

Rick Vetter (vetter@citrus.ucr.edu)

the truck, we were off! (cont on page 7)

## **NEWS FROM THE MUSEUM**



## by Doug Yanega & Serguei Triapitsyn

This summer has been relatively slow in the Museum, after the flurry of activity we had this spring. A field trip to Guatemala was productive, as was a field study of various collecting techniques on the Santa Rosa plateau, plus various malaise trap samples from around the world, but other than that very little new material has come in. A substantial number of specimens have

gone out on loan, however, especially Chalcidoid wasps borrowed by participants in this June's Aphelinid and Trichogrammatid Wasp Symposium.

The Museum database now has records for over 34,000 specimens, and the taxonomic authority files have been greatly improved, now listing over 14,000 genera and 65,000 species names. This includes the bulk of insects from North America, plus all Chalcidoid wasps worldwide, and the database can now start serving as a genuine curatorial and organizational aid - as it is with the reorganization of the Scarabaeoid beetles presently underway, by Dave Hawks and Roger Burks.

## 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 formation is on the front page of this newsletter.

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\*\*\*\*\*Deadline for submission of material is December 16th\*\*\*\*\*

### **Tigers Reduce Honey Production**

This is an article that appeared in the Malayan Nature Journal, volume 28, p. 36 (1974). It is verbatim with the title as above.

India's production of honey and beeswax dropped by 50% in 1972 and conservationists must take the blame, according to the Minister of Forests, Mr. Mahato. The fall in production reflects problems caused by the ban on the hunting of tigers. As a re-

sult of the ban, in 1972 no less than 29 honey and beeswax collectors were devoured by man-eating tigers which in former days would have been shot. The number of tigers in India's forest now is estimated at 2,000 and doubtless their numbers will be allowed to increase until they make a meal of a prominent conservationist instead of a humble beeswax collector. From: *World Crops*, July/Aug, 1974.

Dunlop Research Centre B. J Mainstone Batang Melaka, N.S. 31 January, 1974.

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# PINE : PARTNERS IN NATURE EDUCATION



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

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] A Field Study of Birds: Winter \$185 (13P23) [Orientation Tue. 7:30-9:30 pm, Jan. 8/ Field trips all day Sat., Jan. 12, 19, Feb. 2, 16, 23] Earthquakes and California \$95 (13N11) [Sat. 8 am-5 pm, Jan. 26] Mammals of the Colorado Desert \$185 (13P20) [Fri. 5-8 pm, Feb. 1/Sat. 9 am-5 pm, Feb. 2/Sun. 9 am-4 pm, Feb. 3] New Dates! Geology of Northern Death Valley \$150 (13N26) [ Sat. 8 am- 5 pm, Feb. 23/Sun. 8 am-5 pm, Feb. 24] Natural History of the Mojave National Preserve \$250 (14N31) [Fri. 8-10 pm, Apr. 5/Sat. 7:30 am-5:30 pm, 7-8 pm, Apr. 6/Sun. 7 am-3 pm, Apr. 7] \*\*\*\*\*\*Ecology of Southern California Butterflies \$195 (14N29) [Wed. 6-9 pm, Apr. 10, 24; May 15; June 5/Three Sat. field trips to be arranged, 9 am-3 pm] \*\*\*\*\*\*\*!!!!!!!!!!! Deserts of the World \$185 (14P20) [Fri. 5-8 pm, Apr. 12/Sat. 9 am-5 pm, Apr. 13/Sun. 9 am-4 pm, Apr. 14] A Field Study of Birds: Spring \$185 (14P23) [Orientation Tue. 7:30-9:30 pm, Apr. 16/ Field trips all day Sat., Apr. 20, 27, May 4, 18, June 1] Geology and Natural History of the Eastern Sierra \$150 (14N22) [Sat., Sun. 8 am-5 pm, Apr. 27, 28] Geology and Volcanic Hazards of Mammoth Mountain \$155 (14N32) [Sat. 9 am-5 pm, May 18/Sun. 7 am-3 pm, May 19]

#### **ALSO OF INTEREST:**

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] Nature Writing: A Hands-On Approach \$215 (13N21) Location: PALM DESERT: The Living Desert, 47-900 Portola Ave. [Fri. 8:30 am-5 pm and 7-9 pm, Mar. 1/Sat. 9 am-5:30 pm, Mar. 2/Sun. 9 am-2 pm, Mar. 3.]

For current listing of courses at any time, bookmark www.unex.ucr.edu/ns/fns1/classes in your web browser. For further information, contact:

Natural Sciences UCR Extension 909.787.5804 909.787.2456 (fax) \*some restrictions apply







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### Zanomys spider update

by Rick Vetter

Okay, I am sure that all of you are reallilly wondering what exciting things have developed on the *Zanomys* spider front. Okay, and well...um, can I see a show of hands????....um, any-one??? Okay, well, too bad, I am going to tell you anyway because virtually nobody is submitting stuff to the FERM newsletter and let this serve as a warning to everyone that if you don't start submitting articles what you are going to get are *Zanomys* updates EVERY newsletter and then it may be wall-to-wall spider news, 24-7. Suffice it to say you've been warned.



Well, now that I have that off my sinking and graying chest, on to Zanomys. Actually, it has been an interesting period of development for the project. In late September, most of the immatures that I have been rearing since May have matured. Ta-da!!!! Yes, indeedy, the first males of Zanomys feminina came through from the type locality. It was with great anticipation that I gazed down upon them, thinking that I was the first arachnologist to look at the mature palp of this species. I looked and was truly amazed. Wait a minute. That looks familiar. How can I look down on a palp never seen before and it looks familiar? I pulled out my illustrations of Zanomys joshua, a new species that I was planning to describe. Well, I'll be a pig-belly scratching fool. It was the same palp. Not only had an arachnologist already seen the male of Z. feminina (me) but I had already done the illustrations. How Nostradamus of me!!!! Actually the females from Joshua Tree are very different than the females from Mt. Laguna which is why I thought the Joshua Tree species was a new one. So Z. joshua was synonymized before it was even named. Always the bridesmaid and never the bride. But in hindsight, this is good because it makes it a much more solid understanding of the genus and I was actually quite surprised that the females could vary so much. The other Zanomys species females are more consistent. Anywho, I was pleased to be able to rear so many males of Z. feminina from the type locality which means it is a worthwhile endeavor, albeit, time-consuming.



Next on the agenda were the immatures that I collected up at the Granite Mountains reserve with the help of Leland Lubinsky during my drive-by collecting trip that I made under the guise of the FERM trip. I thought that these were Z. ochra immatures. Of the four, I had 2 males and 1 female mature with the last immature male dying inexplicably just before it should have molted. Well, I'll be a meerkat-belly scratching fool. They aren't Z. ochra. I don't know what they are. The genitalia of the male looks like a described species of another genus however, the rest of the somatic features still look zanomyoid. I sent them up to Darrell Ubick in the California Academy of Sciences in San Francisco. They belong to an undescribed genus that is closely related to Zanomys. Darrell is currently studying these weird spiders and will be erecting a new genus which we are provisionally calling "Parazanomys" just to have a handle on it. But these guys are very different from the other two "Parazanomys" species that Darrell has so he may even be erecting a brand new genus for that one. So I thought that maybe I had presented Darrell with the first specimens of this new species/new genus. Nope. Somebody named Greg Ballmer and Oscar Clarke collected a few of them on the first FERM trip to the Granite Mountains and the spiders came from Acacia and Prunus duff. When Greg gave me the spiders initially, I knew that I didn't know what they were so I sent them to Darrell a long time ago. Now I find out that they are really new. Vetteriella ballmeri????

Naaaaaaah!!!!!!! Anywho, Darrell may start working on this genus description this winter. But all the specimens that he has (about 3 males and 3 females and a heap o' immatures) all came from FERM field trips to the Granite Mountains. That's pretty special.

Speaking of duff fever, Ted Fisher (professor emeritus and FERM member) brought in a bag of duff for me from Hemet. It was summer, low elevation duff and did not have *Zanomys* in it but I was pleased to receive it anyway, in order to keep up my duffing skills. Also, FERM member Steve Mc Elfresh brought back a bag o' duff for me from the same oak tree in the Granite Mountains that produced the spiders mentioned in the previous paragraph and it was rather depauperate. Despite the lack of spiders, these two duffings told me some important information in that, not surprisingly, in the summer months, the spiders high-tail it down into the deeper recesses of the duff piles and probably don't come up until the winter rains hit.

And in other duffing news, Tom Prentice (new FERM member who wants to see his name in print) and I went up into the local mountains recently. I was looking for specimens of *Apostenus*, that liocranid genus of spiders not previously known from the Western hemisphere until I found it. We found some very nice duff next to a stream. It was damp. It was earthy smelling. It was full of spiders. I collected 6 male and 6 female Apostenus plus 9 immatures, 5 of which I am now rearing and 20 *Zanomys californica* (4 males, 11 females and 5 immatures). We also got a bunch of the males of a spider that Tom and a dude from the Smithsonian are going to describe and reassign. The male was previously unknown until we figured out that it went with the female and

now that the male is known, Tom determined that the female doesn't belong to that genus it was initially stuck in. So they are going to reassign it to another genus and describe the male for the first time. Yowza. I told you that there was stuff in the duff.

Finally, on another recent trip, I collected a wingless parasitic wasp that got hymenopterologist professor John Heraty all perplexed. Normally when I hand him a vial he gives me an ID in a few seconds. It was with great relish as I saw him reach for his thick wasp books and actually run through the key, whilst stroking his glabrous pate and not being able to come up with an answer. A big yowza to that.

Along those lines, I have heard rumors that this may be shaping up to be an El Nino year. Therefore, there will be lots of moisture in the duff and as long as there isn't snow everywhere, spiders will be blossoming all over the southern California mountains. So therefore, I would be interested in any piles o' duff from the mountains about a month after a good rain soaks them. Remember, Tom Prentice is sifting through a pile of spiders taken not far from Forest Falls where we have collected to some extent and has come across many specimens of a new species of *Zanomys*. I am also looking for more specimens and locality data for *Apostenus*. So bring me duff and stuff.



# Just in case you had any doubts.... This really isn't an entomological item but there was an article in the Los Angeles Times regarding the city slogans that A were used in California from 1870 to 1940 to entice people to come to California. Whittier's was "Close to Things Worthwhile". Thermalito Colony (now Oroville) was "The Pasadena of Central California". However, Riverside, our A A Riverside, had a slogan "A paradise on earth where life is luxury every day in the year." Ah, yes...don't we all feel it. **Come to the Entomology Museum Halloween Open House!** Wednesday, 31 October 2001, 6:30 p.m. to 11:00 p.m. FERM will be sponsoring our first Halloween Open House in the UCR Entomology Research Museum on Halloween night, complete with treats, drinks, and ghoulish things to look at (e.g. Doug Yanega's puffy ankle from his mishap in Honduras — AAAGH!!). It'll also be a chance for "show 'n' tell", so bring bugs, photos from trips (not slides though), or any other buggy or spidery sort of thing that you think we might like to see. Parents: bring the kids to the Museum after trick-or-treating! Kids: bring your parents so

might like to see. Parents: bring the kids to the Museum after trick-or-treating! Kids: bring your parents so that we can convince them to let you stay up late that night! Optional: wear a costume, and bring some treats or drinks to share if you wish. See you on Halloween!

O (continued from page 1)

Our destination for that first evening was Fuentes Georginas, a cloud forest hotel built around scenic, volcanic hot springs (rather sulfurous – I kept mistakenly blaming Doug for indiscretions!) high on the western slope of Pico Zunil. This is near the type locality of *Chrysina centralis*, and I was anxious to collect a few for morphological and molecular comparisons with *C. pehlkei*. Several



came to the mercury vapor lamps that night, and I have since verified that *C. centralis* is best "sunk" into synonymy under *C. pehlkei*. We also collected several *Chrysina quiche* (yes, real men DO collect quiche), and a bunch of nice tiger moths, sphinx moths, and various other critters.

The next morning, we packed up and headed for the area with the highest diversity of Jewel Scarab species in the world, a locality that José discovered only a year earlier. On the way, we stopped at a small roadside mechanic's shop to have one of the generators repaired, and Doug swept a nice series of *Kapala* and other little "waspies" (à la Roger Burks) from a weedy mallow. We thought that the *Kapala* were going to be something exciting for UCR

Eucharitid wasp researcher John Heraty because they were metallic blue when fresh, but then they turned black like all of the other hundreds of *Kapala* in John's collection.

Our destination was the treacherous Bojonal Road that bisects a beautiful cloud forest near the town of La Fraternidad in San Marcos Department. This is in the mountains of western Guatemala, very close to the border with Chiapas, México. José has found many new and exciting species of insects here, including nine species of Jewel Scarabs. Doug was delighted and petrified the whole time we were creeping along the narrow, slick, and at places steep, muddy road. Just to amuse ourselves, José, Ron and I kept up a constant stream of fearful comments to maintain Doug's already heightened level of anxiety. In addition to the frightening road conditions, it was very likely that a hungry jaguar or 27 vicious Guatemalan rebels lurked just around the next corner, and we might have to sacrifice Doug to save ourselves....?!?!

The habitat along the Bojonal Road is fantastic — some of the nicest cloud forest I have seen outside of Costa Rica. The forest is filled with uncountable numbers of tree species, weird and wonderful bromeliads, orchids and other epiphytes, and 20-foot tall tree ferns. We spent two nights at our camp made by stretching a huge tarp between two tents. The night collecting was good (not great according to José's previous experiences there), and we collected seven of the nine possible *Chrysina* species. Other excellent captures included some rare pre-dawn flying bees that came to our lights, a very rare Trigonalid wasp, some other interesting scarab species like *Heterosternus rodriguezi*, and a bunch of other great bugs that, if listed, would fill many pages and bore you to tears. Doug spent many productive hours each night on his hands, knees, and belly nabbing hundreds of small wasps, flies, beetles and other insects from the lamps' groundsheets. Despite Doug's concerns, his primary annoyance was having his yellow and blue pan traps disturbed by dogs (we told him they were jaguars) or stolen by the local people who walked many kilometers along the road each morning and evening. They just couldn't believe that Doug had not placed the pretty yellow and blue plastic bowls along the trails and in streams so that they could enhance their kitchen décor! Nonetheless, Doug did manage to capture some very interesting aquatic wasps (yes, <u>aquatic</u> wasps – they swim!) and other tiny insects, many of which are undoubtedly new to science. On our second day, José and I paid one of the local, very fierce-looking gentlemen to (as Doug walked by) leap from behind a giant bro-meliad and yell in some strange native dialect while slashing his machete through the air!! Actually, I'm just kidding, but wouldn't that have been great?!

After a couple more fun but uneventful nights of collecting at Cerro Alux (near Guatemala City) and sightseeing in the ancient, historic, and very beautiful city of Antigua, we were off on a long drive to Purulhá in the north-central Guatemalan Department of Baja Verapaz. This cloud forest town is well known among entomologists and ornithologists for its excellent insects and the famous and strikingly beautiful green and red, streamer-enhanced Guatemalan National Bird, the Quetzal. It also has several pleasant hotels and restaurants and the very nice Quetzal preserve ("Biotopo Quetzal") that further add to the "tourist-appeal" of the place. We stayed two nights and collected some more great bugs including *Chrysina purulhensis* (first discovered here), and a new species of *Chrysina* that José and I plan to name "C. purpuriventris" for its fancy purple underside. Actually, José and I have known about this Jewel Scarab for several years, but we couldn't decide if it was best regarded as a geographic variant (subspecies) of



the very similar *Chrysina karschi* which lives in eastern Guatemala and western Honduras, or a distinct species. Behavioral and other observations made during this trip convinced us that the geographically-isolated Purulhá population is a distinct species.

Our final destination in Guatemala was Cerro Negro Norte in eastern Guatemala, within a few kilometers of the Honduran border. This locality is much like Cusuco National Park in western Honduras and many of the scarabs and other insects we collected were "old friends" of mine. They included the metallic silver *Chrysina strasseni* and *C. erichsmithi* (the latter recently discovered

and named by José), as well as *C. karschi* and *C. luteomarginata*. An unexpectedly abundant scarab species was *Heterosternus buprestoides*, the males of which are two inches or more in length, pale tan, buprestid-shaped oddities with very large pinching hind legs with which they fight other males for access to females. Usually, one or two of these beauties is the norm during a collecting trip to western Honduras or eastern Guatemala, but we saw dozens. One of Doug's highlights during our two nights at Cerro Negro Norte was collecting his very first Hercules Beetle (*Dynastes hercules*) specimens, including one of the largest ones I've seen from north of Costa Rica. Doug's large male is almost five and a half inches long! He wasn't sure what to do with the two males that he found at the MV lights just before dawn of our second morning, so he stuffed them into his insect net and then stuffed the net bag into one of the ice chests. You've never seen such a shredded net bag after only a few minutes! Even Mike Gates in a patch of Catclaw Acacia would have a tough time competing! We just recently learned from Roger Burks that one of Doug's little waspies collected at the lights is *Hubbardiella*, a very rare Eulophid which, until now, was known only from a single specimen! We also collected a nice bunch of *Golopha pizarro*, a large brown scarab with long, fancy head and pronotal horns and closely related to *Dynastes*.

On July 21<sup>st</sup> Doug, Ron, and I said farewell to José and his beautiful country and flew to the interestingly named capital city of Honduras, Tegucigalpa (amusingly mispronounced "Too-gassy-gulpa" by my travel agent, Nancy Dyar). We spent a relaxing afternoon with Ron at the Panamerican School of Agriculture (aka Zamorano), where Ron is a professor of entomology. Then we enjoyed several Cuba Libres (rum and Coke) at his house before collapsing in our hotel room on campus that night. The next day we were headed back out into the field to one of my favorite places, the now famous soccer field at the edge of Pico Pijol National Park in central Honduras.

I think that after a week and a half of almost no natural, mechanical, or human disasters, Doug was finally relaxing and starting to feel relatively safe. He was gaining confidence; becoming almost cocky. So, I decided that he was ready for the ultimate thrill in Central American insect collecting! Just before dark, at the southeastern edge of the soccer field, I began to see fast-flying males of the most incredible, huge, and magnificent flies ever to mate and produce maggots since the days of the dinosaurs! Pantophthalmids!!! They look like giant (up to three-inch long) horse flies, but they're not related. They fly at dusk when it's almost impossible to see them, and they're really difficult to net (Guy Bruyea

and I have tried for them on several occasions in Honduras and Costa Rica with minimal luck). Well, something that many of you don't know is that Doug keeps a running list of insect families that he's collected (much like a birder's "life list"). I knew that Doug would practically kill himself to have the opportunity to add Pantophthalmidae to his "life list", so I yelled to him across the soccer field that here was his opportunity! You'd have thought he was a budding track star the way he sprinted over to where I was standing. As he arrived, he panted out something along the lines of "I'd practically kill myself to catch a Pantophthalmid!" So, he did. Practically kill himself, I mean. It was a pretty, gently rolling, grassy slope where he did it. Pantophthalmids were fairly filling the crepuscular sky! Doug was jumping up and down and swishing his net back and forth wildly. He wasn't catching Pantophthalmids, and I was nearly busting my gut laughing at him and cheering him on. Then he did the unthinkable. He twisted and broke his ankle. This isn't one of the horrible things that he had imagined would happen. Risk-averse New Yorkers worry about jaguars, muddy roads, and rebels with machetes! He said it made a sickening snapping noise, but I didn't hear it because at exactly the same moment



that he broke his ankle, I was experiencing one of the great insect collecting moments of my life: I saw the only Pantophthalmid "menage-a-trois" ever witnessed by the human species! I saw the two males attached to a giant female tumble from the sky and I simply walked over and picked them up. Doug started making various pitiful noises but I explained that I had to do something with my fantastic catch of Pantophthalmids, so he started yelling "ayuda" ("help" in Spanish) in hopes that Roberto or Julio would be more attentive.

Well, to make a very long story a little bit shorter, Doug spent that night in a tent on an inflatable mattress with a wrist splint that magically fit his ankle pretty well. The rest of us (five of us total) collected around the MV lights in the soccer field and I occasionally filled Doug in on all the nice bugs he was missing. The next morning, four of us carried Doug on a tarp up the steep, narrow, muddy trail out of the soccer field to

the truck. Then Roberto drove very slowly and carefully down the rough, windy road out of the mountains. It took us about seven hours to get back to Tegucigalpa. A doctor in Tegucigalpa put on a cast the next day, and Doug and I spent the rest of the trip (luckily, only one more day) looking at and identifying bugs in the Zamorano Entomology Museum. There are other amusing, alarming, or just plain pitiful stories that I could relate about Doug's trip back to California or his "healing process", which those of us at UCR are convinced will never end! Fortunately, Doug is a pretty good sport and has accepted, with a minimum of protest, all of the jabbing that's been poked at him. And, actually, it was a very good collecting trip until Doug had to ruin it for me (just kidding!). We welcome anyone who's been patient enough to read this entire travelogue to come by the Museum and see some of the great bugs we brought back – including the FIVE splendid Pantophthalmids that I caught! Poor Doug still doesn't have Pantophthalmidae checked off on his life list of insect families — hmmm, should I take him back to Pico Pijol for another try next year?!?! (You don't need to answer that....)

