# **Insect Science and its Application**

#### The International Journal of Tropical Insect Science

### Aims and Scope

Insect Science and its Application deals comprehensively with all aspects of scientific research targeted on tropical insects (and related arthropods), and the application of new discoveries to such diverse fields as pest and vector management and the use of insects for human welfare.

A distinctive feature of the journal is its multi- and interdisciplinary nature, which transcends the traditional boundaries of entomology.

Its second feature is its concentration on the recording and reviewing of the progress of insect science in the tropical and subtropical regions of the world. Thus, without excluding any area of the wide field encompassed by insect science, the journal will accept manuscripts in environmental physiology, the regulation of development and reproduction, population modelling, chemical ecology, natural products chemistry, plant resistance, host/insect relations, behaviour of tropical pest species, epidemiology of tropical diseases, vector biology, pest and vector management research, entomo-meteorology, insects in relation to farming systems, forest entomology, insect pathology, social insects and arthropods, and the uses of insects. It is the intention of the Editors to have manuscripts published rapidly, consistent with the needs of quality control.

In addition to articles of original research, the journal also publishes book reviews, announcements and reports of meetings and mini-reviews. Each regular issue of the journal contains a short review article on a critical or rapidly developing area of tropical insect science; normally the Editors will have invited an author to contribute such a mini-review.

## **Information for Contributors**

- 1. All papers for publication in *Insect Science and Its Application* should be submitted directly to the Editor-in-Chief, Professor Thomas R. Odhiambo, Scientific Editorial Services, P.O. Box 59900, Nairobi, Kenya. Papers should be mailed in a strong, preferably linen, envelope, as they may otherwise arrive in a damaged condition.
- 2. Papers should be in English or French and be original contributions in the field of tropical insect science. Each paper should have a summary in the form of an abstract in both English and French.
- 3. Submission of a paper implies that it has not been published previously, that it is not under consideration for publication elsewhere, and that if accepted for *Insect Science and Its Application* the authors will transfer copyright to Pergamon Press as is customary. Articles and illustrations become the property of the journal. There is no page charge for papers accepted for publication.
- 4. Manuscripts and illustrations must be submitted in triplicate to ensure efficient refereeing, and the author should retain a copy. In the case of multiple authorship the authors should indicate who is to receive correspondence.
- 5. Manuscripts must be typewritten with double spacing (including the reference list), and with wide margins on one side of the paper only. Authors are requested to keep their communications as concise as possible. Footnotes should be avoided, and italics should not be used for emphasis. A running head of not more than 30 letters should be supplied.
- 6. Twenty-five free reprints will be supplied to the first named author of each paper published in the journal. Detailed Instructions to Authors for the preparation of manuscripts are available from the Editor-in-Chief or the Publishing Office.

# Insect Science and its Application

The International Journal of Tropical Insect Science

### **VOLUME 5 NUMBER 2**

CONTENTS

### Mini-Review Articles

- 59 International aspects of crop protection: the needs of tropical developing countries
- 59 The ecology, bionomics and control of rice stem-borers in West Africa
- 79 The ecology and control of the red locust (Nomadacris septemfasciata Serv.)

Research Articles

- 83 La processionnaire du colatier: Anaphae venata Butler (Lépidoptère: Thaumetopoeidae): papillon urticant d'Afrique
- 87 Preliminary observations on the efficacy of olfactory attractants derived from wild hosts of tsetse
- 91 Effects of rice stem-borer infestation on grain yield and yield components
- 95 Resistance to natural tick infestations in different breeds of cattle in the Sudan
- 99 Studies on the influence of the parasitoid, *Apanteles glomeratus* on the metabolite levels of the host *Pieris brassicae*
- 101 Pulicidal activity of some indigenous plants
- 103 Changes in trehalose levels with age in the bruchid, Callosobruchus maculatus (Fabr.)
- 107 A guide to seasonal changes in the distribution of armyworm infestations in East Africa
- 121 A village-scale field trial of bendiocarb (OMS 1394) for the control of the Chagas' disease vector *Triatoma infestans* in Brazil
- 127 Blockage of embryonic development in *Panstrongylus megistus* by juvenile hormone analogues
- 131 A study of the nymphal aggregation of *Dieuches femoralis* Eyles (Heteroptera: Lygaeidae)

#### Book Review

137 Natural Products for Innovative Pest Management, Edited by D. L. WHITEHEAD and W. S. BOWERS

This journal is now listed in *Current Awareness in Biological Sciences*. Send to your nearest Pergamon office for a free specimen copy.

ISSN 0191-9040 ISIADL 5(2) 59-138 (1984)

Printed in Great Britain by A. Wheaton & Co. Ltd, Exeter

# THOMAS R. ODHIAMBO 59 E. A. AKINSOLA and M. AGYEN-SAMPONG 69

M. E. A. MATERU

MICHEL LAMY

MARY L. A. OWAGA

E. A. AKINSOLA

A. A. LATIF

G. K. KARNAVAR

D. M. RENAPURKAR and P. B. DESHMUKH

GEETA PURI and SURAJ P. SHARMA

PETER ONYANGO ODIYO

R. PINCHIN, D. M. FANARA and A. M. OLIVEIRA FILHO

A. M. OLIVEIRA FILHO, R. PINCHIN, M. J. FIGUEIREDO and C. A. MULLER

S. HOLMAN BINEY

R. F. CHAPMAN

1984