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Polish Spitsbergen Bibliography: Hydrology (1959 – 1993)

Since the first Polish Expedition to Spitsbergen in 1934, many projects and longer programmes have been done in the field of the Earth Sciences, especially in the southern part of the island. The Polish scientific activity was widened by new research areas in other parts of Spitsbergen (Fig. 1) in the seventies. Research activity is concentrated in the Hornsund area where the Polish Polar Station operates. The station was established in 1957 as a base for research during the wintering in the Third International Geophysical Year (1957/1958). The station served also other summer research groups until 1960 and in the period of 1970–1975. Buildings of the station were reconstructed and all technical facilities modernised in 1978. Since summer of this year the Polish Station has been working continuously.

Subjects of the Polish hydrological research are varied but majority of them concentrate on water balance of glaciated and non-glaciated basins. There are also some specific subjects developed by the Polish expeditions on Svalbard *e.g.* hydrochemistry, hydrology of the karst areas, direct studies of glacier internal drainage using speleological exploration of moulins and horizontal tunnels. Hydrological studies are closely linked to a glaciological and climatological research. Nevertheless, only works which contain (or are closely related to) results of hydrological studies are listed here.

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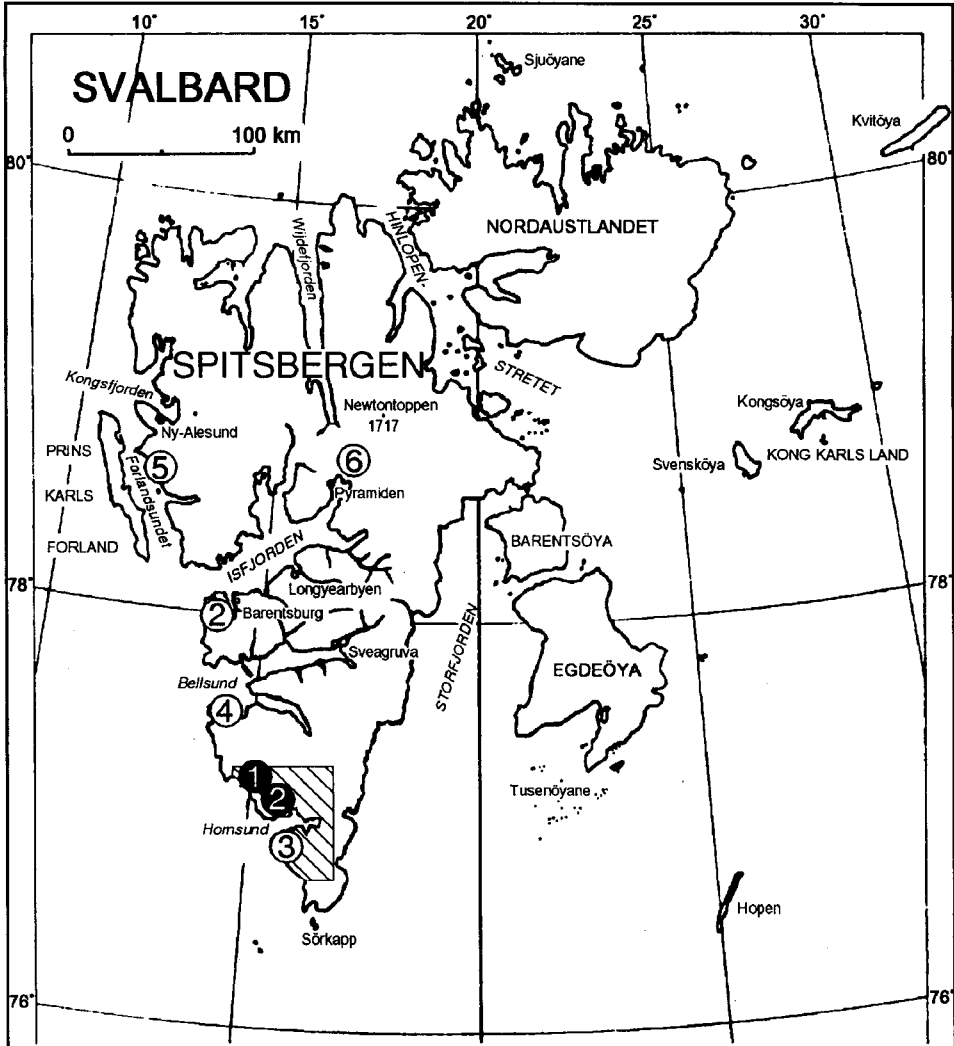


Fig. 1. Location map of the Polish hydrological studies in Svalbard.

Names of expeditions and period of studies are given. Black circles mark the more completed series of observations. The hatched area is covered by the glaciological and hydrological map of the Hornsund region. 1 — Wrocław University, since 1970, 2 — University of Silesia, Katowice, since 1979, 3 — Jagiellonian University, Cracow some summers since 1982, 4 — Maria Curie-Skłodowska University, Lublin, since 1986, 5 — Nicolas Copernicus University, Toruń, some summers since 1975, 6 — Adam Mickiewicz University, Poznań, 1984–1987.

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