

Adaptive management of duck hunting in Australia: An assessment of issues

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Executive summary

The issue of whether there should be or should not be duck hunting in Australia is a political one that needs to be addressed at the political level. It has nothing to do with management. Management is an entirely separate technical and scientific issue that needs to be addressed by technical experts and community members committed to achieving sustainability.

There are two conflicts when it comes to duck hunting. Firstly, between duck hunters and state government agencies about the rationale for setting annual hunting conditions. Secondly, between the hunters, government agencies and community groups, which have a range of contrary opinions about the aims of duck management. The community groups are often animal rights and liberation groups, mostly urban-based, that are opposed to duck hunting and have no real interest in whether duck hunting is sustainable or not. These conflicts represent real threats to any management approach because a government agency may find itself in the untenable position of compromising the science upon which management should be based in order to placate the biopolitical interests of those opposed to duck hunting.

Recognising the complex dynamics that determine duck abundance in Australia and the importance of stakeholders working together, the SSAA has commissioned this paper addressing issues associated with introducing an adaptive management program for duck hunting.

Problems that currently exist with the management of duck hunting in Australia include:

- Decisions that determine the characteristics of the annual duck hunting season in Australian states have a history of conflict between groups who utilise ducks, the government agencies who manages the state's duck populations and community groups that often have a range of contrary opinions.
- Duck populations in Australia are subject to environmental uncertainty due to the direct and cumulative effects of weather conditions on wetlands within and beyond state borders.
- Decisions dictating the form of the annual hunting season (ie, season dates, size and composition of the hunter's bag) is a point of conflict between hunters, animal rights groups and governments.
- Currently, most state governments makes decisions on the form of the annual duck hunting season largely on the basis of data on recent and prevailing weather and the aerial waterfowl count coordinated by The University of New South Wales.
- The processes by which these data are converted into the management decisions, which dictate the form of the subsequent hunting season, are vague and often lack transparency, which heightens the mistrust between all of the parties.

Adaptive management (AM) is a technique that links available data to decisions, which is then applied to the managed system to allow its performance to be monitored. Through this process of trial and error, AM allows for better decisions to evolve about how to manage the system, in this case, hunting seasons.

An essential component of AM involves agreement and commitment by all stakeholders to the AM process and trust and risk-taking. This is impossible to achieve if the management authority applies the 'precautionary principle' to placate organisations opposed to duck hunting. Risk and uncertainty are core components of AM and efforts to counter any possible or potential risk on the basis of being 'precautionary' is scientifically counterproductive within any AM program.

Within an AM framework for duck hunting in Australia, it is suggested that 'precaution' be defined objectively in terms of well-considered harvest actions based on agreed monitoring thresholds, with the ability to change precautionary buffers as new knowledge is gained. Hunting management, in conjunction with sound monitoring programs, constitutes a more risk-averse (precautionary) approach than would no hunting with maintenance of the existing weak monitoring programs.

AM is a sound, scientific and demonstrated approach to duck management. AM needs a significant harvest to obtain meaningful results, which improves the understanding of the response to harvest and ultimately reduces uncertainty. All parties need to accept that there will never be complete knowledge about any species and AM accepts this reality. It aims to ensure that hunting is sustainable and that within the limits of

environmental factors that ducks remain abundant and are not threatened with any long-term decline as a result of hunting.

Introduction

The possibility of a ban or seasonal closure on the hunting of ducks in various states causes recreational hunters a great deal of anxiety. The hunters see themselves as Australian citizens, operating within the law, who are making a contribution to society through conservation, sustainable use and the stimulation of economic activity. Duck hunters also believe that they are engaged in their cultural heritage.

Against this, animal rights proponents are also anxious. They consider the hunting of ducks to be socially antiquated and morally unacceptable. They are, often, also Australian citizens and they have long campaigned to have the laws changed so that recreational hunting of ducks is no longer legally possible within Australia.

Both points of view can and are argued on points of detail. However, at a higher level of resolution, the issue is not about ducks at all. It is about people; one group of people committed to animal rights lobbying the government to change the laws so that their views and values are forced on another group of people, the hunters, who have a different set of views and values.

One important social issue is common to both groups - the conservation consequences of a closure or ban. The hunters argue strongly that conservation should be the key to the debate. The animal rights proponents argue that the conservation consequences of a seasonal closure or ban are a different issue; that the merits of a closure or ban should be assessed solely on the basis of animal rights concerns.

Conflicts of this nature are not new, but they are emotive and sensitive in the eyes of the public and they involve technical and philosophical issues with which the public has limited first-hand experience. Those charged with the responsibility of solving the problem have a difficult job. They need to examine the strengths and weaknesses of the respective arguments, balance public perceptions, assess political and economic consequences and look behind the facade of some of the evidence presented to them.

The conservation consequences of a ban or seasonal closure on hunting ducks are both fundamental and overriding. If habitats and biodiversity are not conserved, there will be little utility in arguing about the rights of extinct species. Actions that may advance animal rights goals at the expense of conservation need to be approached cautiously. Much of what society does in the name of 'conservation' is based on the concept of intergenerational equity; that we should ensure that future generations are not disadvantaged by actions we take today. Future generations will judge the effectiveness of our conservation efforts on the extent to which we have been able to retain habitats and species, rather than on the philosophies we have adopted to do so. People conserve wildlife because they value it. The reasons people value wildlife has always been diverse, ranging from highly instrumental (that is, utilisation) to the highly intrinsic (aesthetic, spiritual). If we can maintain that diversity and create a culture in which conservation efforts are based on tolerance, respect and understanding to diverse values, we will give future generations considerably more options with which to pursue conservation, than if we reduce the diversity of values. From this perspective, any seasonal closure or ban and the manner in which it is dealt with by the various state governments is a case history of national and perhaps international significance.

Conservation perspective

It is difficult to support the view that a state's primary conservation legislation should be amended without considering the conservation consequences of any amendment. These consequences include:

1. International directions in conservation

One hundred years ago, conservation was largely pursued by 'users' of plants and animals. There were few conservation organisations and it was the foresters, hunters and fishes who fought to maintain habitats and use wild species sustainably. The skilled science of game management, which underpins the long-standing sustainable use of game species throughout the world, stems largely from that period.

By the 1960s and 1970s, when 'conservation' captured the imagination of the global community, the dominant philosophy was 'protectionism' - protect species, declare protected areas and restrict the rights of access of people. This new starting point was supported by animal rights organisations because it was consistent with their goals. The new philosophy reduced the interactions between people and wildlife that may have been considered 'cruel' and largely ignored the successful conservation efforts developed within the science of game management.

By the 1980s and 1990s, it had become apparent that conservation around the world was fundamentally linked to the social, cultural and economic status of people. This observation was supported by all leading international conservation organisations that 'use' of wildlife - be it consumptive or non-consumptive use - can

create powerful incentives to conserve. Sustaining uses indefinitely, by definition, depends on wildlife and its habitats being maintained indefinitely. This change in emphasis in conservation has not rested well with the animal rights organisations because it often involves consumptive use to which significant philosophical opposition has grown.

Regardless, sustainable use is now fundamental to conservation. Sustainable use is endorsed by the World Conservation Strategy produced by the World Conservation Union (formerly IUCN), The Parties to CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and the Convention on Biological Diversity.

2. The changing face of conservation in Australia

The manner in which conservation is being pursued in Australia and the actions being taken in the name of conservation by some Australian organisations are increasingly being questioned within Australia and overseas. For example, at the 19th IUCN World Conservation Union General Assembly, many countries refused to even vote on a series of resolutions put forward by Australian non-government organisations (NGOs). At the first World Congress on Conservation organised by IUCN, the theme was sustainable use. A resolution put forward by an Australian NGO that was opposed to sustainable use and to indigenous people receiving economic benefits from sustainable use programs was defeated with applause!

Australian NGOs can be rightly proud of many conservation achievements, but some conservation NGOs have drifted away from international best practice. They appear to be constrained by the adoption and retention of fundamentalist animal rights and animal liberation philosophies. As global efforts move away from these constraining philosophies, these NGOs are increasingly isolated.

Under the Chairmanship of Senator John Woodley, the Senate Rural and Regional Affairs and Transport Reference Committee reported in 1998 on public attitudes to the use of wildlife in Australia. The Committee examined in depth over a period of two years the relationship between conservation goals, animal welfare considerations, economic opportunities and social and cultural sensitivities. The Committee reviewed more than 300 formal submissions and conducted 13 public hearings. Their comprehensive report endorsed sustainable use for conservation outcomes. Finally, the Commonwealth Environmental Protection and Biodiversity Conservation Act “promotes the conservation and sustainable use of Australia’s biodiversity”.

3. The ‘relative importance’ of different wildlife species

Some literature from animal rights groups opposed to duck hunting implies that waterfowl *per se* is more important than other wildlife species and should be treated differently at a time when global trends are emphasising equality of species within ecosystems. This implies that waterfowl are more important than fish and pests species, that duck hunting should be considered ‘cruel’, but that the hunting of fish and pests such as foxes, rabbits and cane toads should not.

There is nothing new about establishing arbitrary scales of importance. In Colonial Africa, people shot, trapped and poisoned every predator they could find, but the hunting of ‘noble’ animals such as elephant and rhino proceeded with a sense of reverence. The extinction of the Tasmanian tiger was partly the result of its perceived ‘pest’ status.

However, over the past 50 years, the world has rejected such arbitrary scales. Rather, we have embraced a commitment to ecological communities and biodiversity conservation. We use science to determine whether populations of particular species need to be culled (or expanded), without value judgements and scales of importance.

4. Conservation, animal welfare and animal rights

Conservation, animal welfare and animal rights are three separate issues, about which a great deal of public confusion exists. Each has a role to play in appropriate social contexts, but they are not the same thing and proponents of each have their different priorities, goals and agendas.

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”. Conserving wildlife involves the same principles as conserving anything else that we value. Conversely, we don’t spend resources conserving those things that we consider to be useless or valueless.

In contrast, animal rights is a highly theoretical issue. Its proponents argue that humans and animals are on the same spiritual level and as such, animals should be treated as we treat other people. The concept that animals and people have equivalent rights is largely academic, but rights given to animals are usually rights taken away from people.

Animal rights leads to the identification of problems, but provides few solutions. It is difficult to see how or why governments could or should promote one philosophy to the exclusion of others. Individuals are, of course, welcome to adopt any philosophy they wish, but the philosophy of animal rights provides few answers to problems with wildlife conservation in Australia.

The argument that Australian society will benefit in the long-term from the adoption of animal rights philosophies is poorly established. Far from easing social tensions in Australia, there are numerous indications that government intervention to force animal rights philosophies on its people will be more divisive. For example, it could lead to the demise of cultures dependent on hunting and gathering, such as those of Australia's indigenous people.

Animal welfare is very different. The goal of animal welfare efforts is to reduce unnecessary pain and suffering, thus avoiding cruelty. Some pain and suffering, or the potential for it, is involved in all interactions with animals. However, how do we objectively analyse pain and suffering from different forms of interaction? Australian society has long ago accepted that animal welfare is important and further accepted that no single code of practice can be applied to all human-animal interactions. What constitutes unnecessary pain and suffering varies with the activity, not just with the species involved.

Shooting ducks involves different levels of pain and suffering than, for example, raising ducks in a domestic setting. However, it is not clear that one activity involves more pain and suffering than the other. Despite the firm views held by some people, no-one knows what a duck experiences, feels or thinks when it is shot. Nevertheless, Tasmanian hunters have sought to adopt a code of practice for duck hunting that reduces what may be perceived as unnecessary pain and suffering within the context of their activities. This is both responsible and commendable and the code was endorsed by the Tasmanian Animal Welfare Advisory Committee in 2008.

5. The conservation consequences of closing or banning duck hunting seasons

Ducks are currently valued positively by hunters and non-hunters alike, creating incentives for all to conserve them. If the current hunting arrangements were changed, there is the potential for some duck species to be considered pests. Based on the New South Wales experience, which banned its duck hunting seasons several years ago, shooting ducks as 'pests' may ultimately result in equivalent numbers of ducks being killed, but without the controls and codes of conduct in place.

If ducks have no value to hunters and landowners, their occupation of land, pollution of water and consumption of vegetation assumes increased economic significance. In this context, some duck species may be considered 'pests'. If pest mitigation is the only way to hunt ducks, it may create incentives to promote their pest status, exactly the opposite of what is needed to drive and expand habitat conservation efforts. Perhaps more important, when ducks are hunted as pests, as in New South Wales, there are no requirements for hunter's codes of practice, closed or open seasons, population monitoring, incentives to conserve habitats or any of the other benefits that come from regulated hunting seasons. It is certainly not clear that those who perceive duck hunting to be cruel will have their concerns alleviated by any change in the classification of ducks as pests.

6. The case history of ducks in Tasmania

It is accepted that there are more than eight species of ducks resident in Tasmania. This number is supplemented by occasional visits by other species such as pink-eared ducks and hardheads. Of the resident species, only five are allowed to be taken during the annual open season - a situation that has existed for several years.

Each February, the State Conservation Agency coordinates the annual waterfowl count throughout Tasmania. This is an activity that has occurred since the 1980s. While the continuity of the data is commendable, hunters have long complained about the methodology and inconsistency of collecting the data from the same wetlands; animal rights groups have long complained that they are not fully included in the counting process; and the data is collected at a time when it is very difficult for government to use it proactively in the following duck season. Finally, the annual waterfowl count does not provide any biological information about the birds being counted.

However, if the data from the annual waterfowl counts was combined with biological data collected during the annual duck hunting season, then both the quantity and quality of data collection could be improved. Such an approach was occurring with the former Game Management Unit collecting samples from harvested birds between 2004 and 2008. Such an approach was well received by hunters, who acknowledged that the duck samples were being used to assist in the better management of ducks and therefore duck hunting. The collection of biological samples from harvested ducks in Tasmania was unique in Australia, with no other state

that currently allows duck hunting engaging the hunters in this way. If the annual duck hunting season was closed or banned, then this opportunity to collect biological samples from harvested ducks would be lost. Unfortunately, in late 2008, some bureaucrats within the government decided to abolish the Game Management Unit and with it, the collection of samples from harvested birds. As such, Tasmania has now come back to the pack with a limited duck management program.

7. Killing

The act of killing does not constitute an animal welfare problem in its own right. Conservation often requires the killing of thousands of individual animals. For example, it could be argued that for conservation purposes, we would need to kill all of the rabbits, foxes, cane toads and feral cats that currently eat our wildlife and devastate natural habitats every year.

There are often sound animal welfare reasons for killing wildlife. For example, animals that are overpopulated or have exceeded the carrying capacity of their habitats will be faced with starvation or death through disease. A lingering death can be avoided by managed culling.

There is no correlation between 'killing' and 'disrespect' for wildlife. Aboriginal people kill wildlife every day, yet love wildlife and ingrain it into every aspect of their culture. Recreational duck hunters revere the species they hunt. They surround themselves with trophies and memorabilia and are keen observers of wildlife behaviour and biology. The famous conservationist Sir Peter Scott was a duck hunter. However, it is not surprising that the average Australian has difficulty with the concept that 'killing' is in opposition to conservation. The average Australian is very urbanised and now hunts and gathers in supermarkets, well-distanced from the killing involved in the production of what they buy and eat.

8. Recreation, sport and enjoyment

Most duck hunting is undertaken by hunters for recreation and food. The shooting and killing is only one small part of a complex recreational pursuit that involves travel, fellowship, camaraderie, community development, provision of 'bush' food and so on. To attempt to control whether people 'enjoy' or do 'not enjoy' an activity goes beyond concerns about animal welfare, animal rights and conservation. It is a form of social engineering, at best short-sighted and defies logic. Much hunting in Australia now occurs under the broad banner of pest mitigation. In most cases, this is done for recreation. Hunters love the holistic environment in which hunting takes place. It is legal and they have a legal right to continue to do so.

9. Wounding

The issue of wounding is often chosen for political and public relations purposes and may have little real value in resolving the fundamental philosophical conflict that underlies duck hunting. The fundamental question is whether the anti-duck hunting community would be satisfied with no wounding at all? That is, if 100 per cent of the ducks shot at by hunters were killed, retrieved and removed from the wetlands. The answer to this question is clearly no. The proponents of closing or banning duck seasons are driven by animal rights philosophies and openly publicise a social agenda of stopping all uses and killing of wildlife.

The problem with promoting a ban openly is that these people are unlikely to win broad public or political sympathy or support. They are, after all, promoting a minority philosophical opinion that may be considered extreme. The focus on wounding, although a secondary agenda, is superficially more reasonable and plausible. Rate of wounding is a good strategy because for non-hunters, it is emotive and often humanised by the media. The wounding of animals during legitimate, legal hunting activities can be minimised by various means, but not avoided altogether. Shotguns result in some waterfowl being hit by pellets that are not killed. Hunter education and codes of practice are effective tools in reducing incidental strike and around the world, the percentage of wounded birds retrieved has steadily decreased as hunter education has increased.

In most Australian states, the introduction of the Waterfowl Identification Test (WIT) in the early 1990s and making the successful passing of the WIT a mandatory condition for a duck hunter being able to obtain a duck hunting licence has reduced the incidence of wounding. The Code of Practice for Duck Hunting in Tasmania has also assisted in demonstrating the responsible nature of duck shooters to duck shooting *per se* and specifically to wounding.

10. Discrimination

Any attempt to close or ban a hunting season is a discriminatory process that legitimises the transfer of long-established rights to hunt from hunters to non-hunters. Democratic governments are usually charged with the responsibility of recognising and respecting the diversity of opinion and values in the community. Lobby groups, on the other hand, are not.

Discrimination is invariably linked to a goal of taking something from someone who has a legal right to it. Proponents who wish to see a duck season closed or banned are opposed to hunting animals - an activity that they consider cruel. They want to obtain the legal rights that currently belong to the hunters. However, a season being closed or banned is just the thin edge of the wedge. Such an action threatens the rights of all people who hunt and the action will not end when the duck issue is resolved. If government was to decide that shooting ducks was cruel, how could they sustain a logical argument that shooting other animals was not cruel? And if shotguns were banned on the basis of wounding, how could a government sustain an argument that wounding during other types of hunting was less important?

Adaptive management - a way forward for waterfowl management in Australia

Adaptive management (AM) is a technique that links available data to decisions, which is then applied to the managed system to allow its performance to be monitored. Through this process of trial and error, AM allows for better decisions about how to manage hunting seasons to evolve.

An essential component of AM is that it involves agreement and commitment by all stakeholders to the AM process and trust and risk-taking. This is impossible to achieve if the management authority applies the 'precautionary principle' to placate organisations opposed to duck hunting. Risk and uncertainty are core components of AM and efforts to counter any possible or potential risk on the basis of being 'precautionary' are scientifically counterproductive within any AM program.

Within an AM framework for duck hunting in Australia, it is suggested that 'precaution' be defined objectively in terms of well-considered harvest actions based on agreed monitoring thresholds, with the ability to change precautionary buffers as new knowledge is gained. Hunting management, in conjunction with sound monitoring programs, constitutes a more risk-averse (precautionary) approach than would no hunting with maintenance of the existing weak monitoring programs.

AM is a sound, scientific and demonstrated approach to duck management and is used and promoted globally for this purpose. AM needs a significant harvest to obtain meaningful results, which improves the understanding of the response to harvest and ultimately reduces uncertainty. This was the intent behind the biological sampling program conducted in Tasmania between 2004 and 2008.

AM aims to ensure that hunting is sustainable and that within the limits of environmental factors that ducks remain abundant and are not threatened with any long-term decline as a result of hunting.

Conclusion

Duck hunting in Australia provides an example of how native species interact with natural and cultural values within a culturally-contested landscape. Many of the perceived threats to ducks have a low-management priority because of the limited information such as species distribution, variations in density, survival rates and other life-history characteristics and population rebound potential. Perhaps just as importantly, there has been insufficient development of techniques that are an essential component of adaptive programs in the long term. Only with long-term monitoring on habitat-density-hunting relationships will duck managers be able to overcome the hurdles of hunting and non-hunting of ducks.

However, new knowledge alone will not solve the complexity of duck management in Australia. Most fundamentally, a common language is required to translate scientific data and analyses into a discourse that all interested parties can understand and thus become equal participants in the decision-making process. This will require some form of an adaptive management cycle where consultation, monitoring, analysis, intervention, evaluation and policy formulation becomes part of an ongoing and interactive process. While such a process carries a cost by requiring dedicated staff and sound communication among all parties, such an approach has a greater potential for achieving management outcomes than reactive bursts of activity that have typified previous management programs.