

# Tourists visiting Þórsmörk lack knowledge and awareness of Katla and jökulhlaup hazard

Deanne Bird<sup>1,2</sup>, Guðrún Gísladóttir<sup>1</sup> and Dale Dominey-Howes<sup>3</sup>



*Thanks for financial support from:*



1 Department of Geography and Tourism and Earth Science Institute, University of Iceland, Iceland

2 Department of Physical Geography, Macquarie University, Australia

3 Risk Management Group, University of New South Wales, Australia



# The 1918 Katlahlaup is the largest historical volcanically induced flood



Ice blocks from the 1918 Katla jökulhlaup. Original photo taken by Ljósm K. Guðmundsson 17/11/1918

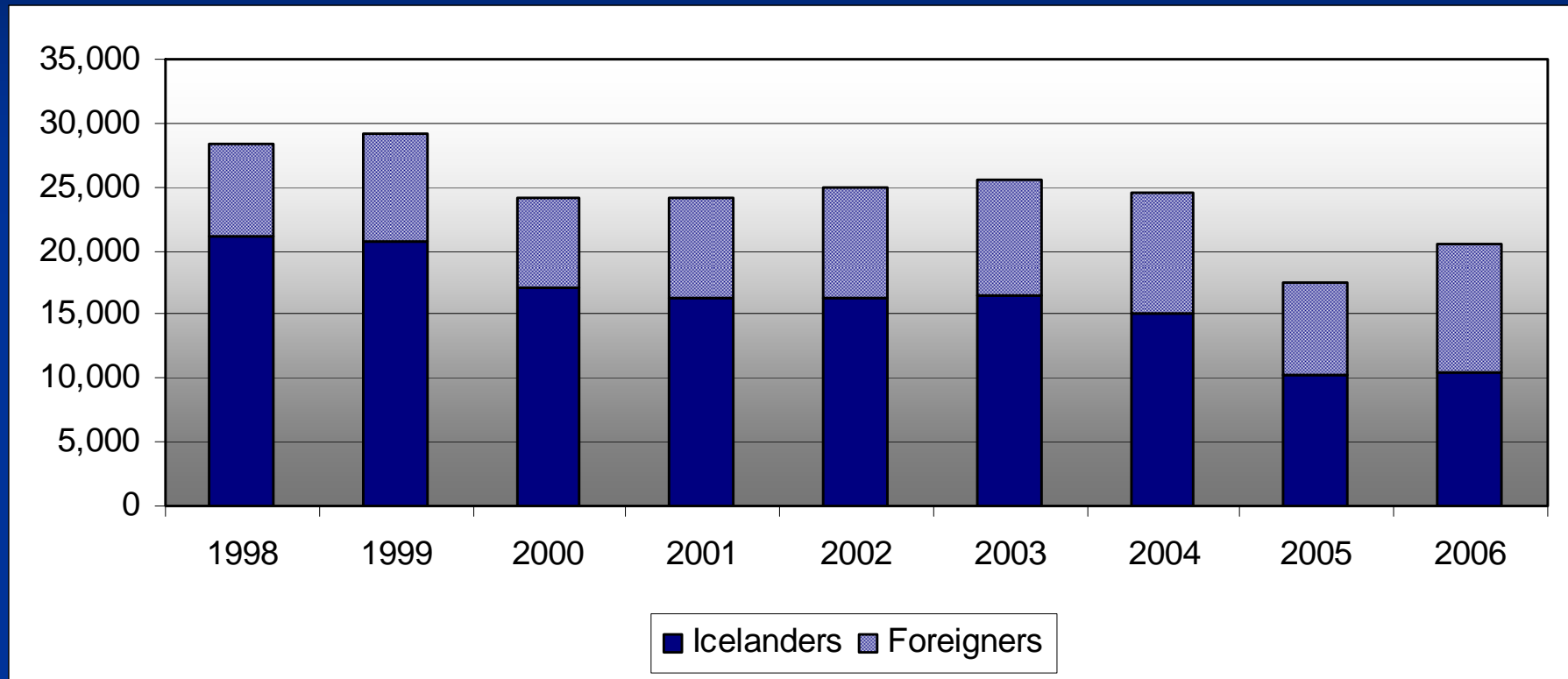
- At least 10 volcanically induced jökulhlaup on the Markarfljót
- Increased seismicity in the western region of the Katla caldera
- Last Katla eruption in 1918
- Katla erupts 1-3 times per Century

# Possible flood areas from a Katlahlaup and emergency information





# Total number of overnight stays in Þórsmörk



- The total number of overnight stays in 2006  $>$  20,000
- Which consisted of 10,398 Icelanders and 10,188 foreigners

# Public response to an evacuation is partly dependent upon their knowledge and awareness

- The aim of this investigation is to assess tourist's knowledge and awareness of Katla and jökulhlaup



hazards

- Make recommendations for improving hazard communication and education strategies

# The questionnaire survey instrument

– a popular tool to gain social data on natural hazards

- Face-to-face questionnaire survey interviews were conducted with 116 tourists during summer 2007
- Questions collected data on participant:
  - Classification
  - Knowledge
  - Awareness
  - Perception
  - Preparedness



# Key Characteristics of Participants

<b>Distribution of participants by age</b>		18 < 30 yrs 36%	31 < 50 yrs 36%	51+ yrs 28%		
<b>Percentage of Icelandic and international participants</b>		Icelandic 23%		International 77%		
<b>Percentage of participants that have achieved the following level of education:</b>						
Educated from 6 to 16 years 1.7%	High school 16 to 20 years 7.8%	Special Education 13.8%	Under-graduate 11.2%	University degree 38.8%	Postgraduate qualification 25.9%	Other (Un-completed higher education) 0.9%

# Participant responses to specific questions

How long will you spending in the region? <ul style="list-style-type: none"> <li>• Icelandic tourist</li> <li>• International tourist</li> </ul>	1 day 15% 6%	2 + days 85% 94%
What is your main purpose for visiting this region? <ul style="list-style-type: none"> <li>• Icelandic tourist</li> <li>• International tourist</li> </ul>	Hiking 37% 62%	Other 63% 38%
Are you travelling with a guide whilst in this region? <ul style="list-style-type: none"> <li>• Icelandic tourist</li> <li>• International tourist</li> </ul>	Yes 7% 9%	No 93% 91%
Do you have your GSM with you whilst in this region? <ul style="list-style-type: none"> <li>• Icelandic tourist</li> <li>• International tourist</li> </ul>	Yes 89% 65%	No 11% 35%
Do you carry a satellite phone with you when travelling in this region? <ul style="list-style-type: none"> <li>• Icelandic tourist</li> <li>• International tourist</li> </ul>	Yes 22% 10%	No 78% 90%



# Significant Findings

- Only half the international tourists are aware of Katla
- Both Icelandic and international tourists lack knowledge of Katla
- Majority of international tourists are unaware of jökulhlaup



# Significant Findings

- Nearly all participants are unaware of emergency procedures



- Participants would rely on hut wardens for hazard information



