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Höfn, miðvikudagur, 30. apríl 2025  
202503-0220/C.E.J.B.  
10.01.01

**Efni: University of Southampton, Amelia Andrews - Umsókn um rannsóknarleyfi -  
Fjallsjökull - 12.06.25**

The Nature Conservation Agency of Iceland has received an application from University of Southampton, dated 14.03.2025 to conduct research within Vatnajökull National Park.

***Description of the project:***

**Project name:**

Measuring an un-gauged proglacial river of Fjallsjökull, a soft-bedded outlet glacier in Iceland

**Date, timeline and duration of the project:**

12.06.2025 – 21.06.2025

**Location inside Vatnajökull National Park:**

Fjallsjökull, Fjallsárlón and Falljökull.

**Description of the project, purpose and execution:**

This project is funded by the British Society for Geomorphology (BSG) and is also part of a wider PhD research project funded by NERC (Natural Environmental Research Council). The main aim of this project is to understand the short-term variations in proglacial lake behaviour and subsequent discharge in proglacial rivers at Fjallsjökull and Falljökull. Traditional methods to measure discharge, such as gauging stations and dye tracing experiments, require access to the proglacial river, which is not always possible in large, fast-flowing rivers that characterise many outlet glaciers, such as the one draining Fjallsjökull in SE Iceland. To address these challenges, we will use a DJI Mavic 3E UAV to measure surface velocity and subsequent discharge at the proglacial river of Fjallsjökull and Falljökull. We will conduct repeat surveys of the reach at a range of different flow conditions to build a discharge calibration curve. Once returned from field work, surface velocity and subsequent discharge estimations will be obtained using freely available Particle Tracking Velocimetry (PTV) algorithms and then

combined with measurements of proglacial lake area, surface melt and meteorological data from the original PhD project. In addition, we will also use the DJI Mavic 3E UAV to fly surveys over the southern lake edge of Fjallsárlón, from the southern carpark to the current ice front. This is to assess how the level of the lake varies daily, and by proxy, the volume of the lake, in response to increased melt water production or outflows. This data collection is part of Amelia Andrew's PhD project.

**Description of methods for sample taking, if part of the research:**

We will not be taking samples from our field sites.

**Other information that the applicant wants to submit:**

If you would like to read about previous research carried out at the site, as well as any articles which result from this fieldwork/project, then please do contact us at the above email and we will happily share them with you. Any members of the National Park authority are welcome to come visit us while in the field.

***Conclusions and conditions:***

The Nature Conservation Agency of Iceland hereby grants University of Southampton permission on its behalf to conduct research within Vatnajökull National Park as described above on 12.06.2025 – 21.06.2025 on the following conditions:

- Keep this letter with you on site during the project. The permit conditions should be introduced to the staff of the project before work begins.
- The applicant shall inform rangers in the area about their arrival and departure. This is to be done 24 hours before entering the area and again before leaving it. The best way to do this is to 'reply-all' to the e-mail that this permit was sent with.
- If the project dates or description changes the Nature Conservation Agency shall be notified as soon as possible. However, the permit holder may use the permit for up to two days before or after the date given, should weather or other conditions require, without notifying the park.
- When it is necessary to go off-path, extra care must be taken not to cause damage to terrain, including vegetation, soil and geological formation. All traces of activity must be removed afterwards.
- If any complications occur during the project, please contact the ranger at Jökulsárlón, tel. +354 842 4355, or the Nature Conservation Agency of Iceland, tel. +354 556 6800.
- This permit is only valid for research purposes. It does not include permit to utilize the samples for commercial purposes. The samples cannot be signed over to third party for commercial use.

- All participants in the project must wear high-visibility clothing during field work, labelled with the identity of the researcher or the research institute.

***Conditions regarding drone flights for research purposes:***

- The applicant should be conscious of other guests on the sites and make sure that the droneflight causes as little disturbance as possible to other visitors.
- An unmanned aircraft should never be flown in close proximity to people. Please take precaution not to disturb people's experience, their safety or personal privacy nor the general peace of the protected areas being filmed.
- Flight time should be avoided during the area's busiest times of the day.
- If the use of unmanned aircraft causes disturbance to wildlife in the area, its use should be ceased at once.
- The conductor of the unmanned aircraft is responsible for the aircraft within the protected area. This includes taking responsibility of any possible risk of harm to people, fauna and nature and leaving no permanent marks on the site in question. Should the aircraft crash, all components from it must be collected and removed from the area.
- For safety reasons, the pilot of an unmanned aerial vehicle must wear marked clothing so that the person can be identified.

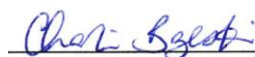
***Locations and site-specific conditions:***

- Fjallsjökull – note that most of the area west of Fjallsárlón, including the car park at 64°00'39.5"N, 16°23'18.9"W, is not within the National Park. The applicant might need a permit from the landowners. Tours on Fjallsjökull are also operated daily.
- Fjallsárlón - Boat tours are operated at Fjallsárlón between 08:30 and 18:30 and the area receives a high volume of visitor traffic.
- Falljökull – no site-specific conditions.

Vatnajökull National Park wishes to receive, free of charge, a copy of all reports and scientific articles that result from the research project.

Vatnajökull National Park can withdraw the permit if conditions of the permit are not complied to.

Best regards,



*Charli E. J. Brzeski*  
Assistant Park Manager  
Vatnajökull National Park

