



## NO BONES NEWSLETTER

is published bimonthly by the  
Section of Invertebrate Zoology  
Department of Systematic Biology  
National Museum of Natural History  
Smithsonian Institution

CONTENTS:	PAGE:
COVER STORY	1
REFERENCE	3
COLLECTIONS	4
RESEARCH	5
ANNOUNCEMENTS	5
PUBLICATIONS	6
VISITORS	7
TRAVEL	8
LIBRARY	8

## *Invertebrate Zoology's Antarctic Imaging Project*

*Cheryl Bright*

Since the mid 1960s, the Smithsonian Institution has played an important role in the National Science Foundation's (NSF) US Antarctic Program. Until 1992, the Smithsonian Oceanographic Sorting Center (SOSC) provided a variety of research and collection management services to NSF in support of its Antarctic Program. From about 1964 until it was shut down in 1992, the SOSC transferred thousands of Antarctic specimens to the Department of Invertebrate Zoology (IZ). Since 1992, through a cooperative agreement with NSF, IZ has provided the Office of Polar Programs with a variety of professional collection management services related to the Antarctic Program collections. In addition to the specimens from the SOSC, hundreds of other Antarctic specimens, the majority of them types and vouchers, were donated to IZ by scientists from around the world who were studying the fauna there. All of

these specimens were accessioned into IZ's collections. Over time about 40% of them have been "computer catalogued" and have a record in IZ's catalog database.

During the summer of 2001, IZ's catalog databases were moved into the Museum's new KE-EMu multimedia catalog. Beginning in September, 2001, all of IZ's cataloging was done using the new EMu software. For the first time, staff had real time access to catalog data. In addition to routine text data, EMu provided the capability to link a variety of multimedia products to a given specimen record. Again for the first time, we were able to include photographs, drawings and short videos in our specimen catalog. And ultimately, we expect to be able to make the catalogs available to the general public and the research community via the world-wide web.



*Yuri Kantor and Guido Pastorino set up to take a photo of one of the USAP Mollusks (Photo by Tyjuana Nickens).*

*continued on page 2*

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

The roll-out of EMu in IZ and the availability of funding through our cooperative agreement with NSF's Office of Polar Programs led us to develop an imaging project based on our Antarctic collections. Our goal is to enhance both the research value of the Antarctic specimen records, and the value of our specimen catalog to the general public. Over the next 4 months we expect to add 6,000 digital images to our Antarctic specimen records. These images will include high resolution photographs of preserved specimens, scanned line draw-

ings and species descriptions of types, scanned photographs of live specimens, and scanned photographs of vessels, collectors, field activities and ocean bottom photographs. To broaden the perspective of the project, we are also working with the Paleobiology and Birds units and will provide them with some 500 images of Antarctic fossils and birds for use in their EMu specimen catalogs. In total, we expect this project to add 6,500 new images to the Museum's EMu Multimedia Catalog.



Diane Pitassy preparing to scan a SEM negative of an Antarctic coral (Photo by Karen Reed).

designed the CD labels that our contractors will use for their image CDs.

While the most obvious product to come out of this project will be the 6500 digital images and the corresponding enhancement of our specimen catalogs, an equally important product will be a better understanding of the requirements and pitfalls of this type of project. This is the first time we have attempted a digital imaging project directed at EMu enhancement but we are certain it will not be the last. Going into this project we had many questions - how long will it take to produce each type of image, what digital imaging equipment is best for each type of image,

what is the optimum resolution for scanning and photography, can contractors quickly master the use of EMu to create multimedia records and link images to existing records, what skills or background must the contractors have, what in-

NEWSLETTER STAFF

Dave Pawson  
interim head, IZ

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

April issue produced by  
Geoff Keel & Bill Moser

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

Molly Kelly Ryan  
design

Bob Skarr  
library  
skarr.robert@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.

This is proving to be a significant project within IZ. We currently have 4 contractors working full time on the project and 2 other contractors who will begin shortly. **Diane Pitassy** is working with IZ staff members **Bill Moser, Karen Reed, Elizabeth Nelson, Steve Cairns, Brian Kensley, Kristian Fauchald** and **Duane Hope** on a variety of invertebrate taxa including decapods, isopods, amphipods, ostracods, corals, polychaetes, leeches and nematodes. She is also working with **Jann Thompson** in Paleobiology and **Jim Dean** in Birds. **Yuri Kantor** and **Guido Pastorino** are working with **Tyjuana Nickens** and **Jerry Harasewych** on the mollusks. **Josh Harris** is working with **Chad Walter, Frank Ferrari** and **Cindy Ahearn** on the copepods and echinoderms. Their work is supported by **Elvie Fornshell**, an experienced EMu cataloger who is working half-time on IZ's Antarctic Collections. Finally, **Katie Ahlfeld**



Josh Harris selecting publications from Wilson Copepod Library to scan (photo by Chad Walter).

continued on page 3

## COVER STORY CONT.

tellectual property issues must we address,... The list of things we didn't know seemed endless. The project was designed to include as many different kinds of images as we could justify. We are making a variety of different kinds of equipment available for the contractors to use - from simple 1200 dpi USB scanners to professional 5 megapixel digital SLR cameras. We are exploring a variety of file formats (jpg, tif and pdf) and image resolutions. Some of our contractors will work extensively with EMu while others will

not. Some have extensive experience and expertise in the groups of specimens they are imaging while others do not. We have met with Office of the General Counsel (OGC) staff **Marcello Goyanes**, **Elaine Johnston** and **Lauryn Grant** for guidance on copyright laws. When this project is completed we will have a much better understanding of the requirements of an imaging project, and will be able to prepare a standard imaging contract and cost guidelines that should dramatically

simplify future projects of this kind.

IZ's prototype on-line catalog can be found at url <http://www.mnh.si.edu/rc/db/collodb.html>. We hope that the images prepared during this project will be publically available at that url by the end of the summer. We would like to thank NSF's Office of Polar Programs for making funds available for this project through cooperative agreement OPP-9509761 "Biological Collections from Polar Regions".

### **Contractor Bio's: USAP Imaging Project**

**Josh Harris** is originally from Cleveland, Ohio. He graduated from Miami University with a BA in Anthropology with an emphasis in Archaeology and a BA in History. He worked at the Illinois State Musuem for two years as an Archaeology/History Research Assistant working primarily on Native American archaeological excavations. He then worked a year for the University of Tennessee Department of Anthropology. He joined the IZ Department in October 2001 as a Museum Technician working primarily on the Mollusk Curation Project.

**Yuri Kantor** is from The Russian Federation and lives in the city of Moscow. He is the Leading Researcher at the Severtzov Institute of Ecology & Evolution, Russian Academy of Science. Dr. Kantor studies the taxonomy, morphology and phylogeny of marine carnivorous gastropods. He has co-authored with **Dr. Harasewych** on a number of publications. He also teaches undergraduate and graduate students at the Moscow State University.

**Guido Pastorino** is from Buenos Aires, Argentina. He is a Researcher at the Museo Argentino de Ciencias Naturales, "Bernardino Rivadavia." Dr. Pastorino studies Marine Gastropods, primarily the Family Murcidae from Patagonia, and has collaborated with **Dr. Harasewych** on a few publications. He teaches a Graduate science course at the University of Buenos Aires and works with interns at the Museo Argentiono De Ciencias Naturales.

**Diane Pitassy** is originally from Armonk, New York. She is currently a graduate student at the University of Maryland and hopes to complete her degree in Conservation Biology by August. Her area of focus has been conservation of African wildlife and she spent last summer participating in a large carnivore study in South Africa. Diane is not a stranger to the museum community having worked for two years in the division of mammals under Dr. Richard Thorington and Charley Potter. Although her background has tended toward the "backboned" set, she has also participated in the Mollusk move.

### REFERENCE

#### **New Reference Books Available in IZ Collection Management Room**

#### **Adobe Photoshop**

Adobe Photoshop 7.0 Classroom in a book.

Real World Adobe Photoshop 7.

#### **GIS**

ArcView GIS Exercise Book [2<sup>nd</sup> Edition]

Extending ArcView GIS

Getting to Know ArcView GIS

The GIS Book [5<sup>th</sup> Edition]

Inside ArcView GIS [3<sup>rd</sup> Edition]

#### **Microsoft Access**

Accessible Access 2000.

Microsoft Access 2000 Bible.

#### **Microsoft Word**

Microsoft Word 2000 Bible

*continued on page 7*

## COLLECTIONS

***USGS Invades the Unioniacean Collection******Paul Greenhall & Tyjuana Nickens***

The USNM Freshwater Bivalve or Unioniacean Collection is of great historic importance. Much of the collection dates back to the 1800's and incorporates much of Isaac Lea's collection. **Dr. Robert Hershler** believes that it "(is) . . . one of the gems of North American freshwater Mollusca, as Lea described a substantial portion of this fauna and no one can conduct work on these animals without consulting this important resource". Dr. Rehder's History of the former Division of Mollusks states that Lea described 851 new species ". . . Lea (1828-1874) had been especially appreciative of the work performed by the Smithsonian Bureau of International Exchanges in facilitating the interchange of scientific publications throughout the world", when Lea died in 1887, ". . . he left his extensive collection of shells, minerals, as well as his library to The Smithsonian. . . William Healey Dall personally went to Philadelphia to pack up and deliver the Lea Collection . . . this gift gave the Division of Mollusks the outstanding collection of members of the (pelecypod) families Unionidae and Mutelidae. . . Lea's interest in and

support of the Smithsonian continued through his daughter and son-in-law, Rev. & Mrs. Leander T. Chamberlain. When she died in 1894, Chamberlain in 1913, as a memorial to his wife, bequeathed \$10,000 to the Smithsonian". This endowment, the Frances Lea Chamberlain Fund, is specifically used for promoting the scientific value and usefulness of the Isaac Lea Collection of Mollusks, the purchase of valuable collections, rare specimens and reference books. Additional Lea specimens are also in the ANSP, BM(NH), MCZ and AMNH collections.

In February, Dr. James "Jim" Williams, USGS Center for Aquatic Resources Studies, Gainesville, FL, visited to continue his work on collecting information on the freshwater mussels of Alabama. His project has grown to include the Mobile Basin in Georgia, Mississippi and Tennessee. All the information gathered will become part of a book on freshwater mussels.

Dr. Williams' goal was to photograph all of the type and non-type unionid species; scan images from Isaac Lea publications, including original descriptions; and general curation, including studying North Carolina species. To accomplish his task he put together a team, with each member having specific objectives, including a professional photographer. His team: Dr. Arthur Bogan, North Carolina Museum of Natural Sciences, Mr. Jeff Garner, Alabama Department of Conservation and Natural Resources, Ms. Sherry Bostick, USGS Center for Aquatic Resources Studies, Gainesville, FL and professional



*Sherry Bostick setting up in the Mollusk Library to scan images from Isaac Lea's publications. (Photo by Paul Greenhall)*

photographer Richard Bryant of Richard Bryant Studios, Atlanta, GA.

The team arrived with a great deal of equipment to assist them in completing their tasks. Richard Bryant's photographic equipment alone completely filled a Chevy Suburban. His photographing technique created a buzz on the third floor, and staff would always stop by to chat in the hopes of gleaning tips. For example, Richard had an arsenal of bolts, copper tubing, aluminum foil, black felt, several tripods, special lighting with opaque photo stand, synchronized battery set-up, digital camera, standard camera and a lap-top computer; Sherry Bostick brought another lap top computer, and a flatbed scanner for her library assignment. She was thankful that much of her work could be completed in the William Healey Dall Library. For hard to find literature, she had to move to the NMNH General Library. This left Drs. Williams, Bogan and Garner to locate specific species in the Mollusks Type and General Collection(s). By week's end, they had completed their tasks. Finished, the only step left was for Mr. Bryant to pack up all of his photographic equipment.



*Dr. Williams, Mr. Bryant and Dr. Bogan examine one of the Unionid specimens that they will later photograph (Photo by Paul Greenhall).*

## RESEARCH

***Shrimp fauna associated with Petroleum Seeps***

**Brian Kensley**, NMNH Invertebrate Zoology section, and Dr. Darryl Felder (University of Southern Louisiana) are documenting the shrimp fauna associated with petroleum seeps

in the Gulf of Mexico. Recently, an undescribed species of shrimp was collected with a ship-borne box core at about 600 m. The core had to cut through a thick layer of tar-like oil to

get to the underlying muddy sediment. The shrimp lives in burrows in this seemingly inhospitable, sulphide-rich habitat, and obtains oxygen by pumping seawater through the burrows.

***Bioerosion study may help manage coastal resources***

In the course of a systematic study of sponges, **Klaus Ruetzler** examined the effect of bioerosion (destruction of limestone by organisms) on shallow, temperature-stressed coral reefs in Belize and Bermuda. Using the example of clionaid (exca-

vating) sponges, he found that erosion rates of some species increase when coral growth slows or stops. In the absence of cementation, bioerosion aided by wave action may lead to irreversible framework destruction and hence to a lack of substratum for re-

cruitment of new, healthy corals from elsewhere. A better understanding of bioerosion processes and rates will help to make informed decisions for managing reefs and other precious resources in our coastal zone.

## ANNOUNCEMENTS

**SECOND CALL!**

The *International Brick-Layers Union of Invertebrate Taxonomists* is pleased to report that it has been flooded with applicants and all have received certificates designed by an eminent artist. The membership now includes 1 member and 4 fellows.

If you would like to be included in the Union, whose aim is to show the pride we taxonomists have in being the foundation of Biodiversity studies, which would not exist without our contributions, please notify either **Lou Kornicker** (Board member) or **Elizabeth Harrison-Nelson** (Secretary and Historian) and let them know which membership status you have earned. A certificate will be forthcoming.

*Apprentice*: has published 10 new species

*Member*: has published 25 new species

*Fellow*: has published 100 new species.



*In answer to an inquiry, members pay no dues.*

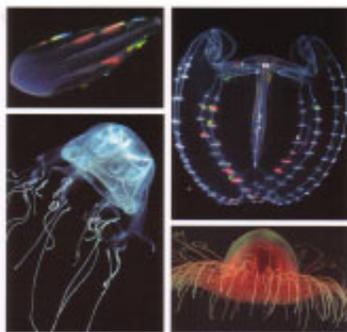
## PUBLICATIONS

***Cnidaria and Ctenophora of the United States and Canada***

"Common and scientific names of aquatic invertebrates from the United States and Canada: Cnidaria and Ctenophora", American Fisheries Society Special Publication 28: 115 pages, 32 color photographs, with CD. Three years in compilation, an international group (5 countries) of 11 cnidarian experts, led by Smithsonian curator **Stephen Cairns**, has just published a complete list (partially illustrated) of the 1369 species of Cnidaria (i.e., corals,

Common and Scientific  
Names of Aquatic Invertebrates  
from the United States and Canada

**Cnidaria and Ctenophora**  
Second Edition



American Fisheries Society Special Publication 28

hydroids, jellyfish) known to occur off the coasts of North America. The publication also notes the threatened, endangered, and introduced species from our continent. Knowing the names, both scientific and common, of the species that occur in our country is the first step in management and conservation of these taxa. Because the list was compiled by the leading specialist in each group, not just a literature review, the list is a valuable and new contribution to the field.

***Landmark volume is published in Australia on the Anomura***

During the *Fifth International Crustacean Congress (ICC5)*, held July 9-13, 2001, in Melbourne, Australia, NMNH researcher **Rafael Lemaitre** and associate researcher **Christopher Tudge**, organized the first symposium on the Anomura, a large and diverse group of decapod crustaceans that includes hermit crabs, squat lobsters, sand and mole crabs. The symposium was entitled "*Biology of the Anomura*", and the results were recently published in a dedicated volume of the world renowned Australian journal *Memoirs of Museum Victoria*. Lemaitre and Tudge were the guest editors, and were also authors in three of the papers published. Altogether, 51 authors presented 11 oral papers and 14 posters as part of this landmark symposium, most of which were then published in

the *Memoirs*. This volume of the *Memoirs of Museum Victoria* presents 16 papers by 26 authors, and represents but a cross-section of the groups and fields now under study by anomuran co-workers worldwide. Included are two important review papers on neurobiology and semi-terrestrial adaptations; three on ecology of hermit crabs; three on morphology, metabolism, and reproduction of the endemic Aeglidae; six on taxonomy, including one with the first modern keys to all families and genera of hermit crabs as well as diagnoses of genera of Paguridae; one on porcellanid biogeography; and one providing a new theoretical approach to resolving the long-standing problem of whether the Podotremata crabs belong in the Brachyura or Anomura.

## PUBLICATIONS

**Cairns, S.D.**, D.R. Calder, A. Brinckmann-Voss, C.B. Castro, D.G. Fautin, P.R. Pugh, C.E. Mills, W.C. Jaap, M.N. Arai, S.H.D. Haddock, and D.M. Opresko. 2002. Common and Scientific Names of Aquatic Invertebrates from the United States and Canada: Cnidaria and Ctenophora. 2<sup>nd</sup> Edition American Fisheries Society, Special Publication 28, Bethesda, Maryland.

**Campos, M.R.** and **R. Lemaitre**. 2002. A new species of freshwater crab of the genus *Potamocarcinus* H. Milne Edwards, 1853 (Crustacea: Decapoda: Brachyura: Pseudothelphusidae) from Panamá. Proceedings of the Biological Society of Washington. 115(3):600-604.

**Child, C.A.** 2002. Some Pycnogonida from the Eastern (Hasa) District of Saudi Arabia. Journal of Natural History. 36: 1805-1821.

**Cumberlidge, N.** and **R. von Sternberg**. 2002. The freshwater crabs of Madagascar (Crustacea, Decapoda, Potamoidea). Zoosystema. 24(1):41-79.

**Harasewych, M.G.** and Y.I. Kantor. 2002. On the morphology and taxonomic position of *Babylonia* (Neogastropoda: Babyloniidae). Bollettino Malacologico, Supplemento 4:19-36.

In: **Lemaitre, R.** and **C.C. Tudge**. (eds), Biology of the Anomura. Proceedings of a symposium at the Fifth International Crustacean Congress, Melbourne, Australia, 9-13 July 2001. Memoirs of Museum Victoria 60(1):1-145.

**a. Lemaitre, R.** and **C.C. Tudge**. 2003. Biology of the Anomura - foreword to this special issue. pp:1-2.

**b. Lemaitre, R.** 2003. A new genus and species of hermit crab (Crustacea: Decapoda: Paguridae) from Taiwan. pp:105-110.

**c. Tudge, C.C.** 2003. Endemic and enigmatic: the reproductive biology

*continued on page 7*

## PUBLICATIONS CONT.

of *Aegla* (Crustacea: Anomura: Aeglidae) with observations on sperm structure. pp:63-70.

d. Werding, B., A. Hiller and R. Lemaitre. Geographic and distributional patterns of western Atlantic Porcellanidae (Crustacea: Decapoda: Anomura), with an updated list of species. pp:79-86.

von Sternberg, R. and N. Cumberlidge. 2001. On the luterotreme-thoracotreme distribution in the Eubrachyura de Saint Laurent, 1980 (Decapoda, Brachyura). *Crustaceana* 74(4): 321-338.

von Sternberg, R. 2002. On the Roles of Repetitive DNA Elements in the Context of a Unified Genomic-Epigenetic System. In: Van Speybroeck, L., Van de Vijver, G. and De Waele, D. (eds). From Epidenesis to Epigenetics: The Genome in Context. *Annals of the New York Academy of Sciences*. Volume 981: 154-188.

von Sternberg, R. and N. Cumberlidge. 2003. Autapomorphies of the endophragmal system in trichodactylid freshwater crabs (Crustacea: Decapoda:

## REFERENCE CONT.

Microsoft Word 2000 Simplified.

Running Microsoft Word 2000

Special Edition Using Microsoft Word 2000

## Scanning &amp; Digital Cameras

Scanning the Professional Way

Starting with a Digital Camera

## Reminder:

When you need to borrow a book. Please sign and date one of the blue cards located in the book shelf.

## VISITORS

Diane Pitassy, University of Maryland (02/10 - 08/01) is working on the Antarctic image project. Sponsor: **Cheryl Bright**

Linda Stevens and 35 students, Department of Public Programs, Smithsonian Institution (3/04) USDA Graduate School class 'Behind the Scenes at the National Museum of Natural History' Sponsor: **Cindy Ahearn**

Melinda Bednarski, Smithsonian Environmental Research Center (3/07) Identified ballast water copepods. Sponsor: **Frank Ferrari**

Ellen Strong, The Bell Museum of Natural History, University of Minnesota (3/07-3/10) worked on heteropod project and went over proofs for a paper on Cocculinid limpet phylogeny. Sponsor: **Jerry Harasewych**

Darryl L. Felder, University of Louisiana at Lafayette (3/10-3/14) examine Decapod crustaceans and completed a manuscript. Sponsor: **Rafael Lemaitre**

Joel W. Martin, Natural History Museum of L.A. County (3/10-3/14) examined Decapod crustaceans. Sponsor: **Rafael Lemaitre**

Jarek Stolarski, Institute of Paleontology, Poland (3/11-5/09) is studying fossil Scleractinia. Sponsor: **Stephen Cairns**

Jose Leal, Bailey-Matthews Shell Museum, Florida (3/12-3/15) searched for articles on deep-sea mollusks and biogeography and met with Jerry Harasewych and Bob Hershler to discuss symposia ideas for the American Malacological Society meeting in 2004. Sponsor: **Jerry Harasewych**

Yuri Kantor, A.N. Severtzov Institute of Problems of Evolution, Russian Academy of Science (3/18-5/14) is working on the Antarctic Mollusks Imaging Project. Sponsor: **Jerry Harasewych, Cheryl Bright**

Guido Pastorino, Museo Argentino de Ciencias Naturales (3/18-5/18) is working on the Antarctic Mollusks Imaging Project. Sponsor: **Jerry Harasewych, Cheryl Bright**

Gretchen Carpintero-Ramirez, George Washington University (3/28-12/31) is collaborating on a fossil Cerion project. Sponsor: **Jerry Harasewych**

Carlos Alvarez Silva, Universidad Autonoma Metropolitana-Iztapalapa, Mexico (4/07-4/09) studied specimens of *Leptodiaptomus novamexicanus*, *Mesocyclops brasiliensis*, species of *Thermocyclops* and related species in the family Cyclopidae, and use the Charles Branch Wilson Copepod Library. Sponsor: **Frank Ferrari**

Paul Johnson, Tennessee Aquarium Research Institute (4/10) worked in the Mollusk Type Collection - Unionidae. Sponsor: **Robert Hershler**

Kevin Roe, Delaware Museum of Natural History (4/10) studied Isaac Lea's Unionid Types. Sponsor: **Robert Hershler**

Leslie Crnkovic, Halius Anthropos Research Foundation, Institute for Marine & Coastal Studies, Texas (4/11) studied and photographed *Calliostoma* collection specimens. Sponsor: **Jerry Harasewych, Yolanda Villacampa**

Riccardo Fiorillo and 10 students, Shorter College, Georgia (4/11) toured the Invertebrate Zoology collections. Sponsor: **Bill Moser**

Helena Fortunato, Smithsonian Tropical Research Institute (4/11-4/24) worked on the anatomy of Olivellids. Sponsor: **Jerry Harasewych**

continued on page 8

## V I S I T O R S    C O N T.

Jørgen Berge, Tromsø Museum, Norway (4/22-4/30). is studying Antarctic Amphipods of the families Stegocephalidae, Stilipedidae and Astyridae; and is preparing a handbook of Antarctic amphipods Sponsor: **Brian Kensley, Elizabeth Nelson**

Michael Gangloff, Auburn University (4/23) examined Freshwater Clam Types (*Pleurobema* & *Fusconaia*). Sponsor: **Robert Hershler**

## T R A V E L

**Rose Gullledge** traveled to SMS-Fort Pierce, FL March 8-15 to continue working on the Decapod Survey of the Indian River Estuary project.

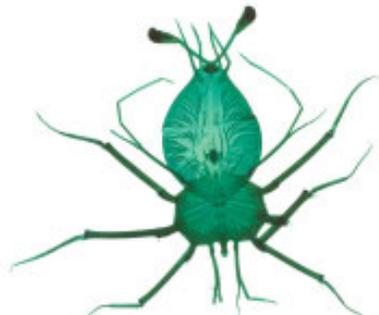
On March 28-29, **William Moser** travelled to Gettysburg College (Gettysburg, Pennsylvania) to attend the 683rd meeting of the Helminthological Society of Washington. There he gave a talk, Leeches (Euhirudinea) of the Southern Appalachian States, especially the Great Smoky Mountains National Park [co-authors: Donald J. Klemm, Bruce A. Daniels and Roy T. Sawyer] and presented a poster, entitled Anatomy, Life History and Distribution of the Leech *Oligobdella biannulata* (Moore, 1900) (Euhirudinea: Glossiphoniidae) [co-authors: R. Wayne Van Devender and Donald J. Klemm]. William Moser is currently the President of The Helminthological Society of Washington.

On March 12-April 2 **Svetlana Maslakova** travelled to Australia to collect nemerteans. The first stop on her research trip was Orpheus Island Research Station which is administered by James Cook University. The island is north of Townsville, Queensland. She stayed at the research station for 10 days collecting nemerteans, for the most part, subtidally by snorkeling and SCUBA. Unfortunately the tides were not good enough to allow extensive intertidal collections.

After her time on Orpheus Island Svetlana returned to Townsville for two weeks to collect nemerteans intertidally in the mangroves near the Ross River and on Magnetic Island. The intertidal zones included sand flats as well as some extensive reef flats. During her stay she used the lab space and microscopes at the Museum of Tropical Queensland.

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

The Department of Invertebrate Zoology just acquired a Nikon Super CoolScan 8000ED transparency scanner. This scanner will produce high resolution scans of photographic slides, photographic negatives and MICROSCOPE SLIDES (*i.e.* we do not have to take photographs through a microscope). The scanner is set up for the time being in the outer section of Cheryl Bright's office and is available to all IZ staff members.



Images of slides taken with the new Nikon Super Cool Scan 8000 ED transparency scanner (from l to r) of *Panulirus* sp. (larva of spiny lobster) and *Placobdella* sp. (freshwater turtle leech).

## L I B R A R Y

**INVERTEBRATE ZOOLOGY  
LIBRARIES  
NEW TITLES**

Cachia, Charles et al. **The Marine Mollusca of the Maltese Islands. Part Three, Sub-class Prosobranchia to Sub-class Pulmonata, Order Basommatophera.** Leiden: Backhuys Publishers, 2001. QL430.4.C17 2001 Moll

Dahl, Arthur L. **Coral Reef Monitoring Handbook.** Noumea, New Caledonia: South Pacific Commission, 1981. qQE565.D14 1981 Invz

Gibson, David. I. et al., eds. **Keys to the Trematoda, Volume 1.** Wallingford, UK: CABI Publishing and the Natural History Museum, 2002. QL391.P7K453 2002x v.1 Invz

Haynes, Alison. **Freshwater Snails of the Tropical Pacific Islands.** Suva, Fiji: Institute of Applied Sciences, 2001. QL430.4.H39 2001 Moll

Hill, Harold M. et al. **Winnecock Ranch on the Musselshell** (contains biographical information on S. Stillman Berry). n.p.: Harold M. Hill et al., 1999. F737.W4H55 1999 Moll

Linse, Katrin. **The Shelled Magellanic Mollusca with Special Reference to Biogeographic Relations in the Southern Ocean.** Theses Zoologicae, Vol. 34. Ruggell, Liechtenstein; A.R.G. Ganter, Königstein, Germany, 2002. QL429.5.L56 2002 Moll

Pavlov, V.Ja. **The Periodic System of Articulata** (in Russian). Moscow: VNIRO Publishing, 2000. qQL445.P38 2000 Invz