

Friends of the Entomology Research Museum



Newsletter

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The 2001 FERM Field Trip to the Sweeney Granite Mountains Reserve

by Doug Yanega

In what is proving to be an annual ritual, a group of FERM members went to UCR's Sweeney Granite Mountains Desert Research Center on the weekend of May 19-20. This year's group included myself, Rick Vetter, Dave Hawks, Leland Lubinsky, John Rose, Rob Wepler, Ken Osborne, and Matthew & Alex Van Dam. It proved to be an exceptionally busy trip, and we hit the ground running – within a matter of hours after arriving on Friday, Rick had successfully located some of his target spiders in a quick duff sample, and headed home on the night of the 18th, as most of the group was just arriving!

Shortly after Rick's departure, the generators and MV lights were pulled out, and preparations for night collecting there at the Reserve HQ were underway. A series of lights were strung up along a wash, which even at sundown contained numerous insects, including impressive blister beetles (*Lytta magister*) and wasps sleeping on the vegetation. In addition to the regular MV lights, Dave experimented with a custom light rig that he and

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The FERM Newsletter is published 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:

Rick Vetter (vetter@citrus.ucr.edu)

FERM Summer Meeting Saturday Aug 11th Insect Photo Fair Museum Rm 103

Light refreshments will be served.

Contact: Marcella Waggoner

Saturday August 11th is the date for our summer FERM meeting. For the summer meeting, we thought it would be fun for members to share some of their favorite insect photos. This will be a great opportunity for members to present their own work and to learn about the entomological activities of other members. Participating members will be limited to showing 10 slides or 10 minutes of video or 10 minutes of talk with props. The expectation is that you will share some natural history of the insects shown rather than just showing pretty photographs. In order to participate, please contact Marcella Waggoner (phone: 560-2282 or e-mail: marcella.waggoner@ucr.edu), who will schedule speakers. Come on folks; you will have a captive audience of insect lovers! Sign up to share your work.

We have several speakers lined up already.

Dave Hawks "Dave's Guatemalan Travelogue"

Art Strong "A Way to Make Collecting More Meaningful"

Marcella Waggoner "A Few Insects of the Creosote Bush Scrub Zone"

Greg Ballmer "The Lycanids and Animists of Koh Ra" (Thailand)

Ken Osborne "Sphingid salmagundi; and My First Trip to the East Coast"

Gordon Pratt "A new food plant of the endangered Quino Checkerspot"

Rob Velten "Mad Dogs, Englishmen and Buprestid collectors; out in the noonday sun in the Southwest"

Quino Checkerspot Workshops give FERM a firm financial standing thanks to Gordon Pratt

By Rick Vetter

A very important point that has gone unheralded until now is the tremendous contribution that Gordon Pratt (along with Greg Ballmer and Ken Osborne) has made to FERM. Gordon has organized 5 Quino Checkerspot butterfly identification workshops over the last 3 years. These workshops, ably assisted by Greg Ballmer, Ken Osborne, and Dave Hawks, educate various state, county, and USFWS (Fish and Wildlife Service) employees, and biologists who work for consulting agencies in how to properly identify the highly endangered Quino checkerspot butterfly (*Euphydryas editha quino*), its host plant, and areas in which it might be living. These workshops were well attended and Gordon has very generously and altruistically donated most of the proceeds from these workshops to FERM; the remainder went to Quino litigation under the Endangered Habitats League. In the 3 years that these workshops have been given, this has amounted to over \$16,000 for FERM. I don't think anyone can miss the significance of the magnitude of this largess, bordering on phenomenal because this is approximately 50% of the total monies taken in by FERM since its inception. This has given FERM a tremendous financial security, which allows us to seek out avenues of development for the museum much earlier in our nascent years of growth than would have been feasible normally, and allows FERM to be a much more vibrant organization.

Gordon also has taught a butterfly class 3 times with Greg Ballmer through UCR Extension. Instead of pocketing the monetary compensation (total of \$3000) for teaching the class, it has been likewise donated to FERM.

In addition, Gordon's better half, Cissy Pierce, has been providing the FERM annual meetings with a feast that borders on nomination as the 8th Wonder of the World such that the annual meetings are becoming more an excuse to eat great and exotic foods than hearing a distinguished speaker. Not only are there tremendous numbers of dishes prepared (almost all by Cissy alone), but the presentation of the food and table decorations make Martha Stewart look like a high school home ec dropout.

FERM is a much more solid (and well-fed) organization because of the participation of Gordon and Cissy. Next time you see them, show them a gesture of appreciation for their peerless contributions.

Entomological Quotes

Editor's note: It is hoped that this column might be a sporadic but repeated item for the newsletter involving quotes regarding arthropods. If you have some favorite quotes that mention multi-legged, jointed-legged creatures, send them in and when we get enough for another go-round, we will print them.

When spider webs unite, they can tie up a lion.
African Proverb

If there is a large gathering of spiders, everything will be satisfactory.
Ancient Chinese Proverb

The legs are rather long and glossy black as is the body, and altogether it may be said to be a graceful and beautiful spider, if one is an admirer of that style of beauty.

C.C. Browning, M.D.
regarding the black widow spider
S. Calif. Practitioner 16:291-300 (1901)

Both the cockroach and the bird could get along very well without us, although the cockroach would miss us most.

Joseph Wood Krutch

When the blind beetle crawls over the surface of a globe, he doesn't notice the track he has covered is curved. I was lucky enough to have spotted it.
Albert Einstein

Butterflies are the flowers of the air.
E. O. Wilson

It has been said that it is dangerous to study the parasitic Hymenoptera, for those who do are inclined to become alcoholics or end up in mental institutions.

posted in the UCR Entomology Museum

We believe that it requires great enthusiasms to deal accurately with little things, and that it is, consequently, impossible to meet with a reasonable or sober entomologist.

Edinburgh Review, 1822

NEWS FROM THE MUSEUM

by Doug Yanega & Serguei Triapitsyn



We've had an extremely busy and productive spring this year, with many different collecting trips by FERM members all over SoCal, plus excursions into Arizona and Nevada. This has given us several thousand new specimens, including many taxa which were not represented previously in the collection, or for which we only had a small number. Some of the new equipment purchased recently with FERM funds proved extremely useful on these trips, such as the new generator and mercury-vapor light rig. This includes the FERM Granite Mountain Reserve trip in May (see article) which yielded several species previously unknown to science.

The Museum database now has records for over 29,000 specimens, including many Aphelinid specimens recently processed by Matt Buffington in anticipation of this June's Aphelinid and Trichogrammatid Wasp Symposium at UCR, organized by Drs. Heraty and Pinto. In addition to Matt's help, Jeb Owen has been helping sort flies, Jon Darbro has been organizing the Ent 100 teaching collection, and Danel Vickerman has been assisting with databasing. The Ent 109 field course also produced a number of valuable specimens this quarter, including some Orussid wasps and Rhysodid beetles. Too bad every year can't be like this!

In addition to the equipment purchases, the FERM board also has awarded our first FERM collecting grant (to Rick Vetter, for his oak duff spider work) and first curatorial grant (to Dr. Svetlana Myratseva, a world authority on Encyrtid and Aphelinid wasps). Congratulations to both award recipients.

Got an idea for a FERM article???

Do you have anything buggy-related that might be of interest for the FERM newsletter? We really would be tickled pinkish if you would send "stuff" in. 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 vetter@citrus.ucr.edu, preferably as attachments (not in email text). Additional information is on the front page of this newsletter.



Entomological Books for Naturalists

Oxford University Press has a variety of books that appear to be aimed at amateur field entomologists who prefer to sample their insects with binoculars instead of insect nets.

Dragonflies through Binoculars by Dunkle (\$30) ISBN 511268-7

Butterflies through Binoculars: The West by Glassberg (\$19) ISBN 510669-5

Other "Butterflies through Binoculars" include Florida (\$25), The East (\$19) and Boston-NY-Washington (\$19) in case you want to get a present for eastern entomological folk.

Their phone number is 1-800-451-7556 and there is a 20% discount for orders before August 31st.



National Arachnology Meeting at UCR in June 2002

Just to give all y'all very advanced notice, FERM's own lovable (and unfortunately irrepressible) Rick Vetter will be hosting the national meeting of the American Arachnological Society at UC Riverside from June 25th through June 30th, 2002 (yup, just about a year from now). This meeting should attract about 150 preeminent American arachnologists and possibly a few from other countries as well. If any of you are interesting in attending, contact Rick so you are sure to get a registration form and registration information. Also, if anybody is overwhelming interested, some volunteers may still be needed (although the most pressing issue, one year in advance is possibly having another driver for the local field trip (i.e., only UC employees are allowed to drive UC vehicles)).



Western United States Map with County Names

By Rick Vetter

Recently, I came across a map that I had forgotten I had and I thought that I would let others know about it in case there was general interest. I have a map of the western United States (west of the Mississippi River) where each state is marked with the boundaries of each county along with the county name. If you are interested in any particular state, just let me know and I will photocopy a portion of the map for you. Be forewarned that the county names and boundaries are in blue ink so they do not photocopy extremely well. You probably couldn't use a photocopy of the map for a straight publication quality figure however, it is very nice if you want to make an illustration from the map itself.



A bee is a bee is a bee

by Rick Vetter

Most of you probably don't know or even care about the multitude of spellings for the insect, *Apis mellifera*. But it varies from honeybee to honey-*bee* to honey bee. The correct form, despite what the dictionaries might say, is two words, "honey bee". This has applications to other insect names as well. Here is a paragraph from the preface of Anatomy of the Honey Bee by R. E. Snodgrass (1956):

First it must be explained why the name of the bee appears in the title as two words, though "honeybee" is the customary form in the literature of apiculture. Regardless of the dictionaries, we have in entomology a rule for insect common names that can be followed. It says: if the insect is what its name implies, write the two words separately; otherwise run them together. Thus we have such names as *hose fly*, *blow fly* and *robber fly* contrasted with *dragonfly*, *caddicefly*, and *butterfly*, because the latter are not flies, just as an *aphisidion* is not a lion and a *silverfish* is not a fish. The honey bee is an insect and is pre-eminently a bee; "honeybee" is equivalent to "Johnsmith".

In addition to Snodgrass' comments, that means that the correct forms are "bumble bee" and "carpenter bee".

Also, there is some disagreement with regard to its Latin name. Linnæus originally named the honey bee, *Apis mellifera* in 1758; "*Apis*" being a direct Latin translation of the word for "bee" and "*mellifera*" meaning "honey-bearing". Three years later, he realized that bees don't actually bear honey but produce it by transforming nectar; he then re-named the species "*mellifica*" meaning "honey-producing" which is more correct. However, penalty flags on the play. By the rules of nomenclature, which weren't invented until years later, ya gotta go with the first name even if it is not the most appropriate. Most of the scientific world uses the specific epithet "*mellifera*" except for the French (why is it always the French?) who prefer the taxonomically incorrect "*mellifica*".



PINE : PARTNERS IN NATURE EDUCATION

FERM members are entitled to 20% discounts* on the following UCR Extension field nature study courses:

*****Tick Identification Workshop*****

taught by FERM member **Rick Vetter** \$95 (04P01) [Sat. 9 am-4 pm, June 23]

Wildlife of the San Jacinto Mountains: The Upper Plateau \$185 (11N33)

[Fri. 5-8 pm, July 13/Sat. 9 am-5 pm, July 14/Sun. 8 am-4 pm, July 15]

Natural History of the Ancient Bristlecone Pine \$190 (11N60)

[Mon. 7-9 pm, July 16/Tue., Wed. 8 am-5 pm, July 17, 18]

The Natural Gourmet: \$60 (11P07)

[Sun. 8 am-5 pm, July 22] [Sawtooth Mountains, Idaho]

Mountain Ecology and Survival \$295 (11P09)

[Mon. 9 am-5 pm, July 23/Tue.-Wed. 8 am-5 pm, July 24-25/Thurs. 8 am-2 pm, July 26.] [Sawtooth Mtns, Idaho]

*****Spider Identification*****

taught by FERM member **Rick Vetter** \$215 (11P02)

[Sat. 9 am-4 pm, Aug. 11-Sep. 15 (No meeting Sep. 1)]

Astronomy \$55 (11P66)

[Sat. 5-10 pm, Aug. 11, 18] [San Bernardino Mtns., Children's Forest (near Running Springs)]

Field Natural History: The San Geronio Wilderness Area \$195 (11P10)

[Fri. 6-8 pm, Aug. 17/Fri. 8 am-4 pm, Aug. 24/Sat. 9 am-5 pm, Aug. 25/Sun. 9 am-4 pm, Aug. 26 (approximate hours)]

A Field Study of Birds: Fall \$185 (12P23)

[Tue. 7:30-9:30 pm, Sept. 11/ Field trips all day Sat. Sept. 22, Oct. 6, 20, Nov. 3, 17]

Conifers of Southern California \$115 (12P11)

[Fri. 6-9 pm, Sep. 21/Sat. 8 am-6 pm, Sep. 22]

Field Study of the San Andreas Fault: San Bernardino to Palmdale \$95 (12N31)

[Sat. 8 am-5 pm, Sept. 22]

Birds of Anza Borrego \$155 (12P24)

[Fri. 7-9 pm, Sep. 28/Sat. 7 am-5 pm, Sep. 29/Sun. 8 am-2 pm, Sep. 30]

Ecology of the Coachella Valley \$185 (12P08)

[Fri. 5-8 pm, Oct. 5/Sat. 8 am-5 pm, Oct. 6/Sun. 8 am-4 pm, Oct. 7]

Geology: Creation of the Joshua Tree Landscape \$145 (12N40)

[Fri. 6-9 pm, Nov. 16/ Sat. 9 am-4 pm, Nov. 17/Sun. 9 am-1 pm, Nov. 18]

Geology and Natural History of Death Valley \$150 (12N25)

[Sat. 9 am-6 pm, Nov. 17/Sun. 8 am-3 pm, Nov. 18]

Field Study of the San Andreas Fault: San Bernardino to Mecca Hills \$95 (12N24)

[Sat. 8 am-6 pm, Dec. 1]



ALSO OF INTEREST:

A Hiking Adventure to the Canyon Country of Zion National Park \$125 (04P14)

[Fri. 5:30-7:30 pm, June. 1/Hiking trips all day Sat.-Mon. June. 2-4 (times vary)]

A Horseback and Camping Adventure to Visit the Wild Mustangs of the Sierra

Nevada \$540 (04N27) [Sun.-Wed. 7:30-3:30 pm, June 3-6]

Hiking in and Near the Coachella Valley \$68 (12P02)

[Sat. 8:30 am-12 pm, Oct. 27. Hiking trips all day Sat., Nov. 3-17]



Amusing Scientific Names

by Rick Vetter

Editor's Note: this is another item that we hope will be a repeat offender in the FERM newsletter (Hint: it won't happen unless you send in some contributions. Notice how I am trying for group involvement here? HmMMM?)

The science of taxonomy is often construed by the general public (and by many scientists as well) to be a dry, boring process of categorization, and for them it probably would be. Every field does have its boring and unimaginative folks. But it also has the other end of the spectrum: folks a little bit off-center. Not playing with a full deck. A bubble left of plumb. Playing hockey with a warped puck. Gotta full 6-pack but lacks the little plastic thingee to hold them all together. They give names to their species that seem hopelessly buried in the heaping pile of taxonomy, giving mirth only to those few who unearth them.

In arachnology Norm Platnick of the American Museum of Natural History in New York City is not only a massive force in the field but also a plucky imp who has given a few amusements for the taxonomist to enjoy. The first example is a genus of 2-eyed spiders, which for years were placed in the genus *Nops*. "Ops" meaning eyes, the "N" in front meaning no eyes or reduced number and pronounced with a long "o" as in "nopes". The genus *Nops* has been a dumping ground for all 2-eyed spiders for many years. Platnick has gone through many of the *Nops* species and has decided that they belonged in brand new genera. Therefore he has already erected the genera *Notnops*, *Taintnops* and *Tisentnops*. Also on the docket are *Nichtnops* and *Nyetnops*. A second example was a species which was given the name *Apopyllus nov*, no doubt influenced by the movie regarding Vietnam several years ago. There is also a genus of Australian gnaphosid spiders named *Asadipus*. Norm created another genus that was closely related to it and called it *Notsodipus* (a random combination of letters, he says. Indeed.)

In other unique nomenclature events, Jan Bosselaers of the Netherlands named one spider species *Hortipes terminator* because one of the apophyses on the male mating appendage looked like a futuristic gun. Also, there are many tiny spiders (family Linyphiidae) where the males have strange protuberances on their heads. One such species has a large "proboscis" projecting forward off the clypeus just below the eyes. This species was named *Walckenaeria pinocchio* after you-know-who with the fabrication-germinating nose.

If you have other amusing arthropod taxonomic situations, please send them to me. They may even be immortalized on Doug Yanega's world-famous webpage, "Curious Scientific Names" at <http://entmuseum9.ucr.edu/staff/yanega.html>

Friends of the Entomology Research Museum Membership Form

Check here if you are renewing (renew by July each year)

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Submit your membership form and dues to:

David C. Hawks, Treasurer
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Department of Entomology - 041
University of California
Riverside, CA 92521-0314

Dues and other contributions are payable by check to the UCR Foundation, noting "Entomology Museum" on the memo line on your check. (It is very important to note "Entomology Museum" in order for your donation to be deposited in the Friends' UCR Foundation account).

RECENT PUBLICATIONS BY FERM MEMBERS:

(Please submit titles of your recently published taxonomy and natural history articles to FERM editor!! FERM members are in boldface type)



Bologna, M. A. & J. D. Pinto. 2001. Phylogenetic studies of Meloidae (Coleoptera), with emphasis on the evolution of phoresy. *Systematic Entomology* 26:33-72.

Coronado-Blanco, J. M., E. Ruiz-Cancino & S. V. Triapitsyn. 2000. Chicharritas de la tribu Proconini (Homoptera: Cicadellidae) asociadas a cítricos en Tamaulipas, México. *Acta Zoológica Mexicana* (n. s.) 81: 133-134. [in Spanish]

Pinto, J. D. 2001. Two new species of *Zonitis* F. (Coleoptera: Meloidae) from southwestern North America, with comments on generic definitions in the Nemognathinae. *Proc. Entomol. Soc. Wash.* 103: 319-324.

Prentice, T. R., J. C. Burger, W. R. Icenogle & R. A. Redak. 2001. Spiders from Riversidian coastal sage scrub with comparisons to Diegan scrub fauna (Arachnida: Araneae). *Pan-Pacific Entomologist*, 77:90-122.

Triapitsyn, S. V. 2000. A new *Anagrus* (Hymenoptera: Mymaridae), egg parasitoid of *Idona minuenda* (Homoptera: Cicadellidae), a pest of avocado in Mexico. *Folia Entomologica Mexicana* 110: 89-94.

Triapitsyn, S. V. & V. V. Berezovskiy. 2000. 51. Superfam. Mymarommatoida. Fam. Mymaromatidae - mymaromatidae, p. 579. In: Key to the insects of Russian Far East in six volumes (P. A. Lehr, ed.). Vol. IV. Neuropteroidea, Mecoptera, Hymenoptera. Part 4. Vladivostok, Dal'nauka, 651 p. [In Russian.]

Triapitsyn, S. V. & J. T. Huber. 2000. 51. Fam. Mymaridae - mymarids, pp. 603-614. In: Key to the insects of Russian Far East in six volumes (P. A. Lehr, ed.). Vol. IV. Neuropteroidea, Mecoptera, Hymenoptera. Part 4. Vladivostok, Dal'nauka, 651 p. [In Russian.]

Triapitsyn, S. V. 2000. A new *Anagrus* (*Anagrella*) (Hymenoptera Mymaridae), apparently associated with psocid eggs. *Belgian Journal of Entomology* 2 (2): 295-298.

Triapitsyn, S. V. & J. W. Beardsley. 2000. A review of the Hawaiian species of *Anagrus* (Hymenoptera: Mymaridae). *Proc. Hawaiian Entomol. Soc.* 34: 23-48.

Triapitsyn, S. V. and P. A. Phillips. 2000. First host record of *Gonatocerus triguttatus* (Hymenoptera: Mymaridae) from eggs of *Homalodisca coagulata* (Homoptera: Cicadellidae), with notes on the distribution of the host. *Florida Entomologist* 83 (2): 200-203.

Vetter, R. S. 2001. Revision of the spider genus *Neoanagraphis* (Araneae, Liocranidae). *J. Arachnol.* 29:1-10.



But did it get rid of her insects?

by Rick Vetter

There was an article in the Los Angeles Times (7 April, 2001, p. B4) regarding a Los Angeles woman who set off 30 aerosol bug bombs in her 800 square foot home. The concentration of aerosol was ignited by a pilot light somewhere in her house. It blew out all her windows, raised a portion of the roof and melted the clothes she was wearing. She was hospitalized with burns but is expected to survive the incident. It was said that for that house of that size, 4 or 5 bug bombs would have been sufficient. There was no report of insect casualties. In fact, workers cleaning the area reported seeing several live roaches amidst the rubble.



Our Big Beetle & Bee Bonanza

by Matthew & Alex Van Dam

The weekend of March 24 looked to be very good for collecting in the low desert. This provided a great opportunity to catch some of the rare species endemic to this unique area. In particular we hoped to explore some of the lesser known dunes, along with the Kofa National Wildlife refuge in the low desert of southwestern Arizona. As it turned out, the promise of good spring collecting in those areas was not to be broken.

Our first goal was to collect along the isolated rest stops, and gas station lights that hug the 10 freeway between Banning and Blythe. We first stopped at Chiriaco Summit where we met up with two other members of our collecting party, Nathan Moorhatch and his son Spencer. They had already been there for a while and at this point it was a bit past 9 PM. Nathan and Spencer had collected several *Phobenus* that had flown to the lights earlier that night. These are beetles almost a centimeter in length with dark gray bodies with an impressive scraggly puff of long white hairs covering the whole underside. The other major beetle species that we encountered were the large black and shiny carabid beetles of the genus *Calosoma*. At our next stop at Desert Center we came across more of the *Calosoma* but no more *Phobenus* were found.

At our next stop we hoped to find the rotund *Bolbocerastes regalis*. These are spectacular beetles of about a centimeter or more in length since size is variable. These beetles are very round in overall body structure as far as beetles go. Color is also variable in this species as well ranging from a rich mahogany brown to a wonderful lustrous amber brown. These beetles also have a small cephalic horn and a couple of knobby projections on either side of the front of the pronotum. *Bolbocerastes regalis*

has the high and mighty pronotum that combines with the undercoat of dense tan hairs and stubby horn on its head to give it an appearance that is nothing less than regal, as its name suggests. These beetles can be found in sandy habitat. The area we first searched for them was under the lights outside the Ironwood State Prison. These were sodium vapor lights which seem to be much more effective than the mercury vapor. The one problem with the Prison site is that there is no clear indication of where you can and cannot be. We were collecting by the

gate house where there is a nice light and all the beetles were coming in, when we were asked to leave by a guard with a bushy mustache. He asked us what we were doing there and when we replied "Collecting beetles" a look of perplexity passed over his face. Dave Hawks then offered to show him the beetles. He said, "No, I don't want to see your beetles!" and then got into a conversation about how we should not be there. The main problem was that some of us were wearing blue jeans, which is what the inmates wear whether they are collecting beetles or not.

So if you don't want to risk a run-in with the prison personnel, you can collect at the Wiley's Well Road rest stop on the north side of the freeway. There are usually copious amounts of beetles there also. We stopped off at the rest stop to look for more *Bolbocerastes* at the lights, and we couldn't find any around the lights, but one *B. regalis* was found floating in one of the men's urinals, so it was retrieved. We found all told a bit over twenty of these very bulbous beetles that night.

On the 14th of April, Dave, Doug Yanega, John Rose, and the two of us went to the Rice Dunes where we set up a 175 Watt mercury vapor lamp and got zero *Bolbocerastes*. We then turned off the MV light and only left on the incandescent and a fluorescent light and then the *Bolbocerastes* came in. The bright MV lamp might be too bright for them. A good proportion of the beetles you find are under rocks near the lights. Also they can be found where the pavement meets the sand, especially at the Wiley's Well Road rest stop, where we found dozens that night. One of the prominent signs that the beetles are there is that you will see small mounds of sand and a hole where they have burrowed in. Where we camped that night was on the power line road off of Wiley's Well Road. There was a lush assortment of dune-endemic plants, such as sand verbena with purple flowers and a sweet fragrance, also evening primrose with white large flowers, and creosote bush.



The following morning at dawn we collected a rare bee at the light, *Colletes stephensii*. This is a crepuscular or matinal bee, meaning the bee is only active at dusk and dawn. After collecting bees and wasps in the morning we met up with one of Doug's friends, Bob Minckley, and his daughter Adrian. Bob is a bee expert from Utah. We then proceeded to the Kofa Mountains, where Bob was researching the pollinators of creosote and *Fagonia*, a creosote relative. The bee collecting was phenomenal there. We also got a weird relative of paper wasps, a masarid. The males have long clubbed antennae, the females have shorter ones, and gather pollen like bees and hence are known as pollen wasps.

That night we lighted at "The Island" near Fort Yuma. This is a unique habitat that consists of dunes on what was formerly an island of the Colorado River. There we collected several fabulous mole crickets (Gryllotalpidae). Also we got an unworldly enicocephalid bug. They are heteropterans with lace-like wings and a truly bizarre head. At first glance they appear to have two sets of eyes, but the rear set are the ocelli. They are thought to be the most primitive of the heteropterans, as is indicated by their wings being entirely membranous. A cute scarab we caught there was *Glaresis*. This is only 4 mm long, with broad hind tibiae. The most special thing about these beetles is that they squeak when picked up, apparently a defense mechanism called stridulation. They are one of several scarabs that squeak, like *Polyphylla*.

The last day we went back to the Kofa Mts. and got some more interesting samples. For example, we found a *Dianthidium* bee nest with about 7 chambers, about 3 inches long, made out of brown resin and gravel. It takes the female about 60 trips to fill a chamber, compared to a typical native bee which only take about 6 trips, on average. On the way home we stopped at the lights to look for *Phobetus* or anything else interesting on the way to Riverside, and got not a single scarab, since it had cooled down considerably. At all of our stops nothing was to be found, and we concluded that the weather was too cool for much to be out on that night. We drove home very satisfied with what we had collected. It was a great trip.



See FERM member Rick Vetter on TV!!!

The Learning Channel should air a segment on bees on September 4th. This segment featured Rick's boss Kirk Visscher collecting a big swarm of bees. If they had the right camera angle, you should see Rick, without a veil, standing under the swarm of bees holding up a box into which the swarm is knocked from the tree. Although most of the bees landed in the box, several fist-sized knots of bees bounced off his forearms as he dutifully waited under the swarm to catch it. If they use the one shot, they should also have film of Kirk standing near the tree after the swarm was knocked down, explaining swarm behavior while about 20 bees crawl all over his shirt. It should be amusing and lead to some sleepless nights for some folks.

Also, this year a new Discovery Channel show will air featuring Rick handling black widows with his bare fingers and showing their defensive behavior which means that there is little chance for Rick to get cut this time because of its sensationalistic nature. Anyway, the program is one of the many episodes of "Stings, Fangs and Spines." The Australian producer told Rick that he was able to sneak in the segment about widows in outhouses which the American producer cut the first time because it was deemed rude and inappropriate. It was a really amusing scene when it was filmed, but who knows how much of it stayed intact for the airing. As of now, there is no definite broadcast date.



Confessions of a (not-that-old) duffer

By Rick Vetter

Remember in a recent newsletter, I extolled the virtues of collecting montane oak leaf duff and that presenting it to me would keep me off the streets of Riverside and out of trouble? Well, there's stuff in that thar duff. Just like in the old movie "The Graduate" where some middle-aged businessman tries to tell Dustin Hoffman that the direction of the future is "plastics", I can gaze into the crystal ball and see that my future is duff. Yes, decomposing leaf matter. Does anything else matter?



I have been doing this duffing to find spiders of the genus *Zanomys* because I am planning to revise the genus. Although this spider is not often found in museum collections, it is one of the most common spiders in southern California oak leaf duff. I have found it in 25 out of 32 oak samples, even samples as small as 2 gallons' worth of leaves have had males and females in it.

Here are the results of duffing since January in southern California and much of it is FERM-related. In January, Gordon Pratt led a hike in the San Jacinto Mountains, instigated by the visitation of John Alcock, speaker at the January FERM annual meeting. With Gordon pointing out various oak species to me, I collected leaf duff at the top of the hike and near the trailhead. Although I found the most common spider species, *Zanomys californica*, I also found a male and 5 females of a spider I could not identify. Upon sending the male and a female to the California Academy of Sciences in San Francisco, it was quickly determined that this was an undescribed species of *Apostenus* (Family Liocranidae) a spider genus not known from the Western Hemisphere. I also found *Apostenus* in leaf duff at Forest Falls, 30 miles away, and near Seven Oaks about 7 miles north of Forest Falls, which means this critter is probably not an introduction of a non-native species but rather, a natural part of the local spider fauna. (Tom Prentice of UCR also found it at Forest Falls but I found my specimens a week before he found his, so neener neener neener). Other items of interest from duffing were 3 hard-to-find specimens of *Spalangiopecta* (a chalcid parasitoid wasp) that were appreciatively received by John Heraty, who will grind up one of them for his DNA work, several other tiny wasp parasitoids (Family: Ceraphronidae, Scelionidae, Dryinidae, Diapriidae) and 2 darling little white Encyrtids with black-tipped antennae, all of which Serguei incorporated into the Museum, cynipoid wasps which are going to Matt Buffington, thrips which will be funneled into a thrips-fruit-in-oak-duff collaborative study with Mark Hoddle of UCR and heaps of teensy 1-mm long, special beetles (Latridiidae and Ptiliidae amongst others) some of which may find their way to Fred Andrews (USDA) who is working on their taxonomy.



I had a chance to check out some duff from Arizona in January. Once again, I found 3 *Zanomys* females in about 2 gallons' worth of duff. However, I don't recognize these spiders so I think I have an undescribed species which means I now have to go back to find the males. I also found this little critter that I thought looked like a cute gold ant with black tipped antennae. Because I know spiders and don't know insects unless it's a honey bee or yellowjacket, I wasn't sure what it was except that it was very cute but didn't look completely antlike. John Heraty was almost apologetic upon seeing this wingless wasp and he couldn't even figure out to which family it belonged. His initial guess was that it was an undescribed genus, but it turned out to be a Ceraphronid which is not as exciting, but still cute nonetheless.

One of the most amazing duff tales, however, involves FERM member Laura Merrill, or Dr. Laura to some, of the US Forest Service, who has been servicing the forest by picking up those unkept leaves that are just lying about cluttering up our national forests, bringing multiple samples to me for processing. Most of those samples have had the common species (*Z. californica*). One of the less-common species with undescribed males is known only from its type locality (Mt. Laguna, San Diego Co., 2 females collected in 1960) and a spot near Deep Canyon found by Wendell Icenogle (3 females, 2 immatures) which I revisited 3 times (yielding 3 females, 9 immatures). These 19 specimens are the sum total of the correctly identified *Z. feminina* in the world to my knowledge. Dr. Laura happened to be up at Mt. Laguna, brought back some duff, and in about 25 gallons of the stuff there were 25 *Z. feminina* females and 65 immatures. Males are only present in the fall, so the very same tree that yielded the most specimens will be sampled again and I will process duff till the cows come home, mad as they may be. There was also one female *Z. feminina* in a 2-gallon sample taken from near Anza.

John Pinto (UCR Entomology Professor and FERM member) is processing his own loads of duff just for fun (and wasps). He went through 3 huge bags of pine duff from up near Independence in Inyo County with very disappointing yields. He handed me a vial with a few small spiders, saying that they were probably immatures and useless. Some were. However, 2 were *Zanomys ochrea*, another species in which the male is undescribed and in 1972 when the genus was revised, only 12 mature females were known to exist. Gordon Pratt gave me some duff



from up near Olancho, also in Inyo County. It was pathetically barren. Virtually nothing. Not even collembolans. Just a few puny spiders that I thought were garbage. Nope. One *Z. ochra* female. And I went up to the Granite Mountains with the FERM trip (although I left victoriously a few hours later just as the majority of the FERM folks showed up, and before all the entomological shenanigans started). I was directed to an oak tree up there (oak trees in the middle of the Mojave Desert, go figure) and was helped by FERM member Leland Lubinsky who had been to Norris Camp before, otherwise, I probably still would be out there wandering the desert. We grabbed about 20 gallons of luscious, thick, desert oak duff and returned to base camp to sift it. Spreading it out on a picnic table, we came across several spiders including 4 immatures of what I am sure is *Z. ochra*, which I am now feeding at home, hoping they mature. I hope they don't all turn out to be females.

Duff fever is rubbing off on others as well and duff ferries (or duff fairies) abound. FERM member Mike Cardwell, a former student of my spider ID classes, has ferried to me some oak duff from around Silverwood Lake on the north side of the San Bernardino Mts. It also yielded *Z. californica* spiders as did some duff from yerba santa (*Eriodictyon*). Although most oak samples produce only 2 or 3 parasitic hymenopterans, one batch from Mike yielded 80+ specimens of the teensy (0.5 mm long) wingless parasitoid *Baeus*. Not surprisingly, this oak leaf batch was rather devoid of spiders as *Baeus* is a major spider eggsac parasite; the little buggers. Saul Frommer (another FERM member, and retired Museum curator) brought me some oak duff from low elevation near Santa Rosa Plateau. Usually low elevation oaks are boring, but whaddya know, there was a *Z. californica* in there. And if that weren't enough, John Carson of Santa Barbara, yet another FERM member and former spider ID student, is processing local oak duff and has found *Z. hesperia*. I think I have convinced Dr. Paula Cushing (curator of spiders at the Denver Museum and alas, not a FERM member) who is doing a massive spider survey of Colorado, to start processing oak duff through Berlese funnels, as well, and John Prime from UCR's Physical Plant SMART team brought me some duff from the Hesperia-Phelan area (with more *Z. californica*). Folks, it just doesn't get any better than this. And Tom Prentice was given Berlese samples from the San Bernardino Mountains. In it were a male and female of yet another new *Zanomys* species.

Yes, duff is my future. Bring me duff. I can't get enough of the stuff. Stop sloughin' and get duffin', you little muffin. There's lots of new things to be discovered in the leaf litter. It's not too late to jump on the bandwagon and get duff fever. So get off your duff, roll up the cuffs and stuff enough duff in a duffle bag and bring it to me, and science will march on (with or without us.)

Very serious note: I am very interested in getting oak duff from elsewhere in California and would appreciate any oak duff you can bring me. However, be aware that the counties surrounding the Bay Area (Marin, Sonoma, Napa, Monterey, Santa Clara, San Mateo, Alameda) are experiencing Sudden Oak Death Syndrome, which is brought on by a fungal-like *Phytophthora* and is devastating the oaks up there. Do NOT bring any oak duff from that area! This disease should be considered as virulent as hoof-and-mouth disease in its ability to spread.



Catch and release?

by Rick Vetter

For those of you who have been approached in the wilderness by authorities, you might appreciate this little story that was sent to me by Forest Service Entomologist (and FERM member) Laura Merrill:

When I was waiting for the Calif. Dept of Forestry (CDF) pesticide person (named Kathleen) whom I was supposed to meet - someone from Fish and Game stopped, then another CDF person stopped, then Kathleen showed up, then the sheriff stopped to see what we were up to - at which point the other CDF person said, "We're just trying to see how many law enforcement types we can get to stop". He asked how many so far- Kathleen said, "Only a few. We haven't reached our limit."



(Continued from page 1)

John Rose had put together, with 5 different lights on a single mounting (incandescent, fluorescent, UV, black light, and MV), and controls allowing each light to be operated independently. As the lights came on, the bugs came in, and kept pouring in for the next several hours, until there were several thousand insects at each of the lights. True, most of the assembled insects consisted of three or four species of moths, but there were smatterings of more interesting material mixed in among the melee. One large species of Myrmecotid (ant lion) gave us a surprise when it was discovered that it possessed a pair of white membranous dorsal glands of some sort, something none of us had ever seen or heard of. The find of the night was a Cupedid beetle I picked off one of the sheets, which has proven not only to be a new distribution record for this rare group of beetles, but also the first new species in the family discovered in the US in the last 70 years. Jerky and other snacks kept folks going for a while, but people got burned out on the bugs, which eventually got so thick it was uncomfortable to get anywhere near the lights. A number of the bugs, including some white-lined sphinx moths, joined the group sleeping in the central dorm, and provided some extremely distracting noises during the night, so our night's sleep wasn't what it should have been. I think it's called "revenge."



On Saturday morning the vehicles were loaded and everyone headed off to the Kelso Dunes, to the north of the Granite Reserve, one of the most incredible places within the Mohave National Preserve. Dave had his sights set on some rare scarabs, including a recently-described *Polyphylla*, and some sand-dwelling *Aegialia*, while I was looking for more specimens of a new bee species and two new wasp species I'd found in the area on previous trips, associated with flowers of *Tiquilia plicata*, which is abundant on the flats at the dune fringes. The weather was eerily overcast for much of the time, but the collecting was fairly good.

Initially, the *Tiquilia* flowers were closed, but opened up in the afternoon, and within an hour or two I'd managed to get specimens of all three of the new bees and wasps, plus some additional species that may also be new. Dave tried out his homemade sand-sifting screen, and with Leland's, Matthew's and Alex's help, unearthed a fair number of *Aegialia*, including immature stages. Rob and John left early to visit a nearby site, Arrowweed Spring, at the southwestern extreme of the Providence Mountains, and had some luck there. Ken arrived a bit later, and shortly thereafter the winds got really severe and everyone packed up quickly and headed back for an early chili dinner, praying that things would calm down by sundown so we could return and set up the lights.

Dave's chili was good, if a little too spicy for some of the capsaicin-challenged among the crew, but all was done on schedule and we were able to get back out to Kelso while there was still some light. The wind had died down to a whisper, and folks immediately got started setting out the lights, while Matthew and I discovered that a rare dusk-flying bee, *Perdita pallida*, that only gathers pollen from *Oenothera* (evening primrose) was out and about on the flowers, and we hurried to get as many as possible before it grew too dark to see. Dave and several others headed farther up the dunes to set a light near the area where the *Polyphylla* were abundant, and managed to get a good series of them there, plus some other interesting scarabs. Early on, a few more *Perdita* came in to some of the lights, along with some *Colletes stephensi*, another rare dusk-flying bee. After a while, I headed off onto the open dunes with a portable searchlight, and grabbed a number of wandering wasps and beetles. Among the beetles was a pair of flightless sand-dwelling Tenebrionids (darkling beetles) in the genus *Lariversius*, a genus not previously recorded from the Kelso dunes, and which appears to be a new species. We packed things up after several hours, and headed back for some pie that Ken had brought from a bakery in Julian, and had a pleasant night's sleep, undisturbed by sphinxes.

After a breakfast of cold chili, most of us headed out to Arrowweed Spring, while Rob and John headed home. The collecting was quite good there, including some very rare wasps and bees, one or two of which may be new species. Ken caught a very large and impressive *Cuterebra* (rodent bot fly). We naturally encountered some nasty traffic south of Barstow on the way back, but all in all, things went smoothly, and the list of new species found on the trip was pretty amazing - at least five, and quite probably more than that, although (as is typically the case) it may be years or even decades before we know for sure.

