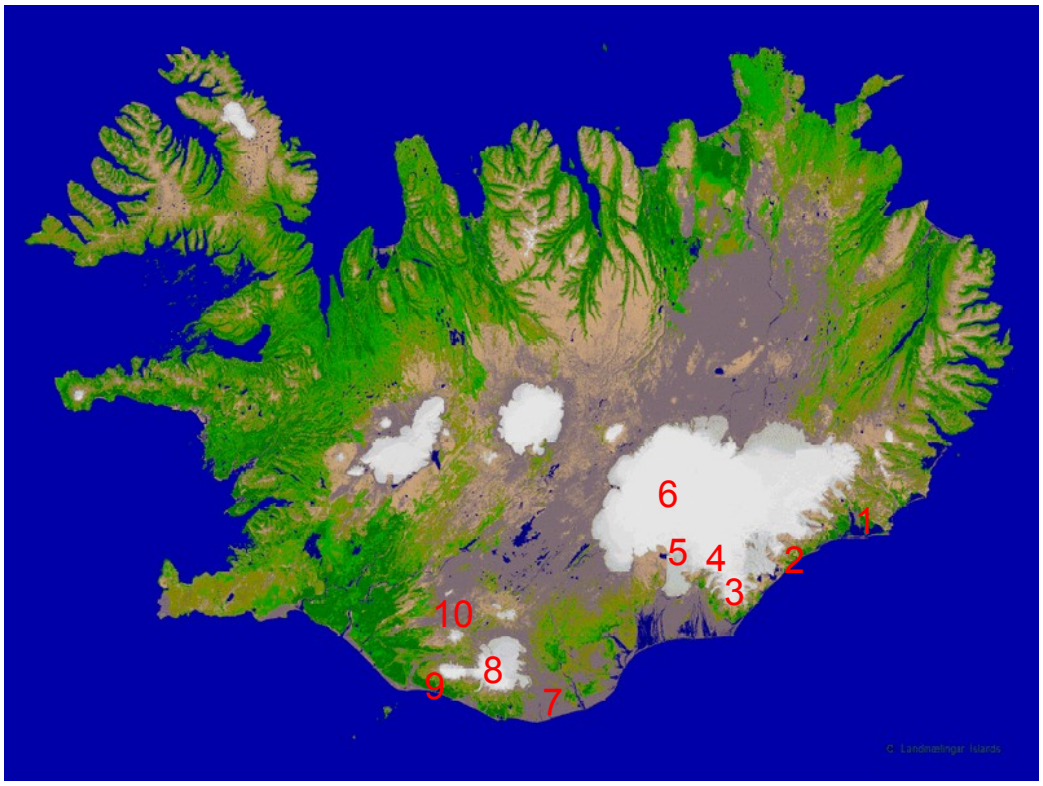
IGS Symposium: Hydrology of Glaciers and Ice Sheets

South Iceland Excursion, June 27-28 2015



1. Höfn. 2. Breiðamerkurjökull. 3. Öræfajökull. 4. Skaftafell. 5. Skeiðarárjökull. 6. Grímsvötn. 7. Mýrdalssandur. 8. Katla. 9. Eyjafjallajökull. 10. Tindfjallajökull.

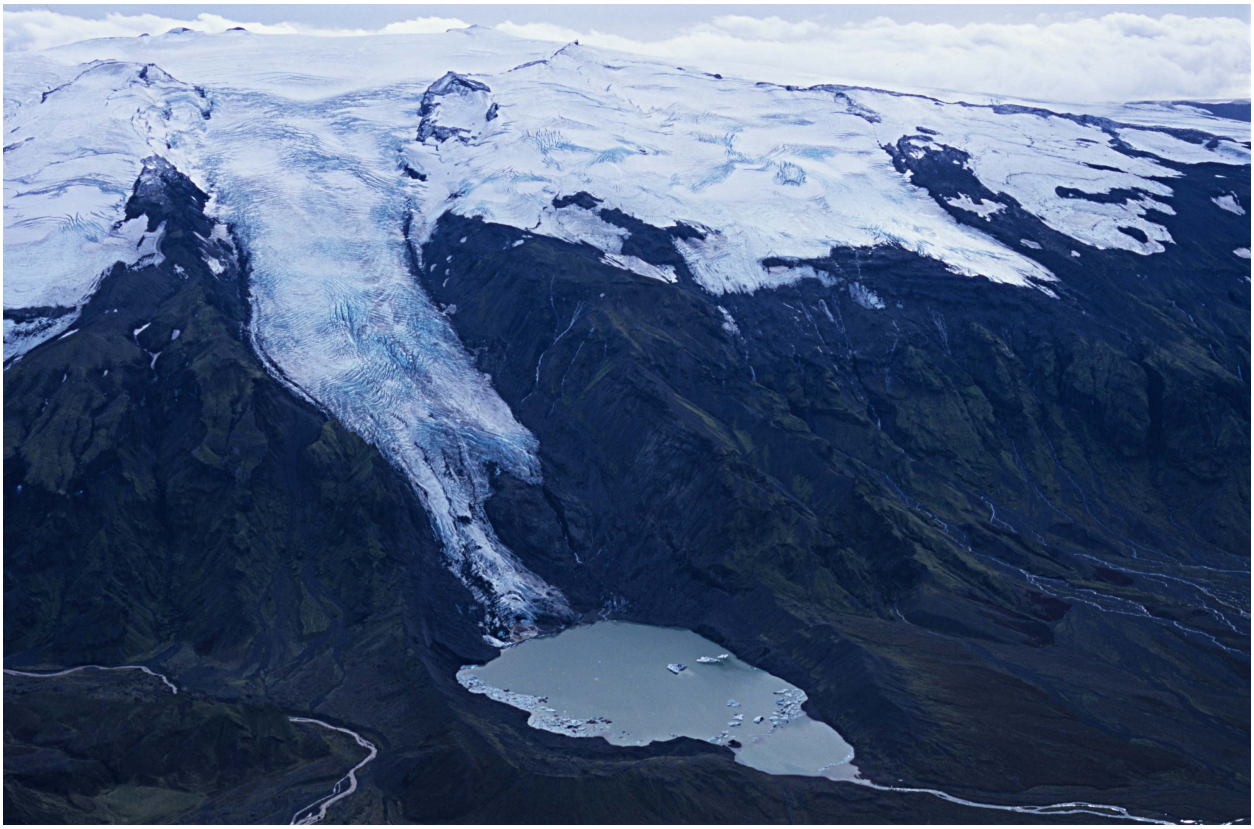
Saturday June 27

Departure from Hotel Vatnajökull at 08:30. The first stop will be at the well known Jökulsárlón (Glacier Lagoon) in front of Breiðamerkurjökull. There will be an opportunity to take a sailing tour on the lagoon to observe icebergs and the calving front. The price for the sailing tour is not included in the excursion price. Continuing westwards, we stop at the outlet glacier Kvíárjökull, known for huge lateral moraines that form a kind of natural amphitheater. We will learn about historical jökulhlaups from the summit crater of Öræfajökull as we approach the well known National Park area of Skaftafell, now part of the larger Vatnajökull National Park. In Skaftafell we will have lunch and walk to a site with a good view over Skeiðarárjökull outlet glacier and the Skeiðarársandur outwash plain, which has been inundated by large jökulhlaups from Grímsvötn for centuries. The largest flood in recent times occurred in connection with the subglacial volcanic eruption in Gjálp 1996, but since then only relatively small jökulhlaups have occurred. From Skaftafell we drive to the outwash plain and hike along the margin of Skeiðarárjökull. Like most outlet glaciers in Iceland, Skeiðarárjökull has been in rapid retreat over the past 20 years and the river Skeiðará recently changed its course, leaving the bridge standing over an empty river course most of the time. Dinner will be at Kirkjubæjarklaustur and

in the evening we will drive across the Mýrdalssandur, site of the tremendous jökulhlaups associated with eruptions in the subglacial volcano Katla. Overnight stay at the town Hella.

Sunday June 28

Departure from Hella at 08:30. We drive eastwards into a valley surrounded by three ice-covered volcanoes: To the south lies Eyjafjallajökull, of 2010 fame, which disrupted European air traffic with an explosive summit crater eruption that produced meltwater floods plunging down the Gígjökull outlet glacier. In the east lies Mýrdalsjökull, hosting Katla which last erupted in 1918. Since Katla erupts twice a century on average the next eruption can be said to be long overdue. It has been estimated that about 15% of all Katla eruptions during the Holocene have delivered meltwater floods down this valley and we will examine evidence for some of those pre-settlement floods. In the north looms Tindfjallajökull, source of the 55,000 year old Z2 ash layer in North Atlantic sediments and Greenland ice cores. In the afternoon, we will visit sites of interest in SW-Iceland, depending on the time available, before arriving in Reykjavík in the evening.



Eyjafjallajökull from the north in 2007. The lagoon in front of the Gígjökull outlet glacier disappeared in the 2010 eruption. Photo: Oddur Sigurðsson.