

# Friends of the Entomology Research Museum



## Newsletter



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FERM: Friends of the Entomology Research Museum is a UCR campus sponsored support group whose membership is open to students, faculty, staff, and the general public. Annual dues are ten dollars. Membership privileges include the annual meeting, and other occasional meetings and events including field trips and lectures.

### Newsletters Online!

Back issues of the FERM newsletter are now available for online viewing! They can be accessed at the following URL:

[http://entmuseum.ucr.edu/  
join\\_us\\_ferm.htm](http://entmuseum.ucr.edu/join_us_ferm.htm)

The FERM Newsletter is published approximately quarterly and contains articles written by FERM members. If you would like to submit an article, please send it as a Word/Wordperfect file using one of the following two methods: (1) an attachment via email to the editor (see below) or (2) a hard copy version on disk. Submissions will be published in the order they are received in accordance with space availability and relevancy to the FERM general readership. If you have questions please contact the FERM Newsletter editor, Doug Yanega: [dyanega@ucr.edu](mailto:dyanega@ucr.edu)

## FERM ANNUAL MEETING January 31st, 6 PM

The Annual FERM meeting and Potluck Dinner will be held on January 31st, a Saturday, at the U.C.R Entomology Bldg. foyer and large conference room.

Setup starts at 5:00pm

Dinner at 6:00

Lecture at 7:00

What to bring: something for yourself and 3 others. FERM will provide cups, plates, utensils, hot/cold drinks.

Dr. Michael Caterino of the Santa Barbara Museum of Natural History will present our annual guest lecture:

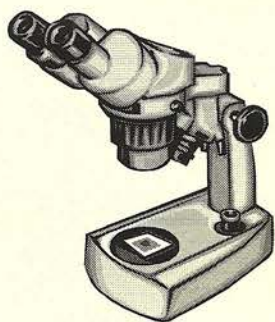
## **Beetle Diversity of Southern California**

Dr. Caterino has been engaged in an effort to catalogue all of the beetles of California, and it should be an interesting presentation. The presentation will be followed by a book and equipment auction.



*Amphizoa insolens*, South Fork Santa Ana River, July 26, 2008 (photo by G.R. Ballmer) - an uncommon local "amphibious" beetle





## NEWS FROM THE MUSEUM

by Doug Yanega, Senior Museum Scientist

Things have been busy in the Museum lately. Alexis Park, now acting as the data entry technician for our big Bee Databasing grant, has databased nearly 20,000 of P.H. Timberlake's bees, which is a respectable chunk of our bee collection, though a lot more remain to be done yet, and only a few more months before the grant runs out.

Peter Brabant had been coming in occasionally to mount specimens, and then was temporarily hired on to help with the labeling of re-mounted slides of parasitic wasps (an important project of Serguei's), but then graduated and got a "real job" working for the County. Peter's replacement, Chris Jordan, has only been working a short time, but looks to be a fast learner and efficient worker, so all should go well for the continuation of the remounting project. A related project, to database the slides of the wasp family Encyrtidae, has also begun, and we have hired another worker, Sergey Kuzin, to assist with this. We also have Wei Song Hwang, author of one of this issue's articles, working in the ERM this quarter to help reorganize the Hemiptera, the Lygaeidae in particular.

One of our Argentinian friends, Daniel Aquino, returned briefly to work with the Mymaridae. We also had a FERM speaker in May, James Adams from Dalton State College in Georgia, who gave an excellent presentation on moths, and also curated all of our unsorted Lepidoptera to family, which was a major accomplishment.

We recently received another donation, this time from a former UCR student, Andres de la Garza, presently living in Upland, which included a number of valuable books, some equipment (nets and spreading boards), and some 20 drawers of specimens, especially butterflies and moths that can be used for both the research collection and for displays and teaching. A number of the books and drawers should be available, via auction, to FERM members at this year's annual meeting. Shortly thereafter, FERM member and supporter Gordon Pratt donated 26 drawers of specimens from a study of the insects of Edwards AFB, an especially valuable set of material, for which we are very grateful.

With the bees and slides now being databased, the Museum's regular database has now grown to roughly 194,000 specimens, and a number of these records are now available online. There were a fair number of field trips this season (though not locally), the most interesting ones being those that roamed farther afield, and several of these are the focus of this issue's articles.

### Got an idea for a FERM article???

Do you have anything buggy-related that might be of interest for the FERM newsletter? We've been having fewer newsletters largely because of a scarcity of submissions, so please do give some thought to whether you might have something to contribute. Remember, this newsletter won't have much in it unless we have material submitted from you folks that we can publish. Feel free to send in photos, articles, recent publications related to insect taxonomy or natural history and even stories about how the Entomology Research Museum has assisted you in your bug-related endeavors. Send them to [dyanega@ucr.edu](mailto:dyanega@ucr.edu), preferably as attachments (not in email text). Additional information is on the front page of this newsletter.





## In Quest of Topotypic *Cinetus* specimens

By Gene Drake

In 1890 Ashmead described *Pisiloma coloradense* from a single female Diapriidae collected in the state of Colorado. Where in Colorado? Which of Colorado's many life zones? What time of year in Colorado? Through years of systematic palpitation the scientific name becomes changed to *Cinetus coloradensis*. The single female Holotype specimen is still stored in the Smithsonian; a little bleached and bleached from the years on a pin and lack of sunshine. The pin has red and white labels from top to bottom.

This last spring there was a family wedding to take place in Golden, Colorado. It was a sure trip to purgatory if my corpus didn't make it to the wedding. Let's put a happy face on. There are insects to be collected in Colorado. Habitats to be explored. New mountains to be climbed. So a great wad of \$100 bills was stuffed in my pocket, the white GMC pick up truck was pointed toward Colorado. The first \$100 went in to buy a tank of gasoline at \$4.54 per gallon. In two days we were in Golden Colorado and short \$200 Yankee money. The Groom said "I do"; the Bride said "I do". We were off to collect diapriids with Colorado gasoline costing \$3.82 per gallon. A quick look to the east revealed grassland for miles. *Cinetus* likes old growth forest. Ok, west is the way to go. To the west there are houses on every hill; homes placed on 5 acre lots as far as the eye can see. There were no native undergrowth type shrubs to be seen. The old cattle barons may have damaged this area, but the new computer barons have finished off the destruction of the habitat. The scrub plant life is gone. West into the hills we went looking for a patch of native unmolested forest. The country roads are all marked "no parking" with State of Colorado, Department of Game and Fish signs. A citation for a parking violation is issued by the Game and Fish Department to the tune of 75 dollars for parking just about anywhere in the mountains west of Golden. We finally wandered down a narrow dirt road about 25 miles looking for a place to legally stop. At the end of the road was the Mount Evans Wildlife Reserve. This is a portion of the old 1850's Evans Cattle Ranch turned over to Colorado Division of Wildlife for public hunting and fishing. I can live with that; it looks like good habitat for everything native and natural. Stop! A Colorado Department of Wildlife, Habitat Stamp is required to park at this site. Twenty five miles back to Evergreen to get the proper Stamp. There is a herd of elk blocking main street in Evergreen. Elk don't move fast! Really, you can't hurry fat elk. I finally get to a Fly Fishing shop that sells Wildlife Habitat Stamps. Now, to get the "STAMP"; the shop needs my drivers license and Social Security number as required by Colorado law. They just got busted for using phony Social Security numbers the week before I got there. That option isn't going to work today. The day is over and nothing collected. But I did have a Wildlife Habitat Stamp required to park my truck! The next day it is up the hills again to Mt. Evans. We place yellow pans and malaise traps and leave with high hopes of diapriids in the morning. Next morning we have diapriids in the traps, but the joy melts fast when they are put under the scope. We have *Miota* and *Aclista* (sister genera to *Cinetus*) in spades, but few if any *Cinetus*. However, this is one of the most beautiful places to collect insect that I have been to in the last few years. Serguei and Vladimir have been happy with the winged chromosomes called Mymarids collected from the Mt. Evans Wildlife Area in Colorado. Was it a waste? There are still a few jelly jars of insects from yellow pans to be processed before the verdict is handed down. Waste? No, the Mount Evans Wildlife Area was beautiful; just sitting for a moment and looking at the delicate little *Calypso* and *Corallorhiza* orchids found in the forest here makes one thankful an 1850's Cattle Rancher saved something for the future. The computer generation hasn't saved anything. I may frame my State of Colorado, Department of Natural Resources, Division of Wildlife, Habitat Stamp. It's unique for sure. The funds; \$10.25, go to purchase of additional natural areas from old ranches and fund Search & Rescue operations in the wilderness.

## RECENT PUBLICATIONS BY FERM MEMBERS:

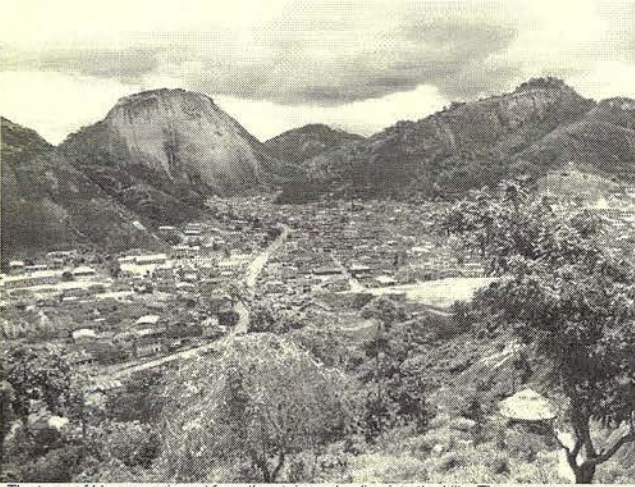
- Ballmer, G.R.** (2008) Life history of *Purlisa gigantea* (Lepidoptera: Lycaenidae: Theclini) in south Thailand. *Tropical Lepidoptera Research* 18: 32-39.
- Ballmer, G.R. & D.M. Wright** (2008) Life History and larval chaetotaxy of *Ahmetia achaja* (Lepidoptera, Lycaenidae, Theclini, Cheritrina). *Zootaxa* 1845: 47-59.
- Polaszek, A., Pyle, R., & Yanega, D.** Animal Names for All: ICZN, ZooBank and the New Taxonomy. Chapter 8 in Wheeler, Q. D. (2008) *The New Taxonomy*. Systematics Association Special Volume Series 75. CRC Press, Boca Raton, FL. (1-2): 115-122.
- Stewart, K. W. & E. F. Drake.** (2008) The nymphs of two rare western stonefly (Plecoptera) species, representing little-known genera. *Transactions of the American Entomological Society* 133
- Vetter, R.S., L.S. Vincent, J.E. Berriau, & J.K. Kempf** (2008) *Metaltella simony* (Araneae: Amphinectidae) widespread in coastal southern California. *Pan-Pacific Entomologist* 84:146-149.



## WASP-HUNTING IN NIGERIA

By Jason Mottern (Graduate Student)

We heard many foreboding words before embarking on our trip to Nigeria. Its government is regarded as one of the most corrupt in the world. Kidnappings, robberies, car-jackings, civil unrest, and a wide variety of scams are all supposedly common occurrences. Basic infrastructure is often lacking; power and water are unreliable, and there is no organized system for disposal of refuse. One fellow entomologist simply asked, "Why on earth do you want to go to Nigeria!?"



The town of Idanre as viewed from the stairway leading into the hills. There are many stunning views along this stairway

Like many assertions plucked from the noise of rumors and hearsay, there are elements of truth to these things. However, they do not represent the "Truth" about Nigeria. We found the many dangers of Nigeria to be vastly overstated. First of all, most of the actual danger is confined to the Niger Delta region. We did not go there, and we never felt particularly unsafe. There is a problem with refuse disposal, but in our experience this is mostly confined to the big cities. The smaller villages and towns are quite clean. To be sure, Nigeria has problems, but it is also a country with huge potential and some truly wonderful people. This human element, so frequently omitted from descriptions of Nigeria, makes it an engaging and safe place to visit. Our hosts made certain that we were safe, comfortable, and had access to the best collecting opportunities during our short stay. We don't recommend naively

wandering into the country looking for fun, but if you are open-minded, adventurous, and have contacts in the country to get you oriented, it is a great place to visit and collect. To Amos, Joshua, Adisa, Funzo, Kenny, Sunday, the staff of Royal River Suites, the King of Idanre and many many others, we offer our sincerest thanks. (Yes, we met the King of Idanre; see photo)

Planning for this trip started when John Heraty had the good fortune to meet Amos Akingbohunge while serving as ESA governing board liaison to the Committee on the Common Names of Insects. Amos is a professor in the Department of Crop Sciences at Obafemi Awolowo University in Ile Ife, Nigeria. Discussions with Professor Akingbohunge culminated in an invitation for UCR faculty and students to visit Nigeria and collect insects in the spectacular hills surrounding the town of Idanre. We quickly recognized this as an opportunity not to be missed, both for collecting in the afrotropics, and also to meet and establish working relationships with Nigerian colleagues. With collecting gear in tow, John, myself, and Christiane Weirauch boarded an airplane for Nigeria following the International Congress of Entomology in Durban, South Africa.



Jason and Christiane with the Owa of Idanre, Oba Frederick Aroloye. He is the paramount king of the town of Idanre. There are no "collecting permits" in Nigeria. Instead, you must seek permission from the king of the land on which you wish to collect. There are many kings in Nigeria (there are three in Idanre alone), and it is vital to visit the appropriate king, not only to get permission to collect, but also to introduce yourself and pay the proper respects. It is customary for men to prostrate themselves before the king upon greeting him (women need only kneel). Jason truly regrets not getting a picture of John prostrating before the king. John's request that graduate students prostrate themselves as they enter his office has thus far been ignored.

The town of Idanre is nestled among magnificent rock outcrops in south-central Nigeria. The town is a composite of three tribes who once lived in separate villages in the hills. They left the hills in the 1920s and 1930s to facilitate trade and at the urging of white missionaries. Nigeria is currently in the process of renovating these ancient villages in an effort to gain World Heritage status. The climate is tropical, and the area is dominated by secondary forest. There is also mature tropical forest and succulent scrub on the tops of the rocks.

(Continued on page 5)



(Ctd. From page 4)



Part of one of the original villages nestled in the Idanre Hills

We collected in two main habitat types: secondary forest and mature forest. There were also insects unique to the succulent scrub on the tops of the rocks. We were able to collect using sweep nets, beating sheets, malaise traps, yellow pan traps, and a fluorescent UV light supplied by Christiane. As expected, the weather was warm and extremely humid. It rained nearly every day, but usually just for a brief period. We were rained out on only one day, and we used this time to scout for alternate collecting sites.

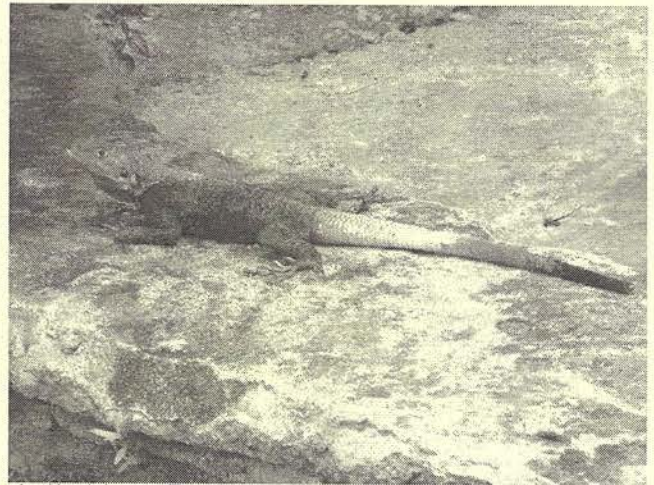
As an interesting side-note, there are no "collecting permits" in Nigeria. Instead, you must seek permission from the king of the land on which you wish to collect. There are many kings in Nigeria (there are three in Idanre alone), and it is vital to visit the appropriate king, not only to get permission to collect, but also to introduce yourself and pay the proper respects. It is customary for

men to prostrate themselves before the king upon greeting him (women need only kneel). I truly regret not getting a picture of John prostrating before the king.

We left some collecting equipment (malaise traps and pan-trapping supplies) with Joshua, an entomology student at the university in Ile Ife. He is willing to continue collecting and share the catch with us. Hopefully, the specimens we brought back will be only the beginning.



John examining a trail of army ants.



A red-headed agama. These lizards are very common in Nigeria. This male is about twelve inches long.



### FERM POSTERS STILL ON SALE:

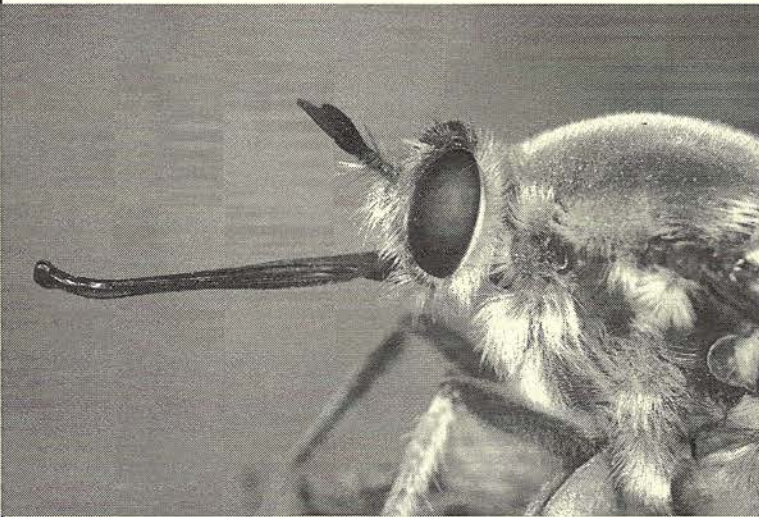
As mentioned in the last newsletter, as part of our drive to boost our account, we would like to encourage FERM members to buy our new posters, or see if they can't find some people who would like to buy one (we've had only a handful of takers so far). They're in glorious living color, with fifteen of Greg Ballmer's amazing insect photos, depicting just a few of SoCal's more interesting or colorful critters.





## Rediscovering the thick-snouted giant flower-loving fly

By Greg Ballmer



In September 1967 the late bombyliid fly specialist Reginald Painter and his wife Elizabeth stopped along Highway 57, "60 miles south of San Roberto Junction", in southern Nuevo Leon, Mexico, where they collected the type (and, until recently, only known) specimen of *Rhaphiomidas pachyrhynchus*. The following is an account of a journey by UCR alumnus Matthew Van Dam and myself to rediscover and collect specimens of *R. pachyrhynchus* for Matthew's *Rhaphiomidas* DNA phylogeny research at UC Berkeley. The 22 known species of *Rhaphiomidas* (aka giant flower-loving flies) occur only in southwestern North America, while their nearest relatives in the Mydidae have a Gondwanan distribution in Chile, South Africa, and Australia. Despite their vernacular appellation and long proboscis (useful in imbibing floral nectar), some species seldom or never visit flowers.

Matthew and I flew to Monterrey, Nuevo Leon, Mexico, on September 16. There we met Dr. Alejandro Gonzalez, a UCR alumnus and specialist on aculeate Hymenoptera, who arranged for our collecting permit and private transportation for the remainder of our journey. The next day, we drove south on Highway 57 (a modern 4-lane expressway and sometimes toll-road) to southern Nuevo Leon to find the type locality of *R. pachyrhynchus*. We arrived at the presumed site around 5 PM, expecting to find a patch of sandy soil or dunes, such as other *Rhaphiomidas* species are wont to inhabit in California. Instead, we found a dense thorn scrub community of creosote bush, mesquite, agave, and cactus, plus numerous flowering forbs growing on a thin rocky limestone soil. There was no sand, and no *Rhaphiomidas*. It was visibly the same sort of terrain we had been driving through for many miles. We then drove several more miles south into the state of San Luis Potosi to Matehuala and found lodging at the comfortably modern Hotel del Parque, which became our base for the next three days.

We were in the center of Mexico's Altiplano, a high elevation dry plateau, comprised of broad valleys (el. ca 5000') with scattered small farming/ranching communities and bordered by N-S trending, rocky, cactus and agave-strewn hills, some reaching an elevation over 8000'. The entire region has a limestone base, with only scattered patches of soil suitable for productive farming (mostly corn). Because only the main highways are paved, several rural communities had become isolated by torrential rains, which washed out unimproved access roads during August. The same rains, which made access difficult, nevertheless caused the desert to bloom and brought forth abundant insect activity nearly everywhere we went.

In our first full day on the Altiplano (Sept. 18), we awoke to dense low cloud cover much like coastal California's June gloom weather. Our initial foray was northwest to Real de Catorce, an old mining district at an elevation of 8000 feet. We had seen a travel brochure at the hotel, which included a photo of what appeared to be sparkling white sand dunes behind an SUV. Nobody at the hotel desk knew of any dunes nearby, nor where the dune photo was taken. We learned from the agency, which produced the brochure, that the photo probably came from Real de Catorce. After several jolting miles on a cobblestone road we arrived at the Real de Catorce mining district, along the way passing through sparse thorn scrub vegetation and rocky limestone hills. We showed the travel brochure to the locals and asked about the location of the dunes, only to learn that there were none and that the photo actually depicted heaps of mine tailings. Bummer!

Leaving Real de Catorce behind, we drove south several miles on Hwy 57 before turning east, beyond a range of low hills, to a broad valley parallel to that of Matehuala. Everywhere we found thorn scrub vegetation with minor variations in composition, sometimes dominated by creosote bushes and mesquite and sometimes by agaves and tall yuccas reminiscent of Joshua trees. The occasional impoverished villages were notably similar in the use of tall organ pipe-like cactus to create living property line fences. Outside of cultivation, we found only several types of prickly pear, pencil, and barrel cactus, plus various low-to-the-ground peyote type cacti. All afternoon we drove northward until reaching a point a few miles north and east of the reported *R. pachyrhynchus* collection site.

(Continued on page 7)



(Continued from page 6)

We then drove west, back to Hwy 57 and south again to Matehuala, completing a grand loop of the region. Along the way, we stopped periodically to sample the insect fauna (and then remove cactus spines from our legs and shoes). We observed no *R. pachyrhynchus*, nor did we find any sandy soils. But late in the day we did find a relatively barren alkali sink type area in the valley bottom a few miles NE of the presumed *R. pachyrhynchus* collection site. Because *R. auratus* has been found in somewhat similar habitat in California, we thought the site warranted a morning visit and planned to return the next day. The next morning (Sept. 19), after a satisfying hotel breakfast of omelets, chilaquiles, and coffee, we returned to the "alkali sink" area. The morning clouds were evaporating as we arrived around 9 AM, portending good weather conditions. A few cattle lolled about on bare ground and in the shade of scattered mesquite; one animal seemed oblivious to a large cactus pad firmly attached to its flank. There was moderate insect activity on scattered clumps of flowers, but no *Rhaphiomidas*, so we drove south a few miles and checked a more vegetated site in the valley bottom. Again, no *Rhaphiomidas* could be found.

Returning to Hwy 57, we drove south a few more miles (still north of the presumed type locality) and turned westward on a primitive ranch road. Here the vegetation was dominated by creosote bushes with scattered tall yuccas and mesquite, intermixed with cactus. Alejandro asked how far he should drive. I said "make it an even 3 kilometers from the highway". Within five minutes after we parked the car, I plopped my net over the first *R. pachyrhynchus*; simultaneously, I heard Matthew shouting from nearby "Hey, they're here!". Matthew also located and carefully excavated several pupal exuviae protruding from the ground. The soil surface was generally firm and often consolidated by cryptogamic crust, but there were numerous livestock trails and other sites where animal activity had broken the crust to reveal a chalky soil texture beneath the surface. Two females were captured late in the day when they alighted on the ground (presumably to deposit eggs) where the surface crust was broken.

In one day, we increased the known number of specimens of *R. pachyrhynchus* to ten; but it was not easy. The males were conspicuous in their behavior, being dark, over an inch long, stout-bodied, and flying almost constantly and erratically as they inspected shrubs for prospective mates. Chasing them down entailed guessing their flight path, maneuvering quickly to a location where they seemed likely to pass by, and at the same time trying to avoid cacti and other potential obstacles. Male searching flight activity was intense in the morning, but ended by mid afternoon. While males were actively searching, females generally rested inconspicuously on shrubs until encountered by a male or disturbed by a passing entomologist. In the latter case, the female usually flew rapidly away, disappearing into the distance.

We spent one more day on the Altiplano, unsuccessfully looking for more sites occupied by *R. pachyrhynchus*. Over the next few days, we drove westward into the state of Coahuila, investigating two *bona fide* dune systems near Torreon and Cuatro Ciénegas. Although no more *Rhaphiomidas* were encountered, many other interesting insects were found along the way. But that is another story.

(Ctd. From page 8)

The next day we crossed the continental divide, into the Mountain Time Zone, as we made a mad dash into New Mexico and up north to the Chaco Canyon National Historic Park. We were just in time to set up our light traps, outside the canyon at dusk, while we enjoyed a brilliant lightning display atop a rocky outcrop. Our moment of nature appreciation was short-lived when we realized the lightning-generous thunderstorm was heading straight in our direction. We beat a hasty retreat, but inevitably got swallowed into the thunderstorm as we tried to reach our campsite. What followed next was the most harrowing ordeal of our trip, as we endured howling winds, rain beating down in sheets horizontally, a rugged landscape eerily lit by flashes of lightning, a slippery road and a timely-cued burst tire. We braved through the maelstrom to the tune of Mission Impossible and reached the campsite in the dark, dutifully rewarded at the dawn of the next day by the sight that beheld us. Haunting ruins of the ancient pueblo people stood stoic among a beautiful but unforgiving landscape, guarding its history, and revealing it to only those who ventured thus far. As we headed out of the canyon to rejoin our own civilization, we collected along the highlands that yielded interesting finds as well. Our journey back to Arizona was severely delayed by the burst tire as we spent the rest of the day at Gallup looking for a proper replacement to get us safely home. Unbeknownst to us then, the effects of staying at such high altitude overnight were having a toll on us, as we were all beset by mysterious headaches and fatigue. We eventually crossed back into Arizona and reached Flagstaff to spend the night for a much-needed rest. Our final collecting occurred in Tonto National Forest as we made our way down from the pine forests of Flagstaff to arid Phoenix, thus completing a full circle of collecting sites across Arizona and northern New Mexico.

Overall our 9-day hit-and-run guerilla tactic collecting trip proved fruitful in having a choice sampling of the good insect collecting sites of central and southern Arizona as well as northern New Mexico. Although some targeted insects successfully eluded us, other insects that we caught were in good amounts and variety to keep us busy in the lab for a good while to come.





A SUNNY SUMMER SPREE: An insect-collecting trip report  
by Wei Song Hwang (Graduate Student)

The end of the annual monsoon season, some expiring funds, and the general love for holding insects in our hands conspired to form a joint insect-collecting trip between the students from the Heraty Lab (Elizabeth Murray, Andrew Ernst), the Heteropteran Systematics Lab (Wei Song Hwang) and an Aquatics and Cerambycid-hunter from the Walton lab (Adena Why). The 9-day adventure across Arizona and New Mexico occurred over the last two weeks of August 2008, in the hopes of catching the insect bloom at the end of the monsoon showers, only to be caught unawares by unwelcomed tidings. Targets of the trip include chalcidid wasps, assassin bugs, kissing bugs, longhorn beetles and scarabs.

Our first collecting location was Payson, a small town right in the heart of Arizona, known for hosting the world's oldest continuous rodeo, and also (from our amused discovery) an experimental elk road-crossing signaling station nearby, that worked pretty effectively in fact. *Dynastes*-hunting was the main reason that brought us to Payson, with the local Home Depot parking lot floodlights serving as the best collecting spot. It is also here that we discovered that one of our co-trippers has a penchant for picking up firewood wherever convenient, in preparation for a possible campfire. On the same night, dangerous night-driving by Andrew caused our lives to briefly flash before our eyes as we witnessed, in slow motion, an almost head-on collision prevented by a timely maneuver. On our way down to our second destination, our fervor for collecting was well demonstrated not only by the frequent stops we made along the way, but also in the grave mistakes of collecting a speeding ticket and an all too-friendly cholla cactus that simply wouldn't let go of Elizabeth's leg, who learnt quickly the value of wearing trousers instead of shorts in the desert.

Our second destination was Madera Canyon, in southern Arizona, where a rise in elevation translates to the observable differences in flora and fauna found within the canyons and the desert expanse surrounding it. Night-lighting at the parking lot brought in copious amounts of nocturnal insects, most notably the green jewel beetle *Chrysina beyeri*, and countless different moths that decorated our outfits in no time. Assassin bugs were plentiful in the lower shrubland areas but mysteriously absent higher up in the canyons. Nevertheless, witnessing of the mass emergence of fungus beetles from their pupa in the dry canyon creek made everything worthwhile. Our hopes of having a campfire here were tragically dashed when the generously donated firewood from other friendly campers was stolen (to our disgust) by (possibly) some other jealous campers. The devastation was quickly relieved the next morning when we learnt of an ingenious method of washing our hair under the short hand-pumped water spout at our campsite. It was also here that we discovered the extent of Adena's affinity for insect bites and stings. Urticating caterpillar hairs, mosquito bites and ultimately harvester ant stings almost brought Adena to a level of non-functionality while she was performing her duty as head chef-of-the-trip on a roadside make-shift kitchen. Fortunately the effect wore off after a few hours and she was back talking once again.

With heads of sweet-smelling hair, we continued our journey through southern Arizona, camping at Pena Blanca Lake, close to the Mexican border. For fear of "bad people" in the area, our firewood-loving friend kept the hatchet close at hand while at the same time distant thunderstorms, conjuring possibilities of a flashflood upon our creek bed campsite, kept her up all night. Our collecting trip was dampened from then onwards by a tropical depression which teamed up with the residual local afternoon thunderstorms to let loose rain all around us. Stopovers at Lake Patagonia, Miller Canyon and the Huachuca Mountains were generally ruined by the uncooperative showers. A rare window of opportunity opened up on the fourth day as we approached the Dragoon Mountains, where we successfully caught plenty of chalcidid wasps and assassin bugs to our delight. The rains quickly realized the oversight and closed in on us as we sped away from the Dragoon Mountains well-loaded. The rest of the wet noontime was well-spent at the western town of Tombstone, gobbling buffalo burgers and witnessing a very drenched O.K. Corral gunfight of Wyatt Earp and brothers against the Cowboys.

Our mountain range-hopping journey brought us next to the eastern most Chiricahua Mountains, primarily to look for the elusive *Kapala* wasp, rarely collected in this area of the US. The changing landscape, as we approached the campsite within the mountains, was the most astounding by far and it is a pity we did not get to stay any longer in this magnificent area.



(Ctd. On page 7)





photo © G.R. Ballmer

*Probethylus "schwarzi"* (Family Sclerogibbidae)

By Doug Yanega

Wasps of the seldom seen family Sclerogibbidae are among those wasp groups characterized by wingless females and winged males. The family is not diverse, with only some 10 recognized species worldwide. This classification is somewhat controversial, however, as many "species" (such as the one pictured here) occur on several continents, attack a variety of hosts, and vary widely in their shapes, sizes, and colors. The morphological variation is so extreme, and the geographic distributions so sprawling, as to suggest that most of the known species are actually complexes consisting of a large number of species that share a small set of features which are presently considered to be diagnostic at the species level. This situation is unlikely to ever be resolved without recourse to extensive genetic analysis. The females are particularly ant-like, but readily distinguished by their antennae, which, although not very long, possess over 20 segments, as well as the peculiarly swollen forelegs. Female sclerogibbids attack the nymphs of webspinners (Embioptera), and the larvae feed while attached externally to the bodies of their hosts.