

Expedition report/ Summer 2008 expedition to Kinnvika

Report by the group:

Quaternary evolution and glacial history/Vestfonna glacier foreland

Scientists:

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Logistic support:

Mika Kalakoski/Finnarp

The group was quite heavily involved with preparations in May and June to ensure boat transportations during the summer in Murchisonfjorden area. For that purpose we helped the Kinnvika Project to acquire a RIB-boat, which was bought by us from Lahtis to Gdynia in Poland. The boat was furnished for rough sea operations and lifted onboard r/v Horyzont in late June.

Our group arrived Longyearbyen on July 6th, and we embarked the Horyzon on 9th. The ship had to turn back due to the packed ice closing the Hinlopen Strait and it returned Longyearbyen on July 14th. Our flight back to Finland was on July 17th.

While returning Longyearbyen, we considered throughoutly the option of heading to Murchisonfjorden area by other means (helicopter). However, it turned out to be unfavourable option for two main reasons: First, without boat and ship support we would not have been able to perform any sea floor corings, which was the main target for the summer. Secondly, the lifting capacity of the helicopter was allowing the group to be maximum 4 people in size. That would have been too low number for safe and productive tent-based field operations.

Also, when discussing with Piotr Glowacki, we realized that next summer (2009) will be much more suitable for coring operations. Horyzont would then be equipped with a new winch to be able to lower our sediment corer down to the needed 100-meters depth. Moreover, next summers seismic studies would support the corings and *vice versa*. So, knowing all this, it was easy to decide to save fundings for next summer and return home.

The summer visit to Svalbard was useful, anyway. We got some important new contacts, our plans became much more specified and we also now understand the true value of our results from last summer. The studies continue on that base.

Frauke Kubischta has establish a close cooperation with Karen-Luise Knudsen in Århus, and she will be working on foraminifera record from our 2007 samples. The

idea is to gather proxy information on the history of Arctic vs. North Atlantic waters in Murchisonfjorden sediments which have been affected by proximity of glaciers from time to time.

We have now completed our first paper on the Quaternary history of the Murchisonfjord area, and submitted the manuscript for journal *Boreas* to be evaluated for publication.

We have presented our research results the Nordic Geological Winter meeting in January 7-10 2008 (Anu Kaakinen). Later this year we are giving five more talks or posters on our Kinnvika studies in four occasions:

- 26th IAS Meeting of Sedimentology, Germany. Sept 1-3 2008 (Frauke Kubischta)
- IGS Nordic Branch Meeting 2008, Helsinki Nov 6-8 (Veli-Pekka Salonen)
- IPY Congress at GTK, Espoo Finland, Nov 12-13 (V-P Salonen and F. Kubischta)
- Arctic Change 2008, Quebec city, Canada, Dec 9-12 (V-P Salonen)