

Wildlife Tourism Assisting Wildlife: Making it Really Happen!

Report on 2022 conference

Wildlife Tourism Australia Inc.



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March 2023

Preface

Wildlife Tourism Australia Inc. grew from a conference run by the Wildlife Sector of the Cooperative Research Centre for Sustainable Tourism, holding its inaugural meeting in 2002. Our mission statement is to promote environmentally-sustainable wildlife tourism. Animal welfare, quality of education of visitors, negative effects of certain practices on wildlife conservation, and many other issues have been discussed with our members and others, both in person and online, over the years, and extensive information provided on our website.

The conference reported on here was originally scheduled for June 2020, with a positive title as befitting our hope for the future at the beginning of the decade. The event was cancelled because of Covid lockdowns, re-scheduled for June 2021 but cancelled once more for the same reason. We finally held it as a hybrid (physical/online) event from 30th October to 2nd November 2023. The conference included two public forums held on the Southbank campus of Griffith University, a welcome reception at the Ship Inn in Southbank, three days of presentations and round table discussions on the Nathan campus of Griffith University, half day field trip to Daisy Hill Koala Centre and a conference dinner at MaPaMe in Southbank.

The total number of delegates across the four days and combining online and physical presence was 81. This was lower than we were expecting in 2020, in comparison with previous conferences, largely due to continued restricted travel, and very high airfares and accommodation fees. Delegates came from 14 countries, including representatives from 37 wildlife-tourism businesses and academics from 8 universities.

We have held many discussions on minimising the negative impacts of tourism on wildlife. This time we set out to concentrate on the positive aspect of what can be accomplished for biodiversity conservation by well-run wildlife tourism operations as well as providing high standards of animal welfare.

There has been much criticism of wildlife in social media and elsewhere lately of very poor practices, with alarming headlines such as “Suffering Unseen: the Dark Truth behind Wildlife Tourism” (Daly 2019) and some going as far as warning tourists that any operation offering interaction with non-domesticated animals must be based on cruel practices.

And yes, terrible things are happening to animals all over the world, including many used for wildlife-related tourism. There is also the problem of overcrowding by tourists at many wildlife-rich regions, and many negative impacts can be caused even by attempts to view and photograph wild animals. This has caused many to regard wildlife tourism as necessarily exploitative and harmful to animals, to shun all zoos and regard anyone running a business involving wildlife to be interested only in the profits. Indeed, some of the feedback on social media when we started promoting this conference was along the lines of “stay away from the wildlife: they need to be left alone.”

And yet wildlife tourism is also widely promoted as a way of assisting biodiversity conservation, both by preserving or restoring the habitats and the animals that attract tourists who help to grow local economies, and by quality public education by knowledgeable guides with good interpretive skills. Many ecotourism ventures, my own included, have been started with the aim of helping to protect wildlife. Gerald Durrell once remarked that if there weren't so many species in need of captive conservation breeding then they wouldn't need to keep so many in captivity, and if it cost a lot less to feed and care for them or they had other sources of income it would not be necessary to charge money for zoo entry, and his widow has more recently spoken of conservation work in current and future zoos, and her hope that all future zoos will work closely with tourism to engage in and promote conservation work and be seen as “valiant institutions, meriting respect, pride and support.”.

Wildlife Tourism is defined by the UNWTO as “the observation and interaction with local animal and plant life in their natural habitats”, and various authors (including one of Australia’s most published ecologists writing on the topic, David Newsome) agree with this definition. This definition excludes consumptive tourism (hunting and fishing) and any kind of captive facilities. The definition for the wildlife sector of Australia’s Cooperative Research Centre for Sustainable Tourism included both captive situations and also hunting and fishing.

For this conference we included captive situations as well as viewing in the wild, as we feel there are many examples of both kinds that have assisted wildlife and have the potential to do so. There are over 10,000 zoos in the world (source: American Zoo and Aquarium Association), so discussion on their performances, good or bad, in animal welfare, conservation, research and education relating to wildlife is important. We did not however include the consumptive forms of wildlife tourism, such as hunting and fishing. While we agree that hunting for invasive feral animals can assist native wildlife, we remain uncomfortable with this being regarded as a fun thing to do on holiday rather than a serious attempt by professionals at protecting ecosystems.

The conference gave us a chance to hear some important ways in which wildlife tourism operations are already assisting wildlife, as well as ideas for potential improvements and innovations and alerting us to some dubious practices. It also included some productive discussions on directions for the future, some of which we will be actively continuing in webinars and workshops in coming months.

Daly, N. 2019 Suffering Unseen: the dark truth behind wildlife tourism. *National Geographic*.
<https://www.nationalgeographic.com/magazine/article/global-wildlife-tourism-social-media-causes-animal-suffering>

Durrell, L. 2018. A tale of two zoos: tourism and zoos in the 21st century. In Carr, N. and Broom, D. M. (eds). *Tourism and Animal Welfare*. CABI, Oxfordshire

Green, R. J. and Higginbottom, K. 2001. *The Negative Effects of Wildlife Tourism on Wildlife*. Wildlife Tourism Research Report Series No. 5, Status Assessment of Wildlife Tourism in Australia Series, CRC for Sustainable Tourism.

World Tourism Organization. 2019. *Sustainable Development of Wildlife Tourism in Asia and the Pacific: Good Practices and their Implications*. UNWTO/Chimelong Initiative, UNWTO, Madrid. (Prof Noel Scott and Dr Ronda Green, both WTA committee members, co-edited this report and co-authored some of the chapters)

Acknowledgments

Thanks to the following:

- Centre for Planetary Health and Food Security, Griffith University, for sponsorship and administrative support
- School of Environment and Science, Griffith University, for sponsorship
- Griffith Sciences Group, Griffith University, for sponsorship
- Noel Scott (University of the Sunshine Coast and WTA committee member) for sponsorship
- Sonia Underdahl for partial sponsorship
- Ma Pa Me Restaurant, Southbank, Qld for Indonesian food at the forum and conference dinner
- Australia-Indonesia Institute for sponsoring the food at the Indonesia-Australia public forum (through a grant obtain for a tourism resilience program, through WTA's secretary Aise Kim)
- Georgette Leah Burns (WTA committee member and lecturer at Centre for Planetary Health and Food Security) and Ronda Green (chair WTA) for many hours as co-organisers of the conference
- Darren Green (membership secretary WTA) for working the audiovisuals throughout the conference and driving the bus
- Simin Maleknia (treasurer WTA) for organising direct payments
- The rest of the Wildlife Tourism Australia committee (Sera Steves, Aise Kim, Maree Kerr)
- Daisy Hill Koala Park staff for their talks and tour of the facilities on our conference excursion
- Ian Bytheway for preparing the Abstract Book.
- Amanda Davis, Jenna Maidment and Laura Holdsworth: student volunteers from Griffith University for assisting with reception and displays, fetching lunches etc.

Griffith University's Southbank and Nathan campuses are situated on the land of the Yugarabul, Yuggera, Jagera and Turrbal people. WTA acknowledges the people who are the traditional custodians of the land on which we meet and pays respect to the Elders, past, present and emerging, and extends that respect to other Aboriginal and Torres Strait Islander peoples.

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Executive summary

The four day conference included many excellent presentations and useful discussions. Some of the major messages from it are incorporated in this summary.

Wildlife watching and ecotourism

- Minimal-impact wildlife viewing in the wild is a subset of ecotourism, which in turn is a subset of sustainable tourism. **To be considered ecotourism, wildlife tourism must adhere to the ideals of ecotourism:** “environmentally responsible tourism and visitation to relatively undisturbed natural areas in order to enjoy, appreciate and/or study the natural attractions (landscape, flora and fauna) of such areas, as well as any cultural manifestations (present and past) that may be found there, through a process that promotes conservation, has low negative environmental and cultural impact, and fosters an active and socioeconomically beneficial involvement of local populations" (Ceballos-Lascuráin, 1993).
- **“Ecotourism is the only economic activity in the world that uses natural resources but leaves them practically intact”** (Ceballos-Lascuráin) and there are many examples of ecotourism assisting biodiversity conservation.
- Some forms of wildlife tourism that **don’t qualify as ecotourism** (e.g. captive wildlife operations and wildlife tourism that includes interactions with wild animals) **may have educational and conservation value** if conducted responsibly.
- **Urban ecotourism, within remnants of native vegetation in a city or suburbs, is important**, as many people are unable to travel to remote areas. It can create an awareness and connection to nature and assists mental wellbeing. City hotels, parks with lawns and exotic trees, or other non-natural settings however are not ecotourism, although if well-run may still qualify as sustainable tourism.
- **Interpretation is an essential part of ecotourism**, and of all good-quality wildlife tourism. Many visitors spend a day or several days in a region but go home without an increased understanding of it. We appear to be a long way from having good interpretation throughout much of Australia. Also, classrooms have generally not been very effective at introducing children to nature (Ecotourism forum).
- Good interpretation can alert people to the existence of species that are not wellknown, and enhanced appreciation and understanding of all species, including some that tend to be unpopular in some quarters.

Tourism and biodiversity

- **Revenue from tourism, invested wisely, can achieve some great positive environmental (including biodiversity) outcomes.** Even a badly degraded area can be rehabilitated with sufficient input (e.g., Lady Elliot Island, badly degraded by guano extraction and feral goats, now boasts the second highest bird diversity of all the islands of the Great Barrier Reef: Peter Gash Keynote.). Environmental measures such as solar energy can ultimately provide an excellent return on investment as well as being good for the environment., including

biodiversity. It is important not to overcapitalise, or you find yourself in a never-ending cycle of needing more growth instead of focusing on your ideals of tourism that assists the environment. Don't give up too soon: if you have done your homework and believe you can achieve something which is positive for the environment and also with a potential positive return on investment, don't be too ready to let others discourage you (Peter Gash Keynote presentation).

- Community groups can also make a significant positive impact on **habitat restoration** to assist both wildlife and humans.
- Many wildlife species in Australia are threatened, some critically endangered, and Australia has not achieved the goal of 17% of its area designated as Protected Areas. There is concern that private development within existing National Parks and other Protected Areas could compromise their purported priority role in biodiversity conservation. **Any plans for facilities within national parks must include truly comprehensive fauna and flora assessment.** In most cases it would seem preferable to create major facilities such as ecolodges or clusters of cabins **adjacent to, rather than inside, Protected Areas** (and a recent positive step of the Queensland government has been to offer grants for facilities adjacent to national parks).
- **Buffer zones** between Protected Areas and other land uses should be considered where impacts are likely at edges.
- **We need more details about the proposed doubling of national parks areas in Queensland** in association with tourism organisations and conservation groups if we are to be confident there is an overall advantage for biodiversity (e.g., how the new areas are to be selected and whether the resulting increase in biodiversity protection will truly offset any loss of same by proposed developments within existing parks). Non-biodiversity issues such as loss of access to portions of public areas by members of the public and other tour operators, and the loss of “wilderness” experience (i.e. in near-natural areas free of modern roads and buildings etc.) are also factors needing open discussion.
- Controlling **tourist behaviour in sensitive environments** can be challenging, and we need to consider both effective visitor education and appropriate zoning (including seasonal zoning to allow for safe breeding of threatened species). Education of local guides can reduce impacts on wildlife.
- **Interactions with wildlife can be positive**, but tend to be treated as always having negative impacts by bureaucracy in policy and decision-making. Where a minor impact can be demonstrated, impacts of other competing industries may move in and be far worse if the tourism is not allowed. Cost-benefit of lethal/appropriation (*versus* non-lethal/contemplation) uses are rarely considered, so the “big picture” is often not seen. A new book by Palazzo, *Living Water: Marine Ecotourism, Communities and Conservation* (Stormbird Press 2023), elaborates on this.
- Suggesting one positive action tourists can easily take for conservation can lead to actual useful action and counteract a sense of despair at the world's future.

Captive or semi-tame wildlife

- **Zoos and wildlife parks** are not ecotourism, but well-run captive settings have important roles to play in **education, research and conservation**.
- **Visitors to zoos** often care about the welfare of animals but are **not confident in their ability to assess** whether animals are well-cared for or happy.
- **Humans seek interactions with wildlife for numerous reasons**, some more admirable or harmless in intent and outcome than others. These include a desire to befriend the animal, to experience a feeling of kinship with nature, to get closeup photos including selfies, novelty, a feeling of power over the animals, or a sense of bravado.
- There are **strong opinions** in some quarters that no interactions between wildlife and human visitors should be allowed, and that public education is not well-served by allowing it. Others feel strongly that well-managed interactions, where welfare and conservation ideals are not jeopardised, can have great educational value and enhance the appreciation of animals as sentient beings.
- **Koala cuddling** was described as cruel by representatives of the World Animal Protection Society but others felt the term “cruel” extreme, as it infers intent to harm or disregard for the animal’s feelings, which does not seem to describe the keepers we know who handle the animals. Research results have been ambiguous regarding impacts of mild stress responses on welfare. Photos taken standing beside a koala, as practised in some states, can offer an alternative experience.
- There are certainly **many cruel practices that should definitely be banned**: keeping animals in tiny enclosures, forcing them into interactions they clearly try to avoid, mutilation or drugging of animals to make them safe for handling, as well as painful and highly stressful training.
- Many animals prefer to keep their distance from humans, some tolerate their presence, especially after habituation, while some, both in the wild and captive, appear to seek out and enjoy interactions with humans (not just for food). An essential component of human-animal interaction is that the **animals must have the opportunity to opt out** of the interaction.

Problems faced by operators

- Covid lockdowns affected some operators severely and **micro-businesses found it especially hard to get help**.
- **Public liability** premiums are still a **crippling expense** for many small businesses.
- Ecotourism operators, guides, consumers, and communities are mostly **absent from decision-making** that could directly impact their activities.

Research needed

- An important issue throughout the world is the **lack of statistics on ecotourism**. We need statistics in all countries, on how much happens in and out of Protected Areas, how much local communities are involved, how much money is being invested, how much are tourists spending, where are they coming from, etc.
- Non-intrusive experiments, on many species, to “**ask the animal**” its **preferences** regarding conditions in captivity (including effects on all senses and emotional needs) and interactions with tourists, to help to understand which activities and types of facilities should and should not be permitted on grounds of welfare.
- Research on the **effects of various kinds of tourist-wildlife interaction on public education and appreciation of animals**, and their subsequent likelihood to support conservation and welfare issues, is difficult and complex. However, with ever-increasing conservation problems in the world and so many humans largely ignorant or apathetic about biodiversity loss and the sentience of all vertebrates and many invertebrates, it is an important topic. Further research is also needed on the kinds of interpretation (or lack thereof) accompanying interactions that may have negative impacts is also important (e.g., encouraging amusement rather than empathy with animal trying to escape interactions, impression that it is generally okay to feed wildlife wherever they occur, downplaying of dangers to both animals and humans in close approach for photos).
- **Baseline studies of fauna and flora** (including species not generally sought after or noticed by tourists or guides) especially in Protected Areas that may face increasing impacts by visitors in the future.
- Differences between **impacts of wildlife tourism and alternative usages** of sites and animals should be considered in general planning and in decisions on whether various kinds of wildlife tourism should be allowed in particular instances.
- Australia has made a good start in relevant research. A global literature search for articles mentioning “wildlife” and “tours” showed **13% of all such articles to be Australian**.
- Emerging issues in research literature are the **effects of animal encounters on human health** and the need for collaborative research regarding wildlife tourism and First Nations’ communities, practices, and culture (presentation by Catherine Pickering).
- **Knowing where and when tourists encounter which species** is important for managing tourism, wildlife and destinations, but collecting such data can be expensive and spatially and temporally limited. Examination of social media can assist.
- **Understanding how best to use emerging technologies** (e.g., virtual and augmented reality) to create experiences that have positive outcomes for both people and wildlife (presentation by Georgette Leah Burns) will be increasingly useful in future planning of tourism experiences, to augment direct experience with additional education and take excessive pressure off sensitive areas and vulnerable animals.

Wildlife ecotourism: principles, values and plans

Wildlife Tourism and Ecotourism around the World

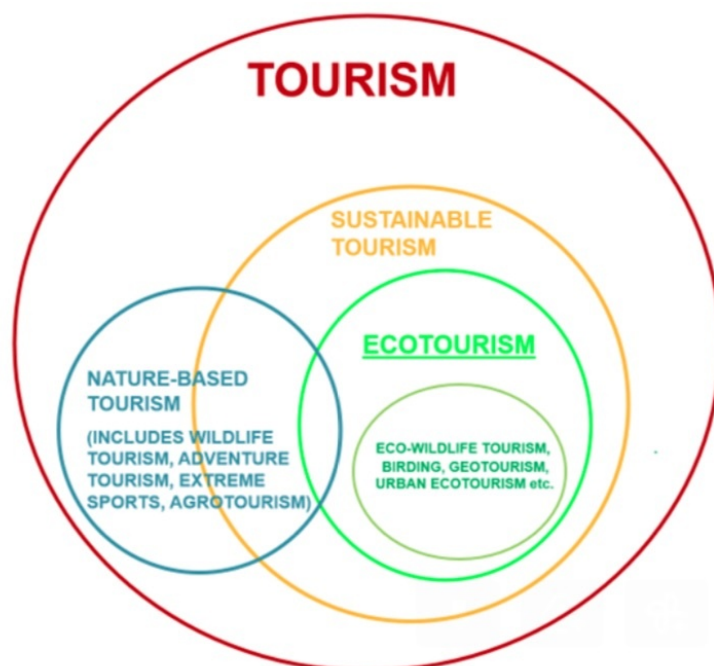
[Keynote Presentation]

Hector Ceballos-Lascurain

International Consultant in Environmental Architecture, Ecotourism and Regional Planning

Director General PICE, Queretaro, Mexico

Ecotourism is a modality or category of sustainable tourism but these two terms are not synonyms. We must avoid confusion in the use of tourism-related terms. Perhaps the following diagram may clarify some of these terms and concepts:



The International Union for the Conservation of Nature (IUCN) defines Ecotourism as: “environmentally responsible tourism and visitation to relatively undisturbed natural areas in order to enjoy, appreciate and/or study the natural attractions (landscape, flora and fauna) of such areas, as well as any cultural manifestations (present and past) that may be found there, through a process that promotes conservation, has low negative environmental and cultural impact, and fosters an active and socioeconomically beneficial involvement of local populations” (Ceballos-Lascuráin, 1993).

In order for wildlife tourism to be considered an ecotourism activity, it must adhere to the principles of ecotourism and include watching wildlife only in its natural habitat. Ecotourism is the fastest growing segment of tourism and has proved to be a vital instrument for conserving nature and providing sustainable benefits to local communities around the world. It has also become a powerful tool for environmental education and ecological awareness. It is the only economic activity in the world that uses natural resources but leaves them practically intact. In ecotourism there is no production process needed to transform raw materials into finished consumer products. The raw material (intact Nature) is what mainly attracts ecotourists. In this way, we save costly production processes and high energy expenditure (in contrast to other economic activities).

Visiting animals in captivity is not an ecotourism activity, but well-run zoos can have important functions, providing opportunities for first contact of many people (including children) to iconic wildlife species and enticing these people to go out into the wild to look for those species in their natural habitat.

A few concrete examples of where the development of ecotourism has definitely been shown to benefit wildlife are:

1. The Cuyabeno Wildlife Reserve in Ecuador, where the Ecuadorean government banned oil exploration and exploitation, in favor of the development of ecotourism activities which was seen to be more beneficial in the long term for local indigenous communities and for the conservation of the rich wildlife of this Amazonian region.
2. The multiple award-winning Sukau Rainforest Lodge in Sabah (Malaysian Borneo) which nestles on the banks of one of Borneo's most important waterways, the Kinabatangan River, home to many of Borneo's magnificent wildlife species, including orangutan, proboscis monkeys and several species of hornbills. The lodge and its ecotourism activities have helped stop the regional expansion of rubber and olive palm plantations.
3. The Celestún Biosphere Reserve in the Yucatán peninsula of Mexico, by choosing to become an international prime bird watcher's destination impeded the construction of a marina in the delicate estuary of the region, where a colony of over twenty thousand American Flamingos breed.
4. The Ambua Reserve and Ecolodge in Papua New Guinea is also an internationally famous birder's destination, attracting many ecotourists from around the world, who come to see as many as thirteen species of birds of paradise found in the reserve. This has helped in halting deforestation in the region and the expansion of animal husbandry activities.

As we all know, Australia is a megadiverse country, one of the most biologically rich nations in the world. There are seventeen megadiverse countries, comprising a mere 10 per cent of the earth's surface, but together accounting for more than 70 per cent of its biodiversity. Australia occupies sixth place in the world in biodiversity, a fact that ensures its enormous ecotourism potential. The high endemism of its wildlife is an outstanding and well known feature.

The importance of urban ecotourism should be emphasized, since it can play a key role in environmental education and ecological awareness. Many nature lovers can enjoy carrying out rewarding ecotourism activities in remnant native habitats in cities and towns. However a thirty-storey high hotel in the middle of the city, even if it does a good job in conserving water and recycling wastes, should never be considered a component of ecotourism, but may be a part of sustainable tourism.

Since the appearance of COVID-19, tourists have become more interested in traveling in small groups and staying outdoors in contact with Nature. It is urgent that ecotourism be given by governments the highest political priority around the planet.

The meaning of ECOtourism and a vision for the future of ecotourism (including wildlife ecotourism) in Australia.

Led by Hector Ceballos-Lascurain (see above)

Panel members included: Nadine Schramm (Ecotourism Australia), Susanne Cooper (National Parks Association Qld), Angus M Robinson (National Geotourism Strategy), Albert Teo (Borneo Ecotours and the Borneo Ecotourism Solutions and Technologies Society), and Anna Spenceley (Chair, IUCN WCPA Tourism and Protected Areas Specialist Group). Several politicians were invited but declined. Federal Minister for Tourism the Honorable Don Farrell expressed his considerable interest but also his regrets that he couldn't attend; he suggested Austrade might send a representative. Indeed, a representative from Austrade and one from the Qld Department of Environment, attended online but they were not actually part of the panel.

The panel considered the following:

- Habitat conservation, regeneration and restoration through Ecotourism
- Ecotourism as a tool for environmental education and ecological awareness
- Minimizing negative impacts of tourism on the natural and cultural heritage
- Ecotourism activities inside and outside of legally protected areas

- Ecotourism as the only economic activity in the world that uses natural resources but leaves them intact (some of what is called “ecotourism” nowadays really isn’t)
- Business aspects of Ecotourism
- Promotional and marketing aspects

[NOTE: The following is my summarised translation of what was said, rather than a word-for-word account (Ronda Green)]

Hector (in his introduction, after welcoming the panel members): It is not enough in the 21st century for ecotourism activities to be sustainable, they need to also be restorative and regenerative.

Habitat conservation, regeneration and restoration through Ecotourism

Angus: One aspect of geotourism is understanding the landscape geology and ecology and a holistic integration of these. Habitat is often defined by abiotic elements: microclimate, landscape and geology. Wildlife depends on these, such as the yellow-footed rock wallaby being dependent on the breccia slopes in Brachina Gorge, Flinders Ranges, and the mountain pigmy possum depending on the basalt scree slopes below the snow of Alpine areas such as Mt Hotham.

Hector: Yes this is important. Is this relationship well considered in Australia?

Angus: Recognition and understanding of geology underpinning ecosystems has often been overlooked. The development of the Geotourism Strategy hopes to enhance this aspect, and to include the knowledge of the Indigenous people.

Anna: I was recently in Australia, and rode on the SkyRail north of Cairns. I was struck by the hard edge between forests and suburbia (similar to many other countries). There could be opportunity for ecotourism enterprises to develop land at the edges for ecotourism experience, and in so doing restore some of the lost habitat. I also visited the Great Barrier Reef. Even if you have a certified eco-operator, telling people how not to disturb the reef or the animals, you still see tourists grabbing coral, grabbing turtles etc. It is challenging to provide fantastic experiences for these tourists but also control such behaviour.

Susanne: A critical challenge is good interpretation leading to appreciation and understanding, and communicating what is special about the place. Many people visit a place for two or three days and go away without gaining such understanding. I’ve seen this many times over in many regions. I think we’re a long way from where we need to be with quality guiding.

Hector: Is the National Parks Association Qld an NGO? Do you work in with government departments?

Susanne: We’re an independent not-for-profit NGO, one of the longest-established environmental NGOs in Australia. We have good working relationships with government. We present credible, evidence-based views.

Albert: Let me share with you three projects I’m working on. I was inspired by Hector when he visited our lodge, and for the last 30 years I have tried to work the ecotourism ideals into our business. I kept many of the trees along the boardwalk. Now, although at first I didn’t really understand about arboreal animals, the fruit trees now attract the orangutan, which visit the lodge, including one mother who visits regularly with her offspring, and this assists our business. There is also a landowner whose land elephants travel through seasonally, and seeing the success of our business he asked for advice on developing ecotourism around that. Now every year he is able to gain income from the guests at our lodge and as a result has been able to preserve the habitat for the elephants on his property instead of converting it all to rubber plantations. A third project is to help a land-owner develop ecotourism revolving around the blooming of *Rafflesia* each year instead of clearing for crops. Often when starting a new business we don’t immediately have the trust of the local community, and it takes a few years to establish this.

Hector: How are you handling the problem of expansion of rubber and palm oil plantations?

Albert: Not much new clearing is happening now. Much of the existing plantation was established on already-cleared land. It is probably reaching an equilibrium.

Angus: I’d like to ask Nadine to speak about the eco-destination programs with Ecotourism Australia, and whether it will help promote an understanding of the value of habitat amongst local residents.

Nadine: I agree with the importance of that. For thirty years we’ve worked with ecotour operators but sometimes they have been frustrated by Councils and community attitudes, so we have now partnered with Green Destinations. The framework behind the project is that a good place to live is also a good place for a business. It is not about saying “this is the best of the best places” but providing tools for communities to become more sustainable. We also partnered with WWF after the bushfires did so much damage to Australian habitats in the past couple of years.

Hector: I would like to ask the policy advisor from the Qld Department of Environment whether she thinks many private operators are confused between the definitions of ecotourism, sustainable tourism and adventure tourism.

Ronda: The policy advisor seems to have now left. She did say she may not be able to be present throughout.

Nadine: I don’t like getting too tied up in definitions. I came from Germany, and there was not a lot of publicity about ecotourism, but I selected tours based on whether they aligned with my values, whatever they were defined as. But I do see the definitions can be important.

Ecotourism as a tool for environmental education and ecological awareness

Hector: I always say one day in the field can be more important than ten days in the classroom studying biology. How can we work on this? Is Bob Healey here? I’d like him to speak on this.

Leah: He's not here.

Angus: It is very important. Classrooms around Australia have not been very effective in enhancing an understanding of the environment. It is important to inspire interest in careers in environmental fields amongst our young people.

Hector: Does the education system in Australia recognise the importance of ecotourism in education?

Susanne: NPAQ has just started a program of educational activities in national parks. It quickly sells out as soon as it goes online and we have strong positive feedback about connection with nature and learning about the habitats, and there is growing demand.

Hector: Children are our future.

Minimizing negative impacts of tourism on the natural and cultural heritage

Hector: What are the major negative impacts and what is being done about them?

Angus: There are quite a few areas of cultural and natural heritage sensitivity, and managers are concerned that greater numbers of visitors will increase impact. We are now investigating augmented reality, enabling people to have an experience nearby without impacting the area.

Hector: Are the Indigenous people getting more involved in interpreting cultural and natural heritage?

Nadine: We are seeing a lot of good examples. You won't find better guides than traditional custodians of their own lands. They are also concerned about impacts, and there are a lot of good examples including habitat restoration, but we still need to see a lot more of it.

Hector: Have Aboriginal communities made an ecolodge anywhere in Australia?

Nadine: There is one in Northern Territory and there are others where the Indigenous people are very involved in management but I'm not sure of the ownership.

Susanne: There are two contentious issues at present. One is the location of private commercial developments within national parks. There is more emphasis now being put on developments adjacent to national parks. We're looking at 30,000-40,000 annual visitors to large farms with cabins rather than fewer visitors to high-end accommodation being planned within some of our national parks. Another is mountain biking in national parks: not just a gentle biking looking at nature, but real mountain biking through some of most scenic areas within national parks.

Ronda: The Qld state government is now offering dollar-for-dollar funding for accommodation on private lands adjacent to national parks.

Susanne: Yes, the state government is leading the way on this.

Tony Isaacson (delegate in audience): There is an outstanding example of a First Nations development called Tallaroo Hot Springs in Far North Queensland.

Hector: I will definitely google that.

Tony: I am also representing a First Nations lady who I met recently. She has an interest in local ecotour operations in Mooloolah River on the Sunshine Coast (in the district where I live), especially as she has been invited to give a First Nations perspective to the wetlands there. Our shared passion is to develop a shared ecotourism-style enterprise that recognises First Nations claim for Old Woman Island, 900 metres offshore, the only island off that coast, and above the high tide level, used by shearwaters, but currently with many weeds. I have seen a trophic cascade related to government policy, and I would like someone from government listening to this to assist with getting this recognised.

Hector: Anyone here able to assist with this?

Ronda: I don't think there are government reps here right now, although we did invite several.

Bobbie Chew Bigby (delegate in audience): I'm not representing government, but in respect to Indigenous peoples in Oklahoma, one of the most important things is to try to work through the native title system. There is a body corporate in Australia that represents native title over land and waters, and I think you need to contact them.

Ronda: Others can also contact Tony later with suggestions.

Ecotourism activities inside and outside of legally protected areas

Hector: Can anyone tell me approximately what percentage of ecotourism in Australia is conducted within Protected Areas?

Nadine: We have close to 500 certified ecotourism operators, and over 60% of them operate in protected areas, whether on walking tours or trips to the Great Barrier Reef, but really we don't have a lot of statistics to fully answer the question

Hector: That's an important issue, the lack of statistics on ecotourism, and it's a problem throughout the world. We need statistics in all countries, on whether in or out of Protected Areas, where are things happening, who is involved in local communities, how much money is being invested, what are tourists spending, where are they coming from etc. Who is doing research in Australia? Leah, are you doing any at Griffith University?

Leah: No, I'm a social scientist, I try to avoid stats.

[general laughter]

Lin Sutherland (delegate in audience): Over 20 years I've been involved in wildlife tourism, sustainable tourism and ecotourism. Places I've visited years ago when pristine I visit again and they've changed. I think we need to use Hector's guidelines before we get to the economics. I see a lot of operations around Australia don't seem to be working to those guidelines.

Ronda: We need to get the economics working within ecological constraints rather than vice versa. A lot of small operators such as myself offer tours in national parks but also on private land and council land, making it even harder to get good statistics.

Nadine: That's right, and just being in a Protected Area doesn't necessarily make it ecotourism. It might be nature tourism but not ecotourism, making it harder to get accurate statistics. A lot of the national parks do their own research.

Ronda: At a tourism conference in South Africa, which Anna also attended, and on my travels there, I got the impression that wildlife tour guides in South Africa tend to be better trained in animal ecology and behaviour than guides in many other countries, including Australia. As Barry Davies said at one of our conferences, there's too much tendency to say "oh he can drive a bus, he can be the tour guide" and not enough on whether the person really understands what he or she is talking about.

Hector: How has Australia reacted to Covid? Especially in regard to ecotourism. Are you emerging now from the tough times?

Angus: Domestic travel has increased business for some operators including regional areas. The lack of international backpackers has reduced the number of available staff for some businesses. So, a mixed blessing. A number of small ecotourism businesses are struggling.

Hector: Have you noticed any changes in trends? e.g. avoiding big crowds.

Angus: Operators have been finding it difficult to run large tours because of Covid.

Ronda: A lot of us who were depending largely on international tourists have had to develop a domestic base. We know this won't be the last time travel is restricted so operators are realising the importance of having this domestic base long-term.

Hector: And that fits in well with our aims of reducing impacts from long-distance travel, using less fossil fuel. We need to push the idea of local ecotourism.

Nadine: The operators are always disproportionately affected, whether by pandemics, floods, fires or whatever. But they've been remarkably resilient, planning very well for their business survival. And some ecolodges close to cities have done extremely well, as people couldn't travel far but wanted to get out of the cities and have a break in nice surroundings, go for a hike etc.

Sonia Underdahl: I've just made a 2-month trip with internationals through Australia and New Zealand. A lot of services were closed – no helicopter rides or camel rides. Australian operators have definitely downgraded their products. They've been struggling, with very little help from the government if any. A lot of tour guides I've worked with are now working in other industries. And just on the topic of definitions, to Ecotourism Australia, the definition of ecotourism actually is very important.

Nadine: Yes, what I said before was just my own personal point of view at that time, not on behalf of Ecotourism Australia.

Ronda: On the topic of difficulties of small operators, I know myself that as a small operator it was very difficult having to continue to pay insurances, registrations, permits etc. just to remain a legitimate business while not able to make any income running tours. Small businesses got some help from the government at first, but on-going help was only offered to those who already had a turnover of about \$70,000 annually, so really small businesses didn't really get much help. Some of us have suffered very badly, some have folded, and things are just now starting to pick up again, and it will take a long time yet for many to recover.

Ecotourism as the only economic activity in the world that uses natural resources but leaves them intact

Hector: Do you think this aspect of ecotourism is recognised in Australia?

Angus: I don't think it's well understood in Australia at all. We have an emphasis on extracting resources and exploiting them as best we can. We have a lot of work to do with communicating and engaging with communities and government agencies.

Business aspects of Ecotourism

Hector: What is the situation in Australia? Is the ecotourism business generally stagnating?

Nadine: It seems to be thriving (I won't say "growing" which has negative connotations). We see a shift of traditional businesses aligning themselves, not necessarily with ecotourism as such, but with sustainability principles.

Hector: Is it easy in Australia to get bank funding for instance for starting a business or building an ecotourism lodge?

Nadine: There is some good funding out there for some. But a major problem is that public liability insurance is very expensive, and many companies don't want to insure tourism businesses, so that is a very big problem facing small businesses.

Promotional and marketing aspects

Hector: Are promotion and marketing aspects in Australia being conducted in an appropriate way? What are the best methods of promoting and marketing ecotourism in Australia?

Angus: I agree with Nadine's assessment. We have to be careful not to indulge in greenwashing.

Nicole Archer (delegate in audience): I'm from Wildlife Preservation Society of Queensland. We've heard a lot about tourism today but not much about the eco side. WPSQ is one of many conservation groups concerned with impacts of ecotourism, particularly ventures between the Department of Tourism, Industry and Sport and

the Department of Environment, creating what is called Destination Development. There is a push to develop within Protected Areas, including casinos, beach bars and accommodation, and organisations like Ecotourism Australia are driving this as well. We're concerned there's more tourism than eco in Southeast Queensland. Heading towards the Olympics in 2023, we're seeing development of beach bars, glamping etc. and people making a lot of money. I wish we had more time to discuss that, but we want to see a shift in paradigms towards the eco aspects.

Chair's notes:

Hector was hoping we would have representation by state and federal politicians, but all declined. The Federal Minister for Tourism the Honorable Don Farrell however expressed his considerable interest but also his regrets that he could not attend, and suggested we invite a representative from Austrade. In the end we did have a representative from Austrade and one from the Queensland Department of Environment but both asked not to be named, and neither were permitted, or perhaps chose not) to actually contribute, just to listen.

We ran out of time for discussion on some important issues. A media release on 4th April 2022, "Queensland Tourism and Conservation Alliance backs plan to double State's protected areas," involved Ecotourism Australia, the National Parks Association of Queensland, Queensland Tourism Industry Council, Pew Charitable Trusts, Queensland Conservation Council and Queensland First Nations Tourism Council, to pursue the establishment of more national parks as well as further tourism activity. I had been hoping for some clarification during this forum, but time did not permit. Litheko (2022), while supporting private/public partnerships for conservation and tourism, states that: "The development, success, and sustainability of ecotourism hinge mainly upon the active participation of a variety of stakeholders who play different roles depending on their capacity, type of ecotourism and necessary level of participation. In the context of ecotourism, stakeholders can be understood as all those parties or actors representing similar or divergent interests but working collaboratively toward the success of ecotourism project." Stake-holder discussions is difficult at the moment as not enough details of plans or strategies are being made available to interested parties. Buckley (2023) briefly points out some of the possible political and economic decisions that could compromise biodiversity conservation even within legislation that sounds as though it is being prioritised.

I am not opposed to private companies making a profit when using Protected Areas if the project is genuinely ecologically sustainable, and especially where biodiversity conservation is enhanced. Some of the current plans for major facilities does sound potentially alarming, and there seems much potential for proposed facilities to be in a buffer area adjacent to the Protected Area rather than within it. There are many questions to be addressed: what precisely is to be allowed, will biodiversity conservation remain the prime objective for our Protected Areas, what kinds of baseline studies and monitoring systems will be in place, how much of the generated revenue from tourism activities will be channelled into effective conservation management, whether we will in fact see the promised doubling of land under Protected Area status in Queensland, whether the new acquisitions will indeed reflect the highest needs for protection of species and ecosystems, will experienced ecologists be involved in such decisions, how will we ensure high-quality interpretation of nature and culture associated with each new development, how the "wilderness" experience might be affected in each individual site for visitors not actually using the facilities, and whether small tour operations and the general public will be disadvantaged. WTA plans to run a webinar on this topic some time in 2023 and we hope that representatives of various tourism and conservation groups can join us for a polite and respectful discussion (we are aware that tempers have flared a bit during discussions on this topic) on how we can best achieve the aims both of economics and biodiversity conservation.

Relevant literature:

Buckley, R. 2023. Effective implementation of new biodiversity pact. *Science*, 379: 548

Ceballos-Lascurain, Hector. 1996. *Tourism, Ecotourism and Protected Areas*. IUCN. Gland, Switzerland.

Davis, J. 2016. Can privatization save parks? Mongabay. <https://news.mongabay.com/2016/02/can-privatization-save-parks/>

Dept of Tourism, Innovation and Sport. 2022. Activate Ecotourism Infrastructure. <https://www.dtis.qld.gov.au/tourism/funds/act-eco-infrastructure>

Gillespie, E. 2022. Tourism industry joins push to expand Queensland's national parks. *The Guardian* April 2022 <https://www.theguardian.com/australia-news/2022/apr/04/tourism-industry-joins-push-to-expand-queenslands-national-parks>

Marine Ecotourism, Wildlife Watching and “Impacts”: Do We Risk Missing the Big Picture?

José Truda Palazzo, Jr.

Institutional Development Coordinator, Brazilian Humpback Whale Institute, Brazil

In almost 40 years of attending international environmental treaty meetings both as a delegate for governments and as a non-governmental observer, as well as working as advisor for many public policy initiatives in Brazil and other countries, two things became quite obvious to me. First, that *non-extractive users of wildlife and ecosystems* – Ecotourism operators, guides, consumers, and communities benefitting from it – were mostly absent from decision-making that could directly impact their activities. Second, that Ecotourism and wildlife interactions, when addressed at all, were almost always treated as an “impact” and not an asset.

Intrigued by this situation, I started to inquire and study this matter, and found that the apparent aversion in giving (Marine) Ecotourism its proper standing in policymaking is fed by a continued, profound ignorance of its benefits by policymakers at international – and some national – fora. This is reinforced by the fact that the academic world is awash with papers addressing the supposed “impacts” of Ecotourism and Wildlife Watching and recommending stricter controls on these activities, and well as generally trying to put a distance between people and wildlife wherever interactions occur.

Regulatory bureaucracies are just too keen to jump on these recommendations from academia and to impose strict, sometimes convoluted regulations on the non-lethal use of wildlife both marine and terrestrial. But what about the impact of other uses? Is the cost-benefit of lethal/appropriation versus non-lethal/contemplation uses ever considered? I have found that these considerations are mostly absent when non-extractive uses of Nature are discussed for policymaking, and that prejudice, ignorance and the lack of adequate political representation by the community of practice are major roadblocks for (Marine) Ecotourism to be adequately considered when determining conservation policies, especially at international treaties such as the Convention for the Regulation of Trade in Endangered Species of Wild Fauna and Flora (CITES), where “livelihoods” are only discussed in relation to those hunting, fishing extracting timber or otherwise killing off wild species for profit.

Specific cases demonstrating the cost-benefit of allowing human-wildlife interactions to occur instead of letting extractive uses destroy species are highlighted in my upcoming book *Living Water: Marine Ecotourism, Communities and Conservation*, in which I make the case for more Ecotourism and wildlife watching as a vital conservation tool, challenge the “impacts” ideology rarely based on facts that oftentimes hamper the consideration of these activities as such, and propose ways forward for the Ecotourism/Wildlife Watching community of practice to be better represented and heard at relevant stances. The book is already available for pre-sale at <https://www.stormbirdpress.com/book/living-water/> and should be released in January 2023.

Wildlife tourism research

Wildlife Tourism: the Good, the Bad, and the Indeterminate

Ronda Green

Chair WTA, proprietor Araucaria Ecotours, Adjunct Research Fellow Griffith University

There are many examples of tourism involving wildlife around the world that are obviously deleterious for either biodiversity conservation or animal welfare or both. There are others that make a genuine effort to assist conservation and uphold the ideals of animal welfare (in the wild, semi-wild, or captive settings), with varying degrees of evidence of success. There are also a number of offerings that have caused considerable controversy, sometimes with very strong emotions in each direction, but without enough information to assess whether they are damaging, benign or beneficial. This presentation briefly reviews the obviously bad and a selection of those which appear to have positive impact. It also suggests various types of research that could be employed in an attempt to assess some of the others, and some of the kinds of modifications this might lead to existing operations which do not fall into the “definitely bad” category but could perhaps do with improvement.

There are many ways of defining wildlife tourism. To some it is exclusively wildlife ecotourism – viewing wildlife in the wild with minimum impact. Others include zoos, hunting, and essentially anything involving wildlife that tourists might do. Since it is the latter, broader aspects that have been getting a lot of coverage on social media, I’m here using the more broad definition, but not including consumptive tourism (hunting and fishing).

In this presentation, I’m focussing on three good-practice issues:

- Biodiversity conservation
- Animal welfare
- Public education

I’ve conducted some very extensive literature research, but rather than presenting details here I’m referring to articles where I and others have done so.

Biodiversity conservation: good practice

Wildlife tourism can assist biodiversity conservation by:

- Preserving habitat
- Restoring habitat
- Conservation breeding
- Quality education of the public (enhancing appreciation and understanding, reducing common fears and contempt for some species, recognition of animals as sentient beings, educating about minimal impact...)
- Citizen science by tourists and/or guides to benefit conservation management
- Watching for signs of poaching
- Tourist dollars assisting wildlife hospitals and wildlife orphanages

We are exploring a number of these at this conference

Biodiversity conservation: the bad and the indeterminate

A couple of disturbing quotes:

- “Over the last 200 years Australia has suffered the largest documented decline in biodiversity of any continent. Despite efforts to manage threats and pressures to biodiversity in Australia, it is still in decline” (Department of Climate Change, Energy, the Environment and Water, Australian Government)
- “A team of Australian scientists has identified the 63 vertebrates they believe are most likely to go extinct by 2041, and found at least 47 can be brought back from the brink.... 21 fish, 12 birds, six mammals, four frogs and four reptiles.... There was greater concern for another 16 animals – five reptiles, four birds, four frogs, two mammals and a fish – on the list of 63, for which there were no recent confirmed records.” The Guardian, May 2022

The Convention on Biological Diversity some years ago set a target of 17 per cent of each of the world's eight ecoregions to be managed as protected areas by 2020. Some Australian states have achieved this, but Queensland so far has only 8.24% of its total area under Protected Area status (Department of Environment and Science, Queensland 3 Sept 2021). There are still plans to achieve the 17%, but it is important that they truly be selected to maximise biodiversity conservation.

Wildlife tourism practices that are obviously bad for conservation include:

- Taking animals from the wild purely for profit (not for conservation breeding, public education or research aims)
- Interference (e.g. for close-up action photos) preventing prey capture by predators
- Disturbance causing animals to shift to less optimal habitats
- Killing for comfort or irrational fears (e.g. killing of harmless snakes that guests don't like to see)
- Hunting/fishing competitions (there are some competitions that focus on introduced pests, which may indeed be ecologically sound but do not satisfy criteria for ecotourism, and it could be argued such tasks should be undertaken by professionals than promoted as a "fun" tourist activity)
- Habitat clearing or modifying that could impact fauna, flora and ecosystem processes
- Irresponsible feeding of wildlife (wrong diets, spread of disease, favouring populations of one or more species over others, causing significant behaviour changes in wildlife, making dangerous animals too bold around humans, various other issues)

There has been considerable research on negative effects of wildlife tourism on wildlife, and I've spoken on it many times so will not go into details here. Some of the literature and knowledge gaps where further research is needed, are discussed in:

- Green, R. J. and Higginbottom, K. 2001. *The Negative Effects of Wildlife Tourism on Wildlife*. Wildlife Tourism Research Report Series No. 5, Status Assessment of Wildlife Tourism in Australia Series, CRC for Sustainable Tourism
- D. Newsome, R. Dowling, S. Moore (Eds.), 2005. *Wildlife Tourism*. Channel View Publications, Clevedon,

There is currently considerable controversy about private enterprise within national parks, which can work very well in enormous national parks such as Kruger National Park in South Africa, but Australia's national parks are mostly nowhere near as vast, and we must proceed with caution. Extinct species don't return. Destroyed ecosystems could take millennia to replace, if ever. Some oppose the idea of any construction in a near-pristine Protected Area, but as long as planning includes comprehensive surveys of fauna and flora, some unobtrusive interpretive facilities, an occasional composting toilet along a lengthy walking track, small signs showing the walking route to prevent trampling of undergrowth, or even an occasional small, discreet basic overnight hut in a very large Park may have little effect on biodiversity. I do share the concerns of others when multiple clusters of upmarket huts serviced by vehicle tracks require clearing of native habitat and are likely to bring in many more visitors and thus cause increased pressure on the biodiversity the Protected Areas should be protecting. Currawinya NP (outback Qld) is large (330,000ha), remote from towns, and with a central, former sheep-shearing area already cleared, so thinking solely about impacts on biodiversity conservation, some kind of low-key environmentally-sound accommodation here could be okay. To adequately protect biodiversity in most other parks, it would seem best to explore possibilities of building near or adjacent to the parks, which has proved highly successful for such enterprises as Binna Burra and Girraween Environmental Lodge, and I find it encouraging that the Queensland government is now offering grants for such developments.

Questions to ask about new developments:

- Where are the vulnerable species? (including invertebrates and plants)
- Where are the vulnerable ecosystems?
- What impacts are possible on these?
- Are there seasonal needs of animals that could be impacted?
- Has a truly comprehensive fauna/flora survey been conducted in all seasons?
- What are the qualifications of the assessors?
- Have the results been made public, and in time for additional surveys if they are found lacking?
- How will tourist behaviour be controlled?
- Is there a valid monitoring program, with triggers to action if negative impacts are detected?

Animal welfare: good practice

Wildlife tourism has the potential to educate others in the correct way to treat animals and how to observe them in the wild without disturbing them.

Good captive operations can also conduct research that assists not only the animals in their care but those in the wild and also in other captive situations, determining what they need not only to survive and stay healthy but to actually be able to enjoy their lives. There have for distance been much research on diseases and dietary needs, but also on the kinds of "toys" that captive animals like to play with (even if not strictly "natural" as long as the animal chooses to use them and obviously enjoys doing so), and ways of emulating their natural routines to satisfy the behavioural urges they have evolved to adapt to life in the wild and still retain the instincts for in captivity. The tourist dollar also helps to raise revenue for some wildlife hospitals and animal orphanages.

I have reviewed the literature and made suggestions for further research in:
Green, R. J. 2020. The Future of Captive Wildlife: Useful and Enjoyable for Animals and Visitors? Chapter 6 in Bertella, G. (ed.) *Wildlife Tourism Futures: Encounters with Wild, Captive and Artificial Animals*
<https://www.multilingual-matters.com/page/detail/?k=97818454181>

Animal welfare: the bad and the indeterminate

Ways that wildlife tourism can adversely affect the welfare of individual animals include:

- Environmental aspects can not only affect survival of species but also individual animals
- Inadequate enclosures in a captive setting, including lack of space, lack of social contact, constant boredom and physical health factors
- Forced interactions causing stress
- Unnatural performances causing stress
- Cruel training for performances, riding etc.
- Canned hunting
- Painful activities

Close encounters can be valuable in public education but should not cause suffering. It is sometimes obvious that an animal is highly reluctant to interact with humans, and forced interaction for these is for the entertainment of guests should not be allowed. Some species and some individuals are more inclined to put up with it and some appear to actually enjoy and seek certain kinds of interaction. Stress levels are not always obvious to a casual observer. Researchers have detected higher levels of stress hormones or increased vigilant activity during some kinds of animal encounter. There is still a certain vagueness as to whether some level of mild stress truly means the animal is suffering. There are various philosophical objections to close encounters, as well as some highly emotional desires for such encounters. Looking strictly from a welfare viewpoint we need further studies, especially the kind of experiments that “ask the animal” with choice experiments to see what activities animals prefer to participate in or avoid.

Public education

There are many examples of poor interpretation:

- False “facts” – an occasional slip is excusable, but we’ve heard some very misleading statements at times by presenters
- Presenting an animal as just something to be used, feared, disgusted by or laughed at (which may make some listeners feel justified in later harming or killing such creatures)
- No interpretation other than naming everything
- Boring/incomprehensible talks that few really listen to or remember, or no effort to explain to those of other languages.
- Showing animals in very un-natural environments or un-natural behaviour with no explanation of the animal in the context of its natural habitat or social setting.
- If feeding, no explanation on problems that feeding in other contexts can cause

A summary of some important aspects we need further research on:

- Conservation of biodiversity
 - comprehensive baseline studies, including invertebrates (much of the invertebrate research will not be at species level, but focus on species richness or species composition), especially in Protected Areas and popular or emerging tourism areas, and comparing between differing levels of tourism usage.
 - behaviour of non-target species (e.g. effects on small ground-dwelling mammals while spotlighting for arboreal mammals and birds)
 - impacts of specific tourism usage (e.g. do particular wildlife feeding activities lure monkeys and other frugivores away from trees they might otherwise disperse many more seeds of).
 - Difference between areas used for wildlife tourism and alternative usages that might have different levels of impacts on wildlife and their habitats.
- Animal welfare
 - What really matters to the animal? High stress levels are obviously a red flag for the use of animals in tourism, but do mild increases in stress hormone levels or vigilant behaviour really mean the animal is suffering, possibly to the extent that almost all animal interactions be banned regardless of whether they have other overall benefits to animals? Can we perform more experiments that “ask the animal” to make choices.

- What assaults on the senses not obvious to us (scents or sounds of predators, sounds of various pitches or volumes, lights at night) are upsetting to animals in a captive setting or close to tourism facilities?
- Are the diurnal routines and methods of feeding in accord with what the animal is adapted for in an evolutionary sense and/or actually prefers?
- What are the best ways to keep various animals satisfied, especially those that need opportunities to play and explore?

Australian Research into Wildlife Tourism: A bibliometric review

Catherine Pickering,

School of Environmental Science, Griffith University, Australia.

While wildlife tourism is important globally, and can be the primary focus of the trip (whale watching or birding tours), be part of nature-based tourism in general (kangaroos and koala in national parks, dolphins seen from the beach), an aspect of more general tourism (visiting Taronga Zoo when going to Sydney) or even a virtual experience (Great Barrier Reef online or in 3D). Although it can contribute to economies, conservation and local communities, it can have adverse impacts. Reflecting its importance, is growing body of academic literature. Here this literature is reviewed including identify major themes, key researchers, journals and underlining literature, particular literature by Australian authors.

First, the academic database Scopus was searched in September 2022 for all articles, reviews, book chapters and conference papers on 'wildlife' and 'tour*' overall, and just by Australian authors. Next, metadata was downloaded and analysed in Excel and the data visualisation program VosViewer.

There were 394 publications with Australian authors, accounting for 13% of global research. Although outlets were diverse popular journals included the Journal of Sustainable Tourism (31 publications), Journal of Ecotourism (25), Tourism Management (23), Biological Conservation (15) and Tourism in Marine Environments (15). Key authors included David Newsome (25 publications), Charlie Huveneers (16), Roy Ballantyne (13) Karen Hughes (13), J. Packer (13) and Lars Bejder (12).

Important themes include ecotourism, wildlife management, conservation, protected areas, sustainability, and recreation, particularly in Western Australian and Queensland. Research often assessed sharks, whales, mammals in general and/or endangered species. There was also research on environmental protection, tourist attractions and behaviour, anthropogenic effects, interpretation, disturbance, environmental impacts, behaviour responses, nature-society relations, perceptions and economics.

Emerging topics include climate change affects on wildlife and destinations as well as increasing sensitivity regarding tourists' own carbon footprints as well as the COVID-19 pandemic related changes in domestic and international tourism. Social media is also important as it provides opportunities but also challenges when promoting, communicating and monitoring wildlife tourism. Other issues include human health benefits of encounters with wildlife, including economic impacts. Finally, there was increasing recognition of the need for collaborative research regarding wildlife tourism and First Nations' communities, practices, and culture.

Mapping Tourists Encounters with Wildlife In South Africa: Insights using social media

Joy Mangachena,

Catherine Pickering,

School of Environmental Science, Griffith University, Australia

Wildlife viewing is popular including in South Africa. It is often focused on large charismatic mammals such as lions and elephants that are threatened, as well as more common mammals such as zebra. Popular locations for wildlife tourism are protected areas such as Kruger National Park, but also private parks as well as zoos, sanctuaries, wildlife ranches and farms. Knowing where and when tourists encounter which species is important for managing tourism, wildlife and destinations, but collecting such data can be expensive and spatially and temporally limited when using methods such as visitor surveys, fees, tour data, road and trail counters and cameras. Now information posted to social media can be harnessed as an additional source of wildlife tourism

data. This includes geotagged and timestamped photographs from platforms such as Flickr that is popular with billions of publicly available photographs of nature. Metadata associated with these photographs is free, relatively quickly and easily collected and can cover large areas. In addition, studies have shown positive correlations between the number of photographs and actual visitation to different destinations, and with visitors' preferences among species from tourist surveys. To further explore this source of information, we used Flickr photographs of elephants, lions and zebras taken anywhere in South Africa. These were converted to wildlife-encounter-days (WED) by selecting one photograph per day per person giving 4,346 WED by 1,886 people for elephants, 2,507 WED by 1,278 people for lions and 5,809 WED by 1,298 people for zebras. Most encounters with these mammals were in protected areas (84%), and then mainly in Kruger National Park (32%). While encounters with elephants (64%) were concentrated in a few national parks, encounters with lion and zebra included Kruger National Park (30%), other public (29%) and private parks (25%) as well as zoos, sanctuaries, wildlife ranches and farms (17%). Tourists encountered them throughout the year but more often on weekends, and early in the day and late afternoon. These results highlight the scale of relevant information about wildlife tourism available online that can be used to determine in which places and when people encounter species including the relative importance for wildlife tourism of public vs private parks and other destinations where animals may be kept in semi-captivity such as lions. It also shows how thousands of people share their encounters with others on just this platform alone, potentially influencing others to want to see wildlife in South Africa. Similar research for Australia could assess the relative importance of national parks, wildlife parks and zoos for encountering species such as Koala, including analyzing the topics discussed, and sentiments people express when tagging their photographs. Using Artificial Intelligence, it is also increasingly possible to rapidly analyze the content of photographs to understand more about wildlife encounters.

Biodiversity conservation and restoration

Lady Elliot Island: 30 years in 40 minutes

[Keynote address]

Peter Gash

Managing Director and Custodian, Lady Elliot Island,
Queensland

(Note: these are notes taken from his presentation)

Peter Gash and his family are the custodians of Lady Elliot Island, a coral cay in the southern end of the Great Barrier Reef. He and his wife visited in 1980, felt an immediate bond with the island and were delighted later to be able to take over the role of custodians of the island.



Lady Elliot Island's vegetation, and consequently its birdlife and other biodiversity, had suffered greatly from guano mining and feral goats over the decades. A previous care-taker had started re-establishing native trees and other plants, but Peter and his family greatly extended this and brought in other eco-friendly measures.

Peter had been told by many people that his ideas for the island were impossible, but he proceeded anyway, and nowadays is frequently being asked by schools, tourism groups and others to present talks on what he and his family did and how they did it, and he hopes that in so doing he encourages others to follow their examples or take other environmental measures.

When they first sought to establish a solar power station for them on the island, companies such as Ergon and Energex told them it was impossible, which made Peter even more determined to do it. It has been a great success, now providing more than their needs, and family reinvests back into the restoration of the island. They have also established a different setup of solar panels achieving the capture of atmospheric water vapour to provide a good supply of clear drinking water for all the family, staff and guests. Solar water heaters provide all hot water needs.

A composting facility, Osca, turns all food waste into compost. It cost more initially than the existing composting facility but since it involves only food waste, woodchips from trees that have died naturally, and cardboard, it produces highly useful compost with no harmful substances, which assists greatly with their on-going regeneration program and also is helping to build the island higher at the rate of about 3mm a year, which will help mitigate the effects of climate change on sea level rises.



Aircraft are the only feasible way for guests to reach the island, so Peter trained as a pilot, but was determined to run the project in as environmentally-friendly way as possible, not just to minimise negative effects but to have a significant overall positive effect. Waste that can't be recycled on the island is flown out on the same small planes used for guests or by the barges that visit four times a year. Food is brought to the island on the regular flights, laundry travels both ways, and the staff also use the regular passenger flights when needing to travel to and from the mainland. Gas cylinders and heavy building materials are brought in by barge. The airstrip is maintained using waste water.

Lady Elliot Island is now looked on as an example of environmental best practice for others to follow, and Peter hopes their work is thus assisting not only the island but the entire Great Barrier Reef and other wonderful natural areas of Australia. His messages at times reach much further: a live broadcast by CNN was watched by a billion people in USA and a re-run reached a quarter billion people in Europe. Prince Charles (now King Charles) conducted a round-table with 27 influential businessmen, to see what is being done there and discuss ways of protecting the rest of the Great Barrier Reef. David Attenborough has also visited. Peter pointed out that they could not have afforded to arrange such events themselves: the opportunities came to them for free because these people were fascinated and impressed by their efforts into doing the right thing for the planet.

Every decision made for action on the island considers the combination of the needs of their workers (altogether about 120), the environment, and the guests.

Guests, while enjoying a wonderful holiday, experiencing a wonderful diversity of birds, a vast diversity of fish (including manta rays), turtles and other marine life, learn from marine biologists, see the environmental projects that are working so well, and have the opportunity to be involved in citizen science to help advance knowledge for conservation management.

Tourism has provided and continues to provide the finance to achieve most of the improvements they have been able to make for biodiversity and the environment in general.

Peter believes attempts to give positively to the environment needs a passionate commitment to values, clarity of purpose, honesty, integrity, refusal to be told it isn't possible to achieve great things, and being who you are in both life and business, not trying to be something you're not. We're now blessed with many opportunities our parents and grandparents didn't have, and there are some wonderful young people doing things for the environment, including some here today, which should feed our hopes for the future.

"Don't let your children ask why you didn't do more to make a difference"

As Charles Darwin said, the future lies not with the strongest or fittest but with the most adaptable.

Q&A

Q. What is the baseline of research on the island?

A. Professor Kathy Townsend of University of Queensland was our first researcher, studying the manta rays, and their research led to mantas being protected in our country. Now studying "from leaf to reef" with her team of researchers at University of Sunshine, finding some extraordinary things about coral cays.

Q. How does the business model work, incorporating conservation work?

A. We run two businesses, an island tourism business and an aviation business, both owned by the family. With the aviation business, we run tours, including outback tours, and also transport fly-in fly-out workers to destination, including mines. We need some mining for mobile phones, airplanes etc., and this gives us a chance to talk with resource managers and convince them how to do things more environmentally. Salary for our 120 staff members involved in the island tourism business comes from the island business, but we draw the family from the aviation business. We make a small profit each year from the island business, and this goes back into the business. We also contribute to Greenfleet, Australian Zoo Wildlife Foundation and others. Other folk also contribute to our projects

Q. (Angus Robinson) Have you established a Foundation such as that on Lizard Island so others can easily contribute to your outstanding work?

A. We've been talking about this and I think it will happen some time in the next couple of years.

Q. How do you cope with the need for constant renovations and other expenses on the island to keep it looking professional and satisfy your customers?

A. If you over-capitalise you have pressure to keep getting more customers, which puts more pressure on the island, which we don't want. We don't pretend to be what we're not. We're not a 5-star resort. Yes, it's comfortable, it has hot showers and nice meals, and the island experience itself is priceless, but we don't want to build a 100-million dollar resort. For one thing it would be vulnerable to cyclones, and insurance premiums for that can go through the roof. Also, to pay for it we would need to get a massive increase in financial return on investment, so we'd need more staff, more petrol etc. getting more customers each day or charging extra which would put it out of reach of many who we want to give the experience to, and become like a rat in the wheel, always chasing money, and it's not about that. It's about making a difference.

[editor's note: to read more on the environmental example set by Peter and his family see UNWTO 2020 (editors and contributing authors N. Scott and R. J. Green) Sustainable Development of Wildlife Tourism in Asia and the Pacific: Good Practices and their Implications <https://www.e-unwto.org/doi/abs/10.18111/9789284421572>]

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West African Bird Study Association WABSA Planted Over One Million Mangrove Propagules in Jokadu National Park

Fagimba Camara, West African Bird Study Association (WABSA), The Gambia
fagimba.camara@yahoo.com

The Gambia is a small, narrow country enclosed by the Atlantic Ocean in the west and Senegal on the three remaining sides. Its land area of 10,000 km² extends about 330 km from its eastern border to the coast and between 20 and 48km along its north-south axis. The country's terrain is flat, with the highest point at 53m above sea level. The country can be divided into three major biological regions – the marine system and coastal zone on the Atlantic Ocean in the west, the east-to-west running River Gambia and related freshwater and estuarine ecosystems, and the terrestrial ecosystems in the remaining stretches of land behind the coast and to the north and south of the river. Despite its small size, the Gambia harbours biodiversity that is globally significant as well as biodiversity and natural resources of great significance at national and local level

The Gambia faces a number of highly inter-related challenges and pressures on its ecological resources, land and ecosystem services. Since land and natural resources provide livelihood support for an estimated 75% of the population, pressures from a high population growth rate are expected to increase and when coupled with drought and poor agricultural practices, they constitute a serious threat to both environment and livelihoods

Already evident is the rate of deforestation which has been estimated at 7% per year and soil erosion (by water and wind) which is estimated at 12.5 t/ha/yr² and affecting land throughout the country.

To tackle this problem the West Africa Bird Study Association WABSA with Gambia tourism Board and Nema support from CHOSSO project recently planted over 1 million mangroves propagules along Jokadou National Parks of Tambana and Karantaba wetland in the North Bank Region. The planting exercise is the third times WABSA, Gambia tourism board and NEMA CHOSSO project has conducted in the areas to help restore the biodiversity and ecosystem.

The project target of over 1 million mangrove propagules at Jokadu National Park will help restoration of vegetation cover and by extension empowering communities of Tambana and Karantaba to contribute to the protection ecosystem, biodiversity and to the regeneration of loss mangroves cover to mitigate the effect of climate change.

The mangrove habitats create spooning ground for young fish, improve livelihood, eco-tourism, habitat for indigenous wildlife, improve health and contribute to reduction of sedimentation.

The communities of Tambana and Karantaba remain a focus period as they are found to be highly vulnerable to loss vegetation cover. Therefore, serious intervention has contributed to build the capacity of communities on the importance of restoring the loss vegetation cover it asserted that the planting of mangroves would obviously contribute to serve as sanctuary and spooning ground for fish, minimize salt intrusion, water erosion coastal and marine to enhance climate change resilience building.

WABSA has contributed greatly in creating breeding areas for birds and boosting bird watching in Jokadu National Park for tourism based on an economic perspective is an alternative livelihood for Tambana and Karantaba communities that can increase community income.

[Note: Fagimba paid a lot to send his passport to Kenya to get his visa, and his association found the money for the airfares, but he found out last week the Australian government denied his application, which is a great pity, given the great work he's been doing and his enthusiasm for conservation.]

Q&A

X. Were there mangroves there before, or are you extending the area covered by mangroves?

Fagimba. We were planting where there used to be mangroves. As well as conservation reasons, the mangroves help to decrease erosion and for salt removal, which is good for adjacent farming.

Biodiversity conservation is not just for the famous and charismatic!

Poster Paper

Ronda J Green,

BSc (Hons) PhD, Wildlife Tourism Australia, Griffith University
& Araucaria Ecotours

(notes from the Poster)

To be truly environmentally sustainable, a tourism business must consider impact not just on the animals that the tourists are most attracted by, but on all biodiversity in the ecosystem or ecosystems the business is potentially impacting.

Biodiversity conservation involves:

- All fauna and flora, including insects, snails, orchids, fungi, microorganisms etc.
- Ecosystems
- Ecological processes (seed dispersal, pollination ...)
- Genetic diversity



Impact assessment should where possible include:

- Four seasons (many species migrate or are more active in some seasons than others)
- At least 4 days and 3 nights in each session if possible, as not every day will be the same, and if trapping, animals may not approach the traps on the first night
- Early mornings to maximise bird detection
- Later in the day for many reptiles
- Evening for nocturnal species (and some will become active at different times of night)
- Wet nights in early summer (for frogs)
- Elliot trapping in Australia in late winter (a very active time for small carnivorous marsupials of the Dasyuridae family)
- Devices to record microbat calls (many forget that ¼ of Australian mammal species are bats, and they differ greatly in habitat requirements and behaviour)
- Devices to record other animal sounds (frogs, gliders, birds that are not easily observed etc.)
- Motion-sensing cameras, some aimed at the ground with appropriate scattered food, others on fruiting or flowering trees, etc.
- Good photos of unidentified invertebrates etc. to consult with experts
- Special effort to detect threatened species that may be low in numbers or not easily observed
- Additional visits if weather is suddenly good (e.g. if the study was conducted in dry weather but there is sudden rain afterwards which may allow the detection of ephemeral orchids or frogs).
- Open sharing of results with ecologists and amateur naturalists before construction etc. begins
- Special surveys depending on the situation.



An example of tourism impacts not obvious at first sight:

[Arzumanyan, M.](#), [A. Ghrmajyan, A.](#), [Muradyan, V.](#), [Tammaru, T.](#) and [Arakelyan, M.](#) 2022. Molluscs as bioindicators of tourism pressure on ecosystems of Dilijan National Park, Armenia. Journal of Ecotourism DOI: [10.1080/14724049.2022.2100894](https://doi.org/10.1080/14724049.2022.2100894)

The authors studied the impact of uncontrolled flow of tourism on the diversity, species richness, and abundance of terrestrial molluscs in the Dilijan National Park, and found significant differences in the diversity, species richness, and abundance of terrestrial molluscs between the control and experimental plots, especially in the autumn. They concluded terrestrial molluscs show sensitivity to human presence and can be used to study the direct impact of tourism-related ecosystems in protected areas.

It will not be possible to sample everything but including such groups as molluscs, ants or beetles can help indicate potential problems.

If possible, especially if a large area could be negatively impacted, or as a baseline study of an area previously damaged which a tourism operation hopes to improve, it may be worth considering a complete Bioblitz in each of two seasons involving experts in various taxa as well as volunteers from local residents and/or tourists.

Round Table Discussion I (Monday, 31 October 2022 – Day 2):

How do we ensure minimal impact and quality interpretation when developing new experiences in national parks?

Group 1

Only addressed the 1st part of the QS: How can we minimize the impacts of development?

- Having established pathways, raised boardwalks, or infrastructure when people in the parks
- Permits with a Maximum number of tourists
- Time-restricting access in smaller areas
- However, the challenge is that in the huge park, you can't necessarily control that (tourist numbers) / Funding and how these things imposed
- There are issues like short staffing. Regional towns have not enough money to do all of that
- If businesses are to profit in NPs, what are the minimum standards for requirements, are they required to invest in the park or are they just allowed to make a profit?

Group 2

How to enter the park- hiring a local guide should be compulsory for every park

Quality of the interpretation needs improvement in many cases. Examples:

Australia

Mass tourism-bus drivers-no interpretation

- Lots of cultural? tourists are coming in. The company doesn't employ guides. The bus driver, picked on the day, takes the tourists somewhere, the drivers are not interested, or they are not paid to be a guide
- Locals say: you pay us; we are guiding these tourists
- The companies say: no, no, you pay us because we bring these tourists to you
- The bus driver says when they go to the NP - you go, guys, I'm not doing any extra work for free; here we go, tourists, good luck!

Madagascar

- You do not pay the parking fee but the guide fee very much. It is evident because without a guide, a park-like in Madagascar, you might get lost
- Places like Madagascar if a good guide leads, the people always come back for more.
- They do have a rotation system. When a group comes, they have a list to tell who is the next.

Sri Lanka

- High in camps. The national guides and the park guides are brilliant. When the tourists go with the National Guide to the NP, the tourist picks up a local guide at the NPs.
- NP like Sinharaja rain forest. The national guide contacted the local guide *via* his friend. The local guides didn't say anything, and they are trained. They are not NP guides: they are guides employed by the lodge of stay.
- Indigenous values should be acknowledged when interpreting the ecological and conservational values similarly in the NPs
- Culture of tipping

- Mass operators - no one manipulating
- New facilities and activities

Group 3

- We discussed policies: fix the existing things before starting the new stuff.
- Avoid extensive commercial operations where the money goes to the tourism ventures, not into conservation operations because conservation should be the priority.
- We have got some examples from different places all over the world, like Nepal and India/ both protected areas and national parks.
- We recognized the legislation and how many/ what people are allowed and not allowed to do.

Captive wildlife and wildlife-tourist interactions

Wildlife-tourist interactions

[Public forum]

Panel members: James Kirkpatrick (University of Tasmania), Emily Flower (Griffith University), Brooke Squires (RAW Africa Ecotours), Jasmine Burgan (O'Reilly's Rainforest Retreat), Sarah Pye (University of Sunshine Coast)

This forum was open to members of the general public as well as delegates.

Introduction. Ronda Green

Why do we seek interactions? From my own perspective, I've interacted with animals since my mother's dog decided to sleep in my cot, and later with wildlife such as feeding seagulls at the beach, and helping my mother raise orphaned possums and birds, so interacting with animals has always seemed natural, plus I had a fascination with all nature, including wildlife. Many of my school friends just saw possums as pests, and I wanted them to meet my possum to show what a lovely, friendly, playful little animal it was, and later to introduce them to my pet python to prove snakes are not vicious evil creatures to be automatically killed on sight. Some lonely people get a lot of pleasure out of interactions: I don't want to tell a very nice but very lonely widow she's a terrible person for feeding magpies or lorikeets in her backyard, although I might advise her on better foods and hygiene in the feeding area. Some people feed only to attract animals for photos, and according to some research also for a sense of power over the animal, which I have less sympathy for, especially if wrong foods are used or ecological balances are upset.

Tour operations may allow interactions solely for profit, but others do so for educational purposes or to raise money for animal care (e.g., Currumbin Wildlife Sanctuary, which uses photos with koalas or young crocodiles for their wildlife hospital, which tends many orphaned and injured wildlife every year brought in by the public, with no koala involved for more than half an hour a day).

There are positive, neutral and negative outcomes of interactions. Some animals seek interactions, such as wild dolphins approaching surfers or kayakers out of curiosity, or captive primates inviting children to play by running in parallel within and outside the enclosure. Others will only approach for food, which should not be offered in Protected Areas, and where it is allowed should be only under strict guidelines, as discussed numerous times at WTA events (see <https://www.wildlifetourism.org.au/conservation/policies/policies/tourist-wildlife-interactions/>).

We need to ask whether animal welfare is compromised. It obviously is in cases such as the cruel training of elephants in some parts of Asia. Also in one attraction in Greater Brisbane, where the same fish are caught repeatedly on barbless hooks, which must cause pain, or where animals are kept in tiny enclosures, or sometimes mutilated or drugged, purely for making money from tourist selfies. The animal must be able to opt out if it chooses.

Conservation issues arise when animals are taken from the wild purely for this purpose. There are also many problems with feeding in areas of native habitat where it could disrupt natural behaviour patterns, population numbers and ecological relationships.

We should also ask the effect on tourists. Do they learn to appreciate and understand the animals? Are they told how problems may be caused if they feed wildlife in other situations? Or is there no such interpretation and they get the idea it is okay to throw any kind of food to animals wherever they might encounter them?

James: I've been conducting ecological research for many years, especially conservation ecology. Some of our research shows that interactions can be positive, neutral or negative. Negative impacts include roadkill, which is not just a factor of tourism. Recreational fishers tend to attract a lot more Tasmania devils around their camps. There are many wombats on Maria Island, and do not seem affected by tourists. We should be attempting the kinds of tourism that helps to preserve threatened species

Sarah: I've been involved in the wildlife tourism industry as well as academia, and have written a number of children's book on wildlife in Borneo and the conservationists (especially Dr Wong) that are helping them. There are many creatures that will no longer be here as our children and grandchildren grow. Ecotourism, if

done correctly, can help to preserve habitats, instil environmental awareness, get the support of local people by providing jobs so they are less inclined to support poaching and habitat clearing. There is also conservation breeding. We need to be aware also of negative impacts such as cruel treatment, transmission of disease, and putting animals and humans in danger. Government has a role in education, guidelines (e.g., distance to maintain from whales by tour boats), licensing and monitoring. We try to support sanctuaries rather than tourism that is solely for economic gain, and advise tourists to be aware of where souvenirs may have come from and what they are eating.

Brooke. [Brooke covered most of what she said here in her own presentation, so is left out of this section]

Emily: I have conducted a PhD on elephants in Thailand, first doing an extensive literature review, and examined social media.

Ronda: I recall from a previous talk, Emily, that you also found the situation rather complex, not solvable by suddenly closing down all elephant tourism, which can result in homeless, starving elephants as well as their mahouts (who are not all cruel people) being out of work, so some things need a gradual phasing out rather than abrupt endings.

Emily: Yes, that's right

Jasmine: For the past decade I've been facilitating interactions in captive situations and with sea turtles that come ashore on Lady Elliot Island, and now working at O'Reilly's, where parrots are fed in specially designated areas under strict guidelines.

Ronda: We'll now call for questions and comments from the floor.

Sera Steves: How do you regulate interactions with sea turtles? Did you allow physical contact?

Jasmine: Working as a volunteer with marine turtles on a holiday island, there were inevitably a number of tourists asking me about what I was doing. I learned to read their body language and gauge level of interest and thus how to best answer their questions, with detail of turtles themselves and also on how to behave when they encounter turtles elsewhere. No actual touching of the turtles was allowed.

Ronda: I recall one place we saw turtles laying eggs, and we were encouraged to stroke the mother while laying, as she calms down while doing so. I'm skeptical of that: I've given birth, and if a stranger started patting me in the midst of it I wouldn't want it but wouldn't be able to move away, so I'd prefer not to assume the turtle doesn't mind.

Tony Isaacson: I believe interactions with wildlife is generally frowned upon in Queensland. I've been diving in many countries around the world. One island I often visit, many turtles come onto the beach, so although there is an official no-touch policy, there are some individuals that are very well habituated, and actually approach us to help them remove parasites.

Brooke: It can be difficult to know where to draw the line. Some members of the public can understand there are some situations where physical interaction is okay and situations where it isn't, but some don't seem as able to grasp this. How do you get the right message across? In Kenya they do it by a strict policy of no touching any wildlife.

Tony: I have actually filmed some tourists who have caught turtles while diving and held them above the water to show their friends. That is indeed the other side of the coin, and something that should not be allowed.

Jenny Gilbert: Turtles on Fitzroy Island and Green Island seek out divers to swim with them.

X: Any research on the kind of infrastructure influencing interactions?

Jamie: Mostly there's no real infrastructure except in the case of the penguin parade, where there are structures to separate people from the penguins. It also helps motivate the local government to keep dogs off those beaches.

Ronda: Do you know anything further about wallabies being culled on golf courses in Tasmania because people don't like stepping on their dung?

Jamie: It's disgraceful, and there are far too many wallabies, pademelons and wombats being shot for various reasons in Tasmania

X: There are many different cultural aspects in different countries. Are there any over-reaching guidelines?

Brooke: There are many differences. Kenyans don't want to kill any wildlife, while bush people in the Congo depend on it. There is a danger of monetising animals for ecotourism when it takes away the original non-monetary values such as keeping the ecological processes

Ronda: I was told at an elephant sanctuary in South Africa that their elephants were trained in a gentle way.

Jake: In Zimbabwe we run a charity involving elephants and the training is very different to that in Asia, based on experience with horse-training and understanding of psychology.

Emily: Some of the elephants that used to be ridden are now retired in places where tourists can interact with and bathe them.

Brooke: When we did an attitude survey in Kenya, kids who were afraid of meeting elephants on their way to school had quite a negative view, but we were able to use a tame elephant to increase their positive attitude.

X: Does Dr Wong still have his sunbear sanctuary?

Sarah: Yes. When he started his studies of bears in captivity he found some in terrible enclosures, and worked on starting the sanctuary. He has about 45 bears and has rehabilitated 10, including two which Dame Judi Dench participated in. He hopes to see a day when no sanctuary is needed.

Responsible captive wildlife tourism: what predicts tourist decision-making?

Emily McLeod

Zoos Victoria

Kelly Fielding and Angela Dean,
University of Queensland

Animal-visitor interactions (AVIs) are commonly offered in zoos, aquaria, and other captive tourism venues worldwide as a way for visitors to have a special experience during their visit. AVIs can vary greatly in the level of contact and proximity between people and wildlife, from hands-off, direct observation of animals through to holding or riding captive animals (D'Cruze *et al* 2019). These AVIs can provide opportunities for people to learn about and connect with wildlife, and can encourage pro-conservation behaviour

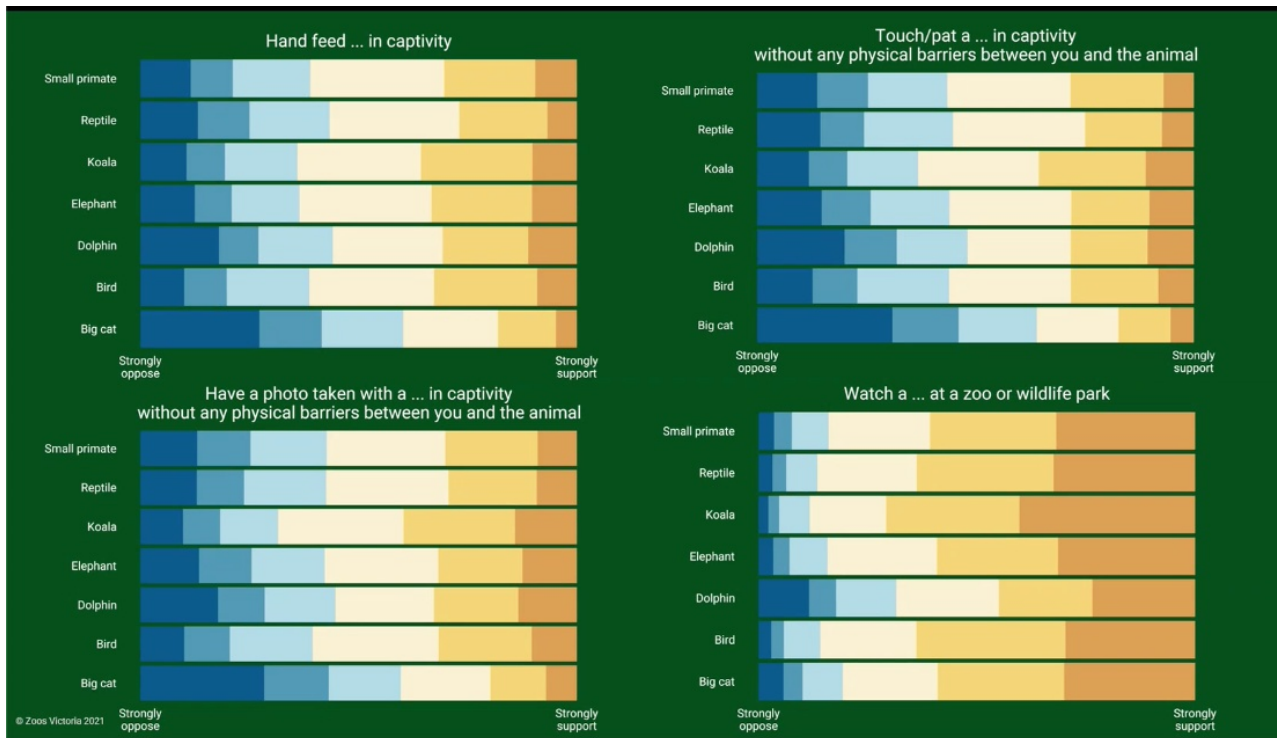
(Hacker & Miller, 2016; McLeod & Rawson 2019). However, depending on the nature of the experience and the species involved, AVIs can also vary in welfare impacts for the animals involved. Interactive experiences, where the animal has reduced choice and control during the experience, can be associated with a higher risk of negative welfare outcomes (Sherwen & Hemsworth, 2019; Ford 2022). Awareness-raising campaigns, such as *Be an Animal-friendly Traveller* and *#StopAnimalSelfies*, have raised the profile of this issue and called for people to avoid poor-welfare wildlife venues. To be effective in changing tourists' behaviours, we need to better understand the factors that influence people to participate in different captive wildlife experiences.



In this study we surveyed a representative sample of 6356 Australians (49.4% female, 50.1% male, 0.3% non-binary, mean age = 46.3 years) to understand their attitudes towards AVIs and to examine how social norms, values, and beliefs about wildlife may predict the acceptability of these experiences. Participants were randomly assigned to answer questions about AVIs with captive wildlife in general or about AVIs with one of seven taxa: koalas, dolphins, elephants, small primates, big cats, reptiles, or birds. We found over a third of participants opposed tourism operators who offered opportunities for visitors to be close to wildlife without any physical barriers, to have a photo taken up close with wildlife or to hold wildlife in captivity. Just over half of participants opposed operators offering visitors the chance to interact with



leashed wildlife in captivity. In this talk, we will report on the level of acceptability and future intention to participate in AVIs with the different groups of animals and discuss factors that may be associated these beliefs. The findings of this study provide a snapshot of the Australian wildlife tourism market in 2022 and can be used to inform the development of programs to shape responsible tourist behaviours.



Please get in touch if seeking guidelines for animal welfare in captivity.

Q&A

X: We've seen a lot of changes over the years, in research and societal change, and need to continue research and keep up to date with public attitudes.

Emily: Yes, I agree, and most captive operations through Australia try to do that,

X: Why use a 5-point instead of a 6-point scale?

Emily: We didn't want to force people into a choice if they're not sure. The middle option functions as an "I don't know" or "neither agree nor disagree." There has been some discussion in the literature recommending this approach

X: How do you breach the gap in people's ability to know whether an animal's welfare is positive or negative.

Emily: We're actively discussing this at the zoo. It's not a black and white issue. There are some clear indications, such as does the animal have the option to move away, can a snake stretch out its full length in the enclosure, is the tiger constantly pacing? But there are also complexities.

X: Did the survey come out before or after Tiger King? Many people seemed surprised even just to learn that there was so much privately-owned wildlife in America. I'm wondering if the negative attitudes to interaction with big cats was partially due to that series.

Emily: It was a recent study, so yes that may have had an influence.

Ronda: On perceptions, Konrad Lorenz wrote years ago how people would feel sympathy for lions being in enclosures but not notice the constantly-pacing wolves, and they would complain about eagles being in aviaries but not seeming to notice cockatoos, such playful, active-minded birds, being in little cages.

Emily: Yes, there are differences between species, and very little research on some groups such as reptiles. There are also differences between individual animals within a species.

Moonlit Sanctuary's Work in Species Conservation

Michael Johnson,

Director and Founder, Moonlit Sanctuary Wildlife Conservation Park, Pearcedale, Victoria

Moonlit Sanctuary Wildlife Conservation Park is located south-east of Melbourne within the Western Port UNESCO Biosphere Reserve. Moonlit Sanctuary is a science-based organization, is ecotourism accredited with Ecotourism Australia and animal welfare accreditation with the Zoo Aquarium Association. In 2017 Moonlit Sanctuary won the Victorian Premier's Sustainability Award for our work towards the recovery of the orange-bellied parrot, and is a five-time winner of the Victorian Tourism Award for Ecotourism.

The presentation will discuss aspects of Moonlit Sanctuary's work in the field of Species Conservation, with particular references to:

- Orange-bellied parrots Breeding for release and the insurance program
- Species management
- Ranching
- Mainland releases conducted by Moonlit, including retention training
- Regent honeyeater - breeding for release
- Bush stone-curlew - breeding for release
- Spot-tailed quoll - species management & presentation training for public engagement.
- Small Mammal Breeding Centre.
- "Butterflies, bugs and bees" public engagement program.

Too Close for Comfort: Human-wildlife interactions at wildlife entertainment venues.

Ben Pearson and Fran Kearey,

World Animal Protection

World Animal Protection campaigns to end the use of captive wild animals in entertainment venues. There is no justification for keeping wild animals in captivity other than legitimate conservation programs or for rehabilitation and release, and no way that a captive environment can allow a wild animal to fully carry out their natural behaviours and instincts. Venues that keep, and breed, wild animals merely for human enjoyment are profiting from their suffering.

This presentation will describe the World Animal Protection report that documents the extent to which iconic Australian wildlife venues are exploiting wild animals by forcing them to engage in behaviours and experiences that are unnatural and distressing. From koalas being held by humans for photos through to tigers and dolphins forced to perform unnatural tricks, the practises documented in this report are of concern.

Community attitudes to keeping wild animals in captivity are changing and will continue to shift. Just as elephant riding is increasingly seen as unacceptable, many of the practices at these venues will soon also be viewed as unacceptable. This threatens not only the social license of these venues, but their long-term financial viability. The recommendations made in our report are therefore not only of benefit to the wild animals held at these entertainment venues, but the viability of the venues themselves.

In the long term, the Australian wildlife entertainment industry must transition to a model which prioritises seeing wild animals in the wild – where they belong.

Q&A

X: What are your views on keeping wild animals for conservation breeding and rehabilitation into the wild?

Fran: That is absolutely fine when it is for genuine conservation, not just money-making

Jake: The educational value of interactions is very dependent on the actual activity. I know WAP has brought out a report with broad guidelines to apply broadly to animal activities around the world. So has the Born Free Foundation. Scientific investigation has shown results in both directions in different cases. I spoke to one of the Born Free people and was told “you can’t rely on the science.” I’m wondering if you purely on science

Fran: Absolutely. There are ways of scientifically “asking the animal”, as said earlier. But there is enough evidence that interactions are not generally in the best interests of the animal.

Ronda: Animal reactions to humans do vary between species and between individuals, and yes, there are non-intrusive experiments where you can “ask the animal” to make choices revealing what is important to them. It’s been done with farm animals, and it would be good to see more research of that kind with zoo animals

Emily Mcleod: There has in fact been a number of experiments with zoo animals as well. We’ve done it for instance with giant tortoises, and found that sometimes they do seem to enjoy interaction with keepers but sometimes not.

Elephant tourism: Insights from TripAdvisor reviews of Chitwan National Park, Nepal

Pragya Bhatt and Catherine Pickering

Centre for Planetary Health and Food Security, Griffith University, Australia

Wildlife tourism can generate revenue, contribute to local economies, and increase peoples’ appreciation of wildlife and its conservation, but can also have negative effects on wildlife including charismatic animals such as elephants. To enhance the sustainability and competitiveness of wildlife tourism destinations it is important to understand tourists’ experiences, preferences and satisfaction, including information they share with others. Increasingly tourists post information about their travels online including on review websites such as TripAdvisor. Such user created content is often seen as more reliable by other tourist than information provided by tourism organizations. Researchers have started to evaluate these additional sources of data, but mainly for tourism destinations in high-income. However, access to data about visitors experiences can be even more valuable for low-income countries where tourism is an important source of GDB, where wildlife tourism is popular, but resources for monitoring tourism are limited.

We use Trip Advisor reviews of Chitwan National Park in Nepal as a case study to explore how tourist reviews online could be used to improve wildlife tourism destinations including in developing countries. Wild elephants and those in semi-captivity are important for tourism in the Chitwan, with viewing elephants, watching them bath, be trained and feed as well as elephant rides are prominent in marketing. Therefore, we assessed themes in tourist’s reviews about the Park, how they rated their experiences, what they talked and how they felt, including about elephants.

Based on 399 reviews about the Park tourists like to share a range of activities and attractions in the Park and generally they gave high ratings and expressed positive sentiments about this destination. However, some reviews expressed strong concerns about the welfare of elephants including lower ratings and more negative sentiments. Such views shared on websites that are regularly viewed by other tourists is likely to affect wildlife tourism in the Park, with growing concern about the welfare of elephants in this and other tourism destinations. Further research into how online reviews can be used to understand tourist preferences regarding wildlife is important including in relation to animal welfare such as is increasingly seen with elephants in semi-captivity and for elephant rides.

General comment on Interactions

Tony Isaacson

I had some real issues re talks about physical interactions with animals being on the way out re best practices and policy. It flies in the face of contact with wildlife that seek out human interaction by choice in controlled and wild environments.

A good example was illustrated by a photo from a tenant living in my owner built, passive solar home more than a decade ago. It showed one of the many koalas that are semi resident in the 20,000 trees that I planted on the degraded council drainage reserve below my northern boundary accepting water in a yellow bowl by way of preference to drinking from the fish pond less than one metre away. The koala tapped on the glass door out the back to get the attention of my tenant.

Fast forward to more recent times and I learn from an ABC documentary that a farmer in NSW was losing many koalas on his property by what was revealed to be water stress caused by eucalyptus trees reducing the water content of their leaves during drought and additional to shedding leaves by the thousands to conserve water. Koala feeding on these trees don't get enough liquid. They mobilise and often die on the ground before they get to feed on leaves with sufficient moisture to sustain them. Lucky ones find water to drink.....something that is rare for healthy koalas. Simple solution was to provide the koalas with water sources in fodder trees. Movement activated cameras revealed a diversity of mammals and birds used the watering points that were provided by the farmer.

I challenge a wholesale policy to diminish the value of physical interaction with wildlife when best practices for same allow for the contact to be at the discretion of the wildlife without the reward of food or feeding. These are sentient creatures that have feelings and memories about their positive interactions with humans. Even the slow thinking green turtles at Mudjimba Island have these characteristics.

A few videos to watch: <https://youtu.be/bmk09lrPjmE>. Unsure why it never went viral....

This is my sentient shark mentor, Jim Abernethy, catching up with tiger shark Emma after COVID separated them for a year. They have been friends since the 1990's. https://youtu.be/Rr_T4Aim6Fw

My tenant in more recent times: <https://m.facebook.com/story>.

Wildlife Interpretation

Wildlife Tourism and Behaviour Change

[Keynote presentation]

Brooke Squires

RAW Africa Ecotours

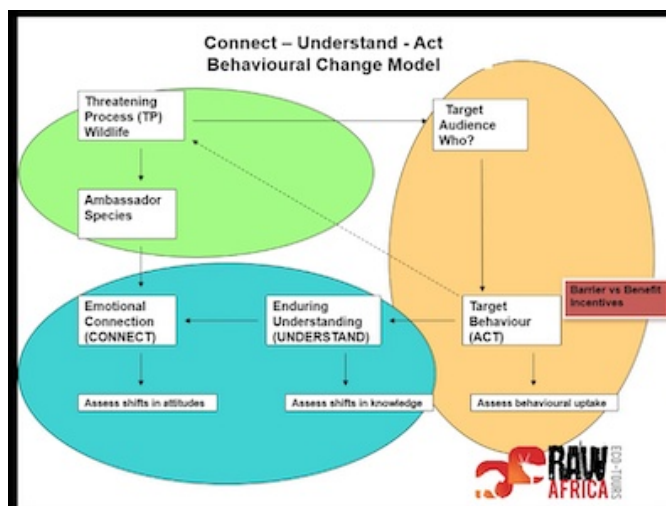
(Note: these are notes taken from her presentation)

Brooke fell in love with rhinos as a child and was later fortunate enough to get a position working with rhinos in Werribee Zoo in Victoria

Working with captive rhinos is complex and challenging, but she decided they could do more useful conservation by working with wild rhinos.

Zoos do provide an opportunity to make a difference. We want to inspire them to love and care about animals, but Brooke and her team decided to also to try to inspire all visitors to Werribee Zoo to commit to doing just ONE thing. She wanted to keep it simple so as not to overwhelm the visitor.

400,000 mobile phones were being dumped every year in Victoria. New phones need resources which are being mined in the Congo, destroying gorilla habitat. Melbourne Zoo, had excellent guides giving engaging talks about gorillas, and they started including this information in their talks. Static displays were also erected with the information, and how visitors could help simply by recycling phones instead of discarding them.



Another project involved Grévv's zebras (the most endangered zebra species) in Kenya. Competition with domestic livestock is a major threat, and they're very shy, so tend to stay out of areas with many humans and domestic animals. Talking to the women they found the goats and sheep were important to them for making income. After many discussions they decided on making beads to sell, which was easier and didn't have the problem of animals dying in drought years. This way they now raise less livestock, and zoo visitors are encouraged to help zebras by buying beadwork and t-shirts. They also talked to people within Kenya about what appeals to them about the zebras ("they're beautiful") and told them that the grazing method of the zebras made the pasture grass stronger for the livestock they still owned.

These were good projects, but Brooke wanted to do more in the wild, and became very interested in ecotourism as a way of reaching more people. So she started RAW African Ecotours.

On each tour they talk about one action each person can do to protect the wildlife. For instance they ask them to turn off geotag function on phones when photographing and never tell anyone on social media where a photo was taken, as much use has been made of this by poachers.

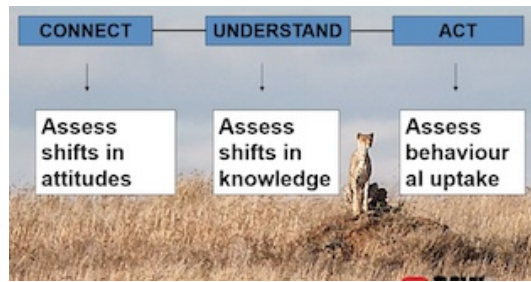
In Zanzibar after seeing turtles and other marine life they ask guests to use metal straws (readily available at one of the stores there) instead of plastic ones.

In Madagascar, slash and burn is a major problem for wildlife, especially the baobab tree, so each guest is asked to plant a young tree.

When watching zebras they encourage photos to be shared with researchers who are trying to determine the movements of the zebras (each individual zebra has a unique pattern).

They also discourage the use of single-use plastic water bottles. They must each bring their own drink bottle.

Quality story-telling about the animals plus seeing the animals themselves touches the visitors emotionally, and they want to help, but there are so many requests for donations, and research shows people reluctant to donate to conservation, they avoid doing this, and instead ask for these actions that really can make a distance, thus empowering rather than depressing them. They use ideas from Sam Ham and others and work with Jeffrey Skibins in USA, and try to assess results.



[editor's note: Jeff was one of our keynotes at a previous WTA conference, and Betty Weiler, who has worked extensively with Sam Ham, has run a workshop for us on wildlife interpretation]. Do people appreciate animals more as a result of their experiences, understand more and follow through with actions? They always use a simple attitude and knowledge quiz before and after a tour. They work in with various societies to work out the main threats to wildlife and the most useful actions tourists can take.

Next steps? They want others to get involved, to run a workshop discussing ideas on how to really have a positive effect, and to develop a handbook for tour companies, on how they can most effectively choose a cause, contribute to it and measure the effects.

One final story. The tiny Baw Baw frog, smaller than a 5 cent piece, hibernates under the snow. To feed, it lies on its back with hands extended, and when an insect lands on its hands it immediately transfers it to its mouth.

Q. How do we know if behaviour changes later? Behavioural intent doesn't always lead to action. People within the ecotour experience may genuinely intend something, but when back home they are in a different situation and may feel and act differently. And how can we know that the actions can lead to other behaviours that benefit wildlife.

A. We can observe immediate behaviours, and there is considerable literature by Jeffrey Skibins, Liam Smith and others on the effects of profound and memorable experiences stay with people. I'm very aware that we have people for just a few days. Some of the people may already be inclined to behave in those ways and others may be unlikely to carry the behaviour with them. But there may be others unaware of some aspects that we may be able to tip over into certain actions.

Chair (Sera): I'm very mindful of time, and we need a lot more discussion on this than we have time for right now.

Building nature interpretation capacity among safari jeep drivers with poor educational backgrounds

Rahula Perera

Sumith Pilapitiya, Yohan Weerasuriya.

Federation of Environmental Organizations of Sri Lanka.

Minneriya National Park(MNP) in North Central Sri Lanka is the home to the largest elephant gathering among the Asian elephant range states. Popularly known as the "Great Elephant Gathering of Asia" due to the presence of 350-400 elephants on the grasslands of the Minneriya reservoir bed in the dry months of June-October, this phenomenon was listed in 2008 as one of the 10 wildlife wonders of the world by Lonely Planet. This resulted in a threefold increase of tourist numbers visiting the "elephant gathering" from 2012 to 2019, from 62,853 to 189,608 visitors. Visitor satisfaction surveys and social media feedback, indicated that while elephant viewing was rated highly by visitors, the overall experience was rated poorly due to bad behavior of safari jeep drivers. The harassment to elephants by surrounding them with vehicles and virtually no nature interpretation resulted in a low quality experience. Staff constraints within the **Department of Wildlife Conservation**, the custodian of MNP, necessitated the visitors be accompanied only by untrained safari jeep drivers, hence contributing to this experience. **The Federation of Environmental Organizations** in collaboration with tourism stakeholders such as Sri Lanka **Tourism Development Authority** and **Sri Lanka Association of Inbound Tour Operators** as well as the **Department of Wildlife Conservation** and **Forest Department**, initiated a program of nature interpretation training for the safari jeep drivers with the objective of improving visitor satisfaction at the "elephant gathering". During the rainy season the elephants scatter to surrounding protected areas. Elephant viewing tourism is a feature in these protected areas so safari drivers using these protected areas were also included in the training. This was an extremely challenging program as a significant majority of drivers were poorly educated, some even illiterate, and there were over a 1000 drivers to be trained. Batches of drivers were trained in the *history of the national park*,

park regulations, fauna and flora of parks, nature and elephant behavior interpretation, tourism trends and expectations along with *driving etiquette* and *personal presentation* over a period of 18 months in 2018/19. This training resulted in certifying 1,219 safari jeep drivers, the largest such training program ever undertaken for safari drivers in Sri Lanka. An enforcement program to ensure driver discipline and compliance with regulations was to be introduced in MNP and two surrounding protected areas. An electronic system for data management of accredited safari jeep drivers is to be introduced for the convenience of monitoring driver behavior and disciplinary action taken against violators. The suspension of drivers for misbehavior will be enforced in all protected areas in the surrounding area through this electronic system. Unfortunately the Covid pandemic in 2020/21 and the present economic situation in Sri Lanka has reduced tourist arrivals, preventing a formal survey being conducted to assess the effectiveness of the training program. However, based on observations and feedback from a limited number of visitors, the training program has resulted in better behavior from the drivers and a significant reduction in the harassment of elephants in the national park.

Conservation narratives: Raising the profile of the mighty fig wasp

Sarah Pye,
University of the Sunshine Coast, Queensland

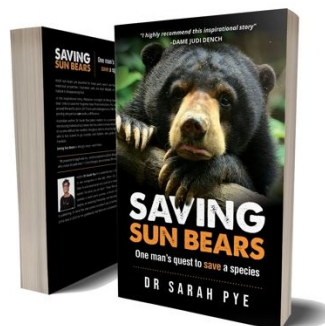
Wildlife tourism has the capacity to promote ‘active citizenship and enhanced environmental stewardship’ (Fernández–Llamazares, Fraixedas, Brias–Guinart, Terraube, & Buijs, 2020, p. 598) which can lead to positive conservation outcomes and funding. However, such experiences usually focus on a few well-known species and fail to interpret the interconnectedness of their habitats, leaving less charismatic species ignored, misunderstood and dependent on people’s subjective feelings survival (Kellert, 1983). Sun bears and orangutans for instance, are important representatives of the Bornean rainforest health in their own right, but they would struggle to exist without the tiny, and unheard-of fig wasp, itself at risk of local extinction (Harrison, 2001). Therefore, there is a ‘greater need than ever to devise powerful tools’ (Fernández–Llamazares et al., 2020, p. 598) to effectively engage society in a wider conservation landscape. For younger generations, research in formal education settings has demonstrated that post-experience follow-up activities ‘help students convert conservation intentions into actual behaviour’ (de White & Jacobson, 1994) and post-visit resources, can prompt young visitors to consider their own actions, and how they might make a contribution to the health of wildlife habitats in their own community (Chawla, 1999; Hughes, Packer, & Ballantyne, 2011). This paper explores the power of children’s nonfiction narratives to communicate the importance of symbiotic relationships and biodiversity to the next generation, extending engagement with natural systems long after wildlife experiences end. It uses the narrative nonfiction book *Wildlife Wong and the Fig Wasp* (Pye, 2022) to illustrate.



Conservation
narratives:

Raising the profile of
the mighty fig wasp

Dr Sarah Pye



“Wong is an incredibly committed and charismatic man, and I highly recommend this inspirational story about his life and important work.”

Dame Judi Dench



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FB group: Saving Sun Bears
Twitter: <https://twitter.com/AuthorSarahPye>
Insta: https://www.instagram.com/author_sarahpye/
LinkedIn: <https://www.linkedin.com/in/sarahpye/>

WILDLIFE WONG BOOKS



Q. Where can we buy the books?

A. I have some here today, and they're at the Centre and various bookshops, but also most major online sources such as Amazon and Booktopia

Q. Do you have any advice on developing characters for this kind of purpose?

A. I'm happy to offer some advice. Email me.

Visitors' education through environmental interpretation in Protected Natural Area: Samalayuca Dunes, Mexico."

Manuel Ramón González Herrera.

Autonomous University of Ciudad Juárez, Mexico

Introduction

Samalayuca Dunes is a system of wandering dunes or fine intercontinental sands composed of silica dioxide. It is the most exceptional in the region and constitutes one of Mexico's most important representations of dunes. It is the habitat of 248 native species of plants, and 154 native species of fauna, with many endemisms and more than 50 archaeological sites, most of which are petroglyphs (CONANP, 2013). It was declared on June 5, 2009, a Protected Natural Area of Flora and Fauna and decreed in the Official Gazette of the Federation.

Figure 1. Representative local flora and dunes. *Source: PNA Samalayuca Dunes*



Sotol (*Dasylirion wheeleri*)



Yuca (*Yucca elata*)

Based on the high value of this destination, the following research questions were formulated

- i How much is this wildlife space worth? and
- ii What to do with tourism activities to support wildlife, and what strategies to apply to make it happen in Samalayuca Dunes?

Therefore, the general aim of this study was to promote visitors' education through environmental interpretation of wildlife in the Protected Natural Area of Samalayuca Dunes.

Methodological framework

It constitutes projective qualitative participant research using empirical and theoretical methods. It was an experiential qualitative participant study using empirical and theoretical methods. The foundations and practical experiences related to environmental education/interpretation planning and implementation are presented according to sustainability in wildlife tourism. It was based on a field expedition of three days camping on-site in tents, with the participation of a group of 16 students (bachelor's degree in Tourism) grouped into four teams. For this purpose, day and night field activities for watching and observing the fauna of interest.

The general premise was that a good wildlife guide would impart a deeper understanding of the local wildlife and its environmental needs. It may give visitors a more informed base on which to modify their behaviour and subsequently decide what political moves to support. There for, the academic purpose was improving professional standards of students of tourism at the Autonomous University of Ciudad Juarez as future tour operators and guides via education and training.

The conceptualization is based on the wildlife tourism concept, defined as an activity based on observing and interacting with local animal and plant life in their natural habitats. "It is animal-friendly tourism, usually showing animals in their natural habitat. It is closely aligned with Eco-tourism and sustainable tourism. It encompasses non-consumptive interactions with wildlife and has the recreational aspects of adventure travel." (Wildlife Tourism, 2022).

Visitors' education is based on environmental education, a process that allows individuals to explore environmental issues, solve problems, and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions (EPA, 2022). Concerning the previous definition, environmental interpretation is "An educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information." (ATEPE, 2022).

Findings

As a result, the foundations and practical experiences related to environmental education and interpretation planning and implementation are presented according to sustainability principles. The experience was based on a project for observing and photographing animals and plant life in their natural habitats with the recreational purposes of adventure travel and based on the values of Ecotourism and nature conservation activities:

- ✓ Watching wild animals in their natural habitat.
- ✓ Interacting with wild animals in their natural habitat passively (watching/photography).
- ✓ Give visitors a more informed base on which to modify their behavior and subsequently decide what environmentally sustainable behaviors to support.

The main activities were:

I. Pre-field activities

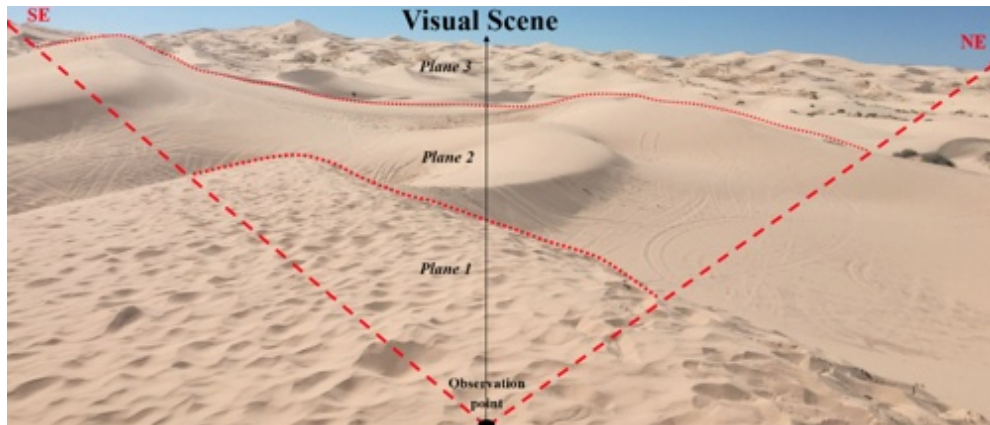
1. Interpretation site (where?)
2. Typology of the environmental system
3. Interpretive theme (what to interpret?)
4. Interpretive thematic unit
5. Interpretation time
6. Typology of environmental interpretation

II. Direct observation activities

1. Observation point or interpretive stop

2. Visual scene and elements that make up the visual basin
3. Interpretive features
4. Panoramic visual senses, planes, and distances
5. Perception of the visual scene
6. Sensory components shapes and sizes, smells, colors, natural lighting, textures, sounds, temperatures, and atmospheres
7. Information and signage
8. Interpretive services available and facilitation of the interpretive process

Figure 2. Visual scene and elements that make up the visual basin



Source: own elaboration

The most important learning lessons were that students were able to:

- Identify the PNA's most representative components of wildlife by observing and photographing animals and plants in their natural habitats (discovering activity).
- Value how much is this wildlife space worth according to their values of functional, aesthetic, ecological, and symbolic (critical wildlife tourism).
- Improve their environmental education through interpretation of wildlife in the PNA (professional growth)
- Recommend that it is necessary to monitor animals' behavior to identify where tourist pressure has adverse effects (participation in decision-making)
- Exhibit and share photos of wildlife (multiplication of knowledge)

Conclusion

It is concluded by emphasizing the importance of visitors' environmental education and interpretation for promoting better wildlife tourism practices in Samalayuca Dunes. It is necessary to promote: Conservation to minimize the impact and recovery of natural heritage; Education to strengthen environmental education and interpretation based on sustainability principles; Improve visitor's experience through specialized and methodologically oriented activities of observation and interaction with wildlife; and Enjoyment through experiential learning activities and active participation in observing and interpreting wildlife using ecotourist trails.

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The Great Australian Bat Tourism Trail app: Bat Tourism assisting bats-making it happen: A case study of three endangered Australian bats

Maree Treadwell-Kerr and Sera Steves

Wildlife Tourism Australia, Bats and Trees Society of Cairns

The Great Australasian Bat Tourism Trail is a joint project of the Australasian Bat Society (ABS) and Wildlife Tourism Australia (WTA), aiming to promote and encourage bat conservation through sustainable tourism.

Bat tourism has been proven to be an effective educational tool for developing positive attitudes and promoting the conservation of bats. However, despite some notable bat visitor experiences such as the Bat Cave at Naracoorte Caves and Batty Cruises on the Brisbane River, bat tourism has not reached its full potential in Australia. The Bat Tourism Trail aims to assist this by raising awareness of bats and complementing programs like Australasian Bat Night and other bat visitor experiences.

The app comprises of an interactive map of Australia where users can find places to observe bats as they travel. It includes seasonal, occasional or permanent roosts and sites where bats are readily seen flying. Information is also given about tour operators or community groups who provide interpretive experiences, as well as special conditions for access and landowner details. Users will also be able to input observations and pictures online thus enabling a crowdsourced tourism application.

In this presentation we gave a brief history of bat tourism, the development of the tourism trail and its expected launch date. We will include case studies to explore how wildlife tourism can assist Australia's three most

threatened bats: the critically endangered southern bent-wing bat (Australia's Mammal of the year for 2022), the critically endangered Christmas Island Flying-fox, and the endangered Spectacled Flying-fox.

Entotourism: Exposing the public to the wild life of insects

Colleen Foelz
[poster presentation]
Eden Ink, Australia

Insects are a largely unexplored group when it comes to wildlife tourism. Yet we live in times when the public's awareness of the significance of insects is rising. This is evident through media reports on insect declines, threats to insect pollinators, the impacts of climate change and entomophagy. There is also a growing focus on insects in zoo/museum exhibits, citizen science (including bioblitzes), conservation plans and macrophotography. Most existing entotourism is based on rare spectacles such as glow-worm colonies and butterfly migration. But there is so much that can be done to engage visitors through even just basic field observations of common insects. The poster will outline some simple, practical ways that insects, the charismatic minifauna, can be used to broaden the scope and opportunities in existing wildlife tourism ventures. It will look at how to capitalise on the endless insights that can be gained by even casual investigation of their fascinating life histories, ecology and extraordinary diversity. Visitors can also translate their experiences back to their own region and backyards as they discover what is often just hidden beneath a leaf or camouflaged in plain sight.

The poster content was based on both a review of research articles as well as personal observation and experience.

Restoring Relationships of Respect with Eagle Relatives: The potential of tribal-lead eagle aviary tours in Oklahoma Indian country

Bobbie Chew Bigby,
University of Notre Dame Australia, Nulungu Research Institute

This presentation takes a focused look at the experience of Tribal-led Eagle Aviary Tours in the US state of Oklahoma and specifically among the Citizen Potawatomi Nation (CPN) in central Oklahoma. Created to serve the needs of eagles needing rehabilitation, the CPN Eagle Aviary was opened in 2012 to provide care for injured eagles that cannot be released to the wild, along with providing tours and educational experiences to Tribal members and the wider public. Using a critical Indigenist approach and Indigenous storywork methodology, the research and forthcoming book chapter upon which this presentation is based provide a snapshot of the Tribal Aviary tour experience to reveal the layers of Indigenous Potawatomi culture, belief and practice that are shared in conjunction with visitors' experiences with eagles. The presentation also intends to inform about the special US government rights Native American Tribes have in relation to stewardship of eagles, as well as presenting a brief overview of other Tribal-led Eagle Aviaries in Oklahoma, including those of the Iowa and Comanche Nations. This presentation asserts that while a posthumanist theoretical approach can be seen to resonate with several facets of the tour, an Indigenous resurgence framework is more strongly suited to understanding the overall tour experience, as well as the Aviary's objective of helping visitors to (re)establish relationships with these birds that are understood as eagle relatives with extraordinary capacities.

Threats to wildlife and suggested remedies

Climate and Conservation and Potential Remedies for Marakele National Park, South Africa

Dube Kaitano,

Ecotourism Management Vaal University of Technology, Andries Potgieter Blvd, Vanderbijlpark, 1911, South Africa

Godwell Nhamo Institute of Corporate Citizenship, University of South Africa, South Africa

Before COVID-19, tourism in protected areas was one of the fastest-growing segments of the tourism industry. In the same breath, protected areas worldwide face various challenges which require urgent attention to ensure sustainability. These challenges impede protected areas' capacity to protect the natural resources and heritage they seek to protect in the first place. The advent of COVID-19 and the consequent economic meltdown worsened management and conservation challenges faced by national parks and other protected areas, particularly in Africa, where the funding for protected areas was largely dependent on tourism revenue (Dube; 2021; Ndlovu et al., 2021; Bhammar et al., 2021). Conservation and nature lovers (ecotourists) worry about the numerous challenges facing protected areas. The Sustainable Development Goals underscored the need to preserve biodiversity for the world to achieve sustainable development. Regardless of the general awareness of these challenges, matter-specific geographic knowledge gaps in Africa remain vast which impedes the adoption of essential remedial actions.

This study, therefore, seeks to examine climatic and conservation challenges faced by one of the national parks with the Big 5 animals in South Africa, Marakele National Park. The park is located in UNESCO's Waterberg Bioserve. The area is home to numerous archaeological and species on the International Union for Conservation of Nature (IUCN's) orange and red data list. The study utilised multiple data sources to reach conclusions. Amongst others, the study used findings from about 144 interviews with South African National Parks employees who have worked and are working at Marakele National Park, field observations, archival data and an online employee survey with 239 employees in SANParks comprising scientists, conservationists, rangers, tourism and hospitality employees and the park's top management. Qualitative and quantitative data analysis techniques were utilised to derive meaning and reach conclusions.

The study found that Marakele National Park faces many challenges, some of which are historically emanating from past land use. These challenges have been worsened by climate variability and change, manifesting in the form of increased incidences of drought, rising temperatures, increased aridity, and intense and unpredictable rainfall activities in the area. The park also faces numerous lightning bolts on mountains, resulting in increased fire incidences and the burning of grass and animal species threatening wetlands and other sensitive ecosystems. The study also found that erratic rainfall events are triggering massive soil erosion in some areas and bush encroachment, reducing the park's stocking density. Bush encroachment is also blamed for poor game drive viewing experience amongst tourists. Intense rainfall activity often leads to erosion of roads, rendering most parts of the park inaccessible to tourists after the rainfall and increasing operating costs. In addition, the park is at risk of poaching, reduced government funding and other challenges compromising the park's integrity. The study recommends several interventions to ensure optimal operations of this iconic national park.

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Q&A

X: Are you working for the government?

Kaitano: We not working for the government, but the South Africa National Parks, which is a government department, give permissions, and we work closely with them

Virtual Wildlife Tourism: An ideal form of ecotourism?

Georgette Leah Burns,

Centre for Planetary Health and Food Security, School of Environment and Science, Griffith University, Nathan 4111, Queensland, Australia

Judith Benz-Schwarzburg, Unit of Ethics and Human-Animal-Studies, Messerli Research Institute, University of Veterinary Medicine, Vienna, Medical University of Vienna, University of Vienna, 1210 Vienna, Austria.

Whether virtual tourism is the ultimate form of ecotourism was questioned by Bristow in the late 1990s. More than twenty years later - with the planet engulfed in a pandemic limiting travel, wildlife populations plummeting worldwide, and movement away from keeping (at least some) species captive apparent - it is time to revisit this question. Particularly for wildlife ecotourism, is the future virtual?

Taking a posthumanist approach to examining how virtual wildlife tourism can be ecotourism, this conceptual manuscript considers whether presenting technologically created images to tourists can equitably foreground non-human rights, welfare, and agency. The use of non-human animals in tourism has been predicated on an unequal power relationship; however, poor treatment for the purpose of human entertainment is becoming less acceptable. Here we highlight examples of tourism involving wildlife in virtual settings to explore possible advantages and disadvantages of this type of experience for human and non-human stakeholders. This enables us to explore how the virtual experience fits with the concept of ecotourism. The argument is made that the ideals of wildlife ecotourism can best, and perhaps only, be met virtually- by using images of non-human animals who are represented with dignity and respect.

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Advancing Technologies to Enable Wildlife Tourism Operators Combating Wildlife Trafficking and Threatened Species

Simin Maleknia,

Tetratherix Technology Pty, Ltd, Sydney NSW, Australia

Treasurer, Wildlife Tourism Australia Inc.

One of the biggest threats to endangered species is the illegal wildlife trade. To prevent these types of activities, considerable efforts by the international organisations including wildlife tourism networks [1], have led to conservation programs across the globe, to support wildlife population essential for biodiversity preservation and environmental balance, as well as for tourism growth.

Technological advances continue to play a crucial role to improve on non-invasive methods that rapidly detect and identify illegal wildlife in transport, and once confiscated, would further distinguish geographical origins of

wildlife for their safe returns to natural habitats [2,3]. An important and current method of wildlife detection is by Wildlife Detector Dogs (WDD). Specialist dogs are currently deployed in many countries at points of entry (i.e., airports, customs, mail facilities) against wildlife crimes, from detecting wildlife and/or related articles, to detection of poachers, and for wildlife conservation programs. The specific odour profiles of wildlife are linked to volatile organic compounds (VOCs), and derive from complex metabolic processes, which provide unique signatures for the identification of each species. Wildlife detector dogs with ~10k to 100k times more acute sense of smell compared to humans, respond to VOCs at part-per-trillion (ppt) levels. Current technologies have enabled the development of multi-sensor devices as an electronic Nose (eNose), which would simulate the biological nose to detect the various chemicals that create a scent. A multi-sensor eNose device is currently under development and testing for detection of wildlife in general that can also be tuned to detect specific species or related articles. The aim is to incorporate eNose devices at points of entry/ export, as well as to provide to park rangers to monitor regions most prone to illegal wildlife trafficking.

Another aspect of the application of modern technologies is to enhance treatment and recovery of wildlife injuries that occur in general or caused by illegal trades and exposure to natural disasters (e.g., bushfires). Recent advances in biomaterials have shown to improve repairs to soft-tissue (e.g., skin) or hard-tissue (e.g., bones). This presentation will introduce Tetramatrix hydrogel as a regenerative biocompatible platform, which has been demonstrated to be well tolerated in numerous preclinical and clinical studies [4].

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Q&A

Q. (Ronda Green) Are any of these techniques being used to detect not just what comes into the country but also what goes out of the country? We hear a lot about elephants, rhinos and pangolins, but even here in Australia a lot of animals are smuggled out, especially for the black market pet trade – shingleback lizards, pythons, parrots, sugar gliders etc. and many Australians are unaware of this multi-million dollar trafficking.

A. In other continents too of course. It takes time to develop these techniques and relationships with organisations who might use them. Airports are using dogs for some of it, but maybe in ten years time we hope they'll be using these technologies.

Q. Do you think the technology will develop to a point where it can be very grass roots? So rather than waiting for big organisations to decide to use them, the people on the ground can start using them?

A. We are able to test the devices by giving them to people such as park rangers, and we can go to the government and say hey, it's working. But the research is very time-consuming and grants are hard to get. Researchers at Adelaide University have found shipping companies are interested in using them.

Q. Are detection dogs being used in tourism to find particular animals for tourism, and if so is it a good or a bad thing?

A. I'm not aware of this being done. There is always potential for new technologies to be used in good and bad ways.

Comment by Ronda: It is pretty expensive to hire a dog and its trainer for the day, which might put it out of reach of the average tour operator.

Development of innovative tools to detect the illegal wildlife trade through high-risk international trade routes.

Georgia Moloney,
Roseworthy Campus, University of Adelaide, SA

Anne-Lise Chaber, School of Animal and Veterinary Sciences, University of Adelaide, SA
Camille Mellin, School of Biological Sciences, University of Adelaide, SA

The illegal wildlife trade represents one of the largest international crime sectors, with wild animals being trafficked for various purposes including for meat, clothing, accessories, pets, wildlife tourism (i.e. photo props), traditional medicines and products of cultural significance. However, the modern international trade in wildlife is unsustainable and poses a significant threat to species biodiversity, national security and public health. Most of the international trade is notoriously unregulated due to poor legislative enforcement, limited resources and minimal effective screening processes. Shipping containers provide the most commonly used transport medium, by volume, as they feature the advantages of cost effectiveness, transportation of large quantities and low likelihood of detection. While recent reports have estimated that 90% of all goods and up to 90% of wildlife products (legal and illegal) are trafficked by sea, only 2% of shipping containers are inspected upon entry due to limitations in screening capabilities. There are currently no efficient minimally invasive technologies routinely implemented to facilitate the detection of wildlife products trafficked through high-risk international shipping routes and consequently these routes are exploited by wildlife crime syndicates. Our project aims to identify high-risk trade routes and design an innovative tool which can be used by authorities to investigate suspicious cargo containers for the presence of wildlife contraband without needing to open the container. The development of this technology will aid in monitoring the international transportation of wildlife products with the aim of enhancing legislative enforcement and discouraging illegal wildlife trade activity, subsequently supporting species conservation, biosecurity and public health.

Development for Conservation? Potential Problems with Private Developments in Protected Areas

Sonya Underdahl, Australia

Parks agencies have granted seven private companies the exclusive rights to construct private luxury accommodation in Australian national parks, and to operate multi-day hikes under the title Great Walks of Australia, of which there are 12. Most follow long-established and iconic hiking routes, used by independent park visitors and by tour operators using accommodation outside the parks.

Here I examine the impacts of these new exclusive arrangements on pre-existing park tourism operators who use the same hiking routes, through (a) review of published information, and (b) semi-structured interviews with owners of six large tour companies, each operating on 3-11 of the Great Walk trails.

Both sources indicate substantial negative impacts from newly granted exclusive Great Walk tourism rights. Broadly, these include: loss of prior rights and opportunities for existing operators; inequitable advantages granted only to new operators; and consequent economic losses for existing operators and their suppliers. Examples include:

- Newly exclusive access to areas within publicly funded national parks
- Newly monopolistic rights to use trail names in marketing
- Development creep, ie expansion by new GWEO at expense of other tour operators
- Publicly funded advertising by government agencies nationally and internationally
- Government funding for private track and hut developments, jobs and technology
- Inequitable permit conditions, including vehicle access
- Inequitable allocation of client quotas, sometimes controlled by the new operator
- Restricting competitors to inferior level accommodation and facilities

Contrary to claims by advocates of private tourism developments in public parks, these findings demonstrate substantial negative impacts on other commercial tourism operators, with flow-on economic losses to suppliers in adjacent communities, including local produce, accommodation, transportation, cafes, bars, restaurants, shops and other services. The overall net economic, social and environmental effects remain to be calculated.

A Case Study of Community Women's Engagement in Participatory Conservation to Support Yala Wildlife Tourism in Sri Lanka.

Dinesha Senarathna

Auckland University of Technology, New Zealand, and University of Kelaniya, Sri Lanka.

Human-elephant conflict, poaching, logging, and gathering of forest products are the proximate community-related critical conservation issues facing Yala; meanwhile, unplanned garbage dumping has become the primary environmental concern threatening wildlife tourism in Yala. Thus the Yala park management has designed a Community Conservation Program (CCP) in Ranakeliya in order to reduce community dependency on the forest, support non-forest economic activities upon the community interests, and build a strong relationship between villagers and the park management. The overriding focus of this research is on gaining a deeper understanding of the community women's potential for participatory conservation via CCP and how their participation can lend support to wildlife tourism in Yala. The case study is based on the Yala National Park and the adjacent community in the Ranakeliya village.

A mixed method approach was adopted to obtain a balanced perspective on community women's role in participatory conservation. Firstly, a questionnaire survey was conducted to gather demographic data from the local community. Secondly, Participatory observation and semi- structured interviews were undertaken to understand the perceptions of community leaders and park management on the development of CCP and the challenges faced. Thirdly, Participatory Geographical Information Systems (PGIS) was introduced as a tool to generate spatial information through participatory mapping exercises to identify the locations where the community and tourism interact; and where areas of conflict or tension related to conservation have arisen.

Developing Sustainable Wildlife Tourism in Asia

Sustainable Wildlife Tourism in Asia and the Pacific: Future perspectives

Noel Scott Adjunct Professor University of the Sunshine Coast, Edith Cowan University, Australia, Mataram University, Indonesia, Taylor's University, Malaysia.

Ronda Green Chair Wildlife Tourism Australia

Although Wildlife Tourism is well-developed in parts of Asia, there are opportunities for development of further experiences. This paper examines issues in wildlife tourism in countries in South East Asia.

I've come into wildlife tourism more from an academic business background, so when asked by UN's World Tourism Organisation and Chimelong to do a project on good practice wildlife tourism in Asia and the Pacific, I asked Ronda to be involved.

Throughout Asia there are many threatened species, and much overcrowding but wildlife tourism is growing. There has been much negative press, including social media, on bad examples such as the cruel training of elephants in some areas. Most studies in Asia were of captive wildlife. We developed, with discussions with a selected expert committee, criteria for guidelines for good practice wildlife viewing in the wild. We considered only non-consumptive wildlife tourism.

We are now looking at various new developments. The need is to provide local people with benefits from Tourism to encourage them to protect the environment. There are also many unrealised opportunities, such as streams of bats from caves being preyed on by eagles the locals don't see the potential for. Tourism with whale sharks is encouraging fishermen to not harm the whale sharks.

Some of the challenges are lack of tour guide training and licensing, overcrowding in many places. There are possibilities of using technologies to avoid impacting the wildlife. Wildlife in many countries has had a different status to its current status in Australia.

The report "Sustainable Development of Wildlife Tourism in Asia and the Pacific" is available at <https://www.e-unwto.org/doi/book/10.18111/9789284421572>

Q&A

Ben Pearson: You concentrated on good practice. Do you think that is more valuable than demonising the bad practices?

Noel: For the purposes of this report we were specifically asked to look for good practice examples, to show they are possible.

Ronda: Yes, there's been a lot of publicity about bad practices in the region, and it is important to let people know about these. But the purpose of this particular report was to lead the way by example with good practices.

Noel: The changes in elephant tourism were made by using a stick rather than a carrot. Tourism operations with elephants were abruptly closed down, leading to many problems with abandoned elephants. We probably need both approaches

Tony: I had the honour and pleasure of going, years ago, with the University of Sunshine Coast, to use Coral Watch to monitor coral health at a fringing reef near a village. Spinner dolphins were part of the attraction, coming in at night and leaving in the morning, but there was nothing happening in the afternoon, especially after there was major bleaching. We were able to save the tourism industry by introducing shark tourism (there are eight species). Coral is recovering slowly.

Noel: A successful business is necessary to achieve good tourism that assists the environment. If all attention goes into the environmental aspects to the detriment of financial aspects, it will fail. It needs to focus on both if it is to succeed and continue assisting the environment.

Japan

Prospects for Japanese wildlife tourism research

Rie Usui

Faculty of Contemporary Culture, Hijiya University, Hiroshima, Japan

Takahiro Kubo, Department of Zoology, University of Oxford

Thomas Jones, Environment & Development Cluster, Ritsumeikan Asia Pacific University

Ronda Green, Wildlife Tourism Australia Inc., Centre for Planetary Health and Food Security, Griffith University

Previous reviews of the wildlife tourism literature have found that studies have predominantly been conducted in the U.S.A., Australia, and South Africa (Dou & Day, 2020; Kanta et al., 2021). This suggests that much of the current knowledge about the field is based largely on these limited areas. Due to the complex nature of wildlife tourism, which occurs within various socio- ecological systems, it is critical to explore how wildlife tourism is practiced and what aspects have been investigated in different cultural contexts. We reviewed the existing academic literature on Japanese wildlife tourism to discuss its current status and future directions. Active promotion of wildlife tourism in Japan has been slow, but in 2019, the Ministry of Environment began a project that helps promote wildlife tourism businesses, especially targeting international tourists. Already, some destinations had been attracting international tourists prior to the Covid- 19 pandemic. While some individual studies related to wildlife tourism have been published, wildlife tourism is a relatively under-researched area in Japan, and knowledge has yet to be synthesized. In this study, we searched peer-reviewed academic articles written in Japanese and English using the following databases: CiNii for Japanese articles and Web of Science, EBSCOHost, and SCOPUS for English articles. Conference abstracts, forums, bulletin papers, and annual reports were excluded from the main analysis. Twenty-one articles published between 1993 and 2019 were used for the analysis. The findings show that the number of publications has doubled over the last decade, indicating an increasing interest in wildlife tourism research. These studies were mainly published in journals related to conservation and environmental science. Six articles were published in tourism-related journals, of which only two were written in Japanese. This suggests that wildlife tourism in Japan has not attracted much attention from the tourism field but mainly from the conservation and environmental science fields. Moreover, the term “wildlife tourism” was not used explicitly in the Japanese articles. Instead, many studies were discussed within a larger ecotourism framework and adopted case studies focusing on animal varieties, including, but not limited to, Japanese macaques, sika deer, storks, birds, and marine mammals. The research themes were largely divided into: (1) measuring the impacts of tourism activities on animals; (2) examining tourists’ characteristics, behaviours, and perceptions; (3) environmental education; (4) the effect of wildlife tourism on rural revitalization; and (5) wildlife tourism operation. While the first aspect is important for wildlife tourism management, cases such as sika deer in Nara Park and Miyajima Island are considered wild but are fed by tourists, questioning what constitutes the appropriate management of those animals. For wildlife tourism to sustainably develop in the future, undoubtedly more research is required, and research conducted on these unique cases should take into consideration the historical and cultural context in which tourist–animal interactions occur.

Acknowledgments

The Animals and Tourism research group was funded by the Japan Institute of Tourism Research.

Comparing Wildlife Tourist Motivations to Feed: Findings from first-time and repeat visitors to ‘Rabbit Island’, Japan

Thomas Jones

Ritsumeikan Asia Pacific University, Japan

Rie Usui, Hijiya University, Japan

Takahiro Kubo, Interdisciplinary Centre for Conservation Science, University of Oxford, UK; Biodiversity Division, National Institute for Environmental Studies, Japan,

Much wildlife tourism (WT) literature has focussed on negative impacts to the native flora and fauna, but a counter-perspective purports that ‘affective’ experiences can engage and re-connect people with nature (Orams 1995; Ballantyne, Packer and Sutherland, 2011). According to Curtin (2013), direct WT experiences can trigger “emotional affinity (empathy) [that] underpins wonder, reflection and contemplation and also lays the foundations for memory recall.” However, Curtin (2013) also claims that certain types of WT experiences, “cannot facilitate such empathy; particularly those that are orientated towards a single focal species, are short-lived, lack sufficient interpretation and are mass marketed.” Many of these criticisms could apply to Ōkunoshima Island in Japan’s Hiroshima Prefecture, where hundreds of free-ranging feral rabbits attracted around 220,000 tourists in the 2016 peak (Usui et al., 2018). Visitors to ‘Rabbit Island’ in the Seto Inland Sea interact at will with the introduced European rabbits (*Oryctolagus cuniculus*) that roam freely. Most tourists partake in some form of hand-feeding from bags of pellets or vegetables brought from the mainland (Usui & Funck, 2020). We compared motives to feed rabbits between first-time and repeat visitors. The aim was to i) compare motivations and ii) contrast emotional affinity (empathy) among different WT visitor segments.

The survey results showed significant differences between first time visitors, that felt it important to "pet the rabbits", versus repeaters that were less likely to "avoid injured rabbits" on the island or "feel superior over rabbits when they beg for food." The findings contribute to the debate over empathy across a spectrum of different WT visitor segments. Public support for the control or removal of non-native aliens such as rabbits or horses tends to be weaker in cases where the species is iconic or aesthetically valuable (Bremner & Park, 2007; Notzke, 2016). Visitor empathy can encourage contradictions whereby a species deemed ‘pests’ in one park are dubbed ‘cute’ drawcards in another. In this way, feral or alien species can become socio-economic drivers of WT demand, raising questions of whether to regulate visitors or otherwise control the type or amount of food to mitigate over-feeding. .

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Commodified Red Fox Feeding Encounters in Japan’s Wildlife Tourism Industry

Émilie Crossley, Hokkaido University, Japan

In zoos and other captive wildlife tourist attractions, feeding practices are indicative of an establishment’s broader philosophy regarding the care of its animals. Feeding can serve merely to keep animals alive, provide behavioural enrichment, or be commodified in interactive visitor experiences. In Japan, commodified feeding encounters with captive wildlife are commonly found in the tourism industry, which calls into question the ethics of such practices. This presentation reports preliminary findings from a year-long multi-sited, multispecies ethnography of captive red foxes at three wildlife tourist attractions in Hokkaido and Miyagi, Japan. Red foxes are culturally significant for both Japanese and indigenous Ainu people, in addition to being perceived as *kawaii* (cute) animals, which explains how they have come to occupy a special niche in the tourism industry. Drawing on observational data, I analyse a range of red fox feeding practices – some commodified in the form of interactive visitor experiences and

some conducted by staff. I identify two positive dimensions of red fox feeding in captive settings: food surplus and fox mobility. Surplus food allows foxes to cache and limits conspecific aggression, while mobility can provide them with a choice about how and when to participate in the feeding. Settings in which feeding is commodified tend to lack one, or both, of these dimensions, often resulting in compromised animal welfare. In one of the fieldwork sites, for example, foxes were found to be chained to one spot all day, enabling close-range visitor feeding encounters at the expense of the foxes' mobility. In another site, the foxes were able to roam freely within a spacious walk-through enclosure but food scarcity led to frequent fights during feeding that sometimes resulted in injury. The research thus critiques commodified feeding encounters in the case of captive red foxes and calls for reform at wildlife tourist attractions in order to prioritise animal welfare over tourists' desires.

Indonesia

Wildlife Tourism in Indonesia: Progress and future development

Jatna Supriatna and Chris Margules

Institute for Sustainable Earth and Resources, University of Indonesia.

The term 'wildlife tourism' in Indonesia has not been well-defined. Based on law and regulation, it is part of nature tourism and/or eco-tourism. Nature tourism is a concept that combines commitments to nature with social responsibility. Nature tourism also involves establishing sustainable development in the form of tourism activities in which environmental, social and economic gain are given proportional attention. Nature and wildlife tourism can make a large contribution to biodiversity conservation. Direct income for biodiversity conservation can be earned from tourists in the form of fees to enter protected areas. Tourism can also provide additional income to the communities living close to conservation areas. It can also support the central and provincial governments in developing areas in a sustainable and environment friendly manner and can provide economic-based activities in conservation areas for businesses involved in biodiversity conservation.

Recently, wildlife tourism has become a very popular type of tourism in Indonesia. Unlike adventure tours, which are more focused on recreational tourist activities, wildlife tourism is more focused on benefiting and supporting aspects of conservation and the welfare of communities living in the areas visited. Wildlife tourism is seen as a tool to shift the attention of local communities away from destructive or environmentally unfriendly income generating activities such as hunting or poaching of wildlife. Our recent book published in 2022 "The National Parks of Indonesia" showed that out of 55 national parks in Indonesia, only a handful of provide guided wildlife tourism programs and most of those were developed by NGOs or the private sector. Tanjung Putting in Central Kalimantan and Gunung Leuser in North Sumatra offer the chance of seeing orangutans in the wild; Komodo in West Nusa Tenggara province offers Komodo dragons; and Bali Barat offers the Bali Mynah. The nesting grounds of the sea turtles have attracted tourists, such as those at Meru Betiri National Park, Derawan Islands, Benoa Bay and South Sukabumi. Wildlife watching has also been developed in several parks including Baluran and Alas Purwo, Way Kambas, Tangkoko, and Bukit Barisan Selatan. However, based on data from various sources, so far not one of them has successfully combined tourism activities with science based ecological management plans.

Wildlife travels between Australia and Indonesia

[Public forum]

Panel members: Aise Kim, Jatna Supriatna, Steve Noakes, Gedi Ori

This forum was open to the general public as well as delegates.

Showcasing the cultural and natural attractions of Australia and Indonesia, including of course the wildlife, and presentation of a project for resilience of community tourism in both countries funded by the Australia-Indonesia Institute, led by WTA secretary Dr Aise Kim.

Australia-Indonesia 'Community Resilience Initiative: Co-creation of sustainable food and forest tourism.

Aise Kim

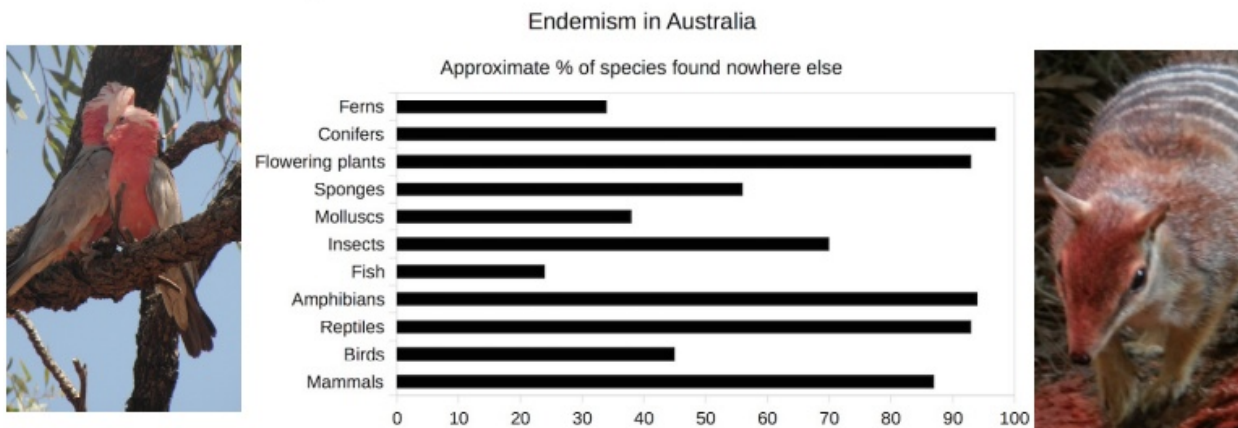
The project (on-going) aims to create economic resilience programs in an innovative, digital-savvy way for disadvantaged community leaders for Covid-19 recovery, increase cultural awareness of forests, wildlife and food diversity, and develop creative partnerships with the tourism industry across Australia and Indonesia. The target audience includes local community leaders, tourism industries and local government in both Australia and Indonesia. This project will also encourage local women to develop their business capacity through food tourism development activities.

Seeing Wildlife in Australia

Ronda Green

Australia and Indonesia are close neighbours, both with very high biodiversity, but so very different.

% of species found nowhere else



Source of estimate percentages: Chapman 2009

A few pointers were given on where particular taxa are found in the wild-life There is much information on <https://www.wildlifetourism.org.au/experiencing-our-wildlife/>, including searches by region. Habitats, wildlife or activities. and tips on low-impact viewing on <https://www.wildlifetourism.org.au/conservation/conservation/conservation-tips-travelers/>

Other tips for viewing in the wild: Check national parks information online. Check books such as “Wildlife in Greater Brisbane” and “Wild Places in Brisbane” (Qld Museum). Wander along creeks in town or in public parks with native vegetation, or rest stops and dams with public access in country areas. Many good apps are available for identifying frogs, birds etc. Choose the right season (bird migration, reptile activity). Choose the right time: dawn, daytime, dusk, night. Choose the right weather: e.g. sunny for butterflies, wet for frogs. Choose good guidebooks, and google for relevant pages (for distribution, identity and information) and recorded calls (for identification). Be aware of dangers. Australian Wildlife Conservancy owns many wildlife properties in Australia. Some of these have large fenced areas to keep wildlife safe from feral predators, and some conduct walking tours into these, or allow access to researchers, students and volunteers.
<https://www.australianwildlife.org>

Viewing in captivity: Most capital cities have a zoo, including a native section. There are many wildlife parks around Australia, with different species/ Also some specialised breeding facilities (e.g. Bilby centre in Charleville, Devils@Cradle in Tasmania). Do some googling (and use WTA website) to find out where you might see species of interest. Choose zoos or wildlife parks with a reputation for conservation work. Don't feed anything except where officially allowed (and then only the correct food!). Let shy or sleeping animals have their rest or stay under shelter. Don't talk loudly, and don't tap the glass to get attention. Don't touch an animal except where officially allowed and the animal chooses to come to you (and then be gentle!)

Wildlife Tourism in Indonesia's National Parks

Jatna Supriatna

- There are now 55 NPs scattered across Indonesia from Sumatra to Papua.
- Sumatra: 12 NPs. Enormous Leseur NP: orangutans, other primates, research, homestays. Siberat Island: 4 endemic primates.
- Kalimantan: 8 NPs. Orangutans, proboscis monkeys, elephants, rhinos, coral reefs. Hotels and homestays.
- Java and Bali: 10NPs
- Sulawesi: 8 NPs
- Nusa Tenggara and Maluku: 9 NPs. Good birdwatching
- Papua: 3 NPs. Coral reefs, walking shark, tree kangaroos, birds

Ecolodges Indonesia

Gede Ori and Steve Noakes

A video was shown, featuring:

- The Brajaharjosari Village,
- The Elephant Respond Unit (including Way Kambas National Park), and
- The Satwa Sumatra Ecolodge

Brajaharjosari is located at the border of Way Kambas National Park and has a long story about the conflict between the elephant and the villagers.

Established in 2011 The Elephant Respond Unit (ERU) has been designed to help reduce the conflict. ERU has a unique method,

they are helped by the trained elephants from the Elephant Conservation Centre of Way Kambas National Park, to push the wild elephants back to the forest, every time they are trying to approach the village.

In this case, the elephant now gained respect from the villager as their protector.

The location between this village and WKNP is only separated by the Kuala Penet river. The high biodiversity in the transitional area makes this location even more special.

Our Satwa Ecolodge is about 45 minute drive to Brajaharjosari.

The lodge also play an important role to support this village trough a guesthouse program, and promotes cultural and village livelihood activities as an alternative tour beside the Way Kambas National Park.

Indonesian food: Nature, History and Nature.

Alfan Musthafa (Alfie) of Ma Pa Me Restaurant, Southbank

[note: Ma Pa Me also provided some delicious food samples for delegates during the forum, and we held our conference dinner there (a vegan Indonesian banquet)].

Indonesia has more islands than any other country, and many diverse cultures (around 633 major ethnic groups and more than 1340 tribes), so of course has many kinds of food. There has also been influence from Malaysia, Hinduism and Dutch cooking. Promoting Indonesian culinary tourism should involve telling visitors about the cultural background to the food. Food is a gateway to introducing visitors to another culture. Nature is another avenue into this.

India

Creating and developing a sustainable wildlife tourism destination. The case of Horton Plains National Park in Sri Lanka

Madura Thivanka Pathirana – Edith Cowan University Sri Lanka, t.pathirana@ecu.edu.au

Noel Scott – University of Sunshine Coast Australia

H M R P Herath – Kelaniya University Sri Lanka

Wildlife tourism is the fifth largest source of foreign revenue in Sri Lanka, contributing 12% to the Gross Domestic Production (GDP). Wildlife tourism in Sri Lanka occurs in a range of national parks and reserves with Rs. 2,138 million in 2018 revenue annually. Sustainable tourism, introduced as a part of the sustainable development of wildlife tourism in Sri Lanka, assist underdeveloped national parks and reserves to become more popular tourist attractions.

The focus of this presentation is on Horton Plains National Park which is rich in biodiversity. This park is located in the central highlands in Sri Lanka and contains large herds of Sambar deer, birding areas, and leopards. Major tourist attractions are trails to World's End to Baker's Falls and the Chimney Pool. The park is managed by the Sri Lankan wildlife authority whose services are limited to visitor centers, nature guides, and parking. These facilities are insufficient to drive the park to a sustainable wildlife tourism agenda. Greater attention needs to be paid to adaptive tourism management practices in relation to all the stakeholders.

This research aims to provide suitable sustainable wildlife tourism recommendations to Horton Plains National Park. A qualitative study was carried out to gather data sets about existing practices and to search for the most suitable recommendations to establish Horton Plains as a sustainable wildlife destination. Focus group interviews were carried out for a period of six months through a sample covering a range of stakeholder groups particularly local communities, tourism businesses, and government authorities.

A contextualized model developed to drive this national park was the main outcome of this research. This proposed model was further tested with the same set of samples regarding the cost and benefits. It is expected to introduce eco-tourism and sustainable wildlife watching as a part of this model. The finalized solution will be introduced to the government authorities and other stakeholders to implement.

Q. Is there anything like a “sacrificial site to take the main pressure of tourists?”

A. There are zones where tourists are not allowed, but it still happens a lot.

Q. Are you providing information to the government?

A. We need to focus on all stakeholders, the tour operators etc. as well as the government. The policy makers know what is happening, and know they have to limit visitation and educate visitors but say there are economic issues.

Q. Are there ways ecotourists can donate to wildlife conservation?

A (by Rahula) There is no way in Sri Lanka to directly donate to wildlife conservation., except that some money does go to national parks and some of that does go to conservation management, but generally other money can go anywhere.

A (by Dinesha) There is also a project for 1000 national parks in Sri Lanka

Gujarat as a Birdwatching Destination: Evaluating the Potential

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Background

- Global trend suggests that Nature-based tourism is growing rapidly and Bird watching tourism is the fastest growing segment in ecotourism globally
- In India, many forms of nature-based tourism, such as ecotourism and birdwatching tourism, are expanding very fast
- Gujarat–state in Western India has attained a distinct status in the global ecotourism map:
 - remaining habitat for species like the Asiatic Lions and Wild Ass

- matchless geographical features in the form of saline deserts of Kutch, the Marine National Park, rain forests of Dangs, etc.
- Wetlands, grass lands, forests, coastal regions that houses a wide range of avifauna
- Over the years Gujarat has attained the status of one of the emerging destinations for bird watchers across the globe
 - over 520 species (almost 50% of India)
 - Habitat conditions and availability of tourism providers

Objectives of the study

Primary Objective:

- 'To evaluate the market potential of bird watching tourism in Gujarat'

Secondary Objectives:

- i. To provide an overview of ecotourism and its interrelated segments like bird watching tourism in Gujarat
- ii. To understand the general profile of bird watching tourists of Gujarat
- iii. To determine the motivation and preferences of the bird watching tourists
- iv. To determine general awareness of bird watchers toward various birding destinations in the state.
- v. To consider suggestions for improving the bird watching tourism profile of Gujarat

Research Methodology

Primary and Secondary data were used

Primary data:

Sample Universe: - The sample universe consists of service providers and bird watchers

Sampling Method: -

- i. Probability sampling technique
- ii. Stratified Convenience Sampling Method

Secondary Sources

- i. Visitation statistics collected from select Protected Areas of the state
- ii. Research documents, reports, books, magazines, websites, etc.

Research Instrument:

- i. Structured questionnaire (web linked)
- ii. Bird watchers and Service providers (353 responses and 15 responses)

Data Analysis and Discussions

Type of Services-

- i. Developing and organising birding trips (87%) followed by Photography assistance (73%)
- ii. Other services like Accommodation facility, Birding Guide facilities and providing birding paraphernalia (60%)

Years of Operation

- i. More than 10 years and less than 5 years (40% each)
- ii. 5 – 10 years (20%)

Percentage of Bird Watcher Customers

10 – 25% Birdwatchers	40%
Less than 10% birdwatchers	20%
Between 25 – 50%	20%
Above 50%	20%

Analysis of Bird Watcher category

Gender –

- i. 85% Males
- ii. Females – 15%

Motivational factors

- i. Photography – 63%
- ii. Observing – 58%
- iii. Studying - 44%
- iv. Emotional - 31%
- v. Social and Any other - 13%
- vi. Exercise - 12%
- vii. Spiritual - 10.5%

Destination Determinants

- i. Possibility of other wildlife & activities and IBA's have received the highest percentage of 54% each
- ii. Protected area – 43%
- iii. Accessibility – 54%
- iv. Site checklist – 33%

Organising Birding Trips

- i. Self and Friends – 91%
- ii. Birding groups – 33%
- iii. Nature tour cum photography – 18%

Source of Information

- i. Friends and fellow bird watchers – 74%
- ii. Internet – 62%
- iii. Birding Groups – 18%
- iv. Publications – 43%
- v. Online groups – 41%

Accommodation Preferences

- i. Hotels and Resorts – 24%
- ii. Guest Houses – 23%
- iii. Community lodge – 20%
- iv. Any other – 14%
- v. Home stays – 13%

Birding destinations visited

- i. Gir National Park – 60%
- ii. Wild Ass Sanctuary – 51%
- iii. Nalsarovar – 40%
- iv. Khijadiya – 42%
- v. Velavadar – 38%
- vi. Thol – 30%

Ranking of Birding Destinations

Rank	Destination
1	Banni Grassland and Charri Dhand
2	Nalsarovar Wildlife Sanctuary
3	Gir National and Wildlife Sanctuary
4	Wild Ass Sanctuary and Naliya Grass lands
5	Velavadar National Park

✓ **Conclusions**

Service Providers:

- i. Bird watching possess good potential
- ii. Limited players but some are well established
- iii. Developing and organizing trips, photography are most popular
- iv. Supply chain linkage
- v. Diversification is the need of the hour

Characteristics of Birdwatchers:

- i. More males (almost 85%) than females
- ii. Young age class (less than 50 years of age)
- iii. High educational qualification (Graduation and above)
- iv. Majority is professionals

Behaviour and Preferences of Bird watchers

- i. Photography, observation and studying are major motivators
- ii. Important Birding Areas (IBA's) and possibility of engaging in other wildlife and activities are determinants to choose a destination
- iii. Organise trips all by themselves or in the company of friends or fellow birders
- iv. Fellow birders, Internet, birding groups, etc. are main information sources
- v. Hotels and Resorts are preferred as Accommodation followed by Guest houses

Destination Popularity

- i. Most of the destinations are known, Gir and LRK are most visited
- ii. Banni, Nalsarovar and Gir are the most favorite destinations

Recommendations

- Improve the infrastructural conditions at all levels (on-site and off-site)
- Community linked sustainable tourism practices
- Need for collective action from different stakeholders - Tourism department, Forest department, tourism industry partners, local community, NGO's, Birding organisations, etc.
- Well-mannered and trained guides in sufficient numbers for various destinations
- Development of a dedicated web portal - species, staying facilities, destinations, maps and directions, seasonality, travel arrangements, etc.
- Habitat protection and species awareness
- Evolve specialised strategies for;
 - Improving the volume of bird watcher tourists visiting Gujarat
 - Increase the length of stay
 - Improve seasonality
 - Product development
 - Promotion

Discussion on future actions

Ronda: I would like suggestions from the floor as to the major messages to come out of this conference, and ideas

X: We need to raise the appreciation of the intrinsic value of wildlife

Ronda: We've been trying to do this for years. I'd welcome any suggestions.

X: The coming Olympic Games could be a good opportunity, as preparations have already started, and if WTA and wildlife tourism in general can get a voice at the table now, in the lead-up to the Olympics, we have a chance to promote our wildlife.

Ronda: Yes, Leah had suggested this to our committee earlier. I'd like to hold a webinar to discuss this further with all of you early in the New Year. I think we're all agreed it would be a good idea. Now, how do we most effectively do it? What are the steps we should take? Would anyone be interested in such a webinar?

[Good show of hands] *Also see discussion on next page*

Jake: as long as it won't be 4.00am for me. I'll be back in Africa by then.

X: I liked Brooke's idea of Connect-Understand-Act. How do we create opportunities to connect with the natural world in sympathetic ways?

X: And how do we achieve conservation mindsets in different cultures?

Ronda: Yes, and it differs not only between countries but within countries as well. We could also hold a webinar about this.

X: We could ask delegates to our next conference to report on what they have been doing in this fieldwork

X: I like some of the presentations from some of the other countries, with a holistic approach to the whole landscape

Fagimba: I have sad news from The Gambia. One of our areas, Monkey Park, is the oldest reserves in the country, and has an endangered species, the red colobus monkey, but our government has given a MOU for USA to build an embassy here. We want to see this in social media to shame the government into stopping it. We, a group of environmentalists, went to see the ambassador day before yesterday. We said we cannot accept it, and he said he was open to dialogue about it. Most of our tourists coming from the UK and other parts of the world come here to see wildlife in this park.

Ronda: I'm sure there'd be a lot of Americans who don't know what is happening and wouldn't want to see that forest damaged. Maybe we should also suggest to Biden that we would expect the previous American government to be okay with it but expect something better from him. Surely there are other sites where it could be constructed, not in this forest.

Fagimba: Yes, this is why I am talking about it here, to let people know. People from Australia and elsewhere can easily visit this park, it is not far from the airport, and a short walk from some of the hotels, very good for tourism.

Ronda: We're happy to help publicise that.

Tony: I was surprised at the small numbers attending the public form on Sunday. Also, when we discussed First Nations, no one seemed to know about what was happening. Experiencing Marine Sanctuaries should be something everyone in this organisation should know about but I doubt if they do.

Ronda: We did actually put a lot of effort into publicising, including social media, but I personally didn't get a chance to walk around South Brisbane and distribute lots more brochures. We also did hold a workshop in Darwin, and had a field trip to the Pudukul Culture Centre, and another into Arnhemland (with special permission), and Pudukul was a member for some time until their closure during Covid lockdown. A major reason we don't have any Indigenous people here is because unfortunately this even is clashing with Destination IQ, the biggest event each year involving Indigenous tourism in Queensland. We didn't realise the clash when we settled on the dates for the conference.

Maree: I know a number of Indigenous people involved in tourism but I don't have the authority to talk about them.

Ronda: One of our previous governments designated a number of marine sanctuaries, and we congratulated Tony Burke on that, which the subsequent government abbreviated somewhat.

Tony: The EO of EMS is a former student of mine. When they came to Queensland I took them for encounters with lungfish, river dolphins and others, with the idea that they would then sell the idea for South Australians to come to Queensland for these experiences. I wouldn't to bring their ethos and framework (originally from New Zealand) here to Queensland. It's on hold for now but I'd like to see what is happening in South Australia happening here as well.

Ronda: I'd like to ask you to write an article for our blog about these ideas. There is so much that we want to do, but we're all working as volunteers, there's still only 24 hours in a day and we do need to sometimes sleep or say hello to our families, so any additional help is well appreciated. We have standing room only in some events.

Maree: I think we would have had more people if we'd held it in 2020.

Ronda: Yes, we had people who had booked flights for the conference we had to cancel. People are now still a bit nervous of travel and crowds, and airfares and hotel fees are rather high. It's still disappointing we didn't get more people from southeast Queensland. I didn't have a chance personally this time to distribute brochures all around Brisbane, and I was hoping other volunteers would do so.

Ronda: Any further topics you'd like to see in the webinars we'll be running during next year?

Darren: Also let us know if there's anything you say here that you don't want to be quoted on.

Round Table Discussion: Planning for the Olympics:

Wildlife tourism and the 2032 Olympic games in Brisbane will be the first contractually obliged to operate as “climate positive”. Suggestions for promoting our wildlife leading up to and during the Olympics included:

- How do we use the publicity for the Olympic games to promote our lesser-known wildlife?
- Urban wildlife tourism for visitors
- Create wildlife bridges/ wildlife corridors/ rooftop gardens
- The Brisbane community can talk and act for the wildlife in the local area / online base supporting network
- Provide opportunities for volunteers/training program/ develop a program for a week or two with different activities – e.g., weeding/ planting trees/ citizen science
- This kind of program can help the climate/ learning about wildlife
- Journalists should be targeted so they can broadcast some of the volunteer participation
- Green, sustainable engagement interaction with the international visitors
- Instagram posts/hashtags
- New Wildlife ambassadors for threatened species and habitat conservation
- Enhancing biodiversity through small community groups
- At the opening ceremony – indigenous people and relationships-
- Urban land for wildlife, providing more resources for wildlife, getting the numbers back up, nurseries, public education campaign, citizen science
- Carbon favourable, plant base catering policies, deforestation, highlight impacts on wildlife negative / rather than positive
- Farm stays – planting trees
- Food choices (eat local)
- Waste choices– central government food waste going to halve by 2030- 15 million composite gas, promote for food waste, re-vegetation, nurseries, plant in parks, closed-loop- everything utilizes eventually, biodiversity (4000 native plants)
- The time frame? What period of reporting climate positive 10-year time of work and measure the progress within two weeks. Do you know the monitoring period?
- What kind of lands are they going to develop? New ones and old lands, e.g. riverbanks
- **WTA can promote and organise a set of workshops and webinars training local people** who will have contact with visitors (e.g. at restaurants, service stations, tour guides, hotel staff) on local wildlife (where to see them, interesting facts about their behaviour, ecology and conservation issues etc.), so that many such people can become sources of information and ambassadors for our wildlife.

Other discussions and comments by delegates

Angus Robinson

On reflection about the program, Angus M Robinson (representing the Australian Geoscience Council) considered that the two keynotes by Peter Gash and Hector Ceballos-Lascurain were of particular interest. Peter's positioning of finding the 'sweet spot' of visitation levels to maintain sustainable ecotourism best practice was inciteful. Hector's detailed analysis of clearly defining and supporting the values of ecotourism and wildlife tourism was both instructive and challenging, particularly IMHO from an Australian perspective. It was also good to see that Hector's IUCN definition served to link ecotourism more closely to geotourism, but I must say that those of us who are promoting geotourism take a positioning that see geotourism as focused on place-based (geographic) considerations, and that geotourism (with its holistic and integrating characteristics) has links with ecotourism, wildlife tourism, adventure tourism, cultural tourism, astrotourism, Aboriginal tourism, and agritourism, but is not synonymous with any of these forms of tourism, although in broad terms geotourism embraces them all because it is essentially 'place-based.' The extent of a shared focus on sustainability is also a key consideration.

For the record, it is believed in Australia that geotourism adds considerable content value to traditional nature-based tourism as well as cultural tourism, inclusive of Aboriginal tourism, thus completing the holistic embrace of 'A' (abiotic – landscape, geology, climate etc) plus 'B' (biotic – flora and fauna) plus 'C' (culture) aspects. It is understood that wildlife tourism and ecotourism focus principally on 'biotic' and increasing on cultural characteristics.

Hector's acknowledgement of the established linkages amongst ecotourism, wildlife tourism, and geotourism has provided an impetus to develop a closer relationship across these groupings in Australia without getting too 'hung up' on definitional issues (a point made by Nadine Schramm representing Ecotourism Australia - EA). Whilst EA has managed a formal Geotourism Forum since 2013, it has been agreed recently between EA and the National Geotourism Strategy (NGS) that we should explore further a higher level of engagement in potential areas of eco operator and destination eco-certification. Moreover, Wildlife Tourism Australia (WTA) is represented on the Interpretation and Communication Working Group of the NGS with the opportunity to be further engaged in working groups relating to the use of digital technologies and to the development of 'cultural landscapes.

Since the conference, Hector has advised that he would be very happy in the near future to participate (in a seminar or course/workshop in Australia discussing synergy between geotourism and ecotourism (including of course the interface with wildlife tourism).

In the Panel Session, Angus M Robinson made the point that the embrace of geotourism enabled tourists to appreciate that landscape and geology often created habitats in which wildlife lived. He cited as examples the habitat of the yellow-footed rock-wallaby (*Petrogale xanthopus*) observed in scree slopes within the Brachina Gorge of the Flinders Ranges in South Australia and the mountain pygmy possum (*Burramys parvus*) which lives and moves within the basalt 'rock rivers' associated with Mt Hotham in Victoria.

As a final comment about the program, the inclusion in the conference of content relating to invertebrate fauna ('Entotourism' – exposing the public to the wild-life of insects) represents an important development given that the focus on wildlife tourism (ecotourism and geotourism) seems to focus almost exclusively on vertebrate fauna at a time that evidence is emerging that owing to climate change, heavy use of pesticide etc is resulting in a rapid loss of insect life across the globe. Moreover, invertebrate fauna such as 'glow worms' and butterflies have proven to be highly popular for tourists.

Angus M Robinson
WTA member and Coordinator, National Geotourism Strategy
Managing Director | Leisure Solutions Pty Ltd

Madura Thivanka

Very important development topics were selected this time for the conference and applicable to most of the Asian context

New book by chair: “Working in Wildlife Tourism”

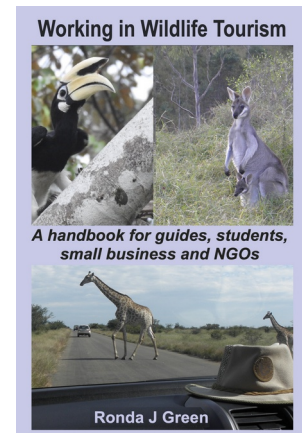
Green, R. J. 2022. Working in Wildlife Tourism: A Handbook for Guides, Students, small businesses and NGOs. Green Publications, Running Creek, Qld.

This was to have been launched at the conference, but we experienced some delays, partly due to the time needed for conference organising. It was instead launched at Beaudesert Library, Queensland, in February 2023. The structure is similar to a previous book by the author, but updated and including many more international examples

Sample of contents:

How to excel as a wildlife tour guide

- Can you convey important facts in an entertaining way?
- Knowing when and where to search (for wildlife)
- When you can't see the wildlife: tracks, scratches, scats and sounds
- Why should you understand ecology?
- How much disturbance is too much?
- Contributing positively to conservation
- Making them happy: changing customer satisfaction to customer delight
- What to tell them and how to tell it (quality interpretation of wildlife)
- Clarifying your goals: what would you most like them to remember and talk about?
- Making face-to-face networking effective
- Keeping records
- Starting an ecotourism venture
- Staying afloat through the bad times
- Health and safety issues
- Licences, insurances and permits needed for starting and running a tour business
- Thinking creatively: it can be fun



Available as print-on-demand or e-book fro Amazon (ignore

To order from Amazon (paperback or e-book) please visit:

<https://www.amazon.com/dp/0992420938> (ignore any message about current unavailability)

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Many thanks to all who participated in making this conference a success with valuable insights, discussions and ideas for the future