Arctic Tourism: Realities & Possibilities

Patrick T. Maher, Hans Gelter, Kevin Hillmer-Pegram, Gestur Hovgaard, John Hull, Gunnar Þór Jóhannesson, Anna Karlsdóttir, Outi Rantala, & Albina Pashkevich

This paper addresses human capital in the Arctic in relation to tourism. More specifically, with an ever-increasing number of tourists recognizing the attractiveness of the Arctic, tour companies are increasingly recognizing the opportunities. The media (typically southern media) sells the image, either before or after the tourists arrive, and communities are often left to deal with the repercussions – whether those are social, economic, environmental, or the like. Many of the repercussions are negative; however, even when perceived as positive they can create tensions within small communities and showcase a variety of capacity issues.

This paper focuses on the realities and possibilities of tourism in the Arctic. It offers an up-to-date descriptive overview of tourism numbers and valuations. In addition, 'realities' also focuses on the current suite of challenges and 'possibilities' addresses critical questions that need to be asked as tourism grows. We are in an uncertain age and academic critique of the Arctic tourism phenomenon is growing as quickly as the numbers. This paper is almost fully circumpolar in outlook, written by individuals from those jurisdictions, and aims to intersect with other sectors active in the Arctic.

Arctic Tourism – Definitions and Resources

Tourism in the Arctic starts at the North Pole and quite literally spreads out in all directions from there. Attractions include charismatic mega fauna such as polar bears and narwhal, the cultural uniqueness of a variety of Indigenous peoples, vast tundra and taiga landscapes, icebergs and glaciers and even a few built facilities of note. One of the critical concerns in understanding Arctic tourism is in recognizing its boundaries. Using a geographical perspective to delineate Arctic tourism, this paper defines the Arctic as:

Patrick T. Maher is Associate Professor at Cape Breton University. Hans Gelter is Associate Professor at Luleå University of Technology. Kevin Hillmer-Pegram is a PhD Candidate at the University of Alaska Fairbanks. Gestur Hovgaard is Associate Professor at the University of the Faroe Islands. John Hull is Associate Professor at Thompson Rivers University. Gunnar Þór Jóhannesson is Associate Professor at the University of Iceland. Anna Karlsdóttir is Assistant Professor at the University of Iceland. Outi Rantala is Senior Lecturer at the University of Lapland. Albina Pashkevich is Senior Lecturer at Dalarna University.

> All of Alaska, Canada north of 60°N together with northern Québec (Nunavik) and Labrador (Nunatsiavut), all of Greenland, the Faroe Islands, and Iceland and the northernmost counties of Norway (Nordland, Troms, Finnmark and Svalbard), Sweden (Västerbotten and Norrbotten) and Finland (Lapland)…(and in Russia) the Murmansk Oblast, the Nenets, Yamalo-Nenets, Taimyr, and Chukotka autonomous okrugs, Vorkuta City in the Komi Republic, Norilsk and Igsrka in Krasnoyarsky Kray, and those parts of the Sakha Republic whose boundaries lie closest to the Arctic Circle (Stefansson Arctic Institute 2004: 17-18).

Beyond its geographical scope, it is common that Arctic tourism is characterized as remote and difficult to access (although this is not true across the entire Circumpolar North); as beset by human capital issues (e.g., lack of trained staff, or even a population large enough to handle the task); and as occurring in fragile natural and cultural environments. More so than most other destinations worldwide, Arctic tourism has strong seasonality due to the extreme variations in daylight hours, but winter tourism appears to be a growing phenomenon (Müller 2011).

In the past decade there has been significant scholarly research on tourism in the Arctic. The International Polar Tourism Research Network (IPTRN; see http://iptrn.rmf.is/) has produced three recent publications from their community-embedded conferences (see Grenier & Müller 2011; Müller, Lundmark & Lemelin 2013; Lemelin, Maher & Liggett 2013). This network is complimentary to the University of the Arctic's Thematic Network on Northern Tourism. Through these two networks, as well as many other means, scholars have dealt with a number of segments of the sector including: the peripheral realities (Müller & Jansson 2007); unique sub-sectors such as cruise tourism (Lück, Maher & Stewart 2010); and the inherent interconnectivity of environmental changes afoot (Hall & Saarinen 2010; Maher, Stewart & Lück 2011). From the socio-cultural perspective, Indigenous tourism has emerged as a significant dimension of Arctic tourism (Butler & Hinch 2007; Viken and Granås 2014). In addition, industry groups such as the Association of Arctic Expedition Cruise Operators (AECO; see http://www.aeco.no) provide excellent sub-sector oversight in some regions, and inter-governmental agencies such as the United Nations Environment Programme and working groups of the Arctic Council show occasional interest in the sector as a whole.

Realities and Possibilities

This paper is set up to address three specific questions for each country, or region of a country that is contained in the Arctic:

1. What are the up-to-date tourism numbers and the value of that tourism?
2. What are the current challenges, and possible solutions, for tourism?
3. What might the future hold for tourism?

It was the hope that this paper would provide comprehensive coverage, and a co-author from within each region was sought, so as to provide a credible and "local" voice. The reality was that an author from every country was not willing or able to respond and as such this paper is partially incomplete as it is lacking Norway (including Svalbard) and Greenland. However, this should not diminish the contributions from Alaska, Canada, Iceland, the Faroe Islands, Sweden, Finland and Russia.

Alaska

Alaska constitutes the Arctic presence of the United States of America (USA). Alaska's economy is dominated by federal spending and natural resource extraction – primarily oil and gas but also mining, seafood, and forestry – but tourism also plays an important role. Moreover, Alaska is an iconic tourism destination for many Americans, with glaciers, wildlife, scenic nature, and hunting and fishing serving as key attractions (GMA Research Corporation 2011)

The Alaska state government contracts an independent research firm to compile statistics on the state's visitor industry; where visitors are defined as non-state residents. The most recent report covers the 12-month period of October 2012 through September 2013 (McDowell Group 2014). In this period, an estimated 1.96 million individuals visited Alaska, with approximately 51% arriving on cruise ships, 45% traveling by air, and 4% by highway or ferry.

Visitor spending within the state was estimated at $1.82 billion US. Total employment resulting directly and indirectly from the industry was estimated at 39,000. Combined revenue to municipal and state governments was estimated at $179 million US for the period. While these numbers are relatively small compared to oil and gas activities, which were estimated to contribute over $2.6 billion US to the state's revenue in fiscal year 2013 (AKDOG 2014), tourism is a significant source of income for many Alaskans, especially in the south central and southeast regions of the state (McDowell Group 2014).

While tourism provides a rare non-extractive economic option for Alaska, it has its own challenges. One set entails mitigating the negative impacts of tourism on the environment and on communities. Cruise ships in the southeast have been criticized for polluting marine ecosystems and disrupting the daily activities of residents (Ringer 2010; Cerveny 2004). There are also cases of non-resident hunters infringing on the territory of Alaska Natives, who rely on access to game for subsistence (personal communication). While tourism is economically valuable, it must be prevented from overwhelming ecosystems and subsistence-based life-ways through appropriate regulation.

A different set of challenges results from efforts to expand and maintain Alaska tourism – which is predominately nature-based – in the face of climate change. Tourism has been proposed as a tool for economic development in remote far-north communities, but is severely hampered by a lack of infrastructure, including search and rescues capacities for ship-based tourism. While marine access to remote coastal communities is expected to improve as Arctic sea ice shrinks, terrestrial access has been predicted to decrease as permafrost beneath the ground thaws (Stephenson et al. 2011).

Retreating glaciers and shifting ranges of wildlife are causing visitors and tourism operators to alter their spatial patterns in order to secure viewing opportunities in many parts of the state (personal observation). While the Alaska tourism industry possesses economic and lifestyle incentives to adapt to the rapidly changing environment, their capacity to adequately respond is not fully understood. Focusing more on other types of tourism (e.g., historical, cultural) may be important for the future of the industry.

It is difficult to predict the future of Alaska tourism due to the high number of variables influencing visitor numbers. It is likely that visitors will continue to hunt, fish, and experience nature throughout

the state as long as opportunities exist at competitive prices. There could even be a temporary spike in visitations as people hurry to experience such attractions before they are altered by climate change (see Lemelin et al. 2010). However, the high cost of getting to Alaska has been cited as a deterrent to visitation, so global fuel prices could play a large role in future trends (GMA Research Corporation 2011).

Canada

The Canadian Arctic is a region experiencing rapid social, economic, and environmental change as a result of climate change and from the growth of Northern governments and institutions (Dawson, Stewart, Lemelin and Scott 2010; Government of Canada 2009; IPCC 2007; Johnston 2006). In 2009, the Canadian government launched the Northern Strategy providing a clear vision for promoting a prosperous and stable region in the Canadian Arctic through four priorities: 1) exercising Arctic Sovereignty; 2) promoting social and economic development; 3) protecting the environmental heritage; and 4) improving and devolving northern governance (Government of Canada 2009). In promoting economic development, the tourism sector has only, until recently, begun to consider the possible impacts of climate change (Dawson et al. 2010), identified as one of the greatest challenges for the global tourism industry in the 21st century (UNWTO-UNEP-WMO 2008).

In the Canadian Arctic, tourism numbers are uneven across the region as a result of inadequate transportation infrastructure, scarcity of local products, a lack of skilled labour, and insufficient marketing resources (Northern Development Ministers Forum 2008). In recent years, a summary of visitor statistics reveals that the region welcomed approximately 528,000 international and domestic visitors annually with visitor spending totaling approximately $388 million (see Table 1). The Yukon is Canada's most visited Arctic destination.

Table 1: Tourism Statistics in Canadian Arctic Destinations

	Yukon (Belik 2013)	**Nunavut (Belik 2013)**	**Northwest Territories (Belik 2013)**	**Manitoba (City of Thompson Manitoba 2012) Churchill**	**Nunavik (Tourism Quebec 2010)**	**Labrador (Government of Newfoundland and Labrador 2011)**
Visitors	**314,450**	**30,525**	**64,380**	**20,747**	**88,000**	**10,394**
Visitor Spending	**$200 million**	**$40 million**	**$99.5 million**	**$21 million**	**$18 million**	**$9.9 million**
Total visitors	**528,496**					
Total visitor spending	**$388.4 million**					

In the Canadian Arctic, tourism is considered both a stimuli and an agent of change for the region (Stewart, Draper, Dawson 2011). The promotional budgets for tourism in the region are lower than

for the Canadian provinces with the Yukon ($5.2 million), Northwest Territories ($2.6 million), and Nunavut ($1.9 million) spending $9.7 million in total on marketing activities in 2011 (Belik 2013). Tourism in the Canadian Arctic is mainly based on wildlife and landscape linked to the extensive network of protected areas in the region (Lemelin & Johnston 2008; Dawson, Maher, & Slocombe 2007). The Yukon attracts three times as many visitors as the Northwest Territories and Nunavut due to greater accessibility from an extensive road infrastructure and cheaper airfares. The lack of roads in the eastern Arctic and higher airfares limit the numbers of leisure tourists, attracting mainly business travellers. Nunavut tour operators also report that sport hunting is declining and non-consumptive, ecotourism is increasing (Belik 2013).

The growth of expedition cruising in the Canadian Arctic from increased access due to climate change is also resulting in negative cultural and environmental impacts in the form of people pollution, the sale of marine mammal parts for souvenirs, and increased garbage in local communities (Maher, 2012, Stewart, Dawson & Draper 2011; Klein 2010).

The following recommendations are proposed as an overall strategy to promote sustainable forms of tourism in the Canadian Arctic:

- Need for guides in the Canadian Arctic to educate visitors about impacts of climate change and need for lifestyle and behavioural changes (Maher 2012; Luck 2009).
- Increased national and regional marketing budgets to be competitive with other destinations (CTC 2012).
- A review of transportation cost structures in Canada especially aviation cost structures that download taxes and fees on the individual traveler, making Canada one of the most expensive destinations in the world (TIAC 2012).
- A comprehensive monitoring and surveillance system examining expedition cruising in the Canadian Arctic (Maher 2012; Stewart, Draper, & Dawson 2010).
- Empirical studies and adaptation strategies addressing the issue of climate change for the polar tourism sector (Kajan, 2014; Dawson, Stewart, Lemelin & Scott 2010).

Iceland

Tourism in Iceland has in recent years experienced a dramatic growth. Since 2000 the number of tourist arrivals has increased annually by 8% on average and was estimated to be 807,000 in 2013. From 2012 to 2013 the growth was 20% (Ferðamálastofa 2014). At present, tourism exports provide around 26.8% of foreign currency receipts and provides jobs for about 7000 people or about 5% of the workforce (Arion banki 2013; Ferðamálastofa 2014). The rapid growth has created opportunities as well as challenges. Here the major challenges of tourism in Iceland are condensed into four interrelated key points: 1) tourism policy, 2) social and environmental impacts, 3) infrastructure, and 4) research, education and training.

Tourism development has historically been driven by entrepreneurs within a weak organizational and institutional framework (Jóhannesson & Huijbens 2013). A general tourism plan has been in place from 1996, but crucial issues of planning have not been dealt with adequately and there is need for a

revision of tourism policy in Iceland with respect to both the country's tourism resources and to tourism as a resource for socio-economic growth. Those include defining and zoning particular areas for development and protection, monitoring and planning of tourist flows, securing the necessary investment in infrastructural improvements ranging from toilet facilities to road construction and general policy about accessibility and entrance fees for natural attractions.

Tourism in Iceland is largely concentrated both in time and space. The result is that some of the island's key attractions have come under severe pressure. The Arctic and sub-Arctic natural environment is extremely vulnerable for degradation due to too much tourist flows. Research on carrying capacity is being undertaken at several places but studies of social implications of tourism are still largely absent (Ólafsdóttir & Runnström 2013; Sæþórsdóttir 2010). This includes studies of economic benefits of tourism development. There are currently signs of overinvestment in the industry, especially in terms of accommodation and an emerging informal economy. A recent survey shows that only 40% of hotels in the capital region yielded profit in 2012 (KPMG 2014).

While basic infrastructural improvements have been widely recognized by stakeholders as critical, such as road construction and construction of facilities at key attractions other kinds of infrastructure is also in dire need of attention. Safety and rescue is one of the more pressing issues. Iceland has increasingly come to serve as a gateway to the high north for Arctic cruise ships. The establishment of a rescue coordination center at Keflavik (former NATO airbase) is therefore being realized involving coordinated SARS exercises by Greenland. However, given the vast oceanic rescue zone in question, the Icelandic coordination center will have to be a regional hub with others, i.e. Norwegian and Canadian centers collaborating on any action.

Investment in research, education and training has historically been miniscule and still does not reflect the socio-economic importance of the sector. Vocational training for careers in tourism as well as tourism studies at the university level are split between institutes and thus there is an inefficient use of limited funding resources. Statistics Iceland has only sporadically had the financial means to produce Tourism Satellite Accounts and other basic statistics about the industry. Finance for on the ground research on tourism is even more scarce. Hence, the knowledge base around tourism is weak, which hampers possibilities for effective policy directives for more sustainable development (see Jóhannesson, Huijbens, & Sharpley 2010).

In 2013, an increase in tourist numbers by 20% should serve as a timely wake-up call for Icelandic authorities and other stakeholders in tourism. The whole sector has reached a cross-road where the choices are to continue stressing growth in quantity or to build up tourism activities with the objective of long term sustainability and quality of the sector.

Faroe Islands

In 2012, it was estimated that 100,000 accommodation spaces were available in the Faroe Islands. This was an increase of 10,000 spaces from 2011. Cruise tourism is the largest user group with 52,000 guests registered in 2012. A rough estimate would be that the economic turnover in 2011 from tourism was about €55 million, and it is expected to have grown slightly each year since.

Generally speaking, tourism statistics are poor in the Faroes, but some efforts have been made recently to improve this (VisitFaroeIslands 2014).

The Faroes have not yet been particularly good at "getting their share" of the large and growing global tourism business. The relative level of visitors is about the lowest in Europe and the capacity of guesthouses has been stalled since the 1980s. On the other hand, the quality of the hotels and the number of restaurants, especially in the capital Tórshavn has improved substantially in the last decade. As in many other cold island communities, tourism is seen as an important way to generate economic growth. Tourism is expected to grow significantly, and the important "Faroes Tourism Branch" has recently had a financial injection of funding, is newly reorganised, and has adopted a new tourism strategy, which by 2020 has the ambition to: 1) double the number of accommodations; 2) double the number of employees in the industry, and 3) increase the turnover from about €60 million today up to €125 million (VisitFaroeIslands 2014; www.visitfaroeislands.com).

Faroese tourism has developed from the enthusiasm of many devoted single entrepreneurs, who have combined their devotion – for example to save an old sailing ship from destruction and thus create possibilities to earn income. It has also developed from public and public/private investment in the necessary infrastructure – an airline and a European ferry link. You could say that "the big players" have the job to get the tourists to the Faroes while the job of the "small players" is to "entertain them" when they are there (Hovgaard 2014).

Current challenges and the future of Faroese tourism conveniently take their departure from the new tourism strategy. This new tourism strategy has its focus on "branding" and "external" relations. Although branding is extremely important, a larger increase in the number of tourists will also create a need for increased local viability, better "product" and "experience" experimentation and innovation (Sundbo 2014).

Thus there is a need for investments, in social capital as well as other resources, which still seem to be institutionally under prioritized (Hovgaard 2014). There is also a need to balance the new strategy with wider planning issues, as doubling the number of tourists undoubtedly will put added pressure on local infrastructure, local culture and the environment in general. Simple questions like the social and cultural consequences of more tourists, for instance if people are willing to give up their "local way of life", need to be addressed. There is a need to discuss such issues further, and find reasonable and balanced ways to proceed (Laursen 2014).

Faroese nature is normally advertised as being "unspoiled", yet there are parts that are already under stress, and therefore there is a need to combine environmental and tourism policy to manage further stress. One important factor in successful tourism development is to professionalize the business aspect, and research shows that local entrepreneurship, innovation, professionalization and further research are necessary preconditions to develop destinations and the experience economy in general (Sundbo 2014).

Sweden

In Sweden the two most northern counties of Norrbotten ("*Swedish Lapland*") and Västerbotten together constitute 34% of the area of Sweden, with a population of only 5.5% of the Swedish population of 9.6 million. The region is characterized by a decreasing and ageing population and an economy mainly based on forest production, mining and hydroelectric power production, but it has also developed into an important tourist destination as of late (Müller 2011).

The main attractions in the mountainous area are ski-resorts, large national parks such as Laponia, and the authentic Sámi culture with reindeer herding. Attractions in the boreal forest are fewer, but include the Ice hotel, Tree Hotel, and fishing and rafting in the rivers. The coastal areas attract mainly camping tourists from Norway to the "Riviera of the North", and more traditional rural and cultural tourism in the coastal cities. Thus, nature-based tourism is the main attraction in Northern Sweden, having the highest concentration of ecotourism companies licensed according to the Nature's Best certification (Müller 2011).

Accessibility is, compared to other Arctic areas, very good with a well-developed road network and daily flight connection from Stockholm to nine airports, as well as a railway along the coast to the mountains (Müller 2011, Swedish Lapland Tourism 2014).

The destination of Swedish Lapland is one of Sweden's top developing destinations, with a 12% increase in tourism turnover in 2012, compared with 4.8% overall in Sweden. The total turnover value was 4.5 billion SEK for Swedish Lapland (275.5 billion SEK total in Sweden). Overall, international arrivals in Sweden have between 2000-2012 increased with 115% (85% Europe and 110% Globally (Tillväxtverket 2013). In Swedish Lapland 23% of guest nights were international with the largest international markets being Norway followed by Germany, Denmark, UK, the Netherlands, Finland and USA (Tillväxtverket 2013).

Despite the increased revenue from tourism, Sweden has from 2009-2011 lost market shares to neighboring Scandinavian countries and the rest of Europe. The major challenge for Swedish tourism is to increase its international competitive share, and get more local destinations on the international market (Tillväxtverket 2013). Other challenges are national legislation and regulations, such as restricted commercial tourism assess to national parks, and the clash of interests concerning property rights, tourism and the right public access to nature in Sweden (Sandel & Fredman 2010, Sténs & Sandström 2013), as well as conflicts between tourism development and forestry, mining and reindeer herding, as well as accessibility such as direct incoming international flights (Müller 2011). Lately climate change has become a challenge for ski resorts and other winter oriented tourism activities (Brouder & Lundmark 2011).

Besides the natural and cultural tourism resources, Sweden's natural hospitality and service quality, general high education level and innovation capacity, as well as a well-developed infrastructure and social services in the subarctic environment give good potential for tourism. The recent governmental strategy to double tourism revenue by 2020 has initiated several promising tourism development initiatives (Svensk Turism 2011). These include professional international market

analysis and product development as well as stronger local and regional networking among tourism stakeholders.

The general opinion among tourism stakeholders is very positive about the future development of tourism in Northern Sweden. New innovative areas such as space tourism at Spaceport Sweden, technical visits to traditional industry and city relocations (Kiruna), Arctic car and military testing, and of course, increasing traditional nature-based tourism seem promising (Swedish Lapland Tourism 2014).

Finland

In Finnish Lapland nature tourism has been a key development area since the beginning of the 1980s. The growth within the tourism industry has been most rapid in the programmed tourism services in the winter season. Typical commercial tourism services in Finnish Lapland consist of programmed services, such as snowmobile excursions to reindeer or sledge dog farms. Despite the relative remoteness and wilderness-like attributes of the tourism destinations in Lapland, the typical programmed services, especially the ones offered in the winter season, are not generally considered as adventurous (Rantala & Valkonen 2011).

There were approximately 2.4 million tourists visiting Lapland in 2013 of which 1.3 million were Finnish and 1 million were foreign tourists (Regional Council of Lapland, no date). This means that the number of registered overnights has almost doubled from 1.25 million in 1990. In addition, the actual number of tourists in 2013 was estimated to be three times the registered number since a considerable part of overnights are non-registered ones. In 2013 foreign tourists came to Lapland mainly from Great Britain, Russia, Germany and Japan. The main tourist season takes place from February to April. The summer and autumn seasons attract primarily Finnish hiking tourists. The Christmas season with British and Russian tourists starts in November and lasts until January.

There were 1586 tourism enterprises in Lapland in 2011. The number of tourism companies grew 6.4 % during the years 2006–2011. The turnover of tourism companies in 2011 was 471 million euros. Most of the tourism enterprises employ less than ten people. Hospitality and tourism businesses employed 4497 people in total in the year 2011. The employment in tourism grew 3.5 % during the years 2006–2011, which was approximately 1.5 times more than the growth in forestry and almost 4.5 times more than the growth in mining. Especially young people find employment in tourism sector. The importance of tourism as employer is highlighted in the municipalities of Western Lapland, where the share of tourism industry in employment varies from 39% to 46%. (Kyyrä ed. 2013; Satokangas 2013.)

Tourism growth in Finnish Lapland has been substantial and the development has been based on dividing the tourism destinations on different categories from burgeoning to strong destinations and formulating tourism zones around the destinations in order to enhance development between destinations and villages surrounding the destinations (Lapland Strategy for Tourism 2011-2014). This model has turned out as a successful way to develop tourism in peripheral Arctic areas. However, the quality of the growth and its limits has not yet been comprehensively discussed (Hakkarainen & Tuulentie 2008; Tyrväinen et al. 2014).

Current challenges for developing tourism in Finnish Lapland relate to accessibility and seasonality. The biggest challenge is formed by weak flight connections, low numbers of airlines operating in Lapland and the threat of closing airports in Lapland (Kyyrä ed. 2013; Strategy for Lapland 2011-2014). In addition, railway traffic needs development as well. Coping with seasonality is one of the most public issues – beside accessibility – in the tourism industry and the development of a summer season has been stressed in Lapland. Lapland can provide a special tempo and a special way of being in the world that is difficult to reach in hectic urban life – it is development of this aspect that could benefit developing summer tourism in Finnish Lapland (Rantala & Valtonen 2014).

International tourists form the main target group for future tourism in Finnish Lapland. Responsible tourism development is based on clean nature and safety and organized through four main thematic areas: well-being (e.g. services related to sauna and clean water), culture (e.g. relationship with nature, local narratives), summer (e.g. non-motorized nature activities) and winter (e.g. ice and snow technologies, northern lights, Christmas tourism) (Ministry of Employment and the Economy 2014).

Russia

The official number of tourist arrivals to the northern regions of Russia are unavailable, but according to Tzekina (2014) they can be estimated at roughly 500,000 visitors annually. The Murmansk Oblast and Chukotka autonomous Okrug act as entry points from the West and East respectively, into the vast territory of the Russian Arctic and thus may enjoy somewhat higher number of tourists.

Common for the tourist entrepreneurs of these regions is an informal network of contacts with local society and authorities providing support in terms of permits, development grants, start-up capital, private accommodation, guiding, etc. Recently, many advances have been made in terms of the variety of tourism experiences offered to the customers, and improvements in the hospitality sector, primary infrastructure such as hotels and restaurants. As a result of the increased attention on the Arctic, the number of bed nights in the region has grown.

Tourism offerings do not vary considerably across the territory and are primarily confined to hunting and fishing trips, ethnographic tours based on the traditions and culture of the indigenous people of the area, adventure tourism (including snowmobile safaris, white-water rafting, hiking and trekking). More recently, event tourism began to develop based on shorter (one or two days) celebrations of various kinds or sporting competitions. The vitality of most of the events is questionable, but some of them have started to become larger and are able to attract considerable local attention even during the summer months, on the territory of Nenets Autonomous Okrug or Komi Republic. Cruise ship tourism is still rather limited and only includes areas of the Murmansk and Arkhangelsk Oblasts in the west and Chukotka autonomous Okrug in the east. With this is mind it is Russian ports that are the only access points currently available for cruises to the North Pole.

Regional administrations of several regions have started to turn their attention towards tourism and are now supporting various programs concerning the overall destination development; however, the results vary considerably across the region. Leaders in this process are the governments of the Murmansk Oblast and Yamalo-Nenets autonomous Okrug. Several new extreme types of small-scale

tourism opportunities are beginning to emerge that allow even greater accessibility to the untouched nature. These include yacht excursions, helicopter and airplane flightseeing tours.

Current challenges include on one side the inspiring activities of local entrepreneurs with the experience and knowledge of the natural surroundings and on the other, border control, the prevailing nature resource extraction monopolies and overall geopolitical instability in Russia (Pashkevich 2013; Pashkevich & Stjernstrom 2014). The greatest challenge includes the increasing pressures on the fragile environment and local infrastructures (water supply and sewage systems), which are unable to cope with the increasing visitor numbers. It is not a question of mass tourism in the area, but rather how far and close to the wild nature or indigenous society an individual tourist wants to come. This close encounter holds the greatest risk for both humans and the environment. In the complete absence of the system monitoring tourism development impacts, these problems are not identified and thus not addressed properly. The same applies towards the monetary contribution to the local economy. The economic value obtained from the visitors stays in private pockets as it disappears through the informal support networks, which are established to sustain small-scale tourist operations in remote villages. Another, alarming problem is the absence of "rules of conduct" for tourist operations in the Russian Arctic for both nature guides and their visitors. You are allowed to do as you please and only your own intuition can give you the guidelines on how to behave. The system of emergency rescue is yet to be developed and along with the rather specific Russian safety standards (drinking while driving, skepticism towards use of the safety equipment) adds to the uncertainty surrounding tourists' safety in the Arctic.

In the future, tourism development will likely become concentrated in fewer enclaves across the territory of the Russian Arctic and have a dual character of development. One character is the top-down, officially ordered, development with the obvious Post-Soviet touch and driven by the interests of the extraction companies. The other character is that development will become informal, and that has the greatest potential to become a driver of economic and social change, as actors involved in it are adaptable and eager to learn new approaches and techniques.

Conclusions

As showcased across the Arctic there is consistent growth in terms of the numbers of tourists and the value of tourism. Yet there are divergent challenges depending on the current state of affairs. For example, tourism in Alaska is well developed, and thus has a different level of challenge as compared to Russia. Even within a single country, such as Canada, there can be drastic differences – in this case East to West, whereby the ease of accessibility in the Yukon (and even the proximity to a major destination such as Alaska) makes it different to areas that are fly-in only, such as Nunavik or Nunavut. Both Iceland and the Faroe Islands appear to be at an important point in development: the quantity of tourists is strong, but quality may suffer if the tensions between investment, protection and community values are not addressed.

The Arctic is currently in the "lime light". Media covers the issues; the issues are constantly growing in the public eye, and as a result the public feels a need to visit. For Russia, the future is realizing appropriate development in the first instance, for Finland and Sweden the concern is product and

destination diversification, Canada needs to better understand and support what they already "have" as a product because there are significant issues around permitting and regulatory processes. Meanwhile Alaska appears to be at a highpoint, but even with its status as a premiere destination, stakeholders are conscious of global changes that may impact them. There is a general sense of optimism about the future of Arctic tourism, but all of that could change because in no jurisdiction is the industry completely sustainable.

This comparative study has revealed directions for future research that could move Arctic tourism in a more sustainable direction, thus addressing the academic critiques mentioned at the beginning of the paper. For example, we have exposed a consistent straining between the perceived need for economic development through tourism (and the resultant demand for more infrastructure) and the fear that more tourism will degrade natural environments and negatively impact small communities. Future studies that compare the governance of tourism in multiple Arctic countries would likely reveal useful insights about how public, private, and civic stakeholders negotiate the rules of tourism development. A better comparative understanding of tourism governance through either a single research study or adjoined studies, in turn, should reveal strategies that allow decision making processes to be fair and effective, which is direly needed in light of the rapid Arctic changes taking place.

Acknowledgements

This paper was written as a collaborative effort of the University of the Arctic Thematic Network on Northern Tourism. Maher initiated the submission and coordinated co-author contributions. The remaining authors are listed alphabetically and provided specific geographical expertise: Gelter (Sweden); Hillmer-Pegram (Alaska); Hovgaard (Faroe Islands); Hull (Canada); Jóhannesson, (Iceland); Karlsdóttir (Iceland); Rantala (Finland); Pashkevich (Russia).

References

AKDOG (Alaska Division of Oil and Gas). (2014). *Distribution of Funds Received from Oil and Gas Leases (2002-present).* Retrieved from http://dog.dnr.alaska.gov/. Accessed on June 5, 2014.

Arion banki. (2013). Ferðaþjónustan: Atvinnugrein á unglingsaldri [Tourism: sector in its youth]. Reykjavík: Arion banki.

Belik, V. (2013, May). Our annual tourism report card. *Up Here Business*. 118. Retrieved from www.upherebusiness.ca. Accessed on May 17, 2014.

Brouder, P. & Lundmark, L. (2011). Climate change in Northern Sweden: Intra-regional perceptions of vulnerability among winter-oriented tourism businesses. *Journal of Sustainable Tourism*. 19(8): 919-933.

Butler, R. & Hinch, T. (eds.) (2007). *Tourism and Indigenous peoples: Issues and implications*. Oxford, UK: Butterworth-Heinemann/Elsevier.

Cerveny, L. (2004). *Preliminary research findings from a study of the social-cultural effects of tourism in Haines, Alaska: General Technical Report*. US Department of Agriculture, Forest Service. Pacific Northwest Research Station: General Technical Report PNW-GTR-612 .

City of Thompson, Manitoba (2012). *Sustainable community development plan.* Thompson Manitoba. City of Thompson, Manitoba.

CTC. (2013). *Helping tourism businesses prosper. Annual Report 2013*. Vancouver: Canadian Tourism Commission.

Dawson, J., Maher, P., & Slocombe, S. (2007) Climate change, marine tourism and sustainability in the Canadian Arctic. *Tourism in Marine Environments*. 4(2-3): 69-83.

Dawson, J., Stewart, E., Lemelin, H., & Scott, D. (2010). The carbon cost of polar bear viewing in Churchill, Canada. *Journal of Sustainable Tourism*. 18(3): 319-336.

Ferðamálastofa. (2014). Ferðaþjónusta á Íslandi í tölum: Apríl 2014 Retrieved from http://www.ferdamalastofa.is/static/files/ferdamalastofa/Frettamyndir/2014/april/ferdatjonusta_itolum_april14.pdf. Accessed December 5, 2014.

GMA Research Corporation. 2011. *Images of Alaska 2011*. PowerPoint presentation. Prepared for Alaska Tourism Industry Association, Anchorage AK.

Government of Canada. (2009). *Northern Strategy*. Ottawa.

Government of Newfoundland and Labrador. (2011). *Profile of non-residents visiting the Labrador Region*. St. John's: Government of Newfoundland and Labrador.

Grenier A.A. & Müller, D.K. (eds.) (2011). *Polar Tourism: A Tool for Regional Development*. Montréal: Presses de l'Université du Québec.

Hakkarainen, M. & Tuulentie, S. (2008). Tourism's role in rural development of Finnish Lapland: interpreting national and regional strategy documents. *Fennia*. 186: 3-13.

Hall, C.M., & Saarinen, J. (2010). Tourism and change in the polar regions: Introduction–definitions, locations, places and dimensions. In C.M. Hall & J. Saarinen (eds.). *Tourism and Change in Polar Regions: Climate, Environments and Experiences* (pp. 1-41). London: Routledge.

Hovgaard, G. (2014). *Tourism and the Faroes as a successful cold water island destination*. Unpublished paper. University of the Faroe Islands.

IPCC (2007). *Climate change 2007, the Fourth Assessment Report*. Cambridge, UK: Cambridge University Press.

Jóhannesson, G. T., Huijbens, E., & Sharpley, R. (2010). Icelandic Tourism: Past Directions – Future Challenges. *Tourism Geographies*. 12(2): 278-301.

Jóhannesson, G. T., & Huijbens, E. H. (2013). Tourism Resolving Crisis? Exploring Tourism Development in Iceland in the Wake of Economic Recession. In D. Müller, L. Lundmark & R. H. Lemelin (eds.). *New Issues in Polar Tourism: Communities, Environments, Politics* (pp. 133-147). New York: Springer.

Johnston, M. (2006) Impacts of global environmental change on tourism in Polar Regions. In Gossling, S. & Hall, C.M. (eds.) *Tourism and global environmental change: ecological, social, economic and political interrelationships.* (pp. 37-53). New York: Routledge.

Kajan, E. (2014). Arctic tourism and sustainable adaptation: community perspectives to vulnerability and climate change. *Scandinavian Journal of Hospitality and Tourism* . 14(1): 60-79.

Klein, R.A. (2010). The cruise sector and its environmental impact. In Schott, C. (ed.). *Tourism and the implications of climate change: issues and actions (Bridging Tourism Theory and Practice, Volume 3;* pp. 113-30). Emerald Group Publishing Limited.

KPMG. (2014). Hótelgeirinn á Íslandi: úttekt um arðsemi í hótelrekstri á Íslandi. Reykjavík: KPMG.

Kyyrä, S. (ed.). (2013). Ennakoinnista kilpailukykyä Lapin matkailulle. Toimintaa ja tulevaisuuskuvia. Multidimensional Tourism Institute, University of Lapland.

Lapland Strategy for Tourism 2011-2014. Regional Council of Lapland, Finland.

Laursen, S. Færøsk Turisme: Mellem Bæredygtigt Potentiale og Vanetænkning. Master thesis. Department of Environmental, Social and Spatial Change. Roskilde University. Retieved from http://rudar.ruc.dk/bitstream/1800/15612/1/Speciale.pdf. Accessed September 15, 2014.

Lemelin, R.H., Dawson, J., Stewart, E.J., Maher, P.T., & Lück, M. (2010). Last-Chance Tourism: The Boom, Doom, and Gloom of Visiting Vanishing Destinations. *Current Issues in Tourism.* 13(5): 477-493.

Lemelin, H. & Johnston, M. (2008). Northern protected areas and parks. In Dearden, P. & Rollins, R. (eds.) *Parks and protected areas in Canada: planning and management* (3rd ed. pp. 294-313). New York: Oxford University Press.

Lemelin, R.H., Maher, P.T., & Liggett, D. (eds.). (2013). *From talk to action: How tourism is changing the Polar Regions.* Thunder Bay: Lakehead University Centre for Northern Studies Press - Northern and Regional Studies Series #23.

Lück, M. (2009). *Environmentalism and tourists' experiences on swim with dolphin tours: a case study of New Zealand.* Saarbrucken: VDM Verlag Dr. Muller.

Lück, M., Maher, P.T., & Stewart, E.J. (eds.). (2010). *Cruise Tourism in Polar Regions: Promoting Environmental and Social Sustainability?* London: Earthscan.

Müller, D.K. (2011). Tourism development in Europe's "last wilderness": an assessment of nature-based tourism in Swedish Lapland. In Grenier, A.A. & Müller. D.K. (eds.). *Polar Tourism: A Tool for Regional Development* (pp. 129-153). Montréal, QC: Presses de l'Université du Québec.

Müller D.K., Lundmark, L. & Lemelin, R.H. (eds.) (2013). *New Issues in Polar Tourism: Communities, Environments, Politics*. Dordrecht: Springer.

Müller, D. K. & Jansson, B. (eds). (2007). *Tourism in Peripheries: Perspectives from the Far North and South*. Wallingford. CABI.

Maher, P. (2012). Expedition cruise visits to protected areas in the Canadian Arctic: issues of sustainability and change for an emerging market. *Tourism*. 60(1): 55-70.

Maher, P.T., Stewart, E.J. & Lück, M. (eds.). (2011). *Polar Tourism: Human, Environmental and Governance Dimensions*. Elmsford, NY: Cognizant Communications Corp.

McDowell Group. (2014). *Economic Impact of Alaska's Visitor Industry: 2012-13 Update*. Prepared for State of Alaska Department of Commerce, Community, and Economic Development, Division of Economic Development. Available at: http://commerce.alaska.gov/dnn/ded/DEV/TourismDevelopment/TourismResearch.aspx.

Ministry of Employment and the Economy (2014). Suomen matkailun tulevaisuuden näkymät. Katse vuoteen 2030. Reports of the Ministry of Employment and the Economy 4/2014.

Northern Development Ministers Forum. (2008). *Tourism´s potential in Canada´s North: report on survey results. July 2008*. Ottawa: Northern Development Ministers Forum. pp.48.

Ólafsdóttir, R., & Runnström, M. C. (2013). Assessing hiking trails condition in two popular tourist destinations in the Icelandic highlands. *Journal of Outdoor Recreation and Tourism*. 3(4): 57-67. doi: http://dx.doi.org/10.1016/j.jort.2013.09.004

Pashkevich, A. (2013). Tourism development planning and product development in the context of Russian Arctic territories. In Lemelin, R.H., Maher, P.T. & Liggett, D. (eds.). *From Talk to Action: How Tourism is Changing the Polar Regions*. Lakehead University, Thunder Bay, Ontario: Centre for Northern Studies Press.

Pashkevich, A. & Stjernström, O. (2014). Making Russian Arctic accessible for tourists: Analysis of the institutional barriers. *Polar Geography*. DOI:10.1080/1088937X.2014.919040

Rantala, O. & Valkonen, J. (2011). The complexity of safety in wilderness guiding in Finnish Lapland. *Current Issues in Tourism*. 14: 581-593.

Rantala, O. & Valtonen, A. (2014). A Rhythmanalysis of Touristic Sleep in Nature. *Annals of Tourism Research*. 47: 18-30.

Regional Council of Lapland (no date). Tourism Statistics. Available at: www.lappi.fi/lapinliitto/fi/julkaisut_ja_tilastot

Ringer, G. (2010). Beyond the Cruise: Navagating Sustainable Policy and Practice in Alaska's Inland Passage. In Luck, M., Maher, P.T., & Stewart, E.J. (eds.). *Cruise Tourism In Polar Regions: Promoting Environmental and Social Sustainability?* (pp. 205-224). Washington, D.C.: Earthscan.

Sandell, K. & Fredman, P. (2010). The right of Public Access – Oportunity or obstacle for Nature Tourism in Sweden? *Scandinavian Journal of Hospitality and Tourism*. 10(3): 291-309.

Sæþórsdóttir, A. D. (2010). Planning Nature Tourism in Iceland based on Tourist Attitudes. *Tourism Geographies*. 12(1): 25-52. doi: 10.1080/14616680903493639

Satokangas, P. (2013). Matkailulla maakunta menestyy – Matkailun tulo ja työllisyysvaikutukset 12 lappilaisessa kunnassa vuonna 2011. *Multidimensional Tourism Institute*, University of Lapland.

Stefansson Arctic Institute. (2004). *Arctic Human Development Report*. Akureyri, Iceland: Stefansson Arctic Institute.

Stephenson, S. R., Smith, L.C., & Agnew, J.A. (2011) Divergent long-term trajectories of human access to the Arctic. *Nature: Climate Change*. 1:156-160.

Sténs, A. & Sandström, C. (2013) Divergent interests and ideas around property rights: The case of berry harvesting in Sweden. *Forest Policy and Economics*. 33: 56-62.

Stewart, E., Dawson, J. & Draper, D. (2011). Cruise tourism and residents in Arctic Canada: development of a resident attitude typology. *Journal of Hospitality and Tourism Management*. 18: 95-106.

Sundbo, J. (2014). Turisme og oplevelsesøkonomi – en udkantsstrategi. In Hovgaard, G., Gestur, B. í Jákupsstovu and Andrias Sølvará, H. (eds). *Vestnorden – nye roller i det internationale samfund*. Tórshavn: Fróðskapur.

Swedish Lapland Tourism (2014). Personal communication and Retrieved from http://www.swedishlaplandtourism.com/. Accessed October 6, 2014.

Svensk Turism. (2011). National Strategy for Swedish Tourism. Available at: www.strategi2020.se

TIAC. (2012, Fall). *The Canadian Tourism Industry: a Special Report*. Toronto and Ottawa, Ontario: HLT Advisory, TIAC, Visa Canada.

Tillväxtverket. (2013). Facts about Swedish Tourism 2012. Swedish Agency for Economic and Regional Growth.

Tourism Quebec (2010). Regional statistics – Nunavik. Quebec City: Government of Quebec. Retrieved from http://www.gouv.qc.ca/portail/quebec/pgs/commun/portrait/tourisme/?lang=en. Accessed May 17, 2014.

Tyrväinen, L., Uusitalo, M., Silvennoinen, H. & Hasu, E. (2014). Towards sustainable growth in nature-based tourism destinations: Clients' views of land use options in Finnish Lapland. *Landscape and Urban Planning*. 122: 1-15.

Tzekina, M. (2014). *Estimation of tourism potential of Russian Far North. PhD, Economic, social, political and recreational geography*. Moscow State University: Moscow, Russia.

UNWTO. (2013). *Tourism highlights 2012*. Madrid: UNWTO.

UNWTO-UNEP-WMO. (2008) *Climate change and tourism: responding to global challenges*. Madrid: UNWTO.

Viken, A., & Granås, B. (eds.). (2014). *Tourism Destination Development: Turns and Tactics*. Farnham: Ashgate.

VisitFaroeIslands. (2012). Visit Faroe Islands. *Overordnet strategi for turismen på Færøerne*.