



The Newsletter of the Department of Entomology Vol. 22 No. 7&8 July/August, 2007



Rose Ella & Ted Spilman



Vichai Malikul



**Carlos Ruiz** 



Stephanie Dole & Sarah Smith

**Front Page:** Rose Ella (Warner) Spilman (with husband Ted Spilman)/photo 1976, see "General News."; Vichai Malikul, see "Announcements"; recent visitor Carlos Ruiz; recent visitors Stephanie Dole & Sarah Smith. All photos/G. Hevel. Formatting of front page/J. Louton.)

#### **ANNOUNCEMENTS:**

**David Furth** presented the topic BeetleMania on August 19, 3:00 to 5:00 pm at Banshee Reeks' Education Annex, Banshee Reeks Nature Preserve in Leesburg, Virginia. The program was advertised as a potpourri of slides on all aspects of beetle biology, including mimicry, camouflage, fossils, cultural use, chemical defenses, and a lot more.

Vichai Malikul is to be congratulated for his appointment as a Smithsonian Unsung Hero. He is one of only 21 Unsung Heroes from across the Institution, and the only one from NMNH. Acting Secretary Cristian Samper will conduct the awards ceremony on September 19 at 9:00 am in Baird Auditorium.

## **GENERAL NEWS**:

Rose Ella Warner-Spilman died on Friday, August 10. She had been a member of the staff of the Systematic Entomology Laboratory from sometime in the early 1950's until her retirement in 1976. Her husband, Theodore J. Spilman, also of the same staff, predeceased her on September 22, 1996. They were both coleopterists, Rose Ella an expert on Curculionidae and related families. A lot of her time was spent on identifications, a task with which she took great care. Colleagues recall that she commonly wore a white lab coat (as can be seen in a photograph of coleopterists on page 45 of an August, 1976 brochure (The United States National Entomological Collections) prepared for the XV International Congress of Entomology, held in Washington. Others who often wore similar white lab coats at the time were her husband Ted Spilman and Ralph Crabill. Rosie was a friendly person and the unofficial recreation director for the combined entomological

staff. She kept a war chest for retirement parties, birthdays and such, and deceased parents and other close relatives of staff always received a bouquet for their funerals. Whatever money left over at the end of the year was blown on "Rosie's Xmas party" on the last workday before Christmas. Her husband retired in 1985. Rosie lived from 1961 until her death in the same house on Jamestown Road in Bethesda, Maryland. In the last two years after she developed difficulty in walking, she had stair elevators and a walk-in bath built into her house, so she would not have to move elsewhere. Her funeral was held at the Church of the Little Flower in Bethesda and she is interred with her husband at Gate of Heaven Cemetery in Aspen Hill, Maryland.

## **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.

\*\*Hulcr, J., Miller, S. E., Setliff, G. P., Darrow, K., Mueller, N. D., Hebert, P. D. N., & Weiblen, G. D. 2007. DNA barcoding confirms polyphagy in a generalist moth, *Homona mermerodes* (Lepidoptera: Tortricidae). Mol. Ecol. Notes 7: 549-557.

--abstract- Recent DNA barcoding of generalist insect herbivores has revealed complexes of cryptic species within named species. We evaluated the species concept for a common generalist moth occurring in New guinea and Australia, Homona mermerodes, in light f host plant records and mitochondrial cytochrome c oxidase I haplotype diversity. Genetic divergence among H. mermerodes moths feeding on different host tree species was much lower than among several Homona species. Genetic divergence between haplotypes from New Guinea and Australia was also less than interspecific divergence. Whereas molecular species identification methods may reveal cryptic species in some generalist herbivores, these same methods may confirm polyphagy when identical haplotypes are reared from multiple host plant families. A lectotype for the species is designated, and a summarized bibliography and illustrations including male genitalia are provided for

the first time.

Lingafelter, S. W. & Nearns, E. H. 2007. Five new species of longhorned beetles (Coleoptera: Cerambycidae) from the Dominican Republic in genera *Ataxia* Haldeman, *Atimiola* Bates, *Drycothaea* Thomson, *Eburia* Lepeletier & Audinet-Serville, and *Hormathus* Gahan. Col. Bull. 61(2): 177-191.

--abstract—Five new species of longhorned beetles (Coleoptera: Cerambycidae) from the Dominican Republic are diagnosed, described, and illustrated: *Ataxia hovorei, Altimiola rickstanleyi, Drycothaea indistincta, Eburia pseudostigma,* and *Hormathus giesberti.* In addition, *Hormathus* Gahan 1890 is transferred from Tillomorphini Lacordaire into Ibidionini Thomson, Division V; *Trinoplon* Zayas 1975 is a new synonym of *Hormathus;* and *Hormathus bicolor* (Zayas 1975) is a new combination. A key to the three species of *Hormathus* is provided.

Lingafelter, S. W. & Woodley, N. E. 2007. A new species of *Derancistrus* Audinet-Serville (Coleoptera: Cerambycidae: rioninae) from the Dominican Republic with notes on other species of Prioninae from Hispaniola. Col. Bull. 61(2): 165-175.

--abstract—Derancistrus hovorei Lingafelter & Woodley, new species, is described from the Dominican Republic. A diagnosis is provided to discriminate it from morphologically similar taxa, in particular Derancistrodes vittatus (Olivier) and Derancistrus elegans (Palisot de Beauvois). Biological, distributional, and/or taxonomic notes are provided for other Hispaniolan Prioninae including Solenoptera dominicensis (Gahan), Elateropsis femoratus (Salle), Sarifer scabrai Fragoso & Monne, and Mecosarthron domingoensis (Fisher).

Lonsdale, O. & Marshall, S. A. 2007. Revision of the New World *Heteromeringia*. Beitr. Ent. 57(1): 37-80.

--abstract-- The 18 New World species of *Heteromeringia* Czerny, 1903 are revised, with 10 species described as new: *H. apholis* sp. n. (Mexico), *H. aphotisma* sp. n. (Brazil), *H. decora* sp. n. (Mexico), *H. lateralis* sp. n. (Costa Rica), *H. mediana* sp. n. (Brazil), *H. nanella* sp. n. (Brazil), *H. nervosa* sp. n. (Costa Rica), *H. quadriseta* sp. n. (Ecuador, Peru), *H. volcana* sp. n.

(Costa Rica) and H. zophina sp. n. (Mexico). The Nearctic H. nitida nigripes Melander & Argo, 1924 is raised from subspecies to species. The H. nitida species group and the H. czernyi species group are erected, and species relationships are discussed for the later (entirely neotropical) group. Sobarocephala subfasciata Curran, 1939 is included as a junior synonym of H. czernyi Kertesz, 1903. Heteromeringia dimidiata Hennig, 1938 is moved to Sobarocephala Czerny, 1903 comb. n. Heteromeringia tephrinos nomen n. is provided as a replacement name for the Afrotropical H. nigrifrons Lamb, 1914, which is a junior primary homonym of H. nigrifrons Kertesz, 1903. The biology of Heteromeringia is discussed, and a key is provided for all New World speecies. Agopnistic interactions are described for this genus for the first time, with H. nitida Johnson, 1913 males recorded as using bicoloured forelegs to defend mating territories.

\*\*Massuti de Almeida, L., Milleo, J. & Gordon, R. D. 2007. Review of certain lectotype designations in *Hinda* (Coleoptera: Coccinellidae, Hyperaspinae), primarily those deposited in Museum fur Naturkunde der Humboldt-Universitat, Berlin, Germany. Zootaxa 1573: 65-68.

--abstract—Type specimens of *Hinda* in the Zoologisches Museum der Humboldt Universitat, Berlin, Germany, and other institutions were studied. Lectotypes and paralectotypes of *Hinda quindecimmaculata* Weise (1895) and of *H. modesta* Weise (1910) are designated. An error by Almeida and Milleo (2000) in designating a lectotype for *Hinda regularis* Erichson (1847) is corrected. Known geographical distributions of *H. modesta* and *H. humerata* are expanded.

**\*\*Menke, A. S.** 2007. *Ammophila nancy* Menke, a new species in the *pruinosa* complex (Hymenoptera: Sphecidae: Ammophilinae). Zootaxa 1546: 31-38. --**abstract**—*Ammophila nancy* new species (Hymenoptera: Sphecidae), is described from Arizona, California, Nevada, New Mexico, Texas and Mexico (Sonora and Baja California). The new species is a member of the *pruinosa* complex which also contains *californica* Menke, 196, and *pruinosa* Cresson, 1865. A key is provided for the identification of the three species.

\*\*Novotny, V., **Miller, S. E.,** Hulcr, J., Drew, R. A. I., Basset, Y., Janda, M., Setliff, G. P., **Darrow, K.,** Stewart, A. J. A., Auga, J., Isua, B., Molem, K., Manumbor, M., Tamtiai, E., Mogia, M., & Weiblen, G. D. 2007. Low beta diversity of herbivorous insects in tropical forests. Nature 448: 692-695.

--"abstract"-Recent advances in understanding insect communities in tropical forests have contributed little to our knowledge of large-scale patterns of insect diversity, because incomplete taxonomic knowledge of many tropical species hinders the mapping of their distribution records. This impedes an understanding of global biodiversity patterns and explains why tropical insects are underrepresented in conservation biology. Our study of approximately 500 species from three herbivorous guilds feedingon foliage (caterpillars, Lepidoptera), wood (ambrosia beetles, (Coleoptera) and fruit (fruit flies, Diptera) found a low rate of change in species composition (beta diversity) across 75,000 square kilometers of contiguous lowland rainforest in Papua New guinea, as most species were widely distributed. For caterpillars feeding on large plant genera, most species fed on multiple host species, so that even locally restricted plant species did not support endemic herbivores. Large plant genera represented a continuously distributed resource easily colonized by moths and butterflies over hundreds of kilometers. Low beta diversity was also documented in groups with differing host specificity (fruit flies and ambrosia beetles), suggesting that dispersal limitation does not have a substantial role in shaping the distribution of insect species in New Guinea lowland rainforests. Similar patterns of low beta diversity can be expected in other tropical lowland rainforests, as they are typically situated in the extensive low basins of major tropical rivers similar to the Sepik-Ramu region of New Guinea studied here.

Steiner, W. E., Jr., Erwin, T. L. & Ward, R. D. 2007. *Phloeoxena signata* (DeJean): Northern range extensions to Maryland and Tennessee, U.S.A., and the first record for Costa Rica (Coleoptera:

Carabidae). Col. Bull. 61(2): 224-226.

#### VISITORS:

**Paul and Madeline Arnaud** from California visited the Diptera Collection to work on the Empididae and Tachinidae Collections, July 23 through August 20.

**Stephanie Dole** from Michigan State University visited Terry Erwin, Warren Steiner and Gary Hevel during the last week of August to search for scolytid beetles from samples recently received from canopy fogging efforts of last year.

**Marcelo Duarte** from Universidade de Sao Paulo, Sao Paulo, Brazil began as a visitor with Robert Robbins and the Lepidoptera Collection on August 06 and will continue through September 07.

**Tony Genaro** from York University, North York, Canada visited Ted Schultz and the Formicidae Collection on July 20.

**David Grimaldi** from the American Museum of Natural History in New York City visited Wayne Mathis and Chris Thompson and the Diptera Collections July 19-20 to discuss work on fossil flies.

**Daniel Herbin** from France visited Patricia Gentili-Poole and the type collections of Mimallonidae and Saturniidae August 6-10.

**Karen P. Kapeluck** three relatives from Arlington, Virginia visited Robert Robbins and the Lepidoptera Collection on August 03 to see specimens donated by her uncle a century ago.

**Edward Mandziev** from Kalmyk State University, Elista, Russia visited Robert Robbins and the Rhopalocera Collection on August 10.

**Glaucia Marconato** from Universidade de Sao Paulo, Sao Paulo, Brazil began as a visitor with Robert Robbins and the Lepidoptera Collection on August 14 and will continue through August 21. **Simeao Moraes** from Universidade de Sao Paulo, Sao Paulo, Brazil began as a visitor with Robert Robbins and the Lepidoptera Collection on August 06 and will continue through September 07.

**Livia Pinheiro** from the Universidade de Sao Paulo, Sao Paulo, Brazil began as a visitor with Robert Robbins and the Lepidoptera Collection on August 06 and will continue through September 07.

**Joseph Raczkowski** from Ohio State University visited Ted Schultz and the Formicidae Collection July 13-27 to work on the Merle Wing ant collection.

**Elizabeth Quisberth Ramos** from SENASAG, Santa Cruz, Bolivia will visit Allen Norrbom and the Diptera Collection August 26-28.

**Juanita Rodiguez** from Universidad Nacional de Colobia Instituto de Cs. Naturales, Bogota, Colombia visited Ted Schultz and the Formicidae Collection July 07 through August 15.

Sarah Smith from Michigan State University visited Terry Erwin, Warren Steiner and Gary Hevel during the last week of August to search for scolytid beetles from samples recently received from canopy fogging efforts of last year.

**Aubrey Scarbrough,** formerly of Towson University and now retired in Arizona, visited Chris Thompson and the Asilidae Collection July 26-27.

**James Wappes** from San Antonio, Texas visited Steve Lingafelter and the Coleoptera Collection July 25 through August 09.

# **TRAVEL:**

John Burns gave a paper entitled "DNA barcodes

of closely related (but morphologically and ecologically distinct) species of skipper butterflies (Hesperiidae) can differ by only one to three nucleotides" at the annual meeting of The Lepidopterists' Society, in Bakersfield, California, on July 13, 2007.

**Terry Erwin** traveled to Blagoevgrad, Bulgaria August 17-30, to participate in the 13<sup>th</sup> European Carabidologists' Meeting of August 20-24. Organizers of the event specifically invited researchers from North America this year to broaden discussions of the subject.

**David Furth** traveled to Mexico for fieldwork July 31 through August 10.

**Scott Miller** spent three weeks in Kenya in June. He was there because of management issues at the Mpala Research Centre in Kenya, but this provided the opportunity for extended insect collecting. He also visited the National Museums of Kenya, International Centre for Insect Ecology and Physiology, and the International Livestock Research Institute. He also visited the Natural History Museum, London to work on the New Guinea Geometridae project with David Pollock. On July 30, Scott visited the American Museum of Natural History and Sloan Foundation in New York to discuss DNA barcoding projects.

**Jim Pecor** will travel to Azerbaijan for general mosquito collecting September 1-15. He traveled for the same purpose to the Georgia Republic July 03-16.

**Pollie Rueda, Yiau-Min Huang** and **Jim Pecor** traveled to Kisumu, Kenya to conduct a training class in mosquito identification August 17-26.