

# Research & Collections News

The Occasional Newsletter of the Research and Collections Staff  
Natural History Museum of Los Angeles County

**re•search** (rī-sūrċh', rē'sūrċh) *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.

March, 2004

(covering the months of January and February, 2004)

## Collection News

### *Anthropology*

Linda Conover (Collections Intern, Anthropology) has completed a comprehensive inventory of the Museum's West Mexican archaeological collections. The project was funded by a \$13,706 grant from the Museum Loan Network (MLN) to Scott Van Keuren (Assistant Curator, Anthropology). The collection totals nearly 700 objects, including pottery figurines from the Nayarit culture and other ancient peoples of the West Mexico region, and two previously uninventoried tomb assemblages with ceramic, shell, and stone artifacts (the Howard Smith and San Sebastian collections).



The grant provided funds for photography, object rehousing, and stabilization. It also increases the visibility of the Museum's archaeological collections and creates opportunities for future exhibit collaboration with other institutions. The project was made possible with the aid of several individuals: Dick Meier (Photographer), Tania Collas (Conservator), Amber Tarnowski (Conservation Student Intern), Allyson Lazar (Curatorial Assistant), and Chris Coleman (Collections Manager).

### *History*

The Seaver Center has been busy with the *L.A.: Light, Motion, Dreams* exhibition, opening March 14. Meanwhile, many other activities continue apace. The Glass-to-Access project, involving the digitization of twenty thousand glass plate negatives from the Seaver Center collections, has completed scanning of the A.C. Vroman collection, the first of seven targeted collections in the project funded with a \$250,000 grant from the Seaver Institute (two images selected by lead scanner Stacey Strickler are below).



### ***Malacology***

Databasing of the UCLA Recent mollusk collection continued with 1226 additional lots curated by Krista Zala, Curatorial Assistant with the MBPC, with identification and taxonomic verifications by Lindsey Groves (Collections Manager, Malacology).

### ***History***

The History Department, with generous support from the J. Paul Getty Trust, has been transforming the way it manages its collections through the use of a commercially available electronic collections management system (CMS). This system, PastPerfect, was developed by and for historians to reflect the ways they classify, catalog, and use their research collections. PastPerfect has a flexible cataloging component that allows collection materials to be described at the individual item level and at the collection level. It offers 4 unique but parallel catalogs to warehouse information about material culture objects, books, archival collections, and photographic prints and negatives. To date, the History department, with assistance from 9 USC work-study students, has created over 53,000 records containing over 12,000 digital images of collections materials, including the General Photo File, one of the collections most heavily used by researchers and scholars. In addition to describing and documenting collections, PastPerfect allows the tracking of collections management processes such as accessioning, loans, exhibitions, conservation treatment, and movements and storage of collections. The CMS was put to use during the recent deinstallation of part of Garland Hall, during which we documented items as they were deinstalled, recorded items to receive conservation treatment, and created post-exhibit reports for objects on the spot. Assistant Curator Steven Karr has been using PastPerfect as part of an ongoing project to inventory various Material Culture collections on- and off-site. Collection Managers are currently using PastPerfect to document, track, and create pre-exhibit condition reports for objects from the History collections that will appear in the upcoming exhibit ***L.A.: Light, Motion, Dreams.***

## ***Invertebrate Paleontology***



Cataloging update: Since January 1, Mary Stecheson and her team have identified and cataloged 823 lots of Pleistocene mollusks, including over 40,000 specimens. They have also added links to 209 new digital images as well as data and digital maps for 98 new localities into the online Invertebrate Paleontology database (<http://ip.nhm.org/ipdatabase/users>).

## **Field Work**

### ***Malacology***



Ángel Valdés, Curator of Malacology, traveled to Panama from 17-26 February to conduct field work at the Smithsonian Research Station at Bocas del Toro. Dr. Valdés collected 22 species of opisthobranchs, including some rare species such as *Chromodoris kempfi*, shown at left.

This work was a preliminary step in a more ambitious survey of the opisthobranch diversity in the Caribbean that Dr. Valdés will be conducting during the next few years.

### ***Entomology***

Brian Brown, Curator of Entomology, traveled to Costa Rica from 15-20 February, 2004, for meetings associated with the Costa Rican Diptera (flies) Inventory. He is the head editor for the 'Manual of Central American Diptera' project within the Inventory.

## **Meetings, Workshops, and Presentations**

### ***Vertebrate Paleontology***

Larry Barnes, Xiaoming Wang, Sam McLeod, Howell Thomas, Doug Goodreau and Gary Takeuchi contributed to presentations for the annual meeting of the Western Association of Vertebrate Paleontologists held at Occidental College on February 14. Most of the other staff of the Rancho La Brea and Vertebrate Paleontology Departments and several research associates and volunteers attended the meeting. One third of the presentations were made by our own staff and associates.

Xiaoming Wang announced the discovery of a primitive bear-like carnivore from southern California, Larry Barnes presented an amazingly complete fossil sea cow from Irvine (above right), and Howell Thomas reported the discovery of a very complete fossil leatherback turtle. With their Associates and students they also announced discoveries of an archaic toothed whale, an



archaic baleen whale, a toothed baleen whale from Orange County, and a new kind of carnivore from China.

The next meeting of the Association will be held at our museum on February 19, 2005.

### ***History***

Seaver Center curator Jonathan Spaulding has delivered lectures recently at the annual Docent Lunch, the Los Angeles City Club, and the Los Angeles Public Library's annual Marie Northrup Lecture series. In late March, he will be presenting a paper to the annual meeting of the American Society for Environmental History in Victoria, B.C.

### ***Malacology***

Lindsey Groves, Jim McLean, and Ángel Valdés attended the 8<sup>th</sup> annual gathering of the Southern California Unified Malacologists (SCUM) along with Malacology Research Associates Mary Jane Adams, Lance Gilbertson, George Kennedy, Pat LaFollette, Phil Liff-Grieff, and Bret Raines. SCUM is an annual one-day meeting of professional, student, and amateur malacologists and paleontologists to facilitate contact and keep abreast of research activities and opportunities.

### ***Invertebrate Paleontology***

In early January, Research Associate Elena Pérez co-taught an international course titled "Marine Productivity And Seasonality: Responses Of Microbenthos In Oxygen-Poor Environments, Past And Present" at the Marine Biological Station of the University of Concepción, Chile. This course was part of the Fourth Austral Summer Institute (ASI-4), developed in collaboration with the Woods Hole Oceanographic Institution and Fundación Andes.

Collections Manager Harry Filkorn has been selected to serve on the organizing committee for the Seventh International Congress on Rudists, to be held June 5-11, 2005, in Austin, Texas. Rudists are aberrant marine bivalves (weird clams) that formed reef-like carbonate build-ups (thick limestones) during the Cretaceous Period (144 - 65 million years ago). They evolved rapidly and attained a high diversity before becoming extinct at the end of the Cretaceous. Rudist deposits are important petroleum reservoir rocks (with huge monetary implications) found along the Gulf Coast and in other parts of the world. Further information about the Congress is available on the web at: <http://www.tmm.utexas.edu/npl/rudist2005/index.html>

## **External Funding**

### ***Entomology***

Brian Brown, Curator of Entomology, received a National Science Foundation "Research Experience for Undergraduates" supplement to his current grant, "Combined morphological and molecular phylogenetics of *Melaloncha* bee-killing flies." This new funding will allow him to hire a student assistant for the summer and will support that assistant's costs on a field trip to Peru. Undergraduate supplements are a critically important part of NSF's (and our) mandate to involve students in the research process as much as possible, hopefully giving them the experience and inspiration to continue their studies.

See also the Museum Loan Network (MLN) grant to Scott Van Keuren, Assistant Curator, Anthropology, under Collection News.

## New Research and Collections Staff

### *Ichthyology / Molecular Systematics Laboratory*

Dr. Andrew Thompson joined the staff of Ichthyology and the Molecular Systematics Laboratory as the new W. M. Keck Foundation postdoctoral fellow. Andrew received his PhD. from the University of California at Santa Barbara in December, and joins us to continue his research on the phylogeny, population biology and ecology of shrimp-associated gobies (below). Andrew has performed field work with Christine Thacker over



the past four years in localities across the South Pacific including the Society Islands, Cook Islands, and Fiji, and is an expert at capturing both the shrimp gobies and their symbiotic shrimp. Andrew is evaluating the evolution of the shrimp/goby symbiosis using ecological data, DNA sequence data, and nuclear microsatellite markers. In addition to his molecular lab work, Andrew and Christine are planning field work in the Coral Sea

in 2004 and 2005, and are beginning a project on the overall large-scale evolutionary patterns among a variety of shrimp and goby taxa.

R. M. Parsons Undergraduate fellow Lauren Matsui also joined Ichthyology and the Molecular Systematics Laboratory. Lauren is generating and analyzing DNA sequence data for projects on the phylogeography of Australian stream fishes and on California Channel Island gobies. Lauren is joined by volunteer Daniella Perry, also from Santa Monica College.

### *Anthropology*

Ambyr Hardy is the newest volunteer in the Department of Anthropology. She is an undergraduate at California State Long Beach majoring in anthropology, and will be working on preventative conservation projects, collection documentation, and artifact photography.

## Public Outreach

The results of recent researches on the Rancho La Brea collections were featured in the January 24 issue of **Science News** (<http://www.sciencenews.org/20040124/bob9.asp>), a weekly magazine featuring the latest news across all fields of science.

## Distinguished Visitors

In addition to the steady stream of speakers from various institutions who have participated in our R & C Seminar Series and worked with collections and staff during January and February, Dr. Henry Gee, Editor of the journal *Nature*, met informally with members of our Vertebrate Paleontology section while visiting LA and giving local seminars.

## Recent Publications

**Brown, B. V. 2004. Revision of the subgenus *Udamochiras* of *Melaloncha* bee-killing flies (Diptera: Phoridae: Metopininae). *Zoological Journal of the Linnean Society*. 140: 1-42.**

This paper deals with nine described and thirty-three new species of one subgroup of the South and Central American bee-killing flies. This paper also puts the flies into an evolutionary context, showing changes in structure from their closest relatives. Dr. Brown has been studying these flies for the last three years and has collected thousands of new specimens, including at least 150 new species. His work on bee-killing flies is funded by a grant from the National Science Foundation.

**Martin, J. W., and J. W. Goy. 2004. The first larval stage of *Microprosthema semilaeve* (Von Martens, 1872) (Crustacea: Decapoda: Stenopodidea) obtained in the laboratory. *Gulf and Caribbean Research*, March 2004.**

This short paper describes the previously unknown larvae of a small and colorful marine “cleaner shrimp” that we found in the waters off Guana Island (Caribbean).

**Martin, J. W., R. W. Heard, and R. Wetzer. 2003. A new species of *Stenetrium* Haswell, 1881 (Crustacea, Peracarida, Isopoda, Asellota) from Navassa Island, northern Caribbean. *Proceedings of the Biological Society of Washington* 116(4): 967-977. (late addition! This one should have been in the January newsletter)**

A new species of isopod crustacean (marine pill bug) from our work in the Caribbean.

**Martin, J. W. 2004. Oplophorid shrimp (Decapoda, Caridea) from an Arctic hydrothermal vent. *Crustaceana* 76(7): 871-878.**

The first record of a shrimp from hot vents on the Arctic Ocean floor at the Gakkel Ridge, the slowest known oceanic spreading center.

**Rathburn, A. E., M. E. Pérez, J. B. Martin, S. A. Day, C. Mahn, J. Gieskes, W. Ziebis, D. Williams, and A. Bahls, 2003. Relationships between the distribution and stable isotopic composition of living benthic foraminifera and cold methane seep biogeochemistry in Monterey Bay, California. *Geochem. Geophys. Geosyst.*, 4 (12), 1106-1134.**

Marine sources of methane (a greenhouse gas) have tremendous potential to affect climate, seafloor stability, and biodiversity. In order to understand the consequences of methane release, it is crucial to estimate the extent and timing of natural flux of methane through geologic time. We have used remote operated submersibles to explore and sample methane seep habitats in California to determine whether benthic foraminifera can be used to assess changes in methane seepage in the past.

**Zuschin, M., Stachowitsch, M., and Stanton, R. J., Jr. 2003. Patterns and processes of shell fragmentation in modern and ancient marine environments. *Earth-Science Reviews* 63:33-82.**

## Miscellaneous

### *Vertebrate Paleontology*

***Lothagam: The Dawn of Humanity in Eastern Africa*** (2003, Columbia University Press), edited by Meave Leakey and John Harris (Division Chief, Vertebrate Studies), and featuring a contribution by Jody Martin and Sandra Trautwein (Crustacea), won the Association of American Publishers Professional/Scholarly Publishing Division Award for 2003 for the Best Book in Sociology and Anthropology.

### *History*

Last summer's Edward Weston exhibition at the Huntington, for which Seaver Center curator Jonathan Spaulding served as co-curator, was named by Los Angeles Times critic Christopher Knight, as the best of 2003 at a major Los Angeles museum.

### ***Species Naming Program***

The species naming program, designed to recognize significant contributions to the museum at the same time that it benefits ongoing work in R & C, has now honored 10 museum donors, with species of crustaceans, insects, mollusks, and corals being named in their honor. Special thanks to Tom Jacobson for making this program work.

### ***HazMat Training***

R & C biology collection managers and members of the Registrar's office and the MBPC attended a 2-day workshop on handling and transporting hazardous materials led by Jack Peters of Haz Mat Transportation Services. This workshop was designed specifically for us and addressed the issues concerning our ethanol- and formalin-preserved specimens. 15 staff members are now certified under both Department of Transportation and International Aviation Transport Association regulations.

### ***Polychaetes***



Collections Manager Leslie Harris spent a week at the Philadelphia Academy of Natural Sciences examining and organizing the J. Percy Moore type collection. Moore was one of the earliest polychaete workers in California and described many of the common species in our fauna, such as *Neoleprea californica* (at left). Information gained from this visit will be passed onto local researchers in an effort to standardize regional taxonomy.

**Congratulations** to Karine Pezeril, former IMLS-funded Assistant Lab Supervisor at the Page Museum and Senior Excavator for the Pit 91 Excavation, who will be expecting her first child in August. Sadly, this means that she won't be leading the excavation this year!

**Congratulations** also to Todd Haney (graduate student-in-residence and Research Assistant in Crustacea), who, with help from his wife Lisa, gave birth to their first child, Ty Thomas Haney, in early February.

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