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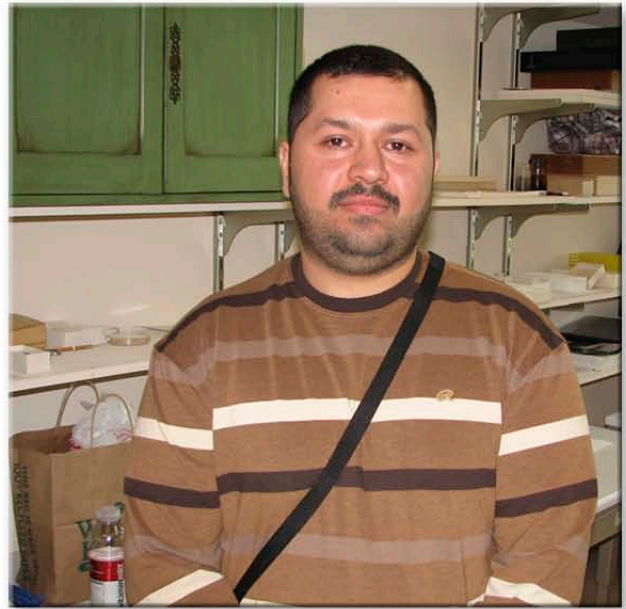
EntNews

The Newsletter of the Department of Entomology

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Sam Droege, USGS



Mohammed Al-Saffer



Gary Hevel demonstrating entomological specimen handling techniques to participants in the Latin American and Caribbean Collections Management Training Program.

Cover photos: Sam Droege: Ford Cochran/NGS; Mohammed Al-Saffer: G.Hevel; Collections Management Training Program group: J.Louton.

ANNOUNCEMENTS:

The 1135th Regular Meeting of the Entomological Society of Washington convened at 7:00 pm on March 04 in the Waldo Schmitt Room of the National Museum of Natural History. **Sam Droege** from the USGS (Geological Survey) Native Bee Inventory and Monitoring Lab, Beltsville, Maryland, spoke on the topic "Putting the Tax back into Taxonomy.....getting citizens to collect useful entomological data for you, the government's *public servant*."

GENERAL NEWS:

Congratulations to **Jeffrey Sosa-Calvo**, currently known among his formicophile friends as a "Grant Magnet," who was one of only sixteen graduate students (out of a total of sixty-two applicants) to be awarded a Travel Grant by the North American Section of the International Union for the Study of Social Insects (IUSI). The purpose of the \$1000 grant is to enable grad students to attend the 16th quadrennial IUSI International Congress in Copenhagen on 8-14 August, 2010, where Jeffrey will be buying the first round of beers. Jeffrey also recently received two other grant awards: The Max and Vera Britton Environmental Science Award, from the Cosmos Club Foundation (\$3000) and, with Ted Schultz, a NMNH Small Grants Program award for \$5000. The latter two grant awards will support travel to Brazil (see TRAVEL).

Mohammed Al-Saffer from American University of Iraq-Sulaimani has been a visiting student for several months, working with C.J. Geraci, and is now returning to Iraq. He hopes to return to the NMNH soon.

Recently, during a time period of six weeks, ten participants in the **Latin American and Caribbean**

Collections Management Training Program, for Latin American and Caribbean Professionals, have been introduced to the operations behind the scenes at the National Museum of Natural History. They were trained in all aspects of museum work throughout the NMNH, from all of the science departments to MSC operations, exhibits, education, and the Office of the Director. **Dave Furth** and **Patricia Gentili-Poole** oversaw the training within the Department of Entomology, and Dave was also involved in a variety of museum-wide presentations.

Vichai Malikul visited the North Chevy Chase Elementary School in Kensington, Maryland on February 24 to present a scientific illustration workshop on butterfly illustrations. The activity involved four sessions for 5th graders, with some 150 students during four sessions. (an anonymous photographer provided the image below).



PUBLICATIONS:

(** retired, emeritus, or former dept. member)

Brown, J.W. & Hoddle, M.S. 2010. A new species of *Histura* Razowski (Lepidoptera: Tortricidae: Polyorthini) from Guatemala attacking avocados (*Persea americana*) (Lauraceae). Proc. Entomol. Soc. Wash. 112(1): 10-21.

--**abstract**--*Histura perseavora* Brown, new species, from Guatemala, is described and illustrated. It is compared with *Histura curvata* (Meyrick) from Brazil and *Histurodes costaricana* Razowski from Costa Rica. All specimens of *H. perseavora* were reared from either fruit, fruit pedicels, or young green branches of avocados (*Persea americana* Mill.; Lauraceae) during efforts to identify lepidopteran pests of this commodity in Guatemala. Coincidentally, we discovered museum

specimens of *H. costaricana* reared from avocados in Costa Rica. We present a brief review of the fragmentary knowledge of the larval stages of Polyorthini, the tribe to which *H. perseavora* is assigned.

Burns, J.M., Janzen, D.H., & Hallwachs, W. 2010. Of many similar species in the Neotropical genus *Porphyrogenes* (Lepidoptera: Hesperidae), a new one, repeatedly reared in Costa Rica, is relatively distinct. Proc. Entomol. Soc. Wash. 112(1): 32-42.

--abstract—Associating sexes in many species of the Neotropical hesperiid genus *Porphyrogenes* has been difficult, erroneous, or impossible, owing to their sexual dimorphism. Despite the extreme sexual dimorphism of *Porphyrogenes peterwegei* Burns, new species, full description of this rainforest skipper from Area de Conservacion Guanacaste (ACG), northwestern Costa Rica, is no problem. The available sample amounts to nearly 100 reared adults, almost evenly divided between the sexes. Of these, 67 have been DNA barcoded and found to vary minimally in their COI haplotypes, with one haplotype predominating. Caterpillars and pupae consistently go through a distinctive set of developmental changes in their color patterns. Foodplant choice is conservative: of 227 immatures found in the wild, 94% were eating woody vines of the genus *Machaerium*, especially *M. seemannii* (Fabaceae), whereas 6% were feeding on the quite unrelated species *Dichapetalum morenoi* (Dichapetalaceae) - a peculiar pattern of larval foodplant selection seen in another skipper and two butterfly species in ACG. Caterpillars of *P. peterwegei* are occasionally attacked by a host-specific parasitoid (an undescribed tachinid of the genus *Siphosturmia*), which has not been encountered in 20,642 tachinid attacks on the caterpillars of >3,000 species of Lepidoptera in ACG. Morphologically, *P. peterwegei* differs significantly from its many congeners in both facies and genitalia.

Heppner, J.B. & **Davis, D.R.** 2009. Guatemala moth notes, 2. A new *Neopostega* from Guatemala (Lepidoptera: Opostegidae). Lepidoptera Novae, 2(1): 31-34.

Kula, R.R., Boughton, A.J., & Pemberton, R.W. 2010. *Stantonia pallida* (Ashmead) (Hymenoptera: Braconidae) reared from *Neomusotima conspurcalis* Warren (Lepidoptera: Crambidae), a classical biological control agent of *Lygodium microphyllum* (Cav.) R. Br. (Polypodiales: Lygodiaceae). Proc. Entomol. Soc. Wash. 112(1): 61-68.

--abstract—*Stantonia pallida* (Ashmead) sensu Braet and Quicke (2004) is reported from *Neomusotima conspurcalis* Warren (Lepidoptera: Crambidae), a classical biological control agent of *Lygodium microphyllum* (Cav.) R. Br. (Polypodiales: Lygodiaceae) in Florida. It is the first reported parasitoid of *N. conspurcalis*. One undetermined species each of *Cotesia* Cameron, *Clyptapanteles* Ashmead, and *Rhygoplitis* Mason (Hymenoptera: Braconidae) are likely parasitoids of *N. conspurcalis* but need to be confirmed through rearing from host larvae isolated individually. The use of *S. pallida*, under the name *Stantonia lamprosemae* Muesebeck, for control of *Diaphania hyalinata* (Linnaeus) and *Diaphania nitidalis* (Stoll) (Lepidoptera: Pyralidae) in Florida is reviewed and used to illustrate the importance of systematic and natural history collections to classical biological control. The potential effects of these parasitoids on control of *L. microphyllum* in Florida are discussed.

Mathis, W.N. & Zatwarnicki, T. 2010. New species and taxonomic clarifications for shore flies from the Delmarva States (Diptera: Ephydriidae). Proc. Entomol. Soc. Wash. 112(1): 97-128.

--abstract— New species of shore flies (Diptera: Ephydriidae) from the Delmarva states are described, and taxonomic clarifications are made. The six new species are (type locality in parentheses): *Discocerina delmarva* (Virginia. Stafford: Aquia Harbour, Lions Park), *Hydrochasma aquia* (Virginia. Stafford: Aquia Harbour, Lions Park), *Hydrochasma avanae* (Utah. Grand: Swasey Beach (N Green River; shore of Green River; 1255 m), *Hydrochasma garvinorum* (Virginia. Rappahannock: Hazel River (NW Culpeper; 171 m)), *Allotrichoma deionieri* (Virginia. Spotsylvania: Rappahannock River), and *Hydrellia toma* (Virginia. Fairfax: Great Falls (Clay Pond)). The taxonomic changes are as follows: *Psilopa obscuripes* Loew is the correct name for "*P. compta*" of New World authors, *nec* Meigen; *Discocerina parva* Loew is confirmed as a junior synonym of *Discocerina obscurella* (Fallen), and the identification of the latter species is clarified with detailed illustrations and description of structures of the male terminalia.

McKamey, S.H. 2010. *Baracoana*, a junior synonym of *Caribovia* (Hemiptera: Cicadellidae: Cicadellinae). Proc. Entomol. Soc. Wash. 112(1): 170-171.

Norrbom, A.L., Sutton, B.D., Steck, G.J. & Monzon, J. 2010. New genera, species and host plant records of

Nearctic and Neotropical Tephritidae (Diptera). *Zootaxa* 2398: 1-65.

--**abstract**-- Three new genera and five new species of Tephritidae (Diptera) are described from the Nearctic and Neotropical Regions. The new genera are: *Agallomyia* Norrbom (type species: *A. pendula* Norrbom, n. sp.), *Neosphaeniscus* Norrbom (type species: *Euribia m-nigrum* Hendel), and *Phacelochaeta* Norrbom (type species: *Procecidochaetes quinquefasciata* Hendel). The new species include: *Acidogona stecki* Norrbom (Guatemala, Mexico: Chiapas), *Agallomyia pendula* Norrbom (Guatemala), *Phacelochaeta obliqua* Norrbom (Ecuador), *Procecidochaetes suttoni* Norrbom (Guatemala), *Stenopa mexicana* Norrbom (Mexico). Five new generic synonyms are proposed: *Cecidocharella* Hendel, 1936 = *Dracontomyia* Becker, 1919; *Gerrhoceras* Hering, 1942 = *Pyrgotoides* Curran, 1934; *Stoneola* Hering, 1941 = *Rhagoletis* Loew, 1862; *Strobelia* Rondani, 1868 = *Rachiptera* Bigot, 1859; and *Xenochaeta* Snow, 1894 = *Acidogona* Loew, 1873. The following 41 new combinations are proposed: *Acidogona dichromata* (Snow), *Dictyotrypeta crenulata* (Wulp), *D. incisa* (Wulp), *Dioxyna crockeri* (Curran), *Dracontomyia tucumana* (Aczel), *D. borrichia* (Bush & Huettel), and *D. elegans* (Hendel), *Homoeothrix aberrans* (Schiner), *Neosphaeniscus m-nigrum* (Hendel) and *N. flexuosus* (Bigot), *Paracantha trinotata* (Foote), *Phacelochaeta quinquefasciata* (Hendel) and *P. quinquevittata* (Norrbom), *Plaumannimyia ameghinoi* (Brethes), *P. coelestina* (Hering), *P. delicatella* (Blanchard), *P. difficilis* (Malloch), *P. dolores* (Hering), *P. eugenia* (Wulp), *P. flava* (Adams), *P. hestiae* (Hendel), *P. imitatrix* (Hendel), *P. miseta* (Hering), *P. plagiata* (Blanchard), *P. scutellata* (Seguy), *P. setulosa* (Malloch), *P. subaster* (Malloch), *P. suspecta* (Malloch), *P. thomsoni* (Hendel), *P. titschacki* (Hering), and *P. valdesiana* (Gandolfo & Norrbom), *Pyrgotoides paradoxus* (Hering) and *P. peruvianus* (Korytkowski), *Rachiptera alboguttata* (Hendel), *R. baccharidis* (Rondani), *R. bimaculata* (Hendel), *R. ferruginea* (Hendel), *R. lutulenta* (Hendel), *R. parallela* (Hendel), and *R. rubiginosa* (Rondani), and *Rhagoletis fuscobasalis* (Hering). A lectotype is designated for *R. fuscobasalis*. New distribution and host plant records also are reported.

Remeikis, A., Stonis, J.R., Diskus, A., & **Davis, D.R.** 2009. Contribution to the Opostegidae fauna of Central America with an updated checklist and description of new species from the Pacific Coast (Lepidoptera: Nepticuloidea). *Acta Zoologica Lituanica*, 19(4): 278-286.

Roe, A.D., Weller, S.J., Baixeras, J., **Brown, J.**, Cummings, M.P., **Davis, D.R.**, Kawahara, A.Y., Parr, C.S., Regier, J.C., Rubinoff, D., Simonsen, T.J., Wahlberg, N., and Zwick, A. 2009. Evolutionary Framework for Lepidoptera Model Systems, pp. 1-24. *In* Molecular Biology and Genetics of the Lepidoptera, eds. Goldsmith, M.R. and Marec, F., CRC Press, Atlanta.

****Smith, D.R.** & Vilela de Carvalho, D. 2010. Three new species of Aulacidae (Hymenoptera) from Brazil. *Proc. Entomol. Soc. Wash.* 112(1): 140-148.

--**abstract**-- Three new species of Aulacidae, *Aulacus gerais* Smith and *A. unicus* Smith, from Minas Gerais, Brazil, and *Pristaulacus petiense* Smith, from Minas Gerais, Esperito Santo, Mato Grosso do Sul, and Santa Catarina, Brazil, are described. The species are illustrated and separated from described species of their respective genera.

Sosa-Calvo, J. & Schultz, T.R. 2010. Three remarkable new fungus-growing ant species of the genus *Myrmicocrypta* (Hymenoptera; Formicidae), with a reassessment of the characters that define the genus and its position within the Attini. *Ann. Entomol. Soc. Amer.* 103(2): 181-195.

--**abstract**-- Three new species of the fungus-growing ant genus *Myrmicocrypta* Fr. Smith are described from Brazil and Peru, all unique within the genus due to their shared character state of erect pilosity. *Myrmicocrypta erectapilosa* sp. nov. and *Myrmicocrypta bucki* sp. nov. are otherwise typical for the genus in their small size and effaced, tuberculate sculpture, whereas *Myrmicocrypta camargoii* sp. nov. is also unique in its large size and pronounced sculpture. *M. erectapilosa* and *M. bucki* are closely related but can be distinguished by differences in the frontoclypeal and hypostomal teeth, frontal lobes, mesonotal sculpture, and propodeal spines. All castes (workers, gynes, and males) are described for *M. camargoii*, workers and gynes are described for *M. erectapilosa*, and only workers are described for *M. bucki*. Because the erect pilosity encountered in these species contradicts the state previously considered diagnostic for the genus, that of appressed, spatulate or squamiform pilosity found in all other *Myrmicocrypta* species, we necessarily discuss the characters that define the genus *Myrmicocrypta* and review its phylogenetic position within the tribe Attini.

Waga, H. & **Lingafelter, S.W.** 2009. New Fijian Callidiopini (Coleoptera: Cerambycidae). *Fiji Arthropods XV*. Edited by Neal L. Evenhuis & Daniel J. Bickel.

Bishop Museum Occasional Papers 106: 3-15.

--**abstract**--Based on examination of material collected as part of the NSF – Fiji Terrestrial Arthropod Survey, two new species of Callidiopini (Coleoptera; Cerambycidae: Cerambycinae) are described from Fiji: *Ceresium tuberculatum* Waga & Lingafelter, n. sp. (type locality: Fiji, Gau Island, 17.98 S, 179.27 E) and *Laniferus grandis* Waga & Lingafelter, n. sp. (type locality: Fiji, Viti Levu Island, 17.58 S, 178.08 E).

VISITORS:

Yves Bousquet from Agriculture and Agri-Food Canada, Ottawa, will visit **Terry Erwin** and the Coleoptera Collection April 26 through April 02.

Scott Brooks from Canada Agriculture visited **Norm Woodley** and the Diptera Collection March 19-24.

Jeffrey Cumming from Canada Agriculture visited **Norm Woodley** and the Diptera Collection March 19-24.

Houhun Li from Nankai University, Tanjin, China, will visit **Don Davis** and the Lepidoptera Collection April 17-30.

Kelsey Lewis from Mount Holyoke College, Hadley, MA will visit **Don Davis** and the Microlepidoptera Collection on May 03.

Nathan Lord from the University of New Mexico, Museum of Southwestern Biology will be a visitor with **Steve Lingafelter** and the Coleoptera Collection March 28 through April 04.

Eugenio Nearns from the University of New Mexico, Museum of Southwestern Biology will be a visitor with **Steve Lingafelter** and the Cerambycidae Collection March 28 through April 04.

James Pettengil from the University of Maryland is currently visiting **Ted Schultz** and the Hymenoptera Collection, March 19 through April 02.

Jennifer Seltzer from Mississippi State University visited **Mike Pogue** and the Lepidoptera Collection March 18-19.

John Shuey from The Nature Conservancy visited **John Burns** and the Lepidoptera Collection March 22-23.

Bradley Sinclair from Canada Agriculture visited **Norm Woodley** and the Diptera Collection March 19-24.

Marc Volkovitsh from the Laboratory of Insect Systematics, Zoological Institute of the Russian Academy of Sciences will visit **Alex Konstantinov** and the

Coleoptera Collection March 28 through April 07.

TRAVEL:

Wayne Mathis continues his sabbatical in Brazil, but interrupted the experience there to travel (with his wife Dianne) to Dubai to collect shore flies. Wayne briefly reports that there was only one species (*Actocetor indicus*) of Ephydriidae formerly reported from the United Arab Emirates, and they were able to collect more than seventy species.

Jeffrey Sosa-Calvo and **Ted Schultz** will travel to Brazil for fieldwork, 25 March to 24 April. Among their objectives 1) Locate, excavate, and document nests of the rare fungus-growing ant *Apterostigma megacephala* in FLONA National Park near Parauapebas in the state of Para, south of Belem. 2) Drive for three days from Parauapebas to Brasilia, stopping to collect along the way, 3) At Agua Limpa Reserve, near Brasilia, locate, excavate, and document nests of an un-named fungus-growing ant that is not referable to any known genus and that is likely to be very important for understanding early fungus-growing ant evolution.

Ted Schultz will travel to Austin, Texas, from 28 April to 02 May in order to 1) attend the thesis defense of Christian Rabeling, who is studying the systematic and evolution of the fungus-growing ant genus *Mycocepurus*, 2) help Christian and fellow grad student Barret Klein, who is also defending that week, celebrate their (presumably) successful defenses, and 3) to collect *Cyphomyrmex wheeleri*, an unusual fungus-growing ant native to the U.S.A.

Chris Thompson was invited to address the Brazilian dipterists at the 28th Congresso Brasileiro de Zoologia (8-14 Feb.) in Belem at the mouth of the Amazon. His talk was entitled "Biodiversity Informatics and Diptera." From there, he went north to Ottawa, Ontario (16-21 Feb.), to give a training course on flower flies to about two dozen students as part of the Canadian Pollination Initiative.

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