



PRESERVING FRAGILE ENVIRONMENTS FOR  
SUSTAINABLE TOURISM:  
BEST PRACTICE TOOLS FROM  
CANADA AND ICELAND

Dr. John S. Hull, Associate Professor  
Thompson Rivers University

# OUTLINE

- **Background**
- **Definitions**
- **Sustainable Mountain  
Tourism Experience Model**
- **Best Practice Case Studies**
- **Reflections**



# BACKGROUND

- **25 year work experience** in Arctic/sub-Arctic.
- Ph D. linked to UNESCO examining **coping strategies in the North.**
- Research has focused **on tourism in peripheral regions** with focus on tourism planning.
- Worked **10 years as tourism consultant** to numerous public and private organizations on six continents (UNCBD, UNWTO, UNEP)
- Participation in **4 Northern Periphery projects** in Europe representing Canada as an Associate Partner



# DEFINITIONS

## **Fragile environments** (Price 1996)

*...those plant and animal communities which are particularly vulnerable to damage caused by human activity.*

This includes alpine, desert, savannah, wetland ecosystems.

Today, earth is recognized more and more as a fragile environment.

Need to consider human communities.



# DEFINITIONS

## **Sustainable Tourism** (UNWTO 2016)

Tourism that takes full account of current and future economic, social and environmental impacts, addressing needs of **visitors, the industry, the environment and host communities.**

- Optimal use** of environmental resources
- Respect** socio-cultural authenticity of host communities
- Ensure viable, long-term **operations that are fairly distributed**
- Informed participation and strong political leadership to ensure **participation**
- Constant monitoring** of impacts, introducing preventative and/or **corrective measures** where necessary.
- High level of **tourist satisfaction** and **meaningful experience.**

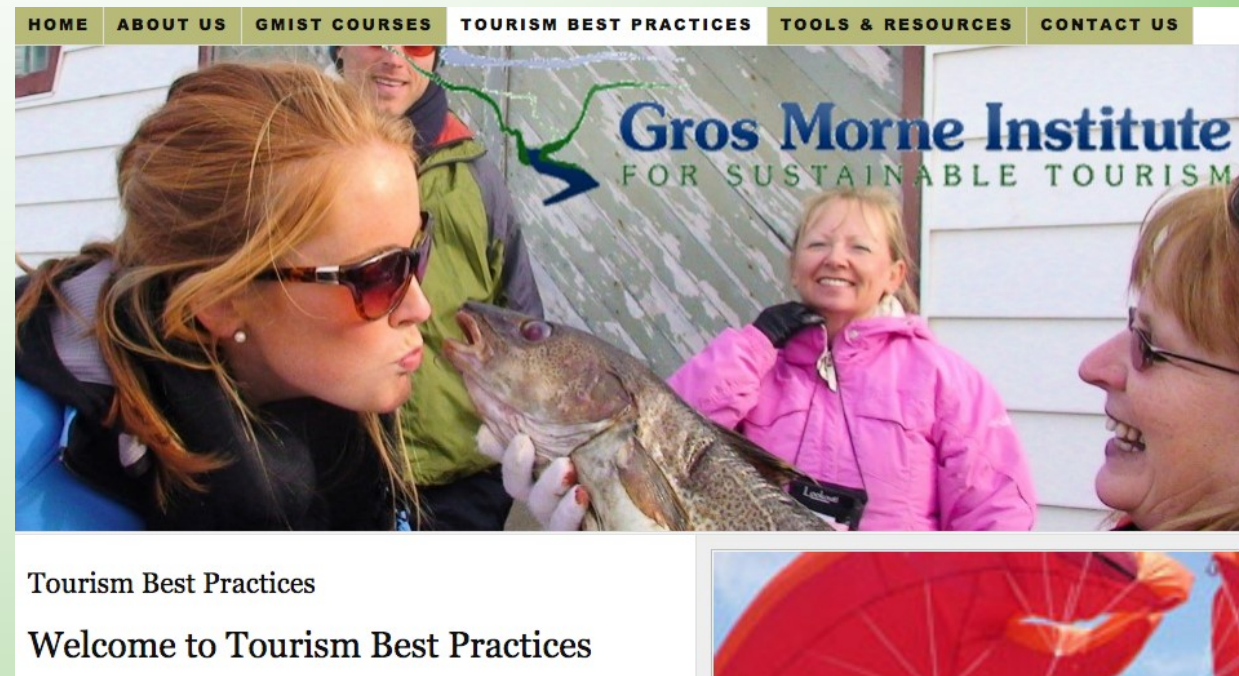


# DEFINITIONS

## Tourism Best Practice (GMIST 2016)

*...a procedure that produces optimal results and that is established or proposed as a standard suitable for widespread adoption*

*...exposure will stimulate the generation of new product ideas, improved practices in customer service, innovative operational techniques, sound planning models and partnership opportunities.*



# SUSTAINABLE MOUNTAIN TOURISM EXPERIENCE MODEL (SMTE) (HULL AND RICHINS 2016)

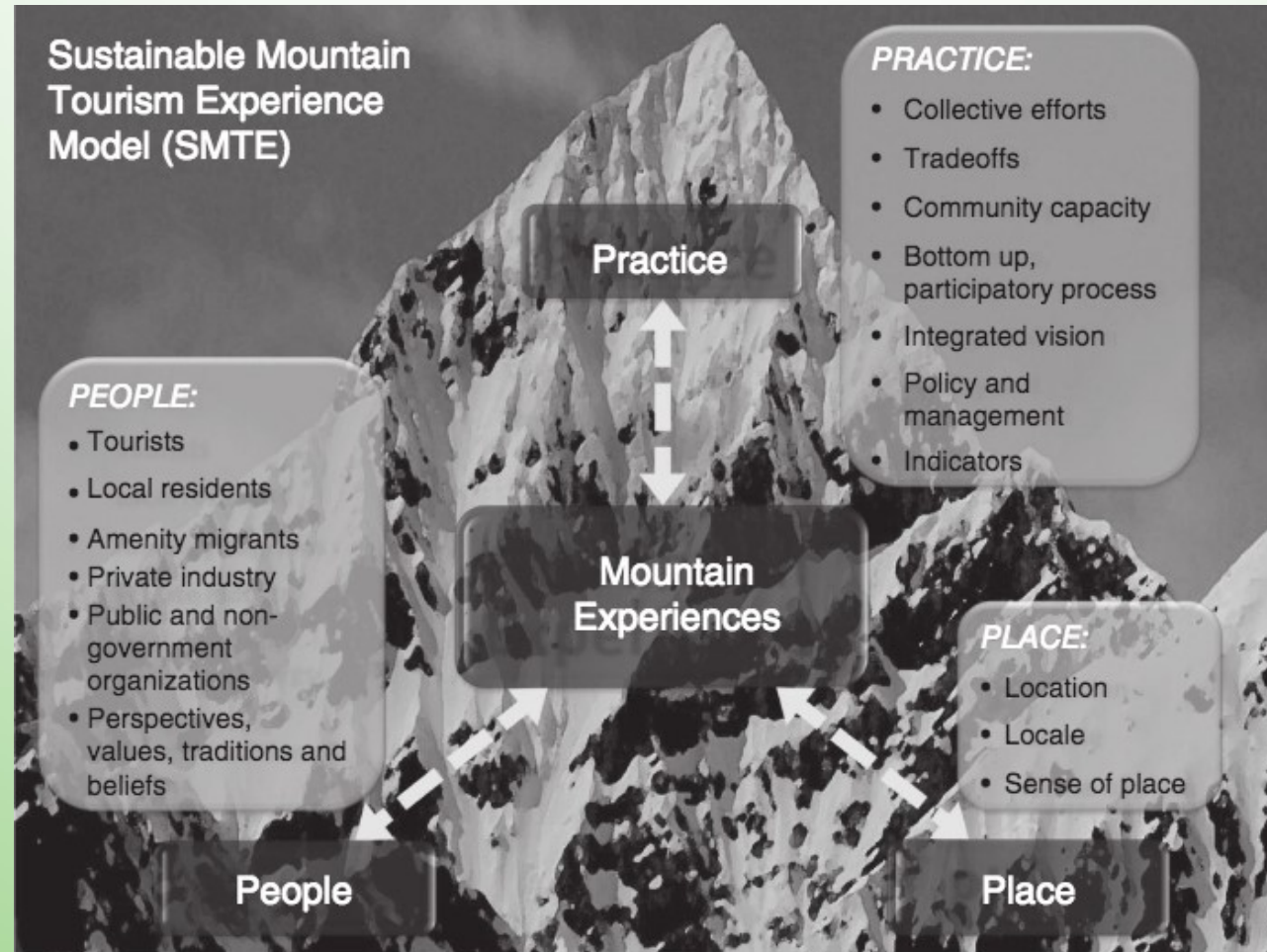


Fig. 36.1. Sustainable Mountain Tourism Experience (SMTE) Model.

# SUSTAINABLE MOUNTAIN TOURISM EXPERIENCE MODEL (SMTE) (HULL AND RICHINS 2016)



**Fig. 36.2.** Sustainable Mountain Tourism Experience Model used as a participatory tool for addressing major challenges in mountain tourism experiences.



# SUSTAINABLE MOUNTAIN TOURISM EXPERIENCE MODEL (SMTE) (HULL AND RICHINS 2016)

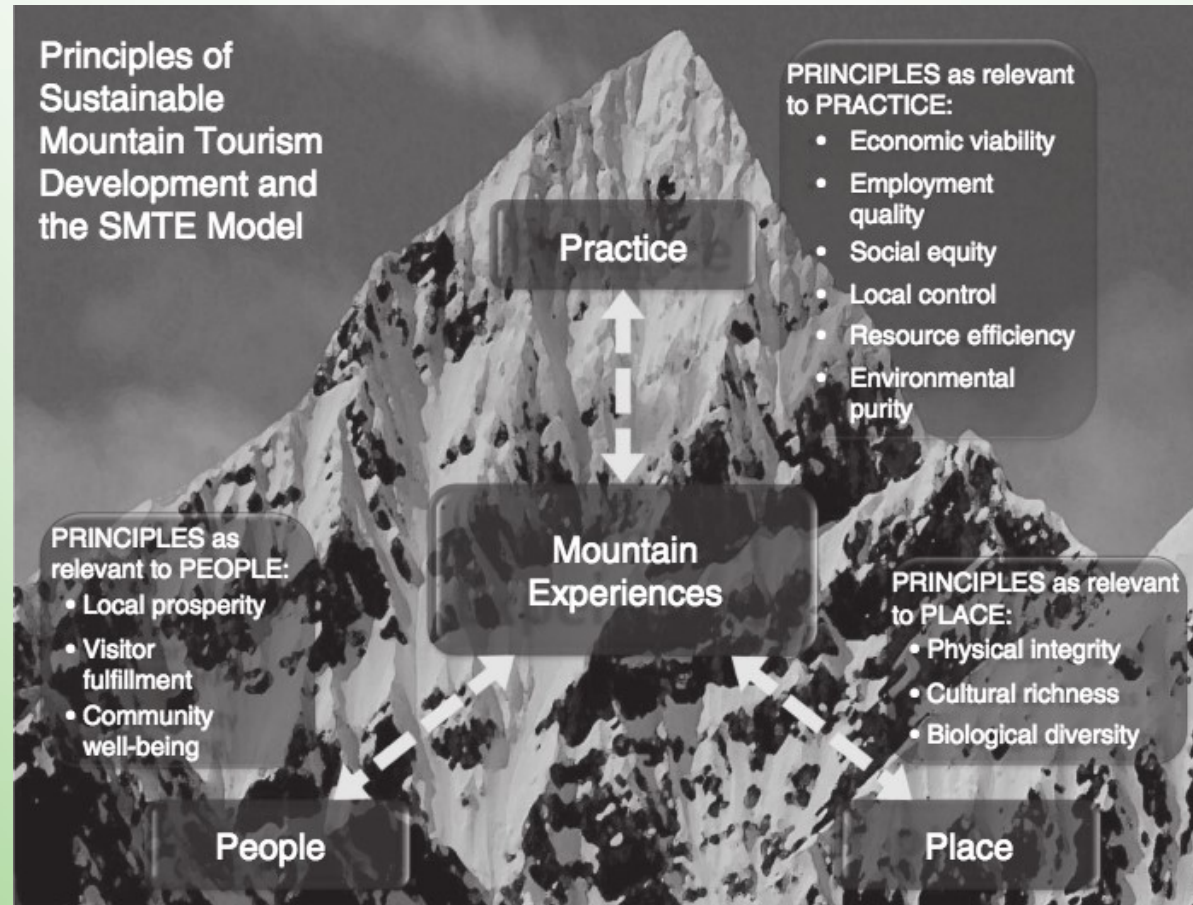


Fig. 36.3. Sustainable Mountain Tourism Experience Model used to prioritize principles of sustainable mountain tourism development.

# BEST PRACTICE CASE STUDIES FROM CANADA AND ICELAND

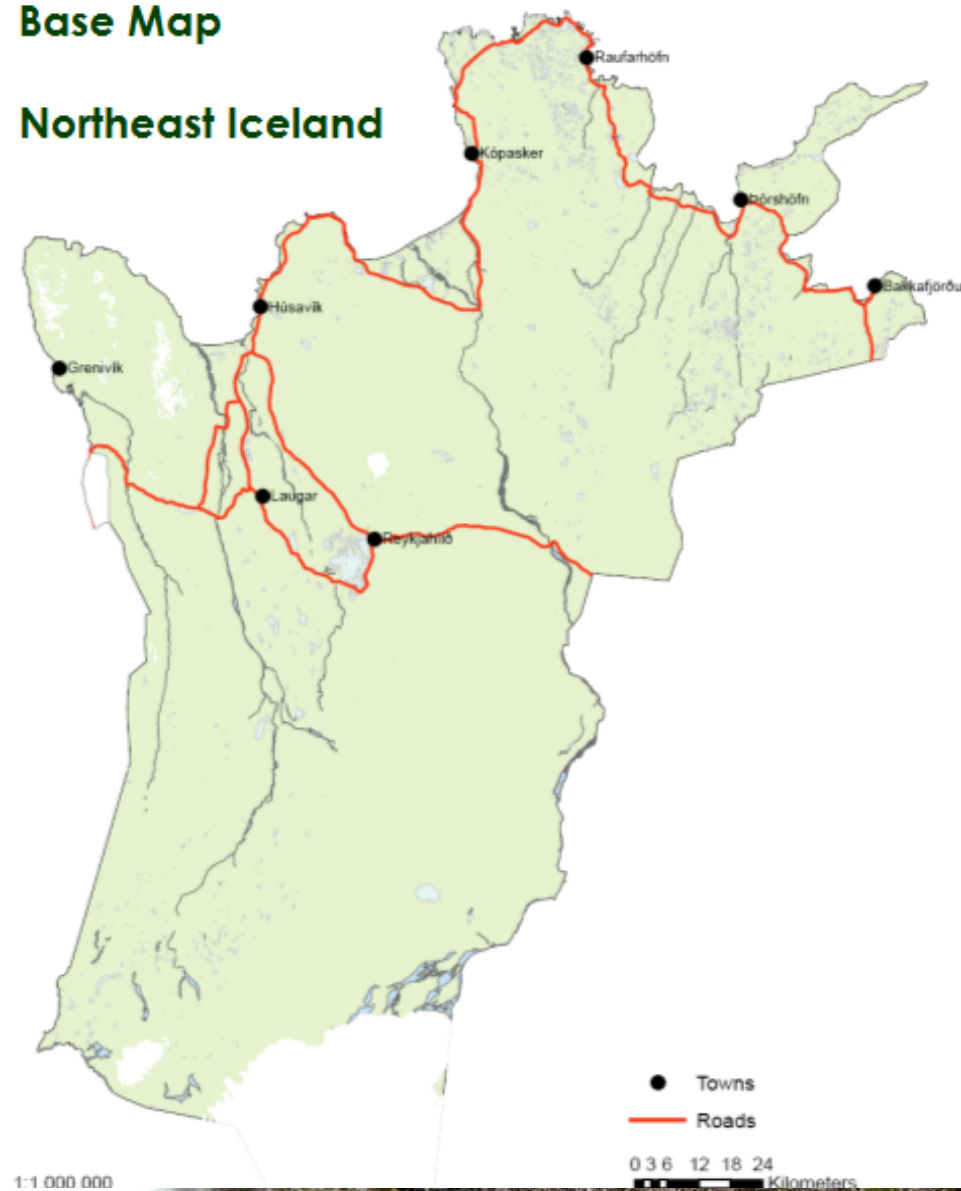


# NORTHEAST ICELAND TOURISM PLAN

(HULL AND HUIJBENS 2011)

Base Map

Northeast Iceland



1:1 000 000

0 3 6 12 18 24  
Kilometers



# PAGIS

participatory approach using geographic information systems

(Hasse and Milne, 2005)

The principal idea of PAGIS is to integrate **local knowledge**, such as values, emotions and perceptions of a place that have been gathered in participatory **mapping** exercises, into **GIS**. This local knowledge includes the **narratives** of local people and reflects the diverse range of opinions of particular places in the community.



# TEAM

## CONSULTING

- **John Hull**, Strategic Tourism Planner, Project Director
- **Edward Huijbens**, Director, Icelandic Tourism Research Centre, Iceland
- **Carol Patterson**, Consultant, Kalahari Management, Canada
- **Simon Milne**, Director, New Zealand Tourism Research Institute, New Zealand

## AGENCY

- **Gunnar Johannesson**, Economic Development Officer, Project Coordinator
- **Ari Pall Palsson**, Tourism Specialist
- **Sif Johannesdottir**, GEBRIS Coordinator
- **Vilborg Gissurardottir**, Workshop Coordinator

**GIS - Daniel Borgthorsson**, Map Specialist



# 5 STEPS OF TOURISM PLANNING

**1**

Launch  
Project

**2**

State of Affairs  
Document

**3**

Consult with  
Stakeholders

**4**

Analyze  
Information

**5**

Draft  
Strategic Plan

# METHODOLOGY

## Primary Data

- Inventory of natural/cultural heritage
- Public Input/Focus groups

## Secondary Data

- Government reports
- Tourism reports and statistics
- Publicity
- Academic journals
- Web-based research
- Promotional material



# NORTHEAST ICELAND

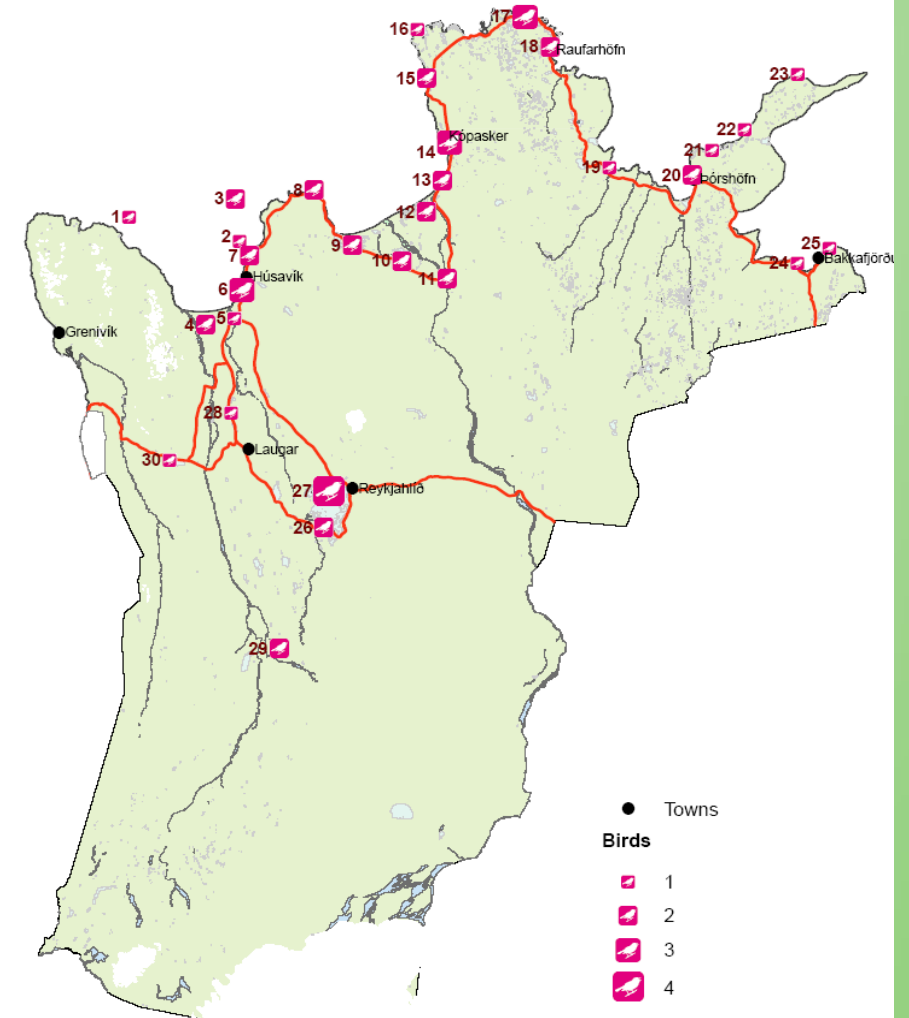




# NATURAL HERITAGE



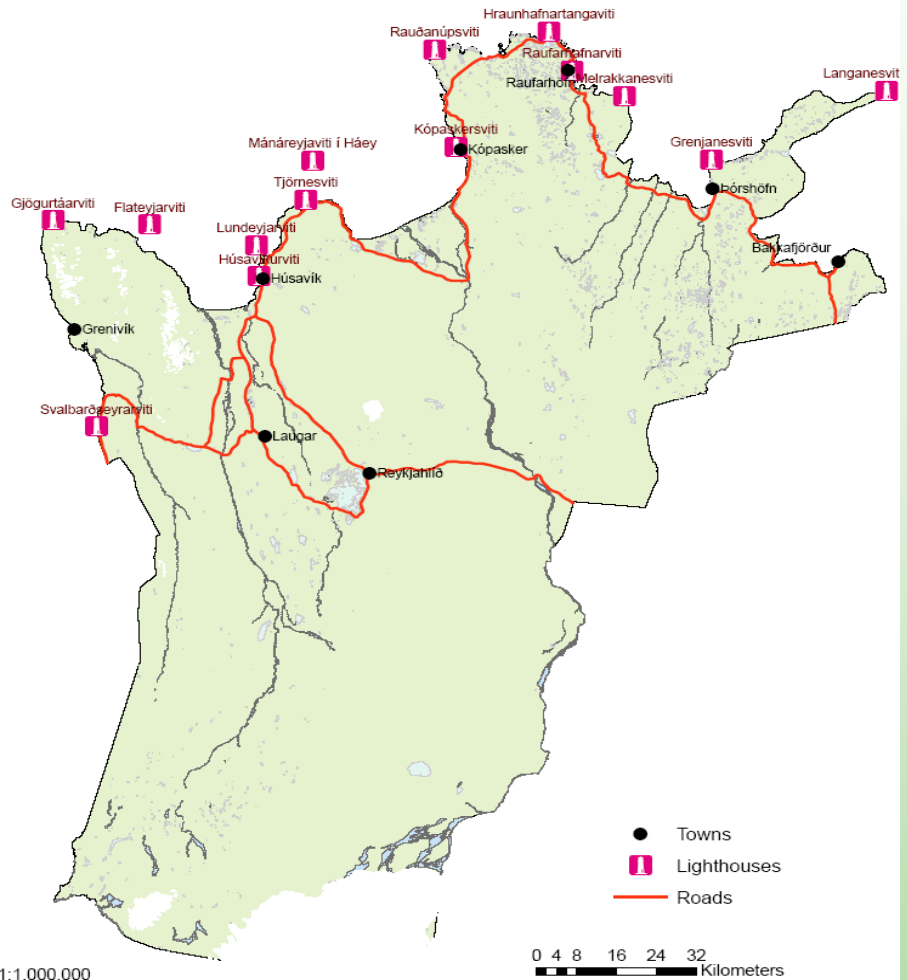
## BIRD WATCHING



1:1,000,000

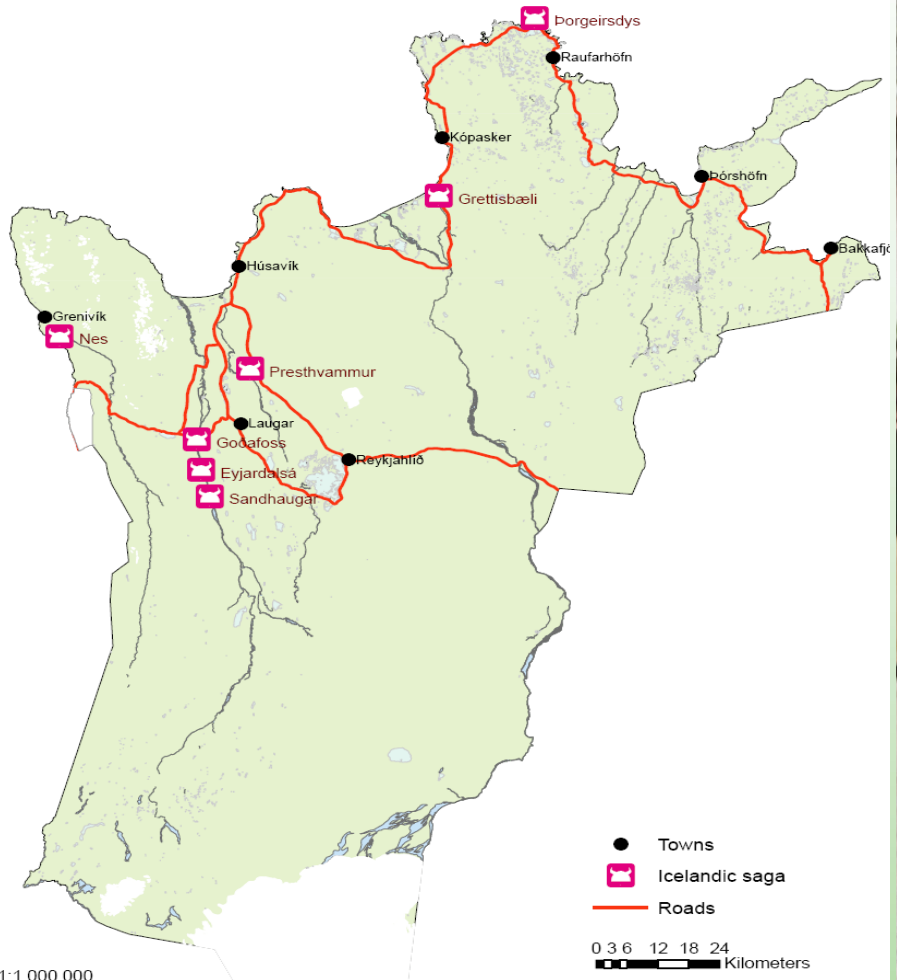
# CULTURAL HERITAGE

## LIGHTHOUSES



# CULTURAL HERITAGE

## ICELANDIC SAGA

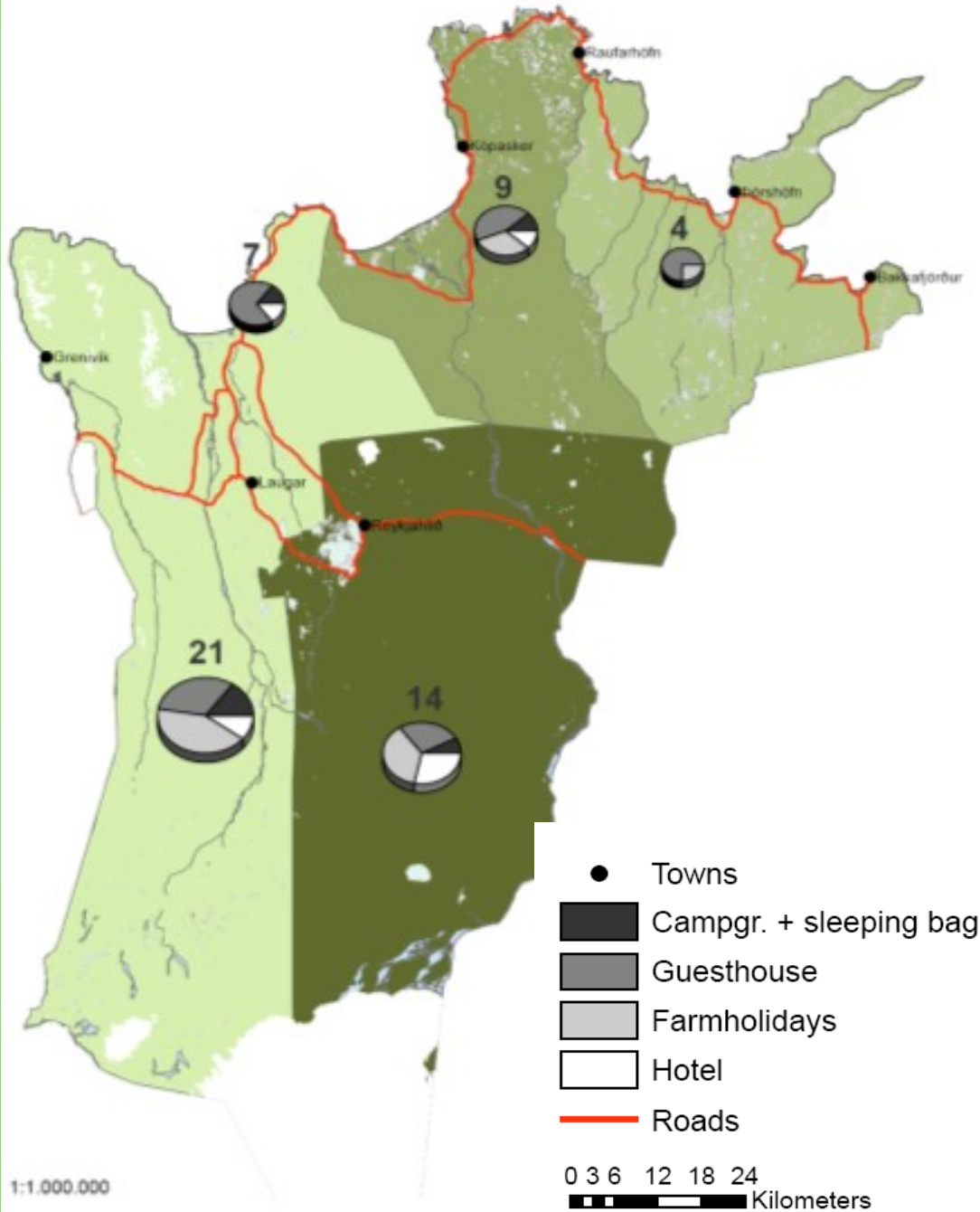


# SWIMMING & NATURE BATHS

Swimming / Nature Baths



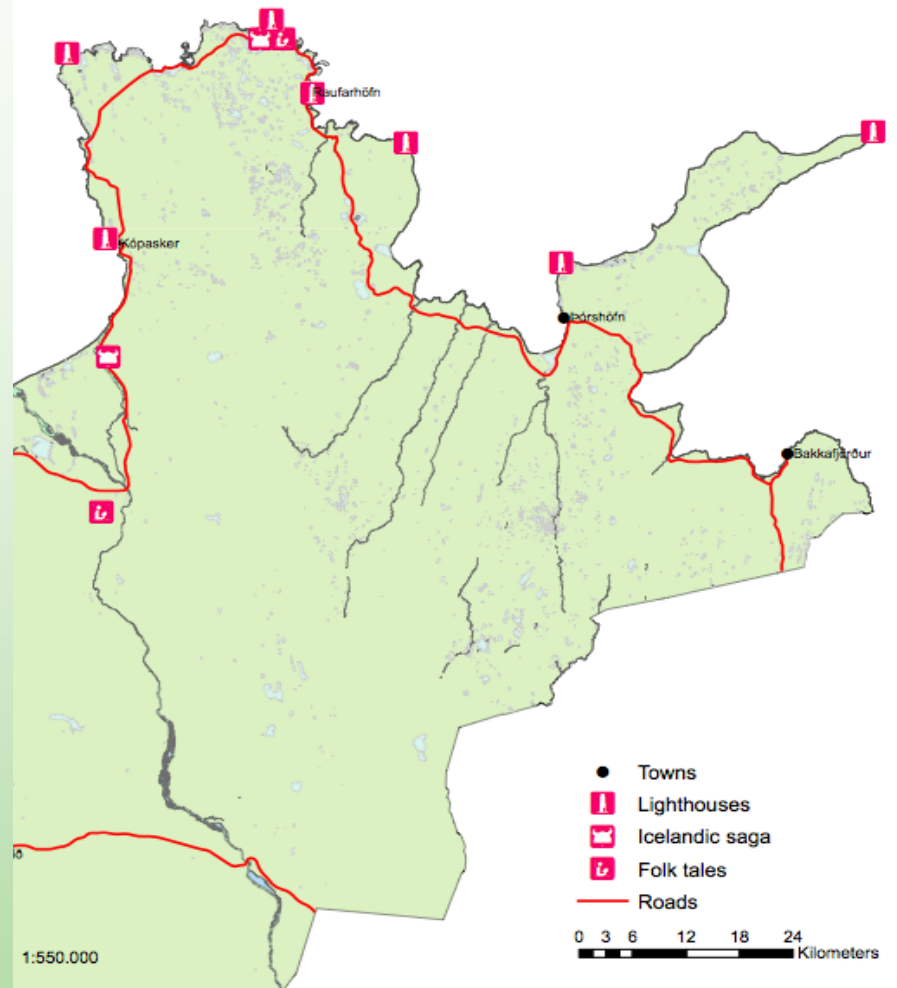
# ACCOMMODATION & SUPPORT SERVICES



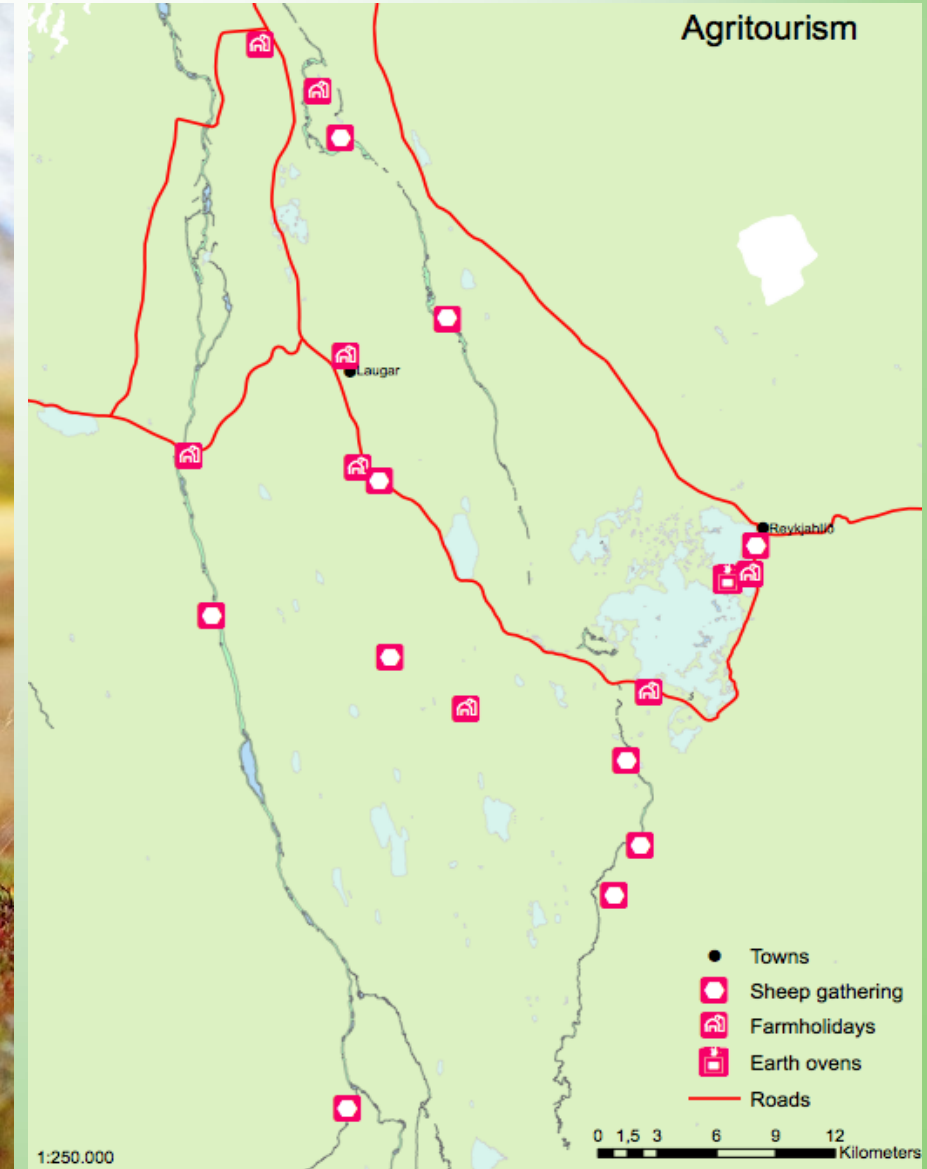
# PRODUCT OPPORTUNITIES



Lighthouses and Legends



# PRODUCT OPPORTUNITIES



# PRODUCT OPPORTUNITIES



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## MAP OF NORTHEAST ICELAND

**THE DIAMOND CIRCLE**  
A circular route which encompasses many of Northeast Iceland's most treasured attractions.

- 1 Skjálfandi Bay  
With its amazing wild life, great scenery and islands, Lundeý and Flatey.
- 2 Tjörnes  
A peninsula with interesting fossilised shell layers.
- 3 Jökulsárgljúfur National Park  
With Ásbyrgi, a horseshoe shaped gorge.

**THE LIGHTHOUSE ROUTE**

- 1 Gjögurtárviti
- 2 Flateyjarviti
- 3 Húsavíkurviti
- 4 Lundeýjarviti

**ACCOMMODATION IN LAKE MÝVATN AREA**

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www.keahotels.is
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+354 464 4142  
www.reykhjhlid.is
- M Bjarg  
+354 464 4240
- M Guesthouse Skútustaðir  
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- M Guesthouse Eldá  
+354 464 4220  
www.ekla.is
- M Guesthouse Stöng



# PRODUCT OPPORTUNITIES



**Birding trail** Northeast Iceland

Contact us

Search

Home Area guide Videos Map Accommodation Activity Guided Tours About us



**Birding trail GUIDE**

Whether you plan to visit every site on the trail or just explore a specific region, this guide will help you along the way.



→ Let us GUIDE you

**Bird species TO SEE**

Our perceptibility chart helps you see where you are most likely to find the birds you are looking for.



→ More species TO SEE

**MAP of the area**

The map shows the location of 31 designated birding sites which are numbered for reference in our guide.



→ View full size MAP

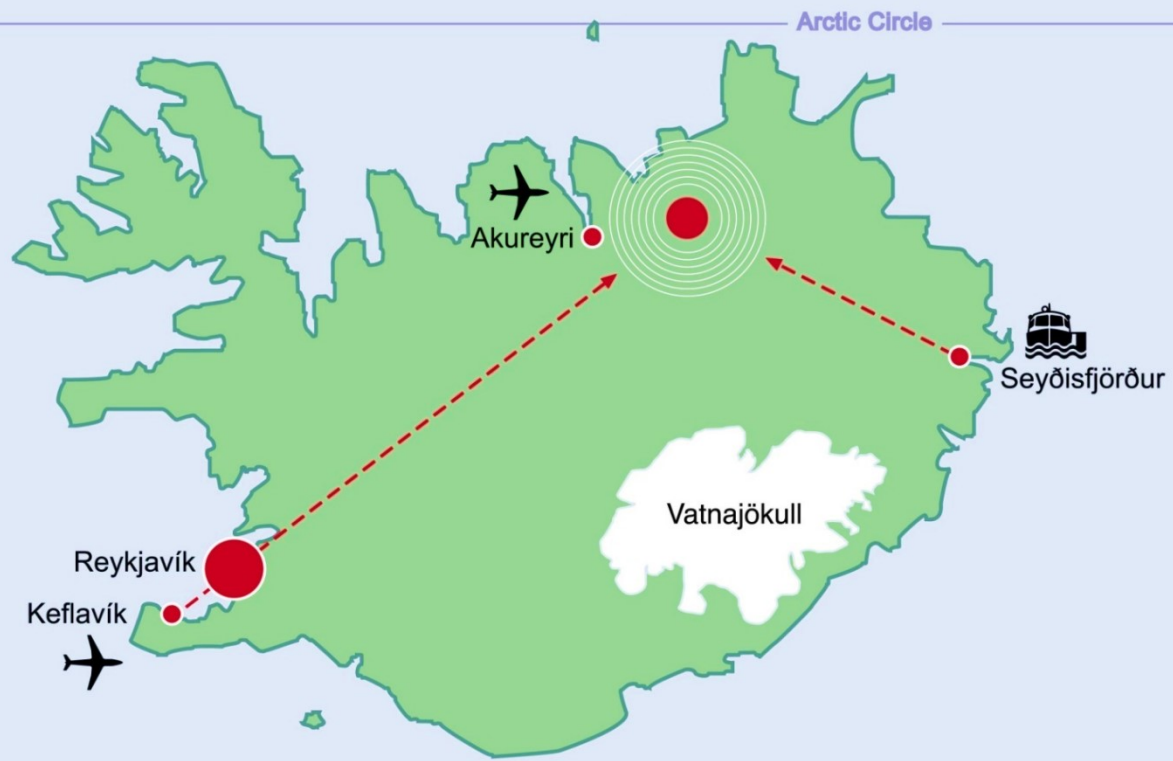


**Birding trail** Northeast Iceland

31 numbered birding sites marked with bird icons along a red route.

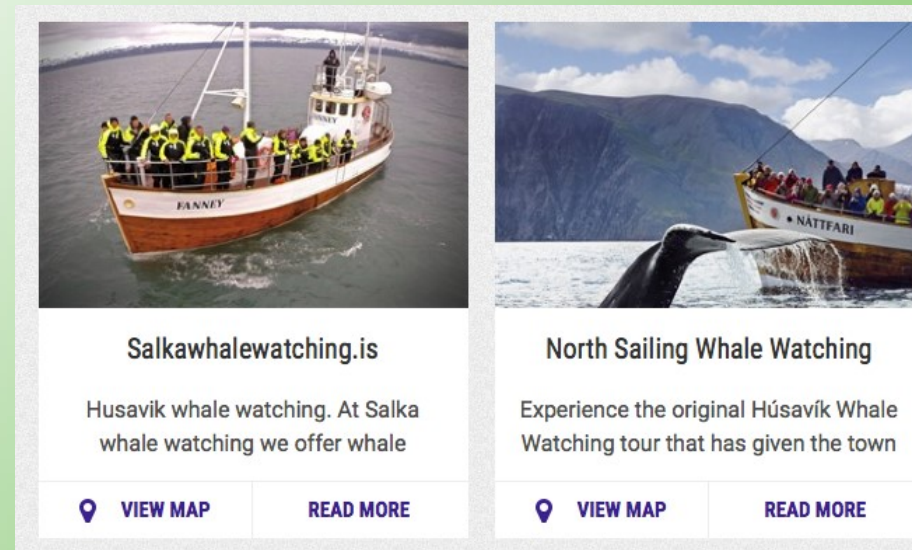
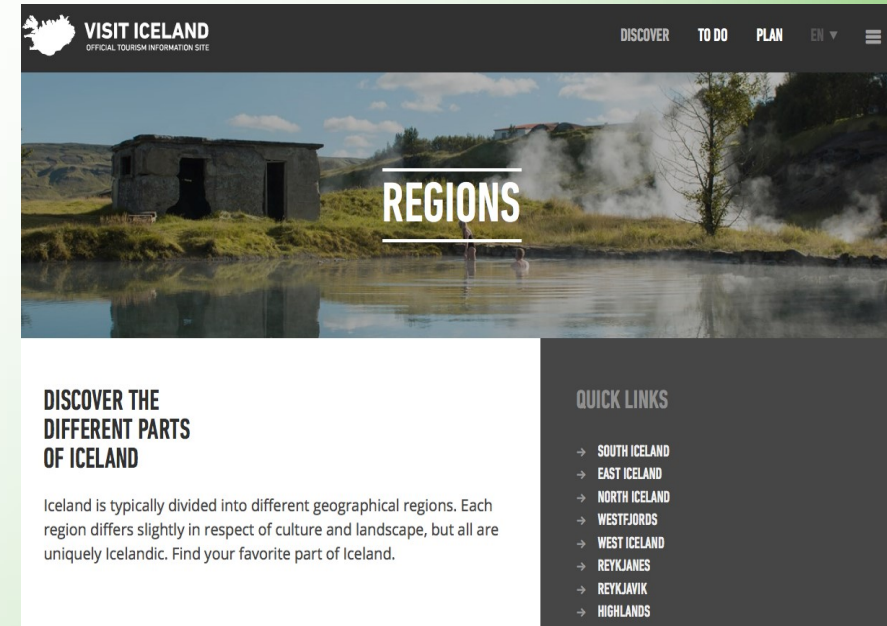
Locations shown on the map include: Flatøy, Tjörnes, Skjálftandi, Húsavík, Akureyri, Kelduhverfi, Óxarfjörður, and Sigurðarstaða.

# ACCESS



# OUTCOMES

- **The map guide tool** assisted clusters of local businesses with product development, marketing.
- **Regional strategy in partnership with Icelandic Tourism Research Centre** reinforced *Inspired by Iceland* campaign and national tourism strategy that resulted in improved access, wayfinding and new products.



# BRITISH COLUMBIA, CANADA TOURISM AND MARKETING STRATEGIES: *GAINING THE EDGE AND THE WILD WITHIN*

- **Leadership through partnership**, coordination between government and industry
- **focused marketing to visitors from key markets**,
- **building world class experiences**
- **enhancing competitiveness and sustainability by adopting policies that support needs of tourism businesses.**
- Product and market priorities will be **based on best research and market intelligence and adoption of innovative technologies** to accommodate needs of consumer.



# LAKE O'HARA, YOHO NATIONAL PARK

(PARKS CANADA 2016)

## Yoho National Park

### *Plan Your Trip*



Lake O'Hara is a true gem - a unique collection of exquisite lakes and hanging valleys linked by a well-maintained network of connector trails and high alpine routes. Visitors can choose a single breathtaking destination or link two or more together for an unforgettable day.

The Lake O'Hara area is in Yoho National Park and borders Banff National Park. To protect this sensitive alpine area and provide a wilderness experience, a quota system is in place to limit the number of visitors using the public bus service into Lake O'Hara.



# LAKE O'HARA



## The Beginning of Alpine Serenity

11km from the nearest road and completely off the grid doesn't necessarily mean the end of civilization

We share the stewardship of the area with the Lake O'Hara Trails Club, Alpine Club of Canada and Parks Canada and help each other out by sharing firewood, road maintenance and lending extra hands when needed. In 2013 we partnered with this group to construct the beautiful and welcoming Bus Kiosk at the bottom of the O'Hara road. **We are proud of our partnerships with the area stakeholders.** -- Lake O'Hara Lodge



Lake O'Hara  
LODGE

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# OUTCOMES

- The **use of drones and 3D technology are innovative tools** that helps support needs of nature-based businesses in reaching key markets.
- **Competitiveness and sustainability is achieved through partnerships** between government and industry that reinforce *Super Natural BC* campaign, support adoption of policies that ensure economic viability, social equity and environmental sustainability.

*Lake O'Hara*



Two hikers enjoy the view of Lake McArthur in August.

# NEWFOUNDLAND AND LABRADOR, CANADA TOURISM STRATEGY

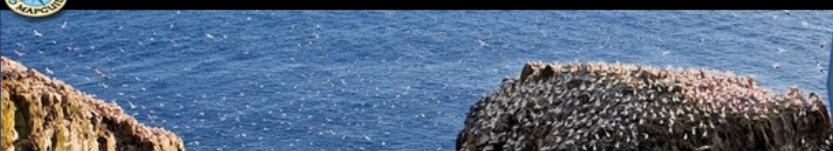


- 1 STRATEGIC DIRECTION:  
Private Public Leadership**  
A Partnership for Tourism Growth & Development
- 2 STRATEGIC DIRECTION:  
Sustainable Transportation Network**  
A Transportation Strategy to Grow Our Industry
- 3 STRATEGIC DIRECTION:  
Market Intelligence & Research Strategy**  
A Framework for Accessible & Timely Research
- 4 STRATEGIC DIRECTION:  
Experience Development**  
Delivering Strategic & Sustainable Traveller Experiences
- 5 STRATEGIC DIRECTION:  
Tourism Technology**  
Strengthening Our Information and Communications  
Technology
- 6 STRATEGIC DIRECTION:  
Marketing Our Brand**  
Building on the Success of Our Creative Marketing Campaign
- 7 STRATEGIC DIRECTION:  
Empowering Our People**  
Growing Our People for a Dynamic Industry



# NEWFOUNDLAND AND LABRADOR TOURISM





### LOCAL KNOWLEDGE



The best travel advice comes from the people who live here. [LEARN MORE >](#)

## Eastern Newfoundland Geotourism MapGuide



DISCOVER PLACES | HOME | EVENTS | LOCAL VOICES | ABOUT

ADD PLACES | MY TRIP PLANNER

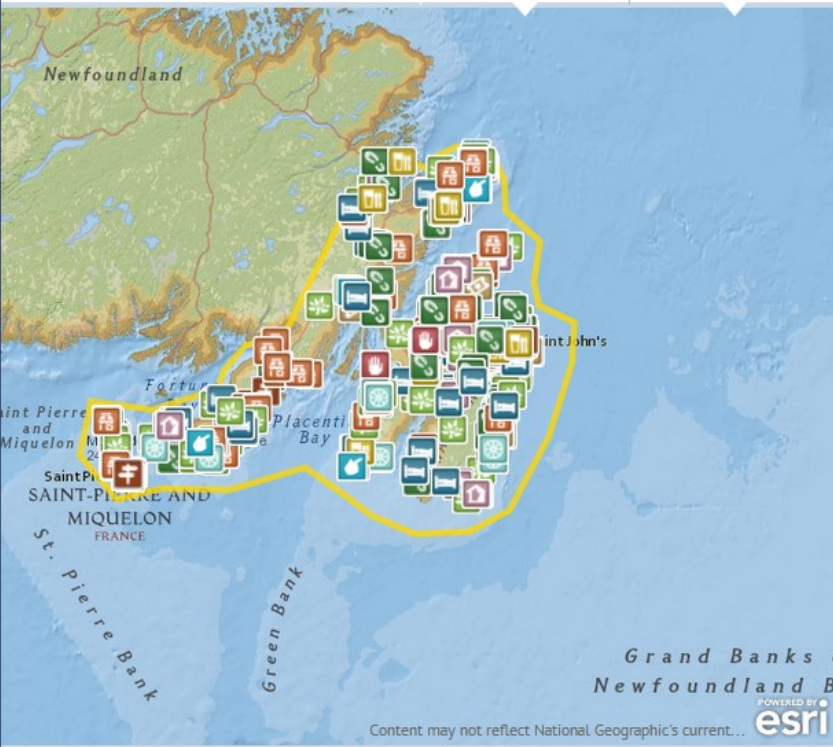
Map View

Gallery View

ZOOM

MAP TOUR

ZOOM TO AN AREA



### Show & Search Places

Show All Places

Show Only Featured Places

Search by Keyword

Show My Trip Planner

### Category Legend

SELECT ALL | DESELECT ALL

- Accommodation
- Action Opportunities
- Community
- Festival or Event
- Food or Drink
- Historic or Prehistoric Place
- Local Points of Interest
- Museum, Theatre, Interpretive Centre
- Natural Area
- Outdoor Adventures
- Packaged Experiences

Boundaries and names shown do not necessarily reflect the map policy of National Geographic.

Photo © Newfoundland and Labrador Tourism Cape St. Mary's Ecological Reserve



Explore other interactive map guides >

Choose a Not-to-be-Missed Geotourism Destination



### LOCAL KNOWLEDGE



The best travel advice comes from the people who live here. [LEARN MORE >](#)

## Eastern Newfoundland Geotourism MapGuide



DISCOVER PLACES | HOME | EVENTS | LOCAL VOICES | ABOUT

ADD PLACES | MY TRIP PLANNER

Historic Site

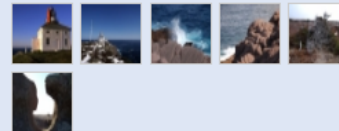
Add to My Trip Planner  
save your favourite places.

### Cape Spear Lighthouse National Historic Site of Canada

BACK 4 Thumbs Up! [Give your thumbs up.](#)



Photo © Parks Canada/Eric Walsh 2004



Like 0

Stand with your back to the sea and the entire population of North America to the west of you. Turn and face the Atlantic Ocean and your next stop east is Ireland. As sunrise touches the continent, it does so first here at Cape Spear Lighthouse National Historic Site. Be the first one this morning to feel it on your face!

Perched on the rugged cliff at the continent's most easterly point lies Cape Spear Lighthouse – the oldest surviving lighthouse in the province and iconic symbol of Newfoundland and Labrador's maritime history. As you walk the trails that hug the rugged coastline, it isn't hard to imagine the value of the light to fishermen and sailors who depended on it to guide them home safely on the blackest nights, through the thickest fog and during winter snow squalls.

Built in 1836 - Cape Spear Lighthouse consists of a stone light tower surrounded by the lightkeeper's residence. Isolation and light keeping go together and so it was at Cape Spear. But home at the Cape was not a sad place. Children grew up happy here in the heat of the warm westerly summer breezes listening to surf, seagulls, clothes snapping on the line and "home made" music. Experience the same feelings today as music and song greet you on your lighthouse tour. Sing along or just sit back and enjoy!

The solitude of Cape Spear has always been an attraction. It is a place where visitors seek moments of quiet contemplation and solace, where artists find inspiration and families come to hike and play.



Boundaries and names shown do not necessarily reflect the map policy of National Geographic.

LATITUDE: 47.523692600  
LONGITUDE: -52.621765100  
ELEVATION: 84 FT (26 M)

Meet the Contributor:

David Taylor  
About Me

[Add your own story, place or event.](#)

### Thumbs Up Place Nearby

Brook Point and the Lighthouse at Kings Cove  
(128.8 kilometres / 79.6 miles)

SIMILAR PLACES | NEARBY PLACES



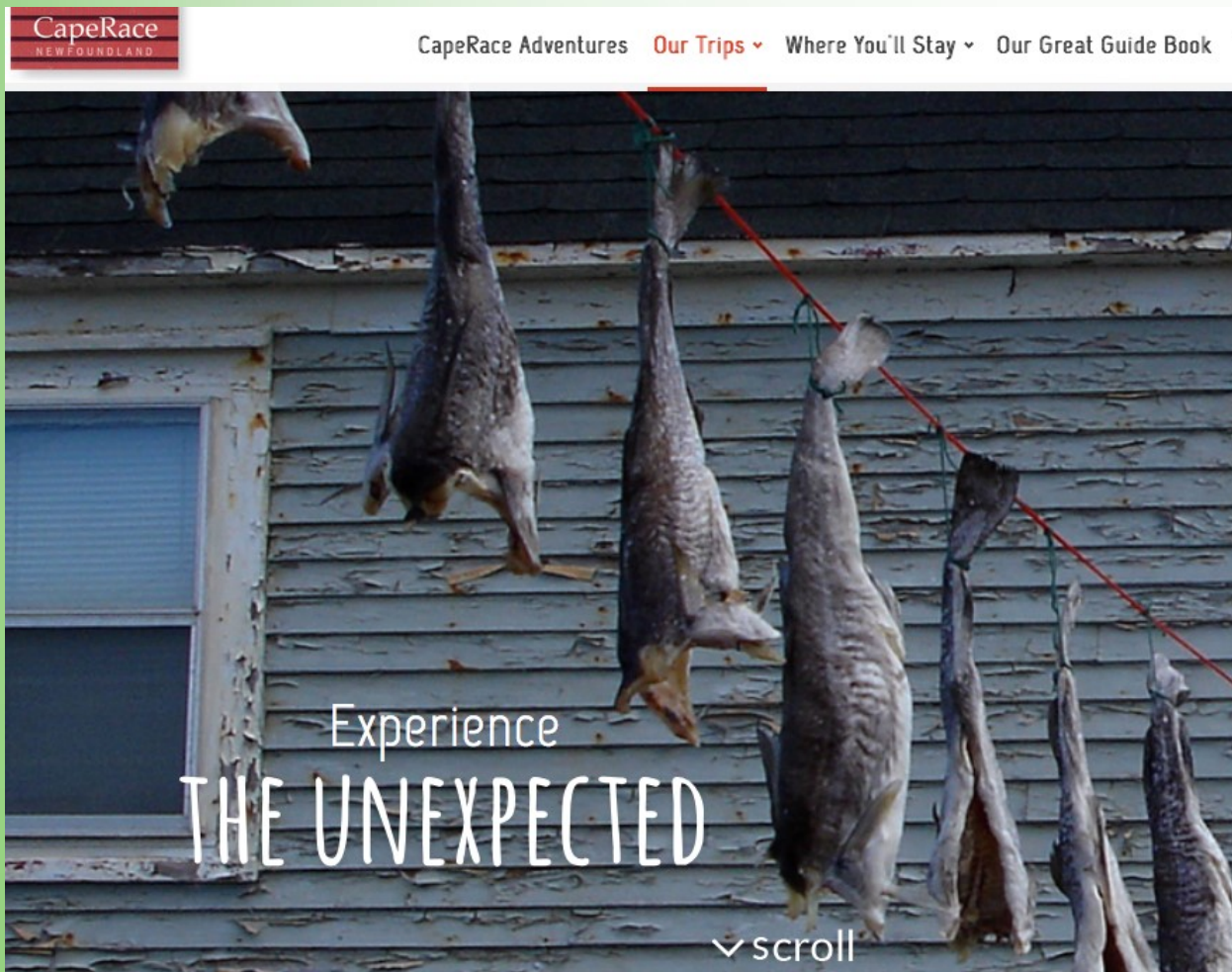
Abandoned U.S. Radar Site  
Evidence of the historic cold war are still present at this abandoned U.S. Distant Early Warning...



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# CAPE RACE ECO-CULTURAL ADVENTURES



## Responsible Travel

We use technology to quickly update the travel guide, swapping people and places in and out of the book as we discover new areas to explore and new people to meet. This dilutes the overall traveller's footprint and spreads out the economic benefit in rural areas.

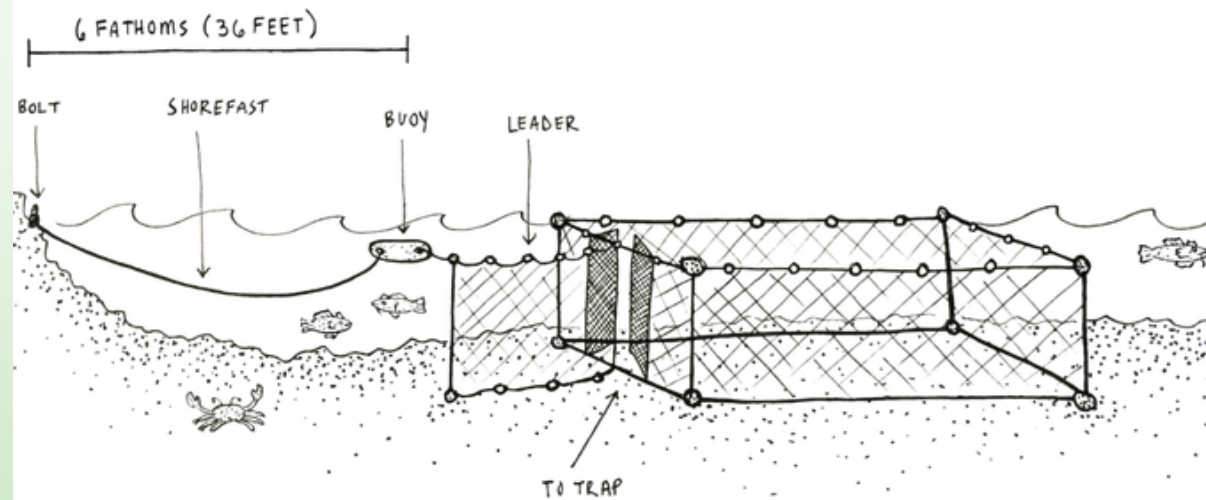


Find yourself at one of the four corners of the earth.

Many luxury properties have a charitable foundation. Our charitable foundation has a luxury Inn.

# SHOREFAST FOUNDATION FOGO ISLAND INN

A shorefast is the line and mooring used to attach a traditional cod trap to the shore. It is a strong symbol of Fogo Island's cod fishing heritage and the Foundation chose this name because it symbolizes a belief in the importance of holding on to community and culture and in the power of authentic connections between individuals, their communities, culture, and place.



A Traditional Newfoundland Cod Trap

Fogo Island Inn is Shorefast's largest undertaking to date. Other projects include [Fogo Island Arts](#), a micro-lending fund for small businesses on Fogo Island and Change Islands, various academic residency programs, heritage building preservation initiatives, the New Ocean Ethic, and a retail furniture business: [Fogo Island Shop](#).

# NATIONAL GEOGRAPHIC CENTRE FOR SUSTAINABLE TOURISM DESTINATIONS 28 MILLION CONSUMERS

## NATIONAL GEOGRAPHIC TRAVEL

### How We Connect to 28 Million Consumers

15 LOCAL LANGUAGE EDITIONS



TABLET



TRAVEL EVENTS & PHOTO WORKSHOPS

SOCIAL  
10+ MILLION FANS



BOOKS & MAPS

DIGITAL  
2.5 MILLION MONTHLY VISITORS



MOBILE



NAT GEO EXPEDITIONS

1

The screenshot shows the website's navigation menu with options: HOME, ANIMALS, GREEN GUIDE, DAILY NEWS, HISTORY, KIDS, MAPS, MUSIC, PEOPLE & PLACES, PHOTOGRAPHY, SCIENCE, VIDEO. The main heading is 'Center for Sustainable Destinations' with the tagline 'Working to protect the world's distinctive places through wisely managed tourism and enlightened destination stewardship.' Below this is a secondary navigation menu: MAIN, GEOTOURISM, FOR PLACES, TRAVELERS, PROFESSIONALS, GEOTOURISM MAP, RESOURCES, ABOUT CSD. The main content area features a featured article titled 'Historic Houses in Trinity, Newfoundland: A Geotourism Asset' with a 'LEARN MORE >>' link. To the right, there are sections for 'Video' (with a thumbnail of coral reefs) and 'CSD Projects' (listing 'East Tennessee Geotourism MapGuide', 'Crown of the Continent MapGuide', 'Baja California MapGuide (PDF)', and 'Helping Hotels Enact Responsible Tourism'). An 'ADVERTISEMENT' section is also visible at the bottom right.

# PRINCIPLES OF GEOTOURISM

- Integrity of place
- International codes
- Market selectivity
- Market diversity
- Tourist satisfaction
- Community involvement
- Community benefit
- Protection and enhancement of destination appeal.
- Land use
- Conservation of resources
- Planning
- Interactive interpretation
- Evaluation

# OUTCOMES

- **Participatory tourism strategy process** led to creation of public-private tourism partnership managing tourism in province.
- **Online tourism strategy for industry** to raise awareness and build support.
- **Industry training opportunities** through sustainable tourism institute.
- Reinforcement of *Uncommon Potential* brand through **links to key markets through National Geographic map guide program** in eastern sector of province.
- **Businesses using new technologies, partnerships and innovative policies** to improve economic viability, social equity and environmental sustainability in remote regions.



# REFLECTIONS

- **Economic impact** points to growth in visitation and growth in revenues.
- **Social impact** points to increasing awareness and understanding of local cultures.
- **Environmental impact** points to opportunities to educate visitors about their responsibility to protect fragile environments and to support sustainable tourism by managing visitor flows.
- **Entrepreneurs** benefit from gaining new tools for product development, packaging and promotion that result in outcomes that are non-traditional, outside the box, and that offer sustainable business development for destination.
- **Universities** offer opportunities for new industry networks that provide access to training resources, strategic planning support, mapping, financing, and business development through faculty and student participation.
- **Destinations** have a clearly defined brand that is successful in the marketplace. Marketing strategies have been recognized and rewarded for their innovative efforts. This has led to visitor interest and local pride in community and culture.
- **Marketing** points to the creation of new way finding tools to assist local DMOs, government agencies and businesses in increasing length of stay at destination.
- **Mapguide** program increases potential for local partnership and creation of tourism clusters focused on specific target markets.
- **Consumers** have opportunity for new experiences linked to customised, self-guided trip planning.
- **Policies** for sustainable tourism that place restrictions on visitation but that still offer equitable access to key markets.



# SUSTAINABLE PLANNING FOR THE FUTURE THROUGH UNIVERSITY PARTNERSHIP

1. Identify partners. Identify project priorities together.
2. Determine budget/raise funds.
3. Inventory resources. Create a database for planning/promotion using maps.
4. Determine goals and objectives from inventory. Consider creation of tourism product clusters.
5. Adopt principles of sustainable, community-based tourism.
6. Integrate use of technologies into strategic planning, small business development, online way finding, travel planning and promotion for visitors.
7. Work with public/private partners, to build support, vision, and capacity.
8. Update, monitor and evaluate progress over time.



# SPECIAL THANKS TO

**Alina Grynevskaya, TRU Student Research Assistant  
Faculty of Adventure, Culinary Arts and Tourism, Thompson Rivers University  
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Icelandic Tourism Research Centre (ITRC)  
New Zealand Tourism Research Institute (NZTRI)  
Northeast Iceland Regional Development Agency  
Icelandic Tourist Board  
Tourism Industry Association of the Yukon**



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