

**BIRDS AUSTRALIA
SUBMISSION TO THE:
SENATE INQUIRY INTO AUSTRALIA'S NATIONAL
PARKS, CONSERVATION RESERVES AND MARINE
PROTECTED AREAS.**

INTRODUCTION

Birds Australia is pleased to make this submission to the Australian Federal Senate Inquiry into Australia's National Parks, Conservation Reserves and Marine Protected Areas. Birds Australia's submission is based upon the objectives of Australia's National Parks, other conservation reserves and Marine Protected Areas, and our own mission of conservation based on sound scientific knowledge.

Birds Australia has a diverse, national membership of about 8,000 Australians. We have an extensive, on-going program of research, including the peer reviewed ornithological journal *The Emu*. Thousands of volunteers contribute to the *Atlas of Australian Birds*, and thousands more are involved in the *Threatened Bird Network* and dozens of specialized projects, including several species recovery programs. The quarterly magazine *Wingspan* educates our members and the public on bird issues and research outcomes. Our Reserves and Observatories serve as educational centers and as land for conservation.

Many Australian bird species are dependant upon Australia's National Parks, other conservation reserves and Marine Protected Areas for survival. Sufficient funding and resources for Australia's National Parks, other conservation reserves and Marine Protected Areas are essential for the maintenance of biodiversity, preservation of habitats, and their role as centres for educational and extension activities. They also clearly play a major role in terms of Australian culture and heritage, and the legacy that will be left to future generations of Australians.

Our submission will address the Inquiry's broad Terms of Reference. Our comments will be in a policy rather than scientific context. There are a myriad of scientific research-based studies available to substantiate our comments, and we would be pleased to supply them in an expanded presentation as required.

TERMS OF REFERENCE

In this submission, we wish to discuss the funding and resources available to meet the objectives of Australia's National Parks, other conservation reserves and Marine Protected Areas, with particular reference to:

1. the values and objectives of Australia's National Parks, other conservation reserves and Marine Protected Areas;
2. whether governments are providing sufficient resources to meet these objectives and their management requirements;
3. any threats to the objectives and management of our National Parks, other conservation reserves and Marine Protected Areas;
4. the responsibilities of governments with regard to the creation and management of National Parks, other conservation reserves and Marine Protected Areas, with particular reference to long-term plans; and
5. the record of governments with regard to the creation and management of National Parks, other conservation reserves and Marine Protected Areas.

1. THE VALUES AND OBJECTIVES OF AUSTRALIA'S NATIONAL PARKS, OTHER CONSERVATION RESERVES AND MARINE PROTECTED AREAS

Australia's National Parks, other conservation reserves and Marine Protected Areas are a key element in a range of essential values and objectives, from the basic need to protect gene pools to multiple economic, tourism and conservation uses.

Biodiversity Conservation The World Heritage Trust concept was originally conceived at the 1972 Stockholm Conference as an international initiative to preserve threatened gene pools. The planet earth contains a finite number of living organisms. Each organism's unique genes may be important in not only maintaining the biodiversity essential to life on earth but also to benefit humans. New and beneficial medicines and foods are to be found among yet to be known organisms. Australia's National Parks, other conservation reserves and Marine Protected Areas represent a globally unique reservoir of genes which could confer future economic and medical value. Therefore, a primary objective of Australia's National Parks, other conservation reserves and Marine Protected Areas should be to protect our unique gene pool. It is one of Australia's greatest natural assets. Biodiversity conservation also needs to occur at the level of populations, species and ecosystems. The reserve system should be representative of Australia's wide range of ecosystems. The conservation of Australia's biodiversity at the gene, species and ecosystem level is one of the primary objectives of our reserve system.

Wilderness areas Some of Australia's National Parks, other conservation reserves and Marine Protected Areas are considered as wilderness areas, where the public may only visit under strict and controlled circumstances. The objective is for these environments to exist in an undisturbed state. In reality, many of these areas have been ecologically damaged in the past or are threatened in the present. Past, inappropriate agricultural practices or overfishing are examples of ecological changes which have been addressed by appropriate initiatives to place areas off-limits to the public. Protection and rehabilitation of these unique wilderness areas is an important objective of the reserve system and will require ongoing resource commitments.

Tourism Tourism is a vital use of Australia's National Parks, other conservation reserves and Marine Protected Areas. It enables humans to experience the values of our natural environment, and enhances appreciation of and support for the maintenance of Australia's National Parks, other conservation reserves and Marine Protected Areas. There are a number of dilemmas generated by tourism. Well-funded and carefully planned and controlled programs are required to ensure that human access does not unduly impact on natural values. Allowance for intensive tourism infrastructure promotes economic development and visitor satisfaction. Australia's two most economically valuable tourism resources, the Great Barrier Reef and the Philip Island Penguin Reserve, are billion-dollar income earners. However, if funding and resources were not maintained these important assets would rapidly deteriorate. Most of Australia's National Parks, other conservation reserves and Marine Protected Areas have minimal resources available to facilitate sustainable tourism and are therefore vulnerable to inappropriate human intervention.

Tourism must be balanced by resources for infrastructure and ongoing management and monitoring.

Economic multi-use Economic multi-use of Australia's National Parks, other conservation reserves and Marine Protected Areas is often profitable and sometimes appropriate. Forestry, mining, livestock grazing and energy production are examples of multiple-use which are often controversial. A balance needs to be struck between economic uses and protection of biodiversity. Environmental impact assessments in the context of comprehensive park or reserve Management Plans must be adequately funded and form the basis for decisions for locating economic activities in Australia's National Parks, other conservation reserves and Marine Protected Areas. Monitoring of the impact of economic activities must be resourced. When adverse impacts are found, funding for remediation works should be made by the responsible organisation. Fishing in marine reserves, including collection of exotic fish and marine organisms, should only be permitted after an evaluation of the impact on the viability of the species to be collected, and on their predator and prey species. Funding will be required to monitor and police the impact on Marine Reserves.

Birds in reserves Birds Australia has standing as to the values and objectives of Australia's National Parks, other conservation reserves and Marine Protected Areas because birds are an integral part of the biodiversity which occurs within such reserves. Birds Australia's reserves and observatories facilitate tourism and bird research. They complement National Parks, other conservation reserves and Marine Protected Areas and are often dependent upon the rest of the reserve system in terms of providing enough bird habitat for conservation.

Conclusion

Reserves provide many benefits to society, including their role in maintaining genetic diversity, providing wilderness areas, and economic contributions to a variety of stakeholders, including tourism.

Many species of birds are reliant upon Australia's National Parks, other conservation reserves and Marine Protected Areas for some or all of their life-providing habitat. Maintenance of funding and resources for them is essential to prevent serious depletion of birds.

2. WHETHER GOVERNMENTS ARE PROVIDING SUFFICIENT RESOURCES TO MEET THESE OBJECTIVES AND THEIR MANAGEMENT REQUIREMENTS

The reserve system in Australia, as in most countries, has developed around land that is unsuitable for agricultural use or urban development. As such, the system is not truly representative of Australia's ecosystems, with many unique and important assemblages either inadequately protected or not protected at all. It is imperative that Governments meet the resource requirements for identifying and protecting these threatened ecosystems, if the objective of a representative sample of ecosystem and genetic diversity is to be achieved.

Australia's national, state and local governments and those responsible for private conservation reserves have a mixed record as to baseline funding. This submission describes some of the activities which should be funded to maintain biodiversity and the biological integrity of reserves.

- **Weed control** Weeds can outcompete and crowd out native vegetation. These unwanted plants also threaten agriculture when they escape onto farms. Weeds are often a major problem for birds that lose their natural habitat for food and nesting and often cannot adapt to new dominant species.
- **Feral animal control** Rabbits, wild pigs and cattle, camels, fox, rodents and cane toads are examples of the feral animals which inhabit Australia's National Parks and other conservation reserves. They kill native species, such as mammals and birds, which are vital elements of Australian biodiversity. They often disrupt native flora and facilitate the introduction of weeds and feral flora. Cattle grazing in alpine ecosystems is one example of this type of disturbance.
- **Fire management** Fire has always been a major factor influencing Australian biodiversity. Many plant and animal taxa, including many threatened species, require specialised fire regimes for their ongoing viability, and these are often poorly understood. The fire management situation faces other issues such as:
 - the scale at which management should occur
 - resource levels required to achieve effective fire management
 - whether to permit fires to burn "naturally",
 - political pressure to minimize fires because of the proximity of human development to natural areas; and,
 - the conflict between road building in natural areas to facilitate fire management and access to persons who create fires.

It is clear that more resources are needed for the research and implementation of fire management.

- **Poaching control** Australia's National Parks, other conservation reserves and Marine Protected Areas are vulnerable to poaching. We have many species of birds, mammals, reptiles, plants and fish which command a high price overseas. Southern Australian Marine Reserves are subject to abalone poachers. Exotic birds are often easy to catch and could be sold to overseas or domestic bird fanciers.
- **Environmental river flows** Many of Australia's National Parks and other conservation reserves are dependant upon streams and rivers. There is a long history of competition between water for agriculture and mining and water for biodiversity.

The Murray River Basin is a good example of this conflict. There are excellent arguments for reductions in allowances for water-intensive crops, such as cotton and rice, but there is also the necessity for compensation or assistance in developing alternative crops which do not use much water.

- **Vehicle control** Many of Australia's National Parks and other conservation reserves are subject to the use of off-road vehicles such as 4x4's and trail bikes. If these are not managed carefully, they can cause problems such as erosion and habitat destruction, and the introduction of weeds and feral flora.
- **Mining control** Australia is blessed with abundant natural resources. Mining regulations often permit mining in Australia's National Parks and other conservation reserves. Environmentally well designed and maintained mines with eco-friendly mining processes can co-exist with natural areas when they do not threaten unique or fragile habitats. However, some mines create toxic effluent which degrades not only the mine's immediate territory but larger areas through stream degradation or air pollution.
- **Research** Research is essential to effective natural resource management in what are rapidly changing conditions. Many of the basic research tasks are related to the above issues, such as cost-effective ways to monitor habitat quality, pest elimination methodologies and poaching control processes. The adoption of adaptive management techniques, or 'learning by doing' is needed in Australia's reserves.

There is a need to address the issue of prioritization of additional funding. First priority should be given to protection of threatened areas where there is the likelihood of gene pools being eliminated without intervention. For example, natural grasslands have been almost entirely destroyed through agricultural and urban development. World Heritage Trust designated areas and places identified as key national heritage habitats should be assured of sufficient resources to maintain biodiversity.

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) forms the legal rationale for most Australian environmental assessment processes. Funding and resources are rarely enough to fulfil our legal responsibilities to protect birds and other taxa.

Birds Australia resources Birds Australia is responsible for the management of its reserves and observatories. Our resources are limited so that we occasionally call upon government for assistance. The Natural Heritage Trust grant programs which assist conservation reserves should be maintained as they are essential contributors to non-government reserve management.

Birds Australia is partner of Birdlife International which has an international program to identify Important Bird Areas (IBAs). These are habitats which are vital to the maintenance of both threatened and non-threatened birds. Future cooperation and resources for IBAs from government will enable this program to succeed.

Research and Development is carried out by Birds Australia and associated ornithological organizations, including universities and government bodies. Research and Development funding targeted at bird-related issues is vital for the maintenance of Australia's National Parks, other conservation reserves and Marine Protected Areas. For example, life-studies of

threatened bird species will enable governments to develop appropriate management plans. Biological control of feral species will enable restoration of threatened habitats.

Monitoring is an essential part of the process of assessment of management techniques, and Birds Australia is initiating an effective and standardised bird monitoring program in several NRM regions, with the intention of extending it to all NRM regions if the appropriate funding stream can be established. Once established, the program will have enormous predictive power and will form an invaluable tool for informing landscape scale management issues.

Conclusion

Ongoing and increased funding for research, monitoring and management, scaled to the issues being managed, is imperative for the maintenance and growth of public and private reserves. We outlined additional areas where more expenditure is highly desirable.

3. ANY THREATS TO THE OBJECTIVES AND MANAGEMENT OF OUR NATIONAL PARKS, OTHER CONSERVATION RESERVES AND MARINE PROTECTED AREAS

The “*Precautionary Principle*” is the most relevant context for our comments on threats to the objectives and management of our National Parks, other conservation reserves and Marine Protected Areas.

The Precautionary Principle is defined under the 1992 Inter-Governmental Agreement on the Environment as:

“Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

In the application of the precautionary principle, public and private decisions should be guided by:

- (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and,
- (ii) an assessment of the risk-weighted consequences of various options.”

The EPBC Act (1999) uses the Precautionary Principle to inform the assessment of threats. Some of the threats discussed here are supported by clear scientific evidence. In other instances conclusions are debatable, with insufficient evidence, so that the use of the Precautionary Principle is appropriate. All of them should be considered as serious threats and require government attention.

Global warming The greatest set of threats to biodiversity stem from the consequences of global warming. Habitats change as climate changes. The birds one finds on coastal plains are different from those found in alpine regions. As temperature rises, habitats become dryer and flora and fauna that cannot move to an adjacent environmental zone die off. Australia has poor soils and is therefore more vulnerable to climate change than continents with greater water resources and richer soil. Australia also lacks large regions of higher altitude where species can adapt. The following are some of the climate change threats which impact on National Parks, other conservation reserves and Marine Protected Areas:

- **Increased fire risk** Higher temperatures and lower rainfall results in more fires with resulting destruction of important habitats and increased fire management costs.
- **Lower environmental water flows** Hotter climates often results in lower rainfall and consequent higher pressure on environmental flows from agricultural, urban, mining, and industrial uses. .
- **Ocean current changes** Changes in ocean current patterns, timing and intensity create seasonal changes in marine water temperatures. This may adversely impact, for example, on coral reef ecosystems and fish breeding.
- **Warmer river and stream water** Increased ambient stream and river water temperatures result in stress on these habitats. Feral organisms and fish who prefer warmer water often replace natives. Systems are more vulnerable to toxic algae blooms.

- **New pests** Warmer climates could create environments favourable to new introduced pests which could severely damage habitats in National Parks, other conservation reserves and Marine Protected Areas. Pest might be feral flora and fauna, or native species entering new regions.
- **Ecosystem change** All of the above relate to fundamental changes to ecosystems because of warmer and dryer conditions. These changes are not only a literal threat to biodiversity and unique Australian habitats but also economic threats because National Parks, other conservation reserves and Marine Protected Areas may no longer be attractive to tourism, and may lose biodiversity with its potential economic benefits.

Human, agricultural, mining and industrial effluent Untreated or inadequately treated effluent is a major threat to National Parks, other conservation reserves and Marine Protected Areas.

- **Untreated human waste** Most Australian rural and small town human waste is treated in individual home and business septic systems. Many of these systems have failed. A number of Australia's cities do not adequately treat sewage and pump their effluent into the ocean, rivers or streams. The result is severe damage to the habitats which receive this toxic effluent. Marine Protected Areas are particularly vulnerable to effluent discharges.
- **Agricultural toxic waste** Farms are responsible for significant discharges of animal manure effluent, nitrogen loading of waters from fertiliser, and the spread of hormones and medicines used to treat livestock and pesticide residue. These materials often have an impact upon adjacent National Parks, other conservation reserves and Marine Protected Areas.
- **Mining impacts** Mines are sometimes found in parks and conservation reserves. They are also frequently located near reserves. Mines often use tailing dams where toxic waters are stored. These dams can leak or fail, often poisoning streams which pass through parks and conservation reserves. Toxic air pollution from gold mining, arsenic, and lead mining have an adverse impact upon park and conservation reserve biodiversity. Some water-borne mining effluent can impact on marine reserves when uncontrolled waste enters the sea.
- **Industrial effluent** Industry often creates untreated or inadequately treated effluent which can damage National Parks, other conservation reserves and Marine Protected Areas. Coal burning power stations are a source of acid rain which damages National Parks, other conservation reserves and Marine Protected Areas. Paper mills sometimes release dioxin into streams and rivers with serious consequences.

Intensive land use Intensive land use is sometimes a threat to parks and conservation reserves. Some examples are:

- **Forestry** Inappropriate forestry practices can destroy unique habitats. This can result in parks and conservation reserves being the only remaining habitat types. Sometimes inappropriate forestry is carried out within parks and conservation reserves themselves. Flora and fauna are often threatened when forests adjacent to parks and conservation reserves are severely damaged.

- **Human development** Many parks and conservation reserves are discontinuous habitats when they are adjacent to urban areas or in popular tourist areas. Intensive housing and tourism complexes are built which create stress in National Parks, other conservation reserves and Marine Protected Areas. Fragile eco-systems are damaged by intensive human use. Dangerous air and water effluent is released from developments into National Parks, other conservation reserves and Marine Protected Areas. Wildlife movement may be restricted or halted, impeding gene flow and exacerbating inbreeding depression in isolated populations.
- **Industry** Mines, oil and gas extraction and transportation, electrical generation and factories sometimes threaten National Parks, other conservation reserves and Marine Protected Areas. Problems are associated with scale, sensitivity and inattention to environmental impact.
- **Agriculture** Agriculture can impact adversely on National Parks, other conservation reserves and Marine Protected Areas. Examples are the overuse of water, large scale air and water release of toxic materials and destruction of wildlife corridors between parks and conservation reserves. The dramatic decrease in Red-Tailed Black Cockatoos in Victoria is largely due to the destruction of their nesting tree habitat due to the implementation of large-scale spray irrigation systems. It is ironic that Governments recognize this iconic Australian bird as the Commonwealth Games Mascot but permit farmers to destroy its sole nesting resource.

Overfishing Marine reserves are threatened by overfishing, which upsets the balance of species in the area and makes reserves vulnerable to pest species.

Feral pests Globalization, global warming and inadequate quarantine controls are major causes of the threats of feral pests to National Parks, other conservation reserves and Marine Protected Areas. Fire ants have been found in Queensland and threaten National Parks and other conservation reserves. They arrived in contaminated nursery packaging. South-eastern Australian penguin populations were decimated by the death of pilchards. The Australian native pilchard population was impacted severely by a virus originating in European pilchards used as feed in ocean tuna farms.

Threats to birds Birds are an important part of Australia's National Parks, other conservation reserves and Marine Protected Areas. Birds Australia's research, education and advocacy mission is focussed on addressing threats to birds. The changes in ecological conditions referred to in this submission all have important impacts on birds, ranging from local decreases in populations of specific species to extinction. Birds make important contributions to agriculture via insect control and pollination services.

Conclusion

Many threats exist within reserves that need ongoing or new management efforts. Edge effects are a significant and increasing threat to the biological integrity of reserves. Processes that occur off-reserve, such as climate change, will impact on reserve integrity. Thus, reserves need to be managed well, in conjunction with tenure-blind, landscape scale threat abatement efforts.

4. THE RESPONSIBILITIES OF GOVERNMENTS WITH REGARD TO THE CREATION AND MANAGEMENT OF NATIONAL PARKS, OTHER CONSERVATION RESERVES AND MARINE PROTECTED AREAS, WITH PARTICULAR REFERENCE TO LONG-TERM PLANS

Governments face the need to balance expenditure on Australia's National Parks, other conservation reserves and Marine Protected Areas with other priorities. Long-term planning for the reserve system must ensure that Australia is able to meet its intergenerational obligations with respect to conserving biodiversity. Planning must take into account demographic factors such as the increasing population pressure on coastal ecosystems. Birds Australia, as a national, broad-based conservation organization, advocates long-term support for the adequate management of current reserves, and the creation of new reserves that protect threatened species, conserve biodiversity and increase the national representation of neglected ecosystems. Government also needs to encourage and facilitate habitat conservation and restoration on private property, in particular the creation of buffers around and links between ecologically significant areas.

Each of the following five agreements contains lists of protected bird species:

1. Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC)
2. Convention on the Conservation of Migratory Species of Wild Animals (1979)– Bonn Convention
3. Agreement Between the Government of Australia and the Government of Japan for the Protection of Migratory Birds and Birds in Danger of Extinction and Their Environment (1974) – JAMBA
4. Agreement Between the Government of Australia and the Government of The People's Republic of China for the Protection of Migratory Birds and Their Environment (1986) – CAMBA
5. International Convention on Wetlands (Ramsar, Iran 1971)

The States have their own legislation which details protected bird species and the relevant bird protection process such as the Victorian *Flora and Fauna Guarantee Act 1988* (FFG) – Advisory List of Threatened Vertebrate (2003).

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) forms the legal rationale for most Australian environmental assessment processes, as well as for long-term planning for biodiversity. This Act highlights threatened species, many of which are dependent upon National Parks, other conservation reserves and Marine Protected Areas for their unique habitats. As well as the Precautionary Principle, the Act obliges Governments to consider long-term environmental consequences, conservation of biological diversity and ecological integrity, and principles of ecologically sustainable development and intergenerational equity.

Australia's National Parks, other conservation reserves and Marine Protected Areas have been created and are managed by a myriad of federal, state and local government laws and regulations. Non-government organisations, such as Birds Australia, have established conservation reserves under their management but they are often associated with

governmental initiatives. Privately operated reserves do not have the same tenure guarantees as government reserves, and should not be thought of as a long-term replacement for any of the ecological functions of government reserves. However, in short-term planning, governments should take into account the biological complement of private reserves when considering underrepresented ecosystems and taxa for incorporation into new reserves.

Australia's national heritage is largely natural. The tourism value of these assets was illustrated in the video promotion for the 2006 Australian Tennis Open on the USA's ESPN network which showed Ayers Rock, the Great Barrier Reef, the Victorian Twelve Apostles and images of kangaroos and koalas. This supports the economic value of Australian governments' long-range responsibilities for such icon sites as the Great Barrier Reef, Ayers Rock, the Daintree tropical forest, Lord Howe Island, Tasmania's Crater Lakes, Kakadu, the Kimberly, South Australia's Coonawarra wetlands and many others. The creation of new reserves has a track record of generating large amounts of tourism revenue.

There are also long-term Government responsibilities to birds because of treaty obligations. A good example is the Werribee Treatment Plant in Victoria, which is considering upgrading its waste treatment systems to a level that will not provide the nutrients necessary for the treaty-protected migratory waders who feed in the Ramsar Wetlands which are part of the plant. In this case, long-term planning for this facility should consider the management responsibilities for birds mandated by treaty.

Conclusion

Reserves will only be useful conservation tools in so far that they are adequately managed, protected and maintained in the long-term. Governments should ensure that reserves are protected and managed properly over the long-term. Long-term planning should incorporate the acquisition of new reserves.

5. THE RECORD OF GOVERNMENTS WITH REGARD TO THE CREATION AND MANAGEMENT OF NATIONAL PARKS, OTHER CONSERVATION RESERVES AND MARINE PROTECTED AREAS

The record of governments with regard to the creation and management of Australia's National Parks, other conservation reserves and Marine Protected Areas reflects a gradual change in values from exploitation to stewardship of our natural heritage.

The following is a list of major issues which illustrate the conflict between exploitation and conservation. Depending on the outcome of these and other issues, biodiversity will largely be protected or there will be serious losses which contribute to an incremental diminution of Australia's ability to achieve sustainable development.

- **Land clearing** Hundreds of thousands of hectares of Victorian mallee and Queensland woodland have been cleared of trees and scrubs for agriculture. Much of this land is marginally useful for agriculture but vital for biodiversity. It is clear that not all habitats are adequately represented in the reserve system, and this is particularly true of habitats that also offer agricultural opportunities.
- **Wildlife corridors and islands** There are strips of native habitat which are left along roads, in difficult to access areas, along stream beds and in some agricultural areas. These areas serve as corridors between parks, conservation reserves and natural habitats where animals and birds can move to breed, find water or food. Islands of natural habitat sustain gene pools of flora and fauna. Today many of these vital wildlife corridors and islands are disappearing to agriculture, housing development and road-works. These corridors, usually on non-government lands, are vital links in the reserve landscape and must be encouraged and facilitated by government programs and partnerships.
- **Inappropriate development** Urbanisation is reaching many of Australia's National Parks, other conservation reserves and Marine Protected Areas. Roads access and cross these areas. Tourism, mining and energy infrastructure may be located within these areas. This can result in threats to biodiversity through disturbance, water and air pollution as well as facilitating the invasion of feral animals, pests and plants. Buffer zones between reserves and developments are too often ignored in planning considerations.
- **Salinization and environmental flows** Low river flows and massive irrigation projects have resulted in regions such as the Murray River Basin becoming less productive agriculturally and biologically.
- **Forestry** Old growth forests support unique gene pools and landmark Australian habitats. When these are destroyed, new growth forests cannot support many of the flora and fauna found in old growth forests. Plantation timber mono-crops often create sterile areas which not only do not support the biodiversity of native forests but damage habitats through excessive use of fertilizers and pesticides.
- **Overuse** Overfishing depletes marine reserves. Long-term intensive agriculture threatens biodiversity with overuse of fertilizers, pesticides and livestock pharmaceuticals.

- **Grazing** Many of Australia's National Parks and other conservation reserves are subject to legal and illegal grazing by livestock. Natural areas in the Centre are often devastated by feral animals such as camels and pigs. The Victorian Alpine grazing controversy is an excellent example of the conflict between exploitation and stewardship.

Birds Australia is active in promoting the conservation of birds. Much of our research addresses the behaviour of threatened bird species. Research outcomes are shared with Governments for the development of Management Plans to protect threatened bird species. Our publications highlight the plight of Australian birds.

Conclusion

The record of Government has been good in the creation of reserves but management has often been inadequate.

One measure of Government performance with reserves would be to regularly audit management efforts and their efficacy. Thus, a "State of Australia's Reserves" report, which quantifies management planning, effort and outcome, could be produced every few years.

OVERALL CONCLUSION

This submission discusses a number of factors which have an adverse impact upon birds in the broader context of their habitats. Many of these habitats are located in National Parks, other conservation reserves and Marine Protected Areas. We hope that this Inquiry will address some of the issues we have raised. Most of them are broad issues, in keeping with the Inquiry's Terms of Reference.

We appreciate the opportunity to provide our comments and look forward to working with Governments to address the specific issues which affect the conservation of birds and the integrity of Australia's biodiversity.