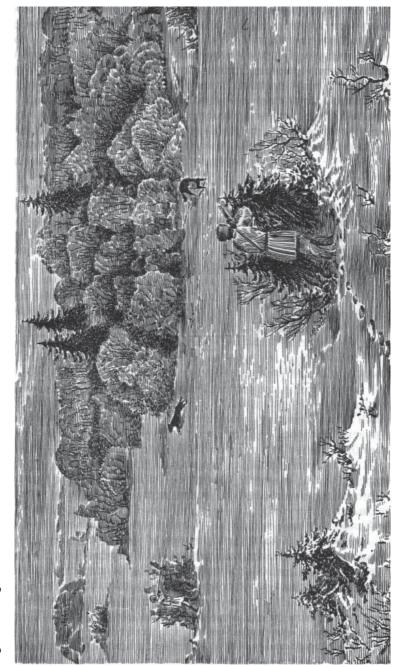


Fig. 13. Putting the beast on the line

the wolf and the fox take for the most part their carefree gait, that is, they go either by the step or follow an track, and if the shooters stand still, then the beast will certainly approach one of them ".

With large areas and in a continuous forest, the matter is not so simple and in order to force the animal to go in the desired direction, some deviations from the above rules are necessary. At large areas, the beater in the middle is often forced to follow the wolf ahead of him and not to lose its trace from sight and, at the slightest deviation, to let the flanking beaters know which, in turn, immediately intensify their cry and even speed up.

Then the wolf, foreseeing a great danger in the direction he has taken, immediately turns to the right or to the left and again goes to the direction where the hunters are standing. In the continuous forest, on the contrary, the beast again runs towards the beater in the middle. He must constantly shout louder than his comrades and at times, depending on the need, intensify the course. In both cases, first of all, it is necessary to be able to adapt to the local environment, it is easy to remember it and not to stray from the accepted direction.¹³

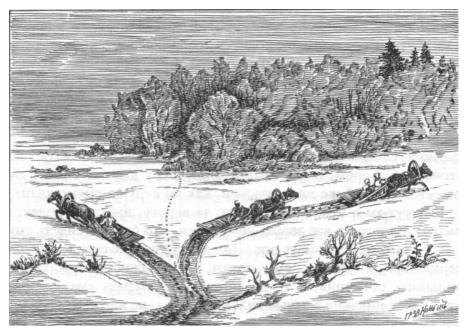
When all the rules are observed and when the beaters master their craft, the wolf can be exposed, as already said, to any of the shooters, if only the chief beaters know the places where the shooters stand. Only a few hunting societies hold Pskovians and their services are used mainly by small groups of hunters. In addition, with a large number of shooters, this hunting is not always successful, because of much noise, and finally, in order to gather members of the hunting society, it takes time, and the beast does not wait but often leaves the area. The best number of shooters is three or four. In the latter case, if several wolves are imposed, that is, an entire family, no beast will leave without a shot. In deep and loose snow wolves, even in the forest and bushes, go in a line, stepping in each others paw prints and consequently they exit almost simultaneously to one direction. At the first shots, the rear wolves rush to where they do not see the curtains and go out to the next hunter. At the same shooter they usually break through into the field or through the corral. Sometimes it happens that after the old wolves, mostly coming in front, were killed, the young wolves run several times under gun fire or they panic and run directly to the shooter.

If one or more wolves leave unscathed or slightly wounded from the first corral and break-through into the field, it is then possible to arrange a second hunt, sometimes even the third hunt. Of course, the wounded beast becomes more cautious, thus it is more difficult to deceive, and often breaks through the corral and leaves along the

^{13.} This ability to navigate is called Pskov tie.

^{14.} Depending on the direction in which the wolf dodges, the senior beater lets the others know by shouting: Right! Left!

line. After the first failure ordinary wolves consider themselves being complete safe. However, hunting with Pskov is convenient, because it does not require large preparations. Beaters and hunters are after a quarter of an hour following on the trail. When the trail leads them to some strong place where the wolves supposedly could lie down, the place is circled around, which for speed is done simultaneously from both sides (Figure 14). If it turns out that no wolves have exited the circle, then the hunt can start all over again, just like the first time. Obviously, using this method you can go look-



ing for the beast everywhere, overlaying it and killing it without a prior preparations.

Fig. 14. Detour of a strong place on both sides

But, of course, for hunters it is much more convenient to take a place directly than to find wolves. However, this is possible, when the wolves wander around and the hunters live in the village. In the morning, the beaters leave to search for wolves. Around noon one of them lets you know that the wolves are found, and the hunters only have to come to the place and stand on their places. Hunting is even easier when the wolves are adhered to a carrion.

"But no matter how successful these hunts were," writes Mr. Olenin, a well-known wolf hunter in the Pskov way, "they still cannot compare with hunting in the field, when hunters and beaters must use all their skill to outsmart the extremely sensitive

and cautious beast. All the hunt is in front of your eyes, and in front of you in a clean snowy field the most cunning chess game is played out.

Having left in the field after the running wolf, from the first time it seems that there is no way to get it and that the quickly disappearing beast has gone. But do not lose hope, and most importantly, do not rush. Soon the dead beast will lie in your sled. Slowly accustomed to the fact that people are following him but apparently do not pay any attention to him, the wolf begins to slow down. At this time, having come under the wind with respect to the wolf, you may cautiously fall off the sledge at some bushes, snowdrifts or rocks and lie like dead, until the sledge goes off (this should be done all the way without stopping the horse, otherwise the wolf will notice you right away and you cannot by any means overtake this place again). Then, actually, the hunt begins. Having dispersed in different directions, the beaters begin to circumnavigate the beast, as if moving away from it. The wolf, weary of persecution and accustomed to this spectacle, becomes more trustful and looks curiously at fur coats, rugs, and other items that the beaters throw out on the run in places where the beast should not be allowed to go. While the latter is engaged in observations, the beaters, standing in a sleigh, jog into it with an easy trot, and the round-up begins, turning the horse to the wolf, they knock it back and, as at a command, drive it towards you. During the rut there is a conversation with the beast, and you hear every sound in the wind. One stubborn, the other goes on and like a string comes towards you. Here it is necessary to show endurance. At a distance of one verst, sometimes more, you see the beast running at you. I cannot believe that you will sit quietly and soon he will be at your feet. For a young hunter, the perfect torture comes closer and it is almost impossible for him to resist the involuntary movement. Then the sharp-sighted beast will immediately smell danger, and already no earthly forces will ever catch up on you on it."

When hunting with Pskov in the field it is necessary to follow the following rules.

- 1. Shooters should not be dressed in a light gray dress, but in white, because there is nowhere to hide in the open field. A hunter in a white garment (of course, if he stands motionless), the beast will see him only when it is perfectly suitable for the shot, as its attention is distracted by the rut and the weights on both sides. At the extremes, artificial shields from the tail-growth, or artificial bushes can be used, and in the quiet weather also white-painted screens stretched over thin white sticks that are stuck in the snow.
- 2. Weights (not less than 8 pieces on each side) are scattered in the form of slides in such a way that they can be seen from afar. The first one 50 sazhens from the extreme shooters and then with 30 sazhens spacing from each other.

3. The whole rut is made by horses, with which the beaters rule, standing in the woods, so as not to lose sight of the beast. The middle beater positions himself about a verst from the beast so that the wolf is between him and the line of shooters. The flank beaters are at a distance of 200 sazhens from the middle and, moreover, a little closer to the line of shooters. The one of them, in the direction of which the beast is pushed, should scream more and drive the horse more quickly. In a very snowy winter, when horse riding is impossible, hunting can be done on skis and with almost the same success, as the beast becomes more humble in deep snow.

Some beaters, having studied the nature, gaits and evasions of the beast, and they reach perfection in applying their knowledge in practice and can catch up with the wolf and the fox, marching alone and on a hunter. Such a beater, having planted you for some bush or stone, comes in from the opposite side and, instantly turning off in the direction that the deformed wolf evades, especially the more cunning fox, with those maneuvers and evolutions that do not yield to any description, exposes the beast on the hunter. "This alone," says Mr. Dmitriev-Mamonov, "cannot be brought under any theory, and for the first time seeing it, brings to the final amazement. This skill is purely Russian poshiba (way of doing), quite a kind of sharpness and resourcefulness at this moment ... "But such art, of course, is available to very few. This is really, in the expression of the same author, reckless courage, yes it does not make a necessity.

According to the Pskov method, the procedure is, in essence, extremely simple and requires mainly minor adjustments. This quality is very often found in Russian trappers, and therefore, with some familiarity with the case and some perseverance, it is not difficult to find out of local hunters, who do not resist the notorious Pskovians who take their money for their art and, in order to keep for a monopoly, try to keep it a secret. Almost everywhere there are trappers who already have some notion of winter hunting, for example, in winter they can trace a hare that can distinguish a wolf's trail and determine its freshness, habitual for skiing and familiar with the terrain. If they are really hunters in the soul, strong build and not a drunkards, then the rules of salary and fencing of the beast will be quickly assimilated by them. The main thing is to teach them to scream and to ensure that they on the corrals walk towards the line at one time.

When this is achieved, you can be sure that they will exhibit the wolf or fox for the shooters. With such home made Pskovites, they hunt. So does Olenin, Dmitriev-Mamonov and some other hunters. 15

^{15.} Figures to the description of hunting with Pskov were taken from "Zh. hunting "for 1874 year.

CHAPTER 9 - PIGS AND CARRION

Hunting with a pig and hunting for carrion. - The unavailability of these hunts and its causes. - Origin of hunting with a pig. - The time most convenient for this hunt. - The number of shooters. - Sleigh. - The horse. - Piglet. - Potask. - Rules of riding and shooting. - Hunting for the fallen. - Its advantages. - Selecting a location. - Arrangement of an ambush. - Medieval hunting. - Rules of approach to the ambush and the rules of shootina

So far, we have considered such methods of rifle hunting for wolves, which require a more or less significant number of shooters and four-legged or two-legged beaters. We also saw that with a good composition of hunts and with observance of all the rules by the methods described, wolves can be exterminated by whole broods. Now we will say a few words about two more types of winter hunting for wolves, namely, hunting with a piglet and lying on a carrion. These hunts are very cheap, and they do not require a large number of hunters, but they can never give brilliant results. Under the best conditions, one can get one, several - two wolves in one hunt, and usually you have to come back with empty-handed. The main reasons for the inadequacy of these hunts lie in the fact that they are carried out exclusively at night, why the first shots are rarely quite successful, and it is usually not possible to fire another shot on the same wolf. Both of these hunts are also mostly produced only in bright moon, and cold nights, which also does not represent special comfort.

In addition to these common features, the named methods of hunting does not include anything else. Hunting with a piglet belongs to the large number of mobile hunting methods and can be called a nice walk, or even a walk with music. On the contrary, the night trapping of wolves at a standstill requires a fixed sitting in one place, requiring great patience. It is not in the nature of average hunters, and therefore should rather be called fishing. Nevertheless, the latter method is much more rational than the former.

Hunting with a pig originated originally in Poland and Lithuania, and from there it came to Little Russia. In the Great Russian governments it is still almost unknown to

the peasants, and the hunters know about it more by hearsay. If they tried this method, they usually were unfortunate, despite the fact that they could not complain about the lack or absence of wolves. The reason for this is the ignorance of the rules of hunting, and the fact that we have relatively few pigs, so our wolves are almost unfamiliar with them and reluctantly go to the scream of a pig, which they did not recognize. Some experiments have shown that dog squeal is much more attractive for the Great Russian wolf, and therefore in places where there are no pigs or very few of them, you should go with a dog instead of a pig.

Probably, the idea of an original hunt with a piglet arose on the grounds that wolves attacked dogs with insolent audacity in the winter not only in the forest, but even in the countryside, not only at night or at dusk, but even in broad daylight. It was easy to conclude that the dog can serve to lure a wolf into a gun shot. Probably, it was so at first, but then the method underwent some improvements, and the dog was replaced by a more vociferous piglet, which is a tastier bit in the eyes of the wolf, and thus serves as a more attractive bait.

In general terms, hunting with a piglet is that several people with guns and a piglet ride in places where wolves are always wandering, and when they attracted by the shriek of a pig approaches the shooter they are shot. Therefore, hunting can be successful only when there are a lot of wolves and they are so hungry that they forget all caution, that is, only in winter, even in the second half of winter, when predators are already dragging most of the village mongrels, catch all the hares in the neighborhood and because of the deep snows begin to wander along country roads.

Some people think that hunting with a piglet is most successful when the wolves run and gather in large flocks. But this conclusion is not entirely true.

Although during the estrus the wolves are really bolder than any other times, and go for bait, it is less likely to meet them and, in addition, after the first shots, all the surviving wolves flee and most of them stay away not only this night, but even in the next. Maybe they never more run after the treacherous shriek of a pig. There are cases, however, that when a she-wolf was killed and when the flock was very large. The wolves rage, attacked the horse and even the hunters, but it is extremely rare and the hunting success, in any case, is not favorable.

For hunters, it is most profitable when the wolves walk alone, by two or by three, because then you can meet a few flocks and make a few volleys. Based on the wolves' way of life, we believe that hunting with a pig should be the best at the very beginning of the estrus season when old wolves are running and young people, left without experienced leaders live, so to speak, on their grubs and become hungry and very

brave. As you know, the wolf's tide in most of Russia begins around the saints, ie, in late December and early January.

Probably, each of us has heard or read stories about hunting with a pig, to which hunters gather the whole companies, and saw drawings depicting a troika of galloping horses and a huge pack of hounds pursuing these three wolves. Even some hunting writers, who used to be famous, depicted and described this hunt precisely in this form. So, for example, Wenceslavsky ¹⁶ says that she requires the largest peasant sleds, harnessed by a pair of horses. Two ladders are tied across the sledge, on which 12 people sit. Inside the square the 13th hunter sits and holds a piglet in the sack ... Perhaps it was possible to attract such a hungry wolf pack occasionally by chance, but such incidents should be considered very rare exceptions. Of a hundred cases, maybe in one will be successful. For the same reason, to go for the hunt and not to ride and rely on luck, you should arrange a hunt completely differently.

The history of the origin of the hunt clearly shows us that everything to the smallest detail must be adapted so that the wolves run up to the hunters without the slightest fear and take them for peacefully riding peasants. Therefore, it is best to go out together, at most three not counting the driver, and using ordinary peasant¹⁷ sledges, harnessed in one horse. In some cases, allowed another sled to follow 300 yards from the first. All hunters should be dressed in a peasant dress and sit as calmly as possible, without showing their armor.¹⁸ A horse must never be afraid of wolves, otherwise instead of going by step or pausing at a critical moment, it will panic and throw out the shooters from the sledge. In general, it requires the same qualities as in hunting with Pskov.

For bait, which is here the most important method, should a half-year-old pig be chosen, sometimes even a sucker. The pig's duty is to scream almost a whole night, so the choice should be made with a good sense. The more noise - the better. So when the pig shrieks, it teaches ears, and that is why Gayvaronsky¹⁹ recommends pigs with erected ears because they seem to be much more sensitive than the pigs of floppy ears. A good pig should not, they say, squeal incessantly (because then it will very soon hoarse) or squeak, but only rarely and abruptly scream as soon as it is taken by the ear²⁰. The pig should not be pulled too often or too hard by the ear.²¹

^{16. &}quot;Journal of Conn. and hunting", 1849, October, pp. 1000-1008. - "Hunting for wolves at night with a pig."

^{17.} Or other peasant sledges, depending on the terrain.

^{18.} The guns must be cleaned so that they do not smell of gunpowder. This rule is very important and should be followed in all round-up hunting.

^{19.} See "Works of the Imp. free econ. obsch., 1852. He advises not to feed a pig before the hunt.

^{20.} Kavelin. "The first wolves." - "Zhurn. hunting", 1877, July, p. 21.

^{21.} Klimov ("Hunting in the Mogilev Province.") Recommends biting the ear, because in a cold night it is not very convenient to scrub the pig's ears.

For more convenience, the pig is planted in a bag (sometimes sewn into a felt) so that only the head remains outside. As said, a piglet can, and sometimes even need to be replaced by a dog, then usually a puppy.

Despite the most desperate screams of a pig, wolves rarely dare to approach the riding hunters. In order to whet the wolfish appetite, a so-called potask is needed. The potask consists of a piece of hay or straw, which is pulled behind a sled tied with a thin rope no longer than 20-25 arshins. In order for this piece to have the appearance of a pig (or a dog) running after the sledge, it is sewn into a bag and gives it a somewhat oblong shape. For the sake of completeness of illusion, it is very good to put this bag in a pig's bag or to stuff it directly with pig manure. In an extreme case, when the wolves are not going well, instead of pulling the piglet on the reins it is pulled lower.²²

Hunting with a piglet is all the better in a quiet and moonlit night, in windy weather, the squeal is heard only in one direction, and in the dark night the wolves are much bolder, but a sure shot is almost a matter of luck. Most of them drive along country roads or virgin lands, trying to keep the shot from the sledge towards the moon.²³ The frantic shriek of a poor piglet on a quiet night is heard a mile away or even more. Wolves are attracted by this cry and run out on the trail or onto the road, smell the smell of a pig and run after the sleigh. In order for the wolves not to notice the deception, and to further provoke them, the hunters are riding in a large trot and the pig is exerting a strong drag. Wolves rush to the shoe at this moment the driver stops the horse, and the hunters, having agreed in advance, in which direction each on shoots, they give a volley.

Hunting at carrion is quite common among Russian trappers and in low-forest areas they are used even more often than trapping, requiring a very large skill and skill. Hunters, however, rarely hunt wolves in this way and almost neglect it, although completely in vain, since all rules, when many wolves are wandering around, you can kill up to a dozen pieces, in any case, much more than hunting with a pig. ²⁴The advantages of hunting at a carrion before hunting with a piglet are obvious. Here it is necessary to deal with already privatized wolves and it is possible to shoot them with endurance.

The choice of a place for a voyage is very important in this hunt. Some hunter-writers, for example Wenceslavsky, advised to put a carrion near the dwelling, behind empty buildings, where the hunter could hide. But this advice is worthless, firstly, because

^{22.} The well-known V. Levshin ("The Book for Hunters", 1812), advises to tie to the same rope steel double-edged scythes, which should drag along half a yard behind the pig. Wolves, rushing at him, cut themselves like tendons! Strakovsky ("Hunting wolves in Polesie." - "Forestry and Hunting Newspaper", 1859) goes even further and advises attaching braids to the sleigh.

^{23.} Moonlight is very deceptive, and if you stand facing the moon, you can easily miss.

^{24.} We know several such examples. F. Karneev ("Journal of Hunting", 1876, July, mixture) also speaks of an trapper who killed 8 wolves in one winter.

carrion is mostly eaten by dogs before the wolves come to it. Secondly, because the wolves reluctantly approach houses. Finally, close to houses you will often kill a mongrel than a wolf. It is best to put carrion at least one or two versts from the village. At such a distance that the dogs don't walk there even in the daytime. Usually, at the edge of small forests, near the crossroads of low-traffic roads. In the bushes, a small pit of such dimensions is kept from the autumn, i.e., in September, so that a seated person can fit freely in it, that is, about 2 arshins in width and depth. In one half of the pit, i.e., closer to the bush, a ledge of half a yards height is left for the seat. The floor is covered with fresh horse manure. If the terrain allows, it is good to choose a steep slope for the pit, descending towards the carrion. Such pits are more convenient for shooting and can be smaller. At the top of the pit there is a wattle shield and only a small opening for the entrance from the side facing the carrion is left. Then the whole hole is covered with brushwood.

Some 20-30 steps from the pit in the direction of the field, a carrion is placed on a haystack for the whole autumn. The carcass of a horse is best. A shallow carrion is not good, because the wolves are quick to take it away. When the wolves start to go to the carcass and eat of it, you should bring a new one and put it without touching the previous bones. This happens usually when the snow falls. This new carrion is dumped without leaving the sled, as if passing, and certainly so that it was turned head or tail to the opening of the pit. Otherwise, the wolves can hide behind the carcass, as soon as something suspicious is noticed. If the carcass was not put in the autumn and it is necessary to put it in the winter, it is taken to the place with a so-called potato, i.e., a piece of roasted meat attached to a rope that is dragged along the snow behind the sled. Having put the carcass, they circle around the place in various directions to ensure that the wolves, after finding the trail, quickly find carrion.

As soon as the reconnaissance will show that the carcass has been visited by wolves, the next night you can ambush. This is done with very great precautions. It is better to drive up to the pit on a sleigh together and in extreme cases, you can approach it by foot, stepping on the trail. Stopping at the edge of the hole that faces towards the field, the hunter, without getting down from the sleigh or standing in one place, as carefully as possible, makes a proper hole in the brush and sits in the pit. The comrade continues in the same direction and makes a detour as large as possible. All this is done in order not to rise suspicions and deceive the cautious and sensitive animals. That's why most often you have to shoot them in the snow and blizzard. Despite all the precautions taken they may not come on a bright night.

The hunter must sit perfectly in the pit, and he should not smoke at all and, if possible, not protrude at all. His gun must be cleaned and loaded with large buckshots. Since there rarely is a possibility to fire more than one shot, there is no need for a double-

barrel rifle, and most convenient is the single-barrel of the largest caliber, from which, when a whole flock comes, sometimes two wolves can be killed and several wounded. In general, it is necessary to wait until there comes a plenty of wolves and they begin to bicker with each other. Then you can gently stick out the end of the barrel, and carefully aiming, rising the gun from the snow, i.e., up from the ground and shoot at the beast closest to the pit.²⁵

Just in case, we advise not to leave the pit after the shot, but wait an hour or two, because if the wolves came together or three of them and one of the old wolves was killed, the young sometimes turn back to the carrion. Approaching the lying beast should be cautious, not without a loaded gun or revolver. Severely wounded wolves can be traced in the morning on the trail.

Apparently, this hunting is rather boring and although it cannot be called dangerous, it still requires a fair amount of courage. A comrade can only hinder and spoil the whole thing. Until now, as far as we know, no one has tried to shoot wolves from storage pools, as sometimes bears, puffed in the summer for oats or in the spring for carrion, but it seems to us that these can sometimes be used to watch wolves in the field. Only then must the storage facilities be made in dense spruce and pine and the hunter should drive to it with even greater precautions than in bear hunting.²⁶

This exhausts all types of hunting for the wolf. Hunting with carrion is already a transition to the fisheries, which we will consider in detail in the following chapters.

^{25.} It is better to aim at the middle of the beast, behind the front scapula.

^{26.} The best description of the bear hunting is found in LA Lvov's excellent article "Essays on the main ways of hunting for predatory animals."

CHAPTER 10 - HUNTING WITH THE GOLDEN EAGLE

The small prevalence of hunting with the golden eagle and its importance in a number of other hunts. - Breeds of Golden Eagles. - Training and bearing. "The time of the hunt." - Various adaptations for hunting with a golden eagle. - Hunting in the dressage. - Hunting with dogs. - The method of attacking the golden eagle. - The role of the hunter. - Possibility of hunting with golden eagle in the southern and middle provinces

Hunting with a golden eagle, strictly speaking, does not belong to commercial hunting, and if I count it here, it is only because it is not known even by hearsay to the majority of real Russian hunters. But among the Central Asian peoples this hunting enjoys no greater honor than the falconry hunting. It is the exclusive property of the khans, sultans and biys²⁷, and it is always preferable to hunt with the greyhounds because the golden eagle can be obtained by a wolf, which is taken by a very rare Asian greyhound, and partly because hunting with a golden eagle, like any other hunting with a hunting bird, from the general hunting point of view, is one of the highest sports.

Hunting with the golden eagle is common in many parts of Central Asia and has been known there since ancient times. Another famous Venetian traveler of the 13th century, Marco Polo mentions the golden eagles, with the help of which wolves and other animals were taken. Eagles trained for hunting are found among Bukharans and Kokand people, but most often among the Kirghiz, especially among those roaming along the rivers Chu and Syr Darya in Kyrgyzstan, south of Omsk. In the old days hunters with golden eagles met with rich Tatars, also between Orenburg Cossacks and Bashkirs, but in the late sixties and early seventies, when I was in the Trans-Ural steppes, nothing was heard about eagle hunters. The Bashkirs became impoverished

^{27.} Biys were elected judges and administrators in Kazakhstan. Biys are below Sultans in rank.

and now serve only as suppliers of golden eagles for the Kirghiz. This hunting is mainly engaged in mountain Bashkirs of the southeastern part of the Ufa and northern parts of the Orenburg province. The eagles are taken out of the nest by young people (on the cliffs and in pines), usually in early June, and, after raising them, they bring to Troitsk, where they sell them for 15 roubles and more, depending on the size and strength of the legs. Female, as being larger and stronger, are always preferred to



Fig. 15. Hunting with golden eagle

males. The South Ural Golden Eagles are famous for their growth and strength in the Kyrgyz steppes and are preferred before the Central Asian eagles, which are less suitable for wolf hunting. The former belong to a large reddish species or subspecies of *Aquila chrysaetos*, and the latter to the shallow dark *Aquila nobilis*.

In the wild, a golden eagle, may sometimes drag wolves into its nest, but it does not attack adult wolves. This is achieved through careful care and special training. In order for the caught eagle not to crumple their wings and tail, it is contained in a spacious cage and to strengthen the muscles of the legs it is has thick pole and it is feed once a day with no more than 74 pounds of fresh meat. A young bird soon becomes accustomed to the person feeding it. The training of the golden eagle begins when it is completely relaxed and accustomed. First of all, it is taught to grab a meat lure tied

to a rope, the length of which gradually increases. Sometimes this lure is put on the head of a stuffed wolf, in the eye cavities of which pieces of meat also are placed. The Kirghiz mostly train the golden eagle later, when it is fully strengthened and learns to fly using living animals and not feeding the bird for several days.

For this purpose, a wolf, a hare or a fox is tied to a log with a piece of meat attached to the back or to the animal's head. A cap is put on the bird's head, and it is carried out without the rope. For 10-20 sazhens from the tied beast, the cap is removed from the bird and it, being hungry, immediately notices this usual bait and instantly pounces its claws into the back of the animal. Similar lessons are repeated several times, and the distance to the bait is gradually increased. Finally, the unfortunate beast is tied to the pole without a piece of bait on its back and the hungry golden eagle is given the opportunity to kill the beast. Thus, little by little the golden eagle is accustomed to live bait, after which some real attacks are performed on running beasts - and the training is over.

It is much more difficult to teach the golden eagle that has already flown from the nest, especially as an adult. Birds older than three, even two years old, are no longer suitable for hunting and usually fly away sooner or later, while this happens very rarely with young birds taken from the nests. These may even completely lose the ability to soar at altitude, and they always beat the beast on the ground. Wild birds should first be accustomed to a hunter, which is achieved by prolonged starvation and insomnia. The golden eagle is alternately carried for several days, preventing him from falling asleep for a single minute. This bearing lasts a week or more, then the usual training on a long rope begins.

It goes without saying that it's best to train a golden eagle on a living fox or a wolf, but if such are not available training may be carried out with a stuffed animal or a dog. The latter, however, has the inconvenience that in a hunting situation the eagle often clings to a greyhound instead of a wolf²⁸. Sometimes it may attack a man and in general it may attack the first living creature that comes across.

Hunting with a golden eagle usually begins in September and lasts all winter and early spring. Earlier on August 15 and later on May 1, it is impossible, as the eagle sheds in the summer, and the beast lives in the forest, reeds and bushes or lurks in holes. The best and most successful are hunting with a golden eagle is at the first frost and on fresh powder snow, which also makes it much easier to search for animals.

Since the golden eagle is very heavy and sometimes weighs up to half a pood, there is no way to keep it on your hand like a hawk or a falcon. Therefore, the Kirghiz attach to

^{28.} AI Vilkins says that one day the desolate golden eagle clung to a camel. It should also be noted that the Kirghiz on hunting with eagles are usually not allowed to wear anything red.

the right side of the front bows of the saddle a wooden or iron crutch about a quarter of its height with a transverse and always wooden, notched bar. On this crossbar on which the bird sits, the Kirghiz leans with his right hand. To protect his hand from pricks from golden eagle's sharp claws, it is put on a sleeve or a coupling from the thickest skin with a felt lining. Sometimes, especially in winter, a glove is sewn on this sleeve. In the Syr Darya, on the outskirts of the Hungry Steppe and in the Vernensky district, the golden eagle is not carried on the hand, but on a stick fixed horizontally to the front bow of the saddle on the right side, so that the hunter's both hands are free²⁹. Finally, Kirghiz Bukeyevskaya hordes carry the golden eagle alone on a long pole tied with the ends in front of the saddles.³⁰

On the golden eagle's head is a special cap, which would move freely around the neck. For ease, it is usually made of mutton peritoneum, and for decoration purposes several multi-colored feathers are attached to it. On the birds feet they put so-called nogavki of soft leather, with a becket through which a thin but strong belt is threaded. One end of the string is wound around the hunter's left hand, and the other on the little finger of the same hand. In some areas of Kirghiz this hunt, as well as in falconry, a small hemispherical drum is attached to the left side of the saddle. By hitting the drum, the hunter beckons the bird that has risen from the hand. According to the Kirghiz, the golden eagle then enters a much greater excitement and rushes more wildly at the beast. Let us note here that on the eve of the hunt the golden eagle is for the most part not fed.

Hunting with a golden eagle is done in two ways. In the first case, dogs are not taken with the hunters. With this in their mind they go to the hills and carefully inspect the surroundings. The sharp eyes of the Kirghiz distinguish objects in the steppe incredibly far away and seeing the wolf, the whole band of hunters try to such a distance that the golden eagle, rising to a certain height, observes at the beast. Sometimes, in the winter, on a powder snow, the beast is tracked down.

Having seized a comfortable minute, the hunter drops the strap from his little finger, moves the cap over the neck of the golden eagle, lifts it and with rapid movement of the left hand releases the bird's legs, encouraging it with wild hiccups and blows to the drum. The golden eagle immediately flies up in the air and, upon seeing the beast, throws itself at him.

This is a hunt with a golden eagle, so to speak, a dressage. But in the localities abounding with reeds, thickets of bushes and bushy grasses, where the beast is hidden, the golden eagle cannot do anything without the help of dogs. It may see the beast but being afraid of crushing his wings, does not attack the beast. Therefore, it is necessary

^{29.} See A. Wilkins. "Sketches from the steppe. Hunting with golden eagles. " - "Priroda", in 1876, the book. IV, pp. 158-162.

^{30.} Witte. "Hunting in the Astrakhan Province." - "Gas. forests, and hunting", 1856.



Fig. 16. Hunting with a golden eagle ("Nature and Hunting", 1882, No. 11)

to drive the beast out of the bush to an open place, and for this purpose dogs are necessary, and moreover in large numbers. This role of the hounds is carried out by the Kirghiz dogs or sometimes even greyhounds. In this case, the golden eagle should be accustomed to dogs. A hunter with a golden eagle usually waits for the beast, standing at the edge, but if the bird is very well trained, then it is lowered simultaneously with the imposition of beagles. The golden eagle stops in the air above the dogs and slowly pulls them over the tops of the reeds or shrubbery until the beast runs out into an open place.

Usually the golden eagle, when rushing to the wolf, catches the beast with one foot in the neck or muzzle, the other - in the back. Bending the beast's back, prevents the beast from running or stops it immediately. At the same time, he begins to peck at the beast's head or its eyes. The wolf, as more cowardly and weak, is an easy made prey for the predatory bird and often it does not run at all. An old wolf sometimes manages to get rid only by scratches, since he often, after running some distance with his unexpected burden, suddenly falls to the ground and tries to bring down eagle from the back and at the same time grab it with his teeth.³¹ However, being a target in such a pursuit, few dare to try such a cunning maneuver, but instead run to exhaustion without looking back. They may sometimes run a mile or more, until they fall exhausted because of the loss of blood. But if the wolf is well taken by a golden eagle and it is dealt some severe blows on the back of the head, especially if the eyes are pecked, then the wolf only swirls in one place. Nevertheless, young and inexperienced Kyrgyz birds are allowed to catch only lucrative wolves and yearlings. Needless to say, the golden eagle attacks only solitary wolves, never a pack.

Hence it can be seen that the success of hunting depends a lot on the speed of the horses.

In addition, we must bear in mind that with the slowness of the hunter, the golden eagle can start eating, and after that it is done for this day and not capable of further hunting. Therefore, at the moment the golden eagle of descends, the hunter rides to the golden eagle and, after catching a stunned beast, strikes it hard with a club or a kish-tree, trying not to touch the golden eagle. If the wolf is stopped and can no longer escape, the Kirghiz jumps off the horse and stabs him with a dagger or hits his nose with a brush. Then immediately, or sometimes even before the wolf finally finishes, the cap is put on the golden eagle and it is removed from the beast and the tied with the protection boots. The angry bird only calms down when it does not see anything. In the event that the beast is accepted quickly and the golden eagle does not have time to tear it, the bird is immediately given a small piece of fresh wolf meat. In one day, you can thus hunt three or even up to five wolves.

^{31.} See Konev "Hunting with a Golden Eagle". - "Gas. forests, and hunting ", 1859, No. 1.

From a brief description of this original hunt, it is clear that it is very interesting and has every right to be called a hunt. It is also easy to see that the training of golden eagles does not pose any particular difficulties, and therefore this Kirghiz method of obtaining wolves can be practiced in Russia and in the greater part of the middle provinces. Our wolves, not only Central Russian, but also steppe, are much larger and stronger than the short and cowardly Kirghiz wolf, but one cannot doubt that the wolves can be harvested with golden eagles at a distance not reachable by the greyhound. There is nothing to say about the persecution of foxes.

It is not so difficult to get a golden eagle, as a large breed of golden eagles is found, in almost all the large forests of the central provinces and throughout Northern Russia. I have seen their nests both in Yaroslavl province and in Tambov. These golden eagles were no different from ones in the Urals, well known to me. I have found eggs and nestlings of large golden eagles more than once, and I very much regret that I did not have time to train the two young golden eagles that lived with me at different time.

CHAPTER 11 - CHASING WOLVES

Difficulties of this kind of hunting. - Different types of chasing. - Horsemanship. - Autumn hunting and the nature of it. - Chasing in winter time. - Conditions of this hunt: weather, wind, time of day, horses. - Medieval hunting. - The number of hunters. - Required skills; tools used in chasing wolves. - Chasing with reindeer. - Chasing by skiing

Like hunt with a golden eagle, chasing a wolf is also almost completely unknown to hunters of a privileged class. Nevertheless, it can rightfully be called a hunt simply because of the fact that this method of obtaining a wolf is like other methods, it excites and fires the hunter. Here, a person meets a wolf face to face, without the help of hunting dogs or bird hunters, and sometimes, as we shall see later, the hunt is all up to himself - his agility, strength and, most importantly, endurance. The latter qualities are necessary and only the difficulties of this hunt prevent it from spreading among the more pampered hunters and diminish its dignity in their eyes. This kind of sport is beyond our power, and therefore it is almost exclusively nomads and shepherds, for whom it is often the only and the most handy and resourceful mean to get rid of the main enemy of their herds and herds.

Chasing wolves, as the name suggests, consists in the fact that the beast is persecuted to exhaustion and then either killed or strung up and taken alive. Persecution is perpetrated either on horseback, or on skis. In the latter case, of course, only in a deep and friable snow, in which the wolf sticks and soon becomes tired. Under such conditions, the hunter also achieves the goal, but for him winter and snow do not constitute an indispensable condition. In snow it is possible to drive a wolf in the late autumn, although with much greater difficulties and only in a treeless terrain. Generally, horseriding is possible only in the southern steppes, skidding on skis - only in the northern tundra and some forests.

Let us first consider all the modifications how to chase wolves by the upper classes known to us. This method of catching wolves is used in all the steppe suburbs of European and Asian Russia: Bessarabia, Novorossia, the Crimean, Don, Kalmyk, Orenburg, Barabinsky and Transbaikalian steppes. In many localities, there is no other way of hunting wolves, and this is quite understandable. From the steppe breeds of greyhounds few wolves are taken, hunting with a golden eagle is not widely available, but horses in the steppes are in abundance owned by almost every steppe peasant, Cossack and nomad. That is why there is no doubt that most of the steppe wolves are huntend by chasing.

As for the chasing wolves in autumn before the snow, it either requires very large preparations and a large number of participants, or it has a purely random character. In summer is unlikely to chase a wolf at first, because the steppe wolf rests in the reeds or the small forest and shrub growing in low valleys of rivers, secondly if the hunter accidentally stumbles on a wolf in the open steppe, then it must be an old one or a youngster; finally, thirdly, because it's hot. For this last reason, it is much easier to drive a wolf in the spring and, indeed, several such cases are known.

So, for instance, F. Grinevetsky describes the wolf hunt, which took place on April 28, 1838 in the Bulgarian colonies, in Bessarabia. However, one must bear in mind that this hunt was carried out simultaneously in all 38 colonies, and the area reserved for the chasing was about 600 versts in circumference, and that this was not a chase, but rather a horse raid. From each village the leaders of the colony collected several dozen of people armed with horrible things. Part of the hunters, divided into small groups, set out at dawn to the steppe, to places that served as dens for wolves, while other parties waited for a shout near their village and, as soon as the beaters drove the beast out of the lairs, hunters galloped toward the wolves, surrounded them, shooting, pricking, chopping, and beating the wolves. The killed beasts were taken by the hunters to the next village. In this one day they had killed 137 wolves.³²

Similarly, only in the autumn when the wolf most of the year lives in the reeds, the Kirghiz of the Lukeev horde hunt. Here, the animals are preliminarily driven, with the help of dogs and riding beaters, to an open place where another part of the riders waits, and a real chase begins. Actually in the Kirghiz steppes, the chasing of wolves along the autumn is done mostly, when a fairly large number of riders accidentally stumble upon a brood and envy it at a short distance.³³

Much more casual and less likely to succeed is a single chase in the autumn, in the late autumn or in shallow snow. Stamati recounts how Moldovan shepherds in Bessarabia,

^{32. &}quot;The chasing of wolves in the Bulgarian colonies." - "Zhurn. konoz. and hunting ", 1845, August, pp. 853-860. Several similar hunting was also carried out in the autumn.

^{33.} Wilkins. "Two sketches from the steppe." - "J. Imper. Society. oh. ", 20 1876, February.

when wolves attack a herd, pursue them alone and catch them with a lasso.³⁴ Probably, in doing so, it is only possible to drive out the lucrative wolf. A she-wolf, I presume, is almost impossible to drive alone, unless the first rider is replaced by another on a fresh horse. In the Don steppes, for example, a Cossack, seeing a fellow pursuing a wolf, begins to chase the beast in turn and sometimes passes it to another Cossack, a third, and so on.

This kind of chase with an improvised setup is probably done in all other more populated steppes, and in this way it is possible to drive out any wolf.

But the real chasing of wolves begins in winter, when a deep loose snow falls, a deadly powder that does not mean anything to the horses but does not allow the beast to move. In autumn, the chances of the pursuer and the persecuted are completely equal - and the wolf very often leaves, but in winter it happens very rarely. Therefore, winter chasing can be called the most correct and best way of exterminating wolves in the steppe, and it is not surprising that in some localities it has taken the nature of market hunting.

The winter chase in the Orenburg steppes among the Orenburg Cossacks is more or less organized and, perhaps, only more detailed. Kanev, Aksakov, Svidersky, Cheremshansky and many others wrote about chasing wolves in the winter, and therefore there is a complete possibility to make a correct conception of this hunting and at the same of time hunting other prey.

Winter chasing does not, however, last all the winter. It usually begins when a fairly deep and loose snow falls, i.e., in November or in December, and ends in February or earlier, as soon as a thaw begins and the dense crust of snow on the surface rises. The more shallow the snow is, the more difficult it is to drive a wolf, sometimes almost as hard as in the fall. Snow also makes it much easier to search for the beast. In general, it is better to chase wolves when the snow is soft, i.e. in the middle of winter, and when it has a depth near an arshin (one yard). A wolf is seldom able to withstand even a two-phase chase. Later, when snowdrifts are formed, that is, when the snow lies unevenly, hunting becomes more difficult and at crust of snow it is almost impossible, since then the beast and the hunter have either the same chances, when the wolf runs freely, and the horse falls and rips its legs to the blood.

The state of the weather also has a great influence, if not on the success of the chase, then on the duration of it. Against strong wind, it's very hard to ride but for the wolf it's almost indifferent. Therefore, even in quite weather, they try to drive the wolves in the direction of the wind, but to find them, is much more convenient against the wind. The more cloudy and the more foggy the day is, the more uncomfortable is the 34. Stamati. "Hunting in Bessarabia", pp. 49-50.

hunting, since then it is easy to lose sight of the beast and it is necessary to chase not by eye sight, but by tracking. Hunters cannot do any good, and finally, the wolf or wolves can themselves hide and attack unawares. It is better to go on a chase in the early clear and quiet morning.

Since the whole job of this hunt falls on the horse's share, it is first of all necessary to pay attention to the qualities of these, which is necessary for a successful and rapid wolf chase. The horse requires strength and endurance - this are the main things. Then it should not be stumbling and should have a high swing of the front legs - this trait is very important when running in deep snow. Finally, the horse should not be afraid of the wolf and it should allow to turn around and stand still while the dismounted hunter is finishing the beast. In addition, it must be accustomed immediately to trot to rapid canter. Apparently, almost any hunting horse is suitable here. The Kirghiz and Don horses can be said to be drawn into the hunt, as they themselves begin to take an active part in it and often beat the driven wolf with their hoofs. As they say in the Bashkir steppes where the best horses for chasing are considered to be a cross between stallions and Bashkir mares.

We note here that in the Orenburg Cossacks, as soon as the snow falls, the horses moor, that is, they are kept ready for the races.

Although it is much easier to find wolves in the wilderness in the winter than in the autumn, it is only necessary to find their fresh traces, but since this search still takes a very long time, in some steppe areas wolves are previously accustomed to a known place, usually close to the village. For instance, in the Orenburg steppe, in autumn or at least one week before the start of the hunt, carrion is placed for this purpose, sometimes a pig is attached to the cola. The best bait for wolves in the winter, according to Konev, is a homegrown wolf or one caught in the fall. The female wolf is tied to a strong cola or tree with a chain, since in January the wolf tether usually begins, this wolf will within a short time attract males from all around her. In any case, the constant conditioning with the use of a carrion is much more convenient by the fact that a wolf that has been eaten can be driven much faster than a hungry wolf.

Usually winter chase is made by a whole batch of hunters - from three to ten and even fifteen people. We have to deal for the most part with whole flocks, and not with single wolves, and the pursuit of several wolves for one rider is very dangerous and much more difficult, since wolves then wander in single file and they do not get tired so fast.

In general, the number of hunters should be consistent with the number of wolves in the flocks, and the more wolves in these flocks, the more riders are needed. In shallow snow each hunter chases no more than one wolf, in deep powder snow - two, sometimes even three wolves can be chased.³⁵

As stated above, the hunt starts early in the morning, sometimes even before the light, when it is quiet and the weather is cold and clear. If the wolves are conditioned - the hunters go straight to the where the wolves are supposed to stay. If there was no salvation, then to the place where wolves or fresh traces were seen the day before. In both cases, the whole party follows, without making any noise, by a step, until they have either caught sight of the flock or frightened it from the place where it is resting. Then the hunters group is divided into two parts. The majority is scattered to the sides and with a boom, whistle, sometimes even with a bell (for example, Orenburg Cossacks take bells) ride directly towards the wolves. This is done in order to smash a flock, so that each or almost every wolf makes a separate track. Other hunters go after the wolves. As soon as the pack has crumbled and all the riders are trotting, each or, if there is not a lot of wolves and the snow is shallow, every two or three hunters try to drive their wolf, with one usually traveling on the trail or directly following the wolf, while others are masters, that is, they do not allow the beast to escape and hide in the forest, a ravine, if any, nearby, or to get out on the road. The same thing is done with a limited number of hunters, that is, first of all they try to break a flock and then drive one or two wolves.

As you know, the wolf is very strong and durable, but although it becomes exhausted it does not rest. In this respect, it is the opposite of the fox, which soon gets tired and does not endure a long chase, but very soon gives up. A fresh wolf can be driven two versts, or less if he had ate. A grown up young wolf at the same depth of snow gallops 3-4 versts, and the hungry one can run twice as much.

Once in the Don steppes an old wolf was killed only after a 15 jumps in the deep snow. ³⁶ On another occasion, apparently in shallow snow, a wolf weighing 3 poods was driven 28 versts. ³⁷From these two examples one can judge the degree of endurance of the beast. However, I hasten to make a reservation - wolves and horses are different. In the Kirghiz steppes, for example, wolves are very small and driving them is easier than in South Russia. If the hunter sits on an excellent horse, then the hunt ends much sooner than if he uses an ordinary horse.

Usually the wolf at first moves fast and immediately leaving the hunters for a mile and a half or more. When he slows down, the pursuers begin to press the beast. If there

^{35.} Svidersky says that hunters often return with 3-5 second-rate wolves ("The Northern Bee", 1853, No. 48), and Zhitkov reports a certain B., who at one time estranged a whole flock (?), beating one wolf from the herd. He thrust the wolf with the latter (Orenb., Gubernia Ved., 1852, 12).

^{36.} IU "Something about wolves". - "The Donsk. troops, Ved. ", 1855, No. 41.

^{37. &}quot;Hunting in the steppe places on wolves in the winter." - "J. konoz. and hunting ", 1851, No. 12, pp. 280-288.

are two horses for each wolf, then one of the extremes immediately passes from the trot into the quarry, trying to turn the wolf aside, making him a hunch and passes it on another horseman, riding along at a distance in large trot or gallop. The latter, in turn, jumps in all spirit and wraps the wolf on the first hunter or on the third. After a few such hunts, the wolf very quickly gets out of action and sometimes in a few minutes becomes the prey of one of the riders. But if you have to drive the wolf alone, you need to save the horse's strength as much as possible and go after him with a trot or a light gallop until the wolf steps. Then immediately switch to full speed while the wolf strains his last strength and finally falls due to utter exhaustion. Note here that one should never approach a wolf directly from the rear. It is necessary to approach him from a side, namely to the left, since then it is much easier to control the movements of the wolf and it is more convenient to beat or shoot it.

The pursued wolf first runs galloping into the deep snow, stressing the paws of the hind legs, but soon begins to stray on the trot and pops out the tongue. Then it starts to slipper and finally it can barely move its legs. The driven wolf has the most unattractive appearance. It staggers in all directions, constantly poking its nose in the snow. The wool on it rises and bloody foam flows from the mouth, as the tongue often gets cut by its teeth.

Finally, out of strength, the wolf lies down, or rather, squats, sprawling his hind legs and spreading apart the front.

At this time, the wolf can be beaten almost without danger, since he is unable to move from his place and only presses his ears and weakly snaps. Even the young wolves usually hide their heads in the snow as the hunter approaches. Most steppe hunters beat wolves, however, when the beast is still able to escape, but until then, as long as it does not stick out its tongue, it is considered dangerous to beat it, since the wolf can then injure a horse or rider. Old wolves often rush under the belly of the horse - the horse makes a leap to the side, and the young rider flies out of the saddle. There are cases when the wolves, not yet driven, dragged the hunter to the ground, grabbed his foot or squeezed the iron stirrup with such force that it was smashed into the boot.³⁸

The driven-out wolf is mostly killed by a strong and well-aimed blow to the nose. For this purpose, of course, any weighty stick, a thick whip, etc. In the Orenburg steppes, the wolf is beaten by so-called knobs - cudgels about 1 ½ the length (according to the growth of the horse and the hunter, since it must reach the ground), with a thick cone on the end, not less than three inches in diameter.³⁹ Strong blow of such a weighty club can immediately kill the spine, and therefore there is no need to beat the wolf by all

^{38.} See "Donsk. troops, Ved. ", 1855, No. 41.

^{39.} See "Gas. forests, and hunting", 1859," J. konoz. and hunting", 1845, p. 206.

means on the nose. Similar sticks, only longer (up to 2 ½ arshins) and without knobs, are also used in the steppes of the Tomsk and Yenisei⁴⁰ provinces. The Kirghiz beat the wolves with an untied stirrup, but only in occasional hunting. In a real winter chase they probably pin them with peaks or whip them. The Kalmucks and Nogais⁴¹ are also killing wolves, but if the rider intends to take the wolf alive, he hits him with a whip on his nose, and on his back in such a way that the end of the whip wraps around the side and sharply hits the stomach. Don Cossacks and peasants of the Voronezh province also kill wolves with thick belt lashes with a bullet at the end.

In the Bessarabian steppes catch them with lassos of about ten sazhens (1 sazhen = 2,1 m) long, drag along the ground and then kill with iron clubs. ⁴² Finally, the Orenburg Cossacks, in addition to their knobs, are allowed to work, more, however, in order to weaken the beast, special knives, the so-called folds. This is a wide double-edged knife with a heavy, almost pound-weight, metal handle, to which a ring is attached. To this ring is attached a thin strong belt near a sazhen of length, in turn terminating in a ring. The last ring the Cossack puts on the middle finger of his right hand and, overtaking the wolf, throws his metal cannon at him. Misses are rare, and sometimes even this way it is possible to kill a wolf on the spot.

All these tools are put to work at full gallop, and, therefore, their use requires great skill and dexterity. For those who are not used to handling them, it is better to shoot a wolf from a revolver or to cut it with a sword. It is much more accurate, though not always safe, to dismount and kill the wolf already completely driven and unable to move from its place. To do this, in addition to the sword and an ordinary hunting knife, an ordinary knuckle or a weighty short stick with motif on the tip can serve. In the latter cases, they always beat the mink.

But since a completely driven wolf often hides his head in the snow or dodges, and after a miss or an awkward blow sometimes gathers his last strength and rushes on the hunter, then in many localities the doom is finished as follows: with his left hand the hunter uses a thick fur hat or another object, with the purpose to tease the wolf, and at the same moment give the wolf right blow on the nose. Some hunters, with the help of a hat or a stick, even contrive to wipe out the wolf without the help of a friend. The most convenient and handy is to shoot the driven wolf with a revolver. From this

^{40.} Svidersky, 1. p.

^{41.} Witte ("Hunting in the Astrakhan Province." - "Forest Gas, and Hunting", 1856, pp. 26-28) says that Kalmyks and Nogai beat the wolf (whip) between the ears; Nebolsin (Essays on the Daily Life of the Kalmyks - "The Bible for Reading", 1852, v. 103, pp. 3, pp. 27-28), on the contrary, asserts that the Kalmyks beat the wolves along the nose and not along, across. The last, it is necessary polaga Bep, more truly.

^{42.} Stamati. "Hunting in Bessarabia", p. 48. In winter, in great frosts, arcana is probably not used.

^{43.} See "Hunting in the Russian Steppes." - "Around the World", 1861, No. 12; Zhitkov. "Extermination of wolves." - "Orenb. lips. Ved. ", 1851, No. 12.

rather cursory review of how to chase wolves in the steppes, let us turn to an even more brief outline of the chasing of these animals in the north.

Here hunting of this kind is far from being as honored as in the south, and, in any case, much more difficult. In some places hunting is only used when necessary when, for instance, wolves kill a lot of deer. In any case, both in the forest and in the tundra the wolf can be driven only in the winter, in the snow.

Wolves are chased in the north in two main ways. In the tundra, most of them are chased with reindeer, less often on skis. In the forest belt, where, the wolf is mostly very rare, it is driven on skis.

Reindeer has a fairly large analogy with horse-riding, but this method of hunting with reindeer is far from being prey. This is quite understandable. The reindeer are usually harnessed to the sledge by triplets. In deep snow, which does not prevent the horses from galloping, they can only walk or trot easily. Finally, reindeer are afraid of the wolf and it is very difficult to manage them.

Kushelevsky tells us, as an eyewitness, that once Samoyed pursued a wolf (probably old) in the snow, although, apparently, rather shallow, more than forty versts. The wolf was finally killed, but the next day two reindeer died of extreme tiredness. Obviously, under such conditions, reindeer deer must be used very rarely.

The habit of novena is first adopted by the Samoyeds. They beat the wolf with a deer pole in its burrow. Sometimes the Samoyeds do without the help of the sling and, with one stroke of the pole, the wolf is dead.

It is much more convenient to chase wolves on skis. This is hot trappers in Lopari, Zyryans, forest (mountain) Bashkirs and Russian trappers of Arkhangelsk and Vologda provinces are hunting.

In Bashkortostan and in the foothills of Altai, one part of hunters often drives a wolf on skis, the other on horses. ⁴⁴ In Solikamsk district of Perm province, according to Volegov, ⁴⁵ local hunters hunt wolves only by skiing. After having caught the beast, the trappers throws a cot (a knife tied to a stick) or use a gun. In the Schenkur county of the Arkhangelsk province, where the wolf is a very rare phenomenon, it is persecuted until one of the hunters succeeds in killing it. This persecution is done here not only in winter, but even in summer. As soon as the wolf shows up somewhere, immediately the local hunters follow him, guided sometimes only by traces left on the dirt, on the sand, on the path, etc. If the wolf has time to move to another territory, other hunters

^{44.} See Cheremshansky. "The Orenburg Province", p. 358; "The Altaians." - "Tomsk, the lips. Ved. ", 1869, No. 33.

^{45.} See Simashko. "The Russian Fauna", p. 489

were informed, who then continued the hunting until someone was able to search and kill the wolf.

In total, chasing on skies in the Far North of Russia, in Lapland, is more successful. The Sami people cleverly wiped out wolves and no less deftly broke their spines with a stick or, that happens more often, kill them, throwing knives tied to a stick, i.e. the same method trappers in Solikamsk used. During the chase, the hunters usually try to disperse the flock (at least when the wolves are already starting to get out of the way) and drive it to places where there are deep snowdrifts.



Fig. 17. Kirgiz chasing a wolf



CHAPTER 12 - EXTERMINATION OF WOLVES AND WOLF CUBS

Search for wolf broods. - Intelligence. - Where and how to search for the wolf's nests. - Wolf howl and its meaning in the summer. - The possibility of spring training. - Ways to find the cubs. - The destruction of nests and the low prevalence of this method. "The mutilation of the cubs." - What explains this half measure. - Destroying wolf nests as market hunting and necessity. - The need to promote this market hunting

We have seen that all the methods of catching wolves, described so far, are applied exclusively in the autumn and winter seasons. In most cases they require more or less significant expenses and almost always many hunters, assistants and various auxiliaries. Even with when chasing wolves in the steppes and the tundra, it is necessary to have a good horse or good reindeer and chasing alone is rarely successful.

There is, however, one way of not obtaining, but actually exterminating wolves. However, little known and for many completely disrespectful and not popular - a way that in all respects is counter-posed to those we already know.

Firstly, it belongs to purely commercial methods and in no case can be called hunting. Secondly, it can be used only in the summer, even at the end of spring, when the new wolf generation begins to claim its existence and when it is not yet clear that the number of predators has increased several times. Finally, this method can be carried out at no cost and expense, that is, it is available to the indigent and moreover to a single trapper. All these facilities combine one way of obtaining, namely the destruction of wolf broods. This is done when the cubs still are very small and stay in the nest.

Obviously, in order to destroy the wolf brood in the summer, it is necessary first to find out where old wolves stay and only then it is possible to more accurately determine the place where the cubs are.

This preparatory part of the work is, as is well known, of great importance for all types of hunting in the autumn, and it is known among hunters as inspection of the brood and is often performed by special people, so-called waders. But here the role was really limited. They do not have the right to kill wolves and wolf cubs, although this would not be a too difficult for them, and therefore, it is limited only to more or less precise intelligence. The waders never touch the brood and leave it until autumn for hunters. Last, there is no reason to destroy the nests, and, of course, they are absolutely right from the hunting point of view, why most of the dog hunters and many gun lovers of the wolf hunt protest against hunting wolf cubs in the summer. True, they justify some of their arguments in justification of their egoism, but these arguments, as we shall see later, do not withstand criticism at all.

For what the preliminary reconnaissance is done - this, however, is almost indifferent, since the main rules in both cases remain the same. Therefore, first of all, I will describe in detail how to search for broods for future hunting for them, and then I will indicate how these hunting methods differ from the simple search for wolf nests in order to immediately destroy them.

Wolves keep very stubbornly the same wasteland, swamps, ravines. The lost female is replaced by another and the dead male by a former cub, etc. This can last for dozens of years, until the entire family is completely destroyed, which is very rare, or until the swamp is dried up, a thicket is cut down or a new village appears nearby. Moreover, wolves do not tolerate the close proximity of another pair, and since the number of wolves is certainly increasing, it is clear that they should be less demanding in choosing a place and be content for their summer stay or forcible places but for the most part

accessible. These new lairs, in turn, cannot escape the attention of the surrounding inhabitants. I believe that it is quite easy to draw up a list of breeding places for the whole county on the basis of the so-called cross-questioning at local meetings and that this list can serve for many years. I say this from experience and am quite convinced that in this way in two or three years one person can mark a detailed map covering almost all the deducible places in a whole province of medium size.

According to some dog hunters, wolf territories are sometimes several dozen versts in circumference. But this list of names of wastelands, ravines, marshes, in which wolves keep and breed the young ones from year to year, only facilitates the most search. As for hunters, it is also for people wishing to ruin wolves' nest, these indications are not enough. Wolves move in general over very extensive areas and therefore we require more precise notations of the dens. Such more detailed information is not difficult to obtain from the peasants of the nearest village, especially from the shepherds. They always can, at least, point to the hunters from where old wolves usually come into the open space, and being aware of the observations from previous years, and sometimes only of the topographical conditions of the terrain, they are often able to approximately determine the place where one should look for lair, and sometimes even lead directly to the place. Wolves, as you know, are held in the strongest place, most often near water, and if there is a spring, a stream or a pit filled with water, you can be sure that the nest is in the closest neighborhood. Clearly, the search is significantly complicated with abundant water. Wolves go to drink almost always to the same place and around it there is a lot of footprints on the mud, from which even the age of family members can be determined. In addition, the proximity of the nest is recognized by the fading remains of the meal, the mashed grass and droppings. In the spring, when the cubs are still lying in a hole or in a nest, their close presence is recognized by a disgusting smell, sometimes audible in a few dozen steps.

At the beginning of summer, not earlier than the day of the Peter (29 June) the Wolves begin to howl at night and together its strength, the location of the brood are easily determined, and there is no need to climb into the slum. As long as the cubs don't move around by themselves, which happens when they reach 6-8 weeks of age, the wolf howl is almost not audible. The old wolves are afraid of revealing the proximity of their still defenseless offspring. The most howling is, properly speaking, the roll-call between members of the whole wolf family. As you know, the wolves howl some time before sunset and then before dawn they go looking for prey, usually in different directions. They return back in the evening when it gets dark and in the morning before sunrise and want to find out whether everything in the nest is all right. Sometimes because

^{1.} During the day, wolves do not howl, but they call the young and echo each other, rather, with a short squeal.

they are very tired of gnawing prey they want to summon young ones. Then old wolves emit those wild, lingering and dreary sounds that commonly are called howling. ²

In general, the voice of the brood is first heard and the female responds to it, which usually is looking for prey in another direction and returns at the same time. The old wolves are treated with a chorus from the young people. The adult wolves howling is very difficult to explain in words, and one can only say that these sounds are similar if a person began to pull the vowels "woo" into the nose. The voice of the mother is very rude and bassist, the female is much taller and thinner, the male is even thinner, and his howling sounds like he was chewing something. Young howls are similar to the bark of a young dog, with some screaming or grumbling. Generally, everyone responds in his own way.³

Hence it is clear that in quiet weather and with some skill it is not difficult to count how many wolves there is in the nest and also determine their age. It is also obvious that if in the absence of the old wolves, i.e. soon after sunset and in the morning dawn, successfully imitating their voices, then this achieves the goal, or rather, two goals - the lair's place and the number of pups. This helps to accurately determine the distance to the nest. He simply takes with him to the area one or two assistants who listen to the voices from opposite sides.

The she-wolf's wiggling is easier and more successful, but since the she-wolf, especially in the early summer, is more likely to be in the cubs and returns to the nest before the male. To avoid being revealed, experienced waders advise first to learn about the absence of the old wolves with a successful imitation of a male wolf, if the wolf is nearby, he will certainly respond. Then they are already recalled by the wolves, and if the cubs are hungry, they respond immediately. Otherwise when the imitation of the mother's voice is not entirely successful, then after the second - the third howling. If there are one or two calls at the brood with false sounds, the wolves are said not to let the cubs howl, but grumble and even bite them.

The general rules of howling are as follows. The wader, on the basis of his own considerations and the experience of previous years, or following the instructions of local residents, goes to the place where the wolf's nest is supposed to be or should be. He goes in the evening (of course, better in calm weather), trying not to approach too close (with, sits behind the wind and patiently, without making the slightest noise, awaits the onset of darkness. At a well-chosen point, he often even manages to observe the exit of the old wolves from the forest, swamp or ravine, thus achieving a

^{2.} Later, in August, the same howling the old male calls on the lairs of the whole family in order to go all together to the carrion or to the large cattle that had been shot up the previous day.

^{3.} Later, in August, the same howling the old male calls at the lair on the whole family in order to go all together to the carrion or to the large cattle that had been shot up the previous day.

precise definition of the lagoons. If the she-wolf was not seen within a hour and a half after sunset, the wader howled before settling down behind a branchy bush, behind a tree, in general for some kind of protection, and listening to everything quiet in the neighborhood. Could he hear the knock of an ax, the rumbling of a cart or conversation of travelers, then he "falls on his knees, quietly clears his throat, so as not to spoil the sound by the wailing. He presses his throat with the thumbs of both hands and compresses the lower part of the nose with the thumbs of both hands and begins to howl slowly, wildly and nasally and gradually giving the will of the chest⁴, higher and louder (this last sound is heard at dawn for a mile and a half or more), and then suddenly enters the initial tone.⁵ It is very difficult to describe all the intonations of the sound, and he who does not hear it or has no musical ear will not learn this skill. However, some things should not be done at all, since it is easy to falsify and ruin the whole thing. If the cubs do not respond, which is very rare when successful imitation, it is necessary to quietly change the place, repeating it up to three times. If they wince, then after counting the voices, the wader retreat without noise. The morning is less reliable than the evening, as the cubs are often fed and less often remain alone. Everything depends, however, on the wader's skills. If he observes all precautions and quite correctly imitates the voice of the elderly, then almost always his howl is answered by not only one wolf, but all within the closest distance.

Experienced whining can even entice wicked wolves who take him for a wandering bachelor and rush to the voice in order to drive the stranger out of his territory. One has only to go closer to the lairs and howling early, when the old wolves are still at home, and you can be sure that they will walk 10-15 steps with a favorable wind and therefore, if it is not very dark, they can easily be shot. But since this is not so much in the interests of the waders, they almost never resort to such a method in exterminating old wolves (orphaned wolfs and howling, which is very simple), all the more so because they generally walk around without a gun, but only with an ax or a hunting knife.

From what has been said, it can be seen that the wader himself can contribute to the extermination of both young and old wolves and will constitute, as it were, a special kind of market hunting. If we see waders as scouts and spies for the success of hunting, then there are many reasons for this, which will be discussed below. It is also clear that the

^{4.} This, no doubt, is the most common method of raising, only OH requires very healthy lungs and very true hearing. In Little Russia and in the southwestern provinces, according to Krymsky ("Hunting for a Bird and the Beast in Little Russia, Ukraine and Volhynia." M., 1875), experienced hunters are punched to the ground, while the less experienced are hunted clay jug with broken bottom.

^{5.} See the Wolf Concert. - "J. Moscow. Society. oh. ", 1870, No. VIII. This article belongs to a well-known connoisseur of wolf hunting and, in general, to the excellent hunter, the late E. Prokudin-Gorsky.

^{6.} It is not customary to take a gun for hunting, first, in order to avoid temptation, secondly, because the smell of gunpowder is sensed very far and it is sometimes necessary to get above the wind.

earlier the wolves and wolves are lured in the summer, the more successful such market hunting can be and the greater are the benefits brought to the surrounding population, to which the "maintenance" of this wolf family costs a few rubles a day, sometimes even 10-25 rubles. Between the hunters, it is generally spread the belief that before the time when the wolves do not start to howl themselves, they cannot be lured because it means that then neither cubs nor old people respond. This opinion is quite true, and the hunters, rejecting the benefit of the too early habituation, are quite right. The wader serves them only as a way of determining the number and age of the members of the wolf family and the location of the den. But, based on his observations and bearing in mind that the old wolves are very hostile to foreign wolves - a fact known to every hunter⁷ - I am convinced that, imitating the wolf's howl, it is almost possible to lure a female even in May. Probably, the voice of a mother wolf can also be summoned by a male, but I cannot confirm this. True, the she-wolf does not respond, but that she directly silently runs to the voice, in this I had a chance to make sure. And since in May the nights are light, it's much easier to kill it than in the middle of summer, especially if you are arranged so that there is a more or less open glade around and you can shoot against the light of the dawn.

The earlier the wolf is killed, the more likely that the cubs will not be led off by a wolf to another place and the easier it is to track them down. Very young cubs, no doubt, perish starving. If they are able to eat by themselves, then the male very often feeds them, although he never protects them. At least when he sees a man and a dog, he always turns to flight. Therefore, when the she-wolf is killed, it is more convenient to find a wolf hole or a nest with the help of a red-chested horse, not afraid of the wolf. Such a dog will quickly find and smother all the wolves, even if they are already running well and generally, when looking for wolf nests, it can always provide great help for the hunters. Unfortunately, there are only hunters among hunters, and no waders among trappers either. A large breed of Laika, also suitable for this purpose, is usually found in places where wolves are very rare.

But all this is only possible and desirable. In fact, almost nowhere do trappers entice wolves or search for them with or without dogs. Wolf nests are found only accidentally stumbling upon them, and even then, not always interrupting the wolf cubs. This is done in a few places in European Russia, for example, in the Mogilev Province, where the peasants, finding a den, lie waiting for the old wolves ⁸. The same is observed in

^{7.} It has already been mentioned that she-wolves (and no doubt, males too) often eat each other's cubs. Therefore, the den from the lair is always at a considerable distance.

^{8.} See "Hunting in the Mogilev Province." - Lesn. Journal". 1849, Nos. 16 and 18. See also Cherntsov's note in "Zemled. gas. ", 1848, pp. 441-442.

the Vladimir province⁹, Novgorod province¹⁰, and in Vyatka¹¹. In Asian Russia, on the contrary, wolves are exterminated almost everywhere and with great bitterness, at least all Central Asian and Siberian non-Russians. The Kirghiz and the Siberian Tatars, for example, consider it their duty to destroy every wolf's nest found.

It seems that the Yakuts, the Tungus, and all or almost all the people living in the forest belt of Siberia and European Russia seem to follow this reasonable rule.

Northern alien tribes engaged in reindeer herding, as it seems, are limited to half measures. The Samoyeds, for example, are satisfied with the fact that the wolves chop up the veins on their teeth and kill the prey later.¹²

Similarly, the Bashkirs and Orenburg Cossacks¹³, who, after searching for the young, break their legs or cut the tendons of the hind legs and kill them in the fall or even in the snow. In Great-Russian and Little-Russian provinces such a way to facilitate the extermination of wolves is very common. In some districts of the Chernigov and Poltava provinces, peasants, according to Goroshevich, go looking for a whole society and finding wolves, twist their joints from two legs lying crosswise, trying not to break bones, so that the fragments do not break through the skin and the blood does not come out. On the first powder snow these cripples localized and a caught with snares and shot. In Ryazan, as well as in the Vitebsk province, they don't break wolf cubs legs and let them die, but instead they pierce their eyes¹⁴. In the Ryazan province¹⁵ they are usually whipped and killed with sticks. In the Land of the Don Army, between the Cossacks there is a belief¹⁶, that if you make splints of cubs, the she-wolf drags them from place to place until they die.

All the methods of mutilating wolves do not mention barbarism. Thus, it is true, the extermination of the brood in the fall is much easier, but it does not take into consideration how the wolves will be able to feed the brood for several months.

- 9. See also, in the same book correspondence from the Kovrov district. Generally in the Vladimir province, a lot of wolf nests are ruined by the ovaries, peasants engaged in collecting the so-called ant eggs. They go sometimes from afar, and therefore they have no calculation not to touch the brood for fear of vengeance of old people and other prejudices.
- 10. See Ozeretskovsky. "Survey of places from St. Petersburg to Staraya 14" (SEE 93). Near the lake Ilmen peasants, finding a brood, burn wolves or nailed to a board or log and let down the river. The wolf runs after them along the shore and. having lost sight of, as if she herself is lost.
- 11. It is in Elabuga and Urzhum Uyezds. See "Vyatka. lips. Ved. ", 1876, No. 95, and" J. oh. ", 1877, February
- 12. See Kushelevsky. "The North Pole and the Land of Yamal."
- 13. See Simashko. "Russian Fauna" and "Extermination of the Wolves". "Orenb. lips. Ved. ", 1. p. The cubs, whose veins are cut, subsequently walk and even run, so that it is difficult for a person to catch up with them. Such cripples are very well privatized to fall, and it is very easy to distinguish the trace of them.
- 14. See "On the Destruction of Wolves." "J. hunting", 1877, Feb., pp. 25-27
- 15. See Lesnoy Journal, 1848, No. 39.
- 16. See IU "Something about wolves". "The Donsk. troops, Ved.", 1855, No. 41. An even more absurd belief is common among the Kirghiz. They are convinced that young wolves have some kind of tooth poison, and therefore their bite is very harmful (see A. M. Lagatkin, "Budarinsky outpost" in "Uralsk, troops, Ved.", 1876, No. 3.).

That is why it may seem extremely strange, why not instead kill the cubs without postponing the final extermination for such a long time.

The reasons for this absurdity are to be found in folk superstition, ignorance, narrow selfishness and often in mere self-interest. The majority of the peasants are positively convinced that wolves who have their dens ruined will certainly take revenge on the nearest village, even on the very person who interrupted the cubs. True, the old wolves, who really up to this time did not offend their neighbors for fear of revealing their nest, having lost the cubs they no longer have any reason to spare the cattle of the nearest village. Similarly, there are cases when a she-wolf, after finding a wolf cub on a trail, attacks the person. These cases only prove how easy it is to shoot a wolf and speak in favor of ruining wolf nests. In either case, you cannot see any revenge in any way. Meanwhile, it is on these grounds that the peasants are often afraid to ruin the wolf's nests themselves often even do not allow anyone to touch them until the fall or they resort to the above-mentioned barbaric killing, for which, of course, the peasants are severely punished. They mean that when breaking and cutting the joints, pinching the eyes of the cubs, these cripples spend longer in the nests and even in the autumn, after which the whole brood starts to rob indiscriminately. In autumn, for wolf cub's skins they can earn about ten rubles each, that is, several bottles of vodka, which, of course, has a lot of appeal.

Here are the main reasons for the low prevalence of this undoubtedly most convenient, easiest way to exterminate wolves, which leaves far behind the dangerous, many precautions and a great skill requiring, but not to everyone available method of poisoning wolves with strychnine. It is necessary to add another reason to this. Many hunters, especially hunting with dogs, are extremely hostile to the extermination of broods, which deprives them of the hunting pleasure.

They try to protect them until the fall by all means - prohibition, payment - and they are not ashamed to justify their support for a false opinion about the harm of ruining wolf nests. In addition to the vengeance of the elderly, they also indicate that a wolf, deprived of cubs, can get mad and make a lot of trouble. But if this can be the reason for the fear of a rabies, which has not yet been fully proved with regard to bitches. It has not been noticed so far that rabid female wolves confront humans more often than rabid wolf males, and in general the number of those and others and the harm from them are negligible compared with the number of yearly dogs that are raging and the number of cases of rabid attacks by the latter on animals and humans. It is better to kill the she-wolf, which next year will bring in the same area the same or even more wolves. To shoot it, I repeat, is very easy: for this, only patience is required.

Whatever it was, we see that at present wolf broods are guarded by peasants from prejudice and selfishness, landowners - for their own or others' hunting. The government itself promotes indirectly the multiplication of predators, since in small forest provinces, which wolves elect as their main residence, the peasants have no right to enter even without an ax or a rifle. Some foresters are afraid of felling or firing on wild game, others simply protect wolves for themselves and for neighboring landowners. If we take into consideration that the majority of wolves are in the possession of the treasury and landowners who cannot manage all broods, then there is nothing to be surprised that the number of wolves and losses from them increase every year.

Every evil must be destroyed at the root, and the root in this case are wolf cubs and wolves producing new offspring. But since, unfortunately, no one cares about the common good, and the summer skin of wolf cubs and wolves positively is not worth a candle, then the government and Zemstvo have a direct duty to promote the development of market hunting of wolves by all available means. The Treasury must open (in May and June) free access to state dachas for trappers who are obviously engaged in the search for wolf broods. Yet Zemstvos without exception for every wolf cub, every adult wolf, and especially for the wolf, must assign such a high fee that could tempt the trapper and make him go through all troubles that await him from the zeal guard of wolves.

Whoever has seen a wolf cub, he will always be able to distinguish his furry skin from a dog, and it is only necessary to assign a few rubles for each wolf - and you can be sure that in a few years the wolves will reach their minimum, sometimes they will be completely destroyed. One person can in two or three months easily find and destroy from 5 to 10 wolf nests, i.e., to destroy 20 to 40 or 50 cubs, and if he has a gun, then he could kill a few wolves. There will not be young - there will not be old ones, there will not be adult females - there will be no young females either. These truths do not require proof.

CHAPTER 13 - HUNTING WITH TRAPS

Catching of animals, and especially catching feathered game, is very little used in the hunting environment, and various traps are the exclusive property of trappers. But if catching game in all fairness should be restricted by law, and in some places is completely forbidden, catching predatory and generally harmful animals should, on the contrary, be encouraged not only by the government, but also by the hunters themselves, if and only if these hunters do not have neither the hunt, nor the opportunity or the ability to hunt predators. Moreover, it is necessary to encourage the catching of wolves. Animals not only harmful to agriculture, but also for hunting itself, since after the fox the wolf is the most dangerous enemy of all game and contributes significantly to its reduction. Each hunter must be aware of the fact that all hunting methods to obtain wolves are still among the most difficult and most expensive, and they are not available to everyone and can only serve the local destruction of wolves, generally putting only a certain, rather limited, limit to the reproduction of a predator.

Therefore, it is necessary to attract privileged hunters in those areas where there are very few of them and where the hunting of wolves is little known, the mass of ordinary hunters and thereby partly divert them from the destruction of useful animals. For the same purpose, first of all, it is necessary to familiarize the hunters themselves, and through them the industrialists, with methods of exterminating the wolves, little or none at all. Of course, one acquaintance is not enough: just like in any other business, it is necessary to interest the industrialist with material benefits, that is, a reward, a bonus for the extracted wolf, but this is a very complicated and difficult problem to resolve. Only one thing is true: for the real one-time and universal extermination of wolves, this most important measure should be state, and the premiums must be high.

For the local, though temporary, wolf destruction, it is not enough that the Zemstvo, hunting societies and rich landowners and hunters have particularly high costs.

Unfortunately, only a few Zemstvos for the fear of overpaying for the wolves of the neighboring county allocate a miserable one or two hundred rubles for this subject. Of our hunting societies, the majority is not only harmless for wolves, but also directly contributing to their reproduction in their carefully protected dachas, prefer to lie on the hay. Private individuals, even those same hunters-landowners who have grasped all the benefits of awards for a killed hawk and the ruin of its nest, have not yet realized that one wolf, even from a narrow hunting point of view, is more harmful than a single hawk. I guarantee by my own experience that this is not an expensive measure that is quite worthwhile.

How these wolves and wolves will be obtained is, in effect, completely indifferent. One can be quite sure that the trappers will have in their view a significant benefit from trading with wolves and his natural observance will lead to the discovery of no less witty methods of obtaining a wolf than the notorious Pskov hunting.

With this pleasant, albeit a little surplus description I hope that my message will not remain a voice crying in the desert and that hunters will look impartially at the unwilling ways of exterminating wolves and will indirectly promote the spread of these methods among trappers. I also undertook a rather ungrateful work - to describe and consider critically the variety of methods in Russia and Siberia used for catching wolves.

First of all, I will consider catching wolves in packs, which in most cases serve only as an aid to raiding in the broad meaning of the word. Then I will go on and describe catching with traps which is most common among trappers. I continue with all kinds of traps, pits and fences as well as describing catching loops in general, methods designed to multiply the extermination of wolves, and finish with an examination of the original and very practical way of wolf destruction, used by the Iuki. This last method is, as it were, a transition to the poisoning of wolves, which will be the subject of the next article.

Catching wolves with snares

Catching with snares has been used by us since ancient times, although the method is not independent, but used in connection with rifle and dog hunting. Not so long ago, nets were necessary accessories in each well-organized dog hunt in the central provinces as it was in the large economies of Western and South-Western Russia and in Poland. The former Russian dog hunters and Polish gunmen often used nets when it was necessary to take hounds or beaters with large wolf broods and strong islands and when the number of dogs or people was too low for the successful hunting. Nets fenced off the most unreliable part of the forest and thus prevented the wolves from

going into the depths of the forest or swamp. Less often they put a net on narrow but strong bridges connecting the island with another forest or swamp. In both cases, the net was only used as a portable fence in order to make the wolves go out to hunters who had a perfectly legitimate desire to shoot and kill the wolf. The exception was made only in those cases when it was required to catch the wolves alive for the cage. Thus, the net used to play a passive role, nevertheless facilitating the result of hunting. It is very strange that now the hunters completely disregard them and even, you might say, has became a property of the hunting tradition. True, the forest weaning in the populated areas of Russia has now significantly narrowed and thinned out the centers of dog hunting which has moved from the suburban provinces further to the south, almost to the steppe areas, where nets are useless. Finally, in late autumn and winter, the rather expensive net can be replaced by a rope with colored rags or curtains (fladry), used in hunting according to the Pskov method. Nevertheless, the autumn hunt for wolves in wooded areas with an increasing shortage of hounds and good disciplined beaters is almost impossible without nets and it would not hurt many hunters near Moscow, especially hunting societies, to have this in mind and remember this once so important aid in wolf hunting.

Nowadays nets can only be found among ordinary trappers, and since they are not particularly cheap, they are mainly found in areas where almost whole villages is hunting - hence, in the northern strip Russia. Nets can also be found in many villages of Finland, Olonets, Vologda, Kazan, Vyatka and Permsky government, with most of them are the property of a whole rural society, less often the artels of trappers, but these are more often used for more profitable hunting of hares.¹⁷

I now turn to a description of the nets themselves and the way they were used.

The real wolf net should satisfy the following conditions: it must be connected from thick and large twines so that the wolf, even the she-wolf, could not tear the net or quickly bite it. The becket should be sized so that the wolf can freely thrust putting the entire head and neck to the shoulders into the net. The net should have such a height that the beast cannot jump over it, and so long that it could cover fairly significant distances between two persons. In addition, a very long net is awkward and difficult 17. Nets for catching wolves, as I know, are used: Klimetskim rural community (on the island Klimetskom Petrozavodsk district of Olonets lips - see "J. oh." 1875, November, page 61...); in the village Savino Sviyazhsky district of the Kazan Gubernia. (Kozmin, The Wolf Question), Zh. Oh., 1877, p. 54); In the Vyatka Bay; In the Vetoshkino and Rybak volosts of the Glazov Uyezd; in the Mushakovo volost of the Yelabuga district; in some volosts of the Kotelnichesky, Yaranskiy and Nolinsky districts, and also in the Shcherbinsky Volost of the Vyatka Uyezd by the peasants of the Monastyrshina village (see Vyatka Gubernia Ved., 1876, No. 95, and "Zh. Oh.", 1877, February, mixture); in Ilyinsky District Count Strogonova in the Perm district (Teploukhov "Catching animals snare in Ilyinsky District Count NP Strogonova." -. "Perm lips Vedas..", 1857, number 31). Then the tenets are used by the peasants of the Burzi village of the Yekaterinburg Uyezd. All the more common are wolf nets, apparently in Finland

to handle. In accordance with these conditions, each net or wing is knit (an ordinary fishing knot) made of good twine in the thickness of a goose quill or less, depending on the quality of the twine. The size of the mesh depends on the quality of the mesh, since the thinner the string are, the more tightly the nodes can be tightened and the loop itself is less stretched. In any case, each cell must be at least three but not more than four vertices in a square. The height of the net when upright should be at least three, but not more than four arshins, that is 20 cells, which is quite enough even in winter. The length of the net can be from 200 to 500 cells, or from 15 to 40 sazhens. The net is pulled on a rope with a thickness in the finger. Each wing along with this rope and will cost from 10 rubles (or even less) to 25 rubles ¹⁸ and weights from two to five poods.

The more such wings are available, the more space of the forest can be covered by networks and the more likely the hunt is successful. Less than ten wings of medium length, that is 250 fathoms of the net, one can rarely do anything, and it is better to have wings of smaller length.

Catching wolves by snares is one of the best, if not the best, way to exterminate wolves in large continuous forests, since a Pskov-style fit being suitable for small hunting and with the special skillful beaters is possible even in open terrain, it is not only applicable here in the autumn. Nets is good there, where it is impossible not only to poison, but also to shoot, and in large forests the wolf's lairs are in such places. In Finland, where the corral within the net is more commonly used and is performed with the greatest perfection, and in a terrain that is less mountainous and does not enclose treeless hollows, is excellent for this purpose.¹⁹

The most convenient time for this catch is late autumn and early winter, when the snow in the forest is not deeper than the arshin. Such snow, without hindering people, tires the wolf, and if he does not want to go to the network, it's easy to turn into it. Catching by nets is also possible in spring, at the end of April or at the beginning of May (in the north), but it seems that this spring catch is used only on islands²⁰, where wolves each year run in winter on ice and then involuntarily remain for the summer. Early autumn is uncomfortable mainly because the cubs are still small and have a habit of hiding.

^{18.} According to the calculation made by the property of the Yamourga Uyezd of the St. Petersburg province, which in the early seventies intended to organize zemsky raids, a wing of 30 sazhen length would cost 66 rubles. But, probably, this network was supposed to be made in 2 sazhens high and from Dutch twines, as according to the calculation for such a network, no more than 1000 sazhens of string (from 2 to 3 poods) and 70 fathoms of rope can go in height.

^{19.} See "Methods for the successful destruction of predatory animals, consumed in Finland. A raid on bears and wolves. " ("Horse and Horse", 1863, vol. I, No. 1, pp. 109-120; translation).

^{20.} For example, on the above-mentioned Klimetsky Island, as well as on the islands of the Baltic coast (Ezel, Karlae near Uleaborg, etc. - See Middendorf, Siberian Fauna, p. 55).

When arranging the networks and beaters, the same basic rules of the hunt are observed, which I considered in detail in one of the previous articles on hunting for wolves, that is, all the necessary precautions are taken to maintain complete silence and order, and the lazes and direction of the wind are taken into account. Networks in this case correspond, of course, to the lines of the shooters and are guarded by so-called nazetnik, who must be armed with cudgels.

Their guns can only spoil things, but they do not hurt the beaters. In Finland, in addition to these nazetniks in the middle of the round-up, that is, between the beaters and the nets, at a distance of 5-10 sazhens from each other, there are special sentry or a 2nd line of beaters, who take their places at the nets from the side where the beast is expected. These guards as well as the intruders hide in ambush, in bushes, under trees, over shields from spruce, brushwood, etc., and should neither smoke nor move. Their duty is to chase the running beast into the net and not let it go back.

The nets are placed on the slack, on the stamens or supports, located five fathoms from the other (or are attached to branches of the nearby trees) in an inclined towards the line of beaters and so that the lower edge of the net lies half a yard on the ground and densely adjoined to it and attached wit small pegs. If the ground is covered with snow, the lower grids are tattered into it. This is necessary so that the wolf cannot slip under the net. The wolf, if he walks quietly, always notices the net and goes along it, and not finding an outlet, he crouches and creeps, trying to raise the lower edge with the muzzle. But if the beaters go together, and the guards, if they are, pursue the wolves on their heels, then the beast rushes into the net and becomes entangled in it with his head, and with efforts to move forward, overturns it on himself, gets tangled with his paws, and finding himself in a poke, becomes completely defenseless, so that a guard can easily kill him with several blows of a club over a nosepiece or pin him with a pointed spear (in Finland).

If the wolf has not overturned the wing, nasetiks should not beat it from the outside of the net, since then the beast can easily be released from the net and escape in the opposite direction. It is also clear that if the net is not tightly attached to stakes or trees, then it is necessary to set up nets in two or even three rows (at the distance of the sazhen) since if the wolves succeed in dropping the net, the road behind the net will be clear.

Trapping

Of all the methods of catching animals, and in particular wolves, traps of iron are the oldest and well-known methods and still the most common. It can be said positively that most of the wolves, extracted by trappers, are caught in traps. In the northeastern half of European Russia and almost throughout Siberia, the trap is almost the only

mean for the peasant to fight against this predator. It is quite understandable, since another, more real and convenient means for wolf destruction is poisoning. However, for various reasons this method has not become as widespread here as in Western Europe, in Poland, Lithuania, in the Baltic and southwestern governments. A trap is a relatively inexpensive, easy to acquire and easy to transport which, in addition to not requiring outside assistance for its use, serves as a connecting link between hunting and market hunting itself, since the wolf trapped in the trap has to be caught and killed. The inconveniences with the trap affect only areas of densely populated or little snow-capped winters. In the first case, it can be the cause, if not of accidents, then some troubles and in addition, it can easily be stolen.

Quite a few hunters exaggerate the damage and he danger posed by traps, and pointing to article 1174 of volume XV of the "Code of Laws" of the 1857 edition, abolished in the edition of 1866, they still consider the trap a prohibited way of hunting and try to pursue it. But the trap, like any other trap, is harmful only to useful animals, but not to predators that "can be exterminated at all seasons and in all possible ways" (§ 545). The danger represented by traps is almost imaginary, and if traps are dangerous, they are it only for stray dogs, and not for humans. They are put almost exclusively in secluded places, where people have nothing to do. In the winter when people's feet are protected with thick shoes, the traps are in more or less deep snow where it is difficult to move without skies, the risks are minimal.

Therefore, not only in Russia, but also in Western Europe, trapping of predatory animals has never been prohibited. According to the meaning of our laws, it should be concluded that it is possible to use all sorts of hunting, and therefore, traps, both on the lands of private owners, although only with the authorization of the owner (§ 536), and at all state ones, with the exception of very few, definitively arranged forest dachas, where permission is also required (§ 554). Then, there are no other restrictions on trapping harmful animals in our hunting laws, but in temporary hunting rules for provinces of the Kingdom of Poland (similar to the hunting rules for the Baltic provinces), traps for predators are allowed (§ 22) only in places that do not endanger local residents In Finland, in addition to the pit traps, the snare can be arranged only with the advance publication in the parish church and (only on communal land) from November 1 to May 1.

Such restrictions on catching predatory animals would not be superfluous in the more populated Russian provinces, with the exception of the obligation to designate the area where the trap was placed, since this only leads to their loss. In North-Eastern Russia and almost throughout Siberia, the limits in hunting predatory animals are almost irrelevant, especially since here in most cases already are some rules caused by custom practice and they are strictly observed. Thus, in Vologda, Arkhangelsk, Olo-

nets, and in other provinces traps can be placed by every trapper in areas that belong to him or are inherited. In the Tver, Novgorod and in the Vyatka governments, trappers divide their entire district into sections. The more developed the hunting of the beast became, the more strictly these rules are observed. In the Orenburg province, where, according to Konev, hunters often put traps near haystacks in the steppe, where wolves love to relax, there is a custom to ask for the owner's permission. In places in Central Russia, especially where there are many landowners and hunters, trapping predators is strictly prosecuted by rural authorities and often by world judges themselves based upon misunderstood restrictions regarding trapping not only on alien or state land, but also on public land.

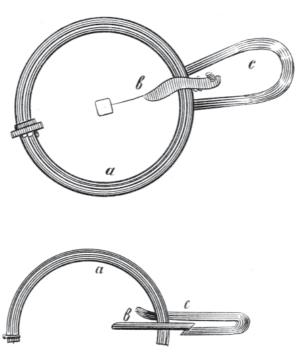


Fig. 18. Neck trap

The main motive of this pursuit was usually motivated the danger posed by traps on humans and animals, but in reality, the interests of landowners in general and landowners of dog hunters in particular are involved here. The first see the trap only as an excuse for invading their forest lands, second fear of trap competition. This alone explains the strange prejudice against the trap for catching wolves, which enjoys the right of citizenship throughout the continent of Western Europe.

It is very interesting that in North-Eastern Russia there are areas where snares and other traps are strictly prosecuted, but by the trappers themselves. For example, in the Theological District of Verkhotursky Uyezd, market hunting is considered shameful and unworthy of an trapper. It is only meant to catch bears, deer, moose, sables and other animals, except for the wolf, who only accidentally runs here.

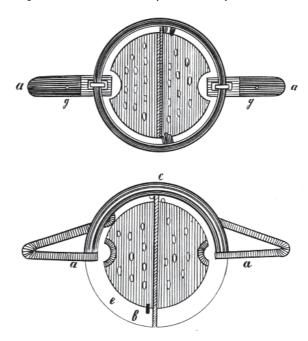


Fig 19. A plate trap (alert and deflated)

A trap is fairly simple, and tolerable gland can make almost every village blacksmith.

In its simplest form, the trap consists of two iron arcs connected by a hinge, and one large spring. Such traps, called arc or swan neck, are used with a piece of bait placed in the trap. Their action is based on the fact that, as soon as the beast pulls the bait attached to a rope or string and connected to the trigger of the lock, located between the spring, the lock jumps out, releases the arcs which then slam together.

It is clear that in most cases when the beast is caught by its neck in such traps it can go very far. For this reason, these cervical traps are almost exclusively used in catching foxes, which are weaker than the wolf and, moreover (although with many precautions), are much more preferable to take a small bait.

Much more practical for catching wolves are those traps that are placed on a wolf path and require only that the beast step foot in the gap between the open arches.

Such traps, sometimes called plates, are also composed of two arcs, connected by hinges, two shorter and stronger springs and a round or quadrangular frame serving

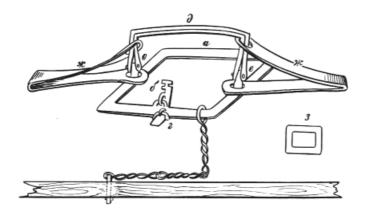


Fig. 20. An ordinary trap (deflated)

as a support for arcs and springs. The main difference between these traps from the cervical is that a plate or iron circle sometimes perforated and turning on its axis, is attached to the pegs or the plate is replaced by a thick canvas stretched over the frame. The first traps are more commonly used in Western Europe, are more expensive, require more care and greater purity and are less convenient than the latter, the most common among us.

Both traps are disturbed in various ways. In the present tray traps, the most convenient way of alerting is as follows: to both opposite sides of the plate, in the direction of its axis, they are screwed into the plate or one hook or crutch is driven in. The arcs of the trap are attached to the plate in the same direction. When the arcs are diluted, these plates are brought under the hooks and the arches are kept in a horizontal position. The beast, stepping on the plate with his foot tilts it, the hooks jump off the pegs, and the arc of the trap closes with the force of its springs. In traps of the second type, with a canvas bottom, the diluted arc of the trap (one arc) is held in this position by the guard freely rotating on the ring attached to the outside of the frame.

To activate the trap, bend both springs at the same time. In large traps this is very difficult and, moreover, dangerous, so to avoid this, the springs are tightened by screws inserted into the spring holes, or, more simply, by iron quadrangular nuts, and catch-

ing up with a free end (Figure 20, h). The best springs are made of steel, but most of the traps have iron springs which, although weaker than steel, are much cheaper and do not break so often. A very strong spring, however, is not the dignity of the trap, for in addition to the fact that it often bursts, especially in the cold and when the temperature changes abruptly, it can break the leg of the beast and then rub it. Therefore, many trappers prefer traps with rather weak springs, and to prevent the arcs from slipping off the beast's feet, the arc is furnished with jags. Such traps are almost unsuitable in a thaw and wet snow.

Wolf traps are mostly from 15 (rarely less) to 20 pounds in weight and have a diameter of 10-12 vertices. They are rarely worth more than 3 rubles, but usually less. The heavier the trap, the better, since the wolf pulls it a shorter distance from the place of hunting. For the same reason an iron chain with a wooden chock or an iron anchor is attached to light traps, which, catching bushes and trees, detain the beast.

Since the wolf has a very good sense of smell and iron, especially rusted, has a rather strong smell, which even is sensed by humans, one of the main conditions for the success of catching is that the trap has no odor. With this goal, the trap is kept in unconditional purity, never brought into the living quarters, especially from the frost, the slightest rust is scraped with emery or a brick, before installation it should be slightly smeared with goose fat or lard²¹ and wipe dry with a clean cloth. In some places iron traps are in addition rubbed or fumigated with various odorous herbs, which to some extent is not devoid of meaning, although often these herbs are attributed a supernatural effect. So, for example, trappers in the Urals are rubbing traps of white wormwood, and Bogorodskaya grass, and in other places, as in the Novgorod province, the iron is rubbed with alder or hazel leaves.

In Germany, these simple methods for drowning the smell of iron and man are very complex and varied, but, despite this, they are much less effective²².

From the fact that traps can only be placed on wolf tracks, it follows that it is much more convenient to catch them in the winter than in the summer, and that first of all we must make sure the wolf path is not an accidental but a permanent "wolf road". The wolves often go wildly through the late autumn, and break through the paths only in strong places, and their traces are not so distinct. In winter, on the contrary, they walk the same paths, but they stay in one place for a short time and live a nomadic life. In the winter traps are put out without visiting the place, but this is possible in fairly rare 21. Do not rub it with grease or fat, because the wolf, and the fox in particular, will start digging from the sides of the trap.

^{22.} For example, they spread goose fat on fire, put dill, fir and pine cones there and cook everything together, trying not to smell the mixture with smoke; the mixture is cooled, camphor is added to it and filtered through a clean linen cloth; if it is thick, then add a little wax. With this ointment, the trap is covered with a rather thick layer. In addition, traps are occasionally wetted in a diluted wolf litter or sheep's feces.

cases. Most trappers put traps near occasional seizures, for example, at a wolf-eaten large animal - a horse, a cow, a deer - or a carcass taken out into the forest or in the field, but it is even better to condition the wolves in advance to a carrion. However, in Siberia, a trap is sometimes placed between two pillars or trees, between which hangs some bait, and the wolf, getting it, sometimes gets caught in a trap, but this is an exceptional case. The wolf, as long as the cattle in the field, is cautious and, of course, prefers fresh meat to the fall. However, it is almost impossible to catch wolves without conditioning until late autumn.

In Siberia a trap is sometimes placed between two pillars or trees, between which hangs some bait, and the wolf, getting it, sometimes gets caught in a trap, but this is an exceptional case. The wolf, as long as the cattle in the field, is full, cautious and, of course, prefers fresh meat to fall.

Therefore, the wolves can in the autumn be caught in such narrow aisles, from which it cannot escape and to which it is accustomed to walk without fear. With this purpose, in some places, special round fences are made, usually from dense Christmas trees, with several narrow passages. In the middle of the circle, the carrion is placed as needed, sometimes for a whole year. Thus, this carrion serves as a spare store for neighboring wolf broods, which begin to visit it only in the deep autumn, rarely before the end of September. From this time and on traps can be put in the aisles.

Winter trapping does not require complex preparations. It is quite enough to set traps on the wolf trails leading to places where carrion are thrown out in the autumn and once or twice refurbished during the winter.

In any case, the conditioning is done far from the village, in an open place or in a small forest, at the edge of a forest or on the edge of a large swamp. Scavengers always approach when there is thick snow or even in a snowstorm. Traces of sledges and people will then be almost invisible, and the wolves will soon go to the new carrion. The traps are put no earlier than in 2-3 days after making sure that the fresh carrion has already been visited by wolves. This preliminary examination of fresh wolf trails leading to the carrion, must be done very carefully and as far as possible from it.

Setting the trap requires a lot of skill, agility, accuracy and a lot of precautions. In a trap staged without observing all rules, if a wolf gets caught, it's only a youngster because young wolves almost always go with the old and behind them. The whole point of the trapping is that the wolf should not notice anything suspicious in this place and trustingly step on the floor between the separated arcs. The wolf is not so simple as we believe. For instance, Mr. Lvov²³, who argues that all tricks are superfluous and that if you just put a few traps around the mooring, you can be sure to catch them on their 23. "G. hunting ", 1877, May, p. 36.

first visit. This opinion is probably due to the fact that he or, more correctly, his huntsmen had to catch wolves only on a permanent area to which the wolf family used to walk without fear from the summer. But in the winter the wolf is much smarter than the autumn wolf, and the youngsters, especially the females, are very cautious, and outsmarting them is not such an easy task.

In order for the captured trap to catch the wolf, even and old one, it is not enough to lock the beast and keep the trap clean, it is necessary to be able to put the trap in such a way that no human trace or smell remains in this place and that the place where the trap was placed, was no different from the others.

Each skilled trapper knows very well that the purity of shoes and mittens is of great importance for the success of the hunting, and therefore tries to have them new, or to drown out the smell of human sweat, rubs them or fumes them with various odorous herbs. In most cases, boots are worn on the legs, less often new shoes and clean shoes and almost never boots. On the hands - woolen gloves (mittens).

Both of them are always kept in a porch or a light box so that they do not catch human smell. Clean shoes are especially important when traps have to be put on foot, which is relatively rare.

Most trappers in North-Eastern Russia put traps on skis. Skis in snow depths of one arshin or two are necessary, and where they are in great use, the wolf is not particularly afraid of them and sometimes even follows a ski track. In the central provinces, where the snow is more shallow, the population is denser and the snow is cut by roads, traps are often placed with a sledge. Finally, in the steppe areas, where there is little snow and hunters prefer to ride on horseback rather than in a sleigh, and skis are almost unknown. This explains why Aksakov in his article on catching traps, and after him Cherkasov, repeating his words, do not advise to approach the wolf trail on skis. On horseback, in any case, it is much more inconvenient than skiing or sledging, since it is necessary to get off the horse to arm the trap. The trace, left by skis and sleighs, from which there is no need to climb down, can sometimes not be leveled. Wiping out any trace is never possible with a single spatula, as Aksakov asserts. This is very troublesome, and if the snow is wet, then it is impossible. Much easier to finally level the trail with a bunch of brushwood pulled after the sleigh or the horse.

Wherever wolves are not caught or not being hunted, that is, where they are not afraid of humans or where they are conditioned to permanent places, traps are put quite close to the carrion, even in its immediate neighborhood, but it is much more accurate to arrange them at a significant distance from it. The closer to the carrion the traps are, especially the accidental or newly refurbished, even to its half-eaten prey,

the more attentive to everything around ais an old seasoned wolf and behind him other, still inexperienced young wolves. Therefore, traps are usually placed no closer than 20 sazhens from the carrion, sometimes 150-200 steps from it. Moreover, many trappers in the Urals, for example, resort to some tricks. They put the trap not on the main path, but on the side, on a by-pass track that the wolf always uses when he sees something suspicious on the trail.

One should only throw a whip on the trail the day before, and the wolf, without reaching it, will turn sharply and leave the path. Consequently, the trappers uses the watchfulness of the beast and its caution to his favor and forces the wolf to pay attention to an imaginary danger, thus distracting his attention from real danger. On this principle, as is known, is all hunting based on the Pskov method.

In view of the fact that arming wolf traps on the spot is very inconvenient, so they are most often armed at home and after having tied the divorced arcs to the frame with a rope, they are carried in this form.

The trap should be put as follows. Depending on the time of autumn, a shallow pit at the size of the trap is excavated in the passage, and in the middle of this pit another smaller one. The edges of the first pit are lined with moss and in it the trap is set so that it lies slightly below ground level. Then the trap is topped with leaves. A smaller pit is necessary for the wolf to step on the canvas with the foot, or to turn the plate, and consequently pull the hook and lower the arches. In winter, on such baits instead of leaves or on top of them snow is poured and leveled with a broom. On the paths that lead to accidental carrion or just to the forest, do not dig the pits in the ground, but only in the snow, also with a depression in the middle. According to Aksakov, "coming to the place, that is, to the path, the hunter, bending forward as far as possible, without putting his feet together, delineates the quadrilateral with a spatula so that the path falls in the middle, carefully removes the layer of snow almost to the ground, and retaining (as far as possible) the shape of the wolf tracks, puts a layer of snow behind him, on his own trail ". Then, keeping an eye on the trap, "takes out the snow from behind him and gently drops it from the spatula so that the snow surface above the trap is perfectly even, and on this fluffy snow the corner or the end of the handle of the same spatula skillfully crafts a trail of wolf tracks."

The description is almost true, but the layer of snow almost to the ground can be removed only when the snow is not deep and not loosened, and in the preservation of this layer with the figure of wolf tracks there is no need, since the same traces remain both in front and behind the trap. Though, it is best to make a print with a wolf's paw. In addition, it should be mentioned that the snow on the trail is first slightly dented. Then the trap keeper retreats with his own footstep, filling it with fresh fluffy snow,

at a distance of 10-20 or more fathoms from the path, depending on how much the terrain is open.

If a trapper goes on skis or rides on a hors, then, as said he does not need to waste much time in the snow, and things are done easier and faster. In the Korchevsky district of the Tver province, trappers often set traps not on the trail, but in the trail left by the runners of the sleigh. According to their observation, the wolf, especially the old one, follows the trail much more bravely than their own path. For this purpose, trappers use sledges with particularly wide skids. When they have laid the traps, they go to the carrion, but, before reaching it, they stop the horse and, without descending from the sledge, put behind them the trace that was already traced. Then, approaching closer to the carrion, put a second trap in the second divider and then go to some distance past the carrion. If the wolf approaches the carrion from two or different sides, then traps are also placed on the other side, and then the trapper opens a track to the nearest forest or road and, turning the horse there, travels the same way back, observing that the track does not come out double, and thus moves the set traps and equalizes the snow, sketched to the trap. Here the wolf is also a victim of its excessive caution. Seeing that his trail has been driven by a man and suspecting that something is wrong on the path and falling, the wolf follows the sledge's trail to check the suspicion that has arisen in him and falls into one of the traps. In all likelihood, traps can sometimes be placed in a similar way by a skier, whom the wolf almost does not fear and who willingly turns off the trail. It may also be that in order to induce inexperienced hungry wolves to follow a skier, it is useful to drag along with a pot - a piece of meat, a roasted liver, a roasted cat, etc., as Mr. Lvov advises. When poisoning wolves, potatoes are indeed quite significant.

The number of traps set near the carrion is rarely significant. Usually they put four - five traps, and more only in the case, when the leave not one but several trails on the ground. On one trail, more than two traps are never put, often only one, because as soon as one wolf gets on, its companions or witnesses of its misfortune do not approach the carrion for weeks, and this path is even avoided by the wolves from other packs, which may continue to walk to the carrion. With horses trappers, especially those with sleighs, occasionally put up to 10 or more traps, but on a short winter day it is difficult to arm more than 15 traps, since the accurate setting of each requires at least 15 minutes.

The wolf approaches the carrion (as always, if it is not pursued) by a step, and therefore falls into the trap with one foot - the front, it will undoubtedly, much more often than the rear, which happens only when the trap is covered with a too thick layer of snow or alert too tight. Under such conditions, however, the trap can not be slammed. The wolf, trapped in the trap with its rear leg, carries the trap further than if it hits the

front leg. Regardless of the age and strength of the beast, it also means that there is a difference whether the trap is trapped high or low, or only by the foot. In this respect, traps with strong springs are more reliable than with weak springs, since when springs are released it slightly tosses, and therefore with weak springs it is necessary that the trap has a solid support point.

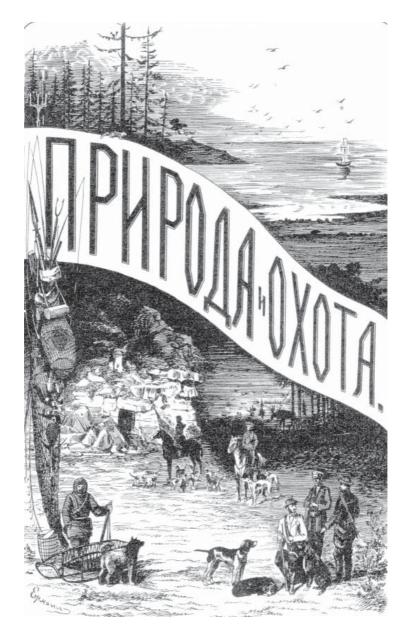
The wolf, trapped in a trap, rushes to the sides, turns around in one place, gnaws iron, trying to rip it off, then goes into the woods, trying to get into the thicket where it rests. Often it happens that the wolf runs for about two versts from the place where the trap was set up. Young wolves often hide in a nearby bush and in general, the stronger the wolf is and the lighter the trap is, the further it goes. Old wolves, tired, sometimes may carry a trap in their teeth, if the trap hit the front leg. At every stop, they bite the iron with bitterness, why the rare fangs remain intact. On the contrary, young wolves do not bite the traps and relate to the misfortune that befell them with great resignation to fate.

According to some writers, a wolf, trapped in a trap, never nibbles its leg, but, according to trappers, this happens quite often, which is confirmed by the fact that they occasionally come across three-legged wolves, who apparently left their paw in a trap. It seems to me that this contradiction is easy to agree with. A very strong spring can break or crack the bones of the leg, and if the beast drags the trap for a long time, the iron can rub off the skin on which it was held. The fact that this amputation is assisted by the injured wolf himself is not impossible, just as it is possible that a wolf, tying up a trap in the forest, sometimes tears off a leg, which only keeps on the skin.

In order to find out whether the wolf has got into the trap, the trapper usually makes another round trip around the carrion on the second or third day and looks for a trapped pull. This track is visible from afar, especially since it is often covered with blood. The pursuit of the wolf takes place mostly on skis or on foot, since it is very difficult, if not impossible, to follow the wolf in the forest on a sleigh or riding. After catching up the beast, the trapper either shoots at it, or beats it with the ax's butt, or a cudgel, etc. This last act of hunting is not always safe, because it often happens that the angry wolf attacks the hunter. Young wolves rarely even flee and keep on sitting on their hind legs exposing their teeth. Some wolves hide their heads in the snow when a person approaches.

During the heat, when traps can be placed on wolf trails without any salvage, it happens that instead of wolves, only scraps of wool are found in the trap. This means that the male was trapped in the trap and was eaten by its starving rivals, who sensed blood. Conversely, if the wolf in the estrus gets into the trap, she has to be tracked very

far, since it happens that the wolves feed her and this is for a long time supporting her strength. In addition, it is not safe to approach it.



That's all that can be said about the trapping wolves, still little known among hunters. There is no doubt that we still have many options to catch, that is, the traps are alarming and put differently than it was described, that there are many different methods in setting up a trap, and therefore one cannot but wish that these details of the trapped catching be turned attention is Permian, Vyatka and in general those hunters who often deal with real industrial mavericks.

ARTICLES AND ESSAYS ABOUT THE WOLF QUESTION

"On the destruction of the wolf by livestock and game and the destruction of the wolf" by VM Lazarevsky. Supplement to the "Governmental Herald" 1876 year, 71 pp.

Recently, the so-called wolf question has become one of the most important issues, which are mainly subject, of course, to the discussion of hunters and naturalists. That wolves every year multiply more and more or, at least, bring ever greater losses to the rural population - is beyond any doubt. There are many reasons for this, but I will not list them, since I suppose to do this in the monograph of the wolf being prepared for publication. I note only that the harm caused by wolves has increased not only from the decrease in the number of hunters and trappers, as is accepted by most of our fellow-men, but also from other, completely indirect causes, between which the wolf's skin is of low value, the absence of bounties or the insignificance of the latter, and in very many localities, the destruction of game, which serves as the main help to the predator and finally, the decrease in the number of large and small livestock. In earlier times, the number of wolves were less, since they somehow still were exterminated. Now they are much less concerned, but the fact is that even more difficult times have come for them, and therefore it is not surprising that they now inflict more sensitive damage on us, so to speak, have become more direct enemies of ours and the harm from them has become more visible and more palpable.

But until recently, however, complaints about the wolf devastation of the rural population were based only on fragmentary facts and newspaper news, and therefore were rather unfounded and did not rely on any statistical data. All hunters, many Zemstvo figures and the government were convinced that under the present wolves are becoming a real scourge to the state. There were various, not only unilateral, but sometimes even amusing projects of exterminating wolves, but despite this, no one was conscious of the clear harm done by these predators. The first experiments on the collection of information on the number of cattle killed by wolves date back to the late sixties, and quite recently there appeared detailed information deserving almost complete confidence in the data on this subject.

Based on published statistics collected by Zemstvos and statistical committees, I tried to calculate approximately the amount of losses caused by wolves and came to the conclusion that these losses extend annually to approximately five million rubles, which I already had the honor to inform people at the second congress of gun hunters. It turns out, however, that this huge figure is far below the real one, and we owe this to the author of the above-mentioned brochure, V. M. Lazarevsky, who has long been engaged, assigned by the government, to collect information of the wolf's destruction of livestock and game and about the possible methods of destructing the predators themselves. The data collected by Messrs. governors for 1873 through the means of statistical committees and delivered to the Ministry of Internal Affairs, served as the material for the compilation by the respected author of Vedomosti about the number of livestock that was destroyed this year by wolves. It turns out that in 1873 in 45 Russian provinces 179,000 large and 562,000 small ones were destroyed; in the Ostsee Territory 1011 large and 3440 small, in 10 provinces of the Kingdom of Poland²⁴ - 2766 large and 8,635 small. Assuming the average value of an individual of large livestock (horses and cows) is 30 rubles²⁵, the cost of small (including calves and foals) in 4 rubles, the total result of losses incurred by the population of 45 provinces in the area of 382 million tithes, is equal to over seven and a half million rubles, which amounts to a tax of 196 kt per tenth. The highest tax is paid by the Kaluga government, namely 8.6 kopecks; Cushion - In Volgo-Hungarian it is 55.3 kopeks.²⁶

But, in the author's opinion, this result of losses is much lower than the actual. Based on the fact that Podolskaya Bay was not included in the Statement and areas of the Don

^{24.} Strictly speaking, in 8 gubernias, as in Radom, wolves are almost exterminated, and in the Kalish district exterminated since ancient times.

^{25.} The value of the head of large livestock, in my opinion, is somewhat high and its average number can hardly be taken above 25 rubles. Required bear in mind, independently of other arguments, mainly the fact that in most cases the weakest, and therefore less valuable individuals die. In particular, this applies to horses (in the middle band), exhausted by summer field work.

^{26.} The last figure should, however, be very reduced, since a significant, albeit smaller, part of the losses is caused by bears.

and the Urals, some provinces gave figures far from their population and the number of local cattle. The contradictions in the data collected in some provinces by statistical committees and Zemstvo councils, the figures of the latter being incomparably large, and finally, that the information was not delivered by all subdivisions in the counties and the list did not include the number of birds and dogs killed by wolves (this information is available only in relation to the Kaluga province), Lazarevsky arrives at the conclusion that the losses of most of the provinces should not differ from the losses brought by wolves in the Kaluga government, which occupies a central position, and accepts the Kaluga data as the type of expression of provincial losses from the wolf.

According to his calculation, the total figure of losses from the wolf throughout Europe and Russia goes back to fifteen million rubles annually. The figure is, of course, arbitrary, since the Kaluga government suffer more from wolves than all others, and can hardly be accepted, even if European Russia, with the Kingdom of Poland, Finland (which, however, there is no information), all of Asia Russia - Siberia, the Kyrgyz steppes, the Turkestan land and Caucasus are counted. In any case, there is no doubt that the population of European Russia pays because of wolves an annual tribute of at least ten million and that the losses caused by wolves are much more than simply losses caused by the loss of livestock²⁷, and if they are far from equal, then in every way it should be compared with a loss caused by rural fires! ²⁸

Such unexpected results were brought up by the first collection of statistics covering losses caused by wolves. But the amount of damage caused by wolves is far from being exhausted by this immense number. If we take into account that the wolf, besides livestock, also destroys the game, the results of the losses tolerated by us will increase to a large extent, and the harm from the wolves, perhaps, will in fact exceed the fire losses of the rural population. Based on the fact that in many counties over one hundred wolves are killed every year, and VM Lazarevsky believes that the total number of wolves in European Russia should be at least 180-200 thousand. Comparing further the number of wolves with the number of large and small cattle slaughtered by

^{27.} Based on the reports of the Medical Department, the author calculates for 50 provinces, the figure is 240 tons of cattle, that is, when estimating cows in 20 rivers, by 4,800,000 rubles. This figure, according to the author, should still significantly decrease, as calves are considered to be calves in the end, and the case leaves (however, we note, by no means always) a skin representing 20% of the value of the dead cattle. Even if we accept the figure given by the Commission for the study of the state of agriculture, 400,000 head of livestock, annually dying from epidemics, then even the preponderance will be on the side of wolves.

^{28.} The author believes, based on the opinion of Mr. Wilson, the author of "Statistical Information on Fires in Russia", St. Petersburg, 1865, that the number of fires increases annually only by 1%, in accordance with population growth. Considering the cost of a peasant household in 200 r. (and not 360 rubles, as accepted by Wilson), for a counting year, 1873, there is a loss from rural fires of 9.2 m. Without going into polemics, we only note that this figure is just as arbitrarily low as the 15 millionth loss from wolves are too large. It also says, however, that in 1874 all fire losses in towns and villages amounted to 59 million, and in 1875 (here a misprint - 1857) - 64 million, and there is no reason not to trust these figures.

them, in any case (even if we assume that the number of slaughtered cattle should be doubled), there will not be more than 2 pieces of large and five small animals for each. Assuming that the wolf needs at least about seven pounds of meat a day, 65 poods a year, and about 200 million poods a year, the author calculates that all food from cattle, counting and carrion, falls on the share of the wolf is only 6 million poods. Of the rest, at least 5 million poods should be obtained in the form of game. Taking the same market price of poods game in 10 rubles, it turns out that the wolf incomparably high losses cause the state losses of 50 million rubles!

Here, however, the venerable author is obviously fascinated and ascribes too much importance to the wolf in this field. The method he adopted for this calculation is very witty and deserves full attention. Here we encounter many stretches and obvious exaggeration. Let us list them briefly.

- 1. It is difficult to expect that each of 500 counties accounted for an average of 400 wolves, especially since many northern forest wolves are very rare and are not seen every year. Undoubtedly, in some counties, wolves can be more, but there are many counties where there cannot be 20 broods, counting 10 in each including the old and the offspring, as the author accepts.
- 2. The author completely unjustly believes that every year only one wolf out of three is killed, and even then, very rarely²⁹. It is necessary to take into account that only young, generally inexperienced individuals become the victim of the hunter and trapper, and the old, tribal ones remain, and besides, a considerable number of wolves, who hunt for the first time, are added to them. More than half of the young wolves are being exterminated, but more than half of them are old, up to one-third, which will be proved in my monograph³⁰.
- 3. Whatever gluttonous a wolf may be, 7 pounds of daily portion of meat is too luxurious, since no dog is given so much oatmeal.
- 4. The wolf eats the cattle they have eaten along with all the insides, only the skin and bones remain, and then not all, and therefore one cannot count the head of cattle at 10 and the small one at $1\frac{1}{2}$ poods.³¹

^{29.} The author, speaking of the Simbirsk Gubernia, puts it this way: "If we assume that a third wolf was killed here, which of course is not anywhere near us, of course ..."

^{30.} Assuming that there are 10 wolves in the 100 wolves, 10 mothers, 18 wolves, 12 young wolves, 30 males and 20 females (ie, only 5 in the brood), if in the autumn and winter a third of the human beings are exterminated old and yearlings and half of the young and, moreover, from the remaining to the spring dies from various accidents 10%, then still in the calculation (which anyone can do) it turns out that for the 6th year the number of wolves will increase by thirty percent.

^{31.} With this, however, we can still agree, if we take into account that up to one-third of the meat of cattle captured by wolves is obtained not by the wolf, but by the crows, birds of prey and dogs. In addition, many cases are known where wolves cut small livestock in dozens and, therefore, could only use a small fraction of the meat.

- 5. In addition to game, the wolf eats not only every bird and various animals, especially from the family mouse (in the tundra, he often follows the herds of variegated), but also reptiles. Moreover, far more than one game is nesting on the ground, and about 30% of predators and half of birds. Then, let's say the words of the author of the article "Notes on the hunting of the Kovenskaya Gubernia", placed in the same book: "... both the hare and the black grouse are not so easy to get as a large domestic goose peacefully asleep on the shore of a pond, or a crazy sheep and an abandoned pig ... It's easier, and more profitable. "
- 6. It is completely unfounded to assess the game at its cost in the capital markets, and on the spot no game costs 10 rubles for a pood and this figure is almost twice as real.
- 7. The general figure of all kinds of game that is mined not only in Russia, but even in Siberia (as one can judge from the information I collected during the last two years about trade in game in Moscow the focus of this kind of trade,³² at the same high (10 rubles for a pood) does not reach five million, that is, a tenth, which is incredible and it should not be overlooked that most of this game, namely hazel grouses, is brought from areas where wolves make up greater or lesser rarity, and subtracting the forest districts of the northern provinces, the total cost of all game in the rest of European Russia, according to the same estimate, reached 25 million, and no one will dispute that a man taken as a separate factor is the most dangerous enemy of game. Where there are no trappers and hunters, there game is always more than there where they are.

These arguments, I think, are enough to reduce the importance of the wolf many times as a game fighter. In any case, it cannot be more than the value of a wolf as a predator of herds, and all this is easily explained by the fact that both the number of wolves, and especially the daily portion of each of them and the poodle estimate of the game are too exaggerated.

Let's see what results can be obtained with a slight even decrease in the values taken, namely we assume that we have only 150 wolves and every average eats only 5 pounds of meat of only cattle and game, which is more than enough to insure it from starvation: each will have 45 poods per year, and for all less than 7 million (6,750 tons). Let's take the same weight of cattle (10 poods for large and 1 ½ for small), but we will reduce the number of cattle (as was done above, with losses reduced to 10 million) by 73: less than 3,000 million poods; add here (as the author does) 1 million on carrion - there are only 2 ½ million poods of other meat food; of this number, you can really think that the game will account for a large half, about 3 ½ million. Considering that

^{32.} Most of the game goes to St. Petersburg through Moscow.

the pound of game (in place, as always calculations are made, because at the Moscow prices for the skin and a pound of meat it would have turned out that we have several billion cattle in Russia) there is no more than 15 kopecks in place. (the main game is black grouse and hazel grouse, which is more than half of other game), therefore, a pood of 6 rubles, it turns out that wolves are destroying game for a huge sum of nine million rubles. If the author of the brochure, in its calculations, limited only 3 ½ million poods of meat to the crocked cattle, that is, the figures given in the slips, then the total of losses caused by wolves as game fighters would increase to 65 million. But the author says in a note (p. 26): "No matter how amazing the results are, but still the wolf's prey (only about game) is only half of the matter, even a much smaller half" - and lists other game fighters.

In order to prove the infidelity of this author's position, let's assume that those who were captured with only 50 million of survivors, that is, only 25%. If we accept the author's estimate of 10 rubles for a pood and in a pood only 20 pieces and old and young (we have only a few rabbits), then we will have almost half a billion pieces of game, and consequently (in Europe, Russia, with the exception of Finland 4,425 676 square versts), for every tenth, though, within a year, there are about 10 pieces, which is not in any forest and perhaps in a few swamps, except for game, for example, gulls, nesting societies.

Nevertheless, it is obvious that the wolf brings huge damage both as a game fighter and the author deserves undoubted merit - the indication of the method of calculus of this kind, a method which, however, can be successfully applied only in special cases, for example, when the quantity wolves in any terrain and the number of cattle they destroyed³³.

Be that as it may, the main idea of the author of the pamphlet is completely justified, and, thanks to the enormous material contained in the latter, the harm caused by the wolf proves incomparably more than the most ardent pessimists could have expected. These, if not sixty-five, then twenty million losses, will draw attention to the wolf of those Zemstvo figures and hunters, who in fact in most cases neglected this enemy of the rural population. The former were most often not given almost no importance and for the most part ignored the so-called wolf question raised in many Zemstvo meetings. The latter cared only about how to hunt wolves, not even thinking about

^{33.} Leaving aside a brief but very detailed essay on the way of life of the wolf, let us note only that we are also personally a brood without a father, except for the rare case when there are very few wolves in a given area and when real mating is seen, in what sense I and spoke in a note to the note by Mr. Dmitriev-Mamonov. In my monograph of the wolf, I attempt to explain this apparent wolf family life - an attempt based mainly on the fact that the wolf is chasing the 2 nd, and the wolf is only on the 3rd autumn, and then on a very frequent shortage of convenient and safe hangouts. A detailed exposition of this so-called. The theory of cohabitation will, however, be completely inappropriate here.

his extermination. Eloquent, though exaggerated, figures should make Zemstvos act more energetically and not be limited to allocating a hundred or two rubles to premiums or to get by with only phrases, while wolves choke cattle with hundreds of thousands, hundreds of people!³⁴

The question now is: can this wolf question really be resolved finally, otherwise - is there any way to exterminate this predator, as it is done in England and in many countries of Western Europe and even in two provinces of the Kingdom of Poland!

"Against a wolf, as against a toothache, everyone has the surest means," says the author, and one cannot but agree that this comparison successfully expresses the entire confusion of hunting projects, if not the extermination of the wolf, then a decrease in its number. One hunts with the greyhounds, the other with the hounds, the third - round-up, the fourth - the Pskovians, and each of them is fully convinced that his method "is the best and surest means of exterminating the wolves." All known methods of hunting, according to VM Lazarevsky's view, cannot be called methods of extermination, since, firstly, it is hunting, and "Hunting and extermination are two terms that exclude one another."

The author says: "If grandfathers with hundreds and thousands thoroughbred stragglers did not do anything to the wolf, giving the business time, what will grandchildren do with one or two packs?" Then, turning to the Pskov method of hunting, "Sometimes of the Pskov method of hunting," Then, turning to the Pskov method of hunting, some Lazarevskii notes that in the end it is very expensive (each killed wolf is 35-43 rubles) that other ways of hunting, such as hunting with the hounds, are not inferior in the number of wolves being harvested, and quite denies the possibility and benefit of hunting with Pskov Zemstvos, according to the project Dmitriev-Mamonov (see pages 31-32). In the same way, the author believes that the establishment of a school of hunters will not satisfy this goal either, that the actual round-up could only be good under serfdom, "when the beast could respond with his own back". As for the traps, they, "although they have quite a lot of application in the forest areas, only a good trapper will take 2-3 wolves in the winter".

With all these ways of hunting the author considers only as a finger, and comes to the conclusion that the only rational measure to exterminating wolves is poisoning them,

^{34.} Every year, according to the calculations of VM Lazarevsky, at least 200 souls die due to wolves.

^{35.} This way, as it turns out, is originating from Lithuania, where (as I heard from many hunters) has long been used. Luka, the grandfather of the present generation of "Lukashes", according to the author, is a native of Lithuania.

^{36.} The author says that he has not seen a single case of successful hunting in the press in recent years. However, this hunting is in great use and with greater or less success is produced in the western and southwestern lips. (See "Zh. Oh.", 1875, pp. 39-48, as well as an article by Dm. V. in this book) 5 and even in some localities of Russia, for example, on the Klimets Island (Onega Lake), where it is annually produced by the peasants themselves (Zh. oh., 1875, November).

i.e., to the same conclusion to which I came, as is evident from protocol 2 congress of hunters in 1876, where I defended this method with some other persons from the self-ish attacks of many hunters. A number of logical arguments VM Lazarevsky brilliantly refutes all the objections, usually made by opponents of poison. First, pointing out that, contrary to popular belief, the poisoning of predators by strychnine is allowed in our country by law³⁷ and that just as last year it was made public ("The Ruler, the Herald", 1875, No. 12) opinion of the Medical department about the harmlessness of herbivorous strychnine preparations in meat and bacon, and their use is permitted to exterminate wolves, the author of the main objection made by hunters that the hunting dog may be poisoned, says: "If a pack of greyhounds or hounds goes to feed on frozen carrion, it is shameful for the hunter to dump one's sin on a strychnine. And the fanciful calculations of such a Plushkin, who kept the kennel on the fodder, put it on the same level as the fact of tribute to living people! After all, at the present time one can logically ask the question: will a man or a dog in this case be gnawed by a wolf tomorrow? Who wants to put himself in the wolf piece in parallel with the dog? "

The method of extermination of wolves by poison finds an even better ally in the example of other European states, where the poisoning of wolves is universally accepted. In 1818, in France, the Minister of the Interior, Lane, sent out a circular to the prefects, in which the mayors were requested to order that the hunting guard or the field guard would manufacture strychnine poison and place where it should be. Communities were supposed to deliver reports on animals that had been killed by poison, and on the basis of these reports they were issued in favor of the community of the premium according to the government's tariff, and the mayors were given a quarter or half of the premium to the one who would deliver the dead beast.

"It's wonderful," says VM Lazarevsky, "that following Lena's circular, it was in 1820, that the government, in conjunction with the landowners, designed measures to exterminate the wolves. The competent people were asked: the best means was poisoning. So, in the 1820s, science recognized this measure as useful, and power is indispensable for a whole vast country. And in 70 years, when the she-wolf ate 2-3 months in the neighborhood of several versts of one after another ten children, one of our Zemstvo councils rejected the proposal to poison the wolves on the following, among other things, the grounds:

1. If the poisoned wolf is not picked up in the spring it will rot, and on this place the grass will grow and it will be eaten by cattle, that then it will die.

^{37.} Predators can be exterminated at all times of the year by all possible means (Article 545 of the "City of the Urals and the rural household"). One cannot, however, not notice that this article does not speak directly about the legality of this method. Strychnine poisoning was apparently allowed only in 1875, and it was all the more excusable for the hunters not to know this, that no further than in the beginning of 1876 many newspapers reported a rumor about the imminent resolution of the poisoning of wolves.

- 2. The epidemic itself can open from the very rotting in the spring from the untrained wolves and
- 3. It is a sin to destroy so inhumanly a creation of God. That all this was said in earnest, the Zemstvo council confirmed in practice. It refused a prize for three wolves precisely because they were poisoned.

Poison has been used for a long time, especially for foxes that deliver more valuable prey, and there is no dispute that this is the cheapest, most convenient and the most effective way of destroying predatory animals.

But nevertheless, it still requires a certain amount of skill dexterity and many precautions. This is due to the well-known hunting prejudices and belief in the prohibition of poison, the perfect lack instructions of how to cook poison and finally, the difficulty of obtaining strychnine the development of this method of exterminating wolves. Now, thanks to a detailed note compiled by the well-known amateur and animal acclimatist Shuisky pharmacist FI Valievsky and placed at the end of the brochure by VM Lazarevsky, the poisoning of the wolf will be widely used and of paramount importance among other means having the same the goal - if not extermination (which is too much), then a significant reduction in the number of wolves. And this is all since a bank of pills prepared by FI Valewski, authorized for sale by the Medical Council and enclosing 500 pieces, costs 6 rubles including shipment.

Completely agreeing with the author that poisoning if not is now, it should be the main means for the extermination of wolves.

First, poisoning detracts the value of any other kind of hunting, losing sight of the very important circumstance that, despite the absence or insignificance of premiums and the cheapness of wolf fur, hunting at the present moment still does not allow the wolf to excessively multiply and always play an important role in the extermination of this predator. The significance of traps (we are not talking about other ways of catching) is also diminished, since I can point out to the trappers catching wolves in traps, get even two dozen a year. Comparing the largest figures of annual extraction of wolves known to us by the main methods of hunting, we find it difficult to decide which one to give the palm to. VM Lazarevsky himself, praising Valievsky's poison method, said that the latter had wiped 184 wolves from 1861 to 1875. Consequently, the latter extracted an average of 12-13 pieces - a figure that is available to every kind of hunting. It's another matter if we look at it from the point of view of ease, convenience and cheapness. Then, as far as we know, in the Kingdom of Poland and the Ostsee region, where the harm caused by wolves is relatively insignificant, they are exterminated not by poison, but exclusively by raids.

Secondly, I do not think that poison, even when it comes into everyday use and combined with high ten-ruble premiums, could snatch evil from the root.

"Against a aching tooth, a radical medicine is one - to pull out a tooth," says the author. "Can not this operation be done with a wolf ..." and further, proving that such a measure can be considered a poison, a tax project is planned at 2 million rubles, that is, 2,000 from a tithe. The tax, and still a new tax, as the author admits, is a very difficult word, but personally I have nothing against him, for I am fully aware of the enormity of the wickedness caused by wolves. The government and Zemstvos annually spend 600,000 rubles on measures against epizootics, whereas a wolf is undoubtedly more dangerous than a plague. But I dare to doubt that this tax will have the desired community. Unfortunately, it probably will fall on the peasant population, that is, it will be significantly increased.

Let's leave it, however, and let's see if the Russian wolf is poisoned?

No! The matter of fact is that the Russian wolf will not completely exhaust any poison for many years, perhaps centuries, in such a vast space as Eastern Europe and Central and Northern Asia, wolves will long be the fiercest enemy of man. I will cite as proof the author's own words, where it is spoken of France, in which, as it was said that the poison has been used for more than 50 years, and France cannot be placed in parallel with Russia. In 1876, the president of the agricultural society in Toulon reported that in Brignole (Department of Vara), the old donkey lardée de strychnine was taken not so long ago by seven wolves. Then some ingéieur agricole reports that five wolves were poisoned by strychnine near Toulon, in another place - four wolves. But this is not an exceptional case, since such examples can be brought from "La chasse illustrée" as much as desired. Hence, to wipe out the wolf to ashes is not quite easy. I do not argue, it can be done in the whole district, in the county, even in the province, as is known about Kalishskaya, but this requires a dense, equal-sized population, the absence of convenient places for wolf brothels, and such things we will not have a long time, even if they were not enough for our carelessness and indifference to the public good.

Then another aspect. Why not for a killed or caught wolf to pay only two or three rubles, and for a poisoned ten? After all, it is, in effect, the same Zemstvo that rejects the award for poisoned wolves. Does it matter whether a wolf caught, hunted, shot, caught in a pit or a trap, all the same, the result is the same, one predator less.

If this unjust measure has a purpose to give poison, as a more successful method, the prevailing importance over all others, then one can object to this that he himself will go into use, moreover, there are means to spread it. Every method is good in the hands of a master, a specialist in his own business. One is to hunt with the greyhounds with

pleasure, the other is caught in traps, and it is unlikely that anyone will change the known to the unknown. Is it possible, for example, to force a Kirghiz or a Cossack into poisoning wolves, and not throw them on horses alone or also with greyhounds, and yet the high premium would further develop this difficult but successful steppe hunt, a congenital rider. The same can be said about other kinds of hunting. For what to offend the real experienced hunters and trapper, the very ones who are bad, but still protect our cattle and ourselves from the wolf. Some of them will poison the already extracted wolf, others shoot, poison, catch in traps, as before, and do not neglect their long-term experience. And how to distinguish the poisoned wolf from, for example, caught in a pit, taken from under the dogs and then strangled? The author says: "When there is a doubt that the wolf is poisoned, it is not difficult to solve the problem by opening the stomach." The question is - how many versts must one carry a sometimes rotten wolf carcass and who will open the wolf. Let's use the words of the author: "God knows who will be the master of these affairs, and there would not have been a similar story with administrative hunters and wolf tails and paws" - and all wolves would not have been poisoned!

In my extreme understanding, the question of how to exterminate wolves is still a less important issue than the designation of high premiums (of course, not 3-5 rubles) everywhere and without distinction of gender and age. Until then, as long as the value of the wolf's skin is not raised three-four times in an artificial manner, the wolf question will not be resolved even with the spread of poisoning. No matter how easy and cheap the poison is, it also takes time and requires a certain skill and a kind of hunt. Even if over time this method will be twice as successful as all others then high premiums for wolves are incomparably more dangerous than any poison.

Here in general terms the content of this wonderful pamphlet and those remarks that we deemed it our duty in view of the matter of such importance to make the distinguished author of it. There was nothing of the kind not only in ours, but also in foreign literature, and we consider it our duty to draw the attention of all hunters to it.