

Vol. **31**. Part 1.—pp. 1–122.

APRIL, 1940.

BULLETIN OF ENTOMOLOGICAL RESEARCH

LONDON

THE IMPERIAL INSTITUTE OF ENTOMOLOGY,
41, QUEEN'S GATE, S.W.7.

Price 9s. net.

All Rights Reserved.

IMPERIAL INSTITUTE OF ENTOMOLOGY.

EXECUTIVE COUNCIL.

F. J. DU TOIT, *Chairman*, Union of South Africa.
Sir DONALD FERGUSSON, K.C.B., United Kingdom.
Dr. WILLIAM ALLEN, Canada.
F. L. McDougall, C.M.G., Australia.
NEVILL L. WRIGHT, F.I.C., D.I.C., New Zealand.
J. M. ADAMS, F.R.C.Sc. (1), Eire.
D. JAMES DAVIES, C.B.E., Newfoundland.
SHAMALDHARI LAL, India and Burma.
B. F. WRIGHT, Southern Rhodesia.
J. A. CALDER, C.M.G., Colonies, Protectorates and Mandated Territories.
Sir DAVID CHADWICK, K.C.M.G., C.S.I., C.I.E., *Secretary*.

Director.

Sir GUY A. K. MARSHALL, C.M.G., F.R.S.

Assistant Director.

Dr. S. A. NEAVE, O.B.E.

Assistant Director and Superintendent of Farnham House Laboratory.

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

Head Office—British Museum (Natural History), Cromwell Road, London, S.W.7.

Publication Office—41, Queen's Gate, London, S.W.7.

BULLETIN
OF
ENTOMOLOGICAL RESEARCH.

ISSUED BY THE IMPERIAL
INSTITUTE OF ENTOMOLOGY.

EDITOR : THE DIRECTOR.

VOL. 31.

LONDON :
THE IMPERIAL INSTITUTE OF ENTOMOLOGY,
41, QUEEN'S GATE, S.W.7.
1941.

(221)

IMPERIAL INSTITUTE OF ENTOMOLOGY.

Executive Council.

- Dr. WILLIAM ALLEN, *Chairman*, Canada.
SHAMALDHARI LALL, C.I.E., *Vice-Chairman*, India and Burma.
Sir DONALD FERGUSSON, K.C.B., United Kingdom.
F. L. MCDUGALL, C.M.G., Australia.
F. J. DU TOIT, Union of South Africa.
NEVILL L. WRIGHT, F.I.C., D.I.C., New Zealand.
J. M. ADAMS, F.R.C.Sc.(I), Eire.
D. JAMES DAVIES, C.B.E., Newfoundland.
B. F. WRIGHT, Southern Rhodesia.
J. A. CALDER, C.M.G., Colonies, Protectorates and Mandated Territories.
Sir DAVID CHADWICK, K.C.M.G., C.S.I., C.I.E., *Secretary*.

Director.

Sir GUY A. K. MARSHALL, C.M.G., F.R.S.

Assistant Director.

Dr. S. A. NEAVE, O.B.E.

Assistant Director.

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

Head Office—British Museum (Natural History), Cromwell Road, London, S.W.7.

Publication Office—41, Queen's Gate, London, S.W.7.

CONTENTS.

ORIGINAL ARTICLES.

	PAGE
BARNES, H. F.	
Two new Pests of Apple and Black Currant (<i>illustrated</i>)	85
BARNES, H. F.	
The Gall Midges attacking the Seed-heads of Cocksfoot, <i>Dactylis glomerata</i> , L. (<i>illustrated</i>)	111
CALLAN, E. MCC.	
Hymenopterous Parasites of Willow Insects (<i>illustrated</i>)	35
COMPÈRE, H.	
The African Species of <i>Metaphycus</i> , Mercet (<i>illustrated</i>)	7
DE MEILLON, B. & LEESON, H. S.	
Notes on Ethiopian Anophelini (<i>illustrated</i>)	61
DICKER, G. H. L. & PEARCE, S. C.	
A Study of the Variation of Size within two Species of Aphides (<i>illustrated</i>)	45
FERRIÈRE, CH.	
On some Parasites and Hyperparasites of <i>Artona catoxantha</i> , Hamps. (<i>illustrated</i>)	131
FERRIÈRE, CH.	
Note on two Egg-parasites of <i>Antestia lineaticollis</i> , Stål (<i>illustrated</i>)	145
GOLDING, F. D.	
Further Notes on the Food-plants of Nigerian Insects. V	127
HANSON, S.	
The Prevention of Outbreaks of the Pine Beetles under Wartime Conditions	247
HINTON, H. E.	
The Ptinidae of Economic Importance (<i>illustrated</i>)	331
JACK, R. W.	
Notes on the Behaviour of <i>Glossina pallidipes</i> and <i>G. brevipalpis</i> , and some Comparisons with <i>G. morsitans</i> (<i>illustrated</i>)	407
LEESON, H. S.	
On the Wing Forms of <i>Anopheles funestus</i> , Giles	57

CONTENTS.

	PAGE
MARSHALL, Sir G. A. K.	
The Indian Species of <i>Calandra</i> , F. (Col. Curcul.) (<i>illustrated</i>) ...	123
MARSHALL, Sir G. A. K.	
New injurious Curculionidae (Col.)	403
MOUTIA, L. A.	
The Search for Parasites of White Grubs (Melolonthids) in Zanzibar, Algeria, Morocco and France (<i>illustrated</i>)	193
NASH, T. A. M.	
The Effect upon <i>Glossina</i> of changing the Climate in the true Habitat by partial Clearing of Vegetation (<i>illustrated</i>)	69
NIXON, G. E. J.	
A new African Diapriid (Hym., Proctotrupoidea) (<i>illustrated</i>) ...	59
PARSONS, F. S.	
Investigations on the Cotton Bollworm, <i>Heliothis armigera</i> , Hübn. (<i>obsoleta</i> , Fabr.). Part II. The Incidence of Parasites in Quantitative Relation to Bollworm Populations in South Africa (<i>illustrated</i>)	89
PARSONS, F. S.	
Investigations on the Cotton Bollworm, <i>Heliothis armigera</i> , Hübn. Part III. Relationships between Oviposition and the Flowering Curves of Food-plants (<i>illustrated</i>)	147
PHILLIPS, J. S.	
Immature Nutfall of Coconuts in the Solomon Islands (<i>illustrated</i>)	295
RAHMAN, K. A. & NATH, R.	
Bionomics and Control of the Indian Sugar-cane Leaf-hopper, <i>Pyrilla perpusilla</i> , Wlk. (Rhynchota, Fulg.) in the Punjab (<i>illustrated</i>)	179
SQUIRE, F. S.	
On the Nature and Origin of the Diapause in <i>Platyedra gossypiella</i> , Saund. (<i>illustrated</i>)	1
THOMAS, J. G.	
The Relative Size of the Eye as a Phase Character in the African Migratory Locust (<i>illustrated</i>)	431
TRÄGÅRDH, I.	
Second Survey of the Wood-destroying Insects in Public Buildings in Sweden (<i>illustrated</i>)	287
VESEY-FITZGERALD, D.	
Notes on some Coccinellidae (Col.) from Islands in the Indian Ocean	191

CONTENTS.

	PAGE
VESEY-FITZGERALD, D.	
The Control of Coccidae on Coconuts in Seychelles	253
VESEY-FITZGERALD, D.	
<i>Melittomma insulare</i> , Fairm. (Col. Lymexylonidae), a serious Pest of Coconut in the Seychelles (<i>illustrated</i>)	383
WALOFF, Z. V.	
The Distribution and Migrations of <i>Locusta</i> in Europe (<i>illustrated</i>)	211
WATSON, G. I.	
A Physiological Study of Mosquito Larvae which were treated with Anti-malarial Oils	319
WILKINSON, D. S.	
On the Identity of <i>Apanteles praepotens</i> , Haliday (Hym. Bracon.) (<i>illustrated</i>)	141

MISCELLANEOUS.

Collections Received	121, 209, 317, 435
-----------------------------	--------------------

ERRATA.

- Page 20, line 32, for “ Le Pulley ” read “ Le Pelley ”
,, 128, line 9, for “ *typhoides* ” read “ *typhoideum* ”
,, 130, 13 lines from end, for “ *gerstaeckkeri* ” read “ *gerstaeckeri* ”
,, 134, 7 lines from end, for “ **bircarinatus** ” read “ **bicarinatus** ”
,, 295, 12 lines from end, for “ R. A. J. Lever ” read “ R. J. A. Lever ”
,, 296, line 1, for “ R. A. J. W. Lever ” read “ R. J. A. W. Lever ”

DATES OF PUBLICATION IN PARTS.

Part I	pp. 1-122	...	15 April 1940
Part II	pp. 123-210	...	3 July 1940
Part III	pp. 211-318	...	25 November 1940
Part IV	pp. 319-436	...	31 January 1941

REVISTA DE ENTOMOLOGIA

An International Review of Entomology

An illustrated magazine published four times a year by **THOMAZ BORGMEIER, O.F.M.**, devoted to entomology, mainly of the neotropical fauna.

The volumes already published since 1931 comprise thousands of pages and contain articles by leading entomologists such as F. W. Edwards, W. Horn, E. Lindner, J. W. S. Macfie, E. Martini, A. da Costa Lima, F. Silvestri, C. Menozzi, A. Reichensperger, F. Santschi, J. D. Hood, etc., with a bibliography of the current literature (economic and non-economic) of the neotropical fauna.

Annual subscription \$4.00 U.S. (\$5.00 U.S. through booksellers). All payments are in advance. The back volumes are still on sale; price of each volume 4 U.S. dollars; through booksellers 5 U.S. dollars.

Subscriptions should be sent to the Editor: Thomaz Borgmeier, O.F.M., Convento S. Antonio, Largo da Carioca, Rio de Janeiro, Brazil.

Revue de Médecine et d'Hygiène Tropicales

PARAISSANT TOUS LES DEUX MOIS

(Organe de la Société de Médecine et d'Hygiène Tropicales)

ABONNEMENTS, 30 frs.

VIGOT FRÈRES, Editeurs,

23, Rue de l'École-de-Médecine, PARIS, VI^e.

Envoi d'un No. specimen sur demande.

THE ELIMINATION OF PINK BOLL WORM FROM COTTON SEED

SIMON'S PATENT HEATERS. 100% Efficiency. No damage to seed.

Extract from *Egyptian Ministry of Agriculture Official Bulletin* :—

"In running the only requirement is the necessary steam power. No extra labour is involved, the seed being sacked as it comes from the machine instead of as it comes from the gins in the usual way. The machine is therefore cheap as regards both initial cost and running expenses; it is very compact, simple of construction, easy of management, continuous in action, and entirely devoid of danger; it is therefore a practical proposition from every point of view."

RICHARD SIMON & SONS, Ltd.

PHOENIX WORKS, NOTTINGHAM.

Telephones : 75136-7. Telegrams : "Balance, Nottingham."

Codes : A.B.C. 5th Edition and Bentley's.

THE BIOLOGICAL CONTROL OF AN INSECT IN FIJI

An Account of the Coconut Leaf-mining Beetle
and its Parasite Complex

BY

T. H. C. TAYLOR, M.Sc.(Lond.)

Royal 8vo, pp. x and 239.

With 23 plates, 2 maps, and 17 text figures.

Bound in cloth.

Price 12s. net.

Postage, inland, 6d.; abroad, 10d.

LONDON

THE IMPERIAL INSTITUTE OF ENTOMOLOGY

41 Queen's Gate, S.W.7

1937

All Rights Reserved