Theoretical Framework
Threatened species management:

- **wildlife policy framework**
- interactive relationships
- information, values & efforts

Biophysical; socio-structural; **valuational**; institutional/regulatory
  (Kellert & Clark 1991)

Economic, ecological & **socio-psychological**
  (Steinhoff 1980)
General public is also interested in wildlife management:

- recreation & tourism choices
- response to human-wildlife conflict
- wildlife diseases
- concern for environmental sustainability

Social science perspective:

- person’s values towards wildlife

  - thinking & behaviour in wildlife situation

(Manfredo 2008, Who Cares About Wildlife?)
Wildlife management involves understanding & dealing with people:

- deeply rooted in biological disciplines
- integration of social sciences occurring slowly
  
  e.g. human-wildlife relationships

- wildlife management priorities
- decision making processes

(Manfredo 2008, Who Cares About Wildlife?)
Established social science methods used since 1970s

- practical concerns of wildlife management profession (USA)
  - worth of wildlife to profit driven society
    - wildlife values = conservation costs
      - economic & social benefits from wildlife

(Manfredo 2008)
Value: ‘relative worth, merit or importance’ of something:

- cannot be observed directly
  - expression in the form of attitudes & behaviours

Values are critical:

- personal goals: good & bad, right & wrong
  - interpret events and information
  - across situations & events
Values: Attitudes: Behaviours:

- **culture and society**
- **values**
- **general beliefs/worldviews**
- **specific beliefs/specific attitudes**
- **behavioral commitments & intentions**
- **behaviours**

Cary et al 2000

- Enduring
- Changeable
Empirical, Socio-psychological Approach

- Interviews with representative samples
  - “Why is wildlife important to you?”

- Fixed response survey items developed (Likert scale)
  - Multiple items for common themes = value

- Surveys administered to larger samples
  - Factor/cluster analysis techniques

- Resultant groupings labeled = value typology for concept of interest
  - Theoretical explanations developed

(Manfredo 2008)
### Kellert’s ‘Typology of Wildlife Attitudes’

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>aesthetic</td>
<td>physical appeal/beauty of nature</td>
</tr>
<tr>
<td>dominionistic</td>
<td>mastery/physical control/dominance of nature</td>
</tr>
<tr>
<td>ecologistic-scientific</td>
<td>systematic study of structure, function, relationship of nature</td>
</tr>
<tr>
<td>humanistic</td>
<td>strong emotional attachment/”love” for aspects of nature</td>
</tr>
<tr>
<td>moralistic</td>
<td>spiritual reverence/ethical concern for nature</td>
</tr>
<tr>
<td>naturalistic</td>
<td>direct experience/exploration of nature</td>
</tr>
<tr>
<td>negativistic</td>
<td>fear/aversion/alienation from nature</td>
</tr>
<tr>
<td>symbolic</td>
<td>use of nature for language &amp; thought</td>
</tr>
<tr>
<td>utilitarian</td>
<td>practical /material exploitation of nature</td>
</tr>
</tbody>
</table>

- **1976 - 1993**
- **9 perspectives of nature**

**Socio-psychological framework**
- affective cognition
- evaluative perceptions
- no links

**4,000 Americans, 48 states**
- diverse taxa
- human groups
- cultures
- across time

*Manfredo 2008*
“What began as merely the object of describing variations in people’s perceptions of animals gradually emerged as the possibility of universal expressions of basic human affinities for the natural world...”

Evolutionary advantage
“...(this) suggests the distinct possibility that these categories might very well be the reflections of universal & functional expressions of our species’ dependence on the natural world...”

Conservation ethic
“...this deep dependence on nature may constitute the basis for a meaningful & fulfilling human existence – that is, how the pursuit of self-interest may constitute the most compelling argument for a powerful conservation ethic.”

(Wilson & Kellert 1993, The Biophilia Hypothesis)
Research Questions

Q. How do Australians value native birds?

Q. Who is involved in threatened bird conservation, how do they communicate their messages & what information do they rely upon?

Q. Do the values held for particular threatened birds affect the success of strategies to conserve them?
“Increasing the effectiveness & efficiency of Australian threatened bird conservation”

Prof Stephen Garnett (SER, CDU), Prof Hugh Possingham (UQ)

Birds Australia Threatened Species Committee

Australian Wildlife Conservancy

Biosis Research

DEWHA

biophysical & institutional/regulatory features

metrics of social value & public profiles of Australian native birds

updating the Action Plan for Australian Birds 2000

(Garnett & Crowley 2000)
Objectives

- Assist ARC project:
  - develop & apply metrics of social value
  - assess social & other values’ influence on effective conservation

- Guide investment in public outreach & threatened species management:
  - links between publicity & conservation performance

- Most effective conservation messages
Importance of Research

Research on attitudes to nature & wildlife occurring across the world

first time for a national avifauna

where overall social environment within which threatened species conservation is occurring

being explored systematically

Although biological correlates of threat tendencies explored

social environment never examined in detail by jurisdiction

often social factors strongly influence recovery success
How one species is valued socially above another

never explored in scientific literature

despite influence in conservation decision-making

Status of rarity

linked to increased threat of extinction

but influence on probability of persistence never explored
Birds are significant to the natural world:

- maintenance of biodiversity through ecosystem services
- well studied & act as indicators of wider biodiversity values
  - species endemism at various ecological levels
  - concentrations of other species such as fish or insects
  - indicators of major threats (canary in coalmine)
Birds contribute significantly to human societies & economies:

- development of human culture & understanding of ourselves
- significant role in arts, humanities & science
- birdwatching & bird tourism contribute significantly to local economies
- membership of birding organizations increasing (2010: BA 8,000; RSPB 1 million)
Why Birds in Australia?

Australia is important for birds & biodiversity

803 bird species (312 endemic)

Globally important for migratory waterbirds, shorebirds & seabirds

1 in 5 species threatened (108)

2 in 3 species in long-term decline (Dutson et al. 2009)

Threats:
- side effect of human activities
- complex global social systems

Source: 2010 - EPBC Act (1999)

108 threatened birds
(total 803 native birds)

- near threatened
- vulnerable
- endangered
- critically endangered
Methods
Methods

- Social science, interpretive/phenomenological enquiry

- Respondents operating within & influenced by social constructs

- Understand, interpret & draw insight from human behaviours

- Human-Animal Studies:

  ‘...value-formed inquiry that informs the positions of advocates on either side of issues relating to our treatment of animals’

  (Shapiro 2008, Human-Animal Studies: Growing the Field, Applying the Field)
Research Outline

- Literature Review
- Stakeholder Analysis
- Dataset & Survey
- Case Studies
Q. Who is involved in threatened bird conservation, how do they communicate their messages & what information do they rely upon?

- what types of value orientations are associated with effective conservation policies?

- who are the stakeholders involved in threatened bird conservation, what are their values & whose values count?

- what values do bird conservation organisations portray to policy makers & the public?
Stakeholder Analysis (2010)

Identify experts & professionals

Conservation: roles & actions

Arenas of power & power analysis: values more widely adopted, values most important

Chains of communication, methods of communication, information & values communicated
Quantitative Phase Dataset (2010)
Q. How do Australians value native birds?

- which native bird species, including threatened birds, are known to the Australian public?

- which native bird species are valued most widely across Australian society & what values do they hold?

- what values do native threatened birds hold, how do they compare with those of native Australian birds in general & what can we understand from this?

- what values do particular species of native threatened birds hold to Australian society on a local, regional, national or international scale?
Kellert’s Typology of Wildlife Values + Campbell & Smith (2006)

11 values → Measures & projects → Social profiles
Quantitative Phase
- Attitudinal Survey
(2010 – 2011)
Collaboration with Birds Australia staff, programs & funding

Species most widely valued, values most strongly held

Values portrayed in BA messages, conservation action
Qualitative Phase
- Case Studies
(2010 to 2011)
Q. Do the values held for particular threatened birds affect the success of strategies to conserve them?

- Is the perception of rarity (something is remarkable or valuable because rare) alone sufficient to drive attitudes & behaviour that lead to effective conservation action?

- Which rarity characteristics are important to conservation?

- Which significant characteristics in terms of political decision making, trigger events & social attitudes lead to a species’ status as a key or iconic threatened species?

- Is use of flagship threatened birds conducive to educating the public about broader conservation issues & if so which species are most effective?
Objectives of the Case Studies

Six case studies, key threatened species, around Australia

Framing of issues by major stakeholder groups

Social & institutional forces at work in threatened bird conservation

Inform future conservation activities (ARC project)
Case Study Analysis

- Stakeholder interviews
- Identify values & attitudes
- Media analysis
- Document analysis

Grounded Theory methods (Glaser 1999)

- Exploratory phase to identify species candidates
- Multi-dimensional operational criteria
- “Maximum variation” (Patton 1990)

- Qualitative in-depth interviews & group discussions
- Content analysis
- Practical considerations
Approach the question of values from three different angles:

- stakeholder analysis
- quantitative dataset & survey
- qualitative case studies

Gather significant data on how Australians value native birds

Understand which values & attitudes count in conservation of threatened birds in Australia
Timeline

- **Jan 2010**
  - period of candidature: Jan ‘10 to Jan ‘13
  - dataset: Jan ‘10 to Sept ‘10
  - literature review: Jan ‘10 to Jan ‘13

- **Jan 2011**
  - survey: Oct ‘10 to Apr ‘11

- **Jan 2012**
  - case studies: Oct ‘10 to Dec ‘11

- **Jan 2013**
  - thesis write up Jan ‘12 to Jan ‘13