

Preface: Hydroclimatological processes in northern river basins

In the high latitudes the hydrological processes are dominated by snow, ice, glaciers, and permafrost. Since rather little research had been performed and the knowledge about these processes was limited, the Regional Working Group of Northern Research Basins (NRB) was established in 1975 as part of the International Hydrological Program. The objectives of the NRB is to gain better understanding of the hydrology in cold climates, which includes process oriented research, collection of data and providing these data for analysis and synthesis, and to encourage the exchange of personnel and information. It is not only that different hydrological processes are the important ones when comparing with lower latitudes. Also different methods are required for measurements and data collection from remote areas than when observations are carried out in river basins that are more easily accessible. The nature of the north is very sensitive to human activities and also to climate variations. An objective of NRB is to assess and predict the influence of man on northern environments. Climate variations and climate change are strongly noticed in the north. The hydrological response to these changes is an important part of the studies.

The official participating countries of NRB are the circumpolar ones: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the USA. The UK, Japan, Germany and Switzerland are loosely associated. However, everyone involved in relevant research is welcome to participate in NRB activities. The hydrological processes on high altitudes are similar to those on high latitudes.

The NRB activities include organization of NRB symposia every second year. The first NRB workshop was held in 1975 at the village Edefors by the Lule River in Sweden. The 18th NRB Symposium/Workshop was held in Norway on August 15–20, 2011. It included travelling between Bergen, Geiranger, Loen, Fjaerland and Voss. The Symposium was organized by the Norwegian Council for Hydrology with Dr Oddbjörn Bruland and Dr Knut Sand as leaders of the organization committee. Since 1988 *Hydrology Research* (formerly *Nordic Hydrology*) has devoted a special issue to NRB. It is believed that NRB's cooperation with *Hydrology Research* through publication of special issues contributes to a wider dissemination of knowledge about northern hydrology.

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