

Does recreational hunting have a role in conservation?

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This article seeks to define the term 'recreational hunting' and explores whether recreational hunting contributes to conservation of wildlife.

What is recreational hunting?

Hunting as a human activity has been described since the earliest civilisations, but the activity has meant different things to different people and different cultures. While the indigenous hunter, the ancient nobles, the trophy hunter and the 21st-century hunter have all killed animals, the hunting techniques, the wildlife species pursued, the reasons for hunting and the impacts of the hunting activity have all been very different.

The Collins Dictionary definition of 'hunt' is to 'pursue wild animals or game; to engage in the chase' and hunting is the action of to hunt. Further, the definition of 'recreation' is 'the action of recreating oneself by some pleasant pastime or amusement'. Combining the terms, we can define recreational hunting as:

the pleasant occupation of pursuing wild animals, and engaging in the chase

Note that this definition does not mention the word 'kill'. Some social scientists have emphasised the importance of the 'sporting chance', whereby the hunted animal presents a challenge to the hunter and any killing only occurs at the end of a contest that is not certain. The skills used by the recreational hunter to find the quarry, and how that quarry is killed, are more important than whether the quarry is killed. As the Spanish writers Ortega and Gasset put it, 'one does not hunt to kill, but one kills to have hunted'.

When we talk about recreational hunting, the culture and context of the hunting is important. These activities include the actions and planning before the hunt occurs, such as seeking permission from the land manager to hunt and travelling to the hunting area, and the cultural actions associated with the hunt, such as collecting trophies from the quarry and butchering and eating the carcass. Even the way we dress when we hunt is steeped in cultural norms. For example, the hunting pink of those who hunt foxes on horseback with dogs, the tweed jacket of a European gamebird hunter, and the khaki of the African hunting safari, are all dictated by the cultural context of hunting.

The pleasure of the hunt comes from the social and cultural values associated with the activity and the sporting contest between hunter and quarry, and not necessarily from the act of killing the quarry. Recreational hunters use a variety of technologies from archery, falcons, ferrets, firearms and even dart guns to pursue their quarry. Just as broadly, the quarry may range from large mammals to small birds, amphibians such as cane toads, and reptiles such as crocodiles. For these reasons, recreational hunting is a multilayered activity that occurs in a multilayered cultural and social context.

Why does recreational hunting cause so much debate?

Given the complex nature of recreational hunting, it is probably little wonder that there is a lot of debate about the activity. The discussion that swirls around recreational hunting appears to be equally divided between people who passionately support the activity and those who are just as passionately opposed because of concerns with the sustainability of the quarry species, animal welfare, and animal rights.

The pro-hunting lobby claim that hunting is sustainable because the hunted animal is usually identified by sex and age before any killing occurs, and the total harvest is so low that hunting has little impact on the population as a whole. This view is reinforced by considering the recovery of such species as whitetail deer and pronghorn, wild turkeys, and Canada geese in the United States, and wild boar and various deer species in Europe, through sustainable management practices.

The anti-hunting lobby claim that hunting is unsustainable. For example, the very large number of migrating birds shot by southern European hunters each year appears to flout the sporting chance of recreational hunting. Similarly, the 'canned' hunt, where the quarry animal has little chance of escape, is often used to raise animal welfare and animal rights issues.

Taken together, the debate appears to be pitted along lines suggesting that hunting can be sustainable if based on scientific principles and the management is fluid to accommodate what the science is saying, versus a more fixed view that hunting is unnecessary and morally unacceptable irrespective of scientific evidence.

However, this polarised debate ignores the context of recreational hunting. For the passionate anti-hunting person in a developed country, remote from direct experience of living with wild animals, then animal welfare and animal rights are more important than whether a person hunts. There is also the political context. For example, the Indian Government is opposed to hunting because of religious beliefs that support the sanctity of animal life, and Kenya has stopped hunting because of sustainability issues and the difficulty of policing the former thriving safari industry. The context of recreational hunting present challenges to both sides of the debate for collaborative discussions in the future.

What is an appropriate scientific approach?

There is little doubt that overhunting has driven down the numbers of some wildlife species - think about the American bison in the 19th century. However, it is not clear whether recreational hunting *per se* has been the culprit, or whether commercial hunting has had a greater effect. Another example is the passenger pigeon in the US, which once numbered in the millions, being decimated by a combination of habitat loss through agriculture and non-selective commercial hunting. The role of recreational hunting in contributing to both species decline (and final extinction in the case of the passenger pigeon) is often debated but rarely resolved.

The science about achieving biological sustainability has come a long way since the last passenger pigeon disappeared. We are now able to accurately monitor and model populations, set harvest quotas for sustainable yields, and reduce the potential for genetic loss while harvesting trophy males. For example, populations of southern white rhino in South Africa have been recovered through scientific strategies that include regulated recreational hunting. These strategies have included offering landowners incentives to keep animals, provided a limited number of surplus animals may be hunted. The success of the approach with white rhinos has evolved to similar programs for black rhinos in South Africa and Namibia.

The scientific approach to recreational hunting is along two main lines. The 'precautionary principle' dictates that when faced with scientific uncertainty, the wildlife administrators should act in anticipation of harm to ensure that harm does not happen. But it is difficult to see how this applies to recreational hunting when it is used as a tool to reduce the effects of limited trophy harvest. Issues such as poaching and habitat loss probably have more impact than the harvest of a small number of trophy animals, but these cannot be addressed through the Precautionary Principle. We simply cannot demonstrate that recreational hunting is safe before hunting occurs, so we have to use the hunting to gather data to assess the impacts of the hunting.

This, then, provides the second approach known as 'adaptive management', where decisions about hunting are based on reviewing the data from previous harvests and adjusting future management based on that data. However, to be effective adaptive management is not just about the wildlife; it requires management institutions to be bold and be adaptive in their thinking. For too long we have seen Australian Government Departments, which are charged with the management of hunted species, retreat behind the precautionary principle as an excuse not to manage the various species. Waterfowl and quail are classic examples where government departments have shrunk in the face of animal activists, rather than embrace adaptive management. Rather, in the 21st century, the hunting public need these people to be adaptable to changing biological, environmental, and social conditions and apply adaptive management for the sustainable management of hunted species.

Does recreational hunting contribute to economic development?

Recreational hunting can be loosely divided into local hunting, where the hunter lives and hunts locally, and tourism hunting, where the hunter lives remote from the hunting locale and may pay varying amounts to others to facilitate the hunt. Many, arguably most, Australian hunters participate in the first type of hunting, but some also take part in the second form of recreational hunting. Both forms of hunting may contribute to local economies, but clearly, tourism hunting in developing countries has the potential to have a greater positive impact.

Tourism hunting attracts lower volumes of people compared with game viewing tourism, but it is less volatile during times of civil instability. For example, in Zimbabwe, the CAMPFIRE (Communal Areas Management Program for Indigenous Resources) sport hunting program, and similar programs in The Democratic Republic of Congo, Zambia, and Namibia, has been the primary source of income for rural communities - in most cases, greater than 90 per cent, relative to the income generated by game viewing tourists. The ultimate failure of the CAMPFIRE program was not the result of any inherent weakness, but rather, the political and social instability that engulfed Zimbabwe in the 1990s. The people-based instability also severely curtailed the game-viewing tourism industry in the country. What is less clear is whether programs such as CAMPFIRE make people more tolerant to living with wildlife and thus creating the incentive for wildlife conservation.

Does recreational hunting contribute to wildlife conservation?

While there is little disagreement about the need to conserve biodiversity, heated debate still rages about how to achieve this goal. One of the major challenges relates to the words 'use' and 'value'.

Humans have been conserving things for millennia - statues, paintings, traditions, manuscripts, buildings. From this perspective, wildlife conservation is a recent issue, and may have little to

offer for understanding the role conservation *per se* plays in human society. The idea of wildlife conservation has little to do with wildlife; rather, it has all to do with humans.

While humans have been conserving items for millennia, they have also been destroying things of great value for just as long. How much South American gold was melted into ingots and shipped back to Spain? How many artworks have been destroyed in the name of morality and competing religions? How many rare books and manuscripts were lost through deliberate acts of vengeance during the times of war? What value would one place today on the hundreds of thousands of rare manuscripts held in well-established libraries within Central Asia and the Middle East that were destroyed in the early 1200s by the armies of Genghis Kahn?

It appears that people have only ever put resources into conserving things that they valued or perceived to be important. If items had no value, or only a negative value, people destroyed them. Yet, values are continually changing in society. The waste-disposal industry rids us of valueless items; yet, abandoned rubbish dumps of the past produce treasures of great value in today's society.

Dr Grahame Webb has defined conservation as:

the sum total of actions taken to preserve and maintain items to which we attribute a positive value

If the fundamentals of wildlife conservation are no different from those underlying the conservation of anything else, attributing a positive value to wildlife is an essential prerequisite for achieving conservation.

The concept that *value* is intimately linked to the motivation to conserve wildlife may offend those people who are sensitive about the commercial use of wildlife. The linking of conservation action to positive values accepts that some people will be motivated to conserve wildlife purely because of its intrinsic values. However, it does not follow that intrinsic values are the *only* values that can be used as incentives for conservation. It recognises that some people value wildlife for cultural, traditional or other uses, including the provision of meat, skins, trophies, and other products. The definition of conservation simply says that the net values people attribute to wildlife need to be positive for them to expend energy trying to preserve or maintain wildlife.

An observation is that most conflicts about conservation are more about the values different players hold dearly than they are about wildlife itself. There are two main classes of values that people attribute to wildlife. 'Use-values', which are a direct consequence of how wildlife can be used to benefit people, can be broken down into values derived from 'consumptive uses' (killing or removing animals) or 'non-consumptive uses' (viewing, ecotourism). Use-values are linked to tangible commodities, so they are reasonably straightforward to rationalise in terms of economic benefits derived from nature. For example, an indigenous landowner may earn money from selling crocodile eggs, or another landowner may charge hunters to enter their land for the duck hunting rights.

The second class of values are 'intrinsic values', which are more philosophically-charged and sometimes religious in origin. They cannot usually be quantified with ease, and tend to be accepted as acts of faith. Intrinsic values are values attributed to wildlife as living beings, not as a consequence of any other association or use. Whether people see wildlife as being the result of evolution or the creative gods, the idea that they should be valued because they exist is accepted. In reality, different societies always have attributed high intrinsic values to wildlife, although some species such as whales and elephants appear to have more intrinsic value than other species such as worms and slime moulds.

Competing values, particularly use-values versus intrinsic values, are the cause of a great deal of conflict in conservation. Dr Grahame Webb identifies most of these conflicts by six main points:

1. Use-values and intrinsic values are not mutually exclusive. Hunter-gatherers such as the Aboriginal people of northern Australia hold the intrinsic value of wildlife so high that people are assigned at birth to deities shared with animals. They are then assigned specific animals as totems. Yet, animals are killed and used continually for sustenance, ensuring there are high use-values as well. In some cases, social tolerance allows one person's totem to be killed and eaten by another, but this is not always necessary. As a generalisation, most hunters love animals, most foresters love trees, most fishers love fish, and most miners love rocks. Strong proponents of the intrinsic values of wildlife today tend to be intolerant of any uses of wildlife by people, particularly consumptive uses, because the uses clash with the moral and ethical positions they adopt. It does not make intrinsic or use-values right or wrong, but does tend to reconfirm that *intolerance* of the values held by other peoples and cultures is the root cause of a great deal of conflict in the world today.
2. Attributing high use-values or intrinsic values to animals does not guarantee they will be conserved. Animals such as the moa in New Zealand, the dodo in Mauritius and the passenger pigeon in the US all went extinct despite presumably having high and positive values. It is *conservation action* that prevents threatened species going extinct, not theory or values. A species having a positive value is a prerequisite for applying conservation action, but does not guarantee it will be applied when needed. In contrast, a species having a negative value almost guarantees conservation action will not be applied when needed. So there is a fundamental difference!
3. The most intractable conservation problems today are ones in which people in faraway places attribute high positive values to a animal (intrinsic or use-values), but the people who coexist with wildlife, and suffer the consequences of its depredations, attribute only negative values to them. Species such as elephants, tigers, lions, leopards and crocodiles often fall into this category. Conservation action will rarely work locally in such situations, unless the values are manipulated to create positive incentives for local people to conserve. Commonsense dictates that these incentives need to be tangible, effective and welcomed by the local community. Commercial incentives are the most obvious and pragmatic ones to manipulate, especially where the conservation context involves people living in poverty, because it associates conservation of the species with the improved lot of the people. This is usually achieved by exploiting use-values (consumptive or non-consumptive), but in some cases, it is achieved by reinforcing traditional intrinsic values opposed to killing some predators. In an area of Cambodia, the local people, despite living in poverty, have a taboo against killing crocodiles. As a consequence, the streams and swamps contain one of the most important, remaining, remnant populations of the Siamese crocodile, extinct throughout most of its range in South-East Asia. Crocodile conservation efforts were orientated at sustaining this taboo, while enhancing economic development through other means. This was a challenge because the demand for crocodiles was high within the many village-level crocodile farming operations in other parts of Cambodia. Where conservation is intimately connected to manipulating the values people attribute to wildlife, it is a social rather than biological problem, and requires appropriate expertise and boundaries. Commonsense and cultural respect must also prevail.

4. Given that the individual values people attribute to wildlife can change dramatically over time, the more different values that can be attributed to wildlife by society, the greater the probability conservation action will be sustained in the long-term. Put another way, diversity of values is good for conservation, whereas relying on a single set of values is risky. For example, when wild populations of tigers and crocodiles are severely depleted, the thought of the last one disappearing increases their intrinsic value and promotes conservation action. However, if that action is successful, and wild populations rebuild, and the tigers and crocodiles start preying on people again, their net value becomes negative in the eyes of local people, promoting population reduction. People want the threat to go away, but do they want to eradicate the species doing the predating? The more people who value the same species, for the maximum number of different reasons, the more likely that net positive values will prevail.
5. Values are additive. The public often view wildlife conservation goals in simple terms, such as depleted populations are 'bad' and abundant populations are 'good'. However, wildlife managers and local people need to deal continually with problems caused by wildlife, such as traffic accidents, road kills, crop damage, competition with domestic animals for food, predation, and disease. There are a broad range of negative values associated with all wildlife that need to be balanced against the positive values. Wildlife conservation is not finished when a catch-all conservation action such as protection is implemented - it is just starting.
6. The idea that all wildlife can and should be conserved by relying solely on their intrinsic values is logically flawed. The task of converting the global community to one in which intrinsic values will replace use-values completely is insurmountable. For those promoting such changes, the social timescale are generations and hundreds of years, with no guarantee of success. It is not a prerequisite for conservation action, which in the case of tigers or elephants is on a timescale of years or decades to avoid extinction. Of the eight subspecies of tiger usually recognised, the Bali tiger, Caspian tiger and Javan tiger became extinct around 1937, 1950 and 1972 respectively, with around 10 South China tigers left in the wild by the start of the 21st century. Disassociating the timescale of a problem (extinction of tigers with a timescale in decades) from the timescale of potential solutions (universal adoption of intrinsic values with a timescale of centuries) is about as serious an error as one can make.

The implicit assumption that use-values, so ingrained in the culture and tradition of so many peoples, can, should, or will be given-up easily by people is unrealistic. Although intrinsic values can and do serve as the sole motivation for conserving some species in some countries, it is guaranteed to fail with most species in most countries, thereby sustaining rather than solving the problem.

If it is not possible to decide whether recreational hunting can significantly contribute to conservation, perhaps it is just as important to determine whether recreational hunting provides the incentive to conserve.

What does the future hold for recreational hunting?

There is little doubt that the future of recreational hunting around the world will face increasing challenge from the anti-hunting critics. So the future of the activity is in the hands of the recreational hunters and they will need to clearly articulate the values and uses of hunting to the broader public. The status quo approach of 'she'll be right' and 'keep your head down and the critics will go away' will be a recipe for disaster.

We have discussed here how recreational hunting is a very diffuse activity, and a major challenge for the recreational hunting fraternity is to come together as a collective voice. Because each form of hunting is usually highly context-specific, it is historically rare for a common voice to be heard. The lack of cohesion has resulted in fractured, single-issue debates that are dominated by the best-organised position and achieve few conservation outcomes. Anti-hunting organisations can pick off these single-topic groups without any threat of collective action from the other recreational hunters. This also leads to domination by the best-organised anti-hunting organisations.

An increasingly common tactic by the anti-hunting organisations is their use of political alliances to voice their objections. The use of political pressure to place bans on the import of trophies from otherwise approved hunts abroad stops the incentive of the recreational hunter from venturing abroad when they cannot return to their home country with the trophy. Such a victory for the anti-hunting brigade can only be achieved through the use of political activism towards a third party.

Recreational hunters should remain aware of addressing some of the obvious sensitivities that face the various forms of hunting, but in many cases, adequate controls are lacking. Adopting hunting codes of practice, such as exists for wallaby shooting in Tasmania and Australian duck hunters having to pass the Waterfowl Identification Test before being allowed to buy a hunting licence, are designed to show the doubting public that they are responsible and credible hunters. When this type of control is lacking, recreational hunting is more likely to receive poor publicity than game-viewing tourism, which the public has been conditioned to believe has more benign impacts on the wildlife.

Obviously, there are challenges ahead for the proponents of recreational hunting. The anti-hunting organisations passionately believe (without much evidence) that all wildlife use and value should be through the holy grail of ecotourism. It appears by this logic acceptable to 'hunt' wildlife with cameras and binoculars, but have limited impact on the resource base; any financial contributions should benefit conservation; and conservation education should be enhanced. But aren't these the same ideals of the recreational hunting organisations? Perhaps there is more in common between the anti- and pro-hunting lobbies than at first glance.

How can this commonality between the anti- and pro-hunting groups be strengthened? The many different forms of recreational hunting and the many different agendas of the anti-hunting groups suggest that a 'one size fits all' approach will be difficult to achieve. International certification schemes, such as the Forest Stewardship Council and Rainforest Alliance, have been successful for some plant-based products, but it remains unclear how such schemes could work for recreational hunting. Therefore, it may be more constructive to consider local and context-specific certification schemes for recreational hunting.

An example of hunters helping themselves is the Independent Supervisory Authority for Hunting (ISAH) that self-regulates hunting with dogs in the UK. The objectives of ISAH are to develop and administer the regulation of hunting with dogs, to ensure that hunting is humane, and demonstrate that hunters are sensitive to the management of the environment in which

their hunting occurs. In the US, Ducks Unlimited, Turkeys Forever, Rocky Mountain Elk Foundation, and Quality Deer Management Association, are all context- and species-specific hunting organisations dedicated to sustainable, ethical, and responsible hunting management.

In an Australian context, waterfowl and gamebird hunting, and deer hunting are just two areas where a new approach may be novel and beneficial. A dedicated national organisation as, say, the National Hunting Federation to include the various current hunting organisations as the Sporting Shooters' Association of Australia (SSAA), Field & Game Australia (FGA), and Australian Deer Association (ADA) would be a curious beast!

The traction that such an approach would receive with the anti-hunting groups is difficult to predict in advance, but at least the pro-hunting lobby could use self-regulation to address those aspects of recreational hunting that are likely to be of most public concern. One of the biggest hurdles to overcome will be to convince the anti-hunting lobby that recreational hunting is ethical, that hunting is humane, and that the welfare of the quarry is paramount. These issues will be the subject of a separate article.