



Birdwatching

An Annotated Bibliography

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**Dotterel
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1. INTRODUCTION

This is the first of a series of annotated bibliographies, published by Dotterel Publishing. A second annotated bibliography on seal watching, and a third on turtle watching are in progress, with more to come in the future. The aim of this series is to provide a comprehensive overview of the literature pertaining to specific touristic and leisure activities, in particular (but not limited to) wildlife viewing activities. These annotated bibliographies will aid researchers and other interested persons and organisations locate relevant literature.

The main part of this document is divided into two sections: The first section is a *reference bibliography*, listing works in alphabetical order. The second section is an *annotated bibliography*, adding short abstracts/summaries to most of the works listed in the first section, again in alphabetical order.

We have included references from a variety of sources, mostly from academic journals, books, theses and dissertations, conference proceedings and technical reports. While the majority of sources relate directly to birdwatching, we have also included some works on general tourism and recreational activities and the effects these may have on birds. We acknowledge that there are also numerous non-academic books and websites on birds and birdwatching; however, these would be virtually impossible to include in a systematic manner due to the sheer volume of these.

While this is an extensive bibliography, we do not claim it to be complete. In fact, we aim to regularly update this bibliography, and gratefully accept any suggestions for inclusion. Please email suggestions with publication details to dotterelpublishing@gmail.com



South Island Robin (*Petroica australis*) – Ulva Island, New Zealand

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New Zealand dotterel (*Charadrius obscurus*) – Stillwater, New Zealand

3. ANNOTATED BIBLIOGRAPHY

A

Authors: Adams, C. E., Leifester, J. A. and Herron, J. S. C.

Year: 1997

Title: Understanding Wildlife Constituents: Birders and Waterfowl Hunters

Journal: Wildlife Society Bulletin

Volume: 25

Issue: 3

Pages: 653-660

Abstract: This paper compares Texas birders' and waterfowl hunters' commitment to their recreational pursuits, attitudes concerning selected wildlife management practices, and opinions on alternative methods to increase monetary support for nongame programs. Similarities between Texas birders and waterfowl hunters included race, years of experience, why they participated, and what prevented them from participating more in wild-life-related activities. Differences between groups in age, gender, source of income, age of initiation, and social networks (e.g., birding companions) revealed that Texas birders represented a unique subset of wildlife enthusiasts. Moreover, Texas birders were highly committed to their pastime, spending almost 2.5 times the yearly amount spent by the waterfowl hunters in pursuit of birds, months in the field, trips, miles travelled, habitats, states, and countries visited, and organisational memberships. The findings also showed that birders did not perceive Texas Parks and Wildlife Department as an organisation that addressed their interests, i.e., they thought of wildlife management as benefiting primarily hunters game species in Texas.

Author: Angelo, H.

Year: 2013

Title: Bird in Hand: How Experience Makes Nature

Journal: Theory and Society

Volume: 42

Issue: 4

Pages: 351-368

Abstract: This paper utilised a dispute between American birdwatchers and ornithologists over scientific "collecting" (i.e. killing of birds) to investigate the processes whereby individuals come to know nature differently. In this paper "experience" was used as the unit of analysis. The author traced changes in each group's experience with birds over the past century; the phenomenology of the resulting encounters; and the understanding that emerges from each to understand (1) how, empirically, these two very different loves of birds are formed, and (2) knowledge of nature as an affective sensibility shaped by experiences of closeness.

Authors: Applegate, J. E., Otto, R. A. and Buttitta, J. A.

Year: 1998

Title: A Cluster Analysis of Appreciative Wildlife Users

Journal: Wildlife Society Bulletin

Volume: 10

Issue: 1

Pages: 65-70

Abstract: This paper used cluster analysis to classify participants in appreciative wildlife use at Brigantine National Wildlife Refuge (NWR) (a birdwatching destination) based on behaviour and knowledge. Findings showed that appreciative wildlife users do not constitute a homogenous group. Instead, users cluster into four different subgroups that seemingly depend on the degree of the involvement of users with birding. The paper argues that there is a dichotomy of visitors that were temporarily labelled “experienced birders” versus “inexperienced birders”. With additional categorisation in each of the dichotomised categories, experienced birders were divided into groups labelled “excellent” and “good”, while inexperienced birders were further categorised into “fair birders” and “non-birders”. Moreover, the findings showed that nearly half of the visitors in the study were classified as non-birders. The paper concludes that recognising the presence and relative sizes of subsets of visitors may help managers understand and satisfy their needs.

B

Authors: Ballantyne, R. and Hughes, K.

Year: 2006

Title: Using Front-End and Formative Evaluation to Design and Test Persuasive Bird Feeding Warning Signs

Journal: Tourism Management

Volume: 27

Issue: 2

Pages: 235-246

Abstract: This study utilised front-end and formative evaluation to design and examine the perceived effectiveness of ‘bird feeding’ warning signs. First, visitors’ attitude, beliefs, and bird feeding behaviour were examined. The findings showed significant differences between feeders and non-feeders. Then, three signs that built on the knowledge, beliefs and mis/conceptions which were identified in an earlier stage were designed and evaluated. Respondents perceived the sign that focused on the birds’ health and safety would be the most influential. Nevertheless, aspects of the two remaining signs were also positively evaluated. The paper provides recommendations for the wording of future bird feeding warning signs.

Authors: Barter, M., Newsome, D. and Calver, M.

Year: 2008

Title: Preliminary Quantitative Data on Behavioural Responses of Australian Pelican (*Pelecanus conspicillatus*) to Human Approach on Penguin Island, Western Australia

Journal: Journal of Ecotourism

Volume: 7

Issue: 23

Pages: 197-212

Abstract: This study investigated the potential impacts recreational activities may have on breeding behaviour and reproductive success of seabird colonies. Particularly, the study

quantified the differences in behaviour evoked from two colonies of Australian pelican at two distinct stages of incubation on Penguin Island, Western Australia when approached by the researcher. Three response indicators were chosen for comparison: (1) behaviour during an approach; (2) pre-flight initiation distances; and (3) behaviour following an approach. Even though preliminary, these data were strongly suggestive of significant behavioural changes by nesting pelicans in response to human approach. Observations also showed that breeding Australian pelicans displayed short-term habituation to human approach. The paper recommends designing and implementing setback distances as a visitor management tool.

Authors: Beidyk, O. and Novosad, N.

Year: 2014

Title: Bird-Watching as a Component of Ecotourism in the USA: A Demographic and Economic Analysis

Journal: Часопис соціально-економічної географії

Volume: 16

Issue: -

Pages: 47-50

Abstract: Beidyk and Novosad analysed the demographic and economic features of birdwatchers in the USA, particularly in Galveston Island and compared the findings to birdwatching in Ukraine. Results showed that birdwatching as a component of ecotourism has a positive economic impact on the local economy in Galveston. According to the authors, in Ukraine, birdwatching as a constituent of ecotourism is underdeveloped. Therefore, they advise tourist organisations and national parks in the country to follow Galveston's lead to boost the country's economy.

Author: Berger, R.

Year: 2016

Title: Conducting an Unplanned Participant Observation: The Case of a Non-Birder in Bird Watchers' Land

Journal: Forum Qualitative Sozialforschung/Forum: Qualitative Social Research

Volume: 18

Issue: 1

Pages: 1-14

Abstract: In this qualitative study, Berger described two participant observations of birdwatchers, which happened by serendipity. Characteristics of personal and interpersonal behaviour patterns were identified and described. Particularly, four themes including total immersion, being detail-oriented, collaboration and competition, and having a unique subculture.

Authors: Bernardon, B. and Nassar, P. M.

Year: 2012

Title: Birdwatching in the Mamirauá Lake as an Appeal to Ecotourists/Birdwatchers

Journal: Scientific Magazine UAKARI

Volume: 8

Issue: 2

Pages: 49-64

Abstract: According to Bernardon and Nassar, the Mamiraua Sustainable Development Reserve in the Brazilian State of Amazonas is a destination with great potential for birdwatching activities. Through this paper, they present different attractive bird species

observed during a regular type of tourist activity (not birdwatching-focused tour) held in Uakari Lodge at the Mamiraua SDR with the aim of attracting birdwatchers to the destination.

Authors: Biggs, D., Turpie, J., Fabricius, C. and Spenceley, A.

Year: 2011

Title: The Value of Avitourism for Conservation and Job Creation - An Analysis from South Africa

Journal: Conservation and Society

Volume: 9

Issue: 1

Pages: 80-90

Abstract: This paper utilises an exploratory investigation of 11 community-based avitourism projects to assess the value of avitourism for job creation and conservation in South Africa. The results showed that avitourism projects can be a cost-efficient method to provide job opportunities and deliver human development and conservation benefits.

Author: Bireline, H. R.

Year: 2004

Title: Recreation Specialization and Reports of Potential Impact Behaviors Among Birders Attending Birding Festivals

Academic Department: Natural Resources and Environment

University: University of Florida

Thesis Type: Master of Science

Abstract: This study investigated relationships between recreation specialisation and potential impact behaviours among birdwatchers. Data were collected from 184 birders (using on-site interviews) at three different birding festivals in Florida. Results showed that some self-reported potential impact behaviours increased as the specialisation continuum went from the general to the specialised. This contradicted the study's hypothesis that advanced birders would report the lowest frequency of potential impact behaviours. This study seemed to support an advanced birder belief that the perceived benefits of observing birds outweigh the perceived liabilities of birders' actions. Hence, recreation specialisation theory which has been associated with a greater interest and involvement in conservation as participants move on a continuum that ranges from general to specialised may not be appropriate for use in determining if participant behaviour in the field reflects the concern for wildlife. An individual's concern for birds does not necessarily equate with behaviours that reduce human impact. This study emphasises the significance of communication from managers as birders become more specialised. Educational programs may need to focus more on potential impact concerns and present ways to motivate birders to reduce impacts.

Author: Bonta, A.

Year: 2010

Title: Ornithophilia: Thoughts on Geography in Birding

Journal: Geographical Review

Volume: 100

Issue: 2

Pages: 139-151

Abstract: Utilising textual references as well as experiences from his own participant-observer position as a bird-tour leader and geographer-cum-birder, Bonta formed a geographically oriented approach to analysing the deeper motives of bird-watchers and comprehending the allure of bird-watching. The researcher used ethnography to delineate the annual Christmas

Bird Count and a bird walk in the Honduran rain forest. Then drawing from the nest-as-home metaphors of Gaston Bachelard and the “becoming-bird” connections proposed by Gilles Deleuze and Felix Guattari, Bonta positioned birding as a remarkably intimate exploration of place, strengthened by anticipation, recurrence, experience of beauty, and the supreme encounter of human self, bird spectacle, and landscape.

Authors: Booth, J. E., Gaston, K. J., Evans, K. L. and Armsworth, P. R.

Year: 2011

Title: The Value of Species Rarity in Biodiversity Recreation: A Birdwatching Example

Journal: Biological Conservation

Volume: 144

Issue: 11

Pages: 2728-2732

Abstract: This study examined the relationship between species rarity and value for wildlife viewing recreation. A visitor counts of birdwatchers attending rare (vagrant) bird sightings was undertaken. Additionally, home postcodes were collected to determine the distances birdwatchers travelled to achieve these viewings. For comparison, the study also undertook visitor counts at common birdwatching sites. The findings showed that species rarity was the clearest predictor of visitor numbers. The relationship between rarity and visitor numbers is inverse and asymptotic. Even though rare bird sightings provide an opportunity for education and raising revenues, the findings revealed that managers of protected areas do not take advantage of these opportunities.

Author: Buckley, R.

Year: 2004

Title: Impacts of Ecotourism on Birds

Editor: Buckley, R.

Book Title: Environmental Impacts of Ecotourism

City: Wallingford

Publisher: CAB International

Pages: 187-209

Abstract: This chapter reviews published scientific literature on the impacts of ecotourism on birds in an attempt to identify any general patterns and to illustrate the degree of variation. It draws on two previous reviews [See Journal of Environmental Management (1992) 36, 253-286 and Liddle, MJ Recreation Ecology: the Ecological Impact of Outdoor Recreation. The Netherlands; 1997.] and on more recent and additional literature. This review attempts to include all outdoor recreation activities and associated human disturbances which are incorporated into ecotourism products, at least in some parts of the world.

Authors: Burger, J. and Gochfeld, M.

Year: 1998

Title: Effects of ecotourists on bird behaviour at Lozanhatchee National Wildlife Refuge, Florida

Journal: Environmental Conservation

Volume: 25

Issue: 1

Pages: 13-21

Abstract: Increasingly, natural areas are exposed to people who come to view, study or photograph wildlife. In order to develop appropriate management plans for both avian

and human use of natural environments it is essential to understand how people affect foraging birds. The foraging behaviour of five species of water-birds at Loxahatchee (Arthur B. Marshall National Wildlife Refuge), part of the Everglades, in Southern Florida was observed, between 1992 and 1994, from a dike that received many visitors. Species examined included common gallinule (*Gallinula chloropus*), sora rail (*Porzana carolina*), glossy ibis (*Plegadis falcinellus*), little blue heron (*Egretta caerulea*) and Louisiana heron (*E. tricolor*). These birds were observed before people were near, while people were present, and following the departure of people. Variation in feeding behaviour was largely explained by whether people were present, the number of people present, and the amount of noise made by the people. For all species, time devoted to feeding and number of strikes or pecks decreased while people were present. The percentage of time spent foraging and the number of strikes decreased as the noise made by people increased. Birds that were closer to the path flew away from people more often than birds that were further away. Birds usually swam or flew away from the path while people were present.

Authors: Burger, J., Gochfeld, M. and Niles, L. J.

Year: 1995

Title: Ecotourism and Birds in Coastal New Jersey: Contrasting Responses of Birds, Tourists, and Managers

Journal: Environmental Conservation

Volume: 22

Issue: 1

Pages: 56-65

Abstract: This paper uses several case-studies to demonstrate the effects of ecotourists on a variety of birds (e.g. heronries, breeding Least Terns, migrant shorebirds and gulls) in New Jersey – a highly populated, heavily industrialised, coastal US state. The paper describes how ecotourists negatively affect birds' behaviour, reproductive success and population levels. The authors conclude that both birds and ecotourists can both exist without unnecessary disturbance if deliberate planning and management are implemented.

Authors: Burr, S. W. and Scott, D.

Year: 2004

Title: Application of the Recreational Specialization Framework to Understanding Visitors to the Great Salt Lake Bird Festival

Journal: Event Management

Volume: 9

Issue: 1-2

Pages: 27-37

Abstract: Burr and Scott assessed the level of birding specialisation among visitors to the Third Annual Great Salt Lake Bird Festival (GSLBF), and if the level of specialisation was related to visitors' motives and satisfaction with the event. Findings indicated that the GSLBF draws visitors who differ greatly in relation to the level of specialisation. A small number of visitors can be classified as highly specialised (i.e. serious) birdwatchers. Findings also showed that the dimensions of specialisation differed in terms of their relationship to visitors' motivations and satisfaction. Commitment and skill were connected to these constructs but in very distinct ways. Commitment was positively related to birdwatching motives and festival satisfaction. Even though skill level was not significantly related to either of the two dimensions of motivations, it was highly and negatively related to overall satisfaction. The study concluded that the recreational specialisation framework can be an effective tool to better understand visitors to different events and festivals.

Authors: Buxton, R. T., Galvan, R., McKenna, M. F., White, C. L. and Seher, V.

Year: 2017

Title: Visitor Noise at a Nesting Colony Alters the Behavior of a Coastal Seabird

Journal: Event Management

Volume: 570

Issue: -

Pages: 233-246

Abstract: Exposure to park visitors can disrupt animal behavior. Management strategies often aim to eliminate direct human disturbance; however, elevated visitor noise levels may remain. Coastal seabird colonies frequently overlap with scenic locations, resulting in high visitor noise and potentially altered behavior, habitat use, and fitness. Buxton and colleagues examine the impact of visitor noise on Brandt's cormorants *Phalacrocorax penicillatus* at Alcatraz Island, an important nesting site and one of California's most visited attractions. They used paired acoustic and video recorders to investigate the relationship between visitor noise levels and the behavior and relative abundance of cormorants in colonies adjacent to and far from a heavily visited building. Visitors were not visible from the cormorant colonies. At cormorant colonies adjacent to the visited building, disturbance-related behaviors increased with visitor noise. Conversely, there was no relationship between behavior and visitor noise in colonies far from the visited building. Cormorant disturbance behavior increased and abundance decreased when gulls were present at colonies adjacent to the visited building, whereas there was no relationship between gulls and behavior or abundance at colonies far from the visited building. The results suggest that visitor noise alters cormorant behavior and decreases colony attendance, particularly in the presence of nest predating gulls. Visitor noise can be mitigated by implementing quiet zones, offering a cost-effective method of reducing disturbance to nesting cormorants. Understanding the relationship between altered behavior and demographic parameters is vital to conserving these coastal species and mitigating the effects from continued increases in recreation activity.

C

Authors: Caballero, K. and Ekeberg, F.

Year: 2014

Title: Birding the Future

Journal: Leonardo: Journal of the International Society for the Arts, Sciences and Technology

Volume: 47

Issue: 5

Pages: 498-499

Abstract: This article described a multi-layered interdisciplinary global project named *Birding the Future*. This project was planned as a series of local, site-specific works and examined issues of species loss and biodiversity while particularly aiming attention at the warning abilities of birds as indicators of environmental health. *Birdwatching the future* is an outdoor installation and image walk integrating multi-channel sound, text, stereotypic images, Morse code messages, calls of extinct and endangered bird species, and a rendering of predicted extinction rate.

Author: Cafaro, P.

Year: 2001

Title: The Naturalist's Virtues

Journal: Philosophy in the Contemporary World

Volume: 8

Issue: 2

Pages: 85-99

Abstract: In a birdwatching context, this paper argues that there is a connection between studying natural history and developing a non-anthropocentric worldview. Cafaro discusses how naturalising may improve people's moral character and help develop their intellectual, physical and aesthetic abilities through the exploration, understanding and appreciation of nature. Cafaro argues that naturalists suggest an inspiring substitute to the superficial pleasures and gross consumption offered by today's destructive modern economy. The paper concludes that a better understanding of individuals' enlightened self-interest would do as much to promote environmental protection as acknowledgement of nature's intrinsic value.

Authors: Callaghan, C. T., Slater, M., Major, R. E., Morrison, M., Martin, J. M. and Kingsford, R. T.

Year: 2018

Title: Travelling Birds Generate Eco-Travellers: The Economic Potential of Vagrant Birdwatching

Journal: Human Dimensions of Wildlife

Volume: 23

Issue: 1

Pages: 71-82

Abstract: This study assesses the economic value of viewing vagrant birds (i.e., birds outside birdwatchers' normal geographic range). Utilising the travel cost method of economic valuation, Callaghan and colleagues estimated that a vagrant Black-backed Oriole in Pennsylvania, USA, encouraged travel activity valued at around US\$223,000 or around \$3,000 per day over 67 days. The findings indicate that birdwatchers who value rare birds, dedicate significant resources and time to their viewing activities. The authors argue that recognising such important economic value from avitourism can aid in assessing competing costs in debate over land-use scenarios.

Authors: Cammack, P. J., Convery, I. and Prince, H.

Year: 2011

Title: Gardens and Birdwatching: Recreation, Environmental Management and Human-Nature Interaction in an Everyday Location

Journal: Area

Volume: 43

Issue: 3

Pages: 314-319

Abstract: This study explores interactions between birdwatchers and local spaces. Specifically, it attempts to understand managed garden spaces through combining the two following themes: 1) Birdwatching as a significant recreational activity and 2) private, domestic gardens as places of conservation interest and places for recreation. Birdwatchers interviewed in this study reported a wide variety of disparate responses related to their gardens and to how they use them in their everyday birdwatching activities. The authors raise 1) questions about the degree to which gardens are perceived as places for interactions with nature and 2) challenges about the utilisation of gardens as sites of conservation action.

Authors: Cardoni, D. A., Favero, M. and Isaac, J. P.

Year: 2007

Title: Recreational Activities Affecting the Habitat Use by Birds in Pampa's Wetlands, Argentina: Implications for Waterbird Conservation

Journal: Biological Conservation

Volume: 141

Issue: 3

Pages: 797-806

Abstract: The increasing popularity of outdoor recreational activities in recent years has resulted in elevated human disturbance of waterbird communities. Anthropogenic disturbance is defined as any human activity that constitutes a stimulus sufficient to disrupt normal activities and/or distribution of animals relative to the situation in the absence of that activity. The goals of this study were (1) to quantify changes in habitat use by waterbirds caused by the proximity of people's activities to the shoreline, in Los Padres Lagoon Reserve (Argentina), (2) to evaluate differential responses of waterbird groups caused by this human disturbance, and (3) to propose management guidelines to improve waterbird conservation in Pampas lagoon. Cardoni and colleagues performed bird surveys monthly in areas with high levels of disturbance (HD areas) and with no or low levels of disturbance (LD areas) via recreational activities during days with (weekends) and without (weekdays) presence of people close to the lagoon. They recorded 34 bird species using the lagoon. The bird richness and abundance in HD areas was higher in days without recreational activities, conversely, in LD areas we found no differences in these parameters between days. Waders were found to be the group most vulnerable to disturbance, since these birds were only recorded in HD areas in days without human activity. Podicipedidae, as a group were less affected by recreational activities. The authors detected changes in the waterbird assembles and structure in relation to the presence of people on the shoreline. The results in this study suggest direct effects of recreational activities on the habitat use of waterbirds. The buffer area defined by the current Reserve management strategy is working properly, and the impact of recreational activities on transitional area has only instantaneous effects on waterbirds because they return to that area in absence of disturbance. However, it should be considered that we only estimated the response to short-term effects of these activities on the waterbird community. Further studies should assess long-term effects.

Authors: Chatwin, T. A., Joy, R. and Burger, A. E.

Year: 2013

Title: Set-back distances to protect nesting and roosting seabirds off Vancouver Island from boat disturbance

Journal: Waterbirds

Volume: 36

Issue: 1

Pages: 43-52

Abstract: Recreational boat traffic is increasing worldwide and there is a need for scientifically based regulations that sustain both seabirds and wildlife viewing. The effects of boat disturbance to seabirds off Vancouver Island, Canada were quantified by testing distances that roosting or nesting birds showed an agitation response to an approaching motorboat or a kayak. The effects of species sensitivity, vessel type, habituation and season on agitation distance were examined. At 40 m from approaching boats, nesting Double-crested (*Phalacrocorax auritus*) and Pelagic (*P. pelagicus*) cormorants, Black Oystercatchers (*Haematopus bachmani*), Glaucous-winged Gulls (*Larus glaucescens*), and Pigeon Guillemots (*Cephus columba*) had

less than 6% probability of being agitated with either a kayak or motorboat, while at 50 m there was less than 2% probability of agitation. Roosting birds had larger response distances than nesting birds. Roosting Harlequin Ducks (*Histrionicus histrionicus*) were particularly sensitive with 24% probability of agitation at distances less than 50 m. Agitation distances were reduced by habituation to boat traffic and a single kayak could approach closer than a motorboat without disturbing seabirds. A general set-back guideline of 50 m would protect most nest and roost sites while allowing viewers to appreciate seabirds. Setbacks could be adjusted to protect locally sensitive sites or species.

Authors: Chen, L. J. and Chen, W. P.

Year: 2015

Title: Push–Pull Factors in International Birders' Travel

Journal: Tourism Management

Volume: 48

Issue: -

Pages: 416-425

Abstract: Chen and Chen's study used snowball sampling, purposive sampling and questionnaires to identify international birders' motivations and preferred destination features. Results obtained from questionnaires completed by 257 international birders identified six push factor constructs and four pull factor constructs. In order of importance, push factors identified are bird-related, novelty seeking, contribution and sharing, spiritual refreshment, relationship building, and competition. Pull factors, in order of importance, are avian resources, professional guides, facilities and infrastructures, and local culture and traditions. According to the authors, the findings may be utilised by tour operators, birding clubs and governments to design birdwatching packages.

Authors: Cheung, L. T., Lo, A. Y. and Fok, L.

Year: 2017

Title: Recreational Specialization and Ecologically Responsible Behaviour of Chinese Birdwatchers in Hong Kong

Journal: Journal of Sustainable Tourism

Volume: 25

Issue: 6

Pages: 817-831

Abstract: This study used surveys in Hong Kong (an important birdwatching destination in Southeast Asia) to examine the effects of recreational specialisation on Chinese birdwatchers' pro-environmental attitudes and environmentally responsible behaviour. Results indicated a direct positive relation between birdwatchers' specialisation and pro-environmental attitudes and an indirect positive relation between their specialisation and environmentally responsible behaviour. It is argued that comprehending birdwatchers' specialisation is crucial for predicting their behaviour when visiting environmentally sensitive destinations. The authors recommend utilising birdwatching specialisation levels to create visitor management methods at birdwatching sites and to reduce visitor impacts on bird species.

Author: Cohn, J. P.

Year: 2008

Title: Citizen Science: Can Volunteers do Real Research?

Journal: AIBS Bulletin

Volume: 58

Issue: 3

Pages: 192-197

Abstract: This article describes how collaborations between scientists and volunteers (e.g. birdwatchers) that are used as citizen scientists have the capacity to widen the scope of research and enhance scientific data collection. According to Cohn, interested members of the public may provide useful scientific information while learning about wildlife in their local communities.

Authors: Cole, J. S. and Scott, D.

Year: 1999

Title: Segmenting Participation in Wildlife Watching: A Comparison of Casual Wildlife Watchers and Serious Birders

Journal: Human Dimensions of Wildlife

Volume: 4

Issue: 4

Pages: 44-61

Abstract: This study analysed participation patterns of two distinct segments of wildlife watching population: Casual wildlife watchers and serious birders. Texas Conservation Passport Holders and members of the American Birding Association were used to provide perspectives of the two groups of wildlife watchers. Following the recreation specialisation framework, the two groups were defined according to their skills at identifying birds, birdwatching behaviours close to home, regularity of participation and annual expenditure. The findings reported numerous important differences in participation characteristics between casual wildlife watchers and serious birders. Particularly, differences in desired setting preferences and differences in types of information sources utilised for trip planning were identified. According to Cole and Scott, the findings can help managers to more efficiently target casual and/or serious birdwatchers with relevant promotional techniques and provide the needed services and products.

Authors: Collins-Kreiner, N., Malkinson, D., Labinger, Z. and Shtainvarz, R.

Year: 2013

Title: Are Birders Good for Birds? Bird Conservation Through Tourism Management in the Hula Valley, Israel

Journal: Tourism Management

Volume: 38

Issue: -

Pages: 31-42

Abstract: This study examined the relationship between birds and tourists visiting the Agamon-Hula Park, Israel. The findings show a cyclical interaction: the number of tourists/visitors increases when more birds are present, nevertheless, as the number of tourists increases, the number of birds decreases and their minimum distance from the tourists increases. The authors argue that rather than identifying a general measure of "Carrying Capacity", the findings provide a better understanding of the "Limits of Acceptable Change" (LAC) of the lake.

Author: Collop, C. H.

Year: 2016

Title: Impact of Human Disturbance on Coastal Birds: Population Consequences Derived from Behavioural Responses

Academic Department: -

University: Bournemouth University

Thesis Type: Doctor of Philosophy

Abstract: This thesis used a wintering wader in estuarine habitats as the study system and adopted a joint fieldwork and simulation modelling approach. Collop's study aimed to provide a better understanding of the circumstances under which human disturbance would be predicted to be a conservation problem, either alone or in combination with effects of other human activities. The findings showed that birds' reactions to disturbance are highly changeable and linked to determinants including disturbance type, site quality, environmental conditions, and body mass. The energetic and lost-feeding opportunity costs of responding to individual disturbance occurrences were relatively small and thus deemed unlikely to lead to significant reductions in individual body conditions or considerably limit overwintering population size. Collop argues that even though high levels of disturbance can have significant effects on wintering bird populations, current human activities in Poole Harbour were not found to be reducing the carrying capacity of the site.

Authors: Colmore, C. S., Potts, T. D., Burnett, G. W. and Lacher, Jr T. E.

Year: 1996

Title: Parrot conservation and ecotourism in the Windward Islands

Journal: Journal of Biogeography

Volume: 23

Issue: 3

Pages: 387-393

Abstract: The genus *Amazona* is represented on three islands in the Windward Islands. Since Europeans first visited the region in the fifteenth century, at least three parrot species have become extinct in the Windward Islands, and today all the extant parrots of the region are endangered. Several factors have contributed to the current plight of the parrots. The authorities in each of the islands of the Windward Islands that have endemic parrots have come to the realization that sound environmental management measures can complement rather than hinder national socioeconomic goals and objectives. Consequently, regional governments have begun to explore and foster linkages between conservation and other sectors of the economy. This article examines current parrot conservation efforts in the Windward Islands and the linkages which are being fostered between tourism and other sectors of the economy. Policy and research implications of the region's current parrot conservation efforts and ecotourism programme are also considered.

Author: Colwell, M. A.

Year: 2010

Book Title: Shorebird Ecology, Conservation and Management

City: Berkley, CA

Publisher: University of California Press

Abstract: Shorebirds are model organisms for illustrating the principles of ecology and excellent subjects for research. Their mating systems are as diverse as any avian group, their migrations push the limits of endurance, and their foraging is easily studied in the open habitats of estuaries and freshwater wetlands. This comprehensive text explores the ecology,

conservation, and management of these fascinating birds. Beginning chapters examine phylogenetic relationships between shorebirds and other birds, and cover shorebird morphology, anatomy, and physiology. A section on breeding biology looks in detail at their reproductive biology. Because shorebirds spend much of their time away from breeding areas, a substantial section on non-breeding biology covers migration, foraging ecology, and social behavior. The text also covers shorebird demography, population size, and management issues related to habitat, predators, and human disturbances. Throughout, it emphasizes applying scientific knowledge to the conservation of shorebird populations, many of which are unfortunately in decline.

Author: Connell, J.

Year: 2009

Title: Birdwatching, Twitching and Tourism: Towards an Australian Perspective

Journal: Australian Geographer

Volume: 40

Issue: 2

Pages: 203-217

Abstract: This paper provides a geographical documentation of birdwatching. Connell describes how the global growth of the birdwatching industry has been reflected in the development of tourism agencies, guidebook coverage and websites, primarily in Western countries. Connell also describes the new competition and complexity mirrored in the rise of disparate sub-categories of birdwatchers. The paper reports how birdwatching has become significant in more remote locations such as wetlands and deserts, and especially, offshore islands, where more rare bird species are present. According to Connell, birdwatching has contributed to the economic development and environmental management of rural and remote areas, while also being one of the most environmentally sustainable forms of wildlife tourism.

Authors: Conradie, N. and Zyl, C. V.

Year: 2013

Title: Agreement of the International Avitourist Market to Ecotourism Principles: A South African Development Perspective

Journal: African Journal of Business Management

Volume: 7

Issue: 30

Pages: 3013-3021

Abstract: This study utilised questionnaires to investigate the views of international avitourists on ecotourism principles to develop sustainable avitourism in South Africa. Questionnaires were distributed to participants at the Dutch Vogelfestival and the British Birdwatching Fair. Relationships among nine variables were tested and results suggested that international avitourists perceived two constructs: *conservation of nature* and *support of local communities* as being important. According to Conradie and Zyl, these ecotourism principles should therefore be applied to ensure sustainable development of avitourism in South Africa.

Authors: Conradie, N. and Zyl, C. V.

Year: 2016

Title: Behavioural Involvement in Avitourism: An International Case Study

Journal: African Journal of Hospitality, Tourism and Leisure

Volume: 5

Issue: 2

Pages: 1-23

Abstract: This study utilised questionnaires as a data collection method to examine the behavioural involvement of international avitourists participating in the Dutch Vogelfestival and the British Birdwatching Fair in South Africa. Three birder types (casual, active and committed) were examined in terms of six behavioural involvement indicators. The findings suggested substantial differences between the three types of birders on all the indicators of behavioural involvement. Furthermore, the findings showed that committed birders are more deeply involved in birding than active birders, and active birders are more involved than casual birders. The study suggests using the findings to help marketers and managers in Africa (particularly South Africa) in processes of product development and destination marketing.

Author: Conradie, N.

Year: 2010

Title: International Market Potential of Avitourism in South Africa

Academic Department: Tourism Management

University: University of South Africa

Thesis Type: Master in Commerce

Abstract: This thesis aimed to profile international avitourists through examining their motivations; preferences; behavioural involvement; agreement to ecotourism principles; and awareness of avitourism in South Africa. Questionnaires were distributed to participants at the British Birdwatching Fair and Dutch Vogelfestival. Results showed that avitourists differ in terms of motivation, preferences and behavioural involvement for each birder type (casual, active or committed) and each fair. However, they agreed on ecotourism principles. The results also revealed three new motivation constructs: intellectual activity, engagement and wellbeing. Furthermore, there is low awareness but high interest in South Africa as a birdwatching destination among respondents. The authors conclude that the findings support South Africa's avitourism industry potential in destination marketing and product development.

Authors: Conradie, N., Zyl, C. V. and Strasheim, A.

Year: 2013

Title: What Inspires Birders to Migrate South Towards Africa? A Quantitative Measure of International Avitourist Motivation

Journal: Southern African Business Review

Volume: 17

Issue: 1

Pages: 128-167

Abstract: This study utilised a questionnaire to collect data from 439 visitors to the British Birdwatching Fair and Dutch Vogelfestival to examine the relative importance of different dimensions of avitourist motivations. A confirmatory factor analysis for avitourist motivation showed that *wellbeing*, *social interaction*, *intellectual activity* and *photography* may be considered as travel motivational factors. Particularly, aspects of *wellbeing* including mental, physical, spiritual and emotional stimulation as the most significant motivational factors for birdwatching.

Authors: Cooper, C. and Smith, J.

Year: 2010

Title: Gender Patterns in Bird-Related Recreation in the USA and UK

Journal: Ecology and Society

Volume: 15

Issue: 4

Pages: 1-13

Abstract: This paper assessed gender patterns in birdwatching as a nature-based tourism activity in the UK and USA. Data were collected from various organisations and classified data sources as representing activities that include differing levels of competitiveness and acting authoritatively. Patterns were found to be consistent with the hypotheses that gender differences in favoured types of birdwatching activities mirrored well documented gender-specific differences in preferences for competition and tendency to act authoritatively. Observing birds encompassed both a recreational hobby, “bird watching,” that was female biased in the USA, and a competitive sport, “birding,” that was heavily male biased among adults, but not youth, in both the USA and UK. Due to variations in gender participation in bird-related activities, promoting both competitive and non-competitive bird-related activities is essential to bringing larger portions of the population into nature-based recreation.

Authors: Cooper, C., Larson, L., Dayer, A., Stedman, R. and Decker, D.

Year: 2015

Title: Are Wildlife Recreationists Conservationists? Linking Hunting, Birdwatching, and Pro-Environmental Behavior

Journal: The Journal of Wildlife Management

Volume: 79

Issue: 3

Pages: 446-457

Abstract: This study examined the hypothesis that wildlife recreationists are more inclined than non-recreationists to willingly engage in different kinds of pro-environmental behaviour (PEB) categorised as conservation behaviours and environmental lifestyle behaviours. Through surveys of rural New York residents ($n=941$), self-reported PEBs of four kinds of recreationists: birdwatchers, hunters, hunter-birdwatchers (i.e. individuals who engaged in both activities), and non nature-based recreationists were compared. Results showed that wildlife recreationists, both birdwatchers and hunters were 4-5 times more inclined than non-recreationists to engage in conservation behaviours. Additionally, hunter-birdwatchers had the strongest likelihood of engaging in all kinds of conservation behaviours. On the other hand, engagement in environmental lifestyle behaviours (e.g. recycling, energy conservation...) were more or less comparable amid all types of wildlife recreationists and non-recreationists. The authors argue that the development of varied methods that involve programmes to promote both birdwatching and hunting are likely to bring about long-term conservation benefits.

Author: Costa, A. S. C. D.

Year: 2015

Title: Birdwatcher Profile in the Ria Formosa Natural Park

Academic Department: Economics

University: University of Algarve

Thesis Type: Master in Tourism Economics and Regional Development

Abstract: This study provides a description of birdwatchers' profile in the Ria Formosa Natural Park (RFNP), Quinta de Marim, Portugal. Results shows that the park is visited mostly

by the following nationalities: British (39%), Dutch (17%) and Portuguese (17%). The average age of birdwatchers is 50 years old, and the majority are male (55%) and married (51%). They are highly educated (74% have an academic degree). In terms of profession, 41% are retired. The study also analyses birdwatchers' willingness to pay to improve the overall conditions of birdwatching in Quinta de Marim. Costa reports that 92% of birdwatchers are willing to pay an entrance fee (average 4.29€) to fund birdwatching facilities at the location. Furthermore, the results showed a high environmental consciousness among birdwatchers. Respondents are committed to the activity as they have knowledge about birds (86%), possess special equipment (70%) and do it when on vacations (85%). According to Costa, the study findings may be utilised by policymakers to enhance birdwatching tourism in the region.

Author: Cottoman-Fields, M.

Year: 2017

Title: Virtual Birding: Extending Birdwatching to Review Acoustic Recordings

Academic Department: -

University: Queensland University of Technology

Thesis Type: Doctor of Philosophy in Human-Computer Interaction

Abstract: This thesis aimed to extend birding to allow experienced birders to adequately examine recordings of terrestrial environmental sounds. The study adopted qualitative research techniques including interviews, exploratory prototype websites and questionnaires. Findings revealed that participants devoted energy into observing birds at preferred local areas and that their identification skills were region-specific. Many birders were longing to detect uncommon birds on bird walks, and in recorded audio from places and times of day that were otherwise hard to access. Acoustic recordings provided chances to improve birdcall identification skills and detect birds that may otherwise be undetected. According to the author, this study contributed website interface designs based on birding practices, to allow experienced birders to apply skills and knowledge that are not available elsewhere. Furthermore, the results indicate that incorporating scientific acoustic monitoring efforts into Australian birders' practices can provide dependable and expanded information for avian research and conservation efforts.

Authors: Cottman-Fields, M., Brereton, M., Wimmer, J. and Roe, P.

Year of Conference: 2014

Title: Collaborative Extension of Biodiversity Monitoring Protocols in the Bird Watching Community

Conference Name: The 13th Participatory Design Conference

Conference Location: Windhoek, Namibia

Pages: 111-114

Abstract: This paper describes the authors' ongoing acoustic biodiversity monitoring collaborations with the bird watching community. It reports on findings obtained from participation in bird walks, observing conservation efforts, and records of personal activities of experienced birders. According to the authors, the paper provides an empirical study into extending current protocols via in-context collaborative design including domain experts and scientists.

Author: Curtin, S.

Year: 2009

Title: Wildlife Tourism: The Intangible, Psychological Benefits of Human–Wildlife Encounters

Journal: Current Issues in Tourism

Volume: 12

Issue: 5-6

Pages: 451-474

Abstract: This paper presents findings from an ethnographic study of wildlife tourists. Particularly, Curtin conducted in-depth interviews with participants of 1) a bird-watching tour to Andalucía, Spain and 2) a whale- and bird-watching tour on the Sea of Cortez, Baja, California, Mexico. The findings showed that nature's immense biodiversity, design and performance trigger an emotional response of wonder, awe and privilege that unravels anthropomorphic and ecocentric relations to wildlife. According to Curtin, nature and wildlife are not only spatial events but also temporal ones. The study concludes that human-wildlife encounters evoke a profound sense of well-being that surpasses the initial encounter leading to spiritual fulfilment and psychological health benefits.

Author: Curtin, S.

Year: 2010

Title: Managing the Wildlife Tourism Experience: The Importance of Tour Leaders

Journal: International Journal of Tourism Research

Volume: 12

Issue: 3

Pages: 219-236

Abstract: This ethnographic study aimed attention at three essential aspects of wildlife tourism: 1) the tangible benefits of wildlife tourists' experience, 2) the significance of the tour leader as the intermediary between the tourist and the product, and 3) tourist perceptions of their potential social and environmental impacts. Curtin used in-depth interviews with 'serious' wildlife tourists/participants of 1) a bird-watching tour to Andalucía, Spain and 2) a whale- and bird-watching tour on the Sea of Cortez, Baja, California, Mexico. The findings showed that participants' environmental sensibilities and the wish to avoid disturbance, the social benefits of organised tours and how the tour leader is important to both the responsible behaviour of the group and the success of the holiday.

Authors: Curtin, S. and Wilkes, K.

Year: 2005

Title: British Wildlife Tourism Operators: Current Issues and Typologies

Journal: Current Issues in Tourism

Volume: 8

Issue: 6

Pages: 455-478

Abstract: This paper aimed to 1) move towards a typology of British wildlife tour operators and their favoured destinations and 2) introduce the relationship between satisfying the consumer and sustainable destination/product management. In-depth interviews with main stakeholders and a systematic review of wildlife tourism brochures imply a gradual shift from a specialised market providing high involvement in a specific species (usually birds) to a more general market seeking an interesting yet relaxing holiday based around a general interest in the natural environment. Both markets coexist in a complex product and tourist spectrum with

neither market being entirely inclusive, which has prompted tour operators to provide a broader range of products to suit the novice enthusiast and the hard-core expert. Nevertheless, difficulties associated with satisfying consumer needs and product development indicate some management-related difficulties (e.g. food provisioning, using tape recordings and the constant search for new destinations to provide experienced tourists with something different).

Authors: Czajkowski, M., Giergiczny, M., Kronenberg, J. and Tryjanowski, P.

Year: 2014

Title: The Economic Recreational Value of a White Stork Nesting Colony: A Case of ‘Stork Village’ in Poland

Journal: Tourism Management

Volume: 40

Issue: -

Pages: 352-360

Abstract: This study used the Travel Cost Method (TCM) to analyse the economic benefits provided by the Polish ‘stork village’. The village is home to a white stork breeding colony and receives between 2000-5000 local and international visitors per annum. Results showed that nature, specifically birds in Poland has economic value and demonstrated how this value can be translated into economic benefits.

D

Authors: Deason, G. and Seekamp, E.

Year: 2015

Title: Birder Travel Decisions: Results from Survey Research with Avid Birders

City/State: North Carolina

Institution: Department of Parks, Recreation and Tourism Management, Tourism Extension College of Natural Resources, North Carolina State University

Date: March 2005

Abstract: This report provides the findings of a survey-based research project which examined the travel decisions and expenditures of members of ornithological society and bird club while on birding trips. The report discusses the following seven topics/categories: demographics; trip planning; accommodation and dining selection; the utilisation of other business and services; the North Carolina Birding Trail (NCBT) and Birder Friendly Business (BFB) program; trip expenditure and willingness to pay for certain services and products; and trip behaviours under climate change scenarios.

Authors: Devers, P. K., Roberts, A. J., Knoche, S., Padding, P. I. and Raftovich, R.

Year: 2017

Title: Incorporating Human Dimensions Objectives into Waterfowl Habitat Planning and Delivery.

Journal: Wildlife Society Bulletin

Volume: -

Issue: August

Pages: 1-11

Abstract: The 2012 revision of the North American Waterfowl Management Plan (NAWMP) explicitly recognized the need to increase recruitment and retention of waterfowl hunters, birdwatchers, and other conservationists to maintain support for wetland conservation. The incorporation of human dimensions objectives within the NAWMP has compelled waterfowl

and wetland managers to consider whether and to what extent landscape characteristics such as public land access; the type, amount, and location of wetlands; and site infrastructure will increase support for wetland conservation among user groups. Further, it has forced the waterfowl community to consider the possible trade-offs between managing land to achieve biological versus social objectives. We used publicly available, long-term data sets to illustrate a method of incorporating human dimensions into waterfowl habitat planning and management. We used United States Fish and Wildlife Service waterfowl harvest survey data, United States Geological Survey band encounter data, and Cornell Lab of Ornithology eBird data to summarize travel characteristics of wetland bird enthusiasts (i.e., waterfowl hunters and birdwatchers) in the Atlantic Flyway. Greater than 90% of all trips by wetland bird enthusiasts occurred within their state of residence. We used data from New York, USA, to demonstrate how to construct discrete choice recreation demand models to identify factors that influence site selection and participation. We demonstrate how model outputs, such as the expected change in the number and geographic distribution of recreational trips (i.e., hunting or birdwatching), can be used as an objective metric to evaluate the benefits of alternative habitat acquisition and restoration projects relative to the human dimensions objective of the NAWMP. These data and methods show promise for incorporating human dimensions objectives into habitat delivery and understanding potential trade-offs relative to biological objectives.

Authors: Devney, C. A. and Congdon, B. C.

Year: 2009

Title: Testing the Efficacy of a Boundary Fence at an Important Tropical Seabird Breeding Colony and Key Tourist Destination

Journal: Wildlife Research

Volume: 36

Issue: 4

Pages: 353-360

Abstract: Tourists have the potential to detrimentally impact breeding seabirds, particularly at popular destinations such as on the Great Barrier Reef. Michaelmas Cay is a significant seabird rookery and prime tourist destination on the reef. In 1990, Queensland Parks & Wildlife Service erected a fence to separate tourists from fragile nesting habitat. Devney and Congdon used two independent assessments during different breeding seasons to determine the potential impacts of tourism on two pelagic seabird species breeding on the cay. In the first quasi-experiment, egg losses by sooty terns (*Sterna fuscata*) and common noddies (*Anous stolidus*) were monitored at four distances (3, 6, 18 and 36 m) from a tourist enclosure. The second quasi-experiment involved monitoring adult provisioning rates, chick growth and chick survival of sooty terns at two locations, one adjacent to the tourist fence and one 50 m away. At plots 3–6 m from the fence, the authors observed higher among-week variation in egg loss but no differences in total egg loss as compared with the more distant plots. The only difference observed between plots during the second quasi-experiment was that nest predation was higher at the tourist fence plot. Devney and Congdon's research suggests that as long as the effects observed do not influence post-fledging survival or gull predation does not impact under different conditions, current management protocols are appropriately facilitating shared usage between wildlife and the tourism industry at Michaelmas Cay.

Authors: Dickie, I. and Esteban, A.

Year: 2006

Title: Watched Like Never Before. The Local Economic Benefits of Spectacular Bird Species.

City/State: Sandy, Bedfordshire

Institution: RSPB Scotland

Date: April 2006

Abstract: This report provides the findings of a study which examined the economic value of spending at birdwatching projects related to specific 'spectacular' bird species at different birdwatching sites in the UK.

Author: Dickinson, J.

Year: 2009

Title: The People Paradox: Self-Esteem Striving, Immortality Ideologies, and Human Response to Climate Change

Journal: Ecology and Society

Volume: 14

Issue: 1

Pages: -

Abstract: In the context of birdwatching, this paper reviews Ernest Becker's (a cultural anthropologist) ideas to suggest ways in which these ideas illuminate human response to global climate change. For instance, the paper describes how a concern for and ideal love of archetypal charismatic creatures such as birds can be interpreted within the context of transference idealisation. And how this concept of birds as transference objects indicates numerous other ways in which birds have unexpected links with conservation behaviour. Hence, providing an effective route to helping the public to recognise, care about, and act upon climate change in a sustained way.

Author: Dti

Year: 2010

Title: The dti – Avitourism in South Africa. Research and Analysis Report

City: Pretoria, South Africa

Institution: Department of Trade and Industry (Dti)

Date: August 2010

Abstract: This report provides the findings of a research project that analysed South Africa's avitourism market and aimed to provide the following information: 1) An overview of the present and potential avitourism market in South Africa; and 2) an analysis of the strength, weaknesses, opportunities and threats connected to the avitourism industry. Additionally, the report provides strategic recommendations on possible interventions to aid the avitourism sector in South Africa.

E

Authors: Ellenberg, U., Mattern, T. and Seddon, P.

Year: 2013

Title: Heart Rate Responses Provide an Objective Evaluation of Human Disturbance Stimuli in Breeding Birds

Journal: Conservation Physiology

Volume: 1

Issue: 1

Pages: -

Abstract: Intuition is a poor guide for evaluating the effects of human disturbance on wildlife. Using the endangered Yellow-eyed penguin, *Megadyptes antipodes*, as an example, we show that heart rate responses provide an objective tool to evaluate human disturbance stimuli and encourage the wider use of this simple and low-impact approach. Yellow-eyed penguins are a flagship species for New Zealand's wildlife tourism; however, unregulated visitor access has recently been associated with reduced breeding success and lower first year survival. Ellenberg and colleagues measured heart rate responses of Yellow-eyed penguins via artificial eggs to evaluate a range of human stimuli regularly occurring at their breeding sites. They found the duration of a stimulus to be the most important factor, with elevated heart rate being sustained while a person remained within sight. Human activity was the next important component; a simulated wildlife photographer, crawling slowly around during his stay, elicited a significantly higher heart rate response than an entirely motionless human spending the same time at the same distance. Stimuli we subjectively might perceive as low impact, such as the careful approach of a 'wildlife photographer', resulted in a stronger response than a routine nest-check that involved lifting a bird up to view nest contents. A single, slow-moving human spending 20 min within 2 m from the nest may provoke a response comparable to that of 10 min handling a bird for logger deployment. To reduce cumulative impact of disturbance, any human presence in the proximity of Yellow-eyed penguins needs to be kept at a minimum. The results highlight the need for objective quantification of the effects of human disturbance in order to provide a sound basis for guidelines to manage human activity around breeding birds.

Authors: Ellenberg, U., Setiawan, A. N., Cree, A., Houston, D. M. and Seddon, P. J.

Year: 2007

Title: Elevated Hormonal Stress Response and Reduced Reproductive Output in Yellow-Eyed Penguins Exposed to Unregulated Tourism

Journal: General and Comparative Endocrinology

Volume: 152

Issue: 1

Pages: 54-63

Abstract: This study examined the impact of unregulated tourism activities on the endangered and endemic Yellow-eyed penguin – one of the flagship species for New Zealand. After comparing two breeding sites exposed to different degrees of human disturbance, the findings showed that penguins at the site exposed to unregulated tourism showed significantly lower breeding success and fledging weights than those in an area visited infrequently for monitoring purposes only. The penguins also displayed remarkably higher stress-induced corticosterone concentrations, implying birds have been sensitised by frequent disturbance. Visitors need to stay out of breeding areas and disturbance at penguin landing beaches should be mitigated are two management actions recommended by the authors.

Authors: Eubanks Jr, T. L., Stoll, J. R. and Ditton, R. B.

Year: 2004

Title: Understanding the Diversity of Eight Birder Sub-Populations: Socio-Demographic Characteristics, Motivations, Expenditures and Net Benefits

Journal: Journal of Ecotourism

Volume: 3

Issue: 3

Pages: 151-172

Abstract: Four studies were conducted in the USA to examine differences amid eight geographically scattered birder sub-populations in terms of their demographic characteristics, birding behaviour and motivations, expenditures and willingness to pay for their birding. In regard to the demographic characteristics of birders, the findings showed that there were few significant group differences. On the other hand, there were significant group differences identified for most motivational, behavioural and economic measures. The authors therefore, emphasise that generalisations about the overall birders' population and activity should not only depend on findings from subpopulation studies. In terms of expenditures, the paper reported an average birding trip expenditure across groups (\$506) and an estimated \$50 per day in social benefits received by birders above trip costs.

Authors: Eubanks, T. and Stoll, J. R.

Year: 1999

Title: Avitourism in Texas: Two Studies of Birders in Texas and their Potential Support for the Proposed World Birding Center

City/State: Austin, Texas

Institution: Texas Parks and Wildlife Department

Date: October 1999

Abstract: Eubanks and Stoll used surveys to compare the economic impact between the Rio Grande Valley Birding (RGVB) Festival participants and the Great Texas Coastal Birding Trail (GTCBT) participants in Texas. Results showed that attendees of the RGVB Festival were likely to be committed birders. On the other hand, those who travelled the GTCBT were mostly casual birders who regarded birding as one of various outdoor hobbies. The Gross Economic Value (GEV) of annual trips to the GTCBT and RGVB festivals were estimated to be \$5,671.77 and \$3,070.23 respectively.

F

Authors: Fernández-Juricic, E., Venier, M. P., Renison, D. and Blumstein, D. T.

Year: 2005

Title: Sensitivity of Wildlife to Spatial Patterns of Recreationist Behavior: A Critical Assessment of Minimum Approaching Distances and Buffer Areas for Grassland Birds

Journal: Conservation Biology

Volume: 125

Issue: 2

Pages: 225-235

Abstract: A major goal of protected area management is to promote coexistence between wildlife and people and managers may restrict human activity by creating buffer zones. There are a number of assumptions implicit in establishing buffer zones that are typically based on how animals respond to approaching humans. Conventional wisdom suggests that animals will

be more sensitive to directly approaching humans than humans approaching tangentially. Visibility and detectability are important factors influencing a species' response to an approaching threat. Grasslands are an ideal system to study the different approach types because visibility is similar in all directions. Fernández-Juricic and colleagues focused on five species of birds, four of them endemic, in the high Pampa de Achala mountain grassland of Argentina to study the effects of direct and tangential approaches on disturbance, and to evaluate five methods typically used to estimate buffer areas considering their sensitivity to the type of approach and their ability to estimate areas large enough to ensure the protection of the target species. They found that, contrary to conventional wisdom, four out of the five species showed greater flight initiation distance response to tangential rather than direct approaches, and that the minimum approach distance and buffer area estimates for these species varied significantly (in some cases an order of magnitude) between methods. Variability in the estimates between methods could be related to their different assumptions, which are not typically evaluated. More generally, we should be cautious when asserting that a buffer area calculated from direct approaches necessarily eliminates human disturbance.

G

Authors: Galicia, E. and Baldassarre, G. A.

Year: 1997

Title: Effects of Motorized Tourboats on the Behavior of Nonbreeding American Flamingos in Yucatan, Mexico

Journal: Conservation Biology

Volume: 11

Issue: 5

Pages: 1159-1165

Abstract: Galicia and Baldassarre assessed the effect of motorized tourboats on the behavior of nonbreeding American flamingos (*Phoenicopterus ruber ruber*) in the Celestun Estuary, a Special Biosphere Reserve in Yucatan, Mexico, from November 1994 through February 1995. They measured these effects by comparing activity budgets between flocks of flamingos disturbed and undisturbed by tourboats. Disturbance reduced feeding time from 40% before disturbance to 24% after, a 40% loss. Boat disturbance increased alert behavior by 400%. Tourboats averaged 13 per day and caused a disturbance 75% of the time or 3.3 hours per day. Potential loss of feeding time for individuals was estimated at 13% but is likely much higher on days with excessive numbers of tourboats. Flamingos returned to normal feeding rates (40%) within 20 minutes after disturbance. Most tourists (52%) were from Mexico, followed by Germany (14%), and 88% of Mexican visitors were willing to pay an entrance fee to the Celestun Reserve. Conservation efforts should focus on education of tourboat operators to reduce disturbance to flamingos, education of tourists through a visitor's center and brochures produced in Spanish and English, and expanded involvement of local people.

Authors: Gill, J. A., Sutherland, W. J. and Watkinson, A. R.

Year: 196

Title: A Method to Quantify the Effects of Human Disturbance on Animal Populations

Journal: Journal of Applied Ecology

Volume: 33

Issue: -

Pages: 786-792

Abstract: The extent and consequences of human disturbance on populations of vertebrates are contentious issues in conservation. As recreational and industrial uses of the countryside continue to expand, it is becoming increasingly important that the effects of such disturbance on wildlife are quantified. This study describes a method of quantifying the effect of disturbance, based on measuring the trade-off between resource use and risk of disturbance. This approach is based on one used by ethologists to study the effects of predation risk on patch use. Pink-footed geese, *Anser brachyrhynchus*, feeding on arable fields, are highly responsive to disturbance from surrounding roads. The extent to which these fields are exploited declines linearly with increasing risk of disturbance. The reduction in use of these feeding grounds caused by disturbance can be quantified by translating the biomass of food not exploited into the number of birds that this food could have supported. This approach allows both quantification of the impact of disturbance on a population, and exploration of the potential consequences of changes in disturbance on the size of populations.

Authors: Glover, H. K., Guay, P-J. and Weston, M. A.

Year: 2015

Title: Up the Creek With a Paddle; Avian Flight Distances from Canoes Versus Walkers

Journal: Wetlands Ecology and Management

Volume: 23

Issue: 4

Pages: 775-778

Abstract: Disturbance of birds by human activities is increasing and is of conservation concern. Little is known of the flight initiation distances (FID) of birds to recreational canoeing, although this activity is common and can occur in wetland areas inaccessible to vehicle or pedestrian traffic. Glover and colleagues compared the FID evoked by a walker with that evoked by a canoe for 13 birds in wetlands in north-western Queensland. Canoes evoked shorter FIDs compared with walkers (means \pm 95 % confidence intervals; 32.9 ± 7.6 m and 47.5 ± 7.4 m, respectively). These data could be used to establish buffers or codes of conduct for canoeists in wetlands in arid northern Australia, especially when water levels are low.

Author: Glowinski, S. L.

Year: 2008

Title: Birdwatching, Ecotourism, and Economic Development: A Review of the Evidence

Journal: Applied Research in Economic Development

Volume: 5

Issue: 3

Pages: 65-77

Abstract: Glowinski used a comprehensive review of US and international studies of birdwatching costs and economic benefits to examine if birdwatching tourism can contribute to sustainable job creation and economic development for surrounding communities. The case study of La Tigra National Park in Honduras inspired the analysis—but many rural U.S. communities are also examining birdwatching as a potential substitute to traditional, but declining, extractive industries. According to Glowinski, the analysed data are promising.

Authors: Green, R. J. and Jones, D. N.

Year: 2010

Title: Practices, Needs and Attitudes of Bird-Watching Tourists in Australia

City: Gold Coast

Institution: The Sustainable Tourism Cooperative Research Centre (STCRC)

Abstract: This report provides the findings of a research project (conducted in Australia) which aimed to 1) investigate birdwatchers' opinions and practices in connection with conservation aspects; 2) investigate the diversity and common features among birdwatching tourists; 3) identify what birdwatchers desire to see and do in Australia; and 4) examine the role of birdwatching tourism in relation to willingness to join commercial birdwatching tours, preferred accommodation and information on birding sites. Two separate questionnaires were distributed to birdwatching tourists and nature guides and were used as the main data collection method for the project.

Authors: Guimarães, M. H., Nunes, L. C., Madureira, L., Santos, J. L., Boski, T. and Dentinho, T.

Year: 2015

Title: Measuring Birdwatchers Preferences: A Case for Using Online Networks and Mixed-Mode Surveys

Journal: Tourism Management

Volume: 46

Issue: -

Pages: 102-113

Abstract: This study utilised mixed-mode surveys and online social networks to investigate birdwatchers' (in the Azores) preferences for given management actions created to enhance the attractiveness of birdwatching sites. The variable *Willingness-to-stay more time at the site* was utilised as a welfare measure. The findings showed that respondents cared more about habitat quality and biodiversity and were less worried about infrastructures. Moreover, the research method used seemed to be successful when surveying small and socially-cohesive seasonal recreation communities.

Authors: Gürlük, S. and Rehber, E.

Year: 2008

Title: A Travel Cost Study to Estimate Recreational Value for a Bird Refuge at Lake Manyas, Turkey

Journal: Journal of Environmental Management

Volume: 88

Issue: 4

Pages: 1350-1360

Abstract: This study examined the economic value of birdwatching in the Kuşçenneti National Park (KNP) at Lake Manyas, Turkey. The study used the *travel cost method* to estimate recreational demand for KNP. The findings revealed that KNP's recreational value is 103,320,074 USD per annum, which was found to be remarkably higher than the annual investment and operation expenditures of the KNP. According to the authors, the findings illustrate significant policy issues and help to resolve disputes among stakeholders.

H

Authors: Hagy, H. M., Horath, M. M., Yetter, A. P., Hine, C. S. and Smith, R. V.

Year: 2016

Title: Evaluating Tradeoffs Between Sanctuary for Migrating Waterbirds and Recreational Opportunities in a Restored Wetland Complex

Journal: Hydrobiologica

Volume: 804

Issue: 1

Pages: 103-118

Abstract: Wetland restoration in highly modified landscapes involves balancing target ecosystem functions and values with constraints of landscape and stakeholder context. Often, a restored wetland complex cannot meet all target conditions simultaneously, and tradeoffs must be understood, evaluated, and quantified. Hagy and colleagues examined the tradeoff between providing migratory bird sanctuary and increasing public recreational opportunities within a restored floodplain wetland complex along the Illinois River. They surveyed the distribution and behavior of waterbirds in response to a gradient of spatial and temporal disturbances from waterbird hunting activities. Using ArcMap and spatial interpolation of waterbird densities as a novel approach to quantify sanctuary area, Hagy et al estimated that approximately 42% of Emiquon Preserve functioned as sanctuary across disturbance intensities, hunter distribution, and time periods during autumn migration. Waterbird abundance did not increase with short-term temporal sanctuary or decreased hunting intensity. Disturbance distance around hunting locations was 752.1m, overall, and increased 38.4m for each additional hunting party. Exclusion distance around hunting locations was greater in areas with greater mean disturbance frequency. Hagy and colleagues question the effectiveness of short-term temporal sanctuary for waterbirds at the expense of recreational opportunities and advocate our analytical approach to quantify sanctuary area and disturbance buffers without experimentally causing disturbances.

Authors: Harris, J. B. C. and Haskell, D. G.

Year: 2013

Title: Simulated Birdwatchers' Playback Affects the Behavior of Two Tropical Birds

Journal: PloS one

Volume: 8

Issue: 10

Pages: 1-8

Abstract: This study examined the impact of simulated birdwatchers' playback (i.e. recorded vocalisations) on the vocal behaviour of two tropical birds in Ecuador. Results showed a playback-induced habituation and alterations in vocal behaviour of the study species. Increased vocalisations after playback may be perceived as a negative impact of playback if birds become stressed, expend energy or divert time from other activities. On the other hand, the documented habituation indicates that regular birdwatchers' playback may have insignificant impacts on the birds' behaviour. According to Harris and Haskell, scientists should consider birdwatching activities when choosing research study sites to avoid generating biased results due to birdwatchers' playback.

Author: Harwood, S.

Year of Conference: 2008

Title: Planning and Development of Community Based Tourism: Birdwatching Destinations

Conference Name: Council for Australian University Tourism and Hospitality Education (CAUTHE)

Conference Location: Gold Coast, Australia

Pages: 1-12

Abstract: This study explored the concept of community-based tourism (CBT) to identify its potential in the planning and development of birdwatching destinations. Self-administered questionnaires were distributed to birdwatchers in a UK Birdfair at Rutland Waters, UK. The findings indicated that a community must be involved in all decision-making processes to guarantee that development plans are compatible with community desires. Harwood concludes that more information related to market demands for a destination is needed up front and that communities should be entrusted with the responsibility of being self-directed through the making of informed decisions.

Author: Higham, J. E. S.

Year: 1998

Title: Tourists and Albatrosses: The Dynamics of Tourism at the Northern Royal Albatross Colony, Taiaroa Head, New Zealand

Journal: Tourism Management

Volume: 19

Issue: 6

Pages: 521-531

Abstract: This paper focusses on the complexities of comprehending the impacts of *non-consumptive* wildlife tourism via exploring the case of the North Royal Albatross Colony, Taiaroa Head, New Zealand. The study examines the implementation of Duffus and Dearden's (*Biological Conservation* 1990, 53, 213-231) conceptual framework to this bird colony. The findings show that in the absence of deliberate management intervention, wildlife tourism attractions develop gradually in a way that is harmful to both the targeted wildlife species and the visitor experience. Moreover, the findings indicate that effects of tourism activities on wildlife surpass tolerance, i.e., wildlife species may seem to be tolerant of visitors while serious impacts still occur. The utilisation of the main components of Duffus and Dearden's framework commands that wildlife impact research is not transferable, but rather research of this nature is both species- and site-specific.

Authors: Hill, J., Curtin, S. and Gough, G.

Year: 2014

Title: Understanding Tourist Encounters with Nature: A Thematic Framework

Journal: Tourism Geographies

Volume: 16

Issue: 1

Pages: 68-87

Abstract: This paper presents a thematic framework that explains the complexity of encounters between tourists and nature, and the various ways in which such relationships are created and interpreted. Data collection methods included in-depth interviews, surveys, and observations of wildlife encounters, specifically, tourists' encounters with birds in Spain and whales in Mexico, and encounters with tropical forest in Australia. Results showed that embodied tourists experience nature in a multi-sensory manner. Apparent differences in emotional significance

of encounters, with tourists negotiating individual yet diverse relations with their surrounding natural environment, mediated by *in situ* social interactions were documented. Findings indicate that wildlife tourists often carry out ritualised acts, directed by tour guides, suggesting a collective performance of prescribed mobilities. Contrastingly, rainforest tourists were found to be more unrestrained in their performances. The authors suggest that visitors on guided tours should be provided with time to experience the environment in their own time (i.e. unhurried), encouraging the attainment of ‘higher order’ needs.

Authors: Hill, S. G., Cable, T. T. and Scott, D.

Year: 2010

Title: Wildlife-Based Recreation as Economic Windfall: A Rhetorical Analysis of Public Discourse on Birding

Journal: Applied Environmental Education and Communication

Volume: 9

Issue: 4

Pages: 224-232

Abstract: This study explored how ‘rhetorical visions’ may help shape public tourism policy through using fantasy theme analysis to analyse 206 Kansas newspaper articles related to birding. Results showed a primary, shared rhetorical vision of birders as a possible economic tool for communities, with statistics playing a crucial rhetorical role in support of tourism development. Within the vision, there were three primary action themes (i.e., visiting nature, conserving, and doing business) supported by six major character themes in three primary settings (i.e., nature, developed nature centres, and birding destinations).

Authors: Hillman, M. D., Karpanty, S. M., Fraser, J. D. and Derose-Wilson, A.

Year: 2015

Title: Effects of Aircraft and Recreation on Colonial Waterbird Nesting Behavior

Journal: Journal of Wildlife Management

Volume: 79

Issue: 7

Pages: 1192-1198

Abstract: Because of the variability in the types of human activities to which animals are exposed and the associated responses by different species, there is a lack of consensus on the effects of humans on wildlife behavior. Hillman and colleagues studied the effects of military air traffic, all-terrain vehicles, off-road vehicles, and pedestrians on the nesting behaviors of least terns (*Sternula antillarum*), common terns (*Sterna hirundo*), gull-billed terns (*Gelochelidon nilotica*), and black skimmers (*Rynchops niger*) at North Core Banks, Cape Lookout National Seashore (CALO), North Carolina. They deployed digital audio recorders and time-lapse cameras within 9 colonies from May to August 2010–2011 and sampled nesting behaviors before, during, and after human activities. There was no evidence that military or civilian aircraft adversely affected incubation behavior for any of the focal species. The mean incubation rate by least terns was less during pedestrian events than control periods (91% vs. 79%, $S = -2.2$, $P = 0.04$). The current patterns of aircraft operations are unlikely to affect colonial waterbird demographics. Current beach management policies restricting human activity to >50 m from colony boundaries mitigated adverse impacts to nesting colonial waterbirds.

Authors: Hodur, N. M., Leistriz, F. L. and Wolfe, K.

Year: 2004

Title: Characteristics and Expenditures of Participants in the Potholes and Prairie Birding Festival

City/State: North Dakota

Institution: Department of Agribusiness and Applied Economics/North Dakota University

Date: September 2004

Abstract: This report provides the findings of a study which aimed to: 1) Explore the characteristics and expenditure patterns of participants of the 2004 Potholes and Prairie Birding Festival; 2) Estimate the economic impacts of the Birding Festival on local economy, to quantify birding's economic development potential in rural North Dakota.

Authors: Huhta, E. and Sulkava, P.

Year: 2014

Title: The Impact of Nature-Based Tourism on Bird Communities: A Case Study in Pallas-Yllästunturi National Park

Journal: Environmental Management

Volume: 53

Issue: 5

Pages: 1005-1014

Abstract: Huhta and Sulkava investigated disturbances of birds induced by nature-based tourism in the Pallas-Yllästunturi National Park, Finland. The findings indicated that bird assemblages in urbanised tourist areas near the Pallas-Yllästunturi National Park are affected by human development. Nevertheless, even though the present recreation pressure is high, it has not caused significant alterations in the forest bird community within the park.

Authors: Hvenegaard, G. T. and Barbieri, E.

Year: 2010

Title: Shorebirds in the State of Sergipe, Northeast Brazil: Potential Tourism Impacts

Journal: Revista Brasileira de Ornitologia

Volume: 18

Issue: 3

Pages: 169-175

Abstract: Hvenegaard and Barbieri conducted censuses on 67 days in 2004 to examine potential impacts of tourism on shorebirds at Atalaia Nova beach, Brazil. Results showed a remarkable negative correlation between numbers of visitors and numbers of shorebirds. The authors conclude that growth of tourism and recreation development at Atalaia Nova beach has the potential to negatively affect shorebird use of the beach.

Author: Hvenegaard, G. T.

Year: 2002

Title: Birder Specialization Differences in Conservation Involvement, Demographics, and Motivations

Journal: Human Dimensions of Wildlife

Volume: 7

Issue: 1

Pages: 21-36

Abstract: This study utilised questionnaire data from birders in Doi Inthanon National Park, Thailand to develop a recreation specialisation framework for birders in a non-North American

setting. Hvenegaard explored how demographics, conservation involvement, and motivations differ among specialisation levels. A description of three specialisation levels—novice, advanced–active, and advanced–experienced is presented. Results showed that specialisation level was positively, but weakly, associated with conservation involvement. Age, income, and percentage male increased with specialisation level. Both advanced birder types were less interested in non-birding activities than novice birders. Moreover, advanced–experienced birders were most interested in birding activities.

Authors: Hvenegaard, G. T., Butler, J. R. and Krystofiak, D. K.

Year: 1989

Title: Economic Values of Bird Watching at Point Pelee National Park, Canada

Journal: Wildlife Society Bulletin

Volume: 17

Issue: 4

Pages: 526-531

Abstract: This study utilised interviews with birdwatchers and business establishments to identify the net economic value of birdwatching at Point Pelee National Park, Canada, and to evaluate the local economic impact of birders on the Point Pelee-Leamington district of Ontario. The following findings are presented: demographic characteristics of birdwatchers, recreational characteristics, trip expenditures, net economic value and economic impact on local businesses. The paper concludes that the current local economic impact has the potential to triple, based on increased local spending on services and products, and increased birder visitation during other months.

I

Authors: Ikuta, L. A. and Blumstein, D. T.

Year: 2002

Title: Do Fences Protect Birds from Human Disturbance?

Journal: Biological Conservation

Volume: 112

Issue: 2003

Pages: 447-452

Abstract: According to Ikuta and Blumstein, managing wildlife habitats via restricting public access with a fence provides wildlife, specifically birds with a refuge from human disturbance caused by tourism and recreation activities. The authors tested this assumption via measuring the responses of 10 bird species at a fenced site with a high number of visitors. Then, they compared the results to a control site with less visitors. The findings showed that birds on the protected side of the fence responded in a similar manner to birds at the control site and quite differently from birds at the high visitation site. The paper concludes that by lowering the number of visitors and creating areas of refuge within highly visited sites, protective fences allow birds to act as they would in an undisturbed environment.

Authors: Isaacs, J. C. and Chi, Y. N.

Year: 2005

Title: A Travel-Cost Analysis of a Birdwatching Festival: The Grand Isle Migratory Bird Celebration

City/State: Louisiana

Institution: Louisiana Department of Wildlife and Fisheries - Socioeconomic Research and Development Section

Date: October 2005

Abstract: This report provides the findings of a research project which examined the Grand Isle Bird Festival from the perspectives of three different stakeholder groups. These are: Grande Isle Bird Festival attendees, Louisiana birdwatchers and bird festival organisers. A survey was utilised to determine the characteristics of the attendees, discover their birdwatching practices, and to measure their economic contribution to the festival. A focus group was used to obtain the perspective of Louisiana's birdwatchers on Louisiana's birdwatching resources in general and bird festivals in particular. A second and separate focus group was used to understand the perspective of Grand Isle residents (mainly supporters and organisers of the festival) regarding the development of birdwatching and other forms of ecotourism in the area.

J

Author: Jackson, S.

Year: 2007

Title: Attitudes Towards the Environment and Ecotourism of Stakeholders in the UK Tourism Industry with Particular Reference to Ornithological Tour Operators

Journal: Journal of Ecotourism

Volume: 6

Issue: 1

Pages: 34-66

Abstract: Jackson assessed stakeholders' (including ornithological tour operators, conservation groups and ecotourists) attitudes towards the environment in general and ecotourism in particular in the UK tourism sector. General attitudes were measured using the New Environmental Paradigm (NEP) and specific attitudes were measured using an ecotourism scale (TES). Findings showed that all groups scored highly on the NEP scale but scores were lower on the TES scale. Conservation groups scored highest on both scales, and tour operators scored highly on the NEP scale but had the lowest score on the TES scale indicating a lack of willingness to follow ecotourism principles if they intervene with business operations. Significant correlations were measured between NEP and TES scales indicating that general attitudes affected specific attitudes. No significant connections were established between attitudes and implied behaviour based on tour operators' brochures suggesting a hesitancy to translate good intentions into practice.

Authors: Jones, C. A., Plante, S. and Shackelford, C. E.

Year of Conference: 2009

Title: The Great Texas Birding Classic: A Bird Watching Tournament that Protects and Promotes Critical Texas Gulf Coast Habitat

Conference Name: The Fourth International Partners in Flight Conference: Tundra to Tropics: Connecting Birds, Habitats and People

Conference Location: McAllen, Texas

Publisher: Wilson Ornithological Society

Pages: 479-482

Abstract: This paper describes how the Great Texas Birding Classic (an annual birdwatching tournament and outreach programme designed to reach birdwatchers and conservationists) has proven to be a sustainable programme that successfully raises funds and awards grants to conservation projects. Hence, displaying long-term viability and a positive impact on conservation.

Authors: Jones, D.N. and Buckley, R.

Year: 2001

Title: Birdwatching Tourism in Australia

City/State: -

Institution: The Cooperative Research Centre (CRC) for Sustainable Tourism

Report Number: Wildlife Tourism Research Report Series: No. 10

Abstract: This report attempted to explore the characteristics of birdwatching tourism and birdwatching tourists in Australia and detect the industry's main constraints and challenges. Findings showed that birdwatching tourists tend to be well educated, affluent, single or travel in small groups. Four groups of birdwatching tourists were identified based on their motivation and willingness to pay: 1) General/casual birdwatchers; 2) Specialist birdwatchers with restricted budgets; 3) Specialist birdwatchers willing to pay to see more birds; and 4) Specialist birdwatchers requiring packaged birding. Constraints and challenges identified included: lack of accommodation, scarcity of specialised tours and guides, climatic discomforts, and travel distance.

Authors: Jones, D. N. and Neilson, T. J.

Year: 2005

Title: Impacts of Bird Watching on Communities and Species: Long-Term and Short-Term Responses in Rainforest and Eucalypt Habitats

City/State: Queensland

Institution: The Cooperative Research Centre (CRC) for Sustainable Tourism

Abstract: This report provides the findings of a study that examined the impacts of bird watching on birds in Australia through studying the structure of avian communities and the disturbance distances of selected bird species in sites within both eucalypt and rainforest habitats in Queensland. By contrasting primary variables of birds living near disturbed (picnic grounds) and semi-disturbed (walking tracks) areas with those of birds living in undisturbed areas, Jones and Neilson quantified the effect of different degrees of disturbance. Results showed highly significant differences between numbers of species, numbers of individuals and disturbance distances in nearly all the undertaken comparisons. Moreover, results showed that birdwatching, while of supposedly 'low-impact', had a comparable effect as much greater levels of human activity.

Authors: Jones, D. N. and Reynolds, S. J.

Year: 2008

Title: Feeding Birds in Our Towns and Cities: A Global Research Opportunity

Journal: Journal of Avian Biology

Volume: 39

Issue: 3

Pages: 265-271

Abstract: Even though many claims are made about the benefits of wild bird feeding, there are increasing concerns about various issues (e.g. poor nutrition, spread of diseases and risk of dependency). According to this paper, there is paucity of reliable information among both proponents and opponents of feeding. The paper argues that bird feeding provides a valuable, yet challenging, opportunity for fundamental research in urban ecology.

Authors: Jones, M. G., Corin, E. N., Andre, T., Childers, G. M. and Stevens, V.

Year: 2017

Title: Factors Contributing to Lifelong Science Learning: Amateur Astronomers and Birders

Journal: Journal of Research in Science Teaching

Volume: 54

Issue: 3

Pages: 412-433

Abstract: This study used interviews to explore amateur birders' and astronomers' lifelong science learning (engaging in an informal science interest). The study aimed to understand how amateur birders' and astronomers' hobby has developed, what affected that development, and why and how they pursue their hobby. Findings revealed that because of participants' informal science interests, they were more knowledgeable about science and about how science is done, they improved their observation skills, became more environmentally aware, and had opportunities to socialise with others with similar interests. Intersection of social capital and motivation arisen from hobby engagement and lifelong science learning are reviewed.

Authors: Jorgensen, J. G., Brown, M. B. and Dinan, L. R.

Year: 2015

Title: Evaluating Birding Tourism Markets in Nebraska

City/State: Lincoln, Nebraska

Institution: Nebraska Game and Parks Commission

Abstract: This report provides the findings of a study evaluating Nebraska's birders community. Results described birders' (particularly self-identified 'active' birders) demographic characteristics, birding activity, social preferences, affiliations and listing habits.

K

Author: Kazmierow, B. J., Hickling, G. J. and Booth, K. L.

Year: 2000

Title: Ecological and Human Dimensions related to Wildlife Disturbance: White Herons at Waitangiroto, New Zealand

Journal: Human Dimensions of Wildlife

Volume: 5

Issue: 2

Pages: 1-14

Abstract: Uncontrolled growth in wildlife-viewing tourism has the potential to have unacceptable impacts on wildlife populations. The problem is complex because (1) quantifying impacts is technically difficult, and (2) assessing the 'acceptability' of such impacts is inherently subjective. This paper reports the findings of a three-stage case study of wildlife-viewing of the white heron (*Egretta alba modesta*) colony at Waitangiroto Nature Reserve, New Zealand. The first phase involved qualitative interviews with stakeholders to document their concerns about wildlife-viewing at the colony. Selected concerns were then addressed by direct and video observation of tourist/wildlife interactions on the Waitangiroto waterway. In the third stage, stakeholders were asked to evaluate the acceptability of various hypothetical disturbance scenarios. When the outcomes of the field observations were then revealed, the stakeholders altered and reprioritized their original concerns. The researchers conclude that quantitative data on wildlife population dynamics and behavior are vital, but not alone sufficient, for sound management of wildlife/tourist interactions.

Author: Keck, F.

Year: 2015

Title: Sentinels for the Environment: Birdwatchers in Taiwan and Hong Kong

Journal: China Perspectives

Volume: 2

Issue: 102

Pages: 43-53

Abstract: This paper compares the ways of organisation and engagement of birdwatching societies in Taiwan and Hong Kong. Tracking their origins to American, British and Japanese models of nature conservation, it reveals the increasing involvement of Chinese citizens in the observation and conservation of birds. To understand how birds can be utilised as “flagship species” to support environmental campaigns in an effective and sustainable manner, Keck introduces the “sentinel” concept to capture the mix of democratic environmental concern and a military model of territory mapping.

Author: Keller, V. E.

Year: 1991

Title: Effects of Human Disturbance on Eider Ducklings *Somateria mollissima* in an Estuarine Habitat in Scotland

Journal: Biological Conservation

Volume: 58

Pages: 213-228

Abstract: Eider ducklings *Somateria mollissima* on the Ythan estuary in Scotland were frequently disturbed by recreational activities, both when roosting on the shore and when feeding in the water. Shore-based activities (fishermen, people walking along the shore, dogs)

caused more disturbances than water-based ones (windsurfers, rowing boats). Disturbance affected the activity of eider creches for up to 35 min. Disturbance of small ducklings led to an increase in predator encounters during the five minutes following the disturbance.

Author: Kerlinger, P.

Year of Conference: 1993

Title: Birding Economics and Birder Demographics Studies as Conservation Tools

Conference/Workshop Name: Status and Management of Neotropical Migratory Birds

Conference/Workshop Location: Estes Park Center, Estes Park, Colorado

Publisher: Rocky Mountain Forest and Range Experiment Station, U.S Dept. of Agriculture, Forest Service

Pages: 32-38

Abstract: This paper reviews the economic and conservation benefits of birding in the USA and emphasises the need for studies exploring birder demographics and birding economics at a national level, state level and at specific birding sites.

Authors: Kerlinger, P. and Brett, J.

Year: 1995

Title: Hawk Mountain Sanctuary: A Case Study of Birder Visitation and Birding Economics

Editor: Knight, R. L. and Gutzwiller, K. J.

Book Title: Wildlife and Recreationists: Coexistence through Management and Research

City: Washington D.C

Publisher: Island Press

Pages: 271-280

Abstract: This book chapter provides findings from a case-study of birding economics and birder demographics at Hawk Mountain Sanctuary, Pennsylvania (a non-profit, private sanctuary). Kerlinger and Brett provide information about the characteristics of birders visiting the sanctuary and their economic impact on neighbouring communities. According to the authors, the findings are currently used as 1) a management tool for preventing habitat degradation caused by visitors and 2) a public relation tool to promote conservation in the area surrounding the sanctuary.

Authors: Kim, A. K., Keuning, J., Robertson, J. and Kleindorfer, S.

Year: 2010

Title: Understanding the Birdwatching Tourism Market in Queensland, Australia

Journal: Anatolia

Volume: 21

Issue: 2

Pages: 227-247

Abstract: From a recreation specialisation perspective, this study examined the diversification of birdwatchers' characteristics. Data were collected through a survey from birdwatchers in Queensland, Australia. Three groups were identified: casual birdwatchers, intermediate birdwatchers and active/committed birdwatchers. Results revealed that there are substantial differences (e.g. bird-related travel experiences, preferences for destination attributes, appeal of specific bird species, and tour group size) among the three specialisation levels. Moreover, specialised birdwatchers were found to be highly involved in birdwatching activities, interested in endemic birds and bird trails while general birdwatchers were inclined to combine birdwatching with other tourism facilities. According to the authors, the findings can help

destination managers develop relevant tourism products and services which cater for the needs of the identified birdwatcher groups.

Authors: Kim, C., Scott, D., Thigpen, J. F. and Kim, S. S.

Year: 1998

Title: Economic Impact of a Birding Festival

Journal: Festival Management and Event Tourism

Volume: 5

Issue: 1-2

Pages: 51-58

Abstract: This study assessed the direct, indirect and induced impact of the Annual Hummer/Bird Celebration in Rockport, Texas on the local economy. Data were collected via survey from randomly-selected participants. Results showed that non-resident visitors contributed around \$2.5 million in total gross output in local community, \$0.8 million in personal income and about 73 jobs. The paper indicates that documenting economic impacts of birding festivals may help community leaders and event organisers in creating interest in conserving birding habitats.

Authors: Kim, S. S., Scott, D. and Crompton, J. L.

Year: 1997

Title: An Exploration of the Relationships Among Social Psychological Involvement, Behavioral Involvement, Commitment, and Future Intentions in the Context of Birdwatching

Journal: Journal of Leisure Research

Volume: 29

Issue: 3

Pages: 320-341

Abstract: This study used data collected from 517 visitors to a birding festival to explore the relationships among social, psychological involvement, behavioural involvement, commitment, and future intentions of birdwatchers. Results showed that behavioural measures of involvement are apt to be significantly more effective in predicting birders' intentions than measures of social psychological involvement and commitment.

Authors: Kolstoe, S. and Cameron, T. A.

Year: 2017

Title: The Non-Market Value of Birding Sites and the Marginal Value of Additional Species: Biodiversity in a Random Utility Model of Site Choice by eBird Members

Journal: Ecological Economics

Volume: 137

Issue: -

Pages: 1-12

Abstract: This study utilised birders' diary data from Cornell University eBird project supplemented with data from BirdLife International to 1) estimate a random utility model of destination site-choice for birders and 2) to explore the social benefits of birdwatching and how these will be impacted by alterations in bird species' biodiversity.

Author: Kronenberg, J.

Year: 2014

Title: Environmental Impacts of the Use of Ecosystem Services: Case Study of Birdwatching

Journal: Environmental Management

Volume: 54

Issue: 3

Pages: 617-630

Abstract: This paper proposes a framework for examining environmental impacts connected to the use of ecosystem services, suggesting five categories of impact: One category of direct impacts – which directly limit the service’s future availability; and four categories of indirect impacts – which can eventually also impact the initial service. Kronenberg used a birdwatching case study to evaluate the utility of this framework which demonstrated all the above categories of impacts.

Author: Kronenberg, J.

Year: 2016

Title: Birdwatchers’ Wonderland? Prospects for the Development of Birdwatching Tourism in Poland

Journal: Journal of Ecotourism

Volume: 15

Issue: 1

Pages: 78-94

Abstract: This paper explores the strength, weaknesses, opportunities, and threats (SWOTs) of developing avitourism in Poland. A survey was distributed to three stakeholder groups involved in birdwatching: Polish researchers, international researchers and international tour operators. Results outlined Poland’s most important strengths, main weaknesses and main opportunities and threats. Kronenberg concludes with recommendations for 1) managing avitourism in a sustainable manner in Poland and 2) improving the attractiveness of destinations for birdwatchers.

Authors: Kuehn, D. M., Sali, M. J. and Schuster, R.

Year: 2010

Title: Motivations of Male and Female Shoreline Bird Watchers in New York

Journal: Tourism in Marine Environments

Volume: 6

Issue: 1

Pages: 25-37

Abstract: This study used a mail survey to examine motivations for male and female away-from-home birders who reside in New York and bird watch in shoreline areas. The findings showed that factors associated with enjoying the outdoors, challenge, sharing of self, spiritual, intellectual, and social were determined for females. On the other hand, sharing knowledge, appreciating birds, companionship, exploration, and spiritual were recognised for males. Management implications are discussed.

L

Author: Lawton, L.

Year of Conference: 2008

Title: Are US-Based Birding Festivals a Form of Ecotourism?

Conference Name: Council for Australian University Tourism and Hospitality Education (CAUTHE)

Conference Location: Gold Coast, Australia

Pages: 1-7

Abstract: Lawton's study investigated the relationship between birding festivals and ecotourism. Survey responses which were collected from organisers of 88 US-based birding festivals showed that these events adhered to the basic criteria of ecotourism, nevertheless, tended not to promote the former as a form of ecotourism. Lawton identified exposure to nature-based attractions and learning as significant objectives, while the relative weaknesses of criteria related to sustainability suggested non-compliance with a comprehensive measure that gives priority to activism and environmental enhancement. The study recommended creating an umbrella wildlife festival organisation to promote sustainability best practices more within the sector.

Author: Lawton, L.

Year: 2009

Title: Birding Festivals, Sustainability, and Ecotourism: An Ambiguous Relationship

Journal: Journal of Travel Research

Volume: 48

Issue: 2

Pages: 259-267

Abstract: This study examined the relationship between birding festivals and ecotourism, specifically, from a sustainability perspective. Survey responses collected from 108 US-based birding festivals showed overall adherence to ecotourism principles. Cluster analysis identified four distinct sub-groups of members: *normatives*, *minimalists*, *recruiters* and *fundraisers*. Formal identification with ecotourism via membership or promotion was found to be low and did not predict the increase in number of visitors or cluster membership. Lawton argues that although an inflow of birding festival memberships may benefit ecotourism organisations, yet the reciprocal benefits for birding festivals in terms of sustainability and performance outcomes is ambiguous.

Authors: Lawton, L. J. and Weaver, D. B.

Year: 2010

Title: Normative and Innovative Sustainable Resource Management at Birding Festivals

Journal: Tourism Management

Volume: 31

Issue: 4

Pages: 527-536

Abstract: This study investigated the sustainable ancillary resource management (SARM) practices of birding festivals in the US. Data were collected from 108 festival organisers by means of a questionnaire. Results showed several normative SARM practices including signage re-use and container recycling, and a multitude of innovative practices initiated by some festivals. Results also generated relatively equal groups of 'non-innovators', 'innovative

energy conservers’, ‘innovative recyclers’. ‘normative recyclers’ and ‘comprehensive innovators’. Furthermore, SARM innovators were found to often be ecotourism innovators.

Authors: Lee, C. K., Lee, J. H., Kim, T. K. and Mjelde, J. W.

Year: 2010

Title: Preferences and Willingness to Pay for Bird-Watching Tour and Interpretive Services Using a Choice Experiment

Journal: Journal of Sustainable Tourism

Volume: 695-708

Issue: 18

Pages: 5

Abstract: This study used choice experiment methods to examine birdwatchers’ (activity and experience) preferences and willingness to pay (WTP) for birdwatching-related ecotourism tours and interpretive services. Data were collected from tourists attending the Cheonsuman International Birdwatching Fair by means of a questionnaire. Results showed that visitors prefer intermediate length birdwatching courses, interpretive services, observing special birds, and lower admission fees. Courses with bus tours were favoured over courses with no bus tours, however, long tours were not preferred. According to the authors, as degrees of service attributes related to birdwatching ecotourism resources increase, the visitors are more content and willing to pay more for the tours than if levels of service attributes are lower.

Authors: Lee, C. K., Lee, J. H., Mjelde, J. W., Scott, D. and Kim, T. K.

Year: 2009

Title: Assessing the Economic Value of a Public Birdwatching Interpretative Service Using a Contingent Valuation Method

Journal: International Journal of Tourism Research

Volume: 11

Issue: 6

Pages: 583-593

Abstract: This study used a dichotomous choice contingent valuation method to assess the economic value of public interpretative services at a Korean birdwatching festival. Data were collected from visitors by means of a questionnaire. Findings revealed that age, income, bid and birdwatching experience are significant factors in explaining willingness to pay for interpretative services.

Authors: Lee, J. H. and Scott, D.

Year: 2004

Title: Measuring Birding Specialization: A Confirmatory Factor Analysis

Journal: Leisure Sciences

Volume: 26

Issue: 3

Pages: 245-260

Abstract: Lee and Scott used data from avid American bird watchers to test a three-dimensional model of recreational specialisation. The model suggests that recreational specialisation could be conceptualised in terms of three distinct dimensions: skills and knowledge, behaviour, and commitment. The findings showed that skills and knowledge, behaviour, and commitment were moderately related but did not always covary. Hence, the authors emphasise the need to examine the distinct effect of each dimension of specialisation.

Authors: Lee, S., McMahan, K. and Scott, D.

Year: 2015

Title: The Gendered Nature of Serious Birdwatching

Journal: Human Dimensions of Wildlife

Volume: 20

Issue: 1

Pages: 47-64

Abstract: This paper describes how gender is connected to indicators of recreation specialisation and serious leisure among birdwatchers. Males were found to be more inclined than females to join birdwatching trips, report detecting more birds by sight and sound and report having more birdwatching equipment. However, males and females did not differ in their commitment level and indicators used for measuring serious leisure. Both males and females equally reported that birdwatching provided them durable benefits. Males were more likely to report that birdwatching allowed them to demonstrate their skills, while females emphasised the significance of birdwatching as a form of enjoyment, personal enrichment and recreation. The paper argues that male and female birdwatchers are equally serious about birdwatching, however, they display distinct involvement styles, indicating that participation in birdwatching is gendered.

Authors: Leones, J., Colby, B. and Crandall, K.

Year: 1998

Title: Tracking Expenditures of the Elusive Nature Tourists of Southeastern Arizona

Journal: Journal of Travel Research

Volume: 36

Issue: 3

Pages: 56-64

Abstract: This paper provides findings of a study examining expenditures of nature tourists in Arizona. Data were collected by means of a survey distributed to visitors to Ramsey Canyon Preserve and San Pedro Riparian National Conservation Area. Findings showed that birdwatchers spent more money in nature sites than other nature tourists. The paper concludes that attracting visitors who are likely to make high expenditures can help communities increase economic benefits from nature-based tourism.

Author: Lewis, S. E.

Year: 2011

Title: Valuing an Ecotourism Resource: A Case Study of the Boulders Beach African Penguin Colony

Academic Department: Percy FitzPatrick Institute of African Ornithology

University: University of Cape Town

Thesis Type: Master of Science in Conservation Biology

Abstract: This study used a contingent valuation method which showed that visitors of the colony of African Penguin at Boulders (a major ecotourism destination), Simons Town, South Africa are willing to pay an extra R11 million (equivalent to US \$875,050) per annum over the current gate revenues without any additional investment by the management agency at Boulders. Moreover, the findings showed that when visitors were informed about the poor conservation status of the African Penguin (listed as endangered, partially due to competition with commercial fisheries), half of them conveyed an increased willingness to pay, and the total value increased to R31 million (equivalent to US \$2,466,050) per annum. Lewis concludes that the current value of the African Penguin, and its potential for future increase, may be

utilised as a rationalisation to governing authorities to invest in implementing measures to protect and conserve the colony (e.g. improving spatial management of the fishing industry).

Authors: Li, F., Zhu, Q. and Yang, Z.

Year: 2013

Title: Birding Tourism Development in Sichuan, China

Journal: Tourism Economics

Volume: 19

Issue: 2

Pages: 257-273

Abstract: This paper presents the findings of a study investigating birding tourism development in Sichuan, China – it explores birding resources, economic feasibility, site characteristics and main factors impacting tourism in this region.

Author: Li, L.

Year: 2018

Title: Environmentally Responsible Behavior Intentions of Wildlife Tourists Based on Recreational Involvement: A Case Study of Bird-Watching Tourists in Guangzhou

Journal: Chinese Studies

Volume: 7

Issue: 1

Pages: 95-113

Abstract: Li's study used a questionnaire as data collection method to investigate birdwatching tourists' (in Guangzhou) environmentally responsible behaviour intentions based on recreation involvement. The findings showed that birdwatching tourists can be divided into three different types of involvement, 'low risk tourists', 'low attraction tourists' and 'high involvement tourists'. Environmentally responsible behaviour intentions of high involvement birdwatchers were found to be remarkably higher than the other two types.

Authors: Lindsay, K., Craig, J. and Low, M.

Year: 2008

Title: Tourism and Conservation: The Effects of Track Proximity on Avian Reproductive Success and Nest Selection in an Open Sanctuary

Journal: Tourism Management

Volume: 29

Issue: 4

Pages: 730-739

Abstract: This study examined the impacts of tourism activities in Tiritiri Matangi Island in New Zealand on bird species. This island promotes tourism activities to fund its ongoing habitat restoration and species' recovery programmes. Results showed that general population trends of all species monitored on the island indicate that negative impacts of tourism are minor and are currently counterbalanced by the benefits generated by tourism activities.

Author: Lindsay, L.

Year: 1998

Year of Conference: 2000

Title: The Great Texas Coastal Birding Trail: A Tool for Avitourism

Conference/Workshop Name: Strategies for bird conservation: The Partners in Flight planning process; Proceedings of the 3rd Partners in Flight Workshop

Conference/Workshop Location: Ogden, Utah

Publisher: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Pages: 261-262

Abstract: This paper describes how the Great Texas Coastal Trail is a successful example and top destination for avitourism in the United States.

Authors: Lord, A., Waas, J. R., Innes, J. and Whittingham, M. J.

Year: 2001

Title: Effects of Human Approaches to Nests of Northern New Zealand Dotterels

Journal: Biological Conservation

Volume: 98

Issue: 2

Pages: 233-240

Abstract: This study investigated the impact of human disturbance on the northern New Zealand dotterel – an endangered shorebird that human disturbance is perceived as a threat to its nesting success. Three types of approach to nests (running, walking or leading a dog) were made. Results showed evidence of habituation to humans on busy beaches and evidence that the birds perceive dogs as posing more of a threat than humans on foot.

Authors: Lück, M. and Porter, B. A.

Year: 2018

Title: The Ethical Dilemma of Provisioning Pelagic Birds in Exchange for a Close Encounter

Journal: Journal of Ecotourism

Volume: 15

Issue: 2

Pages: 401-408

Abstract: With the rapid expansion of wildlife tourism over recent decades has come a growing concern about the potential negative impacts these viewing activities on targeted species. Marine wildlife tourism has been no exception, and many researchers have investigated the issues surrounding wildlife watching activities for various marine species. The majority of such studies have focussed on the potential negative effects on either the species in question, on visitor education, or on tourist satisfaction. Only recently have ethical dimensions been addressed, particularly the practice of provisioning wildlife during touristic encounters. This study explored the tourist experience of pelagic birdwatching tours in Kaikoura and on Stewart Island, New Zealand. Unprompted, qualitative comments from birdwatchers discussed the close encounters with pelagic birds and the practice of provisioning the birds. Results reveal the ethical dissonance of not agreeing with feeding wildlife while simultaneously enjoying viewing pelagic birds at close range. The results suggest that tourists are concerned about the potential negative effects of feeding pelagic birds, but accept these for the benefit of their own wildlife experience.

Authors: Lück, M. and Porter, B. A.

Year: 2018

Title: Profiling Pelagic Birdwatchers: The Case of *Albatross Encounter*, Kaikoura, New Zealand

Editors: Hull, J. S. and Ali, A.

Book Title: Multi-stakeholder Perspectives of the Tourism Experience: Responses from the International Competence Network of Tourism Research and Education (ICNT)

City: Frankfurt/Main

Publisher: Peter Lang Verlag

Pages: 87-105

Abstract: This book chapter provides findings from a case-study of pelagic birdwatching in Kaikoura, New Zealand. It draws a demographic profile, and looks at equipment pelagic birdwatchers use on these trips. Finally, it employs an Importance-Performance Analysis (IPA) about various aspects of the tour. Results show that pelagic birdwatchers are specialised tourists, carrying a variety of equipment and clothing, especially binoculars, a variety of camera gear, a field hat and rain clothing. Tour satisfaction was very high, and no items of the IPA fell into the quadrants “concentrate here” or “possible overkill”, indicating that the operator has devised a specialised and successful product.

Authors: Lyons, K., Markwell, K. and Johnson, P.

Year of Conference: 2009

Title: Recreation Specialisation and Destination Image: A Case Study of Birding Tourists Values and their Perceptions of Papua New Guinea

Workshop/Meeting Name: BEST EN Think Tank IX: The Importance of Values in Sustainable Tourism

Workshop/Meeting Location: James Cook University, Singapore

Pages: 1-3

Abstract: This study explored destination perceptions, namely Papua New Guinea (PNG) among Australian visitors. A questionnaire and focus groups were used to identify factors that act as barriers to travelling to PNG, impacting birdwatching tourism. Results showed that safety concerns (concern for security, violence threats, and personal health) were a major barrier for travelling to PNG to watch birds. Another documented barrier was cost of travel to PNG.

M

Authors: Maple, L. C., Eagles, P. F. and Rolfe, H.

Year: 2010

Title: Birdwatchers' Specialisation Characteristics and National Park Tourism Planning

Journal: Journal of Ecotourism

Volume: 9

Issue: 3

Pages: 219-238

Abstract: This study examined birdwatchers' recreation specialisation to address a decline in birding visitation to Point Pelee National Park, Canada and to provide recommendations for better birdwatching programmes. The findings identified birdwatchers' characteristics at three specialisation levels: beginners, intermediate and experts. Beginners were found to be a distinct group (e.g. stayed least number of nights in local area and had lowest expenditures), requiring programmes that aimed to introduce the park, the regional area, birding, and the different

activities and sites. On the other hand, intermediate and expert groups were very much alike each other, requiring specialised programmes on bird biology, bird identification, and birdwatching. Managerial implications are discussed.

Author: McCaffrey, R. E.

Year: 2005

Title: Using Citizen Science in Urban Bird Studies

Journal: Urban Habitats

Volume: 3

Issue: 1

Pages: 70-86

Abstract: This paper describes how the popularity of birdwatching among the public has allowed bird-monitoring projects to successfully integrate citizen scientists. A case-study of the Tuscan Bird Count (TBC) – a volunteer-based monitoring project in Arizona is described and managerial implications are discussed.

Authors: McCleery, R. A., Ditton, R. B., Sell, J. and Lopez, R. R.

Year: 2006

Title: Understanding and Improving Attitudinal Research in Wildlife Sciences

Journal: Wildlife Society Bulletin

Volume: 34

Issue: 2

Pages: 537-541

Abstract: This paper defines attitudes, investigates their connection to behaviour, and examines some relevant theoretical frameworks. It also explores shortcomings that are prevalent in wildlife attitudinal research and provides recommendations to improve the research's quality. The paper provides some examples from birdwatching.

Authors: McClung, M. R., Seddon, P. J., Massaro, M. and Setiawan, A. N.

Year: 2004

Title: Nature-Based Tourism Impacts on Yellow-Eyed Penguins *Megadyptes Antipodes*: Does Unregulated Visitor Access Affect Fledging Weight and Juvenile Survival?

Journal: Biological Conservation

Volume: 119

Issue: 2

Pages: 279-285

Abstract: The Otago peninsula in New Zealand provides tourists with opportunities for unregulated access to breeding sites of the yellow-eyed penguin. This study examined the relationship between human disturbance and yellow-eyed penguin chick fledging weight and survival through comparing five breeding sites with varying degrees of visitor frequency. Results revealed that the probability of survival was positively related to mass at fledging. Hence, lower fledging weights can have long-term population consequences. Results indicated the possibility of an impact of tourist numbers on chick fledging weight.

Authors: McFadden, T. N., Herrera, A. G. and Navedo, J. G.

Year: 2017

Title: Waterbird Responses to Regular Passage of a Birdwatching Tour Boat: Implications for Wetland Management

Journal: Journal for Nature Conservation

Volume: 40

Issue: -

Pages: 42-48

Abstract: This study investigated winter waterbirds' responses to the everyday passage of a small birdwatching tour boat in a coastal Ramsar site in Spain. Occurrence and significance of disturbance incidents were compared by categorising bird species based on their interest to birdwatchers (target vs. non-target) and compared across different areas of the tour route. Findings showed that a single boat tour disturbed an average 0.3% of non-target and 2.8% of target wintering birds in the wetland, with the impact being more evident on target species because of their smaller populations. Disturbance occurrence and number of birds disturbed per tour were found to be both greatest in narrow tidal channels (<200 m) where tour boats were forced to pass within 100m of waterbirds.

Author: McFarlane, B. L.

Year: 1994

Title: Specialization and Motivations of Birdwatchers

Journal: Wildlife Society Bulletin

Volume: 22

Issue: 3

Pages: 361-370

Abstract: McFarlane's study utilised the specialisation framework to investigate birdwatchers' motivations and birdwatching involvement process. Data were collected by means of a questionnaire mailed to birdwatchers. Four motivations were identified as important for birdwatching experience: achievement, appreciative, affiliation, and conservation. Primary motivation differed across levels of birding specialisation indicating that specialisation functions at a level of goal-orientation shifts. According to McFarlane, specialisation may be a useful way of categorising birdwatchers and differentiating motivations. The paper also discusses implications for development of recreational programmes aiming to meet demands of specific user-groups.

Authors: McFarlane, B. L. and Boxall, P. C.

Year: 1996

Title: Participation in Wildlife Conservation by Birdwatchers

Journal: Human Dimensions of Wildlife

Volume: 1

Issue: 3

Pages: 1-14

Abstract: McFarlane and Boxall used a mail survey to investigate birdwatchers' participation in wildlife conservation activities. Findings revealed that birdwatchers made significant contributions that increased with higher degrees of birdwatching experience. The paper provides recommendations for conservation including using volunteers, initiating cooperative agreements with private organisations, recruiting birdwatchers in conserving private land for habitat and planning mechanisms for distinct subgroups of birdwatchers.

Author: McKay, L.

Year: 2007

Title: Engaging the Public in Bird Conservation: Moving from Science to Behavior Change

Journal: Waterbirds

Volume: 30

Issue: 1

Pages: 177-182

Abstract: McKay's paper explores 1) some of the main causes for the decline of bird population as they connect to human behaviours and attitudes, and 2) the actions that the Virginia Coastal Zone Management Program is taking in an attempt to reverse these trends. Four main causes were identified: population growth, growing separation between humans and nature, sea-level rise, and an information gap between science and the public. McKay suggests some proactive measures for improvements in each of these areas to mitigate environmental degradation.

Authors: Measells, M. K. and Grado, S. C.

Year of Conference: 2007

Title: Economic Impacts of Two Birding Festivals in Mississippi

Conference Name: The 2007 Southern Forest Economics Workshop (SOFEW)

Conference Location: San Antonio, Texas

Publisher: -

Pages: 142-149

Abstract: This paper investigated the economic impacts and expenditure from two birding festivals in Mississippi using on-site surveys completed by 69 birders. Results showed that the Stork and Cork festival at TARA Wildlife had an economic impact of \$10,031 while the Hummingbird Migration Celebration generated \$97,654. The paper concludes that the findings may be useful for marketing and policy strategies associated with eco-tourism and resource management toward birdwatching.

Author: Méndez Roldán, S.

Year: 2013

Title: Water-based Recreation Disturbance on Coastal Bird Populations. A Canoeing/Kayaking Case Study in Langstone Harbour, UK

Academic Department: Department of Geography

University: University of Portsmouth

Thesis Type: Master of Science in Coastal and Marine Resource Management

Abstract: The two-fold purpose of facilitating recreational use and conserving wildlife resources is one of the biggest challenges for coastal managers. Exposure to water-based recreation activities often disrupts present birds' behaviour, which is known to cause heightened stress levels, energy costs, or even nestling predation as a result of decreased parental attendance to nests. This study explores evidence concerning the potential disturbance that canoeing and kayaking may have on bird populations, and to identify appropriate management measures, using Langstone Harbour (UK) as a case study.

Authors: Miller, Z. D., Hallo, J. C., Sharp, J. L., Powell, R. B. and Lanham, J. D.

Year: 2014

Title: Birding by Ear: A Study of Recreational Specialization and Soundscape Preference

Journal: Human Dimensions of Wildlife

Volume: 19

Issue: 6

Pages: 498-511

Abstract: This study used a three-component model of recreational specialisation to examine how recreationists vary in their preference for soundscape components. Data were collected by means of surveys from 415 birders with varying levels of specialisation. Surveys were collected 1) at the Audubon Center and Sanctuary at Francis Beidler Forest, South Carolina and 2) from online birding list servers. Results showed that soundscape preference exists as biophony, geophony, and anthrophony. More specialised birders found geophony to be significantly more annoying than less specialised ones. Moreover, results showed that the skill and knowledge constituent of specialisation best explained the difference in geophony preference among birders.

Authors: Mohan, D. and Athreya, R.

Year: 2011

Title: Sustainable Bird Based Tourism in India's Remote North-East Frontier

Journal: International Journal of Innovation Science

Volume: 3

Issue: 1

Pages: 23-28

Abstract: This paper provides a description of a sustainable and innovative community-based ecotourism initiative which has transformed one of the protected areas, namely Eagle-nest Wildlife Sanctuary (located in India's remote north east frontier) to one of the top birdwatching destinations in the world in a very short period. The paper concludes that the main reasons behind this initiative were: 1) involvement of local community, 2) prioritising socio-economic needs of local community, and 3) having a strong foundation of knowledge.

Authors: Moore, R. L., Scott, D. and Moore, A.

Year: 2008

Title: Gender-Based Differences in Birdwatchers' Participation and Commitment

Journal: Human Dimensions of Wildlife

Volume: 13

Issue: 2

Pages: 89-101

Abstract: This study used a sample of North Carolina birding organisation members to examine potential gender-based differences in birdwatching participation and commitment. Findings revealed that men were remarkably more involved in birding in terms of their objective, behaviour and skill level. Men were also found to be slightly more committed to birding than women. Differences in why men and women initially decided to get involved in birding were also outlined in the paper.

Author: Morris, J.

Year: 2008

Title: Sustainability of Avian Ecotourism

Editor: Nelson, G. and Hronszky, I.

Book Title: An International Forum on Sustainability

City: Budapest

Publisher: Arisztotelész Publishing Co.

Pages: 43-50

Abstract: This paper outlines the main threats to the sustainability of avian ecotourism (e.g. ecotourism impact, global warming, reduction in avian biodiversity, habitat destruction...). The paper emphasises that such threats are partly responsible for the remarkable decline in the number of avian species. Morris argues that possible solutions to these threats involve the development of Community-based Ecotourism (CBE), which incorporates the environmental, social and economic aspects of ecotourism. According to Morris, CBE is being globally aided by established partnerships between local entrepreneurs and Non-Government Organisations.

Authors: Muir, F. and Chester, G.

Year: 1993

Title: Managing Tourism to a Seabird Nesting Island

Journal: Tourism Management

Volume: 14

Issue: 2

Pages: 99-105

Abstract: This paper provides a review and a critical assessment of a management plan which has been used to manage the increasing tourism activities and minimise associated environmental disturbance at Michaelmas Cay and Reed – a major seabird nesting island in Queensland, Australia.

N

Authors: Neuts, B., Romão, J., Nijkamp, P. and Shikida, A.

Year: 2016

Title: Market Segmentation and their Potential Economic Impacts in an Ecotourism Destination: An Applied Modelling Study on Hokkaido, Japan

Journal: Tourism Economics

Volume: 22

Issue: 4

Pages: 793-808

Abstract: This study argues that it is essential to balance environmental sustainability and economic viability in nature-based tourism destinations. Hence, tourists' environmental awareness and economic impact are two important factors which define their attractiveness. Aiming to obtain useful data for the protection and conservation of seabirds from negative impacts of marine activities (e.g. cruise ships) at the Shiretoko Peninsula, Japan, this study used visitor surveys to obtain tourists profiles and segmentation variables. The paper introduces a model-based latent class analysis of visitors' choices and preferences to identify different demand clusters in the peninsula. Four distinct clusters are identified, each differing in motivations, activities undertaken and information search. To maximise benefits for the local

economy, the paper describes how the proposed approach can be utilised to make informed management decisions related to tourist heterogeneity.

Author: Nicolaides, A.

Year: 2014

Title: Stakeholders, Purposes and Responsibilities: Avitourism in South Africa

Journal: African Journal of Hospitality and Leisure

Volume: 3

Issue: 2

Pages: 1-14

Abstract: This conceptual paper which focuses on avitourism in South Africa discusses the role of involving local communities (and other stakeholders) in supporting the industry. The paper also explores the role and contribution of avitourism in the economic and social development (especially in rural areas) in South Africa. Additionally, it analyses how the industry contributes to environmental and cultural heritage preservation. According to Nicolaides, this paper attempts to promote more influential marketing practices and dynamic approaches to avitourism in South Africa.

Author: Nisbet, I. C.

Year: 2000

Title: Disturbance, Habituation, and Management of Waterbird Colonies

Journal: Waterbird Society

Volume: 23

Issue: 2

Pages: 312-332

Abstract: Nisbet's commentary is a critique of impact studies of human disturbance on breeding colonial waterbirds. Nisbet argues that there is little scientifically acceptable proof that human disturbance causes considerable harm to for instance terns, gulls or herons. The author also argues that most colonial waterbirds can become very tolerant of repeated human disturbance. And he recommends that where appropriate, waterbird colonies could be managed for multiple uses (e.g. recreation, education and research) by intentionally promoting habituation.

O

Authors: Ocampo-Peñuela, N. and Winton, R. S.

Year: 2017

Title: Economic and Conservation Potential of Bird-Watching Tourism in Postconflict Colombia

Journal: Tropical Conservation Science

Volume: 10

Issue: -

Pages: 1-6

Abstract: Using geospatial analysis of conflict zones, protected areas, forest cover, bird distributions and bird-watching activity, this study identifies regions of Colombia with overlooked bird-watching potential that are ideal for the development of cooperative conservation-ecotourism projects. The authors argue that an investment in ecotourism infrastructure and training by the Colombian government may be a conservation-friendly

substitute for extraction of natural resources that could mitigate poverty without degrading natural capital in post-conflict Colombia.

Authors: Orenstein, R., Wong, A., Abghani, N., Bakewell, D. and Eaton, K.

Year: 2010

Title: Sarawak—A Neglected Birding Destination in Malaysia

Journal: BirdingASIA

Volume: 13

Issue: -

Pages: 30-41

Abstract: This paper aims to promote Sarawak—Malaysia's largest state (with its extensive coastline) as an important and overlooked birdwatching destination. The paper describes why birders neglect Sarawak and provides an overview of the different bird species and bird sites found in it. The authors emphasise that the revenue that international birdwatchers could bring in this neglected state is essential for the conservation of forests, wetlands and other important bird habitats in it.

Authors: Ormsby, A. A. and Forys, E. A.

Year: 2010

Title: The Effects of an Education Campaign on Beach User Perceptions of Beach-Nesting Birds in Pinellas County, Florida

Journal: Human Dimensions of Wildlife

Volume: 15

Issue: 2

Pages: 119-128

Abstract: Much of the suitable habitat for birds that nest on beaches in Florida is managed by municipal and county governments whose primary goal is human recreation. Birds attempting to nest on these beaches are exposed to higher levels of human disturbance and predation by human-associated species than birds on more natural, protected beaches. An education program about the birds was initiated for the beach-going public to increase beach users' knowledge and positive attitudes. Beach users were interviewed about their attitudes and knowledge about beach-nesting birds before and after an education campaign to evaluate the impact of the education materials. Beach users were supportive of birds nesting on the beach, but had little knowledge about the species. Education was moderately successful at increasing public knowledge and perception of beach-nesting birds. The most effective method of educating the public was the placement of metal signs at beach access points.

P

Authors: Pease, M. L., Rose, R. K. and Butler, M. J.

Year: 2005

Title: Effects of Human Disturbances on the Behavior of Wintering Ducks

Journal: Wildlife Society Bulletin

Volume: 33

Issue: 1

Pages: 103-112

Abstract: Human activity causes wintering waterfowl to expend energy to avoid humans at a time in their annual cycle when energy conservation is important to survival, migration, and breeding reserves. Understanding the effects of recreational activities on waterfowl is

important to managing natural resource areas where migratory birds depend on wetland habitat for resting and feeding. Pease and colleagues investigated responses of 7 species of dabbling ducks to 5 different experimental human activities, (a pedestrian, a bicyclist, a truck traveling at 2 different speeds, and an electric passenger tram). Responses of ducks depended on type of disturbance, species, and distance from disturbances. Most birds responded to the treatments. People walking and biking disturbed ducks more than vehicles did. Northern pintail (*Anas acuta*) was the species least sensitive to disturbance, whereas American wigeon (*A. americana*), green-winged teal (*A. crecca*), and gadwall (*A. strepera*) were most sensitive. Ducks were more likely to fly when closer to sources of disturbance. These results will be helpful to managers making decisions about public use that strive to minimize disturbance of dabbling ducks.

Author: Pinder, R.

Year: 2007

Title: On Movement and Stillness

Journal: Ethnography

Volume: 8

Issue: 1

Pages: 99-116

Abstract: This paper analyses a series of ethnographic encounters that took place in a Community Forest during an afternoon bird-watching with seniors suffering mental health impairments. This was part of a bigger research project initiated with epidemiologists to examine the connections between health and the natural environment, and the therapeutic benefits of contact with nature. Through a programme of guided walks and education in countryside lore, this initiative informed a national Community Forestry programme established in 1992 to advance well-being and counteract health inequalities for those living in the urban peripheries of Britain's cities.

Author: Price, M.

Year: 2008

Title: The Impact of Human Disturbance on Birds: A Selective Review

Editor: Lunney, D.; Munn, A.; Meikle, W.

Book Title: Too Close for Comfort: Contentious Issues in Human-Wildlife Encounters

City: Mosman, Sydney

Publisher: Royal Zoological Society of New South Wales

Pages: 163-196

Abstract: In this paper, Price reviews the negative effects of human disturbance on birds. According to the findings, the mere presence of humans may have adverse effects on the demography, physiology and behaviour of wild birds. The paper also argues that even nature-based tourism activities which may seem non-exploitive and non-consumptive, have been considered by some as 'conservation backfire'.

Authors: Puhakka, L., Salo, M. and Sääksjärvi, I. E.

Year: 2011

Title: Bird Diversity, Birdwatching Tourism and Conservation in Peru: A Geographic Analysis

Journal: PLoS One

Volume: 6

Issue: 11

Pages: 1-14

Abstract: This paper presents a method to spatially link data on conservation needs and tourism-based economic opportunities, using birdwatching tourism in Peru. A number of regions in Peru where potential for birdwatching activities could be especially high are presented. The study outlines methods to implement conservation in these areas (e.g. conservation and ecotourism concessions, private conservation areas, and conservation easements). The authors argue that some of these methods also provide opportunities for local communities aiming to secure their traditional land ownership and use rights.

R

Authors: Radkovic, A. Z., Van Dongen, W. F. D., Kirao, L., Guay, P-J. and Weston, M. A.

Year: 2017

Title: Birdwatchers Evoke Longer Escape Distances than Pedestrians in some African Birds

Journal: Journal of Ecotourism

Volume: 18

Issue: 1

Pages: 100-106

Abstract: Birdwatching attracts many bird enthusiasts to developing economies, and is generally considered an innocuous activity with few impacts on birds. Birdwatchers generally attempt to remain as inconspicuous as possible when approaching birds, and their movement is different to that of other users of natural areas. However, how birds respond to birdwatchers, compared with humans conducting other activities, has rarely been tested. We randomly conducted pedestrian (i.e. consistent walking) and 'birdwatcher' (i.e. stops each 5 paces to view a bird through binoculars) approaches to 20 East African bird species and measured their escape responses. Four species ($\alpha = 0.05$; 7 if $\alpha = 0.10$) exhibited significantly and substantially (1.7–2.2 times) longer flight-initiation distances (FIDs) to birdwatcher approaches. No differences in escape mode (flying versus on foot) were evident. While birdwatching appears no more disturbing per episode than walking for most species, some species evidently judge birdwatchers as more threatening. This information has important implications for management strategies focused on minimizing birdwatching impacts in natural areas.

Authors: Remacha, C., Pérez-Tris, J. and Delgado, J. A.

Year: 2011

Title: Reducing Visitors' Group Size Increases the Number of Birds during Educational Activities: Implications for Management of Nature-Based Recreation

Journal: Journal of Environmental Management

Volume: 92

Issue: 6

Pages: 1564-1568

Abstract: This study examined the impact of visitors' group size on the variety and number of birds observed during an educational activity conducted to scholars in a forested location where

public access is otherwise restricted. Results showed that as size of group increased, fewer birds were observed, however, not fewer species. Consequently, reducing visitors' group size helps mitigate negative impacts of recreational activities on wildlife and also allows visitors to watch more wildlife.

Authors: Roberts, A. J., Devers, P. K., Knoche, S., Padding, P. I. and Raftovich, R.

Year: 2017

Title: Site Preferences and Participation of Waterbird Recreationists: Using Choice Modelling to Inform Habitat Management

Journal: Journal of Outdoor Recreation and Tourism

Volume: 20

Issue: -

Pages: 52-59

Abstract: Recreationists utilizing wetland birds for hunting or birdwatching contribute significantly to local economies and conservation efforts. The waterfowl management community, through the 2012 North American Waterfowl Management Plan (NAWMP), has explicitly recognized the need to increase recruitment and retention of wetland bird recreationists to help halt the national decline in social support for conservation. Achieving this goal requires that waterfowl and wetland managers consider how recreation site characteristics and management impact participation and support for wetland conservation. The outdoor recreation management and natural resource economics fields have extensive experience with similar problems and frequently use recreational site choice models to link attributes of recreational areas to use by recreationists. The waterfowl management community has several publicly available, long-term data sets that can be used in site choice models. We introduce U.S. Fish and Wildlife Service waterfowl harvest survey data, U.S. Geological Survey band encounter data, and Cornell Lab of Ornithology eBird data and use those data to summarize travel characteristics of wetland bird enthusiasts. We used harvest survey and eBird data in choice models to predict and compare the impacts of three seemingly similar proposed habitat acquisitions on use by recreationists in the state of Georgia; the proposal that had the greatest increase in predicted trips would result in twice as many additional hunting trips and >10 times more additional birdwatching trips than the proposal that generated the fewest additional trips. This case study demonstrates the potential of these and similar data and analytical methods for incorporating recreation participation and site preferences into habitat planning and delivery under the NAWMP. We encourage the outdoor recreation management and economics communities and the waterfowl management community to build partnerships and cooperative projects to improve our understanding of the relationships between wetland bird users and habitat conservation.

Authors: Rodgers, J. A. and Smith, H. T.

Year: 1995

Title: Set-Back Distances to Protect Nesting Bird Colonies from Human Disturbance in Florida.

Journal: Biological Conservation

Volume: 9

Issue: 1

Pages: 89-99

Abstract: Breeding colonial waterbirds are particularly susceptible to human disturbance because of their high-density nesting habits. Identified detriments to reproductive success include egg and nestling mortality, nest evacuation, reduced nestling body mass and slower

growth, premature fledging, and modified adult behaviors. Fifteen species of colonial waterbirds nesting at 17 colonies in north and central Florida were exposed to three different human disturbance mechanisms (HDMs) in order to determine recommended set-back (RS) distances for protecting these mixed-species nesting assemblages. Both intraspecific and interspecific variation were observed in flushing response distances to the same human disturbance mechanisms. In general, colonial waterbirds exhibited greater average flush distances in reaction to a walking approach than to approaching motor boats. Recommended set-back distances were estimated using a formula based on the mean plus 1.6495 standard deviations of the observed flushing distances plus 40 meters [$X = \exp(X + 1.6495X + 40)$]. In general, a recommended set-back distance of about 100 meters for wading bird colonies and 180 meters for mixed tern/skimmer colonies should be adequate to effectively buffer the sites we studied from human disturbance caused by approach of pedestrians and motor boats. We recommend follow-up studies to test our model at other breeding colonies.

Author: Rothman, A.

Year of Conference: 2009

Title: A Case Study of Bird Trail Development in Central America

Conference Name: The 4th International Partners in Flight Conference: Tundra to Tropics: Connecting Birds, Habitats and People

Conference Location: McAllen, Texas

Publisher: Wilson Ornithological Society

Pages: 508-511

Abstract: This paper discusses how the establishment of birding trails in Latin America may support the development of biological corridors and the conservation of wildlife habitat. Rothman's paper describes how the Rainforest Biodiversity Group (RBG) is working in Costa Rica to develop the Costa Rican Bird Route to raise connectivity and landowner participation in the San Juan–La Selva Biological Corridor. Rothman argues that if the Costa Rican Bird Route successfully increase habitat connectivity within a biological corridor by presenting private landowners with an economic incentive, others in the region may utilise birding trails as a method for habitat conservation.

S

Authors: Sali, M. J., Kuehn, D. M. and Zhang, L.

Year: 2008

Title: Motivations for Male and Female Birdwatchers in New York State

Journal: Human Dimensions of Wildlife

Volume: 13

Issue: 3

Pages: 187-200

Abstract: This study used mail survey of 500 male and 500 female birdwatchers in New York to gain a better understanding of motivations for birdwatching participation. Results showed that for females, there was significant negative relationships between participation and both “enjoying the outdoors” and the “spiritual” motivations, and positive significant relationships between participation and the “challenge” and “intellectual” motivations. For males, a negative significant relationship between participation and the “spiritual” motivation, and a positive significant relationship between participation and the “sharing knowledge” motivation were identified. Educational level was connected to participation for males, whereas marital status, age group, and area of residence were connected to participation for females.

Authors: Sari, C., Oban, R. and Erdogan, A.
Year: 2011
Title: Ornitho-Tourism and Antalya
Journal: Procedia Social and Behavioural Sciences
Volume: 19
Issue: -
Pages: 165-172

Abstract: This paper provides an evaluation of bird richness and birdwatching activities in an attempt to promote ornitho-tourism in Antalya, Turkey. The paper concludes that bird diversity and protected areas of Antalya are significant factors which can attract both local and international tourists for birdwatching activities year-round.

Author: Schaffner, S.
Year: 2009
Title: Environmental Sporting: Birding at Superfund Sites, Landfills, and Sewage Ponds
Journal: Journal of Sport and Social Issues
Volume: 33
Issue: 3
Pages: 206-229

Abstract: In this paper, Schaffner describes birding as an example of what he calls environmental sporting—a seemingly green type of sport that depends on both environmental conservation and degradation. The paper explores three competitive kinds of birding in connection to three toxic sites. At each site and in each competitive instantiation of birding, birders look for birds near strong environmental toxins. The presence of active birds and birders at such sites works to make toxicity appear as both hospitable and harmless. By reviewing how birding depends on and eventually conceals the dangers of toxic sites, Schaffner suggests contradictions that arise from the relationship between sport and environmentalism.

Author: Schänzel, H. A.
Year: 1998
Title: Wildlife viewing ecotourism on the Otago Peninsula: the experiences and benefits gained by penguin watching visitors
Academic Department: Centre for Tourism
University: University of Otago
Thesis Type: Dissertation for Postgraduate Diploma in Tourism
Abstract: The ‘personal and emotive’ context of visitors to ecotourism attractions has been neglected in much of ecotourism management. The individual visitor is nevertheless an important evaluator of the guided tour experience being provided at wildlife viewing ecotourism attractions. It could be argued that by ignoring the expectations, motivations, experiences, moods, thoughts and benefits gained from satisfying ecotourism experiences, the inherent conservation and educational mandates of ecotourism attractions could not be sustained. This dissertation introduces ASEB demi-grid analysis as a consumer-oriented management tool designed to facilitate an understanding of the *beneficial experiences* gained by visitors to two penguin-watching ecotourism attractions on the Otago Peninsula. The grid is informed by qualitative in-depth interviews conducted with visitors. In this way, insight can be gained (as expressed in the respondents’ own words) into the fundamental experiential product being provided by these attractions, therefore addressing the human dimensions of wildlife viewing ecotourism management. The results indicated visitors at both attractions were gaining *enhanced environmental awareness* and *mood benefits* on site that did not necessarily

translate into environmental activism off-site. Other findings included the importance of ‘*contributing to conservation efforts*’, the desired ‘*simplicity and naturalness of the setting*’ and the preference of ‘*personal interpretation through an experienced guide*’.

Authors: Schänzel, H. A. and McIntosh, A. J.

Year: 2000

Title: An Insight into the Personal and Emotive Context of Wildlife Viewing at the Penguin Place, Otago Peninsula, New Zealand

Journal: Journal of Sustainable Tourism

Volume: 8

Issue: 1

Pages: 36-52

Abstract: Schänzel and McIntosh used ASEB demi-grid analysis as a consumer-orientated management tool to comprehend the useful experiences obtained by international visitors to a penguin-watching tourism attraction on the Otago Peninsula, New Zealand. 40 in-depth interviews were conducted with visitors. Findings showed that the main beneficial experiences gained by visitors included described ‘mood’ benefits (affection) and enhanced environmental awareness (cognition). Additionally, various consistent themes arisen from the beneficial experiences reported by visitors, including issues related to viewing, proximity, wonder and authenticity. Therefore, the findings included the perceived importance of visitors to be able to view endangered penguins ‘up close’ in their natural habitat in order to appreciate the naturalness and simplicity of the setting, to evoke feelings of privilege and exploration, and to increase their knowledge of the species through interaction with a knowledgeable guide.

Authors: Scott, D., Baker, S. M. and Kim, C.

Year: 1999

Title: Motivations and Commitments Among Participants in the Great Texas Birding Classic

Journal: Human Dimensions of Wildlife

Volume: 4

Issue: 1

Pages: 50-67

Abstract: This study investigated the characteristics of participants of the first annual Great Texas Birding Classic (a major birding competition initiated to raise funds for habitat conservation). The authors investigated participants' motivations for participating in the event, behavioural involvement, and commitments to birding. Results showed that participants constituted a highly committed, skilled, and elite group of birders. Most of the participants underrated competition as a motivation for participating in the event. They participated because they enjoyed seeking birds, contributing to wildlife protection, and being with friends. According to the authors, the findings indicate that such events can efficiently combine enjoyment and avian habitat protection.

Authors: Scott, D., Ditton, R. B., Stoll, J. R. and Eubanks Jr, T. L.

Year: 2005

Title: Measuring Specialization Among Birders: Utility of a Self-Classification Measure

Journal: Human Dimensions of Wildlife

Volume: 10

Issue: 1

Pages: 53-74

Abstract: This study aimed to determine the effectiveness of a self-classification measure of recreation specialisation in predicting other features of recreation participation (in this study,

motivations). Data were collected by means of a survey distributed to birders who travelled to the Platte River, Nebraska to experience the annual crane migration. Study participants were classified into categories of high, medium, and low specialisation. Results showed that the self-classification measure of specialisation was somewhat stronger in predicting activity-specific motivations, there was little variation among measures in predicting more general birdwatching motives.

Authors: Scott, D. and Lee, J. H.

Year: 2010

Title: Progression, Stability, or Decline? Sociological Mechanisms Underlying Change in Specialization Among Birdwatchers

Journal: Leisure Sciences

Volume: 32

Issue: 2

Pages: 180-194

Abstract: Scott and Lee used a panel of American birdwatchers to examine 1) the degree to which birdwatchers advanced over a five-year period and 2) the effect different career contingencies and life course events had on predicting change in birdwatchers' behaviour, commitment, and skill. Results revealed that even though progression characterised some birdwatchers' participation, involvement by others was better characterised by stability or decline, which was true for each of the indicators used to measure specialisation. Career contingencies and life course changes had only a moderate effect on predicting change in specialisation indicators over time. Support from family members and retirement were found to be the best predictors of change in specialisation.

Authors: Scott, D. and Thigpen, J.

Year: 2003

Title: Understanding the Birder as Tourist: Segmenting Visitors to the Texas Hummer/Bird Celebration

Journal: Human Dimensions of Wildlife

Volume: 8

Issue: 3

Pages: 199-218

Abstract: Scott and Thigpen used a survey to explore 1) types of visitors participating in the Hummer/Bird Celebration in Texas and 2) if there are differences among groups of visitors in terms of setting preferences. Using recreational specialisation as conceptual framework, the authors determined four groups of visitors and found that there are variations among these groups with regard to setting preferences and levels of behavioural involvement.

Authors: Sedden, P. J. and Ellenberg, U.

Year: 2008

Title: Effects of Human Disturbance on Penguins: The Need for Site- and Species-Specific Visitor Management Guidelines

Editors: Higham, J.E.S. and Lück, M.

Book Title: Marine wildlife and tourism management: Insights from the natural and social sciences

City: Wallingford

Publisher: CAB International

Pages: 163-181

Abstract: This book chapter provides a review of the state of knowledge on how human/touristic disturbances affect wild penguins. It summarises the knowledge of penguins' behavioural and physiological disturbances, and provides recommendations for tourism management around penguins. The authors advocate for a species-specific management, based on guidelines derived from rigorous research.

Author: Sekercioglu, C. H.

Year: 2002

Title: Impacts of Birdwatching on Human and Avian Communities

Journal: Environmental Conservation

Volume: 29

Issue: 3

Pages: 282-289

Abstract: This paper 1) provides a review of the economic potential of birdwatching for community-based conservation, 2) outlines potential benefits and issues related to birdwatching, and 3) provides recommendations for improving the conservation value of birdwatching.

Author: Sheard, K.

Year: 1999

Title: A Twitch in Time Saves Nine: Birdwatching, Sport, and Civilising Processes

Journal: Sociology of Sport Journal

Volume: 16

Issue: -

Pages: 181-205

Abstract: Sheard uses Norbert Elias's theory of civilising processes to argue that birdwatching which seems as a type of leisure activity, incorporates many of the characteristics of "civilized" sport. The paper discusses birding and twitching as specific types of birdwatching. It also examines the suggestion that birding is symbolic hunting, explores the connection between an interest in birds, which is relatively scientific and benevolent, and the "real" sport of hunting. Moreover, Sheard discusses how competitive birding renewed some of the activity's sport-like excitement and how birding was routinised and supplemented by twitching, an even more sport-like activity.

Author: Sibley, D.

Year: 2011

Title: The Proper Use of Playback in Birding

Journal: Washington Ornithological Society

Volume: 133

Issue: -

Pages: 1-8

Abstract: This article discusses how the increasing use of playback (using digital audio devices) to attract birds during birding activities may negatively impact birds. The paper also reviews the continuing debate among birders about the ethical issues related to the utilisation of recorded bird songs in the field.

Author: Simango, S. S.

Year: 2011

Title: The Evolution, Structure and Market for Birding Tourism in South Africa

Academic Department: School of Geography, Archaeology and Environmental Sciences

University: University of the Witwatersrand

Thesis Type: Master of Arts in Tourism

Abstract: Simango's study aimed to define the structure, size and growth of birdwatching tourism in South Africa. The study explored the growth patterns and outlined the organisation and structure of the birdwatching tourism sector. The findings also provided an estimate of the economic contribution and potential of birdwatching tourism in South Africa.

Authors: Slater, C., Cam, G., Qi, Y., Liu, Y., Guay, P-J. and Weston, M.A.

Year: 2019

Title: Camera shy? Motivations, attitudes and beliefs of bird photographers and species-specific avian responses to their activities

Journal: Biological Conservation

Volume: 237

Pages: 327-337

Abstract: Bird photography is a popular and growing pursuit which may disturb birds. This study: 1) characterises photographer motivations, attitudes and behaviours; and, 2) examines avian escape responses evoked by photographers. Bird photographers ($n=188$) answered scaled questions with responses characterised using Principle Components Analysis. Photographers had high commitment and specificity to bird photography, often documenting species rarity or novelty, but rarely videoed birds. Respondents generally thought that photography instilled an appreciation of birds in others. They were concerned with especially sensitive contexts for photography (breeding, migrating and some habitats) yet believed disturbance caused is ephemeral and trivial. Flight-Initiation Distance (FID) evoked by experimental approaches to four treatments, three of which mimicked photographer behaviour (taking an image every five steps while 1. walking, 2. walking and using a flash, 3. crouching) and 4. walkers (control) ($n=1093$; 128 species) revealed a significant interaction between species and treatment. Single species models ($n=11$, where $n \geq 4$ for all treatments) revealed differences between treatments for eight species. In all but one of these species, photographer behaviour was associated with longer FIDs, suggesting birds judged such behaviour as especially threatening, perhaps because aspects were similar to the behaviour of a predator. The FIDs reported here could usefully underpin enhanced guidelines for ethical bird photography, but prescriptions need to be species-specific, and tailored to the behaviours used by photographers.

Authors: Smith-Castro, J. R. and Rodewald, A. D.

Year: 2010

Title: Behavioral Responses of Nesting Birds to Human Disturbance Along Recreational Trails

Journal: Journal of Field Ornithology

Volume: 81

Issue: 2

Pages: 130-138

Abstract: The presence of recreational trails can impact breeding birds either indirectly by altering habitat or the movement patterns of predators or directly if the presence of humans disturbs birds. Smith-Castro and Rodewald examined the behavioral responses of nesting female Northern Cardinals (*Cardinalis cardinalis*) to human disturbance using both experimental and observational approaches. From April to August 2006 and 2007, they monitored Northern Cardinal nests in 18 riparian forests in Ohio, USA. Two experimental trials were conducted at each nest ($N=63$), with Flight Initiation Distance (FID, the distance at which a bird flushed from the nest) recorded as we approached nests by walking directly toward them and by walking along trails located variable distances from nests. The authors also measured flight initiation distance (FID) when nests were approached during routine nest checks ($N=160$). Cardinals were six times more likely to flush when nests were approached directly, and females on higher nests were less likely to flush regardless of distance to trail. FID was not significantly influenced by the distance of nests from trails. Smith-Castro and Rodewald found no association between nest survival and the tendency of birds to flush. Rather, nest survival was best explained by nest height. Thus, their findings suggest that the responses of birds to human use of recreational trails have only short-term effects, with no apparent effects on nest survival. Because the reaction of birds to humans in this study depended on how nests were approached, studies where FID is used as an indicator of sensitivity to human disturbance and is determined by direct approaches may overestimate the potential impact of trails on nesting birds.

Authors: Son, N. L. H, Dung, L. T. D. and Van, N. T.

Year: 2011

Title: Developing Bird Watching Ecotourism Combined with Education and Natural Conservation

Journal: Journal of Earth Sciences

Volume: 27

Issue: -

Pages: 89-97

Abstract: This paper examines the current status of birdwatching tourism in Vietnam and discusses the potential for its development and how it can support education, nature conservation and the local economy. The paper also outlines issues such as the lack of adequate infrastructure, trained staff and service content, and provides practical solutions that may support the development of the industry in Vietnam.

Author: Steven, R.

Year: 2015

Title: The Relationship between Birders, Avitourism and Avian Conservation

Academic Department: Griffith School of Environment

University: Griffith University

Thesis Type: Doctor of Philosophy

Abstract: Steven's study examined the relationship between birders, avitourism and avian conservation. The thesis provided a review of birdwatching tourism market, distribution and impacts. Data were collected using (online and face-to-face) questionnaires of birders and the findings presented various patterns that defined how the respondents engaged with birding and bird conservation. Birders' preferences and attitudes, and practices to improve conservation participation were also presented in this thesis.

Authors: Steven, R. and Castley, J. G.

Year: 2013

Title: Tourism as a Threat to Critically Endangered and Endangered Birds: Global Patterns and Trends in Conservation Hotspots

Journal: Biodiversity and Conservation

Volume: 22

Issue: 4

Pages: 1063-1082

Abstract: This study used a global analysis of threats facing critically endangered (CR) and endangered (EN) birds in hotspots to quantify the relative significance of tourism (including birdwatching tourism) as a threat to birds. Steven and Castley reported that 63 CR and EN birds were threatened by tourism with marine, coastal, and aquatic birds being threatened even more by tourism activities. The authors conclude that tourism currently seems to be a relatively minor threat to CR and EN birds, nevertheless, some taxonomic groups and regions come out as more vulnerable than others.

Authors: Steven, R., Castley, J. G. and Buckley, R.

Year: 2013

Title: Tourism Revenue as a Conservation Tool for Threatened Birds in Protected Areas

Journal: PLoS One

Volume: 8

Issue: 5

Pages: 1-8

Abstract: This paper utilised a simple accounting method to quantify the contribution of tourism revenue for bird species in the IUCN Red List. Results showed that tourism's contributions to bird conservation are highest in Africa, South America, and their neighbouring islands. Results also showed that critically endangered bird species depend more on tourism than endangered species. The paper indicates that various protected areas could improve their management budgets through the promotion of birdwatching tourism.

Authors: Steven, R., Morrison, C. and Castley, J. G.

Year: 2013

Title: Birdwatching and avitourism: a global review of research into its participant markets, distribution and impacts, highlighting future research priorities to inform sustainable avitourism management

Journal: Journal of Sustainable Tourism

Volume: 23

Issue: 8-9

Pages: 1257-1276

Abstract: This paper provides a review of patterns among research studies that explore avitourism, and avitourism participants and stakeholders across various research themes. 66 papers published between 1989 and 2014 were assessed. The authors report that studies reviewed were mainly focused on economic impacts of avitourism, motivations of birders as avitourists, and providing an understanding of the avitourism market. A series of priority research themes is provided by the authors.

Authors: Steven, R., Pickering, C. and Castley, J. G.

Year: 2011

Title: A Review of the Impacts of Nature Based Recreation on Birds

Journal: Journal of Environmental Management

Volume: 92

Issue: 10

Pages: 2287-2294

Abstract: This paper provides a review of impacts of nature based recreational activities (e.g. running, hiking, wildlife viewing, canoeing and dog walking) on birds. The authors examined 69 papers (recreation ecology literature) and reported that 61 (88%) of the papers identified negative impacts, including alterations in bird immediate behaviour, physiology, abundance, and reproductive success. The paper concludes that non-motorised nature-based recreational activities have negative effects on various birds belonging to a wide range of habitats worldwide.

Authors: Stevenson, R. D., Haber, W. A. and Morris, R. A.

Year: 2003

Title: Electronic Field Guides and User Communities in the Ecoinformatics Revolution

Journal: Conservation Biology

Volume: 7

Issue: 1

Pages: 1-17

Abstract: This paper reviews field guide's role in species identification and discusses the application of an array of digital technologies to provide user-friendly tools for identification that are likely to significantly improve species identification in the field by non-specialists. The authors indicate that wider use of electronic guides and adoption of the citizen science model will improve public understanding and participation in biodiversity conservation.

Authors: Stoll, J. R., Ditton, R. B. and Eubanks, T. L.

Year: 2006

Title: Platte River Birding and the Spring Migration: Humans, Value, and Unique Ecological Resources

Journal: Human Dimensions of Wildlife

Volume: 11

Issue: 4

Pages: 241-254

Abstract: This study used a mail questionnaire to examine the extent to which birders valued the ecological resources that provides birding opportunities in the Platte River region. Results revealed that birders showed willingness to endure the cost of resource conservation, especially costs relevant to preservation of Sandhill Cranes and their habitats. Additionally, decline in crane population was perceived as a diminishment in value. Hence, lower numbers of cranes are expected to cause a reduction in recreational activities. Results also indicated that birders were less supportive of programmes that aimed to conserve wildlife diversity and were likely attracted by the wildlife spectacle rather than unique species. In other words, they valued species diversity less than species abundance.

Authors: Sullivan, B. L., Wood, C. L., Iliff, M. J., Bonney, R. E., Fink, D. and Kelling, S.

Year: 2009

Title: eBird: A Citizen-Based Bird Observation Network in the Biological Sciences

Journal: Biological Conservation

Volume: 142

Issue: 10

Pages: 2282-2292

Abstract: This paper presents eBird (an innovative tool) that is building a web-enabled community of birdwatchers who collect, manage, and store their observations in a globally accessible unified database. The paper describes how eBird data is being used by birders, conservationists, and scientists worldwide to better comprehend the biological patterns of birds, and the anthropogenic and environmental factors that affect them.

Authors: Sutton, S. T., Devlin, P. J. and Simmons, D. G.

Year: 1993

Title: Kapiti Island, a Natural Area in Demand: Assessing Social Impacts

Journal: GeoJournal

Volume: 29

Issue: 3

Pages: 253-262

Abstract: This study aimed to identify and develop methods of monitoring visitors' perceptions of social impacts in natural areas to provide indicators of social conditions within management context for an area (particularly, areas under pressure from increasing visitation). The study used mixed methods (in-depth interviews and questionnaire), adopted a case study approach, and chose Kapiti Island Nature Reserve (an offshore island rich in native birdlife) in New Zealand as the study location. Results revealed the different (positive and negative) social impacts and concluded that the measurement of social impacts may be used as a method for determining the limits of acceptable change (LAC).

Authors: Szczepańska, M., Krzyżaniak, M., Świerk, D., Walerzak, M. and Urbański, P.

Year: 2014

Title: Birdwatching as a Potential Factor in the Development of Tourism and Recreation in the Region

Journal: Barometr Regionalny. Analizy i Prognozy

Volume: 12

Issue: 4

Pages: 27-38

Abstract: This paper collected data from 365 respondents by means of a survey to explore the potential of birdwatching for the development of tourism in Poland. The paper described birdwatching as a basis for economic development on a local and regional level and indicated the needs of tourist infrastructure for the advancement of ornithological tourism in Poland.

T

Authors: Trainor, C. R., Santana, F., Pinto, P., Xavier, A. F., Safford, R. and Grimmett, R.

Year: 2008

Title: Birds, Birding and Conservation in Timor-Leste

Journal: Birding Asia

Volume: 9

Issue: 2008

Pages: 16-45

Abstract: This article aims to introduce and promote Timor Leste (East Timor) as a friendly, beautiful and bird-rich tourism destination. The article presents different bird species (including threatened and restricted-range species), important bird areas, information on conservation in the country and some birding etiquette. It concludes by encouraging birdwatchers to send their records to the first author or to Birdlife International to assist Timor Leste's government inform its protected areas programme.

Authors: Tsaur, S. H. and Liang, Y. W.

Year: 2008

Title: Serious Leisure and Recreation Specialization

Journal: Leisure Sciences

Volume: 30

Issue: 4

Pages: 325-341

Abstract: In a birdwatching context, this study examined the causal relationships between serious leisure and recreation specialisation. The study illustrates how serious leisure has a positive relationship with recreation specialisation. Identifying strongly with a chosen recreational activity, making significant personal efforts, and having a career in a recreational endeavour are primary predictors of recreation specialisation. With the exception of *unique ethos* (one of six distinctive qualities of serious leisure identified by Robert Stebbins), all of the qualities of serious leisure that were examined proved to be positively related to past experience and centrality-to-lifestyle.

U

Author: Urfi, A. J.

Year: 2012

Title: Birdwatchers, Middle Class and the 'Bharat-India' Divide: Perspectives from Recent Bird Writings

Journal: Economic and Political Weekly

Volume: 47

Issue: 42

Pages: 27-29

Abstract: India's rapidly growing Indian middle class is becoming increasingly involved in nature-based activities. This paper explored different activities of birdwatchers through their writings to comprehend how they impinge upon society as a whole. A sense of self-importance, assertiveness and feeling of exclusiveness appeared to follow the thriving prosperity of birdwatchers, nature activities and others, demanding better self-introspection in their activities.

V

Author: Vas, K.

Year: 2012

Title: Birding Trail Development from a Tourism Planning Perspective

Academic Department: Geography, Tourism Policy and Planning

University: University of Waterloo

Thesis Type: Master of Environmental Science

Abstract: The birdwatching industry is growing rapidly, and ecotourism planners are utilising different methods to draw birdwatchers. One of these techniques is developing birding trails which are used to attract birders to a certain region. Vas argues that birding trails should be planned and implemented as more than merely simple routes and maps. According to Vas, birding trails can be implemented and managed as tourism product clubs. A product club is an association of tourism service providers collaborating to provide an integrated service. Vas concludes that managing birding trails as tourism product clubs has the potential to provide optimal tourism experiences. The author searched internet birding blogs to identify what birders need and aspire on their trips. Then, he conducted semi-structured interviews with key individuals associated to existing tourism trails, and utilised Essex and Chatham-Kent County area of Southern Ontario as a case-study site.

Author: Vas, K.

Year: 2017

Title: Birding Blogs as Indicators of Birdwatcher Characteristics and Trip Preferences: Implications for Birding Destination Planning and Development

Journal: Journal of Destination Marketing & Management

Volume: 6

Issue: 1

Pages: 33-45

Abstract: Vas uses a mixed methods research approach to analyse 200 birding blogs (from five English speaking countries) to identify birdwatcher characteristics and trip preferences.

Vas identified seven birder sub-populations, including overlooked segments such as couple and family birdwatchers. Furthermore, the findings emphasise that birding is much more multi-dimensional than previously thought, demanding a strategic planning approach that includes all aspects needed to make a birding destination a complete tourist experience. The study provides four figures which demonstrate the essential components family, friends, couples and individual birdwatchers distinguish as the most important attributes of a birding destination.

Authors: Vas, K. and Eagles, P. F. G.

Year of Conference: 2011

Title: Utilizing the Product Club Approach for Birding Trail Planning

Conference Name: Northeastern Recreation Research Symposium

Conference Location: New York, USA

Pages: 1-7

Abstract: The birdwatching industry is growing rapidly, and ecotourism planners are utilising different methods to draw birdwatchers. One of these techniques is developing birding trails which are used to attract birders to a certain region. It is argued that birding trails should be planned and implemented as more than merely simple routes and maps. According to Vas and Eagles, birding trails can be implemented and managed as tourism product clubs. A product club is an association of tourism service providers collaborating to provide an integrated service. The paper concluded that managing birding trails as tourism product clubs has the potential to provide optimal tourism experiences. The authors searched internet birding blogs to identify what birders need and aspire on their trips. Then, conducted semi-structured interviews with key individuals associated with existing tourism trails, and utilised Essex and Chatham-Kent County area of Southern Ontario as a case-study site.

Authors: Veidemane, K., Ruskule, A., Strake, S., Purina, I., Aigars, J., Sprukta, S., Ustups, D., Putnis, I. and Klepers, A.

Year: 2017

Title: Application of the Marine Ecosystem Services Approach in the Development of the Maritime Spatial Plan of Latvia.

Journal: Journal of Biodiversity Science, Ecosystem Services & Management

Volume: 13

Issue: 1

Pages: 398-411

Abstract: The Maritime Spatial Plan for Internal Waters, Territorial Waters and Economic Exclusive Zone of the Republic of Latvia is a long-term spatial planning document, which defines the permitted uses of the sea and conditions for development. Work on maritime spatial planning (MSP) in Latvia was a novel process from different aspects including incorporation of the concept of ecosystem services (ES) into MSP. In the course of the MSP process, marine ES were mapped and assessed, and impacts of proposed spatial solutions for the use of the sea were assessed. The scope of mapping and assessment of ES was limited by data availability and expert knowledge on marine ecosystems. MSP in Latvia was an open and transparent process with an active involvement of different stakeholder groups. Marine ES assessment results were visualized and used during the public consultations to highlight the marine areas providing the most significant social benefits as well as to facilitate debate about potential impacts arising from proposed uses of the sea. The marine ES approach, in a spatially explicit manner, provided stakeholders and policymakers with a strategic framework to address a complex social–ecological system.

Authors: Veríssimo, D., Fraser, I., Groombridge, J., Bristol, R. and MacMillan, D. C.

Year: 2009

Title: Birds as Tourism Flagship Species: A Case Study of Tropical Islands

Journal: Animal Conservation

Volume: 12

Issue: 6

Pages: 549-558

Abstract: This paper explains that species chosen as flagships to promote conservation activities worldwide are mostly charismatic and well-known megafauna. The paper argues that this restricts the scope for putting the concept in use at important areas for biodiversity conservation, such as tropical islands which do not have such species. This study explores the potential to apply the concept of ‘tourism flagship species’ to tropical island birds in Seychelles. The study aims to identify which species attributes are most effective with regard to their potential for raising funds for conservation among international tourists. Utilising a choice experiment approach and state-of-the-art econometric methods, the study found that conservation attributes and physical attributes of the bird species are both essential for fundraising. However, conservation attributes ranked higher in respondents’ preferences. The findings indicate that there is substantial potential for a wide range of species to efficiently act as flagships in developing countries that are rich in biodiversity and are dependent on international tourism but lack charismatic fauna.

W

Author: Watson, G. P. L.

Year: 2010

Title: Multiple Acts of Birding: The Education, Ethics and Ontology of Bird Watching in Ontario

Academic Department: Environmental Studies

University: York University

Thesis Type: Doctor of Philosophy

Abstract: In this study, semi-structured interviews were conducted with birders in Southern Ontario. Rather than a singular act, Watson’s study examines birding as a multiple, ontological object. Accordingly, the acts of backyard birding, field birding and bird rescue were studied with the aim of illustrating the relationship between practices and birders’ connections with and perspectives of wild birds. Watson argues that birding, ornithology and technology are deeply connected. Nevertheless, their impact on practice often goes unnoticed. The study argues that due to the increased use of new technology and digital objects in birding, images instead of birds risk becoming the epistemological object. The study investigates the effect of place on the creation of birds’ value and visibility. The results show that birds in the field are rendered differently than in the backyard. Moreover, bird rescuers depict yet a different relationship with birds, a relationship where identification of species is marginal and where care is the main concern. In this study, reflexive birding is offered as a model of practice, which promises to support awareness of birders’ relationships to the deeply material lives of birds.

Authors: Wee, Y. C. and Tsang, K. C.

Year: 2008

Title: The Changing Face of Birding in Singapore

Journal: Nature in Singapore

Volume: 1

Issue: -

Pages: 97-102

Abstract: Through photography, this paper tracks the transformation of Singapore's local birding scene from the initially scientific-based, bird-ringing activities to the primarily recreational birdwatching of the 1980s to the present.

Authors: Welford, M. and Barilla, A.

Year: 2013

Title: Is Neotropical Conservation Sold-Short: Diminishing Returns for Birding Suggest Ecolodges Could Encourage Longer Stays

Journal: Journal for Nature Conservation

Volume: 21

Issue: 6

Pages: 401-405

Abstract: This study aims to determine the best birders' package tour length in lowland neotropical rainforest environments utilising an innovative diminishing returns analysis using Monte Carlo simulations. In Ecuador, the common neotropical rainforest tour package provided by ecolodges aimed at bird tour groups is a three-day, three-night package. Assuming birders and bird tour groups attempt to maximise the number of new bird species observed each day, a Monte Carlo simulation of diminishing returns using birder's lists available at www.Birding.com indicates diminishing returns occur only on the fifth day. The authors conclude that ecolodges all over Ecuador are underselling themselves and need to promote longer stays for birders and bird tour groups at their lodges.

Authors: Weston, M. A., Guay, P. J., McLeod, E. M. and Miller, K. K.

Year: 2015

Title: Do Birdwatchers Care About Bird Disturbance?

Journal: Anthrozoös

Volume: 28

Issue: 2

Pages: 305-317

Abstract: This study utilised a questionnaire to explore the socio-economic profiles of 179 birdwatchers, and their birdwatching behaviours and attitudes to bird disturbance in a world-renowned, restricted-access birdwatching destination (the Western Treatment Plant, Victoria, Australia). Birdwatchers regarded vehicles as particularly disturbing, and some bird groups and breeding birds as especially sensitive to disturbance. All respondents reported utilising approaches to minimise bird disturbance including keeping distant and quiet. The findings suggest that birdwatchers who feel that their activity disturbs birds are more likely to change their behaviours to mitigate the disturbance. Hence, the authors recommend that wildlife educators and managers clearly communicate all possible negative effects of birdwatching to birdwatchers to further promote ethical birdwatching practices.

Authors: Wheeler, M., de Villiers, M. S., and Majiedt, P.A.

Year: 2008

Title: The Effect of Frequency and Nature of Pedestrian Approaches on the Behaviour of Wandering Albatrosses at Sub-Antarctic Marion Island

Journal: Polar Biology

Volume: 22

Issue: 2

Pages: 197-205

Abstract: The effects of disturbance frequency, pedestrian group size, history and approach distance were tested through standardised approaches to 148 brooding/guarding wandering albatrosses (*Diomedea exulans*) at Marion Island in 2006. Seldom-visited birds were approached at different frequencies over a 3-day period and chick survival was monitored 2 weeks later. Two-person approaches were made to some seldom-visited birds and to birds that have recently been bled. Birds close to the station and in a long-term study colony were also approached. non-vocal response (NVR), vocal response (VR) and overall response (OR) of individuals were analysed. Frequency of approach did not influence short-term behavioural responses, but affected chick survival significantly—nests approached most often had the highest proportion of failures. Over the long-term, there was sensitisation to disturbance. Low OR ranks were found for 71.7% of seldom-disturbed birds, 41.7% of study colony birds and 28.6% of birds close to the station. Management regulations at the island are likely to be effective in protecting this species from human disturbance.

Author: Whitehouse, A.

Year: 2015

Title: Listening to Birds in the Anthropocene: The Anxious Semiotics of Sound in a Human-Dominated World

Journal: Environmental Humanities

Volume: 6

Issue: 1

Pages: 53-71

Abstract: Using narratives and field recordings, Whitehouse's study explores the anxious semiotics of listening to birds in the Anthropocene by drawing on Ingold's understanding of the world as a meshwork and Kohn's recent arguments on the semiotics of more-than-human relations. In this paper, there is an emphasis on the importance of birds' sounds for people's sense of place, season and time and the aspiration that many individuals have for their own lives to resonate with the birds around them. Whitehouse argues that this has less to do with longing to hear harmony in pure nature but with developing relations of togetherness and closeness with birds living alongside humans. Additionally, Whitehouse explains that while listening to birds can still indexically and iconically ground people, signs of change and absence can trigger anxieties that emerge from the uncertainties implicit in the Anthropocene's formulation of human relationships with other species.

Authors: Whitfield, D. P., Ruddock, M. and Bullman, R.

Year: 2008

Title: Expert Opinion as a Tool for Quantifying Bird Tolerance to Human Disturbance

Journal: Biological Conservation

Volume: 141

Issue: 11

Pages: 2708-2717

Abstract: Human disturbance could have various negative effects on wildlife and hence is increasingly perceived as a threat. A common solution for problems related to encroaching human activities is to separate them from sensitive wildlife areas via utilising protective buffer zones where human activity (e.g. recreational activities) is restricted. The most used method to implement such protective measures is via recording empirically the distance at which wildlife species display signs of disturbance to human activity. Nevertheless, a literature review for 26 bird species found that in only six of these species were there empirical measures of distance disturbances when breeding, however, buffer zones were designated or recommended in all species despite the significant knowledge gap. This study advocates the use of *expert opinion* as a reliable tool for quantifying bird tolerance to human disturbance. However, the authors recommend that it should be only used temporarily until more empirical measures of disturbance distances are collected.

Author: Wilkinson, C.

Year: 2013

Title: Understanding the Embodied Geographic Knowledge of People Who Watch Birds: An Exploration of Encounter, Performance and “Becoming”

Academic Department: School of Earth and Environmental Science

University: University of Wollongong

Thesis Type: Bachelor of Science (Honours)

Abstract: Wilkinson’s study utilised semi-structured interviews, participant observation and photo-elicitation interviews with individuals who watch birds on the South Coast of New South Wales to apprehend the complexity and richness of participants’ lived bird-watching experiences. The findings provide insight into the embodied and situated experiences of bird-watching. The findings (1) describe and discuss how bird-watching is dependent on embodied geographical knowledge and technologies that promote closeness between humans and birds; (2) examine the contradictory embodied geographical knowledge of individuals who watch birds as environmental citizens; (3) explore how people negotiate “becoming” “bird-watcher” in their everyday lives, and how embodied geographical knowledge may change over a life-course as homemakers, parents and through ageing. According to the author, the conclusion sets a research agenda drawing on the geographical viewpoint in this study to reassess the relationship between humans, birds, technologies and space.

Author: Williams, B. D.

Year: 2012

Title: Dauphin Island Birders: An Examination of Specialization, Place Attachment, Satisfaction, and Amenity Migration

Academic Department: Forestry and Wildlife Sciences

University: Auburn University

Thesis Type: Master of Science

Abstract: This study utilises survey research method to investigate the relationship between three constructs: specialisation, place attachment, and satisfaction of birdwatchers. The study

setting is Dauphin Island, Alabama – a well-known birdwatching destination among both tourists and locals. The findings showed that specialisation, a measure of activity involvement, can be utilised as an acceptable predictor of place attachment, but not satisfaction. Moreover, place attachment can be an applicable predictor of satisfaction. Additionally, the study used semi-structured interviews to analyse trends in the motivations that birdwatcher and non-birdwatchers had to move to the island. Those that pinpointed that they were birdwatchers prior to moving to the island indicated that birdwatching was the main motive for moving to the island. While, trends among the other islanders signalled that rural idealisation, lifestyle, and return migration were significant concepts.

Authors: Winnasis, S., Hakim, L. and Imron, M. A.

Year: 2018

Title: The Utilization of Burungnesia to Detect Citizen Scientist Participation Preference in Birding Sites Observation in Java Island

Journal: Journal of Indonesian Tourism and Development Studies

Volume: 6

Issue: 1

Pages: 49-54

Abstract: This paper investigated citizen scientists' preference in site selection and its relationship to the success of completing observer's checklists in Java Island, Indonesia. The findings confirm that citizen science is an effective method of collecting field data related to birds. Citizen science is particularly helpful in recording data related to common birds and birds which are found in high numbers. According to the authors, special birds and small populations of birds are rarely reported by citizen scientists. Furthermore, the findings indicate that citizen scientists preferred to observe birds in the wild, and accessibility, budget availability and physical ability of an observer are judged as important factors impacting birding site selection. On the other hand, the lowest preferred birding sites are often sites which have limited accessibility – few numbers of observations are conducted in sites with sharp slopes and which are far from main roads.

Authors: Woosnam, K. M., Dudensing, R. M. and Walker, J. R.

Year: 2015

Title: How Does Emotional Solidarity Factor into Visitor Spending among Birders in the Lower Rio Grande Valley of Texas?

Journal: Journal of Travel Research

Volume: 54

Issue: 5

Pages: 645-658

Abstract: This study examined the relationship between emotional solidarity and visitor expenditures among birders in the Lower Rio Grande Valley, Texas. On-site surveys were distributed among individuals visiting important nature tourist attractions. The findings showed that of the three Emotional Solidarity Scale (EES) factors utilised to predict expenditures, *feeling welcomed* explained the most variance.

X

Author: Xie, P. F.

Year: 2012

Title: Socio-Economic Impacts of Birdwatching along Lake Erie: A Coastal Ohio Analysis

University: Bowling Green State University

Publication Type: Report (Ohio Sea Grant OHSU-TS-061)

Abstract: Xie's study assessed the economic impact of birdwatching as it relates to significant economic expenditures; tourism patterns of birdwatching along Lake Erie; and strategic partnership among industries and communities to market birdwatching and to stimulate the local economy. The results showed that birdwatching at six Ohio natural areas along Lake Erie generated \$26,438,398 in 2011, created 283 job opportunities for those living and working in these coastal communities, generated \$8.9 million in personal income, and contributed \$1.9 million tax revenues directed to local and state coffers.

Y

Authors: Yasué, M. and Dearden, P.

Year: 2008

Title: Methods to Measure and Mitigate the Impacts of Tourism Development on Tropical Beach-Breeding Shorebirds: The Malaysian Plover in Thailand

Journal: Tourism in Marine Environments

Volume: 5

Issue: 4

Pages: 287-299

Abstract: This paper investigates the impacts of the development of beach tourism in Thailand on tropical beach-breeding shorebirds, particularly, Malaysian plovers breeding in the Gulf of Thailand. The findings indicate that human disturbance, narrowing of beaches, and tourism-related alterations in vegetation behind beaches negatively affect habitat availability and breeding success. The paper concludes with recommendations to assess and reduce the impacts of tourism growth on breeding tropical shorebirds.

Authors: Yorio, P., Frere, E., Gandini, P. and Schiavini, A.

Year: 2001

Title: Tourism and Recreation at Seabird Breeding Sites in Patagonia, Argentina: Current Concerns and Future Prospects

Journal: Bird Conservation International

Volume: 11

Issue: 4

Pages: 231-245

Abstract: This paper raises concerns about the potential negative impacts of a rapidly growing wildlife-based tourism and recreation industry on seabird colonies in coastal Patagonia, Argentina. 16 seabird species breed along the Patagonian coast and 27 sites where seabirds breed are currently visited by tourists and recreationists. The rapid increase in interest in visiting seabird colonies in Patagonia provides significant economic benefits. However, the authors argue that human disturbance may negatively affect seabird reproduction through destruction of nests or their contents and abandonment of offspring. The paper emphasises the

importance of developing and enforcing management guidelines including the implementation of sanctuaries, temporal and spatial zoning and the limitation of visitor numbers.

Authors: Yuanyuan, Z., Y., Lei, T., Cheung, L. T. O. and Fok, L.

Year of Conference: 2014

Title: The Motivation, Pro-environmental Behaviour and Attitude of Birdwatchers in Mainland China and Hong Kong

Conference Name: International Conference on Sustainable Tourism and Resilience in Urban Environments

Conference Location: Hong Kong, China

Publisher: Tourism, Leisure and Global Change

Pages: p.CUHK-55

Abstract: This study explores the pro-environmental attitude, behaviour and motivation of birdwatchers at bird-watching hotspots in China. A face-to-face questionnaire survey was conducted in 20 bird-watching hotspots to collect views among citizens in the mainland and Hong Kong. Results indicated that both Hong Kong and mainland Chinese bird-watchers demonstrated a positive environmental attitude. However, the behaviour of mainland Chinese birdwatchers was less appropriate than their Hong Kong counterparts, as measured in accordance with the code of conduct of international bird watching associations. In terms of motivation, the mainland birdwatchers tend to be motivated by achievement and affiliation as are likely to pursue a better performance and enjoy more interaction with other people. In contrast, the Hong Kong birdwatchers are motivated by appreciation that they wish to seek the sense of peace and belonging.



Red-crested cardinal (*Paroaria coronate*) - Kaua'i, Hawai'i

4. ABOUT THE EDITORS

Dr Michael Lück

Michael is a professor in the School of Hospitality and Tourism at Auckland University of Technology, New Zealand. He has worked in Germany, Belize, Canada, and Scotland, and is founding co-chair of the International Coastal & Marine Tourism Society (ICMTS). Michael has more than 10 years' work experience in the tourism industry and his research interests include (marine) wildlife tourism, the cruise industry, ecotourism, interpretation and education on wildlife tours, the impacts of tourism, and aviation. He has published in a number of international journals, is founding editor-in-chief of the academic journal *Tourism in Marine Environments*, Associate Editor of the *Journal of Ecotourism* and editorial board member of *Marine Policy*. Michael has edited or co-edited ten volumes on ecotourism, marine (wildlife) tourism, polar tourism, events, and low cost airlines, as well as the *Encyclopedia of Tourism and Recreation in Marine Environments* (CABI), and co-authored the introductory text *Tourism* (CABI).



Dr Brooke A. Porter

Brooke is an associate professor in the Food and Sustainability Studies Program at Umbra Institute, Italy. She also works as an external fisheries consultant for various organisations and has worked in diverse capacities with NGOs, international aid agencies and educational institutions in Maui, New Zealand, Italy, the Philippines and in Eritrea. Her research focuses on the human dimensions of the fisheries and the marine environment. She serves as a Scientific Adviser to The Coral Triangle Conservancy, an NGO that focuses on reef protection and restoration in the Philippines. She is co-editing a second volume on gender influences in fieldwork with *Channel View* as a follow up to her previous co-edited volume, *Femininities in the Field: Tourism and Transdisciplinary Research*.



Yasmine M. Elmahdy

Yasmine M. Elmahdy is a PhD candidate in the School of Sport and Recreation at Auckland University of Technology, New Zealand. Her current research focuses on sustainable management of marine mammal tourism in New Zealand. Her research interests lie in the areas of marine tourism, ecotourism, wildlife tourism, adventure tourism, and extreme and adventure sports. Her other research interests include gender issues in tourism and sport, and qualitative approaches to research.





Toco toucan (*Ramphastos toco*) – Iguazú, Argentina

Birdwatching

An Annotated Bibliography

Michael Lück, Brooke A. Porter, Yasmine M. Elmahdy

Also in this series:

Elmahdy, Y. M., Porter, B. A., & Lück, M. (*forthcoming*): **Seal Watching: An Annotated Bibliography**. Auckland, Dotterel Publishing.

Black, C., & Lück, M. (*forthcoming*): **Turtle Watching: An Annotated Bibliography**. Auckland, Dotterel Publishing.

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