

*Field notes:*

Braganzavågen, Van Mijenfjorden, Svalbard

April 2010



*Coring tidal sediments at Braganzavågen*

*Astrid Lyså and Eiliv Larsen  
Geological Survey of Norway*

**Project:**

Tidal sediments in cold, modern settings; their potential for palaeo-environmental reconstructions. Project at NGU (No. 335600 Astrid Lyså) and UNIS (No. 2900-9562, Maria Jensen).

**Field period:**

April 12.-23. 2010

**Participants:**

Astrid Lyså and Eiliv Larsen, NGU  
Samuel Faucherre, UNIS (assistant)

**Weather conditions:**

Between -8°C and -12°C, wind speed 5-13 m/s

**Logistic:**

Safety equipments, ice drill and scooters (UNIS)  
Coring equipment (piston corer) (University of Bergen)  
Accommodation in Svea (via UNIS)  
A garage was made available in Svea for inside work with the equipment/cores

**Funding:**

Svalbard Science Forum (Norwegian Polar Institute)  
NGU (through the SciencePub Project)  
Store Norske Spitsbergen Kullkompani (providing aerial photos)

### **General comments:**

Ice thickness was generally 90-100 cm. The topmost part/sediment surface must be considered as either disturbed or partly destroyed, due to the ice-coring. Between two core lengths, about 20 cm of sediment record is lacking (destroyed by the core catcher and the piston). In cases where the sea-ice rested directly on the sediment surface, with no sea-water in-between, we were not able to sample as the topmost part (only 10-20 cm) of the sediments was partly frozen. The piston-corer (the PVC tube) was not able to penetrate this. We were therefore only able to sample in the subtidal part of the system.

The cores were until the last day of field work stored in the garage in Svea, and then sent by cargo flight to Bergen via LYB. The cores arrived in Bergen April 26<sup>th</sup> where they were stored in a fridge-storage at the University.

In total we sampled 5 sites, 11 cores, altogether ca. 18 m of sediments from the subtidal zone.

### **Stored in Svea (blue UNIS container at Polartun, marked Maria Jensen):**

4 x 2 m PVC tubes (11 cm in diameter)

3 x 90-100 cm PVC tubes

12 lids

10 pieces of oasis (enough for 10 cores)

### **Important telephone numbers:**

Plassjef Svea                      99280835 (Rune Hesthammer)

Leirvakt Svea                      79025301

Flyterminal Svea                    99280831

SAS Cargo, LYB                    9571 4550

Lufttransport, LYB                79024770

Booking Lufttransport            79025300

Pole Position, LYB                9023535 / 97742340 (Bodil)

**Planned and sampled sites:**

Site no	UTM	Core no	Core depth	Comments
S2010-1	0541015-8648036	S2010-1-1	0-128 cm	
		S2010-1-2	150-272 cm	
S2010-1a	0541348-8648190	S2010-1a-1	0-167 cm	
		S2010-1a-2	185-380 cm	
Site 2010-2	0541681-8648360	S2010-2-1	0-155 cm	
		S2010-2-2	170-316 cm	Upper part (ca. 20 cm) is disturbed as the sediments were stretched
Site 2010-2a	0542368-8648728	S2010-2a-1	0-196 cm	
		S2010-2a-2	220-355 cm	Loose ca. 5 cm extra of sediments in the top (sawing mistake)
Site 2010-2b	0542520-8648806	S2010-2b-1	0-170 cm	
		S2010-2b-2	190-375 cm	
		S2010-2b-3	395-595 cm	
Site 2010-3	0542775-8648943			Not able to sample due to frozen sediment surface
Site 2010-4	0543927-8649548			Frozen sediment surface, did not try to sample
Site 2010-5	0544836-8650027			No try (closer to high tide)
Site 2010-6	0545933-8650613			No try (closer to high tide)





## Photos Braganzavågen April 2010



Drilling the sea ice



Sampled sediment core is sealed



Coring (pisotn corer) the tidal sediments



Sediment cores are ready for transport to the storage



One core length (2 m) is finished



Braganzavågen scenic view towards Kjellstrømdalen