THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM

THE ASSOCIATION was founded in 1884 to promote accurate researches leading to the advancement of zoological and botanical science and to an increase in our knowledge of the food, life, conditions and habits of British fishes. The work of the Association is controlled by a Council elected annually by its subscribing members.

Professor T. H. Huxley took the chair at the initial meeting held in the rooms of the Royal Society and was elected the first President. Among those present were Sir John Lubbock (afterwards Lord Avebury), Sir Joseph Hooker, Professor H. N. Moseley, Mr G. J. Romanes, and Sir E. Ray Lankester who, after Professor Huxley, was for many years president of the Association. It was decided that a laboratory should be established at Plymouth where a rich and varied fauna is to be found.

The Plymouth Laboratory was opened in June 1888. The cost of the building and its equipment was f,12,000 and, since that date, a new library and further laboratory accommodation have been added at an expenditure of over £,23,000.

The Association is maintained by subscriptions and donations from private members, scientific societies and public bodies, and from universities and other educational institutions; a generous annual grant has been made by the Fishmongers' Company since the Association began. Practical investigations upon matters connected with sea-fishing are carried on under the direction of the Council, and from the beginning a Government Grant in aid of the maintenance of the Laboratory has been made; in recent years this grant has been greatly increased in view of the assistance which the Association has been able to render in fishery problems and in fundamental work on the environment of marine organisms. An account of the Laboratory and the scope of the work undertaken there will be found in Vol. xv (p. 735) and Vol. XXVII (p. 761) of this Journal.

The Laboratory is open throughout the year and its work is carried out under the supervision of a Director and with a fully qualified research staff. The names of the members of the staff will be found at the beginning of this number. Accommodation is available for British and foreign scientific workers who wish to carry out independent research in marine biology and physiology. Arrangements are made for courses for advanced students to be held at Easter, and marine animals and plants are supplied to educational institutions.

Work at sea is undertaken by two research vessels and by a motor boat and these also collect the specimens required in the Laboratory.

TERMS OF MEMBERSHIP

| | | | | | | | | £ | S. | a. |
|---------------|---|--|--|----|------|-------|-----|-----|----|----|
| Annual Member | s | | | | pe | r ann | um | I | I | 0 |
| Life Members | | | | Co | mpos | ition | fee | 15 | 15 | 0 |
| Founders . | | | | | | | | 100 | 0 | 0 |
| Governors . | | | | | | | | 500 | 0 | 0 |

Members of the Association have the following rights and privileges: they elect annually the Officers and Council; they receive the Journal of the Association free by post; they are admitted to view the Laboratory at Plymouth, and may introduce friends with them; they have the first claim to rent a place in the Laboratory for research, with use of tanks, boats, etc.; they have the privilege of occupying a table for one week in each year free of charge; and they have access to the books in the Library at Plymouth.

All correspondence should be addressed to the Director, The Laboratory, Citadel Hill,

Plymouth.

CONTENTS

| • | | | | | | | | | . PAGE |
|---|---------|-------------|------------------|-----------|-------------|------------|-----------|--------|--------------|
| Obituary. Walter Garstang, 1868-1949 . | • | • | | • | | • | • | • | . 561 |
| Vera Fretter. Observations on the life history tubercularis (Montagu) and Triphora pervers | | functi | ional • | morp • | holog • | y of | Cerit | hiops | sis . 567 |
| J. N. Carruthers, A. L. Lawford and V. F. C. V at various lightvessels. II. At the Seven Sto | | | | | | | | l wind | ds . 587 |
| W. R. G. Atkins and Mary Parke. Seasonal c chlorophyll estimations | hange | s in ti | he ph | ytopl | ankto | n as i | ndica | ited b | by 609 |
| H. G. Vevers. The biology of Asterias rubens L. Orchitophrya stellarum Cépède | II. Pa | rasiti | zation | of th | ne goi | nads b | y the | cilia | ite . 619 |
| C. Burdon-Jones. Observations on the spawnin & Goodhart, and of other Enteropneusta | ng bel | aviou | r of | Sacco | glossu • | s hors | ti Br | ambe | ell . 625 |
| N. A. Holme. The identification of British spec | cies of | the g | genus | Ensi | Sch | umacl | ner | | . 639 |
| H. Barnes and T. B. Bagenal. A statistical st repeated trawls taken over an inshore ground | | varia • | bility | in c | atch o | btain • | ed by | y sho | rt . 649 |
| G. P. Wells and R. Phillips Dales. Spontaneous irrigation of the burrow in the polychae | | | | | | | | | nd |
| Nereis diversicolor O. F. Müller | piratio | · n of s | ome | olank | tonic | cope | • pods | : | . 661 |
| D. Tr-Gauld. The grazing rate of planktonic co | | | | | | | | • | . 695 |
| D. E. Sergeant. The status of the common seconds | eal (P | hoca 1 | vi tuli i | ıa-Ļ. |) on | the E | ast A | nglia | |
| F. N. Woodward The Scottish Seaweed Reserved | arch A | ssocia | ation | • | | | | | . 707 |
| Abstracts of Memoirs. Recording work done | | | | | orato | У | | | . 727 |
| Book Review | | | | • | | | | | . 729 |

The Council of the Marine Biological Association wish it to be understood that they do not accept responsibility for statements published in this *Journal* excepting when those statements are contained in an official report of the Council.

CAMBRIDGE UNIVERSITY PRESS LONDON: BENTLEY HOUSE, N.W.1 NEW YORK: 51 MADISON AVENUE CANADA AND INDIA: MACMILLAN

Printed in Great Britain at the University Press, Cambridge
(Brooke Controller I Iniversity Printer)