From the Chair:

Importance and Impact of Visitors and Collections Users

This issue of NoBones highlights the activities and stories of visitors working in IZ. It is timely to end the year with such a topic for we are thankful to the many scholars, students, and others, who constantly visit us. They come from the US and many other parts of the world, and make our jobs much more fun and satisfying.

We make every effort in IZ to be good hosts to our many visitors. The IZ staff is dedicated to making sure the collections are accessible for their research while they are working here, and for the subsequent care of the specimens they have used. We are caretakers of 34 million invertebrate specimens, and we make sure that all work is done according to NMNH and Departmental management and policy and procedures. The work visitors perform benefits the IZ collections in many ways, and their presence provides us with much needed interaction with users, colleagues, and the outside community in general.

Recent statistics for visitors are quite telling, and it is of interest to record them here. In the last fiscal year alone (FY06), IZ hosted 168 scholar visitors; and

in the last 5 years (2001-2006) a total of 789 (an average of 158/year). As for academic appointments, we have registered with IZ: 12 Fellows or Grad Students, 23 Research Associates, 5 Collaborators, and 3 Adjunct Scientists (NMFS). Last year alone, IZ staff conducted 30+ tours to various VIPs or other individuals, Congress people, groups of various kinds, and SI/NMNH officials. While these numbers are impressive, it is even more revealing to see how much time our dedicated support staff spends taking care of the many tasks related to helping make our visitors

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Happy Holidays and Prosperous New Year to All!
Higlights of 30 Years of Service
Tyjuana Nickens

My career with the Smithsonian Institution began in 1974 as an intern with the Museum Studies Program through Dunbarton College of the Holy Cross. My mentor was the late Dr. Nancy Foster. Then I became a Trust Fund employee and eventually qualified for a Federal position at the Smithsonian Oceanographic Sorting Center (SOSC). I was assigned to two different sections while there, the Plankton and Records Sections. My SOSC projects and duties were varied and included identification of various groups from planktonic samples. Statistical reports for the receipt and distribution of collections by specialist and institution were often requested and produced by the Records Section.

In May 1992, SOSC administration was given notice of the Center’s closing. This was a very dramatic time period and Dr. Ferrari was very helpful to the Plankton staff in making the transition from SOSC to the IZ. My years at SOSC provided me with an excellent basis for working with invertebrates and my assignment to the IZ Division of Mollusks opened up many more job opportunities and exciting challenges for me.

I was assigned to the late Dr. Richard Houbrick as his research assistant. Later my duties increased to include the position of Mollusks Data Manager and eventually Echinoderms and Lower Invertebrates also. I’ve witnessed several data storage collection changes over the years, from the “Honeywell” to “Selgem on the IBM” to online cataloging with “KE EMu.” Additionally, as a Data Manager, I participated in many team projects.

In Mollusks, I have been the Project Manager for the Freshwater Bivalvia Inventory Project. Data requests and collection visits reflect a high level of scientific interest from a wide group of researchers.

One of the most rewarding experiences to date has been my participation in the Mentorship Program for students from Thomas Jefferson School for Science and Technology, Minorities in Science and Technology (MIST) for Metropolitan Area High School Students. I have also enjoyed involvement with the Calverton Elementary School Science Fair and River Terrace Elementary School Career Day in Washington DC.

Over the past thirty years, I have moved from the Navy Yard in southeast DC to the Museum Support Center in Suitland, MD and back to the Museum. What’s next?!!!
On October 25 Steve Cairns presented a lecture on the diversity and distribution of deep-water corals at the Museum of Comparative Zoology at Harvard. It was Steve’s pleasure to have E. O. Wilson in the audience.

Allen Collins gave an invited seminar at the Department of Organismic and Evolutionary Biology at Harvard University on September 28: Beauty before Brains: Animal Evolution Prior to the Origin of Bilateria. On November 17 Allen attended the Virginia Association of Science Teachers annual meeting to present two workshops (with his wife Jennifer Collins). The subjects were: Mystery Meat: Using Genetic Barcodes (DNA) to Solve Real-World Questions and Teaching Evolution: Using Antibiotics, Avian Influenza and More! Allen and Jennifer had a wonderful time with a great set of teachers and these fascinating topics.

Kristian Fauchald and Geoff Keel were at Carrie Bow Cay from November 2–14, conducting research and collecting polynoid polychaetes. At the same time, Natalya Budaeva (currently pre-doctoral fellow at the Museum, normally at Akademia Nauk, Moscow), Joana Zanol Silva, (graduate student at George Washington University), Greg Rouse (Scripps Institution of Oceanography), and Fredrik Pleijel (Tjaernoe Marine Biological Laboratory, Sweden) were busily collecting worms. Natalya concentrated on onuphids, especially a couple of species Kristian had described many years ago and Joana worked on the eunicids. Greg and Fredrik, both former post-doctoral fellows here, were focused on a whole variety of polychaete groups and took spectacular photographs of many of them. Some of the species found have not been previously described. This turned out to be true for all the researchers, even for Kristian and the many polynoids present in Belizian waters which he collected.

Martha Nizinski participated in a four-day research cruise (September 18–21) aboard the R/V Cape Hatteras. Bottom and midwater collections were made above and adjacent to deep-water coral reef sites off the coast of North Carolina to supplement observations and collections made from previous submersible dives in that region. Martha also presented an invited seminar on October 10 at The University of Rhode Island (URI) Graduate School of Oceanography. She spoke on her current research program examining deepwater coral reefs and associated faunal assemblages. This seminar was part of the Advancing Oceanography Seminar Series that seeks to bring female scientist role models to URI to present and discuss their scientific research and also to mentor female graduate students enrolled in the oceanography program.

Dave Pawson reports that Ft. Pierce, Florida sand dollars are spawning once again. Although statistical data is not yet available, specimens collected on a field trip from September 9–17 seemed to be producing more than the usual number of eggs, which is a not unexpected sign of recovery from “hard times.” [In March Dave and research collaborator Doris Vance reported that sand dollars and some marine worms were not reproducing and concluded that the hurricanes of late 2005, which caused huge offshore waves for several days, were to blame. [See NoBones, 2006, 20(1):7]

From September 15–18 Clyde Roper was in San Diego for a Smithsonian Affiliates weekend with the Education Department of Sea World. About 400 teachers (K-12) from the San Diego area came for a seminar and open house. Clyde presented a lecture, The Giant Squid Comes to Your Classroom, in which he demonstrated how teachers can use a big, fascinating marine animal to catch the attention of students and introduce them to the oceans. The lecture was followed by an enthusiastic question and answer session. Also, Clyde was featured on the cover page of the September–October Seabrowser (the Virginia Aquarium and Science Center Newsletter). The lead article, Dr. Squid shares his passion for giant squid., included a picture of Clyde in the NMNH cephalopod collection. On October 7, as part of an October is for octopus and squid celebration at the aquarium, Clyde fielded questions at the squid exhibit and later presented a lecture that focused on his experiences studying the giant squid.

In early September Ellen Strong and Marilyn Schotte traveled to Espiritu Santo in Vanuatu as part of SANTO 2006, a Census of Reefs expedition for the Census of Marine Life. This part of the survey is focusing mainly on mollusks and their associations. Ellen is head of the mollusk specimen preservation team, whose goal is to prepare thousands of specimens for DNA sequencing and anatomical investigation. The IZ team returned in mid-October.


*Deceased

Sarah Berke, University of South Carolina, Columbia, South Carolina; examined decapods in the crustacean collections, primarily families Majidae and Dorippidae (12/06–09/2006). Sponsor: Rafael Lemaître


Meg Daly, Ohio State University, Columbus, Ohio; studied specimens in sea anemone collections (10/16–10/20/2006). Sponsor: Tim Coffer

Megan Eastwood, Humboldt State University, Arcata, California; worked in Littorinidae collection measuring specimens for morphological changes (11/06–11/17/2006). Sponsor: Jerry Harasewych

Peter Etnoyer, Aquanautix Consulting, Los Angeles, California; examined deep-sea bamboo octocorals, and consulted with Cairns (12/11–13/2006). Sponsor: Steve Cairns

Harris Fienberg, Hopkins Marine Station, Stanford, California; worked in cephalopod collection (12/07/2006). Sponsor: Mike Vecchione

Antonio Frias Martins, Universidade dos Açores, Ponta Delgada, Azores, Portugal; collaborated on a Cerion (land snail) project with Harasewych (10/30–11/01/2006). Sponsor: Jerry Harasewych

Sarah Gerken, University of Alaska, Anchorage, Alaska; examined Cumacea from the crustacea collections (12/18–12/22/2006). Sponsor: Marilyn Schotte


Luciana Gusmao, Ohio State University, Columbus, Ohio; examined and identified specimens in sea anemone collections (10/16–10/20/2006). Sponsor: Tim Coffer

Beth Horvath, Westmont College, Santa Barbara, California; examined west coast octocorals, and consulted with Cairns (10/10–10/14/2006). Sponsor: Steve Cairns

Slava Ivanenko, Moscow State University, Moscow, Russia; located type slides in the copepod Humes slide collection, and converted temporary mounts into permanent archival mounts (09/18/2006–03/15/2007). Sponsor: Frank Ferrari

Alan Kohn, University of Washington, Seattle, Washington; worked with Conus family in mollusks general and type collections (10/23–10/31/2006). Sponsor: Ellen Strong, Jerry Harasewych

Alexey Kotov, Aleksei Nikolaievich Severtsov, Moscow, Russia; studied Cladocera collections at MSC (10/03–11/05/2006). Sponsor: Frank Ferrari

Harry Lee, Jacksonville, Florida; worked on micromollusks from Florida Atlantic coast (10/30–11/03/2006). Sponsor: Jerry Harasewych

Annie Lindgren, Ohio State University, Columbus, Ohio; examined cephalopod specimens (12/12/2006). Sponsor: Mike Vecchione

Heidi Mahon, Old Dominion University, Norfolk, Virginia; studied several mollusk groups in the family Littorinidae (10/20/2006). Sponsor: Jerry Harasewych

Alejandra Martínez-Melo, Instituto de Ciencias del Mar y Limnologia, UNAM, Mexico City, Mexico; studied USNM holdings of echinoderms (09/30–10/12/2006). Sponsor: Cynthia Ahearn

Dorien McGee, University of South Florida, Tampa, Florida; studied coral Oculina (12/11–12/12/2006). Sponsor: Steve Cairns

Chuck Messing, Nova Southeastern University Oceanographic Center, Dania Beach, Florida; examined Atelecrinus specimens in echinoderm collections (12/20–12/22/2006). Sponsor: Dave Pawson

Tina Molodtsova, Institute of Oceanology, Moscow, Russia; studied antipatharian corals, and consulted with Dennis Opresko (12/06–12/09/2006). Sponsor: Steve Cairns


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NEW TITLES: INVERTEBRATE LIBRARIES
October - December 2006

Boschi, Enrique E. 2000. Species of decapod crustaceans and their
distribution in the American marine zoogeographic provinces.
Edition: 2a ed. Mar del Plata, Argentina: INIDEP.

Bragina, L. G. 2004. Cenomanian-Turonian radiolarians of northern Turkey
and the Crimean Mountains Moscow: Maik "Hayka/Interperiodica".

Davidson, Elizabeth W. 2006. Big fleas have little fleas: how discoveries
of invertebrate diseases are advancing modern science. Tucson:
University of Arizona Press.

Development of sea urchins, ascidians, and other invertebrate
deuterostomes: experimental approaches. Amsterdam; Boston:
Elsevier Academic Press

Red Sea amphipod (Crustacea: Amphipoda, Corophiidae,
Siphonoecetinae). Thesis (M.S), University of Maryland, College Park.

de El Salvador: una guía para la identificación de las especies.
[Mayagüez, P.R.: UPRSG, Impresos Sea Grant]

Guzhov, A.V. 2004. Jurassic gastropods of European Russia: (orders
Cerithiiformes, Bucciniformes, and Epitoniiformes). Moscow: Maik
"Hayka/Interperiodica".

Schweizerbartsche Verlagsbuchhandlung.

Leiden, The Netherlands; London: Taylor and Francis.

annotated and illustrated catalogue of cephalopod species known to

of bivalves in the Phanerozoic. Moscow: Maik "Hayka/Interperiodica".


Tilbrook, Kevin J. 2006. Cheilostomatous Bryozoa from the Solomon Islands.
Santa Barbara, Calif.: Santa Barbara Museum of Natural History.

Zhuravleva, Faina Aleksandrovna, 2004. Astroviidea: a new superorder of
Paleozoic cephalopods. Moscow: Maik "Hayka/Interperiodica".

Importance and Impact of Visitors and Collections Users

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time here successful. Our Collection Manager, Cheryl Bright, and the support
staff she supervises, compiled in 2005 the number of hours spent doing each task
over the year (see Graph). You can peruse this graph for 2005 at your leisure, but
do notice that under the category of “Outreach & Visitor Service,” the staff spent
1262 hours (or 157.7 full working days) on this category alone. An “eye-opener,”
so enjoy.
Several of the items listed in the Publications section of this newsletter had unusually fine covers. A photo by Duane Hope was featured on the front cover of the Journal of Nematology for June 2006. The picture was part of an article by Sharma et al. 2006.

The 2006 NOAA Technical Memorandum NMFS-OPR 28, Deep-Sea Coral Collection Protocols by P.J. Etnoyer, S.D. Cairns and 14 other authors had a beautifully illustrated cover (see at right).

An important 2005 publication edited by P. Jereb and Clyde Roper, which was not released until mid-summer 2006, was described on page 2 of the November 15 NMNH Weekly Update & Forecast. An image of the colorful cephalopod cover accompanied the writeup.

Through the vision and generosity of The Carcinological Society of Japan (President: Keiji Baba), a special volume of Crustacean Research was dedicated to various papers presented during the 2005 International Crustacean Congress organized by Rafael Lemaitre and Chris Tudge. The striking cover image for the publication was shown on page 4 of the December 20 NMNH Weekly Update & Forecast.

And the article by Marilyn Schotte featured below, is yet another example of the important and varied publications emanating from IZ.

**WHY STUDY INVERTEBRATES?**

*Wings – Essays on Invertebrate Conservation* is a semi-annual journal published by the Xerces Society and generally focuses on entomological subjects. The aim of the journal is to provide public outreach and education about the natural history of insects, their biodiversity and conservation concerns. But the editors decided to make the fall 2006 issue exclusively dedicated to the topic of crustaceans and invited IZ staff member Marilyn Schotte to contribute an essay on isopods. The resulting article, entitled (by the editor) “Roly-Poly Lifestyles” (*Wings* vol. 29, number 2, pages 22-27) is a popular overview of the natural history of isopod crustaceans. A pdf file of the entire issue will be available as a link on IZ’s website under “What is an isopod?” (www.nmnh.si.edu/IZ)

This issue also contains articles by experts on the elusive branchiopods – fairy shrimp, tadpole shrimp, clam shrimp- as well as on crayfish, krill, and fiddler crabs, all accompanied by stunning photos for which Wings is well known.

The closing paragraph of “Roly-Poly Lifestyles” might apply to the reasons why we study invertebrates in general: “Why are isopods worthy of our attention or even our acknowledgement? Oblivious to human beings, the isopods under the garbage can or in the woodpile (just like their relatives in the sea) are busily engaged night and day in the immense job of recycling nutrients and carbon compounds. They feed on plant and animal matter, breaking down detritus and organic material, returning nutrients to the soil or substrate, becoming food of larger animals in the process. Completely beneath our usual awareness, they instinctively carry on the myriad actions and interactions that help maintain the web of all life.”
Dr. Jung-Fu Huang, Professor, Department of Aquaculture, National Kaoshsiung Marine University, Taiwan, R.O.C. (Also Former Director, Division of Continuing Education) (July 31, 2006–July 31, 2007)

Before I applied here for my sabbatical I had already heard from colleagues that the Smithsonian National Museum of Natural History is well-known and a great museum. But I never thought that I would get an opportunity to do research here. I work on the taxonomy of portunid crabs from Taiwan and am continuing with this research while on sabbatical. I really appreciate Rafael Lemaitre's agreeing to host me.

I was surprised that the collections of decapods in Invertebrate Zoology are worldwide and the arrangement and preservation of specimens on shelves is absolutely professional so that I can find and compare specimens as easily as picking a familiar name from a list in alphabetical order. The library is well-organized, and the best and most complete I have ever used. Because of the ready availability of research equipment and supplies I will be able to make a more extensive study than originally planned.

My family was very excited when I told them we would be coming to the United States. It was a dream come true. This is the first time we have visited and lived here and the English language is a challenge. After our arrival we encountered many difficulties with such tasks as renting a house, enrolling two children in school, and finding places to shop for our everyday needs. Commuting was also a problem at first. We have been fortunate to have the assistance of museum staff and new friends as we become accustomed to life in America.

Cléverson Ranniéri Meira dos Santos, Ph.D. student, Laboratorio de Crustáceos Decapodos Fundação Universidade Federal do Rio Grande, Brazil. (August 23–December 27)

On August 23, 2006 I arrived at NMNH to complement my doctoral studies on the biogeography, systematics and phylogeny of swimming crabs. It was my first trip abroad and I thought it would be just another visit to a collection.

As I stood surrounded by the Smithsonian Castle, NMNH, the Washington Monument and the Capitol, I felt as if I were in a movie. And when I entered the NMNH rotunda and saw the elephant I began to understand how big the museum is and to appreciate its cultural and scientific importance. The exhibits are wonderful, and made me feel as if I were traveling to different places and different times in the world.

After a quick tour of the museum, I met my sponsor, Dr. Rafael Lemaitre and he introduced me to the friendly people in IZ. I was sure that I would have a good time while working here, and I was right—and I had not yet seen the collections I was so excited about. The crab collection really surprised me, it was even bigger than I had imagined. Each jar of specimens I opened had its own data and history. Many crabs were collected at the end of the 19th century by the big expeditions that explored oceans around the world. It was interesting to study the same specimens that important carcinologists had used to write the books that I read. This was the experience that most inspired me to continue studying biology. My four months in the laboratory were excellent.

During my time here I examined about 2600 jars (more than 7,000 specimens) of portunids from the Atlantic and Pa-
specific Oceans as well as exploring the fantastic departmental library which provided important data for my thesis. My work is just one example of the contributions that NMNH makes to researchers all over the world and consequently to the progress of science. I will return to Brazil remembering this amazing experience and with the hope of returning someday. I do not have words to express my gratitude.

Dennis Opresko, Oak Ridge, Tennessee; worked in antipatharian collection (11/25–12/14/2006). Sponsor: Steve Cairns

Fredrik Pleijel, University of Gothenburg, Stroemstad, Sweden; studied polychaete collections, primarily the groups hesionids and phyllodocids (11/17–11/21/2006). Sponsor: Kristian Fauchald


Dwi Listyo Rahayu, Indonesian Institute of Sciences (LIPI), Pemenang, Indonesia; examined and identified Paguristes hermit crabs from the Albatross Philippine 1907-1910 Expedition (11/01–12/02/2006). Sponsor: Rafael Lemaître

Javier Signorelli, Museo Argentino de Ciencias Naturales MACN, Buenos Aires, Argentina; photographed mollusk types from South America (11/01–11/03/2006). Sponsor: Jerry Harasewych

Francisco Solis-Marin, Instituto de Ciencias del Mar y Limnologia, UNAM, Mexico City, Mexico; studied USNM holdings of Echinoderms (09/30–10/12/2006). Sponsor: Cynthia Ahearn.
AWARDS

After nearly a year of meetings, lobbying, and writing, the California-based Marisla Foundation (formerly Homeland Foundation) has awarded the Museum and IZ $168.5K to fund the work of Steve Cairns and Allen Collins during the second year (2007) of a five-year French-led Philippines deep sea expedition. Although Steve and Allen, who specialize in Porifera and Cnidaria, will be the most active players, other invertebrate groups (including IZ chair Rafael Lemaitre’s beloved hermit crabs) will be deposited at NMNH. It has been some time since IZ has been involved with a deep-sea expedition with such a broad taxonomic focus as this one, which will do much to refresh our collections. The money will help defray ship costs as well as provide funds for curation, cataloging, lab work, and publication expenses. It will also support postdoctoral students during the summers. Maria Elena Gutierrez and her assistant Francis Grice, plus Karen Avery (SI Foundation Relations), were instrumental in obtaining this award.

In addition to the above award, Kristian Fauchald received a grant for $28,740 from the U.S. Geological Survey/US Department of the Interior for Disposition of Biological Specimens from the Outer Continental Shelf and Continental Slope. Total award to date is $596,612. Jon Norenburg was awarded $9,999 by Fisher BioServices/National Cancer Institute for Archiving and Managing the Natural Products Voucher Collection, and the National Science Foundation provided Dave Pawson a $5,000 Post Doctoral Research Fellowship Host Institutional Allowance for Christopher Mah.

HOLIDAY HIGHLIGHTS

Once again organizer Lana Ong and her elves helped make IZ’s holiday party memorable. From top left: Director Samper observes IZers in festive mode; Carla Dietrich, Bill Moser, Michelle Brown and Yolanda Villacampa smile for cameraman Mike Carpenter; Lou Kornicker presents Chair Lemaitre award of drawing by Molly Ryan in appreciation of his work in behalf of IZ. Center row: Visitor Natalia Budaeva and volunteer Cheryl Ames enjoy a break; Klaus Ruetzler, Lou Kornicker and Dave Pawson (present at 1965 party) keep up the tradition; Retiree Jan Clark Walker chats with Marilyn Schotte. Bottom row: Katie Ahlfeld and Dottie Canaday enjoy a little down time. Photos by Yolanda Villacampa except as noted.