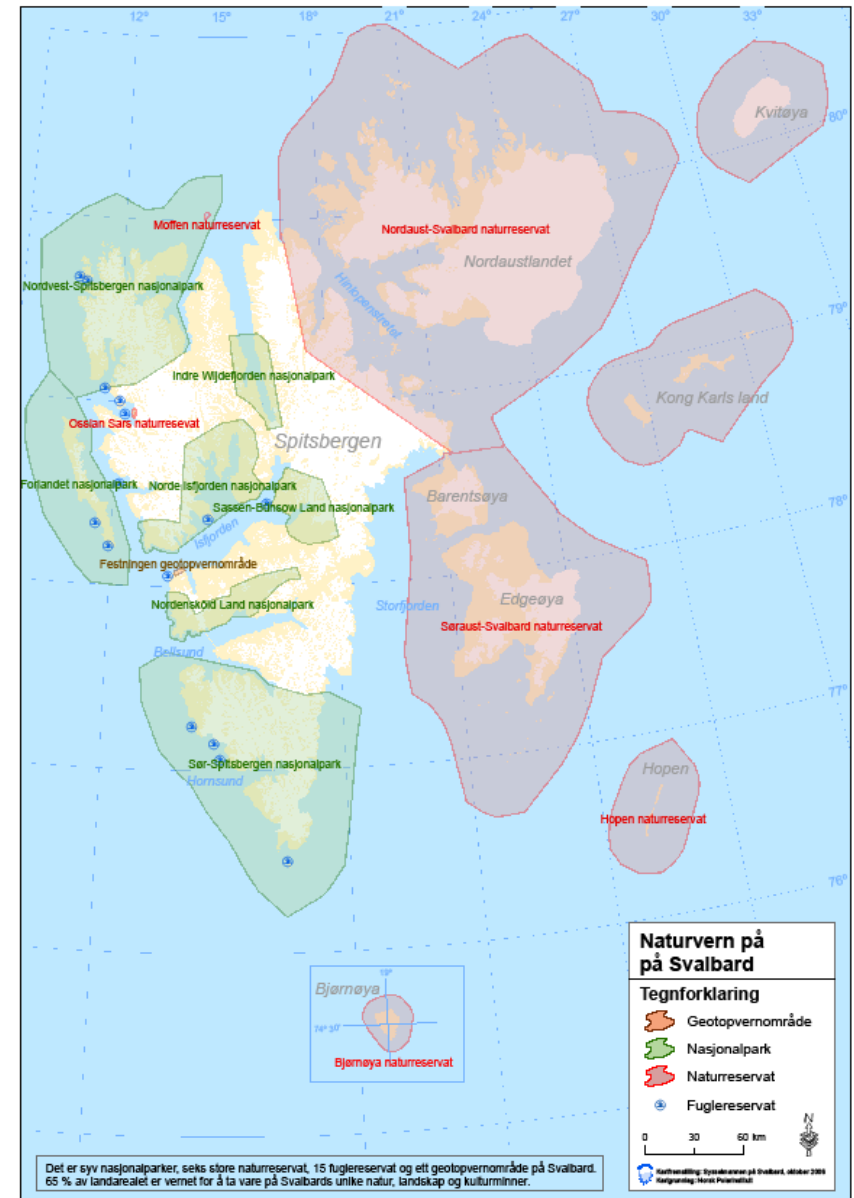


# Selected projects of science, teaching and logistics at UNIS during summer and fall 2010.

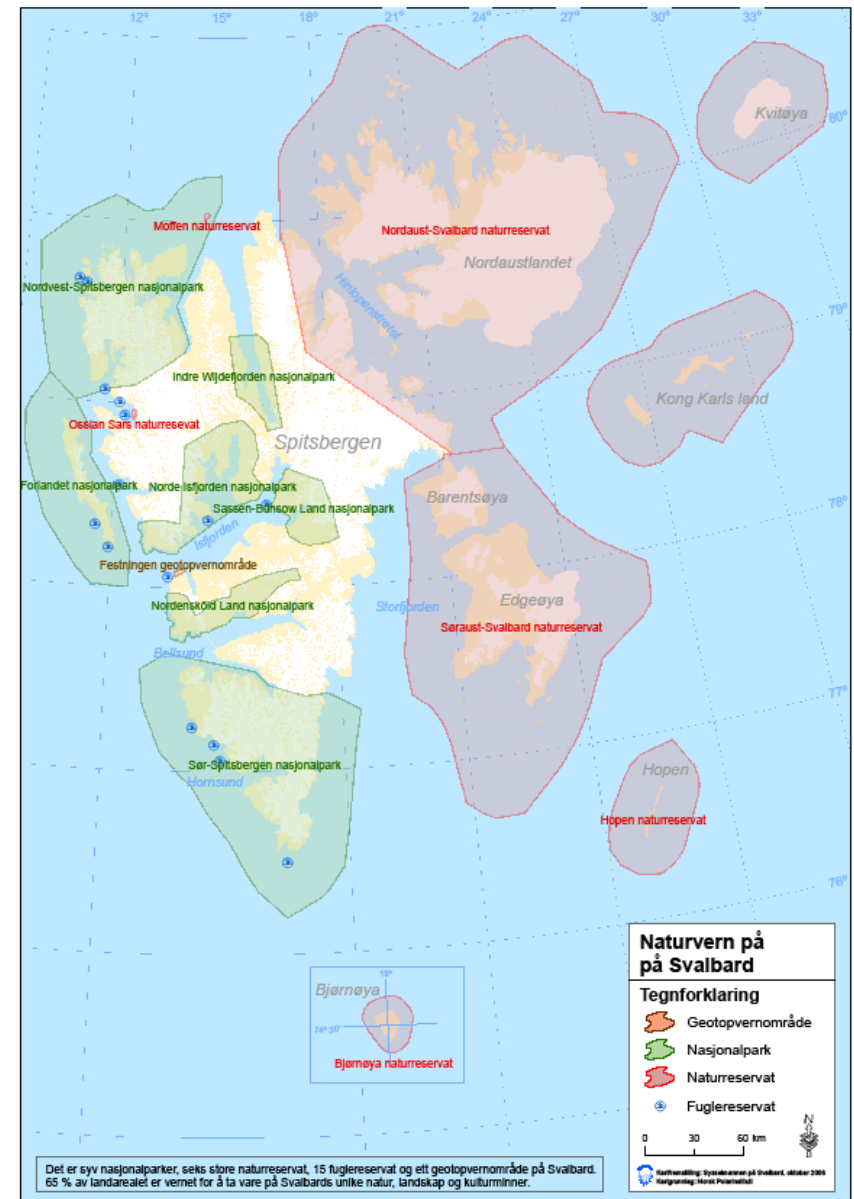


1. Terrestrial activities
2. Activities at sea, cruises.
3. New cooperation projects at UNIS
4. Unsolved challenges



# Terrestrial activities

1. AFS 201 IPY
2. Field camp in Billefjorden
3. Master projects in Geology
4. Biology - Puccinellia study
5. Geology project UNIS / UIK
6. Svalbard in Snowball Earth
7. Dynamics of calving glaciers...
8. Aspelintoppen Formation project
9. Braganzavågen project UNIS / NGU
10. Longyearbyen CO2 lab
11. Use of Kapp Linnè
12. Activities elsewhere..



# AFS 201 Interdisiplinær og Internasjonal Polar Feltskole



## Main activity / study area

## Responsible scientist and institution

Ólafur Ingólfson and Elise Strømseng  
UNIS

## Number of participants

25 - 30

## Period

21.06.10 – 09.07.10

## Area

Longyearbyen, Kapp Linne, Isfjorden

## Transportation

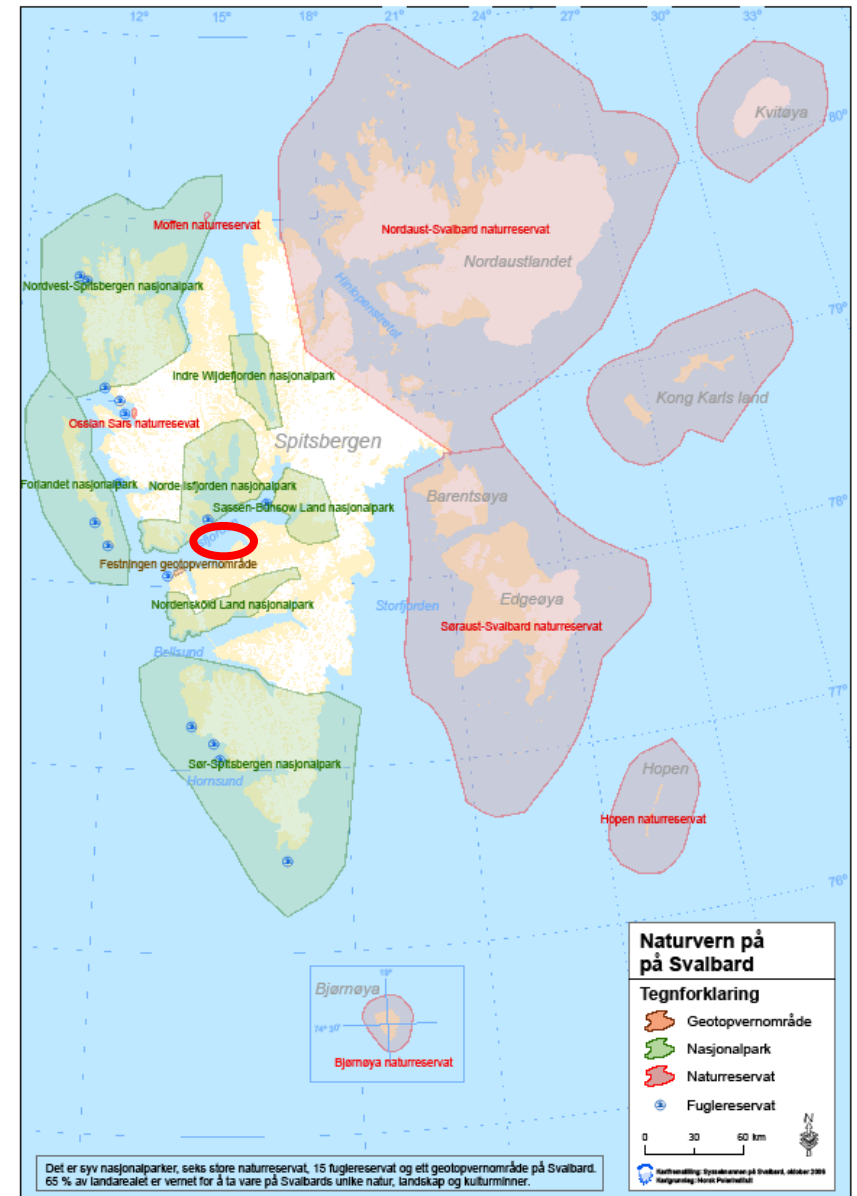
Small boats (Polarcirkel)

## Special circumstances / need of permission

None

## Special HSE aspects

None



# Fieldcamp in Billefjorden, Rudmosepynten



## Main activity / study area

Geo course

## Responsible scientist and institution

Anne Hormes, UNIS

## Number of participants

Up to 30 pax

## Period

26.08.10 – 30.08.10

## Area

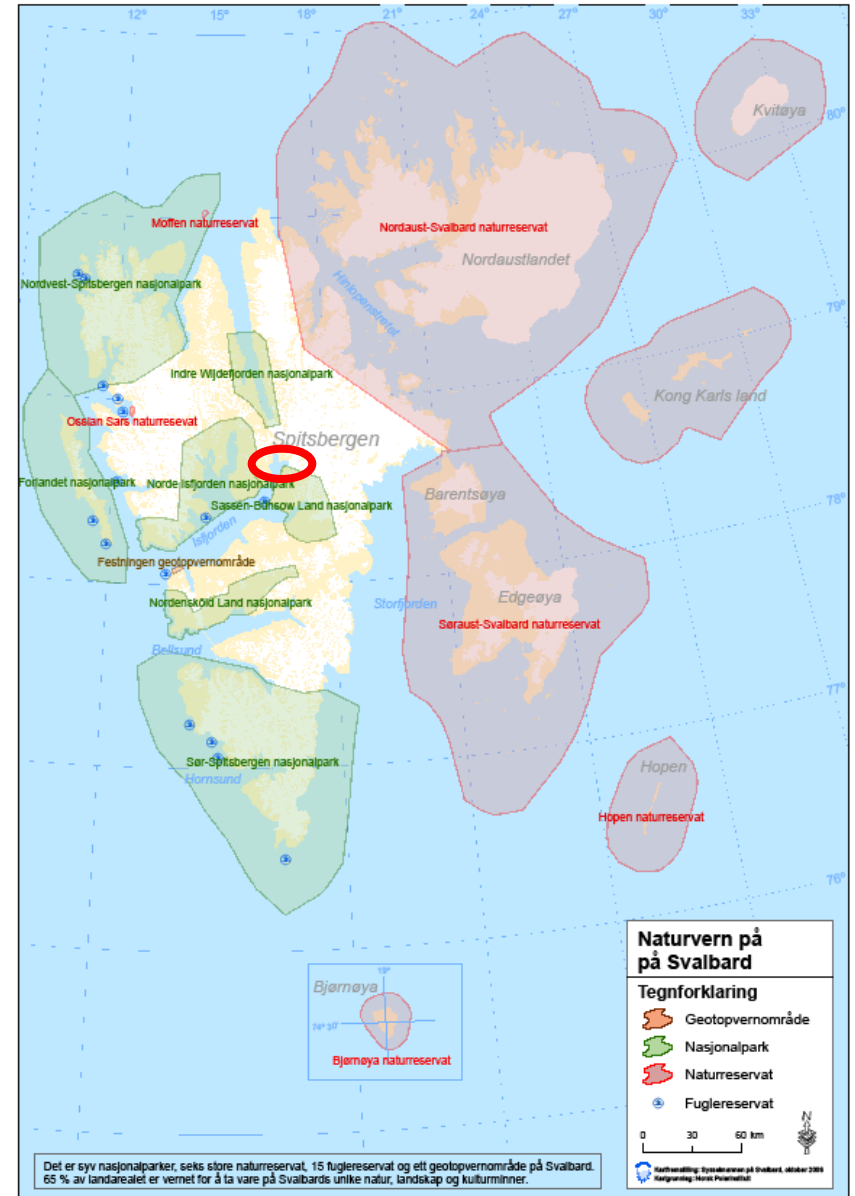
Billefjorden, Kapp Ekholm, Rudmosepynten

## Transportation

Boat

## Special circumstances / need of permission

## Special HSE aspects



# Master projects in geology



## Main activity / study area

Geology

## Responsible scientist and institution

William Helland Hansen, UNIS / UiB

## Number of participants

8 persons split in 4 different groups

## Period

07.07.10 – 29.08.10

## Area

Ringdalen, Bromelldalen, Bolterskaret, Lunckefjellet and Reindalen.

## Transportation

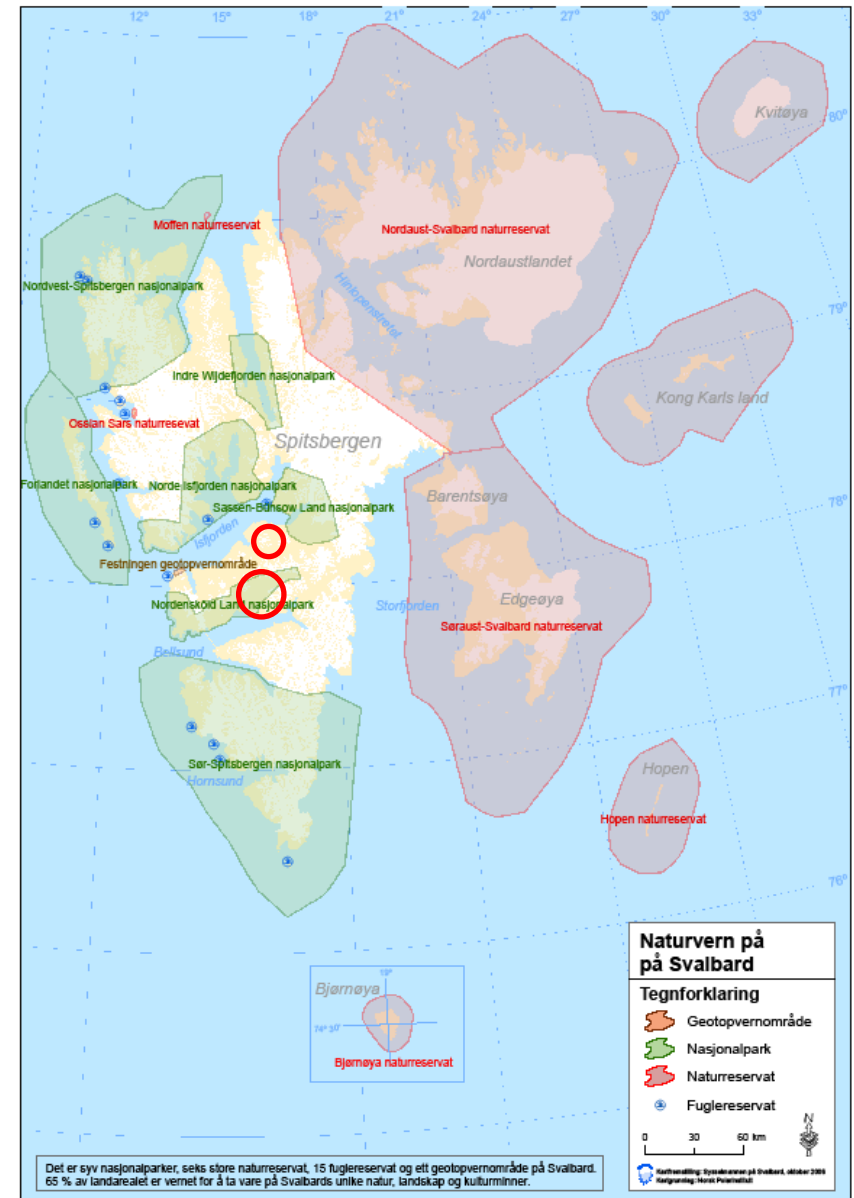
Boat and helicopter

## Special circumstances / need of permission

Needs permission for landing with helicopter

## Special HSE aspects

Small camps with few people, low threshold for aborting in case of polar bear trouble.



# Biology - Puccinellia study



## Main activity / study area.

Biology

## Responsible scientist and institution

Pernille B Eidesen, UNIS

## Number of participants

3

## Period

21.07 – 01.08

## Area

Wijdefjorden, Måkøya, Trollkildene and Kapp Wijk

## Transportation

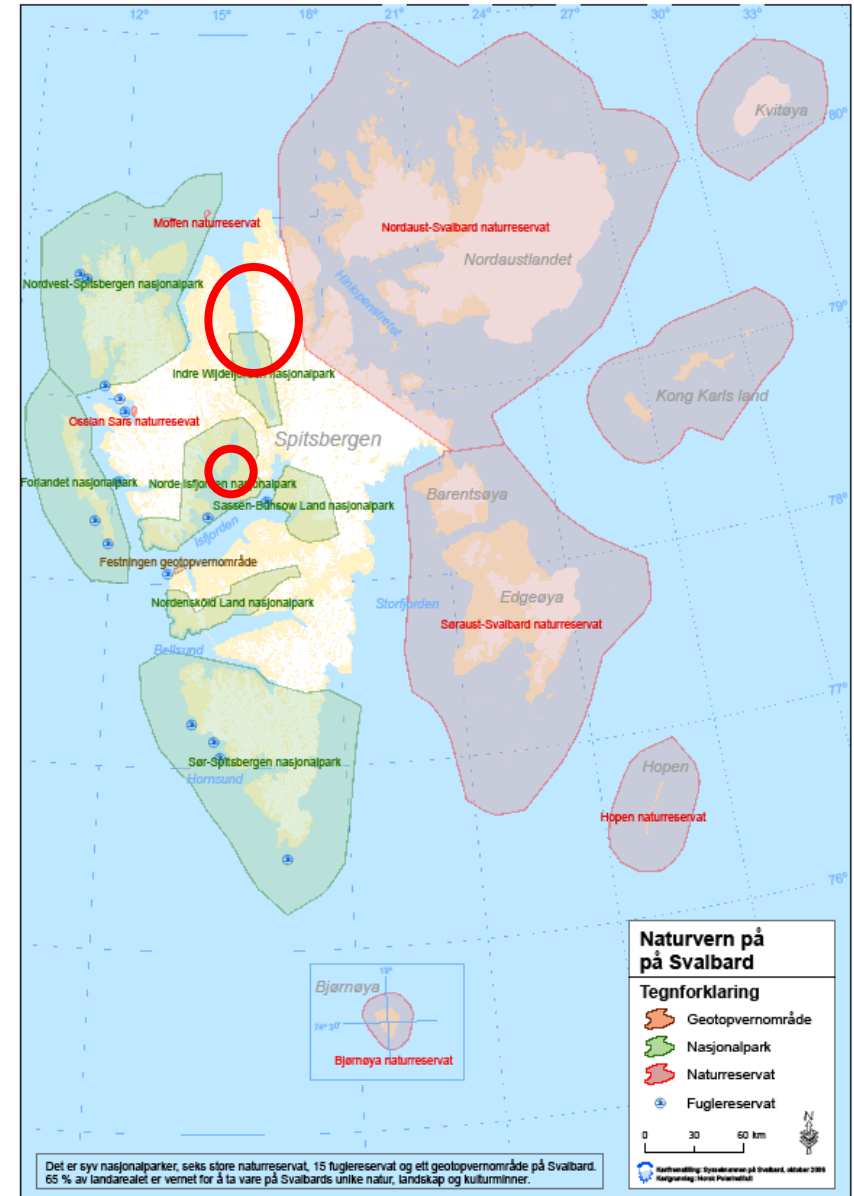
Helicopter

## Special circumstances / need of permission

Needs permission for landing with helicopter

## Special HSE aspects

Fieldcamp, Small camps with few people, low threshold for aborting in case of polar bear trouble.



# Geology cooperation projects UNIS / University in Chopenhagen



## Main activity / study area

Petroleum geology

## Responsible scientist and institution

Snorre Olausen, UNIS

Lars Stemmerik, UIK

## Number of participants

5

## Period

07.07 – 28.07

## Area

Pyramiden, Billefjorden and Dicksonfjorden

## Transportation

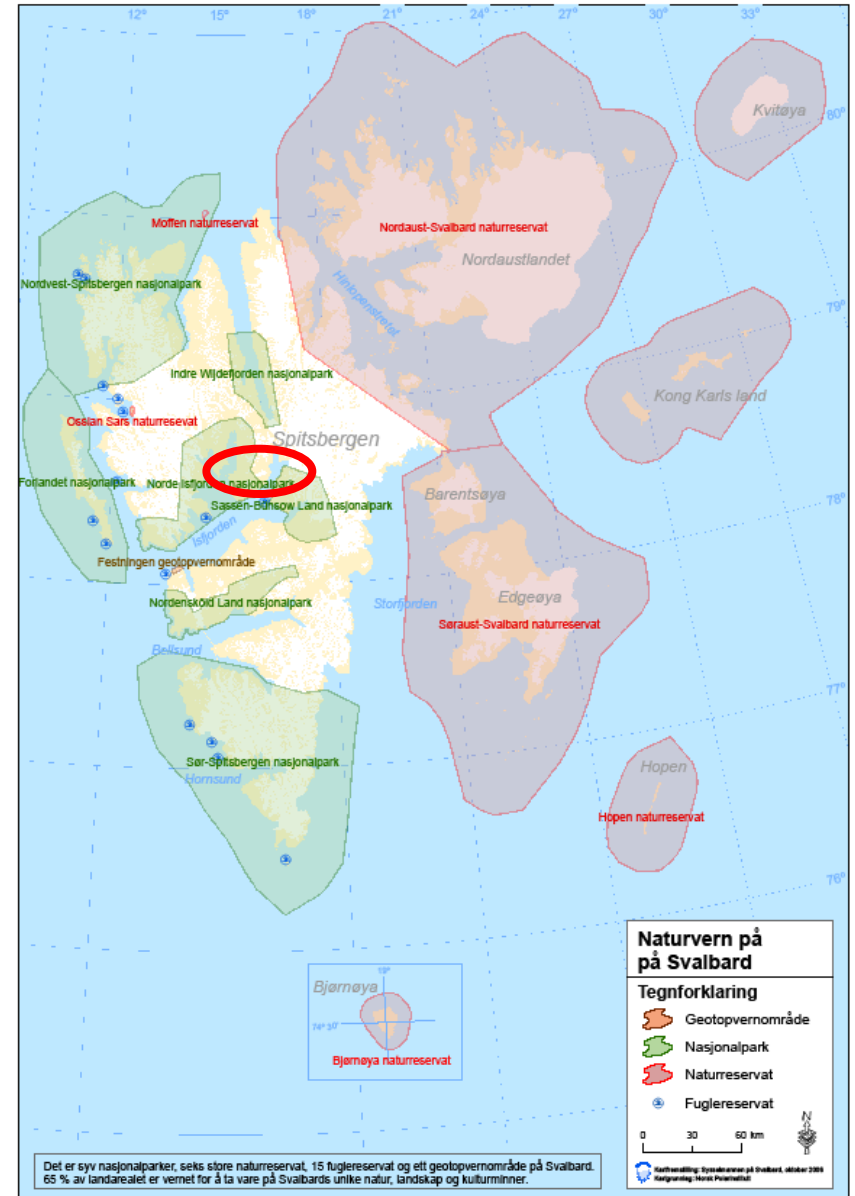
Boat and helicopter

## Special circumstances / need of permission

Needs permission for landing with helicopter

## Special HSE aspects

Fieldcamp



# Svalbard in Snowball Earth



## Main activity / study area

2010: Neoproterozoic glaciation, rock sampling from Nunataks in Olav V land

## Responsible scientist and institution

Doug Benn, UNIS

Overall project leader Professor I. J. Fairchild fra The University of Birmingham, UK

## Number of participants

6

## Period

2010: 19.07 – 30.08, 2011: Nordaustlandet July - August

## Area

Olav V land (Dracoisen, Ditlovotoppen og Wilsonbreen)

## Transportation

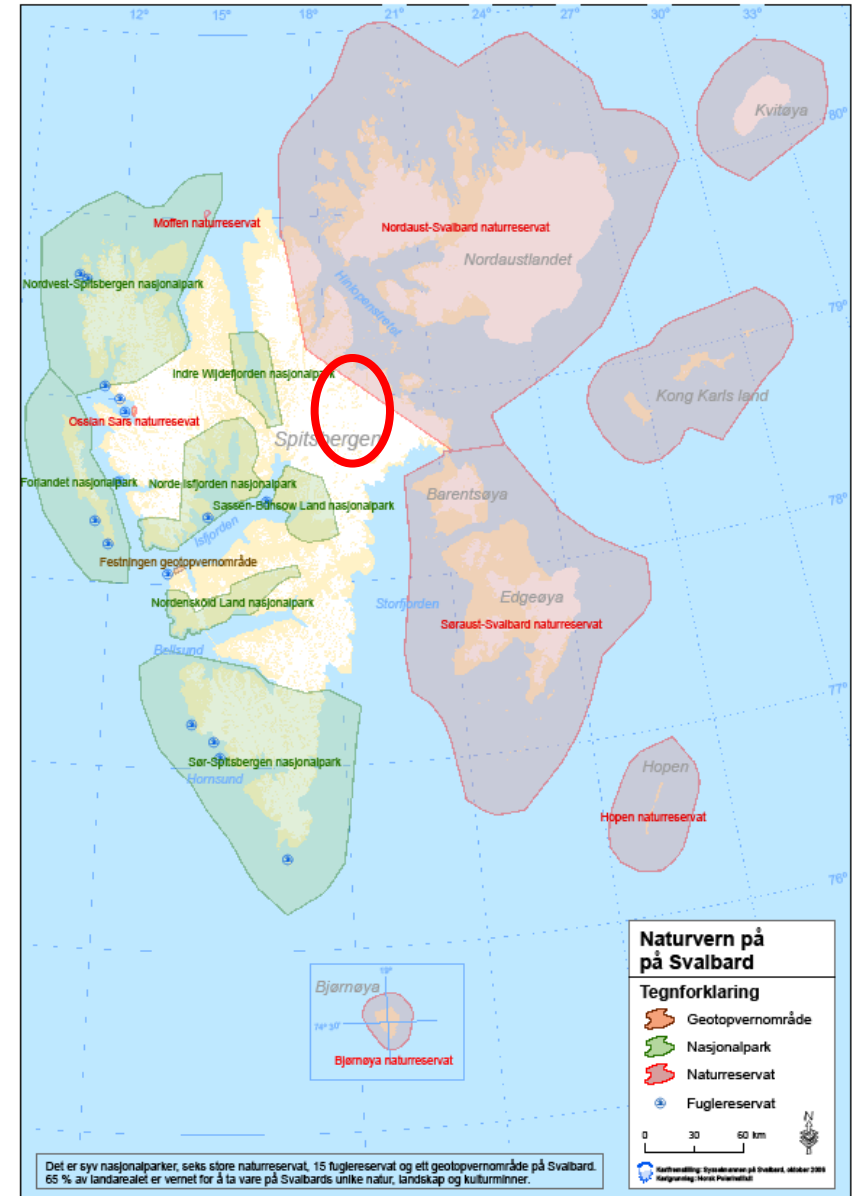
Helicopter

## Special circumstances / need of permission

Needs permission for use of helicopter and rock sampling.

## Special HSE aspects

Fieldcamp





# Dynamics of calving and surging glaciers



## Main activity / study area

## Responsible scientist and institution

Monica Sund

## Number of participants

2

## Period

July - August

## Area

Main parts of Spitsbergen

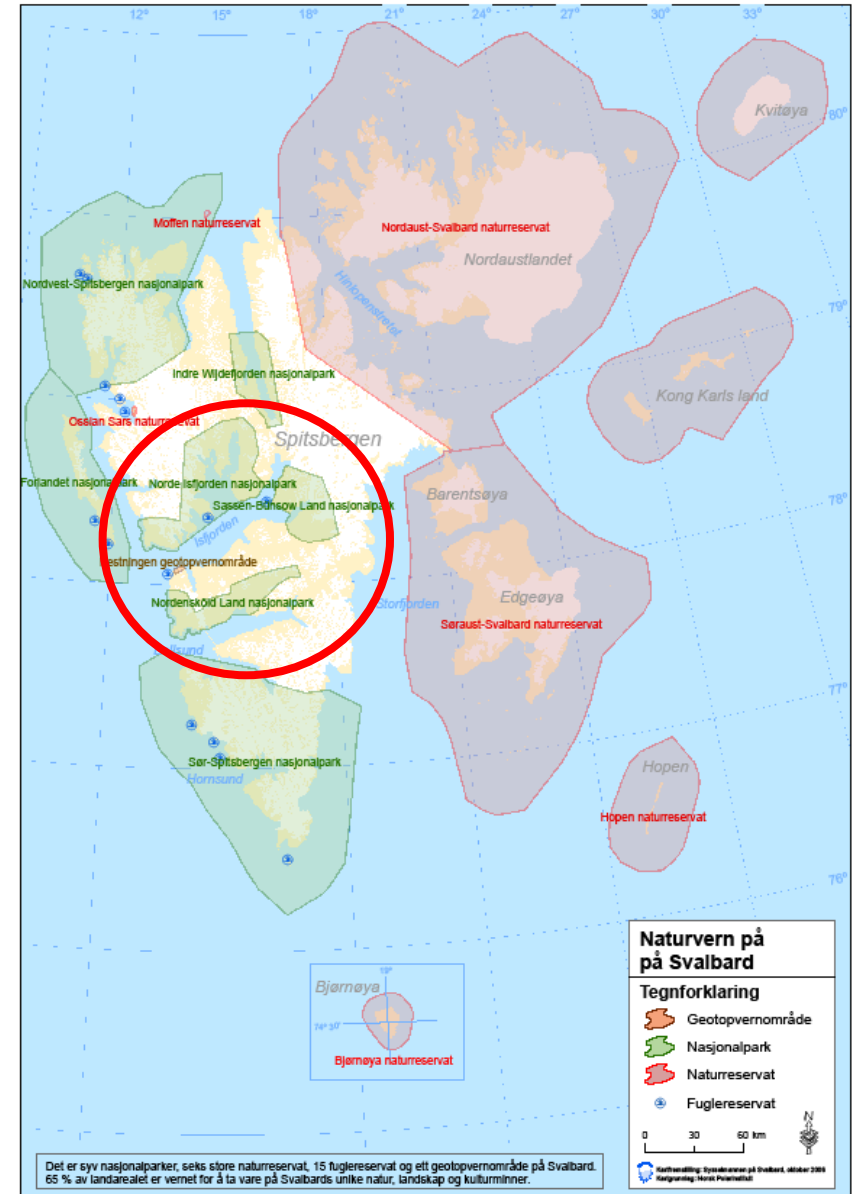
## Transportation

Helicopter

## Special circumstances / need of permission

Will need permission to land and also depends on cooperation with other projects.

## Special HSE aspects



# Aspelintoppen Formation project



## Main activity / study area

2nd field season

## Responsible scientist and institution

Maria Jensen, UNIS

PhD Abigail Clifton, external PhD

## Number of participants

5

## Period

13.07 – 13.08

## Area

Aspelintoppen

## Transportation

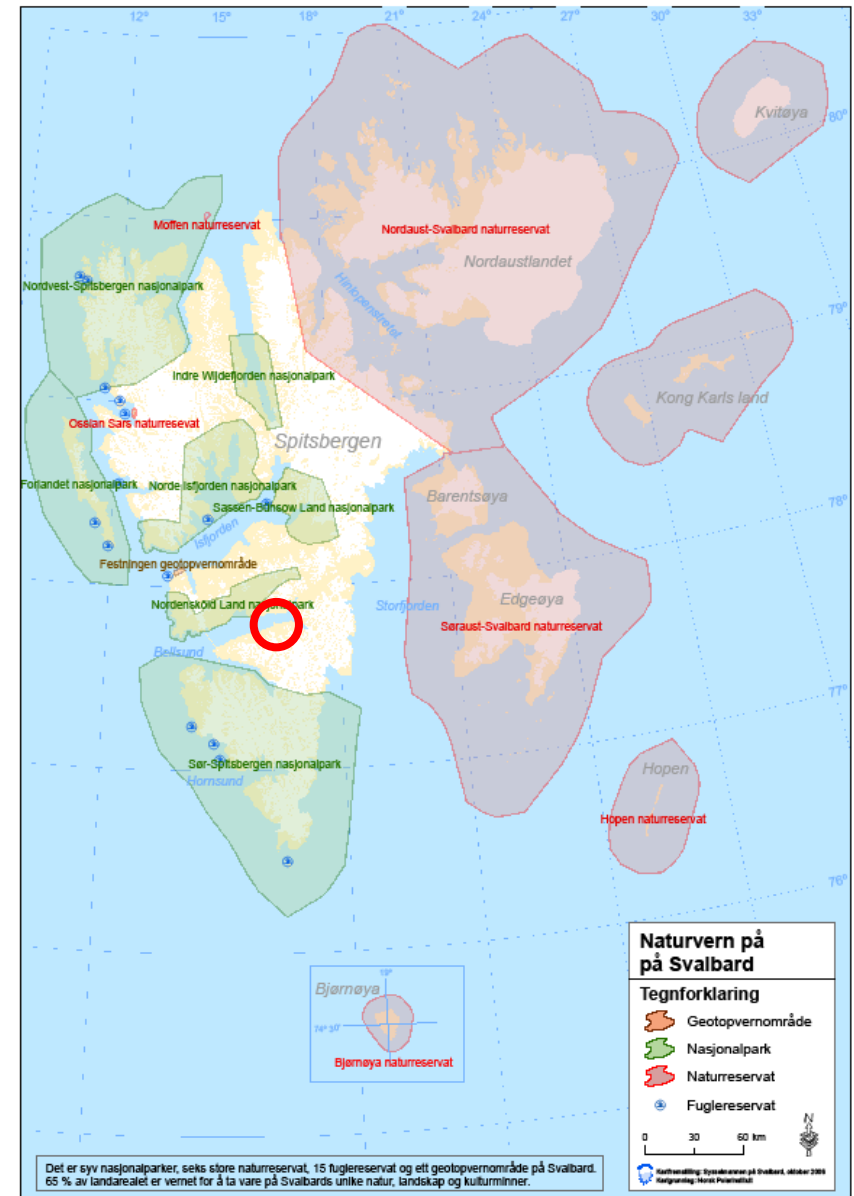
Helicopter

## Special circumstances / need of permission

Needs permission for landing with helicopter

## Special HSE aspects

Fieldcamp, Small camps with few people, low threshold for aborting in case of polar bear trouble.



# Braganzavågen cooperation project UNIS / NGU



## Main activity / study area

Tidal sediments in cold, modern settings; their potential for palaeoenvironmental reconstructions

## Responsible scientist and institution

Maria Jensen, UNIS

Eiliv Larsen, NGU

Astrid Lyså, NGU

## Number of participants

3-5

## Period

18.08 – 31.8

## Area

Braganzavågen, Svea

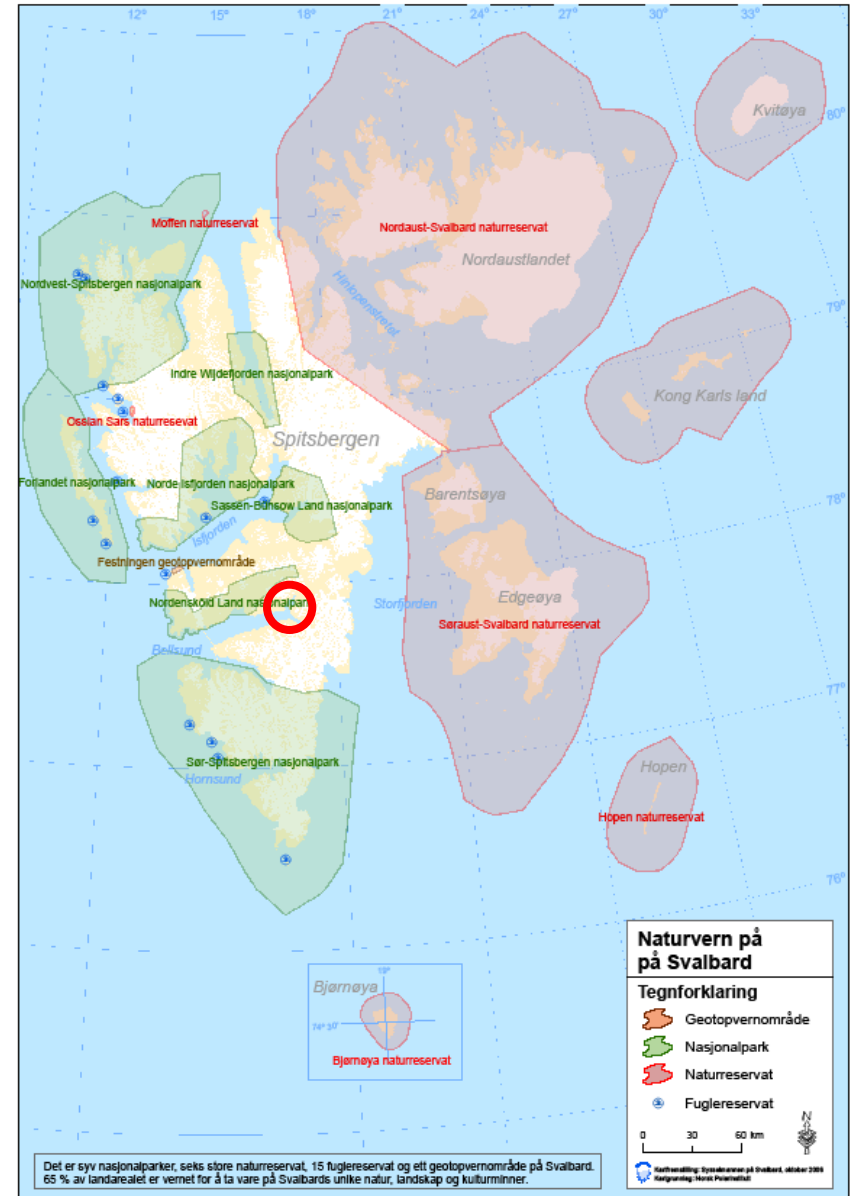
## Transportation

Hovercraft

## Special circumstances / need of permission

Needs permission for use of hovercraft?

## Special HSE aspects



# Longyearbyen CO2 lab.

[Follow the drilling live...](#)



## Main activity / study area

Injection

## Responsible scientist and institution

Snorre Olaussen, UNIS

## Number of participants

## Period

02.08 – 22.08

## Area

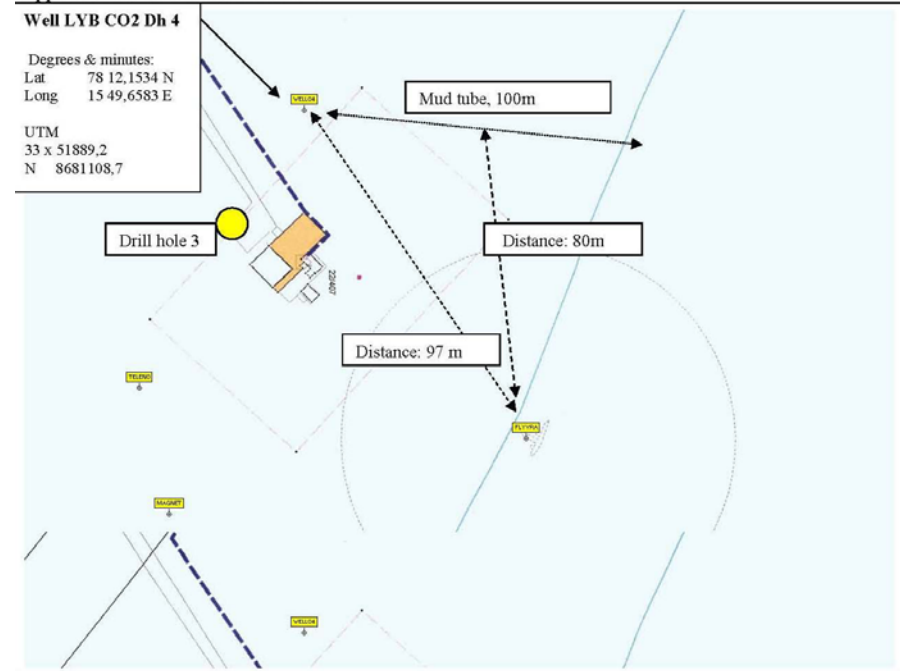
Drill site Adventdalen

## Transportation

## Special circumstances / need of permission

## Special HSE aspects

Appendix 1. Position of drill hole 4.



# Use of Kapp Linne, Isfjord Radio

Different projects and groups



## Main activity / study area

Geology and biology studies

## Responsible scientist and institution

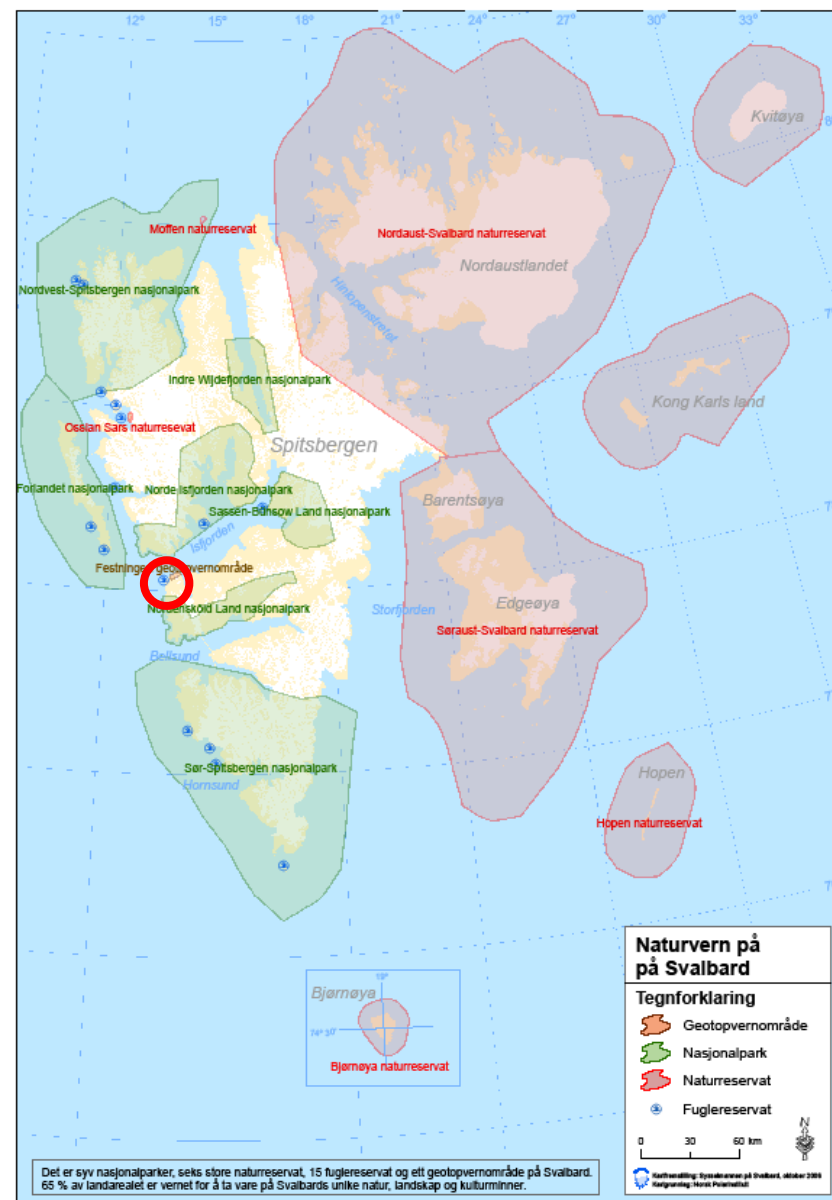
AFS 201 IPY Field school	29.06 – 30.06	30 pax
US REU_AG 212	14.07 – 12.08	16 pax
AB-201	07.08 – 09.08	21 pax
PhD T. Holm	19.07 – 24.07	2 pax
AG 334	27.08 – 31.08	20 pax
AT 209	week 36	15 pax

## Transportation

Lots of transportation with small boats (Polarcirkel)

## Special circumstances / need of permission

## Special HSE aspects



# Activities and fieldwork elsewhere..



## Svea

Fieldwork for courses, master and PhD

## Ny Ålesund

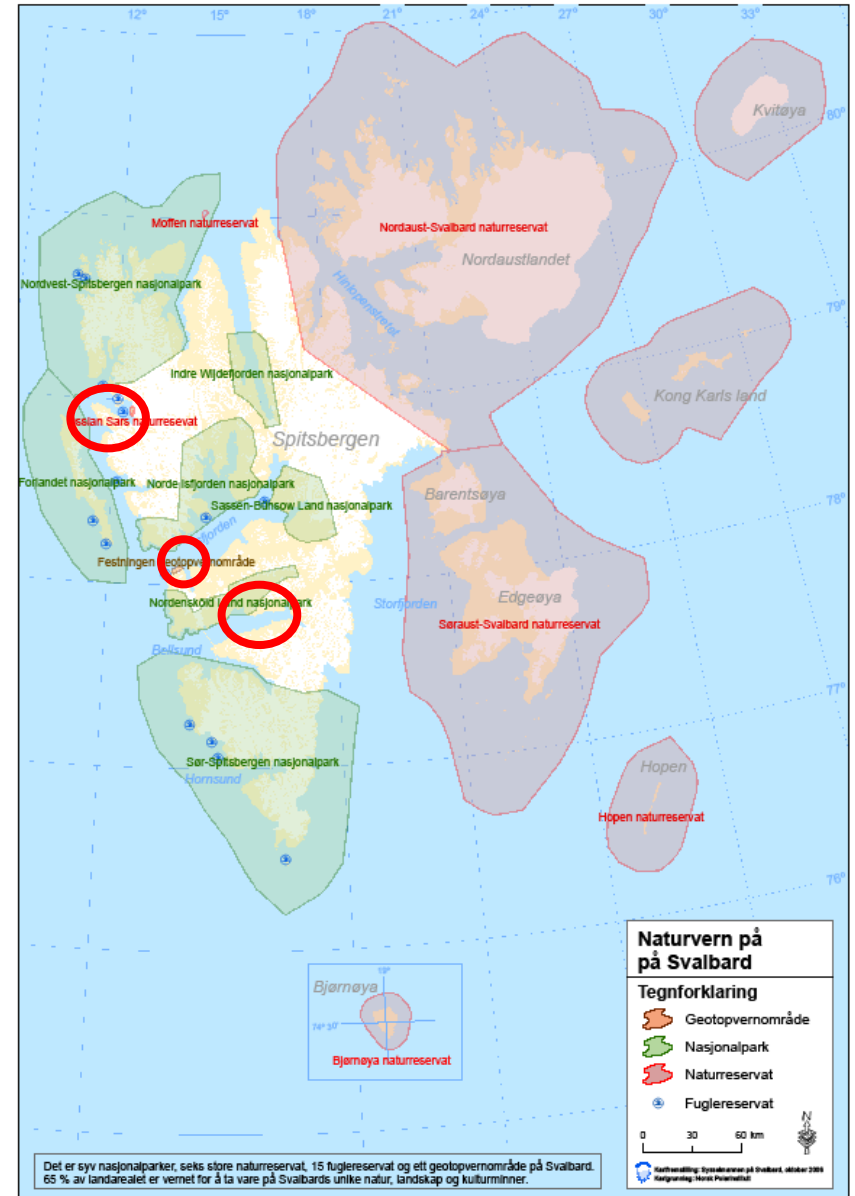
Fieldwork for courses, master, PhD and science projects.

## Barentsburg

Fieldwork for courses

## EUCOP permafrost conference

Longyearbyen 13 – 18.06 Approx. 200 participants



# Projects at sea, Cruises

UNIS uses the following Wessel's this summer:

MS Kvitbjørn;	02.08 – 26.08
RV Jan Mayen;	18.08 – 07.10
RV Håkon Mosby;	03.09 – 13.09
MS Expedition;	23.08 – 31.08
RV SABVABAA	June – september
Viking Explorer	Whole season



Wind Generator and Solar Panels are powering an autonomous drifting seismic profiling buoy - under test



R/H Sabvabaa - Yermak Plateau - July 2008



# IPY project, [Hovercraft](#)

## Main activity / study area

1. Test og drift av autonom databøye for innsamling av seismikk i isdekket farvann - forlengelse av IPY-prosjekt som løper til august 2012
2. Maringeologisk bunnprøvetaking på Yermak-plataet 81° 30' N, 7° Ø

## Responsible scientist and institution

Yngve Kristoffersen, UiB

## Number of participants

2

## Period

June to September

## Area

Along west coast of Spitsbergen, up to 81°

## Transportation

Hovercraft

## Special circumstances / need of permission

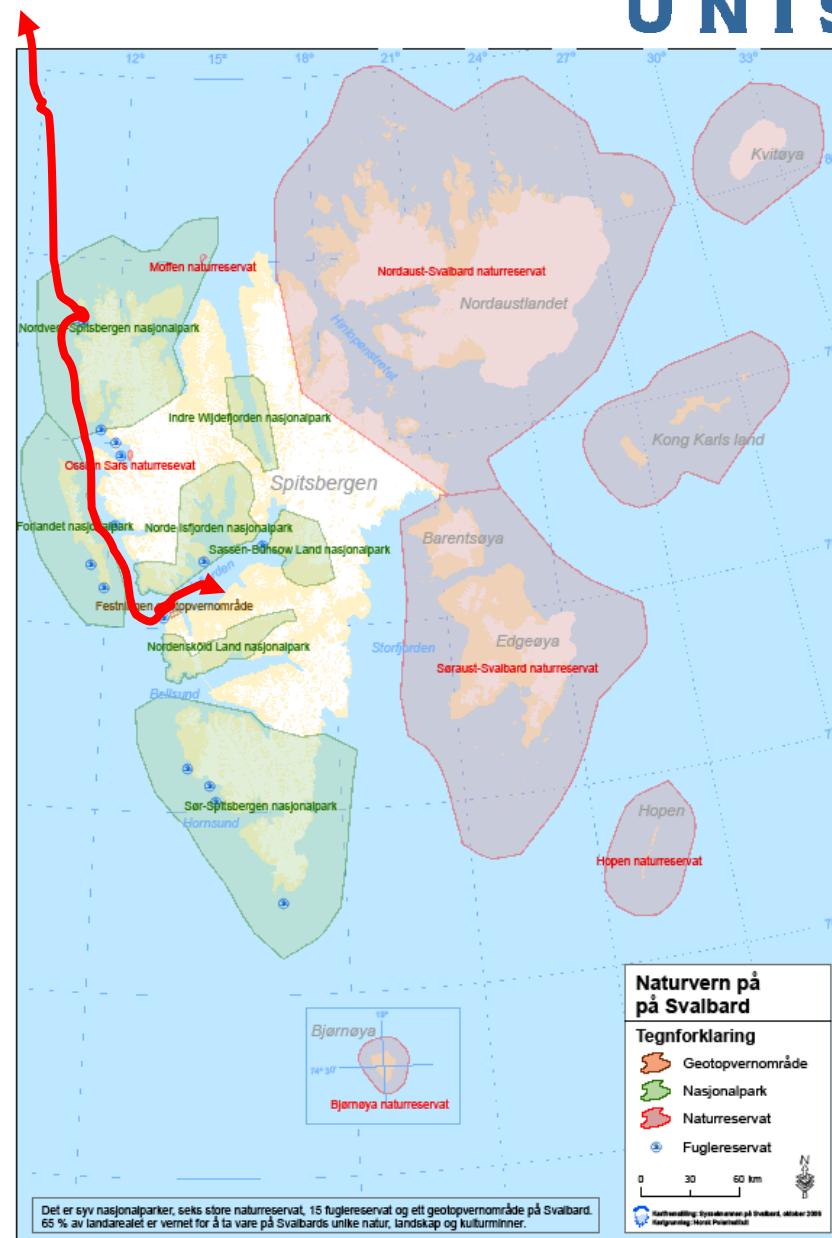
Applications sent to the Governor on Svalbard.

Fuel depot in Bjørnhamna

Probably need of assistant Wessel.

## Special HSE aspects

Special challenges and high HSE awareness.





# AB-201, Cruise with MS Kvitbjørn



## Main activity / study area

An introduction to terrestrial and fresh water biological communities of the Arctic.

## Responsible scientist and institution

Pernille Bronken Eidesen, UNIS

## Number of participants

Ca 20

## Period

02.08 – 07.08

## Area

Isfjorden, Hornsund, West coast of Spitsbergen

## Transportation

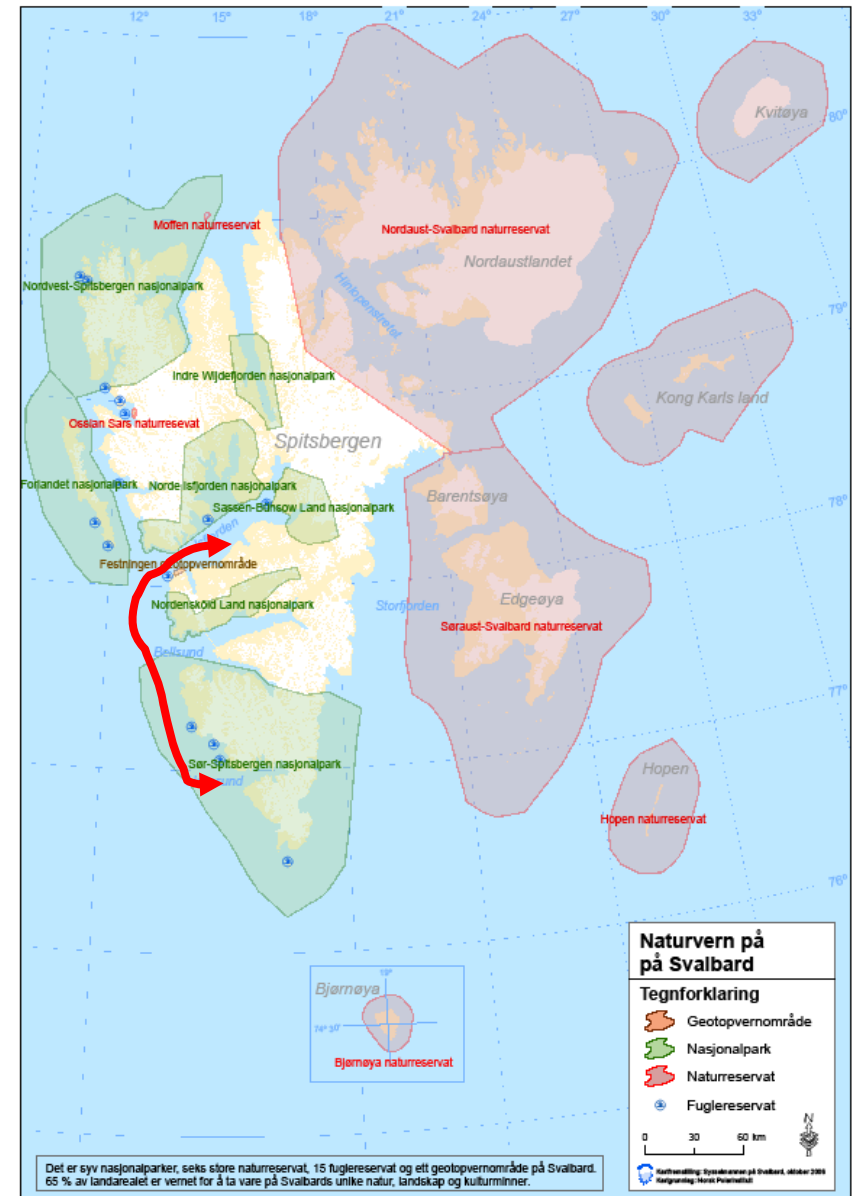
Boat

## Special circumstances / need of permission

None

## Special HSE aspects

None



# AG-323, Cruise with MS Kvitbjørn



## Main activity / study area

The aim is to provide students with a working knowledge of the theoretical framework of sequence stratigraphy and practical experience of the techniques of analysis of sedimentary succession using this approach.

## Responsible scientist and institution

William Helland-Hansen, UNIS

## Number of participants

Ca 20

## Period

08.08 – 15.08

## Area

Isfjorden, Festningen, Storvola, Van Keulenfjorden, Billefjorden

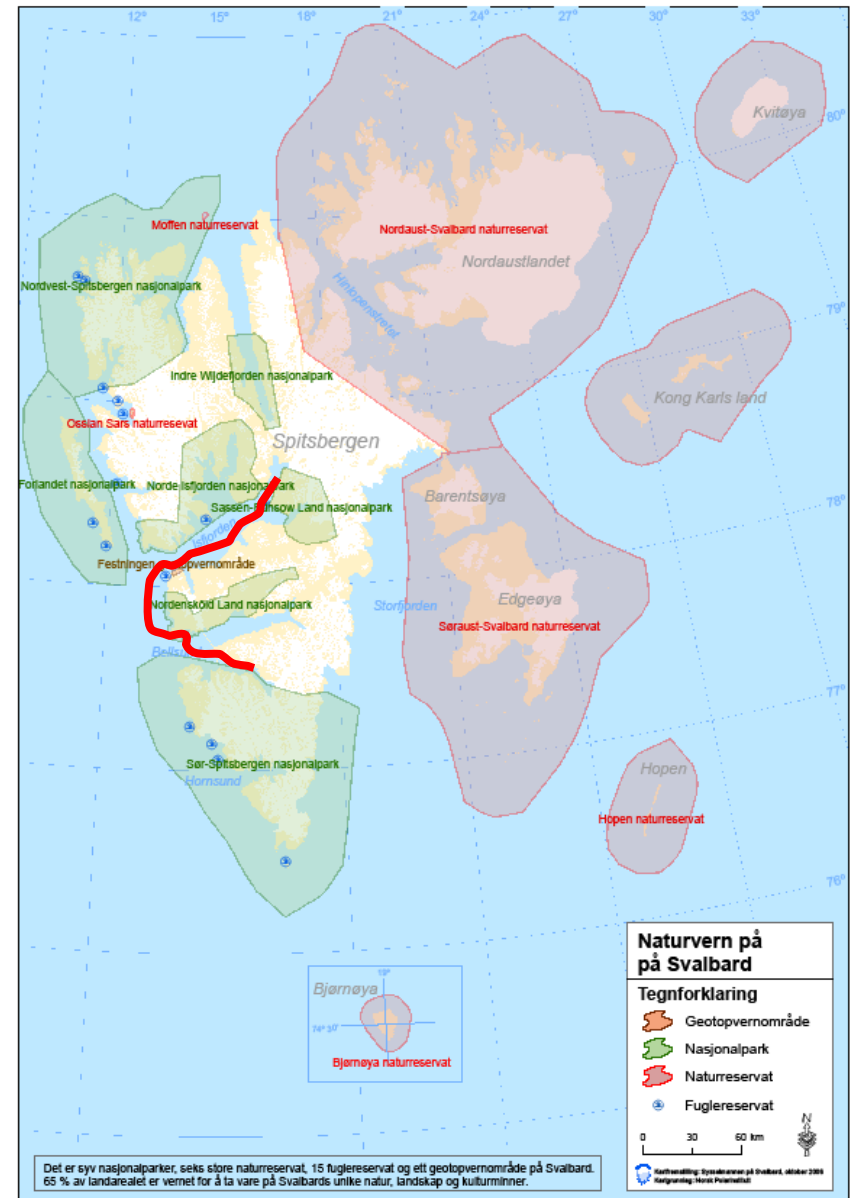
## Transportation

Boat

## Special circumstances / need of permission

## Special HSE aspects

None



# AG-210, Cruise with MS Kvitbjørn and RV Jan Mayen



## Main activity / study area

A thorough understanding of the Quaternary geological evolution of Svalbard and the Barents Sea.

## Responsible scientist and institution

Anne Hormes, UNIS

## Number of participants

Ca 20

## Period

23.08 – 26.08 (MS Kvitbjørn)

18.08 – 23.08 (RV Jan Mayen)

## Area

Isfjorden, Forlandet, Van Keulen

## Transportation

Boat

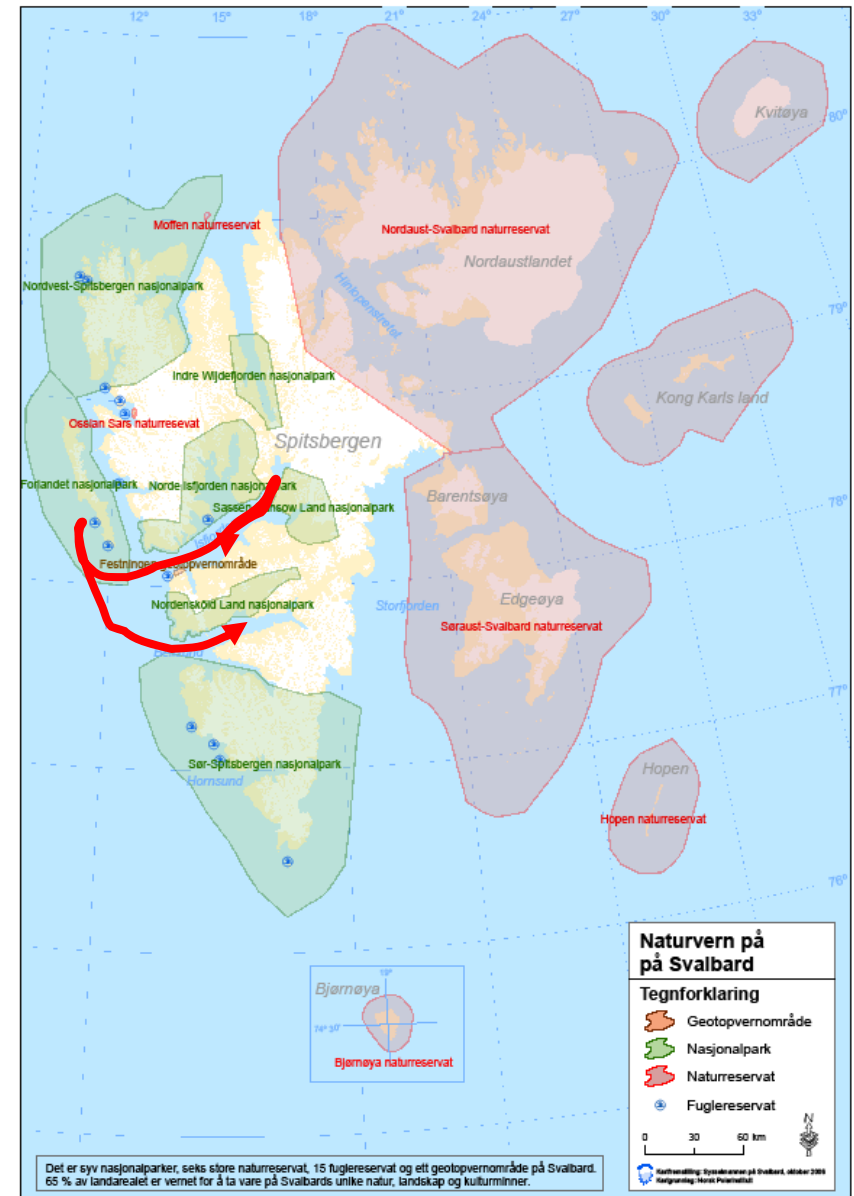
## Special circumstances / need of permission

Might need permission to land at Forlandet

Will probably establish field camp in Billefjorden (Rudmosepynten) in August.

## Special HSE aspects

None



# AG-211, Cruise with MS Kvitbjørn and RV Jan Mayen



## Main activity / study area

Focus will be on glacier-ocean interactions, palaeoceanography, glacial marine sedimentary environments and associated with them typical submarine landform patterns

## Responsible scientist and institution

Riko Normets, UNIS

## Number of participants

## Period

23.08 – 26.08 (MS Kvitbjørn)

18.08 – 23.08 (RV Jan Mayen)

## Area

Isfjorden, Forlandet, Van Keulen

## Transportation

Boat

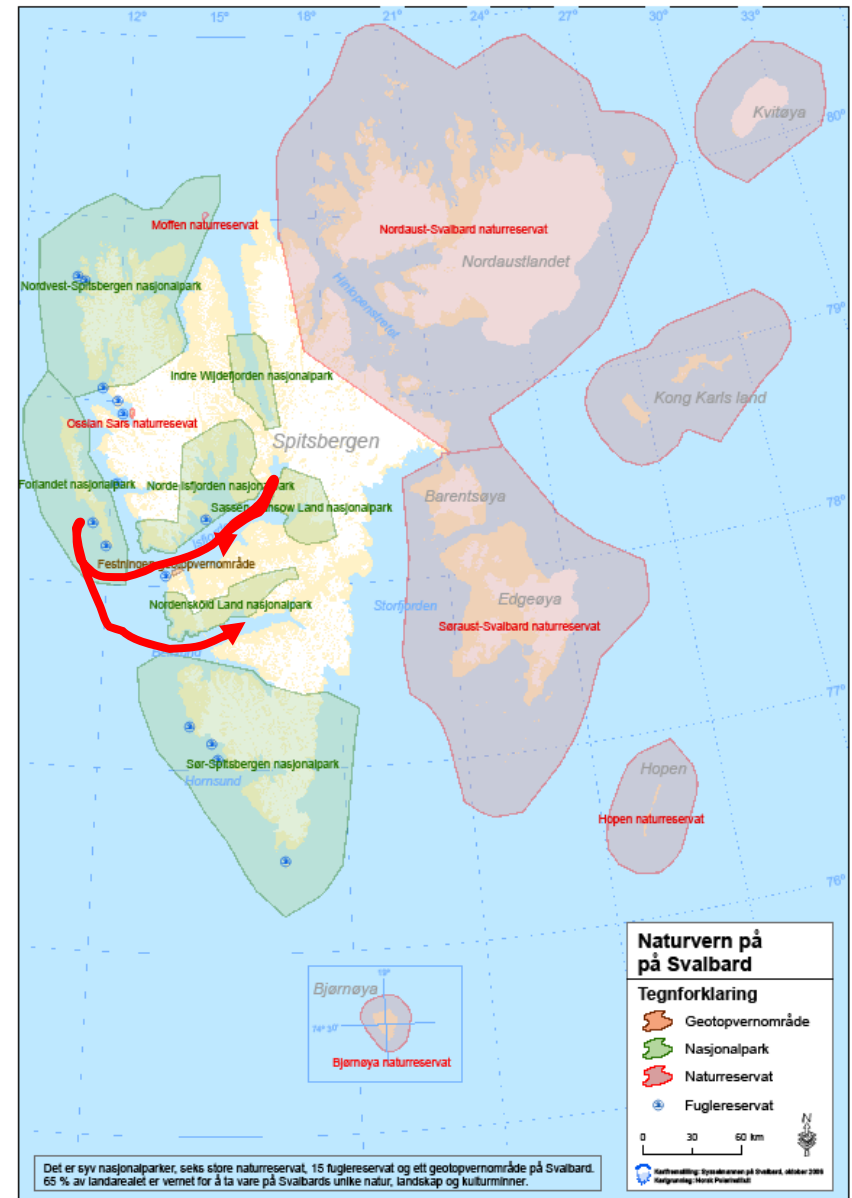
## Special circumstances / need of permission

Might need permission to land at Forlandet

Will probably establish field camp in Billefjorden (Rudmosepynten) in August.

## Special HSE aspects

None



# AG-339, Cruise with RV Jan Mayen



## Main activity / study area

The course will focus on the sedimentary structure and morphology of the high-latitude continental margins that have been influenced by glacial processes

## Responsible scientist and institution

Riko Normets, UNIS

## Number of participants

8

## Period

23-24.8

## Area

Isfjorden

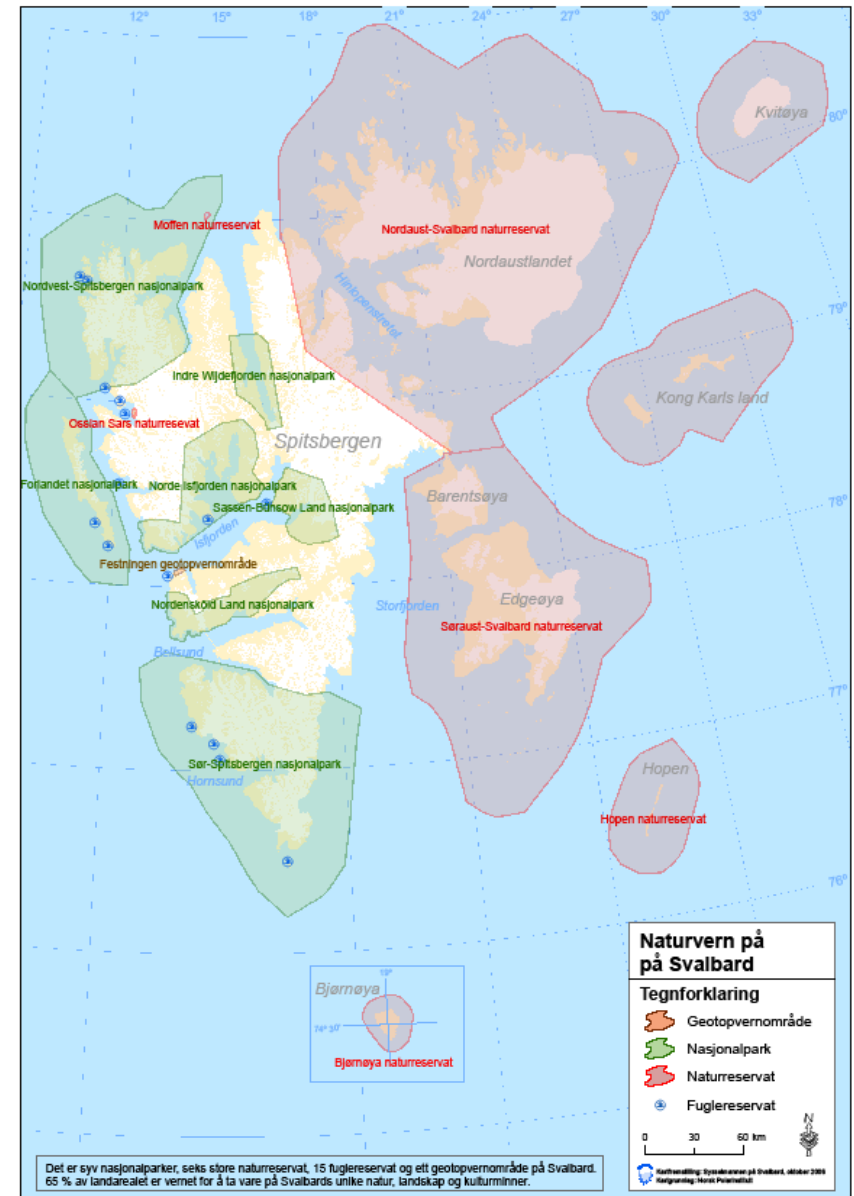
## Transportation

Boat

## Special circumstances / need of permission

## Special HSE aspects

None



# AB- 320, Cruise with RV Jan Mayen



## Main activity / study area

Marine invertebrates in pelagic and sympagic (= ice fauna) communities - faunal composition, faunal assemblages in different habitats and faunal relations

## Responsible scientist and institution

Bjørn Gulliksen / Jørgen Berge, UNIS

## Number of participants

Ca 25

## Period

15.09 – 29.09.

## Area

Isfjorden, North West coast of Svalbard, The barents sea.

## Transportation

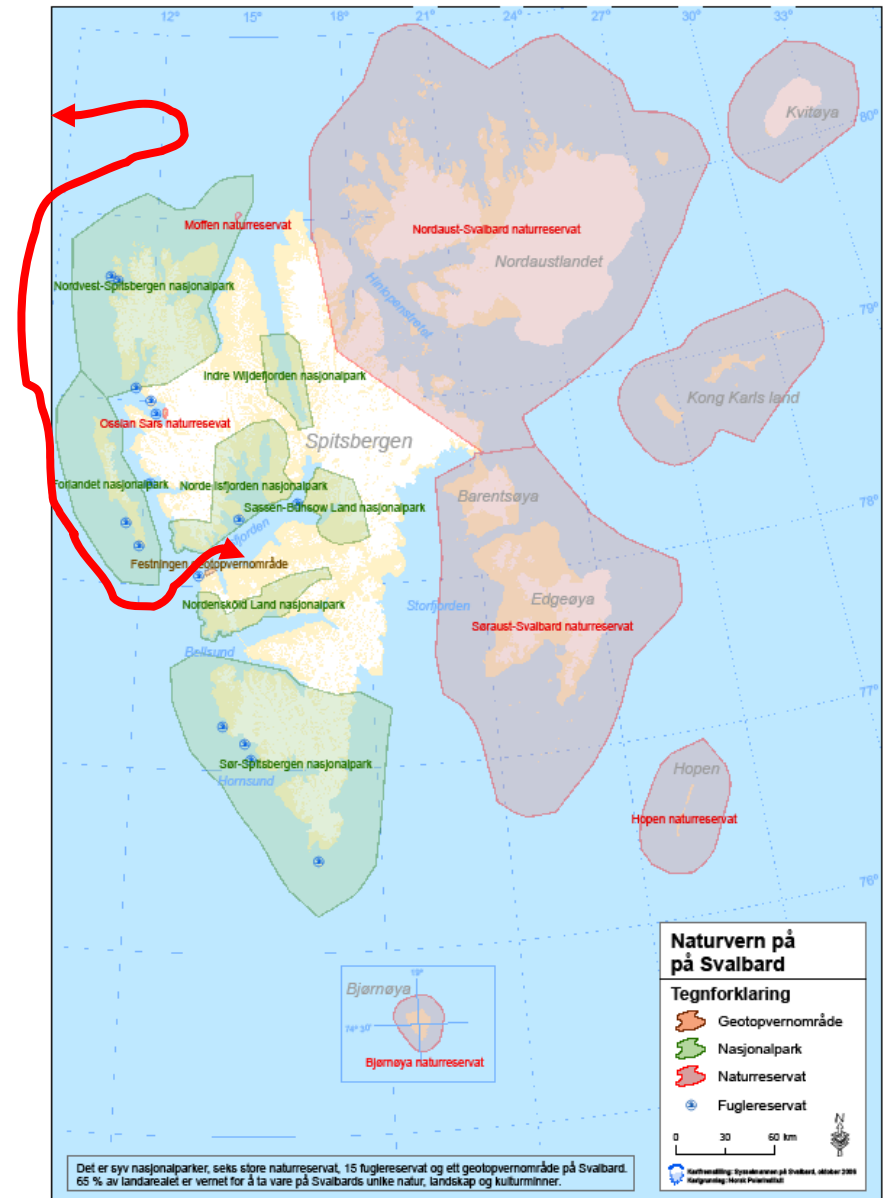
Boat

## Special circumstances / need of permission

Needs permission for travelling.

## Special HSE aspects

None



# AB-202, Cruise with RV Jan Mayen



## Main activity / study area

An introduction to marine Arctic plants and animals, and their adaptations to the environment.

## Responsible scientist and institution

Jørgen Berge, UNIS

## Number of participants

Ca 25

## Period

30.09 – 07.10

## Area

Isfjorden, North West coast of Svalbard, The barents sea.

## Transportation

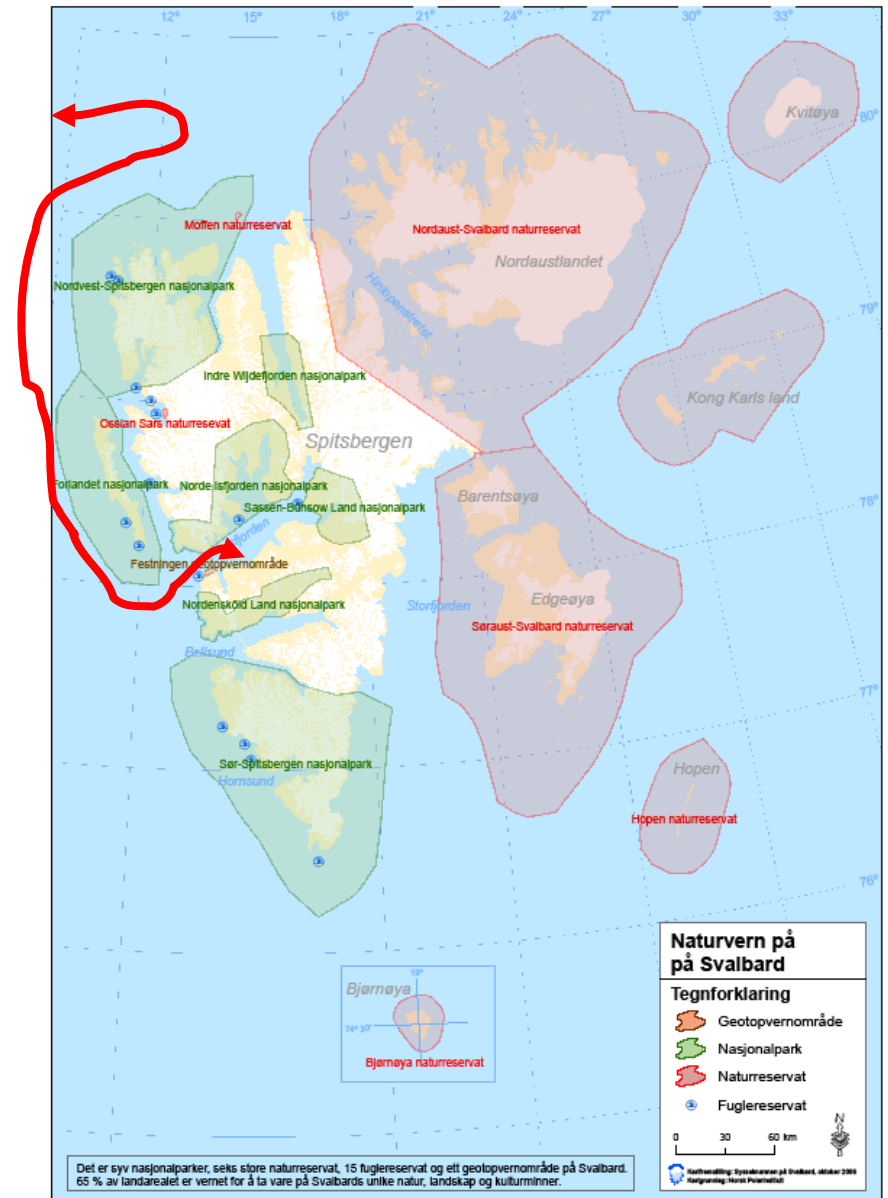
Boat

## Special circumstances / need of permission

None

## Special HSE aspects

None



# AGF- 214, Cruise with Håkon Mosby



## Main activity / study area

An understanding of the dynamic and thermodynamic processes determining the circulation in the different Polar regions.

## Responsible scientist and institution

Frank Nilsen, UNIS

## Number of participants

Ca 20

## Period

03.09 – 13.09

## Area

Isfjorden, SW coast of Spitsbergen, Storfjorden

## Transportation

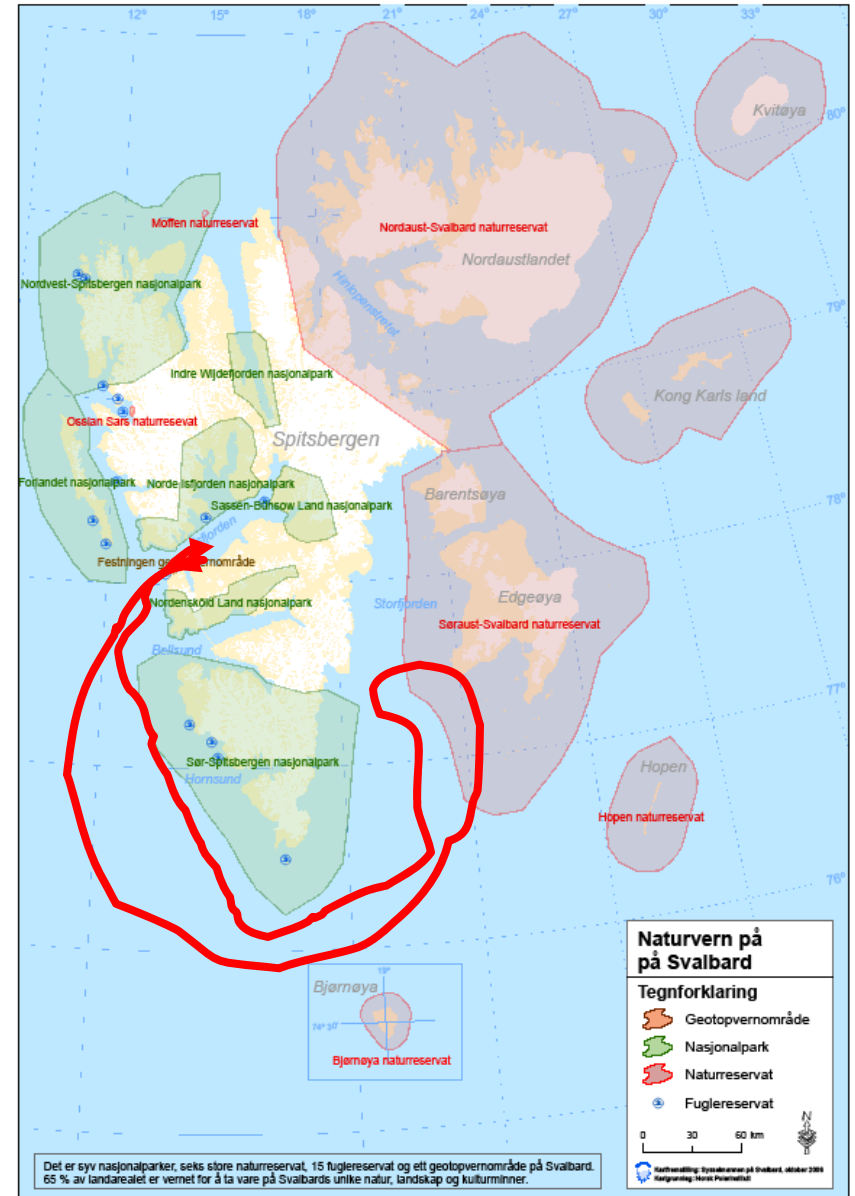
Boat

## Special circumstances / need of permission

None

## Special HSE aspects

None





# Svalex, Cruise with MS Expedition



## **Main activity / study area**

A multidisciplinary integration of students attending petroleum related courses at the Norwegian Universities UiO, UiB, NTNU, UiT, UiS and UNIS.

## **Responsible scientist and institution**

Egil Tjøland, NTNU

Logistics and HSE, Martin Indreiten, UNIS

## **Number of participants**

Ca 120

## **Period**

23.08 – 31.08

## **Area**

Isfjorden and Van Keulen

## **Transportation**

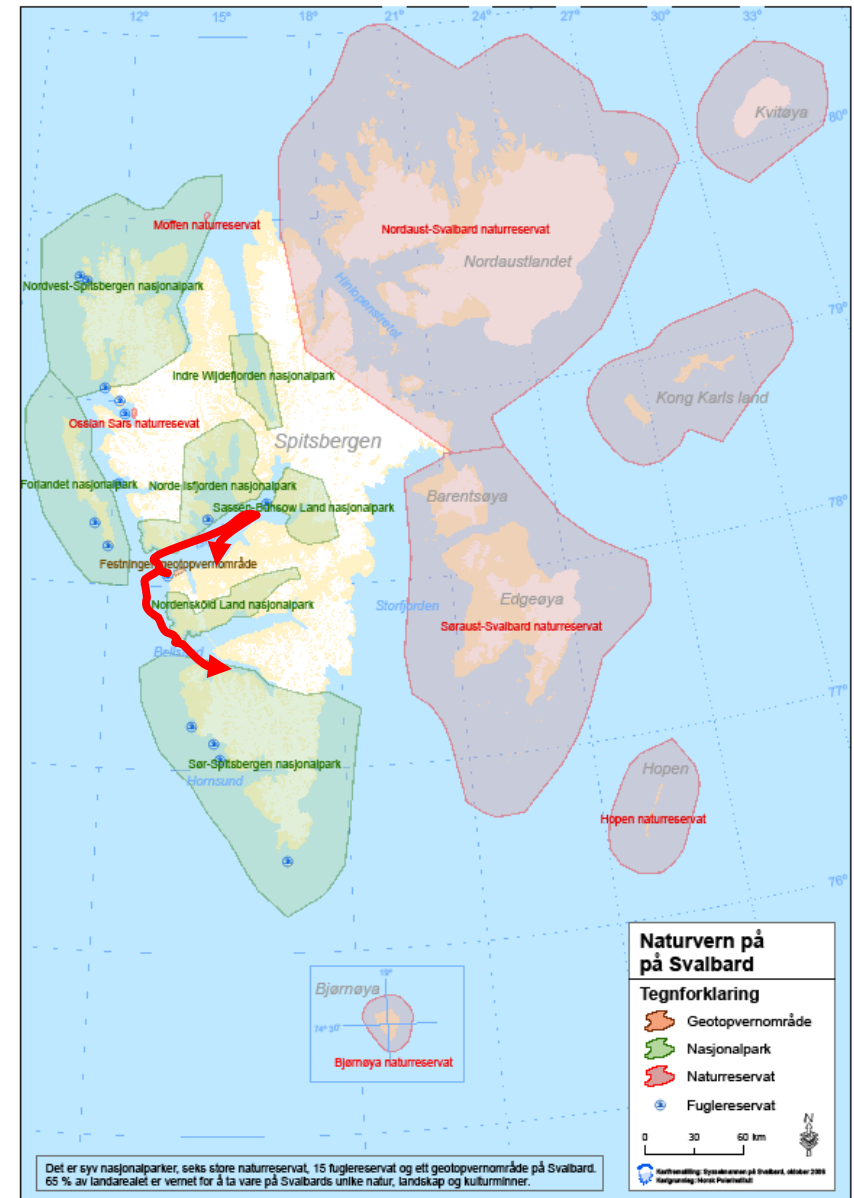
Boat

## **Special circumstances / need of permission**

None

## **Special HSE aspects**

Big groups of personnel landing 1 – 2 times each day.



# Use of the UNIS “sjark” Viking Explorer



## Main activity

Ecobar, P.Renaud	week 19
Mesocosm, K.von Bröckel	week 21 and 23
ATP, P.Wassmann	week 25
Alkekonge, J. Berge	week 29 and 30
AB 327	week 31
Makroalger, sampling, T.Gabrielsen	week 32
AB 202	week 33 and 34
POLRES, A.Marchenko	week 35

Also in use, more or less, each week through July and August for smaller projects (day trips).

## Responsible scientist and institution

John Inge Karlsen, UNIS

## Number of participants

Max 11

## Special HSE aspects

Needs UNIS safety course

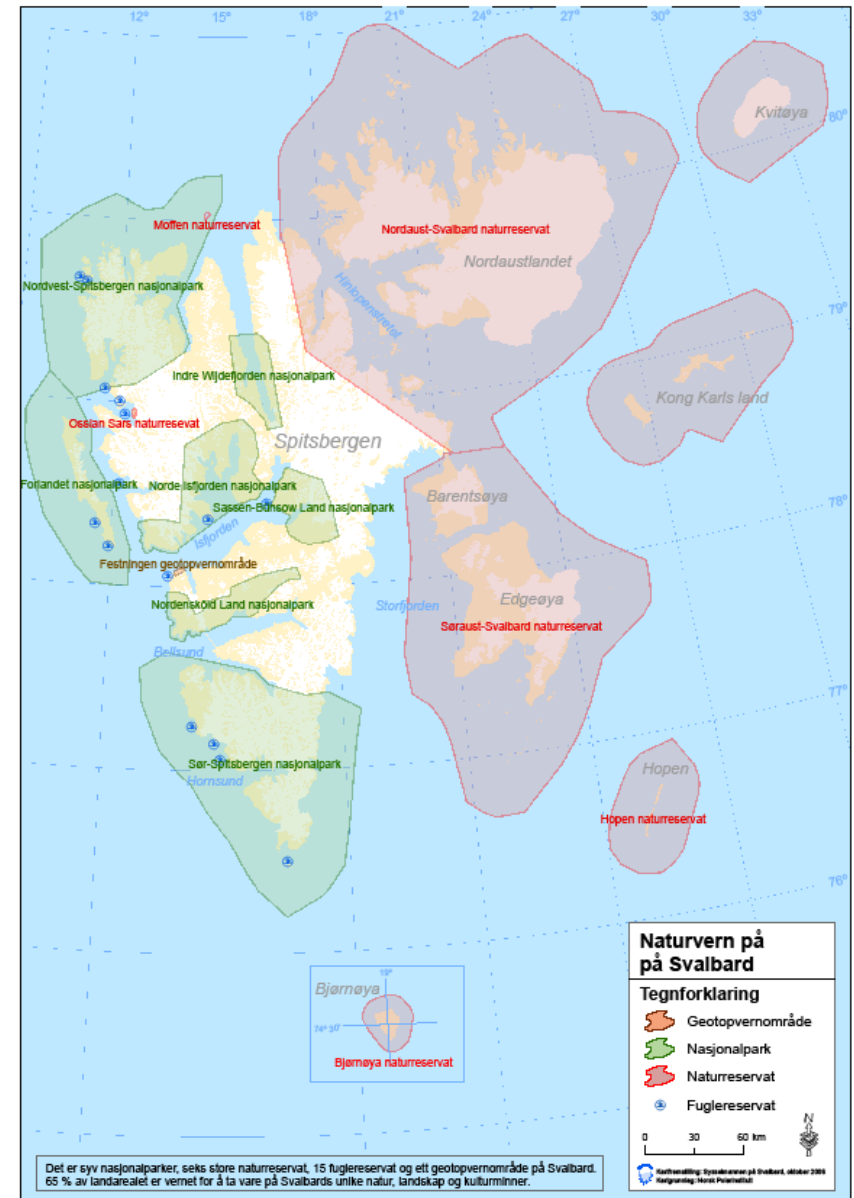
The boat will be located on Svalbard during all summer and autumn and will be on the water as long as the ice conditions allows.



# New and cooperating projects at UNIS



1. Arctic Nature Guide
2. SGO
3. Youth camp Billefjorden
4. GEUS – logistics and research, North East Greenland



# Arctic Nature Guide

A new international interdisciplinary study program in Svalbard for guides



## Main activity / study area

Enable the students to operate as professional guides and ambassadors of sustainable development through a combination of interdisciplinary qualifications, environmentally ethical perspectives and an educational fostering of communicator and counselling skills.

## Responsible scientist and institution

Høgskolen I Alta, UNIS and Svalbard Reiseliv as

## Number of participants

Ca 20

## Period

Start week 32 or 33 – May 2011

## Area

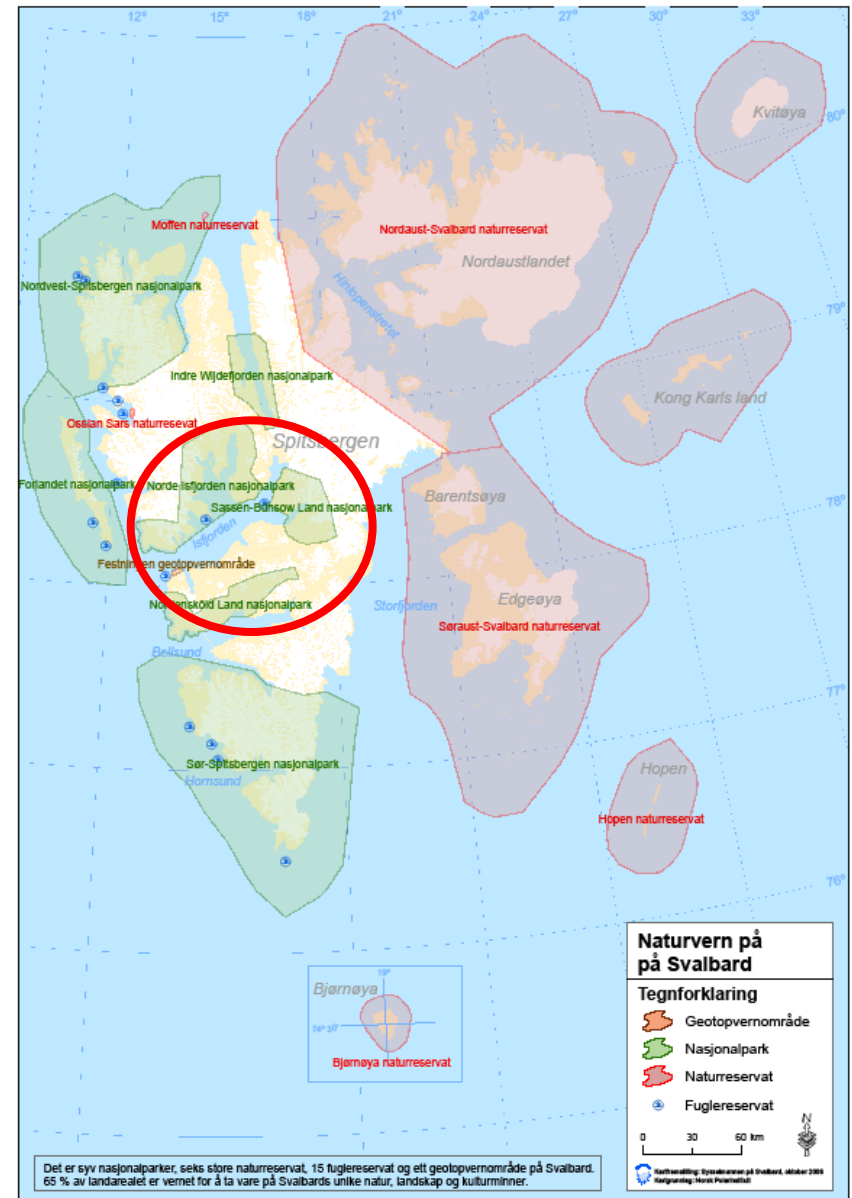
Spitsbergen

## Transportation

All kinds

## Special circumstances / need of permission

## Special HSE aspects



## Main activity / study area

Summer field and glacier course

## Responsible scientist and institution

Svalbard Reiseliv bestiller, UNIS utfører.

## Number of participants

Min 6 pax

## Period

Week 24 and 25.

## Area

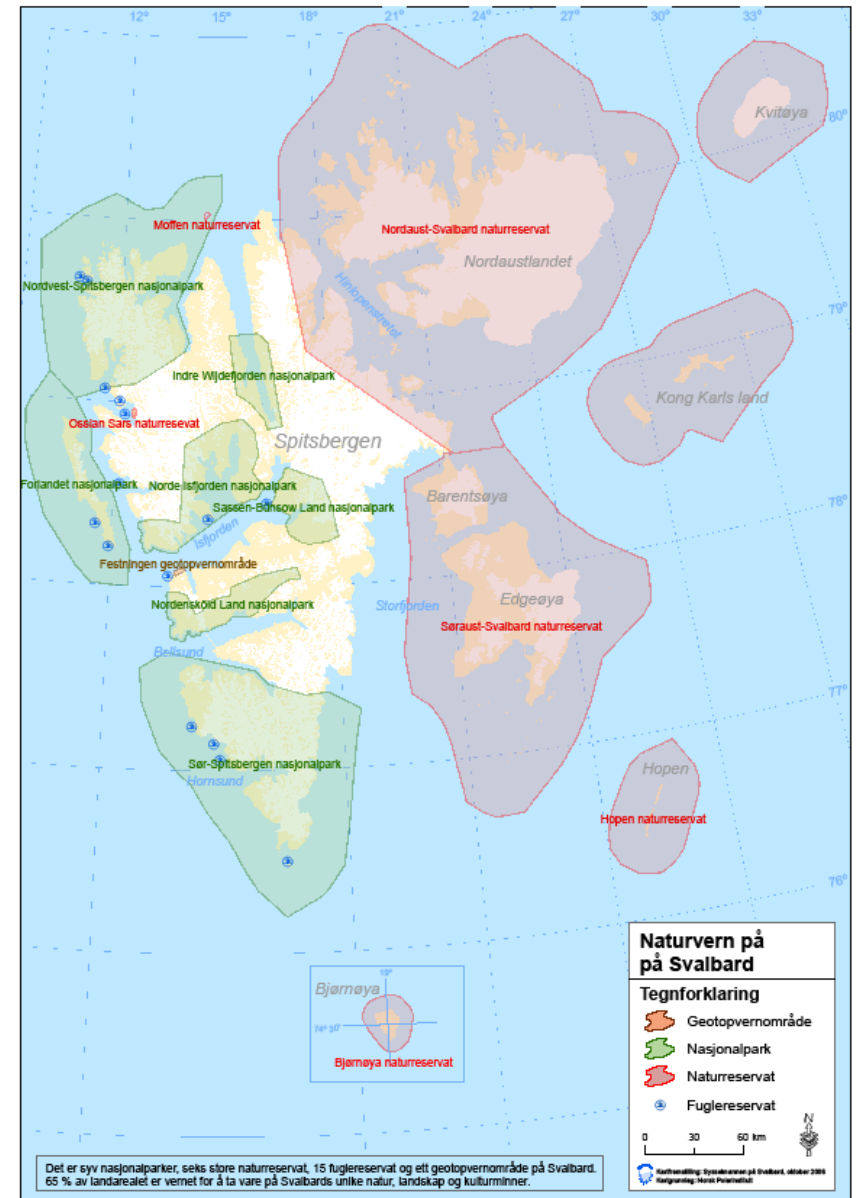
Longyearbyen and Billefjorden

## Transportation

Boat

## Special circumstances / need of permission

## Special HSE aspects



# Youth camp in Billefjorden



## Main activity / study area

Outdoor and wildlife experience for youth in Longyearbyen.

## Responsible scientist and institution

Longyearbyen Lokalstyre

UNIS

## Number of participants

40 - 50

## Period

20.08 – 22.08 (uncertain)

## Area

Rudmosepynten

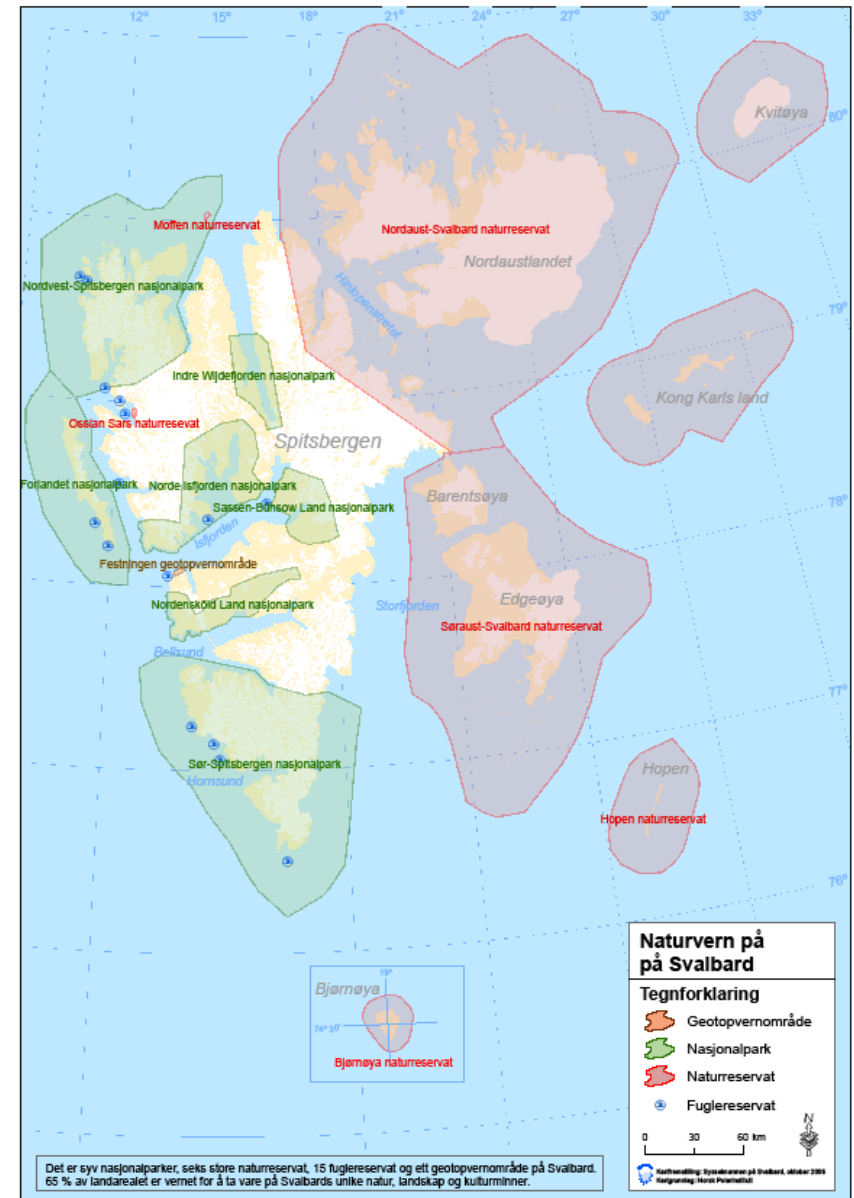
## Transportation

Small boats, kayaks, on foot

## Special circumstances / need of permission

Will stay in UNIS` fieldcamp at Rudmosepynten

## Special HSE aspects



# GEUS – logistics and research, North East Greenland



## **Main activity / study area**

Cooperation between UNIS and Geological Survey of Denmark and Greenland (GEUS)

- Logistics and safety training
- Research and cooperation in field
- Workshop 2010

## **Responsible scientist and institution**

## **Number of participants**

## **Period**

## **Area**

## **Transportation**

## **Special circumstances / need of permission**

## **Special HSE aspects**



Unsolved matters / needs



Main activity

Responsible scientist and institution

Number of participants

Period

Area

Transportation

Special circumstances / need of permission

Special HSE aspects

