

RESEARCH & COLLECTIONS

WINTER 2014

Collection News



History

It's a Wrap at the Petersen

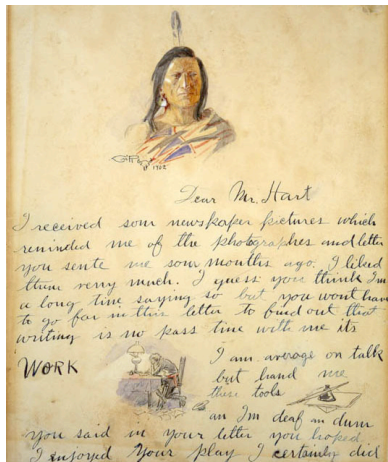
In the previous issue of this newsletter the History Department reported that inventory work was taking place to prepare the return from the Petersen Automotive Museum of hundreds of NHM artifacts which have been on loan for the past twenty years. Since the Petersen closed for renovation on October 19th, the History Department began packing. Shown here are Research Assistant Kristen Hayashi and Anthropology Collections Manager KT Hajeian, inside the Gas Station diorama at the Petersen, wrapping the Whiz Auto Care Products display case formerly on display in the Gas Station.

Seaver Center Collections Managers Betty Uyeda and John Cahoon attended the October 1st opening of the "Hollywood Costume" exhibit at the historic May Company Building at Wilshire and Fairfax, the future location of the Academy Museum of Motion Pictures. The exhibit, organized by the Victoria and Albert Museum,

London, includes more than 150 costumes including a Mary Pickford dress from Little Annie Rooney lent by the NHM's History Department.

On October 21st Seaver Center Collections Managers Brent Riggs and John Cahoon attended the opening of "Light & Noir: Exiles and Émigrés in Hollywood, 1933-1950" exhibition at the Skirball Cultural Center. The exhibition explores how the experiences of German-speaking exiles and émigrés who fled Nazi Europe influenced the classic films of Hollywood's Golden Age. The Seaver Center loaned a poster from the 1941 film "The Hitler Gang."

The Seaver Center also loaned several artifacts to the William S. Hart Museum for an exhibit celebrating Hart's 150th birthday December 6th. Included were a letter from his friend Wyatt Earp and an illustrated letter to Hart from his good friend Charles Russell. Shown is a page from the Russell letter.



Herpetology

Tim Higham from UC Riverside and Lars Schmitz from Claremont McKenna College visited the Herpetology Collection in late October to examine wet and skeletal specimens of geckos. They are examining how eye size and morphology change with transitions between nocturnality and diurnality. Jeff Molin, a graduate student from Cal Poly Pomona, visited the collection five times during the Fall to examine skeletal specimens of several local desert lizards. Jeff is studying how skull morphology varies across species with different dietary preferences.

Marine Biodiversity Center and Echinoderms



Under the guidance of Adam Wall and Kathy Omura, the demolition and construction of the Marine Invertebrate collection room lab space has been completed. After a long 28 years of making do, the space has finally been fully renovated and a new purple fume hood for processing collection material has been installed. This new world-class collection facility provides the necessary amenities for the efficient curation of our wet collections as well as a vibrant and organized space for viewing our outstanding collection material.

Field Work



Rancho La Brea

For the first time in seven years, full time excavation took place in Pit 91 at Rancho La Brea this past summer. Beginning on June 28th and continuing through to September 7th 2014, visitors to Hancock Park and the George C. Page Museum had the opportunity to view activity in Pit 91 and see new displays of the history and discoveries in the refurbished Pit 91 viewing station. The reactivating of Pit 91 is part of the new Tar Pits experience for visitors to Hancock Park. Volunteers Cecilio Garcia and Lucy Filippone joined the Research and Collections staff at Rancho La Brea for the summer as Pit 91 excavators and work was supervised by Gary Takeuchi. The successful field season was highlighted by the recovery of over a hundred fossils mostly birds, but also included lizards and rodents.

Research Associate Christopher Shaw along with a crew of staff from the Arizona Western College in Yuma and volunteers went on their semiannual expedition to El Golfo de Santa Clara, Sonora, Mexico in November. They explored three canyons that had not previously been prospected and discovered a couple of microfossil sites for the next trip. They collected about 100 specimens and of notable



interest is this *Felis rexroadensis* right dentary (catalog number AWC19792) photographed here. This was discovered by volunteer Nina Masuda.



T: Size variation in nonnative Coqui Frogs collected in Los Angeles County. In the upper left are several adult males; in the lower right are several recent hatchlings including the smallest individual found that was 8 mm long and weighed 0.03 g.

B: NHM Research Associate and UCLA Archaeologist Tom Wake holding a bag of Mediterranean House Geckos. Because this survey took place immediately at the close of Haunted Museum, Tom is still in his costume, the uniform of the New Zealand All Blacks rugby team.

Herpetology

Recent fieldwork in Herpetology has focused on urban populations. On October 11th, Greg, Research Associate Bobby Espinoza, and three CSUN graduate or undergraduate students travelled to Simi Valley to follow up on a report of Mediterranean House Geckos. They found numerous individuals, making this the first Mediterranean House Gecko population recorded for Ventura County.

Greg, Bobby, and Bobby's son Max conducted another gecko hunt on Oct. 18th. This time they went to Orange County following up on a report by a citizen scientist. Although the highlight of the evening was documenting the first Mediterranean House Gecko population for Orange County, the most excitement of the evening was when two Orange County sheriff's, with guns drawn, approached Greg thinking the group was stealing copper wiring from the recently closed car dealership that the geckos called home. A bag full of geckos and 8-year old Max helped diffuse the situation quickly.

On Oct 25th, after *Haunted Museum*, Greg, Bobby and Research Associate Tom Wake returned to Orange County to check on two other recent reports from citizen scientists about geckos. Greg changed out of his *Haunted Museum* costume and into an NHM t-shirt, but Tom and Bobby were still in costume as the three caught geckos at two new localities. Together, these three populations are the first records of established Mediterranean House Gecko populations in Orange County, and all result from observations by citizen scientists.

Prior to the gecko hunt on October 11th, Greg was joined by nine field assistants to help collect Italian Wall Lizards in Coastal San Pedro. The group included high-school

student Hayden Kirschbaum, who is working with Greg on these lizards, Hayden's father Kenneth and brother Avery, Avery's friend Jack, UCLA undergraduates Stevie Kennedy Gold and Danielle Tran, Saddleback College Students Rachelle Brown and Brett Schiller, and local lizard fan Jim Hall. The group collected a large sample of wall lizards that were then sent to Dr. Heather Liwanag of Adelphi University in New York. Heather and Greg are working together to examine morphological and physiological differences among several introduced Italian Wall Lizard populations in the U.S.

The last bit of recent fieldwork fun occurred on November 5th. Following a report of an unusual "bird" call to Kimball Garrett, Kimball correctly identified the "bird" as a Coqui Frog and turned the info over to Greg. Coqui Frogs are a restricted species in California so Greg worked with the California Department of Fish and Wildlife (CDFW) to conduct a survey of the site. As a result, Greg and a great group of volunteers visited the Torrance nursery on a warm Fall evening to work with a CDFW Game Warden and a CDFW Biologist in search of the frogs. The frogs were challenging to locate in the nursery vegetation, but with a big group of helpers, 18 frogs were found. The volunteers included UCLA undergraduates Stevie Kennedy Gold and Nicolas Lou, Saddleback College undergraduates Brett Schiller and Rachelle Brown, Hayden and Kenneth Kirschbaum, and Glen Yoshida, the citizen scientist who worked with Greg to document the first Indo-Pacific Geckos in L. A. County. As a result of these efforts, the group documented the first established population of Coqui Frogs in L.A. County, which is also the second population known in the state.

Dinosaur Institute



Gansus zheni
Photo: S. Abramowicz

Maureen Walsh traveled to Beijing, China in mid-September to prepare specimens of a new species of Early Cretaceous bird formally named *Gansus zheni*. Dr. Chiappe and a collaborative team of scientists from the Beijing Museum of Natural History and the Chinese Academy of Geological Sciences described this new, very advanced Early Cretaceous bird in the international journal *Zootaxa* on November 14, 2014.

Vertebrate Paleontology



T: Field camp is nestled in a canyon in central Xorkoli Basin, among deep red lake deposits that are richly fossiliferous. The basin is flanked by the Altyn Range (in background).

B: Dr. Samuel A. McLeod holds a fossil fish from Messel that was found on the day of our visit to the quarry.

In September and in collaboration with Chinese Academy of Sciences, curator Xiaoming Wang took part in an expedition to the Xorkoli Basin in northern Tibetan Plateau, north China. Vertebrate fossils preserved in this basin are of middle to late Eocene age (about 45 to 35 million years ago) and represent the first such fossils found in the Tibetan Plateau. Discoveries this year include limb bones of a giant rhino (this group, known as indricotheres, includes the largest ever land mammal in the world), hip bones of a titanotheres (rhino-sized odd-toed animal), as well as a mystery skeleton that defies the wisdom of field workers.

Dr. Samuel A. McLeod, Collections Manager, Vanessa R. Rhue, Assistant Collections Manager, and Cara L. Burres-Jones, LACM Research Associate and Associate Professor at Pasadena City College, traveled 30 October – 4 November 2014 for a pre-Society of Vertebrate Paleontology meeting field trip to famous Fossilagerstätten of central and southern Germany. The field trip leaders, Dr. P. Martin Sander, Dr. Wighart von Koenigswald, and



Dr. Carole T. Gee of the University of Bonn, Germany, graciously toured nearly 30 paleontologists from around the world to famous vertebrate fossil quarries and world renowned institutions with exquisite fossil collections and exhibits. Some of the ►



► highlights included visits to the UNESCO World Heritage Site Messel to see the fabulous middle Eocene fossils, the famous Staatliches Museum für Naturkunde in Stuttgart, museums and quarries featuring fossils from the Middle Triassic Muschelkalk and Lower Jurassic Holzmaden Formations, Ries meteor crater and the Miocene local fauna, Jura Museum in Eichstätt and the local tertiary fissure fills, an Upper Jurassic Solnhofen Lithographic Limestone quarry and Bürgermeister Müller Museum in Solnhofen, Museum Schloß Bertholdsburg in Schleusingen to examine Permian and Triassic vertebrate fossils, the Senckenberg Institute for Quaternary Paleontology in Weimar, and the Röhrigschacht Wettelroda near Sangerhausen to visit an Upper Permian copper mine.

TL: Dr. Samuel A. McLeod, Vanessa R. Rhue, and Dr. P. Martin Sander stand with one of the twelve Archaeopteryx specimens known. This particular specimen of Urvogel is on display at the Bürgermeister Müller Museum in Solnhofen.

TR: A secondary (alluvial) ruby mine at Pein Pyit in Mogok

BR: Aung Thit Lwin Gem market, one of Mogok's many gem markets.

Mineral Sciences



In November the Mineral Sciences Staff and Burmese geologist Kyaw Thu led a group of thirteen Gem and Mineral Council members to Mogok, Myanmar (Burma). For many centuries the mines of Myanmar have produced most of the world's finest rubies. The region known as the Mogok Stone Tract is located in Upper Myanmar, in the Shan State north of Mandalay. The highly metamorphosed rocks in the Stone Tract contain many gem quality mineral species including corundum (ruby and sapphire), spinel, peridot, moonstone, zircon, garnet, and rarer species such as painite, petalite and poudretteite. Many GMC members had long wanted to visit Mogok but could

not because the government of Myanmar rarely allowed foreigners into the region. In recent years it has become easier to visit Mogok. Tourists can buy a travel permit and must be accompanied by a government approved tour guide. Mogok is changing rapidly and the mines use a mix of traditional and modern mining practices. Mines were either primary, (minerals in host rock — usually skarn or gneiss) or secondary (minerals in alluvial sediments). The group also visited several of Mogok's famous gem markets. To read more about this trip (and see more amazing pictures) please visit the Mineral Sciences blog: <http://nhmnsoci.blogspot.com/>

Meetings, Workshops, and Presentations



Ichthyology

Sicklefin Pomfret (*Taractichthys steindachneri*), LACM 39611-1.

Rick Feeny attended the SCAITE (Southern California Association of Ichthyological Taxonomists and Ecologists) meeting at the Cabrillo Marine Aquarium on Oct 6th and

brought along some seldom seen pomfret specimens from the Ichthyology Collection. The pomfrets were used to test a key for an upcoming revision of Miller and Lea's classic "Guide to the Coastal Marine Fishes of California".

Herpetology

Greg Pauly was an invited speaker at the Ecology of the Los Angeles River Watershed Symposium on November 7th. Using the RASCals citizen science project as an example, Greg demonstrated the benefits of citizen science as a survey technique in areas with large amounts of private property that biologists would otherwise have difficulty in surveying. Greg also wrote a summary of his talk that will be published in an upcoming symposium volume of *WatershedWise*, a publication of the Council for Watershed Health.

Greg was also an invited speaker at the Catalina Island Conservancy's Annual Conservation and Education Symposium. He presented new results examining body size evolution among Channel Island reptiles and amphibians. Greg and

his team of undergraduate students determined that island gigantism, which refers to the evolution of larger body size following island colonization, was much more common than previously thought for the islands lizards and frogs.

Other recent presentations include Greg giving a presentation Oct 2nd to the Ballona Wetlands docents' group that focused on local reptiles and amphibians. And, on Oct 16th, he was at Pomona College presenting a talk on the rapidly changing biodiversity of the Los Angeles region. This talk covered the recent shifts in the ranges of native species as well as the arrival of numerous nonnative species. Examples of nonnative species included many species recently discovered in the area through citizen science.

History

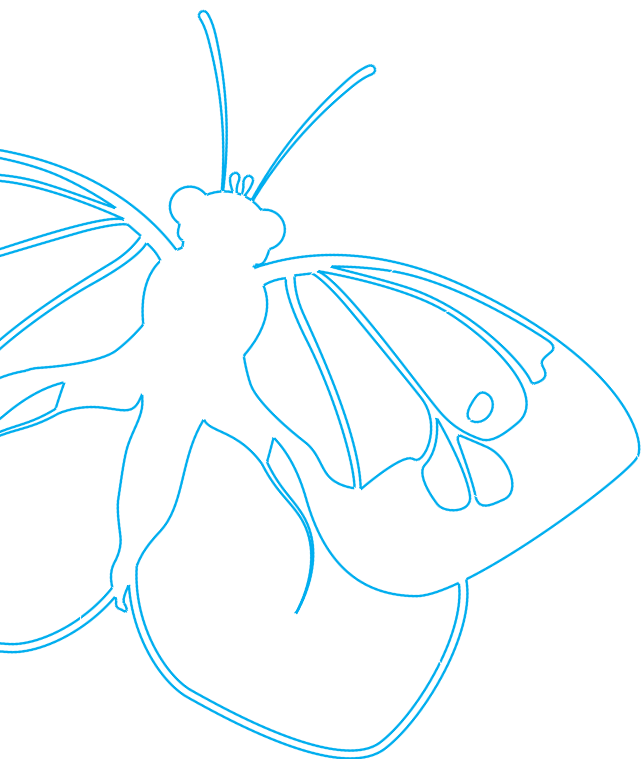
Dr. William Estrada, Curator of History, attended the 54th Annual Conference of the Western History Association in Newport Beach in mid-October. In November he served as a consultant to the Center Theatre Group (the parent company of the Ahmanson Theatre, Mark Taper Forum, and Kirk Douglas Theatre). He met with two commissioned playwrights, writer/actor Roger Guenveur Smith (film credits include *American Gangster*, *Poetic Justice*, *K-Street*, *Malcolm X*, and *Summer of Sam*) and Richard Montoya of the satirical performance troupe, Culture Clash, to discuss subject matter for new plays based on Los Angeles history.

BioSCAN



On Oct. 25th, Elizabeth Long led a Monarch Tagging Citizen Science workshop. On Nov. 7, Emily Hartop delivered an invited talk at the Council for Watershed Health conference on "Ecology of the LA River". That same day, Elizabeth Long presented at the La Kretz Field Station about the use of specimens from Entomology/BioSCAN and current field surveys to understand how changes in LA have shaped the distribution ▶

► and abundance of butterflies. From Nov. 14-20th, Lisa Gonzalez and Emily Hartop attended the Entomological Society of America Conference where Emily gave a talk, “Using Insect Biodiversity to Build Better Cities.” Elizabeth Long discussed the evolution and characteristics of Lepidopteran mimicry systems at the NHM lunchtime lecture series (Nov. 20th) and at the Santa Barbara Natural History Museum (Nov. 10th).



Dinosaur Institute

Between September 28th and October 3rd, Luis Chiappe attended the 4th International Paleontological Congress in Mendoza, Argentina. Luis co-organized a Symposium on the Origin and Early Evolution of Birds, gave a public talk on the subject as well as presenting a lecture to the meeting attendees that focused on Chinese Mesozoic birds.

Maureen Walsh and Jose Soler represented the Dinosaur Institute at the Southern California Paleontological Society meeting on November 2 at the Page Museum. Walsh spoke on techniques of preparing Mesozoic birds while Soler highlighted the value of fossils as a resource for tourism, education and research. We thank Jennifer Morita, Dino Lab volunteer for the invitation to speak at the November meeting.

Rancho La Brea

Rancho La Brea staff John Harris, Aisling Farrell and Gary Takeuchi along with Research Associate Christopher Shaw attended the 74th Annual Meeting of the Society of Vertebrate Paleontology in Berlin, Germany. Ms. Farrell was a coauthor on a poster titled “Structural changes in Late Pleistocene carnivore fauna from Rancho La Brea” with colleagues from Spain. Mr. Takeuchi was a coauthor on a podium presentation titled “The Pliocene Tibetan Plateau as a training ground for cold environment adaptation and origin of Holarctic megafauna” with colleagues from Los Angeles, China and New York. Mr. Shaw gave a podium presentation on his current work with colleagues from Arizona titled “Paleoecological and climatological reconstruction using certain taxa from the Irvingtonian biota at El Golfo de Santa Clara, Northwestern Sonora, Mexico.”

Dinosaur Institute Poster Presentations at SVP

Two research projects were presented at the 74th Annual Meeting of Vertebrate Paleontologists held in Berlin Germany from November 5-8th:

Highlighting the uniqueness of the “Gnatale” quarry in Utah entitled *Preliminary evaluation of the sauropod remains from a new dinosaur bone bed of the Morrison Formation in Southeastern Utah (USA)*. Authors: Mocho P., Ortega F., Escaso, F., Goodreau, D., Chiappe, L.

Research Associate P. Martin Sander presented on the newly discovered pubis found during the 2013 Augustyn Dinosaur Expedition titled, *A pneumatic cavity in an Alamosaurus pubis: The first evidence of pubic pneumaticity in sauropodomorphs and the implications of pelvic pneumaticity in neosauropods*. Authors: Sander, P.M., Hall, J., Soler, J., Wedel, M., Chiappe, L.

Public Outreach

Haunted Museum



Haunted Museum, from left to right: Nefty Camacho, Christine Thacker, Estella Hernandez, Rick Feeney, and Greg Pauly, with Margaret Neighbor's floating head in background. This photo may have been edited.

Anthropology

Anthropology participated in the *Haunted Museum's* Día de los Muertos theme by presenting objects associated with celebrations of the dead from other parts of the world. Included were objects from mummy bundles of Pre-Columbian Peru, drums and rattles of the type used in the Potlatch festivities of America's Northwest coast, paddles and masks associated with Oceania's tradition of ancestor worship, and costume pieces corresponding to a few ceremonies found in Western Africa. It was a busy night replete with music, food, and painted faces of vibrant colors, not unlike the practices of similar celebrations from many different cultures across the globe.

Dinosaur Institute

The Dinosaur Institute participated in the annual *Haunted Museum* event with great enthusiasm. The Dino Lab was decorated with the Day of the Dead theme with an altar made for "Gnatale." DI Staff and volunteers (left to right) included Jose Soler, Erin Perez, Erika Canola, Maureen Walsh and Volunteer of the Year, Tony Turner.

Ichthyology and Herpetology

Ichthyology and Herpetology staff, with help from herpetology volunteer Tanja Wolfmeyer, talked about "Death and bones" at the *Haunted Museum* in October. Creepy specimens of stonefish, white sharks, crocodiles, turtles, rattlesnakes, piranha, hogchokers, flyingfish, and other apparitions were hanging in the air. ▶

► BioSCAN

Staff of the BioSCAN project honored the spirit of Día de los Muertos by exhibiting specimens and stories of the coffin fly, death's head moths, and other macabre delights.

Crustacea and Polychaetes

As part of the Haunted Museum experience, Drs. Jody Martin and Kirk Fitzhugh presented specimens and discussed aspects of life necessitated by having external (rather than internal) skeletons in crustaceans and polychaete worms, respectively.

Rancho La Brea

On October 25th Rancho La Brea staff Aisling Farrell, Laura Tewksbury and Karin Rice along with volunteer Cynthia Egan showcased numerous camel specimens from our collections at this year's *Haunted Museum* member's program, themed Día de los Muertos.

National Fossil Day



Vertebrate Paleontology

The Vertebrate Paleontology staff participated in our museum's 4th annual celebration of National Fossil Day. All of our Vertebrate Paleontology staff were present at the 19 October 2014 event to showcase fossils from our Round Mountain Silt localities near Bakersfield, California. We thank our dedicated VP volunteers, Mairin Balisi, Nikki Elder, Stephanie Lapeyre-Montrose, and Debora Lee for their assistance at the foyer table. Specimens on display included a *Metaxatherium* skull, *Psephophorus* humerus, pathologic cetacean vertebrae, shark teeth, and various terrestrial mammals from the Sharktooth Hill Bonebed. Children were able to pick up tools that they would take on a fossil excavation and look at tiny teeth of fossil sharks and rays under magnification.

Dinosaur Institute

Promoting education and responsibility of fossil resources on BLM (Bureau of Land Management) lands, the Dinosaur Institute joined other departments of the NHM on Oct 15, to recognize National Fossil Day. On display were Middle Triassic ichthyosaurs collected

T: Vertebrate Paleontology staff and volunteers showcase fossils from the Sharktooth Hill Bonebed for National Fossil Day.

B: Engaging with guests on Fossil Day, (left to right) DI preparator, Jose Soler; Univ. of Manchester intern, Laura Mellor; volunteer, Sarah Haft and Graduate Student-in-Residence, Nathan Carroll.



by the 2014 Sander Expedition to Nevada, Jurassic sauropod material from the Morrison Formation "Gnatale" quarry in Utah and theropod teeth from recent expeditions to New Mexico. These fossils represent legal methods of collecting fossils on public lands. Also displayed were specimens purchased from private property owners in Kansas (Marion Bonner) and numerous casts from Mongolia and China that were used to show how fossils are exchanged for research and collaboration when fossil export is difficult or illegal. Maureen Walsh gave 3 tours to the 4th floor lab and DI collections.



T: Jann Vendetti, of Malacology/IP discussing fossil and Recent echinoderms with National Fossil Day visitors.

M: Zuni fetishes, carved of amber and jewelry that incorporates petrified wood

B: Erika Canola

Malacology/Invertebrate Paleontology

On Saturday, October 19th Lindsey Groves (Malacology) and Jann Vendetti (Malacology/Invertebrate Paleontology) participated in National Fossil Day. Lindsey featured a suite of asphalt infused marine invertebrates recovered from a site destined to be a MetroRail station near the Page Museum. Jann exhibited fossil and Recent echinoderms including crinoids, helicoplacoids, seastars, and sea urchins. Many thanks to volunteer Christyann Evans for her assistance.

Anthropology

On October 5th, Anthropology opened its Ethnology storeroom to present objects for the Scavenger's Safari. That day happened to also be National Fossil Day so we decided to present objects from our collections that use or are made from fossils. We presented some pieces from the Archaeology collection including a large fossil shark tooth excavated at the Avila-Main site in San Luis Obispo.

Dino Lab

Erika Canola was interviewed in October by Cosmos Magazine as part of an online teaching program sponsored by the University of Adelaide, Australia. Entitled, "When dinosaurs took to the skies," Erika discussed her work in both the field and the dino lab. The popular science magazine contacted Erika and she was more than happy to oblige. This interview was not only eventful for Erika Canola but Stephanie Abramowicz as well. Her artwork of the large dromaeosaurid, *Changyaptor yangi*, described by Dr. Chiappe and colleagues, was taken from their recent publication in the online journal Nature Communications. Rounding out this departmental effort was Collections Manager Maureen Walsh who prepared the entire specimen in just 3 weeks. Read the interview: <http://lessons.cosmosforschools.com/>

From the Ethnology collection we brought out multiple items carved of fossilized ivory from Alaska, as well as some contemporary Zuni fetishes, carved of amber and jewelry that incorporates petrified wood.

Rancho La Brea

National Fossil Day was celebrated



Beau Campbell explains ground sloths at National Fossil Day

at the Natural History Museum on October 19th. Rancho La Brea staff participating included Dr. John Harris, Aisling Farrell and Beau Campbell. This Curator's Cupboard style programming included specimens from the Rancho La Brea collections, as well as the always popular live microfossil sorting station.

Rancho La Brea

The Page Museum's R&C staff is continuing to assist the Education Department with a new docent and volunteer training programs. John Harris gave lectures on various La Brea related topics throughout October and the Project 23 excavation team gave behind-the-scenes tours.

On October 16th Aisling Farrell led a large group of students on a tour of Rancho La Brea from SACNAS (Society for Advancing Hispanics/Chicanos & Native Americans in Science) who were visiting Los Angeles for a conference.



Cathy Groves (center) discussing with participants how Lost Lake, Cajon Pass formed. Lost Lake is directly on the San Andreas Fault.

Malacology & Echinoderms

On Saturday, October 4th Lindsey Groves (Malacology) and Cathy Groves (Echinoderms) co-lead *A San Andreas Odyssey* for 23 happy participants. This annual excursion highlights fault-formed geomorphic features from Cajon Pass to Palmdale and includes pressure ridges, fault scarps, sag ponds, hogbacks, fault scarps, shutter ponds, and earthquake trees.

Herpetology

In November, Neftali led two tours of the herpetology collection. On November 14th, he provided a tour to CSU Long beach Professor David Huckaby's vertebrate zoology class. Highlights included Golden Toads, Chinese Giant Salamanders, Komodo Dragons, and Yellow-bellied Sea Snakes. Then on November 26th, Neftali led a tour for Jeanne Bellemin's El Camino College biology class. Neftali showed off a number of specimens including glass lizards, a hairy frog, glass frogs, and some large skulls of a snapping turtle and alligator.



History

Junior Scientist

The Seaver Center was one of the stops for four groups of Junior Scientists on Saturday November 15th. The kids learned how to conduct historical research using primary and secondary sources. They were shown historic documents signed by George Washington, Abraham Lincoln and Benjamin Franklin, before they made their way upstairs to *Becoming Los Angeles*. Shown is Collections Manager Brent Riggs explaining the difference between a primary and secondary source.

Archives Bazaar

The Seaver Center was among the many archives and historical groups present at the 9th annual Archives Bazaar held at the USC Doheny Library on October 25th. This year Collections Manager John Cahoon organized a display of Adam Clark Vroman prints from the museum collection. One of the prints shown was "Gipson the Hermit at Yosemite" pictured to the left.





BioSCAN

On Oct. 2nd Brian Brown, above, gave a talk for the *Citizen Science and Cocktails* lecture series where he gave some early results for BioSCAN, including the 30 new fly species being described. On Oct. 5th, Emily Hartop and Lisa Gonzalez delivered their talk, “The Beasts and Beauties of BioSCAN,” at the *Fellow’s Salon* hosted by Betsy Thumann. On Oct. 11, Entomology staff lent a hand at Isabelli Rosselini’s “Green Porno” event with displays that highlighted weird sex in the insect world. Regina Wetzer brought visitors behind-the-scenes for the BioSCAN Scavenger Safari on Nov. 8.

Malacology

On Saturday, December 6th, Lindsey Groves led four tours for 30 participants in the Scavengers Safari series entitled “*Shells are us.*” The tours featured micro- and giant gastropods and clams, cowries, and large wet preserved Humboldt squid.

Student Mentoring and Research



Anthropology

During August 14–17 2014, Khrystyne Tschinkel visited the museum to research a portion of our Non-Native American human skeletal collections. Her research concerned Vitamin D deficiency in adults. She concentrated her analysis on three sailors that were buried on Deadman’s Island in San Pedro Harbor prior to 1855. The skeletons were discovered when Deadman’s Island was demolished between 1928 and 1930. They were donated to the museum by the United Dredging Company in 1928.

The remains were of three Caucasian males aged 18–24 years old. Her

initial macroscopic analysis found deformities in the upper and lower long bones, and in their pelvic girdles indicating Vitamin D deficiency. Khrystyne also noted pathological markings on the bones that indicated heavy labor. Hard work would have definitely been part of a late 18th to early 19th century sailor’s life. Since there were no outward indications of significant trauma their cause of death has yet to be determined.

Khrystyne recently earned a Masters in Science Degree in Paleopathology from Durham University, Durham, England and is currently applying to several universities for her Ph.D.



Dinosaur Institute

Postdoctoral Scholar

Alyssa Bell completed her Ph.D. at the University of Southern California in August of 2013. She studied hesperornithiform birds for her dissertation and is now continuing her research in ancient birds here at the Natural History Museum under the supervision of Dr. Luis Chiappe.

USC Ph.D. Student-in-Residence, Nathan Carroll

Dr. Luis Chiappe would like to congratulate Nathan Carroll who was awarded a M.S. in Earth Sciences from Montana State University on December 14, 2014. Dr. Luis Chiappe was a member of Nathan's advisory committee and now welcomes him as his new USC Ph.D. student-in-residence with the NHM and the Dinosaur Institute.

Nathan's first experience with the Natural History Museum of Los Angeles was in Ekalaka, Montana. As a high school student he had the privilege of assisting the NHM crews as they excavated dinosaurs just 20 minutes from the ranch he grew up on. Nathan received a B.S. and M.S. degree in the Earth Science Department at Montana State University. His research concentrates on the diversity of Late Cretaceous pterosaurs. He is excited to start his Ph.D. program here at the NHM and USC, where he can work with and around the dinosaurs that started his career as a young man in Montana.

Preparation and Collections

The University of Manchester (U.K.) 2014 Biotechnology and Biological Sciences Research Council (BBSRC) award winner, Laura Mellor recently completed a very successful,

specialized program that she initiated, and the DI supported, as a result of her academic excellence in the study of anti-aging genes. From September to December, she worked in the 4th floor paleo lab skillfully preparing a Late Cretaceous turtle collected during the 2014 New Mexico Augustyn Dinosaur Expedition. She also worked on fossils collected by Harley Garbani in the 1960's and portions of the lambeosaurine holotype, *Magnapaulia laticaudus*. Fossils from Triassic, Jurassic and Cretaceous rocks provided a variety of preparation and storage challenges with Laura excelling at them all. Laura is very interested in the biological processes of identifying DNA preserved in fossils and could potentially change the course of her studies because of her experience here at the NHM.

T: Alyssa Bell
B: Nathan Carroll



Laura displays a beautifully prepared turtle ready for curation in a specialized fiberglass cradle constructed by her to facilitate the specimen's storage for research.

Ighor de Oliveira, a B.S. student from the Federal University of Rio de Janeiro, will visit for the next few months to learn ▶

► new methods of preparation in the 4th floor paleo lab. In order to address his institution's curatorial needs applicable to botanicals, invertebrates and vertebrates, Ighor will volunteer under Maureen Walsh who has extensive experience in plant, invertebrate and vertebrate preparation.

Arriving from Madrid for a three-month research visit, Guillermo Navalon will collaborate with Dr. Chiappe as part of his thesis. He is particularly interested in Mesozoic tetrapod radiations and ecosystems. To date, his research has focused in some contentious aspects of early avian palaeobiology, particularly trophic ecomorphology and the link between soft-tissues and flying modes in an evolutionary framework. He believes quantitative methods could highlight patterns and evidences inaccessible by other means. Guillermo is studying under NHM research associate Dr. Jesus Marugan-Lobon of the Universidad Autónoma de Madrid. He will begin his Ph.D. at the University of Bristol (U.K.) next year.

TR: Andrew Abi-Jumaa in the Malacology & Invertebrate Paleo. type room with most of his sorted cowries.

R: Some of the Arestorides argus cowries from the Rose Burch Collection.

B: The 2014 Gilbert N. Harris award bestowed upon IP Research Associate Richard L. Squires.



Volunteers and Research Associates



Malacology

The volunteers in Malacology continue to do excellent and important work sorting, identifying, and unpacking specimens. Andrew Abi-Jumaa has nearly finished organizing hundreds of cowries from the gifted collections of Jay Bisno, Rose Birch, and G. Baldwin. Sue Virnig continues to label and arrange the curated sea slug collection. Alyssa Chacon and Lidia Fernandez are in the midst of sorting and identifying spectacular muricid gastropods from donor Peggy Leeds to be added to the Malacology teaching collection. Most volunteers have also continued to sort the alcohol-preserved mollusks

prepared by the NHM's Marine Biodiversity Center with the goal of integrating these into the collection.



Since September of this year, the student volunteers in Malacology have clocked an impressive 120 hours working on various projects.

Invertebrate Paleontology

Long-time Invertebrate Paleontology Research Associate Richard L. Squires has been bestowed with the highly prestigious Gilbert N. Harris Award for 2014 from the Paleontological Research Institution, Ithaca, New York. This award is given annually in recognition of excellence in systematic paleontology to a

scientist who has made outstanding contributions to the field. Amongst his 100+ research papers have been 12 numbers in the NHMLAC Contributions in Science series. Also, Richard will be retiring in December after 40 years of teaching at California State University, Northridge, Geological Sciences.



Anthropology

The Anthropology Department would like to congratulate Selena Pasillas on her acceptance as a Research Intern at the Forensic Anthropology Research Facility at Texas State University. This unique facility's two year internship program pairs the intern with a cadaver whose conditions meet their research focus, which in Selena's case is traumatic injury. For those studying Forensic Anthropology, this internship is highly coveted and Selena was the only person accepted this year. Selena was studying for her M.A. at UCLA but will now be transferring to Texas State when she moves there to begin her internship in January. She initially joined us as a volunteer in May of 2013 and soon after became an intern, doing forensic research on human remains from Africa, Australia, and New Guinea. Her research added valuable information about the age, sex and health issues of the individuals that she examined. When she interviewed for the internship at the Forensic Anthropology Research Facility, she was told that the hands-on experience we were able to provide was unique amongst the potential applicants and will prove to be an asset to her research in the future. After the internship at the Facility, Selena will pursue her M.A. in Forensic Anthropology at Texas State with the option to continue for a Ph.D.

On October 20, Alice Scherer, founder of the Center for the Study of Beadwork in Portland, Oregon returned to do some further investigation of two early 1850's beaded bags collected along the Columbia River by Dr. William F. Edgar. Dr. Edgar was the Assistant Surgeon with the Regiment of Mounted Rifles of the US Army but must have also had an interest in the Native Americans he encountered because he collected their items and we have a photograph of him wearing a native buckskin outfit with one of the bags he collected.

Alice previously visited the museum in 2010 with a mission to carefully photograph and inspect one of the bags so that she could replicate the beadwork for use in Fort Vancouver historical reenactments. After close inspection of this bag, she concluded that the bag's beaded strap was not original and was actually attached inside out, leaving the tassels to hang at an odd angle. On this recent visit she was able to look at both of the bags he collected side by side and noticed that the beadwork on the added strap of the first bag looked remarkably similar to the beadwork on the other bag which has led her to conclude that the other bag and the strap from the first bag were collected at the same time. It is not known for sure whether Dr. Edgar added the strap to the other bag or if that was done later.



T: Dr. Edgar in a "Rocky Mountain Chief" outfit
M: Selena Pasillas
B: Jeff Chen

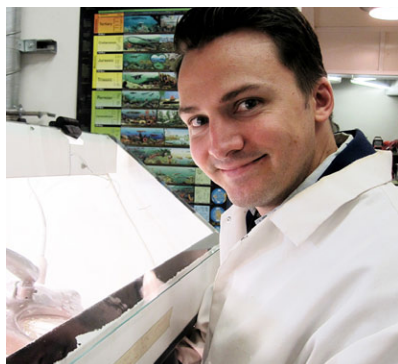
Dinosaur Institute

The Dinosaur Institute would like to welcome our new volunteers Jeff Chen and Eric Schlegel.

Jeff Chen has a degree in Geology and works in a petroleum lab. Since he was in kindergarten, Jeff has always been interested in dinosaurs and curious about the prehistoric environment of planet Earth. As a

kid, his mother would ditch him in the library while she went shopping, true story. He would then spend the entire afternoon in the library reading through every dinosaur book over and over again, memorizing all the names of the dinosaurs. He is very passionate about learning new things and sharing them with other people. ▶

► That is why he decided to volunteer at the Natural History Museum where he can meet many people with common interests.



Eric Schlegel, pictured above, is a Los Angeles native and a direct byproduct of the NHM. He has been a frequent visitor since a young age, participating in museum classes and activities, and ultimately cultivating a huge passion for prehistoric beasts that will never go extinct. A former student of Art Center College in Pasadena, his background is primarily in comic strip illustration, multimedia craft, and graphic design. He is thrilled to apply his dexterity in the Dino Lab, not to mention fulfilling his pre-school graduation promise of becoming a “dinosaur guy”! His favorite dinosaur is a *Garyosaurus* — inside joke for 80’s Disney Channel viewers.

Distinguished Visitors



Malacology

T. Malacology visitor Bret Raines photographing microgastropods of the family Caecidae

Bret Raines (Alamogordo, NM) made two visits to examine the extensive Malacology holdings of the micro gastropod family Caecidae. Kim Scott (Cogstone Resource Management) made two visits to confirm invertebrate identifications and drop off additional specimens. Lance Gilbertson (Newport Beach, CA) visited Malacology to use the SEM and then traveled to the Carson facility to examine helminthoglyptid land snails. Hannah Jacobsen (CSULA) visited the Carson facility to discuss land snail literature and examine holdings from San Nicolas Island, California Channel Islands. Mary Lyn Rushmore-Villaume (Portland, OR) visited Malacology to compare specimens from the Red Sea for confirmation of identification. Ángel Valdés (Cal. Poly Pomona) and students Jenny McCarthy, Sabrina Madrano, Tabitha Lindsay, and Craig Hoover visited the collection

for SEM use and examination of nudibranchs and sea slugs. Kelvin Barwick (Orange County Sanitation District), pictured below, visited to compare unidentified specimens of the bivalve family Nuculanidae with curated materials in the Malacology



collection. Jean Alupay (USC) gave a research seminar on her current research on octopod autotomy and toured the collection. Jennifer Perry (CSUCI) also gave a research seminar on human pre-history of the Channel Islands and discussed Channel Island research with Lindsey Groves.



L: Jonathan Marcot shows a fossil horse metapodial from the Rincon Fauna of Mexico

R: Bruce Welton with the prepared specimen of basking shark he collected in the 1970's.

Vertebrate Paleontology

Jonathan Marcot is a Research Assistant Professor at the University of Illinois, School of Integrative Biology. He visited our Vertebrate Paleontology collections 14–16 October to examine our fossil ungulates. During his visit he focused on the limbs and dentitions of ungulate mammals as part of his ongoing research to investigate the evolutionary radiation of artiodactyl mammals.

Former Vertebrate Paleontology curator Dr. Bruce J. Welton visited

our collections to continue his research on fossil sharks. During his 1–5 December visit, he studied a specimen prepared by Howell W. Thomas of a basking shark skeleton. Bruce collected the specimen in the 1970's from the middle Miocene lower Round Mountain Silt and intends to publish on the material very soon. Also during his visit he spent some time working on the James L. Goedert material from the Arikarean of Oregon and Washington.

Anthropology

On November 25th, Sir James Mellon and his lovely wife Lady Philippa visited the museum to research African bangles from the Ethnology collections. African bangles include



Brass bracelet from the Democratic Republic of the Congo, c. 1800

bracelets, anklets, necklaces and arm and leg ornaments that are primarily made of bronze or brass. These bangles were used throughout Sub-Saharan Africa as ornaments of prestige and pride. Later, as colonialists invaded and the slave trade began, the bangles were used as currency for the trade of goods

and even people. By looking at as many collections of bangles that he can, Sir James hopes to amass a visual reference of the styles and manufacturing techniques to provide a more comprehensive understanding of their use and trade.

Sir James Mellon's extensive career has included being the British High Commissioner in Ghana and Ambassador to Togo. In the course of his service in Africa, he built up a sizeable collection of bronze bangles from south of the Sahara. He has been encouraged by the British Museum to provide more accurate provenance for their collection of bronze bangles. As part of his preparation he's become a Research Associate of the Sainsbury Institute of Art and is travelling to a wide range of museums to study their collections.



Sir James Mellon and Lady Philippa Mellon

Recent Publications

- Brown, B.** 2014. Revision of the *Apocephalus analis* group of ant-decapitating flies (Diptera: Phoridae). *Zootaxa* 3857(4): 551-570.
- Brown, B., A. Borkent, R. Wetzer, and D. Pentcheff.** 2014. New types of inventories at the Natural History Museum of Los Angeles County. *American Entomologist* 60(4): 231-234.
- Brown, B., and E. Hartop.** 2014. Recognition of *Megaselia arizonensis* (Malloch, 1912) (Diptera: Phoridae), a common North American fly. *Contributions in Science* 522: 45-49.
- Brown, B., G. Kung, and W. Porras.** 2015. A new type of ant-decapitation in the Phoridae (Insecta: Diptera). *Biodiversity Data Journal* 3: e4299. doi: 10.3897/BDJ.3.e4299
- Hartop, E., and B. Brown.** 2014. The tip of the iceberg: a distinctive new spotted-wing *Megaselia* species (Diptera: Phoridae) from a tropical cloud forest survey and a new, streamlined method for *Megaselia* descriptions. *Biodiversity Data Journal* 2: e4093. doi: 10.3897/BDJ.2.e4093
- Kampf, A.R., Peterson, R.C. and Joy, B.R.** (2014) Itsiite, $Ba_2Ca(BSi_2O_7)_2$, a new mineral species from Yukon, Canada: description and crystal structure. *Canadian Mineralogist* 52, 401-407.
- Kelly, T. S.** 2014. Preliminary Report on the Mammals from Lane's Little Jaw Site Quarry: A Latest Cretaceous (earliest Puercan?) Local Fauna, Hell Creek Formation, Southeastern Montana. *Paludicola* 10(1):50-91.



Long time research associate Dr. Thomas S. Kelly reports on new records of mammalian fossils associated with non-avian dinosaurs from a quarry in the upper Hell Creek Formation of Powder River County, Montana. The collection was graciously donated to our institution by the land owners, Lewis and Tawny McGill, for the advancement of science. Dr. Kelly describes a new holotype species, Protolambda mcgilli, in honor of the landowner's recognition for the significance of the fauna. Among the other well preserved specimens of mammals in the McGill Ranch Local Fauna are Chrondrichthyes, Actinopterygii, Allocaudata, Testudines, Crocodylia, Choristodera, and non-avian dinosaurs.

- Kelly, T. S., and D. P. Whistler.** 2014. New Late Miocene (Latest Clarendonian to Early Hemphillian) Cricetid Rodents from the Upper Part of the Dove Spring Formation, Mojave Desert, California. *Paludicola* 10(1):1-48.
- Museum research associate Dr. Thomas S. Kelly and former curator of Vertebrate Paleontology Dr. David P. Whistler recognize 10 species of cricetid rodents from the upper part of the Dove Spring Formation, including the naming of new taxa after NHM staff: Antecalomys coxae after George C. Page Museum Lab Manager, Shelley Cox, and Lindsaymys takeuchii after George C. Page Museum Assistant Collections Manager, Gary T. Takeuchi.*
- Liu, D., **Chiappe, L.M.**, Yuguang, Z., **Bell, A.**, Meng, Q., Ji, Q. and Xuri, W., 2014. An advanced, new long-legged bird from the Early Cretaceous of the Jehol Group (northeastern China): insights into the temporal divergence of modern birds. *Zootaxa* 3884 (3):253-266.
- Muhs, D.R., Simmons, K.R., Schumann, R.R., **Groves, L.T.**, DeVogel, S.B., Minor, S.A., and Laurel, D. 2014. Coastal tectonics on the eastern margin of the Pacific Rim: Late Quaternary sea-level history and uplift rates, Channel Islands National Park, California, USA. *Quaternary Science Reviews* 105:209-238, figs. 1-18.
- Wall, A., D. Campo, R. Wetzer.** 2014. Genetic utility of natural history museum specimens: endangered fairy shrimp (Branchiopoda, Anostraca). *Zookeys* 457: 1-14. doi: 10.3897/zookeys.457.6822
- This paper samples NHM's extensive fairy shrimp collections to examine how preservation and curation methods may influence the ability derive genetic data from wet-preserved museum specimens.*
- Wang, X., Y. Wang, Q. Li, Z.J. Tseng, G.T. Takeuchi, T. Deng, G. Xie, M.-m. Chang, and N. Wang.** 2014. Cenozoic vertebrate evolution and paleoenvironment in Tibetan Plateau: Progress and prospects. *Gondwana Research*. doi: 10.1016/j.gr.2014.10.014.v

Staff Departures and New Staff

Invertebrate Paleontology

On December 1st, IP welcomed Dr. Austin Hendy as the new Invertebrate Paleontology collections manager. He is succeeding the position Mary Stecheson held from 2003–2014, and will be splitting his time between the Museum (room 320) and the Carson invertebrate paleontology/malacology facility.

Austin received his Masters Degree at the University of Waikato in New Zealand under the advisement of Peter Kamp, and his Ph.D. from the University of Cincinnati where he studied with the invertebrate

paleontologists Arnie Miller and Carlton Brett. Since then he has conducted research and gained substantial collections experience at Yale University, the Smithsonian Tropical Research Institute in Panama, and most recently the Florida Museum of Natural History. He is widely published in molluscan paleontology, taphonomy, paleo-environments, and paleo-faunal interpretation of Panama, Colombia, and Venezuela, among other topics. He is a tremendous asset to the NHM and it is a pleasure to welcome him!

Dinosaur Institute

Jose Soler is now full-time and working in the 4th floor paleontology laboratory. He is currently preparing Middle Triassic ichthyosaur material collected in August 2014, in addition to ceratopsian material collected during the Harley Garbani expedition of 1965.

Miscellaneous

Rancho La Brea

The Rancho La Brea staff again worked on a number of television shows in the past few months. On September 26th preparators Laura Tewksbury and Beau Campbell were interviewed for a kids show called *Elizabeth Stanton's Great Big World Featuring the La Brea Tar Pits*. On November 21st the TV show *Bosch* returned for the second time to film another episode at Pit 91. *Bosch* is based on the popular book series by mystery writer Michael

Connelly. Some of the Rancho La Brea excavation team spent all day around and in the pit as extras for the filming; staff Laura Tewksbury and Sean Campbell along with volunteers Judith Snyder-Gordon and Ashley Betters. Gary Takeuchi was onsite as a technical advisor. Episodes of *Bosch* will air next year on Amazon. On November 24th an Italian Science Show called *Voyager* filmed at Project 23, in the Fossil Lab, and around the park and exhibits.

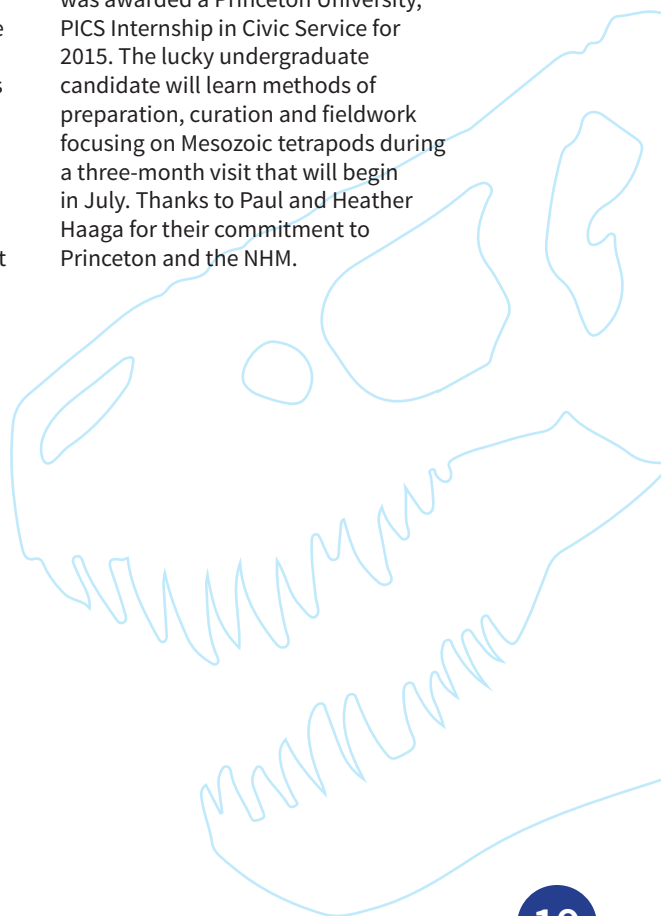
Preparation and Collections

Collections Manager Maureen Walsh was awarded a Princeton University, PICS Internship in Civic Service for 2015. The lucky undergraduate candidate will learn methods of preparation, curation and fieldwork focusing on Mesozoic tetrapods during a three-month visit that will begin in July. Thanks to Paul and Heather Haaga for their commitment to Princeton and the NHM.

Invertebrate Paleontology

Phillip G. Owen, 71, passed away on July 30, 2014. Phil was a curatorial assistant in Invertebrate Paleontology from 1973 through 1995. He earned a B.S. in geology from San Fernando Valley State College (now California State University, Northridge) in 1967 and did preliminary graduate work at UCLA prior to being hired at LACM. His legacy in the IP collection is

readily evident as his ubiquitous "PGO" and/or "P. Owen" appear on thousands of handwritten labels throughout the collection. He also meticulously hand numbered thousands of specimens with paint and India ink. Phil's hard work and dedication is much appreciated by those of us who have used the IP collection throughout the years.



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

Layout and Photo Editing: Jean Pongsai, Marine Biodiversity Center.

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

