

Editorial

Sustainable Tourism and Natural Resource Conservation in the Polar Regions: An Editorial

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Abstract: This editorial provides an introduction to the special issue of Resources on Sustainable Tourism and Natural Resource Conservation in the Polar Regions, which proceeds the fifth bi-annual conference of the International Polar Tourism Research Network (IPTRN). The conference and coinciding community workshop on tourism development were organized at the edge of the Arctic in the community of Raufarhöfn (pop. 160) in Northeast Iceland from 29 August to 2 September 2016.

Keywords: tourism; Arctic; Antarctic; polar; research

1. Introduction

This special issue proceeds the fifth bi-annual conference of the International Polar Tourism Research Network (IPTRN). The conference and coinciding community workshop on tourism development were organized at the edge of the Arctic in the community of Raufarhöfn (pop. 160) in Northeast Iceland from 29 August–2 September 2016, and hosted by the Icelandic Tourism Research Centre in collaboration with Norðurþing municipality, the Canadian Embassy in Iceland, The University of Akureyri, Norðurhjári—Tourism Partnership, Rif Field Station and the Northeast Iceland Development Agency.

The title of the conference in Raufarhöfn was Tourism, People and Protected Areas in Polar Wilderness, following an earlier event of the IPTRN in 2010 with the same title [1]. In total, 40 papers were presented in seven sessions that ran individually through the five days of the conference. In between sessions were field excursions and meetings with tourism entrepreneurs and service providers in the region. In addition a community workshop was hosted at the conference venue on the fourth day. The community workshop focused on tourism development in collaboration with local stakeholders, with input from conference participants identifying issues of tourism development in the Polar Regions, and how these can be addressed in situ using participatory frameworks.

The impetus for this conference and the preceding IPTRN events was the rapid, albeit sporadic, growth of tourism in the Arctic and Antarctic. Through the democratization of travel, transport technology developments and increasing accessibility, some parts of the Polar Regions are witnessing increasing inbound tourism. Tourism operations in the Polar Regions capitalize on the regions' natural assets, landscapes and remoteness. Despite significant differences, for instance, with regard to sovereignty questions or the history of human habitation, parallels can be drawn between the Arctic and Antarctic regions. In addition to both being remote, these parallels are primarily based on the Polar Regions' biogeographic characteristics, extreme climatic conditions, widespread perceptions of being a relatively inhospitable environment (for humans), and a high marine biodiversity and productivity. Tourists from across the world are attracted by the pristine character of the Polar Regions, their sparsely- or non-populated wilderness, and their unique historical and cultural assets [2]. At the same time, the Polar Regions are more and more embroiled in the geopolitics surrounding the region's energy resources and minerals. This is oftentimes at odds with global conservation ambitions, and the

Polar Regions' key qualities when it comes to tourism, i.e., that they remain relatively untouched by human activity, and for the most part can be regarded as wilderness areas. Additionally, the Arctic and the Antarctic are among the regions in the world where climatic changes are most rapid and profound, turning them into a focal point of the global environmental debate. Tourism development can be seen as both a contributor and a victim of these developments, with potential implications for natural resource use, ecosystems and peripheral communities [3].

Tourism development in the Polar Regions may increase awareness about these issues, while at the same time potentially negatively affecting the regions' wilderness character and the cultural integrity of local communities. This special issue explores how tourism development in the Polar Regions is, or can be, managed to enhance the conservation of natural resources, the protection of the environment the wellbeing of peripheral communities and the experiences of visitors.

2. Tourism in the Polar Regions

Reliable and regionally comparable statistics on tourism development across the Polar Regions are hard to come by, and even more difficult to compile [4]. In a recent publication by several IPTRN steering committee members, three examples are provided of the size and value of tourism in the Arctic [5]. We use the same examples here, but update the figures to give an indication of the scope and pace of tourism growth. In the autumn and winter of 2013–2014, 273,100 out-of-state visitors visited Alaska, followed by almost 1.6 million out-of-state visitors in the summer of 2014. A considerable proportion of these visitors are arriving on large cruise ships. This inbound tourism is estimated to have sustained 38,700 full- and part-time jobs, including all direct, indirect, and induced impacts, and generated USD \$173.6 million in taxes and revenues, USD \$1.83 billion in visitor spending and an overall economic impact of USD \$3.92 billion [6]. Iceland has seen inbound tourism grow eightfold since 2002. That year the Icelandic Tourist Board (ITB) counted 246,580 international passengers departing through Keflavík international airport, which is used as a proxy for all inbound tourism, as all come and go through this one gateway. In the year 2016 this figure stood at almost 1.8 million. In 2016 all tourism services (domestic and international) accounted for 39.2% of Iceland's export revenue (ISK 466 billion) [7]. Similarly, on mainland Europe, visitor nights in Finnish Lapland, the most Arctic region of the European Union, grew from 1.7 million in 2001 to 3.2 million in 2016, remaining fairly constant at 10–12% of the market share for all of Finland [8]. These are astounding figures indeed from three Arctic mass tourism destinations. Of course, considerable geographical variation in inbound tourism numbers and growth exists, and in addition to mass tourism sites, numerous ecotourism niches are present in both the Arctic and the Antarctic, for example expedition cruising [9]. Nevertheless, where inbound tourism grows, so does the economic value of tourism (at local, regional and national levels), including the hard-to-measure socio-cultural and environmental effects the sector has.

The benefits of polar tourism might be daunting to realize, as challenges particular to their operation include pronounced seasonality and difficult access to tourist markets. When it comes to the local communities, they are generally small and remote, yet different in the two polar realms. In the Antarctic, there is no indigenous population; social interaction and contention mainly exists between the existing scientific community and tourism development needs. While access to tourism sites is difficult (geographically and financially) in both Polar Regions; the Arctic is also faced with human development needs of indigenous communities and human capital issues (e.g., need for human resources and service training). In addition, while winter and northern lights tourism appears to be a growing phenomenon, extensive glaciation and sea ice coverage, as well as prolonged periods lacking daylight hours, has up until now resulted in stronger seasonality of tourism in the Polar Regions than elsewhere in the world.

The Polar Regions are often touted as the 'canary in the coalmine' when it comes to climate change. However, with their delicately balanced ecosystems in risk of collapse or transformation with global climate change, these changes also open up and facilitate access to the area and its hitherto largely unexplored tourism potential [3]. Newly accessible destinations and tourism experiences can

be developed with the operational premise that tourism can help preserve communities' natural and cultural resources, and facilitate some sense of historical continuity and contribute to their future viability within a rapidly globalizing world. At the same time, using carbon-fueled travel to get to the Polar Regions in turn contributes to and enhances the effects of climate change [10]. Some claim that, since the Polar Regions most pronouncedly demonstrate the effects of climate change, travel to its destinations may contribute to a growing awareness of the issues of climate change [11]. Others have explored different tourism futures of the Anthropocene, whereby tourism's entanglements with the global ecosystem are analyzed [12].

3. Polar Tourism Research

Polar tourism is an evolving and maturing field of academic interest, as Stewart et al. clearly demonstrate in their recent comprehensive overview [13]. In their paper, they provide a thematic outline of published research on polar tourism based on eight themes. The two predominant themes deal with development and management of polar tourism, most often with a particular geographical focus. Tourist experiences feature thereafter as a focal area of research, followed by global change, governance and impacts of polar tourism. The last two, and least studied, areas of research deal with communities and their varied relations to polar tourism and reviews of polar tourism research.

Polar tourism research reviews, like the recent Stewart et al. paper, focus on understanding which scholars play a role in this emerging field, and how their publications are spreading through the academic community and further afield. Stewart et al. demonstrate in their paper that "the groups creating and expanding our understanding of polar tourism phenomena are still relatively small and are brought together by a handful of key tourism researchers. However, the scholars driving polar tourism research have begun to institutionalize their interactions and capacity building through IPTRN" [13] (pp. 77–78).

3.1. The IPTRN and Its Conferences

The IPTRN was created in 2006 by a group of academics as a means of providing a forum for researchers working on tourism and its intersection with environmental, cultural, and economic issues in Polar Regions. The IPTRN strives to generate, share and disseminate knowledge, resources and perspectives on polar tourism, and strongly supports the development of international collaboration and cooperative relationships between members. Membership in the network includes university researchers, consultants, tourism operators, government organizations, community members, and graduate students dedicated to analyzing tourism in Arctic and Antarctic settings. The network has held five community-embedded workshop conferences, starting in 2008 in Montreal/Kangiqsujuaq, Canada, the second in 2010 in Abisko, Sweden, the third in 2012 in Nain, Canada and the fourth in 2014 in Christchurch/Akaroa, New Zealand. Each has led to publications identifying issues surrounding the field of polar tourism [1,14–16]. The biannual conferences play a key role in institutionalizing research efforts through the IPTRN and provides a prime venue to review topical and innovative research in the field. In this sense, the IPTRN events can be considered nodal points of dissemination.

The fifth conference held in Raufarhöfn, North-East Iceland, in September 2016, explored how expectations towards tourism development in peripheral places can be managed to contribute to the cultural wellbeing of peripheral communities and/or enhance the protection of the environment. Presentations at the conference gave insights into how tourism operations in the polar-regions capitalize on the regions' assets, including their landscapes, wildlife and remoteness, with examples from the Antarctic and Arctic realm. In retrospect, five strands of research emerged as on-going when it comes to tourism studies within the Polar Regions, judging from the papers presented at the last IPTRN conference in 2016.

Firstly, and most prominently, were efforts towards understanding the polar landscape and coming to terms with its wilderness quality and the management implications thereof, be it through comparison between different regions of the Arctic and the Antarctic, or through a comparison of

different viewers, the construction of the polar landscape, its aesthetic and scientific value. Gauging this wilderness quality becomes paramount for understanding a region's tourism potential, when, where and for whom. Under this first strand of research, the educational aspect of polar travel was also explored, examining the way in which visits to the Polar Regions in one way or another involve study or learning by those undertaking such journeys.

The second strand dealt with issues of environmental management and environmental degradation due to visitation. The environmental impact of tourism is visible, for example, in the trampling of delicate flora in the Polar Regions and damage to biota that will take decades—if not centuries—to naturally regain its former status. The conference also addressed how to manage the threat of degradation by, for example, temporary closures, developing infrastructure and tourism guidelines to direct people and their activities.

The third strand dealt with cruise tourism in the Arctic and Antarctic, which in many polar destinations is the predominant means of access. This ever-growing segment of tourism in the Polar Regions is cause for concern, as it is difficult to manage and regulate. Cruise tourism in the Polar Regions holds implications for safety, rescue capacity and marine and coastal cultural and natural heritage preservation. How the polar cruising industry is organized, and what drives its growth and organization, was gauged, including the use of ICT, vessel tracking, and weather and sea ice information.

The fourth strand explored during the conference dealt with some of the key experiences and attractions of the Polar Regions, including the northern lights, its glaciers and the wildlife inhabiting the region. How darkness and light have a role in the experience of the polar realm and how this is mediated through social media was explored, as was the role of polar bears and how tourism is developed around these iconic figures of the North.

Lastly, culture and climate change were discussed in terms of societal resilience, tourism land-use struggles with extractive industries, the construction of place-meanings at current and historically, and how to manage tourism to attain sustainable community development. The complementarity of reindeer herding, or other cultural practices, and tourism were also the focus of analysis.

As can be seen from these five strands, the field of polar tourism studies is a wide-ranging one, as the field of tourism studies more generally is. The current special issue resulting from the conference will, to some extent, capture this diversity and range of scholarship.

3.2. This Special Issue

A total of 12 papers were submitted in response to a call for this special issue circulated in the wake of the conference in Raufarhöfn. We, the editors, were in charge of the peer-review process and once completed, seven papers were finalized for publication in the special issue in late summer 2017. Although the seven papers deal with a range of topics, underpinning them all is the need to come to terms with the rapid and dramatic changes occurring in the Polar Regions, be they biophysical, economic or political. All share the aspiration of making tourism in the Polar Regions sustainable. Whether tourism will be a pillar of, or impediment to, sustainability depends largely on the actors participating in tourism management and public administration, and the actions they take. Actors in polar tourism are many and varied, including destination and natural resource managers, governmental and non-governmental administrators, community residents, tourism operators, emergency responders, scientists, and tourists themselves. Each of these actors have different, and potentially conflicting, perspectives on and interests in tourism. For each of these interests, tourism can provide many direct benefits and many indirect benefits for natural resource protection, cultural sustainability and global society. However, tourism can also damage the quality of natural resources, jeopardize the integrity of cultures, and endanger tourists and community members.

The seven papers can roughly be grouped into two categories. The first set of four papers deals with methods and key assets for developing sustainable tourism operations in the Polar Regions. The second set of three papers deals more with the implications of different means of access to the

more remote parts of the Polar Regions. In the following paragraphs, we will introduce the papers of these two sets.

3.2.1. Methods and Assets for Sustainable Polar Tourism

Barr focuses on the Polar Regions' maritime heritage, claiming that considerable attention is being paid to better understanding and more effectively protecting natural resources in the Polar Regions, while far less is being done to identify and preserve the regions' significant maritime heritage resources. He claims that the uses of historical records detailing the long-standing human inhabitations of the Arctic can help in identifying significant marine cultural heritage landscapes. Their identification will not only assist in establishing regional priorities for targeted archaeological surveys and investigations, but will also likely minimize what will be lost forever as the inevitable "ice-free Arctic", as well as its expanded human footprint, approaches.

Bickford et al. in their paper see tourism as a business opportunity in Arctic countries. However, to ensure the sustainable use of potential tourism resources, they argue that business practices should be dominated by the ethos of ecotourism based on government and social permission to carry out their operations. They argue that government and community acceptance can be facilitated through a social license to operate (SLO). A social license to operate is not a formal agreement or document, but ongoing negotiation, practices and acts of corporate social responsibility (CSR). They claim that sustaining local and traditional resources and lands, especially in the Arctic, becomes a key factor in decisions regarding tourism development. The way to achieve this is through responsible businesses practices of CSR and SLO in ecotourism.

Bystrowska et al. in their paper detail how information and communication technology (ICT) is increasingly used to support the sustainable management of nature-based tourism sites. Key challenges to successful management are the remoteness and risks associated with Arctic tourism. Their argument is developed from a case study of an expedition cruise operators' network in Svalbard and how the use of ICT affects collective action and sustainable management of tourism sites. Through increased noticeability, the creation of artificial proximity and the development of new management practices, ICT can help overcome the challenges of collective action that are posed by the Arctic environment. They emphasize that the successful application of ICT depends on a high level of social capital; in particular, norms to guide interactions between actors in the network.

Stewart et al. start off their paper with the claim that the absence of basic statistics and research hampers the development of management plans or visions for tourism in the Polar Regions. They demonstrate this through their focus on the New Zealand Sub-Antarctic Islands, which are among the most remote and hostile within New Zealand waters. With their remoteness and their recent World Heritage Area status, the Islands have long appealed to visitors wishing to explore and understand the Islands' rich natural and cultural environments. The need for developing and implementing a visitor monitoring program has been identified to determine the effects of visitors on natural and cultural assets, as well as on the visitor experience itself. However, there is only piecemeal data published on visitor numbers upon which to base visitor monitoring, and there is only limited evidence regarding the range of possible impacts visitors may have, including their direct and indirect impact on wildlife, soils, and vegetation. The authors try to remedy this lack of primary data through secondary data, but the point remains that the best of intentions for tourism development in the Polar Regions can be thwarted as there is limited (or no) data and a lack of capacity to provide these.

3.2.2. Issues and Implications of Tourism Operations in Polar Marine Areas

The paper listed under the second theme deal with various implications of accessing remote marine parts in the Polar Regions. Johnston et al. in their paper focus on marine tourism in Arctic Canada. They identify how climate change and a range of environmental risks and other problems present significant management challenges. In their paper, they describe the growth in cruise tourism and pleasure craft travel in Canada's Nunavut Territory and outline issues and concerns related to

existing management of both cruise and pleasure craft tourism. More specifically, three key strategic issues are discussed: the need to streamline the regulatory framework, the need improve marine tourism data collection and analysis for decision-making, and the need to develop site guidelines and visitor behavior guidelines.

Manley et al. in their paper approach polar expedition cruising from the tourist perspective. They investigate the motivations for, and the educational dimensions of, expedition cruising, using entrance surveys prior to embarking on four separate itineraries in the Arctic. Analysis of the survey, semi-structured interviews, participant observations and a post-trip follow-up survey to assess attitudinal changes highlighted that, unlike mainstream cruisers, expedition cruisers are motivated by opportunities for novel experiences and learning. Subsequently, the educational programs offered by expedition cruise companies are an important component of the cruise experience.

Finally, a key issue when it comes to marine tourism development in the Polar Regions is risk. Aase explores the use of Automatic Identification System (AIS) data collected from satellites for supporting search and rescue (SAR) operations in remote waters. A case study is presented discussing the Ortelius incident in Svalbard in early June 2016, using data recorded by the Norwegian polar orbiting satellite AISat-1. The Ortelius is a tourist vessel that experienced engine failure whilst no Norwegian Coast Guard vessels were in the vicinity. The Governor of Svalbard had to deploy her vessel Polarsysse to assist the Ortelius. The paper shows that satellite-based AIS enables SAR coordination centers to swiftly determine the identity and precise location of vessels in the vicinity of the troubled ship. This makes it easier to coordinate SAR operations.

4. Concluding Remarks

All in all, the seven papers show that polar tourism research is a wide-ranging field, and is rapidly growing, as tourism operations swell in the Polar Regions. What we see emerging in particular from this special issue is a more detailed analytical focus on a range of issues identified as central to polar tourism research. As a sign of a maturing field, the research presented at the conference and detailed in this special issue adds empirical and analytical scope to the field, and moves away from the charting of general contours or description of issues in polar tourism. What can also be seen are the ways in which general topics of interest in the wider academic community are being brought to bear on the particularities of polar tourism development. It is our expectation and hope that with the growth of polar tourism, scholarship on the topic will grow alongside it. The IPTRN conferences and publications keep track of these developments and provide fertile ground for this maturing field of study. You are welcome to join us for the next IPTRN conference in the Yukon territory of Arctic Canada in June 2018.

Conflicts of Interest: The authors declare no conflict of interest.

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