Research & Collections Newsletter

September 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

Dinosaur Institute

After more than five years in development, the New Dinosaur Hall opened its doors to the public on July 16th. The 14,000 square foot Hall features nearly 300 specimens, including 20 full skeleton mounts, and includes specimens from the Dinosaur Institute, Vertebrate Paleontology, Invertebrate Paleontology, Mineralogy, and Ornithology collections.

The project was headed by Luis Chiappe and project manager Jennifer Morgan. The staff of the DI worked on prepping specimens for the exhibit beginning in 2008 with "Thomas" the *T. rex*.

Many of the specimens in the Hall have never before been on display, including the growth series of three *T. rex* specimens, the full mount of *Triceratops*, and the exceptional marine specimens of *Platecarpus* and *Polycotylus*. All of the specimens that had been mounted in the old hall, such as the skeletons of *Mamenchisaurus*, *Morenosaurus*, *Plotosaurus*, *Camptosaurus*, *Stegosaurus*, *Allosaurus*, and others, have been restored and re-mounted by Phil Fraley Productions in New Jersey and Pittsburgh and Research Casting International in Ontario.

The architectural design of the exhibit was developed by Evidence Design out of New York, and the graphic design was created by KBDA out of Santa Monica. The DI's Stephanie Abramowicz created much of the artwork seen on the

graphic panels on the platforms, and various reconstructions including the post cranial skeleton of the 2-year-old *T. rex* and the fleshed out models of *Fruitadens* were created by DI sculptor Doyle Trankina.

Research Library

The NHM Research Library has been closed since October 2008 due to earthquake retrofitting of the south wall and construction associated with the new Dinosaur exhibit, including the new elevator. A lot of work has been underway recently to get the library back into full operation. There is still a lot of work to do as can be seen in the photo on the left of graduate student volunteers Jill Comsky, Amanda Milbourn and Melanie Tran. They are cleaning and shelving some of the many books still needing attention. A more detailed story about the library transformation will appear in a future issue of the newsletter.

Invertebrate Paleontology

Invertebrate Paleontology received a donation from long-time Museum donor Michael Oschin of 50 specimens of Eocene age (about 45 million years ago) amber from the Baltic region. According to Entomology Curator Brian Brown, 28 of these amber pieces contain flies of the family Dolichopodidae, and 22 pieces contain other Diptera. This collection has been added to a gift of over 400 amber pieces donated by Michael and Nancy Oschin in 2005. All the amber pieces are presently housed in the Entomology Department.

Amber pieces awaiting curation.

More Invertebrate Paleontology

Three large fossiliferous boulders and a petrified log previously on display in the Museum's Discovery Center were moved to the South Grand warehouse. The boulders were quarried in 1969 during the excavation for the building at 6th and Flower Sts. in downtown Los Angeles (formerly the ARCO Towers). They are from a limestone bed in the Fernando Formation representing a marine incursion into southern California during the late Pliocene epoch, about 3 million years ago. Fossils of over 130 marine animals, mainly mollusks, have been recovered from this bed. The largest boulder weighs in at over 5,000 pounds and required a heavy-duty forklift to move.

Right: Mike Alvarez maneuvers the largest Fernando Formation boulder into the South Grand parking lot (photo courtesy of Tania Colas).

Anthropology

Sometimes even we are surprised by what we have! We recently "discovered" this figurine that originally came to our museum on loan in 1920. This male figurine was made by the Rapa Nui people of Easter Island. It came to our attention when Chris Coleman was perusing a Sotheby's auction catalog for *Africa, Oceanic and Pre-Columbian Art* that

was sent to us in May. He came across the entry for the figurine pictured on the left and thought, "we have one just like that," so he checked in our storeroom and soon emerged with the figurine from our collection pictured on the right. Objects from Easter Island, the most remote inhabited island in the world, are uncommon to have in any museum collection. However, even amongst Easter Island artifacts, carvings of wood are particularly rare because of the scarcity of the material from the island's history of extreme deforestation.

Herpetology

Neftali Camacho (aka Nefty) appeared on the special features of the DVD *Rango*, talking about the special ability of horned lizards to shoot blood from their eyes as a defense against predators. The movie is about a sheltered chameleon facing a major identity crisis, finding himself alone in the Mojave Desert, only to become a hero.

Salmon shark Lamna ditropis *(LACM 56903-1)*

Ichthyology

In mid-August Tigress Productions visited the Fish Collection to film a segment about salmon sharks. They interviewed Ralph Collier in our collection. We also sent a frozen salmon shark pup to Stanford University to be filmed while being dissected. Thanks go to Nefty Camacho for help retrieving the shark from the walk-in freezer and to Kathy Omura for help driving it to the airport.

Conservation

The Conservation Section is hard at work preparing History Collection artifacts for the upcoming Los Angeles exhibit. Pictured here, Assistant Conservator Liz Homberger is painstakingly reassembling an early- to mid-19th c. tortoiseshell comb displaying ornate pierced floral decoration.

Rancho La Brea

Two Master's degree students from East Tennessee State University visited the collections in August to gather data for their theses. Leigha King is working with Dr. Steven Wallace on the phylogenetic placement of *Panthera atrox* within the felid family. She is using cra-

Eric Lynch and Leigha King from ETSU working in the Rancho La Brea carnivore collections.

nial measurements and characters for her analysis. Eric Lynch, under the direction of Dr. Blaine Shubert, is comparing the forelimb skeletal morphology of the Pleistocene giant short-faced bear, *Arctodus simus*, to that of several extant species of bear, as well as gray wolf, African lion, and spotted hyena. The goal is to use multivariate statistics to infer the locomotion and feeding ecology of the extinct bear. While at the Page, Eric collected 3D landmarks from of all our bear material using a three-dimensional digitizer.

PhD student Caitlin Brown, working under the direction of Dr. Blaire Van Valkenburgh at UCLA, visited the collections for about 3 weeks this summer. Her primary goal was to record mesowear on the teeth of horses, bison and camels to see if there is any evidence of nutritional stress that is visible with the naked eye. This project is part of an NSF-funded pilot study to assess nutritional status of ancient herbivores where they hope to assess the level of top-down vs. bottom-up forcing in the late Pleistocene.

Caitlin Brown from UCLA recording mesowear on horse teeth.

Martina Steffen, Senior Collections Manager and Archaeologist at the Royal BC Museum in Victoria, Canada, also visited the Page Museum collections in order to measure all of the bear material. We also borrowed several specimens of modern bears from the Mammalogy collections for her to work with. She is using her data to compare to specimens that she has in the collections at the Royal BC Museum.

Tamar Dayan, Professor of Zoology at Tel-Aviv University, visited the Page Museum collections to measure wolves and coyotes as part of her ongoing research into function and co-evolution within carnivore guilds.

One of the more interesting specimens in the Rancho La Brea herpetofauna collections is the single occipital and temporal horn plates of a coastal horned lizard (*Phrynosoma coronatum*) found in Pit A during the 1929 excavations. However, due to lack of precise positional data associated with the specimen it was not clear exactly where the specimen had been found. This summer exciting new discoveries from Project 23 include two more individuals of this species in two separate deposits (1 and 14) bringing our MNI to three and confirming that this species was a resident in the Rancho La Brea area during the Pleistocene. The coastal horned lizard is currently a Federal Special Concern species (FSC) and a California Special Concern species (DFG-CSC).

*Coastal horned lizard (*Phrynosoma coronatum*) occipital horn plate recently recovered in matrix from Project 23.*

History

In May, the History and Anthropology Departments welcomed official tribal representatives from the Pueblo Jemez in New Mexico. They visited the Seaver Center for Western History Research to look at historical photographs of the Pueblo, and the Anthropology Department provided them with a folder that included images and documentation for the objects in the collection that came from the Pueblo.

Saddle historian Griff Durham and vaquero bit-maker Bruce Haener visited the museum in June to help identify the collection of 19th century California bits and spurs that are being considered for display in the upcoming Los Angeles exhibit. Mr. Durham is shown here examining the bit that belonged to Antonio Coronel.

In mid-July, curator Leigh Gleason from the UCR/California Museum of Photography visited the Seaver Center for Western History Research with several of her interns to view the work of pioneer photographer Abel Fletcher as well as several other 19th century photographic collections housed at the Center.

Wolfskill-Sabichi Family Piano

Robert Portillo, musical instruments conservator, explains aspects of the piano's condition with Francisco and Magdelyn Sabichi.

In response to a donation offer from Francisco Sabichi, the great-grandson of L.A. pioneer William Wolfskill, Kristen Hayashi and Dr. William Estrada traveled to Denver, Colorado, at the end of July to view the Wolfskill-Sabichi family piano. This historic piano is arguably the first to come to Los Angeles. William Wolfskill was a Kentucky fur trapper who came to the pueblo in 1831. He married Magdalena Lugo and became a prominent member of the local community. Wolfskill is widely known as the father of southern California's citrus industry. He strongly believed in music education and, with his accumulated wealth during the Gold Rush era, he purchased pianos for his home during the 1850s. One particular square piano was purchased for his daughter, María Magdalena. New York piano maker R. Glenn & Co. shipped the piano around the Horn to San Pedro Bay. It was then brought to shore and transported to the Wolfskill adobe on today's Central Avenue. Upon Maria Magdalena's marriage to Francisco Sabichi, the piano was moved to the Sabichi homestead, formerly at Figueroa and Adams. The piano was then passed down through the Sabichi family line. Francisco Sabichi has generously offered the piano to the History Department so that, in his words, it can "return home to Los Angeles where it belongs." While in Denver, Dr. Estrada had the opportunity to conduct an oral history with Mr. Sabichi and his wife Magdelyn in order to gain a deeper understanding of the family's rich history. Ms. Hayashi and Robert Portillo, a Los Angeles-based musical instrument conservator, conducted a two-day conservation assessment of the piano's potential for display in the upcoming Los Angeles exhibit. Arrangements are now underway to have the piano shipped from Denver to NHM.

History accepted a donation of Edison cylinder phonographs and recordings from Michael Oschin, shown here with History intern Jessica Roussel. Museum Archivist Cathy McNassor and Ms. Roussel collected the items from the home of Mr. Oschin, and this completed Ms. Roussel's internship project towards her master's degree at CSU Northridge.

In August, Tom Hawthorn of Hawthorn's Antique Audio visited the museum to inspect the players and records that were donated by Mr. Oschin. Jeff Lutton and Hawthorn, shown here, discussed the collection with Ms. McNassor and provided helpful information on the items.

Vertebrate Paleontology

The Museum acquired from the estate of Bakersfield collector Mr. Robert Ernst essentially the entire known sample of fossil sea cows (Sirenia) from the globally significant Sharktooth Hill Bonebed, which is exposed northeast of Bakersfield. Although our Museum owns the world's most comprehensive collection from this site, included was only one small fragment of a sirenian. Mike Willaims (left) and Sam McLeod unpack the collection, the acquisition of which was made a reality by John Long.

Field Work

Entomology

Entomology curator Brian Brown traveled to Costa Rica in August, searching for new or rarely collected ant decapitating flies and their relatives. Accompanied by UCR graduate student John Hash and Brown's Costa Rican assistant, Wendy Porras, he made collections at two sites: Texas A&M University's Soltis Center, and a resort called Villa Blanca. At both sites collections from light traps were outstanding, with a number of fabulously rare and new species attracted every night (such as the pictured new species and only second known specimen of the genus *Podiomitra* of the family Sphaeroceridae).

Ichthyology

Rick Feeney (at left) went on a field trip to Bishop, California, for two days in late May to collect Owens sucker larvae, with the help of California Fish and Game biologist Steve Parmenter, in the Owens River and Bishop Creek. The trip was a great success. The specimens became part of the Fish Collection and will be used as reference material for an upcoming publication.

Rancho La Brea

Last year, R&C staff from The Page Museum were invited by Emily Lindsey, a PhD student at UC Berkeley, to consult and join her excavation team at an asphalt seep located on the Santa Elena Peninsula in western Ecuador. The project is overseen by the Universidad Estatal Pennisula de Santa Elena (UPSE), and all of the fossils are housed at the Museo Paleontologio Megaterio (MPM) on the UPSE campus. Of the fossils collected, 90% are from the giant ground sloth *Eremotherium*. This species is represented by a minimum of 16 individuals from juvenile to sub-adults and adults. Unlike Rancho La Brea, it does not appear that the animals were 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.

Continuing this collaboration, Curatorial Assistant Gary Takeuchi was invited by Emily and the Museo Paleontologio Megaterio to Ecuador in mid August to teach and consult on their collections. While there he taught an 8 day course

on the basic collection, preparation, curation, and collection care of vertebrate fossils. This included hands on preparation of specimens collected over the past three years from the site. While at the MPM he shared and exchanged ideas with the staff on some of the challenges and techniques used to excavate and clean asphalt preserved fossils. It is anticipated that this dialog will continue into the future. He also consulted on the repair and restoration of a giant ground sloth pelvis that the museum hopes to place on exhibit soon.

Gary Takeuchi and Emily Lindsey with students at the field site in Ecuador.

Malacology

Lindsey Groves and Malacology Field Associate Phil Liff-Grieff collected live and dead specimens of a new invasive gastropod to southern California. *Polygyra cereolus* (Muhlfeld, 1818) is native to the southeastern United States and is now well established in the area around Laguna Hills, Orange County, particularly in Fossil Reef Park. An adjoining apartment complex was landscaped with sod possibly imported from Florida, and the snails were living in the sod. There are now at least 20 species of invasive snails in Los Angeles County.

Mineral Sciences

Uranium-Vanadium deposits of the Colorado Plateau

In mid-August, Tony Kampf visited mines in the Uravan Mineral Belt along the Utah-Colorado border with colleagues John Hughes (Univ. of Vermont), Mickey Gunter (Univ. of Idaho) and John Rakovan (Miami Univ., Ohio) and mineral collector Joe Marty (Salt Lake City). The five have been involved in the description of several new vanadium-bearing minerals from the deposits and are actively involved in the search for more. While the deposits are best known for the uranium that was the impetus for the mining boom in the Four Corners Region in the 1950s, they also are a major source of vanadium (hence the name "Uravan"). The deposits formed when aqueous fluids rich in dissolved uranium and vanadium impregnated sandstones of the Salt Wash Member of the Morrison Formation. Organic material in the sandstone provided a reducing environment, which caused the precipitation of uranium and vanadium oxides. Later oxidation by near-surface waters released the vanadium to form a variety of unusual hydrated vanadate minerals, which are the focus of research by Dr. Kampf and his colleagues.

Vertebrate Paleontology

In June Xiaoming Wang led a team of American and Chinese vertebrate paleontologists, geochemists, paleomagnetists, and sedimentologists to the northern Tibetan Plateau. This year their efforts focused on the Qaidam Basin and Kunlun Pass Basin, two areas that have been a staple of past field work, as well as a new area, the Hongyazi Basin within the Altyn Tagh mountains. Highlights of this year's collecting include a complete rhino skull.

A nearly perfectly-preserved skull of the extinct rhino, Acerorhinus tsaidamensis, *from the west Tuosu Nor locality.*

Paleontologists often collect in badlands that have hardly a blade of grass, but for once, we camped at a postcard-perfect site, accompanied by (clockwise) idyllic sheep, a black-necked crane (*Grus nigricollis*), and a beautiful stream fed by melting snow. This promising new fossil site, Hongyazi, is between two major mountain ranges, the Altyn Tagh and Qilian mountains, along the northern rim of the Tibetan Plateau.

In August Xiaoming Wang, Jack Tseng (Graduate Student-in-Residence), and Michael Williams (formerly a Curatorial Assistant on the *Age of Mammals* exhibit) joined colleagues from Japan and China for a two-week field trip to Inner Mongolia in northern China. The focus was on magnetostratigraphy, a technique for dating the rocks, and screen washing for small mammals.

Members of the team are busy collecting paleomagnetic samples. By carefully recording the orientation of each rock sample collected, paleomagnetists back in the lab can detect magnetic signals recorded in the red sediments, which yield clues to the age of the rocks.

Meetings, Workshops, and Presentations

Research Library

Chief librarian Richard Hulser attended the Special Libraries Association (SLA) annual conference in Philadelphia in June where he moderated a session focusing on specimen database tools with a speaker outlining details about Specify, one of the databases used at NHM. As chair-elect of the SLA Museums, Arts & Humanities division, Richard also met with several museum librarians who are members of the SLA Natural History Caucus. They were very interested in discussing the potential for future joint projects and options for saving money through content licensing collaborations among all of our institutions.

Herpetology

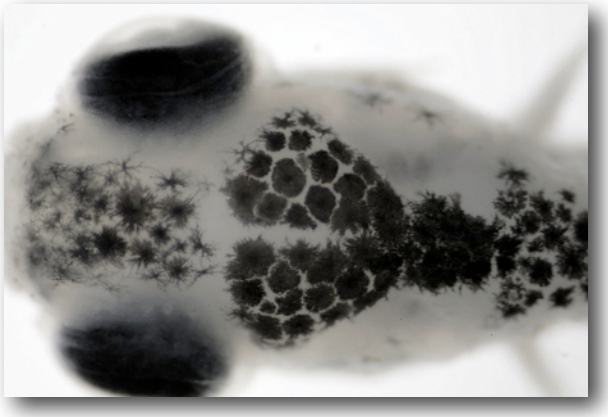
Neftali Camacho presented a poster entitled *Digitization of photographic slide vouchers of the Herpetology Section, Natural History Museum of Los Angeles County* in July at the 2011 American Society of Ichthyologists and Herpetologists meeting in Minneapolis, Minnesota.

Neftali Camacho with poster at 2011 ASIH meeting.

The arboreal Mount Zempoaltepec alligator lizard Abronia fuscolabialis *(endangered).*

Ichthyology

Rick Feeney also attended the American Society of Ichthyologists and Herpetologists meeting in Minneapolis. He presented a poster, co-authored by Camm Swift, describing Owens sucker larvae (*Catostomus fumeiventris*) and hybrid sucker larvae (*C. fumeiventris x santaanae*) from Sespe Creek, Santa Clara River, California.



Dorsal head melanophores of a Catosomus fumeiventris *larva.*

Vertebrate Paleontology

John and Luis in the field at Bluff, Utah, being interviewed by 60 Minutes reporter Liz Hayes from Ch. 9, Australia.

In mid June John Long attended the Early Vertebrates/ Lower Vertebrates Meeting in Dallas (held every 4 years) and presented two papers on his fish research, one about the origins of air-breathing in tetrapod-like fishes, the other about the new coelacanth material from Gogo. In late July-early August John filmed a profile piece about his work and research for the Australian "Sixty Minutes" TV program for airing later this year. As the number one tourist country visiting Los Angeles is Australia, it is hoped the piece should have an impact in showing Australians our new dinosaur hall to get it on their travel plans when it is aired. Filming started at the opening of the Museum's Dinosaur hall, then proceeded to Utah with Luis Chiappe where we visited a Jurassic Dinosaur site. John and film crew then flew to Australia to film at the Gogo fossil site, in the micro- scanning lab in Canberra and with the mother fish specimen at the Western Australian Museum. The story can be viewed from their website after it is aired in Sept-October this year: http://sixtyminutes.ninemsn.com.au. After filming was completed John was able to visit the Australian Museum in Sydney to learn about their new $32 million collections and research annex attached to the old museum building, and to examine fossil fish collections.

Aisling Farrell and Andrea Thomer presenting a poster at SPNHC in San Francisco.

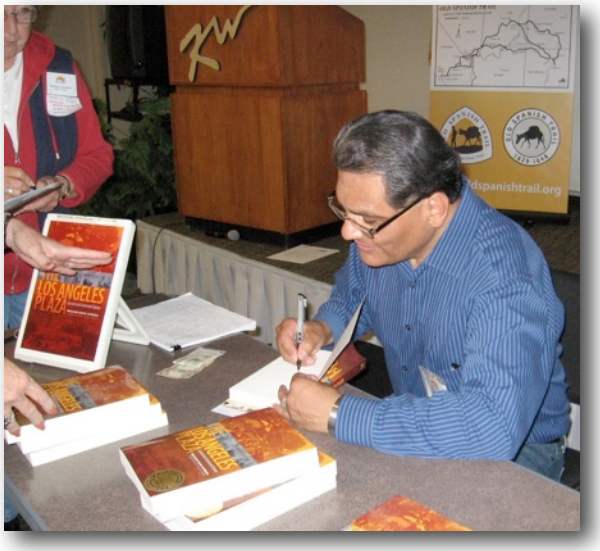
Rancho La Brea

Collections Manager Aisling Farrell and former lead excavator Andrea Thomer (now pursuing a Master's degree in Library Science at UI) presented a poster at the Society for the Preservation of Natural History Collections in San Francisco in May. The poster, titled *Field note digitization at Rancho La Brea — Preliminary case study and framework for future work*, examined the use of a software program written by co-author Tim McCune of Yahoo to convert old word doc files into csv format in order for them to be imported into the EMu database hence providing a 'pre-catalog' to hundreds of thousands of fossils that are currently unprepared or identified.

From July 20th to July 23rd, Assistant Lab Supervisor Trevor Valle attended the 2011 Biology of the Rattlesnakes Symposium in Tucson, AZ. Trevor presented his poster *Fossil* Crotalus helleri *from Rancho La Brea,* showcasing one of the newest finds of Project 23: an individual associated assemblage of rattlesnake vertebrae and ribs from Deposit 5B. The poster was well received and helped to further interest in the fossil herpetological collections at Rancho La Brea.

Trevor Valle presents a poster at the Biology of the Rattlesnakes Symposium in Tucson, AZ

History



On June 2-5 Kristen Hayashi, Dr. William Estrada, and Cathy McNassor attended the 2011 Annual Conference of the Old Spanish Trail Association (OSTA) at the Kellogg West Hotel & Conference Center on the campus of Cal Poly, Pomona. The Old Spanish Trail (1829-1848) was a 2,700-mile trade route between St. Louis, Santa Fe and Los Angeles, and the mission of OSTA is to protect, interpret, and promote the trail as an important chapter in American history. Dr. Estrada was one of the featured speakers on Saturday, June 4, and he presented a lecture entitled *End of the Trail and New Beginnings: The Los Angeles Plaza, 1781-2011* to an enthusiastic audience. After the talk, Dr. Estrada autographed copies of his current book on the Los Angeles Plaza, the western terminus of the trail.

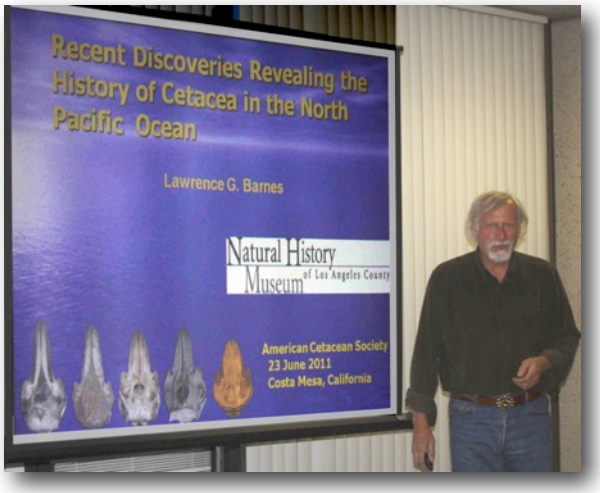
John Cahoon, Collections Manager in the Seaver Center, attended the annual conference of the Society of American Archivists in Chicago from August 24-27.

Vertebrate Paleontology

On 7 May, Vanessa Rhue, Curatorial Assistant, attended the Southern California Academy of Sciences (SCAS) meeting at Cal Poly Pomona, and gave a talk in the Southern California Paleontology Symposium titled *Making of the Age of Mammals: A Behind the Scenes Look at Exhibit Preparation and Display*. Her talk included aspects of the early history of our Museum, and incorporated several historic slides showing how the use of the exhibit hall space has changed over the last 100 years.

John Long also gave a talk, for the plenary session of the SCAS meeting, titled *Extraordinary 380 million year old fish fossils from Australia reveal major steps in early Vertebrate Evolution.*

During the week of 5-9 June, the Sixth Triennial Conference on Secondary Adaptations of Tetrapods to Life in Water was held in San Diego. Attending from the Museum were Lawrence Barnes (Curator Emeritus), Samuel McLeod (Collections Manager), Vanessa Rhue (Curatorial Assistant), and Meredith Rivin (Associate). Barnes presented a talk about the desmostylian skeleton in our *Age of Mammals* hall, co-authored with the other Museum attendees, titled *Extreme adaptations in marine mammal herbivory exemplified by a new Late Miocene paleoparadoxiid desmostylian*. Barnes and Rivin also co-authored another presentation, given by Dr. Toshiyuki Kimura of the Gunma Museum, about fossil allodelphinid dolphins of the North Pacific, and Barnes co-authored two presentations by Dr. Irina Koretsky of Howard University about pinniped evolution. Sam McLeod, Vanessa Rhue, and Meredith Rivin participated in the Marine Tetrapod Comparative Osteology Workshop at the San Diego Natural History Museum, and the field trip to the San Diego Zoo.



On 23 June Lawrence Barnes gave a talk to the Orange County Chapter of the American Cetacean Society titled *Recent discoveries revealing the history of Cetacea in the North Pacific Ocean*. Museum staff and associates attending were Sam McLeod, Vanessa Rhue, Michael Williams, Debora Lee, Kathleen Gonzalez, Meredith Rivin, and Diana Weir.

Public Outreach

Rancho La Brea

Curator's Cupboard & Junior Scientist at Rancho La Brea

John Harris, Aisling Farrell, Gary Takeuchi and Trevor Valle brought out the new baby American mastodon and the *Smilodon* kittens from Project 23 for Curator's Cupboard and Junior Scientist in June at the Page Museum. The specimens are not currently on display so this was a chance for the public to view some of the highlights that were featured during the Project 23 Media Day in March. Trevor set up the always popular live microfossil sorting station and talked about the extant herpetofauna that we are also uncovering on a daily basis.

Curators Cupboard and Junior Scientist at the Page Museum in June.

Adventures in Nature

Rancho La Brea lab and excavation staff gave presentations all week to all three Adventures in Nature classes held at the Page Museum in July. Campers had the opportunity to see unique specimens up close, learn about excavations at the Project 23 site and interact with R&C staff during some of their activities.

B movies and Bad Science

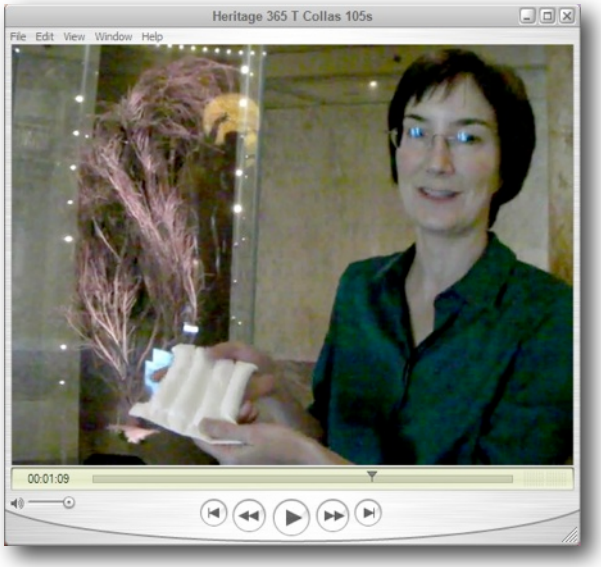
This summer, Public Programs collaborated with R&C staff to bring B Movies & Bad Science screenings to the Page Museum. The screen was set up on the great lawn in Hancock Park, and each film was preceded by a discussion with Q&A from R&C staff. These included curator of Entomology Dr. Brian Brown for *Jurassic Park* (1993), Assistant Lab Supervisor at the Page Museum Trevor Valle for *Dinosaurus!* (1960), Director of the Dinosaur Institute Dr. Luis Chiappe for *The Valley of Gwangi* (1969), Vice President of Research and Collections Dr. John Long for *Ice Age: Dawn of the Dinosaurs* (2009), and Chief Curator of the Page Museum Dr. John Harris for *One Million BC* (1966).

Career Days

Over the past few months, Page Museum preparators Michelle Tabencki and Laura Tewksbury have been attending Career Day events at schools throughout the Los Angeles area. Recently visited schools are McKinley Avenue Elementary School and Johnnie Cochran Jr. Middle School (formerly Mount Vernon). Through the use of PowerPoint presentations and interactive teaching methods, including bringing carts full of casts of our fossils and still-dirty excavation tools, they described the work being done daily in the new Project 23 excavation, the variety of fossils found, and the importance of studying paleontology.

Preparators Michelle Tabencki (left) and Laura Tewksbury visited Mount Vernon Middle School for their Career Day.

Conservation



Tania Collas, Head of Conservation, prepared a short video featuring the spectacular sea whip specimen in the *What on Earth?* exhibit. The video will be part of the International Institute of Conservation's *Heritage 365* initiative to promote public awareness of heritage conservation. In the video, Tania describes the special environmental controls inside the sea whip's display case that help protect the specimen from humidity fluctuations, highlighting the importance of natural science conservation and broadening the concept of "heritage." Many thanks to the Marine Biodiversity Center for permission to film the sea whip and to Assistant Conservator Liz Homberger for her expert camera work!

Mineral Sciences

On August 6th, the Gem and Mineral Council hosted the 1st Annual *Rock and Mineral Fair* at New Roads School in Santa Monica. Council members donated rocks, minerals, jewelry and other oddities from their personal collections for sale to the public with all proceeds going back to the Council. Jennifer from Membership was on hand to sign up new museum members. Business was brisk and the Council hopes to make this an annual event!

Ichthyology

Christine Thacker and Rick Feeney helped Davina Wolter (Senior Designer, Education/Exhibits) redesign the Oarfish and Megamouth displays in June.

Ichthyology also gave several student tours of the Fish Collection, including Bob Grove's Ocean Science class from the Art Center College of Design of Pasadena in July, and Manny Flores's Heart of LA class in August.

Invertebrate Paleontology

Mary Stecheson, Curatorial Assistant in Invertebrate Paleontology, and Emma Freeman, Curatorial Assistant in the MBC, participated in a one-day event *Meet a Scientist* with Iridescent, a science education non-profit organization, held at the Museum in June. Mary and Emma exhibited and discussed fossil and modern marine animals with over 400 local elementary school students and their families. NHM's School Programs section has a 5-year NSF grant with Iridescent as an informal science education partner.

Malacology & Mineral Sciences

On Saturday, May 21st, Lindsey Groves (Malacology) and Alyssa Morgan (Mineral Sciences) led *Living on the fault line: A day along the San Andreas* for the docents and volunteers of the Page Museum. Twenty-seven docents, volunteers, and friends of staff experienced the San Andreas Fault and fault generated landforms including sag ponds, pressure ridges, fault scarps, and shutter ponds. The group posed where a convenient sign marks where the road crosses the fault near Devils Punchbowl County Park (at right).

Malacology

The May meeting of the Pacific Conchological Club featured writer/naturalist David George Gordon who presented *The Secret Lives of Slugs and Snails: Life in the Very Slow Lane*. His lecture, and book with the same title, presented a close look at slugs and snails and how they have influence humans throughout the centuries. Following the talk, David and his wife Karen Luke Fildes, who illustrated their book, autographed copies for club members (at left). For good measure David also participated in the Bug Fair the previous week as he is also the author of *The Eat-a-Bug Cookbook*.

Lindsey Groves presented three "tours" of the *What on Earth?* exhibit for the June First Fridays on June 3rd and spotlighted the exhibit case that asks "Do shells collect shells?" Most Carrier Shells (Family Xenophoridae) do indeed collect shells while others collect rocks, lumps of coal, coral debris, and numerous other objects that are found on the sea bottom.

Lindsey also led three collection tours for 15 participants as part of the Scavenger's Safari series. Participants of The Old Shell Game were treated to large and small species, rare and common species, and unusual and weird species of mollusks in the Malacology collection.

The Spring *Fossil Hunting in Silverado Canyon* trip was once again led by Lindsey Groves on Saturday June 18th. Thirty-nine participants collected 90 million year old marine invertebrate fossils from the Ladd Formation (at right).

Former staff member and fossil enthusiast Joe Cocke assisted with field duties (below).

History

Stutz — "The Car That Made Good in a Day — Again!"

On Sunday, August 21st, the History Department's 1915 Stutz "White Squadron" Racer not only won 1st in Class at the Pebble Beach Concours D'Elegance, but also the Tony Hulman Trophy for Best Race Car. It is a stunning win following last year's 1st in Preservation Class and Chairman's Award for NHM's 1909 Pierce Great Arrow. The Stutz win raised the profile of NHM's collection. Instead of an institution with a single great car (the Pierce), NHM's automotive collection is now being viewed as a significant resource by the car community with this second 1st place award.

The Stutz Racer is presently on loan to the Petersen Automotive Museum where it can be seen on display on the first floor. Meanwhile, the Los Angeles exhibit team is at work selecting and preparing the vehicles that will be going on display in the new hall opening in December 2012.

Public Outreach

Vertebrate Paleontology

Our presentations for the 21 May Curators Cupboard, assembled by Sam McLeod, Howell Thomas, and Vanessa Rhue, included local Pleistocene fossils exclusive of Rancho La Brea, bone paleopathologies, and rabbits from the Maricopa Brea deposits in California's San Joaquin Valley. To coincide with the Junior Scientist program, we had casts of fossils that the public could paint to look like the original fossils.

On 12 August John Wilkerson, a docent at Crystal Cove State Beach in Orange County, contacted us seeking help identifying a partial fossil baleen whale skull and skeleton found in a concretion along the beach at low tide. The fossil is from the marine, late Miocene age, Monterey Formation, and staff of the State Park wish to feature their fossil whale in an exhibit at their interpretive center. Sam McLeod and Vanessa Rhue (right) met with John Wilkerson (left), Rick Connella (left center, State Park Interpretive Naturalist), and Todd Lewis (right center, Park Superintendent) at their interpretive center to consult about their fossil and how they might convey the story of it to the public in an exhibit.

Student Mentoring and Research

Research Library

Annette Buckley traveled from the University of Texas Austin School of Information (The iSchool) to do a one-month, full time graduate internship capstone project during June and July. Her capstone research was supervised by chief librarian Richard Hulser and focused on two areas: understanding operations of a library in a cultural institution and working on information resources needs with a museum department. Having a graduate gemologist certification from the Gemological Institute of America, Annette fulfilled her second objective through collaboration with Mineral Sciences Collection Manager Alyssa Morgan to assess the specimen database for future replacement and

write a report outlining needs and possible solutions (photo at right). Annette also had hands-on experience with cleanup and re-shelving of the library collection. The timing of her internship coincided with the opening of the new dinosaur exhibit which thrilled her tremendously and was exciting because her father is a paleontologist.

Rancho La Brea

Marlborough high school student Katherine Ewell spent over 100 hours this summer sorting screen washed matrix from the Columbian mammoth, Zed. This is a pilot study to investigate the preserved micro-fauna assemblage from the ancient stream channel where Zed was recovered. Thus far, freshwater mollusks and seeds make up the bulk of the finds; however there are some small birds, rodents and reptiles that are as yet unidentified.

Marlborough high school student Katherine Ewell sorting matrix from the Columbian mammoth Zed.

Volunteers and Research Associates

Research Library

The Research Library has been very lucky to get a number of volunteers this year from a variety of graduate library school programs as well as a participant in the summer grant program for area youth. All of them have been helping chief librarian Richard Hulser with revitalizing library operations and the collection cleanup and shelving project in addition to small focused projects fitting their interests.

A few of them are shown in the photo on the right. Melanie Tran (in green) continues to volunteer. Jackie Zak (in blue) and Luray Leinenbach (not shown) just graduated from the University of North Texas/CSUN graduate library program and are continuing to volunteer at the NHM Research Library. Carol Shin (in yellow) is now working at Occidental College Library. Annette Buckley (in orange) recently finished her degree at the University of Texas Austin and there is more about her elsewhere in this newsletter. Kenyon Wellington (white t-shirt) was a temporary hire as part of the summer grant program and is now a sophomore at CSUN. Not shown is Michele Fricke who is now working in the library at the Fashion Institute of Design and Merchandising.

Herpetology

College student Shoshana Mitchell (left) came in to volunteer for two weeks. Her tasks included making new labels for specimens, refilling specimens jars with alcohol and taking tissue samples from specimens found dead on the road.

Ichthyology

Anthony Aliaga from Los Angeles Valley College volunteered during August, entering new reprints, journals and books into the Fishes Library database.

Anthropology

The Anthropology staff would like to formally introduce Megan Cross who has volunteered with our department since May 25th. Megan began working at NHM part-time as a Guest Relations Sales Associate in April. She hopes to eventually pursue a career in Anthropology, so she has been volunteering with our department to gain some experience before she continues working on her B.A. program in the subject at Cal State Dominguez Hills in the fall. She has been an enthusiastic helper for a variety of tasks including making storage mounts for Pre-Columbian ceramics and photographing items excavated from the museum's north plaza. In the picture at right, Megan is gently vacuuming the dust off the Easter Island figurine mentioned previously in the *Collection News* section of this newsletter.

Rancho La Brea

We are very sad to say farewell to undergraduate student from NYU Elyse Lemoine as she has to return to her classes. She has been volunteering in the collections at the Page Museum 16 hours a week all summer. During this time she has been supervised by Curatorial Assistant Gary Takeuchi on numerous projects involving collections inventories, re-housing of specimens, publication cross-referencing and electronic capture of our dwarf pronghorn (*Capromeryx minor*) collection. Elyse is now very interested in pursuing vertebrate anatomy and possibly forensic anthropology after her experience this summer.

Undergraduate volunteer Elyse Lemoine working in the collections at the Page Museum.

History

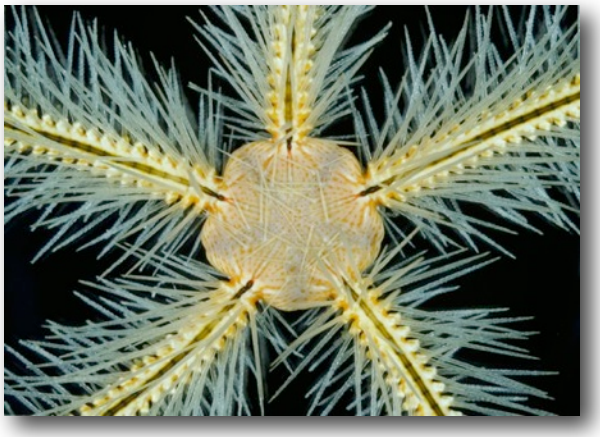
The Seaver Center was fortunate to have the assistance of high school student Cora Johnson-Grau through the month of August. Miss Johnson-Grau inventoried a set of architectural photographs and also organized a large collection of 19th century cattle brand samples. She has been a NHM volunteer for over four years.

Distinguished Visitors

Echinoderms

Summer Researchers in the Echinoderms Laboratory

Dr. Martín Brogger and doctoral candidate Mariano Martinez, from the Museo Argentino de Ciencias Naturales in Buenos Aires, visited the Echinoderms Laboratory during the 1st week of August. Martín specializes in brittle star biology, and Mariano studies the taxonomy of sea cucumbers. Both Argentinean visitors hope to return to the Museum, and during this trip they assiduously studied and photographed specimens that are critical for their ongoing research.



Biol. Tania Pineda, from the Instituto de Ciencias del Mar y Limnología at the Universidad Nacional Autónoma de México in Mexico City, visited the Laboratory during the 2nd week of August. Tania has initiated research on the phylogeny of the genus *Ophiolepis*. She reviewed brittle stars in the collection belonging to the group, including type specimens of *Ophiolepis* species described by the Curator of Echinoderms, Dr. Gordon Hendler. Fortunately, Tania was able to extend her planned visit for an additional day, in order to take in the wealth of specimens in the collection and to verify identifications of specimens from Mexico, with the assistance of the Curator.

Three visitors from the Universidad del Mar in Puerto Ángel, Mexico, had a reunion with Gordon Hendler during the 3rd week of August. They had first met in 2006, when a group of curators from the Natural History Museum carried out a survey of marine invertebrates on the coral reefs off Oaxaca. In addition to working on a database project (described in this Newsletter by Lindsey Groves), two of the researchers conferred and collaborated with Dr. Hendler. Dr. Francisco Benitez and doctoral candidate Rebeca Granja verified the identity of Oaxacan brittle stars with Dr. Hendler's assistance. During the visit, Rebeca and Dr. Hendler initiated a collaborative project on the taxonomy of a poorly known group of burrowing brittle stars, and Dr. Hendler was requested to serve as an advisor in Rebeca's doctoral investigation.

Entomology

Danilo Ament, a PhD student from Universidade de São Paulo, Ribeirão Preto, Brazil, is visiting the Entomology Section for the second time. He will be here for three months, studying the genus *Neopleurophora* in our collection of phorid flies. Since our holdings of neotropical phorids is so strong, and these flies so poorly known, he is finding many new species to describe. Later next month (September), his supervisor, Dr. Dalton de Sousa Amorim, will be coming to visit for three weeks, working on a phorid morphology project with Entomology Curator Brian Brown.

Herpetology

Jay Savage, emeritus professor of biology at the University of Miami and adjunct professor of biology at San Diego State University, and Costa Rican frog researcher Brian Kubicki visited Herpetology in June to photograph pictures of Costa Rican Glass Frogs.

Ichthyology

Ronald C. Zepeta Vilchis (UMAR) visited Ichthyology in August to search for species records from the states of Oaxaca and Guerrero in our databases and collections.

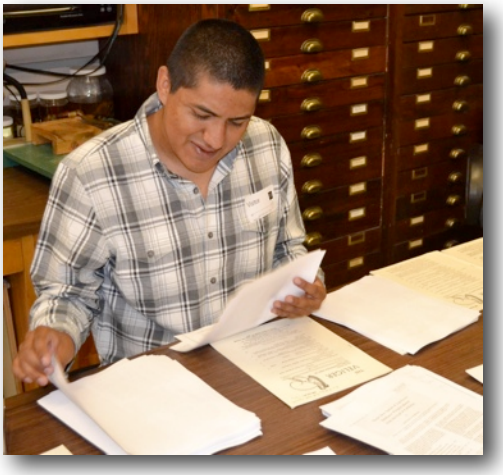
Anthropology

On July 28th, the Anthropology Department welcomed Harry Williams (Bishop Paiute Tribal Elder) and Matthew Nelson (Tribal Historic Preservation Officer and NAGPRA Coordinator). These representatives visited on behalf of all of the federally recognized tribes of the Paiute-Shoshone Aboriginal Territory to initiate consultation for the future repatriation of human remains from the area. We provided the representatives with copies of the documentation associated with the remains as well as images and basic data of all ethnographic items that are documented to originate from the defined territory. While here, Harry Williams performed a blessing ceremony for the remains.

Malacology

Research Associate Ángel Valdés visited Malacology with grad students Jermaine Mahguib, Jennifer Speed, and Erika Espinoza to use the SEM facility and examine nudibranch holdings. Amira Aimis (Calif. St. Univ. Los Angeles, Anthropology) made five visits to Malacology to compare midden specimens from the Channel Islands with living specimens. Doug Eernisse (Calif. St. Univ., Fullerton, Biology) visited Malacology to examine holdings of living chitons but also took time to assist visitor Amira Aimis with chiton identifications. Kazumi Nokuhara (Calif. St. Univ. Los Angeles, Geology) brought in several lots of Pleistocene material for identification confirmation. Land snail specialist Lance Gilbertson (Newport Beach, CA & Malacology Res. Assoc.) visited to examine type specimens of several *Helminthoglypta* species. Cortez Hoskins (Irvine, CA) and daughter Leonora Bridges (Cardif, CA) visited Malacology for confirmation of a fossil turritellid gastropod species which turned out to be *Turritella inezana* from Miocene strata in his backyard.

Echinoderms, Crustacea, Polychaetes, Invertebrate Paleontology & Malacology



During the week of August 15th, the Invertebrate sections welcomed four visitors from Universidad del Mar, Instituto de Recursos, Puerto Angel, Oaxaca, Mexico. Andres Lopez, Ronald Zepata, Rebeca Granja, and Francisco Benitez spent time in the Polychaetes, Echinoderms, Crustacea, Invertebrate Paleontology, Ichthyology, and Malacology collections examining invertebrate faunas, data records, and literature from Guerrero and Oaxaca, Mexico. Andres examined corals of the Miocene/Pliocene Imperial Formation, Ronald utilized the extensive chiton literature in the Malacology library, while Rebeca and Francisco recorded Echinoderm data. Their ultimate goal is to assemble a biodiversity database of fish and invertebrates from these Mexican states. Many thanks to Gordon Hendler, Cathy Groves, Mary Stecheson, Adam Wall, Kathy Omura, Leslie Harris, Jody Martin, Regina Wetzer, Jim McLean, Kirk Fitzhugh, Rick Feeney, and Lindsey Groves for the hospitality extended to our colleagues.

History

David and Vera Packard and their daughter Debbie visited the museum in May and toured the *Age of Mammals* hall with Dr. John Harris. After the tour, Cathy McNassor scanned items from Mr. Packard's La Brea scrapbook, several for use in an upcoming publication. Mr. and Mrs. Packard were members of the Los Angeles High School Curators Club and the museum's student programs. David Packard worked with Dr. Chester Stock in Hancock Park in the 1940's.

Joruun Haakestad and her husband, Magne Gaasemyr, visited the Museum Archives to research records pertaining to the Chinese art collection of General Munthe that was exhibited at the museum in the 1930s. Ms. Haakestad (at left) is the Deputy Director of Art at the Vestlandske Kunstindustrimuseum in Bergen, Norway.

Dr. Gregory Hahn (right), a filmmaker based in Essen, Germany, visited the Museum Archives in August looking for traces of Galka Scheyer's collaborations with William Alanson Bryan and Louise Upton in the 1920s. Scheyer, a German-born artist turned educator and agent, was an important proponent of modern art in America and the representative of the Blue Four (Lionel Feininger, Alexey Jawlensky, Vassily Kandinsky and Paul Klee).

Vertebrate Paleontology

From 31 May to 5 June Dr. Daryl Domning, Professor at Howard University in Washington, D.C., visited to study our fossil sirenians and desmostylians.

From 1 to 5 June Jorge Velez-Juarbe, Ph.D. student at Howard University, visited to study our sirenians and cetaceans.

From 2 to 5 June Dr. Toshiyuki Kimura, Assistant Curator at the Gunma Museum of Natural History in Japan, visited to study fossil long-snouted allodelphinid dolphins with Lawrence Barnes.

On 2 June, Dr. Nicholas D. Pyenson, Curator at the Smithsonian Institution, visited to study fossil whales.

On 13 June Dr. Erich Fitzgerald, of Museum Victoria, Australia, visited to study early fossil whales with Lawrence Barnes and Samuel McLeod.

On 13 June Felix Marx, a graduate student at Otago University in Dunedin, New Zealand, visited to study our fossil mysticete whales.

On 15 July: Koral Hancharick (center), Executive Director of the Buena Vista Museum in Bakersfield, her husband Mark, and their daughter, Brittnie Smith (left), with associate Robin Turner (right), visited to discuss matters of mutual interest relating to the world-famous Sharktooth Hill Bonebed in Kern County.

On 4 August Peaches Olson and Pepper Oshaughnesey, of the San Luis Obispo area, visited to share with us their discovery of an amazing fossil baleen whale brain.

From 25 to 29 July Susumu Tomiya, a graduate student at the University of California at Berkeley, visited to study Eocene vertebrates from Ventura County.

From 22 August to 2 September Junya Watanabe, a Masters student at Kyoto University, Japan, visited to study fossils relating to his research on a Pleistocene sea duck from Japan.

On 6 July Susan Arter and Aaron Sesson, of the San Diego Zoo and the Archaeology Lab and Department of Birds and Mammals at the San Diego Museum of Natural History, visited to study our fossils of the extinct flightless goose, *Chendytes*.

On 22 July Dr. Julie Meachen-Samuels, from the National Evolutionary Synthesis Center, visited to study our fossil coyotes from the Maricopa and McKittrick asphalt deposits in the San Joaquin Valley.

In July Dr. Denise Su of Bryn Mawr College visited Xiaoming Wang to study an extinct giant otter from Yunnan Province in south China. Two Masters students, Leigha King and Eric Lynch, from East Tennessee State University, visited to work on fossil cat morphometrics.

Recent Publications

Colombo, F., Baggio, R., and **Kampf, A.R.** (2011) The crystal structure of the elusive huemulite. *Canadian Mineralogist* 49: 849-864.

Estrada, W.D. (2011) Review of "Pio Pico: The Last Governor of Mexican California, by Carlos Manuel Salomon". *Southern California Quarterly*, Summer 2011, Vol . 93 (2): 239-241.

Flynn, L.J., **X. Wang**, and M. Fortelius (2011) Neogene terrestrial mammalian biostratigraphy and chronology in Asia: a special issue. *Vertebrata PalAsiatica* 49(3): 253-256.

Groves, L.T. (2011) Fossil marine mollusks of the Hawaiian Islands. In: Severns, M. *Shells of the Hawaiian Islands: The Sea Shells, Addendum* 7:536- 546.
At least 239 species of fossil mollusks are known from the Hawaiian Islands mostly from the late Pleistocene Waimanalo Formation (ca. 114 to 140 thousand years old) on ʻOahu.

Groves, L.T. (2011) New species of Paleogene cypraeoideans (Gastropoda) from the Pacific slope of North America. *The Nautilus* 125(2): 45-52, figs. 1-12.
Five new species of fossil cypraeoidean gastropods are described from Paleocene and Eocene strata of Washington, California, and Baja California Sur, Mexico.

Hash, J.M., **B.V. Brown**, & P.T. Smith. (2011) Preliminary use of DNA sequences for *Dohrniphora* (Diptera: Phoridae) phylogeny and taxonomy. *Zootaxa* 2991: 13–20.

Kampf, A.R., Hughes, J.M., Marty, J., Gunter, M.E., and Nash, M. (2011) Rakovanite, $Na_3\{H_3[V_{10}O_{28}]\} \cdot 15H_2O$, a new pascoite family mineral with a protonated decavanadate polyanion: crystal structure and descriptive mineralogy. *Canadian Mineralogist* 49:595-604.

Kampf, A.R., Roberts, A.C., Venance, K.E., Dunning, G E., and Walstrom, R.E. (2011) Ferroericssonite, the Fe^{2+}–analogue of ericssonite from eastern Fresno County, California, U.S.A. *Canadian Mineralogist* 49: 587-594.

Ma, C., **Kampf, A.R.**, Connolly, H.C., Jr., Beckett, J.R., Rossman, G.R., SweeneySmith, S.A., and Schrader, D.L. (2011) Krotite, $CaAl_2O_4$, a new refractory mineral from the NWA 1934 meteorite. *American Mineralogist* 96: 709-715.

Mills, S. J., **Kampf, A.R.**, Sejkora,J., Adams,P.M.,Birch, W.D., and Plášil,J. (2011) Iangreyite: a new secondary phosphate mineral closely related to perhamite. *Mineralogical Magazine* 75: 329-338.

Mills, S. J.,Kartashov, P.M., Ma, C., Rossman, G.R.,Novgorodova, M.I., **Kampf, A.R.**, and Raudsepp, M. (2011) Yttriaite-(Y): the natural occurrence of Y_2O_3 from the Bol'shayaPol'ya River, Russian Federation. *American Mineralogist* 96: 1166-1170.

Nogueira, J.M.M., **Harris, L.H.**, Hutchings, P., Fukuda, M.V. (2011) Four terebellines (Polychaete, Terebellidae) with problematic taxonomic histories. *Zootaxa* 2995: 1-26.

O'Keefe, F.R. and **L.M. Chiappe** (2011) Viviparity and K-selected life history in a Mesozoic marine plesiosaur (Reptilia, Sauropterygia). *Science* 333:870-873. *This recent publication describes the first fossil evidence of live birth among Plesiosaurs. The paper, co-authored by F. Robin O'Keefe and Luis Chiappe, describes* Polycotylus latippinis *(LACM 129639), which preserves the skeleton of an unborn fetus. The specimen (above) is on display in the new* Dinosaur Hall*, where this feature is highlighted in the graphic panel. The reconstruction featured in the publication (of* Polycotylus *giving birth (at right) was created by Dinosaur Institute illustrator Stephanie Abramowicz.*

Perger, R., Vargas, R., **Wall, A.** (2011) *Johngarthia cocoensis*, a new species of Gecarcinidae MacLeay, 1838 (Crustacea, Decapoda, Brachyura) from Cocos Island, Costa Rica. *Zootaxa* 2911: 57–68.

Prentiss, N.K., **Harris, L.H.** (2011) Polychaete fauna inhabiting sediments associated with the stinking vase sponge (*Ircinia campana* Lamarck, 1814), St. John, United States Virgin Islands. Proceedings of the 10th International Polychaete Conference (20-26 June 2010, Lecce, Italy). *Italian Journal of Zoology* 78(4): 00-00. (online at http://www.tandfonline.com/doi/abs/10.1080/11250003.2011.577565)

Tseng, Z.J., and **X. Wang** (2011) Do convergent ecomorphs evolve through convergent morphological pathways? Cranial shape evolution in fossil hyaenids and borophagine canids (Carnivora, Mammalia). *Paleobiology* 37(3):470-489.

Wang, X. (2011) Book review. The Curious Case of Dingoes: Dingo. By Brad Purcell. 2010. Collingwood: CSIRO Publishing. *Journal of Mammalian Evolution* 18(3):223-224.

Wang, X., G.-p. Xie, Q. Li, Z.-d. Qiu, **Z.J. Tseng**, **G.T. Takeuchi**, B.-y. Wang, M. Fortelius, A. Rosenström-Fortelius, H. Wahlquist, W.R. Downs, C.-f. Zhang, and Y. Wang (2011) Early explorations of Qaidam Basin (Tibetan Plateau) by Birger Bohlin — reconciling classic vertebrate fossil localities with modern biostratigraphy. *Vertebrata PalAsiatica* 49(3):285-310.

Staff Departures and New Staff

Conservation

The Conservation Section welcomes two new team members to conserve objects for the Los Angeles exhibit:

Conservation Technician Lalena Vellanoweth comes to us from the Metropolitan Museum's Costume Institute Conservation Lab. She holds a Master of Arts in Art History and Advanced Certificate in Conservation from the Institute of Fine Arts, New York University. With a specialization in costume and textile conservation and a minor in objects conservation, she is well-suited for the variety of objects selected for the Los Angeles exhibit.

Karl Urhausen, whom many know as a Paleontological Preparator in the Dinosaur Institute, joins us for three months as a Conservation Technician, stabilizing and restoring 19th c. gilt picture frames for oil paintings selected for the Los Angeles exhibit. Those familiar with his highly skilled fossil preparation work and broad fine art background will not be surprised that he has transitioned to conservation work so smoothly!

Vertebrate Paleontology

Dr. Michael J. Williams was of great assistance working through the end of the last fiscal year with Samuel McLeod on the reorganization of our oversized collections. Mike had worked for the Museum previously on our *Age of Mammals* exhibit project.

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://collections.nhm.org/newsletters