



NO BONES NEWSLETTER

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Volunteering in IZ - A Family Affair

David Pawson

A little over 30 years ago, my family moved from Vienna, VA to McLean, VA. Within a day or two, we had met our next-door neighbors, the Vance family, Doris and John and their children Tammy, Eric, Heidi and Andrea. Doris and her children have always had an abiding interest in marine biology and natural history generally. When Tammy was a graduate student in biology, she worked for me in the early 1980's, plotting the distribution of Australian sea cucumbers. Eric also worked for me in the late 1980's, when he was a medical student; he measured numerous feather stars from our submersible dives in the Bahamas. They're both involved with natural history today - Tammy is the Executive Director of the Virginia Outdoors Foundation, and Eric is a psychiatrist in New Hampshire (isn't psychiatry a form of natural history?). Doris has an A.A. and a B.A. in Education; she has had a long and very successful career as a school teacher, mostly at The Langley School in McLean. During her 23 years at Lan-

gley, she introduced her young charges to marine biology in a variety of ways, including writing scripts for, and making costumes for, numerous plays. She made hundreds of costumes - crabs, jellyfish, whales, sea stars - over the years. She even made the Leopard costume for the school's mascot. Doris retired a year ago, to spend more time with her 11 grandchildren; she also drives to North Carolina once a month to take care of her 94-year-old mother. And, fortunately for us, she now has time to indulge her all-consuming passion for marine biology, not only the research aspects, but also our public outreach.

Over the past 15 years, Doris has worked with me, partly as a contractor, mostly as a volunteer, on a variety of projects dealing with echinoderms. She is an enormously valuable and tireless worker, an enthusiastic cheerleader, and she likes to see things through to completion. We have co-authored several publications; at present we (i.e. mostly Doris) are working through two big projects - a monograph of the Western Atlantic sea cucumbers, and an illustrated checklist of the more than 700 species of echinoderms known from the Gulf of Mexico. Both the monograph and the checklist will have hard copy and richly illustrated web-based versions. We are to start working on a guide to echinoderms of the southeastern US.



Doris Vance stalking the wild sand dollar, Bradenton, Florida. (photo by D. Pawson)

Doris' unbounded energy carries over into field-work. At least once a year,

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C O V E R S T O R Y C O N T.

Doris and her equally tireless and marine-oriented sister, Joyce McCullough, accompany me into the field, where we make studies of speciation and hybridization of sea urchins. Much of this work is based at the Smithsonian Marine Station at Fort Pierce. Doris and Joyce are both world champions at tracking down our animals by snorkeling, wading or dredging. I'll always remember them in the field at Padre Island, Texas, during a very stormy week last September, being bashed by endless large

waves, as they bravely waded out into neck-deep water in search of sand dollars.... of course, I had to stay ashore to keep the rain off of my Fritos.

Doris' great good humor and always-positive attitude make every day in the laboratory a joy. I hope to express my gratitude to her in a tangible way some day by fulfilling her oft-expressed wishes - that I finish a few long-pending projects, and tidy up my room.



A new blue-with-spots sea cucumber, *Chirodota heheva* Pawson & Vance, being supervised by a shrimp (*Alvinocaris* sp.) as it forages in a bed of mussels (*Bathymodiolus heckeri*) at a methane seep, Blake Ridge, east of Georgia, 2178 m. (photo by C. Van Dover)

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S P E C I A L R E P O R T

Donation of Scientifically Valuable Library on Echinoderms

Dr. John Lawrence of the University of South Florida, Tampa, will retire in a year or so, after a long and distinguished career in research and teaching. His research on the echinoderms (sea stars, sea urchins and allies) has ranged widely over fields as diverse as nutrition, functional biology, and reproductive biology. Over the years, John has shepherded a large number of graduate students through his research laboratory. To our surprise and delight, John has decided to donate his valuable echinoderm li-

brary. It will find a home in the Austin Clark Library of Echinoderms. His library is extensive, and it includes numerous older European works on morphology. He has had many of these translated into English, thereby making them accessible to a wider audience. The bulk of the library transfer will take place in about 18 months' time; however, **Dave Pawson** recently received a parcel containing four translated books - Tiedemann 1816, Viguier 1869, Koehler 1883, and Prouho 1888 - the transfer has begun!

VIP Event - A Visit from Colombia's First Lady

The First Lady of Colombia, Mrs. Lina María Moreno de Uribe, visited the Museum on Wednesday, March 24. She was accompanied by the Colombian Ambassador's wife, Mrs. Gabriela Febres-Cordero de Moreno, two staff members from the Colombian Presidency Office, and two from the Colombian embassy. The group was met by Secretary Larry Small, the ADRC Hans-Dieter Sues, and Department of Zoology (DZ) cu-

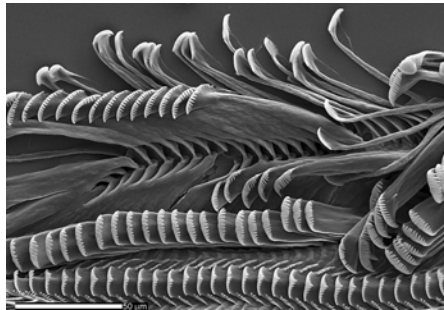
rator **Rafael Lemaitre**. The group was offered a guided tour of the mammal hall, led by the Secretary; the gem and minerals hall, led by curator Jeff Post; and the Crustacea National Collections, led by Rafael Lemaitre and DZ Chair **Jon Coddington**. A subsequent communication from the Colombian Embassy indicated how thankful the First Lady felt for the tour, and expressed her fascination for all that she saw and learned.

O U T R E A C H

Christopher Newport University Students Learn about Invertebrate Collection Specimens

Ron Mollick, professor at the Christopher Newport University in Newport News, VA, came with his invertebrate zoology class of 20 students on April 8, 2004 for the annual tour given by invertebrate zoology staff. In addition to showing the class the vast and diverse alcohol and dry invertebrate collections each staff member gave a unique talk of their own chosen topics. **Kristian Fauchald** discussed the morphology and distribution of annelids and the very unusual biology of the vestimentiferans. He talked about the unique symbiotic relationship with bacteria which produce their energy from hydrogen sulfide - as the only way they can live! **Marilyn Schotte** led the group to view several features of the world's largest Crustacea collection (6 ½ miles of shelves), and then to see the card catalog, IZ website, the on-line catalog and the world list of isopods. This site includes a new digital multimedia presentation (video clip) featuring a common terrestrial isopod, which was collected in **Chris Tudge's** backyard and filmed in Marilyn's office. **Yolanda Villacampa** led the group to see the original Mollusk ledgers containing the first handwritten records of USNM cataloged mollusks (the first volume includes entries from

the 1860's) and then described the cataloging evolution into the current computerized catalog system, EMu.



SEM image of freshwater snail radula, *Fluminicola* sp., USNM 883563. (photo by Y. Villacampa)

An overview of snail anatomy was discussed with the assistance of SEM prepared springsnail specimen parts and images. **Steve Cairns** talked to the group about deep-sea biology, its history and logistical difficulties. He also discussed deep-water corals and their adaptations to the deep-sea environment. In addition, Steve provided information about the summer intern program at NMNH to the students. **Cynthia Ahearn**, the sponsor and organizer of the tour group, presented a display of a variety of specimens and discussed echinoderm behaviors including regeneration, feeding and reproduction and the success of the echinoderm skeleton!

NMNH Mollusk Student Protege

In 2002, high school student Emily Munday, participated in the Discovery Young Scientist Program at NMNH (and was the national finalist). Her IZ tasks during her one week stay included identifying sea cucumbers and SEM lab work with **Cindy Ahearn** and learning about cephalopods and giant squid with **Clyde Roper**. Her interest in mollusks blossomed and although she "just can't

find any giant squid in Montana!", she did manage to be the recent winner of the Montana Science and Engineering Fair for her science project on freshwater snails and will be going on to the International Science and Engineering Fair in Portland, Oregon, in May. Her project involved bioaccumulation of copper in freshwater snails.

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V I S I T O R S P O T L I G H T

The Frenchman and his Hermits

Rafael Lemaitre

This spring (April 18-May 18) **Rafael Lemaitre** hosted his French colleague, **Joseph Poupin**, professor at the French Naval Academy (Systèmes d'Information Géographiques Institut de Recherche de l'Ecole Navale, Brest). During the last 15 years Joseph has participated in many expeditions to French Polynesia and the New Caledonia area where he has collected outstanding crustacean samples, including numerous specimens representing new species, genera, and even families, of various decapod groups. Although Joseph specializes in hermit crabs of the genus *Calcinus*, most of which have spectacular color patterns, he also works on other hermit crabs, as well as brachyuran crabs. He is here at the NMNH working in the Decapod/Stomatopod Lab with Rafael on three projects: 1) study of the *Calcinus* material from the Albatross Expedition to finish a key and diagnoses of all Pacific species; 2) a paper reviewing all species of the grapsid crab genus



Calcinus gouti Poupin, 1997 from Tuamotu, French Polynesia. (photo by G. Paulay)

Pachygrapsus; and 3) study of our collections from the Clipperton Atoll, a remote island in the eastern Pacific. Joseph will be participating in a one month scientific expedition to Clipperton in 2005, and is reviewing existing decapod material in preparation for his trip. Among other achievements, Joseph has built a well-known world-wide web site (<http://decapoda.free.fr/>) with a remarkable database of color photographs of decapods and stomatopods mainly from French Polynesia.



Dr. Joseph Poupin, visiting from the French Naval Academy, works on Pacific species of hermit crabs. (photo by R. Gulledege)

A N N O U N C E M E N T S

Distinguished Award

On April 25, 2004, **Clyde Roper**, Zoologist Emeritus, received a "Distinguished Achievement Award for career-long contributions to science, education and community" from his undergraduate alma mater, Transylvania University, in Lexington, Kentucky.

Staff Photo Album

The staff photo file, [ZoologyPhotoAlbum.pdf](#), is now accessible on the **P drive** in the **ZOOSHARE** folder. Staff information and photos will be updated periodically. Contact **Molly Ryan** for changes.

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V I S I T O R S

Peter Etnoyer, Aquanautix Consulting, Los Angeles, California (2/24 – 3/30) examined deep-sea octocorals for conservation purposes. **Sponsor: Steve Cairns.**

Cheryl Morrison, USGS, Kearneysville, West Virginia (2/24 – 2/25) consulted with Dr. Cairns on molecular work with *Lophelia*, a deep-sea coral in the Gulf of Mexico. **Sponsor: Steve Cairns.**

Daniel Graf, The Academy of Natural Sciences of Philadelphia, Pennsylvania (3/8 – 3/10) examined the freshwater clam collection. **Sponsor: Robert Hershler.**

Daniel Blake, University of Illinois, Urbana, Illinois (3/15 – 3/19) conducted echinoderm research. **Sponsor: Cynthia Ahearn.**

Ilya Temkin, American Museum of Natural History, New York (3/22 – 3/26) studied the collection of Pterioidea (Bivalvia). **Sponsors: Jerry Harasewych, Yolanda Villacampa.**

William Schroeder, Dauphin Island Sea Lab Marine Environment Science Consortium, Alabama (3/23) examined some Indo-Pacific ophiuroids with Ms. Ahearn. Met with Dr. Cairns regarding corals. **Sponsors: Cynthia Ahearn, Steve Cairns.**

Eric Lazo-Wasem, Yale University, New Haven, Connecticut (3/25) delivered a collection of marine invertebrates. Met with Drs. Pawson and Cairns. **Sponsor: David Pawson.**

P. Mark O'Loughlin, Parade College, Bundoora, Australia (3/28 – 4/23) continued studies of snallactid holothurians. **Sponsor: Cynthia Ahearn.**

Tomas Stemann, University of West Indies, Jamaica (3/29) examined Cretaceous corals, and consulted with Dr. Cairns on fossil turbinoliid coral genera. **Sponsor: Steve Cairns.**

Bella Galil, Israel Oceanographical & Limnological Research Ltd, Haifa, Israel (4/1 – 4/3) studied crabs of the family Leucosiidae, and worked in the library. **Sponsor: Rafael Lemaitre.**

Darryl Felder, University of Louisiana at Lafayette, Louisiana (4/5 – 4/7) studied specimens of Thalassinidea. **Sponsor: Rafael Lemaitre.**

Melissa Frey, University of California at Davis, California (4/3 – 4/7) worked with the *Nerita* collection. **Sponsor: Jerry Harasewych.**

Francisco Solis-Marin, Instituto Ciencias del Mar y Limnologia, UNAM, Mexico (4/3 – 4/13) conducted holothurian research. **Sponsor: Cynthia Ahearn.**

Ron Mollick, Christopher Newport University, Newport News, Virginia (4/8) and his 20 undergraduate students met with IZ staff for a behind-the-scenes tour of the invertebrate collections. **Sponsor: Cynthia Ahearn.**

Joseph Poupin, Institut de Recherche de l'Ecole Navale Ecole Navale et GEP, LANVEOC-POULMIC, Brest, France (4/18 – 5/18) conducted research on hermit crabs (genus *Calcinus*) from the "Albatross" expedition with Dr. Lemaitre. **Sponsor: Rafael Lemaitre.**

John Starmer, University of Guam Marine Lab, Mangilao, Guam (4/19 – 4/21) examined USNM holdings of ophiuroids. **Sponsor: Cynthia Ahearn.**

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V I S I T O R S C O N T.

Gustav Paulay, Florida Museum of Natural History, University of Florida, Gainesville, Florida (4/19 – 4/22) examined the USNM echinoderm holdings. **Sponsor: David Pawson.**

Henry Nelson & Silvia Termes, U.S. EPA, Washington, D.C. (4/30) viewed the type collection of the Cuban Polymita land snails. **Sponsor: Robert Hershler.**

Ellen Strong, University of Minnesota, Bell Museum of Natural History, Minnesota (5/4) presented a seminar, "The origins of highly modified clades- perspectives from gastropod phylogeny". **Sponsor: Rafael Lemaitre.**

T R A V E L

CITES Workshop: Protecting Sea Cucumbers

Dave Pawson was invited to participate in the "Technical Workshop on the conservation of sea cucumbers" on 1-3 March 2004, sponsored by the CITES Animals Committee. About 20 species of tropical sea cucumbers are prized as food in the Orient, and they command high prices - sometimes as much as \$100 per pound! Because of the demand and the price, the fishery for these animals is intensive, and today some of the commercially useful species are almost extinct in many areas.

The meeting was held in Kuala Lumpur, Malaysia; it brought together sea cucumber experts, fishery biologists, importers and exporters, and CITES staff members. The outcome was an extensive list of recommendations concerning conservation and management of sea cucumber fisheries. These recommendations are to be discussed and hopefully adopted at the next Conference of the Parties to CITES in October, 2004.

Marine Science Network

Klaus Ruetzler attended the annual steering committee meeting of the Smithsonian Marine Science Network, in Bocas del Toro, Panama, 28 April-2 May. Klaus represented our Caribbean Coral Reef Ecosystems Program (CCRE) and the Carrie Bow Marine Field Station, Belize. Valerie Paul, director of the Smithsonian Marine Station at Ft. Pierce, Florida, represented the NMNH. The committee was chaired by Michael Lang, Office of the Undersecretary for Science. Other members are Tuck Hines (SERC), Biff Bermingham (STRI), and Phil Taylor (NSF). Principal topics were strategic planning for the Network, revision of award procedures, fellowships, and fund raising for facilities improvement. The committee was also introduced to the marine habitats near Bocas, and the new STRI laboratory facilities that were recently built near this small Caribbean town.

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