

## PREFACE

Polish scientists have long been interested in the geology and palaeontology of Spitsbergen. In 1934 the first Polish geological expedition went to central Spitsbergen (Torell Land). A rich collection of Jurassic fossils was obtained but unfortunately, was never described being destroyed in 1939, in World War II. Subsequent Polish geological expeditions from 1957 to 1960 added considerably to the knowledge of the geological structure of central and southern Spitsbergen (int. al. RÓŻYCKI 1959, BIRKENMAJER 1959, 1960, 1964) and made large collections of Paleozoic and Mesozoic fossils. These palaeontological collections have been described mostly in a number of separate papers scattered in various journals, but mainly in a series entitled the Geological Results of the Polish Spitsbergen Expeditions published in *Studia Geologica Polonica*.

Results achieved by these early Polish geological expeditions stimulated further palaeontological researches at Spitsbergen. To this aim, Polish palaeontological expeditions to Spitsbergen were organized on the initiative and under scientific leadership of the present author, by the Institute of Paleobiology (formerly Palaeozoology) of the Polish Academy of Sciences, Warsaw.

Thus far, four expeditions have been organized in 1974, 1975, 1976, 1979; the first three were under the aegis of the Commission of Geophysical Expeditions of the Polish Academy of Sciences and, the last, sponsored by the Committee on Polar Research of the Polish Academy of Sciences. Altogether, sixteen scientific workers participated in these expeditions, most of them were members of the staff of the Institute of Paleobiology of the Polish Academy of Sciences, the others were from the Institute of Geological Sciences of the Polish Academy of Sciences and the Institute of Geology of the Warsaw University.

The first two expeditions in 1974 and 1975, were to the Hornsund fjord region (fig. 1). The investigations dealt with the Uppermost Precambrian, Cambrian, Ordovician, Devonian, Permo-Carboniferous, Triassic and Jurassic sedimentary rocks in the area of Isbjörnhamna, Burgebukta, Treskelen, Polakkfjelllet, Gåshamna and Dunöyane (BIERNAT 1975). The third expedition in 1976 included study of the Permian to Jurassic sedimentary rocks in the Bellsund fjord and Isfjord region (fig. 1), central Spitsbergen (BIERNAT 1977).

The fourth expedition in 1979 involved work mostly on the Permian, Triassic and Jurassic strata exposed along the inner part of Isfjord (Skansbukta, Coloradofjella, Belvedere, Elveneset to Deltaneset), but also along the western part of the Isfjord (Kapp Starostin, Festninen, Kongresdalen, Linnedalen), and on the northern coast of the Bellsund fjord (fig. 1).

A large and diverse collections of fossils have been obtained in the four palaeontological expeditions to Spitsbergen. Among the most interesting are the Permian faunas dominated



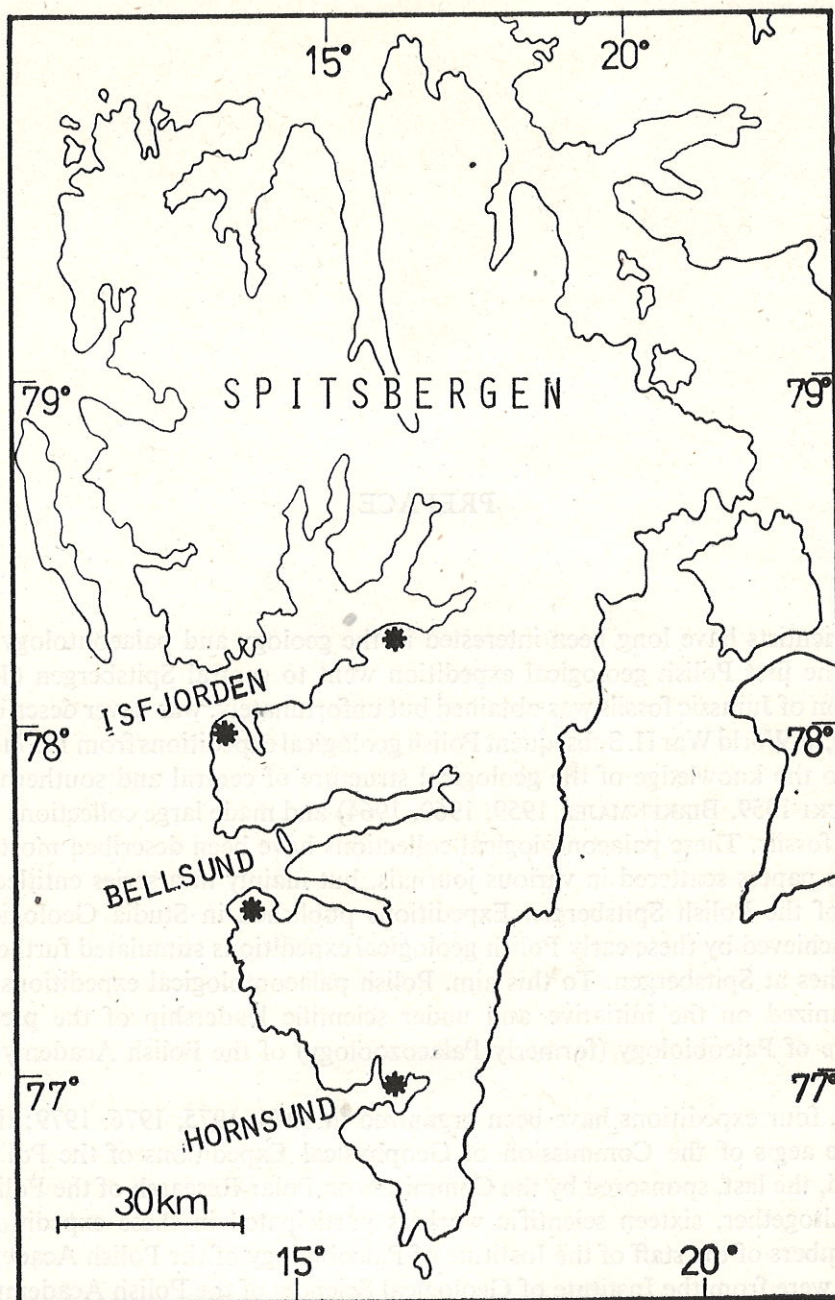


Fig. 1

Sketch-map showing the investigated areas (asterisked) during the Polish Palaeontological expeditions in 1974—1976, 1979. Hornsund — the expeditions organized in 1974 and 1975. Bellsund — Van Keulenfjorden, the expedition organized in 1976. Isfjorden-Festningen and Sassendalen areas, the expedition organized in 1979.

by corals and brachiopods. Many samples contain an abundant microfossil assemblages including charophytes, foraminifers, conodonts, ostracods, scolecodonts, and others.

The collections have already been partly investigated with the publications of few papers on various aspects of the material. These individual papers are indicated by an asterisk in the appended bibliography.

The richness of the paleontological material and its importance to science have been the reason why it has attracted so much attention and has been studied by Polish palaeontologists. The foundation of the new series within the frame-work of the *Palaeontologia Polonica*



will provide appropriate forum for the communication of the results of studies on the palaeontology of Spitsbergen. The series will be entitled the Palaeontological Spitsbergen Studies.

The present issue makes up the first volume of this new series. It contains six papers concerned mostly with palaeontology, palaeoecology, and sedimentology of Permian strata. There is also a paper dealing with poorly known Cambrian phosphatic microfossils. Another paper, based upon the material collected by K. BIRKENMAJER during the Polish-American expedition to Spitsbergen in 1977, describes the stratigraphy and fauna of some Mesozoic sedimentary rocks.

The Spitsbergen palaeontological collections are housed at the Institute of Paleobiology of the Polish Academy of Sciences, Warsaw.

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