

KEYNOTE ABSTRACTS

All abstracts are included in alphabetical order.

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These are indicated at the bottom of the abstract and are included from page 83.*

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may be available in a future issue of the 'Journal of Ecotourism'.*

THE PRIVATE SECTORS ROLE IN SUSTAINABLE WILDLIFE TOURISM AND MAINTAINING NATIONAL BIODIVERSITY

Les Carlisle

*Group Conservation Manager: Conservation Corporation Africa
P.O.Box 966, White River, 1240, South Africa, email: l.carlisle@ccafrika.com*

The role of custodian of National Biodiversity has evolved to be a shared responsibility in South Africa and the private sector play an increasingly large role maintaining Biodiversity. Land use practices developed during the 40's and 50's were predominately pastoral in the outlying low rainfall areas, these practices were only successful while Government subsidies were in place.

The National Government changed the laws regarding ownership of wildlife in the late 1960's and by the seventies regular wildlife translocation began taking place. The presentation will demonstrate the value increase in wildlife that was allowed by private ownership and the ability to trade these animals.

The CCAfrica model proves that wildlife is more profitable than livestock farming in the low rainfall areas. The company has as its mantra Care of the Land Care of the Wildlife and Care of the People and the presentation will explore these three linked areas for game reserves to be sustained. The historical management style of fencing and excluding local people from the reserve and its benefits was failing and CCAfrica demonstrates that the subversive potential of local neighbours is only ignored at the reserves peril. This presentation will focus on broad company achievements in these fields.

The conclusion is a vision for African Wildlife Tourism encompassing the Public Private Partnerships and National Partnerships.

Les Carlisle (SOUTH AFRICA)

Les currently holds the position of Group Conservation Manager with Conservation Corporation Africa (CCAfrica), an African based Wildlife Tourism company. Les started his career in wildlife translocation in 1980 and spent seven years catching African wildlife to be relocated to new private game reserves. He then moved into wildlife management and endangered species breeding with a tourism base until 1990. Les was appointed to CCAfrica in 1991 and was employed to build the first game reserve to attempt to prove that wildlife was a better option than ranching in marginal rainfall areas of Africa. Les sits on the management boards of two major private game reserves, one in South Africa and one in Namibia. He has 25 years of experience in the industry.

GETTING REAL: LINKING THEORY AND PRACTICE IN WILDLIFE TOURISM

Philip Dearden

Marine Protected Area Research Group

Department of Geography

University of Victoria

Victoria, BC, Canada

Researchers and managers have differing perspectives on the focus and utility of research related to wildlife tourism. This paper outlines a theoretical framework linking various aspects of wildlife tourism and shows how it can be applied to improving management decisions and encouraging sustainability. The framework links the concept of visitor specialization with the life cycle approach and indicates the implications for establishing limits of acceptable change at various stages within the life cycle. Use of this framework is illustrated through a case study of SCUBA diving in Phuket, Thailand. Over 500 divers completed before and after questionnaires on their backgrounds, motivations and satisfactions and were categorized into high, medium and low levels of specialization. Significant differences exist between the groups for many attributes. Satisfaction levels are generally inversely related to specialization. Highly specialized divers are least likely to return to dive in Phuket. These results are consistent with the predictions of the theoretical framework and raise questions about the sustainability of the SCUBA diving industry. Extension of the framework to include a spatial component suggests one management intervention, zoning according to specialization levels. Limits of acceptable change can be established for these different zones and management directed towards maintaining the standards established for each zone. This strategy maintains the diversity of diver opportunities available in Phuket, offers better resource protection, maintains financial viability and is more likely to lead to long term sustainability of this wildlife tourism opportunity than current management approaches.

Philip Dearden (CANADA)

Philip is Professor in Geography at the University of Victoria, Canada. He has worked in both terrestrial and marine parks, was a founder of the University of Victoria Whale Research Laboratory and is currently Leader of the Marine Protected Areas Research Group. He has been an active researcher in the interaction of tourism with conservation for over 20 years. Recent research interests include the potential for shark tourism to be a positive factor in shark conservation and the sustainability of diving as a means for incentive-driven conservation in Thailand. Philip is widely published, a member of IUCN's World Commission on Protected Areas and has acted as consultant to the World Bank, UNESCO, Parks Canada and the Royal Thai and BC Governments. He is currently the Ecotourism Advisor to the Sri Lanka Department of Wildlife.

STRATEGIC PLANNING OF WILDLIFE TOURISM IN AUSTRALIA

Karen Higginbottom

A broadly supported goal for Australian wildlife tourism is to achieve triple bottom line sustainability and maximise benefits for businesses, wildlife and host communities. We suggest that strategic planning of wildlife tourism at destination and national levels is needed to achieve this. Strategic planning typically involves organising, developing a mission, generating and implementing plans, and a feedback process. Key factors that currently limit achievement of benefits from wildlife tourism, and some potential solutions are identified that could form part of a strategic plan. Further elements of a proposed strategic approach are that (1) Tourism destinations with distinctive and significant wildlife resources need to link the destination and wildlife together more effectively to enhance destination competitiveness and (2) wildlife tourism should be characterised by an entrepreneurial approach, high quality products, a strong market orientation, strong links with wildlife conservation, and effective host community participation. Ultimately, effective planning of wildlife tourism requires the support of a diversity of stakeholders, political support, further research and monitoring, and adequate resourcing. *Wildlife Tourism Australia Inc.* has already played an important role in the organisation and mission development stages of strategic planning for Australian wildlife tourism. With enhanced resourcing and further building of partnerships with other key stakeholders, it would be well placed to play an important role in further development of this strategic approach.

Karen Higginbottom (AUSTRALIA)

*Dr Karen Higginbottom is principal consultant of Wildlife Tourism International, which provides specialist consultancy services in wildlife tourism. Karen coordinated a six year major research program on wildlife tourism for the Sustainable Tourism CRC (Australia), with her own research focusing on wildlife management aspects and on the integration of business, social and ecological aspects. She is editor of *Wildlife Tourism: Planning, Impacts and Management*. Karen is also currently leader of the Sustainable Resources Program of the Sustainable Tourism CRC. She holds the honorary position of Adjunct Senior Lecturer in the School of Environmental and Applied Sciences at Griffith University and is Secretary of Wildlife Tourism Australia.*

This paper has been refereed and a full copy of the paper may be available in a future issue of the *Journal of Ecotourism*.

WILDLIFE VIEWING: THE SIGNIFICANCE OF THE VIEWING PLATFORM

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This paper reviews research efforts in New Zealand that applying Duffus and Dearden's (1990) conceptual framework in an attempt to better understand the wildlife tourism phenomenon. This includes studies of tourist interactions and visitor management at a colony of Royal Albatross (Taiaroa Head, Dunedin) and with a population of Bottlenose Dolphins (Doubtful Sounds, Fiordland). It is argued in this paper that a critical aspect of wildlife tourism, in terms of all three key elements in Duffus and Dearden's framework, (i.e. site users, the focal wildlife population and the wider site ecology), centres on the viewing platform. It transcends all three elements of Duffus and Dearden's (1990) conceptual framework. Ironically, a chronic lack of empirical research effort has focussed on the viewing platform, or even incorporated the viewing platform into research design as an element of analysis. This paper reviews what is known about the viewing platform, much of it anecdotal. It then begins to address the lack of research attention paid specifically to this aspect of wildlife tourism. The results of a study that examined the human dimensions of wildlife tourism experiences based on viewing platforms is then presented and reviewed. The paper concludes with a call for a dedicated and coordinated research effort to understand aspects of the viewing platform, and how it bears upon all aspects of the wildlife tourism phenomenon.

James Higham (NEW ZEALAND)

*James joined the Department of Tourism, University of Otago, NZ in 1994, where he is now Associate Professor. His first area of research interest is tourism and its relationship with the natural environment. Since 1996, James has participated in several research projects funded by the Foundation of Research Science and Technology NZ and has published articles on these subjects in a number of international journals. In 2002 he was the recipient of the Antarctica New Zealand Educators Scholarship and later that year was visiting researcher, Scott Polar Research Institute, Cambridge University (UK). In 2005 his co-edited book (with Prof C Michael Hall) *Tourism, Recreation and Climate Change* was published by Channelview Publications.*

This paper has been refereed and a full copy of the paper may be available in a future issue of the *Journal of Ecotourism*.

IS IT OKAY TO FEED WILDLIFE?

Dr David Newsome

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The feeding of wildlife is a controversial subject. This presentation examines some situations where the feeding of wildlife constitutes a valuable wildlife tourism product. The future of wildlife feeding programmes is examined and guidelines for sustainable management are explored.

David Newsome (AUSTRALIA)

Dr David Newsome is a senior lecturer in the School of Environmental Science at Murdoch University in Perth. David's principal research interests are geotourism, human-wildlife interactions and the biophysical impacts of recreation and tourism. David's research and teaching and the activities of his research group, focus on the sustainable use of landscapes and the assessment and management of recreational activity in protected areas. David is the lead author of the recently published books Natural Area Tourism: ecology, impacts and management and Wildlife Tourism and co-editor of Geotourism a book which lays the foundation for the emergence of geotourism as a distinct discipline within the area of natural area tourism.

WILDLIFE TOURISM ALONG THE KINABATANGAN RIVER, SABAH, MALAYSIA

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The Kinabatangan River in Sabah, Malaysia has a wealth of wildlife that is currently being seen through the tourism in this area. This presentation will examine the wildlife in the area, challenges faced by tourism providers, the methods that are used by tourism providers and the future direction of tourism in the area.

The Kinabatangan River is Sabah's longest river at 560km. Much of the lower Kinabatangan River is gazetted under the "Kinabatangan Wildlife Sanctuary" making it an ideal environment for some of the best wildlife and birdlife found in Malaysia. Wildlife resources found on the Kinabatangan includes 10 species of primates, and 200 species of birds.

Issues and challenges faced in providing tourism on the Kinabatangan River include the expansion of oil palm plantations, illegal logging, how to improve interactions between tourism providers and the community, and pollution of the area from a variety of sources.

Sukau Rainforest Lodge was built as a low impact lodge. Paths for migrating elephants were left in the covered boardwalk and it uses solar power hot water amongst others. Tours are low impact using small boats with electric motors to minimise noise when near wildlife.

Environmental projects, such as weed clearing and tree planting are conducted by Borneo Ecotourism Solutions and Technologies (BEST) a not for profit division of Borneo Eco Tours, as are Community projects to spread the benefits of ecotourism such as medical care for locals, providing water tanks etc.

Future Directions include the creation of a Management plan for the Kinabatangan River and further lodge improvements.

Albert Teo (MALAYSIA)

TEO, Albert is actively involved in the tourism industry for the last 30 years as directors of Hotel Shangri-la, Kota Kinabalu, New Esplanade Hotel, Perth, owner of Borneo Eco Tours, Sukau Rainforest Lodge, Borneo Backpackers, and Vice Chairman, Malaysian Assoc. Tours & Travel Agents (MATTA) Sabah Chapter, and a member of marketing committee of Sabah Tourism Board. His companies have received many international ecotourism awards. In the last few years, he has been involved as an ecotourism speaker and organizer of ecotourism conferences. Albert is also a keen photographer, an author and publisher of seven books. In 2005 and 2006 he was also a judge for the WTTC Tourism for Tomorrow Award.

CONCURRENT AND POSTER ABSTRACTS

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TASMANIA'S GREAT WILDLIFE SITES – AIMING TO INSPIRE VISITORS TO SEE WILDLIFE IN A POSITIVE LIGHT

Ingrid Albion
Project Manager – Greatest Wildlife Sites
Parks and Wildlife Service
Tasmania

Stuart Lennox
Manager – Strategy and Sustainable Use
Parks and Wildlife Service
Tasmania

As a result of the Tasmanian Wildlife Tourism Strategy it became clear that visitors to Tasmania were mainly viewing our unique wildlife incidentally and there was a huge scope to improve our wildlife viewing experiences for the traveler. Novel interpretation and marketing of key species was seen as an important aspect of this.

In March 2006 stage one of the Tasmania's Great Wildlife Sites was set in motion. The plan aims to identify 10 of the best wildlife viewing opportunities around the state and provide infrastructure and interpretation for each of these. It is proposed that the Great Wildlife Sites will enhance visitor experiences within the Parks and Wildlife Service reserve system and provide opportunities for conservation and education through interpretation.

Each site will provide differential visitor experiences and will enhance the visitors' opportunities for viewing wildlife whilst traveling around the state. It is likely we will have some remote camera viewing of wildlife as well as face to face experiences and a range of species have already been identified. The project will be marketed and packaged to enhance wildlife viewing within Tasmania and aims to inspire Tasmanians and visitors to respect, value and promote the State's wildlife.

Ingrid Albion currently works in two positions, firstly as an Education and Interpretation Officer with the Tasmanian Parks and Wildlife Service and secondly as a Project Officer with the Devil Facial Tumour Disease team. Ingrid has a strong passion for Tasmania's wildlife and has been involved in the caring of wildlife as both a volunteer, scientist and educator for the past 20 years. Ingrid believes that Tasmania is a special refuge for many of Australia's unique species and is keen for others to commit to caring for and protecting our special biodiversity.

STUDYING THE IMPACT OF TOURISM DEVELOPMENT ON NESTING GREEN TURTLES IN OMAN (RAS AL HADD)

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Thousands of distinction-threatened, green turtles nest annually in *Ras Al Hadd* area in Oman. In order to protect them and their nesting beaches, the *RAH* Turtle Reserve was established under Royal Decree 25/96 by the Sultan of Oman.

The government has applied to the UNESCO to include the area in its Biosphere program in 2002. This would be very important in developing basis for sustainable use and conservation of biological diversity.

The government is currently planning to expand tourism activities in this highly potential area. This is expected to give it good economic support.

In light of the above, it is important to balance the conservation of the turtles with the tourism development. Main potential impacts of tourism are in lighting, physical disturbance to beaches, disturbance to turtles, and pollution. These impacts could be best minimized once the appropriate commitment and sense of responsibility is available.

This study aims to showcase the uniqueness and significance of nesting turtles in Oman. It will measure the environmental impacts of potential major tourism development on the turtles at *Ras Al Hadd*.

In order to achieve these objectives, a qualitative study would be conducted through interviews and focus groups. The anticipated results of the study would help decision makers by providing important information that would fill the gaps in the presently available studies.

ALAZRI Hamed, currently works as a Lecturer with the Tourism Department, College of Arts & Social Sciences, Sultan Qaboos University, Sultanate of Oman. He earned a Masters in Tourism Management from Purdue University, USA. His areas of interest are tourism marketing and managerial issues, as well as sustainable tourism development in Oman. He has been lecturing tourism topics for the past one and a half year, and has participated in a number of conferences & speeches on tourism in Oman.

BAOMAR Hussam, BA (Hons) in Tourism Management from University of Bradford, UK. Working in Department of Tourism in Sultan Qaboos University, Sultanate of Oman, as a Research Assistant.

**PROTECTED AREAS CONSERVATION AND WILDLIFE TOURISM
MANAGEMENT FOR LOCAL COMMUNITY DEVELOPMENT IN
GARHWAL HIMALAYAS**

*Prof SC Bagri
H.N.B Garhwal University
Dean & Director Faculty of Management, Tourism and
Hoteliering, HNB Garhwal University.
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Protected areas conservation and wildlife tourism management for visiting tourists is the emerging issue in the Himalayas. Efforts are under way from all stakeholders to make such protected areas sellable among visitors through active participation of local people. Garhwal Himalaya in India offers a large number of protected areas and the villagers living in the surrounding buffer zones are participating in the tourism activities since their openings. The demographic profile of visiting tourists, Incentives and Concessions to Tourism Entrepreneurs and Govt policy for tourism promotion are some of the target points that have been considered for the study in the present paper. In view of this the present research paper is designed to know the problems for tourism development in the region, management conflict with the villagers, emergence of wildlife tourism to infuse economic activities, and approximate financial assessment for developing wildlife tourism facilities.

The methodology was based on primary survey conducted through structured questionnaires between March to July 2004. The data were cross-checked subsequently in beginning of next tourist's season in May-June 2005. The universe of the data consists of locals, pilgrims, tourists, and day visitors. The age group of the respondents varies from 20- 60 years. The average size of sampled population was 50 and they were interviewed with the help of structured questionnaire. In-depth interviews and questionnaire surveys were conducted from the same number of service providers consists of hotel owners, taxi operators and adventure tour operators. Further enumeration method was adopted for physical interpretation of the existing facilities.

Key words: Himalaya, Garhwal, tourist, park, sanctuary, local community, planning

Prof S C BAGRI is the Dean, Faculty of Management, Tourism and Hoteliering, HNB Garhwal University, Srinagar Garhwal, Uttranchal, India. He is one of the renowned Professors in India in the field of tourism associated with this field for the last 26 years having tremendous knowledge and knows about various aspects of tourism planning and management. Prof. Bagri is continuously involved with numerous publications of books, research papers and articles. The present paper is another piece of his research work.

DESIGNING ‘JONAH’ EXPERIENCES: DEVELOPING VISITOR CONSERVATION LEARNING THROUGH WHALE WATCHING

*Roy Ballantyne, Jan Packer, Karen Hughes
School of Tourism and Leisure Management, University of Queensland*

This paper reports on a project that assesses the extent to which non-captive wildlife tourism experiences impact on visitors' knowledge, attitudes, and engagement in environmentally sustainable practices. By providing an understanding of the ways in which wildlife-based experiences impact on visitors' learning for sustainability, this research will inform improvements in the design of programs and experiences that effectively promote sustainable practices.

Ninety visitors on whale watching cruises were invited to complete pre-visit questionnaires designed to explore their incoming knowledge, attitudes, interests, experiences and visit motivations. On the return journey, participants completed a second questionnaire designed to examine short-term learning outcomes. Approximately four months later a sample of visitors also completed a telephone interview to explore long-term learning and identify any changes in their conservation behaviour.

Results indicate that most participants were interested in learning or discovering something new, spending quality time with family and friends, and/or appreciating the wonder of nature. Visitors attracted to whale watching cruises are fairly conservation-minded and reported that they are regularly engaged in recycling, conserving water and energy, and purchasing environmentally friendly products. However, respondents are less likely to engage in conservation activities that require intensive effort and participation. This research identifies key factors that wildlife tourism experiences should provide if they wish to play a role in promoting conservation behaviour.

MELANIE BARTER & DAVID NEWSOME
Photocopy of abstract

This paper has been refereed and a full copy of the paper may be available in a future issue of the *Journal of Ecotourism*.

DECLINE IN RELATIVE ABUNDANCE OF BOTTLENOSE DOLPHINS (*TURSIOPS SP.*) EXPOSED TO LONG-TERM DISTURBANCE

Lars Bejder¹, Amy Samuels², Hal Whitehead³, Nick Gales⁴, Janet Mann⁵, Richard Connor⁶, Mike Heithaus⁷, Jana Watson-Capps⁵ and Cindy Flaherty⁸

Center for Fish and Fisheries Research l.bejder@murdoch.edu.au²; Biology Department, Woods Hole Oceanographic Institution, Woods Hole MA 02543, USA, asamuels@whoi.edu²; Biology Department, Dalhousie University, Halifax, Nova Scotia, B3P 4J1, CAN, EMAIL³; Australian Antarctic Division, Channel Highway, Kingston, Tasmania, 7001, AUS, EMAIL⁴; Department of Biology, Georgetown University, Washington, DC 20057-1229 USA, EMAIL⁵; Biology Department, University of Massachusetts at Dartmouth, North Dartmouth MA 02747 USA, EMAIL⁶; Marine Biology Program, Florida International University, Biscayne Bay Campus, Miami FL 33181 USA, EMAIL⁷; Shark Bay Dolphin Research Project. Current address: 11217 84th Place, Willow Springs, IL 60480, USA, EMAIL⁸.

Studies evaluating effects of human activity on wildlife typically emphasize short-term behavioral responses, from which it is difficult to infer biological significance or formulate plans to mitigate harmful impacts. Based on decades of detailed behavioral records, we evaluated long-term impacts of tourist and research vessel activity on bottlenose dolphins in Shark Bay, Australia. We compared relative dolphin abundance within adjacent 36km² sites (Tourism site: tourism + intensive research; Control site: periodic research), over three consecutive 4.5-year periods wherein research activity was relatively constant but tourism levels increased from zero, to one, to two dolphin watch operators. A non-linear logistic model demonstrated that, when comparing periods of no-tourism and one-operator within the tourism site, there was no change in dolphin numbers per km²; however, as tour operators increased to two, there was a significant average decline of 14.9% (95%CI = -20.8 to -8.23) in dolphin abundance per km² (Figure 1), approximating a decline of one per seven individuals. Concurrently, within the control site, there was a non-significant average increase of 8.5% (95%CI = -4.0 to +16.7) in dolphins per km². Given the greater presence, size and noise of tour vessels, tour vessel activity was likely to be the more significant contributor to the decline in numbers of individual dolphins within the tourism site.

Although this trend may not jeopardize the large and genetically diverse Shark Bay dolphin population, the decline is unlikely to be sustainable for local dolphin tourism. A similar decline would be devastating for small, closed, resident and/or endangered cetacean populations. Given the substantial effect of tour vessels on dolphin numbers in a region of low-level tourism, and the overall scarcity of studies with adequate controls or longevity to evaluate this human activity, we urge managers to draw strong inference from the best-studied populations wherein long-term, individually-specific information is available.

THE BLACK-FOOTED ROCK WALLABY

Alan Briggs

The Black-footed Rock Wallaby (*Petrogale lateralis*) is a threatened species in Western Australia and is considered vulnerable at both a national and international level. Living on rocky escarpments, gorges, granite outcrops, sandstone cliffs and scree slopes, this once widespread species now occurs in small, fragmented populations on isolated range systems. Populations of Black-footed Rock Wallabies exist in both the Sales Rock and Gundaring Rock Nature Reserves near Quairading, and are representative of a significant proportion of the remaining total population in Western Australia.

The National Trust's Natural Heritage Programme protects native vegetation through sustainable management of its own holdings of bush and farmland, conservation covenanting, the BushBank revolving fund, appeals, donations and advocacy. With strategic planning and partnerships, conservation tools may be employed to facilitate a link between these two nature reserves. In doing so, a corridor for this threatened species will be created, significantly extending the habitats of the existing rock wallaby populations and greatly improving their chances of long-term survival. The linking of the two reserves will also benefit other species and create a much larger, more sustainable area of bushland. There is scope for corporate, landowner and community participation.

This paper will expand on this opportunity and consider more broadly other partnerships and links between wildlife tourism and wildlife conservation.

Manager Natural Heritage - Alan commenced with the National Trust of Australia (WA) in March 2005 and has responsibility for the BushBank and Conservation Covenant programs, and advocacy for natural heritage. Alan was previously the Policy Officer for the Minister for Agriculture, Forestry and Fisheries. He has 35 years experience in land management through his work with agencies including the Department of Conservation and Land Management and the Forest Products Commission. He has extensive experience in senior management and advisory roles. Alan has also lectured for almost ten years in Sustainable Tourism and Eco-tourism studies at Edith Cowan University. Alan has completed a Bachelor of Science (Forestry), Graduate Diploma in Business Administration and a Master in Business Administration. Alan has keen interest in eco-tourism land recovery programs and working with other individuals, agencies and companies to achieve improvement in the natural environment of Western Australia.

WESTERN AUSTRALIAN DIVE INDUSTRY GROWTH AND SURVIVAL, 1969-2005

Peter Buzzacott

Western Australian telephone directories were searched for recreational dive industry advertisements placed between 1969 and 2005 inclusive. The age of businesses operating in Western Australia (WA) is compared with the age of businesses operating within Queensland (QLD) during 1992, and against concurrent population growth within WA over the last three decades, for north, south and central coastal regions. Historically, dive industry growth in WA has been closely associated with population growth yet, despite recent continued population growth, the dive industry in WA has, on average, declined 23% since peaking a decade ago, in keeping with a global downturn. Recreational dive businesses in southern WA are surviving the recent industry downturn relatively well, compared to their colleagues in Perth and further north, where wildlife tourism accounts for a higher proportion of the dive industry's annual turnover.

This paper has been refereed and a full copy of the paper may be available in a future issue of the *Journal of Ecotourism*.

THE PHINDA CASE STUDY IN MANAGING ENVIRONMENTAL IMPACTS AND INTEGRATING WILDLIFE TOURISM AND CONSERVATION

Les Carlisle

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Within the context of CCAfrica's core principal - "Care of the Land, Care of the Wildlife and Care of the People" we will explore the three essentials that underpin the sustainability of any game reserve. **Care of the land** will demonstrate CCAfrica's influence in securing wildlife real estate and the magnitude of private sectors contribution to maintaining national biodiversity. We demonstrate the positive impact of the Phinda Game Reserve development on land values and change of land use in the Mkuze area .We will further demonstrate construction methodology for mitigating environmental impacts during construction of ecotourism lodges.

The presentation will demonstrate the private sector's role in protection and management of **endangered species** with specific reference to large icon species vital for top end tourism. We will look at cheetah, lion, elephant, buffalo and both Black and White Rhinos with specific reference to the influence that the Phinda project has on the protection of these species.

The connection between wildlife tourism and **mitigating local community impact** on the resource is demonstrated. We show a comparison of two reserves neighbouring the same local community and the difference in impact that this community has on the two reserves. This will clearly demonstrate the benefits derived from local community involvement with game reserves. The specifics of dealing with local communities will be dealt with in detail as this is the area that most often fails in game reserve development.

The development of Tourism Techniques to mitigate impacts on the environment are discussed

The conclusion is that private ownership of wildlife has driven the proliferation of wildlife as a tradeable commodity and maintenance of National Biodiversity is now a shared responsibility between the private sector, local communities and the state.

Les Carlisle currently holds the position of Group Conservation Manager with Conservation Corporation Africa (CCAfrica), an African based Wildlife Tourism company. Les started his career in wildlife translocation in 1980 and spent seven years catching African wildlife to be relocated to new private game reserves. He then moved into wildlife management and endangered species breeding with a tourism base until 1990. Les was appointed to CCAfrica in 1991 and was employed to build the first game reserve to attempt to prove that wildlife was a better option than ranching in marginal rainfall areas of Africa. Les sits on the management boards of two major private game reserves, one in South Africa and one in Namibia. He has 25 years of experience in the industry.

ZOO TOURISM: CONSERVATION THROUGH TOURISM

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The conservation of biodiversity and promotion of species survival can be undertaken by zoos through their direct actions. This paper discusses the challenges and constraints faced by zoos in meeting their conservation role (through captive breeding, education, research, animal welfare, environmental enrichment, reintroduction, and support for *in-situ* conservation), while at the same time maintaining an economically viable and wholesome venue for learning and appreciating nature, albeit artificial condition. The various zoo conservation programs can be integrated in zoo tourism. A case study of the captive breeding programs in the Philippines, in collaboration with certain leading zoos overseas, is presented. It examines the potential contribution of tourism in sustaining these programs in the country.

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EVOLUTION OF THE WHALE SHARK TOURISM MARKET

*James Catlin and Roy Jones
Curtin University of Technology Perth, Western Australia*

This paper examines the changes that have occurred in the participants of the whale shark tour experience at Ningaloo Marine Park, Western Australia. A comparison was made between survey data collected in 2005 and that which was collected a decade earlier. It was determined that there had been a noticeable change, in firstly, the type of people participating and the expectations of those people. Specifically, there is now a greater distribution of age groups participating, more domestic tourists, a greater focus on the service elements of the tour, and a higher tolerance to crowding. Although whale shark tours would still be viewed as being a specialised tourist activity, the results from this research suggest it has shifted towards the mainstream tourism market.

James Catlin. I have a Bachelor of Science majoring in conservation biology and tourism from Murdoch University. I recently completed my honours year on whale shark tourism at Curtin University in Perth Western Australia. Studying whale shark tourism enabled me to combine my two areas of interest (i.e. conservation and tourism) and has made it possible for me to continue on into a PhD at Curtin University in the same field of study.

A full copy of this paper is included from page 85

TARGETING YOUR MARKET EFFECTIVELY

Tonia Cochran.

Many businesses fail or don't achieve desired results because they don't have a good understanding of the market they are targeting. Some businesses aim for the "scattergun" approach rather than analyzing a target market that suits their enterprise and the result is predictably unsatisfactory for both the business and the client. This presentation aims to outline some suggestions to help operators effectively and successfully target their market to increase client satisfaction and reservations.

Tonia Cochran is a PhD graduate from the University of Melbourne and has worked in a number of fields ranging from marine biology, to conservation management and tourism. Tonia owns and operates her own eco-tourism business, Inala Nature Tours, which is comprised of both an eco-tour operation and a licensed travel agency. She also consults on conservation management and ecotourism issues and is current Chair of Wildlife Tourism Australia.

NEW OPPORTUNITIES FOR TOURISM DEVELOPMENT

*Steve Crawford
Director, Policy and Planning
Tourism Western Australia*

This address/workshop will focus on new business models for delivering high quality visitor experiences in protected areas. It will highlight how the Landbank initiative announced by Tourism Western Australia in 2006 will have the potential to shape the future course of tourism development in our protected areas.

'TIE MY KANGAROO DOWN SPORT': FACTORS AFFECTING THE VIEWING OF WILD KANGAROOS

David B. Croft¹, Manuela Barry² and Katherine Waterhouse²

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In the wildlife tourism market and more generally, kangaroos are iconic species and are often used to represent 'Brand Australia'. Thus viewing wild kangaroos is a highly favoured tourism experience but the quality of this experience is a function of the accessibility, behaviour and ecology of the species; and the degree to which individual kangaroos habituate to close and repeated contact with people. Furthermore the diversity of kangaroos and their kin is often unrecognised and the quality of a wildlife tourism experience may be enhanced by viewing a community of interacting species rather than 'a kangaroo'. We examine geographical, behavioural and ecological factors that affect the viewing of the macropods (kangaroos, wallabies and potoroos) as whole and present the results of two case studies with the large kangaroos. The latter studies were conducted in the arid rangelands of western NSW with red, eastern and western grey kangaroos and euros; and in the Blue Mountains with eastern grey kangaroos. Habituation of kangaroos to close approach by people is a function of species and the kinds of experience individuals have had with people. Where close approach is allowed then tourists may behave inappropriately. We discuss the management of an appropriate balance between a rewarding wildlife experience and mitigation of adverse impacts with kangaroos.

David Croft is Director and resident of the Fowlers Gap Research Station in far north-western NSW and senior lecturer in the School of Biological, Earth and Environmental Sciences of the University of NSW. Croft's research interests are in behavioural ecology with a focus on the arid zone and native fauna, especially kangaroos. His publications include fundamental studies of the behaviour of kangaroos and wallabies and applied studies of people-wildlife interactions in nature-based tourism and encounters such as wildlife roadkill. He teaches a course on arid zone biology with a focus on rangeland ecology and management in Australia and Southern Africa.

EFFECTS OF PARTICIPATING IN WILDLIFE TOURISM: A CASE STUDY FROM DIVING

Philip Dearden

Marine Protected Area Research Group

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Wildlife tourism can have both positive and negative impacts. This research was undertaken to assess participants' perceptions of the impacts of their chosen activity. Divers' perceptions of diving impacts were studied before and after dive trips in Phuket, Thailand. The most endorsed impact of diving was a positive one: the educational impact on the divers. Impact perceptions changed after the dive with assessments of the overall impact of diving being significantly more positive. The main effect of the dive experience was to ameliorate the perception of negative impacts. Perceptions of anchor damage and garbage disposal as negative impacts fell markedly. Following the trip liveaboard divers were more likely than day divers to see the impact of diving as positive. There was a significant increase in the number of divers willing to take part in a reef monitoring project following their dive experience. Almost 30 % of divers witnessed negative impacts on the reef. Divers who witnessed damage were more likely to feel that diving had a negative impact on the reef than divers who did not witness impacts. They were also more likely to take part in a reef conservation project. The results highlight some of the positive impacts of diving that are often overlooked and support claims regarding the benefits of participating in wildlife tourism. However they also point to the need for greater investment in participant education if wildlife tourism is to fulfill its potential as a conservation mechanism.

Philip Dearden is Professor in Geography at the University of Victoria, Canada. He has worked in both terrestrial and marine parks, was a founder of the University of Victoria Whale Research Laboratory and is currently Leader of the Marine Protected Areas Research Group. He has been an active researcher in the interaction of tourism with conservation for over 20 years. Recent research interests include the potential for shark tourism to be a positive factor in shark conservation and the sustainability of diving as a means for incentive-driven conservation in Thailand. Philip is widely published, a member of IUCN's World Commission on Protected Areas and has acted as consultant to the World Bank, UNESCO, Parks Canada and the Royal Thai and BC Governments. He is currently the Ecotourism Advisor to the Sri Lanka Department of Wildlife.

WILDLIFE TOURISM IN BORNEO: ISSUES AND OPPORTUNITIES

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Borneo comprises three countries in one island. They are Malaysia, Brunei and Indonesia. The first two are easily accessible and are becoming popular tourist destinations, the third, Indonesian Kalimantan, is still relatively remote and not yet on the tourist map.

Malaysian Borneo, generally referred to as Eastern Malaysia, comprises the two states of Sarawak and Sabah. Sarawak is a major cultural tourism destination whereas Sabah is a more oriented towards natural area tourism. Brunei attracts tourists interested in its Islamic religion and Sultanate. However, both countries have the potential to develop tourism on their natural resources and there are a number of opportunities to build the industry around wildlife tourism, nature based tourism, dive tourism and geotourism.

This presentation will illustrate some of the existing nature based tourism attractions including wildlife tourism. It will then describe some of the issues facing tourism development on the island such as the need for some aspects of environmental conservation; the need for greater tourist/operator safety and security; the possibility of building partnerships between government, business and local communities; the need for the introduction of ecotourism product and ecoguide certification; and finally the creation of dedicated nature tourism plans for specific regions.

Building on the success of Albert Teo's three Global Ecotourism Conferences held in Sabah over recent years, the issues raised above will be explored further in the 4th Borneo Tourism Conference being held in Kuching, Sarawak from 11-13 September 2007.

*Ross Dowling is Foundation Professor of Tourism, and Head of the Tourism Program, School of Marketing, Tourism & Leisure, Faculty of Business & Law, Edith Cowan University, Western Australia. He is an Executive Board Member of the Indian Ocean Tourism Organization (IOTO) and a Board Member of Ecotourism Australia. He has written numerous books on 'Ecotourism' and is co-author of the book *Wildlife Tourism* published late last year. In 2006 he has edited books on *Geotourism* and *Cruise Ship Tourism*. He has worked in wildlife tourism for over thirty years and has been a tour guide in natural areas in many parts of the world including the Antarctic.*

TURNING TOURISTS ON TO WILDLIFE: THE TASMANIAN WILDLIFE TOURISM STRATEGY

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This paper describes the *Tasmanian Wildlife Tourism Strategy 2005* and issues associated with its current implementation by Tourism Tasmania and the Tasmanian Parks and Wildlife Service.

Tasmania is known for its abundance of wildlife, yet research undertaken for the *Tasmanian Wildlife Tourism Strategy* shows few visitors come to the State with the intention of viewing wildlife. Furthermore, many departing visitors indicate that wildlife has not been a significant part of their Tasmanian experience.

The *Tasmanian Wildlife Tourism Strategy* aims to strengthen the State's wildlife tourism industry in accordance with the following three important principles linked to the State's broader tourism framework, *Tourism 21*:

- Tasmania's wildlife tourism industry must adopt the highest standards and ethics, contributing to the conservation of the wildlife on which it depends;
- Tasmania's wildlife tourism industry must inspire Tasmanians and visitors to respect, value and promote the State's wildlife; and
- Tasmania's wildlife tourism industry must maximise yield and assist in growing jobs.

To achieve the aim, the actions flowing from the Strategy develop the prominence and value of wildlife within the established tourism attribute of unspoilt nature. Unlike wildlife, unspoilt nature is recognised in the marketplace as one of Tasmania's primary appeals and is critically influential in the decision-making of many potential visitors.

An important action recommended by the Strategy is the selection and development of a small number of sites to raise visitor interest in wildlife and encourage them to seek further Tasmanian wildlife experiences, including commercial tours and attractions. In a State with a wide diversity of species, many potential locations for high-quality wildlife viewing, and a limited budget for development, this task is proving more complex than it might at first appear.

Claire Ellis is currently the Director, Destination Development, Tourism Tasmania. From 2001-2005 she worked at the University of Tasmania lecturing in the Tourism Program and completing a PhD examining an area within volunteer tourism. Claire grew up in Tasmania, but also spent 14 years living and working overseas, mostly in Indonesia, Vietnam, China, USA, and within Australia in Perth, Darwin and Canberra as well as Tasmania. During this time Claire started and ran her own businesses but also spent nearly three years working for the Indonesian office of the World Wide Fund for Nature, worked as a lecturer and consultant mostly in tourism and wrote two non-fiction books as well as numerous magazine articles.

WAY OUT WEST - WILDLIFE TOURISM INTERPRETATION IN PROTECTED AREAS IN WA

Gil Field and Lorna Charlton

Department of Conservation and Land Management

The interpretation of wildlife for visitors in protected areas such as national parks and marine parks is an integral part of the nature tourism industry. Interpretation has two hands – guided experiences and interpretive media including print, electronic, signs, exhibits and facilities. The presentation techniques used in interpretive media are diverse – two and three dimensions, ‘cyberspace’; Landsat, aerial and underwater photography; illustrations in naturalist, scientific, stylized, graphical and animated styles; and first, second and third person ‘storytelling’.

Wildlife interpretation considers the suite of species from plants (including cyanobacteria, fungi and woody forms) and animals (birds, mammals, reptiles, amphibians and invertebrates, both terrestrial and aquatic). Therefore the settings for interpretation range from under the sea to under the ground and into the open air, utilising viewing platforms, birdhides, interpretive shelters and interpretive centres.

The planning and development process for each project uses the interpretive communication principles of identifying the audience, analyzing the issues and messages, establishing the potential stories and theme, and selection of an appropriate medium for the setting. In this presentation we look at some of the diversity of means, methods and settings for interpreting the spectrum of wildlife in Western Australia.

Gil Field is an interpretive communication specialist. Interpretation plans, interpretive project plans and designs, guided activity presentations and evaluations, professional development and training programs and publications are some of the props in his bag of tricks. Gil sees on the one hand the extraordinary interpretive opportunity and on the other the challenge that hopefully young, unfettered minds like your own may have the insight to really make a difference in enriching our visitors experience, appreciation and support for wildlife tourism and management.

Lorna Charlton started working with CALM in November 2000. Her duties in this position have included the preparation and implementation of communication strategies, the development and evaluation of a wide range of interpretive products and training CALM staff and others in heritage interpretation principles and techniques. In a past life she has been a museum technician, ecologist (terrestrial and aquatic environments, both freshwater and marine), environmental consultant, TAFE lecturer and a science leader on expeditions to remote parts of the world. She loves the great outdoors and is happiest when out in the bush with camera in hand.

TOWARDS A SWEDISH VALIDATION AND CERTIFICATION SYSTEM FOR NATURE GUIDES AND INTERPRETER'S

Hans Gelter

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As nature tourism becomes an increasingly important component within the experience economy, the demands and expectations increase on nature guides as well as on tour and safari operators. This is partly a consequence of increased demands among better and better educated visitors within the new information society. The offered experience need to be extraordinary, of high quality and personalized to fulfill demands from the new experience economy. The emergence of eco-tourism as a consequence of demands for sustainable environmental management and an explicit environmental ethical awareness and Biophilic values in society sets new standards within nature tourism. These new demands have to be combined with the need for tourist companies for economical sustainability and possibility to grow and develop.

The growing nature tourism in Sweden which previously has been a peripheral area for tourism in Europe, and these new demands in the experience economy has resulted in a Swedish quality marking system, "Nature's Best" of nature based tourist products which has gained international interest. But the educational and professional system for nature guides is still undeveloped in Sweden where most are self learned or more or less educated without any certification standards. The concept of certified nature Interpreter's as in US has not yet been introduced in Sweden and Scandinavia. Based on similar principles as "Nature's Best" eco-certification, a system for educational curriculum, validation of established nature guides and a national certification system is being established with the aim of integrating the concepts of Interpretation, Experience Production and sustainable Eco-tourism.

Hans Gelter, PhD in Biology, holds a faculty position as Senior lecturer in Biology and education program coordinator for the Master Program in Professional Experience Production, at the Department of Music, Media and Experience Production, Luleå University of Technology, Sweden. He teaches various subjects within the Experience Production Study Program, such as Hospitality, Interpretation, Guiding, Environmental and Outdoor Education, Experience production, Creativity Management etc. He has previously been teaching Biology, Environmental and Outdoor Education at the Department of Teachers Education at Luleå University of Technology, and Genetics, Evolution and Ecology at Uppsala University. Gelter has personal experiences as Nature Interpreter and Guide through the Swedish company TEMA Resor with Safari in Tanzania and Nature Trekking in Greece, Madeira, Austrian Mountains and Safaris and Trekking in Nepal. Gelter has also a Nature Tourist Company, Guide Natura and is presently engaged in a validation/certification system for Nature Guides in Sweden. Gelter has participated in scientific expeditions on Greenland and along the Northern Russian Arctic coast as well as private nature tours in Northern Canada, USA, Europe, Central Russia, Australia and New Zealand and is a keen Mountaineer with climbing expeditions in the Alps, Alai and Himalayas.

**PLEASING ALL OF THE PEOPLE MOST OF THE TIME: DEALING WITH
MIXED GROUPS OF WILDLIFE TOURISTS**

Ronda J Green, BSc (Hons) PhD

People who pay for a wildlife tourism experience generally want to see wildlife (although not even that is a given). Within this subsection of the tourist population there is great variety of interest levels, expertise, concentration spans, comfort requirements and personality traits, several of which may present simultaneously even within the same small-group tour. For larger tour groups, plans for repeated small tours and static displays, there is certain to be diversity. This can present quite a challenge to the tour operator or designer of attractions. Pitching towards whatever the average is assumed to be may feel safe, but will leave many feeling less than satisfied. The author, who has been involved in nature interpretation since the late sixties and has run a small-group tour operation since 1997, shares some experiences with a variety of customers and how to satisfy all at least most of the time with face-to-face and other interpretive experiences

METHODS OF COMMUNITY ENGAGEMENT IN THE DEVELOPMENT OF MARINE PROTECTED AREAS IN VICTORIA, AUSTRALIA

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The coast has long been the favourite relaxation and recreation place for Victorians. While interest in the marine environment is growing, knowledge and understanding of marine wildlife remains relatively low.

In November 2002, a representative sample of Victoria's marine environments was included in a highly protected system of 13 Marine National Parks and 11 Marine Sanctuaries. This was the first time in the world that such a representative system had been established by a single jurisdiction.

The Victorian Government has identified that active programs for community education and engagement will be vital in ensuring the long-term protection of these Marine National Parks and Sanctuaries.

This working paper examines methods of community engagement in the development of marine protection areas in Victoria and considers their effectiveness and sustainability for the long term. It is a part of an ongoing research project looking at the development of marine ecotourism within the communities impacted by the selected marine protected areas.

The early focus of the project is on business development covering bird, dolphin and whale watching, snorkelling, diving and boat excursions off the south-western Victorian coast.

A full copy of this paper is included from page 97

A REVIEW OF THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT HUMAN-WILDLIFE INTERACTION GUIDELINES IN WESTERN AUSTRALIA

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In October 2003, the Western Australian Minister for the Environment announced a review of the Department of Conservation and Land Management human-wildlife interaction guidelines. This was intended to clarify CALM policy in terms of how tour operators and the public may interact with wildlife in a way that allows enjoyment of the experience without negatively affecting the animals and endangering people. A Wildlife Interaction Review Panel (WIRP) was formed to take public submissions and provide recommendations regarding existing human-wildlife interaction guidelines. Several key issues influencing the clarity and application of the guidelines were identified. Firstly, effectively managing interactions between humans and wildlife depend on: the specific context, location and the type of interaction; the number of people and wildlife individuals involved etcetera. The biological, ecological and behavioural characteristics of particular species may also determine resulting impacts. This presents a challenge in formulating consistent guidelines for all of Western Australia. Secondly, current wildlife interaction related legislation is based on the concept of ‘taking’ reflecting an outdated and negative approach to interaction, and technically allowing molestation of wildlife. Developing a positive legislative ‘power head’ that allows human-wildlife interaction at the discretion of CALM would be a more appropriate contemporary platform for management. Finally, while some guidelines and controls are in place for licensed tour operators, the issue of interaction between wildlife and the public presents difficulties owing to policing ability and lack of public awareness. The WIRP presented ten recommendations for guidelines to better manage and monitor the impacts of human-wildlife interactions.

This paper has been refereed and a full copy of the paper may be available in a future issue of the *Journal of Ecotourism*.

CALCULATING THE ECONOMIC VALUE GENERATED BY NATURAL AND HERITAGE AREAS: THE VALUING PLACES TOOLKIT

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In the five years to 2004, ninety percent of Australians have participated in a nature-based activity (Colmar Brunton Social Research, 2004, p. 12) and in 2004 alone eighty percent of international visitors participated in activities involving the outdoors and nature (Tourism WA, 2004). Despite these figures, managers have struggled to demonstrate the economic benefits of natural and heritage places since they capture very little of the tourist revenue. Under-resourced management is potentially devastating given the importance of these places to attracting tourists and the potential damage of growing visitor numbers. A way to demonstrate the economic importance of natural areas is to calculate the amount that tourists spend in the region that can be attributed to natural attractions. Research calculating tourist expenditure in the Gascoyne region has been used by CALM to successfully argue for greater management resources in the region (Wood & Glasson, 2006).

This paper tells the story of the development of the Valuing Places Toolkit, a new tool for calculating the economic value natural and heritage areas adds to regional economies. After briefly detailing the history of the project and addressing the major issues grappled with while developing the methodology, the paper provides an overview of the Valuing Places Toolkit (henceforth, the Toolkit), focussing on its features, adaptability and extra services that will be provided to users. This paper does not address methodological issues at length as they are addressed in other publications (Wood, Glasson, Carlsen, & Hopkins, 2006). It should also be noted that the Toolkit is still under development. This paper should be read as a report of progress to date rather than a definitive account of what the Toolkit will provide and how it will operate.

A full copy of this paper is included from page 107

* Thanks also to John Glasson, Diane Hopkins, Michael Hughes, the Sustainable Tourism Cooperative Research Centre, CALM and Tourism WA who contributed to the development of the Valuing Places Toolkit. No quotes are permitted from this paper without the authors' permission.

WHO ARE WHALE SHARK TOURISTS? UNDERSTANDING THE WHALE SHARK TOURISM BOOM IN EXMOUTH*David Wood and Tod Jones*

In the early 1990s, Exmouth faced relegation to the ranks of another remote Western Australian declining country town when the United States Defence forces, Exmouth's raison d'être, left town. The once booming service sector of the economy was under threat including hotels, schools and health services and aging infrastructure threatened to fail with no rationale for replacement. The town's population declined by 25% and community meetings foretold possible closure of the town.

However, in the ensuing years, tourism replaced the defence economy riding, to a degree, on the notoriety of Ningaloo's whale sharks. Tourists flocked from around the world to swim with the leviathans of the reef and the activity was internationally promoted. Between 1990 and 2002, international tourism escalated from less than 10% of Exmouth's tourism numbers in April to more than 50%. During the same period snorkelling replaced fishing as the primary activity for tourists and, between 2000 and 2003, swimming with whale sharks was enjoyed by more than 40% of all tourists in Exmouth during the whale shark season.

This paper draws on empirical longitudinal data collected by the author between 1997 and 2004 and that collected by others in the late 1980s to early 1990s to describe the growth of whale shark tourism and the characteristics of whale shark tourists. We assess the origins of whale shark tourists, the information sources they used, and their expenditure when compared to tourists who did not swim with the whale sharks. We conclude with an assessment of the significance of swimming with whale sharks to local people and the local economy.

MARKETING BIRDWATCHING

Justine Keuning¹

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The popularity of birdwatching is growing worldwide and has been recognised as an important tourism market. This growth has generated huge economic benefits for local communities, as well as increasing the awareness for the need for conservation.

Birdwatching tourism represents a niche market within the tourism industry. Numerous international studies have identified the important differences between birdwatchers yet this information is currently lacking and hindering the growth of this market in Australia.

This research identifies the different characteristics of international and national birdwatchers, including their demographics, expenditures, and features important for a successful birdwatching trip.

Justine Keuning is currently a PhD student at Flinders University in South Australia studying trophic interactions between shorebirds and their benthic prey at sites subject to human mediated water flow regimes in the Coorong National Park, South Australia. She has recently completed an extensive study into the birdwatching tourism opportunities in Australia for her ecotourism honours project in partnership with the South Australian Tourism Commission. This required extensive travel and consultation with local and national ecotourism operators and their clients.

USING TOURISM TO SUPPORT REINTRODUCTIONS OF THREATENED NATIVE MAMMALS

Narelle King, Karen Higginbottom and Johannes Bauer.

Tourism involving viewing of rare or threatened species in natural or semi-natural environments is one tool that could be used to support programs to reintroduce those species. Tourism may be able to generate funding for reintroduction programs and the local community, and educate tourists about reintroductions and conservation. There is a need to find ways to ensure efforts to integrate tourism and reintroductions better achieve positive conservation outcomes.

This paper discusses results of a review of tourism enterprises based on reintroduced threatened mammals in Australia and South Africa, and of the published international literature on previous reintroduction attempts. The review shows that tourism enterprises based on reintroductions of threatened native mammals make significant contributions to conservation. A number of problems faced by the enterprises are identified, as well as a number of solutions. The review identifies ways to maximise the chances of successfully reintroducing endangered species, and also suggests some experimental releases that tourism enterprises based on reintroductions of threatened native mammals could conduct, to maximise the conservation outcomes of such enterprises. A comparison between Australia and South Africa identifies ways that government bodies in Australia could better facilitate enterprises based on reintroductions, such as making endangered species available free of charge or heavily subsidised at this stage, and then later running wildlife auctions. Changes to the current Australian legislation are also suggested.

Narelle King is currently working as an ecotourism consultant on WWF China's Qinling Conservation and Economic Development Project. The research she is presenting today was conducted as part of her PhD, which she is completing through the School of Environmental and Applied Science at Griffith University, Gold Coast campus. Narelle has previously worked as an Australian Youth Ambassador for Development at Changqing National Nature Reserve, China, as part of the Sustainable Tourism Cooperative Research Centre's Giant Panda Ecotourism Project. She has also worked as a research assistant for the International Centre of Ecotourism at Griffith University.

Karen Higginbottom is principal of Wildlife Tourism International, providing consulting services on wildlife tourism design, planning and management. She is also a research program leader for the Sustainable Tourism Cooperative Research Centre and Griffith University. Karen coordinated and conducted seven years of research on wildlife tourism for the Sustainable Tourism CRC. She is editor of the leading reference book on wildlife tourism 'Wildlife tourism: impacts, management and planning' and has authored more than 25 other publications in this field. Karen is currently the Secretary of Wildlife Tourism Australia Inc.

INTERNATIONAL TOURIST PERCEPTIONS OF CONTROL STRATEGIES OF OVERPOPULATION IN ICONIC WILDLIFE

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Global attention to the possibility of koala culling at unique Australian locales emphasizes ongoing controversy about lethal population control of over-abundant native species. Literature shows a gap in defining the relationship between wildlife control policy preferences and wildlife values, lifestyle choices, and nationality, as moderated by media stories. During winter/spring 2005, Kangaroo Island (KI, SA) ferry passengers from the UK, United States and Canada, the largest international markets, were surveyed ($n=208$; response rate=71%), with an additional subsample of Australians ($n=103$). A written questionnaire was administered during travel to/from KI, a major wildlife tourism destination, after viewing an informational presentation about (non-site specific) management issues.

Although findings show wildlife management ranks far down the list of factors influencing destination choice, koala relocation and sterilization are preferred by North American and British markets, with broad disapproval of the 'no action' option, and strong selective opposition to culling. Similar analyses were conducted for Tammar wallaby and Cape Barren geese, with analysis on other 'charismatic' (sharks) and 'non-charismatic' (snakes) species. Preliminary results show rural residence and hunting/fishing participation correlate to greater acceptance of culling. Similarly, a view that the natural environment has been significantly modified is associated with greater acceptance of lethal control measures. Significant gender differences in policy preferences exist, but both men and women suggesting a cautionary approach in responding to media reports about controversial wildlife management. In the context of threatened travel boycotts in response to activities such as whaling, hunting and culling that generate a strong emotional response, the research offers insight into how tourists process wildlife-related information about an international destination.

Barbara A Koth is currently a Senior Lecturer teaching courses in environmental conflict resolution, sustainable tourism, human dimensions of environment, and park management. Her research focuses on wildlife tourism, adoption of sustainability practices by SA's tourism micro-enterprises, and tourism impact management models in parks. She chairs UniSA's campus sustainability working group, and is a member of the Division research grants committee. Prior to the recent 2 ½ years in Australia, Dr. Koth was a consultant in overseas nature-based tourism development, and Research Director for the U.S.'s National Scenic Byway program. She has worked on-site to develop tourism policy in over 15 countries, including Ghana, Tanzania, Jordan, Russia, and Thailand.

MIXING IT UP: MANAGING VISITOR IMPACT ON WILDLIFE IN A NON-WILDLIFE FOCUSED NATURE-BASED TOURIST DESTINATION

*Jillian Litster, Central Queensland University, Rockhampton, Queensland.
Ann Augustyn, Owner/Operator, Capricorn Caves, Rockhampton, Queensland*

The Capricorn Caves is a unique system of above-ground caves in a limestone ridge, north of Rockhampton, Central Queensland. These ancient caves have been attracting visitors since their discovery by John Olsen in 1882. Tours range from easy walking, wheelchair accessible caves to wild caving adventure tours. An important element of the attraction is the close contact tourists can have with local wildlife in a natural setting. This aspect is particularly evident during the season when the tiny Bentwing Bats exodus the caves each evening at dusk and additional tours are run to allow visitors to view the event. Capricorn Caves is one of the few remaining breeding places for the Bat. Other animals seen on the surface karst, include bush turkeys, kangaroos, echidnas, green tree frogs, and spotted pythons, all of which draw comment from cave visitors. Since taking ownership of the Caves in 1988, Ken & Ann Augusteyn have significantly increased the number of tourists visiting the Capricorn Caves. Managing the impacts of these tourists on the natural environment has been an important focus of their management strategy and is evidenced by their 'Advanced Ecotourism' accreditation. Even though the focus of the attraction is the caving and adventure experience, the Augustyn's have developed strategies for minimising visitor impact and maximising visitor enjoyment of the local wildlife. This paper presents a working paper case study of the Caves and explores the relationship that exists between the primary attraction (the Caves) and the secondary attraction (the wildlife), and how this is managed.

Jillian Litster is a lecturer in tourism at Central Queensland University, Rockhampton. Jillian grew up in the tourism industry in South Australia and has taught at CQU Rockhampton since 1992. She has a BA (Hons) and Masters from Flinders University. Jillian was a judge for the Queensland Tourism Awards in 2002, 2003 and 2004.

WILDLIFE ON THE REEF: AN IMPORTANCE-PERFORMANCE ANALYSIS OF TOURISTS ON LIKURI ISLAND, FIJI

Michael Lück

In tourist satisfaction research, commonly either the performance, or the importance of the attraction or place in question are investigated, rather than both. Marketing literature, however, suggests that consumer satisfaction is a function of both expectations related to product attributes and their performance. Most visitors on Likuri Island (also known as Robinson Island) in Fiji come to the island for snorkelling and SCUBA diving. Respondents were asked to indicate their rating for the importance of various items about species and settings for snorkelling and diving. They were also asked to rate the performance of these items during their stay. By plotting the results into the Importance-Performance Grid, the relationship between importance and performance can be elicited. The grid also shows in which of the four categories “concentrate here”, “keep up the good work”, “low priority”, and “possible overkill” the respective items fall, and thus helps to identify priorities for management of the island’s resources for snorkelling and diving.

Michael Lück is Senior Lecturer in the School of Hospitality & Tourism at the Auckland University of Technology in Auckland, New Zealand. He has worked in the industry for many years (package tour operator, travel agencies, campervan rental company, tour guiding) and taught at universities in Germany, New Zealand, Scotland, and Canada. Michael is interested in the areas of marine tourism, wildlife tourism, ecotourism, sustainable tourism, the impacts of tourism, gay tourism and aviation. He has published in various international journals, and is the founding editor of the journal “Tourism in Marine Environments”.

A full copy of this paper is included from page 115

COMMERCE, COMMUNITY AND CONSERVATION: A COLLABORATIVE APPROACH TO MANAGING A SUSTAINABLE MARINE TURTLE TOURISM INDUSTRY

Kate Macgregor

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During the Year of the Turtle – 2006, communities around the globe are uniting to celebrate marine turtles and support their conservation. One of these communities, located on the North West Cape of Western Australia, epitomises the spirit of collaborative turtle conservation. The Jurabi Turtle Centre is the flagship for an inspirational program in which an alliance of conservation agencies, state and local government, private enterprise, community members and commercial tour operators are combining their efforts to protect marine turtles that nest on the beaches of Ningaloo Marine Park.

On the North West Cape of Western Australia, the pressure of unsustainable tourism activity may jeopardise significant mainland turtle rookeries. Encouraging visitors to participate in commercial turtle tours with qualified guides is proving an effective way of reducing disturbance to nesting turtles by actively managing visitor-turtle interactions. This strategy also supports the development of sustainable commercial operations. While maintaining viable and productive turtle rookeries is a common concern for those involved with Jurabi Turtle Centre, there are significant benefits specific to each stakeholder group that extend beyond turtle conservation.

The Jurabi Turtle Centre has confronted multiple challenges over the past three years, particularly in terms of satisfying tourism, conservation and community expectations. Issues such as licence conditions and operational procedures have been trialled, reworked and amended through extensive consultation among stakeholders. One of the greatest challenges remaining is to successfully generate community support for non-disruptive turtle interaction and encourage participation in guided turtle viewing as a major mechanism of conservation.

Kate McGregor is a Zoologist and Educator who has been employed with the Department of Environment and Conservation (DEC) since 2000, primarily in the field of environmental education, ecotourism and interpretation. She has been intimately involved with the managerial and operational design, implementation and evolution of Jurabi Turtle Centre. Author of the nationally accredited Turtle Tour Guide Training Course, she lectures during the turtle breeding season at TAFE. She is President of Cape Conservation Group and a strong advocate of community empowerment, co-coordinating community-based conservation programs on the North West Cape. She currently combines her community commitments with being a mother and continues to work with DEC on numerous projects.

A full copy of this paper is included from page 139

A DINOSAUR ON THE FOOTPATH: FACTORS LEADING TO THE EARLY SUCCESS OF THE AUSTRALIAN REPTILE PARK, GOSFORD, NSW

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Nancy Cushing,

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The Australian Reptile Park, founded by naturalist Eric Worrell in 1958 on the NSW Central Coast, was a pioneer of captive-based wildlife tourism in Australia. By the late-1960s the Park was apparently attracting about 200 000 visitors per year and had become the iconic tourist attraction on the Central Coast, a position it maintained until the late 1970s. The Park earned an international reputation as a reptile exhibition and research centre and boasted a remarkable array of Australian and New Guinean fauna. The nocturnal house established in the early 1970s was the first in the southern hemisphere while the platypus and reptile exhibits were regarded as innovative in their design. The Park continues to be one of Australia's leading privately-owned and managed wildlife parks and has an international reputation as a facility with strong education, research, and conservation goals.

This paper focuses on the first two decades of the Park's existence in order to identify factors that appear to have been influential in the creation of a significant wildlife tourism attraction. In particular, this paper examines aspects of the Park that we believe were crucial to its early success. These include the building of Australia's first road-side tourist icon, the famous Gosford dinosaur, Ploddy; the role that key staff played in operationalising Worrell's vision for the Park; the role of celebrity in marketing the Park; the enhancement of the visitor experience through animal presentations; the high level of community 'ownership'; and the use of innovative animal display techniques.

Kevin Markwell is a Senior Lecturer in Leisure and Tourism Studies in the School of Economics, Politics and Tourism at the University of Newcastle and is Wildlife Tourism Australia's treasurer. He has published on a range of topics relating to tourism-nature relationships, ecotourism and interpretation. Together with Dr Nancy Cushing, he is currently involved in research that will inform a published history of the Australian Reptile Park.

MANAGING FOR CONSERVATION AND RECREATION: THE NINGALOO WHALE SHARK EXPERIENCE

Roland Mau¹

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The Whale shark experience at Ningaloo Marine Park in Western Australia has become a world renown ecotourism attraction. The Western Australian Department of Conservation and Land Management has statutory responsibility for the management of whale shark interactions. Since 1997, a Wildlife Management Interaction Program has established clear objectives for conservation and recreation of whale sharks at Ningaloo Marine Park. A charge was levied on licensed operators to facilitate management and research needs. Industry log books were implemented and have provided important information on industry trends and whale shark biology. Analysis of the data by the Department has indicated an overall reduction in the average size of the whale sharks observed at Ningaloo. The Department has attempted to determine the effectiveness of management strategies on whale shark behaviour. Results from photo-identification studies had shown that individual whale sharks were returning to Ningaloo annually, up to 12 years apart, and have interacted with tours over 14 separate days in a month. A recent visitor satisfaction survey concluded that the current management provides for a quality recreational experience for whale shark tourists. In a continuing drive towards improving the experience of visitors, the Department has initiated the development of a nationally accredited whale shark interaction guiding course. The Department continues to seek opportunities that allow for operator and community involvement in research and monitoring. A new web-based photo-identification library will allow for more extensive involvement of operators and participants in whale shark population monitoring into the future and beyond Ningaloo.

Roland Mau is currently employed as the Exmouth District Nature Conservation Coordinator for the Western Australian Department of Conservation and Land Management. Roland is closely involved in the management of the Ningaloo Marine Park, including whale shark, marine turtle and manta ray tourism. Roland has had a lifetime affinity with the marine environment pursuing a career first in the dive industry, then in conservation management. His interests have always been centred around marine conservation issues especially in regards to tourism pressures on fragile coral reef environments following work experiences at the Red Sea, Maldives and the Great Barrier Reef.

A full copy of this paper is included from page 127

CAN WHALE WATCHING SAVE THE WHALE?

Mick McIntyre

Director, IFAW AsiaPacific, 8 Belmore Street, Surry Hills, mmcintyre@ifaw.org,

The International Fund for Animal Welfare (IFAW) is committed to identifying and promoting solutions to conservation challenges that benefit both animals and people. Some of our most significant and successful work over the past two decades has been on trying to stop whaling and promoting whale watching.

Unfortunately whaling has never stopped and is increasing but Whale watching has grown from humble beginnings in the 1950s to become an almost universal human passion.

As a commercial endeavour whale watching — with important educational, environmental, scientific, and other socioeconomic benefits — is now at least a \$1 billion USD industry attracting more than 9 million participants a year in 87 countries and territories.

In Australia in 2004, over 1.5 million people paid went whale watching contributing close to AU\$300 million to the Australian economy. In many places, whale watching provides valuable, sometimes crucial income to a community, with the creation of new jobs and businesses.

IFAW believes that whale watching helps foster an appreciation of the importance of marine conservation, and a snapshot of the threats to whales.

For many coastal fishing communities whale watching has provided them with a second chance, it offers communities a sense of identity and considerable pride. In a number of places, it does all of the above, literally transforming a community.

Can whale watching do the same for the whale as whale watching has done to those communities?

Through our international workshops and gatherings of experts, codes of conduct and research reports, and on-the-ground work in many countries, IFAW is now widely recognized as a driving force behind the growth and development of whale watching worldwide.

*Mick spent many years as a professional filmmaker and his documentary *What to do about whales?* has screened all over the world, raising awareness of the ongoing threats faced by whales. In 1992 Mick founded Whales Alive, an environmental organisation which has developed an ongoing education programme for whale watch operations, including the training of boat operators and community outreach. As IFAW Asia Pacific Director, Mick leads campaigns to promote animal welfare and conservation policies to advance the well being of both animals and people. IFAW has more than two million supporters and is represented in 15 countries around the world.*

WHO OWNS THE ANIMALS: THE IMPLICATIONS FOR SUSTAINABLE WILDLIFE TOURISM

Dr Susan Moore, Murdoch University, WA

Wildlife in Australia and elsewhere often freely move across the landscape. How they are managed depends on who owns the lands, waters and even skies that the wildlife traverses and the places they then occupy for periods of time. Ownership becomes more important when the wildlife have economic value for uses such as tourism and instrumental uses as food and other similarly basic needs. It becomes more critical when the wildlife are vulnerable and have special management needs for which some one has to bear the costs and there are assumed benefits in return.

This paper uses the concept of common-pool resources to describe these issues with regard to wildlife tourism and its sustainable management. Common-pool resources are those where it is often difficult and costly to exclude uninvited or unwanted users while exploitation by one user can reduce the availability of the resource to others. Examples include air, water resources, grazing pastures, irrigation systems, and fisheries. Such resources are potentially vulnerable to over-use as well as little incentive existing for individuals to manage the resource sustainably.

Innovative policy instruments have been used to successfully manage these other more widely-known and understood common-pool resources. A limited number have also been applied to wildlife tourism. This paper highlights instruments from both sources and uses examples from the whale-shark industry and sea lion viewing off the west coast of Australia, and wildlife tours in Kakadu National Park in northern Australia, to illustrate the possibilities such instruments can create for policy innovation and sustainability.

Dr Susan Moore is a senior lecturer in the School of Environmental Science at Murdoch University, Western Australia. Her research focus is natural resource sociology, especially biodiversity conservation policy and the social aspects of nature based tourism. She has extensive experience with government and non-government environmental organizations and currently chairs the CALM Recreation and Tourism Research Reference Group in WA and represents this state and the social sciences on WWF Australia's Scientific Advisory Committee. Dr Moore has over 100 publications on environmental policy, natural resource management and natural based tourism in journals, books and reports including the journals of BioScience, Environmental Management, Environmental Impact Assessment Review, Journal of Sustainable Tourism and the Australasian Journal of Environmental Management. Her most recent book, published in England last year, is titled Wildlife Tourism.

IS ANTARCTIC WILDLIFE MENANCED BY INCREASING TOURISM?

Shona F. Muir

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Wildlife is Antarctic tourism's main attraction. Antarctic wildlife includes whales, seals, penguins and other birds (see accompanying poster). Antarctic tourist numbers have increased from c. 100 per year in 1957-59 to over 26,000 in 2004-05. Though numbers are small compared to other wildlife attractions, the visits are concentrated to a limited number of sites in the Antarctic Peninsula area; generally considered hyper sensitive to disturbance. The majority of tourists are ship- borne, and those that make two to three landings per day are most likely to impact wildlife. Large cruise liners, a recent development, make no landings. Overall passenger numbers continue to increase rapidly but since liner passengers do not land, impacts have not increased proportionally. Of 270 landing sites identified, fewer than 30 are frequently used, mainly for accessible wildlife. Through the International Association of Antarctica Tour Operators (IAATO), the industry has provided very adequate self-regulation, but continued rapid expansion may require a more formal regulatory system. Research has shown that visitors who follow established guidelines are unlikely to menace wildlife. Monitoring, specifically of cumulative impacts, is required under the Antarctic Treaty (Madrid Protocol), but no site management objectives have been defined. As no financial benefits accrue to Antarctica or its wildlife from tourism, there is no on-site regulation or ranging.

Shona Muir is currently part of a research team investigating Antarctic Tourism from Hobart, based at IASOS, University of Tasmania and Scott Polar Research Institute, Cambridge UK. Her area of interest is the impacts of Antarctic tourism and logistic support on Antarctic gateway ports. She participated in the lecture series and other wildlife oriented educational activities on two Antarctic cruise ships in the 2005/06 season. She has a background in social geography and multidisciplinary Antarctic studies, and has worked logistics management in the Royal Australian Navy, With the British Antarctic Survey, she has published joint research on human interactions with leopard seals.

ECOTOURISTS ASSISTING WHALE SHARK CONSERVATION

Brad Norman¹, Jason Holmberg²

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Whale sharks are a threatened species and the focus of ecotourism activities throughout the world. The industry was pioneered in Western Australia and the guidelines used there have been adapted at many international locations where similar industries have developed. These industries provide the ideal opportunity to collect important baseline information on various aspects of the biology and ecology of the whale shark - to ultimately assist with their global conservation – by engaging the industry and the ecotourists. The ECOCEAN Whale Shark Photo-identification Library is a global database available to the public online at www.whaleshark.org. It has been a focal point for researchers and tourists alike to participate in whale shark conservation through the collection of sighting data and identification photographs. The data collected will be analysed and available to managers at the local, national and international level to better understand whale shark movements and numbers in the wild and assist with their global conservation. It is also being used to assist with analysis of effects of ecotourism on the species, to refine management guidelines as appropriate. ECOCEAN and the Big Fish Conservation Alliance manage this database and provide stakeholders with the opportunity to use the data collection program in the promotion of their tours. The methodology for identifying whale sharks was published in late 2005 in the Journal of Applied Ecology with a summary piece also published in Nature. To date, participants from 27 separate countries have submitted information to the global database.

Brad Norman currently works as Project Coordinator for the global whale shark monitoring program, the ECOCEAN Whale Shark Photo-identification Library. In addition, he is currently an Adjunct Research Associate with Murdoch University. He has been researching the whale sharks since 1994, initially at Ningaloo Marine Park, Western Australia and also at other whale shark locations including Taiwan, Mexico, the Philippines and Christmas Island. He was also on the organizing committee of the first International Whale Shark Conference (held in Perth, May 2005) attended by delegates from 23 countries, and was also invited to represent ECOCEAN (a non-governmental organisation - granted ‘official observer status’) at the United Nations Environment Programme (UNEP) Convention on Migratory Species triennial meeting in November, 2005 where he gave a presentation on the global whale shark database. Brad Norman continues to work for the conservation of the whale shark and is coordinating an Earthwatch Institute project at Ningaloo Marine Park between 2006-08 on whale shark ecotourism.

PROTECTED WILDLIFE AREA MANAGEMENT AND TOURISM YIELD TYPES: GETTING THE TOURIST BALANCE RIGHT

Jeremy Northcote & Jim Macbeth
(* presenting author)*

There is increasing attention being directed towards measuring the ‘yields’ produced from different types of tourists. Often yield is understood in a narrow economic sense with a focus on maximising economic returns, but there is a growing interest in how the concept can be applied to other forms of ‘yield’ as well, including environmental, social and cultural factors. How do different tourist types measure up in terms of determining the appropriate tourist types for protected wildlife areas? It is widely held, for example, that ecotourists are the ideal tourist type for protected wildlife areas, while extractive or high impact tourists such as recreational fishers and offroaders are least desirable. However, it is contended that such generalisations are not necessarily conducive to sustainable protected area management, and that zoning for different types of tourists may be more preferable in some circumstances. The manner in which different tourist types are assessed in terms of their different forms of yield, and the right mix of tourist types catered to in tourism marketing and protected area management strategies, will be discussed.

Dr Jeremy Northcote is lecturer in leisure sciences at Edith Cowan University and research officer in the tourism program at Murdoch University. His recent research work has involved developing conceptual frameworks for measuring tourism yield and the social impacts of tourism. Dr Northcote has also been involved in evaluation of CSIRO’s ‘tourism futures simulator’ for sustainable tourism development in the South West Tapestry Region. He is currently a research officer on a project examining the impacts from sanctuary zone extensions in the Ningaloo Marine Park on visitation patterns.

JEREMY PERKS
HAS FULL PAPER – PHOTOCOPIED THE ABSTRACT

"THE GOOD, THE BAD AND THE "NOT SO" UGLY REALITIES OF COMMERCIAL WILD BIRD FEEDING."

Michelle Plant

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Wildlife tourism operators are increasingly being asked to be accountable for the holistic management of their wildlife interactions. This is being driven by government regulations, guiding organisations, visitor expectations and in some cases it is prompted by self regulation by operators, themselves. However, it is recognised that there has been insufficient research to guide the development and application of best practice. This study evaluates modified wild bird feeding practices and provides some progress towards establishment and application of best practice guidelines.

Bunya Mountains Getaway, (adjacent to the Bunya Mountains National Park - located 3 hours drive west of Brisbane) operates a commercial wild bird feeding activity. The activity has operated in various forms since the 1970's. Every year approximately 90 000 people take part in this captivating experience, either through direct participation or indirectly by watching or taking photographs.

With a change in management in late 2004, new operators chose to place their wild bird feeding operation under the microscope, to investigate the "realities" of the feeding practices they had inherited, and to assist with the development of more sustainable practices.

An initial study was conducted to investigate the state of feeding practices. This reviewed the feed and its management, hygiene and risk management, and the site suitability. Aviary management practices and relevant literature was reviewed, representatives from the Queensland Parks and Wildlife Service and avian veterinary specialists were consulted, and consideration was given to current legislative requirements. This resulted in the production of guidelines for best practice and a range of recommendations for improving the activity at this site.

Having implemented the changes, which in some cases had to be adjusted given the important "realities" of business constraints, an initial model for best practice wildlife tourism – wild bird feeding, has been established. Implementation has enabled an evaluation of the modified feeding practices, based on the guidelines for best practice to be undertaken.

The good, the bad and the "not so" ugly realities of the wild bird feeding practices are presented, and the implications for the future management of commercial wild bird feeding activities are discussed.

Michelle Plant has recently completed honours in Applied Science - Environmental Tourism, with the University of Queensland. Her presentation is based on the report, "Evaluating modified commercial wild bird feeding practices. Case Study: Bunya Mountains Getaway".

Michelle operates a consultancy business - Wildlife Interactions, assisting operators with operational / environmental management for wildlife interactions, and with government licencing and permit requirements. Wildlife Connect – a research and support program to improve the current level of understanding of wildlife interactions in a variety of settings is another project that Michelle is currently developing.

ANTARCTIC TOURISM: THE CALL OF THE ICE GROWING IN POPULARITY

*Stephen Powell, Australian Antarctic Division, Channel Highway Kingston TAS
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Antarctic tourism is relatively young, but it has rapidly become more popular over the past two decades. Over 30,000 passengers now travel to the region in the four-month summer season. Most visits are by ship. Antarctic tourism is predominantly wildlife-based, highly concentrated on the Antarctic Peninsula, and spans a number of conservation frameworks. Sub-Antarctic islands, often the first port of call, are generally managed by national agencies within national guidelines. In the Antarctic, all activities occur under the auspices of the Antarctic Treaty's Protocol on Environmental Protection, and tourist activities are regulated by the nation of origin of the tourist operator.

The paper outlines the growth of Antarctic tourism, explains its connection with the Antarctic Treaty, surveys the main conservation issues, and introduces the latest initiative in equipping guides with the tools to minimise their visitors' impacts: the Antarctic Treaty's June 2006 site-use guidelines.

Dr Stephen Powell is a senior policy officer responsible for Antarctic Treaty matters (including as a delegate to Antarctic Treaty Consultative Meetings), as well as for Australian policy on Antarctic tourism and liaison with Antarctic tour operators. His research background is in the humanities, on the development of conservation policy.

A full copy of this paper is included from page 155

ELECTRONIC MONITORING OF ECO TOURISM OPERATIONS

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Electronic Monitoring of Licence Conditions

The ability of agencies to monitor and manage wildlife interaction tours usually places a great strain on resources because of the remote nature of these operations. Monitoring is vital to an agency's ability to develop effective management tools to protect the resource so valuable to the tour operators.

The Monkey Mia dolphins in Shark Bay Marine Park are an icon of Western Australian Tourism. The beach interaction has been managed by the Department of Conservation and Land Management (CALM) for many years but tourism product has been developed for those who wish to see other dolphins in their natural habitat, along with other inhabitants of the marine park, including dugongs and turtles.

Boat tours out into Redcliffe Bay were commenced in the early 1990's and in 1998, CALM had issued two restricted licences that allow catamaran yachts to take tours within the bay and interact with marine animals. This was conditional upon a research program being undertaken into the impacts of these operations. The program was funded by licence charges collected from the operators.

Combined with traditional methods of monitoring, the ability for cost effective monitoring and management of this activity has been enhanced by the installation of electronic, GPS based, monitoring devices to assist CALM to help ensure that the operators were abiding by their licence conditions.

Rod Quartermain is the Tourism and Marketing Unit Coordinator for the WA Department of Conservation and Land Management (CALM). This involves managing and developing policy for commercial operations licensing, communications with tourism stakeholders and CALM's National Park Pass system. Rod has been with CALM since 1998. Prior to this he has had an extensive career in the tourism industry and an owner and operator in the marine, accommodation and heritage sectors in various locations in Australia. Rod joined the then WA Tourism Commission in 1994, as a Regional Manager was the CEO of Fairbridge WA and was also a chairperson of a visitor centre and a regional tourism organisation.

WILDLIFE TOURISM, SCIENCE AND SCIENTISTS; WHAT ARE THE BARRIERS AND OPPORTUNITIES?

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Wildlife tourism, the viewing of wildlife in their natural environment, is a growing sector of tourism world wide. The presence of diverse and unusual wildlife is a major influence on visitors choosing Australia as a destination. Little is currently known about the short and long term impacts on the wildlife on which such tourism depends. This has resulted in management agencies making decisions on the suitability of human-wildlife interactions based on insufficient data. Given the diversity of possible impacts and possible responses, plus concerns surrounding sustainability, it is essential that good empirical scientific research is available to inform management. This paper draws on scientists' and managers' perceptions of science and wildlife tourism to barriers hindering scientists from engaging in wildlife tourism science. It explores the scientific paradigms and power relationships which influence scientists and managers and potentially hinder the development of research into human-wildlife interactions.

Kate Rodger, who comes from a background in conservation biology, is currently completing her PhD in the School of Environmental Science at Murdoch University, Perth, Western Australia funded in partnership with Sustainable Tourism Cooperative Research Centre (STCRC). Her work aims to explore the issues surrounding the use of the natural sciences and associated scientific monitoring in the management of wildlife tourism.

AN INVENTORY OF WILDLIFE TOURISM IN WESTERN AUSTRALIA

Peter Sandilands

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Due to its sheer size and coverage in latitude, the state of Western Australia has a wide range of habitats - from pockets of sub-tropical rainforest in the Kimberley region to the cool, temperate forests of the Southern Forest region; from the great inland deserts to the coral reefs along its lengthy coastline. Within these habitats live a diverse array of wildlife, many of them found nowhere else in the world. Increasing numbers of tourists from within Australia as well as from overseas come to see this wildlife which in turn contributes large amounts of money to the state's economy. However, with the increase in tourist numbers comes a need to conserve and manage the wildlife resource in a sustainable manner that allows both the people and the animals to co-exist and prosper. To understand where there are possible conflicts and pressures on the resource, there is a need to know which animals attract tourists and which locations are in use. The data provided in this database will allow the responsible agencies to plan the equitable and sustainable management of the resource, reducing pressure on those that are overused and encouraging operators to make use of other attractions in less utilised areas.

Peter Sandilands has a BSc in sustainable development from Murdoch University and is currently undertaking postgraduate studies in environmental management. He has been involved in conservation issues in Western Australia for over twenty years, particularly those relating to wildlife. His current research interests are the disturbance and impact of wildlife tourism on the wildlife resource and its sustainability in the long-term with particular reference to birds.

SEE EM OR EAT EM! INDIGENOUS WILDLIFE TOURISM – WHERE IS IT AT?

*Joc Schmiechen – Senior Research Fellow Indigenous Tourism
Charles Darwin University, Sustainable Tourism CRC*

Indigenous tourism is seen as offering one of the prime opportunities for interacting with wildlife and the natural world. With the evolution of Indigenous tourism as a growing interest area for travellers and researchers what is the current state of play? How is wildlife utilised in Indigenous tourism products? Does it represent a major opportunity for meeting tourist's aspirations or is it hampered by a divergence of cultural views? This presentation looks at a range of past and current Indigenous tourism enterprises and examines what role wildlife has in their product offering and how it is utilised.

Joc Schmiechen, Senior Research Fellow in Indigenous Tourism, Charles Darwin University, Sustainable Tourism Cooperative Research Centre

M. Env. Studies, BA (Hons), Dip. Ed., Grad. Dip. Outdoor Ed

Over thirty years involvement in outdoor education, expedition leadership, Aboriginal education, environmental management, cross cultural and eco tourism encompassing some of the remotest and wildest locations in Australia and Antarctica. Extensive government and industry experience in the Aboriginal and Special Interest tourism sector throughout Australia. Developed a particular interest in small operators and businesses working in regional and remote locations coupled with an ongoing concern about tourism impacts and developing sustainable practices in how we best use our natural and cultural assets. Most recently completed a two-year project on Heritage Tourism in the Lake Eyre Basin covering one sixth of the continent and incorporating the quintessential aspects of the Australian Outback.

SETTING THE STANDARD IN MARINE PARK TOURISM

Hilary Skeat

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The Great Barrier Reef Marine Park Authority is leading the way in developing systems that raise the standards of tourism operations in the Great Barrier Reef Marine Park and provide rewards to high standard operators. This has application for wildlife tourism in other protected areas as a way of improving both the conservation outcomes in the area and the presentation of the area's values. It is also a solid foundation for building a strong partnership with the tourism industry. The GBRMPA is offering high standard operators an extended permit term of 15 years plus recognition and showcasing of the operations. Operations are identified as high standard by being certified with an approved external certification scheme. The GBRMPA has recognised the Eco Certification Program operated by Ecotourism Australia as a certification scheme for the Marine Park, at the Ecotourism and Advanced Ecotourism levels of certification. There has been good take up of certification and 35% of Marine Park visitors now travel on certified high standard operations. In addition, the GBRMPA and the industry are fostering high standards by developing Responsible Reef Practices for 28 activities in the Marine Park (from anchoring to whale watching), and publicising these online and in operator training workshops.

Hilary Skeat is a Manager in the Tourism and Recreation Group of the Great Barrier Reef Marine Park Authority. The Tourism and Recreation Group is one of four critical issues groups within the Authority and aims to improve the management of tourism and recreation in the Great Barrier Reef Marine Park. A major focus of Hilary's work is fostering high standards in Marine Park tourism. Hilary has worked in a wide range of Commonwealth policy development areas, focussing on natural resource management.

MONKEY MIA DOLPHIN VIEWING – HOW IS IT GOING TO BE MANAGED?

Amanda Smith¹ and David Charles²

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Monkey Mia in Western Australia is one example of a multi-million dollar tourism industry that has developed surrounding the viewing and feeding of wild dolphins. Dolphin tourism is the prime attraction for some 100,000 visitors to Shark Bay Region each year with the current food-provisioned dolphins being worth approximately \$AUS30 million. The problem is that the habituated dolphins are now mature adults and research has shown that careful management and supervision by researchers is necessary if new dolphins are to be introduced to the food-provisioned scheme. In recent years the visitor experience has also been clouded by over crowding, regimentation of feeding, loss of naturalness and a perception that the site is becoming over-developed. This presentation will discuss the issues from a management perspective in terms of changes over the past years, management of larger numbers of visitors, effect on animal welfare and the surrounding area and suggested solutions for the future. It will also highlight some of the research that has been conducted in Monkey Mia in terms of visitor and visit characteristics, natural area preference, visitor behaviour and crowding, visitor expectations and future management.

Amanda Smith is a Research Fellow for the Sustainable Resources research program of Sustainable Tourism CRC Centre of Excellence in Western Australia and resides at the School of Environmental Science at Murdoch University, Perth, Western Australia. Her research interests include the environmental and social impacts of tourism and recreation in protected areas; campsite impact monitoring; natural area tourism; wildlife tourism; and minimising visitor impacts through resource and visitor management techniques. Over the last couple of years Dr Smith has been furthering her experience as a researcher working in the fields of recreation ecology, visitor management including the review of user-pays systems, sustainable tourism and natural area management at Murdoch University and Curtin University.

EVALUATING THE EFFECTIVENESS OF THE JURABI TURTLE EXPERIENCE

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One of the most important aspects of wildlife tourism management is the evaluation of management practices. This study evaluates the effectiveness of the Jurabi Turtle Experience, an interpretive experience aimed at managing tourist interactions with nesting turtles in Ningaloo Marine Park. The Jurabi Turtle Experience comprises a visit to the Jurabi Turtle Centre, a presentation on turtle ecology and a guided tour to view nesting turtles. Participation in the Jurabi Turtle Experience is not compulsory and there are large numbers of unguided/independent tourists. Both guided and independent tourists are expected to comply with a voluntary code of conduct (the Turtle Watcher's Code of Conduct) that outlines how tourists can minimize disturbance to the nesting turtles. This study compares levels of non-compliance with the code of conduct and satisfaction for guided tourists with independent travelers to determine the effectiveness of the Jurabi Turtle Experience. Approximately 100 tourists were sampled between December 2005 and January 2006 on three major turtle nesting beaches in the Jurabi Coastal Park using a 'first to pass' sampling strategy. Tourist non-compliance and satisfaction were measured using participant observation and a self administered questionnaire, respectively. Results for guided tourists will be compared with free independent travelers to determine the effectiveness of the Jurabi Turtle Experience in managing turtle/tourist interactions.

Leanne Smith completed a Bachelor of Science majoring in Marine Science and Tourism at Murdoch University in 2003 and is currently undertaking Honours in Marine Science at Murdoch University on turtle nesting tourism at Ningaloo Reef. She has a strong interest in managing tourism impacts on marine wildlife and hopes to follow up her Honours with a PhD in this area. Leanne has memberships with both FACET and WTA and is the Murdoch University student representative for YATA (Young Australians Tourism Association).

A full copy of this paper is included from page 165

FLYING FOXES IN CHARTERS TOWERS – A MISSED WILDLIFE TOURISM OPPORTUNITY

Dominique Thiriet

Flying fox colonies are increasingly being recognised as prime wildlife tourism experiences. Flying foxes are fascinating native mammals, they play an important role in the biodiversity of our forests and their nightly fly-outs are simply spectacular. Sydney, Melbourne and Brisbane all capitalise on the colonies which roost in their midst and many overseas tourism ventures are based on observing bat colonies. For many years, thousands of flying foxes have been roosting in the little town of Charters Towers, North Queensland. Instead of building this colony into its tourism profile, the town has tried for 5 years to rid itself of the colony by legal and illegal activities. These activities have not been successful in removing the colony but have been costly and have resulted in community division and a poor tourism profile. This paper will briefly consider the legal ramifications of these activities and explore the lost tourism opportunity presented by this case study.

Dominique Thiriet teaches Environmental Law at James Cook University. She is also involved in the rescue, rehabilitation and release of flying foxes in North Queensland.

A full copy of this paper is included from page 175

**WILDLIFE IN THE LANDSCAPE – A TOP END PERSPECTIVE
ON DESTINATION-LEVEL WILDLIFE AND TOURISM MANAGEMENT**

A/Prof Pascal Tremblay

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**This paper has been refereed and a full copy of the paper may be available in a
future issue of the *Journal of Ecotourism*.**

PERCEPTIONS OF ZOOS: CONSERVATION AND CREDIBILITY

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Despite their history, zoos today find themselves within an increasingly competitive market servicing an audience that is becoming more discerning. Consequently, in seeking to remain popular, zoos now strive to be a more relevant part of society by emphasizing their contribution to wildlife conservation.

However, the effectiveness of zoos as conservation centres continues to be questioned and despite their best efforts, it is not clear how they are perceived by the community. This paper discusses the perception of zoos by their visitors, their own staff and by 'non-zoo' wildlife conservationists.

It is apparent that there are substantial differences amongst these three groups. For instance, while people visit zoos for a number of different reasons, paramount amongst them seems to be recreation. Conservation is not a major motivation, although most visitors believe that zoos should play a key role in conservation and education.

The staff see zoos as being primarily concerned with conservation, and in particular with the breeding of endangered species and the protection of habitats. However, non-zoo wildlife conservationists believe that the role of zoos in conservation is far less significant, and should be confined to educating their visitors.

Thus zoos are faced with a frustrating quandary: as conservation contributors their role is still unclear and most people visit them mainly for recreation. This dilemma has important implications for zoos in their search for sustainability: can they be both popular and credible at the same time?

Andrew Tribe has been Senior Lecturer in Wildlife Health, Management and Behaviour in the School of Animal Studies at the University of Queensland for the past eight years. From 1992 to 1996 he was Director of the University's Veterinary Science Farm and prior to this was the Senior Veterinarian at the Royal Melbourne Zoological Gardens. Mr Tribe has worked with wildlife for the past 20 years, particularly in the areas of management, captive breeding, rehabilitation and translocation. He is currently completing a research project to investigate the role of zoos in wildlife conservation, to evaluate the effectiveness of their present policies and actions, and to consider their opportunities and challenges for the future. He is also involved in a number of projects that have been looking at the rehabilitation and release of wildlife, and the factors that may be important in determining the success of these releases.

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PEOPLE AND NATURE – A SYMBIOTIC RELATIONSHIP

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The last few hundred years has seen a gradual and dramatic disengagement of humans from the natural environment. As people have moved from rural to urban and city environments, so they have become insulated from outdoor environmental stimuli and regular contact with nature. Never before has there been so little direct contact with plants and animals, and the consequences are largely unknown.

Evidence in the literature shows that viewing nature is positive for health in terms of recovering stress, improving concentration and productivity, and improving psychological state. In addition, wilderness and related studies demonstrate that being in a natural environment affects people positively, particularly in terms of mental health.

Contact with animals has also been shown to have positive physiological and psychological effects on human health, particularly in decreasing blood pressure, heart rate, cholesterol, anxiety and stress, and providing companionship and kinship.

Wildlife tourism has become an important part of our relationship with the natural world. It provides opportunities for people not only to view nature but also in many cases to interact closely with it and with the wildlife therein. This paper will review the potential and actual health benefits of contacting nature, and will discuss the role that wildlife tourism can play in this.

These benefits provide us with a further reason for researching wildlife tourism, and for promoting it as an industry that deserves greater recognition as both an effective part of wildlife management and conservation, and as a desirable setting for human health promotion and the creation of wellbeing.

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THE DETERMINATES OF THE SPENDING OF BILTONG HUNTERS IN SOUTH AFRICA

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Introduction and problem statement

According to the 2005 national survey, biltong hunters, contribution significantly to conservation and the economy of South Africa (Van der Merwe and Saayman, 2006). This research indicated that the economic contribution of biltong hunting is just over R3 Billion (US\$ 500 Million). The problem that arises is what are the determinants of spending of biltong hunters in South Africa? The main purpose of this paper is therefore to identify the determinants of spending of biltong hunters.

Method of research

All the members (17066) of the SA Hunters and Game Conservation Association formed part of this research. The research was conducted by means of a questionnaire consisting mostly of closed response questions, with a few open-ended questions. Questionnaires were mailed to the members of the SA Hunters and Game Conservation Association together with their monthly magazine during July 2005. A total of 1024 questionnaires were received.

This paper presents the results of the survey. Regression analysis is undertaken to identify the determinants of spending by biltong hunters. The results can assist game farm owners in the marketing of their products as well as the planning thereof, to enable them to be more sustainable. It should also contribute to greater conservation.

WILDLIFE TOURISM- AN OPPORTUNITY FOR CONSERVATION MANAGEMENT OUTCOMES AND ABORIGINAL CULTURAL HERITAGE RECOGNITION

Ann Walton & Mark Flanders

Muttonbird Island Nature Reserve is the largest most accessible wedge-tailed shearwater rookery in NSW. It is adjacent to and joined to the city of Coffs Harbour on the North Coast of NSW. The Island is managed for conservation but its location and significance to all sectors of the community has meant that some conflict occurs. It is a place of high visitation, iconic to the local and regional area and most importantly it is a significant site of the Gumbaynggirr Aboriginal People. It is a landscape feature that is part of one of their dreaming stories as well as a resource and ceremonial place.

Management issues relating to Muttonbird Island led NPWS to develop an innovative wildlife tourism program that addressed these management concerns. This process led to a partnership with the local Gumbaynggirr Aboriginal people, volunteer groups and local businesses. The results have been:

- Development of interpretation and tours (“Muttonbird by moonlight”) that showcase the life cycle and biology and behaviour of the shearwaters and the link between Aboriginal culture, the landscape and the plants and animals. The tours enabled for the first time a wide scale appreciation by locals of the Island at night when the rookery comes to life.
- Development of events that create economic opportunities for local businesses
- Development of education kit including DVDs and CD ROM
- Development of a marketing plan

Ann Walton has been a Ranger with the NSW National Parks and Wildlife Service (NPWS) and now Department of Environment and Conservation for 11 years. One of her main interests is developing innovative ways to engage the public in wildlife tourism or eco-tourism for management outcomes. Her aim is to keep National Parks relevant to Aboriginal custodians, park neighbours, visitors and stakeholders. A basic premise has been to develop these links and partnerships and raise awareness of the issues to help reduce management problems and situate the NPWS as a valued member of the community.

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HOW MANY KOALAS ARE THERE ON KANGAROO ISLAND?

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Kangaroo Island (KI) is a significant Australian destination for international eco-tourism. The importance of tourism to the economy both of the island and the state (South Australia) is acknowledged in all fora from State cabinet to local farmers' groups.

KI offers tourists large areas of native vegetation, fishing, diving, and opportunities to observe wildlife including seals, sea-lions, penguins, kangaroos and koalas. The magnitude of the contribution of Koalas alone to the KI tourism industry has not been quantified but has been claimed to be very large by some observers, but far less so by others.

Koalas were introduced to KI in the 1920s, subsequently rapidly multiplying and spreading. By 1990, locally overabundant Koala populations had reportedly caused significant ecological damage. Despite heavy expenditure, Koala numbers remain essentially uncontrolled, with localised tree losses and other adverse consequences reportedly ongoing.

Koala control has been heatedly and publicly debated by scientists, politicians, farmers and a prominent environment group. Fear of an international backlash impacting the tourism industry has been cited by many participants as a reason why effective control of Koalas has not been achieved.

In this study, qualitative analysis was applied to discovering different participants' concepts of a Koala, and it is seen that different attitudes towards the animals led to differing ideas of how they should be managed.

This study yielded some insights into how a particular image of the animal was constructed, promulgated, and eventually employed as a tool to influence the outcomes of Koala management decisions and expenditures.

Sarah Wilks is a 3rd year PhD student at the Department of Biological Sciences, Macquarie University. Her thesis work examines different types of 'knowledge' about environmental decision making, and through a case study approach has highlighted the ways in which environmental and/or green groups have potential to influence environmental management debates and eventual outcomes.

GLOW-WORMS AS A TOURIST ATTRACTION IN SPRINGBROOK NATIONAL PARK: VISITOR ATTITUDES AND ECONOMIC ISSUES

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Insect-based tourism mainly caters to a niche market, but its popularity has been growing in recent years. Despite its popularity this form of tourism has remained under-researched and in a sense its contribution to the tourism industry has gone mostly unnoticed. This paper reports the results of a study undertaken on one form of popular insect-based tourism, namely glow-worms. The study was undertaken in Springbrook National Park (Natural Bridge section) southeast Queensland, which has one of the largest glow-worm colonies in Australia that attracts thousands of visitors each year.

A study of this form of tourism is important and useful for several reasons. It is important to understand this hitherto under-studied tourism activity to determine the type of visitors, their socio-economic attributes, economic benefits to the local economy, visitors' knowledge of glow-worms, education imparted, visitor satisfaction of glow-worm viewing and visitor attitudes for the introduction of a user fee system to view glow-worms. Tourism in glow-worms can potentially be used not only to educate the public on the threats affecting glow-worms and their colonies, but could also be used to conserve them. Lessons learnt from glow-worms as an attraction to Springbrook can be used to better manage and further develop other existing and new glow-worms sites in Australia and elsewhere for tourism. Furthermore, it could provide some guidance for the management and development of other forms of current insect-based tourism activities and develop new tourism ventures based on species such as jewel beetles for which Australia is well known.

*Clevo Wilson obtained his Phd from the University of St Andrews, UK and is currently a lecturer in the School of Economics and Finance at the Queensland University of Technology. Clevo's research interests are in environmental, ecological and tourism economics. He has published papers relating to tourism in *Tourism Economics*, *Tourism Management*, *Environmental Management* and *Human Dimensions of Wildlife*. Most of the work relates to showing the link between tourism and conservation of wildlife.*

THE SECRET LIVES OF WOMBATS AND RED KANGAROOS: TOURISM AND CONSERVATION AT PORTEE

*George Wilson, Geoffrey Kay, Marlaina Pickering
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Opportunities to view Australian wildlife in natural environments are few when compared to the increasing market demand for such experiences in Australia. It is possible that under particular conditions, land-holders could include wildlife tourism as a profitable enterprise supplementing existing land-management income sources. This is the case with Portee Station, a 17,000 hectare sheep station near Blanchetown, South Australia.

Portee has 10 km of Murray River frontage and supports a number of significant ecosystems and ecotones, and a resulting high diversity of wildlife. Uniquely, Portee maintains a population of more than 2000 Southern Hairy-Nosed Wombats (SHNW). It also has red kangaroos on its open plains, and important wetlands and other vegetation communities. It has a four-star farm-stay enterprise, a historical homestead and 3000 sheep. It is close to a major highway and short travelling time from the State capital and an international airport.

A feasibility study funded by DITR and with support from three Universities, asked if wildlife tourism can have conservation benefit for these and other species and improve regional biodiversity. A plan was developed that would enhance viewing opportunities for guests at the farm-stay. Night-vision equipment, remote cameras and fibre-optic technology to view SHNW and red kangaroos in the wild also provided opportunities for conservation researchers.

The study results indicate that the attractiveness of the innovation should increase the occupancy rate of the farmstay enterprise by approximately 50% with the additional income generated used for conservation gains. Furthermore, this will allow the landholder to carry less livestock, fence off areas for conservation and control feral species, thus supporting the conservation of regional biodiversity.

ABORIGINAL INTERPRETATION IN AUSTRALIAN WILDLIFE TOURISM

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This paper evaluates Aboriginal cultural interpretation at wildlife attractions and on wildlife tours in Australia. The sites included 14 wildlife parks or zoos, three Aboriginal-owned emu or crocodile farms and 16 wildlife tours, cruises or resorts with Indigenous interpretation of wildlife. Telephone interviews were conducted with 35 managers (9 Indigenous) and 26 Indigenous staff at wildlife attractions that included verbal or written Aboriginal wildlife interpretation. The Indigenous guides verbally presented both traditional uses and personal stories about Australian wildlife followed by Aboriginal 'Dreaming' or creation stories about totemic animal species. Non-Indigenous staff explained traditional Aboriginal uses of wildlife followed by biological facts and species information. The responses in this study highlight cultural differences in animal attitudes and approaches to wildlife interpretation. According to staff, tourists benefit from the inclusion of Aboriginal interpretation at wildlife attractions by broadening their mind, dispelling myths, learning/education about Aboriginal cultures, novelty and excitement for visitors, increasing cultural awareness and developing more positive attitudes towards Indigenous people. Some guidelines for wildlife attractions and tours to develop and present Aboriginal cultural interpretation of wildlife are also identified.

Heather Zeppel is Senior Lecturer in Tourism at James Cook University Cairns. Her research interests include Indigenous wildlife tourism, Aboriginal tourism and environmental best practice. Heather has taught a subject on Australian ecotourism and wildlife tourism management since 2002, with field trips to wildlife attractions around Cairns. She has also supervised Master projects on dolphin tourism, marine research tourism, wildlife tourism and private conservation, agro-ecotourism, environmental interpretation and ecotourism certification. Her best wildlife experiences include swimming with a dugong in Vanuatu, feeding servals in a zoo, patting cheetahs in Namibia, and seeing a marsupial mole in the desert at Uluru.

This paper has been refereed and a full copy of the paper may be available in a future issue of the *Journal of Ecotourism*.

THE FLIPPER FACTOR: MANAGEMENT ISSUES FOR DOLPHIN TOURISM

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Between 1998 and 2003 dolphin tourism in Australia expanded at a rate of 15 percent per annum. Bottlenose dolphins are the primary target species for commercial dolphin tourism in Australia. This includes dolphin watching tours, wild dolphin swims and habituated wild dolphin feeding programs. Specific groups of dolphins in areas such as Monkey Mia, Bunbury and Rockingham Bay (WA), Port Philip Bay (Vic), Port Stephens (NSW), Moreton Bay (Qld) and Adelaide (SA) have frequent tourism encounters. Management of dolphin tourism in Australia ranges from voluntary operator guidelines to strict legislative regulation of dolphin watching, swimming and feeding programs. Commercial practices that are contrary to national guidelines for dolphins include operators breaching approach distances, exceeding permit guidelines and limited or inconsistent enforcement of current regulations for dolphin tourism. The *Australian National Guidelines for Cetacean Observation* was also reviewed in 2005. This paper examines key issues in the current management of dolphin tourism in Australia, compared with management policies and guidelines for dolphin tourism in New Zealand. Changes in wild dolphin behaviours and avoidance strategies highlight cumulative impacts on specific dolphin populations. Key recommendations are made to manage the dolphin tourism industry in Australia.

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