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Editors

The PONAM project in eastern Svalbard

Preface

Why would the modern scientist choose to travel to the most remote islands of the Svalbard archipelago, spending days travelling, living in primitive field camps, carrying heavy equipment for long distances, and exposing him- or herself to the dangers of a desolate country and its wildlife?

The answer is twofold. First of all, although modern earth science relies heavily on sophisticated research techniques and laboratory studies, there will always be scientists who enthusiastically pursue the study of geology first hand, in the field. Secondly, the organisation of major research programmes has made it possible for individual scientists to join larger expeditions and carry out field work in regions that require major logistics platforms. Consequently, a wide range of scientific studies can be performed within the framework of common, scientific objectives.

The PONAM (Polar North Atlantic Margins, Late Cenozoic Evolution) project operated from 1990 to 1995 as part of the European Science Foundation (ESF) Arctic Network. The main objective of the project was to increase our understanding of the Late Cenozoic history of the European Arctic which borders the Norwegian and Greenland seas. Investigations were concentrated along two major transects, one running from central Greenland along the Scoresby Sound fjord across the continental shelf into the deep sea, and the other running from the Barents Sea, across Svalbard and the continental shelf into the deep sea. More than a hundred scientists and graduate students participated in the work, the majority from Denmark, Great Britain, Germany, Norway and Sweden.

The terrestrial studies focused on the elapse of the last interglacial/glacial cycle; the field work took place in eastern Greenland in 1990 and 1992, and in Svalbard in 1991 and 1993. The scientific results were presented in annual internal field reports and published technical reports issued at the conclusion of the first field season in each transect (*Lundqua Report 33* and *Lundqua Report 35*). The final results from eastern Greenland were presented in twenty papers in a special issue of *Boreas* (No. 4, 1994). This special issue of *Polar Research* finalises the publication of the results from eastern Svalbard. A synthesis of both the marine and terrestrial studies of the PONAM project is scheduled to be published in a special PONAM book.

This volume comprises eleven papers which present results from the geological investigations of an area stretching from Kongsøya in Kong Karls Land in the east, to Barentsøya and Edegeøya, and to Bjørnøya in the south. The papers, which range in topics from Weichselian stratigraphy to palaeoflora and glaciology, reflect the interdisciplinary character of Quaternary studies. In an overview paper by Landvik, Hjort, Mangerud, Möller & Salvigsen, the main results from the individual papers and their contribution to the Quaternary history of the region are discussed.

On the basis of the extensive research presented in this volume, we expect it to become a standard reference to the Quaternary development of eastern Svalbard in years to come.

