Grey wolf in the Scandinavian society

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Introduction

The grey wolf (Canis lupus) has for a long time been nearly extinct in Scandinavia. Culling statistics show that in the early nineteenth century there should have been about 2000-3000 (or even more) wolves in Scandinavia. Hundred years later the population had died out and 30 years ago it was officially considered extinct in both Sweden and Norway. But during the last 20 years the wolf has re-colonized, in the beginning only 2-3 wolves lived in a pack along the Swedish-Norwegian border and today the population is up to some 100-120 individuals.

While this is a relief for the wolf-lovers it has also led to conflicts for the people, wild animals are often beneficial for humans – IF they don't interact with our society in ways that we cannot control.

Livestock predation and the attitudes among the people

The biggest conflict with the increasing wolf-population is that they have attacked and killed livestock like sheep, reindeer and even guard-dogs! This has upset many farmers who have been put in a very difficult position. On one hand they need to protect their own animals from being killed by predators, but on the other hand these predators are protected by the law and the farmer are not allowed to intervene by hunting it. Illegal hunting of the wolves has been a problem, because farmers feel that they cannot just allow their own animals to be killed.

In the article "Attitudes of hunters, locals, and the general public in Sweden now that the wolves are back" there has been a survey among different groups of people in Sweden to analyze the relationship between experience and knowledge to peoples attitudes towards wolves. People living in areas where wolves have been restored have more negative attitude towards them than the general public. This is easy to understand since the wolves have been dominating these less populated areas on the countryside. People in these areas claim that their life quality is reduced due to the wolves, and that their problems with the wolves have been neglected by the authorities. They feel that the decisions are made by urban people

without real knowledge about their reality, who don't care about the feelings of minority groups on the countryside. This has become a symbol for the distance between the urban and rural people in Scandinavia. Of course it is easy for us city-people to say that we want to spare the wildlife, but wouldn't we also want the choice to get a gun and shoot if a wolf appeared on our backyard, attacking our pet-dog or cat?

Many people in the cities don't care much about the wolf-question since their lives obviously contain other issues than the wildlife. But the groups of people that do have experience with the wolves (hunters, locals) mostly have very strong opinions. Social psychology have demonstrated that direct experience lead to stronger attitudes so this would already be expected.

The majority of Swedes thinks that wolves have the right to exist in Sweden though, but only non-hunters and urban people think that they should increase in population size. More than half of the hunters living in wolf areas have also sometime seen a wolf (or bear) kill in the forest, or known someone who has had an animal killed by a wolf.

Even though it is the people that live close to the wolves that are most directly affected by them, and of course also have the strongest opinions about the wolves in our society, these groups are usually not included in general population surveys. This is because they only compose a small number of people compared to the rest of the population. General population surveys may then show a strong public support for wolves even though the ones that the surveys really concern have totally different attitudes.

In addition to the negative attitudes from people living in wolf areas, hunters or people with experience with wolf predation also older people responded more negative. Their negative attitude is not supposed to be because their attitude changed as they grew older, but rather because their attitudes where formed during an earlier period in history when the general attitudes towards wolves where more negative (wolves where seen as the monsters in scary fairytales!) Does this mean that in the future, when older people are replaced by new generations and more and more people grow up in the city far away from wolves, the attitude will change and become more positive?

Currently peoples attitude towards the wolf are not a threat to its existence, but the analysis suggests that there are two factors that may inhibit the recovering wolf population in the future. One factor is the high proportion of people that are neutral and don't really have any opinions about the wolves. These can easily be influenced by single negative events that are published in the media. The second factor is the people that are already negative about the wolves (i.e. people living in wolf area or having experienced wolf predation.) If the wolf population increases and expand in Scandinavia and affect more and more people it could increase the number of negative attitudes. This could lead to decisions to reduce the growth of wolf numbers.

Moose predation

Another conflict due to the increasing wolf population (in addition to the livestock predation) is predation by wolves on wild ungulates such as the moose. In the article "Costs and benefits of animal predation" by Anders Skonhoft it is discussed how the different moose-wolf interactions can affect us positively and negatively, and why the size of the wolf population will affect the growth of the moose population but not vice versa.

The predation by wolves on moose will mean a loss of animals potentially available for hunting. Landowners will get the hunting value of the moose and predation by wolves will then mean a loss of income! But while the wolf population is still very small, the number of moose is generally high. This is due to that they have nearly no predators – except the human and the wolf, and also due to the high selective hunting scheme, which have allowed them to increase in number.

Moose are also causing problems for us, just like the wolves. For example the damage of young pine trees (which means a loss of income for landowners) and collision with cars, which causes accidents and deaths every year in Scandinavia. The costs of the damages from these accidents can be extensive since they often occur on highways and railways. In that sense the wolf is being a benefit for us, by keeping the moose-population (and so the costs from destruction and accidents) down. It has also been suggested that since the moose-wolf ratio is so high (the moose is so much more numerous than the wolves) the predation by wolves only do local differences.

While predation depends on the size and number of wolf packs together with the size of the moose-population, there may also be a feedback effect as the size of the moose-population influences the growth of the wolf population! In Scandinavia the wolf populations is so strongly controlled that this relationship can be neglected – the wolves are not able to respond numerically to variations in the moose population, BUT the moose population will decrease with wolf predation. So, the income from moose hunting will be lower due to the wolf and at the same time the loss from damaged trees and accidents will also be lower due to the wolf!

The question is, which species do us most harm and which species do us most good? And can we interfere with the nature to increase the "good" or should we trust the nature to handle these wild populations itself?

Wolf hunting

The article "Integrating effects of hunting policy" by Torbjörn Nilsson, is discussing weather a regulated hunting of wolves should be legalized in Scandinavia even though the population is so small already. On one hand some people say that a population doesn't risk extinction if it doesn't drop below a low threshold of e.g. 50 individuals. These people are hunters and farmers who pressure the authorities to allow hunting to reduce the number of wolves in certain areas. Other people say that we should take precautions and let the population increase until reaching the size of viability before intervening with it by hunting.

Until now neither Sweden nor Norway has set a goal for what population size they desire, but both countries have agreed to try and maintain the viable populations of species in their natural surroundings.

Investigations show that with the low population of wolves that we have today the extinction risk is very low during the first century, but it will then rise rapidly after some hundred years! This is for example due to the inbreeding effect that will reduce the viability of the population, and make it more likely to die out for example if some sort of disaster would occur. The investigations also show that by raising the yearly mortality of wolves by 5% (by hunting) the risk of extinction would be higher than 40%. If this is accurate it shows that even just a moderate hunting that is only permitted when the population is above a certain minimal threshold can have effects on the risk of extinction. It also means that the argument that hunting isn't a threat to the population if it is stopped as soon as the population drops below the threshold, is false. A definite conclusion would at least be that short-term analysis is not enough to determine how good chance a wild animal species has to survive and how big hunting pressure that is acceptable. Only when also analysing long-term effects such as catastrophes that might occur (changes in climate, food etc.) and the effect that inbreeding can have, we get a more reliable result. The uncertainty about what will change in the future should be an argument for having more safety margins when determining how to keep a population viable. The investigation suggests that if we want to maintain the viability of the wolf populations in Scandinavia (which was the agreement of both Norway and Sweden) we need to increase the number of individuals to at least 400.

The risk that decreasing heterozygosity (due to inbreeding) might make the population unable to adapt to environmental changes, and the risk of mutations should also be mentioned. Studies have shown that inbreeding depression of a population may be much stronger under natural conditions than in captivity (maybe because the captured animals are so protected by us? They will never have to be thirsty or starve etc. while the wild animals don't have this protection and will easily be put in a bad position when environmental changes occur). The article therefore suggests to have a little pessimistic idea of how inbreeding can affect wild animals. A wise strategy should not rely on scenarios that only consider what is most likely, but should have some extra safety margins and believe that the last years may only have been an unusually favourable period for wolf population growth. That the population might have to spread into less favourable habitats in the future.

According to the article only a very limited amount of hunting should be allowed at the present low wolf population if we don't want to increase the risk of extinction. Raising the

mortality with 2% might be acceptable, even though a severe catastrophe would struck the population the extinction risk wouldn't increase so much. But raising mortality with 5 % is too much and would mean a big threat to the wolf population.

References

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