

Research & Collections Newsletter



November 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.

Happy 40th!



The November 2011 R & C Newsletter is our 40th issue, marking 8 years of uninterrupted production. Congratulations to all of R & C, and thanks on behalf of the Museum Community for your contributions.

Experience the Science!

Have you ever wanted to play a hands-on role in ongoing research or collections care at the Museum? This is your chance!

The motto "*Where research and collections meet the visitor experience*" aptly encapsulates what makes the Natural History Museum unique in Los Angeles: world-class science that coexists with extraordinary public programming. The arrangement works because all divisions of the museum contribute to and support one another.

We think you will enjoy experiencing a taste of the Museum's research and collections care work — R&C staff definitely enjoy their contributions to the Museum's public programming. Particularly if your job entails interpreting what goes on in NHM to the public, it's a good thing to have more insight into the science and collections end of the operation. Besides all that, to be perfectly honest, we have a lot of work that needs to get done, and we can use your help!

We are now inviting non-R&C staff to contribute directly to a number of projects in the research and collections work that constitutes the heart of the Museum.

We are starting out small, with a one-day event featuring a few projects in the invertebrate sections. We expect these opportunities to become more numerous over time. We're looking for people who are willing to help us with these projects for whatever amount of time you'd like to contribute: just one hour, or more if you'd like. No experience is needed; we'll be on hand to train and direct you. There's no requirement to RSVP, but if you'd like to let us know you're coming, please do! Obviously, you will need your supervisor's permission to come and participate — this is a completely voluntary operation, with no payment or chargeback involved.

Date: Friday 2 December 2011

Time: 9:00am – 5:00pm

Who: Any NHM staff, particularly non-R&C

Contact: Kathy Omura (3386 or komura@nhm.org)

Where: Meet at on the Ground Floor, under the Rotunda by the MBC doorway, and we will bring you to the project areas

Projects: Several projects will be happening, among which are expected to be:

Topping-off alcohol in jars of the Crustacea collection

Changing jars for specimens in the Polychaeta collection

Merging collections of scientific publication reprints

Organizing specimens in drawers in Entomology

Collection News

Research Library

More than 20 students and alumni from the San Jose State University School of Library and Information Science visited the Museum on Friday afternoon, September 23rd. Dr. John Long gave the group an overview of the museum. This was followed by a brief history of the Research Library by chief librarian Richard Hulser who then led a tour of the library and some of the museum's exhibit halls.

Some students were so energized by their visit that they have started to volunteer in the library.

Many thanks go to NHM Museum Store director Trino Marquez who generously provided items for a raffle that was a highly popular bonus for the group.



Vertebrate Paleontology

On 24 October, two members of the public, Jennifer Fulghum of San Pedro and Ray Torres of Moreno Valley, visited the Department of Vertebrate Paleontology and donated an important collection of fossil marine mammals that Jennifer has made from the San Pedro area. The collection documents at least six species of whales.

Crustacea

In late October, Curator and Division Chief Dr. Jody Martin testified again in the ongoing murder trial of a former morning DJ found shot to death and floating in the sea off Catalina Island in 2006. Barnacles, now in our collection, that were collected by the L. A. County Sheriff's Department from the victim's shoes were used to estimate the time of death by inferring how long the victim had been in the water.

Field Work

Ornithology

Dr. Ken Campbell traveled to Brazil in July and August to continue his research into the paleobiogeography of the Amazon Basin. He visited several sites in central and southeastern Amazonia in an attempt at understanding some of the reasons behind the very high biodiversity seen in this part of South America. He participated in the field work with colleagues from the Universidade Federal do Pará, in Belem.

Vertebrate Paleontology

The annual Red Rock Canyon Museum Members' fossil collecting trip was held 14 to 16 October. Staff from Vertebrate Paleontology included David Whistler, Xiaoming Wang, and volunteer Kamaron Sardar, and from Rancho La Brea included Gary Takeuchi, Aisling Farrell, and Laura Tewksbury, in collaboration with Education and Exhibition staff including Briana Burrows, Karen Ewald, Kim Bonilla, Jesse Daniels, Kristen Brown, and Vanessa Vobis. 54 happy participants plus the Museum staff enjoyed a weekend of collecting Miocene mammal fossils in the Mojave Desert. Highlights of this year's collecting include a large metatarsal of an extinct camel, several teeth of three-toed horses, and a pair of upper molars of an extinct fox. In addition to the three half-day regular fossil collecting trips, this year's program included a moonlight trail walk led by Jesse Daniel, a morning nature and geology hike led by David Whistler, and a Saturday evening presentation on Tibetan paleontology by Xiaoming Wang. As a testimony to the influence of this program, over the years two of our regular participants, Charlie Epting and Bridgette Vandenberg (see photo below), who joined the trips well before their teen years, are now in college (USC and UC Riverside) preparing for a career in vertebrate paleontology.

Happy campers. Standing from left to right: Corinne Heyning, Ranger Matt Williams, Laura Tewksbury, Lisa Chainey, Ed Chainey, Adi Chainey, Briana Burrows, Vanessa Vobis, Jesse Daniels, Matt Morse, Kamaron Sardar, Nico Heyning, Marlene Heyning, and Charlie Epting; sitting from left to right: Chris Epting, Aisling Farrell, Kristen Brown, Kim Bonilla, Bridgette Vandenberg, Karen Ewald, David Whistler, Gary Takeuchi, and Xiaoming Wang.



Meetings, Workshops, and Presentations

Ornithology

Ornithology Collections Manager Kimball Garrett attended the 36th annual meeting of the Western Field Ornithologists in Sierra Vista, Arizona, 18-20 August, convening a workshop on bird specimen preparation, presenting an update on the activities of the California Bird Records Committee, and leading a field trip into the recently-burned but wildlife-rich Huachuca Mountains.

Dr. Ken Campbell traveled to San Juan, Argentina, in late September to participate in the IV Congreso Latinoamericano Paleontología de Vertebrados. At the meeting, which attracted participants from many countries, he presented a paper discussing the current state of knowledge of vertebrate paleontology of the Amazon Basin. He followed the meeting by traveling to northeastern Argentina for some fieldwork with Argentine colleagues. He then traveled to the city of La Plata, where he visited with several colleagues from the Museo de La Plata and Universidad Nacional de La Plata who are collaborating with him on research projects.

Research Library

Chief librarian Richard Hulser gave a talk at the Internet Librarian conference in Monterey, California, in October on the potential use of technology as a catalyst for change in operations of the research library. He also moderated a full day track of content management sessions focused on digital library tools, data curation, and content licensing challenges.

Ichthyology

Rick Feeney and Camm Swift (Curator Emeritus) attended the September meeting of the Southern California Association of Ichthyological Taxonomists and Ecologists (SCAITE) at the Cabrillo Marine Aquarium in San Pedro where Dr. Don Buth (UCLA) talked about intertidal fishes from the Central Coast and an informal workshop on tidepool fish identification was conducted.

History

Museum Archivist Cathy McNassor presented her talk, "An Eclectic History of Hancock Park," at the Docent Welcome Back event on September 28th. The lecture tells the story of the famous La Brea Tar Pits but with a focus on the unusual and unknown events that have occurred at the site.

At right is a view of the museum's excavations at Rancho La Brea, circa 1915, with oil wells and the Hollywood Hills in the background.



William Estrada, Curator & Chair of History, was one of three speakers, along with Supervisor Mark Ridley Thomas and Assemblymember Mike Eng, at a memorial gathering of political, academic, and civic leaders in recognition of the 140th anniversary of the Chinese Massacre of October 24, 1871. The event was held on October 23rd at El Pueblo de Los Angeles Historical Monument, near Union Station, and the site of Old Chinatown where Los Angeles's first deadly race riot occurred. For a full story on the memorial and the tragic event of 1871, see the Supervisor's website below.

The picture at right includes Assembly member Mike Eng, Dr. Estrada, Supervisor Mark Ridley Thomas, and El Pueblo Commissioner David Louie in the back.



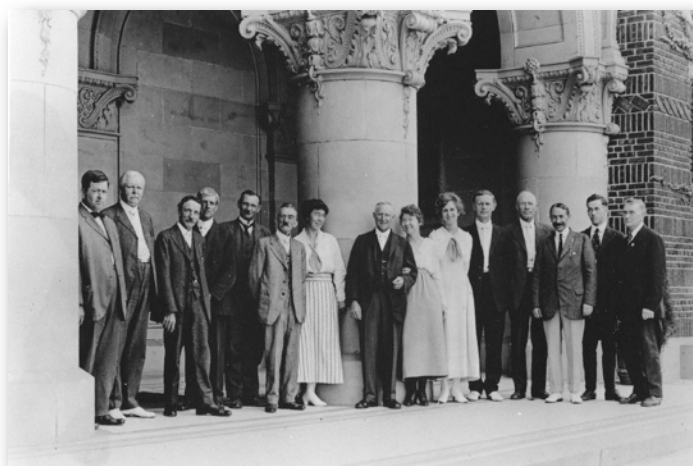
<http://ridley-thomas.lacounty.gov/index.php/civic-leaders-commemorate-140th-anniversary-of-the-chinatown-massacre>

Mineral Sciences

On October 22 and 23, the Gem and Mineral Council and the Southern California chapter of the Friends of Mineralogy co-sponsored the symposium *Minerals of the Mojave Desert*. The symposium was held at the Desert Studies Center field station near Soda Springs. A weekend of presentations and field trips included Tony Kampf's keynote lecture *California – Treasure Trove of New Minerals*. Three field trips let participants visit the Halloran Turquoise mines, the Blue Bell mine (type locality of the recently described mineral plumbophyllite) and Otto Mountain, an incredibly unusual gold and tellurium deposit from which Tony has described 13 new minerals thus far.

Vertebrate Paleontology

On August 15 and 16, Howell Thomas traveled to Austin, Texas, to participate in a two-day course on manipulating 3-D data generated by micro-CT scanning. It was held in the University of Texas, Austin Campus, Geology lab, and sponsored by National Science Foundation. The class is held once every four years, and had 14 students, all of whom were paleontologists this year.



On 28 September, Samuel McLeod and Vanessa Rhue gave a talk to our Museum docents titled, *Museum Collections & the Beginnings of Our Museum*. Sam spoke about the origins of museum collections with an emphasis on natural history museums in Europe and North America. Vanessa spoke about the founding of our Museum, its early vision, and the rapid expansion of its exhibits, collections, and education outreach. Museum archivist Cathy McNassor provided great assistance in knowledge, information, and images to Sam and Vanessa.

Early staff photo taken in 1918, featuring the Museum's first Director, Frank S. Daggett (second from left), and many gallery attendants.

In early September, Xiaoming Wang was invited by the University of Kansas to present a talk about his Tibetan Plateau field work, which included the latest discovery of a fossil of a new woolly rhino.

External Funding

Malacology

Emeritus curator of Malacology Dr. James McLean received \$3,000 from discretionary funding available to Dr. Philippe Bouchet of the Paris Museum of Natural History, for Photoshop plate preparation necessary to complete the monograph: *Revision of world Liotiidae and Areneidae, Recent and Fossil (Vetigastropoda: Liotioidea)*. For the past 20 years, the Paris museum has sponsored dredging expeditions to highly diverse Indo-Pacific regions, including New Caledonia, the Philippines, the Solomon Islands, Fiji and Vanuatu. International experts have received loans of the MNHN material and encouragement for the descriptive taxonomy necessary to report on their collections.

More Malacology

In September, Regina Wetzer, Lindsey Groves, and Jody Martin received a grant in the amount of \$10,000 from the Employee Community Fund of the Boeing Corporation for enhancing the Malacology collection. The funds will allow us to link specimen photographs with specimen records and digitize primary species descriptions of our type holdings. We will also be using collection data, photographs, and literature pertaining to mollusks as a test-case to enhance school science curricula by incorporating better biodiversity science. Some of the funds will be used to hire work-study students from USC.

Public Outreach

Rancho La Brea

National Fossil Day was celebrated at the Page Museum on Saturday October 8th. There was a full day of programming organized primarily by Anna Holden in Education. R&C staff Dr. John Harris, Aisling Farrell, Gary Takeuchi, and Trevor Valle had a Curator's Cupboard-style table with specimens from the collections. Highlights included the Project 23 juvenile mastodon, saber-toothed kittens, and micro fauna discovered on a daily basis in the fishbowl lab. Dr. Tony Friscia, professor in the Integrative Biology and Physiology Department at UCLA, gave a public lecture on the taphonomy of Pit 91 and his research at Rancho La Brea. Gallery Interpreters and docents led tours and activities throughout the day including a special Pleistocene Garden tour, scavenger hunts, microfossil sorting and kids crafts. The *Smilodon* kitten puppeteers also put on several ever popular shows.



National Fossil Day R&C staff at the Page Museum. L-R: Aisling Farrell, Trevor Valle, Dr. John Harris and Gary Takeuchi.

More Rancho La Brea

R&C staff Dr. John Harris, Shelley Cox, Aisling Farrell and Trevor Valle recently contributed to the Page docent and volunteers' professional development by presenting a series of four refresher sessions themed "back to basics." These comprehensive interactive trainings on Rancho La Brea content included presentations of the flora and fauna of Pleistocene Los Angeles, a behind-the-scenes tour of the lab, a tour of Hancock Park, and the Pleistocene Garden. In

addition, materials were offered to the docents to augment their personal Rancho La Brea libraries. The sessions were very well attended and reviewed.



Left: Docent training at Rancho La Brea

Below: New Museum Fellows behind-the-scenes tour with Shelley Cox and Aisling Farrell



As new Museum Fellows, the Ticker/Hiller family were invited for a behind-the-scenes tour of the Page Museum on September 30th that was lead by Lab Supervisor Shelley Cox and Collections Manager Aisling Farrell.

Herpetology

RAAD (Reptile and Amphibian Appreciation Day), October 9th

The third year of RAAD was the biggest yet, with roughly 3,600 in attendance! Neftali Camacho had two tables on display with a menagerie of both local herps and exotics, including a very large alligator skull from a 14 ft gator! He also guided a few enthusiastic families on 'behind the scenes' tours of the Herpetology Collection. With such a busy event, Neftali needed plenty of help. Kathy Omura, Estella Hernandez, and Greg Pauley, the soon-to-be new Herpetology Curator, were on hand to help out!!

Photo by Greg Pauley

Ichthyology

Dr. Javier Gago's biology classes from Glendale Community College toured the Ichthyology collection in September to gain first-hand experience with fish collections and their role in the study of evolution and systematics.

Malacology

On Sunday, September 4th Lindsey Groves presented *Abalone and the fossil record: No baloney* to the Southern California Paleontological Society, which meets at the Page Museum.



Malacology & Mineral Sciences



Participants of the San Andreas Odyssey pose where Pallet Creek Road crosses the fault at a conveniently placed sign.

On Saturday, October 1, Lindsey Groves (Malacology) and Alyssa Morgan (Mineral Sciences) led *Living on the Fault Line: A Day Along the San Andreas* for 17 participants. This excursion highlights fault-formed geomorphic features including sag ponds, hogbacks, fault scarps, pressure ridges, and shutter ponds.



At Lost Lake in Cajon Pass, and directly on the San Andreas Fault, Alyssa explains sag pond formation.

Get Ready to ShakeOut.
October 20, 2011 Register Now at www.shakeout.org

The Great California
ShakeOut



earthquake wave motions to Shakeout participants (below left). Museum volunteer Christine Tanguay (at right) explains liquefaction processes to Shakeout visitors.

On Thursday, October 20, Lindsey and Alyssa teamed-up again with museum volunteers and Mia Smith from the Southern California Earthquake Center for the *Great California Shakeout* (California's Annual Earthquake Drill). They demonstrated earthquake wave motion, soil liquefaction, plate tectonics (with a large puzzle map of the world), and a newly developed device to create table-top earthquakes. Alyssa uses a slinky to demonstrate



Malacology & Invertebrate Paleontology

Lindsey Groves (Malacology) and Mary Stecheson (Invertebrate Paleontology) co-lead *Fossil Hunting in Silverado Canyon* on Saturday, October 22nd. Forty-seven participants, including R&C Vice-President John Long and his wife Heather, collected Late Cretaceous (~90 million-year-old) mollusk fossils from the Ladd Formation (at right).

Invertebrate Paleontology, Vertebrate Paleontology, Dinosaur Institute, & Malacology

John Long (R&C Vice-President), Paige Johnson & Alyssa Bell (Dinosaur Institute), Jose Soler, Paulo Younce, & Charlie Epting (Dinosaur Institute Volunteers), Sam McLeod & Vanessa Rhue (VP), Mary Stecheson (IP), and Lindsey Groves (Malacology) teamed-up with Education & Exhibits and museum volunteers to observe *National Fossil Day* on October 8th. Fossils exhibited included numerous local and world-wide vertebrate and invertebrate specimens.





Top left: Mary Stecheson (IP) exhibiting fossil specimens from the Santa Monica Mountains.

Center: Devonian placoderm bones (*Dunkleosteus*) and some scale life models of Gogo placoderms from Australia exhibited by John Long (VP R&C).

Right: Kristen Bell and Paige Johnson of the Dinosaur Institute exhibited a *Triceratops* ischium from the Late Cretaceous Hell Creek Formation of Montana.



Left: Sam McLeod and Vanessa Rhue exhibited specimens from Kern County breccia deposits such as McKittrick and Maricopa, specimens from cave deposits such as San Josecito, Mexico and Gypsum Cave, Nevada, and Green River Formation feather and insect impressions. A variety of specimens was chosen to exemplify different types of fossil preservation. Junior Scientists were able to examine coprolites, bird eggs, and plants.



Right: Students take a closer look at the *Carcharocles megalodon* teeth with a hand lens, while Vanessa Rhue shares information about fossil preservation.

Note: Many thanks to Briana Burrows, Karen Ewald, and Kim Bonilla for their tremendous amounts of input for above mentioned Public Outreach events including the Silverado and San Andreas field trips, the California Shake-out, and Fossil Day... great teamwork all!

History

Fall Back into Silents: The Penalty

The Museum co-sponsored a screening of Lon Chaney's *The Penalty* at the historic Alex Theatre in Glendale on September 18 showcasing a portion of its collection which highlights Hollywood history.



The afternoon began with the History Department exhibiting an array of artifacts pertaining to the film and its actors within the Theatre's lobby. Guests were able to view Chaney's famed makeup kits, the earlier of which had been made out of an old metal lunch box! Moreover, the event marked the first time in decades that both of Chaney's makeup kits have been exhibited together. Also on display was Chaney's original costume from *The Penalty*, as well as glasses, wig, hairpiece, and wig from *The Unholy Three*, and two film posters from *Thunder*. Guests were enthralled with the amount and quality of artifacts presented for the Sunday matinee. Shown above right is Chaney film paraphernalia including wig, glasses, and makeup kit.



Following the display, film lovers and newbies alike took their seats in the historic theatre to learn about the stars of the show from two guest speakers. Museum Research Associate and Claire Adams biographer Heather Robinson Long (at left) launched the discus-

sion by informing guests on one of the film's costars, Claire Adams. Many would know her from the film as the sweet-natured artist, but Long introduced the audience to the real Claire Adams who acted in a variety of roles including westerns and educational films.

The event's second guest speaker and Chaney biographer, Michael F. Blake, was on stage with History Collections Manager Beth Werling discussing the famed Chaney makeup kits. Chaney is still regarded as a renowned makeup artist by silent film fans especially since he did his own makeup for films such as *Phantom of the Opera* and *The Hunchback of Notre Dame*. The audience was intrigued with the intricacies that Chaney balanced in developing his characters' unique and diverse features.

The speakers provided guests with an excellent look into the two stars that they subsequently saw on the big screen. The afternoon left guests with interest, intrigue, and entertainment!

Museum Archives along with the Seaver Center for Western History Research participated in the 6th annual *Archives Bazaar* sponsored by the *L.A. as Subject Group* Saturday October 22 at Doheny Memorial Library on the USC Campus. With 81 exhibitors and well over 1,000 attendees, it was the largest Archives Bazaar yet. The Seaver Center Staff – Betty Uyeda, John Cahoon and Brent Riggs – displayed four 19th century cattle brand samples, rancho photographs, and other cattle ranching images.

The Museum Archives displayed early publications on the Rancho La Brea tar pits and a display on Cathy McNassor's upcoming publication, *Los Angeles's La Brea Tar Pits and Hancock Park*.



Cathy McNassor at the Bazaar.



Members of the Seaver Center staff, along with two of the brands and a picture board.

Fast and Furious: The Cars of Los Angeles

The History Department showcased its automotive collection on October 29 with a Collector's Circle Salon hosted by Board Trustee William Garland and his wife Katie at the Museum's collection facility. An intimate group of museum members and guests traveled to the inconspicuous building that houses the Museum's world class collection. The afternoon rendezvous began with introductions by Mr. Garland and Museum Director and President Dr. Jane Pisano. Following hors d'oeuvres and mingling, guests went on a behind-the-scenes tour led by Collections Manager Beth Werling. Guests thoroughly enjoyed the in-depth knowledge about the history and progression of automobiles in Los Angeles through the magnificent self-propelled vehicles within the Museum's collection. In the photo above, guests are intently listening to Beth Werling speak about early automobiles.



Mineral Sciences

Gold Country Field Trip

The Gem and Mineral Council organized a field trip to Gold Country in Amador County on September 10–11. Trip leaders Alyssa Morgan (Collections Manager) and Roy Foerster (board member and gold miner) took a group of 15 members to the Roaring Camp gold mine in the gorgeous and remote Mokulumne River Canyon. After a short lesson, everyone got to work panning for gold. While each pan reliably produced a few small flakes of gold, no one plans to quit their day jobs. On Sunday, before heading back to L.A., the group visited one of the area's spectacular limestone caves.

Careful panning should cause dense black sand (magnetite) and gold to sink. With proper technique each pan should supposedly take 1–2 minutes to empty.



Calico Mountains Field Trip

On October 21, Collections Manager Alyssa Morgan and geologist Bob Reynolds led a field trip to the Calico Mountains in San Bernardino County. The area (including Mule Canyon and Little Borate Canyon) was once covered by shallow seas and is now rich in evaporate deposits. This very successful collecting trip yielded sulfates such as jarosite, gypsum, and celestine pseudomorphs after gypsum. Also found were borates such as howlite and colemanite and some pretty red agates. A fun day for serious mineral collectors!

Searching for agates in Mule Canyon.

Vertebrate Paleontology

On 17 September, Vanessa Rhue and Kathleen Gonzalez volunteered at the John D. Cooper Paleontology Laboratory in Santa Ana. Meredith Rivin, Museum Research Associate and Associate Curator of Paleontology at the Cooper Center, organized this family fun event, where more than 35 people helped to re-plaster 18 field jackets that contain 40 million-year-old fossils. The Cooper Center is a partnership between Orange County Parks Department and Califor-

nia State University Fullerton. They are committed to the preservation, curation, and management of the fossils and artifacts collected within Orange County.

Kathleen Gonzalez, volunteer at both our Museum and the Cooper Center, works with young paleontologists to stabilize a large field plaster jacket.



On 13 October, Lawrence and Louise Barnes visited Hagerman Fossil Beds National Monument near Twin Falls, Idaho, and were given a warm welcome by National Park Service personnel. Our Museum has a long history of involvement with the Hagerman fossil site: we conserve collections from there; a skeleton of the Hagerman horse, *Equus simplicidens*, is exhibited in our “Age of Mammals” hall; and we have provided them with replicas, some of them made by Louise Barnes, of some of our Hagerman specimens. In this photo, Monument superintendent Phil Gensler shows Louise some of their recent fossil discoveries from the Monument.

Haunted Museum (Fairy Tales and Scary Tales)

Rancho La Brea

Rancho La Brea staff attended the Haunted Museum’s members event on October 23 and brought specimens of the three species of bear found in the tar pits; the most common short-faced bear, the grizzly bear and the black bear.

RLB staff dressed up for the Haunted Museum as Goldilocks and the Three Bears of La Brea. At right, L-R: Laura Tewksbury, Michelle Tabencki, Karin Rice, Christina Lutz, Gary Takeuchi, Aisling Farrell, and Carrie Howard.



Ornithology

Apparently challenged in dealing with homophones, Ornithology Collections Manager Kimball Garrett and Curator Ken Campbell thought this year’s Haunted Museum Theme was “Fairy Tails” and responded by providing a glimpse into the diversity of tail shapes, colors and patterns among birds. From the eye-popping Palawan Peacock-Pheasant to local flickers, kestrels and orioles, the tails captivated our guests. Ken also showed a selection of avian pygostyles (“butt-bones”) and of course we brought a few fairies (including fairy-wrens, fairy terns, and purple-crowned fairies).

Ichthyology

Curator Christine Thacker and Neftali Camacho became Edwardian Dragon Hunters, Selene and Draven, showcasing both fish and lizards that resemble dragons. Specimens displayed included lionfish, deepsea dragonfish, icesharks, a Komodo Dragon skull, and an Australian frilled lizard!

Mineral Sciences

For the Museum's annual Haunted Museum Halloween party, Alyssa Morgan and Mary Stambaugh created an Alladin's Cave display in the Gem and Mineral Hall. They exhibited Cubic Zirconium replicas of famous gems of the world. Wes Oakley created an animated genie, and Gem and Mineral Council members generously donated to help create the genie's treasure trove of over 1,000 acrylic "gemstones" "gold coins" and "jewelry" for the kids to take home. For the sharp-eyed children there were also over 100 real faceted garnets, amethysts and emeralds!



History



This year's Haunted Museum theme, *Fairy Tales and Scary Tales*, worked well with the History Department's 20th Century collection. History staff members Beth Werling and Ayesha Saletore showcased two dwarf dolls from *Snow White and the Seven Dwarfs* (Dopey pictured at left), *Time Magazine* featuring Walt Disney and the dwarfs, and an image of Disney receiving the Academy Award for *Snow White* from Shirley Temple. Also exhibited were objects from *The Three Little Pigs* including a pig doll, original watercolor background for the house of bricks, and a replicate of a scene from the film

(pictured at right). Guests of all ages enjoyed the displays! The evening provided an excellent opportunity to talk about the diverse range of artifacts within the History Department.



Vertebrate Paleontology

On 23 October Samuel McLeod, Vanessa Rhue, and Howell Thomas showcased *The Three Little Pigs and the Big Bad Wolf* at this year's Haunted Museum. Families were able to observe 35 to 40 million-year-old pig-like entelodonts from Oligocene deposits of Nebraska, and dire wolves from the Pleistocene of Mexico and Kern County. Modern skulls of a peccary, warthog, and giant forest hog, along with a peccary pelt, were also displayed courtesy of Jim Dines of Mammalogy.



Howell Thomas and Sam McLeod show off the Museum's fantastic skull of an extinct entelodont, *Archaeotherium*.

Student Mentoring and Research

Ornithology

Dr. Ken Campbell is mentoring a senior from Marlborough High School in a senior's honor research project. The student's project is an investigation into the differences in the morphology of birds that use two distinctly different types of soaring as a component of their flight. She began her research by spending the summer studying the anatomy, osteology, and feathering in the Western Gull and the Red-tailed Hawk under the guidance of Kimball Garrett in the ornithology laboratory, and she is now analyzing her results.

Rancho La Brea

Blanca Garcia, a Ph.D. student from the Museo Nacional de Ciencias Naturales in Madrid, returned to the Page Museum this fall for three months to continue her research titled *Influence of global climatic changes in the structure of predator-prey relationships in mammalian communities of the Iberian Neogene*. She spent three months measuring and photographing half of the carnivores in the collections at the Page last fall as reported in the newsletter of November 2010 and is working on the other half this year. Her grant awarded by the Education Ministry of the Spanish Government is co-supervised by Dr. Manuel Hernández Fernández (Universidad Complutense de Madrid), Jorge Morales (Museo Nacional de Ciencias Naturales), and Dr. Blaire Van Valkenburgh at UCLA. The principal aim of her research is to determine how the environment affects the community structure of mammals on a global scale.



Blanca Garcia measuring carnivore specimens at Rancho La Brea

Research Library

Melanie Tran, graduate student at the UCLA School of Library and Information Services, has been a volunteer in the Research Library during the summer. She is now conducting her master's degree thesis research here focused on information transfer challenges during the birth of LACMA from NHM in the early 1960s. She is working under the guidance of chief librarian Richard Hulser and Cathy McNassor in Archives. As part of her project she is creating a finding aid for the Research Library archive records.

Ayelet Ifram, graduate student in the San Jose State University School of Library and Information Science, is developing a grant proposal for the Research Library as part of the requirements for a grant writing class. The proposal is focused on potential conservation and digitization of the fragile and rare newspaper collection.

Vertebrate Paleontology



Zhijie Jack Tseng, Graduate Student-in-Residence, successfully defended his dissertation on *Convergent morphological evolution in hyenas and dogs: the relationship between form and function* under the program of Integrative and Evolutionary Biology at the University of Southern California. Jack is now a resident of Canada and his wife is expecting a baby. Congratulations to Dr. Tseng!

A proud new Ph.D., Jack Tseng, middle, after passing his defense, flanked by co-advisors Jill McNitt-Gray (Professor of USC Departments of Kinesiology, Biomedical Engineering, Biological Sciences, left) and Xiaoming Wang (Curator of Vertebrate Paleontology, right).

Volunteers and Research Associates

Rancho La Brea

We are very pleased to welcome our new volunteers in the Rancho La Brea collections. Curation duties include cataloging Project 23 specimens (approximately 300 specimens per week), data entry of early 1900's Hancock Collection cataloged material, inventories of molds and casts, and help in the Chester Stock Library. In the past two months our new volunteers have put in a combined 370 hours of service.

Clockwise: Katie Bartel, Beau and Sean Campbell, Lilia Alvarado and Jill Comsky



Research Associate Dr. Julie Meachen working in the Rancho La Brea collections.

We also would like to congratulate Dr. Julie Meachen, a Postdoctoral Associate at the National Evolutionary Synthesis Center in Durham, in her newly appointed Research Associate status at the Museum. Dr. Meachen's work primarily involves Pleistocene climate change and megafauna extinctions with a focus on the carnivorans. Her current research includes examining morphological change in *Canis latrans* (coyote) and comparing nutritional stresses in *Smilodon fatalis* (saber-toothed cat) versus *Canis dirus* (dire wolf) towards the end of the Pleistocene. Her work has been published in *Paleobiology*, *PLoS ONE*, *Journal of Mammalian Evolution*, and *Journal of Zoology*.

Research Library

Many of the graduate student volunteers in the Research Library have completed their service and are back to finishing their studies. Jackie Zak, a University of North Texas/CSU Northridge library school graduate, is now at Yosemite National Park organizing their archives under a grant through the U.S. National Park Service.

Luray Leinenbach (pictured), another graduate from the UNT/CSUN library program, continues to volunteer twice a week at the NHM Research Library while pursuing career opportunities.

Fortunately, several graduate students from the San Jose State University School of Library and Information Science have recently started volunteering in the Research Library, and more about them will appear in future articles.

Ichthyology

Anthony Aliaga from Los Angeles Valley College continued to volunteer during September, this time sorting a Cobb trawl from the Central Pacific filled with strange midwater fishes.



History

On September 15, docents and volunteers helped Cathy McNasor make fabric bolsters to be used in the storage of the textile and costume collections in the material culture section. Pictured at right are volunteer Amanda Garcia, Docents Susan Coltrin and Toni Colbert and Curator of History, Dr. William Estrada. Volunteer Christine Tanguay also contributed to this effort.

Vertebrate Paleontology

This fall two new volunteers are assisting in the Vertebrate Paleontology Laboratory. C.J. Fogel is a community college math teacher, and Ralph Rodriguez is in the graduate program of the Anthropology Department at California State University Fullerton. We greatly appreciate their help.

Over the summer, Julie Naylor, who worked for us first as a Volunteer, and then as an employee, worked in the Department of Vertebrate Paleontology, preparing artwork for Lawrence Barnes, Samuel McLeod, and Xiaoming Wang. One of her images, depicting a new species of woolly rhino, has been published in *Science* (see *Publications* below), and in some popular media, including *The Los Angeles Times*. Julie is now being commissioned to work on a mural for a county museum in Inner Mongolia, China, depicting extinct shovel-tusked proboscideans (*Platybelodon grangeri*), elephant-like animals with formidable lower tusks shaped like shovels.



Reconstruction by Julie Naylor of a new extinct Tibetan woolly rhino, *Coelodonta thibetana*, depicted in the foothills of the ancient Himalayas. (Charcoal on paper, with computer rendering.)

Distinguished Visitors

Rancho La Brea

Dr. Melanie Fillios, from the Australian Centre for Microscopy & Microanalysis at the University of Sydney, Australia, visited the Rancho La Brea collections in October to collect data on bone surface modification on bones from Pit 91. The broad aim of this research is to better understand two significant types of taphonomic marks; tooth marks and pitwear. Dr. Fillios made silicone molds of the marks on the bones and will use positive casts coated in gold/platinum for examination using SEM. She also hopes to optically section the casts enabling 3-D visualization for better characterization. It is also hoped that these results may be used in a comparative study of bone surface modification at the Pleistocene megafaunal site, Cuddie Springs, in New South Wales, Australia.

Assistant Professor of Biology and Anthropology at Penn State, Dr. Adam Hartstone-Rose, visited the Rancho La Brea collections in October with two of his undergraduate students, Beth Simpler and Amanda Heckler. Their project, which they will present at the annual Society of Vertebrate Paleontology meeting in early November, compares the subtle variation in the carcass processing abilities of the Rancho La Brea carnivore guild to the variation seen in modern carnivorans and the fossil carnivorans of South Africa. By measuring, photographing, and taking molds of the teeth they will examine the two aspects of dietary dental adaptations - radius-of-curvature and intercuspid notches.



Adam Hartstone-Rose making molds of carnivore teeth at Rancho La Brea

Herpetology

Kei Okamoto (left), a graduate student from the University of Tokyo Japan, came to visit the Herpetology collection for a week in October. Kei is looking at sea turtle morphology and taxonomy. He measured our sixty sea turtles, most with important data for his research. His next stop is The Natural History Museum of San Diego and then off to Michoacán, Mexico, to look at green sea turtle nesting sites. We wish him the best of luck!



Ichthyology

Jatziry Gracian, from the Centro Interdisciplinario de Ciencias Marinas, La Paz, México, visited the Fish Collection in September for a month to study our collection of achirid soles (flatfishes)

for her thesis. Jatziry re-identified many of our soles and help strengthen that part of our collection. Thanks Jatziry!



Malacology

Kristin Bergmann (Cal Tech) visited Malacology to examine the holdings of phosphatic inarticulate brachiopods as she is studying calibrations of known growth temperatures by measuring carbonates trapped in the phosphatic shells. Research Associate Ángel Valdés (Cal Poly Pomona) and students Jermaine Mahguib, Dieta Hanson, Jennifer Alexander, and Jessica Goodheart visited Malacology to examine nudibranchs for phylogenetic studies.

Vertebrate Paleontology

On 28 August, Dr. Mark Urata, Director of Craniofacial Surgery at Children's Hospital in Los Angeles, visited to study various pathologic marine mammal specimens as part of an on-going study of pathologies in both fossil and modern marine mammals by Howell Thomas and Lawrence Barnes.

Dr. Mark Urata examines a male modern elephant seal skull with pathologies.



Satoshi Maruyama, a graduate student at Kyoto University, Japan, visited from 12 to 16 September, to study fossil kentriodontid dolphins. He is describing a new species of kentriodontid as part of his thesis, and our collection has many significant specimens in this group of ancestral dolphins that are pivotal to his research.



Satoshi Maruyama compares and photographs a Miocene kentriodontid skull from the Topanga Formation in Orange County with a cast of his specimen from Japan.

Kaitlin Maguire, a graduate student at the University of California, Berkeley, visited our department from 11 to 13 October, studying the Mascall Fauna, a Barstovian (Middle Miocene) site from central Oregon.

Kaitlin Maguire takes measurements of Museum specimens from the Mascall Fauna of Oregon.



On 24 October, Mr. Brad Burlingame, a friend of Jim Gilson's, visited to consult with Lawrence Barnes concerning a baleen whale fossil that was found near his property in the Mulholland area.

The specimen, which is conserved in our Museum, had received considerable publicity at the time that it was excavated.

On 26 October, Leonardo Maiorino, from Roma Tre University in Italy, visited to study our collection of fossil rhinoceroses.

Recent Publications

Deng, T., **X. Wang**, M. Fortelius, Q. Li, Y. Wang, **Z.J. Tseng**, **G.T. Takeuchi**, J.E. Saylor, L.K. Säilä, and G. Xie. 2011. Out of Tibet: Pliocene woolly rhino suggests high-plateau origin of Ice Age megaherbivores. *Science* 333:1285-1288.

Kampf, A. R. and Mills, S. J. 2011. The role of hydrogen in tellurites: Crystal structure refinements of juabite, poughite and rodalquilarite. *Journal of Geosciences* 56: 235-247.

- Ma, C., Connolly, H. C., Jr., Beckett, J. R., Rossman, G. R., **Kampf, A. R.**, Zega, T. J., Tschauer, O., Sweeney Smith, S. A., and Schrader, D. L. (2011) Brearleyite, $\text{Ca}_{12}\text{Al}_4\text{O}_{32}\text{Cl}_2$, a new mineral from the NWA 1934 meteorite. *American Mineralogist* 96: 1199-1206.
- McLean, J.H.** 2011. Reinstatement of the fissurellid subfamily Hemitominae, with the description of new genera, and proposed evolutionary lineage, based on morphological characters of shell and radula (Gastropoda: Vetigastropoda). *Malacologia* 54: 407-427, figs. 1-30.
This paper was written in response to a recently published molecular phylogeny for the family Fissurellidae that did not take into account the incomplete understanding of morphology in the family.
- Mills, S. J., Petříček, V., **Kampf, A. R.**, Herbst-Imer, R., and Raudsepp, M. 2011. The crystal structure of $\text{Yb}_2(\text{SO}_4)_3 \cdot 3\text{H}_2\text{O}$ and its decomposition product, $\beta\text{-Yb}_2(\text{SO}_4)_3$. *Journal of Solid State Chemistry* 184: 2322-2328.
- Mills, S. J., Kartashov, P. M., Gamyagin, G. N., Whitfield, P. S., Kern, A., Guerault, H., **Kampf, A. R.**, and Raudsepp, M. 2011. Fluorocronite, the natural analogue of $\beta\text{-PbF}_2$, from the Saha Republic, Russian Federation. *European Journal of Mineralogy* 23: 695-700.
- Thacker, C. E.** 2011. Systematics of Butidae and Eleotridae. In: Patzner, R. A., J. L. Van Tassel, M. Kovačić, B. G. Kapoor (eds.) *The Biology of Gobies*, Science Publishers, Inc., pgs. 79-85.
- Thacker, C. E.** 2011. Systematics of Gobiidae. In: Patzner, R. A., J. L. Van Tassel, M. Kovačić, B. G. Kapoor (eds.), *The Biology of Gobies*, Science Publishers, Inc., pgs. 129-136.

Staff Departures and New Staff

Vertebrate Paleontology

Julie Naylor, following her June 2011 graduation from California State University at Monterey Bay's Scientific Illustration Program, was hired during the summer and fall to prepare illustrations for the Department of Vertebrate Paleontology.

Marine Biodiversity Center

We are sad to lose Emma Freeman, but are delighted that we can welcome Phyllis Sun.

Emma is off to the Master's Program in Environmental Sciences at the University of California Santa Barbara. We are delighted for Emma, who was awarded a significant scholarship for her GRE and admission's performance. Emma, a graduate of USC in Environmental Studies, had been a work-study student at the NHM and assistant in the Dinosaur Institute. She joined the MBC in 2009 as Curatorial Assistant. Emma is excited about the possibilities of contributing to environmental issues near and dear to all of us.

We are delighted to add Phyllis Sun, former work-study student and USC graduate (class of 2011), on board as our newest team member. Some of you have already met Phyllis, or know her from her work with Malacology and Invertebrate Paleontology type specimen photography, her general invertebrate curatorial work, or her Huntington Library internship. Help us welcome her to the MBC in her new capacity as MBC Curatorial Assistant.

Miscellaneous

And finally...

Happy  Holidays!

Because this is the last R&C Newsletter for calendar year 2011, 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.



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.

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