



The Newsletter of the Department of Entomology Vol. 22 No. 10, October 2007



Wendy Moore

Natasha Mehdiabadi



Vichai Malikul & students in Thailand

Front Page: Natasha Mehdiabadi (see Visitors); Wendy Moore (see Announcements); Vichai Malikul (see Travel). Photo credits, Mehdiabadi & Moore/G. Hevel, Malikul/Nit Malikul. Formatting of front page/K. Darrow.)

### **ANNOUNCEMENTS:**

The 1112<sup>th</sup> Regular Meeting of the Society Entomological of Washington convenes on November 01 at 7:00 pm in the Cathy Kerby Seminar Room at the National Museum of Natural History. Gina Wimp from Georgetown University will present the topic "Resource distribution drives arthropod community responses to habitat edges in a salt marsh ecosystem."

Wendy Moore from the California Academy of Sciences presented the topic "Evolution of adult and larval structure, DNA sequences, chemicals, and behavior of Paussine beetles (Coleoptera: Carabidae: Paussinae) in the Rose Seminar Room on October 24 at 1:00 pm. This was the first of a series in the re-establishment of The Department of Entomology Seminar Series.

Vichai Malikul is scheduled to conduct a workshop on "Entomological Watercolor" for the Smithsonian Associates, during four sessions in November. Through instructor demonstration and hands-on experimentation, students will learn to work as the professionals do by designing a layout and creating detail in their paintings using the precise pencil-like strokes of dry brush.

#### **GENERAL NEWS**:

Congratulations to **Tom Henry**, who has been selected to receive the Eastern Branch L.O. Howard Distinguished Achievement Award at the branch's Annual Meeting in Syracuse, NY on March 9-11, 2008.

Jerry Louton appeared in the Washington Post on October 09, providing scientific opinions on a topic that involved possible robotic flying machines that resembled dragonflies. In a recent demonstration in Lafayette Park, a number of protestors noticed small flying objects in their midst, objects that seemed to appear in sets of threes. The article by Rick Weiss provided a thorough discussion of the subject, suggesting that the robotic fliers may have had a military origin.

**Ted Schultz** was featured in a special section called "Museums" in the October 07 edition of the *Washington Post*. The article by Jessica Dawson primarily focused on an amber-encased ant, and provided a basis for Ted to mention the science of investigating agricultural ants. Two separate, color photographs accompany the article: one of Ted and one of the ant in amber.

## PUBLICATIONS:

Research papers by colleagues no longer members of the combined entomological staff, mostly retired members, will be listed, and those will be preceded by a double asterisk.

**Agnarsson, I., Coddington, J. A.,** & Knoflach, B. 2007. Morphology and evolution of cobweb spider male genitalia (Araneae, Theridiidae). J. Arach. 35: 334-395.

--abstract—This study elucidates the homology of elements of the male palps in the spider family Theridiidae. We survey and illustrate 60 species from 29 out of the 86 currently recognized genera representing all subfamilies. The study is buttressed by a phylogenetic framework, and uses a new method to evaluate critically competing homology hypotheses based on various criteria. Among the classic criteria for homology, topology performed better than special similarity, and much better than function. Guided by those results, we propose names for and correspondences among the broad diversity of theridiid palpal tegular sclerites. We discuss the phylogenetic utility and distribution of key palpal characteristics, and evaluate existing evolutionary hypotheses of the theridiid palp and its components.

**Brown, J. W.** & Zachariades, C. 2007. A new species of *Dichrorampha* (Lepidoptera: Tortricidae: Grapholitini) from Jamaica: a potential biocontrol agent against *Chromolaena odorata* (Asteraceae). Proc. Entomol. Soc. Wash. 109(4): 938-947.

--abstract—Dichrorampha odorata Brown and Zachariades, new species, is described and illustrated from Jamaica. It is most similar to D. sapodilla Heppner among described species, both superficially and in the male genitalia. However, the two are easily separated by the long costal fold of the male forewing of D. odorata, which is absent in *d. sapodilla*. The shapes of the valva and cucullus also distinguish the two. The related D. azteca Walsingham, revised status, which shares a distinct male forewing costal fold with D. odorata, is returned to Dichrorampha. Dichrorampha odorata induces falls in the shoot tips of the invasive weed Chromolaena odorata (L.) R. M. King & H. Robinson (Asteraceae), commonly known as triffid, Jack-in-the-bush, bitter bush, Christmas bush, and Siam weed. The new species appears to have considerable potential as a biological control agent against this weedy shrub in South Africa.

**Davis, D. R. & Davis, M. M.** 2007. Neotropical Tineidae, V: a new genus and species of Tineidae associated with social Hymenoptera and reexamination of two poorly known genera with similar biology (Lepidoptera: Tineidae, Lyonetiidae). Proc. Entomol. Soc. Wash. 109(4): 741-764.

--abstract—The larva and adult of a new genus and species of tineid moth, *Sphecioses acognathus* D. and M. Davis, are described from the Neotropical Region. The case-bearing larva of this species is believed to feed primarily as a scavenger within the nests of certain social bees and wasps (Apidae and Vespidae). The comparative morphology and family relationships of two other Neotropical and monobasic genera, *Antipolistes* Forbes and *Taeniodictys* Forbes, with similar biology and previously assigned to the Tineidae are also reviewed. The family placement of *Antipolistes* within Tineidae has been reconfirmed, with *Taeniodictys* now reassigned to Lyonetiidae.

**Davis, D. R.** and Stonis, J. R. 2007. A revision of the New World plant-mining moths of the family Opostegidae (Lepidoptera: Nepticuloidea). Smiths. Cont. Zoology, 625, 212 pp.

--abstract— The systematics, morphology, and distributions are summarized for the 91 species and 2 subspecies of New World Opostegidae. A phylogenetic analysis using the parsimony rachet" in Winclada and based on 34 morphological characters for the seven currently recognized world genera indicates the monotypic Chilean genus, Notiopostega, to be the basal taxon. Monophyly of the Nepticuloidea (Nepticulidae + Opostegidae) is well supported by nine morphological synapomorphies. Several synapomorphies distinguish the Opostegidae from all other Lepidoptera. Principal among these are the presence of a single, spinose seta on the larval mandible, adult wing venation extremely reduced with all veins unbranched, frenulum lost in both sexes, antennal flagellomeres each typically with 3 sets of ascoid sensillae, and a pedunculate, typically elliptical, cucullar lobe bearing a well-developed pectinifer on the valva of the male genitalia. Larval biologies of only two New World species are known. Larvae of both species mine primarily the cambium layer in woody plant stems. Results from light trap sampling at the La Selva Biological Station in Heredia Province, Costa Rica, indicated that adult Opostegidae were much more abundant in canopy habitats compared with near-ground level. Four genera (Neopostega new genus, 5 species; Notiopostega Davis, 1 species; Opostegoides Kozlov, 1 species; and Pseudopostega Kozlov, 84 species and 2 subspecies) are recognized for the New World. One genus (Neopostega) and the following 68

are described as new: Neopostega subspecies asymmetra, Neopostega distola, Neopostega falcata, Neopostega longispina, Neopostega petila, Pseudopostega acrodicra, Pseudopostega acuminate, Pseudopostega apotoma, Pseudopostega anttenuate, Pseudopstega beckeri, Pseudopsotega bicormuta, Pseudopostega bidorsalis, Pseudosostega breviapicula, Pseudopostega brachybasis, Pseudopostega brevifurcata, Pseudopostega brevivalva, Pseudopostega caulifurcata, Pseudopostega clavata, colognatha, Pseudopostega Pseudopostega concave. Pseudopostega conicula, Pseudopostega constricta, Pseudopostega contigua, Pseudopostega crassifurcata, Pseudopostega urtarama, Pseudopostega denticulate, Pseudopostega Pseudopostega didyma, diskusi. Pseudopostega divaricata, Pseudopostega dorsalis dorsalis, Pseudopostega dorsalis fasciata, Pseudopostega duplicate, Pseudopostega ecuadoriana, Pseudopostega ferruginea, fumida, Pseudopostega floridensis, Pseudopostega Pseudopostega galapagosae, Pseudopostega gracilis, Pseudopostega lateriplicata, Pseudopostega latiapicula, Pseudopostega latifurcata latifurcata, Pseudopostega latifurcata Pseudopostega apoclina, latiaccula, Pseudopostega lobata, Pseudopostega longifurcata, Pseudopostega longipedicella, Pseudopostega microacris, Pseudopostega mignonae, Pseudopostega monstruosa, Pseudopostega obtuse, Pseudopostega ovatula, Pseudopostega parakempella, Pseudopostega paraplicatella, Pseudopostega plicatella, Pseudopostega resimafurcata, Pseudopostega rotunda, Pseudopostega sectila, Pseudopostega Pseudopostega spatulata, serrata. Pseudopostega sublobata, Pseudopostega subtila, Peudopostega suffuscula, Pseudopostega tanygnatha, Pseudopostega tenuifurcata, Peudopostega texana, Pseudopstega triangularis, Pseudopostega truncate, Pesudopostega tucumanae, Pseudopostega turquinoensis, Pseudopostega uncinata.

Diaz, A. E. and **Solis, M. A.** 2007. A new species and species distribution records of *Neoleucinodes* (Lepidoptera: Crambidae: Spilomelinae) from Colombia feeding on *Solanum* sp. Proc. Entomol. Soc. Wash. 109(4): 897-908.

--abstract—Neoleucinodes silvaniae, n. sp., from Colombia, is described. The larvae feed on the fruit of wild Solanum lanceifolium Jacq. Adults and larvae of the new species are figures. The new species is compared to *Neoleucinodes elegantalis* (Guenee), a major pest of tomatoes throughout south America. *Neoleucinodes prophetica* (Dyar), *N. imperialis* (Guenee), and *N. torvis* Capps are reported from Colombia for the first time.

\*\*Englund, R. A. and Polhemus, D. A. 2007.

*Argiolestes kula,* a new species of damselfly from eastern New Guinea (Odonata:

Megapodagionidae). J. New York Entomol. Soc. 114(3): 95-107.

--abstract—Argiolestes kula n. sp. is described from eastern new Guinea and nearby offshore islands (Sariba, Basilaki, Fergusson), and a comparison is provided to the closely related species Argiolestes sidonia Martin. Figures of the male abdominal appendages, wing venation and breeding habitat are provided, accompanied by a distribution map. A checklist of Argiolestes species is also included.

Gates, M. W. and Smith, D. R. 2007. *Endobia donacis* Erdos (Hymenoptera: Eurytomidae) newly reported from the Western Hemisphere, and a review of the genus. Proc. Entomol. Soc. Wash. 109(4): 868-871.

--abstract—The distribution of *Endobia* Erdos (Hymenoptera: Eurytomidae), containing the nominal taxa *E. donacis* Erdos and *E. indica* Mani and Kaul, is reviewed. *Endobia donacis* is reported for the first time from the Western Hemisphere (Fairfax Co., Virginia, USA). This species is discussed and its host associations summarized. *Endobia indica* is synonymized with *E. donacis* (n. syn.).

**\*\*Grissell, E. E.** 2007. Torymidae (Hymenoptera: Chalcidoidea) associated with bees (Apoidea), with a list of chalcidoid bee parasitoids. J. Hym. Res. 16(2): 234-265.

--abstract—Thirty-one species of Torymidae (Hymenoptera: Chalcidoidea) are associated with bees. In this review each is keyed and discussed, and geographic ranges and hosts are given. Most species are illustrated. Torymids represent about one-fourth of the 135 species of Chalcidoidea associated with bees. Two summary lists are presented for all chalcidoids, including Torymidae, and the 216 bee species with which they are associated. One is arranged as a bee/parasitoid list and the other as a parasitoid/bee list.

McKamey, S. H. and Hicks, A. L. 2007. A new subspecies, replacement names, and spelling fixations for species of Deltocephalinae and Macropsinae (Hemiptera: Cicadellidae). Proc. Entomol. Soc. Wash. 109(4): 930-937.

--abstract—Nomenclatural and taxonomic changes are made to align the classification of Deltocephalinae with the International Code of Zoological Nomenclature. The new subspecies, Tetartostylus parabolatus spinus, is described, Balclutha frontalis Ferrari is reinstated as valid, and nine replacement names are given: Balclutha flavidella, Cephalius villiersi, Exitianus evansi, Hecalus chilensis, Macropsis ishiharai, Scaphytopius delongi, Scaphytopius (Cloanthantus) linnavuorii, Sorhoanus lii, and Thamnotettix matsumurai. Additionally, the principle of first revisor is applied to fix the correct spellings of 13 species spelled multiple ways within their original descriptions.

**Mawdsley, J. R.** 2007. New records and notes on the ecology of African species of *Melyris* Fabricius (Coleoptera: Melyridae), with discussion of pollination biology. Proc. Entomol. Soc. Wash.209(4): 960-962.

**Mawdsley, J. R.** 2007. <u>book review</u> of *A Field Guide to the Tiger Beetles of the United States and Canada: Identification of the Cicindelidae*, by D. L. Pearson, c. B. Knisley & C. J. Kazilek, 2006. Proc. Entomol. Soc. Wash. 109(4): 963-964.

**\*\***Williams, D. J. & **Miller, D. R.** 2007. *Stringaspidiotus* MacGillivray (Hemiptera: Coccoidea: Diaspididae) a new synonym of *Pseudanodia* Cockerell, with a redescription of the type species. Proc. Entomol. Soc. Wash. 109(4): 773-778.

--abstract—The genus Stringaspidiotus

MacGillivray, 1921 is syonymized with *Pseudaonidia* Cockerell, 1897 as a junior subjective synonym (new synonymy) and the type species of *Stringaspidiotus (Aspidiotus (Pseudaonidia) curculiginis* Green) is redescribed and illustrated.

**Woodley, N. E.** 2007. A new species of *Jurinella* (Diptera: Tachinidae) from the Dominican Republic with a key to genera of the tribe Tachinini from the Caribbean. Proc. Entomol. Soc. Wash. 109(4): 856-862.

--abstract—Jurinella baoruco, n. sp. (Diptera: Tachinidae) is described and illustrated from the Sierra de Baoruco, Dominican Republic. A key to the genera of Tachinini from the Caribbean is presented. Two new generic synonyms are proposed: Hystriciella Townsend, 1915 and Parajurinia Townsend, 1928 both = Jurinella Brauer & Bergenstamm, 1889, resulting in Juriella pilosa (Drury), new combination and Jurinella obesa (Townsend), new combination.

Zhang, Jinjua, Yang, D., and **W. N. Mathis**. 2007. Species of the genus *Zeros* Cresson (Diptera: Ephydridae) from China. Proc. Entomol. Soc. Wash. 109(4): 872-879.

--abstract—The genus Zeros Cresson is recorded from China for the first time. The two species, Z. *maculosus*, n. sp., and Z. *orientalis* Miyagi, are described, and a key to distinguish them is presented.

## VISITORS:

**Jon Gelhaus** from The Academy of Natural Sciences, Philadelphia will visit Wayne Mathis and the Crane Fly Collection on October 30.

**Natasha Mehdiabadi** is a post-doc who has recently joined Ted Schultz and the ant lab, and will be in that capacity for the next year.

**Steve Roble** from the Division of Natural Heritage, Department of Conservation and Recreation, Richmond, Va will visit Mike Pogue and the Lepidoptera Collection November 01-02 to identify specimens.

# TRAVEL:

Alex Konstantinov, Steve Lingafelter & Norman Woodley are afield in Bolivia, during the last two weeks of October and the first week of November.

**Warren Steiner** traveled to Arizona recently to attend the Memorial for Nancy Menke held in Bisbee. He reports that other familiar faces at the event were Eric Grissell, Ron Hodges, Dug Miller, and Natalia Vandenberg. Warren engaged in collecting also, and hopefully will document his trip for the next issue of the **EntNews**.

Vichai Malikul was recently in Thailand for his annual visit, and while on annual leave conducted an artist workshop on September 25-30 at Queen Sirikit Support Foundation Center, Bangsai, Ayutaya Province. Vichai mentions that the twenty students were mostly artists at the Center, and some were nature lovers. Included in the class were two students who were disabled, a young man with no arms or legs, and a young woman with deformed hands. Vichai was quite impressed with all the students, but especially the students who had strong two disabled determination in their work, and were the best students in the class.