BIRDWATCHING TOURISM IN AUSTRALIA

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This report is one in a series comprising a status assessment of wildlife tourism in Australia. It comprises the initial stages of research undertaken by the Wildlife Tourism Subprogram of the CRC. Reports in this series cover various disciplinary perspectives (visitors, economics, hosts, wildlife management) as well as various subsectors (such as zoos, bird watching and hunting). Together, the reports identify the current status and key issues facing Australian wildlife tourism, and make recommendations to enhance its sustainability.

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EXECUTIVE SUMMARY

Birdwatching is a major component of wildlife tourism and is one of the most rapidly growing pastimes in the Western world. Significant numbers of inbound tourists visiting Australia do so in part or primarily to watch birds. Although the economic, recreational and social significance of birdwatching has been recognised elsewhere, virtually nothing is known about this form of recreation or its importance within tourism in Australia. This review attempts to provide an initial description of the characteristics of birdwatching tourism in Australia and to discern its main constraints and challenges.

Birdwatching tourists tend to be well educated and many are relatively affluent. Those visiting Australia are often highly motivated and well prepared. They tend to be either: singles or small groups travelling in and acting almost completely independently; or are limited by time or local knowledge and therefore more likely to join a tour. We discerned four categories (based on motivation and willingness to pay): General birdwatchers (mainly casual); Specialist birdwatchers with restricted budgets; Specialist birdwatchers willing to pay to see more birds; and Specialist birdwatchers requiring packaged birding. The specialists may visit a large number of locations but by far the largest numbers are concentrated in North and Far North Queensland.

At present, we do not know the dimensions of the economic impact of birdwatching tourism; this is a major research priority. However, as the birding industry grows worldwide, increasing numbers of tourists seeking to access our many endemic species are likely to arrive in Australia. The major constraints to the growth of the industry here are: access to many locations and a lack of accommodation is such places; the relatively large travelling distances necessary; the climatic discomforts of heat and humidity; and the paucity of specialised guides and tours for large areas of the country.

Birdwatching tourism is, in many ways, distinct to other forms of nature-based tourism. Operators need to be aware of these characteristics and will need to use the information networks already used by the birdwatching community for marketing and promotion.

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1. INTRODUCTION

This report is one in a series that, in combination, comprise an initial assessment of the status of wildlife tourism in Australia. The focus of this report is on the characteristics of birdwatching tourism.

Birdwatching is an extremely significant component within nature-based recreation. In the USA, 'birding', as it is now known, is one of the fastest growing pastimes (Adams *et al*. 1997); about 20-35% of respondents to a large survey of recreation activities state that they regularly watch birds, while the main birding association recently doubled its membership in a single year (Adams *et al*. 1997). In Australia, there appears to have been a similar growth in interest and participation in birdwatching. Although studies are yet to be completed here, key economic indicators (such as the sales of specialist field guides and top-range binoculars, and the proliferation of companies offering 'birding' tourism products) provide clear evidence of considerable growth in birdwatching throughout the 1990s (D. Jones unpublished data, Kelly 1987, McFarlane 1994). This reflects trends evident throughout the Western world; middle class, urbanised, predominantly European people, are increasingly becoming involved in birdwatching. The reasons for this are still being discussed (see Pasquier 1980, Goodwin 1991, Wheatley 1998) but the following features appear to be important in Australia:

- the low technical requirements and training necessary, at least at entry level (ownership and use of binoculars being the only essentials)
- the ubiquity of bird life in almost all environments (but especially in natural and scenic locations)
- the relative ease of detection and identification (compared to, for example, nocturnal mammals)
- a large 'collector's addiction' component: different locations have different birds (thereby encouraging travel to enhance a participant's 'list')
- the manifestation of a generic interest in conservation issues
- the intrinsic beauty and fascinating activities of the birds themselves.

The growth of this activity as a recreational pursuit has been accompanied by a related growth in a birdwatching tourism industry.

In Australia, as in many countries, the number of businesses providing specialist birdwatching or conspicuously including such activities within their itineraries has increased significantly this decade. Reliable estimations of the economic significance of this industry in Australia do not yet exist although numerous informants within the industry (e.g. R. Sonnenburg, K.D. Bishop) estimate that the industry is currently worth 'many millions' despite being in its infancy. Like many other aspects of this component of wildlife tourism (WT), however, such statements remain unverified. Indeed, planning for future development and marketing of this important sector is currently seriously impeded by a lack of reliable and applicable information.

Birdwatching tourism in Australia appears currently to be in a 'growth phase' with numerous small operators emerging in most large cities and large international birding companies including Australia in their packages or even setting up offices in this country (K.D. Bishop, pers. comm.). Obtaining detailed information about the scale and economic aspects of these activities is, however, extremely difficult. Suspicion of government regulators, a reluctance to divulge information regarded as sensitive and, in such cases, extreme 'territoriality' among operators, all seem to be widespread within the industry. On the other hand, there is also a general appreciation that industry-wide planning and marketing have largely been absent and that this has constrained growth in the sector. Therefore, an assessment of the status of the birdwatching industry in Australia is both necessary and timely.

The general objective of this review is to provide information and insights about the birdwatching industry in Australia that are relevant and appropriate to the industry itself. Three main aspects will be addressed:

1. **Characteristics**: What are the defining features of the industry in Australia in terms of the activities, the visitors and the wildlife?

2. **Obstacles to development and sustainability**: What are the main obstacles to growth and sustainability of birdwatching tourism in Australia?

3. **Opportunities**: How might these constraints be addressed? What might the future hold for the industry?

2. METHODS

The objective of this review is primarily one of description and the identification of key aspects associated with the three areas listed previously. Although much of the information detailed has been derived from primary sources and many of the findings have not been presented before, this review should not be regarded as being the end-product of fundamental research. Rather, the review is best seen as being descriptive of one specific segment of Australia's wildlife tourism industry.

The information presented here is based on material collected through face-to-face interviews and email questionnaires with birdwatching tour operators and their clients, as well as independent birdwatchers from throughout Australia. In addition, extended email exchanges were conducted with numerous international operators and clients. A total of 8 detailed interviews were conducted and 53 useable questionnaire replies were obtained.

3. THE ACTIVITY: BIRDWATCHING TOURISM IN AUSTRALIA

Among the millions of tourists visiting Australia each year are large numbers who regard the opportunity to birdwatch as either being an enhancement to their experience or as a major reason for their visit to this country. Among all visitors to North Queensland, for instance, about 20% had engaged in birdwatching (Moscardo 1997). Similarly, large numbers of Australian residents undertake internal travel in which watching birds is a primary objective.

The activities associated with birdwatching tourism will, at a basic level, consist of the following:

a. **Travel**. While birdwatching can occur virtually anywhere, birdwatching tourism typically involves travelling away from home to a birdwatching destination. This destination may be a particular location such as a well-known, bird-rich site (e.g. Cairns Esplanade, Lamington National Park or Kangaroo Island) or a specific habitat type (such as an area of wetland, rainforest or mudflat).

b. **Detection**. Apart from special situations such as those involving captive animals or where free-ranging birds are attracted to viewing sites (e.g. Currumbin Bird Sanctuary), most birdwatching tourism requires the detection of species living wild in their natural environments. Particularly valued sites are those where large numbers of species or particular species may be detected easily and predicably.

c. **Identification**. A primary skill of any birdwatcher is the identification of species. This activity clearly distinguishes a birdwatcher from a more general 'nature-lover' – applying a specific name to a bird detected in its natural habitat is possibly the most important component of the experience. Thus, situations where all or most participants cannot view the birds adequately to allow reliable identification will often be regarded as unsatisfactory. (However, in some circumstances, simply hearing a specific species' call may be acceptable, especially if the species is exceptionally elusive or sensitive to disturbance). Moreover, having all of the species publicly identified by a guide will also be viewed unfavourably.

d. **Observation**. For certain birdwatchers (the so-called 'twitchers' or 'fanatics'), detection and identification are entirely sufficient; once all possible species have been 'ticked', it is time to move on to the next location. For others, however, these activities are preferably followed by more prolonged observation of the birds. This may involve careful stalking, attempting to locate nests or display areas, and detailed note-taking. Other, more focused activities may include photography, audio recording and even art work, although such activities are relatively rare among most birdwatching groups.

4. THE VISITORS: WHAT ARE BIRDWATCHERS LIKE?

Unfortunately, birdwatching and birdwatchers have traditionally been burdened with a particular stereotypical set of features (such as that of young single males with a tendency to be travelling alone). Recent studies, however, indicate a much more complex picture. For example, birdwatchers are now equally likely to be of either sex in both the USA and North Queensland (NQ) (Adams *et al*. 1997, QTTC 1998). They are also likely to be somewhat older: the average age in the USA was 56 while people older than 40 years dominated the NQ sample.

Many studies have confirmed that birdwatchers are a well educated and affluent market. Almost 75% of USA and 40% of Australian birdwatchers had achieved degree level education or greater, and more than a third were in the highest income category ($60,000+) (Kellert 1985, McFarlane 1994, QTTC 1998).

The tourism literature has made much of the apparent polarity between two distinctive groups: generalists, who in the case of birdwatchers, are people mainly interested in birds as one part of the natural environment, and specialists (often called fanatics, or 'twitchers') are highly motivated to see larger numbers of new species and to search for specific 'high-value' species in specific locations (Boxall and McFarlane 1993, QTTC 1998). As with many such convenient dichotomies, however, the reality is far more complicated. Nonetheless, clear groupings are evident among birdwatching tourists. Despite the complexity, however, it is crucial that the industry understands the motivations, needs and expectations of these groupings.

With the recognition of the growing significance of birdwatching as an economic, recreational and social force in American society (see Kellert 1985, Appelgate and Clark 1987, Burger *et al*. 1995), considerable effort has been expended to discern the characteristics and motivations of birdwatchers. Decker *et al*. (1987) proposed that people involved in wildlife-related recreation were not motivated by specific, single aspects but by a combination of three main features:

1. **Affiliation**, where participation was based on the enjoyment of being with like-minded companions;

2. **Achievement**, where competition or performance were key motivations; and

3. **Appreciation**, where participants sought stress reduction, a sense of peace, belonging and familiarity through their involvement.

These three goals have been clearly identified among birdwatchers and have recently been assessed with respect to level of specialisation – casual, novice, intermediate and advanced (McFarlane 1994). McFarlane (1994) found that, while most birdwatchers maintained each of these motivations, the importance of each differed with respect to level of specialisation. The more advanced were oriented toward achievement while the less specialised were more motivated by appreciation. In addition, McFarlane (1994) discerned an additional motivation of considerable significance to birdwatchers:

4. **Conservation.**

Interestingly, this goal was much more prevalent among the less specialised; advanced birdwatchers had the lowest conservation orientation of any level, a finding of direct relevance to this subject (see Wilkes 1977, and 7.7 Birdwatching Tourism: Effects and Conservation).

Another important finding of the McFarlane study was that for birdwatchers at all levels of specialisation, affiliation – participation based principally on social goals – was not a primary motivation. This is one of the important distinctions between birdwatching and other forms of wildlife-related recreation; although individual participants tend to re-orientate their motivations from achievement to appreciation as they become specialised, affiliation remains a major influence among non-birdwatchers (Bryan 1979, Decker and Connelly 1989, McFarlane 1996).

In a more recent study, McFarlane and Boxall (1996) related the four levels of specialisation among birdwatchers with a strong correlation between level and tourism activities undertaken. For example, the most advanced (comprising mainly the specialists) undertook

birdwatching trips every year and these were further and more expensive than birdwatchers of lower levels.

The study also drew an important distinction between birdwatching as a pastime or hobby and birdwatching tourism. Because of the features that attract many to become involved in birding (e.g. inexpensive, low skill requirements, ubiquity and ease of identification of birds; see above), the economic activities of people may be very different when pursuing their interests locally compared to when they travel. This seems to be a key aspect of birdwatching tourism (see also Davis *et al*. 2001).

In a recent investigation of visitors to North-Far North Queensland, Moscardo (1997) found that birdwatchers were more likely than non-birdwatchers to be international visitors and to be travelling as part of an organised group or club. She also discerned that the following motivations were significantly more important for birdwatchers compared to non-birdwatchers:

- Being close to nature,
- Seeing marine life, and
- Using the experience as a learning experience.

Birdwatchers were less likely to value their travelling experience in terms of: 'a chance to relax'; 'indulging in luxury'; or 'being entertained or simply having fun' (Moscardo 1997).

From the birdwatching industry's perspective, birdwatching tourists in Australia tend to be either:

a. **Independent travellers seeking unguided encounters.** These tourists typically travel entirely independently, using their own transport or the existing travel infrastructure. The economic significance of this group will depend upon the geographical scale of their travel plans and their preferred standard of accommodation (see below); they are, however, likely to be numerically the largest category of birdwatchers. The more motivated within this group tend to be extremely self-motivated

and well prepared, having used the extensive birding networks and contacts to prepare an extensive itinerary. They tend to operate entirely outside the industry except when they are constrained by time and may join a specific tour.

b. **Birdwatching tourists requiring some assistance**. These include both domestic and international birdwatchers whose travel expectations revolve largely or entirely around birding. Although they may often be very well prepared, with an intimate knowledge of the birds they seek, they do not have the time or ability to organise transport or accommodation in the numerous locations they wish to visit. These people are, therefore, reliant on companies and operators who are able to provide these services.

Here we propose four categories of birdwatching tourist that may be useful in terms of understanding levels of involvement with the industry. This categorisation is based on level of specialisation, motivation and logistical constraints (mainly, time limitations). In terms of the generalist/specialists dichotomy, the first category (the 'generalist birdwatcher') includes all casual/generalist birdwatchers while the other three categories are all specialist types with the further distinction being based on their willingness to pay for particular services. It should be emphasised also that categorisation is based on a person's general behaviour during a tourism activity; it is not a characteristic of a person.

1. **General birdwatchers.** These are casual or low-motivation birdwatchers who are likely to be equally interested in pursuing other forms of nature tourism and outdoor recreation while on holidays. Such people are equally likely to visit a cultural site, take a group tour of a reserve or whale watching trip, or visit a zoo or bird park. Birds may be a particular interest but are not the sole or primary source of satisfaction. Tourists within this category are unlikely to participate in a specialist birdwatching trip but would be among the keenest participants in a group WT experience. General birdwatchers typically travel in family parties and their private bird aspirations may have been subsumed into more family-orientated objectives. Thus, given an opportunity to travel alone or with like-minded birders, people normally acting as generalists may move into one of the more specialist categories.

'Generalists' are always likely to be the most numerous tourists involved in birdwatching, typically participating in a variety of activities where birds may be a highlight or bonus. They are less likely, however, to undertake expensive birding trips, engage birding guides or undertake independent trips in search of key bird species.

2. **Specialist birdwatchers with restricted budgets.** This category, the first of the specialist groupings, includes moderately to highly motivated birdwatchers who are seriously constrained in their activities by financial resources. Such people are often young singles or couples, travelling alone and independently. Like all specialist birdwatchers, people in this category will have made extensive use of the many information resources available (see 4.1 Sources of Knowledge) in order to research their itinerary and birding objectives. Such people often exhibit remarkable skills at being able to stretch their limited budgets and are frequently part of extensive networks of like-minded birders exchanging ideas and suggestions about how to see the more interesting/most birds for the least expense.

By definition, the activities of people in this category will be limited by budget considerations. Therefore, although they may hire a car and stay at hotels, these will tend to be at the cheapest available and limited in duration. They are unlikely to use specialist guides or stay at 'eco-resorts' though they may spend limited time at specialised bird lodges (see 4. Specialist birdwatchers requiring packaged birding). Nonetheless, being avid birders, people in this category will often forego comforts and withstand some hardship (such as those associated with long trips and low-standard accommodation) in order to achieve their birding goals. These tourists are, therefore, unlikely to spend large amounts on specialist birding products unless they provide a particularly valuable outcome. Most birding guides and tours will simply be beyond their purse.

Nonetheless, being committed to the quality of their birdwatching experience (rather than 'peripheral' concerns such as high accommodation or travel standards) and with less time constraints, these tourists (like many 'backpacker' tourists, with whom they share many characteristics) are likely to make a remarkably large overall

economic contribution than other more affluent travellers (see Davis *et al*. 2001).

3. **Specialist birdwatchers willing to pay to see more birds.** The defining characteristics of this category are time-efficient birding but without the financial constraints of the previous category. While almost all tourists (except, perhaps, some backpackers) usually have serious time constraints, people in this category seek to minimise all non-essential non-birding time. These birdwatchers may often have larger disposable incomes but some will also be less well-off but determined to maximise their experience in the time available. Thus, people in this category tend to be willing to pay a reasonable price for a specific birding objective and therefore may, in some cases, be willing to substitute some comforts for more birds. However, these will probably be in the minority; more likely, this category will include a majority of people expecting certain standards of accommodation and travel (although their motivation to see certain birds may allow some compromises).

People in this category are the most likely to seek out and hire specialist guides in certain well-known birding locations and to join birding tour groups where the focus of the product is clearly on efficient birding. They will typically be extremely well prepared and will make decisions about products and operators based on considerable research, both formal and informal. They are likely to be less critical of the non-birding aspects of their experience provided the birding met their expectations.

4. **Specialist birdwatchers requiring packaged birding**. This category tends to include both the well-off as well as the 'insecure': those birdwatchers seeking a very efficient birding experience through the guidance of well trained and specialised guides. Normally, participants in this category would also expect high standards of accommodation and travel comforts, as well as reasonably personalised treatment.

The main product sought by people in this category is a carefully planned and executed birding package, specifically emphasising the quality of both the birding and the accommodation and associated aspects.

"We are avid birdwatchers who want to get the largest number of birds for any reasonable price. We may be relatively poor but we know what is important in life!"

US birdwatcher

The categorisation provided here suggests that birdwatching operators should mainly be targeting the various levels of specialisation among this client base. The more casual or generalist birdwatchers are likely to seek more generic, less-specialised tourist experiences. In contrast, all specialist birdwatching tourists may be expected to seek products providing the most efficient (i.e. more birds per dollar) experience. Most of the people regarded as specialists will be well prepared and have fairly high expectations of the numbers and type of species they are expecting for particular locations. Many will also expect certain standards of accommodation and travel, although there will be some quite willing to compromise certain comforts for the chance of seeing particularly 'valued' species.

Operators should be keenly aware of the willingness of some birdwatchers of apparently moderate means to pay reasonable amounts provided there is a good chance of seeing certain birds. Honestly promoting a 'more birds per dollar' product is likely to be extremely attractive to many category 3 birdwatchers. On the other hand, word-of-mouth information exchange is now so efficient that advertising hyperbole is likely to be rapidly exposed within birding networks.

4.1 Sources of Knowledge

The QTTC (1998) study found that birdwatchers were more likely to research their travels in great detail during the planning of the trip compared to other categories of tourist. Information was obtained from a variety of sources but these had to be regarded as reliable. In particular, the word-of-mouth advices of knowledgeable friends, as well as the use of established networks of other birdwatchers, were primary sources of information (see 7.6 Information, for further discussion).

Moscardo (1997) identified a clear curiosity or learning motivation among birdwatching tourists compared to non-birdwatchers. Her study indicated that birdwatchers sought and used interpretive

materials and often had extensive experience of such material from many different countries. As a result, it is very likely that their expectation of the quality of any interpretive material will be high. Thus any such material provided by operators should be both high quality and informative. Therefore, we may assume that birders, as a self-motivated, well-prepared clientele with a keen interest in their pastime, will expect high standards of both presentation and content.

4.2 Birdwatchers Expectations

This question inevitably includes various levels of detail, all of which are of potential interest to operators. For example, birdwatchers at all levels mention that a very significant reason for their participation was 'being close to nature' (Adams *et al*. 1997) or that 'learning about nature enriches my life' (QTTC 1998). These could be regarded as fundamental expectations: birdwatching is concerned with an intimate natural encounter with wild birds and involves some level of learning and or experience. One implication of this fundamental expectation is that certain circumstances or contexts may seriously erode or neutralise the experience. These might include highly artificial or obviously manipulated conditions, unpleasant or 'unnatural' settings, etc.

For many birdwatchers, expectations will relate to the extent to which a particular location provides the diversity or particular species associated with it. This will be especially acute with the more specialist birdwatchers where the number of new or noteworthy species may be the most relevant expectation.

Two of the more salient characteristics of birdwatching tourists from all levels regarded as specialist (levels 2, 3 and 4) are: (1) the objective of seeing the largest number of species within the time-frame of their travelling experience, and (2) the desire to see extremely specific species at a particular location. In most cases, expectations will be based on a variety of sources of information including published lists, word-of-mouth experiences, and the information provided by operators and guides. The quality and reliability of these sources can vary enormously, which may be a serious cause of dissatisfaction for the birdwatchers. In particular, many tourists report that they felt misled by some of the material provided by their tour operator. The

main reason for this frustration seemed to relate to unfulfilled expectations of both the number of species that could be seen on any trip, and the probability of seeing specific species. For instance, a particular operator may want to advertise the fact that a given number of species or a key species may be encountered on a certain trip.

5. THE WILDLIFE AND ITS HABITAT

Regardless of their level of motivation, birdwatching tourists considering visiting Australia (or residents considering a birdwatching tour within the continent) will probably be aware of the following (data from Wheatley 1998):

- About 8% of the world's bird species occur in Australia, a relatively low proportion compared to other continents and locations:

LOCATION	NUMBER OF SPECIES	% OF WORLD TOTAL
South America	3083	32
Asia	2689	28
Africa	2313	24
New Guinea	1296	13
Australia	**800**	**8**

- The Australia avifauna has, however, a notably high level of endemism (i.e. many of the species are found nowhere else): 313 species (exceeded only by Indonesia with 338) and 5 families are endemic (including the Emu, Plainswanderer, lyrebirds, scrubbirds, Chough and Apostlebird).

- Regions with concentrations of restricted-range species have been recognised internationally as Endemic Bird Areas (Wheatley 1998). Australia has nine of these EBAs:

    - Kimberley and the Top End
    - Cape York
    - Atherton Tableland
    - Southwest Australia
    - Murray-Darling Region (and adjoining coast)
    - Southeast Australia

    - Tasmania
    - Norfolk Island
    - Lord Howe Island.

- Australia is the best place to see the largest number of species of megapodes, cockatoos, owlet-nightjars, Australo-Papuan warblers, honeyeaters, Australasian robins, whipbirds, quail-thrushes, bowerbirds and woodswallows.

- Australia is particularly rich in albatrosses, petrels, shearwaters, cormorants, buttonquails, oystercatchers, plovers, pigeons, parrots, kingfishers, and monarch flycatchers.

- Australia is a safe and organised country (it is fairly easy to travel independently).

- The country is huge and travel times may be great (most people will have limited time and money and will only be able to visit a selection of locations).

- The country has a relatively small population but a very high level of urbanisation (most people live in a few large cities, which are the normal starting points for most tours).

- Information about birding locations are widely and freely available from a variety of sources (highly motivated birdwatchers conduct their own research as they plan a trip).

These features highlight two key elements of this sector:

1. Birdwatching is a serious and passionate recreational activity for a significant number of people in many (mainly Western) countries; and

2. It is an activity which is greatly enhanced and enriched by travel. Indeed, for all but novice birdwatchers, travel away from their homes is an essential element of their pastime; to see new birds one must travel to new places.

From an economic perspective, birdwatchers become birdwatching tourists when they embark on travel that takes them away from the locations they know well and where time limitations (primarily) restrict the amount of time available. Birdwatching tourism products, therefore, will attract international clients more readily than locals but will attract Australian birdwatchers who are far from home.

5.1 Birdwatching Locations

Birdwatchers travel specifically to see birds and are therefore attracted to locations where either the biodiversity (i.e. large numbers of species) or the chance to see particular species or groups is high. They do not typically travel to places of unknown birding status and are, therefore, likely to be very well informed.

All large cities (the points of arrival for all international visitors) have a number of locations nearby (typically less than 100 km from the city) which may be accessed privately or with a local guide (Wheatley 1998). Indeed, these small-scale day or half-day excursions are the main business of a large proportion of the smaller birding guides operating in the country. However, here we discuss the main birding sites away from the larger cities.

5.1.1 The main locations

In Australia, most inbound birdwatchers are attracted to a relatively small number of favoured locations. The most important of these major locations are:

- *Far North Queensland* (including the Cairns area, Atherton Tablelands, Cape York (especially Iron Range) and the Daintree region),

- *Kakadu* (primarily Kakadu National Park but also other locations in the area),

- *Broome* (primarily the coastal areas which support enormous numbers of migratory shorebirds),

- *Tasmania* (numerous locations and including certain Bass Strait islands), and

- *Lord Howe Island.*

The international status of these locations is based on both the diversity and levels of endemism of the species available (all are included in the list of Endemic Bird Areas given above), as well as their accessibility, the availability of accommodation and the number of birdwatching tours and guides able to service these locations. These locations are also the major destinations of Australian birdwatchers, for the same reasons.

Far North Queensland is by far Australia's premier birdwatching tourist destination. It has the largest number of private and organisational bird guides and more birding-orientated lodges and other establishments than any other region in Australia. This leading status is obviously based on the quantity and 'quality' of the birds available but is also associated with the other world-renowned features of this region. Huge numbers of tourists already visit the region for its natural features – the Great Barrier Reef and the World Heritage Wet Tropics Rainforest especially – as well as the highly successful indigenous tourism experiences and the general casual, healthy and outdoor lifestyle image. Tourists are already attracted to the region; adding specialist birding packages is likely to appeal to many of these people as well as to the more informed specialist birdwatching tourists. Special events such as Cape York Bird Week and the planned Tropical North Queensland BirdFest will certainly enhance the attractive potential of the area. In addition (and of great significance), a large number of the best birding sites are highly accessible. There are other sites around Australia with equal numbers of species but many are simply too hard for many tourists to travel to.

5.1.2 Secondary locations

A second category of sites is less well known internationally although they may be important sites locally. Most of these sites are included in the tour itineraries of some guides but distances, infrastructure, accommodation or other amenities remain as a significant constraint

to regular birdwatching tourism in significant numbers. Some of these locations include (see Wheatley 1998 for more details):

- Hattah Lakes in western Victoria
- Macquarie Marshes, western New South Wales
- Border Ranges, northern New South Wales
- Lawn Hill National Park in north-western Queensland
- Coorong National Park, South Australia
- Kimberleys (including the Mitchell Plateau), Western Australia
- South-west Western Australia
- Central Australia (northern South Australia and southern Northern Territory).

5.1.3 Bird observatories

An additional set of important birding locations are the observatories (and one reserve) owned and staffed by Birds Australia (formerly the Royal Australasian Ornithologists Union), Australia's national bird conservation and research organisation. Each runs courses and birdwatching tours with varying levels of support and visitor numbers. At present, only a relatively small proportion of the visitors to the observatories are international. These sites are:

- Gluepot Reserve, South Australia
- Barren Grounds Bird Observatory, New South Wales
- Broome Bird Observatory, Western Australia
- Eyre Bird Observatory, Western Australia
- Rotamah Island Bird Observatory, Victoria

5.1.4 Pelagic birding trips

A significant proportion of more specialised birdwatchers actively seek to observe and identify seabirds, an activity requiring specific logistical requirements. In most cases, seabirds are best observed well off-shore. In a small number of locations (trips to the Great Barrier Reef, far northern Queensland; Southport, southern Queensland; Sydney and Wollongong, central New South Wales; Eden, southern New South Wales; Port Fairy, Victoria; Port Augusta, South Australia; and Albany, Western Australia), local operators have organised birdwatching tours on privately chartered vessels to service a small but regular clientele (Wheatley 1998).

5.1.5 Other locations

There are many other locations throughout the country that are not well-known but are species rich or support specific species or habitats. At present, only a small number of specialist birdwatchers visit these areas. The potential for expanding the number of other such sites is vast, but will be dependent on access, marketing and the provision of accommodation or guiding services.

5.1.6 Birding lodges

Within the last decade there has also been a proliferation of specialist accommodation marketed as being close to or within particularly good birding sites. Some of these are also well-known in terms of general nature-based tourism (e.g. O'Reilly's Guesthouse, southern Queensland; Oasis Lodge, Carnarvon Gorge, central Queensland; Pajinka Wilderness Lodge, Cape York); these establishments also tend to provide resort-style accommodation and cater to the more expensive end of the market.

There are also numerous smaller establishments that target a smaller, more specialist birding clientele. These tend to rely on their proximity to excellent birding sites and many are associated with particular guides or run specialist tours and/or birdwatching programs. While many offer a high standard of accommodation and food, the primary focus of these lodges is on the quality of the birding accessible from the site.

6. THE HOST POPULATION

One of the most obvious aspects of the birdwatching industry to emerge during this limited study was the emphasis by birdwatching tourists on the economic efficiency of their birdwatching activities. For many, the objective is primarily one of seeing the largest number of new or different species in the most cost-effective manner. Such considerations are especially pertinent for those birdwatchers on a strict budget where the costs of air travel and accommodation are considerable. Such tourists are often reluctant to engage a guide or join what they regard as an expensive birding tour. However, for highly motivated birders, this attitude may be false economy. This point may be illustrated using the personal data of a private birdwatcher (R. Tkachuck) with extensive experience throughout the world.

Tkachuck (unpublished data) estimates that, for an average though motivated and experienced birder, seeing a new species in the USA costs about $75 (primarily due to the travel, accommodation and food costs associated with this pursuit). In contrast, birding in species-rich but relatively cheap and close countries such as Costa Rica, Ecuador or Peru (where seeing 300 species on a trip is possible) yields a figure of $8-10 per species. Birding trips to somewhere as distant as Australia must, therefore, be economically worthwhile; Tkachuck's data suggests that it is: a recent trip bagged 340 new species at a cost of $22-26 per species.

These basic calculations underlie the fact that, despite the expenses of travel from North America and Europe, for the committed birder it is economically worthwhile in terms of the primary objective of seeing new species.

However, what is far from clear is the economic importance of birdwatching tourism for the industry and community. In North America, several recent investigations have enumerated the economic impact of birdwatching on local communities in well-known birding locations (Kerlinger and Brett 1995). Despite considerable scepticism and even hostility during the early stages of development of these sites as major birding destinations, the economic benefits to the local communities – assessed as purchase of accommodation, meals and

fuel – was immense. The importance of transportation – primarily air travel to the destination, but also car hire and fuel – was the single largest component of nature-based tourism (Kerlinger and Brett 1995). For 'active' birdwatchers in the USA, Wiedner and Kerlinger (1990) estimated that more than half of their annual expenditure on recreation (which averaged US$1,850) was devoted to travel.

Kerlinger and Brett (1995) reviewed five studies of birding locations in North America and made the following estimation of annual visitor number and economic impact:

LOCATION	NUMBER OF VISITORS (PER ANNUM)	LOCAL INCOME (US$)
Cape May, New Jersey	100,000	$10 million
Hawk Mountain, Pennsylvania	53,000	$2.4 million
High Island, Texas	6,000+	$2.5 million
Grande Isle, Nebraska	80,000	$40 million
Point Pelee, Ontario	56,000	$3.2 million

Obviously, the scale of such economic activity is related to the relatively much larger size of the population of North America and the number of active birdwatchers. Nonetheless, the potential for substantial increases in birdwatching tourism in Australia is huge. The primary constraint, according to the conclusions of Kerlinger and Brett (1995), is the slow appreciation of the benefits to local communities (see 7. Obstacles to Development and Sustainability). Many businesses remain sceptical of these benefits and are typically unwilling to commit resources to the development of local infrastructure or services until the economic benefits are certain. The studies that provide this information for Australia have yet to be undertaken; this must remain a major priority for this component of nature-based tourism (Davis *et al*. 2001).

7. OBSTACLES TO DEVELOPMENT AND SUSTAINABILITY

7.1 Accommodation

Birdwatchers are a relatively adventurous market. Many are willing to lower their standards of accommodation provided the birdwatching experience is significant (QTTC 1998). Nonetheless, today even budget travellers and backpackers have certain minimum standards they expect of their accommodation. These include adequate supplies of clean hot water, space for privacy and suitable meals.

The standard of accommodation expected by clients goes up, of course, with the amount paid. Thus, birdwatchers purchasing expensive packages will obviously expect an appropriate quality of room and food. This is certainly appreciated by the international birding operators that now visit Australia as well as the many independent but well-off birdwatching tourists. Our survey obtained many negative comments (from both international and domestic tourists) about the standards of accommodation and food used in some non-metropolitan locations.

7.2 Travelling Distances

The Australian landmass is an entire continent and travel from place to place often requires significant amounts of time. This is especially a feature of birdwatching tourism where the key locations are frequently well away from the capital cities. Thus, visits to such places typically require extensive driving times from the main destinations used on flying itineraries. Moreover, different birding sites are often widely spaced and visits to more than one such location may necessitate multiple journeys to and from the major centres.

The time involved in land travel often surprises international visitors: Europeans are overwhelmed by the sheer distances, while North Americans (living on a similarly sized land mass) expect more cities and therefore a more detailed travel infrastructure than actually exists. These travellers also complain that the road system is much slower than those they are used to. Two features in particular are often mentioned. First, very few metropolitan freeway systems enable easy

escape from city traffic, thereby robbing tourists of valuable time as they attempt to escape the city in which they have just arrived (*'Getting through Sydney is almost a day's journey!'* US birdwatcher).

Second, according to many international visitors, Australia's interstate freeway system appears to be in a permanent state of construction. Not only do road works cause delays, the lack of multiple lanes in some areas can lead to greatly increased travel time. In general, many European and North American tourists indicate that long-distance road travel takes about twice the time they had expected.

7.3 Climate

Australia's climate is demonstrably milder and less extreme than much of North America and northern Europe, the home environments of most of our international visitors. Nowhere in Australia experiences the cold and winter conditions of the cities of, for instance, Scandinavia or much of Canada. Indeed, the humidity and diurnal temperatures of New York or Barcelona are very similar to those of Cairns and Townsville in mid-summer. Nonetheless, a number of aspects of Australia's climate do pose as important considerations for birdwatching (and all nature-based) tourists. The most important of these features are:

Discomfort due to extreme heat and humidity. Although the natural environments in which international visitors live may be similarly climatically extreme, most Westerners avoid discomfort by remaining for long periods in air-conditioned surroundings. Many are unused to non-air-conditioned vehicles or accommodation, and feel considerable discomfort when required to travel and sleep in hot and humid conditions. Although such conditions are often standard on many inland or tropical tours, they are usually unexpected for most international visitors and may contribute significantly to dissatisfaction with an otherwise successful trip.

Unpredictable and dangerous weather conditions. Australia's climate is highly unpredictable: seasons are often poorly defined; storms and other violent natural events may strike at any time; and flooding or fires can seriously disrupt long-term planning and tour schedules. While there is very little that can be done to alter this

situation, is does suggest that alternative arrangement – for travelling routes, accommodation and itineraries – need to be a normal part of all tour planning.

7.4 Guides and Products

Despite the proliferation of guides, birding companies, birding lodges and birding tours, there remain many locations and entire regions where very few facilities are available. Indeed, there are currently two contrasting characteristics of the industry in Australia (see above): the oversupply of products (primarily guides) in a small number of locations, and the complete absence of these in others. In practice, it is the latter that represents a major constraint to the birdwatching industry in Australia. For people seeking guides for an extensive birdwatching tour of Australia, two areas remain essentially unknown: central Australia (especially the region around Alice Springs), and the Darwin-Kakadu National Park area. Considering the huge scale of nature tourism in these areas, this represents a serious void. Although numerous large-scale operators do work in these areas, their obvious concentration on the generalist end of the market acts as a major disincentive to many highly motivated birdwatchers.

While the majority of guides and products are professional, personal and well presented, there are those that do not conform well to international standards. In the contemporary, word-of-mouth and internet networks in which many birdwatching tourists are involved, experiences of incompetence, uncomfortable accommodation, over-used sites, unethical practices and poorly prepared guides spread widely and quickly.

7.5 Ignorance of the Benefits of Birding

As described above, the economic benefits that flow from a vibrant birdwatching industry often seem far from obvious to local communities and businesses. Communities within rich birding localities appear often to be (understandably) more concerned about the negative impact of increased visitor numbers than with the numerous benefits that could accrue. Resistance to such scepticism is best reduced by careful and sensitive involvement of entire communities in the development of the resources required to enhance

the experiences of visitors. Extrapolation from recent studies from North America (see Kerlinger and Brett 1995) suggests that such development may take patience and time but properly planned, could yield significant returns to local communities.

7.6 Information

As should be clear by now, birdwatchers are extremely adept at using a variety of means and networks to obtain the types of information they require when planning a birdwatching tour. This is one of the key characteristics of this type of tourist (see above). Nonetheless, compared to many places around the world, the amount of information, the locations covered, and the reliability is often said to be inadequate (Wheatley 1998). Although access to extensive networks of guides and other birdwatchers through internet sources has recently become well known, many birdwatchers complain that much basic information is still unavailable. Many international birdwatchers often interpret this relatively poor information base as being indicative of the poor quality of ornithological information available for this country. This is, however, far from the reality; despite the small number of birdwatchers and the vast scale of the area, Australia has among the best geographical and ecological information on its avifauna in the world. For example, in the early 1980s, Birds Australia, among the oldest bird-orientated organisations in the world, published the first atlas of bird distributions for an entire country (Blakers *et al*. 1984). This massive effort is currently being up-dated by a huge team of largely amateur birdwatchers. Obviously, such information is not yet well-known among international birdwatchers.

There is also a major difficulty in obtaining information about other operators, guides and locations from within the industry. This is not unexpected in an industry such as this: sites supporting important, rare or unusually large numbers of species are valuable resources for guides and operators and a reluctance to share such information must be respected. However, there is also considerable insularity and often a major lack of cooperation among competitors that may actually be retarding the industry as a whole. For example, in places where many guides or operators are concentrated (Tropical North Queensland for instance), the combined resources for marketing would be an obvious advantage to all participants.

7.7 Birdwatching Tourism: Effects and Conservation

Although it might be assumed that birdwatching would be an extremely low-impact form of recreation, it is now evident that some activities can have serious negative environmental effects. This is an extremely well-studied field and the literature is now vast (see reviews in Knight and Gutzwiller 1995), although relatively little work has been conducted in Australia (an exception is Olsen and Olsen 1980). Detailed discussion of the impacts and influences of tourism activities on wildlife is being presented by Higginbottom *et al*. (2001); here is a summary of some of the main forms of negative effects relevant to birdwatching.

The negative effects of recreation on wildlife have been classified by Pomerantz *et al*. (1988) into the following six types: 1) direct mortality; 2) indirect mortality; 3) lowered productivity; 4) reduced use of refuge; 5) reduced use of preferred habitat on refuge; and 6) aberrant behaviour or stress. Virtually every form of recreational activity has been shown to adversely affect wildlife to some extent (see Boyle and Samson 1985) though the significance of the disturbance varies greatly among species and situations (Green & Higginbottom 2000). Indeed, although many claims are made concerning the possible or potential impact of human activities on wildlife, unequivocal evidence is surprisingly small in number. This is an area in which future research is needed.

Nonetheless, there are many clear situations where disturbance is directly and clearly related to reduced survival or reproduction in particular species (see Gill *et al*. 1996). Some such situations concern nesting birds of prey, colonial seabirds, and solitary beach-nesting shorebirds, as well as gulls and raptors during migration (Burger *et al*. 1995). The breeding success of these species are known to be affected by close approaches by people and many countries are currently discussing regulations to minimise disturbance (Richardson and Miller 1997).

Burger *et al*. (1995) have also identified particular features of birdwatcher's activities – as distinct from other forms of human disturbance – that are directly related to impacts on wildlife. These include:

- disturbances can occur at all times of the year (including breeding season, during migration, during wintering)

- approaching too close to nesting, roosting or migration lay-over sites

- disturbing birds at specific breeding, foraging and roosting sites

- overuse of taped vocalisations (causing possible disruption to bird's social organisation).

Other impacts include damage to habitats through trampling and clearing (to improve views), increased predation at nesting areas, increased pollution and littering in car parks and camping groups near favoured sites, and many others (Knight and Gutzwiller 1995).

Birdwatchers certainly believe themselves to be environmentally aware (Kellert 1985, QTTC 1998). It is not at all clear, however, whether this self-assessment actually translates into participation in conservation practice. One of the underlying outcomes of ecotourism is often claimed to be an enhanced conservation awareness, though this has rarely been assessed. One recent study from the USA, however, found that participation in conservation was predicted primarily by the level of specialisation of the people involved, with the most specialised being much more likely to be active participants (McFarlane and Boxall 1996). This study again emphasised the importance of level of specialisation and indicated that birdwatching programs that encouraged increased involvement and experience were more likely to have enhanced the conservation values of the participants. This is an important finding for operators working at the more specialised end of the market.

8. OPPORTUNITIES

There are many opportunities for the development and expansion of the birdwatching industry in Australia. We propose the following general areas as obvious starting points in an industry already growing.

8.1 Promotion

At present, almost all the information obtained by prospective birdwatching tourists comes from a small number of published sources (e.g. Wheatley 1998), contacts with ornithological organisations and websites, and via the vast informal networks that exist among birdwatchers worldwide. Although this is starting, birdwatching operators need to promote themselves and their products more effectively. This will involve, in part, the careful design of useful websites and frequent updating with relevant information.

8.2 Events

Australia hosts remarkably few ornithological events – larger-scale, organised meetings, camp-outs, conferences and conventions, where birdwatchers can meet, exchange ideas and news, and participate in birdwatching experiences. Among the exceptions is O'Reilly's Bird Week (now lasting almost a month), where birdwatchers travel to the famous Lamington National Park resort and enjoy intensive birding in extremely comfortable (and expensive!) surroundings. The opportunities for more such ventures are enormous but will be best for the industry if carefully coordinated. Already such activity seems to be underway: the bird guides serving the Atherton Tablelands of Far North Queensland have started planning a Bird Festival, as has Oasis Lodge near Carnarvon Lodge; and the Cape York Bird Week has been in existence for several years. Coordinated timing and mutual promotion will be essential to enhance benefits to the industry as a whole.

8.3 Cooperative Ventures

Currently, and not unexpectedly, there appears to be very little cooperation among birdwatching guides and operators (the proposed

Tropical North Queensland BirdFest is a notable exception). An obvious opportunity for the industry in a common area would be the formation of local alliances that would allow more efficient promotion and expansion of products.

8.4 New Locations

In terms of the number of potential excellent birdwatching sites, Australian birdwatching tourism has enormous potential for expansion.

8.5 Conservation Initiatives

The success of ventures such as EarthWatch and similar schemes in enabling tourists to become involved in meaningful scientific and conservation projects is an obvious opportunity for this industry. This will probably best be achieved through partnerships with key people from universities, local conservation groups and government agencies where volunteer assistance is very often welcomed.

9. RECOMMENDATIONS FOR ACTION

9.1 Development of Code of Conduct

Many operators are aware that their operations are carefully scrutinised by clients with regard to 'eco-friendliness', sustainable practices and ethical procedures. They are also aware that some of their competitors and colleagues are either ignorant of this or unaware of its importance. An industry Code of Conduct would be extremely valuable, especially if developed through the industry participants themselves.

9.2 Establish Links for the Exchange of Information and Views Among Operators and Guides

The CRC for Sustainable Tourism is committed to establishing and maintaining real links and relationships with tourism operators. Reports such as this (and the various forms in which the material contained are distributed) have been designed and written specifically for the industry; facilitating the exchange of views and ideas between researchers and operators is crucial.

9.3 Discuss Bureaucratic Constraints With Relevant Governments

A major obstacle to the development of the industry is the bureaucracy and costs associated with obtaining permits and permission. It is possible that government is unaware of the extent to which these requirements are constraining the industry.

10. RECOMMENDATIONS FOR RESEARCH

10.1 The Economics of Birdwatching

Numerous studies from North America have confirmed the enormous economic value of birdwatching to local communities and beyond. A study of the economic importance of birdwatching in Australia would be of great value.

10.2 Assessment of the Positive and Negative Effects of Birdwatching

Again, there has been considerable interest overseas in assessing the possible effects of birdwatching on the birds and environments in which they occur. Similar studies are needed in this country.

10.3 Appraisal of Constraints to Development of Birdwatching in Remote Areas

Many operators and visitors have indicated that there are large numbers of potential birdwatching locations in more remote areas of Australia. An assessment of the limitations and constraints to the development of these sites would be valuable.

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