

INTERREGNUM 4

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DEPARTMENT OF INVERTEBRATE ZOOLOGY NEWSLETTER

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Oktoberfest

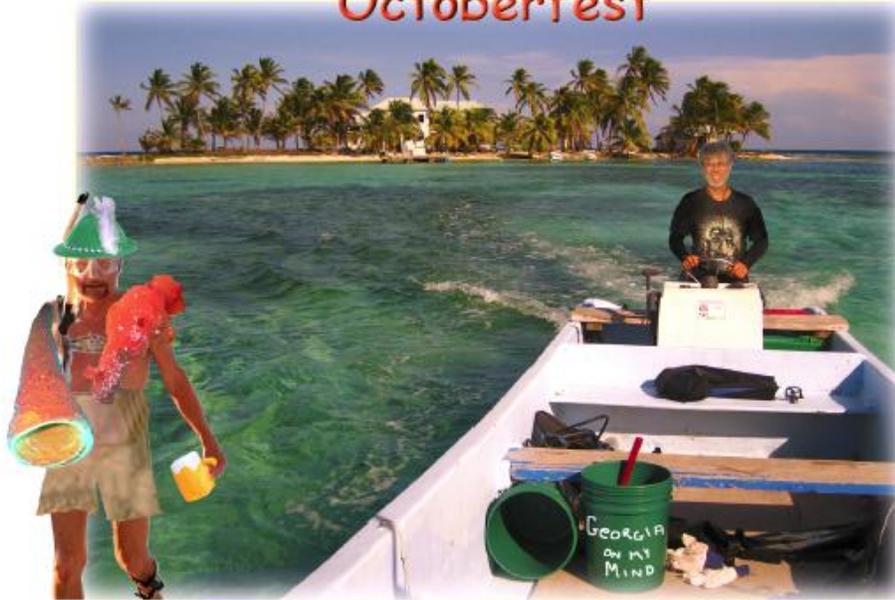
Klaus Ruetzler

As most of you already know, we are planning a last CCRE get-together on October 9th, here at the Museum. October is the month when Valerie Paul, Director of the Smithsonian Marine Station, Ft. Pierce, Florida, will take over the reins of the Carrie Bow Marine Field Station; so we decided to call it Oktoberfest.

I am aware that many on my mailing list are too far away to attend in person, but I want you all to know that we appreciate your program participation and support (and I apologize if my list is no longer complete).

I thank Molly K. Ryan for the humorous rendition of the attached invitation.

Caribbean Coral Reef Ecosystems Octoberfest



Sponge Klaus and Marine Biologist Mike
Cordially invite you to the first ever CCRE Octoberfest

Friday, 9 October 2009
3:00 - 5:00

Waldo Schmitt Conference Room
("Waldo's Tavern")

National Museum of Natural History

Donations most welcome

The Pacific Ocean Garbage Patch

Dave Pawson

Dr. Dave Pawson (IZ) was a guest on the highly popular NPR radio program, "The Kojo Nnamdi Show," (WAMU 88.5 FM). He discussed the so-called "Pacific Ocean Garbage Patch" and related marine science issues. At our request, Dave wrote the following for this newsletter.

Here's a general knowledge question for you: what weighs 4 million tons and covers more than half a million square miles? Answer: The great Pacific garbage patch. This is an accumulation of pieces of plastic in the Pacific Ocean, contained within the North Pacific Gyre, a slowly swirling wind-driven "whirlpool". The plastic garbage ranges from large items like buckets and milk containers down to microscopic particles, and most of the particles are tiny, so the garbage patch is more like a garbage soup. As pieces of plastic break down – some do this rapidly, some take years to break down – they can release harmful toxins into the seawater.

Fishes and seabirds eat the plastics, either deliberately or accidentally, and these can cause serious physical problems, even death, of adults and young. And of course there is a lot of documentation of turtles and marine mammals being strangled and choked by plastic garbage. It's a sad story and, if things don't change soon, the story will become much sadder.

A group of scientists from the Scripps Institution of Oceanography in California spent some weeks in August exploring the garbage patch, and private foundations are undertaking surveys as well. A better understanding of the extent and dynamics of the plastic pollution will help us plan to address the problem. The immediate target: eliminate or at least greatly reduce the future flow of plastic into the ocean.

How do the plastics get there? Eighty percent comes from the land – supermarket bags blown out to sea, bottles and other objects washed out to sea in rivers and streams. Twenty percent is dropped from ships—cruise ships, cargo vessels. And finally, the plastic is not all floating at the ocean surface. It is distributed down the water column, and tiny pieces are even in the mud on the seafloor. A study of sea cucumber feeding, published early in 2009, reveals that **all** animals investigated had pieces of plastic in their intestines!

Invertebrates as Dangerous Goods -- including the Giant Squid

Paul Greenhall, IZ Shipping Manager

September thru October is Move Crunch . . . All IZ staff and offices presently on the 1st and 2nd floor(s) have to vacate and move their research collections, microscopes, documents and so forth to their temporary digs on the 3rd floor to facilitate renovation work, as well as other non-IZ staff moves. A recently captured Giant Squid from the Gulf of Mexico had to be shipped immediately to the Smithsonian Institution frozen; my son, a musician, on a three-day notice had to move his massive drum kit (bass drum, floor toms, cymbals and stands) from Northern VA to a recording studio in Upper Marlboro MD for a real audition! All this is taking place at the end of the fiscal year (a tense period any time) as budgets need to be reconciled and spending projections made.

Moves of any sort always require good communication, planning, coordination, available move supplies to ensure the move is kept on schedule without incident. Failure in any one aspect of a move often results in frustration, rising tempers, mistrust, valuable research specimens and or equipment damaged or lost. Trust me, moves are an acquired expertise where innovativeness, diplomatic sensitivity, flexibility and experience shared and applied does result in a successful timely move, whether it be one of science collections, heavy yellow cabinets, or complex and irregular shaped furniture or music equipment. Why?

Schedules have to be met. Time is money, and schedules missed are opportunities lost, so each move has to be cost effective, and this often requires diplomatic acumen. So much can be accomplished, and so much can go wrong if not handled appropriately. Collections stored in yellow cabinets or on metal book cases have to be moved without loss of specimen integrity, breakage or spillage, heavy furniture and filing cabinets pose strength challenges. And all this

requires a move equation that permits work flow and limits area disruption, as well as ensures the move occurs without incident. The success equation involves leadership, team work, communication, specialty supplies, such as blue plastic bins and available transportation, whether it be vehicular or pushable Metro Carts. Each is a part of the equation designed to contain frustration, minimize tensions and maintain trust to ensure schedules are met without crisis or mishap.

The recently netted Giant Squid captured by NOAA down south in the Gulf of Mexico posed a unique challenge due to its size (estimated 30 feet) and weight (estimated 250 pounds); it was frozen to ensure specimen integrity as it had to be studied prior to its fixing and preserving procedures. No doubt a challenge to its captors! The specimen was temporarily stored in the ship's freezer until issues of transportation, thaw prevention, and fluid spillage while in-transit could be resolved. They were. Federal Express Freight ensured its prompt delivery to MSC; the specimen was wrapped in plastic, and placed in 4'x4'x2' plastic sealable tank accompanied by housing insulation to minimize thawing (due to the unavailability of preferred products, such as dry ice). Plastic tank and specimen-popsicle arrived at MSC Shipping in excellent condition. By 10 A.M. Monday, the Collections Support Staff placed the tank on a Move Cart, which was pushed across the back lot, for temporary storage in the VZ Marine Mammal Program's giant freezer. There it will reside awaiting its move to Pod-5 Mortuary for curatorial evaluation and measuring, as well as HAZWOPPER certified specialists to complete the specimen's fixing and preserving activities for its final placement in a Pod-5's Tank Farm. Oh, I almost forgot - my son's drum kit was packed, moved successfully and he arrived at the studio on schedule, too!

Scientists from NOAA's Fisheries Service research vessel,
Gordon Gunter, who caught the in a trawl net



CEPHALOPOD WORKSHOPS AND SYMPOSIUM

Marilyn Schotte

Clyde Roper and Mike Vecchione attended the annual Cephalopod International Advisory Committee (CIAC) workshops and symposium in Vigo, Spain from 2-12 September, 2009. Over 225 international squid and octopus researchers attended the sessions. Mike chaired one session, presented two talks, co-authored two additional talks as well as one poster and was elected as a Council member of the organization. Clyde also worked diligently with co-author Patrizia Jereb from Rome on the second volume of the FAO Catalog Cephalopods of the World; he is pleased to announce that the manuscript has been completed and submitted.

OUTREACH

Louis S. Kornicker

An objective of the Smithsonian is to *Inspire Generations through Knowledge and Discovery*.

A letter from my son Lance described a recent visit to the Department of Invertebrate Zoology. During the visit, he had taken some photographs of the group. I had asked him to take them thinking that I might describe the visit in this newsletter, but his description, I believe, shows that such a visit supports the SI objective to *Inspire Generations through Knowledge and Discovery*, as mentioned above, therefore, the letter is presented below:

“One of my favorite pastimes is telling my co-workers about my childhood memories of visiting my dad’s office at Natural History. I would tell them about prowling through the stacks of alcohol-filled jars with weird creatures as if from another world. Favorites were the giant pill bugs and huge king crabs. Of course, as a child, it was harder to appreciate something as small as an ostracode. I have since learned that they are as fascinating in their way as many another bizarre creature from the inky depths.”

“Although the stacks are now a thing of the past, there are always plenty of takers when I propose a back-stage tour to Natural History. I generally do this once every year or two, and my co-workers at the Department of Veterans Affairs are anxious to participate. This year my co-workers, Asst. Dir. in the VA. Mike Frueh and Andy Trevaayne, brought along a combined total of five of their children ranging from 3 to 11, a 16 year old cousin, and Mike’s wife, Banhu. They were not disappointed. Andy said his kids are still so excited about the trip that they can’t stop talking about it, and more of my co-workers, who have heard their stories, are anxious for the next outing.”

“At 10:00 on the morning of the event, we gathered in the lobby where dad met us and walked us through those hallowed old doors that divide the regular Smithsonian visitors from those privileged few that have access to the hidden treasures. On our walk, dad introduced us to his friend, the librarian, and to a member of the service crew. Dad seems to know everyone and

everyone we passed greeted him. He said that that is one of the benefits of 45 years tenure in this grand old Institution.”

“When we reached the Department of Invertebrate Zoology, the kids marveled over dad’s book crammed office with the wonderful view of Constitution Avenue. After giving a short explanation of the Ostracode’s place in the world of crustacean fauna, complete with a look through a stereo microscope, dad walked us over to meet with the Curator, Dave Pawson.”

“Dr. Pawson gave a fascinating account of his recent submarine descent into the Ocean depths and entranced the kids with a video of his journey. The kids greeted his stories of Echinoderm hunting in the depths with round eyed wonderment. No one could believe the fascinating dance of the feather stars, and the vast fields of crinoids on the seabed. He also introduced us to a bust of a past Smithsonian supernumerary, Austin Hobart Clark, 1880-1954, Curator, US National Museum 1908-1950, and explained his part in the Smithsonian saga. The kids not only had a natural history lesson, but a Smithsonian history lesson as well.”

“Next we met the Chairman of the Department, Steve Cairns, who regaled us with marvelous stories of corals and their algal symbionts. The kids were intrigued by the tiny corals sitting on struts on the sea floor where there is nothing for them to attach to in the muddy environments that they inhabit. Equally amazing were the corals that creep across the sea floor at little more than the speed that the continents drift, but given enough time, they could migrate vast distances. Just as Dr. Pawson had done with the sea stars and echinoderms, Steve provided the kids with specimens to handle so as to add a tactile dimension to their experience. It was truly difficult to drag the kids (and some adults) away when the stories finally came to an end.”

“I greatly appreciate the opportunity provided by the Department of Invertebrate Zoology to give some young people, who one day may turn out to be aspiring young scientists, the chance to glimpse the storied back halls of Natural History, and to get a taste of what I experienced as a child. In the tech-heavy world of kids today, there may be no better way of instilling a fascination with the natural world than to bring them here to meet the scientists, and to see how those scientists retain their youthful enthusiasm through their wonder at the infinite variety of the natural world. Thank you so much for your thoughtfulness, your preparation, and your welcome.”

Sincerely,

Lance Kornicker, Realty Officer
U.S. Department of Veterans Affairs
Washington, D.C

Dave and Steve fascinating the visitors through their “*Knowledge and Discovery*”

