

# Research & Collections News

The Occasional Newsletter of the Research and Collections Staff  
Natural History Museum of Los Angeles County

**re•search** (rī-sûrch', rē'sûrch) *n.* **1.** Scholarly or scientific investigation or inquiry. See synonyms at **inquiry**. **2.** Close, careful study. **3.** When performed on collections, the *raison d'être* of all great natural history museums.

September, 2004

(covering the months of May, June, July, and August, 2004)

## Collection News

### *Vertebrate Paleontology*

Dr. Xiaoming Wang, Associate Curator of Vertebrate Paleontology, has concluded a study of a new lesser panda (also known as red panda; genus *Parailurus*, family Ailuridae) from the late Miocene to Pliocene (7–4 million years ago) of eastern Tennessee. Living lesser pandas are confined to the mountainous belt of the Himalayas in the Tibetan Plateau, and, like the Giant Panda (which is not closely related), they have a highly specialized diet of bamboo, one of only a few carnivores that turned to herbivory. Interestingly, a species of bamboo (*Arundinaria gigantea*) is native to the eastern US, fueling speculations that the panda may have followed a bamboo forest corridor to North America. The upper first molar of the new panda is only the second specimen found in North America, and the LACM proudly has the first specimen (see picture of both specimens). A report has been accepted by the British journal *Nature*, one of the most prestigious vehicles for publication in any field of natural history.



New Panda M1



LACM 10808



### *Mineralogy*

While leading this year's Museum Gem & Mineral Council tour to Brazil (see below under Public Outreach), Tony Kampf acquired a very fine gold specimen for the Museum's collection. It is a 5.8 cm tall slightly waterworn crystal weighing 3.82 troy oz. (119 grams) (at left). The specimen, found at Alta Floresta in the state of Mato Grosso, is one of the finest gold specimens known from Brazil.

This spectacular specimen is on temporary display in the Museum's Gem Vault.

### *Malacology*

Ángel Valdés, Lindsey Groves, and Cathy Groves (Echinoderms) accompanied staff members from the LA County Sanitation Department and the Cabrillo Marine Aquarium on May 12<sup>th</sup> on a trawling excursion aboard the R/V *Ocean Sentinel* to the Catalina Channel. Despite rough water, some interesting mollusks and echinoderms were collected. Trawling activities the previous day yielded a specimen of the rare octopod *Opisthoteuthis* sp., which was captured live for a possible exhibit at the Cabrillo Marine Aquarium. Unfortunately the specimen expired and is now preserved in the Malacology collection.

Databasing of the UCLA Recent mollusk collection continues with 2386 additional lots curated by Krista Zala with identification and taxonomic verifications by Lindsey Groves.

### ***Entomology***

The Entomology Section has been given a huge donation of specimens, the private insect collection of Les & Abbey Stockton. This collection, which we estimate to be about 100,000 specimens, is rich in large and showy butterflies, moths and beetles, giving it a high potential value for exhibition. Additionally, there are many species in the Stockton collection that are new to our already extensive research collection holdings. Many of the specimens are arranged in spectacular display drawers, some of which we exhibited at the recent Bug Fair.



Over the next several months, Collection Manager Weiping Xie will be working to freeze the drawers (to kill any insect pests) and bring them into the Entomology area. Eventually we would like to have an open house to show this amazing collection to the museum staff. We thank Kirk Fitzhugh, Krista Zala, Dan Hoffman, Victor Hernandez and Jeri Gutierrez for help in bringing the collection to the museum.

### ***Invertebrate Paleontology***

Our computer catalog continues to grow. Since the last newsletter, Mary Stecheson and her team have cataloged collections from an additional 194 localities including nearly 2000 specimen lots and over 50,000 specimens.

### ***History***

This past spring, The Seaver Center for Western History Research received a major donation of work from Downtown Art Collection of the Community Development Agency of the City of Los Angeles. A number of the donated pieces were created in support of the 1984 Olympic Games in Los Angeles. A pastel, *Olympic Series I*, by the renowned artist Carlos Almaraz, is on display in *LA: Light / Motion/ Dreams*. Also included in the donation are fifty color photographs by the official photographer of the LA Olympic Organizing Committee, Paul Slaughter. The majority of these are on display in the ground floor East Hallway through September 10. Included as well in the donation were 36 black and white prints made by Community Redevelopment Agency staff photographer Chris Morland. A selection of this work is on display in the ground floor West

Hallway. In August Morland donated another large body of personal work featuring the homeless population of downtown Los Angeles and California motorcycle clubs of the 1970s. All of these works will make important contributions to the Seaver Center's collections.

### ***Fourth Floor Freezer Project***

In July 2003 the large walk-in freezer on the fourth floor defrosted due to a power outage, putting the specimens at risk; liquids from the freezer leaked through the floor into the Human Resources Offices one floor below. A temporary fix was implemented with scheduling put on hold for the repair until the exhibit, L.A: light / motion / dreams, opened.

Before work could be done on the freezer, all of the specimens needed to be moved. In May of this year, Tim Bovard, Jim Dines and Kimball Garrett sorted through the many specimens in the freezer, working on some, discarding others without data or that had been damaged by the thaw. Then with the help of Dave Janiger, Jeff Seigel, Darienne Hetherman, Vicki Gambill, Jeri Guitierrez, Victor Hernandez, James Cherry, Dan Hoffman, Romeo Julaton, and Carlos Carrillo the specimens were inventoried, put into plastic bins, palletized and moved to a temporary freezer in the west parking lot.



Thanks to Leonard Navarro, Graciela Chacon and Ania Onley for ordering the necessary supplies, including the bins, for a move of this kind and for Bob Janeck and his staff for securing the temporary freezer.

After freezer repairs were completed by Bob Janeck, Mike Alvarez, Rory Waggoner, Jose L. Ponce, Ronald Green, and Romeo Julaton, the specimens were all returned to the fourth floor freezer. This group effort was completed by August 6. Due to the combined work of staff from Research and Collections, Public Programs,

and Operations, we have not only improved storage of these specimens but now have a complete inventory and location of what is currently housed in the freezer.

### ***Vertebrate Paleontology (again...)***

A new kind of fossil marine mammal has come to light in Vertebrate Paleontology. Over the past year, a donation to the Museum has funded work by Gary Takeuchi and volunteers to partially prepare a very large skeleton in rock in a plaster jacket, found in Orange County. The skeleton turns out to be a large herbivorous quadrupedal marine mammal called a desmostylian. Desmostylians lived only around the margins of the North Pacific from about 35 to 10 million years ago and are extinct. The skeleton that we have is the most complete such specimen from North America, is the first one found in soft sediment that will allow detailed anatomical observations, and is a different species from its closest relative, a slightly older species from Japan called *Paleoparadoxia tabatai*. We intend to seek further funding for the detailed preparation of the skeleton and, hopefully, its replication and mounting for exhibit.

### ***California Academy of Sciences Collection Trip***

At the end of July, Vicki Gambill and Karen Wise traveled to San Francisco to observe the California Academy of Sciences' move from Golden Gate Park to their new temporary location on Howard Street. They met with Dave Kavanaugh, Interim Director of Research, Scott Moran, Project Manager, curators, collection managers, and other staff and had a chance to see the move

as it was happening. The Cal Academy has built on some approaches used by other large natural history museums, e.g. re-housing collections before moving, using (mostly newly purchased) collections furniture to move in, and hiring temporary in-house skilled collections handlers to help pack and unpack collections. We felt that these strategies were successful at saving money while ensuring collections safety. The structure of the move team and many of the packing systems the California Academy used could be models for us. In September we will offer a brown bag luncheon open to all staff to share what we learned from our trip.

### ***Crustacea***

The Crustacea collection, the second largest of its kind in the nation, is in the process of inserting all of its type collection (unique specimens on which a new species description is based) into foam-lined drawers, making it a truly earthquake-proof type collection, thanks to the efforts of Crustacea Collections Manager George Davis. At right is one drawer of type specimens with the individual jars carefully fitted into foam receptacles; the entire drawer is then closed within an environmentally secure cabinet.

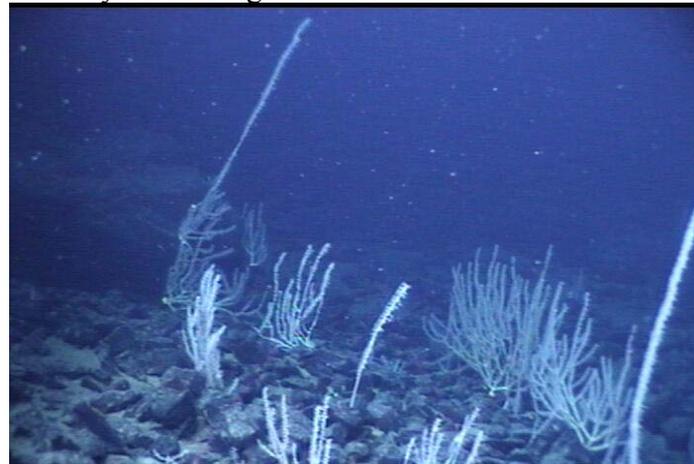


## **Field Work**

Summer is always prime time for field research, and this year is no exception. Below are just some of the reports from this summer's active field season. In addition to what follows, Brian Brown (Entomology) conducted surveys and research on phorid flies in Peru, and Regina Wetzer (Crustacea) (along with Research Associate Dean Pentcheff and MBPC Curatorial Assistant Kathy Omura) successfully collected sphaeromatid isopods in East Africa (Kenya and Tanzania) as part of her NSF grant to study these creatures.

### ***Invertebrate Paleontology***

During June, Ken Johnson spent a week working in the collections of the Natural History Museum in London as part of his study of the Oligocene Caribbean coral fauna.



In July, Research Associate Elena Perez joined a research cruise on the R/V *Revelle* in the Gulf of Alaska. She was part of a team that used the remote operated submersible *JASON* (shown at left) to explore the deep sea floor and determine the long-term effects of a large tsunami that passed through the area in 1946. The above photo, taken by Elena using *JASON*, is of corals at a

depth of 4000 meters in the Gulf of Alaska. The corals in this photograph are approximately 50 cm tall.

### ***History***

Jonathan Spaulding, Associate Curator of History, has been in the field throughout August and much of September working with photographer David Muench in California and New Mexico. The most recognized landscape photographer of his generation, Muench is preparing a retrospective volume for publication in the spring of 2005. Spaulding is writing the text for the book.

### ***Polychaetes***



Leslie Harris spent what was supposed to be a relaxing vacation on 2 weeks of intensive survey work in San Francisco Bay and Tomales Bay. The first survey was part of an long-term rapid assessment of invasive species in the Bay and Delta region. The National Park Service funded the 2nd survey, a bio-inventory of the invertebrate fauna. The results of both surveys will be used to study changes in the intertidal and benthic communities over time as well as track the spread of invasives. 282 lots (each containing from 1 to 100+ specimens) of polychaetes, crustacea, molluscs, and other groups were brought back for the museum's collection. Among them were a couple of beautiful polychaete species presumed to be both undescribed and introduced (one of them, *Amaeana* sp. A, is inset in the picture of Leslie

pulling worms from a mud-fouled rope at Pete's Marina, SF, above). A brief account of the San Francisco Bay work (plus some of Leslie's pictures) can be found on the web at [http://www.californiabiota.com/cabiota/sfbras\\_2004.htm](http://www.californiabiota.com/cabiota/sfbras_2004.htm).

## **Meetings, Workshops, and Presentations**

### ***Malacology***

Lindsey Groves attended the California Paleontological Conference (CalPaleo) at Occidental College, Eagle Rock on May 1<sup>st</sup>. CalPaleo is held annually at different schools and is an opportunity for graduate and undergraduate students to present their research findings and progress.

Ángel Valdés and Jim McLean attended the 70<sup>th</sup> annual meeting of the American Malacological Society in Sanibel Island, Florida, July 31<sup>st</sup> – August 4<sup>th</sup>. Ángel presented the paper *What is new on the biodiversity of opisthobranch mollusks?* In recognition of his numerous malacological contributions and achievements, Jim was presented with Honorary Life Membership by the AMS.

Michelle Schwengel attended the Guild of Natural Science Illustrators Conference & Workshops held this year at the College of William & Mary in Williamsburg, Virginia, July 4<sup>th</sup> -10<sup>th</sup>.

Michelle served as the Southern California GNSI Chapter Representative, and has been the chapter's Program Coordinator for the past two years.

### ***Polychaete Worms***

Dr. Kirk Fitzhugh presented a paper on his recent work on the inferential structures of species and other taxa in the symposium "Epistemology and Cladistics" at the "Hennig XXIII: Phylogenetics and Evolutionary Biology" meeting in Paris, France, 18-23 July.

Leslie Harris presented a talk on "Problems with *Pista* (Polychaeta: Terebellidae) at the recent Southern California Academy of Sciences meeting at CSULB. It was part of a special symposium in honor of Dr. Donald Reish. Dr. Reish is the "father" and "grandfather" of many people working on worms today (Leslie's a grandchild), as well as one of the early contributors to the AHF polychaete collection which makes up such a large part of our holdings.

### ***Invertebrate Paleontology***

Ken Johnson presented the results of his ongoing research at the Tenth International Coral Reef Symposium in Okinawa, Japan. The title of his presentation was "Reef-coral growth and oceanographic conditions in the Neogene Caribbean."

### ***Crustacea***

Jody Martin represented the Museum and gave a presentation titled "The Real Diversity of Coral Reefs: The Associated Invertebrates and Microbes" at a meeting of the Census of Marine Life at the Hawaii Institute for Marine Biology on Coconut Island, Hawaii.

### ***Conservator***

Tania Collas, Conservator, attended the annual Society for the Preservation of Natural History Collections (SPNHC) meeting, held from May 11-16, 2004 at the American Museum of Natural History in New York. The meeting included a program of presentations with a focus on disaster preparedness, at which she presented *Earthquake Strapping for Collections*, a talk co-authored with Vicki Gambill describing an ongoing collections stabilization project here at NHMLAC. Tania also attended the SPNHC workshop, *Emergency Response and Salvage Techniques*. Information from this meeting and workshop will help improve collections emergency preparedness here at the Museum.

### ***Registrar***

Vicki Gambill, Chief Registrar, attended the first International Registrar's Symposium in New Orleans, May 4-5, held in conjunction with the American Association of Museums (AAM) annual conference. Approximately 260 Registrars, Shippers, Packers, and Insurance Representatives from around the globe discussed topics and concerns common to our collection management roles in museums. Vicki also attended a post-conference AAM workshop entitled *Moving Collections: Institutional Planning and Integrated Solutions*. The all day session included such topics as management and planning issues, collection management systems and IT issues, registration and conservation issues, digital imaging, as well as some good examples of packing, crating and moving that can be adapted for our use.

### ***Ichthyology***

Chris Thacker presented an invited seminar at James Cook University, Queensland, Australia, on her studies of the phylogeny, evolution and population genetics of the goby genus *Gnatholepis*, one species of which is shown at right.



### ***History***

In August Steven Karr presented his research on culturally interpreted rock formations and sacred Indian sites at the Regional Oral History Office's annual Advanced Oral History Summer Institute, sponsored by the Bancroft Library at the University of California, Berkeley.

## **External Funding**

### ***Malacology***

Ángel Valdés, in collaboration with Jody Martin, Brian Brown, Gordon Hendler, and Kirk Fitzhugh, has obtained a \$17,000 NSF supplement grant to train two high school teachers in systematic biology and scanning electron microscopy.

### ***Anthropology and Archaeology***

Scott Van Keuren (Archaeology) was awarded a \$23,185 grant from the Wenner-Gren Foundation for Anthropological Research. The grant will fund excavation and analysis of archaeological materials from fourteenth century Ancestral Pueblo (or “Anasazi”) villages in eastern Arizona. The grant will also support community outreach and public programming activities designed to curb pot-hunting and raise public awareness about endangered archaeological resources. The grant is part of a larger project that seeks to understand the economic and political organization of Pueblo societies and why they abruptly abandoned this part of the Southwest at the beginning of the fifteenth century.

The Anthropology Department was awarded a \$15,942 grant from the Museum Loan Network (MLN) to inventory, photograph, and re-house a portion of the Museum’s collection of ancient Andean textiles. The textiles are a prominent but poorly known part of the Museum’s Latin American archaeological collections and have considerable exhibit potential. The Survey Grant will prepare the collection for future loans, improve its storage conditions, and enhance accessibility to external institutions and the public.

In July the Anthropology department was awarded an Ethnic Arts Council of Los Angeles grant for the project “Photo Documenting and Enhancing Understanding of the Natural History Museum's Southwestern and Mexican Textile Collections.” Grant funds will be used to photograph portions of a collection of more than 350 items and to update and provide photo documentation for the ethnology collection electronic database.

### ***Ichthyology***

Chris Thacker, Jeff Seigel and Rick Feeney submitted their grant for support of fungus removal and rehousing of the skeletal collections in Ichthyology and Herpetology to NSF's Biological Research Collection program.

### ***Crustacea***

Todd Haney and Jody Martin submitted a grant proposal to NSF to conduct work on the systematics and phylogeny of leptostracan crustaceans, and Jody and Regina Wetzer (in conjunction with all of the marine invertebrate curators and the MBPC staff) submitted a proposal for \$565,000 to continue funding for the Marine Biodiversity Processing Center.

## Public Outreach

### *Adventures in Nature Involves All of R & C!* (submitted by Krista Zala)

As the green signs sprang up in the West lot, fun-seeking staff in Research & Collections offered their resources and expertise to a new round of Adventures in Nature camps. A quick run-down follows of how R&C staff contributed to the classes.

**Anthropology** unearthed students' curiosity in Emily Eider's *Awesome Ancient Americas*, Genise Battaglia's *Ancient Wonders*, Kristina Darbari's *In the Field*, Alethea Olsen's *Winged Things*, and Leah Melber's *Dig This*. Allyson Lazar, Renee Aguilar, Christine Debacker, Chris Coleman, and Scott van Keuren all played roles: students got to go to the archaeology storeroom where they saw artifacts related to their class's theme (mostly pre-Columbian, southwestern, and early Californian items), and Scott talked about his glamorous life as an archaeologist. Altogether they gave 42 presentations to 18 classes, each lasting about 20 minutes.

**Echinodermata** generated and regenerated cool facts for Robin Savoian's *Inside Out*, Megan Walsh's *Tidepool Treasures*, and Melanie Rhalter's *Ocean Commotion*. Cathy Groves brought specimens to younger classes, led older students through the collection, and talked about echinoderm biology.

**Ichthyology** scaled up Patrick Tanaka's *Nature Did it First*. Jeff Seigel and Rick Feeney enlightened campers with examples of bioluminescence in fishes. Melanie Rhalter's *Ocean Commotion* class sent the section a postcard that asked about egg attachment in male pipefish, so Jeff made a surprise visit, specimens in hand, to explain how it happens.

**Mammalogy** pelted loads of mammal facts at David Edwards' *Winged Things*, Carl Carranza's *Flukes and Flippers*, Chris Winkler's *Bones, Stones, and Human Origins*, Fara Valentine's *Night Owls*, and Leah Melber's *Mammal Mania*. Jim Dines took students on collection tours and pulled out all sorts of specimens, from 16-gram bats to 16-foot baleen, to illustrate adaptations like echolocation and different feeding mechanisms.

The **Marine Biodiversity Processing Center** (MBPC) sifted through tons of ideas to



create a set of presentations for Heather Saunders' *Slimy, Soggy, Wild & Wet* and *Sea Sensation Adventure*, Illisa Twomey's *Arthropod ABCs*, Robin Savoian's *Inside Out*, Patrick Tanaka's *How Do Scientists Do It?*, Fara Valentine's *Night Owls*, Melanie Rhalter's *Ocean Commotion*, and Emiko Ono's *Museum Collections and Conservation*. MBPC staff (Kathy Omura, Neftali Camacho [at left], Darolyn Striley, Krista Zala, Regina Wetzer, and our volunteer, Sara Moore), used their teaching collections and some

Invertebrate Sections' collections to point out nifty invertebrate biology facts, including sexual dimorphism, defense strategies, and feeding methods, as well as to convey a sense of the diversity of marine life. We used collecting, storage, and identification equipment to walk students through field collection methods, techniques in identifying animals, and reasons for museum collections. Some of us had the great experience of being the on-board naturalists for the *Sea Sensation*'s class day-long educational cruise aboard the ORV *Alguita* with the Algalita Marine Research Foundation.

Melanie Rhalter, an AIN instructor and parent, summed up the MBPC contribution: : *"To help introduce students to tidepool and coral reef life, Darolyn, Krista, Kathy and Nefty brought in a cartload of specimens for our first graders to examine under the microscope, in trays and with large magnifiers. Students had the chance to 'become' scientists and learn first-hand about the important work our Museum does. This unforgettable hands-on science*

*experience is a perfect example of how our Museum's Research and Collection specialists help make AIN a truly unique program. The staff's enthusiasm for educational outreach added immeasurably to our class."*

**Ornithology** acquainted a clutch of fledgling scientists with wonders of bird biology in Diane Tom's *Creature Features*, Deanna Miller's *Avian Adventures*, Dan Kroupa's *Flyin' Sky High*, Beth Nordeen's *Looking Closer*, Patrick Tanaka's *'Dem Bones*, Alethea Olsen's *Winged Things*, Emiko Ono's *Museum Collections*, and Robin Savoian's *Inside Out*. Kimball Garrett led students on bird walks on the museum grounds and on tours of the ornithology collections, showed stages of specimen preparation, placed birds under the microscope for special scrutiny, and talked about bird bones.

The **Polychaetes** section fanned a whole new love of worms in students of Beth Nordeen's and Tory Shelley's *Looking Closer*. Kirk Fitzhugh showed the great range of size in polychaetes by walking students through the collection room so they could check out really big worms, and letting them see much smaller animals on both stereo and compound microscopes. Angel Valdes (of Malacology) then gave students a tour of the SEM so they could see the beauty of the nano-sized animals. (...Nanimals?)

**Vertebrate Paleontology** rocked Megan Walsh's *Little Dinos*, Cindy Brown's *Prehistoric Pals* and *Dino-Mite*, Juana Mercado's *Dig This*, Heather Saunders' *Slimy, Soggy, Wild & Wet*, Patrick Tanaka's *'Dem Bones* and *How Do Scientists Do It?*, and Emiko Ono's *Museum Collections and Conservation*. Howell Thomas, Doug Goodreau, and Donna Dameron introduced some of the people who work in the lab and talked about what they're working on, and they showed students how to prepare bones. AIN campers also got to touch a *T. rex* femur.

**Invertebrate Paleontology:** The resources and staff of Invertebrate Paleontology also contributed to some of the AIN summer classes. Heather Saunders, an innovative Education Outreach Instructor, borrowed several latex molds of various kinds of fossil invertebrates to use in teaching the AIN classes "Sea Sensation Adventures" and "Slimy, Soggy, Wild, and We.t" Invertebrate Paleontology Research Associate LouElla Saul assisted Heather with the selection of the fossil molds and provided invaluable advice on how to make great casts of fossils with plaster. This is the first time that IP's fossil molds have been used for an AIN class. Heather and her students thought that casting fossils was cool, so it is likely that these molds will be used again in AIN class instruction. In another first for the Department of Invertebrate Paleontology, intrepid Outreach Instructor Beth Nordeen, assisted by Lead Outreach Instructor Patrick Tanaka, brought a group of AIN students to the department's off-site facility on South Grand Avenue. The class used the department's microscopes to examine some of the smaller invertebrate fossils in the collections as part of Beth's AIN class called "Looking Closer". The students had fun using microscopes and they were impressed with the scope and size of the invertebrate paleontology collections. Mary Stecheson and Harry Filkorn, both Invertebrate Paleontology staff, helped to facilitate this first ever AIN class at the Invertebrate Paleontology building on South Grand.

Many of us delivered more tours and presentations for AIN this summer than ever before. Along the way, we racked up a few stories of queasy kids and unique questions. Lorelei Sells and the instructors loved our sessions and always appreciate the sophisticated educational resources residing in R&C – both the collections and the people. Congratulations all around on a successful summer!

### ***Entomology: Spider Survey Goes Scientific***

The Los Angeles Spider Survey, a project of the Entomology Section, has until now been largely a local L.A. phenomenon. However, recently our survey has had an impact on scientific research. In his 2004 paper "A review of the Nearctic jumping spiders of the subfamily Euophyrinae north of Mexico," Dr. G.B. Edwards of Florida State Collection of Arthropods cites our material of the spider *Mexigonus minutus* as a new state record for California (otherwise it is known from Mexico). This is just one of a number of spider species, submitted by local citizens, that are being used in scientific studies.

### ***Mineralogy***

Tony Kampf has just returned from leading his 11<sup>th</sup> gem and mineral tour to Brazil. The 16-day trip, sponsored by the Museum's Gem & Mineral Council, included visits to many gem mines in the state of Minas Gerais. Most of these mines exploit mineral deposits known as pegmatites, one of Dr. Kampf's research interests. The tour concluded with a visit to Iguaçu Falls.



At left: The Navagadora mine near Galileia.

Right: The Urubu mine near Araçuaí.



At left: Iguazu Falls as seen from a helicopter, the last stop on the tour of the Gem and Mineral Council (see above).

### ***Malacology***

Lindsey Groves co-led *Fossil hunting in Silverado Canyon* with LouElla Saul (Invertebrate Paleontology Research Associate) and the Education Division on May 22<sup>nd</sup>. Twenty-seven participants collected Late Cretaceous (Turonian) mollusks from the Baker Canyon and Holz Shale members of the Ladd Formation in Silverado Canyon, Santa Ana Mountains, Orange County. Field assistance was provided by Cathy Groves (Echinoderms), Krista Zala (MBPC), and Emily Eiden (Education).

Michelle Schwengel was the guest scientific illustrator in the “*Art Meets Science*” *Adventures in Nature* class at the Page Museum.

### ***Ichthyology***

Ichthyology gave several tours to museum interns, Art Center College of Design students, and vertebrate zoology classes from UCLA. Jeff Seigel also spoke at the career day at Redondo High School.

## **Distinguished Visitors**

### ***Malacology***

Aldolfo Lopez, S.J. (University of Central America, Managua, Nicaragua): June 14<sup>th</sup> through September 8<sup>th</sup>. Each summer “Father Al” visits LACM to conduct malacological research on terrestrial gastropods and fresh water bivalves collected in Central America. In addition to his research, Al also performs priestly duties at the St. Thomas the Apostle parish in Los Angeles.

Dirk Fehse (Berlin, Germany): July 15<sup>th</sup> and 16<sup>th</sup>. Dirk is an amateur paleontologist/malacologist who has published numerous papers on fossil and Recent cypraeoideans (cowries and kin).

### ***Ichthyology***

Dr. Mark Lowry of the Southwest Fisheries Science Center in La Jolla, CA, visited Ichthyology in August to examine the Fitch otolith collection for aid in identifying marine mammal stomach contents. Dr. Steve Goldberg of Whitter College continues to use the Herpetology collection extensively for his studies on lizard reproduction. Dr. Camm Swift, curator emeritus, visited in July and deposited larval material of the threatened fishes Arroyo Chub and Santa Ana Sucker, as well as a collection of freshwater fishes from the San Lorenzo River.

### ***Polychaete Worms***

Dr. Patricia Salazar-Silva (ECOSUR, Chetumal, Mexico) stayed with Leslie Harris from June 10 to July 3 while working with the polychaete collection. Dr. Silva has a grant to study the scaleworms (family Polynoidae) of Pacific Mexico, a group that is well represented in our collection. The image shows just one of the new species she discovered among our holdings and intends to describe.

Joana Silva, a Brazilian doctoral student now at George Washington University and the Smithsonian, visited us for 2 weeks in July. Joana is working on the phylogeny of the family Eunicidae. In addition to working with our extensive collection of eunicids she wanted to collect live specimens for DNA analysis. Leslie Harris took Joana to several intertidal areas along the coast and arranged for her to participate in a series of cruises in Santa Monica Bay, courtesy of Don Cadien (Museum Associate) and the Los Angeles County Sanitation District's marine biology lab. The collecting was very successful - Joana went back with nearly 100 lots of specimens while Leslie added several hundred more to the museum's holdings. In addition, Leslie photographed many of the live animals for her growing photographic database of marine inverts.

## **New R & C Staff**

### ***Invertebrate Paleontology***

Ryan McKenzie joined the department as a part-time work-study student. Ryan studies geology at UCLA and has been working with Mary Stecheson to catalog our collections of Pleistocene mollusks.

### ***Ichthyology***

Emily Shaw, from Santa Monica College, started work as a volunteer, digitally photographing Ichthyology type specimens as well as assisting W. M. Keck postdoctoral fellow Dr. Andrew Thompson in the molecular lab.

### ***Scanning Electron Microscope***

R & C is pleased to announce that Giar-Ann Kung, formerly of our Entomology department, has accepted the position of Scanning Electron Microscope Technician. She can be reached at: gkung@nhm.org or extension x3583

## **Recent Publications**

(\* = published by the Museum's own scientific journal; see below under Scholarly Publications Office)

**Brown, B. V. 2004. Revision of the *Melaloncha cingulata*-group of bee-killing flies (Diptera: Phoridae). *Annals of the Entomological Society of America*. 97: 386-392.**

This revision treats the species of a small group of bee-killing flies, describing nine new to science.

**Brown, B. V. and G. Kung. 2004. Two new genera of Phoridae (Insecta: Diptera) from the Neotropical Region. *Zootaxa*. 554: 1-7.**

These two new genera and species are the result of tropical bioinventory work in Colombia and Costa Rica.

**\*Quate, L. W. and B. V. Brown. 2004. Revision of the Neotropical Setomimini (Diptera: Psychodidae: Psychodinae). *Contributions in Science*, No. 500. 117 pp.**

This paper, based on the scientific work of a deceased research associate, and finished by Brown, is the first attempt to understand the extraordinarily diverse tropical fauna of these small flies. The Psychodidae are known as moth flies, or drain flies, and they are often seen in bathrooms in the museum!

**Squires, R. L., and L. R. Saul. 2004. The pseudomelaniid gastropod *Paosia* from the marine Cretaceous of the Pacific Slope of North America and a review of the age and paleobiogeography of the genus. *Journal of Paleontology*, 78(3):484-500.**

**\*Smith, A.P. and S.A. Marshall. A review of the New World Genus *Pterogramma Spuler* and a revision of the *Pterogramma sublugubrinum* group (Diptera: Sphaeroceridae: Limosiniinae). *Contributions in Science* 499: 1-163 pp, 422 figs.**

This was a huge revision of a tropical group of flies, coauthored by a Research Associate of the Entomology Section. Seventeen new species were described, including specimens in our entomology collection.

**Groves, Lindsey. 2004. The cypraeoidean and trivioidean taxa of Crawford Neil Cate (1905-1981) in *The Festivus* 35(7):65-92.**

Crawford Cate was an active amateur conchologist/malacologist who published descriptions of over 250 genera, subgenera, species, and subspecies of cypraeoidean and trivioidean mollusks (cowries and kin).

**Kaldahl, Eric J., Scott Van Keuren and Barbara J. Mills. 2004. Migration, Factionalism, and the Trajectories of Pueblo IV Period Clusters in the Mogollon Rim Region. In *The Protohistoric Pueblo World: A.D. 1275-1600*, edited by A. Duff and E. C. Adams, pp. 85-94. The University of Arizona Press, Tucson.**

**Valdés, Ángel. 2004. Morphology of the penial hooks and vaginal citicular lining of some dorid nudibranchs (Mollusca, Opisthobranchia). *American Malacological Bulletin* 18:49-53.**

**\*Valdés, Ángel. 2004. Tropical western Atlantic species of *Diaulula* Bergh, 1878 (Mollusca, Nudibranchia), with the description of a new species NHMLAC Contributions in Science 501:1-7.**

**Perchiazzi, N., Gualtieri, A., Merlino, S., and Kampf, A. R. (2004) The crystal structure of bakerite and its relationship to datolite. *American Mineralogist* 89, 767-776.**

This solution of a longstanding mineralogical puzzle regarding the correct species status of bakerite required a painstaking study of the atomic structure of the mineral. Bakerite was determined to be deserving of distinct species status, but the only reported crystals of bakerite, described in 1962 from Tick Canyon near Acton in Los Angeles County, were determined to be the mineral datolite.

**Pluth, J. J., Steele, I. M., and Kampf, A. R. (2004) Redgillite, a new mineral from Caldbeck Fells, Cumbria, England.**

Redgillite was approved as a new mineral by the Commission on New Minerals and Mineral Names, International Mineralogical Association (not a publication yet but a noteworthy approval.)

**Martin, J. W., and M. K. Wicksten. 2004. Review and redescription of the freshwater atyid shrimp genus *Syncaris* Holmes, 1900, in California. *Journal of Crustacean Biology* 24(3): 447-462.**

The extinct "LA River Shrimp" and its only living relative, another shrimp that lives in coastal streams in northern California, are reviewed.

## Scholarly Publications Office

Three new issues of *Contributions in Science* were recently published in our museum's scholarly series (for details of the contents of each, please see above under staff publications):

Number 499: Smith, A.P. and S.A. Marshall. A review of the New World Genus *Pterogramma* Spuler and a revision of the *Pterogramma* *sublugubrinum* group (Diptera: Sphaeroceridae: Limosiniinae). 163 pp, 422 figs.

Number 500. Quate, L.W. and B.V. Brown. Revision of Neotropical Setomimini (Diptera: Psychodidae: Psychodinae). 117 pp, 293 figs.

Number 501. Valdés, A. Tropical Western Atlantic species of *Diaulula* Bergh, 1878 (Mollusca, Nudibranchia), with the description of a new species. 7 pp, 5 figs.

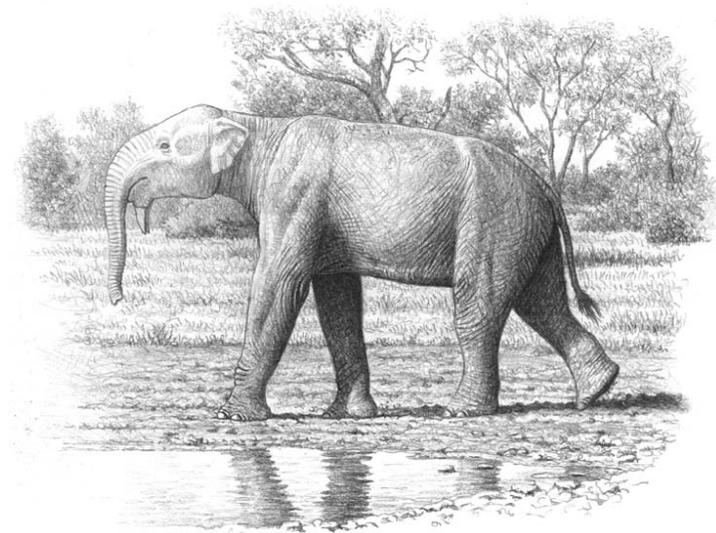
You can download PDF file versions of these and other recently published manuscripts by visiting the Scholarly Publications website at <[www.nhm.org/research/publications](http://www.nhm.org/research/publications)>.

## Miscellaneous

### *Honor by Patronym*

Deinotheres are an intriguing group of elephant-sized Old World proboscideans that had simple, low-crowned cheek teeth and down-turned tusks in the lower jaw (see figure). A newly discovered Oligocene fauna from Chilga, Ethiopia, is described in the latest issue of *Acta Palaeontologica Polonica* and includes a new genus and species representing the oldest known deinotheres. This has been named *Chilgatherium harrisi* (Harris's beast from Chilga) "in

recognition of the many important contributions of Dr John M. Harris to the study of deinother evolution."



Source: Sanders, W. J., J. Kappelman and D. T. Rasmussen. 2004. New large-bodied mammals from the late Oligocene site of Chilga, Ethiopia. *Acta Palaeontologia Polonica* 49 (3): 365-392.

A reconstruction of *Chilgatherium harrisi*.

In a similar vein, a new genus of polychaete worm, *Kirkia*, found off the coast of Brazil has been named in honor of Dr. Kirk Fitzhugh "as a well-deserved homage to an author who has been contributing to a better knowledge of Sabellidae ...." (a family of fan worms).

Source: M. de M. Nogueira et al., 2004, *Kirkia heterobranchia*, a new genus and species of extratubular brooding sabellid (Polychate: Sabellidae) from Sao Paulo, Brazil. *Journal of the Marine Biological Association of the United Kingdom* 84: 701-710.

#### ***MAP Peer Review***

Vicki Gambill has recently been approved to be a peer reviewer (Surveyor) for the Museum Assessment Program (MAP). The role of a peer reviewer is to provide guidance and advice to museums visited around the country.

#### ***Student Awards***

Several students associated with the Research & Collections branch of the Museum received high honors from UCLA this spring and summer. These students (with their primary museum affiliation in parentheses) include: Todd A. Haney (Crustacea), who was awarded the UCLA Scherbaum Award for Excellence in Graduate Student Research; Peter Adam (Vertebrate Paleontology), who won the UCLA Lasiewski Award for Research in Organismic Biology as well as a Special Faculty Award for service; Kristen Jett (Vertebrate Paleontology), who won the Undergraduate Research Award; and Tony Friscia (also Vertebrate Paleontology), who received a UCLA campus-side teaching award. Congratulations to all!

\*\*\* End \*\*\*