Ismar Borges de Lima · Ronda J. Green Editors



Wildlife Tourism, Environmental Learning and Ethical Encounters

Ecological and Conservation Aspects



Geoheritage, Geoparks and Geotourism

Conservation and Management Series

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Ecological and Conservation Aspects



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ISSN 2363-765X ISSN 2363-7668 (electronic) Geoheritage, Geoparks and Geotourism Conservation and Management Series ISBN 978-3-319-55573-7 ISBN 978-3-319-55574-4 (eBook) DOI 10.1007/978-3-319-55574-4

Library of Congress Control Number: 2017934325

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Printed on acid-free paper

This Springer imprint is published by Springer Nature The registered company is Springer International Publishing AG The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

Wildlife tourism is a broadly defined sector of tourism involving a wide range of traveler experiences. It includes watching and photographing animals in their natural habitats or in the zoo, swimming with, petting or feeding animals in a variety of settings, hunting anything from quails to elephants and any other activity involving non-domesticated animals when traveling away from home. Although the term 'wildlife' tends to conjure up images of mammals such as lions or kangaroos, or the larger birds (cassowaries, eagles) or reptiles (crocodiles, marine turtles), it is frequently taken to mean all animals and even plants and fungi. Wildlife tourism thus includes all levels of bird-watching, visits to glow worm colonies or night walks through forests to see luminous toadstools. In this volume however we focus mainly on tourism involving vertebrate animals (chiefly mammals and birds), and mainly on non-consumptive tourism involving free-ranging wildlife, although other taxa (e.g. turtles), hunting and captive settings are also discussed by some authors.

Proponents of wildlife tourism often focus on such factors as the educational value of introducing people from all walks of life to a variety of animals and their ecological needs, the preservation or restoration of wild habitats, monetary contributions to conservation projects, the breeding of vulnerable species and the alleviation of poverty in developing countries. Opponents point to many welfare problems such as harassment of animals in the wild for 'action photos', animals kept in small enclosures or mistreated for financial gain involving, for instance, photographs of tourists feeding or holding captive animals, and businesses developed around the taking of trophies of hunted creatures either in the wilderness setting or as 'canned hunting' in captive settings. There is criticism also of the amount of fossil fuels used in traveling to far-flung places, the possible conservation problems arising from interrupting breeding or feeding activities, habitat modification or favouring populations of some species (e.g. by feeding) at the expense of others (e.g. their prev species or competitors), of zoos which breed animals that will never be released into the wild and tourism operations that do not benefit local residents or interfere with their privacy, livelihoods and even their safety. There is much emotion involved and often far too few facts, and reality is generally not as simple as many with extreme views may imagine.

The pros and cons of wildlife tourism vary greatly from one situation to another, and benefits or otherwise tend to lie along a spectrum rather than falling clearly into discreet categories. Sometimes compromises must be found between what is ideal for different stake-holders (including the wildlife itself) to maximise or at least optimise overall positive impact. It is best when decisions can be based on the best available information, even if important decisions, due to time constraints, must still be made on a 'best guess' basis, while research simultaneously continues, to inform future decisions. As a discipline for study, wildlife tourism involves applied ecology (e.g. possible negative effects of wildlife-viewing in natural areas and mitigation of same, monitoring techniques for habitat restoration sites), animal behaviour and physiology (e.g. signs of stress), psychology (e.g. motivations of tourists, effective learning experiences), politics and economics. Researchers specialised in their own fields often fail to understand the complexities involved in other relevant disciplines, and there seems much to be gained by more communication of information and brainstorming of ideas relevant to maximising the positive impacts of wildlife tourism and minimising the negative.

There is thus an enormous field of actual and potential research and a range of philosophical perspectives from different stake-holders such as wildlife-loving tourists prepared to go to great lengths to see a variety of species, general tourists who like to include brief wildlife or wilderness experiences in their travels, tour operators and staff (including guides, accommodation owners, zoo keepers, etc.) who entered the industry out of a love of animals, tour operators and staff primarily focussed on income but seeing opportunities for value-adding to their products by adding a wildlife component, professional academics and students working in the fields of tourism or environmental sciences, environmental educators, conservation managers and people involved in all levels of government.

This volume cannot hope to cover all aspects of wildlife tourism across the world, but does offer an important contribution to understanding some of the problems and to insights and recent research leading to possible solutions.

Gold Coast, Australia

Ronda J. Green

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Introduction: Wildlife Tourism Management and Phenomena: A Web of Complex Conceptual, Theoretical and Practical Issues

Ismar Borges de Lima and Ronda J. Green

Abstract

This introductory chapter highlights the major conceptual and practical issues regarding wildlife tourism worldwide. A series of events have brought concerns that the status and conditions of wild animals in the tourism needs further critical discussion, with current study cases being in the spotlight for analysis. There is a web of complexities permeating the field of wildlife tourism in terms of planning and management, not to mention the ethical issues. The current state of wildlife tourism draws attention to the need of in-depth reflections and insights on the use of animals as attractions as well as the needs and attitudes of tourism personnel and visitors. A change in perception of the natural world on the whole is needed, from a fully utilitarian view to a more compassionate one. The Earth is not home only for humans, so we need to break away from a predominantly anthropocentric view in our society. Indeed, within these epistemological and philosophical frames, 'ecological' and 'conservation' aspects have been regarded as fundamental for bringing a certain consensus to the equation on a morally acceptable human-nature relation for the 21st Century. This introductory chapter begins by presenting conceptual and disciplinary approaches to environmental social sciences, as well as human and political ecology, pertinent to this volume. It then presents some of the polemic cases involving wildlife and visitors, such as Cecil the lion, the tigers in the Thai Buddhist Temple, and, the killing of gorilla Harambe. The chapter concludes by presenting a summary of each chapter providing unique and original content to making this volume an exciting reading experience to update the readers' knowledge and understanding of the current state of wildlife tourism and issues facing it, as part of the bigger picture of our practical and ethical viewpoints of humans and the rest of nature on our planet.

Keywords

Wildlife tourism • Tourists • Environmental ethics • Wildlife ecology • Human/nature relations • Animal welfare

This book gathers a great selection of case studies that fill gaps in the literature on wildlife tourism, by critically and insightfully informing the readers on theoretical and practical issues with regards to human and wild animal encounters, and the ways to approach, understand and manage this complex and intricate relationship.

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I. Borges de Lima and R.J. Green (eds.), Wildlife Tourism, Environmental Learning and Ethical Encounters, Geoheritage, Geoparks and Geotourism, DOI 10.1007/978-3-319-55574-4_1

1.1 Introduction

Past and current episodes at a global scale involving wild animals and visitors have been the motivation for proposing a book with updated critical reviews on wildlife tourism from an ecological, conservationist and educative perspective at a conceptual and operational level.

This chapter brings a collection of tragic and good events related to visitors and wild animal encounters in the wild and in captivity that took place in the last years. Since the killing of Cecil the lion in Zimbabwe, a series of bad events have been strikingly appearing on news shocking people with regards to wildlife resources whether they are in the wild or in captive settings. Bad news is occasionally permeated by good ones; great news that surrenders apprehension to hope, expectations that some changes may benefit the beasts. Wildlife tourism should generally be a case of contemplation, rather than touching. However, things in this field are not so deterministic and the complexities involving wildlife tourism require thorough investigations and critical insights. For example, we cannot say *all* touching is bad, and there are other forms of wildlife not involving touching that can be much worse, such as scaring birds from their nests while trying to photograph or identify them, or interfering with a predator's chance of catching prey. In this Volume, the conceptual and practical approaches to better understand and elucidate the human and wild animal relations in the wildlife tourism field, which include (un)ethical and conservation, and educative and educational aspects (components), come from several contributors drawing from different disciplinary perspectives and academic backgrounds. The words 'educational' and 'educative' are very close in meaning, and according to Merriam Webster, 'educational' refers to 'action or process of being educated'; the knowledge and development resulting from an educational process; and, as for the term 'educative', it refers to 'tending to educate'; an educative experience. The former is more about a 'process' while the latter is more about means, the outcomes. For this Volume, both terms will be used interchangeably. As for 'environmental learning', it refers to ways of integrating environmental science and social sciences with a multi-disciplinary approach, which, by the way, is one of the core missions of this book.

The terms 'visitor' and 'tourist' are used interchangeably throughout this Volume. Moscardo and Saltzer (2005) define 'visitors' as "actual tourists, excursionists, and local residents on day trips" (p. v). As 'wildlife tourism' has a plethora of definitions and approaches in the literature, and it is not the mission of this introductory chapter reviewing it all over again, thus wildlife tourism is defined as 'a nature-based tourism niche on interactions and viewing of wild animals in either their natural habitats, in semi-captivity or captivity'. This book is a valuable contribution to the literature with a collection of case studies that approach the core themes of the book from all sides. Chapters draw attention to educational and learning opportunities in wildlife tourism, to conservation of turtles in Brazil, waterfowl hunting tourism in Canada, Parks and Wildlife in Australia, not being obviously limited to these issues by greatly approaching ethical and unethical aspects of interest for readers of all kinds and backgrounds. Ecological, biological, behavioural and habitat aspects of wild animals are also on the spotlight enriching this multidisciplinary volume within the realms of environ-

mental sciences.

Before revisiting the main concepts relevant to this work and outlining each chapter, the next paragraphs will focus on reminding the readers of events involving wild animals and visitors that remarkably spotted 2015 and 2016; events that have been in essence a replication and recurrence of what has been witnessed throughout the last decades in (dis)advantages especially to iconic animals of tourism interest. Before outlining these events, some basic concepts related to wildlife tourism need to be elucidated as a starting point. Subsequently, in the second part of this Chapter, other conceptual approaches will be addressed serving as a basic theoretical foundation that anticipates more in-depth analyses and understandings of theories provided by contributors that accepted the invitation to be part of this work. In the third part, the main approaches and themes on wildlife tourism are outlined for each chapter.

The term 'wildlife' is defined from the very beginning in here, and it can be equated to 'nature resource(s) to collectively "relating to non-domesticated species of plants, animals or microbes", but in some academic writings 'wildlife' has been used to refer to mammals and birds, as well as small and large reptiles (e.g. pythons, in Australia), but not including invertebrates (Usher 1986, p. 4). It is also necessary to define 'wildlife conservation' and 'wildlife management' as these disciplines have been used in this Volume. 'Wildlife conservation' deals with "the preservation and protection of species and their habitat in the face of threats from human development"; as for 'wildlife management', it is concerned with the management that "seeks sustainable strategies to exploit wild species while ensuring their persistence and availability for future use ... is often oriented toward specific objectives for one or a few species of economic interest", and it includes fisheries (Festa-Bianchet and Apollonio 2003, p. 3-4).

Conservation means different things to different people depending on their perspective, it can mean "prevention of waste, maximum development, efficient use, sustained yield, preservation, and non-use" (Reynold et al. 1974, p. 111). Usher (1986) explains that 'conservation' is not easy to define, and its definition ranges from non-interventionist; to wise use of the country's resources, of land and water and

wildlife for every purpose (p. 4). 'Environmental conservation' is also an all-encompassing concept and it is concerned with "an integral part of any development process" so resources can be used, but through efforts for keeping them to future generations likewise", and under this understanding, "its simplest and most readily understandable form is conservation of wildlife, e.g. all fauna and flora species and their habitat, the forested areas" (Melkania 1998, p. 89). How bad is an ecological imbalance for an ecosystem and local communities (both human and non-human ones)? The case of whitetail deer in the USA illustrates it, in the 1940s most Americans fell in love with 'Bambi', but nowadays such a love has given space for complaints as the grace of America's whitetail deer has caused human health, social, and ecological problems; the deer have destroyed crops, and become a real threat to drivers, besides spreading Lyme disease across the country (Cambronne 2013).

One issue not extensively debated in the wildlife tourism concerns about the controversies that reside in the role of hunting tourism as a control management tool to help control 'ecological imbalances'. Hunting wildlife tourism may lie in this spectrum, though it has been given room to 'stormy' debates. For example, Novelli and Humavindu (2005) examine the 'trophy hunting tourism' in Namibia by evaluating whether it may be regarded as a sustainable form of niche tourism and whether it can serve as an environmental management 'tool'; they take into account social, economic and environmental implications this type of tourism may generate, particularly on poor undeveloped regions, as a way of instigating insightful debates on this theme. For Franklin (1999, p. 110) hunters make their contribution to conservation by culling and, consequently helping to restore the ecological balance staying aligned to environmental programmes' targets. In this Volume, Moghimehfar, Harshaw and Foote present a very interesting case study on the Prairie waterfowl hunting tourism in Canada by analysing it from the perspectives of the hunters. Their studies show the hunters' perception while developing and applying new theoretical approaches to the theme.

How much is it ethically acceptable to have hunting tourism or massive cull of certain types of species as a way of keeping an ecological balance in a geographic area or region? The super-population of a certain species can create severe ecological problems to other species and their habitats. Ecological balance is the term used to refer to "a state of dynamic equilibrium within a community of organisms in a habitat or ecosystem. It can also be explained as a stable balance in the numbers of each species in an ecosystem ... [it] is often disturbed by human interferences [disturbances]" (Khullar 2016, p. 221), e.g. with the introduction of non-native species to an ecosystem, and this species can overwhelmingly dominate a habitat to the disadvantage of other species. There are examples worldwide where hunting tourism, as a modality of wildlife tourism, has been officially allowed to restore an ecological balance, but in some cases this type of permission is controversial from a social and ecological perspective. Holden (2016) brings an example of a culling tour package that may raise long-lasting debates,

In Norway, the involvement of tourists in seal culling was set to begin in January 2005, with one company advertising culling tour packages on the internet. The company's website had photos of hunters posing with their kill, and the trips included accommodation, food and guidance on how to cut and preserve the seal carcasses. The Norwegian Fisheries Minister said that 'this move' would restore the ecological balance between fish and seals along Norway's coast; conversely, environmental groups say that over-fishing is indeed the cause of devastated fish stocks not the seals (Holden 2016, p. 63).

Notwithstanding, the notions of 'ecological balance' have been refuted by most research ecologists in the last decades as they feel that to talk about ecological balance is rather naïve and simplistic. Kricher (2009) has reinforced this perception, and has harshly criticised it; he says that the theory that nature is permanently in balance has been largely discredited and is a dominant rhetoric of Western philosophy that endured in the public imagination, and even today it persists among some ecologists. According to Kricher (2009), a balance of nature does not exist indeed nor has it ever been at any stage in the Planet's history. The idea is said to live on in the minds of general public rather than scientists. We can't entirely take for granted the definition without acknowledging that it has somewhat fallen out of favour. However, it is not an intention in this volume to provide a literature review on this specific ecological topic, or to argue for either side of the debate; but, what concerns wildlife hunting tourism is whether it is possible to affirm that there are examples of hunting tourism, as a modality of wildlife tourism, restoring something akin to the original balance between species within an ecosystem. It is certainly not always the case, and there are often doubts as to its merits from both a social and ecological perspective (Bauer and Giles 2002).

While culling of introduced species is often necessary, and sometimes even of native animals to spare them a lingering death by starvation, to counteract the effects of one species increasing its numbers at the expense of prey or competitor species, or to preserve habitat features (trees, grasses, riverbanks) important to other, sympatric species, decisions on what or how much to cull have not always been based on adequate scientific research. As Reardon (2012) remarks, "Some misconceptions are repeated so often that they become self-perpetuating." For instance, many members of the public 'knew' that the Kruger's ecological carrying capacity for elephants is 7000, although that figure was never declared policy or based on much scientific evidence. There is also much philosophical conflict over whether such culling should form part of recreation and tourism, or be undertaken as a serious and unpleasant necessity by carefully

selected professionals. The debate becomes more complicated when part of the revenue from hunting tourism contributes to certain aspects of wildlife conservation or local economies in poverty areas, with too little research into how this might vary between situations, which may range from a response to genuine problems to excuses for scoring points in competitions involving numbers of species shot or trophies on a hunter's wall. The examples presented below represent just a very few of the more sensational and well-publicised incidents involving deaths of animals in the wild or captivity involving some form of wildlife tourism. There are very many other examples of conflict between pro-hunting and anti-hunting groups, or between anti-zoo lobbies and those who point to conservation, research and education services performed by zoos. There is often much emotion and too little research on actual outcomes regarding biodiversity conservation, animal welfare or contribution to local economies. The next section will provide an overview of the main current occurrences involving visitors and wild animal encounters in captivity or in the wild.

1.2 Poor Press: Visitor and Wildlife Interactions in the News

1.2.1 Cecil the Lion, an Emblematic Killing in Zimbabwe!

For many decades, the magnificent wildlife across Africa has been a great draw and choice for tourists wishing to have a glimpse of roaring big cats, huge elephants and crocodiles. For several African nations, wildlife is more than a tourism masterpiece; the sector is also a major source of revenue. An UNWTO's report with figures and data compiled from government tourism agencies and tour operators reveals that 80% of international travel sales to Africa are linked to wildlife tourism (CNN online). International tourist arrivals in Africa are estimated to have decreased by 3% in 2015 as the region continued to struggle with health and security challenges, as well as slower economic growth due to lower oil and commodity prices. Africa welcomed 53 million international tourists and earned US\$33 billion in international tourism receipts. Zimbabwe been a country with one of the most robust growths in tourism reaching 9% in 2015 (UNWTO 2016). A recent report by the International Fund for Animal Welfare revealed that some tourists will pay from US\$24,000 to US\$71,000 to chase and kill lions in Africa, and roughly 8200 African lion trophies were imported to other nations in ten years, from 2004 to 2014 (Actman 2016).

However, wildlife tourism is not only 'wildlife watching and contemplation'; it also includes 'hunting tourism'. And in 2015, the violent killing of Cecil—a famous black maned lion beloved by nearby dwellers in Zimbabwe—sparkled a series of outrage worldwide (Fig. 1.1). The lion, an animal of 13 years, was one more victim of the arrows shot by an American dentist, Walter Palmer, 55 years-old, who has as part of his hobby posed pretentiously for pictures beside the defeated beasts before butchering them as witnessed in his picture collection. Cecil was lured off the protection area of Hwange National Park and injured by the hunter who then chased him for an exhaustive 40 h to finally get the lion killed and beheaded. Zimbabwean officials say Cecil was attracted outside the Park and brutally slaughtered. Palmer had paid US \$55,000 for some local guides to help to carry out his unmeritorious African bloody adventure. Currently, still eight African countries permit exports of lion body parts, among them Tanzania, Namibia, Mozambique, Zimbabwe. They are countries that retain nearly half of all wild lions in the continent. The amount of wild lions has been drastically declining over the years (Actman, National Geographic, June 30, 2016). The killing of Cecil rapidly sparked thousands of compassionate messages and public manifestations on the social networks in what has been regarded as the largest global response to a wildlife event ever. Most people agreed that "the killing, apparently for fun, of the majestic lion by a Minnesota dentist visiting Zimbabwe was a perplexing act of pointless cruelty and cowardice (Fig. 1.1). It spawned millions of posts on Facebook and Twitter-a kind of outrage tsunami" as pointed by Frida Ghitis, in her comments at Point, on CNN (2015, online). Cecil the Lion died one year ago-But, what has happened since the slaying of Cecil after one has passed? What has changed during one year period time for the wildlife? According to Wildlife Watch (December 2016, online), an aftermath over one year of his killing of his resulted in the following:

- Laws have been changed by several nations to avoid lion-trophy-hunting: Australia, the USA and France have modified their laws to avoid 'wild animal trophies' entering the countries. This serves as import barriers to discourage hunting overseas, particularly in Africa. The USA included new clauses to its Endangered Species Act for a more encompassing protection for lions. Trophy-hunting bans have been placed long ago before Cecil's killing by Botswana, Kenya and Zambia. But, Zimbabwe only suspended the hunting for 10 days.
- Airlines have banned wild animal trophies. No transport allowed! Big Airlines such as Delta, Air Canada, JetBlue and British Airways totalling 40 airlines worldwide have reinstated their bans on transporting trophies from leopards, elephants, Cape buffaloes, rhinos, and surely lions.
- Globally, people have been more aware of the trophy hunting and its impact on wildlife. Wild life hunting if not banned, should be effectively managed. For example, scientists recommend strict enforcement of low quotas and only allowing hunts of older lions.

Charismatic lion's death highlights struggles of conservation scientists

Henry Nicholls 29 July 2015



Zimbabwe National Parks/AFP/Getty

Fig. 1.1 Cecil the lion (pictured in 2012). *Source* Nature.com/NATURE News. Headline—Use License Number: 4117870597019. License date: May 28, 2017. Licensed content Publisher: Nature Publishing Group

- The best and greatest news over Cecil's tragedy is that his seven young cubs are doing just fine;
- Walter Palmer was not arrested, and never charged allegedly because he was a holder of permissions to hunt in Zimbabwe explained some country's authorities; Palmer has said he didn't know the lion hunted was the beloved Cecil. Where is he? He returned to his routines at the dental office in Minnesota.

Although many hunters are undoubtedly highly responsible and skilled at identifying species, not all fall under this description, and one of the concerns often expressed about hunting is the effect on species other than allowed targets. According to the Australian Broadcasting Commission: species found shot and abandoned included swans, grebes, coots, magpies, spoonbills, stilts, cormorants, parrots, owls, birds of prey, and the threatened Blue-billed Duck and Freckled Duck. There are only two plausible explanations to account for the killing of these non-game species: either hunters cannot be trusted to accurately tell the difference between a duck and the very distinctive (not to mention nocturnal) Barn Owl or they have deliberately shot non-target species in a fit of excitement...

Of course, journalists are not always accurate, but the concerns should be taken seriously enough for further studies on the scarcity or otherwise of 'mistakes'.

1.2.2 Tigers of a Buddhist Temple in Thailand: A Shadowy Uncovered Case

In 2016, people around the world got breaking news on TV and the internet about the government intervention on the

While shooters deny rarely—if ever—getting it wrong, the issue of misidentification is incontrovertible. Rare and protected species are killed each season, and last year the list of protected



Fig. 1.2 A Monk walks close to tigers at Thailand's Temple. *Source* Wat Phra Luang Ta Bua, Kanchanaburi Province, Thailand. Date 13 June 2004. Creative Commons license (CC BY-SA 3.0). Credits to: Michael Janich

Thailand's Tiger Temple with the presence of more than 500 wildlife officials, veterinarians and police to rescue 137 tigers (by Ramsey, June 2016, Aljazeera Online) (Figs. 1.2 and 1.3), scientifically named Panthera tigris tigris. For decades, the Temple has kept the tigers under the status of a wild animal conservation and protection, but using them to steadily cash out as major tourism attractions alluring thousands of visitors every year, massively formed by foreigners, "with an entrance fee of anything from 600 baht (\$17) to 5000 baht (\$140) per person, millions of dollars have flowed into the temple over the years" (by Ramsey, June 2016, Aljazeera Online). After years of allegations of animal abuses by multiple non-governmental organizations against the Buddhist Temple, the Thailand's Department of National Parks, Wildlife and Plant Conservation-DNP, decided to act on behalf of the "big cats" (Fig. 1.2). With regards to the tigers' situation in Asia, animal groups have been alleging for years on cruelty, illegal wildlife trafficking

and breeding for supplying a market with animal body parts. According to a news features on Aljazeera online,

Tiger Temple has long been a staple attraction for tourists and millions of dollars have flowed into the temple over the years., backpackers looking for the perfect photo-op. A romantic picture was painted of ochre-clad monks and endangered tigers living together in a relationship of numinous unity. The message: "You too can partake in the harmony" - for a price (Ramsey, Aljazeera online, June 2016).

The raid on the Buddhist temple in Kanchanaburi, a province located west of Bangkok, in Thailand, unveiled that "apart from 137 live tigers, they found a laboratory, suggesting that the monks were using tiger parts to make wines and medicines—as well as the carcasses of 40 cubs stored in a freezer", such scenes that obviously had been kept out of sight of the visitors and shocked wildlife investigators (by Vidal 2016, The Guardian online). From the Temple's side, some explanation was given by Tanya Erzinclioglu, a tiger

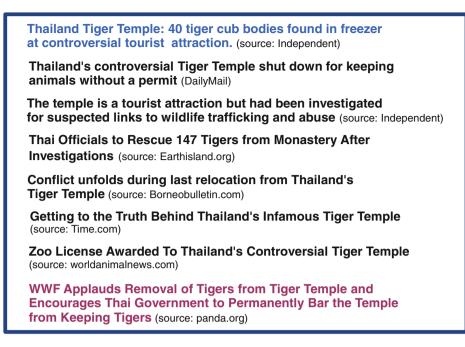


Fig. 1.3 A Collection of News Headlines in 2016 from different media sources show how polemic was worldwide the rescue of tigers in a Thai Temple very popular for captive Wildlife Tourism

caretaker, working for many years there, and interviewed by Aljazeera for a feature news on wildlife tourism. According to her, "these finds were actually the easiest to account for ... These were the policy of Dr Somchai [*Visasmongkolchai*, a former vet at the temple] since 2010 [...] The DNP has been in our freezer loads of times in the past. Why are they acting surprised? Tanya emphasises that the even months before the raid, The Temple page on Facebook had commented on a post on this Policy, "which claimed they were keeping carcasses as proof they were not being sold on", and she also explained that the revenues got with entrance fees were used to build tiger island,

The temple's pride and joy: its almost five-hectare "Tiger Island" enclosure. Completed in 2011 at an estimated cost of 90 million baht, (slightly more than \$2.5 m) the 28 enclosures in Tiger Island meant that, for the first time, the tigers were able to experience outside spaces, albeit on a rotating schedule. The open areas are strikingly different from other tiger zoos in the country. At the frenetic Sriracha Zoo, activities include tiger shows that seem to, in part, include having the cats jump through flaming hoops. When ex-DNP director general Damrong Pidech visited the Tiger Temple in 2012, he actually praised the tiger's living conditions, telling the Bangkok Post: "Frankly speaking, their living conditions are better than those in state-owned zoos (by Ramsey 2016, Aljazeera online).

In Kanchanaburi, Thailand, the former caretakers of the 137 tigers removed from the Tiger Temple are deeply concerned that the tigers would face a worse fate in government hands, but DNP's staff declared that the Department has been discussing the possibility of creating a new sanctuary for the tigers aware that the animals will suffer neglect because the DNP's structure is not ideal for keeping several big wild felines, and the plans include assistance and support from Four Paws, an animal welfare charity organisation, to manage the new tiger sanctuary (by Ramsey 2016, Aljazeera online). As a result of the NDP's intervention, the Tiger Temple, also known as *Wat Pha Luang Ta Bu Yannasampanno*, was closed for visitation and police charged 22 people with illegal activities of wildlife trafficking of body parts; three Buddhist monks were among them (Fig. 1.3). This ends a long history of controversies with the Monks being repeatedly accused of mistreating the tigers and of illegal breeding (BBC online, June 1, 2016).

Globally, trade of tiger parts feed an ever-increasing, quenchless and rapacious trade in China and has threatened the few remaining tigers in the wild. Current population of wild tigers have decreased from 100,000 in 1900 to 3200 as an estimated number. According to the 2014 report of the Commission for the Convention on International Trade in Endangered Species of Wild Fauna and Flora-CITES, "an increasing number of live animals and frozen bodies are being detected, with more than 50% of seizures over the past 14 years occurring since 2010. It is suspected that many of these are of captive origin ... seizures of suspected captive-origin tigers have risen in Laos, Thailand and Vietnam, and evidence suggests that such trade is also taking place in Indonesia." (Vidal 2016, The Guardian online). The Environmental Investigation Agency (EIA) and other wild animal protection organisations suggest that more than 5000

tigers are being farmed in China, 1450 in Thailand, 180 in Vietnam and possibly 400 in Laos. In addition, there are private collections and zoos in most other Asian countries, yet according to the same news source published on The Guardian (by Vidal 2016):

- 3200 tigers live in the wild. It is estimated that 2200 remain in India, 500 in Russia, 50 in Vietnam and only 30 in Vietnam;
- In Southeast Asia, it believed that 7000 have been bred in captivity spread in 240 farms. China leads the number of this type of tiger farm with 5000 animals, Thailand 1450, and Laos 400;
- Tigers' skin, bones, meat and claws are well-known to serve an industry of "luxury goods" and Chinese traditional medicine production;
- Roughly 30% of illegal trade of tigers' body parts are believed to come from captive breeding in farms;
- Between 2000 and 2014 is estimated that about 1600 tigers have been seized and killed in the world.

1.2.3 But, Not Everything is About Bad News Regarding the Asian Tigers: Indian Tiger Protection Reserves

Chapter 9 of this current Volume discusses Royal Bengal tigers in two nations, India and Bangladesh, and presents key aspects of the context of the tiger within the wildlife tourism perspectives and the opportunities for enhancing visitors' wildlife experiences by developing educative and educational tours. In Bangladesh, a Zoo is part of the investigation. In India, the Sundarbans region is the geographic object of the case study. Sundarbans forest, in West Bengal, was established in 1973-1974 and is the second largest tiger reserve of India with a total area of 2585.10 km² (IISC 2016), and it is estimated that about 270 tigers live there. Apart from the tigers, fishing cat, spotted deer, wild boar, Ganges river dolphin, water monitor, estuariane crocodile, river terrapin, olive ridley turtle, ground turtle, hawks bill turtle and king crab are other wild animals found in Sundarbans. The estuarine of Sundarbans has high salinity, no erosion and daily overflow by high tides. Wildlife conservation is managed by government and organisations protection "from poaching and external influences such as prawn fishing is a primary concern. Boats patrol the area, soil conservation is practised and man-animal conflicts are being addressed" (WPSI, Online 2016). India has 103 National Parks, and in 1936 the Hailey National Park (currently called, Corbett National Park) was the first National Park to be created in the country (IISC 2016, online). India has 28 areas specifically established as Tiger Reserves created by Project Tiger launched by the government in 1973 to protect endangered species of tiger; the reserves correspond to 1.09% of the total area of the country (IISC 2016, online).

Many wild animals who live their lives in sanctuaries, or in elephant camps, due to illegal trade, poaching, or because they retire from a life working for humans, like former working elephants. A sanctuary is expected to be a safe haven where animals should be allowed to live out their lives with little or no captivity, but this is not a reality indeed for most elephant sanctuaries in Thailand as they are not totally free; though many elephants seem to have a much better life if compared to their nearly slaved life in the logging sector, still the elephant camps have raised ethical concerns to the way some of them manage the animals for the visitors' interest (Fig. 1.4). The work of Kontogeorgopoulos corroborates this notion, "although elephants working in camps tend to fare better than those toiling away in circus venues, or in illegal logging operations, most still live far from ideal, natural lives. Camp elephants face several problems" such as injuries, artificial environments e.g. a barrier from natural formation of herds and animal family bonds, low caloric diet some of them don't have enough food, and harsh training and abusive disciplines methods (2009, p. 430).

Some sanctuaries depend on outside funding to provide care to animals and to maintain their structure; others need to generate revenues themselves through programs and activities, which, by the way, usually involve the elephants being major tourism attractions with visitors direct or indirectly being in contact with them, and interactions involve rides, feeding and photographs very close 'beside' or 'between' the beasts, as observed by Ismar Lima in his field work on Elephant Tourism in Thailand, in 2015. In Chiang Mai, visitors usually pay a certain amount of dollars, which is not really a bargain as a voluntary day experience may set them back a hefty US\$100 fee per person, to help the Mahouts (elephant carers and tamers). But, Brando (2016) underlines that even though is worthy knowing the elephants have been removed from abusive treatments and taken to sanctuaries, their participation in exhaustive, intense and highly exploratory shows, displays and series of performances, such as "lifting the trunk, leg or let people sit or ride on their back," [painting] and all this should be object of scrutiny to ensure the elephants' welfare.

In Thailand, since the Chakri Dynasty, A.D. 1800, elephants have been under protection by Thai law; in 1960 the Wild Elephant Protection Act was endorsed, and in 1980, the Wild Animals Reservation and Protection Act was also approved to help safeguarding the elephants likewise (Humphrey and Bain 1990, p. 370). Currently, Thai government authorities responsible for elephants have been the Department of Livestock, Department of Transport and the Forest Industry Organisation, rather than the Department of



Fig. 1.4 Chinese visitors enjoying a ride on the Elephant's back guided by a Thai Mahout at Maesa Elephant Camp (*right picture*), in Chiang Mai province, Northern Thailand, and Elephants pulling logs at Thai Conservation Centre, in Lampang, near Chiang Mai. In both places, elephants are attractions for visitors with interactive situations,

National Parks or Ministry of Environment as Elephants are considered 'working animals' rather than wildlife; and "Elephants are probably the only animals employed by man that have never been bred selectively, and being for all intents and purposes wild animals they should receive greater consideration than more domesticated animals. Actually the very reverse is usually the case" (Lair 1999, online). According to Cohen, Thailand has about 3000 elephants and 2000 of them are privately owned either by a mahout—an elephant driver, tamer, and lifelong carer and keeper. (Duffy and Moore 2011, p. 596) point that,

Captive working elephants are important in long-term elephant conservation in Thailand. Without them, the long-term survival of Thailand's elephants would be at risk. Any attempt to close down the elephant trekking industry would have to grapple with the possibility that it would spell the end for Thailand's elephants. Without careful consideration of how captive elephants would be re-wilded (including where they would live and who would pay for re-wilding and management).

Captivity, or even semi-captivity of elephants (Kontogeorgopoulos 2009), is thus perceived as an alternative means to ensure their conservation, rather than having free in the wild as it occurs in some African nations. This is because elephants, due to their former captivity situation as working beasts [e.g. logging industry, etc.], may not easily get adapted to the wild again, "captive working elephants are not always suitable for 're-wilding'" (Duffy and Moore 2011,

shows, displays, feeding, and rides, but as the reader can note the elephants look healthy, and they are not all the time available for the visitors. There is a schedule for shows, feeding and bath. *Source* Ismar Lima, field work on Elephant Tourism in Chiang Mai (*right*) and in Lampang (*left*), Thailand

p. 594); moreover, if they are released they can return to highly abusive working imposed by private owners without the means to properly look after them. Pickover (2005) estimates that about 70% of the elephants in European zoos are wild-caught and "those born in captivity can never be released into the wild" (p. 63). Captivity and semi-captivity of elephants as wildlife tourism attractions are certainly a long-lasting debatable issue across the disciplines, especially related to wild animal and human encounters and interactions, wild animal welfare, and animal ethics.

1.2.4 The Case of the Cincinnati Zoo: The Killing of Gorilla Harambe

On 28 May 2016, on a Saturday holiday at the Zoo and Botanic Garden of Cincinnati city, State of Ohio, USA, people around the world were outraged after watching the news that a 3-year-old boy fell into a gorilla enclosure, and as a result the zoo staff needed to kill the gorilla. Harambe was a rare adult gorilla, 17-year-old male, and was shot dead allegedly to avoid a likely attack from the gorilla against the child. Two female gorillas were also in the enclosure. In a press interview after the incident, the Cincinnati Zoo President Thane Maynard explained that the little boy spent only 10 min in the enclosure together with gorilla when Dangerous Animal Response Team decided for its killing, considering the situation extremely risky to the boy's life and demanding immediate action.

A press release from the Cincinnati Fire Department, stated that the boy was between the gorilla's legs at the moment it was shot, and two fire-fighters entered the enclosure to rapidly rescue the child who, by reason of the fall, had some injuries and was treated in the Cincinnati Hospital Medical Centre. In the press release, the Fire Department reported that its staff "witnessed a gorilla who was violently dragging and throwing the child" on the scene. It was said that in 28 years since its creation, it was the first time the Cincinnati Zoo had an emergency situation. According to Maynard, "the decision to shoot Harambe instead of tranquillising was made in the interest of the boy's safety ... In an agitated situation, it may take quite a while for the tranquilliser to take effect ...". Harambe hadn't attacked the little boy, but the gorilla's size would pose danger. The spokesman of the Police Department, Steve Saunders, explained that no charges were made against the boy's parents (Knight and Sullivan, Cincinnati News online, June 18, 2016).

Brittany Nicely of Dayton was visiting the zoo with her two children and four other children on that fatalistic Saturday, at Gorilla World, where the incident happened. She gave an interview to local News stating that,

"I saw the little boy in the bushes past the little fence area. I tried to grab for him. I started yelling at him to come back...Everybody started screaming and going crazy," she said. "It happened so fast...The gorilla rushed toward the boy and led him by the arm through the water in the enclosure. She said initially the gorilla seemed protective and only alarmed by all the screaming. The area was then evacuated by zoo staff. Nicely stood with her group outside the exhibit...About four or five minutes later we heard the gunshot...We were pretty distraught. All the kids were crying...It's a very traumatising experience for anybody involved. The kids, the zoo-keepers, the other gorillas that now don't have him [Harambe] there any more" (by Knight and Sullivan, Cincinnati News online, June 18, 2016).

Figure 1.5 shows two snapshots of Harambe. The image on the left is a Mirro's website snapshot that shows the gorilla Harambe protecting the little boy by holding his hand minutes before being killed, and the second image from Zoo Cincinnati shows Harambe in its 17th birthday.

But Harambe gorilla was not an isolated case of visitors getting into Zoo enclosures and having its wild animals killed to rescue them. On 23 May 2016, just about a week before the incident involving Harambe, in a Zoo in Santiago, capital of Chile, a naked suicidal man tried to kill himself by entering the lions' lair. In order to save the man, two lions— a male and a female—had to be killed. According to Zoo's director, the protocols on visitors' safety need to be followed strictly because human lives are the priority, and the tranquillisers would not help saving the man's life immediately as they takes a bit of time to make a full effect. The animals needed to be sacrificed (by Roterman, May 23, 2016, Latin

Times online). On November 2012, at the Pittsburgh Zoo, a two-year-old boy fell into African painted dogs' enclosure as he slipped from his mother's hand. Unfortunately the little biy was killed by a pack of wild dogs. In 2007, an incident involving a four-year-old Siberian tiger, known as Tatiana, at the San Francisco Zoo, managed to escape from her setting and attacked two men who were teasing the animal and throwing rocks. One of the men died on scene, and the Siberian tiger was shot to death by the local police (Eco Watch, June 2016, online).

Some environmentalists, animal lovers, animal protection organisations and people around the world concerned with animal welfare, deeply touched by these tragic events and amid the debates over who was at fault in the death of the wild animals, have come to a common ground that these tragedies should never taken place. The CRC Research Report on Captive Wildlife Tourism in Australia, produced by Tribe (2001), found at that time that zoos in Australia were changing their structure and function looking for ways of developing three important justifications for keeping wild animals in captivity: conservation, education and research (2001, p. i). But Tribe (2001) highlighted that despite setting an agenda for re-modelling themselves, the zoos have been the object of "philosophical accusations that they are irrelevant and wrong, and some in the community even advocate their abolition" (p. 27). In 2013, Costa Rica government officials announced their intention of shutting down public zoos throughout the country, "the Simon Bolivar Zoo in the capital of San Jose-which currently houses hundreds of animals-will be transformed into a botanical garden, and the Santa Ana Conservation Center west of the city will be turned into a park", and the plans are to have wild animals released into the wild or sent to animal sanctuaries (Romo and Sholchet 2013), but this is not actually happening. The Australian and New Zealand Federation of Animal Societies is opposed to keeping wild animals in captivity due to stressful living conditions. On the other hand, zoos can also contribute to conservation through educational programs and services and the captive breeding, management and display of the wildlife (Tribe 2001).

The circumstances through which Harambe was killed made him an instant worldwide celebrity; an event that in some aspects resembles—in real life—the movie King Kong, a giant beast kept in captivity to entertain humans. At the time of the kill of Harambe the gorilla, Marc Bekoff, wrote a brief article on the blog of Scientific American arguing that the discussion should move far beyond the point of regardless who was guilty or innocent. "Opinions vary as to whether the boy was really in danger and who was to blame, e.g. the zoo (why was the boy able to get into the enclosure and why wasn't Harambe tranquillised?) Playing the blame game will not bring Harambe back" (Marc Bekoff, Scientific American blog, June 1, 2016). According to Harambe The Gorilla Put Zoo In A Lose-Lose Situation – By Being Himself (source: iflscience.com)

Why Was Harambe the Gorilla in a Zoo in the First Place? Amid the debate over who was at fault in the death of a beloved animal, we need to step back and ask a different question (By Marc Bekoff, ScientificAmerican.com)



Fig. 1.5 Some News Headlines on the Harambe killing at Cincinnati Zoo, in USA, on May 2016. The gorilla images below are only illustrative. It is not Harambe. The pictures show how warm and lovely

Bekoff's views the discussion should be more insightfully reinstated by questioning, 'why was Harambe in a zoo in the first place?' And, he gives a lead that the debates should also take place within the anthropozoology realms.

1.3 A Theoretical and Disciplinary Approach in Human-Animal Encounters: From Anthropozoology (Anthrozoology), Environmental Social Sciences to Human and Political Ecology

With all these tragic and controversial events related to encounters and interactions between humans and captive (and semi-captive) wild animals, it seems that there has been a global sensibility moved by a heightened awareness about the nature of human-animal relationships, particularly with regards to the wildlife tourism sector (Semeniuk et al. 2010,

the gorillas can be with their babies. *Source* Photo credits: Sabine bresser, Creative Commons (CC BY 2.0), 31 May 2013. Illustration/Figures—assembled by Ismar Lima

p. 2699; Hughes and Carlsen 2008) and animal used on display or in shows for entertainment. Human and animal encounters lie within a scientific and academic domain that has shown evidence of growing rapidly, the Anthropozoology. With a combination of 'anthro', human(s), and zoology, study of animals, the term was first coined in 1987 as a Journal title Anthrozoos; literally 'anthrozoology' would be etymologically more correct to be use (Mills and Marchant-Forde 2010). Anthrozoology is much wider encompassing as it deals with studies and concepts regarding applied animal ecology, conservation science and animal welfare, but it also embraces "studies of associations, and especially relationships, between individual humans and individual animals, rather than to interactions that take place at the population level; in this sphere, anthropozoology is about the understanding of the human-animal bonds." (Mills Mills and Marchant-Forde 2010, p. 28). But, according to Tyler (2009), the names for this study field focussed on human-animal encounters (or relationships) are various and it lacks consensus in the literature as the field itself is debatable, should it be 'Animal Studies' ... 'Human-Animal Studies'? (Shapiro 2002; Shapiro and Copland, 2005), 'Anthrozoology' (Rowan et al. 1997), or should it be anything else such as Anthropozoology? It surely lacks of consensus even with regards to nature or bounds of the object (or subject) of this study zoo area, 'the animal' (Ingold 1988).

With so wide a scope, this fast growing and varying scientific field "denote genuine and entirely healthy multidisciplinary engagement" (Tyler 2009, p. 2), and these incongruous approaches rather than evidencing a weakness it denotes a strength of the field, if it is taken into account that varied-multiple-disciplines gather specific knowledge that contributes to the issues that permeate the human [visitor] and animal encounters, including ecological, biological, sociological, anthropological, political ecology, restoration ecology, animal welfare and ethical ones (not limited to them) with researchers coming from distinct fields to investigate the animal-human interactions, moved by dissimilar scientific and academic interests and concerns willing to develop and apply different methodologies and methods (Taylor and Goldsmith 2003; Tyler 2009; Newman 2013); it is a promising investigation field, given its amplitude of applications within the anthropozoology, paving ways to make human and non-human interactions less controversial and problematic; it is in fact "an open contested field, with no clear canon, Animal Studies is a meeting point where different species of researcher gather" (Tyler 2009, p. 2).

Attention is usually given to taming animals and its sociological implications throughout the history, domesticated species as companions-and also used as part of therapeutic treatments; animal-assisted therapy, for example, with horses in equine therapy that can contribute to enhancing skills of impaired people with physical, emotional, behavioural and emotional disabilities (Chandler 2012; Altschiller 2011; Engel et al. 1994; Cusack 1988). Moreover, animals have been kept as transport means, e.g. camels have been domesticated in Southern Arabia since 2500 BC; and animals have served as pets and companions and "have furnished bone and pearl ornaments, and have been subject to scientific experimentation" (Tyler 2009, p. 7). As for the wildlife, visitors, and zoos and sanctuaries (captive animals) two more recent releases have a contribution to the literature, Zoos and Tourism, edited by Frost (2011), a volume that deals with the commodification of wildlife, captive wildlife management and ethical issues in the zoos with regard to visitors and wild animal interactions; another contribution in this field with a selection of case study is Animals and Tourism, edited by Markwell (2015). For Ed Stewart, president of the Performing Animal Welfare

Society, there is no ethical way to keep elephants in captivity because zoos have very dissimilar environments (and settings) and philosophies as compared to sanctuaries, particularly with regards to 'captivity itself', that is, "there presently exists no state-of-the-art keeping [wild animals] in captivity, e.g. elephants [in zoos] (Stewart 2013).

As for the incidents involving visitors and wild animals in the zoos, and a predatory and exploratory relation to wildlife as attractions, for example, in the case of the Tiger Temple in Thailand, much of anthropozoology can be used to explain those events and phenomena, but further contributions can be made by combining anthropozoology with behavioural biology and ethology as disciplines that study human-animal behaviour and social organisation from a biological perspective (Archer 1988). Some approaches of concern include the use of sociology for the emancipation of animals (Taylor 2011), and the studies on animals as performers, that is, the representation of animal actors in the animal kingdom (Szarycz 2011; Armstrong 2011) and mapping and theorising human animal relations (Beatson 2011; Kemmerer 2011).

With regards to wildlife tourism, attention is drawn to wildlife-human encounters and interactions, and in this field 'human ecology' (Semeniuk et al. 2010, p. 2699), 'political ecology' and 'environmental social sciences' can be used to advance the understanding and insights on the current wildlife tourism phenomena, and consequently to help point to feasible solutions to the complexities that this field holds, for example, with regards to hunting wildlife tourism, and captive wild animal as tourism attractions, wildlife management, conservation and ethics. According to Moran (2010), the attempts to integrate social and environmental sciences have not been an easy task, "nor has the cacophony of competing theories and paradigms helped to promote collaboration between the social sciences and the natural sciences" (p. 6) due to a latent, but fundamental ideological divide which is centred on two ideological streams: realism and constructionism; two ideological positions that permeate social environmental sciences (Stoddart 2012). the Notwithstanding, the mission of this chapter is to contemplate both conceptual and practical solutions (Vaccaro et al. 2010) for dealing with the wildlife tourism dilemmas. In this sphere, it is desirable that decision making and planning processes can lead to more ethically reasonable ways of managing the controversial issues that permeate wildlife tourism practices, particularly related to cruel, and overly exploratory-if not predatory-practices.

From both conservation and welfare points of view, it can be claimed that wild animals should not be kept in captivity solely for fulfilling human entertainment, neither should they be object of cruelties, e.g. in the practices of hunting tourism and animal-made products; this requires a shift from an anthropocentric view to ecocentric and biocentric ethics that can enlighten human actions towards wild animal with actual preoccupation for their welfare and "can contribute to valuation for conservation" (Lindenmayer and Burgman 2005, p. 21). A new understanding in this field should harness social and environmental sciences to the benefit of wild animals, but "we should be careful not to reproduce the dualism that exists also within the social environmental sciences between micro analyses of environmental (un) friendly behaviours on the one hand and the macro analyses of institutional developments on the other" (Spaargaren 2000, p. 58-59). Most scientists have concluded that we cannot begin to understand global [and local] environmental change and to deal with environmental challenges without orchestrating and harnessing efforts that can contemplate both biophysical and social sciences, that is, "Human agency (i.e. actions of individuals) is implicated in most of our current dilemmas, and must play a part in solving them" (Moran 2010, p. 1). This is an indisputable arena, and "the rhetoric of sustainable utilisation to bring political standpoints and moral questions to centre stage in the conservation debate" (Smith and Duffy 2003, p. 196), but there are oftentimes anthropocentric discourses that situate nature as a utilitarian 'entity' to 'solely' serve humans (Lima 2009).

Thus, the sustainable utilisation and conservation in wildlife tourism demands pragmatic solutions to manage wild life resources of a certain geographic area. Ecology plays a crucial role for understanding and managing a series of activities such as crop rotation, weed control, management of grasslands, forestry, biological surveys, fishery biology, conservation of soil, wild life, forest, water supplies; and ecotourism and wildlife resources in tourism studies (Holden 2016; Raina 2005). Applied ecology is a scientific field that studies "concepts, theories, models and methods to solving of environmental problems, including the management of natural resources, such as land, energy, food or biodiversity" (Bertelsmeier et al. 2012, p. 52). Other disciplines and approaches are relevant to managing wildlife and habitats and they can also serve as foundations in environmental interpretation and education, such as: social dimensions of resource use; perception of environmental change; environmental risks monitoring; environmental justice; environmental decision making and planning; politics of natural resources; environmental policies (Cunningham and Cunningham 2005; Hastings and Gross 2012). But, Moran (2010) alerts that many other incentives than just ensuring good environmental management such as "political pressures, misvaluation of the resources, self-interest, and corruption" (p. 20) can negatively affect successful outcomes in wildlife conservation and management.

Human ecology also plays a pivotal role in helping mitigate negative impacts that tourism, particularly wildlife tourism (Hughes and Carlsen 2008; Higginbottom 2004; Green and Higginbottom 2001), may cause to ecosystems. A human ecology approach seeks to praise a holistic understanding of significant social issues for critically assessing the continuing evolution of the humanenvironment interface (Miller et al. 2002, p. 30), and wildlife tourism is highly characterised by this interface,

Wildlife tourism attractions are characterised as having intricately coupled human-wildlife interactions. Accordingly, the ability to mitigate negative impacts of tourism on wildlife necessitates research into the ecology of the system and of the human dimensions, since plans aimed at optimising wildlife fitness must also be acceptable to tourists" (Semeniuk et al. 2010, p. 2699)

As for the political ecology, Chap. 2 written by Shelton, Tucker and Zhang in this Volume brings a thorough conceptual discussion on 'political ecology' issues and applies it to the wildlife tourism field to shed light on the yellow-eyed penguins in Southern New Zealand.

1.4 Wildlife Tourism's Potential for Positive Outcomes

While much of the above has emphasised problems with wildlife tourism, it must not be forgotten that the industry has great potential to contribute to wildlife conservation (e.g. Higginbottom et al. 2001). Habitats which might otherwise have been cleared may be left intact if governments and local residents can see a monetary reward in attracting tourists to see wild animals. The animals themselves may also be viewed more favourably instead of being regarded as pests or simply ignored. Tour operators and tourists might actively help to restore habitat or contribute donations to conservation projects. Frequent visits to wildlife areas can have a deterrent effect on would-be poachers. Contact of many thousands of tourists each year with knowledgeable guides can raise the awareness and appreciation of wildlife by the public and an understanding of current conservation problems. Tour operators and volunteer tourists can contribute to wildlife research (Green and Wood 2015) leading to more effective conservation management plans.

In 2015 Wildlife Tourism Australia Inc. (http://www. wildlifetourism.org.au) held a conference entitled "Wildlife Tourism: a Force for Biodiversity Conservation and Local Economies?" involving tour operators, zoo and ecolodge staff, conservation groups, government representatives and academic researchers. Many interesting papers were presented exploring this theme, and round table discussions covered many aspects. The lack of research into many issues was noted, and it will probably be some years before some of the major knowledge gaps are filled, but delegates heard many examples of conservation, research and educational projects and evidence of assistance to local economies in both developed and developing nations, and few if any doubted that wildlife tourism has already conveyed many positive advantages and has the potential to contribute far more in the future.

The current volume is important in bringing together some of the research and philosophical ideas pertaining to wildlife tourism, but there is still much to be investigated, and much discussion yet needed between people from different backgrounds and perspectives, to formulate effective plans to facilitate the synergies between wildlife tourism, wildlife conservation, wildlife research, habitat restoration, animal welfare and poverty alleviation.

1.5 Overview of the Chapters in This Volume

'Wildlife tourism' is a term that covers a wide range of activities throughout the world, from long treks through wilderness to see rare species or simply experience relatively untouched ecosystems, through comfortable rides in safari vehicles or boats or easy strolls from ecolodges, to interacting with semi-wild animals at feeding stations or viewing them in zoos or wildlife parks. This wide variety of tourist experience is reflected in the spread of topics in this book. The geographic spread of wildlife tourism is also reflected in chapters from Australia, New Zealand, Brazil, Canada, Botswana, Rwanda, Turkey, Finland, Germany, India, Bangladesh, Thailand and Japan. Wildlife especially considered in the book includes tigers, kangaroos, deer, whales, dolphins, penguins, other birds and turtles.

It is often suggested (or hoped) that wildlife tourism can enhance conservation of biodiversity and local economies. Tribe (Chap. 3) describes a partnership between business and a research institute with involvement of local residents and conservation groups to reintroduce rare and threatened species into a large luxury tourism property in a mountainous region of Australia. Moreira and Robles speak of income for local residents generated by turtle-based tourism in Brazil. Shelton et al.'s chapter provides an example of an integrated approach to reintroduction of a species. Some districts most in need of assistance for local biodiversity protection and poverty alleviation are in areas away from the usual tourist trails and lacking in the kinds of facilities that international travellers tend to expect, and may need some innovative ways of attracting the more adventurous or experienced traveller, and finding key points of difference (rare species, access to different kinds of wilderness or novel experiences etc.) their district can provide. The problems of poor road quality and lack of transport and accommodation for tourists in some regions are also noted by both Moswete et al. and Hassan and Sharma, in Africa and Asia respectively.

The role of ecology in wildlife tourism is to determine what tourist activities might have an effect on population numbers, both of the animals the tourists are seeking and of other species that share their habitats, and on disruptions of ecological processes. Controversial topics such as hunting, fishing and feeding of wildlife need to be looked at not just in abstract general terms but also in particular local situations if final management decisions are to be made. There is already a large knowledge base that does not always become known to planners, and also much that remains to be determined. There is still a lack of ecological research into effects of wildlife tourism on population numbers of wildlife. Green refers to some of the literature that does exist, and suggests some avenues for future research. Moswete et al. (Chap. 6) review literature to identify a number of factors to moderate impacts of tourist activities on wildlife. Moreira and Robles (Chap. 10) speak of research into turtle ecology by TAMAR at tourist destinations in Brazil. Usui and Funck (Chap. 16) make the point that not much ecological research has been conducted in highly-modified habitats in relation to tourism, and discuss this in relation to management of tourists and semi-tame deer in Japan.

If wildlife tourism is to expand and flourish, the needs and interests of tourist must be understood, and possibilities of diversification explored. The chapter by Werdler (Chap. 4) explores the potential for bird-watching in Rwanda, a tropical African country best known in the industry as a primate-trekking destination. Moswete et al. (Chap. 6) consider what is needed to reduce congestion in one region and encourage use of alternative routes in another African country, Botswana. Lanzer et al. (Chap. 5) explore the potential for diversifying lake-based wildlife tourism in Brazil, including science tourism, and Hassan and Sharma (Chap. 9) for diversifying the tiger tourism experience in India and Bangladesh. Ayazlar (Chap. 12) speaks of the need for wildlife tourism in Turkey, which already has a variety of wildlife experiences, to be more clearly defined and catered for. Mayes, (Chap. 7) Werdler (Chap. 4), Lanzer et al. (Chap. 5), Hassan and Sharma (Chap. 9), Moreira and Robles (Chap. 10), and de Lima (Chap. 8) point to the importance of wildlife interpretation, including missed opportunities for interpretation in some tour operations, the training of guides and the role of interpretation in promoting appropriate behaviour. Mayes (Chap. 7) warns against too much interpretation while high-intensity wildlife encounters are actually in progress but offers research-based advice on quality interpretation before and after such experiences. Hassan and Sharma (Chap. 9) speak of the importance of appropriate marketing and the potential for learning experiences in tourism. Moswete et al. (Chap. 6) explore tourism personnel and wildlife officer perspectives on tourist usage of a Botswanan park with a view to understanding tourist (and tour operator) preferences and suggesting procedures to spread visitor usage and avoid over-congestion of some areas. Harman and Dilek (Chap. 11) explore visitor responses to whale-watching experiences. Usui and Funck (Chap. 16) remind us that cultural differences must be considered when managing human-wildlife interactions.

There can be conflicts of interest associated with wildlife tourism, both within the industry and with other stakeholders. Burns points to growing public concern about animal welfare, and Reiser (Chap. 17) explores whether zoos can still justify a place in modern-day wildlife tourism. Ivari (Chap. 15) describes a conflict between wildlife tourism and reindeer herding, and reviews a conflict resolution framework in relation to this. Hunting tourism or feeding stations may not be compatible with conservation management, animal welfare considerations, needs of land-owners, or other forms of wildlife tourism such as treks to observe wild animals behaving naturally. Moghimehfar et al. (Chap. 18) make a case that responsible hunting tourism supports conservation, and lament that the sport appears to be declining in Canada. Ayazlar (Chap. 12) points to the revenue brought into Turkey by hunters. These advantages of hunting tourism need to be tempered within an ethical framework and ecological studies of effects on both target and non-target animal populations (Burns, Chap. 13, Green, Chap. 14). Political will does not always mesh easily with ecological needs of wildlife. Shelton et al. (Chap. 2) provide an interesting case study involving reintroduction of the yellow-eyed penguin in southern New Zealand and the associated development of wildlife tourism, explaining the concept of 'political ecology' and its necessarily interdisciplinary approach, and pointing out that accounts of "political-ecology-of-tourism studies" of developed countries are to date very sparse. They discuss a range of stake-holders (governments, Indigenous, NGOs, tour operators, tourists and others) and problems with definitions of terms such as 'nature' and 'environment' and the concept of 'equilibrium.'

Ethics in wildlife tourism involves environmental ethics (e.g. does the operation minimise its impact on the environment, including biodiversity loss, or better still make a positive contribution to conservation?), animal welfare (e.g. do animals suffer pain or undue stress as a result of tourist activities, whether injured or seriously disturbed in the wild, or mistreated or kept in inadequate enclosures in captive settings?), tourists (e.g. safety, enjoyable experiences, valid interpretation), other tour operators (e.g. not impacting negatively on other businesses, and forming mutually-beneficial partnerships) and the local communities (e.g. assisting local economies and conservation efforts, not exploiting or intruding on residents' lifestyles). Burns (Chap. 13) reviews the ethical frameworks relevant to wildlife tourism, with a view to assisting decisions for effectively managing wildlife tourism for the benefit of both humans and wildlife, laments that "scholarship in wildlife tourism has yet to incorporate environmental ethics in any substantial manner," and comments that "increases in the numbers of tourists visiting remote and rural areas can have profound social and ecological consequences that require sound ethical guidance to ensure effective management". Green (Chap. 14) also explores ethical implications of disturbance to wildlife to the animals themselves, population numbers, and human stakeholders. Maccoll and Tribe (Chap. 3) provide an encouraging example of how tourism, conservation and research can be combined: also de Lima (Chap. 8). Once again, the more controversial activities such as consumptive (hunting, fishing, collecting) tourism and alteration of natural behaviours (e.g. hand-feeding, other close approaches) need to be examined in view of all stakeholders (including the animals themselves) in local situations to arrive at optimal solutions.

Communication between stakeholders is important to determine what research is most urgently needed for future planning. Such communication also assists in disseminating the knowledge we do already possess both from the results of academic research and the long practical experience of operators to decision-makers in government and industry, and other tourism operations. Such information benefits both major tourism attractions such as zoos and well-established tour companies to enhance their educational, conservation and community roles, and also small groups off the usual tourist trails, including those in developing countries, who may be struggling to find the best way to help their communities or local ecosystems while making enough income to keep their projects going. It is hoped that this volume will assist such dissemination of ideas and knowledge already held and point the way to much-needed future research.

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