PARASITOLOGY

(Founded by G. H. F. Nuttall, F.R.S.)

EDITED BY

D. KEILIN, Sc.D., F.R.S.

IN CONJUNCTION WITH

H. A. BAYLIS, M.A., D.Sc.

F. J. BROWN, M.Sc.

P. A. BUXTON, M.A., M.R.C.S.

C. DOBELL, F.R.S.

E. HINDLE, Ph.D., Sc.D.

C. A. HOARE, D.Sc.

K. M. SMITH, Ph.D., D.Sc.

P. TATE, M.Sc., Ph.D.

W. R. THOMPSON, F.R.S.



LONDON

CAMBRIDGE UNIVERSITY PRESS

FETTER LANE, E.C. 4

CHICAGO: The University of Chicago Press (Agents for the United States)

Bombay, Calcutta, Madras: Macmillan Tokyo: Maruzen Company, Ltd.

All rights reserved

Eighteen Shillings and Sixpence net

Issued 1 October 1937

PRINTED IN GREAT BRITAIN



Cambridge University Press

TICKS, A MONOGRAPH OF THE IXODOIDEA

By G. H. F. NUTTALL, F.R.S., C. WARBURTON, and L. E. ROBINSON

Part IV. The Genus Amblyomma

By L. E. ROBINSON, PH.D. (CANTAB.). With a frontispiece, 7 plates (2 in colours), and 130 figures, 116 being original Royal 8vo. 20s. net

THE TRANSMUTATION OF BACTERIA

By S. GURNEY-DIXON, M.A., M.D., M.R.C.S., L.R.C.P.

Demy 8vo. 12s. net

INSECT PESTS AND FUNGUS DISEASES OF FRUIT AND HOPS

A complete manual for growers. By Percival J. Fryer, F.I.C., F.C.s. With 24 plates (20 in colour and 4 in black and white) and 305 original photographs and diagrams

Crown 8vo. 45s. net

FUNGOID AND INSECT PESTS OF THE FARM

By F. R. Petherbridge, M.A., Biological Adviser, School of Agriculture, Cambridge. Second Edition. With 54 illustrations

Large crown 8vo. 6s. net

(CAMBRIDGE FARM INSTITUTE SERIES)

BRITISH RUST FUNGI (UREDINALES)

Their Biology and Classification. By W. B. GROVE, M.A. With 290 figures

Demy 8vo. 21s. net

CAMBRIDGE UNIVERSITY PRESS, FETTER LANE, LONDON, E.C. 4

The University of Chicago Press

THE NEWER KNOWLEDGE OF BACTERIOLOGY AND IMMUNOLOGY.

Edited by E. O. JORDAN and I. S. FALK.

458, net

A collection of late researches in the field of bacteriology prepared by eighty leading research men in the field.

FOOD POISONING AND FOOD-BORNE INFECTION. (Revised edition, 1931.)

By EDWIN O. JORDAN.

11s. 6d. net

A clear summary of our present knowledge of poisoning through foods.

RHUS DERMATITIS: ITS PATHOLOGY AND CHEMOTHERAPY. By
IAMES B. McNair. 18s. net

Cause, effect, and remedy for ivy poisoning discussed from the standpoints of botany, chemistry and pharmacology.

SELECTIVE FERTILIZATION. By DONALD F. JONES.

9s. net

A splendid study of the factors operating in the plant and animal world to influence the exercise of choice in mate selection.

LABORATORY OUTLINES IN BACTERIOLOGY AND IMMUNOLOGY. By JOHN F. NORTON and I. S. FALK. 7s. 6d. net

THE EPIDEMIOLOGY AND CONTROL OF MALARIA IN PALESTINE. By
1. J. KLUGLER. 228. 6d. net

AGENTS IN GREAT BRITAIN AND THE BRITISH EMPIRE (EXCEPT CANADA)

CAMBRIDGE UNIVERSITY PRESS, FETTER LANE, LONDON, E.C. 4

PARASITOLOGY

PARASITOLOGY

(Founded by G. H. F. Nuttall, F.R.S.)

EDITED BY

D. KEILIN, Sc.D., F.R.S.

IN CONJUNCTION WITH

H. A. BAYLIS, M.A., D.Sc.

E. HINDLE, Ph.D., Sc.D.

F. J. BROWN, M.Sc.

C. A. HOARE, D.Sc.

P. A. BUXTON, M.A., M.R.C.S.

K. M. SMITH, Ph.D., D.Sc.

C. DOBELL, F.R.S.

P. TATE, M.Sc., Ph.D.

W. R. THOMPSON, F.R.S.

VOLUME XXIX 1937

Reprinted 1966 for Wm. DAWSON & SONS LTD., LONDON with the permission of the Proprietors

ORIGINALLY PRINTED IN GREAT BRITAIN BY THE CAMBRIDGE UNIVERSITY PRESS. REPRINTED IN THE NETHERLANDS BY KRIPS/OOSTHOEK, MEPPEL AND UTRECHT

CONTENTS

No. 1 (JANUARY)

	PAGE
CAWSTON, F. GORDON. Recent progress in the cure of bilharzia disease in South Africa	1
Redikorzev, V. A parasite of $Sciuropterus\ volans\ L.$ (With 1 Figure in the Text)	4
Berghe, Louis van den. On a new coccidium, Eimeria raiarum sp.n., with special reference to the biology of the oocysts. (With Plate I and 1 Figure in the Text)	7
DUKE, H. LYNDHURST. Studies of the effect on T . gambiense and T . rhodesiense of prolonged maintenance in mammals other than man; with special reference to the power of these trypanosomes to infect man. V. The effect of prolonged maintenance away from man on the infectivity of T . rhodesiense for man	12
Duke, H. Lyndhurst. Studies of the effect on <i>T. gambiense</i> and <i>T. rhodesiense</i> of prolonged maintenance in mammals other than man; with special reference to the power of these trypanosomes to infect man. VI. Strain "Kahondera" from Southern Rhodesia, and concluding observations on this series of papers	35
HOARE, CECIL A. and BENNETT, S. C. J. Morphological and taxonomic studies on mammalian trypanosomes. III. Spontaneous occurrence of strains of <i>Trypanosoma evansi</i> devoid of the Kinetonucleus. (With 1 Map and 7 Text-figures)	43
Bishop, Ann. Further observations upon <i>Entamoeba aulastomi</i> Nöller. (With Plates II and III, containing Figs. 1–54) .	57
SMITH, KENNETH M. Studies on a virus found in the roots of certain normal-looking plants. (With Plates IV and V and 1 Figure in the Text)	70
SMITH, KENNETH M. Further studies on a virus found in the roots of certain normal-looking plants. (With Plate VI)	86
HADDOW, A. J. and THOMSON, R. C. MUIRHEAD. Sheep myiasis in south-west Scotland, with special reference to the species involved. (With 3 Figures in the Text)	96

vi Contents

1	AGE
RAY, HARENDRA NATH and DAS GUPTA, MATIRANJAN. A new coccidian, Wenyonella hoarei n.sp. from an Indian squirrel. (With Plate VII, containing Figs. 1–19)	117
Baylis, H. A. On the ascarids parasitic in seals, with special reference to the genus <i>Contracaecum</i> . (With 5 Figures in the Text)	121
Mellanby, Helen. Experimental work on reproduction in the tsetse fly, Glossina palpalis. (With 2 Figures in the Text) .	131
MELLANBY, KENNETH. The reproductive cycle in Glossina morsitans and Glossina swynnertoni	142
No. 2 (APRIL)	
Roy, D. N. On the function of the pharyngeal ridges in the larvae of Calliphora erythrocephala. (With 3 Figures in the Text) .	143
Roy, D. N. The physiology of digestion in larvae of ${\it Gastrophilus\ equi}$	150
KIDDER, GEORGE, W. The intestinal protozoa of the wood-feeding roach <i>Panesthia</i> . (With Plates VIII-X, containing Figs. 1-45, and Figs. IVIII in the Text)	163
Wilson, Charles Branch. Two new semi-parasitic copepods from the Peruvian coast. (With 17 Figures in the Text)	206
Steward, J. S. The occurrence of <i>Onchocerca gutturosa</i> Neumann in cattle in England, with an account of its life history and development in <i>Simulium ornatum</i> Mg. (With Plate XI, containing Figs. 1-10)	212
Ohshima, Kaku. On the function of the polar filament of Nosema bombycis. (With 6 Figures in the Text)	220
Sharif, M. On the life history and the biology of the rat-flea, Nosopsyllus fasciatus (Bosc.)	225
Bhatia, M. L. On Adelina tribolii, a coccidian parasite of Tribolium ferrugineum F. (With Plates XII and XIII, containing Figs. 1-26, and Figs. I-XIX in the Text)	239
Kellin, D. and Tate, P. A comparative account of the larvae of Trichomyia urbica Curtis, Psychodes albipennis Zett., and Phlebotomus argentipes Ann. & Brun. (Diptera: Psychodidae)	247

Contents	V.	i

	PAGE
BUTLER, E. J. Acladium castellanii Pinoy and the existence of the so-called acladiosis of Castellani. (With Plate XIV and 9 Text-figures)	259
MacClement, W. D. An improved method of inoculating plants with virus for the study of local lesions. (With 3 Figures in the Text)	266
No. 3 (June)	
THOMSON, R. C. MUIRHEAD. Observations on the biology and larvae of the anthomyidae. (With 157 Figures in the Text).	273
Byrd, Elon E. The trematode parasites from a red-bellied water-snake, Farancia abacura. (With 5 Figures in the Text)	359
Podder, T. N. A new species of acanthocephala, Neoechinorhynchus topseyi n.sp., from a Calcutta fish, Polynemus heptadactylus (Cuv. & Val.). (With 3 Figures in the Text)	365
YARWOOD, EVANGELINE ALDERMAN. The life cycle of Adelina cryptocerci sp.nov., a coccidian parasite of the roach Cryptocercus punctulatus. (With Plates XV-XIX, containing Figs. 1-55, and Fig. I in the Text)	370
Leigh-Sharpe, W. Harold. Badroulboudour splendida n.g. et sp., a new parasitic isopod from Ecuador. (With 4 Figures in the Text)	391
VAN CLEAVE, HARLEY J. Acanthocephala from China. II. Two new species of the genus Acanthocephalus from Amphibia. (With 3 Figures in the Text)	395
Bhatia, M. L. and Keilin, D. On a new case of parasitism of snail (Vertigo genesii Gredl.) by a dipterous larva. (With 13 Figures in the Text)	399
Gregson, J. D. Cysticercosis in deer	409
BAYLIS, H. A. A note on Capillaria aërophila (Nematoda). (With 1 Figure in the Text)	410
BISHOP, ANN. The method of division of Trepomonas agilis in	412

No. 4	4 (C	CTOI	BER)
-------	------	------	------

	PAGE
CHEN, H. T. Some parasitic nematodes from mammals of South China. (With 22 Figures in the Text)	419
Kirtisinghe, P. Parasitic copepods of fish from Ceylon. II. (With 107 Figures in the Text)	435
KIRTISINGHE, P. On the Genus Cybicola Bassett-Smith (1898). With 11 Figures in the Text)	453
Mackinnon, Doris L. and Ray, H. N. A Coccidian from the eggs of <i>Thalassema neptuni</i> Gaertner. (With Plates XX-XXII, containing Figs. 1-32, and Figs. I-IV in the Text	457
Webb, J. Lewis. The helminths of the intestinal canal of man in Mauritius; and a first record of <i>Trichostrongylus axei</i> locally. (With 11 Figures in the Text)	469
Walker, Marjory G. A mathematical analysis of superparasitism by Collyria calcitrator Grav. (With 2 Figures in the Text) .	477
FOTHERINGHAM, W. and LEWIS, E. ANEURIN. East Coast fever; its transmission by ticks in Kenya Colony. <i>Hyalomma impressum</i> near <i>Planum</i> P. Sch. as a vector	504
LEGGE, M. M. Parasitic larvae in Bombus terrestris. (With 5 Figures in the Text)	524
Macleod, John. The experimental production of cutaneous myiasis of sheep	526
Womersley, H. Studies in Australian Acarina Laelaptidae. I. New records and species of <i>Laelaps</i> and allied genera. (With 5 Figures in the Text)	53 0
Salt, George. The egg-parasite of Sialis lutaria; a study of the influence of the host upon a dimorphic parasite. (With 5 Figures in the Text)	539
JEPPS, MARGARET W. Note on Apstein's parasites and some very early larval platyhelminthes. (With 2 Figures in the Text) .	554
HOARE, CECIL A. A new cycloposthiid ciliate (Triplumaria hamertoni gen.n., sp.n.) parasitic in the Indian rhinoceros. (With Plate XXIII and 1 Figure in the Text)	559
Index of Authors	571
Index of Subjects	575