



Bohart Museum Society

Spring 2005

Newsletter

Editor: Dani DuCharme

Send articles and news items to the editor, Dept. of Entomology, University of California, One Shields Ave., Davis, CA 95616
or via email bmuseum@ucdavis.edu

Editor's Note by Dani DuCharme

Spring is finally here! After a long winter of rain and fog, the staff of the museum is dusting off its collecting gear, and getting ready to collect insects across California and around the world. Trips to Carrizo Plain, the Mojave Desert, Stebbins Cold Canyon, and even Nicaragua are planned for this spring and summer. Also, the quiet of the winter quarter is gone, and school groups are coming weekly to visit the museum. And, with the fun of Picnic Day behind us, we have lots of time to plan for sorting all of the specimens from current projects, as well as material that will be collected during the spring and summer quarters. Phew! It is such a busy time of year here in the Bohart . . .

Picnic Day!

Picnic Day 2005 was an overwhelming success! Held on Saturday, April 16th, this event brought members of the community onto the University of California, Davis campus. This campus-wide outreach event, which is organized by ASUCD, always draws an enormous crowd. As expected, between 10am and 5pm, an estimated 1,500 visitors came to see the displays exhibited at the Bohart Museum.

Signs promising “Big Bugs” pointed families in the direction of Academic Surge. Preserved specimens lined the entrance to the museum, including the “Oh My!” boxes, and a butterfly-themed craft was offered for the younger visitors. However, nothing drew a bigger crowd than the live insects from the Museum’s insect zoo. Bohart staff members were on hand to answer questions and help the public handle the harmless insects in our collection. These insects included the Australian spiny stick insects, Madagascar hissing cockroaches, Vietnamese walking sticks and non-insect relatives such as the African millipede, and the tailless whip-scorpion. Other untouchables were on display as well, including the tarantulas, Black Widow spider and red-headed centipede. Although some visitors feared the insects, and preferred to look instead of touch, many children and adults alike held animals you wouldn’t see everyday.

New this year to Picnic Day was the “Natural History Museum Crawl.” The goal of this project was to get the public to visit many of the museum collections on campus. At each location, the participant would get

their “official passport” stamped, and completed passports (with all 12 stamps) would be entered in a drawing.

The Bohart Museum of Entomology was one of these twelve stops. Others included: The Tomato Genetics Resource Center, The Botanical Conservatory, the Nematology Department, the Entomology Department, The Center for Plant Diversity, Animal Biotechnology, the Anthropology Department, Bodega Marine Laboratory, the Arboretum, the Geology Department, and the Museum of Wildlife and Fish Biology. This was a creative event, and a big success in its first year. Look to participate in the second annual Natural History Museum Crawl next year!



Eager visitors flood the museum to look at preserved and live insect specimens

Volunteer/Staff Profile

Web Design Intern!

The Bohart Museum is looking to update the website's main page, as well as split the three current pages into six—a new Bohart Museum main page, Kids N' Bugs, Insect ID, a skin parasites page (to include the delusional parasitosis page), a forensic entomology page, and a new Center for Biosystematics main page. This project will be a huge undertaking, and we will need a lot of help.

That is where Simon Chelebyan comes in. Simon is in his fifth and last year here at UCD, obtaining his degree in design with a visual communications and graphics emphasis. Simon's specialties include: web design, learning and incorporating Flash animations, and digital media. Also, Simon likes the idea of incorporating his own photography into his design work.

Simon Chelebyan was born in Armenia, but moved to California when he was 8 years old. He moved to Davis five years ago to begin his college career. He hasn't decided yet whether he will stay or go, but will live wherever his job takes him. Simon would like to continue to do web design if there is a continuing market for it, and would eventually like to begin a design firm of his own.

Although Simon didn't know initially that the internship involved insects, he said that they are very much a perk of working on this project. He remarked at the diversity and array of colors offered by the insect world. These insects and colors will be prominently displayed on the new Bohart main page. Keep an eye out in the coming months for the new improved look of the Bohart's webpage. Simon is doing an incredible job, and it will be exciting to see the results of his hard work!



Web design intern Simon Chelebyan

Graduate Student Update-- Mike Niemela!

For my thesis, I am continuing to study the forensically important flies of California. I am close to finishing a complete list of applicable flies (as none exists to date). Additionally, within the Forensic Entomology community, there is much confusion surrounding the legitimate generic and species names for many flies. My objective is to publish a California Insect Survey Bulletin (CIS) which will address that confusion by providing a comprehensive list of updated names.

My CIS Bulletin will also contain maps reflecting both temporal and spatial distributions of each relevant species. To do so, I have developed a database which will reflect the locality, date and coordinates of each collection site for each fly. To date, I have databased approximately 7,400 flies. The records are from the collections from UC Davis, UC Berkeley, UC Riverside, the California Department of Food and Agriculture, the Los Angeles County Museum of Natural History and private collections. I plan to visit the California Academy of Sciences and the San Diego Natural History Museum to examine their collections as well. My goal is to have 10,000 records databased.

In addition to creating a database, I have nearly completed an identification key for the forensically important flies. Flies I am unable to confidently identify are those within the family Sarcophagidae. To remedy this inability, Dr. Thomas Pape will be visiting from Denmark in August to help the Bohart Museum identify its Sarcophagid collection as well as to instruct me. Additionally, I will resolve any systematic questions surrounding the family Sarcophagidae as well as the family Piophilidae.



Graduate students Mike Niemela (left), and Deanna Jackson.

Outreach

Middle Earth Festival!

On April 12th, Dani DuCharme (Coordinator of Education and Outreach), and three graduate students (Nate Hardy, Tara Thiemann, and Cory Unruh) traveled to Middle Earth. Actually, they traveled just as far as Vacaville, for the first annual Middle Earth festival, celebrating the 50th anniversary of the publishing of Tolkien's Lord of the Rings. The Bohart Museum had an informative spider booth at the festival (as festival goers had many questions on Shelab the spider that appears in the third movie), highlighting beneficial and dangerous spiders through a display and informative handouts. Also present were the live spiders from the insect zoo, including the Black Widow, Chilean Rose hair tarantula, Indian Ornamental tarantula, and trapdoor spider. Between 500 to 1000 hobbits, elves, orcs, and humans visited this booth. Middle Earthians were especially excited to see live specimens, and many had not seen a live Black Widow, even though they commonly lurk locally in basements and garages. This was a unique outreach opportunity, and the Bohart Museum has been invited back to celebrate the next anniversary celebration in Middle Earth.



Graduate student Cory Unruh shows off live spiders at the crowded Vacaville Middle Earth Festival.



Visitors to the Sacramento Zoo look at a display featuring exotic insects and their relatives, such as the black Brazilian tarantula, and Australian spiny stick.

The Sacramento Zoo Bug Zone exhibit is open through June 26th 2005. Stop by and check it out!



Bug Zone!

From April 1st to June 26th, insects will be wreaking havoc on the Sacramento Zoo! This new exhibit, entitled the Bug Zone, brings many unusual creepy crawlies right to our doorstep. Some of the insects featured are aquatic insects such as the giant water bug, dragonfly nymphs, damselfly nymphs, and water scorpions. Also, there are blue death feigning beetles, ghost mantids, and some insect relatives such as the poisonous Sonoran centipede and black Brazilian tarantula. Also on display are loans from the Bohart Museum Insect Zoo, such as the Madagascar Hissing Cockroach and Indian and Vietnamese walking sticks.

Through a partnership with the Sacramento Zoo, not only have we loaned specimens, but also given advice on the design of the display. Also, the Coordinator of Education and Outreach gave a talk to the general public entitled "It's a Bug's World, We (Humans) Just Live In It!" In exchange for our help, the Zoo has made an honorary donation to the Bohart, and, after the exhibit is finished, we will inherit many new specimens for our insect zoo! Exciting new additions include those insects mentioned above, as well as the Tucson Blonde tarantula, the Vietnamese centipede, and the fire millipede.

This exhibit not only looks incredible, and undoubtedly grosses out a few patrons, but really increases insect awareness in the general public. In the exhibit there is information about mosquito control, integrated pest management, household pests, and insect stings and bites. Also, children can pretend they are a beautiful butterfly, as well as look at magnified butterfly wings. Stop by and visit our insects, as well as learn something new in the Bug Zone!

Recent Happenings



Dr. Steve Gaimari from the CFDA, as well as Bohart Museum graduate student Eddie Thomsen, Rosenheim lab member Maggie Sheriffs, and Roush lab member Hillary Thomas key out some mystery flies on Fly Night.

Fly Night!

The Bohart Museum is bringing back a popular evening activity—fly night! The purpose of fly night is to get about 100 drawers of mounted, but unsorted flies currently in the museum sorted to family level. Once sorted to family level, they can be curated into the right place in the museum, and can be better utilized by researchers. Some of the flies are large, and fairly easy to separate out, but others are tricky to identify, even to family level. In fact, some aren't even flies at all, just look-alikes that have been added accidentally to the unsorted Diptera drawers.

The first fly night was Wednesday, April 27th 2005, and was a great success! Bohart Museum staff, as well as staff from the California Department of Food and Agriculture joined together for some fly fun. Fly night directly follows the Museum's weekly lab meeting from 4-5pm, and a group pizza dinner. It is held about once a month, but will be taking a break over the summer, due to hectic summer schedules.

The next Fly Night will be in the fall. If you would like to participate, and have an eye for flies, stop on by and identify some insects! You don't have to have any prior experience—just be ready to key out flies, enjoy some good tunes, and some good company! We'll keep you posted on the next Bohart Museum fly night.

Trip to Nicaragua!

A crew of Bohart Museum Society members took a fascinating collecting trip to Nicaragua in May of this year. Here are some photographs from their journey. More photographs and a travel log will follow in the summer edition of the newsletter. Until then, let these pictures tempt you . . .



This giant *Megasoma* beetle is about five inches in length. Two of these enormous insects were collected to be added to the Bohart Museum collection.

Many beautifully-colored dragonflies were captured and brought back to the Bohart's collection—this is just one striking example.



A yellow eyelash viper makes its presence known against the mossy bark of a tree.

The Nicaragua crew--from the left: Richard Brown, Ken Lorenzen, Norm Smith, Eddie Thomsen, Jeff Smith, Steve Heydon and Tom Zavortink.



News!

Bohart Museum Liases with Audobon's Center for Land Based Learning and the SLEWS Program!

On April 27th 2005, the Bohart Museum teamed up with staff from the SLEWS project and students from Davis' Da Vinci High to talk about plant and insect monitoring, and view it first hand. The Student Land Education Watershed Steward program allows high school students to work on native plant restoration projects, including planting the plants and setting up the irrigations systems themselves. Then, they assess the environment and predict the outcome of planting those native plants.

This day was their final field day, and it included a food web game, plant assessments, as well as aquatic and terrestrial insect monitoring. The students did an incredible job sweep netting, butterfly catching, and kick netting and were surprised at the diversity they captured from their field site. They documented insects they saw, and assessed how healthy the environment was. Also, they made predictions as to if and how the environment will change from planting native plants. Plant and insect monitoring will continue at these sites for years down the road. This is an interesting partnership, because it involves the Bohart with the high school age group, a group that usually doesn't visit the museum. Insect awareness is important at any age, but even more so for those interested in biology, and entering college. From this project we may even land a few future entomologists. The SLEWS program ended this year on May 13th, 2005, as it was the final field day for the Sacramento Field site.

Dani DuCharme from the Bohart and Kit Crump from the Solano County RCD show students from DaVinci High exactly what can be found in a sweep net sample. Students caught a variety of insects, including bugs, butterflies, beetles, even dragonflies, damselflies and non-insects like ticks. The field site shown here is off Pleasant Valley Creek in Winters.



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After emerging from its chrysalis, we let this Painted Lady fly free in front of Academic Surge. Minutes later, it was gobbled up by an intelligent blue jay. It's a cruel, cruel world!

Painted Lady Butterflies Migrate Through California!

Millions of Painted Lady butterflies have been spotted in Davis, and all throughout the Central Valley. The beautiful butterflies, often mistaken for monarchs, arrived here in Davis at the beginning of March. For some, Davis will be their final destination, as their fat stores have been depleted. Here they will replenish themselves on nectar, and begin to lay eggs. Others will complete their one-way trip from Mexico to Oregon.

Although this migration occurs yearly, it is rare to see migrations of this magnitude. This crop of butterflies is attributed to high rains, which encouraged the growth of food at the source of the migration. By the time this migration is through, billions of butterflies will have traveled through the Central Valley.

In addition, these butterflies don't just migrate in North America, but all over the world. A similar migration originates in the deserts of North Africa, crossing the Mediterranean into Europe. Because of their incredible migratory capacity, these butterflies interbreed, creating a standard morphological form that looks uniform around the world. Pretty amazing!

In Davis, we collected over 150 caterpillars, and watched as they turned into chrysalises and adults! After they hatched, we set them free in Davis. Although all of our painted ladies have hatched now, we are waiting for a second round of butterflies to observe before they migrate back to Mexico!



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Department of Entomology
University of California
One Shields Ave.
Davis, CA 95616

Keeping the Insect Zoo Alive! A wishlist . . .



Recently, our Emperor Scorpion passed on. The children are always asking about it, and we would like to replace her. They are inexpensive (about \$15), but a great donation item. Perhaps you even know of one that could use a good home!



New Medical Entomology Exhibit!

As seen in the Winter 2004-2005 Newsletter, a new exhibit is on display at the Bohart! Entitled, “Medical Entomology—Bugs, Bites and Bodies,” this display features many blood suckers including mosquitoes, kissing bugs, fleas, lice and more. Come by and learn a little bit about those insects that are a nuisance to humans!



