

NPC 150175: The B.I.G. (Before It's Gone) Expedition

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Proposal Status: Conformity Determination Issued

[Overview](#) [Documents](#)

[Project Overview](#)

Type of application: New

Proponent name:

Felicity Aston

Proponent company:

National Oceanography Centre

Project Description:

A 10-day ski expedition across the Prince Gustaf Adolf Sea to collect small-volume surface snow and surface ice samples from sea ice. The samples will be returned to the National Oceanography Centre / University of Southampton in the UK and the University of Colorado in the US where they will be analysed for airborne microplastic, black carbon and heavy metal content. The results will be used to investigate the atmospheric pathways and distribution of airborne pollution originating in Europe and North America into and across the Arctic Region. It forms part of a wider pan-Arctic project that has so far included Greenland, Iceland and Svalbard.

[Project Schedule](#)

Start Date:

2024-04-10

End Date:

2024-04-22

[Project Map](#)

List of project geometries:

Id
Geometry
Location Name

[10887](#)

polygon

Drop off by ski-fitted Twin Otter will be somewhere in this area. Exact location will be decided by pilot depending on conditions found on the day.

[10897](#)

polygon

Area within which five sampling locations will be positioned. Exact location will be determined by sea ice conditions encountered, the progress of the ski team. and other logistical factors.

[10898](#)

polygon

Route of the expedition moving by ski to its endpoint/pick-up location will be within this area. Exact route determined by conditions encountered and logistical factors.

[10888](#)

point

Ideal site of first sampling location. Low-volume surface snow and surface ice samples will be collected from sea ice at 5 randomly selected points across an area not more than 50m²

[10890](#)

point

Ideal site of second sampling location. Low-volume surface snow and surface ice samples will be collected from sea ice at 5 randomly selected points across an area not more than 50m²

[10892](#)

point

Ideal site of third sampling location. Low-volume surface snow and surface ice samples will be collected from sea ice at 5 randomly selected points across an area not more than 50m²

[10894](#)

point

Ideal site of fourth sampling location. Low-volume surface snow and surface ice samples will be collected from sea ice at 5 randomly selected points across an area not more than 50m²

[10896](#)

point

Ideal site of fifth sampling location. Low-volume surface snow and surface ice samples will be collected from sea ice at 5 randomly selected points across an area not more than 50m²

[10899](#)

point

Pick up by Twin Otter from the airstrip at Isachsen.

NPC Planning regions:

North Baffin

[Project Land Use and Authorizations](#)

Project Land Use:

Scientific Research
Licensing Agencies:
Nunavut Research Institute

Material Use

Equipment:

	Type	Quantity	Type	Use
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Skis and sleds

5 sets

sleds (L 171.5cm, W 60cm, H 25cm); each ski between 170-195cm long and 15cm wide.

The expedition will travel on skis and tow expedition sledges carrying all their supplies and camping equipment.

Camping equipment

100kg

N/A

The 5-woman team will camp on the ice in two 4-man tents. Everything is as lightweight as possible and is transported in expedition sledges by ski.

Scientific equipment

5 x 77 liter boxes

Each box L 60cm, W 40cm, H 40cm

All scientific sampling equipment is manual. The equipment includes stainless steel bottles, polypropylene tubs, stainless steel sampling tools and tyvek clean-suits.

Twin Otter Aircraft DHC-6

2

Length 15.77m, Width 19.8m, Height 5.9m

Two Twin Otter Aircraft will be used to transport the expedition team and equipment from Resolute Bay to the expedition start point. One of these aircraft will collect the team, its equipment and scientific samples from the expedition endpoint at the end of the expedition for return to Resolute Bay.

Fuel Use:

	Type	Container	Capacity	Use
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Other

25

1

Liquid stove fuel for camping stoves used by the expedition.

Hazardous Material and Chemical Use:

Type
Container
Capacity
Use

No data found

Water Consumption:

Daily Amount (m ²)
Retrieval Method
Retrieval Location

0

Camp locations within designated route area

Melting snow

Waste and Impacts

Environmental Impacts:

Please make reference to the Environmental Impact Assessment attached in the Documents section. Thank you.

Waste Management:

Waste Type
Quantity Generated
Treatment Method
Disposal Method

Greywater

6 Liters

null

Into snow and/or ice away from camp/areas of activity.

Non-Combustible wastes

4 x 20-25 gallon trash bags

Refuse items will be separated with recycling in mind.

All food packaging and other refuse will be returned to Resolute for proper disposal.

Sewage (human waste)

36kg

null

All paper to be returned to Resolute Bay for proper disposal.