

on to the upper part of the tarsus. The function of these paddles remains uncertain though they undoubtedly draw the eye to the individual mosquito when it is in flight.

The adult Sabethines are diurnal and the females of most species bite both man and horse; there is a record of a female biting a lizard. The males are not known to swarm, and Lane and Cerqueira suggest that the sexes may be attracted to each other by their brilliant coloration in daylight. The male of *Limatus durhami* Theob. has been observed resting on a tree trunk with the proboscis bent upwards, thus exposing to view a bright blue patch of scales on the underside; it is suggested that many of the other forms of ornamentation may be correlated with some habit that brings them into use for purposes of display.

The larvæ are found in the water gathered in the axils of the leaves of various water-holding plants (Bromeliaceæ, Araceæ, Muscaceæ, etc.), in water gathered in fallen leaves, husks of fallen fruits, tree holes, bamboo holes and other similar water-holding situations that abound in the tropical rain-forest. *Limatus durhami* appears to be unique in that it breeds in water collected in tins and broken vessels on abandoned rubbish tips as well as in water in fallen leaves; though thus occurring in peri-domestic breeding places, this species does not occur in sufficient numbers to become a pest. Some species are restricted to special breeding habitats. *Weomyia* (*Menolepis*) *leucostigma* (Lutz) breeds only in the axils of the leaves of 'tabua' (Typhaceæ), and the larvæ of *Weomyia* (*Dendromyia*) *melanocephala* D. and S. are found in the leaf-axils of 'tabua', 'taioba', 'tinhorão' (Araceæ) and occasionally in the internodes of bamboo. The insectivorous plants that hold fluid in their leaves harbour the larvæ of some species.

The abundance of the species does not seem to vary much with the seasons as is the case with Anophelines and Culicines in the same district. Their seeming rarity is, of course, obviously due to the wide dispersal of their breeding places. Their total numbers over a wide area are probably very large, exceeding the populations of other mosquitoes that happen to be restricted to a domestic or semi-domestic breeding habitat, though these latter species might appear in considerable concentrations in some small settlement in the jungle and so give the impression of being present in much larger numbers than the jungle-breeding Sabethines.

Sanitarians and others concerned with the battle against yellow fever should now find themselves armed with a satisfactory tool for identifying the Sabethine mosquitoes of the New World, while systematists interested in the Culicidæ will thank the authors for their services in collecting the available information, adding much that is new thereto, and in presenting it in a clear and pleasing format.

The authors have expressed their intention to deposit paratypes of certain of their new species and other material in the British Museum (Natural History) as a return for the assistance rendered to them in the prosecution of their work by the late Dr. F. W. Edwards of the Department of Entomology.

- ¹ The Rockefeller Foundation, a review for 1936 by Raymond Fosdick, President of the Foundation, 1937, pp. 13-17.
² Soper, F. L., Penna, H. A., Cardoso, E., Serafim, jun., J., Frobisher, jun., M., Pinheiro, J., *Amer. J. Hyg.*, **18**, 555 (1933).
³ Stokes, A., Bauer, J. H., Hudson, N. P., *J. Amer. Med. Assoc.*, **90**, 253-254 (1928).
⁴ Shannon, R. C., Whitman, L., Franca, M., *Science*, **88**, 110 (1928).
⁵ Edwards, F. W. 1932, *Genera Insectorum*, Fasc. 194, Diptera, Culicidæ 258 pp.

FORTHCOMING EVENTS

Saturday, September 4

BRITISH PSYCHOLOGICAL SOCIETY (at Tavistock House, Tavistock Square, London, W.C.1), at 2 p.m.—"On the Problem of Representative Sampling of the Population".

Thursday, September 9

PHYSICAL SOCIETY (COLOUR GROUP) (in the Lecture Theatre of the Science Museum, Exhibition Road, South Kensington, London, S.W.7), at 2.30 p.m.—Mr. J. B. Reid: "A Review of the Theory of Colour Photography".

Friday, September 10

ROYAL ASTRONOMICAL SOCIETY (at Burlington House, Piccadilly, London, W.1), at 4.30 p.m.—Prof. Svein Rosseland: "The Pulsation Theory of Cepheid Variables" (George Darwin Lecture).

APPOINTMENTS VACANT

APPLICATIONS are invited for the following appointments on or before the dates mentioned:

LECTURER IN MATHEMATICS in the Coventry Technical College—The Director of Education, Education Offices, Coventry (September 7).

ANIMAL HUSBANDRY OFFICER—The Secretary, Norfolk War Agricultural Executive Committee, Sprowston, Norwich (September 11).

LECTURER IN MINING (COAL)—The Secretary, The University, Edmund Street, Birmingham 3 (September 18).

LECTURER IN EDUCATION, PSYCHOLOGY AND SOCIAL PHILOSOPHY—The Principal, South-West Essex Technical College and School of Art, Forest Road, Walthamstow, London, E.17 (September 10).

PRINCIPAL OF THE MUNICIPAL TECHNICAL COLLEGE—The Director of Education, Education Office, St. Helens (September 11).

TEACHER OF METALWORK in the Junior Technical School—The Principal, Technical College, Church Street, Barnsley (September 13).

ASSISTANT MASTER TO TEACH MATHEMATICS in the Junior Technical School and to part-time students up to Higher National Certificate standard, at the Willesden Technical College, Denzil Road, N.W.10—Dr. E. Davies, Education Office, Vernon House, Willesden Lane, London, N.W.6 (September 15).

HEAD OF THE ENGINEERING DEPARTMENT of the South-East Essex Technical College and School of Art, Longbridge Road, Dagenham—The Chief Education Officer, County Offices, Chelmsford (September 18).

INSPECTOR OF MINING SUBJECTS (Reference No. C.1843), and a WOMAN INSPECTOR OF TECHNICAL TRAINING FOR WOMEN (Reference No. C.1844)—The Ministry of Labour and National Service, Central (Technical and Scientific) Register, Alexandra House, Kingsway, London, W.C.2 (quoting the appropriate Reference No.) (September 20).

PHYSICIST TO THE RADIOTHERAPY DEPARTMENT—The Secretary, University College Hospital, Gower Street, London, W.C.1 (September 27).

CHAIR OF SOCIAL MEDICINE—The Secretary, The University, Edmund Street, Birmingham 3 (March 1).

LECTURER IN THE DEPARTMENT OF ELECTRICAL ENGINEERING of the Cape Technical College, Capetown, South Africa—The Secretary, Overseas Manpower Committee (Reference 1021), Ministry of Labour and National Service, Alexandra House, Kingsway, London, W.C.2.

BIOCHEMIST—The Secretary, Institute of Research for the Prevention of Disease, 117 Grove Street, Liverpool 7.

BIOLOGY MASTER, mainly for a new Pre-Agricultural Course in the Day Technical School—The Principal, Maidstone Technical Institute, Tonbridge Road, Maidstone.

REPORTS and other PUBLICATIONS

(not included in the monthly Books Supplement)

Great Britain and Ireland

Proceedings of the Royal Irish Academy. Vol. 49, Section A, No. 3: The General Unitary Theory of the Physical Fields. By Erwin Schrödinger. Pp. 43-58. 1s. Vol. 49, Section A, No. 4: A New Exact Solution in Non-Linear Optics (Two-Wave System). By Erwin Schrödinger. Pp. 59-66. 1s. Vol. 49, Section A, No. 5: The Recombination Law for Weak Ionisation. By P. J. Nolan. Pp. 67-90. 1s. 6d. Vol. 49, Section B, No. 3: Soil Drainage as influenced by Defoliation. By Patrick H. Gallagher and Thomas Walsh. Pp. 61-90. 2s. Vol. 49, Section B, No. 4: The Relationships and Origins of the Lepidoptera of the Outer Hebrides, Shetlands, Faroes, and Iceland. By Bryan P. Beirne. Pp. 91-102. 1s. Vol. 49, Section B, No. 5: The Function of the Mammalian Epididymis. By J. Brontë Gatenby and L. Collyer. Pp. 103-108. Vol. 49, Section B, No. 6: The Synthesis of Physiologically Active Amines. By Joseph Algar, Anne Hickey and Peter G. Sherry. Pp. 109-120. 1s. Vol. 49, Section B, No. 7: A New Species of Irish Aphid (*Triobaphis rhodolestes* sp. nov.). By Cyril S. Wood-Baker. Pp. 121-142. 1s. Vol. 49, Section B, No. 8: The Condensation of Pyromucic Acid with *n*-Methylolamides. By R. O. Cinnéide. Pp. 143-150. 6d. (Dublin: Hodges, Figgis and Co., Ltd.; London: Williams and Norgate, Ltd.) [98]

Other Countries

Annals of the Carnegie Museum. Vol. 29, Art. 16: New Neididae (Hemiptera) from South America, with Notes on some Little-known Species. By Halbert M. Harris. Pp. 443-450. (Pittsburgh, Pa.: Carnegie Museum.) [98]