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Special issue:

Novel trends on semiochemicals and semiophysicals for insect science and management

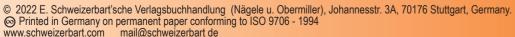
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Jürgen Gross and José Carlos Franco



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Entomologia Generalis welcomes high-quality contributions from the field of basic and applied ecology of arthropods, insects and mite pests, as well as their natural enemies and pollinators. Articles published in Entomologia Generalis should not be descriptive, but should bring novel findings on topics of current importance.

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They should provide significant developments in the field of entomology and ecology of arthropods. Although review papers are usually solicited by members of the editorial board, non-solicited review articles may be considered for publication in Entomologia Generalis. Please send proposals to the Editor-in-Chief (Dr. Nicolas Desneux, nicolas.desneux@univ-cotedazur.fr) for preliminary assessment by the editorial board team before formal submission to the journal.

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January 2022

Front cover picture

Adult planthopper Pentastiridius leporinus (Hemiptera: Cixiidae) on sugar beet by Felix Hergenhahn, Dossenheim, Germany.

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Original Contributions to Zoology, founded in 1888



ISSN 0044-5088

Thies H. Büscher; Constanze Grohmann; Sven Bradler; Stanislav N. Gorb

Tarsal attachment pads in Phasmatodea (Hexapoda: Insecta)

2019. 94 pages, 49 figures, paperback, 23 x 31 cm (Zoologica, Heft 164)

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comparative study of the tarsal morphol- distributed worldwide and exhibit several ogy of stick and leaf insects or Phasmato- distinct ecological preferences, this lindea. The tarsi of 116 representative spe- eage might serve as a model for evolutioncies are examined using scanning electron ary scenarios and to assess possible cormicroscopy and described in detail, with relation between the species' ecology and particular focus on their attachment de- tarsal morphology. vices. Attachment devices with different Therefore the studied species were surface micro-structures evolved on the chosen from all subfamilies currently rec-

The authors present the first extensive the mesodiverse stick and leaf insects are

have different attachment properties. As attachment microstructure and the ecolo-



tarsi of insects, and previous biomechaniognised within Phasmatodea covering the nigues. In addition, one species of Embical studies have shown for a few species entire range of biogeographic distribution optera (webspinners), which is assumed that different types of the microstructure to investigate the relationship between the to be the sister group of the Phasmatodea,

John D. Plant; Hannes F. Paulus

Evolution and Phylogeny of Bees

Review and Cladistic Analysis in Light of Morphological Evidence (Hymenoptera, Apoidea)

2016. 364 pages, 232 figures, 49 tables, paperback, 23 x 31 cm (Zoologica, Heft 161)

ISBN 978-3-510-55048-7 169.-€

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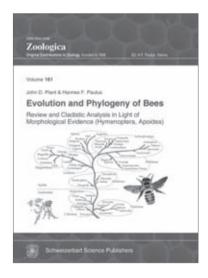
ses the evolution and phylogeny of bees. It fossil history of bees. is subdivided into two parts

tempts to reconstruct the phylogenetic tree

Volume 161 of Zoologica reviews and analy- closes with a family-wise delineation of the

Part Two: A Phylogenetic Study of Bees in Part One: A Preamble to the Evolution Light of Morphological Evidence adds an and Phylogeny of Bees provides a com- experimental study to complement the bibplete and critical review of all previous at- liographical analysis provided in Part One.

The phylogenetic relationships of the of bees (Anthophila / Apiformes) based on larger taxonomic units of bees are tested morphological, bionomic and molecular anew using an extensive dataset of seapproaches and presented in chronologi- lected morphological features. The study cal sequence up to and including recent uses all common and current computerpublications. At the same time, the intro- aided techniques of cladistic analysis short-tongued and long-tongued bees), ductory part examines trends in the clas- (parsimony, successive/implied weight, and separately for the families, subfamilies sification of bees and compares available Bayesian and neighbor-joining), which hypotheses of bee evolution. Part One are applied to representatives of all seven



families, 22 subfamilies and 48 of 58 tribes of bees. The conclusions drawn from this are evaluated for the major groups (i.e., and tribes in each case.



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