

Online submission at: www.editorialmanager.com/ber

Volume 106
Issue 1
February 2016

Bulletin of
*Entomological
Research*



CAMBRIDGE
UNIVERSITY PRESS

ISSN 0007-4853

Bulletin of Entomological Research

journals.cambridge.org/ber

Aims and Scope

Established in 1910, the internationally recognised *Bulletin of Entomological Research* aims to further global knowledge of entomology through the generalisation of research findings rather than providing more entomological exceptions. The *Bulletin* publishes high quality and original research papers, 'critiques' and review articles concerning insects or other arthropods of economic importance in agriculture, forestry, stored products, biological control, medicine, animal health and natural resource management. The scope of papers addresses the biology, ecology, behaviour, physiology and systematics of individuals and populations, with a particular emphasis upon the major current and emerging pests of agriculture, horticulture and forestry, and vectors of human and animal diseases. This includes the interactions between species (plants, hosts for parasites, natural enemies and whole communities), novel methodological developments, including molecular biology, in an applied context. The Bulletin does not publish the results of pesticide testing or traditional taxonomic revisions.

Bulletin of Entomological Research is published bimonthly by
Cambridge University Press

Editor-in-Chief

Dr Paul De Barro

CSIRO Health & Biosecurity, Brisbane,

Queensland 4001, Australia

Email: entomology@cambridge.org

Subject Editors

Dr N. Agusti, IRTA, Spain

Dr T. Backeljau, Royal Belgian Institute of Natural Sciences, Belgium

Dr S. Baxter, University of Adelaide, Australia

Dr N. Beebe, University of Queensland, Australia

Dr L. Boykin, University of Western Australia, Australia

Dr Chen Xue-Xin, Zhejiang University, China

Dr P. Cunningham, Queensland University of Technology, Australia

Dr S. Downes, CSIRO, Ecosystem Sciences, Australia

Dr R. Garrick, University of Mississippi, USA

Dr R. Gols, Wageningen University, The Netherlands

Dr S. Hayward, University of Birmingham, UK

Dr B. Hoffmann, CSIRO, Ecosystem Sciences, Australia

Professor M. Isman, University of British Columbia, Canada

Dr T.H. Jones, Cardiff University, UK

Dr A. Kapranas, Maynooth University, Ireland

Dr O. Kwon, Kyungpook National University, Korea

Dr B. Lavandero, Universidad de Talca, Talca, Chile

Dr C. Lavigne, University of Birmingham, UK

Dr Shu-Sheng Liu, Zhejiang University, China

Dr S. Macfayden, CSIRO, Ecosystem Sciences, Australia

Dr N. V. Meyling, University of Copenhagen, Denmark

Professor B. Nault, Cornell University, USA

Dr D. Perez-Staples, INBIOTECA, Universidad Veracruzana, Mexico

Dr C. Phillips, AGResearch, New Zealand

Dr R. Rader, University of New England, Australia

Dr C. Robin, University of Melbourne, Australia

Dr E. Roditakis, National Agricultural Research Foundation, Greece

Dr Zhentao Sheng, University of Chicago, USA

Professor P. Stevenson, Royal Botanic Gardens, Kew, UK

Dr Denis Thiéry, INRA, Bordeaux, France

Dr L. Thomson, University of Melbourne, Australia

Professor H. Townson, Liverpool School of Tropical Medicine, UK

Professor P. Trematerra, University of Molise, Italy

Dr M. Virant-Doberlet, National Institute of Biology, Ljubljana, Slovenia

Dr K. Wallin, University of Vermont, USA

Dr S. L. Wee, Universiti Kebangsaan Malaysia, Malaysia

Dr A. Wilby, Lancaster University, UK

Professor L. Winder, UNITEC, Auckland, New Zealand

Dr M. Yazdani, University of Adelaide, Australia

© Cambridge University Press 2016.

This journal issue has been printed on FSC™-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see www.fsc.org for information.

Cover image: Unidentified specimen of the *Chironomus plumosus* group on a gray dogwood leaf, photographed on 13 July, 2012 at Lake Erie Metropark, Brownstown Township, MI USA, with a Canon Power Shot S2 IS camera.

Photograph taken by Patrick L. Hudson.

Research Papers

A. Bellahirech, M.L. Inácio, F. Nóbrega, J. Henriques, L. Bonifácio, E. Sousa and M.L. Ben Jamâa Can behavioural differences in <i>Platypus cylindrus</i> (Coleoptera: Platypodinae) from Portugal and Tunisia be explained by genetic and morphological traits?	1
A. Sciarretta, L. Marziali, M. Squarcini, L. Marianelli, D. Benassai, F. Logli and P.F. Roversi Adaptive management of invasive pests in natural protected areas: the case of <i>Matsucoccus feytaudi</i> in Central Italy	9
M. De Villiers, V. Hattingh, D.J. Kriticos, S. Brunel, J.-F. Vayssières, A. Sinzogan, M.K. Billah, S.A. Mohamed, M. Mwatawala, H. Abdelgader, F.E.E. Salah and M. De Meyer The potential distribution of <i>Bactrocera dorsalis</i> : considering phenology and irrigation patterns	19
A.J. Failla, A.A. Vasquez, P. Hudson, M. Fujimoto and J.L. Ram Morphological identification and COI barcodes of adult flies help determine species identities of chironomid larvae (Diptera, Chironomidae)	34
T. Coelho-Bortolo, C.A. Mangolin and A.S. Lapenta Genetic variability in the natural populations of <i>Lasioderma serricorne</i> (F.) (Coleoptera: Anobiidae), detected by RAPD markers and by esterase isozymes	47
D. Bosch, M.A. Rodríguez and J. Avilla Captures of MFO-resistant <i>Cydia pomonella</i> adults as affected by lure, crop management system and flight	54
G. Kinyanjui, F.M. Khamis, S. Mohamed, L.O. Ombura, M. Warigia and S. Ekesi Identification of aphid (Hemiptera: Aphididae) species of economic importance in Kenya using DNA barcodes and PCR-RFLP-based approach	63
C.W. Cao, L.L. Sun, F. Niu, P. Liu, D. Chu and Z.Y. Wang Effects of phenol on metabolic activities and transcription profiles of cytochrome P450 enzymes in <i>Chironomus kiinensis</i> larvae	73
H.F. Groba and M.K. Castelo Host gut microorganisms' cues mediate orientation behaviour in the larva of the parasitoid <i>Mallophora ruficauda</i>	81
K.D. Welch, T.D. Whitney and J.D. Harwood Non-pest prey do not disrupt aphid predation by a web-building spider	91
A. De Biase, E. Colonnelli, S. Belvedere, A. La Marca, M. Cristofaro and L. Smith Genetic and morphological studies of <i>Trichosirocalus</i> species introduced to North America, Australia and New Zealand for the biological control of thistles	99
X.-T. Tang, Y. Ji, Y.-W. Chang, Y. Shen, Z.-H. Tian, W.-R. Gong and Y.-Z. Du Population genetic structure and migration patterns of <i>Liriomyza sativae</i> in China: moderate subdivision and no Bridgehead effect revealed by microsatellites	114
C.X. Duan, W.C. Li, Z.D. Zhu, D.D. Li, S.L. Sun and X.M. Wang Genetic differentiation and diversity of <i>Callosobruchus chinensis</i> collections from China	124
X.-F. Yang, F. Fan, C. Wang and G.-S. Wei Where does <i>Grapholita molesta</i> (Busck) (Lepidoptera: Tortricidae) overwinter in adjacent peach, pear and apple orchards?	135

Subscribing organisations are encouraged to copy and distribute this
table of contents for non-commercial purposes

Bulletin of Entomological Research

Volume 106, 2016

ISSN: 0007-4853

journals.cambridge.org/ber

Publishing, Production, Marketing, and

Subscription Sales Office:

Cambridge University Press
UPH
Shaftesbury Road
Cambridge CB2 8BS
UK

For Customers in North America:

Cambridge University Press
Journals Fulfillment Dept
100 Brook Hill Drive
West Nyack
New York 10994-2133
USA

Publisher: Katy Christomanou

Bulletin of Entomological Research is an international journal published bimonthly by Cambridge University Press in February, April, June, August, October and December.

Subscription information:

The subscription rates for Volume 106, 2016 (6 issues):
Print and electronic access: £1417 (UK), (USA, Canada and Mexico US \$2410)

Electronic-only price: £1051 (UK), (USA, Canada and Mexico US \$1788)

The online edition is available at www.journals.cambridge.org/ber with free table of contents alert (upon registration).

Any **supplements** to this journal published in the course of the annual volume are normally supplied to subscribers at no extra charge.

Back Volumes are available. Please contact Cambridge University Press for further information.

Claims for non-receipt of journal issues will be considered on their merit and only if the claim is received within six months of publication. Replacement copies supplied after this date will be chargeable.

US Postmasters: please send address corrections to

Bulletin of Entomological Research
Cambridge University Press
100 Brook Hill Drive
West Nyack
New York 10994-2133
USA

Information for Authors

Manuscripts should be submitted online at <http://www.editorialmanager.com/ber>. New users should register before submitting a manuscript.

Further information about submission is available from the publisher at the given address and is printed on the inside back cover.

Offprints: The author (or main author) of an accepted paper will receive a free PDF of their paper. Paper offprints are available for a fee and should be ordered at proof stage. No page charges are levied by this journal.

Copying: This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA. Organisations in the USA who are registered with the CCC may therefore copy material (beyond the limits permitted by sections 107 and 108 of USA copyright law) subject to payment to the CCC of the per copy fee of \$16.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0007-4853/2016/\$16.00. Organisations authorised by the Copyright Licensing Agency may also copy material subject to the usual conditions. *For all other use*, permission must be sought from Cambridge or the American Branch of Cambridge University Press.

Disclaimer: The information contained herein, including any expression of opinion and any projection or forecast, has been obtained from or is based upon sources believed by us to be reliable, but is not guaranteed as to accuracy or completeness. The information is supplied without obligation and on the understanding that any person who acts upon it or otherwise changes his/her position in reliance thereon does so entirely at his/her own risk.

Cambridge University Press does not accept responsibility for any trade advertisement included in this publication.

Typeset by Techset Composition India Pvt Ltd., Chennai, India, and printed in the UK by
Bell & Bain Ltd, Glasgow.