

The Journal of Experimental Biology

(Late *The British Journal of Experimental Biology*)

Edited by J. GRAY

ASSISTED BY

The Hon. Secs. Society for Experimental Biology

Vol. XV, No. 4

CONTENTS

October, 1938

- Anterior Pituitary and Growth in the Axolotl (*Amblystoma tigrinum* (Green) Neotenic Form): II. The Effect of Injection of Growth-promoting Extracts upon the Utilization of Food. N. H. HOWES
- The Rates of Conduction of Nerve Fibres of Various Diameters in Cephalopods. (With One Plate and Two Text-figures.) R. J. PUMPHREY AND J. Z. YOUNG
- Proprioception in Insects: III. The Function of the Hair Sensilla at the Joints. (With One Plate and Five Text-figures.) J. W. S. PRINGLE
- Studies in Reptilian Colour Changes: II. The Pituitary and Adrenal Glands in the Regulation of the Melanophores of *Anolis carolinensis*. (With Four Plates and Three Text-figures.) L. H. KLEINHOLZ
- Studies in Reptilian Colour Changes: III. Control of the Light Phase and Behaviour of Isolated Skin. (With One Plate.) L. H. KLEINHOLZ
- The Double Innervation of Muscles in the Clam (*Mya arenaria*). (With One Plate and Two Text-figures.) R. J. PUMPHREY
- Studies in Animal Locomotion: VII. Locomotory Reflexes in the Earthworm. (With Eleven Text-figures.) J. GRAY AND H. W. LISSMANN
- An Apparatus for Measuring the Propulsive Forces of the Locomotory Muscles of the Earthworm and other Animals. (With Two Text-figures.) J. GRAY AND H. W. LISSMANN
- The Dynamics of Quadrupedal Walking. (With Twelve Text-figures.) JOHN T. MANTER
- Anterior Pituitary and Growth in the Axolotl (*Amblystoma tigrinum* (Green) Neotenic Form): I. The Effects of Injection of Growth-promoting Extracts of the Anterior Pituitary. (With Two Text-figures.) D. I. CLEMENTS AND N. H. HOWES
- The Temperature and Humidity Relations of the Cockroach: V. Humidity Preference. D. L. GUNN AND C. A. COSWAY
- A Syringe Pipette Method for the Determination of Oxygen in the Field. (With One Text-figure.) R. J. WHITNEY
- Index to Subjects
- Index to Authors

Price 15s. net

Subscription per volume 42s. net

Published for The Company of Biologists Limited
by the

CAMBRIDGE UNIVERSITY PRESS
BENTLEY HOUSE, 200 EUSTON ROAD, N.W.1

THE QUARTERLY JOURNAL OF MICROSCOPICAL SCIENCE

Editor

EDWIN S. GOODRICH, M.A., LL.D., F.R.S.

With the Co-operation of

E. J. ALLEN, C.B.E., D.Sc., LL.D., F.R.S.

D. M. S. WATSON, M.Sc., F.R.S.

C. M. YONGE, D.Sc.

E. HINDLE, Sc.D., Ph.D., F.R.S.E.

G. P. BIDDER, Sc.D.

CONTENTS OF No. 320—New Series

Volume 80, Part IV, September 1938

MEMOIRS:

H. K. PUSEY. Structural Changes in the Anuran Mandibular Arch during Metamorphosis, with reference to *Rana temporaria*. (With Plates 33–45)

MARY L. MAWSON and C. M. YONGE. The Origin and Nature of the Egg Membranes in *Chirocephalus diaphanus*. (With 8 Text-figures)

J. BRONTË GATENBY and B. N. SINGH. The Golgi Apparatus of *Copromonas subtilis*, and *Euglena* sp. (With Plates 46–48 and 9 Text-figures)

G. J. VAN OORDT. The Spermatheca of *Loligo vulgaris*. I. Structure of the Spermatheca and function of its Unicellular Glands. (With Plate 49 and 1 Text-figure)

B. N. SINGH. The Cytology of *Amoeba proteus* 'Y' and the effects of large and small Centrifugal Forces. (With Plates 50–51 and 2 Text-figures).

Subscription Price per Volume £3. 3s. net

Single Parts £1. 1s. net

OXFORD UNIVERSITY PRESS
AMEN HOUSE, LONDON, E.C. 4

CONTENTS

	PAGE
W. J. Rees. Observations on British and Norwegian hydroids and their medusae (Text-figs. 1-12)	1
W. M. Tattersall. The seasonal occurrence of mysids off Plymouth (Text-fig. 1)	43
Hilary B. Moore. The biology of <i>Purpura lapillus</i> . Part II. Growth (Text-figs. 1-6)	57
Hilary B. Moore. The biology of <i>Purpura lapillus</i> . Part III. Life history and relation to environmental factors (Text-fig. 1 and Plate I)	67
Yô K. Okada. An internal factor controlling posterior regeneration in syllid polychaetes (Text-figs. 1-3)	75
Ruth Rawlinson. On the occurrence of <i>Jaxea nocturna</i> (Chiereghin) Nardo off Rame Head, Devon (Plate II)	79
R. Bassindale. The intertidal fauna of the Mersey estuary (Plate III)	83
L. E. Bayliss. The photographic method for recording average illuminations (Text-figs. 1-3)	99
Marie V. Lebour. Notes on the breeding of some lamellibranchs from Plymouth and their larvae (Text-figs. 1-7)	119
F. S. Russell. On the nematocysts of hydromedusae (Text-figs. 1-88)	145
N. B. Eales. <i>Lucernaria discoidea</i> , a new species from the Channel Islands (Text-figs. 1-3)	167
L. H. N. Cooper. Salt error in determinations of phosphate in sea water	171
L. H. N. Cooper. Redefinition of the anomaly of the nitrate-phosphate ratio	179
L. H. N. Cooper. Phosphate in the English Channel, 1933-8, with a comparison with earlier years, 1916 and 1923-32 (Text-fig. 1)	181
C. F. Hickling. The distribution of phosphates in the south-western area in April 1938 (Text-fig. 1)	197
Michael Graham and J. P. Harding. Some observations of the hydrology and plankton of the North Sea and English Channel (Text-figs 1-4)	201
W. R. G. Atkins. The disappearance of <i>Zostera marina</i>	207
E. Emrys Watkin. A revision of the amphipod genus <i>Bathyporeia</i> Lindström (Text-figs. 1-6)	211
Abstracts of Memoirs	237
Notices of Books	251
Marine Biological Association of the United Kingdom. Report of the Council for 1937. List of Annual Subscriptions. Income and Expenditure Account. Balance Sheet	253

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.

LONDON
CAMBRIDGE UNIVERSITY PRESS