

# 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.

November, 2005

(covering the months of September and October, 2005)

**NOTE:** *R & C Newsletter now in PDF format on the Web*

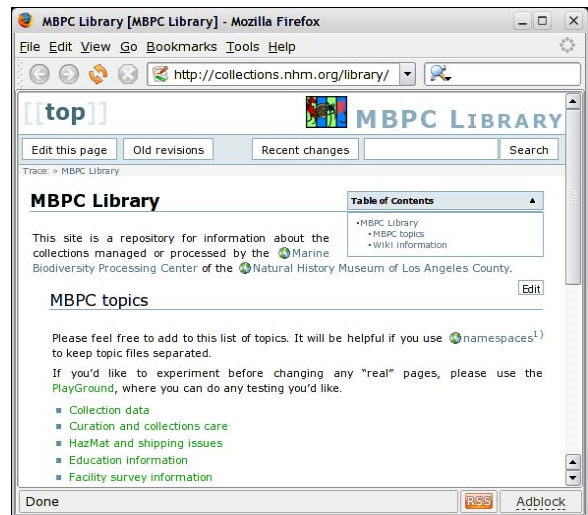
All former R & C Newsletters can now be accessed via the Museum's web site at:

<http://collections.nhm.org/newsletters/>

## Collection News

### Marine Biodiversity Processing Center

The MBPC has installed a central online repository for the diverse information that is developed in the course of processing and curating collections. The "Library" is in the form of a web-based "wiki" site (see at right), which allows direct editing by anyone who has information to contribute. Because the specimens coming into the MBPC come from so many different sources, the documentation has arrived in a broad variety of formats. The wiki Library will now allow them to consolidate that information into a single online location that is broadly accessible and expandable. You're invited to visit (and contribute!) at: <http://collections.nhm.org/library>



Injured Red-tailed Tropicbird (*Phaethon rubricauda*) at a San Pedro bird rehabilitation facility. The bird was subsequently euthanized and now resides in the Ornithology collections.

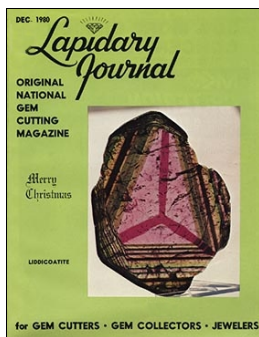
### Ornithology

Although the Ornithology collections benefit most from strategically-collected series of specimens, we do get the occasional single "standout" acquisition as well. In September we received the carcass of a Short-tailed Albatross (*Phoebastria albatrus*) which had been found near Morro Bay, California in August. This highly-endangered seabird breeds only on Torishima Island and the Senkaku Islands, Japan, and has a world population of about 2,000 individuals. We were able to prepare a flat skin and complete skeleton from the desiccated carcass; the skeleton is particularly useful since bones of this species have been found in zooarchaeological sites on the California coast and Channel Islands, and only about 7 complete skeletons exist in the world's collections. In October we received a Red-tailed Tropicbird

(*Phaethon rubricauda*) which had been found injured at Cabrillo Beach and was subsequently euthanized at a rehabilitation facility in San Pedro; this represents the first specimen of this tropical pelagic species for California and only the second for the North American continent.

## Mineral Sciences

Anyway you slice it, this tourmaline has a story to tell. The Mineral Sciences Department recently purchased a remarkable slice cut through the center of a tourmaline crystal. Most gem tourmalines are the species elbaite, the sodium-lithium member of the tourmaline group. This is a slice of liddicoatite, the much rarer calcium-lithium tourmaline first described in 1977 from Madagascar. Both species occur in a wide variety of colors caused by small quantities of certain elements, especially iron and manganese, incorporated in the atomic structure during crystal growth. The color zoning exhibited by these crystals documents both changing solution chemistry and changing crystal shape during their formation.



This liddicoatite tourmaline slice was pictured on the cover of the December 1980 issue of *Lapidary Journal* (left). The crystal from which it was cut was mined at Anjanabonoina, Madagascar prior to 1976.



9 inches tall – A.R. Kampf photo.

Funding for this purchase was provided by the Museum's Gem & Mineral Council.

## Invertebrate Paleontology

Curatorial Assistant Mary Stecheson and her team of USC work-study students added records for 157, 215 specimens of Pleistocene mollusks in 2,374 lots to the IP database during September - October. This brings the total amount of material cataloged in the IP database to 884,000 specimens in 31,470 lots.

## Field Work

### Archaeology

Scott Van Keuren (Curator of North American Archaeology) recently completed seven weeks of archaeological fieldwork in the mountains of eastern Arizona. He and his crew revisited the Pinedale Ruin (at right), a large village that was home to Ancestral Pueblo (or "Anasazi") peoples in the fourteenth century. This famous site was briefly investigated by archaeologists in the 1920s as part of the National Geographic Society's Beam Expeditions, an early project that sought out prehistoric tree-ring specimens for chronological dating from the northern Southwest. The site has not been



View of Pinedale Ruin and the surrounding valley.

researched since, and sadly, it was partially bulldozed by pothunters in recent years. Van Keuren and his crew mapped the 350-room village and excavated portions of several rooms, a trash area, and a large outdoor plaza used for ceremonial activities. The analysis of these architectural and artifact data will help determine how and why the village was abandoned a century before Europeans arrived in the Americas. The project also made progress toward the preservation of this site and other endangered archaeological resources in the region located on private land.

The 2005 field season was supported by the Wenner-Gren Foundation for Anthropological Research. A forthcoming grant from the National Science Foundation will fund research at two nearby Ancestral Pueblo sites over the next three years.

## **Rancho La Brea**

The 22<sup>nd</sup> annual summer excavation of Pit 91 in Hancock Park began on June 15 and ended on September 11. For the second consecutive year, Kristen Vowels and Samantha Green led the excavation crew, coordinating the efforts of 25 volunteers who donated over 1,000 hours during this 13 week period. More than 2,650 fossil specimens, including plant, invertebrate, and vertebrate remains, were recovered including those from rarely encountered species such as the giant short-faced bear and the dwarf pronghorn “antelope.” Complete skulls of five sabertoothed cats, three dire wolves, and a juvenile horse highlighted this year’s excavation. Perhaps the most exciting specimen recovered this year was a sabertoothed cat cranium with its mandible in close association, something that has been encountered only once before (in 1973) during the 36 years of excavation in Pit 91.

John Harris and Chris Shaw visited the region adjacent to Lake Maracaibo from 22-26 September to evaluate the fossiliferous potential of asphalt seeps in the main oil-producing region of western Venezuela. The expedition was funded by the Foundation for Quaternary Paleontology of Venezuela, of which John is a Director and Chris is a member of its Scientific Advisory Committee. The exploratory expedition was undertaken in conjunction with representatives of the University of Zulia and the Instituto Venezolano de Investigaciones Científicas and visited asphalt seeps on both the eastern and western sides of Lake Maracaibo. A symposium to discuss the exploration results and to plan further field work will take place at the University of Texas in Austin during the Spring of 2006.



*Searching for fossils in asphaltic sediments at Inciarte, Venezuela. The locality is very close to the Colombian border, hence the armed guard.*

## **Vertebrate Paleontology**

Xiaoming Wang, Gary Takeuchi (curatorial assistant), Jingmai O’Connor (graduate student), and Jack Tseng (new graduate student, see below) enjoyed a fruitful field investigation of the fossil vertebrates and paleoenvironments in the Tibetan Plateau in August and September. We visited some of the highest fossil vertebrate localities in the world—4700 meters to be exact, where the air is thin and legs get wobbly. Among the important finds this year are rich cyprinid fishes (genus *Schizopygopsis*) in a layer of sediments that were formed in a highly saline environment—strong evidence for drastic

environmental deterioration of the high Tibet in the late Cenozoic. Our multi-national, multi-disciplinary team is supported by a three-year grant from the NSF.



*At left: Yak skulls and rocks form a typical Tibetan prayer “Obo” at the foothill of the Yuzhu Mountain glacier (elevation 6100 m.). The deep blue sky and tranquil cloud emerged after a snow/sleet storm in the morning. Our field plan thus needs to be adjusted on an hourly basis. Luckily on this day, Jack found a well-preserved tooth, a lower third molar, of an antelope-like animal just a few kilometers west of here.*

### **Rancho La Brea again (see also under Public Outreach):**

Working in conjunction with Chris Shaw and John Harris, Prof. David Crowley and Dr. Jong Shik Kim from the University of California, Riverside have documented the presence of more than 200 species of bacteria and archaea that are living today in the asphalt that seeps into the La Brea Tar Pits. More than 80% of these microbial species appear to be new to science. A poster and folder providing details of this discovery can be seen next to the Fishbowl Lab at the Page Museum. A brief overview of this discovery may also be found on the internet at <http://www.nhm.org/research/RanchoLaBrea/RLBMicrobes.html>

### **Entomology**

Giar-Ann Kung, Research Assistant in the Entomology Section, traveled to Las Cruces Biological Station, Costa Rica, in September to collect phorid flies, especially *Melaloncha* bee-killing flies. She gathered a number of rarely collected species, one of which was previously known only from Bolivia! She also collected a bee-killing fly new to science. Many of the specimens will be used in the molecular systematics project funded by a NSF grant to Curator Brian Brown. Giar-Ann is shown at right collecting flies at the Las Cruces Biological Station.



## Meetings, Workshops, and Presentations

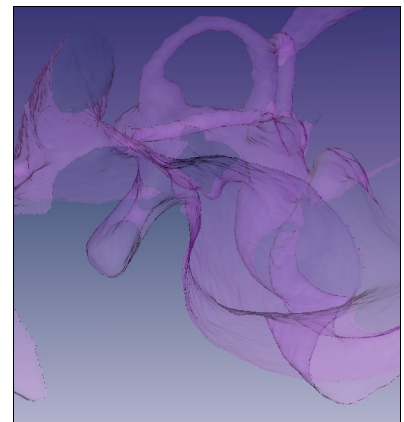
### ***Vertebrate Paleontology***

Staff of the Vertebrate Paleontology Department were well represented at the 65<sup>th</sup> international meeting of the Society of Vertebrate Paleontology from October 19-22 in Mesa, Arizona.

At this conference, Dr. Lawrence Barnes presented the results of on-going collaborative research (with colleagues Allen Reed of the U.S. Navy, Jonathan Geisler of Georgia Southern University, Stephen Godfrey of the Calvert Marine Museum, and David Bohaska of the Smithsonian) outlining the evolutionary history of early fossil dolphins of the family Kentriodontidae in the North Atlantic Ocean. They demonstrated that diverse kentriodontids existed for approximately 10 million years in the North Atlantic, became as diverse as the modern pelagic dolphins of the family Delphinidae are now, and had inner ear anatomy that was suitably complex to allow them to hear the types of high frequency sounds that are used in echolocation.



*A fossil skull in our Museum collections of an unusually long-snouted Middle Miocene kentriodontid dolphin, Lamprolithax, from the 15 million year old Sharktooth Hill Bonebed near Bakersfield in Kern County.*



*High Resolution Computer Tomography Scan of the inner ear of the fossil dolphin Macrokentriodon morani, showing the three semicircular canals, which are the curved tubes that are oriented in three planes in the image.*

At the same meeting, Xiaoming Wang, David Whistler (Curator Emeritus), and Gary Takeuchi presented a study of a fossil skunk skull *Martinogale* from the late Miocene (approximately 9 million years old) of Dove Spring Formation in the Mojave Desert of southern California. This excellently preserved skull and mandible probably represents the earliest and most primitive skunk in North American and provides important information on the early evolution and diversification of the skunk subfamily Mephitinae. We named it a new species, *Martinogale faulli*, in honor of Mark Faull of the State Parks of California.

### ***Ornithology***

On 26 October Ornithology Collections Manager Kimball Garrett gave a presentation on population declines of the Loggerhead Shrike in mainland southern California as part of a workshop on the “Status and Conservation of the Island Loggerhead Shrike (*Lanius ludovicianus anthonyi*)” convened by Dr. Hartmut Walter at the UCLA Institute for the Environment. Recent alarming population declines of shrikes on the coastal slope of southern California give cause for concern for mainland populations as

well as those on San Clemente Island (currently listed as Endangered) and on the northern Channel Islands.

Ken Campbell attended the 65<sup>th</sup> Annual Meeting of the Society of Vertebrate Paleontology in Mesa, Arizona, in October. He presented a paper, co-authored with former post-doctoral researcher Dr. Zbigniew Bochenski, on the extinct turkey from Rancho La Brea.

## **Rancho La Brea**

John Harris and Chris Shaw also attended the SVP meetings. John Harris presented the results of research with Per Christiansen (University of Copenhagen, Denmark) on mass estimates for the sabertoothed cats, *Smilodon fatalis*, from Rancho La Brea and *S. populator* from South America. Chris co-presented with David Sussman and Fred Croxen (Arizona Western College, Yuma) the results of research into the phylogeny and biogeography of Plio-Pleistocene porcupines in North America. Chris joined Sam McLeod and others for a pre-meeting field excursion to Yepomera, Chihuahua, Mexico, to look at classic late Miocene exposures excavated by the California Institute of Technology in the 1930's (those collections are now part of the VP collections). Chris co-led a post-meeting field excursion to El Golfo de Santa Clara, Sonora, Mexico, an early Pleistocene site from which he has been collecting since 1979. Along for the experience was John Harris, Cathy McNassor, and 22 other SVP members; Kristen Vowels, Samantha Green, and Aisling Farrell were valued members of the support team that accompanied the field trip. The group recovered the partial lower jaws of beaver, deer, and small camel, and a complete lower arm (radius-ulna) of the giant camel *Titanotylopus*.



*Samantha Green, Pit 91 excavator, with a deer jaw she discovered at El Golfo, Mexico.*

## **Invertebrate Paleontology**

Collections Manager Harry Filkorn attended the Geological Society of America annual meeting in Salt Lake City, Utah, in order to promote the use of the Museum's collections of fossil invertebrates.

## **Conservator**

Tania Collas attended the 2005 annual Western Association for Art Conservation meeting in Cody, Wyoming, from August 27 – 29. There, she presented “Saving the *New Orleans*: A Conservation Assessment of the 1924 Douglas World Cruiser,” detailing the latest efforts to preserve this unique, historic aircraft in NHM’s History Collection. Tania also spoke at the earthquake preparedness and integrated pest management sessions (September 29 and 30) at the 2005 Western Museums Association conference in Pasadena.

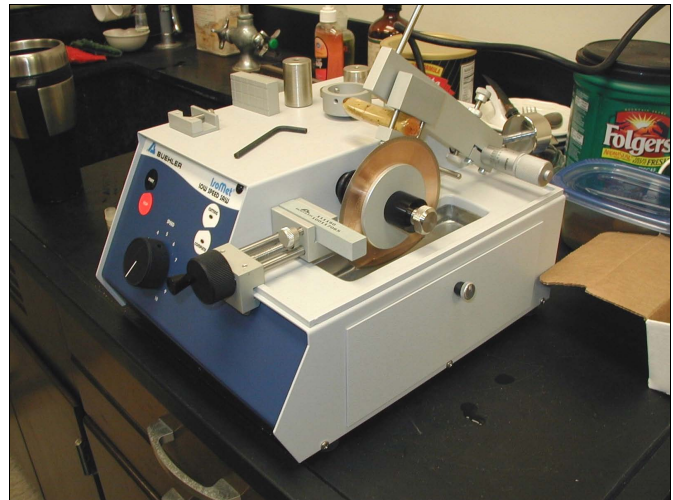
## External Funding

### ***Acquisition of a Buehler Isomet Precision Sectioning Saw for R & C staff.***

Wes Chun, a PhD student at UCLA working on Anoline lizards, has been working with the Museum's Herpetology collection for approximately 10 years. In order to acquire samples for a current carbon dating project, Wes had approached Michael Oschin for funding before he called to confer on which saw to recommend. After talking with a number of R & C staff, the Isomet precision saw was chosen as the most appropriate piece of equipment. (For details on the equipment, check out [http://www.buehler.com/productinfo/precision\\_saws/isomet\\_low\\_speed.pdf](http://www.buehler.com/productinfo/precision_saws/isomet_low_speed.pdf).) Mr. Oschin's only stipulation for his \$5,000 gift was that the saw be made available for all R & C staff. It currently resides in Mineral Sciences.



*Wes Chun and Dorothy Ettensohn with the new Precision Sectioning Saw.*



*The Isomet's maiden voyage was with Wes' lizard in Copal.*

## ***History / Conservation***

The *New Orleans* Conservation Assessment project recently received a generous contribution of \$15,000 from the John Randolph Haynes and Dora Haynes Foundation. This funding completes the match needed for the grant received from the Institute of Museum and Library Services (IMLS) earlier this year to create a preservation plan for NHM's 1924 Douglas World Cruiser, one of two surviving airplanes to have circumnavigated the globe.

In August, as part of the IMLS-funded project, three consulting conservators specializing in large technological artifacts, modern materials, and fabric-covered airplanes carried out a detailed examination of NHM's Douglas World Cruiser. At the Santa Monica airport, where the *New Orleans* is housed in a hangar, Museum Conservator and Project Director Tania Collas and Collection Manager



*Shown working on the New Orleans, from left to right, are conservation consultants David Hallam from the National Museum of Australia in Canberra; Malcolm Collum, from the Henry Ford Museum in Detroit, MI (both under the fuselage of the plane); and Sharon Blank, in private practice in Bisbee, AZ.*

Beth Werling facilitated the on-site conservation assessment and documentation of the airplane. The conservation team's observations, combined with research results from several archives, photographic records, and technical analyses, have been assembled in a first-draft report. Once completed, the report will be distributed to a larger group of conservation experts and airplane historians for review and commentary, ensuring that our plans for this unique airplane will represent the best course for its care and preservation.

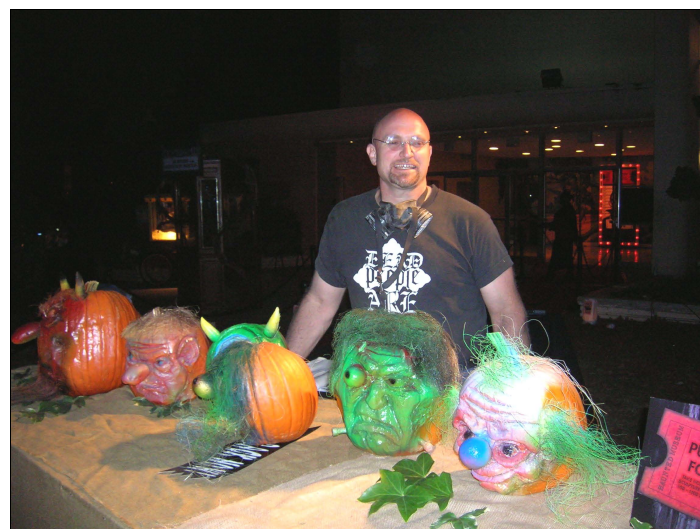
## Public Outreach

### *Haunted Museum*

This year's Haunted Museum, held on October 30<sup>th</sup>, was a monster success. Many R&C staff participated in the event, sharing their expertise and displaying our diverse collections. Howell Thomas (VP) and graduate student Jingmai O'Connor (VP) were stationed in Slither Lizard City (aka the Dinosaur Hall) where they demonstrated fossil preparation techniques. The North American Mammal Hall was transformed into Wolfman's Forbidden Forest, where Xiaoming Wang (VP) and graduate student Jack Tseng (VP) educated guests in the evolution of wolves. Kimball Garrett (Ornithology), also inhabiting the forest, enchanted visitors with his expert owl calls and a birds of prey specimen display. Jim Dines (Mammalogy) placed on view an assortment of bat specimens—including the 3 vampire bat species—and took the opportunity to dispel many of the myths that give these flying furballs a bad rap. The African Mammal Hall was made into the Black Lagoon for the night, and it was here that Ángel Valdés (Malacology) exhibited cone shell specimens and a video showing how live cone shells spear their prey (photo on previous page). Also lurking in the Black Lagoon was Regina Wetzer (Crustacea),



*Angel Valdés explaining the finer details of how a cone shell harpoons a fish.*



*Doug with a few of his ghoulish creations.*

showing off some parasitic isopods. Kirk Fitzhugh and Leslie Harris (Polychaetes) wowed guests with their spectacular display of worms. Kirk went above and beyond the call of curatorial duty by sacrificing his own blood for a live leech demonstration. Rumor has it that Kirk left the Museum that night feeling a little drained. Doug Goodreau (VP) once again lent his artistic talents with a fabulous pumpkin carving demonstration. Other stations at the event included special tours of the Spider Pavilion led by Brent Karner (Education) and an up-close visit with the Snake Lady, Leslie Gordon (Education). Thanks to all for a wonderful night!



## Silverado Canyon

Lindsey Groves co-led *Fossil hunting in Silverado Canyon* with LouElla Saul (Invertebrate Paleontology Research Associate) and the Education Division on October 15<sup>th</sup>. A record 44 participants collected Late Cretaceous (Turonian) mollusk fossils from the Baker Canyon and Holz Shale members of the Ladd Formation in Silverado Canyon, Santa Ana Mountains, Orange County. Expert field assistance was provided by Grace Cabrera (Education), Cathy Groves (Echinoderms), Mary Stecheson (IP), and George Davis (Crustacea).



*Participants and LACM staff on the Ladd Formation outcrop.*



*Lindsey Groves orienting the participants on the regional geology and the paleontology and stratigraphy of the collecting site.*



*LACM Staff (left to right) LouElla Saul (IP), Emma Stecheson (daughter of Mary Stecheson), Mary Stecheson (IP), Lindsey Groves (Malacology), Cathy Groves (IZ, Echinoderms), Grace Cabrera (Education), and George Davis (IZ, Crustacea) at Silverado Canyon.*

## Wiley Canyon

Lindsey Groves (Malacology) and George Davis (Crustacea) assisted IP Research Associate Richard Squires (CSU, Northridge) on October 29<sup>th</sup> in the field with his Earth Science 300 class (Earth Sciences for teachers) at Wiley Canyon, Ed Davis County Park, near Newhall. Lindsey and George (both CSUN geology alumni) lent their expertise in geologic mapping, topographic map interpretations, and regional geologic history to the group of 40+ students.

## Polychaete Worms

Leslie Harris, Polychaete Collections Manager, presented an hour-long talk on "Spineless Wonders: Marine Invertebrate Biodiversity" to the Los Angeles Underwater Photographic Society. A very active

group of divers and photographers, LAUPS meets here at NHMLAC the third Wednesday of every month.

Leslie Harris is also the new "Critter ID forum moderator" on the internet's two biggest underwater photography boards. Wetpixel ([www.wetpixel.com](http://www.wetpixel.com)) and Digital Diver ([www.digitaldiver.net](http://www.digitaldiver.net)) together have a membership of 7,500. Wetpixel alone has had nearly 15 million hits over the last 5 years - nearly 8000 a day. Through her posts people all over the world are becoming familiar with the NHM & our top-notch staff & research associates.

### ***Rancho La Brea***

Working with Chris Shaw and John Harris, Prof. David Crowley and Dr. Jong Shik Kim from UC Riverside have documented the bacteria and archaea living today in the asphalt that seeps into the La Brea Tar Pits (see under **Field Work**). A poster and folder providing details of this discovery can be seen next to the Fishbowl Lab at the Page Museum. A brief overview of this discovery may also be found on the internet at <http://www.nhm.org/research/RanchoLaBrea/RLBMicrobes.html>

### ***Dixon Institute***

The Dixon Institute initiated a program in October at Juvenile Hall. Raymond Codrington and Calysta Watson are teaching workshops to young inmates, in which they discuss a variety of topics related to the Dixon Institute's mission including cultural identity, diversity in the Los Angeles community, pop culture and so on. They had their first workshop last month and will continue to hold the workshops once a month.

## **Distinguished Visitors**

### ***Marine Biodiversity Processing Center***

Dr. Chung-Ja Sim, a professor at the Hannam University, Korea, is in Los Angeles to study the systematics and ecology of California sponges. She will be working with the Allan Hancock Foundation Porifera collection to compare the systematics of intertidal Korean sponges with California sponges. Dr. Sim's work at the museum will greatly benefit the museum's sponge collection, which is well-curated but has only a small percent of the collection actually identified. She will be joined in January 2006 by two post doctoral students, who will help with gathering data and in identifying the approximately 5,600 lots of sponges.

### ***Malacology***

September was once again International Nudibranch Month in Malacology as Andrea Zamora (Mexico), Anne du Pont (Florida), and Katia Nakamura (Peru) visited the Malacology collection. USNM post-doc Steffen Kiel also visited the Malacology collection in early September to examine holdings of the family Mytilidae (mussels).

### ***Vertebrate Paleontology***

Dr. R. Ewan Fordyce of Otago University in New Zealand visited the Museum the first week of October, and with Larry Barnes studied several pivotal early whale fossils in the Vertebrate Paleontology collections. Our Museum conserves many unique and significant fossils that elucidate the

origin of both the modern baleen whales and the echolocating toothed whales, and these superb specimens continue to attract visiting researchers from throughout the world.

Dr. Andrei Sher of the Severtsov Institute of Ecology and Evolution (Moscow), Russian Academy of Sciences, also visited the Department of Vertebrate Paleontology. Dr. Sher is a prominent expert in the Pleistocene faunas of eastern Siberia and specializes in the evolution of the ice age mammoths. He came to examine our collections of Pleistocene musk ox and mammoths.

## ***Polychaete Worms***

Polychaetes had 3 visitors in September, each staying for 3 weeks. Dr. Rolando Bastida Zavala of the Universidad del Mar (Oaxaca, Mexico) and his master's student Guillermo Ruiz Cancino were here to examine collection material of serpulid and eunicid polychaetes. Mariana Tovar Hernandez, a doctoral student at El Colegio de la Frontera Sur (Chetumal, Mexico), came to continue her thesis work on the polychaete genus *Chone* under the guidance of her advisor, Dr. Kirk Fitzhugh.

## **Student Mentoring and Research**

### ***Vertebrate Paleontology***

Vertebrate Paleontology is pleased to welcome our new graduate student, Jack Tseng, from the USC. Jack is interested in the functional morphology and evolution of bone-crushing carnivores in the Cenozoic, and is angling for a cross-disciplinary investigation using traditional vertebrate paleontological and biomechanical approaches. He will be co-advised by Xiaoming Wang and Jill McNitt-Gray (USC) in the Integrative Evolutionary Biology Program of the USC. Welcome aboard, Jack!

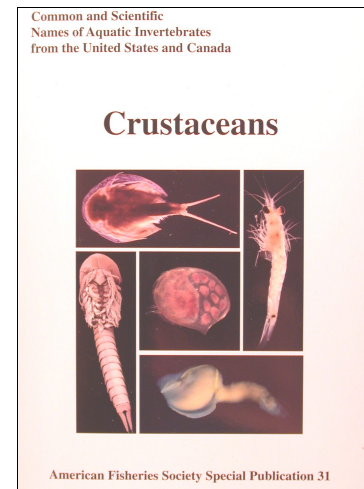
## **Recent Publications**

- Barnes**, L. G., A. Reed, J. Geisler, S. Godfrey, and D. Bohaska. 2005. Evolutionary diversity and inner ear morphologies of kentriodontid dolphins, Miocene Chesapeake Group, Maryland and Virginia. *Journal of Vertebrate Paleontology*, 25(supplement to 3):34A.
- Barnes**, L. G., A. Reed, J. Geisler, S. Godfrey, and D. Bohaska. 2005. Evolutionary diversity and inner ear morphologies of kentriodontid dolphins, Miocene Chesapeake Group, Maryland and Virginia. *Journal of Vertebrate Paleontology*, 25(supplement to 3):34A.
- Brown**, B. V. 2005. Malaise trap catches and the crisis in Neotropical dipterology. *American Entomologist*. 51: 180-183.
- Brown**, B. V. 2005. Revision of the *Melaloncha (M.) furcata*-group of bee-killing flies (Diptera: Phoridae). *Insect Systematics and Evolution*. 36: 241-258.
- Corona, E. M. and B. V. **Brown**. 2005. The Central American species of *Diplonevra* Lioy (Diptera: Phoridae). *Zootaxa*. 1050: 21-38.
- Garrett**, K. 2005. [Ornithology Collections Manager Kimball Garrett contributed chapters on pelecaniform birds, swifts, and woodpeckers for the new "National Geographic Complete Birds of North America" reference, published in October 2005.]
- Groves**, L. 2005. Catalog of Recent and fossil Cypraeidae and Eocypraeidae: 2000 through 2004. *The Festivus* 37(9):95-108.  
*A summary of the Recent and fossil cowries described since 1999.*

**Haney, T. A., and J. W. Martin.** 2005. Leptostraca. In: Crustaceans. D. Turgeon, editor, Common and Scientific Names of Aquatic Invertebrates from the United States and Canada. American Fisheries Society Special Publication 31: 1-545.

McLaughlin, P. A., D. K. Camp, L. G. Eldredge, D. L. Felder, J. W. Goy, H. H. Hobbs III, B. Kensley, R. Lemaitre, and J. W. **Martin.** 2005. Order Decapoda. In: Crustaceans. D. Turgeon, editor, Common and Scientific Names of Aquatic Invertebrates from the United States and Canada. American Fisheries Society Special Publication 31: 1-545.

*The above two publications (Haney & Martin, McLaughlin et al.) were part of a massive and unprecedented undertaking to list every known species of crustacean (crabs, shrimps, lobsters, pill bugs, and their many relatives) in the United States (including Hawaii) and Canada. The published volume (at right), the culmination of some 6 years of effort by 39 crustacean specialists, includes 9,498 species, giving their scientific and (where appropriate) accepted common names.*



Johnson, K.G., **Filkorn, H.F., and Stecheson, M.,** 2005, Paleontology collections on the world wide web: The missing link. Paleontologica Electronica, volume 8, number 2, <http://palaeo-electronica.org/toc.htm>

Masuo, S., and L. G. **Barnes.** 2005. Time lions. The fascinating fossil history of California's marine mammals is unearthed. Zoo View, The Quarterly Magazine of the Greater Los Angeles Zoo Association, 39(2):12-13.

**McLean, J. H., and P. Kanner.** 2005. On the color form (or species?) *lineata* Stearns, 1873, of *Amphissa versicolor* Dall, 1871, with illustrations of other forms of the species (Gastropoda: Columbellidae). Festivus 37(10):111-115, figs. 1-11.

*This variety has previously been known only from the original illustration and is treated here based on the recognition of 13 shells and a single living specimen.*

**Sitton, T.** 2005. Private Sector Planning for the Environment [The Haynes Foundation Experience]. Chapter 8 of *Land of Sunshine: An Environmental History of Metropolitan Los Angeles*, edited by William Deverell and Greg Hise. (Pittsburgh: University of Pittsburgh Press, 2005).

**Wang, X., M. C. McKenna, and D. Dashzeveg.** 2005. *Amphicticeps* and *Amphicynodon* (Arctoidea, Carnivora) from Hsanda Gol Formation, central Mongolia, and phylogeny of basal arctoids with comments on zoogeography. American Museum Novitates 3483: 1-57.

*This paper describes several primitive carnivores from the early Oligocene (about 33 million years ago) of Mongolia collected by the American Museum–Mongolian Academy of Science expeditions since the 1990s. The genus Amphicticeps (holotype figured here) is a badger-sized carnivore that may be ancestral to the bear family Ursidae. If we are correct, then the origin of the Ursidae can be traced to the Gobi Desert of central Asia.*



**Wang, X., Z.-x. Qiu, and B.-y. Wang.** 2005. Hyaenodonts and carnivorans from the early Oligocene to early Miocene of Xianshuihe Formation, Lanzhou Basin, Gansu Province, China. In C. Badgley, L. J. Flynn, L. L. Jacobs and L. H. Taylor (eds.), Paleontology from China, Pakistan and around the world in honor of Will Downs. *Palaeotologia Electronica* 8(1.6A): 1-14.

# Staff Departures and New Staff

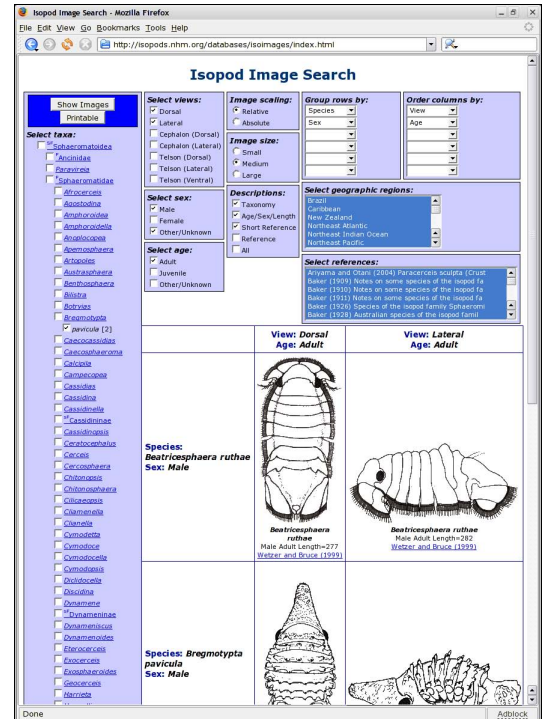
## Malacology

Courtesy of the MBPC, USC work-study student Jessica Wedemeyer is currently assisting Malacology by checking alcohol levels and replacing unsatisfactory jars in the wet mollusk collection.

## Miscellaneous

### Crustacea / Marine Biodiversity Processing Center

Regina Wetzer is pleased to announce that with the significant contributions of volunteers and students the isopod morphology database is now online. This is part of her NSF-sponsored research project on the worldwide systematics of sphaeromatid isopods. This database makes drawings scanned from the research literature easily available for comparison. Systematists often face difficulties in bringing together the information about their groups, scattered amongst hundreds of different paper publications. The isopod images database (part of which is shown at right) works towards a goal of making that information accessible. The database is available at: <http://isopods.nhm.org/databases/isoimages>



## Crustacea

The Crustacean Glossary, an on-line resource designed by Jody Martin for learning about the many terms used in describing and comparing crustaceans, is apparently quite popular as evidenced by the number of users (hits) to this site in recent months (rounded to hundreds):

July	8,800
August	10,000
September	12,000
October	20,000

You can reference it at: <http://crustacea.nhm.org/glossary>

## Invertebrate Paleontology

Invertebrate Paleontology welcomes new volunteer Boris Savic, who is working with the recently donated Yvonne Albi fossil invertebrate collection. Boris' interest in echinoderms makes him a perfect match for working with this collection.

Collections Manager Harry Filkorn was featured in a story about the Museum's extensive collections in the November, 2005, issue of the Naturalist.

## **Polychaete Worms**

Leslie Harris, Polychaete Collections Manager, was honored by having the species *Opisthosyllis leslieharrisae* named for her. This is the sixth species bearing her name. The publication is "A new species of *Opisthosyllis* (Polychaeta: Syllidae) from California (U.S.A.)" by M.T. Aguado, G. San Martin, and A. Nygren, in *Zootaxa* 1068: 47-58 (2005).

## **ALS Walk Honors John Heyning**

A group called "John's Ambulocetes," friends and supporters of John Heyning, gathered in Santa Monica on October 15 to join John and his family in a walk to raise money for ALS awareness and research. (Ambulocetes were a group of primitive whale-like mammals that are thought to have walked on land). Staff from the Museum and the Cabrillo Aquarium were present and helped organize the team's efforts.



*John and friends just after the walk.*

## **And Finally...**

## **Happy Holidays!**

*Because the November issue is the last R & C Newsletter for calendar year 2005, the R & C staff takes this opportunity to wish all of you a happy and safe holiday season and a bright and productive New Year.*

