

Social Values of Australian Threatened Birds

Research Proposal Outline

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Proposed Host School: School for Environmental Research, CDU, Darwin.

Period of Research: January 2010 to December 2012.

Nominated Supervisors: Principal, Dr Heather Aslin; Associate, Prof Stephen Garnett.

Field of Study: Environmental Science

Introduction

Of the approximately 1200 known bird species in Australia over 100 species and subspecies are currently identified as threatened and substantial funds are spent keeping them from becoming extinct. About \$28 million was dedicated to the conservation of 78 threatened bird taxa during the eight years to 2000 out of 128 taxa listed in 1992 as Rare, Threatened or Insufficiently Known (Garnett et al 2003).

Threatened species management operates within a wildlife policy framework consisting of interactive relationships between various constituencies which exchange information, values and efforts to control wildlife resources. Four systems of variables can be seen to drive this policy paradigm: biophysical, socio-structural, valuational and institutional/regulatory (Kellert and Clark 1991).

Valuational variables can be broadly categorised as economic, ecological and socio-psychological (Steinhoff 1980). Wildlife and nature can provide a significant contribution to the spirit, imagination and well-being of Australians through socio-psychological values. These can be recreational; consumptive (eg. hunting) and non-consumptive (watching and enjoying in the wild or through various media); intellectual and scientific (including educational); aesthetic, artistic and cultural; and religious and symbolic (Prescott-Allen 1986). These values have both a quantitative aspect that can be measured (eg. wildlife tourism) and a qualitative aspect that cannot (eg. beauty). The research described in this proposal: "Social Values of Australian Threatened Birds" will examine relevant socio-psychological values (also known as social values) to identify and measure the importance or worth placed by people and society on threatened species of birds in Australia.

Due partly to great variation in prevalence, characteristics and distribution of threatened bird taxa, knowledge of individual taxa across Australian society will likely be highly erratic. Some species may be important to both the Australian and international community due to their charismatic or iconic status; others may hold local significance to a single community in a small geographic region or to specialist bird conservation groups. The significance of quantity versus quality of social value will be an important and interesting area to explore.

Social value attributes relating to individual threatened bird taxa may well be broadly similar in that the concept "bird" can induce recognised feelings in humans such as the desire to fly, transcendence to a higher being, spiritual joy etc and some species

have strong symbolism attached to them (eg the emu's place on the Australian coat of arms). However there will undoubtedly also be many differences found between different knowledge groups and across different taxa. By developing a comparative "social profile" of each threatened bird taxa based on its perceived social values it will be possible to identify the status each one holds on a spatial and temporal scale within the entire spectrum of Australian threatened bird species. This appears never to have been explored in the scientific literature even though it underpins and sustains political support for threatened species investment, often in the face of economically rational arguments.

Importantly, by including in this profiling research members of both the birding community (ranging from ornithologists and conservation biologists to hobbyist birdwatchers) and the general public, it will be possible to develop a far greater understanding of the priorities given to each taxa (economic, conservation, aesthetic and otherwise) and why those priorities exist.

From a much broader perspective this research will make it possible to describe for the first time the place threatened birds hold in the hearts and minds of Australians as well as of various interest groups overseas. This information will help us to further understand our obligation to birds from a national and international perspective. In practical terms it will prove invaluable for prioritising species protection and framing effective conservation plans for individual taxa which appeal at both a policy and public interest level.

Objectives

The ARC Linkage project: 0810 6843 "Australian Bird Conservation" (which will be managed by the School for Environmental Research at Charles Darwin University between 2009 and 2012) will examine the biophysical and institutional/regulatory features of threatened bird conservation. The research described in this proposal "Social Values of Australian Threatened Birds" will complement this project by exploring valuational features and will be linked to this ARC project so that overlapping findings may be shared and explored from a range of perspectives. More specifically this research will provide input to the "Australian Bird Conservation" project through several key quantitative outputs including metrics of social value and public profiles for each of the 100 or so taxa of Australian threatened bird species. This data will contribute to recovery plan effectiveness.

Major objectives for this research are therefore to:

- Develop and apply the metrics of social value of threatened birds in Australia;
- Assist the ARC Linkage project: "Australian Bird Conservation" to determine the relationship between social values and other values as identified through the ARC project and the extent to which these influence effective conservation;
- Provide guidance to the investment in public outreach that accompanies threatened species management by assessing links between publicity and performance;
- Determine the most effective means of community engagement in threatened species conservation.

Stakeholder Analysis

Birds appeal to a large cross-section of the global community from expert ornithologists and conservation biologists to hobbyist birders, tourists and members of the general public. In the case of Australian threatened birds, not only will interest reside in Australians but also in members of the international community.

Analysis will be conducted to confirm which stakeholders ought to be included in this research but an initial appraisal anticipates inclusion of the following:

- Members of the Australian general public, including some relevant subsets;
- Members of the online birding community in Australia;
- Members of organisations participating in the ARC Linkage project “Australian Bird Conservation” including Birds Australia, Biosis Research, Australian Wildlife Conservancy and threatened species managers from DEWHA;
- Representatives of the media for example environment correspondents from each major capital news publication in Australia;
- Members of international birding communities including biological scientists;
- Representatives of bird tourism companies.

Methods

This research will be conducted using a social science methodology. This will most likely take the form of an interpretive/phenomenological enquiry which assumes that respondents are operating within and are therefore influenced by social constructs and which aims to understand, interpret and draw insight from human behaviours. These enquiry methods are fundamentally different to those typically used in the natural sciences which generally take an empirical methodological approach. It is recognised that a challenge in this research will be to match these enquiry methods and deliverables with those of the ARC project, which will adopt empirical data collection techniques, where objectives and outputs are expected to overlap. A further challenge will be to bridge the barrier between expert knowledge and other kinds of knowledge.

The research will be conducted in four major parts: literature review, then an exploratory qualitative phase followed by a quantitative phase and finally a phase of qualitative case studies.

Approval will be sought from the Human Ethics Committee prior to commencing any interviews with human subjects.

As all fieldwork will be conducted within regional Australia there is no requirement to apply for travel visas or permits.

1. Literature review (2010)

The first stage of the research will consist of a literature review which will aim to achieve several outcomes including but not limited to: appraisal of the 100 or so threatened bird species in question in terms of IUCN Red List status, geographical distribution and current conservation priority; analysis of international social science literature to scrutinise concepts being used and how issues are framed and to identify methods to measure social values and explore different types of knowledge systems. Analysis of international social and biophysical science literature will provide a

global overview of the framework within which Australian threatened bird species are currently being discussed.

A major objective will be to identify key socio-demographic influences pertaining to social values. Since social values have never been identified specifically in relation to birds, it will be crucial to define relevant measures early on in the research as these will broadly inform the scope and direction of the proposed research including its methodology and stakeholder group. Kellert (1980) defined wildlife value categories as: naturalistic, ecologicistic, humanistic, moralistic, scientific, aesthetic, utilitarian-consumption, utilitarian-habitat, dominionistic, negativistic, neutralistic and theistic. These definitions will likely form a valuable starting point and may be explored by profiling representations of birds in art and literature, religious, philosophical and cultural contexts.

Also of relevance will be the exploration of concepts such as biophilia (which E.O. Wilson described as the essence of our humanity that binds us to all other living species); human-animal bonds (which the Center for the Human-Animal Bond [Purdue University] describes as the dynamic relationship between people and animals in that each influences the psychological and physiological state of the other); and solastalgia (which is defined by Albrecht et al (2007) as the distress that is produced by environmental change impacting on people while they are directly connected to their home environment). These concepts will be examined further in the qualitative and quantitative phases.

2. Qualitative phase – part 1 (2010)

An open ended exploratory phase will take place in order to explore how issues are framed by the major stakeholder groups such as threatened species managers, members of the birding community and members of the general public. This exploration will be conducted via group discussions either through stakeholder specific focus groups and / or workshops.

The ARC project will conduct workshops with local conservation agencies with the objective of providing input on scale of relative importance for each threatened bird taxon. The “Social Values of Australian Threatened Birds” research will take advantage of a select few of these gatherings to conduct in depth interviews with individual threatened species managers.

Proposed themes for discussion in the qualitative phase will be derived from the literature review and are likely to include but are not limited to:

- Awareness of threatened species of birds, their nomenclature (both local and scientific), local and national significance, identifiable characteristics, emotional attachment and influence on spirit, well-being and condition;
- Awareness and influence of various economic, ecological and socio-psychological factors (as described above) in the context of birds in general and Australian threatened bird species;
- Environmental change and its role in influencing the will to conserve threatened birds, its perceived impact on current populations of threatened birds, awareness raising of threatened birds and solastalgia;
- Biophilia and its role in the development of human-animal bonds, specifically in relation to birds;

- Identification of common themes relating to human-animals bonds with birds;
- Comparison of key species with other notable local wildlife in order to gain a perspective of how birds are perceived within nature and the broader environment.

3. Quantitative phase (2010-2011)

A major objective of the ARC “Australian Bird Conservation” project is the comparison of social profiles for each of the 100 or so threatened bird taxa. To fit in with the ARC project timeline, this data is required towards the end of 2010. The “Social Values of Australian Threatened Birds” research will contribute to these social profiles by conducting quantitative online surveys with Birds Australia members and the online birding community to assess importance of threatened bird taxa within communities where they reside. It is anticipated this will be done using a product such as Survey Monkey to capture data from several thousand Australian bird enthusiasts. This research will necessitate development or adaptation of new metrics to describe social profile as they relate to ecological variables.

Social profiling from this online quantitative survey will assist with prioritising conservation resources by highlighting key species which fulfil conservation criteria but which also have greatest social importance to conservation managers and birding enthusiasts.

International online presence of Australian threatened birds will be quantified via a scientific literature review which will look specifically at the species discussed, the context of the discussion, origin of the research, its funding and location of the authors.

A media monitor analysis will be conducted to quantify the online presence of threatened bird reports in visual, print and online media. A range of techniques will be applied to media content analysis with particular attention paid to local media. Given the media’s role in the understanding of science it will be interesting to explore the way it interprets scientific data for public consumption as this will likely be one of the most significant means by which the public is informed of scientific findings. The media’s role in raising awareness of threatened birds will also be explored as well as how public profiles are portrayed. This can be done for a cross-section of media reports by examining how scientific findings are described in scientific literature and comparing this with their articulation to the public via the major media formats. If any strong patterns are revealed, a further qualitative phase may be conducted with representatives of the media (eg. environment correspondents from each capital city newspaper) to explore these trends further and possibly identify any institutional influences.

An online assessment of Australian and key international bird-related websites such as ornithological societies, will be conducted in order to gain an understanding of how threatened birds and issues relating to their survival, eg threats, are portrayed to the public through key messages.

It will also be useful to examine economic variables. Direct measures of economic value to the Australian community of birds in general and possibly of particular species or groups can be gathered. For some species there may be existing human uses for which direct dollar values can be obtained, for example the income generated

by birding tour operations, equipment used in birding ventures and related markets. These markets and products in turn link to a range of different kinds of social values – aesthetic, symbolic, spiritual/religious, existence, bequest etc.

4. Qualitative phase – part 2 (2011-2012)

A small number of key species will be identified for further qualitative case study analysis. By conducting a historical review for each of these identified birds it will be possible to tease out significant characteristics in terms of political decision making, trigger events and social attitudes which have led to their status as a key or iconic threatened species, as well as their projected recovery success. Combined with findings from the earlier research phases, these case studies will provide an invaluable insight into the social and institutional forces at work in threatened bird conservation and will inform future conservation activities.

Research innovation

This research is of national and global importance for several reasons. These are mainly that: this is the first time for any fauna in the world where the social environment within which threatened species conservation is occurring is being explored; although the biological correlates of threat tendencies have been explored, the social environment has never been examined for any jurisdiction and yet it is often factors such as this which strongly influence recovery success; the comparative social value of threatened species appears never to have been explored in the scientific literature despite its influence in conservation decision-making; and the status of rarity has been linked to increased threat of extinction but its influence on probability of persistence has never been explored.

As far as we are aware this research is novel globally and although it has the focus of threatened birds in Australia, the approach will be transferable to other countries and other species.

Funding

I will be applying for either an APA or UPRS scholarship to provide me with an essential financial stipend. The research methodology necessitates fieldwork within Australia which will be conducted using on-line technologies but also through face to face interviews and group discussions. This will inevitably involve a financial cost in terms of travel and accommodation as well as recruitment and interview costs such as incentive payments, purchasing of software subscriptions or other similar methodological requirements. I believe this research has broad appeal due to its scope and innovation. I will therefore apply to a range of funding sources for additional funding to ensure I can conduct my fieldwork to the best advantage. In addition I hope to attend relevant conferences to present posters and papers on my research and participate in networking opportunities. I will apply for travel grants and make the most of subsidised costs wherever possible.

References

Albrecht, G., Sartore, G. et. al. 2007. Solastalgia: The distress caused by environmental change, *Australasian Psychiatry*. Vol. 15, Special Supplement, pp. 95-98.

- Garnett, S.T., Crowley, G.M. and Balmford, A. 2003. The Costs and Effectiveness of Funding the Conservation of Australian Threatened Birds. *Bioscience*, 53: 658-65.
- Kellert, S. 1980. Knowledge, Affection and Basic Attitudes Towards Animals in American Society. US Government Printing Office: Washington DC, USA.
- Kellert, S.R. and Clark, T.W. 1991. *The Theory and Application of a Wildlife Policy Framework*. Pp17-36 in W.R. Mangun (ed.), Public Policy Issues in Wildlife Management. Greenwood: New York, USA.
- Prescott-Allen, C. and Prescott-Allen, R. 1986. *The First Resource*. Yale University Press: Newhaven, USA.
- Steinhoff, H.W. 1980. *Analysis of Major Conceptual Systems for Understanding and Measuring Wildlife Values*. Pp11-22 in W.W. Shaw and E.H. Zube (eds.), *Wildlife Values*. US Forest Service: Ft. Collins, CO, USA.