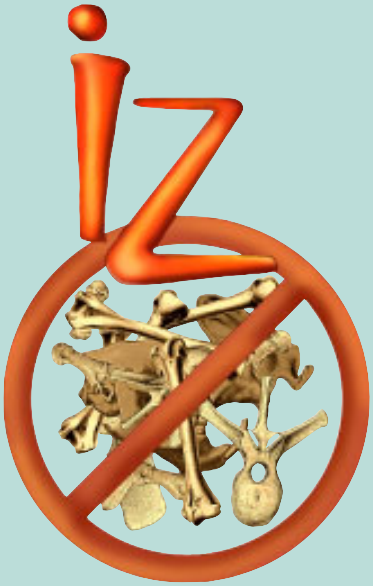

NO BONES
NEWSLETTER

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Section of Invertebrate Zoology
Department of Systematic Biology
National Museum of Natural History
Smithsonian Institution

CONTENTS: PAGE:

Staff members attend Summer Meeting of The Crustacean Society (TCS)

Marilyn Schotte

Nine staff members from the division of Crustacea traveled to Williamsburg, Virginia to attend The Crustacean Society's 2003 international summer meeting, this year sponsored by the Virginia Institute of Marine Science (VIMS), part of William and Mary College. Nearly 140 carcinologists (those who study crustaceans) gathered from eleven countries to talk about research and collection of crabs, lobsters, shrimp, peracarids. They also took advantage of the venue on the Chesapeake Bay, to eat some of them! The program was also sponsored by NOAA, Sea Grant, Virginia and the Chesapeake Bay Foundation. Dr. Jeffrey Shields, on the faculty at VIMS, was chairperson of the event. He was assisted by many people including **Martha Nizinski**, zoologist with NOAA and resident in the division of Crustacea.

The weather cooperated nicely on the first evening so that we could have a social reception in the courtyard of the Hospitality House of the college, where schmoozing was in full swing. Concurrent meetings started off early the next morning on the topics of sociobiology and behavior in crustaceans, and the biology of penaeid shrimps. In the afternoon the subjects turned to branchiopods and systematics. During this session, papers were given by Mark Grygier and **Frank Ferrari**, by **Rafael Lemaitre** and by **Chris Tudge**, who also chaired one of the sessions. Titles of the papers presented by staff members are added at the end of this article. For full abstracts of the papers and posters, visit the TCS website at http://www.tcs.org.

On Monday evening about 36 posters were displayed for general discussion on a vast array of topics dealing with the biology of crustaceans, in particular recent studies on the blue crab (*Callinectes sapidus*) of the Atlantic seaboard. Five members from the

Rafael Lemaitre prepares his talk on hermit crabs as Chris Tudge makes a point as chair of the session. (Photo by Karen Reed)

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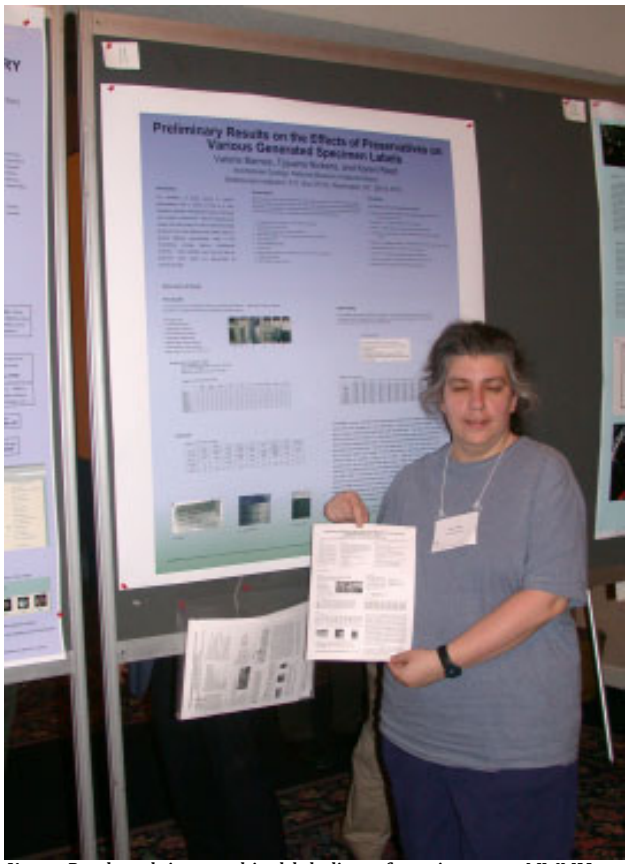
COVER STORY CONT.

division of Crustacea's technical staff were among the authors: **Rose Gulledge**, **Elizabeth Nelson**, **Lana Ong**, **Karen Reed** and **Marilyn Schotte**. John Fornshell, division associate from Paul VI Catholic High School in Virginia, presented a poster on copepods. **Brian Kensley** from IZ and **Warren Blow** from Paleobiology also attended the conference.

The topics covered on the second day featured biology of amphipods and of Rhizocephala (parasitic barnacles) as well as a general session on ecology and behavior, for example the phenomenon of a shrimp which is a simultaneous hermaphrodite, (*i.e.*, being both male and female at the same time). Ecology and systematics of Deepwater Crustacea (chaired by Martha Nizinski) dominated the afternoon session, covering galatheid lobsters, tanaids, deepwater vent animals, isopods and shrimp. During both days, several researchers showed video footage of the behavior of live animals, (*e.g.*, a female amphipod bringing a ball of food to her hungry offspring, swimming motion of remipedes, mating shrimp and dueling crayfish). Even sound effects were added! Imagine two shrimp mating in sync with "Waltz of the Flowers" and two male crayfish fighting to the tune of "In the Hall of the Mountain King." At the end of this one, the triumphant crayfish held its claws on high, whereupon the word "Champion" appeared on the screen, heartily cheered on by the appreciative audience.

The entire last day of the meeting was devoted to the biology and ecology of the blue crab, its recruitment, habitat, movement, feeding and management. In all, nearly 90 papers were presented during the three days. The last formal event was an outdoor barbeque on site at VIMS along the banks of the York River in Gloucester Point, VA. At this meeting, during a break in the music from a rock band, Gary Poore from the Museum of Victoria in Australia handed over the gavel (and a very loud red lobster tie, symbol of the president) to incoming president Trish Spears from Florida State University. Much of the useful interchange of this meeting, as always, happened during the social times, where former relationships between attendees were renewed and new collaborations formed, all this amidst copious food and drink thoughtfully provided by the organizing committee. We really applaud their efforts and wish them a speedy recuperation from a year's worth of planning! Next year's TCS Summer meeting will be held in Brazil and in 2005, the venue will be Glasgow, Scotland. For further information about the Crustacean Society, see the TCS web site mentioned on page one.



Karen Reed explains arvchival labeling of specimens at NMNH. (Photo by Rose Gulledge)

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NEWSLETTER STAFF

Dave Pawson
interim head, IZ

Geoff Keel
editor
keel.william@nmnh.si.edu

June issue produced by
Lana Ong & Marilyn Schotte

Rose Gulledge, Geoff Keel, Barbara Littman, Bill Moser, Lana Ong, Karen Reed, Marilyn Schotte, Yolanda Villacampa
newsletter staff

Richard Greene
library
greene.richard@silib5.si.edu

Please submit news or articles via email or disk by the 15th of the month prior to publication.

Publication in this newsletter does not constitute publication in a taxonomic or any other scientific context

SPECIAL REPORT

Janice Clark Walker is moving on...

Marilyn Schotte

Jan Walker (nee Clark), who has worn many hats during her federal government service in Washington, is retiring this year after more than 30 years on staff. Pursuing an early interest in art, she left her childhood home in Shaker Heights, Ohio to attend Stephens College in Columbia, Missouri and then George Washington University in D.C. Her first job began in 1971 at the National Gallery then she joined the Office of Environmental Sciences, working in the offices of **Bob Higgins** and **Cathy Kerby**. In 1973 Jan moved to the Smithsonian Oceanographic Sorting Center as a Museum Technician, working with **Joe Houbrick** and **Gordon Hendler**, who arranged for her first of many field trips as a scuba diver, this time to Belize. And the rest is history.

In 1979, Jan came to the National Museum of Natural History, advancing steadily from technician to specialist, research assistant and collections manager in the Division of Crustacea, specializing in identification of amphipods and shrimp. She wrote and published manuscripts with **Jerry Barnard** and **Bill Hart**, accompanying them on many field trips worldwide to Florida, Bermuda, Bahamas, Seychelles, Caribbean and Papua New Guinea. Her first dive trip? "I was so scared and sea-sick that I threw up over the side of the Zodiac, into Bill Hart's water sample bottles that were hanging overboard." Her favorite dive trip? On the Great Barrier Reef. And what about that shark story? She and Jim Thomas were diving on the reefs in Australia when she turned around, saw a huge shark, and climbed all over Jim's back to get away from it. And she'll never forget the hot-air balloon ride with **Marilyn Schotte** over the Masai Mara game preserve in Kenya after three weeks on a field trip to Aldabra Atoll in the Indian Ocean

Jan Clark Walker reminiscing about her career. (Photo by Yolanda Villacampa)

Colleagues have recognized her contributions to science by naming species after her, like an isopod from Seychelles which she collected, *Cassidinidea clarkae*.

Since 1991, Jan has been a Supervisory Museum Specialist, overseeing the work of the research assistants, managing collections and associated data.

Jan says she is looking forward to "being thin, energetic and happy" in retirement, doing lots of gardening and house renovation. We will certainly miss her presence and, in the words of other staffers, "her pleasant, uncomplaining personality" and "terrific institutional memory". Not to mention her stories about Ralph and Spot, her husband and cat, respectively.

In Jan's own words

"Early influences: 'Meadows in the Sea'; 'Kon Tiki'; Jacques Cousteau; Margaret Mead; snorkeling in the Bahamas and Caribbean with my father."

"I am indebted to the following people: Bob Higgins and Cathy Kerby, for hiring me in the first place; to Joe Houbrick for asking me to work as an aid at SOSC; to Jerry Barnard, for teaching me about taxonomy; to Bill Hart, for being a mentor and involving me in administrative aspects of the museum; to **Brian Kensley**, for believing in me and asking me to become a supervisor; to **Ray Manning**, for including me in his Decapod research as a field technician; and everybody else, for being my 'family'."

"Things I will miss: the feeling of family; fellowship; field trips; exposure to so many different scientists and scientific endeavors; exposure to people from so many different countries and cultures; being surrounded by educated and dedicated people."

"What I won't miss: creating performance plans; doing appraisals; paperwork; stress."

"What I intend to do in retirement: read, garden, both in Arlington and at our Flat Top Mountain house; do arts and crafts, travel with Ralph; bird watch, do jig-saw puzzles, build and maintain a database of Ralph's motorcycle club data."

COVER STORY CONT.

Titles of papers presented by staff members and associates:

Grygier, Mark and **Frank Ferrari**. Morphology and Ontogeny of trunk limbs in spinicaudatan clam shrimps.

Lemaitre, Rafael and Patsy McLaughlin. On hermit crab mythology and how kings became hermits.

Marques, Fernando and **Chris Tudge**. Phylogenetic position of *Aegla* based on molecular data revisited using direct optimization of DNA sequences.

Nizinski, Martha. Reassessing biodiversity estimates for decapod crustaceans off the eastern United States: the importance of species discoveries, improved taxonomy and new phylogenetic hypotheses.

Nizinski, Martha, Steve Ross and Kenneth Sulak. Preliminary observations on species composition and distributional ecology of galatheids from *Lophelia* banks of North Carolina.

Posters presented by staff and associates at TCS meeting:

Barnes, Valorie, Tyjuana Nickens and **Karen Reed**. Preliminary results on the effects of preservatives on various generated specimen labels.

Gasca, Rebeca and **Eduardo Suarez-Morales.** Hyperiid amphipods (Crustacea) in relation to a cold-core ring in the Gulf of Mexico.

Gulledge, Rose, Elizabeth Nelson, Lana Ong and **Karen Reed**. Collection information now on-line at the Smithsonian Institution, National Museum of Natural History.

Schotte, Marilyn. Isopods in your backyard - an educational outreach project.

Suarez-Morales, Eduardo and **Edgar Tovar**. Postnaupliar stages of a thaumatopsyllid copepod from a reef area of the western Caribbean Sea.

Above: Rose Gulledge, Lana Ong and Elizabeth Nelson displaying their poster on our on-line catalog system.
Right: Marilyn Schotte standing by her poster on terrestrial isopods. (Photos by Karen Reed)

POINT OF VIEW

Will it be "Goodbye to all that" or "Hello Dali"?

Dave Pawson

I have just completed about 16 months as Interim Section Head of Invertebrate Zoology in the Department of Systematic Biology. It has been an interesting and rewarding experience, and it has served to reinforce what I already knew - that the staff of Invertebrate Zoology is a group of wonderful and innovative people.

What of that larger administrative unit, the Department of Systematic Biology? This cumbersome Department, with its 67 curators and its total staff of almost 250 - almost half of the staff of NMNH - has been in existence for almost 2 ½ years. It is now time to acknowledge that this ill-conceived experiment has failed. Our Director, Dr. Samper, is assembling a small committee to examine the Department and to suggest some alternative organizational strategies.

In his classic World War I era autobiography "Goodbye to All That", Robert Graves bitterly criticized the English public school system and the British military command. He was not the first to recognize that cumbersome organizations, because of their very nature, can be the root cause of endless problems. What would Graves have to say about our Department of Systematic Biology? I hope he would suggest that it be dissolved, and replaced by four administratively logical units (call them what... Departments?) - Invertebrate Zoology, Vertebrate Zoology, Botany and Entomology.

Is this too much to hope for? Or are we, once again, doomed to be creatively re-organized into yet another surrealistic work of art - "Hello Dali"?

We will follow the work of Dr. Samper's committee with great interest!

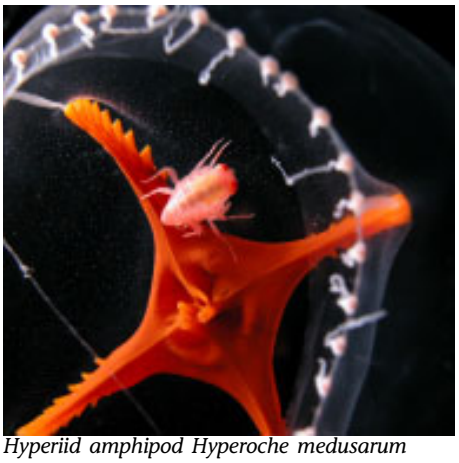
RESEARCH

Deep-living zooplankton studied in the Gulf of California

Elizabeth Nelson

Rebeca Gasca is a Researcher from ECOSUR, Colegio de la Frontera Sur, Chetumal, Quintana Roo, Mexico, and is on sabbatical in Invertebrate Zoology/Crustacea. From March 12-30 she participated in an oceanographic expedition organized by the Monterey Bay Aquarium Research Institute (MBARI) to survey the Gulf of California. The vessel, *R/V Western Flyer*, was equipped with an ROV (Remote Operated Vehicle) that is used to make on-board observations and collections of deep-living (0-4000 m) pelagic fauna.

Rebeca's main goals were to offer her expertise in the identification of siphonophores and to observe and assess the parasite-host relationships between these and other gelatinous zooplankters with hyperiid amphipods. The latter obtains both free food and transportation from their gelatinous providers. These interactions are very difficult to establish reliably from standard net zooplankton collections. She was able to determine several of these symbiotic couplings, and also made observations on a strange and very rare group of benthic siphonophores, the Rhodaliidae. Many hours were spent in front of the video screens monitoring the movements of the ROV and trying to spot, follow and catch interesting animals. Another objective was to determine, together with other members of the expedition, the effect of the minimum oxygen layer and the presence of hydrothermal vents in the vertical distribution and composition of the zooplankton.



Hyperiid amphipod Hyperoche medusarum living commensally on the jellyfish medusa Chromatonema erythrogonon. (Photo by Steve Haddock, MBARI) Reprinted with permission of MBARI.

TRAVEL

Klaus Ruetzler continued work on sponge diversity and invasive species in shallow-water habitats of Bermuda, a joint intitiative with the Bermuda Natural History Museum in Flatts and part of the Bermuda Biodiversity Programme.

A special collection was made for the Ocean Genome legacy Research Foundation located in Beverly, Massachusetts, whose laboratories will analyse DNA and other molecular properties of sponges and their symbiotic bacteria. The objective of this collaborative program is to learn more about the co-evolution of sponges and bacteria and provide molecular sequences and frozen material of identified sponge species to future workers. Results of the study will be made available on a Web-based databank, conventional voucher are to be retained in the collections of USNM.

Rafael Lemaitre traveled to Paris during May 3-18 to work in the Museum national d'Histoire naturelle. Rafael is completing his world-wide systematic study of the deep-water hermit crabs of the family Parapaguridae. The French have collected remarkably abundant and diverse samples from many areas of the Pacific, from Indonesia to the Marquesas. There are so many samples to study, and so many new species to describe, that Rafael will have to return again this summer to Paris for a whole month to study specimens.

John Norenburg spent May at Universidade de Sao Paulo's Centro de Biologia Marinha in Sao Sebastiao, Brazil, with Cynthia Santos, a PhD student at USP. The purposes were 1) to continue training Cynthia in nemertean research, as her experience to date is with nemerteans that live on crabs, 2) to assist with the Sao Paulo State BIOTA program, 3) to recollect nemerteans described by Diva Correa, an important nemertean specialist working in Brazil from 1940's to 1970's, whose collection was entirely lost.

Although they had only one month and one moderate low-tide series, they did manage to collect 26 species of nemerteans, compared with 39 marine species encountered by Correa, mostly from Sao Paulo State. However, about 10 of the species they collected are not known from Brazil and most appear to be new. Also, they have potentially resolved misidentifications of several common species that appear also to be known from elsewhere by different names. Recognizing such synonymies for nemerteans often is possible only when living specimens can be examined.

Bob Hershler travelled to Ann Arbor, Michigan for the annual meeting of American Malacological Society (6/25-29). He presented a paper in which he utilized mtDNA data to test an earlier proposed hypothesis concerning the early history of the Snake River.

Clyde Roper has just returned from a trip in which he presented a series of lectures at the University of Singapore, participated in international cephalopod meetings in Phuket, Thailand, and worked with a colleague on a three-volume book on cephalopods for the Food and Agricultural Organization.

STAFF PHOTO

4th row (top): Bob Hershler, Dave Pawson, Geoff Keel, Steve Cairns, Molly Ryan; 3rd row: Yolanda Villacampa, Duane Hope, Tyjuana Nickens, Valorie Barnes, Katie Ahlfeld, Tim Coffer, Paul Greenhall; 2nd row: Elizabeth Nelson, Rose Gulledge, Diane Pitassy, Barbara Littman, Lou Kornicker, Marilyn Schotte; 1st row (bottom): Karen Reed, Jan Walker, Lana Ong, Abbie Yorkoff, Frank Ferrari (Not all staff were present for the photo.) (Photo by Sandra Raredon and Yolanda Villacampa)

REFERENCES

Those of you involved with the development of web pages may be interested in the following books in our collection management reference library in room 120. You are welcome to borrow them, but please leave a drop slip with your name and the date on the shelf.

Dreamweaver MX Unleashed
Dreamweaver MX-The Missing Manual
Dreamweaver MX-Complete Course (this includes a companion tutorial on CD- ROM)

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Bartol, I.K. & **M. Vecchione.** 1997. Distribution of the euryhaline squid *Lolliguncula brevis* in the Chesapeake Bay: Relationships between movement patterns and physical gradients. Theme Session on Spatial Gradients in Estuarine Systems 4pp.

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Sternberg, R. von. 2003. *Book review:* Development and Evolution:

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VISITORS

Hood College Biology class, Hood College, Frederick, Maryland, (04/29) toured the collection and division, hosted by **Marilyn Schotte**, **Bill Moser**, and **Tim Coffer**. **Sponsor: Cheryl Bright**.

Roger Mann, College of William and Mary, Virginia (04/29)brought his invertebrate zoology students for a tour of the Mollusk collections. Sponsor: **Yolanda Villecampa.**

Amanda Stulz, Brent Elementary School, Washington, DC (05/02) teacher and 6th grade science class visited division. **Sponsor: Cindy Ahearn.**

Jenny Dreyer, College of William & Mary, Virginia (05/05) took photographs and studied our curation techniques in type collection. **Sponsor: Kristian Fauchald.**

James Tate, DOI, Washington, DC (05/13) was briefed on DOI collections management project. **Sponsor: Cheryl Bright.**

Winston Ponder, The Australian Museum (05/14-05/15) worked on Rissoidea (Mollusks). **Sponsor: Robert Hershler.**

Gary Rosenberg, The Academy of Natural Sciences, Pennsylvania (05/14-05/15) worked on general mollusks, collection: Jamaican Annulariidae. **Sponsor: Robert Hershler.**

Paula Mikkelson, American Museum of Natural History, Department of Zoology, New York (05/14-05/15), examined specimens (bivalves) in type & general collections. **Sponsor: Jerry Harasewych.**

Rudiger Bieler, Field Museum of Natural History, Department of Zoology, Illinois (05/14-05/15), examined South Florida mollusks. **Sponsor: Jerry Harasewych.**

Adam Baldinger, Museum of Comparative Zoology, Harvard University, Massachusetts (05/14-05/15), studied amphipod & mollusks types. **Sponsor: Elizabeth Nelson.**

Rebekah Cain, Elderhostel Tour, Washington, DC (05/16) Smithsonian Journeys, Elderhostel visited IZ hosted by **Bill Moser**, **Karen Reed**, **Tyjuana Nickens** and **Cindy Ahearn**. **Sponsor: Cheryl Bright.**

Ana Margarita Hermosa-Salazar, UNAM, Mexico City, Mexico (05/21-06/16), examined specimens of alpheid shrimp for dissertation research. **Sponsor: Rafael Lemaitre.**

Alberto Lindner, Duke University, Durham, North Carolina (05/27-06/07), stylasterid research, consulted with Cairns. **Sponsor: Steve Cairns.**

Christine Dawson, Head of Biodiversity Division, Ecology & Terrestrial Conservation Office, Bureau of Oceans, Environment & Science, State Department, Washington, DC (05/29) visited IZ for a tour and a talk about biodiversity. **Sponsor: Kristian Fauchald.**

John Parotta, Research Forester, Office of Research & Development (WO), Science Policy, Inventory & Information, Forest Service, USDA, Washington, DC (05/29) visited for a tour of IZ and a talk about biodiversity. **Sponsor: Kristian Fauchald.**

Akira Asakura, Chiba Museum of Natural History, Chiba, Japan, (05/29-06/15), studied diogenid & pagurid hermit crabs. **Sponsor: Rafael Lemaitre.**

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VISITORS CONT.

Thomas Simon, USFWS, Bloomington, Illinois (06/02-06/06), examined crayfish specimens in IZ, except for 06/04 in VZ. **Sponsor: Janice Walker.**

Paul Johnson, Royal Tyrrell Museum, Canada (06/04-06/05), compared vestimentiferans & coelenterates to Burgess Shale specimens. **Sponsors: Tim Coffer & Cheryl Bright.**

Kimberley Motz, University of Calgary, Alberta, Canada (06/04-06/05), compared recent sipunculids to Burgess Shale specimens. **Sponsors: Cheryl Bright, Tim Coffer.**

John Markham, Arch Cape Lab, Oregon (06/9-06/11), studied bopyrid isopods. **Sponsor: Marilyn Schotte.**

Bradley Stevens, NMFS, Kodiak, Alaska (06/09-06/13), examined galatheid crabs . **Sponsor: Rafael Lemaitre.**

Rowan Lockwood, The College of William & Mary, Williamsburg, Virginia (06/23-06/24), studied, measured, and photographed marine mollusks, specifically Veneridae. **Sponsor: Jerry Harasewych.**

Maria Holynska visited from the Institute of Zoology in Warszawa, Poland (05/05-05/23). She was funded by the Polish State Committee for Scientific Research to undertake a study of the cyclopoid copepod genus *Mesocyclops*. Species of *Mesocyclops* are common in a wide range of freshwater habitats from large lakes to tiny pockets of water in tree holes. Some are predators of mosquito larvae and are used to reduce populations of those insects, while others serve as intermediate hosts for human parasitic nematodes or trematodes. Over several years, Maria has collected and studied species of *Mesocyclops* from Africa and Asia. She is preparing a 77 character matrix for the 70 nominal species currently placed in the genus. Maria is here for three weeks to observe and examine 20-30 species of *Mesocyclops* or species in genera presumably related to *Mesocyclops* from our collection. She leaves for Ottawa, Canada, toward the end of this month before returning to Warszawa via Paris.

Dr. Roger Mann returned for his yearly behind-the-scenes tour of the Mollusk collections with his invertebrate zoology students from the College of William and Mary. (Here viewing the slit shell Entemnotrochus rumphii.) Yolanda Villacampa led the tour group to various families in the dry collection.

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Vecchione, M. & G. Pohle. 2002. Midwater cephalopods in the western North Atlantic Ocean off Nova Scotia. Bulletin of Marine Science 71(2):883-892.

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LIBRARY

INVERTEBRATE ZOOLOGY LIBRARIES NEW TITLES

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