

## Tupper 4pm seminar

Tuesday, August 15, 4pm seminar speaker will be Phillippe Cuénoud, Natural History Museum, Geneva, Switzerland

**Phylogeny and evolution of Caryophyllales**

## Paleo-talk

Wednesday, August 16, at 4pm, CTPA Paleo-talk speaker will be Carolina Gómez, STRI intern

**Palms from the Paleocene (60 my) of northern Colombia**

## Bambi seminar

Thursday, August 17, Bambi seminar speaker will be Julia Velasquez Runk, School of American Research in Santa Fe New Mexico

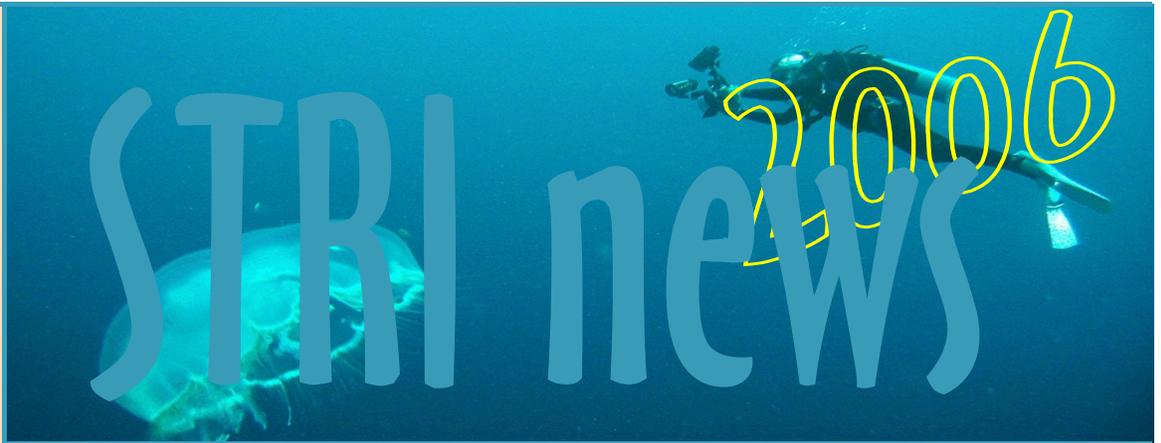
**Landscape, legibility, and conservation with Panama's Wounaan**

## Arriving next week

Eighteen students from several universities and institutions, to participate in the Field Course "Taxonomy and Biology of Tunicates 2006" at Bocas del Toro.

Ian Wang, University of California, Davis, to study the evolution of color polymorphism in poison-dart frogs, on Bocas del Toro.

Doug Post, State of California Department of Fish and Game Water Pollution Control Laboratory, and Cheryl Barkeley Barr, University of California at Berkeley, to collect aquatic beetles in Panama.



Smithsonian Tropical Research Institute, Panamá

[www.stri.org](http://www.stri.org)

August 11, 2006



## Workshop for Sustainable Diving in Panama

Edgardo Ochoa (photo at right) director of STRI's Scientific Diving Program (at right) organized, in collaboration of Panama's Marine Authority, the United Nations Development Programme, non-government organizations and the private sector in Panama, the first Workshop for Sustainable Diving, on Wednesday, August 9, at the Tupper Center.

The workshop aimed to gather representatives of all sectors dedicated to scuba diving in Panama, to work together in the establishment of norms and standards to provide the industry with safety policies and information regarding the conservation of the marine ecosystems.

The participants agreed to create a National Diving Group in Panama with six different work teams to assess the legal status of diving in Panama, the environmental situation,

tourism, safety, communication and education. These work teams will be coordinated by Edgardo Ochoa.

According to the participants involved, the meeting was successful and productive, and included representation from the government, NGO's and the private sector from Panama, Los Santos, Chiriquí, Colon and Bocas del Toro.

Edgardo Ochoa (foto a la derecha), director del Programa de Buceo Científico de STRI organizó, con la colaboración de la Autoridad Marítima de Panamá, el Programa de las Naciones Unidas para el Desarrollo (PNUD), organizaciones no-gubernamentales y el sector privado, el Primer Taller para Buceo Sostenible, el miércoles, 9 de agosto, en el Salón de Exhibiciones del Centro Tupper.

El taller tuvo como objetivo reunir a los representantes de todos los sectores de buceo en Panamá, para trabajar juntos en el establecimiento de normas y estándares que provea a esta industria con políticas de seguridad e información sobre la conservación de los ecosistemas marinos.

Los participantes convinieron en crear un Grupo Nacional de Buceo en Panamá, con seis diferentes equipos de trabajo para estudiar la situación legal del buceo en Panamá, la situación ambiental, el turismo, la seguridad, comunicación y educación. Los grupos de trabajo estarán coordinados por Edgardo Ochoa. De acuerdo a los participantes, la reunión resultó altamente exitosa y productiva, e incluyó representación del gobierno, ONG's y el sector privado de Panamá, Los Santos, Chiriquí, Colón y Bocas del Toro.

#### More arrivals

Pieter Verburg, National Center for Ecological Analysis and Synthesis (NCEAS), to study tropical amphibian declines in streams (TADS), in Fortuna.

Justin McAlister, University of North Carolina, to study the effect of environmental variation on the evolution of developmental plasticity of the trophic structures of echinoderm larvae, at Naos.

Michael Kaspari, University of Oklahoma, to study the regulation of brown food webs: the ecology of tropical litter food webs, on BCI.

#### New publications

Aliaga-Rossel, Enzo, Moreno, Ricardo S., Kays, Roland W., and Giacalone, Jacalyn. 2006. "Ocelot (*Leopardus pardalis*) predation on agouti (*Dasyprocta punctata*)." *Biotropica* 38(5): 691.

Colley, S.B, Glynn, Peter W., May, A.S., and Maté, Juan L (2006) "Species-dependent reproductive responses of eastern Pacific corals to the 1997-98 ENSO event." In: *Proceedings of the 10th International Coral Reef Symposium*: 61-70.

Kronauer, Daniel, Berghoff, Stefanie, Powell, Scott, Denny, A., Edwards, Keith, Franks, Nigel, and Boomsma, Jacobus J. 2006. "A reassessment of the mating system characteristics of the army ant *Eciton burcbellii*." *Naturwissenschaften* 93(8): 402-406.

Nathan, Ran. 2006. "Long-distance dispersal of plants." *Sence* 313(5788): 786-788.

Piepenbring, Meike. 2006. "Inventing the fungi of Panama." *Biodiversity and Conservation* Online.

## Science: Long-Distance Dispersal of Plants

Ran Nathan, affiliated with the Hebrew University of Jerusalem, and the Smithsonian Tropical Research Institute in Panama published a "Perspective" in the journal *Science*, (August 11), vol. 313: 786-788. The article, "Long-distance dispersal of plants" was distributed by Neal G. Smith on August 10.

Rathan conducts research at STRI with Joe Wright and Helene Muller Landau, on BCI.

"Long-distance dispersal (LDD) of plants poses challenges to research because it involves rare events driven by complex and highly stochastic processes. The current surge of renewed

interest in LDD, motivated by growing recognition of its critical importance for natural populations and communities and for humanity, promises an improved, quantitatively derived understanding of LDD. To gain deep insights into the patterns, mechanisms, causes, and consequences of LDD, we must look beyond the standard dispersal vectors and the mean trend of the distribution of dispersal distances. "Nonstandard" mechanisms such as extreme climatic events and generalized LDD vectors seem to hold the greatest explanatory power for the drastic deviations from the mean trend, deviations that make the nearly impossible LDD a reality."



### Association for Tropical Biology and Conservation

## Call for nominations for 2007 honorary fellow of the ATBC

In 1963, the Association for Tropical Biology established the election of Honorary Fellows as "persons of long distinguished service to tropical biology."

This is the highest award given by the Association. Recently elected Fellows include Peter Raven, P. S. Ramakrishnan, Daniel H. Janzen, Timothy C. Whitmore, Joseph H. Connell, Kamaljit S. Bawa, John Terborgh, and Paul Nogueira-Neto.

Any member of ATBC wishing to nominate a candidate for the 2007 award should submit a one to two page letter in support of the nomination

along with the nominee's CV, to:

Chair of the Nominating Committee, ATBC  
President William F. Laurance  
Smithsonian Tropical Research Institute  
Apartado 2072, Balboa  
Republic of Panama

Deadline: December 15, 2006.

All nominations will be distributed to the Nominating Committee, which will forward the final selection to the ATBC Council for approval. The 2007 Honorary Fellow will be announced at the Annual Meeting of the ATBC in Morelia, Mexico.

#### More publications

Poulsen, Michael, Hughes, William O.H., and Boomsma, Jacobus J. 2006. "Differential resistance and the importance of antibiotic production in *Acromyrmex ecbinator* leaf-cutting ant castes towards the entomopathogenic fungus *Aspergillus nomius*." *Insectes Sociaux* 53(3): 349-355.

Ribeiro, Pablo D., Christy, John H., Rissanen, Rebecca, and Tae Won, Kim. 2006. "Males are attracted by their own courtship signals." *Behavioral Ecology and Sociobiology* Online.

Svenning, Jens Christian, Engelbrecht, Bettina M. J., Kinner, David A., Kursar, Thomas A., Stallard, Robert F., and Wright, S. Joseph. 2006. "The relative roles of environment, history and local dispersal in controlling the distributions of common tree and shrub species in a tropical forest landscape, Panama." *Journal of Tropical Ecology* 22(5): 575-586.

Wells, Konstans, Pfeiffer, Martin, Lakim, Maklarin B., and Kalko, Elisabeth K.V. 2006. "Movement trajectories and habitat partitioning of small mammals in logged and unlogged rain forests on Borneo." *Journal of Animal Ecology* Online.

Zimmermann, Yvonne, Roubik, David Ward, and Eltz, Thomas. 2006. "Species-specific attraction to pheromonal analogues in orchid bees." *Behavioral Ecology and Sociobiology*.

# A Wondrous Ride

We bid a fond farewell to our colleague Mark Brady, who has worked with many members of the STRI staff over the past four years. Beneath his gracious, mild-mannered, Clark Kent-like exterior, Mark had the ability to turn into Superman and come to the rescue of many STRI efforts. We will miss Mark, but we wish him and his wife Allison all the best of luck as they return to Colorado. His email address is: [tundrian@earthlink.net](mailto:tundrian@earthlink.net)  
Lisa

“My first trip to STRI came in November 2002, shortly after I’d gotten the job in the STRI DC Office. Lisa had asked during the “interview” whether I’d be willing to travel to Panama. “Oh yes, absolutely” I’d answered calmly. But I felt my heart leap through the ceiling at the prospect. First, I had a job (a small miracle in itself) and one that took me to the tropics? I was the luckiest person in the world.

Of all the things I would see I anticipated the “Island” most. Waking at 5am was a bit rough (even among the elegant quarters of the Miramar) but I ambled out of the lobby on time for Nino, who had, the day prior, introduced me to the word “lluvia” in the midst of a torrential downpour. The morning was so far gray but dry, and thereby deprived of my one Spanish word, I greeted Nino with only a smile and a handshake and got into his small Toyota.

I relished the scenery as we drove from the city, past Miraflores and into Soberania. The forest amazed me: so green, alive and enveloping. At one point Nino stomped on the brakes to avoid squashing an agouti that had sprinted into the roadway. I asked *what was that thing* but Nino just turned around to make sure I was all right, then shook his head and drove on. Some ways past the

French cemetery (which Nino duly pointed out) he stopped the car again to pick up a man standing on the side of the road.

It had by this time begun to rain lightly and the man was sheltering his head and shoulders with a newspaper. He got into the front seat, nodded at me then looked at Nino. The two Panamanians (if so the latter was) then proceeded to converse with each other very fluidly while I sat silently in the back.. I was more than happy to hear them talk, though I didn’t understand a word. I never heard the word “gringo” though, which I would have recognized.

We arrived at the dock, greeted by the sunlight creeping through the haze over the Canal. Nino stopped the car, our unexpected passenger got out and waved thanks, and Nino pointed me toward the bench that overlooked the lake (this was the old STRI dock, or the one before the current one, anyway). Then he shook my hand, got back into the car and drove away. I was alone in the murk and feeling slightly apprehensive, not quite knowing what rough bark might emerge from the mist, nor when, nor whether I would be admitted onto it under no greater authority than my SI Washington badge.

What greeted me next was not a boat, but rather the person I considered (next to Dr. Rubinoff) the most venerable authority at STRI: Egbert Leigh. I had met Bert two weeks prior in DC, and found him as fascinating, affable and different as the tropics themselves. He sat down and said hello very politely. While I felt I should respect the silent grandeur of the scene I couldn’t help opening my mouth and yammering on about strange rodents crossing the road, the drone of cicadas in the brush, the distance to the island and

other banalities. Bert entertained me graciously.

The boat arrived a short time later, announced through the fog by a thick, slow chugging, and, once the passengers had gained their footing on the shore, Bert and I embarked. I stayed like a lapdog at his side and took a seat right next to him at the front of the boat (he sat next to the window, a book on his lap). We sat there for some time. I remember feeling the lolling of the boat and then the heavy lolling of my eyes... (remember I am not a morning-guy).

Trying not to fall asleep I began to write in a little green journal that I took—I confess it—from a batch that Antonio Reina had ordered for STRI (NB: when the shipment had come through our DC office the box was split open. As I was repacking all the books in a sturdier carton I thought surely they can do without this ONE?). In any event, the act of writing kept me awake and left Bert to some much deserved peace, and when we finally chugged away across the lake.

I grew more and more attuned to the phenomenal sights and

smells and sounds of the late wet season. I wrote for some minutes, trying to get out of my languid rut, then stopped just to observe these curious surroundings.

About twenty minutes later I felt the boat slow, and pointed to the left and said “that’s not the Island, is it?” Bert said “Well of course it is!” My pulse was about 200 beats per minute at this point. I could hardly believe we’d arrived. It had begun to rain again and the waves were rougher, the trees seemed to shake and I felt a certain thrill and respect that I’ve rarely felt, before or since.

This anecdote presents a sort of microcosm of my experiences at STRI. Often I did not know what I was getting into, nor how I was going to get out of it. But always I had the support of some of the smartest, warmest, strongest people I will ever know.

The following poem is what I wrote during that trip out to BCI (it did undergo some much needed revision). It is dedicated to the spirit of STRI and Panama, a small gift for all I owe.”

Mark Brady

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Aboard the transport vessel *Las Cruces*, to Barro Colorado Island in Gatun Lake:

The spray is out of reach beside the boat.  
The air is dull, and waves—lithe, now, through the lake—  
die soon; their lift and curl lost in the wake  
of a vast, proud liner that carves its way.

I wrote of spray beyond my reach, of hulls afloat  
the early morning waves.

But could I take away a drop upon my palm, as if a flake  
of snow had melted there, this languid moat  
might surge, from murky depths, against the hull,  
to drum our rough approach—  
and while the forest wakes:  
its scent of flowers, deep-welled, colorful,  
seeps into the wind, and monkeys’s howling rakes,  
along my ribs, a chill—and soon the lull  
pulses with rain, and waves, dashing at the harbor breaks.

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# What we do at the Naos Archaeology Lab

## Part three: pottery technology: materials, manufacturing processes and function

Archaeologists at STRI's Naos Archaeology Lab study how making, using and decorating clay vessels changed in response to social and political developments. Their studies are part of Richard Cooke's long-term study of pre-Spanish cultural and environmental history in the 'Gran Coclé' culture area of central Panama.

Japanese intern Fumie Iizuka studies pottery technology: materials, manufacturing processes and function. One question that particularly interests her is when and where household production relying on locally available materials gave way to specialized workshops, which required carefully selected clays, tempers and pigments often brought in from afar.

By analyzing mineral and biological residues adhering to the pots' surfaces Fumie infers how particular vessels were used. Phytolith, starch grain and isotopic studies, for example, can determine whether maize was cooked in a particular vessel.

Arqueólogos en el Laboratorio Arqueológico de STRI en Naos estudian cómo la confección, el uso y la decoración de

las vajillas cambiaron a medida que la sociedad precolombina evolucionaba social y políticamente. Sus investigaciones forman parte de los estudios a largo plazo dirigidos por Richard Cooke. Estos procuran reconstruir la historia cultural y ambiental del área cultural de 'Gran Coclé' en el Panamá central.

La pasante japonesa Fumie Iizuka estudia la tecnología de la cerámica: qué materiales seleccionaban los indígenas, cuáles procesos de manufactura utilizaron y qué función desempeñaba cada vasija. Una interrogante que le resulta especialmente

interesante es: ¿cuándo y dónde la producción casera de esta vajillas que usaban materiales de origen local fue reemplazada por talleres especializados que requerían arcillas, desgrasantes y pigmentos cuidadosamente seleccionados provenientes de otros lugares?

Al analizar los residuos minerales y biológicos adheridos en las superficies de las vasijas, Fumie determina cómo se usaban. Por ejemplo, análisis de los fitolitos, granos de almidón y la composición isotópica de los residuos determina si una vasija particular fue utilizada para cocinar maíz.

