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**EDITORS** 

Scarab349@aol.com

barneystreit@hotmail.

wbwarner1@cox.net

research/entomology/

**Rich Cunningham** 

**Barney Streit** 

Bill Warner

com

## ScarabNet – The Scarabaeinae Research Network 4th Annual Meeting Southwestern Research Station, Portal, Arizona

### by Sacha Spector and Elizabeth Nichols

American Museum of Natural History Central Park West at 79th St. New York, NY 10024 spector@amnh.org nichols@amnh.org

What do you get when you bring 25 dung beetle taxonomists, ecologists, and enthusiasts to a remote field station in Arizona for three days? Why, the fourth annual ScarabNet meeting of course!

As *Scarabs* readers already know, scarabaeine dung beetles have enormous curb appeal. But if we needed more reasons to set dung baited pitfalls, dung beetles also hold enormous potential in the biodiversity conservation realm, as indicators for ecosystem health, as surrogates for other insect groups, and, if nothing else, a source of information about biodiversity that doesn't come from the "charismatic megafauna" of big mammals and birds.

Begun in 2003, ScarabNet (www.scarabnet.org) is an NSFfunded, international network of



Sacha and Liz preparing for the grueling seven-course pre-meeting breakfast that was served each morning.

scarabaeine taxonomists, ecologists and conservation biologists working together to develop the practical and scientific tools necessary to support the use of scarabaeine dung beetles as an invertebrate focal taxon in biodiversity conservation. ScarabNet focuses on cooperatively building a suite of standardized sampling methods, centralized taxonomic resources, and collaborative research agendas. Through a combination of annual



Editors Barney and Bill, and the other participants as well, did not get a chance to get to know Liz and Eleanor, since Dave "Dr. Phanaeus" Edmonds always kept a close guard on them.

> meetings and year-round efforts by our four working groups, we're making progress toward:

> • designing a standardized, quantitative approach to sampling scarabaeine communities worldwide;

developing the ScarabNet Global Taxon Database – a comprehensive, online clearinghouse for information on the taxonomy of Scarabaeinae, including historical literature, keys to taxa and images of species;
synthesizing ecological information on dung beetles and identifying key conservation science questions that we can research as a team;
assessing the conservation status of the world's dung beetle species using the IUCN's Red List framework.

On October 25-27, 25 participants from around the world - Colombia. Bolivia, Mexico, Brazil, United States, Canada, United Kingdom, France, Belgium, South Africa, India, and a handful of Arizonans met for three days of meetings, discussions, and break out sessions. Against a stunning backdrop of fall foliage and the breathtaking Chiricahua mountains, we combined a intense 72 hours of intellectual exercise with a healthy dose of hiking to check our traps and getting sharked by local pool players at the Rodeo Tavern (the only watering hole for 60 miles!).

Juggling conversations in 5 languages, we reviewed the progress made during the past year (lots of updates to the Global Taxon Database, 3 global ecological reviews published or in press, new identification keys produced, and the selection of dung beetles as one of 7 invertebrate groups included in the IUCN's Sampled Red List Index) and mapped out strategies for taking on new projects in the coming year.

We were happy to welcome several new participants, including local Arizonans Paul Kauffman, Delbert LaRue and the nefarious *Scarabs* editorial team members Bill Warner and Barney Streit. Barney in turn kept the group humming along by bringing 23 days worth of snacks (which paired nicely with the range of alcohols brought from the participants' respective countries and the cookies sent by Teresa Edmonds).

We invite *Scarabs* readers to visit our website (www.scarabnet.org) to find out more about ScarabNet and what we do. For more information please feel free to get in touch with either of us or ask one of your colleagues who appears on the list of ScarabNet participants.

List of participants at the 2007 ScarabNet annual meeting:

Chris Borrow Adrian Davis Dave Edmonds Federico Escobar Toby Gardner Bruce Gill Conrad Gillett Paul Kauffman Frank Krell Trond Larsen Delbert LaRue Julio Louzada Darren Mann Chris Marshall Olivier Montreuil Liz Nichols Jorge Noriega **Keith Philips** Pryian Dharma Rajan Paul Schoolmeesters Eleanor Slade Sacha Spector **Barney Streit** Tito Vadurre Bill Warner



The group at the end of the meeting.

## **Keeping Color in Areodines**

#### by William B. Warner



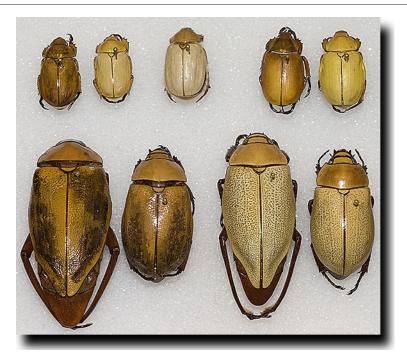
Editor Bill, at the 2004 ESA meeting, in a rare lucid moment, just after the caffeine hit.

Areodina (especially Cotalpa and Pseudocotalpa) normally darken or stain when killed in ethyl acetate, alcohols, by freezing, or even in cyanide jars. I had heard about gutting them, and had obtained nice specimens in the past doing this: take a freshlykilled (or even live) specimen, lift the elytra, open the abdomen via the tergites and pull out the intestines with sharp-pointed forceps, finally "swabbing" out the abdomen with wads of paper towel or tissue paper, and packing the now hollow abdomen with tissue paper or cotton. This, however, takes a ton of labor per specimen, in addition to being pretty messy; but it does work well in the field and will save valuable specimens from discoloration. Field gutting live

specimens along with wrapping the gutted specimen in layers of paper towel will keep heterosternines from staining as well—I was able to get near "field perfect" color in *Heterosternus buprestoides* Dupont and *Macropoides crassipes* Horn with the technique.

I had heard via the grapevine that "starvation" also works for *Cotalpa*, so this year I tried the technique on series of Cotalpa flavida Horn (from Beaver Dam Creek in extreme NW Arizona, April 9), Cotalpa consobrina Horn (from Coon's Bluff along the Salt River east of Phoenix, Arizona, July 20), and a singleton of *Pseudocotalpa* giulianii Hardy (sifted from about a foot deep beneath the edge of a sand paper plant (*Petalonyx thurberi*) along with two, large Pseudocotalpa larvae and some Aegialia magnifica Gordon & Cartwright on April 18 at Big Dune, Nye Co., Nevada). Basically, I put a number of specimens in a large (~6 liter) plastic container with holes punched in the lid and a large amount of wadded-up paper toweling to give them an absorbent substrate, and ignored them save for replacing the paper toweling as it became soiled & damp. Those two *Cotalpa* species feed voraciously on cottonwood tree (Populus freemontii) leaves, and produce copious quantities of wet feces. Within a few days the first of the batch started dying, so I removed and pinned the dead

ones (still soft) daily thereafter, resulting in nearly no staining. One negative result is that several of the specimens (perhaps15%) had broken tarsi or missing legs as a result of grappling with others or the substrate, but having fewer near-perfect specimens was much better than having dozens of stained specimens. The single Pseudocotalpa likewise retained its nearly translucent white "fresh" color, but did lose part of the middle tarsi. It also lasted much longer than the *Cotalpa* spp., no doubt because of its more xeric habitat and that it survives off of fat reserves, apparently not feeding as an adult. I presume this technique will work with Heterosternina as well.



Top row: Left- *Cotalpa consobrina* (kill jar/starved) Middle-*Pseudocotalpa giulianii* (starved) Right- *Cotalpa flavida* (kill jar/starved). Bottom row: *Heterosternus buprestoides* (kill jar/ field gutted while alive).



# **Scarabs Appliqués**

Scarab enthusiasts who attended the 2007 SOLA meeting were fortunate to be given free ironon appliqués of the *Scarabs* newsletter logo. The photo on the left shows our employee Sonja. She wanted to attend the SOLA meeting to hand out the appliqués in person, but we realized that her presence would distract the participants from listening to the speakers. If you do not know about SOLA, kindly turn the page...

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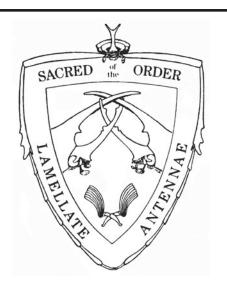
# SOLA

#### by William B. Warner

Celebrities can be spotted at SOLA meetings. Here is Doctor Art Evans, Ph.d. at the 2007 meeting, taking a break from autographing his books.

SOLA stands for "The Sacred Order of the Lamellate Antenna." The concept started as a gag doodle, a sort of scarabaeologists' coat-ofarms that I had silk-screened onto T-shirts for the 1988 International Congress of Entomology in Vancouver, British Columbia, where it was announced, including the secret "stridulatory greeting." Miguel-Angel Moron greatly improved my original crest design by hand-painting on his T-shirt; that improved version should have been captured for future use. The concept was generated in the spirit of building esprit de corps amongst scarab workers, and all scarab collectors and persons with an interest in Scarabaeoidea are automatically members...whether they want to be or not.

A few years later, I wanted to start a scarab workers informal conference at the Entomological Society of America (ESA) meeting, and decided the acronym "SOLA" would be fun to include in the symposium name, given it was specifically for scarab workers. The ESA officialdom at the time blessed the (to them unintelligible) acronym, and the ESA SOLA symposium began. In the first couple years there was not much of interest for coleopterists in ESA Sunday meetings, so attendance was standing room only; ESA kindly scheduled larger rooms in subsequent years. Andrew Smith very kindly took over the logistics



of putting the symposium together, and has done a great (and improved) job on it ever since. So put your thumbs in your ears, fan your fingers, tilt your hands alternately up and down, and squeak on, dudes!



Mary Liz Jameson demonstrating the secret handshake of SOLA.

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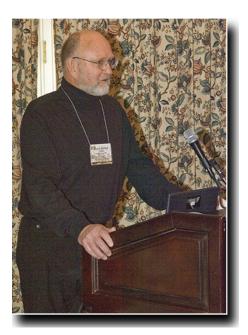
The 2007 SOLA meeting was held on December 9 in San Diego, California. Following is a list of speakers:



George Lucas...err, no, Andrew Smith of the Canadian Museum of Nature gave the Introduction and led the discussion afterwards.



While demonstrating how dung beetles use protective coloration to blend in with outlandish curtains, Sacha Spector of the American Museum of Natural History gave an update on ScarabNet.



Ron McPeak of Battle Ground, Washington, gave a presentation on the scarabs of San Diego County, California. Later, Ron conducted his popular workshop "How to be a Cat Burglar."



After demonstrating how to extract DNA from a once-living *Phanaeus* using only her hands, Dana Price, formerly of Rutgers University, spoke on the phylogeny, biogeography, and behavior of the dung beetle genus *Phanaeus* (Scarabaeidae: Scarabaeinae).



While simultaneously pointing a loaded revolver at the audience (in case of hecklers, lumpers or disagreements), Paul Skelley of the Florida State Collection of Arthropods gave an overview of North American Aphodiinae.



This photo of Andrew Smith was taken moments before he fell asleep at the lectern and boinked his forehead on the microphone. Too bad, because his talk "Melolonthines in Southern South America: A Taxonomic Quagmire" was very interesting up to this point.



Team Scarab member Julia Colby of the University of Nebraska discussed her revision of the genus *Aegidinus* Arrow (Coleoptera: Scarabaeidae: Orphninae). Julia was difficult to recognize without her spiffy sunglasses (see *Scarabs* #22, page 4).



Sporting a shirt he had hand colored with a crayon, Dave Hawks of the University of California at Riverside spoke about "Rain Beetle Classification: What's Next?"

# In Past Years - V - with George Vogt

## by Henry F. Howden

#### henry.howden@rogers.com

I first met George Vogt in 1948, when we were both working on our master's degrees at the University of Maryland. We soon became friends and one of my first papers on insects found in standing dead pines was published jointly with George in 1951(Ann. Ent. Soc. Am., 44: 581 -595). Even then George was a bit of an absent minded eccentric, and he refined this over the years. We went in different directions until 1960 when we went on a trip to eastern Mexico in George's old Chevy. We stocked up on everything we thought we might need, including three extra keys for the car. Between Washington, D.C. and the Mexican border George misplaced the original key, leaving us with the three duplicates. We got a far as Monterrey, N.L., before we found that we lacked a can opener! Half a day was lost before we finally found a store keeper willing to sell his only can opener for about five times its worth (our Spanish was almost non-existent). We then headed for El Salto de Agua, S.L.P., which, at that time, was a beautiful waterfall (no longer, as the water has been diverted for power generation) with many small falls below and clear pools between. There was a very rustic motel near the falls constructed mainly of palm logs. We were the only customers and, seemingly, having customers was rather a rare event. There was lots of cold water, but no food. We had

some canned stew, peanut butter and bread, a diet that got a little tiresome after two days. Good collecting made up for any shortcomings and we left the third day to drive south to Tamazunchale. Half an hour after we left George saw a tree that interested him (he was after leaf mining buprestids). We stopped and George disappeared saying that he might be gone for an hour. Six hours later he turned up and back to our rustic motel we went! I had learned my lesson, so the next day I drove, and despite George's requests to stop, we made it to Tamazunchale by late

An obituary for George Britton Vogt, 1920 -1990, can be found in the Coleopterists Bulletin, 1991, Vol. 45: 93-95; by D. Anderson, C. Bellamy, H. Howden & C. Quimby.



Lower falls of El Salto De Agua. Spray from the main falls is in the background. The spray kept a number of species of trees in the area that would not be there otherwise: e.g. figs, other tropical trees, sycamores, and other northern elements. There were also morphos, *Neoathyreus*, etc. that did not go much further north. My last visit found the place greatly changed, with no water over the falls and many dead trees. Much of the area was wired off as it was protected, as it is now, (or was) for a new hydro-electric development. Too bad, as it was a beautiful place. afternoon. An English couple, owners of the hotel we stopped at, were very helpful and when asked where we might run a black light said that we were welcome to do so at their ranch house some miles out of town. We found the suggested area near their house to be grassy and near a small pond. We warned them that running our light a few hundred feet from their house might bring some insects into their home, but they said they were used to that and that they only used small yellow lights that did not attract insects. So we set up our UV light. Never before or since have I seen so many insects! After about half an hour one had to tie a bug net over one's head to get within 30 feet of the light. Looking at the light from the house it appeared to be a large illuminated, semi-transparent, moving dome over the light. Unfortunately, not only were most of the insects not beetles, being leaf hoppers, small bugs, some aquatics, etc., but the non beetles obscured any beetles that might have been there. I believe that we did get 4 or 5 beetles, one being a Strategus. Fairly early we turned the light off, thanked the owners, and returned to the hotel. The next morning we learned that we were no longer welcome. Many of the insects had shifted to the house and the owners had to come in to stay at their own hotel (which was not air conditioned). We left the same morning with George driving, headed for Teziutlan, Veracruz. Again we did not get to our intended destination, but we did find lodging in a small town not too far from our destination; George lost a second car key that day. We arrived at Teziutlan in the late afternoon (I was driving), to find that the nice motel I had stayed in

two years before was in a sorry state, seemingly deserted. Despite the looks, we found it was open and were assured that they had hot water. We went to eat and while eating at the local bus stop a Chrysina flew into the restaurant. It made the mistake of flying near us and George batted it down; with much applause from the other patrons. We spent several days collecting around Teziutlan before moving on to Lake Catemaco. There we spent a week, driving to the rim at dusk to hear the howler monkeys and collect at the edge of the forest ( a dozen years later the area was all corn fields and no monkeys). Except that our third key was lost, we had a great time and reluctantly headed back to the U.S. We often heated a can of stew or beans on the car manifold. One day we forgot to put a small hole in the can before putting it on the manifold, the result being an exploding can and for several days a smelly car.

There was one point of friction; I would not entrust George with our last car key and did all the driving for the rest of the trip. At least we got to our destinations on time and did have good collecting. We were still friends when we parted! George later told me that he found one of the "lost" keys under the car floor mat when he cleaned the car.

Years passed with George looking in South America for insects feeding on "alligator weed" and Anne and I working in Central America and closer to home. Then in 1970 we got together again for a trip to Colombia and Panama. By then George had refined some of his odd habits, proclaiming that he did not want to waste anything. Field notes were taken on any usable piece of paper, worn paper bags were used as hand towels, etc. When I opened a coke bottle by using the bumper of the car and some coke was spilled, I was reminded that I should be more careful. In a valley near La Aguadita two hours drive from Bogota we collected until rain ended our collecting and reminded us that it was past lunch time. We went to a small store with a sheltered porch and a hitching rail in front. There wasn't much in the way of food: stale buns, crackers and cokes. George saw some green platanos (cooking bananas) and asked the store keeper if he could buy one. He was told they were no good for eating, but George said he had eaten green ones before. After some argument, the store keeper tore off one from the bunch and gave it to George, refusing any payment. While this was taking place, a person rode up on a burro, tied it to the rail out front and came into the store. George took a bite of the platano and came close to turning green. He look around for something to do with the remainder of the platano, and, true to his "waste not" policy, went to feed it to the burro. The owner of the burro immediately pushed George away from the animal, telling him that a green platano was likely to make the burro sick. The store owner, partly hidden around a corner, was convulsed with laughter. George held on to the platano until we started to drive back to Bogota when he threw it out of the car window amid some rude remarks.

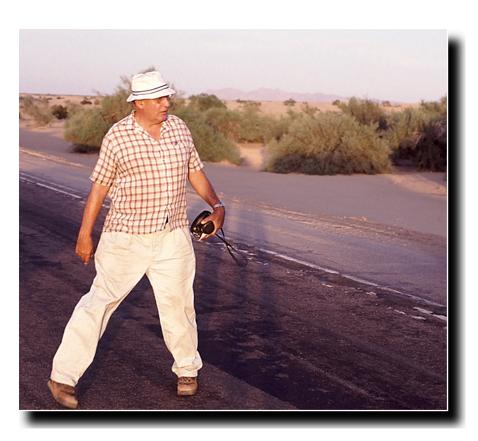
Some days later we went to Anchicaya, a dam site west of Cali on the road to the coast. We stayed at the dam site in a room reserved for researchers from the university at Cali. The area averaged about an inch of rain a day throughout the year, so the area stayed WET. Above the road that we came on was a steep hillside with a good forest cover. We went up a trail during one of the dryer spells and had good collecting until it started to rain hard. George and I came down to the road and waited for Anne, who had gone off in a different direction. We heard Anne yell, then she appeared sliding down a log slide and over a five foot bank, to land in a fairly deep puddle! Only her dignity was harmed and we all had a good laugh (shades of the movie Romancing the Stone).

Shortly thereafter we left for Panama. While in Colombia Anne and I had noted that George's rather worn field bag was coming apart at the seams. Our suggestion that he should get a new one fell on deaf ears. When we got to Panama George found the several vials of specimens were missing! It was finally concluded that they had fallen out of one of the holes in his bag, but no changes were made. We then went to a small motel at the top of Cerro Campana where again we had great collecting between periods of hard rain. The rain caused a small landslide and the road down the Cerro was blocked by a car-sized rock. We collected for several more days, but then needed to leave. Leaving the car was out of the question, as the rental company would not take kindly to hear that their car was left on top of Cerro Campana. With the aid of some locals and pesos we built a ramp of sorts around the rock and edged the unloaded car around it. We were lucky! We then loaded up and headed back to the Canal Zone. The next day, as we were leaving, George realized that he had left all of his

Panama collecting at the motel! Local entomologists said they would try to retrieve them, but made no promises. A month or so later George got his specimens in the mail. It turned out that the rock was a blessing. It blocked the road for months, the motel had no business, no rooms were cleaned, so George's specimens did

not go out with the trash. All is well that ends well.

We saw George subsequently at several meetings but did not go on other trips together. Too bad, as trips were never dull when George was along!



August, 1992. The Algodones Sand Dunes near Glamis, Imperial County, California. The author demonstrating (to his wife Anne and Editors Rich, Bill and Barney) how to cross Highway 78 with style: while dancing the Hokey Pokey.