NÁTTÚRUSTOFA VESTFJARÐA

Volunteer Programme

22-27 July 2007

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Introduction

The aim of this field work is to continue a baseline for the fauna and microorganisms in streams and lakes of the Western Fjords.

This programme is a continuation pilot project between The Natural History Institute of Iceland and volunteers from Another Way Travel.

Methodology

This section describes the various sampling methods used during our week working with the Natural History Institute. Every sample obtained was stored in a container preserved in a 70% alcohol solution. Each sample was labelled with the date, location, station and sample number, both on a paper label inside the container and on the lid.

1. General data collection

At each station the first data collected was the GPS position, elevation and the temperature, pH and conductivity of the water. We also described the habitat and measured the transect of the river.

At some stations we measured the depth of the river at regular intervals and noted the relative percentages of sand/rocks/stones/moss/algae etc. on the riverbed.

2. Stone samples

Five stone samples were taken from the river or lake bed at each station, randomly selected from five separate points across the transect of the river. The samples were scrubbed to remove the vegetation and wildlife attached to them. The resulting mixture was sieved using a 125 or 250µm sieve and preserved in a 70% alcohol solution. Details of each stone were recorded: the description (i.e. rough/smooth), average height and shape.

3. Core samples

Five core samples were taken using a 7.3cm auger. These were sieved and stored in separate containers.

4. Kick samples

Kick samples were taken by 'kicking' for 30 seconds at the riverbed upstream of a 250µm net, which collected the resulting sediment. This sediment was sieved and preserved in alcohol.

5. Pitfall traps

Pitfall traps were set in groups of 10. Each trap was created by making a hole using a soil auger and planting a small plastic pot in it. The pot was partially filled with formaldehyde and a drop of detergent. The pots were collected a minimum of 24 hours after setting them and the contents sieved and transferred to a fresh container with alcohol. The soil cores were left beside the traps and replaced once the pots had been collected.

6. Butterfly nets

Insect samples were taken using a butterfly net in locations where the wind was not too strong. After collection, the insects were sieved into a small container and alcohol added for preservation.

7. Malaysian trap

The Malaysian insect trap comprises a small open tent with a sampling bottle attached. The trap was left to collect as many insects as possible and the resulting samples were sieved and preserved in alcohol.

8. Plankton samples

Plankton samples were collected using a Zoo plankton net with a filter size of 53µm.

9. Electro-fishing

An electric current was passed through a metal ring which was swept over the riverbed to stun any fish. Fish were caught using a net and placed in a bucket, weighed, measured and returned to the river.

10. Fish traps

Two fish traps were set up in different locations in one lake overnight. Any creatures caught were transferred to a small container and preserved in alcohol.

Field work

Day 1 – 22nd July

The group were introduced to the Institute and its staff and given a tour of the museum.

1st Site – River Gilsá station A

The group visited the River Gilsá, a short distance from the Institute, where training was given in general data collection, stone sampling, measuring transects and habitat description.

Two of the group had the opportunity to work in the river while others caught insects using butterfly nets, set pitfall traps and collected stone samples.

During the afternoon the group spotted an adult black-tailed Godwit which had been ringed two weeks earlier.

2nd Site – River Fossa station A

At this site, the following data collection activities were carried out: general data collection, butterfly nets, stone samples, kick samples and pitfall traps.

A slow day gathering information for the Institute and a steep learning curve for the group!

Day 2 – 23rd July

1st Site – River Fossa station A

The group revisited this station and carried out general data collection, butterfly nets, stone samples, kick samples, pitfall traps, Malaysian trap and electro-fishing.

We set up a Malaysian Trap and having struggled with it at a previous site, got it right this time. Samples were collected 5 hours later.

2nd site – River Fossa station B

A second station was set up further downstream where the following data collection activities were carried out: kick samples, stone samples and butterfly nets.

Rain stopped play and the group returned to the Institute via the arctic tern colony. At the Institute, the group was greeted by the Health & Safety Officer who had just condemned our accommodation.

The surveying equipment was collected and loaded for the expedition to Grunnavik the following day.

Day 3 – 24th July

In the morning the group sailed to Grunnavik in beautiful weather, clear blue skies and glorious sunshine despite a cold wind. Puffins and other seabirds were observed during the crossing.

1st site – Pond 1

After unpacking at Grunnavik, the group hiked 5 kilometres to an elevation of 155 metres. Steep climbing among rocks and vegetation.

The first site was named Pond No. 1 and the following methods used: general data collection, core samples, stone samples, pitfall traps and zoo plankton samples.

A butterfly net was used but only one container was collected as there were few insects in the surrounding area.

2nd site – Skeiðisvatn station A

General data collection, stone samples, core samples and pitfall traps were carried out.

Zoo plankton samples were taken by two of the group who realised how difficult it was to walk in waders and lost their balance while sampling in the lake. At least the water was warm!

Three fish traps were left in the lake for collection the following day.

3rd site – Skeiðisatn station B

The following data collection techniques were used: general data collection, core samples, stone samples, zoo plankton samples and butterfly nets.

By this stage the group had developed a more efficient way of working which reduced the time taken (helped by the sheltered spot where the equipment did not blow away!)

Day 4 – 25th July

1st site – Skeiðisvatn station B

The group revisted Sk vatn station B to collect the fish traps.

2nd site – Skeiðisvatn station C

The following data collection techniques were used: general data collection, core samples, stone samples, zoo plankton samples and butterfly nets.

3rd site – Lake Middalur station A

The group hiked through the beautiful valley of Middalur spotting a plover hatching 4 eggs. We arrived at Lake Middalur (but incorrectly labelled the samples as Nupsdalur) which lay below a spectacular mountain backdrop. There were still areas of snow on the lake shores, into one of which Debbie fell and had to be rescued.

General data collection, core samples, stone samples and zoo plankton samples were taken. Core samples could not be taken as the water was too deep and the bed too rocky. The water in this lake was very mcuh colder than the lower lake and pond.

4th site – Lake Middalur station B

The group split into two and the second group trekked across the snow to the other side of the lake and carried out general data collection, stone samples and plankton net samples.

5th site – River Middalur station A

Stone samples and butterfly nets were taken.

6th site – River Middalur station B

Stone samples were collected at this site.

This was our final site for the day and our stay in Grunnavik. As the volunteers had reached an enviable level of efficiency, our target for the day was six stations, which we only just managed between cups of tea and regular meals!

Crossing of the troll bridge was particularly memorable on this day: Ginnie´s hat fell in the water and had to be recovered and then Angela fell down the bank while on rope duty. An Institute bucket was lost downstream and never seen again despite Zoe´s brave efforts in waders to recover it.

Day 5 – 26th July

In the morning the samples were catalogued and cross referenced. At this point, 5 stone samples from river Middalur station B appeared to be missing.

Buddy, as he fondly became known to the group, was volunteered to trek back to locate the missing samples. As a result of the extreme privations of this 10 km

journey, Buddy was so desperate on his return that he even managed to eat vegetables (disguised as soup) to the later disbelief of his partner.

We returned to Bolungarvik and unloaded the samples and equipment at the Institute. By this time the Grunnavik elves had replaced the missing samples which were found safe and well among the other samples!

Day 6 – 27th July

The week´s work was summarised in a report and some of the week´s samples were observed using stereoscopic microscopes. Further analysis of the samples will be carried out at the Institute in the future.

The whole group hosted another splendid meal at the Institute!

The group ended the day by visiting the nearby Arctic Tern colony to ring Tern chicks.

Birds seen in the Grunnavik area at various locations were:

(a) In open ground between lower lake near the mountain pass and higher Middalur lake

1. Adult Golden plover (*Pluvialis apricaria*) with 4 unhatched eggs
2. Adult Golden plower with 17-20 day old chicks
3. Adult Golden plover with 4 active small chicks
4. Two white morph of Arctic Skua (*Stercorarius parasiticus*) and one dark morph.
5. One Merlin (*Falco columbarius)*
6. One Wimbrel (*Numenius phaeopus*)
7. One Redshank (*Tringa totanus*), proabily fledge chick
8. One Wheater (*Oeanthe oeanthe*)
9. Two Ravens (*Corvus corax*)
10. One adult Dunlin (*Calidris alpina*)
11. Meadow Pipit (*Anthus pratensis*), many
12. Heard one Ringed Plover (*Charadrius hiaticula*)
13. Purple Sandpiper (*Calidris maritima*) with 3 chicks around 5 days old

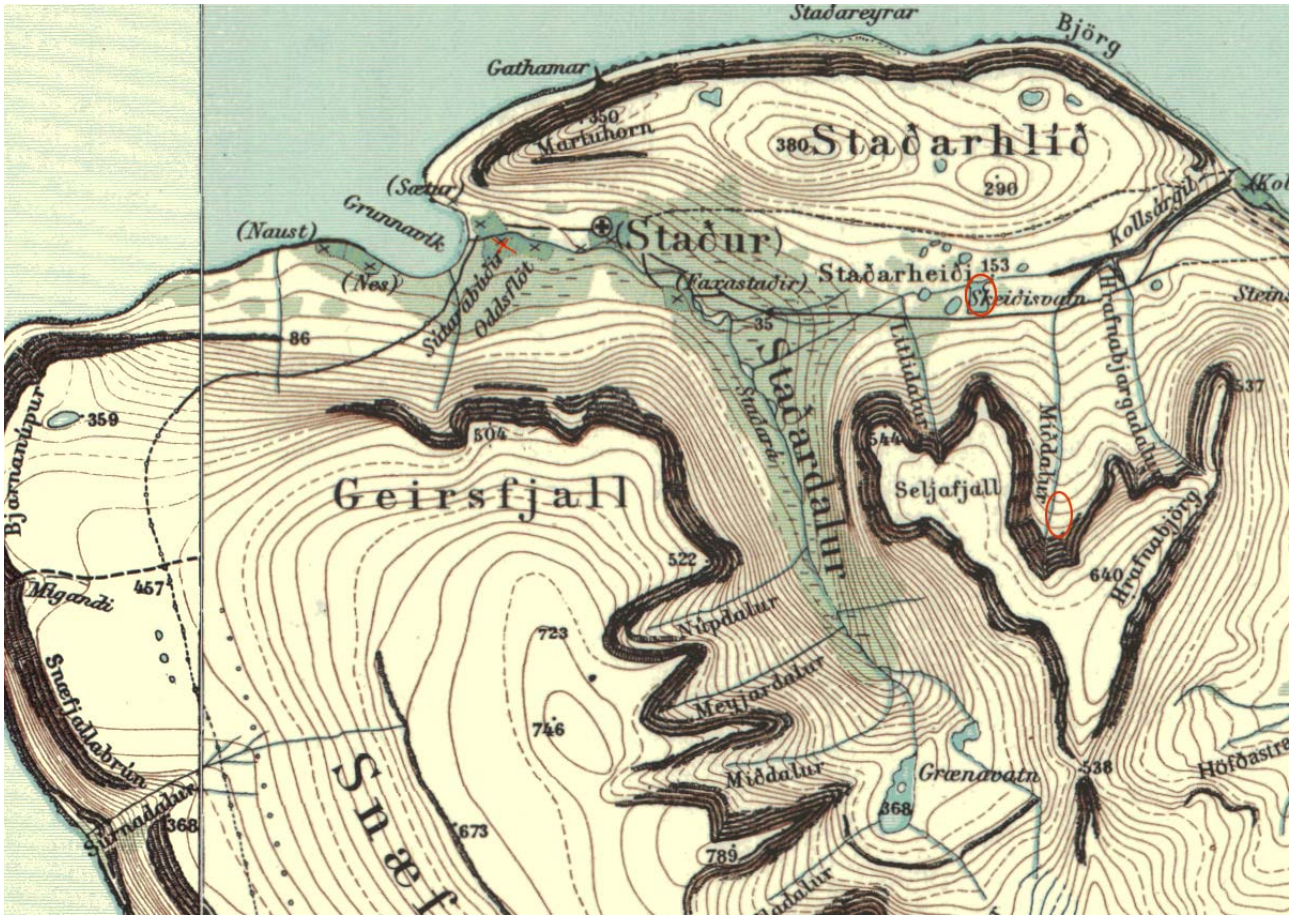
(b) Up in the high lake Middalaur ther were 2 Whooper Swans (*Cygnus cygnus*)

(c) Around the shoreline at Grunnavik

1. Pied Wagtail (*Motacilla alba*)
2. Arctic Terns (*Sterna paradisaea*)
3. Oystercatchers (*Haematopus ostralegus*)
4. Eiders (*Somateria mollissima)* with chicks

(d) In the area between th River Stadara and the guesthouse saw a Wimbrel chick resting on its nest It flew away on being approached. (Böddi quote: Whimbrel chicks do not rest on their nest and then fly away. They fledge around 24 days and they are then full grown).

Map of Westfjords, red dot – Bolungarvik, blue dot – Grunnavik



Map of Grunnavik. Red circle for study area, Skeiðisvötn og Miðdalur.

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