

Preface

It is increasingly evident that in order to understand the complex relationships affecting the distribution and succession of fossil faunas and floras, our knowledge of local distributional patterns at the species level must be considerably expanded. This volume is aimed at assessing data from a single section, some 30 m thick, through the latest Llandovery and early Wenlock (Silurian) in Visby on the Swedish island of Gotland. The section, known as Vattenfallet, was collected bed by bed in the early part of this century by G. Liljevall, who amassed over 10,000 macrofossils that form the main basis of this study: all this material, together with other collections (including countless microfossils) has been incorporated in an analysis of faunal dynamics and general biotic relationships to a degree that has not previously been attempted. In order to achieve the necessary precision at the species level a team of 32 specialists from throughout the world has investigated the material to give a reasonably complete coverage of the whole fauna and flora. Their contributions are presented separately for each fossil group, and the results are then integrated in an overall analysis of the material.

In editing the manuscripts for this volume a great degree of uniformity has had to be imposed on various contributions in order to relate the results in a meaningful way. The space available for presentation of the vast amounts of data has been limited and this has therefore placed some restrictions on the scope of individual contributions. Most manuscripts have had to be cut from their original size, some of them considerably. Documentation of many of the species by photographs would have been most desirable, but this would have been unrealistic with regard to the total space available for publication. Only a limited number of new taxa are described and illustrated, mostly those which are important quantitatively and are frequently mentioned in the text.

Dr. Michael G. Bassett has undertaken the time-consuming task of linguistically checking all manuscripts apart from those written by native English-speaking authors. We are also very much indebted to him for useful editorial suggestions.

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Most of the illustrations have been drafted by the artists of the Geological Survey of Sweden (SGU), namely Greta Hellström, Ingemar Kjellberg, Inga

Palmaer, and Elin Pulkkinen. A minor part has been prepared at the Section of Palaeozoology, Swedish Museum of Natural History (Naturhistoriska Riksmuseet) by Bo Bergman, Bertil Blücher and Celso Salgueiro.

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