PARASITOLOGY

EDITED BY

GEORGE H. F. NUTTALL, F.R.S. Quick Professor of Biology in the University of Cambridge

ASSISTED BY

EDWARD HINDLE, Ph.D.





CAMBRIDGE UNIVERSITY PRESS

C. F. CLAY, MANAGER
LONDON: FETTER LANE, E.C.
EDINBUBGH: 100, PRINCES STREET
ALSO

H. K. LEWIS, GOWER STREET
WILLIAM WESLEY AND SON, 28, ESSEX STREET, STRAND
CHICAGO: THE UNIVERSITY OF CHICAGO PRESS
HOMBAY, CALGUITA AND MADRAS: MACMILLAN & CO., LTD.
TORONTO: J. M. DENT AND SONS, LTD.
TOKYO: THE MARUZEN-RABUSHIKI-KAISHA

Price Ten Shillings net

[Issued June 25, 1915]

THE UNIVERSITY OF CHICAGO SCIENCE SERIES

This series recently established by the Trustees of the University owes its origin to a feeling that there should be a medium of publication occupying a position between the technical journals, with their short articles, and the elaborate treatises which attempt to cover several or all aspects of a wide field. The volumes of the series will differ from the discussions generally appearing in technical journals in that they will present the complete results of an experiment or series of investigations which have previously appeared only in scattered articles, if published at all. On the other hand they will differ from detailed treatises by confining themselves to specific problems of current interest and in presenting the subject in as summary a manner and with as little technical detail as is consistent with sound method. They will be written not only for the specialist but also for the educated layman. The size of the volumes will range from fifty to one hundred and fifty pages.

THE FIRST PUBLISHED VOLUME OF THE SERIES

The Evolution of Sex in Plants. By John Merle Coulter, Head of the Department of Botany in the University of Chicago. viii + 140 pages, small 12mo, cloth; 4s. net.

In this first volume of the new "University of Chicago Science Series" Professor Coulter, the editor of the Botanical Gazette and the author of numerous volumes on botanical science, has given a presentation of the results of research showing that all reproduction is the same in its essential features and all methods of reproduction are natural responses to the varying conditions encountered by plants in their life histories. Sex reproduction, the author says, is simply one kind of response, the sex feature not being essential to reproduction, but securing something in connection with the process. Various phases of the subject discussed include the evolution of sex organs, the alternation of generations, the differentiation of sexual individuals, and parthenogenesis. The last chapter, which offers a theory of sex, reviews the more prominent facts set forth in preceding parts of the volume, and serves both as a summary and a working hypothesis.

OTHER VOLUMES IN PREPARATION FOR EARLY PUBLICATION

The Origin of the Earth. By THOMAS C. CHAMBERLIN, Head of the Department of Geology in the University of Chicago.

The Isolation and Measurement of the Electron. By ROBERT ANDREWS MILLIKAN, Professor of Physics in the University of Chicago.

Finite Collineation Groups. By Hans F. Blichfeldt, Professor of Mathematics in Leland Stanford Junior University.

OTHER VOLUMES PLANNED AND IN PREPARATION

The Evolution of Reptiles. By SAMUEL WENDELL WILLISTON.

Food Poisoning. By EDWIN OAKES JORDAN.

The Problem of Individuality in Organisms. By Charles Manning Child.

The Development of a New System of Organic Chemistry, Based on Dissociation Concepts. By John Ulric Nef, with the co-operation of J. W. E. GLATTFELD.

The Living Cycads. By CHARLES JOSEPH CHAMBERLAIN.

Mechanics of Delayed Germination in Seeds. By WILLIAM CROCKER.

The Rigidity of the Earth and of Materials. By ALBERT A. MICHELSON.

The Problem of Fertilization. By FRANK R. LILLIE.

Linear Integral Equations in General Analysis. By ELIAKIM HASTINGS MOORE.

The University of Chicago Press

The Cambridge University Press Agents for the British Empire London, Fetter Lane

PARASITOLOGY

CAMBRIDGE UNIVERSITY PRESS

London: FETTER LANE, E.C. C. F. CLAY, MANAGER



Edinburgh: 100, PRINCES STREET

London: H. K. LEWIS AND CO., Ltd., 136, GOWER STREET, W.C. WILLIAM WESLEY AND SON, 28, ESSEX STREET, STRAND Chicago: THE UNIVERSITY OF CHICAGO PRESS

Bombay, Calcutta and Madras: MACMILLAN AND CO., Ltd. . Toronto: J. M. DENT AND SONS, Ltd.

Tokyo: THE MARUZEN-KABUSHIKI-KAISHA

All rights reserved

PARASITOLOGY

EDITED BY

GEORGE H. F. NUTTALL, F.R.S. Quick Professor of Biology in the University of Cambridge

ASSISTED BY

EDWARD HINDLE, Ph.D.

Volume VIII 1915-16

Cambridge: at the University Press 1916

CONTENTS

No. 1 (June).

	PAGE
Leigh-Sharpe, W. Harold. Ganymedes cratere n.g. et s. (With 6 Text-figures)	1
Robinson, L. E. A Note on the Variability in Size of Amblyomma hebraeum Koch. (With 3 Text-figures)	11
Wickware, A. B. Is Leucocytozoon anatis the Cause of a New Disease in Ducks? (With Plates I-III)	17
NICOLL, WILLIAM. The Trematode Parasites of North Queensland. III. Parasites of Fishes. (With Plates IV and V)	_22
Meggitt, F. J. A New Species of Tapeworm from a Parakeet, Brotogerys tirica. (With Plates VI and VII and 4 Text-figures) .	42
Nuttall, George H. F. Experimental Drug Treatment of East Coast Fever of Cattle. (With 1 Chart)	56
HARRISON, LAUNCELOT. Mallophaga from Apteryx, and their Significance; with a Note on the Genus Rallicola. (With 6 Text-figures)	88
HARRISON, LAUNCELOT. The Respiratory System of Mallophaga. (With 21 Text-figures)	101
Fantham, H. B. and Porter, Annie. On the Natural Occurrence of Herpetomonads (Leptomonads) in Mice. (With 7 Text-figures).	12 8
No. 2 (September).	
BOULENGER, CHARLES L. The Life History of Nematodirus filicollis Rud., a Nematode Parasite of the Sheep's Intestine. (With	100
Plates VIII and IX and 5 Text-figures)	133
WATSON H. A. Houring and the Complement Rivation less	I hh

G	PAGE
Coles, Alfred C. Multiplication-forms of Trypanosoma lewisi in the Body of the Rat. (With Plates X and XI)	184
COOPER, W. F. and Laws, H. E. Some Observations on the Theory and Practice of Dipping. (With Plate XII and 2 Text-figures) .	190
NUTTALL, G. H. F. and HINDLE, E. Experiments in the "Tryposafrol" Treatment of Trypanosomiasis (T. brucei) in Guinea-pigs and of	210
Piroplasmosis in Dogs	218
No. 3 (January).	
PRATT, HENRY S. The Trematode Genus Stephanochasmus Looss in the Gulf of Mexico. (With Plate XIII)	229
Shircore, T. O. A Note on some Helminthic Diseases with special reference to the Housefly as a natural carrier of the Ova	239
STRICKLAND, C. Observations on the blood in East Coast Fever of Cattle	244
STRICKLAND, C. Considerations regarding an outbreak of Malaria at Morib, Federated Malay States	249
PORTER, Annie. The occurrence of <i>Pneumocystis carinii</i> in mice in England. (With 8 Text-figures)	255
Balfour, Andrew. On the occurrence of Herpetomonads (?) in Gerbils	260
LEIGH-SHARPE, W. HAROLD. Lernaeopoda scyllicola n. sp., a Parasitic Copepod of Scyllium canicula. (With 6 Text-figures)	262
LEIGH-SHARPE, W. HAROLD. Platybdella anarrhichae. (With a Note, Erratum, and an Appendix.) (With 11 Text-figures)	274
NUTTALL, GEORGE H. F. Notes on Ticks. IV. (Relating to the Genus Ixodes and including a description of three new Species and	20.4
two new Varieties.) (With 21 Text-figures)	294
Harrison, Launcelot and Johnston, T. Harvey. Mallophaga from Marsupials. I. (With 14 Text-figures)	338
BAYLIS, H. A. Some Ascarids in the British Museum (Natural History). (With Plates XIV-XVII)	360

No. 4 (June).

			PAGE
MEGGITT, F. J. A Tri-Radiate Tapeworm (And Goeze) from the Horse. (With Plate XVIII			
MEGGITT, F. J. A Contribution to the Knowled of Fowls and of Sparrows. (With Plates XI	~	-	t-
figure)		•	. 390
BAYLIS, H. A. The Types of the Species of Ascar		by Baird	
(With 3 Text-figures)		•	. 411
BOULENGER, CHARLES L. Sclerostome Parasit England. I. The Genera <i>Triodontophorus</i>			
(With Plate XXII and 7 Text-figures) .		•	. 420
Graham-Smith, G. S. Observations on the Ha Common Flies. (With Plates XXIII-XXX			
9 Charts)		•	. 440
INDEX OF AUTHORS		•	. 545
INDEX OF SUBJECTS			547