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Hunting wild animals is not justified For a peaceful coexistence between man and animal

In the past, hunting wild animals as well as gathering fruit helped man to survive. However, the times when we had to hunt in order to feed ourselves are long gone. Today, there are very few people who depend on hunting for their livelihoods. Nevertheless, wild animals are still hunted worldwide, partly as a cruel leisure activity and partly for so-called ecological reasons. On closer inspection, however, hunting turns out to be the cause of the very problems it pretends to solve.

Is there a necessity for hunting?

Most hunters justify their activity by claiming it reduces the damage caused by wild animals to forestry and agriculture. It is a fact, that deer and stags do eat the buds and main shoots of young trees or damage older trees to such an extent that they no longer grow straight and the wood loses its value. Injuries to the tree bark are also possible if the animals peel it off or if the stags knock off their antlers. On agricultural land, damage sometimes occurs when the animals settle on arable land and bend over the plants or when wild boar go after the corn. In part, this behavior is perfectly normal and due to the natural feeding behavior of the animals. A balanced feeding behavior will not cause too much damage if any, but on the contrary it leads to greater biodiversity in the forest and thus to a healthy ecosystem. However, the behavior of the animals can indeed become unbalanced, which increases the potential for damage. So what causes wildlife to feed excessively on individual tree species or crops, thereby causing damage?

The usual basic assumption is that this damage occurs because there are too many herbivorous wild ani-



Figure 1: "Thou shalt not kill!" – Wild animals are intelligent creatures that feel pain just like us.

mals. It is assumed that the reason for the excess is the lack of natural enemies that would regulate the population. In order to restore the natural balance, it is argued humans (especially in Europe and North America) must therefore take on the role of predators such as wolves, bears or lynx.

What are the causes of "game damage"?

Deer are natural inhabitants of treeless landscapes with meadows and tree groves. In forests, they therefore prefer to stay in clearings or at the edges of the forest.¹ Studies from Switzerland and Germany show that given the choice, the red deer's diet consists of at least 50% grass.^{1,2} The fact that deer nowadays tend to stay in the deep forest where they find almost only buds, bark, tree shoots and blossoms and thus actually less food than in meadows, but where they can better hide, is mainly due to the fragmentation and restriction of their natural



Figure 2: When nature gets of balance, wild animals can cause so-called "game damage" to agriculture or forestry, such as flattened corn on arable land (left) or bark eaten off young trees (right).

habitat by the construction of housing developments, industrial estates, roads and railway lines.³

In addition, in most European countries, 'hunting season' lasts for more than half a year (August to February). Thus, the animals are disturbed by hunting activities for a large part of the year. The stress this causes leads to an increased energy consumption in wild animals, which means they have to eat more food. If grasses are missing from their diet because the animals do not dare to enter the open meadows, the fiber content of their diet must be covered by eating bark, for example.

Hunting has significantly increased the flight response of animals towards men.⁴ Even though many wild animals can distinguish between hunters and people looking for recreation, they will flee if they are uncertain. This causes the animals to concentrate in places that are rarely visited by humans, which is how socalled 'game damage' occurs in the deep forest.

In areas where hunting does not take place, there is consequently less game damage, as confirmed by studies in the Swiss National Park. There has been neither forestry nor hunting there since 1914. These conditions lead to the fact that tree browsing is significantly lower despite higher ungulate densities than in places where the animals are more strongly disturbed by men.⁵ These findings are also confirmed in areas that are much smaller and located on flat terrain. One example from a semi-urban area is the 40-hectare nature reserve 'Dellbrücker Heide' near Cologne (Germany), where there has been a hunting ban for ten years. No impairment of the natural reproduction of trees by ungulates has been observed there.⁶

Ungulates can even promote tree regeneration by preventing the spread of ground cover such as blackberry and ivy. If ungulates eat these plants, the competitiveness of young trees is strengthened because they get more sunlight immediately after germination. The hooves of the animals also create bare soil areas, which are necessary for the germination of woody plants.⁷

How can game damage be prevented?

In the original forests, young trees were also better protected from grazing animals for other reasons. There was a natural and diverse composition of tree species, which also included shrubs that had developed defense strategies in the form of thorns or stored poisons, bitter substances or acids to protect themselves from plant-eating animals. Young trees were thus protected by this natural browsing protection, as well as by barriers of fallen trees and branches.^{2,3} Especially since the 19th century, Europe's natural forests have been transformed into commercial forests. In today's commercially managed forests, the above-mentioned elements are often missing because humans decide what may grow where and when, and because most deadwood is usually removed from the forest.

In order to restore these natural elements in today's commercial forests, the tree crown, which is usually not utilized, can be left in the forest undisturbed when harvested. On at least 10% of the forest area, timber extraction should be avoided altogether. And instead of large-scale afforestation, new trees should be planted in groups, with the trees in the center of the group being protected from browsing.⁸ With such measures, many conflicts between wildlife and forestry can be avoided.

If it is actually necessary to protect plants from wild animals, mobile electric fences around maize fields have proven to be an effective method in the case of wild boar. Browsing of young trees by deer can be prevented by various deterrents that are applied to the tree shoots and make them at least temporarily inedible. It is important here that only natural, completely biodegradable and non-toxic substances based on blood meal are used, the odour of which the animals associate with danger. Plastic sleeves, which are unfortunately still frequently used for plant nursery stock, are an unnecessary burden on the environment and should be avoided.⁹

Hunting increases the animals' reproductive instinct

Hunting has a major influence on the reproduction of wild animals, which can be observed particularly well in the example of wild boar. In France, two spatially separated wild boar populations were studied over a period of 22 years: One population was hardly hunted, while the other was hunted frequently. The reproduction rate in the heavily hunted population was much higher than in the population left to its own devices.¹⁰ Why is this the case?

As a result of hunting, wild boar are under constant stress because they are constantly exposed to a life-threatening danger. Nature has provided an emergency plan for such situations. The hormonal balance of young animals changes so that the sexual maturity of wild female animals (sow), occurs much earlier, namely before the end of the first year of life, and they can become pregnant.¹⁰

Furthermore, wild boar regulate their numbers themselves – at least when they are moving around in intact family groups. Only the older female boars then become pregnant and do not allow their young daughters to mate. So if hunters shoot the old mother animals, there is no longer any natural birth control. Instead of two old animals, five young animals become mother animals of even more wild boar.¹¹

Food supply also plays a decisive role in the density of the animals. The ever larger and more frequent maize monocultures represent an oversupply of food. However, while maize is only available in the fields for a few months of the year, hunters in Europe bring large quantities of maize into the forest all year round as attractant food (for more hunting success). The maize is also offered during the breeding season from November to January, i.e. at a time when there should naturally be less food and weak animals would die through natural selection. Studies by the Rhineland-Palatinate Research Centre for Forest Ecology and Forestry show that supplementary feeding increases the number of sexually mature wild female sow from 30 to 70%, which has a decisive influence on the number of offspring.¹²

These findings are confirmed by a study by the European Food Safety Authority (EFSA), which investigated whether hunting can reduce the spread of African swine fever (ASF). The study found the following, among other things:

- 'Depopulation efforts can [...] lead to compensatory growth of the population, and the influx of wild boar from adjacent areas.'
- 'If depopulation attempts were to be undertaken, this can increase transmission and facilitate progressive geographical spread of ASF.'

• 'Hunting is not a feasible [...] measure to reduce the risk for introduction and spread of ASFV in wild boar populations.'¹³

'Hunting and trapping has never achieved a drastic reduction in a wild boar population in Europe.' ¹³ It is therefore a fact that wild boar populations cannot be reduced by hunting measures alone. On the contrary, hunting and bait feeding make the animals fertile much earlier and many more animals mate. Hunting leads to an extreme increase in the number of animals. This also applies to other wild animals such as the fox.

The unnecessary hunt for the fox

In order to prevent the spread of fox tapeworm, fox culling was intensified in a test area in The Netherlands and the number of foxes killed increased by 35%. However, the fox population has remained the same size.¹⁴ In Denmark, a significant proportion of the fox population fell victim to a disease called distemper in 2012. Before the distemper outbreak, only 6% of the females that reproduced were younger than one year old. After the epidemic, the proportion was 61%. In addition, the average litter size before the population collapse was 5.6 pups per mother, but then shot up to 8.2. The reproduction rate of the foxes had therefore increased considerably as a result of the disease outbreak; greater losses led to significantly higher birth rates. According to projections, more than 80% of foxes would have to be killed every year across the board in order



Figure 3: In intact family units, wild boar regulate their population by only allowing older sows to become pregnant.



Figure 4: As a "health police officer" that eats carrion and preys on sick and weak animals, the fox makes a valuable contribution to the ecosystem.

to actually reduce the fox population permanently – a figure which, apart from being abhorrent, is unattainable in practice for an animal as intelligent and adaptable as the fox. In short, the number of foxes cannot be 'reduced' even with drastic hunting measures.¹⁵

Several reasons are given for fox hunting. Foxes are said to be transmitters of the fox tapeworm and of diseases such as rabies, which can also affect human beings. With too many foxes, the animals would suffer from diseases such as mange or distemper. An excessively high fox population is said to threaten ground-nesting birds, waterfowl and small animals. Fox hunting is therefore necessary to ensure one's own health, to protect human beings from diseases and to protect endangered bird species. But these justifications do not stand up to closer scrutiny.

The risk posed by foxes to man is greatly overrated: Germany, for example, has been considered rabies-free since 2008 (with the exception of bats); every year, about 30 to 40 people in Germany contract fox tapeworm disease, but very few of them die – far fewer than are injured or killed in hunting accidents. The fox even makes an important contribution to the ecosystem.

By eating carrion and preying on sick and weak animals, it reduces the transmission of diseases and thus takes on the role of a 'health police officer'. It also makes an important contribution to human health. Foxes reduce the risk of humans becoming infected with Lyme disease, which can lead to severe encephalitis in humans. This is because a fox eats three to five thousand mice a year, depending on the environment. And mice are the route of transmission of the borreliosis pathogen between ticks, which is why these ticks are less likely to be carriers of the borreliosis pathogen thanks to the fox.¹⁶

Hunting is not an appropriate method for controlling animal diseases such as mange or distemper or fox tapeworm infestation. On the contrary, a broadly based international study in 2017 showed that foxes with tapeworm infestation are more prevalent where foxes are hunted intensively. In heavily hunted fox populations, the average age of the animals is much lower and the stability of family communities is reduced. The higher mortality rate caused by hunting leads, as already described, to a higher birth rate and thus to more young animals looking for their own territory. This results in more territorial fights. As a result, contagious diseases are more easily transmitted and spread faster.¹⁷

Moreover, foxes become immune to rabies, distemper or mange after recovering from these infections and then, if they are not shot, help to prevent these diseases from spreading further.

There is therefore no question of any necessity to hunt foxes. This is very impressively demonstrated in the ever-increasing number of areas where fox hunting is banned. In Luxembourg, for example, where fox hunting has been banned since 2015, there are no signs of an increase in the fox population and no decline in the populations of rare animal species. The rate of fox tapeworm infection has also not increased dramatically. On the contrary: while the rate was still around 40% in 2014, it had fallen to less than 20% in 2019.18

Are foxes driving other animals to extinction?

It is claimed that if fox populations are too large, they can drive ground-nesting birds and small animal species to the brink of local extinction. However, where foxes are not hunted, a different picture emerges.



Figure 5: Small animals such as hares are not threatened by foxes under natural conditions. Foxes feed primarily on mice.

In the Swiss Canton of Geneva, recreational hunting was abolished by popular referendum as early as 1974. The conclusion is positive throughout: the diversity of species is now many times greater than it was in the days when hunting was still practised. Rare birds have returned and the density of the hare population is among the highest in Switzerland. There is no trace of exploding fox populations, collapsing bird or hare populations and rampant wildlife diseases.¹⁹

What influences the size of animal populations?

The assumption that hunters must reduce an animal population as a predator substitute presupposes that predators can actually reduce the population of prey animals. This theory is based on the Lotka-Volterra rules, which describe how populations of predators and their prey develop. When they formulated the rules in 1926, the scientists Alfred J. Lotka and Vito Volterra were already aware that these rules could by no means reflect the complexity of nature, but rather represented a highly simplified model. Today, there are numerous studies that show that the presence of predators has no influence on the number of prey animals.20

A study by the Technical University of Dresden found no wolf-induced changes in a red deer population on the Oberlausitz military training area.²¹ Similarly, a three-year study of the reintroduction of the lynx in the Palatinate Forest found no lynx-induced changes in the roe deer population.²² The situation in the hunting-free Yellowstone National Park in the USA, the oldest national park in the world, where the wolf was first exterminated and then reintroduced in the mid-1990s. has also been well studied. It was found that the wolf merely led to a more widespread distribution of the wapiti (a North-American relative of the red deer) grazing, so that the ungulates spent less time in the riparian forests of the streams, allowing the poplars and willows to better reproduce.²³

There is not a single scientific study from Central Europe indicating that large predators can influence the size or density of ungulate populations such as deer and stags.

However, there are contrary results. The increase in ungulate populations, especially roe deer, is considered one of the three most important factors in the successful reintroduction of the lynx.²⁴



Figure 6: According to the Lotka-Volterra rules, predators will multiply when there are many prey. Prey will decrease when there are too many predators (or hunters as predator substitute). However, these processes are extremely rare to observe in nature because in each case there are several species of prey and predators that interact with each other, and because their populations are influenced by numerous other factors, such as, for example, the availability of plant food and nesting sites, weather, diseases or the migration of animals.

The most important factor for the density of ungulate populations is the availability of food. The seasons play a significant role in this. The length and depth of winter temperatures, when fresh food is not available, can greatly reduce wildlife density.²⁵

The more animals there are, the less food available there is for each individual. As a result of high population density and the less food available per animal, the average number of offspring that a female animal gives birth to also decreases.²⁶ Similarly, it has been found that in deer, more male deer are born in high population densities, and fewer female deer, which is also a natural protective mechanism that prevents excessive population growth.¹

It is therefore not surprising that the same applies to predator populations. It is not the predator population that regulates the prey population, but the predators that depend



Figure 7: To actually reduce the fox population permanently more than 80% of foxes would have to be killed each year!



Figure 8: Animal populations are self-regulating, even without human intervention. If animals are not hunted, they soon lose their shyness and can be easily observed in their natural habitat.

on a sufficient supply of prey and are thus regulated by the prey population.²⁷

There is no evidence that predators can reduce the number of their prey.²⁵ Therefore, predators cannot limit game damage in forests and fields either. And thus neither can the human hunter who tries to replace the predator.

Conclusion: The so-called ecological reasons for hunting are untenable.

The argument that only hunting can control animal populations and reduce damage caused by game browsing, disease transmission and the like cannot be substantiated, as explained above. Rather, everything indicates that the stress caused by hunting leads to increased reproduction in the animals and destroys social structures that would prevent excessive reproduction under natural conditions. Normally, low temperatures and a lack of food would cause some of the animals to not survive the winter, which is a natural process and results in a number of animals that is adapted to natural conditions. However, in many places, wild animals are fed by hunters during the winter, which means that this natural selection cannot take place. The excessive animal density causes even more stress, contact with each other and territorial conflicts, which can lead to a greater spread of disease. If hunters really want to reduce animal populations, a sensible first step would be to stop hunting wild animals and stop feeding them in winter.

What would be the result of a hunting ban?

The opinion that animal populations would multiply explosively and that animals would cause damage on an unimaginable scale if hunting was banned (in other words, without the regulating intervention of men, nature would get completely out of control and out of balance) is widespread. However, various examples show that this is not the case.

Canton of Geneva (Switzerland)

In the Canton of Geneva, the practice of hunting by private hunters was abolished by popular referendum in 1974. A few so-called wildlife wardens still hunt, but only to a very limited extent and only in areas where there is excessive game damage. The wildlife wardens use the latest equipment, such as silencers and night vision devices, to cause the animals as little stress and suffering as possible. Thus, the animals do not react with their extreme survival strategies, which lead to excessive reproduction. The example of Geneva is particularly important because it is not a national park, where, in addition to hunting, other human influences are less common. Rather, it is a cultural landscape with intensively managed forests and fields, a large proportion of settlement area and a high number of people seeking recreation, who spend time in the outdoors together with the wild animals.

After almost half a century of this practice, the balance sheet looks as follows:

- The diversity of species among the migratory birds that spend the winter on Lake Geneva has multiplied.
- The density of hares in the canton is among the highest in Switzerland.
- The populations of ungulates such as deer and wild boar are all well established, without overpopulation, and regulate themselves independently.
- Fears of exploding fox populations, collapsing bird or small game populations and rampant wildlife diseases are unfounded. In the Canton of Geneva, none of this is evident.¹⁹
- Damage caused by wildlife is kept at an acceptable level through preventive measures and owners are compensated.²⁸

Swiss National Park

That nature is possible completely without hunting is shown by the experience in the 170,000-hectare Swiss National Park, which has been hunting-free since 1914. In the national park, the entire flora and fauna is left to its natural development.²⁹ This has been scientifically monitored and documented for over a hundred years:⁵ • The diversity of animal and plant species has increased since then.

• The stag population has increased only slightly, and there would be room and food for many more deer. The diversity of species in the stags' pastures has increased.

• The density of ungulate populations has no influence on the rate of tree regeneration.

• The number of trees per 100 square metres has increased significantly.

• Stags contribute to the spread of the forest because they disperse tree seeds: around 30 times more seedlings were found on deer trails in the national park than outside them. • The regeneration and spread of the forest seems to be encouraged rather than hindered by the current stag density in the national park.

Experiences in the Italian national parks of Belluno and Gran Paradiso, both of which have been hunting-free for decades, confirm these findings.

Where else is hunting banned?

In addition to the examples already mentioned in Switzerland, Germany and Italy, hunting is banned in thousands of national parks worldwide, at least in their core zones. Experience shows that the number of animals is subject to natural fluctuations everywhere and never gets out of hand.³¹ Some countries with extensive or partial hunting bans, as well as selected national parks, deserve special mention.³⁰

The Netherlands

Hunting in the traditional sense no longer exists in the Netherlands. In April 2002, despite fierce resistance from hunters, the "Flora- en faunawet" (Flora and Fauna Act) came into force. This nature conservation law protects most animal species all year round. The number of huntable species was reduced from 96 to six: hare, rabbit, mallard, pheasant, duck and partridge. Due to massive pressure from hunters, fox and goose hunting was also allowed again. All other animals enjoy year-round protection from hunters.

Albania

In February 2014, Albania decided to impose a total hunting ban across the entire country. Initially, the law was only valid for 2 years. In 2016, it was extended for another 5 years. In August 2022, it was again extended for another three years.³² The government wants to use it to protect wild animals and migratory birds, because due to intensive hunting, the wetlands on the Albanian Adriatic coast had become a death trap for hundreds of thousands of migratory birds as they made a stopover there on their long journey between Africa and Europe each year.

Greece

In addition to a few temporary hunting bans in Greece, the only permanent hunting ban since 1993 has been on the island of Tilos, which the residents themselves enforced. Every autumn and spring, tens of thousands of migratory birds stop over on Tilos. Tilos is home to 10% of the entire world population of the highly endangered Elenora Falcon. The hunting ban ensures their survival.

Costa Rica

In 2013, the Costa Rican government issued a comprehensive ban on hunting, stating that hunting as a sport was incompatible with the goal of protecting the country's wildlife. Costa Rica is the first country on the American continent to ban hunting as a sport. Hunters who do not comply with the ban face a fine of up to \$3,000. Costa Rica is one of the most biodiverse countries in the world. The ban on hunting not only protects animals, but also the country's economy, which relies heavily on tourism.

Botswana

In Botswana, a large number of elephants were previously killed by trophy hunters. Since 2014, trophy hunting and hunting tourism have been completely banned. The protection of exotic animals and overall biodiversity is intended to attract holidaymakers to Botswana and boost ecotourism.

Kenya

For decades, Kenya was the most popular destination for big game hunters. Then, in 1977, Kenya banned hunting of all furred game. Only bird hunting is still allowed. After the hunting ban, tourism in the many Kenyan national parks grew. Holidaymakers much prefer to be close to the thousands of animals and experience them in their natural environment rather than shoot them. Poachers are severely punished in Kenya: anyone who shoots elephants or rhinos faces up to 15 years in prison.

'Animals and nature are self-regulating. [...] There are no problems with the ungulates and there is no damage to vegetation.'

Enrico Vetorazzo, Media Spokesperson of National Park Belluno ³⁰

Refined killing methods: the digitalisation of hunting

Hunting is not averse to the use of technology either. Hunters are using increasingly sophisticated technologies to track and kill animals. It is not uncommon for helicopters to be used to access the centres of remote areas with high wildlife densities. Sometimes hunters even shoot from the helicopter. On the ground, GPS devices, night vision devices, thermal imaging cameras and drones with cameras are then used to track the animals around the clock and to find out their natural daily rhythms. Once you know where a magnificent stag is in its territory and at what time of day, it is easy to hunt it down.

The use of night vision devices and thermal imaging cameras for hunting

has meanwhile become widespread all over the world. In Switzerland, such devices were banned for the first time in August 2022 in the Canton of Valais, in almost all other cantons they are currently still allowed. Even though wild animals in Switzerland may not be killed at night, hunters use the new technical aids to track the animals at night and then wait in their vicinity until just before sunrise, when they can legally kill them. For the animals, this means 24 hours of continuous stress.³³

The wild animals no longer have a chance to hide from the hunters or to escape them. In the USA, cameras are even hidden in the forests, which transmit the image in real time via radio. This allows hunters to study the animals' habits from their own homes. For some hunters, this has become a lucrative business. They sell the GPS data of the animals on a black market so that other hunters can then kill the animal without spending a lot of time on it. But that's not all. Particularly in private hunting grounds in the United States, there are already automatic weapons equipped with cameras that are set up in the wild and transmit the view through the scope via the internet to the hunter's screen. This



Figure 9: Animals are still killed for the sheer fun of it and for the sake of prestige, often after they have even been bred specifically for this purpose.

allows the hunter to kill animals in the wild from the comfort of his armchair, sitting at his computer screen at home, as if he were playing a video game. He doesn't even have to be there. Wherever such practices have become widespread, the authorities have quickly banned them again.³⁴ This is because inaccurate shooting often occurs, leaving the animals injured and dragging themselves for kilometres through the forest until they finally die in agony. Hunters are obliged to pursue their wounded prey until they can kill them, in order to avoid causing the animals unnecessary prolonged suffering. This is fundamentally difficult and certainly impossible from a computer screen. Unfortunately, however, these remotely controlled weapons keep cropping up in US states where they are not yet banned, and it always takes a certain amount of time for the bans to become law.

Fishing by drone

New technological possibilities are being utilised for sport fishing, especially in the oceans. To ensure that there is something to catch, echo sounding has been established as an aid. This is mounted on the boat and detects shoals of fish. But the use of drones is also increasing. The drone flies over the sea and can also be controlled from the beach. It transmits an image of the sea surface from the air. So large fish can be seen with remarkable clarity, enabling the angler to know where to cast his lure. And the drone can even help with this. The bait can be attached to the drone and thrown into the sea at the exact spot where a shoal of fish has just been spotted. With today's technology, the drone's range is already 900 metres.

Underwater drones, i.e. remote-controlled mini-submarines with cameras, are also used to scout out particularly lucrative fishing grounds. In particular, large fish can be quickly located with an underwater drone. Until now, fish stocks in coastal regions were able to use protected areas for rest, which were inaccessible to anglers with rods or boats. These quiet zones are now being targeted by drones with the same accuracy. Experts therefore warn of long-term damage to stocks.



Figure 10: In hunting competitions, money is paid for kills. Predators that have been killed are often simply disposed of like garbage afterwards.

Just like wild animals in forests and fields, fish in lakes and seas today have little chance of escaping hunters and fishermen.

Hunting as a sport and pleasure activity

Besides the ecological reasons given for hunting, there is also hunting for the purpose of sport, pastime and pleasure. Hunting is defined as the act of tracking and pursuing an animal in order to kill it, typically with a weapon. Sport is characterised as a voluntary competition or game in which the aim is to compare physical or mental performance between participants. One aspect of sport that is rarely mentioned in the definitions, but is taken for granted by participants, is fairness - equal conditions for all. The fairness aspect of hunting sports only works as long as the animal is not considered a participant. For the hunted animal does not participate voluntarily, has no weapon and cannot decide to get out of the 'game'.

Most countries in the world have legislation to protect animals. Even though they may be formulated differently, animal protection laws are based on the same principle:

'No person shall unjustly or without reasonable cause, inflict pain, suffering, harm or fear on an animal.' ³⁵

Sport or pleasure are not justifiable reasons, the laws agree on this.

The sporting motivation or the pleasure of hunting are only tolerated despite the clear statement of animal protection laws because animals are hunted for so-called ecological reasons (e.g. lack of large predators, excessive animal populations, game damage, disease control), which are anchored in the hunting laws of most countries and taken for granted.

Hunting competitions in the USA

Many hunting events offer prize money in addition to the chance to gain prestige. However, many of these competitions are severely lacking in the hunting ethics that still exist among most hunters. If animals are going to be killed, their death should at least not be in vain and they should be shown gratitude by consuming their meat or using body parts in some other way (e.g. as fur or leather).

Unfortunately, many sport hunting competitions are characterised by quite different practices. In most cases, especially when predators such as coyotes or foxes are hunted, the killed wild animals are simply discarded as trash.

Hunting competitions exist all over the world, but in no other country are these events as popular and have as much money involved as in the United States. Thousands of modern hunting competitions are held there every year, where participants can win large prize monies for killing wild animals, often under the label of 'wildlife management', i.e. as part of nature conservation. And this despite the fact that there is no scientific evidence that killing predators or other animals is actually effective in regulating populations, benefiting other species or promoting biodiversity.³⁶

Such hunting contests take place every year in 42 of the 50 US federal states and attract many thousands of participants. In Texas alone, there are 600 hunting contests every year. One of these contests, the 'West Texas Big Bobcat Contest', is open to teams of four who have to pay a \$250 entry fee. To even qualify for the ultimate prize of \$50,000 (the highest prize money so far in 2020), teams must kill at least five foxes or five coyotes. The winner is the person who kills the largest bobcat within 24 hours. The competition has been held every year since 2008. Since then, a total of \$3.9 million in prize money has been awarded. Coyotes are by far the most hunted animals. In the United States alone, around 500,000 coyotes are killed by hunters every year, which is equivalent to one dead coyote every minute!36

Not everyone in the United States agrees with this cruel practice, though. Organisations such as the 'Humane Society of the U.S.', 'Project Coyote' and 'Predator Defense' advocate a ban on this type of competition. With success – because in eight US states (Arizona, California, Colorado, Maryland, Massachusetts, New Mexico, Vermont and Washington), competitions involving the killing of wild animals have already been banned.³⁷

Trophy hunting

Hunting trips are offered almost all over the world, where hunting tourists can hunt native animals in



Figure 11: The conflicts between the rural population and elephants are man-made and have nothing to do with the size of the elephant population.

faraway countries that do not exist in their home countries or are protected there. The only thing that matters here is the 'pleasure of hunting' and taking home a trophy (usually the head of the animal) at the end. The most popular countries for trophy hunting are in Africa and Asia. However, hunting trips are also offered in New Zealand, South America and Europe.

In the United States and Africa, socalled 'canned hunting', has established itself in recent decades. In this case, wild animals are raised in enclosures and then released on private fenced-in land where they cannot escape. This way, wealthy tourists can be guaranteed to successfully hunt down their prey within a certain time without an extensive chase.³⁴

Hunting tourists pay up to \$150,000 for participation in a trophy hunt.³⁸ Trophy hunters from around the world invest around \$250 million per year in their expensive hobby in South Africa alone, which generates \$341 million annually from trophy hunting, if we include the turnover of the agricultural sector for rearing animals, the sale of weapons and hunting equipment, and the production and sale of hunting trophies.³⁹

South Africa exports over 4,200 trophies per year (status 2016). The country is the largest exporter of mammals in Africa listed in the CITES database (Convention on International Trade in Endangered Species of Wild Fauna and Flora), which means that these animals must be protected from extinction and international trade in them is prohibited. Most trophies are lions, elephants, hippos, rhinos and leopards. The USA is by far the largest importer of hunting trophies from South Africa (54%), followed by Spain (5%), Russia (4%) and Denmark (3%). Hungary, Mexico, China, Australia, Poland, Germany, the UK and France account for smaller shares.⁴⁰

It is unacceptable that people are allowed to hunt endangered species for their own personal enjoyment. The results of surveys among the population give hope. An increasing number of people in South Africa are opposed to trophy hunting. A survey published in August 2022 shows that 68% object to this practice; in 2018, it was only 56%.⁴¹

Conflicts between locals and wildlife

Certainly, one of the problems regarding hunting in Africa is that people affected by poverty who live on the fringes of nature reserves and national parks see trophy hunting (whether legal or illegal) as an easy way to earn money. In the eyes of the rural population, elephants often pose a danger. They can devastate fields in no time at all, destroying the livelihoods of an entire family or even a village.

It is often claimed that the reason for the problems is that there are too many elephants in Africa. This argument is based on calculations of the 'carrying capacity' of habitats. However, this model comes from agriculture and only works for animal populations that graze in the same place all year round. Elephants, on the other hand, live in large dynamic ecosystems. They migrate long distances and are always on the move.42 A 2017 study showed that the elephant population in Africa's protected areas is only about a quarter of the size that would be expected under the local living conditions. Expressed in figures: there would be space for a further 730,000 elephants in the African protected areas without any problems.⁴³ So why are there still conflicts between elephants and agriculture?

Elephants, like other animals, learn in which areas of their habitat they are hunted intensively and where not, and they try to avoid the dangerous areas as much as possible or only pass through them at times when there is less hunting. Scientists have even coined the term 'Landscape of Fear' for this.⁴⁴ Because the animals are hunted in their natural environment, they prefer to stay near settlements, where there is no hunting for the protection of humans and where there is agriculture, at least during certain times of the day. In addition, the landscape is increasingly fragmented by fences. The fenced hunting areas for 'canned hunting' and hunting farms for rearing huntable animals play a significant role in this. The fences block the animals' migratory routes and the elephants no longer reach their preferred habitat.45

On closer inspection, it is clear that trophy hunting is one of the main causes of conflict between rural communities and elephants. To achieve peaceful coexistence between elephants and rural communities in Africa, trophy hunting and canned hunting must end. Only then will the 'Landscape of Fear' dissolve, the fences disappear and the elephants return to their natural habitat.

Hunting tourism as a way to protect nature?

In recent years, even renowned nature conservation organisations such as the International Union for Conservation of Nature (IUCN) have repeatedly claimed that trophy hunting contributes to species protection.46 The money generated by trophy hunting is said to be used for foundations that also work to protect nature, and is thus used to protect the animals' habitats. Supposedly, more animals benefit from this than are killed by hunting. The money also benefits the poorer sections of the population, who, without profitable trophy hunting, would be better off using the wilderness for agriculture, which would destroy the animals' habitats even more.

However, there is no solid evidence for these claims, as shown in Good Governance Africa's working report on trophy hunting.⁴⁷ One third of the animals hunted do not come from the wild, but from agricultural breeding farms that raise the animals specifically for hunting. Thus, natural wildlife habitats are already being converted into intensively used breeding camps, with negative impacts on nature conservation and biodiversity. Notwithstanding the fact that the hunting industry generates a considerable amount of money for South Africa, the share of hunting revenue still amounts to a mere 0.03% of the gross domestic product. It is completely unclear how the money from the hunting industry is supposed to reach nature conservation organisations or the poorer sections of the population. Sustainable tourism, including ecotourism, can implement and finance the objectives and measures of nature conservation much better than the hunting industry.⁴⁷

Poaching, bushmeat and empty forests

Despite extensive hunting bans in some countries and in national parks, there are problems with poachers worldwide. Every year, around 20,000 elephants are poached for the ivory in their tusks and almost 1,000 rhinos for their horns. Over the last two decades, more than 2,030 tigers have been confiscated on black markets – the number of unreported cases is likely to be much higher.⁴⁸ Big cats (tigers, lions, leopards, jaguars) are poached for their fur or their bones. The bones are a sought-after ingredient in traditional Asian medicine. Parts of the endangered pangolin are also traded as remedies, which is why it is one of the most heavily poached animal species.⁴⁹

In Africa, Latin America and Asia, various animal species are hunted for consumption and the illegal trade

in bushmeat. In South America, the Amazon region is particularly affected, while in Asia, the forests in Vietnam, Laos, Indonesia, Myanmar and Thailand are targeted. Ten million tonnes of so-called bush meat are consumed in the tropics and subtropics every year. In the Congo basin alone, up to 6 million tonnes of jungle meat are hunted every year – roughly the same amount of beef produced in Brazil each year. Around 30% of the species hunted in

Smaller tusks and horns

Nature is constantly adapting. This also applies to the evolution of animal populations. The example of wild animals in Africa shows that hunting pressure there has even led to animals changing in appearance.

Elephants' tusks are becoming smaller and smaller, and now many elephants are even born without tusks. This is the result of selective trophy hunting, because amateur hunters only kill the elephants with the largest tusks in order to be able to take home a trophy that is as magnificent and large as possible. In doing so, they have changed the conditions of natural selection. Elephants with small tusks or no tusks at all have a better chance of surviving and reproducing, which means that the proportion of elephants with these characteristics continues to increase overall.⁵¹

A similar effect can be observed in rhinos. Their impressive horns are in high demand, both as hunting trophies and as an ingredient in traditional Asian medicine. More than 2,700 rhinos were killed by trophy hunters in Africa between 2018 and 2021. Although the number of pachyderms killed is thus declining, both African rhinoceros species and the three Asian ones are threatened with extinction. It has now been proven that the selective hunting of animals with large horns has caused the horns of the animals to steadily shrink, and this has been the case since at least the 19th century.⁵²



Figure 12: Rhinos are threatened with extinction. Because nature adapts, the horn of the pachyderms has become steadily smaller in recent decades and is therefore less attractive for trophy hunters.



Figure 13: Body parts of the pangolin are considered to have healing powers in Asia. That is why the pangolin is one of the most heavily poached animal species and is threatened with extinction.

Congo are classified by the IUCN as threatened species.⁵⁰

Wildlife in tropical rainforests and savannahs is hunted so heavily that in some areas there are hardly any large mammals or birds left. Even if the habitat still exists and appears intact at first glance, only 'empty forests' remain. The animals are hunted not only by local people and hunting tourists, but also by forestry and mining employees. The locals in particular prefer to use snare traps in which the animals get more and more stuck and starve to death or can easily be shot with guns later. Since the locals know their forests very well, they lead

Is game high-quality organic meat?

Many people are in favour of hunting largely because they believe that game meat is healthier than the meat of farm animals. Some hunters even refer to it as 'organic game meat', which, however, amounts to consumer deception. Carcinogenic and nephrotoxic lead residues from hunting ammunition are repeatedly found in meat. Even in small quantities, lead is harmful. There are maximum levels for lead in various foods, but not for game. The Swiss government recommends that children up to the age of seven, pregnant women, women who are breastfeeding and women planning to have children should not eat game if at all possible. An increased bacterial count can also be detected due to the stress caused by hunting, as well as inadequate game meat hygiene.⁵⁴ In October 2022, the authorities responsible for hunting in the USA detected high concentrations of PFAS (per- and polyfluoroalkyl substances) in game meat in several states, including Michigan and Maine. PFAS are also known as 'eternal chemicals' because they are very long-lasting. They are industrial compounds used in a wide range of products, such as non-stick cookware and clothing and in firefighting foam. Sewage sludge contaminated with PFAS is still used as fertiliser in agriculture in some countries.⁵⁵ Incidentally, in Canada, hunters' game meat is banned from sale in restaurants or shops because it is considered more of a poison than a food.⁵⁶

the hunting tourists directly to the animals, where it is then easy to shoot the monkeys, birds, bats and wild cats out of the trees or to lie in wait for the antelopes, warthogs, armadillos, crocodiles and hamster rats at the waterholes.

Many of the almost extinct animal species are so-called 'keystone' species, or 'ecosystem engineers', which actively shape their environment and on which other plants and animals depend, for example because they disperse seeds (birds), dig up the soil (pigs), build dams (beavers), keep the reproduction of other species in balance (birds eat insects) keep the vegetation short by grazing (antelopes) or create clearings in the forest by uprooting trees (elephants). The disappearance of these animals greatly changes the structure and biodiversity of the forests and causes the extinction of other species, even if they are not hunted directly.

As mentioned, jungle meat is mainly used as food. Some people, due to poverty, cannot buy farmed meat or it is simply not available to them. For these people, hunting wild animals in the jungle can certainly be offset by nature if the jungle meat only makes up part of their diet and no endangered species are hunted. This is what the indigenous peoples have always done, taking no more than they needed to survive. Traditionally, killing an animal was often associated with ceremonies of gratitude and asking for forgiveness, and the animals were shown appreciation and respect in some form.

However, only a small proportion of today's jungle meat is eaten by local people. The majority is taken home by hunting tourists, sold through black markets to the population in large cities or even internationally as a delicacy in other countries where these animals do not occur naturally.

'Some forests in Vietnam don't have any mammals left larger than squirrels.' [...] 'Given how diverse these forests formally were this must be having substantial impacts on the ecosystem services and the entire biodiversity.' Thomas Gray, Wildlife Alliance ⁵³

Our responsibility to wild animals

Deer are naturally active during the day. Due to hunting, they have become shy, nocturnal forest dwellers. The flight distance of the animals is only a few metres where they are not hunted. In regions where hunting does take place, however, the deer usually flee in panic from as far away as 100 metres when they see or hear the forester's or hunter's car. The animals have lost their trust in nature lovers and walkers and stay in their hiding places. The animals know: humans equals hunters equals enemy.

'The game would become less shy in hunting-free zones. People would be able to marvel at our native wildlife up close again.'

Joseph Reichholf, ecologist and author ³¹

An end to hunting would open up wonderful new perspectives for hikers and nature lovers. The animals, in turn, would be able to behave in a species-typical way again without the constant stress of being hunted. In the aforementioned Canton of Geneva in Switzerland, where recreational hunting has been banned for almost 50 years, the public can easily observe a beautiful diversity of species not far from highly populated areas. Significant changes in the behaviour of wild animals have been observed: They are losing much of the unnatural shyness that hunting instills, and people are regaining a lost understanding of nature and its interconnections.⁵

Unless we have the privilege of living in a non-hunting area or near a large national park where hunting is banned, we are currently denied the opportunity to observe wildlife in their natural environment behaving naturally. In percentage terms, very few people in the world hunt, although the number of hunters varies greatly from country to country. In Germany, it is only 0.4% of the population, in France 2% and in the USA 4%.⁵⁸

At the moment, almost the entire human race – not to mention children – are deprived of the wonderful experience of observing and marvelling at wild animals because of a minority. And the wild animals too, seldom get to feel our gratitude, joy and love.

It is time to change this and not to place the 'hobby' (if killing another living creature can be called a hobby) of a few people above the well-being of wild animals and the interest of all mankind. Wild animals must be allowed to live in freedom and peace again. The examples already mentioned from Switzerland, Albania, Costa Rica, Botswana and Kenya show that this is possible. There is neither a need nor a justification for the massive encroachment on nature caused by hunting. Rather, wild animals are dependent on our stewardship.

Every living creature has its role in nature. If man does not fully understand these tasks and the processes in nature and yet intervenes, he will inevitably cause damage, and unbalance the finely tuned processes.

Man has changed the habitat of wild animals enormously. We have reduced it by deforestation and the construction of new settlements, we have fragmented and isolated it with insurmountable fences, roads and railway lines, we have changed its composition through forestry and agriculture and even created monocultures of individual tree species. The original diversity of trees and shrubs, fruits and leaves can only be found in small remaining areas.

Such drastic changes force wildlife to change their behaviour in order to adapt to the new conditions. But man had a hard time with the animals' new behaviour. He decided that there was not enough space for them and began to hunt them, which in turn forces the animals to change their behaviour again. Nature is merely reacting to man's actions in order to restore its balance, but man does not understand this and does not allow it. Since we do not like the changes in nature and want to control them, we intervene more and more intensively, thinking that we understand the processes in nature and that our actions are a necessary correction. As a result, there is so-called 'game damage' in forests and fields and diseases among wild animals.

We have reached a point where we have (almost) forgotten how it all began and who set the cause for all this. We are trying to get a grip on the seemingly out-of-control animal populations at great expense and to correct them, even by violent means such as hunting, in order to maintain an artificial state of nature according to our own ideas. We must finally recognise that we ourselves have caused and are still causing the problems between man and nature.



Figure 14: Because of a minority of hunters, mankind is denied wonderful experiences.

Although we are part of nature, we behave as if we are separate and independent from it. But we cannot survive without nature. The solution is simple: Break the cycle of action and reaction and stop hunting. We need to trust nature again, withdraw and observe what happens without our intervention and how nature itself finds its way back into balance. If we can observe wildlife without human disturbance through hunting, we will understand and learn what it takes to find natural solutions for peaceful coexistence.

After hunting activities have ceased, it will take a little time for the animal populations, which will initially still be at an excessive level, to develop again into a balanced ratio to each other and to the available food supply.

In this transition phase, there may certainly be an increase in game damage for a short time. But in the long term, the wildlife population will regulate itself and there will be fewer diseases among them. The previously very selective feeding behaviour of the animals, which led to 'game damage', will become more natural again, so that few problems arise.

There is no separation in the cycle of nature, because all creatures and parts of nature are one, including man. When we kill a part of nature, we harm ourselves, especially when it is done without mercy, gratitude and compassion and serves no purpose.

Hunting for sport or pleasure, as well as hunting for so-called 'ecological reasons', should be abolished once and for all.

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Figure 15: The animals are subject to man. But no one has the right to kill his or her subjects!

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The most important facts in brief

Hunting is a relic from ancient times. Today, there are no longer any cogent reasons or motives for hunting wild animals.

- Man (with very few exceptions) has no vital need (food or protection) for hunting.
- The cause of game damage in forests and fields lies, on the one hand, in the ever-smaller and more isolated habitats of wild animals and, on the other hand, in hunting itself, which, through constant disturbance, influences the behaviour of the animals so that they retreat into the forest where they cannot find enough food and have to eat tree buds and bark. Deer have a natural preference to live in meadows.
- The high population density of wild animals is the result of high hunting pressure, which threatens the survival of wild animals. They react to this with females becoming fertile much earlier and hence mating and giving birth to more offspring per litter and more often during the year than under undisturbed conditions.
- Hunting cannot reduce the population density of wild animals, just as predators cannot reduce the population density of their prey. Man as a substitute for predators can certainly not do this.
- The population density of animals is mainly dependent on the availability of food. Under undisturbed conditions, it remains in balance and regulates itself.
- Hunting leads to more sick wild animals because animals that have built up immunities to diseases and would thus prevent their spread are removed from the population much more often and earlier by hunting, and because the stress caused by hunting increases susceptibility to diseases. Furthermore, the killing of animals leads to the vacating of territories and the disruption of stable social structures, which in turn triggers more contact, territorial disputes and greater migratory movements of animals, allowing diseases to spread more quickly.
- In areas and countries where hunting is prohibited, there are no excessive wildlife populations, game damage or reduced biodiversity.
- In many tropical countries, wild animals are hunted so much for the purpose of eating their meat that only 'empty forests' remain, without larger mammals and birds. Most of the meat is sold on black markets in cities or other countries.
- In the United States, thousands of hunting competitions are held every year, in which mostly predators such as coyotes, foxes and lynx are killed. These competitions have already been banned in 8 of the 50 US states.
- 30% of the animals hunted for trophy hunting in Africa are threatened with extinction. Animals bred for trophy hunting in the USA and Africa are raised in enclosures and released into fenced hunting areas where those animals cannot escape from hunters. As a result, Africa's landscape is criss-crossed with fences that hinder the natural migratory movements of animals. One consequence of this is conflicts with elephants that cause damage to crops.
- Without hunting, the above-mentioned problems with wild animals would not exist or only to a very limited extent, which would either be tolerable or could be prevented with silvicultural measures or other protective measures for fields. The evidence for this in the form of protected areas, national parks and even entire regions has been available for decades and can no longer be ignored.
- Peaceful coexistence between men and wildlife has been practised for decades in the Canton of Geneva in Switzerland, in Albania, in Costa Rica, in Botswana and in Kenya.

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Imprint

Publisher The World Foundation for Natural Science

Editor

Jean-Claude Madeux, President for Europe Susanne Bellotto

Author Dr. rer. nat. Sebastian L. Hausmann-Z'graggen

Graphics & Layout

Sebastian L. Hausmann-Z'graggen

Picture credits

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