

# Friends of the Entomology Research Museum



## Newsletter



Editors: Connell Dunning and Robert Wepler

### Summer 1999

#### FERM Collecting/Camping Trip

**Where:** Ironwood Group Campground, San Bernardino Mountains.

**When:** Saturday, July 24, 1999. A caravan will depart from Parking Lot 12 near the main Entomology building on the UC-Riverside campus at 8:00AM. We will do an initial campsite drive-by so everyone knows where it is before daytime activities begin.

**Who:** Trip open to the general membership of FERM. The site limits us to 25 people and 6 vehicles, so sign up with Mike Gates ASAP (909-787-5740, [gates@citrus.ucr.edu](mailto:gates@citrus.ucr.edu)).

**What:** This site has pit toilets, fire pits and bare ground camping pads. It is located at the edge of a large, grassy meadow surrounded by pine trees.

We plan to make this a daytime collecting trip on Saturday in the San Bernardino Mountains and many potential habitats can be visited: riparian, coniferous forest, pebble plains and down northerly transects to the Mojave Desert floor. The check-in time is at 2:00PM and group leaders will have established residency at the site by then. We will camp that evening and set up black lights and mercury vapor lights, cooking fires, etc. Sunday morning we will have breakfast and then depart (collecting all the way?).

**What to bring:** WATER!, camping gear, food for three meals (lunch, dinner, breakfast), cooking supplies, collecting equipment, etc.

**What is supplied by FERM:** Wood and/or charcoal for cooking, "free" lodging, photocopies of an area map for attendees.

#### Algodones Dunes: History, Ecology and Collecting

by Michael W. Gates

The Algodones Dunes are located in southeastern California at the eastern edge of the Imperial Valley. They are oriented northwest to southeast and extend for 40 miles (traverse 4-5 miles into Mexico) and range in width between 3-6 miles. The largest individual dunes approach 300 feet in height.

Several parallel ridges characterize the western margin of the dunes (especially in the southern and central portions). Conversely, the eastern side of the dunes possesses a sandy apron that is greater than or equal to a mile in width (Norris & Norris, 1961). This eastern apron receives the infrequent runoff from the Chocolate and Cargo Muchacho mountains to the northeast, resulting in relatively lush vegetation in the swales where this water is trapped.

Rainfall in this area is minimal at best. It typically occurs in the form of winter or early spring rains, but late summer monsoons are also known to produce sometimes torrential downpours. Although the dunes appear completely dry on the surface, particularly in the scorching summer months, the sand is perpetually moist several inches below the surface. In effect, the dunes act as a giant sponge by soaking in all the water contacting them. This water is then transported by capillary action to the dunes' interior. Winds are characteristically from the north-northwest as channeled by the shape of the San Geronio Pass and the Coachella Valley.

The origin of the sands comprising the Algodones Dunes was originally thought to be derived from shoreline deposits of the ancient Lake Cahuilla (occupied current area and more of the present-day Salton Sea) or nearby washes (i.e. Whitewater and Mammoth) (Norris & Norris, 1961; Coy et al., 1967). However, sand

*(Continued on page 6)*

## Recent Museum Activities I by Doug Yanega

### A COACHING SUCCESS

Recently, a pair of students from an Orange County high school (they never did tell me exactly which one) came by the ERM twice to study up on their insect IDs for the National Science Olympiad in May, and I was able to give them several pointers on how to recognize various families. I got a phone call from them shortly after the competition to thank me, as they took the Silver Medal in the Entomology competition, which helped the team take the Silver overall! Unfortunately, I've been told this was the last year that Entomology will be one of the "events" in the Olympiad, so there won't be a chance to try for the Gold next year. Dang.

### DATABASING BEGINS

On May 3rd, the Museum's new Specimen Inventory Database was created, and is off and running.

In the first month, working only with incoming and outgoing loans, over 1500 specimens from nearly 100 species have already been entered into the database, and the coming month should add more than twice that to the total. As more species and localities get entered in, the process of entering new records will gradually get a little faster, since repeat entries won't need to be typed in a second time - and we've got LOTS of specimens from some localities. Most of the records will go one step farther than the data on the labels, including information such as latitude and longitude data, which will hopefully facilitate biogeographic studies and regional inventories in the future.



### DONATION INTEGRATED

The recent donation of the Meyer insect collection from the Raymond M. Alf Museum of Paleontology has finally been integrated into the ERM collection, though a fair bit of the material, mostly from Brazil and Pakistan, still needs to be labelled. All told, the donation added about 10 drawers of insects to the ERM, with some specimens headed for the teaching/outreach collection, some for the public displays, and some for the research collection.

## Recent Museum Activities II by Serguei Triapitsyn

### DONATIONS RECEIVED

The ERM has just received a large and well-curated collection of parasitic Hymenoptera from Mr. Harry Andersen of Huntington Beach. Harry is a FERM member and has been a devoted museum affiliate for many years. I estimate that the total number of specimens donated is ca. 20,000. The core of the collection, about 10 drawers, are the Pteromalidae (Chalcidoidea), his favorite family. The majority of specimens were collected by Harry Andersen himself in the United States (California, Alaska, Illinois, Montana, etc.) and many are identified to genus and species. A large collection of books and reprints are donated as well. The museum owes a big thank you to Harry for this generous donation.

In his communication, Doug Yanega is modest not to mention his donation of 12 drawers full of miscellaneous insects from the New World. Many are from places Doug visited: Brazil, Mexico, Panama, etc. It is not a surprise to anyone that all the bees in his personal collection are identified, a welcome addition to our Hymenoptera collection.

## High Quality Equipment For Sale



### Rose Engineering Entomological Products

John Rose, owner and operator of Rose Engineering (and a member of FERM), is now offering to FERM members a 20% discount on all of his entomological equipment.

Rose Engineering products include superior quality insect nets, aspirators, pinning blocks, pinned specimen manipulators for microscope use, and mercury vapor light setups (175 W and 400 W models).

If you'd like information and prices or would like to see examples of these products, contact John Rose at Rose Engineering toll free at 1-877-249-1623, or Dave Hawks at 909-784-6951, or check out the web site: <http://www.biohaven.com/bus/rose/>

*-Announcing Two September Collecting Trips -*  
**The 1st Annual FERM *Collect-a-thon***  
**(or is it "collect-a-ton"?)**



**Friday to Sunday, 3-5 September 1999**

2-person teams may collect either from 7:00 PM Friday to 7:00 PM Saturday or from 7:00 AM Saturday to 7:00 AM Sunday, anywhere in southern California. Team members must use the same means of transportation (i.e. the same car), and should visit each locality together.

The goal is to collect examples of as many insect families as possible (the winning team will probably have close to 200 families!). In this event, diversity counts only at the family level, and collecting large numbers of specimens of the same family will serve to waste time that could be spent finding other families and will make the task of sorting, mounting and identifying more difficult and time consuming on Sunday. Only adult stages will be counted. No trapping methods allowed (malaise, yellow pan traps, bait, pitfall, etc.). Ultraviolet light attraction is OK, but not run as a trap.

**Open to all FERM members and UCR Entomology Department students, staff, and faculty.**

Specimens will be mounted and IDed on Sunday at the Entomology Research Museum. Identifying will be a group effort (the "Big Guns" will be there to help you). ID's will be according to the 6th edition of Borror, Triplehorn & Johnson.

BBQ on Sunday afternoon! Prizes! More information will be available by late August. Questions and comments are welcome. Contact Dave Hawks at 909-784-6951 or at pluslots@pe.net



## **Scientific Collecting Trip to the Granite Mountains**

FERM is planning another trip to the Sweeney Granite Mountains Desert Research Center up near the Kelso Dunes in the Mojave Desert on Friday/Saturday, Sept. 10th and 11th (the new moon is the 9th so the lunaphobic insects will be out). FERM members visited this facility last year and also in April '99. The director there is more than astonished that there are so many bug freaks willing to come up and help them create an insect inventory in exchange for 2 nights rooming.

The center is 166 miles from campus and has gorgeous facilities with almost enough refrigerator space to maintain all the beer that provides the energy to monitor black light traps all night. There are cottages and bunk beds however space is limited as well as is their water supply. Camping out in the wash is also an option and highly recommended for those who are light sleepers, heavy snorers or reticent at sharing nighttime air space with the likes of Dave Hawks and Greg Ballmer. At the moment, we have the loft and 1 cottage reserved (the 2nd cottage is currently allocated for other researchers but if unused, we can reserve it about 2 days before the trip.) Remember there are no janitorial services there, so everyone has to pitch in to clean the kitchens, bathrooms and sleeping areas before leaving.

**Date:** 10-11 September 1999

**Location:** Sweeney Granite Mt Desert Research Center, 166 miles from UCR

**Facilities:** beds, full kitchen with 4-burner gas stove, microwave, 2 large refrigerators, 2 bathrooms with flush toilets and showers

**Bring:** food, sleeping bag, pillows,

**Cost:** overnight fees waived in lieu of providing voucher specimens of insects

**Instructions: READ CAREFULLY.** As a mechanism of fairness, this is how the trip arrangements are going to be made. Since the intent of this trip is strictly scientific collection, only FERM members will be allowed to sign up (i.e., no non-FERM family members). To ensure a rotation of personnel, sign-ups will be available first to FERM members who DID NOT go on either of the first 2 trips; those folks may sign up immediately. FERM members who went on the other trips will be allowed to sign up after August 15th. A waiting list will be made and as folks drop out (as they are wont to do), the next person on the list will go; space is limited to 12-15 people depending on who is camping in the wash or sleeping in vehicles. Also, 4 slots will be designated for FERM Board members to act as leaders because there are lots of rules that need to be needed to ensure that we don't desecrate archeological research areas or commit additional ecological faux pas. If you want to go, you **HAVE** to contact Rick Vetter [909-787-3550, vetter@crucrus.ucr.edu] as he is in charge of coordinating the whole shebang and will be the only one with full knowledge of the list of folks going as well as any stipulations that might change in regard to the Granite Mt. facility.

# Notes from past FERM Desert Field Trips Winter-Spring 1999

by Greg Ballmer and Doug Yanega



Four FERM field trips during late winter and spring were devoted to tackling Mojave Desert insects. The Desert Studies Center at Soda Springs (aka Zzyzx) was the home base for two overnight trips (February 19-20 and May 29-30), and the Granite Mts. Reserve was also visited twice (April 9-10 and May 30-31). The last two excursions also included forays into the Kelso Dunes, which lie approximately mid-way between the Granite Mountains and Soda Dry Lake. Collectively, these areas support a rich diversity of endemic insects, as well as numerous species whose ranges penetrate into the east Mojave from Arizona and Nevada. Essentially all of the area is within the Mojave National Reserve, and permits are required to collect within the area. Fortunately, the kind folks who run the above facilities are happy to have FERM expeditions collecting there, since we'll be giving identified voucher material to both, for on-site research and educational purposes.

A dozen FERM members comprised the first Zzyzx expedition. The February nights were cold and windy, while the days were intensely sunny and breezy. In spite of winter drought conditions, a modest variety of insects was collected. Accommodations at the Center were spartan, but comfortable, the company was congenial, and the food was tasty. At night the wood-burning stove in the lounge area was more popular than the blacklight (which is both good and bad, of course).

The weather was considerably warmer there at the end of May, when the three hardy FERM members (Doug Yanega, Greg Ballmer, and Marcella Waggoner) who completed the second Zzyzx expedition, needed to trade sweaters for sombreros. Insects were abundant, but largely limited to the flowering sandpaper bushes (*Petalonyx*), arrowweed (*Pluchea*), and mesquite, where several species of bees, wasps, flies and beetles were collected. Three species of tiger beetles were also found around the springs. Another group out looking for insects the first day found almost nothing, because they had evidently missed out on the few spots with plants in bloom. It was an intensive effort to come up with what we did, and walking across the Dry Lake was a pretty draining experience.

The first trip to the Granite Mts. (Dave Hawks, Rob Weppler, Martin Barnes, Doug, and Greg) was fairly productive for bees and wasps (19 species), mostly found around flowering bladder pod (*Isomeris arborea*) near Cot-

tonwood Wash, which was almost the only thing in bloom. The second Granite Mountains trip was an impromptu extension of the second Zzyzx trip and concentrated on exploring the Kelso Dunes and nearby Arrowweed Spring near the south end of the Providence Mountains. A half dozen specimens of a new species of June beetle (*Polyphylla aequalis*), recently described by Museum Associate Delbert LaRue, were among the prizes found at Kelso.

The Kelso Dunes were visited again on June 19 by David Flietner, Dale and Jun Rong Powell, Greg, Dave, and Doug, to find more *Polyphylla* and the endemic giant flower-loving fly, *Rhaphiomidas tarsalis*. Females of the latter were abundant, nectaring at *Petalonyx*, along with many other flies, bees, and wasps. Doug found one apparently new bee species (in the genus *Perdita*) and a new species of small vespid wasp (*Eusparagia*) at the flowers of *Tequilia* at the dune edge. Another visit was paid to Arrowweed Spring, and there we found an enormous aggregation of solitary bees (an *Opuntia*-specialist species of *Diadasia*) at the parking spot - at least a few thousand nests, sometimes as dense as about 100 per square meter, producing a steady and audible hum, and complete with *Bombilyid* flies flipping eggs into the nest entrances. At night, Dave tested his new 400 watt mercury vapor lamp, which attracted many insects, especially ant lions, velvet ants, and grasshoppers, but no *Polyphylla*. Two species of camel crickets were attracted to oatmeal bait, along with sundry beetles and rodents. We also helped rescue a group whose van had gotten stuck in the sand, one of the perils of spending too much time in dune areas (as if sunburn, eyestrain, and dehydration weren't bad enough).

All in all, these trips resulted in the collection of numerous excellent insect specimens for the UCR Entomology Research Museum, including several new species, and with vouchers going to the collections maintained at the Granite Mountains Reserve and Desert Studies Center at Zzyzx. A lot of folks should be happy with the results.

FERM would like to thank the following members for their contributions in the first year of our organization. Without the continuing support of its members, FERM would be nonexistent! Thank you!

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(Continued from page 1)

sands found at the Algodones Dunes. Rather, Merriam (1969) suggests that they most closely resemble Cenozoic Colorado sandy deposits, based upon a particle size/mineral content study.

Three plant communities have been documented from the dunes: 1) desert psammophytic scrub on active sand, 2) creosote bush scrub on the stabilized flanks of the dune field, and 3) desert microphyll woodland on the eastern dune margin (WESTEC Services, 1977). Surrounding the dunes in all directions is creosote bush (*Larrea tridentata*) scrub. Dune associated plant communities possess remarkable adaptations for life in the sand. Gigantism results from the rapid elongation of roots and shoots, which, in turn, allows the plant to resist being covered by drifting sand (e.g. *Larrea tridentata* var. *aerenaria*, an Algodones endemic). Additionally, plants that would be herbaceous in more mesic areas have developed woodiness of the stem at Algodones. This allows them to resist burial/excavation and is the result, in part, of the lack of large grazing herbivores and a release from seasonality (e.g. *Palofaxia arida* var. *gigantea* (Spanish needles), an Algodones endemic). Additional adaptations are long main roots and high rates of photosynthesis (Bowers, 1982, 1984). Moving sand, not moisture, appears to be the major limiting factor in dune plant distribution.

As suggested above, dune systems possess common endemic plant species adapted for life in a sandy environment. Further, individual dune systems often possess endemic species unique to that particular dune system. Additional plant endemics documented from the Algodones Dunes are: *Helianthus niveus* var. *tephrodes*, *Croton wigginsii* and *Astragalus magdalenae* var. *peirsonii* (Bowers, 1984). As with the flora, so too do the insects include endemic representatives in the Algodones Dunes. Among these are several flies, wasps and beetles including: *Sedomyia glamisensis* (Hymenoptera: Tiphidae)(Kimsey & Wasbauer, 1999), *Apocera ammophila* (Diptera: Apoceraeidae) (Cazier, 1982), *Pseudocolopalpa andrewsii*, *Anomala carlsoni* (Coleoptera: Scarabaeidae) (Hardy & Andrews, 1986; Hardy, 1986).

## Collecting adventures in the Algodones Dunes

During the past three years, several UCR entomologists including myself, have conducted periodic collecting ventures to these dunes. Typically, we go between April and September as most of the insect fauna is active in these months. Our most recent trip (April 1999) involved Doug Yanega (new Entomology Research Museum curator), Jung-Wook "Oogie" Kim (fellow chalcidologist), Chris Tollerup (citrus thrips aficionado) and myself. Oogie and I arrived on a that Friday afternoon at Glamis and proceeded

(Continued on page 8)

## Cruisin' for Choice Chalcidoids

by Bryan Carey



Dr. John Heraty and I pulled up to the curb of the Continental outside desk and tried not to slip any spinal disks as we placed our gear with a thud onto the luggage dolly. As we bid Dave Hawks farewell, it occurred to me that it was difficult to determine whether the bigger grin on his face was related to his imminent departure for 10 days of *Phusiotis* hunting in Central America, or that we would be approximately 1600 miles and two time zones away from him.

As we descended to Houston, I noticed a flat green panorama, here and there dotted with the squares, rectangles, and ribbons of modern civilization's materials to house the work and living areas. I half-expected to see a goose-bump effect from fire ant mounds over the fields on our approach, but it was not so. As we touched down, I saw golf courses, shopping malls, and many tall trees reminiscent of the eastern forests I'd seen a few times on brief trips Back East in recent years. My mind immediately conjured up images of the standard So Cal landscape, with its underwhelming amount of native and undisturbed habitats, and I realized this place had rain and that the landscape was beautiful. Then I exited the plane. Stepping out into real air and sunlight, and under a less noticeable pall of smog than LA, I instantly recognized that this area was humid, another difference from So Cal that would incessantly surface over the next three weeks anytime I walked fast, swept insects, or dug an ant nest. At least we had lots of water.

It was now time to play navigator, as Dr. Heraty enjoyed being in control of the steering wheel (no doubt recalling my past exploits driving the lab vehicle in the desert). It took me a bit to get oriented and figure out how best to "get out of Dodge" and on our way 6 hours south to a destination near Corpus Christi. Luckily, after about an hour, I got to digest something else, for Dr. Heraty was hungry. I'm always hungry, so it was just a question of being patient for his stomach to declare "refill," and I new I'd find some solace in lunch/dinner. But another chilling thought hit me like a Nestea plunge: this was Texas. I had several successful years of vegetarianism, mostly in the hippy environment of my undergraduate institution, but I'd

(Continued on page 7)

(Continued from page 6)

been steadily worsening, especially since my arrival at UCR. I realized I was going to have to revert to my Neolithic predilection for roasted flesh (the opportunities for "veggie" diet were scant in Texas) if I was to survive the trip.

Plenty of familiar fast food chain signs caught my eye along the roads. Something I did miss as I looked across the fields was the lack of change in topography; it was just really flat. I began running through my head the names of the various phobias, trying to piece together the right prefix dealing with flat, open spaces, then shook myself free of the mounting anxiety. It was not worth finding out after all. So we searched the next few days for *Pheidole* (the big-headed ant), and *Solenopsis* (the fire ant). I discovered that all fire ants gave painful stings that developed into irritating blisters, regardless of species epithet. We also searched for and found our beloved eucharitid wasps, primarily the genus *Orasema*. We found several species of the sickle-shaped mandibulate wasps using a variety of leguminous tree species such as Palo Verde, Mesquite, and *Acacia* [for oviposition]. Additionally, we found that *Orasema* was using several asteraceous herbs and rhannaceous shrubs, including a relative of the jujube tree. Nearly all of these host plants are used by other members of the same *Orasema* species group.

A marvelous slice of serendipity smacked us upside the head on May 2.

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During a humid, cloudy the mesquite trees, we unusual column of ants across the parched land. ment escaped our lips nets fell to the ground. draw of a gun duel at high tors flashed out. These in-

struments dive-bombed the marauding columns of *Neivamyrmex* sp., an army ant related to the merciless, tropical *Eciton*. These army ants employed fear, surprise, and ruthless efficiency (much like Monty Python's Spanish Inquisition) as they infiltrated the *Pheidole* nests and subdued their prey. The best part for we two humans was when we saw a handful of the army ants carrying not just ant pupae, but *Orasema* pupae! We knew we had a host record! Even better, we didn't have to dig six feet into the soil to get the proof of parasitization. Of course, we had to try digging anyway.

Fortune smirked at us once more after a grueling seven hour effort. I was relieved that Dr. Heraty wasn't going to let me have all the fun of swinging the sledgehammer, shovel, and post-hole digger to get down to the brood chambers of another *Pheidole* nest. We were blessed with some brood, and we were rewarded with more evidence of parasitization. Though no clear *Orasema* pupae were present, we found the residual evidence of their activity. We saw shriveled and deformed bodies of ant pupae, which are all that remain from the feeding activity of our parasitic wasps, if the wasps do not outright kill their host ant pupae. These unusual ant

forms were given unusual names by the famous myrmecologist William Morton Wheeler, who declaimed them phthistergates, phthistergynes, and phthistaners, to correspond to the worker, queen, and male ant castes, respectively.

Our next game plan involved a scavenger hunt at Big Bend National Park. On the way there, hunger overcame us again. We searched the town of Marathon (population less than 200) for a possible watering hole. Our search did not take long. A moderate-sized nice hotel had a restaurant with it, but after a day in the field with no shower, I figured they either would not admit us, or they'd tar-and-feather us to freshen up our condition. So we went 'round the corner, on the road that would take us to Big Bend. The place we tried was called The Dry Bean Saloon. It advertised food, cowboy tales and cowboy songs. It seated about eight inside. We were greeted by a man possibly in his fifties, dressed to the T in classic cowboy style; big mustache, plaid shirt, jeans, boots, hat, and a friendly smile. He mumbled something along the lines of "Welcome, come on in!" in Spanish that I didn't quite catch. He explained he was fixin' these 100 year-old windows in the house, and then he'd be right out with the menu that his wife Rosemary had put together for the afternoon/evening.

The menu was huge, Texas-sized in fact, and everything described sounded real good. I decided it wouldn't be a good idea to ask for tofu. He informed us his name was Richard, the fifth generation on this ranch area. He immediately began probing our ability to express polite interest as he rambled off showing and telling about the bean pots he'd just bought in Mexico, a Mexican beer brewing pot, and other Indian pottery. He then broke into a poem he'd written. He went into a 6 minute ballad about the empty, modern lives of the "Yuppies in the Sky," a quite hilarious and sharp-witted song lamenting the close of sushi bars and the lack of green grass and rolling hills. The food nearly rivaled



his ability for entertainment, and there was nothing left on my plate. I had never had cow that was prepared on the very property where it grew up. There were sighs of content and guttural praisings across the table from me as well, and Heraty declared the brisket "Superb." When more songs and poems and occasional jokes had been shared with us and the other three patrons, we then had a break (10 seconds), and were asked about dessert and coffee. After considerable arm-twisting by Dr. Heraty and Richard, I agreed to try the blackberry cobbler. It was phenomenal, and I was very reluctant to give up a spoonful to Dr. Heraty, but felt he just had to try it. Our meal was only about \$20.00, and considering we'd just had a trip to Knott's Berry Farm thrown in for free, it was a great value. It was a better slice of America than apple pie. We were now thoroughly energized for the last 1.5 hour drive to get to a camping area within the park.

(Continued on page 8)

(Continued from page 6)

SE on Tom Kipf Road for seven miles to escape the ravaging effects of OHVs that frequent the Glamis area. Turning west at the seven mile mark, we followed some "roads" across the hardpan toward the dunes. Finally, we stopped at the dune margin in a microphyll woodland previously used by OHVs (indicated by large fire ring and crude tables) and proceeded to unpack the mercury vapor set-ups - one at the dune interior and one 1/4 mile east on the sand apron. In this case,



we were after *Pseudocotalpa andrewsii* that flies in April-May but only for ~10-20 minutes just at sunset (Hardy & Andrews, 1986). It makes a characteristic buzzing as it flies after emerging from the sand. Often, they form aggregations around the tips of creosote bush or palo verde.

As I stood confidently by the MV light on the apron, I realized I had forgotten my flashlight. Oogie offered to go back to camp and get his before we were completely enveloped in darkness. I wandered in the vicinity of the MV light awaiting the mass emergence of *P. andrewsii* that I was sure was only seconds away. However, forty-five minutes later, Oogie emerges from the darkness with a vial stuffed full of the beast while I only had one paltry specimen. Evidently, Oogie encountered a localized mass emergence on the very dune margin by our camp and had proceeded to run about for 15 minutes in the dark netting these vaguely outlined flying scarabs. This was all quite exciting and we moved one of the MVs to camp for our light and proceeded to collect many of the interesting moths, smaller scarabs, wasps and cerambycids coming to the light.



(Continued from page 7)

The geology of the area was fantastic, with many shapes and colors to treat the eye. Big Bend seemed more like Zion National Park or the Chiricahua Mountains. I rejoiced to see something beyond the canopy of cactus and acacia that had usually graced our view on this trip. We set up camp (parked the car), and watched a fantastic sunset from some picnic benches at about 6,000 feet high. The bats began a busy night of hunting for boring noctuids like *Catocala*. I saw everyone's favorite sphingid, *Hyles lineata*, flitting about the lights. We had no trouble with skunks, bears, or big cats. Luckily we were both alive in the morning, and we set about our task of *Orasema* searching.

I managed to scare a few javelina, a type of pig-like animal that are called peccaries in Central and South America. At least no mountain lions came charging after them or me! Then as I walked along a creek, I found the familiar Desert Willow along its sides. I searched about 8 trees, some of which were blooming, to no avail. Then I got to a point where the ground came up near the spreading tree top of a smaller tree, and there I saw marks on the leaf! These dark brown series of lines along the leaf suggested some *Orasema* had been here. About three minutes later, I saw a male (small abdomen) of what looked to be *O. aureoviridis* landing up near the solitary pink and white trumpet flowers. A few minutes later, about 6 metres away among some other branches, I saw another male land on some leaves by another series of oviposition marks. My observations led me to believe that here at least was one plant the eucharitid wasps could use, and apparently they were doing so. If only we could have had more time to set ant baits and gather more data! As it was, time was running out on our trip, and we needed to try for two more species at two other state parks. Since they were at least a 6 hour drive away, we needed to make some good time on the road, so we left Big Bend, heading towards the mighty Interstate 10.



After eating several kim-bab (Korean burrito) and some beers, we realized the Doug and Chris had not arrived yet. We received a frantic call at ~10PM from Glamis on Oogie's cell phone asking our whereabouts. Apparently, a communication break-down had occurred and they had traveled SE of Glamis on the wrong side of the railroad tracks, thus missing our turn-off marking tape. They had, however, seen our MV setups in the distance, speculated as to whether or not they belonged to us, and continued on to Ogilby (~30 mile round trip on marginal dirt roads). The remainder of the night was flawless.

The next day, we attempted to collect during the first half of the day but were stymied by the arid conditions. For example, I swept *Eriogonum deserticola* and blooming palo verde (normally phenomenal for microhymenoptera) but was rewarded with only FIVE specimens in 1.5 hours of sweeping. My collecting partner for the morning, Dr. Yanega, fared little better. Yet all was not lost, for we spent about 30 minutes watching a single *Perdita* sp. (Hymenoptera: Andrenidae) revisit its burrow while being closely tailed by a parasitic bee taxon, *Neolarra* sp. (Hymenoptera: Apidae). The parasite is so small and well camouflaged that we could only detect its presence by the tiny, erratic shadow that it cast. We spent our time after lunch awaiting dusk by having meandering conversations interspersed with siestas and playing in the sand (yes, it's true). All in all, my trips to the Algodones dunes have been fantastic and I recommend the dunes for any entomophile out there!

References available from author -  
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