

Research & Collections Newsletter



January 2011

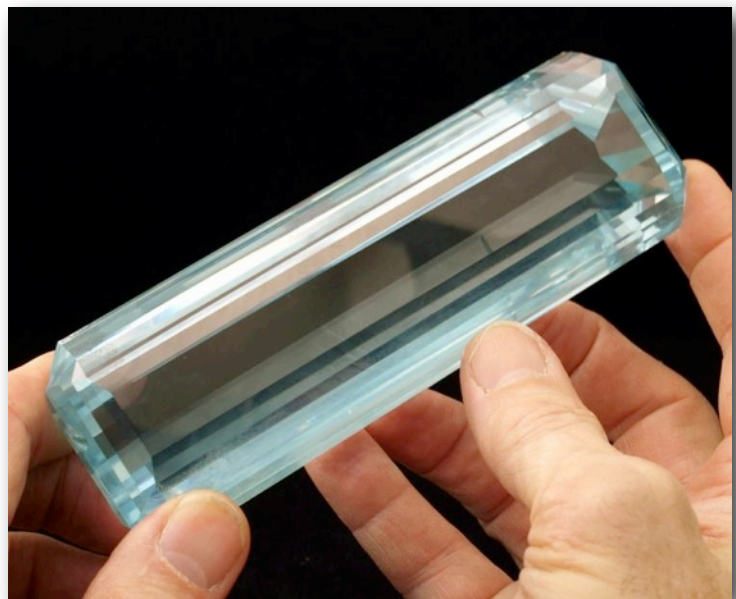
re•search (rī-sûrch', rē'sûrch) n. **1.** Scholarly or scientific investigation or inquiry. See synonyms at **inquiry**. **2.** Close, careful study. **3.** When performed on collections, the raison d'être of all great natural history museums.

Collection News

Mineral Sciences

Two major donations were received recently. The first is the mineral and gem collection of Hyman and Beverly Savinar. The Savinars had been strong supporters of the Mineral Sciences Department since the early 1980's and many beautiful specimens that they have donated now grace the Gem and Mineral Hall. The remainder of their collection, received in the form of a bequest, includes many more exceptional pieces.

The second donation, received from Peter Greenfield, is a single specimen, but one of considerable significance. It is the world's largest faceted aquamarine gemstone, weighing 2,594 carats (well over a pound). The 6,021-carat crystal, from which the stone was cut, was mined in Brazil in the 1950s. For many years, the crystal was in the collection of the Smithsonian Institution. After passing through the hands of mineral dealers David Wilber and Gilbert Gautier, the crystal was purchased in 1979 by Fallbrook, California, gem and mineral dealer Bill Larson, who decided to have it faceted by gem cutter Joanne McLean. Mr. Greenfield purchased the gem shortly after it was cut and held onto it for more than three decades before donating it to the Museum. The gem is planned for display in the Gem and Mineral Hall.





A small portion of the Olive Schoenberg-Dole terebrid collection featuring *Terebra achates*, an endemic Hawaiian species.

Malacology

The Malacology Section acquired the extensive worldwide Terebridae (Auger shells) collection from the estate of Olive Schoenberg-Dole (Kailua, Hawai‘i) along with other Hawaiian specimens of the families Strombidae, Conidae, and Mitridae. Mrs. Schoenberg-Dole was an advanced amateur collector and was a contemporary with Malacology benefactor and Research Associate Twila Bratcher. Her collection of 1500+ lots will complement the 2000+ lots of Terebridae donated by Twila in 1997.

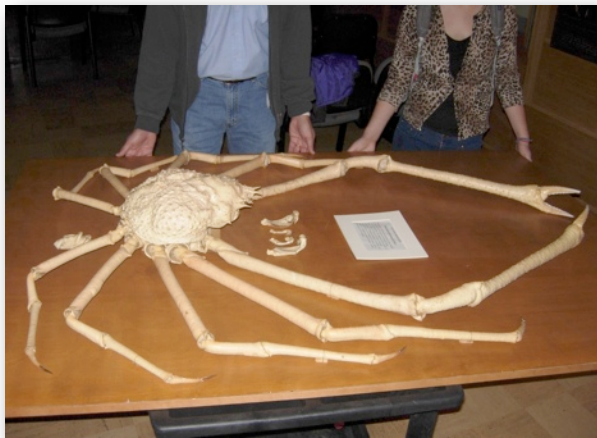
Ichthyology

A 12 foot long oarfish (*Regalecus* sp.) washed up at Malibu on the 27th of November and was frozen by biologists at the California Wildlife Center. Chris Thacker transported it back to the Museum. The specimen will be examined, measured, sampled for DNA and cataloged. Photo by Darrell Rae, from the LA Times story. For more information follow this link: <http://latimesblogs.latimes.com/lanow/2010/12/oarfish-malibu-deep-ocean-rare.html>.



Crustacea

A beautiful specimen of a Giant Japanese Spider Crab, *Macrocheira kaempferi*, has been moved from its home of more than 60 years on the campus of USC to the third floor of the Museum. This exquisite specimen was originally a gift from Dr. Tune Sakai of Japan — known at the time as the personal carcinologist to the Emperor of Japan — to Dr. John Garth of USC, former curator of the Allan Hancock Foundation collection of Crustacea. The specimen has remained at USC since it was given to Dr. Garth sometime in the 1950s. Giant Spider Crabs are not only the largest of the crabs, they are the largest of all arthropods on the planet. They are found only in the waters of the western



Pacific, and are most abundant in the Sea of Japan, south of Honshu Island and in the vicinity of Suruga Bay. Giant Spider Crabs can exceed 12 feet across the tips of their outstretched claws, and they can weigh more than 40 pounds. They support a small-scale fishery in Japan, where they are found at depths down to 2,000 feet, and they are considered a delicacy. We are especially grateful to Tania Collas and her team for helping us move it from USC and to Mike Alvarez and our shop personnel for the beautiful job they did constructing the new case, moving the crab to the third floor, and mounting in on the wall. Visitors to the third floor will see the crab in its case on the wall just to the east of the elevators.

Entomology

Local entomologist Bob Allen donated his collection of 100 Neuroptera to the museum's Entomology Section on January 4, 2011. One of the few North American experts on this group (lacewings, owlflies, antlions, and relatives), Bob assembled a unique collection especially strong for Southern California species. The photo shows some nemopterids, the most attractive of the neuropterans.



In December 2010, Entomology Research Associate Dr. Ron Hennessey donated a large collection of about 1000 mutillid wasps, commonly known as "velvet-ants." These beautiful creatures are usually found in warmer parts of the world, including California. The wingless females lay eggs on bee or wasp larvae and the mutillid larvae feed as external parasitoids. The females have a wicked sting, giving one large species the common name "cow-killer."

Mammalogy

Sea World San Diego donated two fully articulated marine mammal skeletons to our collection in December: a pygmy sperm whale (*Kogia breviceps*) and a false killer whale (*Pseudorca crassidens*).

Visiting researchers using the Mammalogy collection in November and December included: Alex Hubb (Universidade de São Paulo, Brazil), Mizuki Murakami (Waseda University, Tokyo), Brian Kraatz (Western University, Pomona, CA), Rachel Racicot (Yale), Curt Walker (Dixie State College, Utah) and Jennie Allen (Cal State LA).

Polychaetes

Our types (the name-bearing specimens for a species, and the crown jewels of any collection) have been growing in number. We now have 2,206 individual lots, second only to the Smithsonian in the U.S. and one of the largest collections in the world as well as the most important for the Northeast Pacific. Growth comes partially from donations while the majority of new types are the result of revisionary work on specimens already in the LACM collection. These specimens were collected as long ago as 1895 or as recently as a few months ago such as Newport, Oregon, material which includes some undescribed species & new records (see Field Work). In contrast to the situation at many museums our type collection is extensively used. During the last ten years nearly half of the type specimens have been borrowed or examined in-house by visiting researchers. Our catalogue has been updated in preparation for conversion to the new DIS database & web access while the types are being re-curated and re-labelled by Leslie Harris with the help of Kathy Omura (MBC).

Polychaete types awaiting new labels while snuggled in their foam earthquake-stabilization holders.



Archaeology

On December 21, 2010, the Archaeology collection received a donation from Hollywood resident Christopher Stendahl consisting of eight Pre-Columbian vessels from Mexico and Costa Rica. Christopher is the son of Alfred Stendahl, whose shared expertise and personal donations played a key role in the building of our museum's collection. This recent donation includes five vessels from Colima and La Mixteca, Mexico, a figurine fragment from Veracruz, Mexico, and two intricately decorated vessels from Costa Rica. At right is large Mixtec bowl, which has four elaborate glyphs on the exterior. Perhaps with some research we will be able to decipher the meaning behind these carefully constructed messages from the past.



Vertebrate Paleontology

Cogstone Resource Management company on 10 December made a donation of a significant voucher collection of Pliocene marine and terrestrial vertebrate fossils that were obtained through a paleontological mitigation program at the Gillibrand Quarry in Ventura County. This collection, including a surprising abundance of specimens of sea cows, is from a site in which this Museum has had a long-time interest. Ms. Anna Scharf of Milan, Italy, kindly donated four field notebooks written by her late father, David Walter Scharf, when he was a graduate student in Geology at Caltech in the 1930's. These are among the very few surviving field notebooks documenting the huge vertebrate fossil collections, amassed by Dr. Chester Stock and his Caltech students, that were acquired by our museum in 1957, and thus they are an invaluable addition to our collection records.

History



A story of hope in the City of Dreams

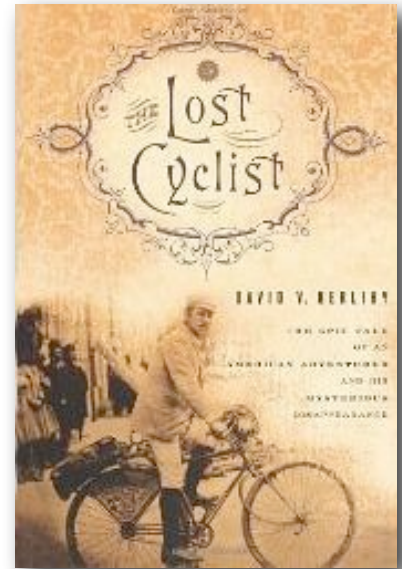
One of the key 20th century artifacts in the History Department collections that will be featured in the forthcoming Los Angeles exhibit *On Shifting Ground* is a bright neon sign from La Esperanza Mexican bakery and restaurant, once located at 507 N. Main Street, across from the Pico House and old Plaza. More than a business sign, *La Esperanza*, which means "hope" in Spanish, reflected the hopes and dreams that proprietors Ezequiel and Guadalupe Moreno shared with their diverse customer base. Elected officials, police officers, Hollywood movie stars, and immigrant workers flocked to this little oasis in the hub of pre and post World War II downtown. Actor Jack Webb of *Dragnet* fame was a close high school friend of one of the Moreno girls and even continued to eat at the restaurant during his days as TV officer Joe Friday. Many other stories have emerged from this sign, especially stories of lasting friendship. From the 1920s to the World War II internment of Japanese Americans in February 1942, Katsuke and Hatsuko Shishima and their seven children lived above the Mexican bakery where they ran a hotel and, a few doors away on Main Street, a popular grocery store. One of these children, Bill



Shishima became best friends with Ezequiel and Guadalupe's son, Rudy Moreno. They were inseparable pals up until the time when the Shishimas were forced to sell their two businesses with only six days notice and subsequently sent off to an internment camp.

Last month, curators William Estrada, Sojin Kim, and curatorial assistant Kristen Hayashi brought retired school teacher Bill Shishima (at left) to Santa Ana to be reunited with his boyhood friend, Rudy Moreno (at right), a retired baker. It was an emotional meeting and judging from these images, the bonds of friendship have endured.

The Sachtleben Collection in the Seaver Center was a primary source used in noted bicycling historian David V. Herlihy's new book *The Lost Cyclist*, about the mysterious 1894 disappearance abroad of an American cyclist from Pittsburgh. William Sachtleben's 1935 donation to the museum contains prints, letters, clippings and other papers relating to his stay in Turkey from 1895 to 1896, where he was sent by *Outing Magazine* to investigate the disappearance of fellow cyclist Frank Lenz who was attempting to bicycle around the world.



The Seaver Center was also an important contributor to the seven-part documentary mini-series *Moguls and Movie Stars: A History of Hollywood* which aired on Turner Classic Movies during November and December. Provided were more than a dozen photographs that appeared in the first four episodes of the seven-part series. At left, Walt Disney with early Mickey Mouse merchandise from the Walt Disney Collection.

Field Work

Entomology

In early November, Brian Brown, Giar-Ann Kung, and Wendy Porras (of Costa Rica's INBio) traveled to the state of São Paulo, Brazil, funded by Brown's NSF grant. There, we teamed up with our colleague Dr. Dalton Amorim of USP Riberio Preto and his graduate students for some fly collecting. First, we spent a few days collecting at a dry forest (cerrado) site called Sertãozinho, where we collected many interesting species and even at least one new genus for our collection. Next, we drove several hours to reach a coffee farm in southern Minas Gerais state near the small town of Cabo Verde. The farm, owned by the family of one of Amorim's students, has patches of a different type of forest, so we obtained many different things there (much of which we still have to sort out). There, we also observed the amazing behavior of a phorid fly that decapitates ants in an entirely different manner from anything ever recorded previously. After a week in the incredibly beautiful hills of Cabo Verde, we returned to Riberio Preto, where Brown delivered a talk on phorid flies to the biology department, and then we moved on to the final site,



Boracea. This reserve, near the coast, is a large fragment of the highly endangered Atlantic Forest (see photo), and it was also extremely rich in yet a third different fauna of flies. At the end of an all-too-short week at Boracea, we headed back to São Paulo for a brief visit to the museum there, and headed home that night. We made plans, however, for a return visit, this time to Rondônia in the southern Amazon, in 2011.



Page Museum team travels to Ecuador to excavate giant ground sloth fossils from asphalt.

Rancho La Brea

Last spring Emily Lindsey, a PhD student at UC Berkeley (our sister institution), came to the Page Museum to learn about excavating, preparing and curating asphalt preserved fossils. Her research focuses on late Pleistocene megafauna extinctions in South America, and she is particularly interested in an asphalt seep locality in western Ecuador on the Santa Elena Peninsula. The peninsula has lots of oil and lots of fossils! She invited R&C staff from the Page Museum to consult on the project and to join her excavation team. The project is overseen by the Universidad Estatal Peninsula de Santa Elena (UPSE), and all of the fossils are housed at the Museo Paleontologico Megaterio (MPM) on the UPSE campus. Several field seasons worth of excavating by UPSE between 2004-2006 have led to a collection of about 700 vertebrate

fossils, of which about 90% are from the giant ground sloth *Eremotherium laurillardii*. This species is represented by a minimum of 16 individuals from juveniles to sub-adults and adults. Unlike Rancho La Brea, it does not appear that the animals got trapped in the asphalt. It may be that they were washed into the area in a river channel or estuary and later saturated with asphalt. Staff that traveled down to Ecuador included Curatorial Assistant Aisling Farrell, Lead Excavator Carrie Howard, Excavator Christina Lutz and Dinosaur Institute Preparator Kristen Brown, along with intrepid volunteers Meena Madan and Jenna Marietti.

Polychaetes

Leslie Harris helped to organize and participated in the PICES (North Pacific Marine Science Organization) Rapid Assessment Survey (RAS) for non-indigenous marine species (NIS) based at Newport, Oregon, October 17-22. Researchers from the US, Canada, Russia, and Japan collected specimens from harbors and estuaries in Yaquina and Coos Bays, and then identified them using lab facilities provided by the Hatfield Marine Science Center (HMSC). Among the polychaetes, Leslie found 4–6 new possible introductions from Japan, 5 potentially new species, and with Vasily Radashevsky discovered an established colony of *Boccardia claparedei* (a specimen from Newport, Oregon is shown at right). This distinctive species was described from Brazil, and their find was the first confirmed record of it outside the southwest Atlantic. In Argentina it occurs in vast communities (over 600,000 individuals per square meter) that transform local ecosystems. The colony at Newport was much smaller but merits future monitoring to see if it develops the same kind of density or impact on the regional fauna.

During the RAS a symposium on NIS issues was held at which Leslie presented a talk on comparison of taxonomic competency at regional, national, and international levels, and the relevance of museum collections to NIS and other human-mediated ecosystem changes. After a short trip to Portland, Oregon, for a conference (more on that in the



meeting section) Leslie returned to Newport to continue collecting for another week. As a result approximately 400 lots of identified specimens (mostly polychaetes, peracarid crustaceans, and tunicates) preserved in both alcohol for genetic analysis and formalin for morphological analysis will be deposited at NHMLAC. At left: Dense assemblages (brownish clumps in water) were found in a salt-water drain channel coming from the HMSC aquarium. Only local animals are held in the aquarium so the worm colony was likely to have been started by pelagic larvae coming from individuals already in the bay.

Meetings, Workshops, and Presentations

Ornithology

Ken Campbell traveled to Belem, Brazil, in early November, hosted by the Geosciences Institute of the Universidade Federal do Pará. He participated in the doctoral qualifying exam for a student in the department, and he presented a lecture to the department on the geology of western Amazonia. He also made two short trips, with various faculty and students, to see important localities near Belem, which is located near the equator, close to the mouths of the Amazon River. Preliminary planning for future collaborative fieldwork in central Amazonia was also accomplished. This field research will be of immediate importance to participating doctoral students and to Campbell's research into the paleobiogeography of Amazonia, and in the long term it is expected to play an important role in understanding the modern biogeography of the Amazon Basin. In turn, this will have an impact on future conservation issues in Amazonia.

Library



Richard Hulser hosted a meeting of 30 professional librarians from the Special Libraries Association Southern California Chapter in early December 2010. John Long gave a well received overview of the NHM Museum NEXT initiatives followed by Richard providing a history and current status of the NHM Research Library. A few rare books were on display for the visitors, including a book of hand colored plates of tortoises, terrapins and turtles by Sowerby, De Carle and Lear published in 1872. The meeting was followed by a brief guided tour of the Museum by Richard. The group greatly appreciated overviews given by John Cahoon and Betty Uyeda (at left, displaying images of Carmen Miranda) about the Seaver Center, and Alyssa Morgan and Tony Kampf in Mineral Sciences, and ended their tour at the

Rotunda and Age of Mammals. Many of the meeting participants were impressed with the Museum Store and spent time and money there as well.



Mammalogy

In early December Jim Dines traveled to St. Petersburg, Florida, to participate in a grant review panel for the National Marine Fisheries Service, the major funding agency for agencies that respond to stranded marine mammals. A workshop on Oil Spill Preparedness, with an overview of what occurred during the Deepwater Horizon response, was held immediately after the grant reviews.

History

Cathy McNassor, Museum Archives Collections Manager, presented an R&C Research Seminar talk entitled *An Eclectic History of Hancock Park* on November 4th, 2010. McNassor, who is known as the “institutional memory of NHM,” explored many of the lesser known events that comprise the rich history of this very familiar urban landscape, which is the site of the world famous Rancho La Brea Tar Pits, George C. Page Museum, and LACMA. And given the size and reaction from the audience, the talk was a rousing success!

Vertebrate Paleontology

On 1 November, the entire staff of the Department of Vertebrate Paleontology attended a meeting sponsored by the South Coast Geological Society regarding the establishment of Orange County’s paleontology and archeology curation facility, being administered by California State University at Fullerton. Dr. John Foster of Cal State Fullerton was the main speaker. Our Museum has considerable holdings from the same areas as does the Orange County facility, and our collections and research interests are tightly interwoven.



Marine Biodiversity Center

QuickScience rally at USC

Emma Freeman and Kathy Omura displayed specimens from the MBC collection as part of their presentation on tidepool ecology and organisms for the November 11th QuickScience rally. The rally, held on the USC campus, was for middle and high school students participating in the QuickScience Challenge. QuickScience is a collaboration between USC, the USC Wrigley Institute for Environmental Studies, Quiksilver, and the Quiksilver Foundation, with an annual competition among school children. The students were enthusiastic and very curious about the specimens.

Ballona Wetlands Science and Research Symposium

On December 8th, Kathy Omura and Emma Freeman attended the Ballona Wetlands Science and Research Symposium at Loyola Marymount University. The symposium was hosted by the Santa Monica Bay Restoration Commission and highlighted research conducted on the Ballona Wetlands Ecological Reserve (BWER), both during the first year of the Baseline Assessment Program (September 2009 through September 2010) and as part of other regional monitoring programs. Eleven speakers presented additional information about wetlands from the Carpinteria Salt Marsh to the Tijuana River National Estuarine Research Reserve.

External Funding

Crustacea

The Danish Carlsberg Foundation has awarded a grant toward the development and publication of the book *Atlas of Crustacean Larvae*, which is being edited by Jody Martin along with Copenhagen's Jorgen Olesen and Jens T. Høeg. The book has also received generous support from two local private donors. Total grants and donations to date are approximately \$16,000.

Vertebrate Paleontology

A major donation was made to the Fossil Marine Mammal Research Fund by long-time Museum supporter Ms. Donna Matson of Los Angeles.

Public Outreach

Rancho La Brea

On December 20th, The Page Museum conducted its first citizen science survey of insects and other invertebrates in Hancock Park. This program was catalyzed by the expansion of the Museum's Pleistocene Garden, which hosts four different habitats based on plant fossils recovered from Pit 91. The objective of this baseline survey was to compare the diversity of invertebrates in the native garden versus some landscaped areas in Hancock Park. This was a collaborative effort headed by the Page Museum's Anna Holden between R&C and the Education Department. The program began with John Harris' introduction to Rancho La Brea, its history, excavations and diversity of flora and fauna. Brian Brown presented a slide show on the urbanization of the Los Angeles region and how this had impacted urban biodiversity, stressing the urgency to study the species we can find right in our backyards. Other staff who led groups to collect and also provided insight into both fossil and living arthropods included Brent Karner, Aisling Farrell, Margi Bertram, Anna Holden, Janet Kempf and Kristen Metzger along with volunteers Carol Guze and May Woo. After the groups returned from collecting Brian and Brent examined some of the specimens under a microscope and large screen and explained the process of identification and curation.



Insect survey citizen science project in Hancock Park.



In early December Trevor Valle and Carrie Howard were interviewed by Georgia Radio Reading Service (GaRRS) which is a non-profit dedicated to improving the quality of life for vision-impaired residents of Georgia by broadcasting current events via radio and streaming online. The show is due to broadcast early in 2011.

Trevor Valle interview with GaRRS.

In November, Rancho La Brea preparators visited volunteer Mary Simun's AP environmental studies class at Redondo Union High school. They talked about the history of Rancho La Brea, the excavation processes from asphalt and Project 23 as well as recent research on oil flies and microbial life living in the asphalt in Hancock Park. This all tied in with the class which focusing on the Gulf oil spill and environmental cleanup efforts using microbes. Later the students came on a fieldtrip to the Page Museum.

At the end of October the R&C staff at the Page Museum celebrated National Fossil Day with a Curator's Cupboard style display of specimens from the collections. Former Collections Manager Chris Shaw worked his first day as a volunteer alongside John Harris, Trevor Valle and Aisling Farrell.

Vertebrate Paleontology



National Fossil Day celebrations at the Page Museum.

Also for National Fossil Day, Xiaoming Wang, Samuel McLeod (above), Howell Thomas, Vanessa Rhue, and Gary Takeuchi shared some interesting fossils from our research collections: a fossil brain of a whale, and fossils from Red Rock Canyon, California, and Gypsum Cave, Nevada.

On 18 November 2010 Dr. Samuel McLeod (right), Collections Manager of Vertebrate Paleontology, provided a lecture for the Museum's evening Adult Lecture Series. The subject was comparisons and contrasts between the faunas from Rancho La Brea and San Josecito Cave in Mexico, with some historical perspectives about excavations and research at both localities.



On Sunday, 21 November 2010, Lawrence Barnes, Samuel McLeod, Howell Thomas, Gary Takeuchi, Vanessa Rhue, and volunteer Debora Lee, provided tours for a group of Yale University women alumnae, their friends, and families, of the Age of Mammals Hall and the Department of Vertebrate Paleontology (photo at left).



On 7 December, Xiaoming Wang and Lawrence Barnes participated in a workshop for science writers, organized by Kristin Friedrich, which was an opportunity to familiarize outside writers with our resources. This workshop was followed by a tour of the Department of Vertebrate Paleontology (right).



Polychaetes

Leslie Harris was a featured speaker at 3 marine-oriented clubs. On October 9th she presented *Cryptofauna of Captive Coral Reefs* to the Bay Area Reefers (San Francisco, CA), and *The Giant World of Small Invertebrates* on November 5th to the Long Island Reefkeepers Association (New York), two groups composed of salt-water tropical aquarists. The Alacosta Diving Club (Oakland, CA) on November 1st heard *Lifestyles of the Wet and Spineless*, a talk centered on natural history of invertebrates likely to be encountered by local divers.

Vertebrate Studies Division

Once again, Dr. David Huckaby, Professor of Biology at Cal State Long Beach, brought his Vertebrate Biology students to the Museum for an up-close look at our vertebrate collections. Collection tours and presentations were given by Nefti Camacho (Herpetology), Rick Feeney (Ichthyology), Jim Dines (Mammalogy) and Vanessa Rhue (Vertebrate Paleontology).

Mineral Sciences and Mammalogy

In mid-November Alyssa Morgan (Mineral Sciences) and Jim Dines (Mammalogy) participated in *Science Matters!*, an event to raise funds for a science lab at Longfellow Elementary School in Long Beach. Alyssa presented an overview of the geology of southern California, including a discussion of plate tectonics and California's earthquake history, while Jim presented a display of mammal skulls and skins and outlined the Museum's community science initiatives. The fundraiser was a huge success and Longfellow students will begin using their new science lab later this month.

Herpetology

In December Neftali Camacho gave a tour of the Herpetology Collection for high school students from the College Ready Academy.



History

On November 4, 2010, *The Mexican Revolution, 1910-2010: The Cause, The People, The Legacy* was held in the first floor foyer in observance of the 100th anniversary of the Mexican Revolution. Organized by William Estrada and his colleagues of the History Department and Karen Ewald and her colleagues of the Education and Exhibits Department, the event featured a distinguished panel of speakers, live music by La Pura Pulpa who traveled from Mexicali, Mexico for the evening, and a special display of books, photographs, and original artifacts from the revolutionary era. Judging from an enthusiastic audience of 200 guests, the event was a smashing success.

Approximately sixty members of the Southern California Chapter of the Classic Car Club of America toured the NHM's Automotive Facility in Gardena on Saturday, November 13, 2010. To accommodate this large group, Bill Estrada, Beth Werling, Cathy McNassor, Brent Riggs and Betty Uyeda of the History Department were joined by special guest star wranglers Jim Gilson and John Harris. The highlight of the tour was hearing one of the car club members asking Dr. Harris if he was the man "who worked on the cars."

William "Bill" Estrada with writer Reina Prado, participating in holiday book-signing and party at the Studio for Southern California History, December 4, 2010 (photo at right).



Malacology

Lindsey Groves (Malacology) and Mary Stechson (IP) participated in the National Fossil Day/Curators Cupboard event on Saturday November 13th. Mary exhibited the various invertebrate fossils found in the Santa Monica Mountains and Lindsey exhibited Late Cretaceous (Turonian) fossils found on the Fossil hunting in Silverado Canyon family trips.



Lindsey Groves explaining the significance of the fossil finds at the Silverado Canyon collecting site (image by Briana Burrows).



Mary Stechson in action discussing invertebrate fossils of the Santa Monica Mountains with Fossil Day visitors (image by Briana Burrows).

Student Mentoring and Research

Rancho La Brea

Edward Linden, a senior at Occidental College, is basing his senior thesis on the dire wolf collections at Rancho La Brea. Edward has already spent over 70 hours in our collections during the past couple of months measuring dire wolf elements and plans to continue this work until next May. The title of his project is *Morphological response of Canis dirus over time due to climatic shift.*

Edward Linden measuring dire wolf limb bones.



Blanca Garcia, a PhD student from the Universidad Complutense de Madrid, has spent the last 3 months working in the collections at Rancho La Brea. She was awarded a grant by the Education Ministry of the Spanish Government and is supervised by Dr. Manuel Hernández Fernández (Universidad Complutense de Madrid) and Jorge Morales (Museo Nacional de Ciencias Naturales). The principal aim of her research titled, *Influence of global climatic changes in the structure of predator-prey relationships in mammalian communities of the Iberian Neogene* is to determine how the environment affects the community structure of mammals on a global scale. Using measurements from modern mammals and their known ecological roles she will try to predict extinct mammalian carnivore ecological roles, and then will use that information to try to predict the climate prevailing in southern California 40,000 years ago. The sample size at Rancho La Brea for such a study of extinct forms is unparalleled. Her work is also supervised by Dr. Blaire Van Valkenburgh at UCLA, who has been working with the Rancho La Brea carnivore collections for the past decade and is one of the world's experts on the influence of ecological relationships and the environment on predator morphologies.



Blanca Garcia measuring extinct coyote teeth at the Page Museum.



Alex Hubbe measuring a *Paramylodon harlani* skull.

Alex Hubbe, a PhD candidate from the Departamento de Genética e Biologia Evolutiva Instituto de Biociências at the Universidade de São Paulo, Brazil, visited the collections at Rancho La Brea for a week in November to study all of the sloth material. Alex received a one year fellowship from his university to study abroad in the U.S. and is based in Dr. Barnosky's lab at UC Berkeley. His thesis is titled *Extant and extinct Xenarthran skull morphological analysis: evolutionary and functional inferences*. The large collection of well preserved giant ground sloth skulls at the Page Museum gave

Alex an incomparable collection with which to collect data.

Vertebrate Paleontology

Rachel Racicot (right) from Yale University studied with Lawrence Barnes from 21 to 24 November. Rachel's doctoral research is on the evolution of dolphins, and she made observations and photos of many of our fossil and modern specimens representing species that can only be observed in our Museum.



Graduate student in Vertebrate Paleontology, Matthew Ventimiglia (right), under the supervision of Lawrence Barnes, on 6 December successfully defended his Masters Thesis at California State University Northridge. Titled *A new cetothere (Mammalia: Cetacea) from the Monterey Formation at Laguna Niguel, Orange County, California*, Matt's thesis includes a description of a new species of fossil baleen whale based on one of our specimens, and a re-analysis of our Museum's well known "Lincoln Heights Whale", *Mixocetus elysius*.



Mizuki Murakami (left) from Waseda University in Tokyo, Japan, studied with Lawrence Barnes, and in the Department of Mammalogy, during the week of 8 November. His doctoral research is on delphinoid phylogeny, and this was his second visit to our Museum to study our fossil and modern specimens of dolphins and porpoises for his dissertation research.

Volunteers and Research Associates

Library

The Research Library has been fortunate to have several interns and volunteers help catalog and organize publications while being temporarily housed in Room 323. Some have finished their internships, others continue, and new ones will be arriving soon.

Graduate student Alison Leonard from San Jose State University finished her internship in the Research Library, as did Michele Fricke from the University of Washington who also did a project for Cathy McNassor in Archives, including creation of a Finding Aid for a collection of materials. Their work has been greatly appreciated.

Carol Sui from the CSU Northridge/University North Texas library program is one of the newest graduate intern in the Research Library. Also in the CSUN/UNT library program is Jacqueline Zak, who will be volunteering one day a week in the Research Library beginning in late January 2011. She has a strong academic background in Anthropology and a Ph.D. in Archaeology. Some of you may remember Jackie as she did work in the Botany department a number of years ago.

Retired librarian Snowdy Dodson, former chair of technical services at California State University Northridge, continues to volunteer one day of her time each week helping to catalog the library collection.

Conservation

Volunteer Docents Camille Ortiz-Marroquin and Rebecca Gale have been helping the Conservation section clean dusty artifacts in Garland and Lando Hall. Come see the results of their hard work!



Distinguished Visitors



Vasily contemplating how an Atlantic South American species could have arrived in Oregon.

Polychaetes

Dr. Vasily Radashevsky (A.V. Zhirmunsky Institute of Marine Biology, Vladivostok, Russia) was with us for the month of November after participating in October's PICES-RAS and conference in Oregon with Leslie Harris. Vasily is an expert on the family Spionidae, a group well represented in our polychaete collection. He is preparing a monograph on the phylogeny and life history of the family as well as many smaller papers which require examination of LACM specimens. Vasily & Leslie also continued work on their manuscript *Type Material of Spionidae (Polychaeta) Held in North American Museums* and a new one detailing their finds in Oregon. In connection with his visit the Polychaete Section hosted a special meeting of the Southern California Association of Invertebrate Taxonomists. 10 regional worm specialists spent the day discussing spionid phylogeny with Vasily & examining specimens including some from the museum's collection.

Dot Norris, a polychaete specialist with the City of San Francisco's Marine Monitoring Lab, spent her Thanksgiving weekend at the museum. She examined newly described & provisional species from San Francisco Bay with Leslie in order to keep up with current taxonomy.

Ichthyology

Dr. Dirk Nolf, from the Department of Paleontology of the Royal Institute of Natural Sciences of Belgium, visited in November. Dr. Nolf is interested in recent and fossil fish otoliths and worked in our Fitch Otolith Collection.

Mark Lowry, from the Southwest Fisheries Science Center in La Jolla, also visited the Fitch Otolith Collection. He is working on a pictorial guide to otoliths of common eastern Pacific fishes.

Bob Pitman, also from the SWFSC, visited in December, to continue his work on flyingfishes.

Library

Tom Baione, Harold Boeschstein Director, Department of Library Services, American Museum of Natural History, visited the Museum in late October 2010 with Richard Hulser, NHM Chief Librarian, and John Long, VP Research & Collections. Key discussion topics included library collections and services as well as scholarly publishing possibilities and challenges. Tom then toured the Rotunda and Age of Mammals and noted he was very impressed with the exhibits.

Malacology

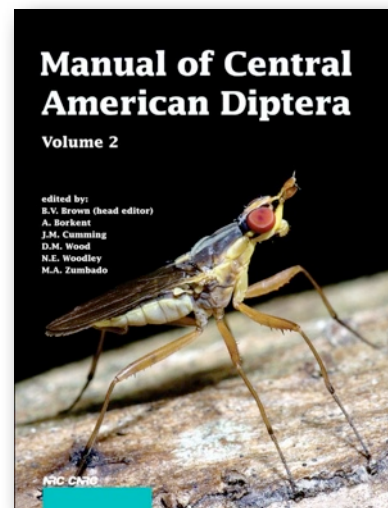
Raphael Rosen (USC) visited Malacology to gather information about the Alan Hancock Foundation collections acquired by Malacology for a class paper he is writing on the subject. Wai Leong (USC) visited to borrow specimens of *Littorina saxatilis* for a class she is teaching. Deb Roman (CSUN) examined specimens of modern oysters for comparison with specimens found in shell middens in Baja California, México. Visiting Pepperdine Business School student (and avid shell collector) Frederick Govaert (Belgium) examined the holdings of the gastropod family Turbinellidae for future research. Julian Lee (LA), a friend of Frederick's, also an avid collector, visited to examine holdings of cowries (Family Cypraeidae). Fossil and Recent land snail collector Reg Gage (Kauai, Hawaii) examined the Malacology holdings of Hawaiian species. Dan Geiger (SBNHM) visited to discuss his current manuscript on the micro-gastropod superfamily Scisurelloidea. Kim Scott (Cogstone Resourch Management, Orange, CA) brought in specimens from the Pliocene/Pleistocene Pico Formation of Simi Valley for identification and environmental interpretation. Alvin Alejandrino (Iowa State University, Ecology and Evolutionary Biology) has been researching scallop shell morphology (Family Pectinidae) using a desktop scanner for analysis. Angel Valdes (Cal Poly Pomona) and grad student Marni Falk utilized the SEM facilities. Josh Hallas (Calif. Acad. Sciences) visited to examine onchidorid nudibranch holdings.



Malacology visitor Alvin Alejandrino scanning pecten specimens for morphometric analysis.

Recent Publications

Brown, B. V., A. Borkent, J. M. Cumming, D. M. Wood, N. E. Woodley, and M. Zumbado (editors). *Manual of Central American Diptera, Volume 2*. National Research Council Press, Ottawa, Canada. xvi + 715-1442. *This is the second and final volume of the genus-level treatment of all flies known from Central America. It treats the remaining 64 families of flies that make up the Higher Diptera (or Cyclorrhapha). These include families of house flies, fruit flies, bot flies, flower flies and many other lesser-known groups. A total of 77 authors contributed chapters to the 2-volume project, including Brown, who authored the Introduction, Natural History (co-authored), Lonchoceridae, Phoridae (one of the largest groups), and Brachymeridae chapters. The front cover was designed by Brian Koehler, who also did some of the book's drawings. Giar-Ann Kung also helped out with this project.*



Brown, B.V. & G. Kung. 2010. Revision of the New World *Dohrniphora* Dahl species lacking large hind tibial setae (Diptera: Phoridae). *Zootaxa*. **2699**: 1-142. *This paper concludes our revision of the New World (mostly Neotropical) species of Dohrniphora, one of the largest genera of phorid flies. In this monograph we treat 139 species, 88 of which are new to science, providing descriptions, a new key, and copious illustrations (332 figures in all, including 271 scanning electron micrographs from our SEM lab).*

Clack, J.A., Sharp, E. & **Long, J.A.** 2010. The fossil record of lungfishes. Pp. 1-41 in: *The Biology of Lungfish* ed. by Jørgensen, J. Kemp, A. & Wang, T. Science Publishers, Enfield, New Hampshire, USA.

Donahue, J. P., ed. 2010. 2010 Membership Directory. *News Lepidopterists Society* 52, Suppl. S2: 1-78 + 6 p.

Huzseynov, S. and **J. M. Harris** 2010. Azerbaijan's fossil cemetery. *Natural History* December 2010/January 2011 16-21.

Kampf, A. R., Mills, S. J., and Housley, R. M. 2010. The crystal structure of munakataite, $Pb_2Cu_2(Se^{4+}O_3)(SO_4)(OH)_4$, from Otto Mountain, San Bernardino County, California, USA. *Mineralogical Magazine* **74**, 991-998.

Long, J.A. 2010. *The Rise of Fishes — 500 Million Years of Evolution*, 2nd edition. Johns Hopkins University Press, Baltimore, USA, +288pp.

Long, J.A., Hall, B.K., McNamara, K.J. & Smith, M.M. 2010. The phylogenetic origin of jaws in vertebrates: developmental plasticity and heterochrony. *Kirtlandia* **57**: 46-52 Nov.

Long, J.A. 2010. New holodontid lungfishes from the Upper Devonian Gogo Formation of Western Australia. Pp. 277-300 in *Morphology, Phylogeny and Paleobiogeography of Fossil Fishes* ed. by D K Elliott, J G Maisey X Yu & D Miao. Verlag Dr Freidrich Pfeil, Munchen, Germany.

Long, J.A. Dawn of the Deed. *Scientific American*, January 2011: 34-39 (cover story).

Marty, J., **Kampf, A. R.**, Housley, R. M., Mills, S. J., and Weiss, S. 2010. Seltene neue Tellurminerale aus Kalifornien, Utah, Arizona und New Mexico (USA). *Lapis* **35**, 42-51, 66.

Mills, S. J., **Kampf, A. R.**, Williams, P. A., Leverett, P., Poirier, G., Raudsepp, M. and Francis, C. A. 2010. Hydroniumpharmacosiderite, a new member of the pharmacosiderite supergroup from Cornwall, UK: structure and description. *Mineralogical Magazine* 74, 863-869.

Radashevsky, V. I., and **Harris, L. H.** 2010. Case 3520 *Boccardia proboscidea* Hartman, 1940 (Annelida, SPIONIDAE): proposed conservation of the specific name. *Bulletin of Zoological Nomenclature* 67(3): 203-210. Available online at <http://iczn.org/content/case-3520-boccardia-proboscidea-hartman-1940-annelida-spionidae-proposed-conservation-specif>

Zabin, C.J., Obernolte, R., Mackie, J.A., Gentry, J., **Harris, L.**, Geller, J. 2010. A non-native bryozoan creates novel substrate on the mudflats in San Francisco Bay. *Marine Ecology Progress Series* 412: 129-139.

Staff Departures and New Staff

History

On December 16, 2010 the History Department met at a popular Chinese restaurant in the San Gabriel Valley to bid a final farewell to Sojin Kim, who began her new position on January 3rd as curator at the Smithsonian Center for Folklife and Cultural Heritage.



Rancho La Brea

The Page Museum would like to welcome two new members of the excavation team for Project 23, Karin Rice (full time) and Christina Lutz (part time). Karin is currently a geology graduate student at Cal State Long Beach studying active faulting in Mongolia where she finished her fieldwork mapping of the faults in the summer of 2009. Karin has been working in geology and paleontology for the past 10+ years. Her past jobs include groundwater and soil remediation, geotechnical work, paleontological monitoring and fossil preparation. Christina has a BFA and has been a volunteer at the Page Museum for over 2 years where she has worked meticulously preparing fossils and sorting matrix in the Fishbowl Lab, as well as excavating at Project 23 several days a week. She has also joined paleontology expeditions to northern Mexico and Ecuador. Welcome ladies!



Karin Rice



Christina Lutz.

Miscellaneous

Dr. John Long spent a week in Australia during mid November working with colleagues at the Australian National University where the ultrafine CT scanner was working overtime to analyze more Gogo fish specimens. He also attend the Prime Ministers Prizes for Science at Parliament House (the Aussie equivalent to the “White House”) where John’s first PhD student, Dr. Kate Trinasjtic, was awarded the \$50,000 Malcolm McIntosh Prize for Physical Sciences, for her work on Gogo fishes (soft tissues in particular), biomarkers, and general Paleozoic geology.



Left to right: Dr. John Long, Dr. Kate Trinasjtic (winner of the 2010 Malcolm McIntosh Prize for Physical Sciences), Dr. Gavin Young, and Dr. Tim Senden at the Prime Ministers Prizes for Science event, Parliament House, Australia (November 17th).

History

On Wednesday, December 22, 2010, the William S. Hart Mansion reopened after a five-month capital improvements project which included a new roof. Material Culture staff was instrumental in planning and implementing a collections move in conjunction with Hart staff to safeguard artifacts not only from falling debris, but also from temperature and humidity fluctuations during the construction work.

And finally...

The R & C Holiday Potluck Party was once again a wonderful success. Special thanks to Maria Ponce, Terri Togiai, and Salena Small for all their hard work.





The Research & Collections Newsletter is issued five times per year, in January, March, May, September, and November, by the Research and Collections staff of the Natural History Museum of Los Angeles County.

Editor: Dr. Joel W. Martin, Curator of Crustacea and Chief of the Division of Invertebrate Studies.

Layout: N. Dean Pentcheff, Research Associate, Crustacea.

All issues of the newsletter may be found at:
<http://collections.nhm.org/newsletters>