

REPORT OF THE WORKING GROUP 37 SYMPOSIUM

MARINE PLANKTON AND SEDIMENTS

Kiel, F. R. Germany, 9-13 September 1974 by E. Seibold

The Symposium was held at the Department of Geology and the Auditorium maximum of Kiel University, Kiel. It was preceded by meetings of Consultant Groups with some 100 participants, 5-8 September 1974, on Planktonic Foraminifera (Chairman TAKAYANAGI - Japan, Vice Chairman OLSSON - USA), Pteropods (LALLI - Canada), Radiolarians (PETRUSCHEVSKAYA - USSR, CACHON - France), Diatoms (SCHRADER - F. R. Germany, BURCKLE - USA), Silicoflagellates (LING - USA), Dinoflagellates (TAYLOR - Canada, ROSSIGNOL-STRICK - France), and Coccoliths (PERCH-NIELSEN - Switzerland, NOËL - France). Combined with the Symposium was the Third Planktonic Conference and the Third Symposium on Recent and Fossil Diatoms. During the five morning sessions (8.30-13.00) 20 invited lectures of general significance were presented. Demonstrations, special meetings and informal discussions occupied the middle part of the day. About 130 special lectures were held in four parallel sessions between 15.30 and 19.00.

Approximately 340 scientists (including some Kiel University students) participated. Forty non-attending members were registered to receive the abstract volume and address lists.

It is planned that the invited lectures together with recommendations of the consultant groups will be published as a special volume by the Micropaleontology Press, American Museum of Natural History, New York (Editors W. Riedel and T. Saito).

An especially appreciated part of the Kiel Symposium was the opportunity provided for contacts between botanists, zoologists and paleontologists working on the same planktonic groups.

Many contributions illustrated the considerable progress in the inter-relation of biostratigraphic successions of various planktonic microfossil groups and the beginning of application of statistical procedures in this field.

There were also many demonstrations of the results obtainable from the application of statistical methods to biogeographical and ecological sets of recent and fossil data.

Results based on investigations of Deep Sea Drilling Project material played an important role in many of the contributions and discussions at this Symposium, demonstrating the dramatic impact of this project on many fields of research covered in the meetings.

- Therefore:
1. It is recommended that SCOR sponsor a synthesis meeting in approximately five years' time, to consider the advances made during that period in understanding the evolution of the oceanic plankton-benthos-sediment system from the present back through geologic time.
 2. In order to understand the life cycles and mode of life and shell formation in skeleton-bearing plankton, it is recommended that more field experiments and laboratory culturing of these groups be carried out. These objectives might best be furthered by small workshops intended to lead to the establishment of on-going research programmes.

3. Further studies are recommended on the distribution of living representatives of the shelled plankton, and compilation of atlases of distributions for groups where these are not already in progress. Precise delimitations of the taxa involved would be necessary.
4. More attention needs to be given to the physics, chemistry and biology of the deep sea benthic boundary layer, especially in relation to the accumulation and solution of skeletal remains, their burial, and their subsequent diagenesis.
5. Working Group 37 recommends its dissolution after the publication of the symposium volume, anticipated in about one year.

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