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# Misconceptions of hunting

## Abstract

All over the world, ban on trophy hunting is a common demand, however, the consequences of the ban are highly underestimated. Hunting is a vital tool for conservation and when done properly it not only resolves conflicts arising between wildlife and human worlds but also plays a key role in recovering endangered species and greatly contributes to the economies of the nations. Hunting is a method by which natural populations are kept at numbers that the available habitat can support and at levels that are compatible with human activity and land use. Wildlife is a renewable natural resource with a surplus, which is harvested by hunters seasonally. Quotas and specific hunting seasons for each species ensure that the population is not overharvested.

**Keywords:** conservation, hunting, management, sustainability, wildlife

## Introduction

The era when technological advancement has reached its peak and in the time when urbanization has become unstoppable, natural habitats and their inhabitants are facing a great risk. Across the continents, declining trends in the most treasured species are no longer unusual. Disappearing biodiversity is resulting in the collapse of natural order and thus, ecological services so far providing necessary means of survival will soon no longer stand available. Defining a solution to prevent the biological diversity from perishing has never been so urgent.

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DOI: http://dx.doi.org/10.31570/Prosp_2018_04_7.

Wildlife management is a key part of biodiversity conservation. However, its methods remain to be somewhat controversial among the public. On the one hand hunting – being a key component of wildlife management – is endorsed by many rural communities. Its contributions to the well-being of the society are obvious, as hunting provides high-quality food markets, regulates the problematic wild animal species, improves biotopes and enriches the economy of the nations. Hunting not only reduces damage brought to the agricultural and forest lands by wild animals but also plays a major role in recovering and preserving both threatened animal and plant species as well as traditional landscapes and local traditions.

However, trophy hunting is met with increasing opposition from non-hunting organizations and it often results in a strong clash of ideas. False assumptions around the issue of trophy hunting are common, consequently, this activity is often misunderstood. Animal rights activists often fail to understand the true motives of hunters and are demanding a ban on trophy hunting. In some cases like Kenya, Botswana and India hunting is either completely banned or significantly limited. Moreover, these organizations are making an attempt to influence policymakers and the media across the globe, however, the images presented of trophy hunting are often inaccurate and most of the time deliberately misleading. Furthermore, these organizations have public support and so often times, sound, scientific facts are over-shadowed by pure emotion and personal feelings towards individual animals.

## Sustainable consumptive use of wildlife

It is easy to have a negative perception of hunting when its true ideas are overlooked. In reality, sustainable hunting aims to maintain population abundance, distribution, structure and behavior of species. It aims to maintain genetic diversity – by encouraging the maintenance of subpopulations – and improve the conservation status of endangered and threatened animal species (IUCN ESUSG 2006). Hunts and trapping licenses are usually purchased by people who are willing to pay substantial amounts of money for the experience. As a result, revenue generated by hunters provide management organizations with funding for research and conservation efforts to protect wildlife.

Hunting is one of the key components of wildlife management and has many positive effects on ecosystems when done properly. Despite the opposition, hunting is playing an important role in sustainable development. The idea of sustainable hunting is to maintain animal populations at an economically and ecologically healthy level for the amount of space that is available. In order to accomplish optimal population size and avoid posing risk to the species, authorities encourage quotas and hunting seasons for specific species as a form of regulation which limits daily and seasonal harvest. Hunters under the principles of fair chase restrict their hunts to individuals of a certain sex and age group (Conservation visions 2017). In order to prevent overhunting, bag-recording is strongly encouraged. Bag records are crucial for understanding population dynamics and they play an important role in adopting an appropriate management plan. Trophy hunting is based on the idea of adaptive management which continuously monitors and evaluates the current situation and if necessary revises the management plan (IUCN ESUSG 2006).

Keeping populations fit is one of the priorities of sustainable hunting. Food scarcity has a devastating effect on wildlife communities by weakening animals' immune systems and making them prone to diseases. Diseases rapidly spread as a result of predation, reproduction and direct contact. It is quite frequent that viruses like the African swine fever virus are transmitted from wild species to domestic ones thus decimating domestic animal populations. In order to avoid transmission of the disease within and between populations it is necessary to remove the weak and sick individuals giving reproduction opportunity to stronger ones. This system keeps the populations fit and at the same time reduces the chance of wild animals causing damage to the rural communities.

In most cases, wildlife species are illegally killed if they provide little benefit to local communities or cause them substantial damage. The individuals are sold as food or as commercially valuable products while their habitats are degraded and used for different purposes (IUCN SSC 2012). Trophy hunting has the ability to address this issue by making wildlife of higher value to the local people. Sustainable hunting views socio-economic sector as one of its main considerations. In this context, hunting aims to maintain the abundance and distribution of hunted species to the level that is compatible with the interests of the socio-economic sector. The system also encourages local employment and participation of local hunters and supports optimizing utilization

of game meat and other products. At the same time, the sustainable way of hunting ensures that the cultural, historical and artistic values of hunting and wildlife are well preserved (IUCN ESUSG 2006). It is important to note that trophy hunting involves taking small numbers of individual animals and does not require highly developed infrastructure. The hunts are therefore high in value but low in impact compared to other types of land uses like agriculture or tourism (IUCN SSC 2012).

## Biological and ecological benefits of hunting

The world where humans have taken the lead becomes an unfortunate reality for the most unique species that are tittering on the brink of extinction. Defining a viable solution to avoid mass extinction has never been so urgent. Sustainable hunting has been playing an important role in recovering endangered species and keeping populations stable and fit.

Under the false assumption that the wildlife resources were limitless and inexhaustible, early settlers of North America drove many wildlife species to the edge of extinction by the late1800s (Conservation visions 2017). Before the arrival of the Europeans, elk were the most widely distributed species whose geographical range extended from southern Canada to Northern Mexico, however by the mid-1800s elk started to decline in the eastern United States, and soon all over the country. An estimated 10,000,000 elk rapidly dropped to less than 500,000 individuals by 1970s (Hamr 2016). The primary cause for this decline was habitat destruction and market and subsistence hunting (Fricke 2008). Active market hunting for meat and hides was also a prime cause of American Bison population decline (Gates 2010). An estimated number of 60 million American buffalo (Lott 2003) dropped to 168,000 by 1800 (Gates 2010). It is crucial for market hunting not to be confused with trophy hunting, as the system of trophy hunting is what facilitated the recovery of these species in later years.

Boone and Crockett Club took the responsibility upon itself to recover these endangered species. They recognized that to facilitate species recovery and to prevent future threats to populations, one of the most important things to encourage was a sustainable harvest. This system protects the core of wild breeding population, namely females and young male individuals while focusing the harvest on older males that have already reproduced and contributed their genes to the population (Conservation visions 2017).

As a result of trophy hunting combined with other conservations tools, North America's critically endangered wildlife species recovered to more stable numbers.

Some organized groups are demanding a ban on trophy hunting as the activity is regarded unethical and claimed to be ineffective. However, the consequences of eliminating one of the most crucial conservation tools are largely underestimated. In response to poaching and illegal Ivory trade, Kenya passed a hunting ban in 1977. It was believed that with hunting pressure off, the game would return to high numbers. What took place as a result of the ban was quite the opposite of its intent. Charismatic megafauna – lions, rhinos, elephants and large antelopes – are experiencing extreme declines since the late 1970s. Wildlife numbers have declined on average by 68% between 1977 and 2016. Giraffe with an estimated population size of 76,236 in 1977 dropped to 25,193 by 2013. The number of buffalo decreased to 40,245 by 2013 from 66,169 in 1977. Impala and hartebeest experienced 84% decline in population size while the eland and oryx numbers were reduced by 78% since the year hunting ban was passed. These declines raise serious concerns about the future of African wildlife, in particular the effectiveness of wildlife conservation policies, strategies and practices in Kenya. Of course it is false to assume that banning consumptive use of wildlife is the sole reason for such declines, other causes of negative wildlife population trends include exponential human population growth, increasing livestock numbers, declining rainfall and a striking rise in temperatures, however, the fundamental cause remains to be ineffective policy, institutional and market failures (Ogutu 2016).

## Human-wildlife conflict

Conflict arising between rural communities and wildlife is the most widespread and one of the most intractable issues in conservation biology. Agricultural lands are frequently damaged by wild animal species causing farmers great economic losses. However, it is wrong to assume that this issue encompasses only the agricultural damage. Coexisting with such species can impose a variety of significant costs upon local people, including depredation upon livestock or game, crop-raiding or destruction of stored food, attacks upon humans and disease transmission to stock or humans.

In US agricultural producers' survey, 89% of the respondents admitted to be experiencing problems with wildlife species. Wild animals seem to damage private property

of 80% of the respondents, out of which 54% claim that the losses to exceed $500 every year. Wildlife sanctuaries are crucial to conserve populations and protect them from predation, poaching and other dangers, however, due to the overwhelming damage brought by wildlife, 40% of all agricultural producers actively oppose the creation of such establishments, and 26% note that the extent of damage reduced their will to support wildlife habitats on their property. This kind of attitude in the rural community is worrying. Agricultural lands are farmers' main source of income, therefore in attempts to protect the land, it is possible for locals to turn to means that will devastate natural populations (Messmer 2000).

The fact that these damages still occurred after an annual expenditure of over 40 hours and $1000 per farmer to prevent the damage, is an indicator that a more active control method of wildlife species is required. It was estimated that losses on agricultural lands exceeded $2 billion despite the fact that over 91 million hours and $2 Billion was spent to prevent the damage. Of these losses $160 million was to livestock and poultry; $53 million was to vegetable, fruit and nuts while $30 million worth of stored crops were destroyed. However agriculture is not the only industry that suffers damage, beaver (Castor Canadensis) and deer (Odocoileus spp) are costing timber industry devastating damage as well. The estimated loss to tree plantations due to beaver activity was estimated to exceed $22 million in 1995 (Messmer 2000).

White-tailed Deer (Odocoileus virginianus) have especially strong effect on altering plant species composition and distribution. For example, deer have an ability to change the density of legume species, which shelters nitrogen producing bacteria. The change in their populations greatly reduces the nitrogen content of the soil, thus influencing agricultural production success (Russell 2001). Deer alter the success of certain plant species, consequently, they may also change the success of other herbivores, and also that of species along with many different food chains.

Woodpigeons (Columba palumbus) are major agricultural pests that bring tremendous damage to oilseed rape crops. It was estimated that without special control programs damage would amount to £45 million in East Anglia alone. As a result, more than 50% of shooters are involved in protecting crops from pigeons and other avian pests (PACEC 2014).

It is important to point out that apart from damages on private property (in both rural and urban areas) wildlife populations also pose danger to the residents in areas

where their population numbers are unregulated. More than 5000 people are injured or hospitalized while more than 400 people die due to wildlife related incidents (Messmer 2000). Most of these economic and ecological consequences can be either avoided or reversed if wild animal densities are reduced to harmless levels.

## Driving the economy

With more than 7 million hunters in Europe (FACE 2010) and 11 million in the USA (US Fish and Wildlife Service 2017) and more than €16 billion generated by trophy hunting in Europe alone (Middleton 2014) hunting becomes the driving force for wildlife conservation and sustainable development. Hunters around the world are making contributions to all sectors of the economy by both direct and indirect means. Farmers are compensated for crop damage in the primary sector, hunting gear is purchased from the second sector while tourism services are paid by hunters in the third sector (FACE 2014).

Across Europe, in developed and developing countries, revenue generated by hunters directly benefits both wildlife and rural communities. In 2007 in Ireland, hunting ended up generating €111.6 million (FACE 2014), 82 percent of which was spent on developing the rural areas, 16 percent went to developing cities and larger towns while the remaining 2 percent was spent outside the country (Scallan 2012). In the UK at least 600,000 people shoot live quarry, clay pigeons or targets, these activities are contributing £2 billion to the UK's economy. As a result, two million hectares are being actively managed for conservation. Shooters spend almost 4 million work days on conservation programs, this is an equivalent of 16,000 full-time jobs. Moreover, Shoot providers spend nearly £250 million a year on conservation while more than £2.5 billion is spent by hunters on goods and services each year. It is crucial to point out the fact that shooting and hunting support 74,000 full-time jobs, thus strongly reducing unemployment (PACEC 2014).

In Italy, €3.26 billion is estimated to be generated by 850,000 official hunters while at the same time creating in total of 43,000 jobs. In 2008 in Finland, around 40,000 hunters took part in voluntary labor-intensive activities. Ranging from conservation activities like game monitoring to assisting with traffic accidents involving wildlife, these programs were estimated to value €7.1 million (PACEC 2014). In Greece hunters'

yearly contributions finance 400 game guards who are involved in tracking and tackling illegal activities which annually amount to €7 million (Papadodimas 2011).

In 2016 11.5 million people participated in hunting activity in the United States. Hunters spend up to 20 days on the field pursuing wild game. US's most popular big game like deer, elk and wild turkey attracted more than 9 million hunters (80%) while small game including squirrels, rabbits, quails, and pheasants ended up attracting 3.4 million hunters (31%). Geese, ducks and doves attracted 2.4 million hunters (21%) who, in total spend more than 15 million days on the field. Other animals like coyotes, groundhogs and raccoons were popular game species for 1.3 million hunters (11%) spending 13 million days hunting. Overall, in 2016 hunters in the United States ended up spending $25.6 billion on trips, equipment and licenses with an average expenditure of $2.237 per hunter (US Fish and Wildlife Service 2017).

Between 2000 and 2008, in seven SADC (South African Development Community) countries trophy hunting ended up generating over US$190 Million per year. Sport hunting in many African countries, like South Africa, is contributing more than 68.3 million USD to the gross income, it is this revenue that drives sustainable development in the regions by funding and building facilities crucial for national advancement. The tourism sector in Tanzania plays a key role in foreign exchange earnings and contributes more than 50% to total export earnings. Tourism of Tanzania is estimated to directly support at least 30,000 jobs on the mainland and 6,000 more in Zanzibar with wildlife safaris being the primary attraction especially in the Northern Circuits (Vernon 2010).

## Conclusion

Some organized groups are demanding a ban on trophy hunting and are highly underestimating the consequences that would follow the ban. The main idea of sustainable harvest is to maintain animal populations at an economically and ecologically healthy level for the amount of space available. Trophy hunting is based on the idea of adaptive management which continuously monitors and evaluates the current situation and if necessary, revises management plan. Regulations like seasons and quotas make sure that the populations are not overharvested, making hunting rather safe management method for wildlife. It is important to note that trophy hunting involves taking small

numbers of individual animals and does not require highly developed infrastructure. The hunts are therefore high in value but low in impact compared to other types of land uses like agriculture or tourism. Keeping populations fit is one of the priorities of sustainable hunting, therefore removing weak and sick individuals is an important practice to give reproduction opportunity to stronger ones. Contributions that hunting makes to the economy are obvious as many conservation programs have been financed that recovered most unique endangered animal species. With trophy hunting removed countries risk to lose not only a major source of income and funding but its valued wildlife altogether.

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