

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 to build a laboratory at Plymouth, where a rich and varied fauna is found.

The Plymouth Laboratory was opened in June 1888, and, since that date, considerable additions have been made to the buildings, including a library, lecture-hall, and extensive laboratory accommodation with up-to-date equipment. Additional sea-water reservoirs have also been built, and an aquarium, modernized in 1959, opened to the public.

The Association is maintained by subscriptions and donations from private members, universities, scientific societies and other public bodies; 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. Accounts of the laboratory and aquarium and the scope of the researches will be found in Vol. 27 (p. 761), Vol. 39 (p. 391) and Vol. 43 (p. 281) of this *Journal*.

The laboratory is open throughout the year and its work is carried out by a fully qualified research staff under the supervision of the Director. 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 all branches of marine science. Arrangements are made for courses for advanced students, 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

	<i>£</i>	<i>s.</i>	<i>d.</i>
Annual Members per annum	1	1	0
Life Members Composition 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.

The Commissioners of Inland Revenue have approved the Association for the purposes of Section 16, Finance Act, 1958, and that the whole of the annual subscription paid by a member who qualifies for relief under the section will be allowable as a deduction from his emoluments assessable to income tax under Schedule E.

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

CONTENTS

	PAGE
JOHN D. PALMER and FRANK E. ROUND. Persistent, vertical-migration rhythms in benthic microflora. I. The effect of light and temperature on the rhythmic behaviour of <i>Euglena obtusa</i>	567
J. P. RILEY and T. R. S. WILSON. The use of thin-layer chromatography for the separation and identification of phytoplankton pigments	583
R. W. BLACKER and P. M. J. WOODHEAD. A towed underwater camera	593
T. B. BAGENAL. The fecundity of long rough dabs in the Clyde Sea area	599
JOHN D. DODGE. Thecal fine-structure in the dinoflagellate genera <i>Prorocentrum</i> and <i>Exuviaella</i>	607
A. K. NAGABHUSHANAM. On the biology of the commoner gadoids in Manx waters	615
J. BLACKWELL, K. D. PARKER and K. M. RUDALL. Chitin in pogonophore tubes	659
J. MAUGHLINE. Breeding and fecundity of <i>Praunus inermis</i> (Crustacea, Mysidacea)	663
ALWYNE WHEELER. Further extensions to the known range of the Northern Rockling, <i>Ciliata septentrionalis</i>	673
P. FOXTON. An aid to the detailed examination of salps (Tunicata: Salpidae)	679
E. J. DENTON and J. A. C. NICOL. Studies on reflexion of light from silvery surfaces of fishes, with special reference to the bleak, <i>Alburnus alburnus</i>	683
E. J. DENTON and J. A. C. NICOL. Polarization of light reflected from the silvery exterior of the bleak, <i>Alburnus alburnus</i>	705
E. J. DENTON and J. A. C. NICOL. Reflexion of light by external surfaces of the herring, <i>Clupea harengus</i>	711
E. J. DENTON and J. A. C. NICOL. Direct measurements on the orientation of the reflecting surfaces in the tapetum of <i>Squalus acanthias</i> , and some observations on the tapetum of <i>Acipenser sturio</i>	739
I. MANTON and M. PARKE. Observations on the fine structure of two species of <i>Platymonas</i> with special reference to flagellar scales and the mode of origin of the theca	743
A. F. H. MARKER. Extracellular carbohydrate liberation in the flagellates <i>Isochrysis galbana</i> and <i>Prymnesium parvum</i>	755
G. R. FORSTER. <i>Raja richardsoni</i> from the continental slope off south-west England	773
H. BARNES and M. J. R. HEALY. Biometrical studies on some common cirripedes. I. <i>Balanus balanoides</i> : measurements of the scuta and terga of animals from a wide geographical range	779
ABSTRACTS OF MEMOIRS	791
BOOK REVIEWS	796
MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM. Report of the Council for 1964-65. Income and Expenditure Account.	801

The subscription price of the Journal to non-members of the Association is £11 a volume of three parts, post free, or \$35.00 in U.S.A., payable in advance. Subscriptions may be sent to any bookseller or to the Cambridge University Press, and in U.S.A. to the Cambridge University Press American Branch.

CAMBRIDGE UNIVERSITY PRESS

BENTLEY HOUSE, 200 EUSTON ROAD, LONDON, N.W. 1

AMERICAN BRANCH: 32 EAST 57TH STREET, NEW YORK, N.Y. 10022

*Printed in Great Britain at the University Printing House, Cambridge
(Brooke Crutchley, University Printer)*