



Smithsonian  
National Museum of Natural History

# EntNews



The Newsletter of the Department of Entomology

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Steve Lingafelter and colleagues in Vietnam



Tim Moyer



Dan Janzen



Gary Ouelette

Front cover photo credits: collecting group/Lingafelter; Moyer/Hevel; Janzen/Gentili-Poole; Ouelette/Hevel

## ANNOUNCEMENTS:

**Gary Ouelette** was hired by the Systematic Entomology Lab as a Museum Technician earlier this year. He had served in that unit previously, and will again be of major assistance to SEL and the National Entomological Collections.

## GENERAL:

At the request of Robert "Shawn" Johnstone, Assistant Archivist of the Smithsonian Institution, **Juanita Hall** and **Gary Hevel** recently gathered and provided copies of all issues of *EntNews* for deposit in the Smithsonian Archives.

## COLLECTIONS ENHANCEMENT:

We are pleased to announce that the Department of Entomology has received the donation of a significant collection of Neotropical Lepidoptera. Since 1978, Dan Janzen and Willie Hallwachs have been conducting an intensive survey of the Lepidoptera fauna of Area de Conservacion Guanacaste (ACG), a 163,000 ha conserved wildland in northwestern Costa Rica. The site includes habitats ranging from dry forest, rain forest to cloud forest (0-2000m). The survey has documented 9,000+ species (of an estimated 15,000) living in ACG, this being about as many species as all of North America north of Mexico. Most specimens have been reared from larvae, and since 2003 all have been DNA barcoded. The current donation covers Saturniidae (7,500

specimens/130 species), Sphingidae (6,200/150) and Notodontidae (12,700/400). Future donations will include butterflies, Noctuidae, Geometridae, Arctiidae, Elachistidae, Tortricidae and Pyraloidea (over 28,000 Hesperidae and Lycaenidae are already here). The specimens were brought by vans from the University of Pennsylvania, Philadelphia to NMNH by Patricia Gentili-Poole, Desmond Smith, and John Brown on September 8<sup>th</sup> in an SI-SEL collaborative effort. The Saturniidae specimens were transferred from Schmidt boxes to NMNH units/drawers by Janzen and Hallwachs, with assistance by Karie Darrow, Don Harvey and Patricia on September 16<sup>th</sup>-18<sup>th</sup>. The Sphingidae transfer will begin in mid-October, and the Notodontidae will be brought here at a later date.

Below: *Leucanella hosmera*, one of the 7,500 Saturniidae specimens donated by Dan Janzen and Winnie Hallwachs who spent a very long 3.5 days transferring the moths from shipping boxes to unit trays and into entomology collection drawers.



## PUBLICATIONS:

Davis, D.R. & De Prins, J. 2011. Systematics and biology of the new genus *Macrosaccus* with descriptions of two new species (Lepidoptera: Gracillariidae). *ZooKeys* 98: 29-82.

---abstract--- The new genus *Macrosaccus* Davis & De Prins is proposed for three species formerly assigned to the genus *Phyllonorycter*: *M. robiniella* (Clements), *M. morrisella* (Fitch), and *M. uhlerella* (Fitch); two new, closely related species: *M. neomexicanus* Davis and *M. gliricidius* Davis, are also proposed. Descriptions of the adults, pupae, larvae, life histories, and distributions are supplemented with photographs, line drawings, and scanning electron micrographs. Larvae of all species are serpentine/blotch leaf miners on various genera of the plant family Fabaceae. The genus is endemic to the New World, with the invasive species *M. robiniella* now widely established in Europe.

Cardosa, P., Erwin, T.L., Borgas, A.V., & New, T.R. 2011. The seven ingredients in invertebrate conservation and how to overcome them. *Biol. Conservation* 144 (2011): 2647-2655.

Erwin, T.L. 2011. A Treatise on the Western Hemisphere Caraboidea (Coleoptera): Their classification, distributions, and ways of life, Volume III (Carabidae – Loxomerformes, Melaeniformes), 412 pp, 66 plates, Pensoft, Sofia-Moscow.

Erwin, T.L. 2011. *Halocoryza* Alluaud 1919, sea-side beetles of the Atlantic, Pacific, and Indian Oceans: a generic synopsis and description of a remarkable new species from Baja California (Coleoptera, Carabidae, Scaritini, Clininina). *ZooKeys* 127: 1-13.

---abstract--- Information on the three previously described species of *Halocoryza* Alluaud is updated and a new species for the genus from Isla Carmen, Sea of Cortez, Baja California Sur, Mexico is described. *Halocoryza whiteheadiana* sp. n. was found at UV light on a beach of that island. This species does not fit the profile of the other three species, i.e., living on coralline beach sands, or in the Mangrove intertidal zone. Two alternative possibilities as to why this is so are suggested and a study plan for testing these possibilities is proposed.

Gates, M.W. & Buffington, M.L. 2011. Description of two techniques to increase efficiency in processing and curating minute arthropods, with special reference to parasitic Hymenoptera. *J. Hymen. Res.* 22: 133-140.

---abstract--- We describe and illustrate two techniques for enhancing curatorial and processing efficiency as it pertains to parasitic Hymenoptera Chalcidoidea, Cynipoidea). These techniques were developed in response not only to the massive number of parasitoids that have been acquired through various biodiversity studies, but also the difficulty in mobilizing the human resources to curate this material. The first technique uses small, crystal polystyrene boxes with tight-fitting lids to store dehydrated specimens prior to mounting. Locality information is affixed to the box and specimens are spread in a layer for ease of examination by researchers. Solutions for managing static electricity within the specimen boxes are discussed. The second involves a vacuum pump connected to a funnel with a filtration membrane and flask apparatus to rapidly dehydrate hard-bodied parasitoids (Figitidae) that are not subject to collapse during air-drying.

Hendrich, L. & Erwin, T. 2011. Interlinking journal and wiki publications through joint citation: Working examples from ZooKeys and Plazi on Species-ID. *ZooKeys* 90: 1-12.

Pearson, D.L., Hamilton, A.L., & Erwin, T.L. 2011. Recovery Plan for the Endangered Taxonomy Profession. *Bioscience* 61(1): 58-63, USU=4.064.

Poorani, J., Vandenberg, N.J., & Booth, R.G. 2011. A revision of the genus *Stictobura* Crotch and description of a new species of *Sticholotis* Crotch (Coleoptera: Coccinellidae: Sticholotidinae). *Zootaxa* 3031: 1-13.

---abstract--- The species of *Stictobura* Crotch (1874) (Coccinellidae: Sticholotidinae) are revised. *Stictobura gibbula* (Weise, 1908) indeed belongs to *Sticholotis* Crotch (1874) under which it was originally described (stat. rev.) and is removed from *Stictobura*. *Stictobura buruensis* Korschefsky (1944) is transferred to *Sticholotis* (new combination). Lectotypes are designated for *Sticholotis* (*Apterolotis*) *andrewesi* Weise (1908), *Sticholotis* (*Apterolotis*) *gibbula* Weise (1908), *Stictobura semipolita* Sicard (1911), and *Stictobura rubroguttata*

Sicard (1925). The species of *Stictobura* are keyed and notes on biology are provided wherever available. *Sticholotis magnostriata* sp. n., which is externally similar to the species of *Stictobura*, is described from India (Assam).

## VISITORS:

**Nil Bagriacik** from Nigde University, Turkey, visited **Sean Brady** and the Bee Collection September 05-30.

**Oliver Dominick** will be a visitor on October 07 with **John Brown** and the Moth Collection for a Wedge Foundation Entomological Research meeting October 03-07.

**Mattias Forshage** from the Stockholm Museum of Natural History will be a visitor with **Matt Buffington** and the Hymenoptera Collection October 07 through November 07.

**Gary Gibson** from Agriculture Canada will be a visitor with **Michael Gates** and the Hymenoptera Collection October 10-14.

**Alejandro Gonzalez** from Universidad Autonomia Nuevo Leon, Monterrey, Mexico will visit **Michael Gates** and the Hymenoptera Collection October 12-14.

**Henri Goulet** from Agriculture Canada will be a visitor with **Michael Gates** and the Hymenoptera Collection October 10-14.

**Catrin Jaschhof** from the Senckenberg Deutsches Entomologisches Institut, Germany will visit **Raymond Gagne** and the Diptera Collection October 11-25.

**Mathias Jaschhof** from the Senckenberg Deutsches Entomologisches Institut, Germany will visit **Raymond Gagne** and the Diptera Collection October 11-25.

**Akito Kawahara** from the University of Florida will visit **Don Davis** and the Lepidoptera Collection September 30 through October 07.

**Don LaFontaine** from the Canadian Nature Center will visit **John Brown** and the Moth Collection for a Wedge Foundation Entomological Research meeting on October 03-07.

**Deborah Matthews** from the McGuire Center, Florida

Museum of Natural History will visit **John Brown** and the Moth Collection for a Wedge Foundation Entomological Research meeting on October 03-07.

**Arnold Menke**, former researcher with the Systematic Entomology Lab and now living in Arizona, was a visitor with **Dave Smith** and the Hymenoptera Collection on May 16.

**Eric Metzler** from Las Cruces, New Mexico will visit **John Brown** and the Moth Collection for a Wedge Foundation Entomological Research meeting on October 03-07.

**Jacqueline Miller** from the McGuire Center, Florida Museum of Natural History, will visit **John Brown** and the Moth Collection for a Wedge Foundation Entomological Research meeting on October 03-07.

**Tim Moyer** from New Jersey was a visitor with **Gary Hevel** to visit the collections and operations of the Entomology Department. Tim is one of editors of BugGuide, the internet identification site. Several members of the combined entomological staff on the East Court 7<sup>th</sup> floor were delighted to meet him and assure him of the importance of the BugGuide website.

**Livia Pinheiro** from Museu de Zoologia da Universidade de Sao Paulo was a visitor with **Don Harvey** and the Butterfly Collection May 17-20.

**Kelly Richers** from California will visit **John Brown** and the Lepidoptera Collection for a Wedge Foundation Entomological Research meeting on October 06-07.

**Andrew Short** from the University of Kansas was a visitor with **Bob Robbins** for a seminar presentation May 17-18.

**Michael Valim** from the Field Museum in Chicago was a visitor with **Floyd Shockley** and the Coleoptera Collection on May 31.

**Jose Triana** from Agriculture Canada will be a visitor with **Michael Gates** and the Hymenoptera Collection October 10-14.

**David Wagner** from the University of Connecticut will visit **Don Davis** and the Lepidoptera Collection October 06-08.

**Isaac Winkler** from the University of North Carolina was a visitor with **Bob Robbins** for a seminar presentation May 19-20.

**Miles Zhang** from Laurentian University, Ontario, Canada will visit **Michael Gates** and the Hymenoptera Collection October 03-14.

## TRAVEL:

**Terry Erwin** will travel to Tiputini Biodiversity Station in Ecuador (19 Oct.-01 Nov) to continue his studies of understory Carabidae in concert with Katie Riley. Katie is a PhD student at Wake Forest University, Winston-Salem, NC, and Terry is a Research Professor in the Biology Department, with two students working on carabid ecology for their dissertations.

**Patricia Gentili-Poole** and **David Furth** will be traveling to Argentina at the end of October. They are invited by the Museo de La Plata to teach a course title "Principios en Administracion de Colcciones (Principles of Collections Management)" during the week of October 24<sup>th</sup> – 28<sup>th</sup>. This course is a spin-off of the 6-week Latin American and Caribbean Collections Management Training Program provided by the NMNH collections management community for three years (2008-2010). Participants will be 20 museum professionals with curatorial and administrative duties in active natural history collections. The objective of the course is to provide an overview of collections management, stressing the most important aspects to be taken into consideration when planning CM for their institutions. Dave will stay for an extra couple of days to get to know a bit of the city of Buenos Aires, and Patricia will take some time off to visit family and most likely shovel ash from the Puehue Volcano that began erupting June 4<sup>th</sup> and is not done yet.

**Gary Hevel** (at right) traveled for ten days in June to Iceland, accompanied by his wife Julie and daughter Amanda. The trip was in part a celebration of Amanda graduating from the University of Maryland. Prior to the trip, a determination was made that Iceland has an insect fauna of less than 1500 species, and does not have restrictions on collecting outside national park and restricted areas. The trip was a combination of sight-seeing, enjoying the unusual cuisine, and collecting

insects. The famous Blue Lagoon, subject of a recent television commercial, was visited after settling in Reykjavik. The Blue Lagoon is bordered by rough masses of black lava boulders, which lie piled high around the perimeter. The public bathing pool has water with temperatures of 99 degrees F, and a floor of light blue mud, which is to be plastered on faces of adventurous visitors. The water and mud was discovered by locals to cure minor skin ailments. There are countless waterfalls in the country, and we visited many of them. The vegetation near such waterfalls was a good place for collecting insects, mostly flies. Amanda had planned the trip quite well, making reservations throughout Iceland before the trip. We chose to rent a 4-wheel vehicle to drive on the main road around Iceland, which is called "The Ring Road." It seemed that most Icelanders spoke English, which made travel much easier. The road hazards were generally limited to numerous sheep on, nearing, leaving, and crossing the roads. Weather can be harsh, but we encountered limited rain, and the temperatures were in the fifties and sometimes rose into the sixties. There were many



highlights, including finding a herd of reindeer crossing the road in the Northern end of the country. We made a special trip to the western-most point of the Island, Latrabjarg Bird Cliffs, to see puffins, and were not disappointed. The point of the peninsula is considered the western boundary of Europe. Insect collecting was moderately successful, resulting in mostly flies, some beetles, small wasps, caddisflies, bumblebees, and delphacids. Only a few small moths were found. Gary chased insects in decaying seaweeds along the seashore, and found many flies in such a habitat. The Icelanders said that the winter was long this year, lingering past the normal date of warmer weather. Just as we were leaving the country, the weather showed vast improvement with emerging insects. An estimated 2,000 insects were collected, and will enhance the Smithsonian Collections.

**Steve Lingafelter** recently traveled to Vietnam (pictured below), and offers the following summary:

From May 20 to June 30, 2011, a major expedition was made to northern Vietnam. This expedition was funded through the joint Forest Service (International Program) / Agriculture Research Service Cooperative Agreement. The goals of this trip were to establish a longer cooperative relationship with the Vietnam Academy of Science and Technology's Institute of Ecology and Biological Resources (IEBR), collect specimens of woodboring beetles related to the Emerald Ash Borer (EAB), *Agrilus planipennis*, an Asian pest species that was introduced recently into North America, synthesize data on the biology and distribution of Vietnamese woodboring beetles, and help to build reference collections for

Vietnamese beetles in the United States and Vietnam.

The trip was very successful in meeting these goals, thanks to the hard work and dedication of Pham Hong Thai (IEBR) who organized the expedition and provided support. With this help, we established a memorandum of understanding with the IEBR (Director Le Xuan Canh) and discussed our long term interest for joint research over the next five years. Six weeks of collecting yielded over 2,000 specimens of woodboring beetles, including over 200 specimens in the genus *Agrilus*, to which the EAB belongs. All these specimens are currently being identified and a full list of species will be provided once this time-consuming process is complete.

We have amassed much data on the distribution and biology of many hundreds of species of beetles in the families Buprestidae and Cerambycidae, and will be synthesizing it and developing a website portal for dissemination of these data, along with images of the species. We will be depositing material acquired during this expedition in the IEBR and Smithsonian Institution collections, and this will be available for study by researchers around the world.



**Vichai Malikul** (in center below) traveled to Thailand September 01-23 for a vacation and educational efforts. In Bangkok, he conducted two workshops for students and scientists, which were attended by nearly thirty participants. These activities were aided and organized by the Thailand National Science Museum. In attendance were students and scientists from various universities and research organizations in Thailand. Also, during his time in Thailand, his insect illustrations were on exhibit, with early works from his employment in Bangkok during 1962-1967 with the Southeast Asia Treaty Organization Laboratory, and "recent" works from his Smithsonian employment (1967-present).



**The EntNews**

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