

PARASITOLOGY

PARASITOLOGY

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

EDITOR

P. TATE

EDITORIAL BOARD

ANN BISHOP, F.R.S. (*Chairman*)

D. R. ARTHUR

C. A. HOARE, F.R.S.

L. G. GOODWIN

J. LLEWELLYN

GWENDOLEN REES

EDITORIAL PANEL

H. D. CROFTON

B. G. PETERS

G. O. EVANS

S. PRUDHOE

E. HINDLE, F.R.S.

W. P. ROGERS

G. LAPAGE

G. SALT, F.R.S.

D. L. LEE

J. SMART

ELSPETH W. McCONNACHIE

K. M. SMITH F.R.S.

J. D. SMYTH

VOLUME 55, 1965

CAMBRIDGE

AT THE UNIVERSITY PRESS

1965

PUBLISHED BY
THE SYNDICS OF THE 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)*

CONTENTS

(All rights reserved)

PART I, FEBRUARY 1965

	PAGE
Obituary Notice, David Keilin, 1887–1963. (With 1 Plate)	1
STURROCK, R. F. The control of trichostrongyle larvae (Nematoda) by fumigation in relation to their bionomics. I. Bionomics results. (With 5 Figures in the Text)	29
STURROCK, R. F. The control of trichostrongyle larvae (Nematoda) by fumigation in relation to their bionomics. II. Laboratory toxicity tests with methyl bromide. (With 12 Figures in the Text)	45
STURROCK, R. F. The control of trichostrongyle larvae (Nematoda) by fumigation in relation to their bionomics. III. Field trials with methyl bromide. (With 2 Figures in the Text)	67
PROBERT, ALLAN J. and ERASMUS, DAVID A. The migration of <i>Cercaria X</i> Baylis (Strigeida) within the molluscan intermediate host <i>Lymnaea stagnalis</i> . (With 2 Plates and 4 Figures in the Text)	77
JAMES, B. L. The effects of parasitism by larval Digenea on the digestive gland of the intertidal prosobranch, <i>Littorina saxatilis</i> (Olivi) subsp. <i>tenebrosa</i> (Montagu). (With 2 Plates and 9 Figures in the Text)	93
GRESSON, R. A. R. Spermatogenesis in the hermaphroditic Digenea (Trematoda). (With 1 Figure in the Text)	117
SCOTT, J. S. The development and morphology of <i>Polycerus lumbrici</i> (Cestoda: Cyclophyllidea). (With 2 Plates and 4 Figures in the Text)	127
MAWSON, PATRICIA M. Notes on some species of Nematoda from kangaroos and wallabies, including a new genus and three new species. (With 64 Figures in the Text)	145
DINEEN, J. K., DONALD, A. D., WAGLAND, B. M. and TURNER, J. H. The dynamics of the host-parasite relationship. II. The response of sheep to primary and secondary infection with <i>Nematodirus spathiger</i> . (With 2 Figures in the Text)	163
LEE, D. L. The cuticle of adult <i>Nippostrongylus brasiliensis</i> . (With 3 Plates and 2 Figures in the Text)	173
DOBSON, COLIN. The relationship between worm population density, host survival and the growth of the third-stage larva of <i>Amplichaecum robertsi</i> Sprent & Mines, 1960, in the mouse. (With 4 Figures in the Text)	183
GREEN, J. Two species of peritrichous Ciliata epibiotic on parasitic Crustacea from Lake Albert, Uganda. (With 2 Figures in the Text)	195

PART 2, MAY 1965

	PAGE
WILLIAMS, H. HARFORD, Observations on the occurrence of <i>Dictyocotyle coeliaca</i> and <i>Calicotyle kroyeri</i> (Trematoda: Monogenea)	201
THORPE, E. An immunocytochemical study with <i>Fasciola hepatica</i> . (With 3 Plates)	209
DIXON, K. E. The structure and histochemistry of the cyst wall of the metacercaria of <i>Fasciola hepatica</i> L. (With 1 Plate and 1 Figure in the Text)	215
STIREWALT, M. A., SHEPPERSON, J. R. and LINCICOME, D. R. Comparison of penetration and maturation of <i>Schistosoma mansoni</i> in four strains of mice. (With 2 Figures in the Text)	227
WILLIAMS, I. C. and HARRIS, M. P. The infection of the gulls <i>Larus argentatus</i> Pont., <i>L. fuscus</i> L. and <i>L. marinus</i> L. with Cestoda on the coast of Wales	237
MCCAIG, MORAG L. O. and HOPKINS, C. ADRIAN. Studies on <i>Schistocephalus solidus</i> . 3. The <i>in vitro</i> cultivation of the plerocercoid. (With 1 Plate and 6 Figures in the Text)	257
MAPES, C. J. Structure and function in the nematode pharynx. I. The structure of the pharynges of <i>Ascaris lumbricoides</i> , <i>Oxyuris equi</i> , <i>Aplectana brevicaudata</i> and <i>Panagrellus silusiae</i> . (With 19 Figures in the Text)	269
WAKELIN, D. On species of the genus <i>Capillaria</i> Zeder, 1800 (Nematoda) from British domestic fowl. (With 1 Plate and 7 Figures in the Text)	285
DOBSON, COLIN. The effects of host sex and age on the host-parasite relationship of the third-stage larva of <i>Amplichaecum robertsi</i> Sprent & Mines, 1960, in the laboratory rat. (With 2 Figures in the Text)	303
BRAMBELL, M. R. The distribution of a primary infestation of <i>Nippostrongylus brasiliensis</i> in the small intestine of laboratory rats. (With 6 Figures in the Text)	313
Ogilvie, BRIDGET M. Role of adult worms in immunity of rats to <i>Nippostrongylus brasiliensis</i> . (With 3 Figures in the Text)	325
EDMONDS, S. J. Some experiments on the nutrition of <i>Moniliformis dubius</i> Meyer (Acanthocephala). (With 4 Figures in the Text)	337
CROMPTON, D. W. T. and HARRISON, J. G. Observations on <i>Polymorphus minutus</i> (Goeze, 1782) (Acanthocephala) from a wildfowl reserve in Kent. (With 4 Figures in the Text)	345
CROMPTON, D. W. T. and LEE, D. L. The fine structure of the body wall of <i>Polymorphus minutus</i> (Goeze, 1782) (Acanthocephala). (With 4 Plates and 1 Figure in the Text)	357
LINCICOME, DAVID RICHARD and WATKINS, ROY CHESTER. Antigenic relationships among <i>Trypanosoma lewisi</i> —complex cells. I. Agglutinins in antisera	365
CALLOW, L. L. <i>Babesia bigemina</i> in ticks grown on non-bovine hosts and its transmission to these hosts	375
NUTTING, WILLIAM and WOOLLEY, PATRICIA. Pathology in <i>Antechinus stuartii</i> (Marsupialia) due to <i>Demodex</i> sp. (With 2 Plates)	383
ARTHUR, DON. R. and CHAUDHURI, R. P. A revision of <i>Nosomma monstroum</i> (Nuttall & Warburton, 1908) Ixodoidea; Ixodidae. (With 18 Figures in the Text)	391

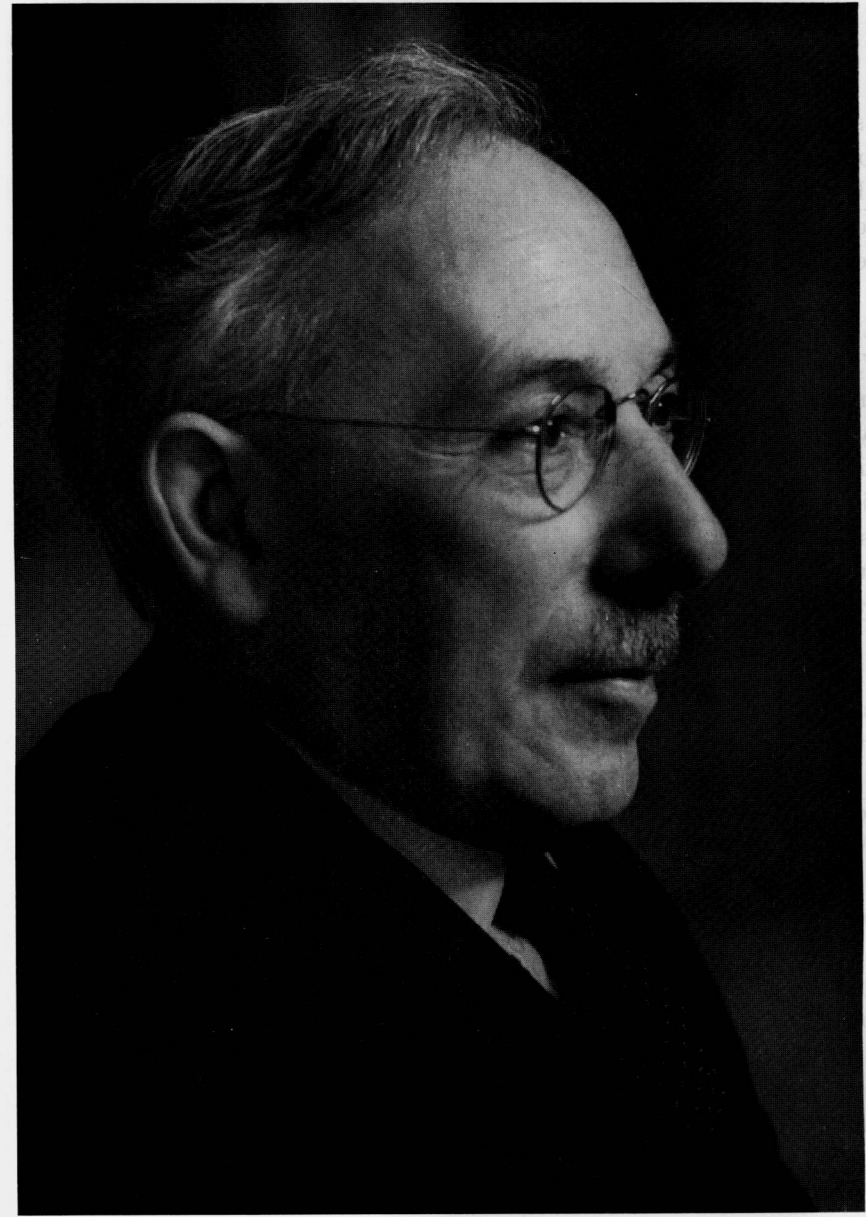
PART 3, AUGUST 1965

	PAGE
HORTON-SMITH, C. and LONG, P. L. The development of <i>Eimeria necatrix</i> Johnson, 1930 and <i>Eimeria brunetti</i> Levine, 1942 in the caeca of the domestic fowl (<i>Gallus domesticus</i>). (With 2 Plates)	401
BISHOP, ANN. Resistance to diamino-diphenylsulphone in <i>Plasmodium gallinaceum</i>	407
STARK, G. T. C. <i>Diplocotyle</i> (Eucestoda), a parasite of <i>Gammarus zaddachi</i> in the estuary of the Yorkshire Esk, Britain	415
SCOTT, J. S. Evagination of the cysticercoïd in <i>Polycercus lumbrici</i>	421
KENNEDY, C. R. The life-history of <i>Archigetes limnodrili</i> (Yamaguti) (Cestoda: Caryophyllaeidae) and its development in the invertebrate host. (With 6 Figures in the Text)	427
KENNEDY, C. R. Taxonomic studies on <i>Archigetes</i> Leuckart, 1878 (Cestoda: Caryophyllaeidae). (With 7 Figures in the Text)	439
METRICK, D. F. and MUNRO, H. N. Studies on the protein metabolism of cestodes. I. Effect of host dietary constituents on the growth of <i>Hymenolepis diminuta</i>	453
THEADGOLD, L. T. An electron microscope study of the tegument and associated structures of <i>Proteocephalus pollanicoli</i> . (With 3 Plates and 1 Figure in the Text)	467
KEARN, G. C. The biology of <i>Leptocotyle minor</i> , a skin parasite of the dogfish, <i>Scyliorhinus canicula</i> . (With 1 Plate and 3 Figures in the Text)	473
ÖHMAN, CHRISTINA. The structure and function of the adhesive organ in strigeid trematodes. Part II. <i>Diplostomum spathaceum</i> Braun, 1893. (With 2 Plates and 4 Figures in the Text)	481
CROMPTON, D. W. T. A histochemical study of the distribution of glycogen and oxidoreductase activity in <i>Polymorphus minutus</i> (Goeze, 1782) (Acanthocephala). (With 1 Plate and 9 Figures in the Text)	503
DINEEN, J. K., DONALD, A. D., WAGLAND, B. M. and OFFNER, JAN. The dynamics of the host-parasite relationship. III. The response of sheep to primary infection with <i>Haemonchus contortus</i> . (With 3 Figures in the Text)	515
MYKYTOWYCZ, R. and DUDZINSKI, M. L. Sex ratio, weight, length and numbers of <i>Labiostrongylus longispicularis</i> (Wood), the large stomach worm of the Red Kangaroo (<i>Megaleia rufa</i> (Desmarest)), in relation to age of the host and season. (With 4 Figures in the Text)	527
DUDZINSKI, M. L. and MYKYTOWYCZ, R. Distribution of the nematode <i>Labiostrongylus longispicularis</i> (Wood) within the stomach of the Red Kangaroo <i>Megaleia rufa</i> (Desmarest). (With 2 Figures in the Text)	543
NARAIN, BANDANA. Survival of the first-age larvae and infective larvae of <i>Bunostomum trigonocephalum</i> Rudolphi, 1808. (With 3 Figures in the Text)	551
POINAR, GEORGE O., JR. The bionomics and parasitic development of <i>Tripilus sciarae</i> (Bovien) (Sphaerulariidae: Aphelenchoidea), a nematode parasite of sciarid flies (Sciaridae: Diptera). (With 6 Figures in the Text)	559
JACKSON, GEORGE J. Differentiation of three species of <i>Neoaplectana</i> (Nematoda: Rhabditida), grown axenically. (With 1 Plate)	571

	PAGE
CROLL, N. A. The klinokinetic behaviour of infective <i>Trichonema</i> larvae in light. (With 1 Figure in the Text)	579
MAPES, C. J. Structure and function in the nematode pharynx. II. Pumping in <i>Panagrellus</i> , <i>Aplectana</i> and <i>Rhabditis</i> . (With 11 Figures in the Text)	583
ROOD, J. P. and BURTT, E. T. Host relationships of <i>Ixodes arvicolae</i> Warburton on the Scilly Isles	595

PART 4, NOVEMBER 1965

WALLIKER, D. <i>Trypanosoma superciliosae</i> sp.nov. from the lizard <i>Uranoscodon superciliosa</i> L. (With 1 Figure in the Text)	601
MACKENZIE, K. The plerocercoid of <i>Gilquinia squali</i> Fabricius, 1794. (With 13 Figures in the Text)	607
REES, GWENDOLEN and WILLIAMS, H. HARFORD The functional morphology of the scolex and the genitalia of <i>Acanthobothrium coronatum</i> (Rud.) (Cestoda: Tetraphyllidea). (With 3 Plates and 43 Figures in the Text)	617
HOPKINS, C. A. and CALLOW, L. L. Methionine flux between a tapeworm (<i>Hymenolepis diminuta</i>) and its environment. (With 4 Figures in the Text)	653
PALING, J. E. The population dynamics of the monogenean gill parasite <i>Discocotyle sagittata</i> Leuckart on Windermere trout, <i>Salmo trutta</i> , L. (With 8 Figures in the Text)	667
SMITHERS, S. R. and TERRY, R. J. The infection of laboratory hosts with cercariae of <i>Schistosoma mansoni</i> and the recovery of the adult worms. (With 1 Plate)	695
SMITHERS, S. R. and TERRY, R. J. Naturally acquired resistance to experimental infections of <i>Schistosoma mansoni</i> in the rhesus monkey (<i>Macaca mulatta</i>). (With 6 Figures in the Text)	701
SMITHERS, S. R. and TERRY, R. J. Acquired resistance to experimental infections of <i>Schistosoma mansoni</i> in the albino rat. (With 3 Figures in Text)	711
MORIARTY, F. The development of the beet eelworm <i>Heterodera schachtii</i> Schm. in monoxenic culture. (With 1 Figure in the Text)	719
OGILVIE, BRIDGET M. Use of cortisone derivatives to inhibit resistance to <i>Nippostrongylus brasiliensis</i> and to study the fate of parasites in resistant hosts. (With 3 Figures in the Text)	723
INGLIS, WILLIAM G. and COSGROVE, G. E. The pin-worm parasites (Nematoda: Oxyuridae) of the Hapalidae (Mammalia: Primates). (With 6 Figures in the Text)	731
DUNN, ANGUS M. The gastro-intestinal helminths of wild ruminants in Britain. I. Roe deer, <i>Capreolus capreolus capreolus</i>	739
AWACHIE, J. B. E. The ecology of <i>Echinorhynchus truttae</i> Schrank, 1788 (Acanthocephala) in a trout stream in North Wales. (With 6 Figures in the Text)	747
Proceedings of the British Society for Parasitology	1P
Index of Authors	i
Index of Subjects	vii



Ramsey and Muspratt

DAVID KEILIN, 1887–1963