

Report
of
The Working Group of Chemical Analysis
of Sea Water

The Working Group met on Wednesday, October 1st, 1969, with the following members in attendance:

Dr. F. Koroleff (Chairman)
Dr. S. Fonselius
Dr. K. Grasshoff
Dr. R. Lange
Mr. K.H. Palmork
Dr. U. Stefansson
Dr. S.B. Tijssen and as Observer
Dr. G. Weichart

The following Items were discussed:-

1. Organisation of an international intercalibration of nutrients.

Last year the Council passed the following resolution (C.Res.1968/3:4): "It was decided that, on the suggestion of SCOR a worldwide international intercalibration exercise should be organised by the Working Group with Dr. F. Koroleff and Mr. K.H. Palmork as the organisers". An intercalibration in this scale cannot be performed without permanent standard solutions. Such standards are made at the Sagami Chemical Research Center Japan, and Professor Sugawara has kindly accepted the preparation and the distribution of the test solutions.

All expences in this matter will be sponsored by SCOR, and this organisation has also contacted national SCOR committees with an invitation to the exercise. In these days samples will be send to 29 laboratories all over the world. It is estimated that the final number of participants will be ca. 100. At least preliminary results will be presented at the next Council Meeting.

2. The training course in marine chemistry.

The course was successfully held in Drøbak near Oslo, August 11th through September 6th. The number of participants was 21, representing 17 countries. A separate report was given at the General Assembly.

The Working Group recommends that the comprehensive report from the course, which is in preparation at the Institute of Marine Biology, the University of Oslo, is published by the ICES, the reasons being:

- a) The experiences obtained in the arrangement of this course will, in this case, be available for the arrangements of such courses in the future.
- b) The reliability of chemical analysis of sea-water samples performed by the participants of the course can be assessed from the intercalibration trial during the course.
- c) The results from the simultaneous observations at fifteen stations in the Oslofjord by means of four ships in the course of eight hours are expected to be of scientific value.

‡ It was further recommended that courses of this kind should be performed in the future.

3. New oxygen saturation tables.

Last year a decision could not be made as additional, some divergating data were given by Riley. To discuss the problem a working meeting was held at Fort Lauderdale, USA in February. All scientists involved were present under the chairmanship of Professor D.E. Carritt. Sponsor for the meeting was SCOR. After a thorough discussion the attendants felt, that except for a few experimental data all raw data can be pooled and decided that each of the originators of tables should use all of the existing raw data according to his smoothing procedure. Professor Carritt's report is hoped to be finished within this year. In the meantime it is recommended that the tables of J.H. Carpenter (Limnology and Oceanography) or the interpolated tables by K. Park (Dept. of Oceanography, Oregon State University, Oregon, USA) should be used.

The attendants also felt that there is no need for another independent set of saturation determinations to improve the reliability of the existing data.

4. Manual for the chemical work during the International Baltic Year 1969/1970.

This manual was edited by Dr. S.H. Fonselius and distributed to the countries involved in the investigation in December 1968. The manual was also given to the participants in the marine chemistry course. This manual will be continuously revised.

5. The interlaboratory report.

At the last meeting, the working group was rather optimistic; even a bi-annual publication thought to be possible. However, up to to-day only one contribution has been received. In this matter one has to keep in mind, that notes and news presented in the Report are mainly based on observations and findings during analytical work. Consequently, they cannot be given regularly. Several contributions are under preparation and Report No. 3 can be distributed within this year.

6. The Working Group recommends that the effect of hydrogen sulphide on the determination of the nutrients should be studied and reported.

7. Dr. F. Koroleff was re-elected Chairman for the next period.

Folke Koroleff