

Tupper 4pm seminar

Tuesday, September 19, 4pm seminar speaker will be Egbert G. Leigh, Jr., STRI
Adam Smith and island biogeography

Bambi seminar

Thursday, September 21, Bambi seminar speaker will be David Watson, Charles Sturt University

The influence of sample completeness on ecological inference: Insights from the RIFLE study

Colón's Monthly

Thursday, September 21, Colón's Monthly Smithsonian Talk speaker will be Karla Aparicio, STRI

Aves del Canal de Panamá

This talk will be the third Colón's Monthly, organized by the Galeta crew, and hosted by Hotel Meliá Panamá, at 7pm. For more information contact Olga Barrio at 212-8169 or galleta@si.edu

Arriving next week

Mauricio Rodríguez and Nguyen Hung, OFEO-SI, to evaluate the conditions of the solar panel roof of Bocas del Toro Research Station, with staff from Terrasolar Co., from US.

Richard Tankersley, Florida Institute of Technology, to compare circatidal swimming behaviors of fiddler crab larvae from different tidal regimes, on Bocas.

David Ouvrard, Museum National d'Histoire Naturelle, France, to study the phylogeny of Phylloidea, using the Canopy Crane Access System.



Smithsonian Tropical Research Institute, Panamá www.stri.org September 15, 2006

STRI signs agreement with developers at Naos

STRI's deputy director Eldredge Bermingham and Marco Shrem from Naos Harbor Inc. (NHI) signed an agreement of "good neighbors" this week, at Naos Island Laboratory.

NHI is developing the Naos Harbor Island project next to STRI's Naos Island Laboratories. This development project includes a hotel, apart-hotel, commercial area, marina, dock for recreational boats.

According to the agreement, NHI will create and maintain a green area to buffer construction activities on Naos Island, keep the grounds free from pollution and noise during the night, and respect all wildlife present on Naos Island.

On the other hand, STRI agrees to provide NHI with all relevant information about projects being conducted at Naos and other regions of the Isthmus and the world. According to Bermingham, the agreement not only protects all



scientific and educational activities at Naos, but it is an example of touristic and commercial development with environmental viability, and establishes a positive precedent of cooperation among both entities.

El subdirector de STRI, Eldredge Bermingham y Marcos Shrem de Naos Harbor Inc (NHI) firmaron un acuerdo de buenos vecinos, esta semana, en los Laboratorios de Isla Naos.

NHI está construyendo un proyecto de desarrollo turístico que incluye un hotel, apartotel, área comercial, marina y atracadero para embarcaciones de recreación.

De acuerdo al convenio, NHI creará y mantendrá una zona verde para mitigar las

actividades de construcción en Isla Naos, mantendrá los predios libres de contaminación y ruido durante las noches, y respetará toda la vida silvestre propia de Isla Naos.

Por otro lado, STRI se compromete a suministrar a NHI información sobre los proyectos que STRI lleva a cabo en Naos y otras regiones en el Istmo y el resto del mundo.

De acuerdo a Bermingham, el convenio no sólo protege las actividades científicas y educativas que se llevan a cabo en Naos y Culebra, sino que es un ejemplo de desarrollo turístico y comercial con medidas de viabilidad ambiental que establece un precedente positivo de cooperación entre ambas entidades.

Departures

Steve Paton, to Estes Park, Colorado, to attend the Long-Term Environmental Research Network's 'All Scientists Meetings'

HarisLessios, to Germany, to attend the International Society of Reef Studies meeting.

Juan L. Mate, Parque Nacional Coiba, to participate in Taller de Reconocimiento de Sitios Priorizados.

Olga F. Linares, to Saudi Arabia, on sabbatical for five months.

New publications

Baer, Boris, and Boomsma, Jacobus. 2006. "Mating biology of the leaf-cutting ants *Atta colombica* and *A. cephalotes*." *Journal of Morphology*, 267(10): 1165–1171.

Baer, Boris, De Jong, Gerdien, Schmid-Hempel, Regula, Schmid-Hempel, Paul, Hoeg, Jens T., and Boomsma, Jacobus J. 2006. "Heritability of sperm length in the bumblebee *Bombus terrestris*." *Genetica*, 127(1-3): 11-23.

Capson, Todd L. 2006. "Coiba National Park: A jewel of the tropical eastern Pacific," *World Heritage*, Vol. 42: 24-29.

Dijkstra, Michiel B., and Boomsma, Jacobus J. 2006. "Are workers of *Atta* leafcutter ants capable of reproduction?" *Insectes Sociaux*, 53(2): 136-140.

Safety number
212-8211

New face at STRI

Photojournalist Ryan Shuler is a new intern at STRI. He graduated from the Corcoran College of Art and Design in Washington DC and has extensive formal education and experiences related to photography and photojournalism. Shuler worked at the National Geographic Photographic and Imaging Lab and was editor and chief of arts, photography and layout for *Numina*, an online magazine, showcasing visual and written art produced by students.

Shuler will provide support to the *STRI news*, OCAPP and the Photographic Department and will conduct photographic project at different facilities. He is currently posted at Tupper's Photographic Department.

Welcome to the team!



El reportero gráfico Ryan Shuler es un nuevo pasante en STRI. Se graduó en Corcoran College of Art and Design en Washington DC y tiene una extensiva educación formal y experiencias relacionadas a la fotografía y periodismo. Shuler trabajó en el Laboratorio Fotográfico y Digital de la *National Geographic* y fue editor y director artístico y de diagramado de *Numina*, una revista

digital dedicada a exhibir arte visual y escrito de estudiantes.

Shuler ofrecerá apoyo al *STRI news*, OCAPP y el Departamento de Fotografía, así como también llevará a cabo proyectos fotográficos en diferentes instalaciones de STRI en Panamá. Actualmente se encuentra en el Departamento de Fotografía del Tupper. ¡Bienvenido al equipo!

Donación de Entrada:
B/.2.00 adultos
B/.0.50 niños

Sábado 30 de septiembre de 2006
10:00 a.m. a 6:00 p.m.
212-6793/94

More publications

Heckadon-Moreno, Stanley. 2006. "Notas de Caroline Salvin sobre la flora de las islas de Naos y Taboga, 1873." *"Epochas" Segunda Era (Supplement to La Prensa)*, 21(1): 4-5.

Jones, Frank Andrew, and Hubbell, Stephen P. 2006. "Demographic spatial genetic structure of the Neotropical tree, *Jacaranda copaia*." *Molecular Ecology*, 15(11): 3205–3217.

Kitching, Roger L. 2006. "Crafting the pieces of the diversity jigsaw puzzle." *Science*, 313(5790): 1055-1057.

Lokvam, John, Brenes-Arguedas, Tania, Lee, Scott, Coley, Phyllis D., and Kursar, Thomas A. 2006.

"Allelochemical function for a primary metabolite: The case of l-tyrosine hyper-production in Inga umbellifera (Fabaceae)." *American Journal of Botany*, 93(8): 1109-1115.

Prohl, Heike, Koshy, Regina A., Mueller, Ulrich G., Rand, A. Stanley, and Ryan, Michael J. 2006. "Geographic variation of genetic and behavioral traits in northern and southern Túngara frogs." *Evolution*, 60(8): 1669-1679.

Schwartz, M.P., Tierney, Simon M., and Chapman, T.W. 2006. "Phylogenetic analyses of life history traits in allopatrine bees and social evolution." In Kipyatkov, V.E. (Ed.), *Life cycles of social insects: behaviour, ecology and evolution*: 147-155. St. Petersburg: St. Petersburg University Press.

Send your news to:

calderom@si.edu
&
alvaradm@si.edu

STRI's CTFS PI wins Cosmos Prize

Raman Sukumar, from the Indian Institute of Sciences and principal investigator of STRI's CTFS Mudumalai's plot in India, won the 2006 International Cosmos Prize.

Sukumar's academic achievements include activities in ecology and conservation biology in southwestern India. In particular, his research on the ecological relationship between humans and elephants and the resolution of conflicts between them has been internationally recognized as pioneering work in the field of the relationship among humans and wildlife. He has also expanded certain fields of research through the work he has done such as explaining how past climate changes formed vegetation patterns in the Western Ghats and Nilgiri Hills and predicting how future climate changes will impact the region's animal and plant ecology.

Sukumar has made and implemented many proposals on biodiversity conservation of nature in India, where the population and urbanization rate are rapidly increasing. "For its universal approach in preserving the natural environment and its efforts to conserve life amid the urbanization that is taking place throughout the world, Sukumar's work won the 2006 Cosmos Prize, which aims for the "harmonious coexistence of nature and mankind."

Raman Sukumar, del Indian Institute of Sciences, e investigador principal en Mudumalai, una de las parcelas de dinámica de bosques del CTFS de STRI en India, ganó el Premio Internacional Cosmos de 2006.



STRI in the news



"Databases: Tropical trove." 2006. *Science* 313 (5793): 1547. See it at:

<http://www.sciencemag.org/content/vol313/issue5793/netwatch.dtl>

"Maravillosas alas con escamas" by Ivonne Rodríguez. *La Prensa* (Inova): September 9.

"Laboratorios vivientes" by Erica Elizabeth Benítez. 2006. *Panamá América* September 11: A12.

"Una estación de investigación en una pequeña isla." 2006. *Panamá América* September 11: A12.

"Guacamaya y amiga" by Alejandro Balaguer. 2006. *La Prensa* September 9: 1B.

"Las coloridas barreras naturales" by Ivonne Rodríguez. 2006. *La Prensa* (Inova): September 2: 10A.

Miscellaneous

Check it out! Europeaid Awards to Innovation: Awards for communicating science and technology for \$45,000. Awards for innovation in the energetic arena \$105,000!

www.cdspanama.org

Premios Europeaid para la Innovación: premios de \$45,000 para comunicación en ciencia y tecnología. Premios para innovación en el ámbito energético \$105,000

Water-use strategies in *Clusia* trees

Story:

José Luis Andrade
Edited by M Alvarado
and ML Calderón
Photos: MA Guerra

The Neotropical genus *Clusia* is remarkable because amongst its several hundred species one can find trees, hemiepiphytes, epiphytes and climbers.

Clusia also contains the only known trees using a special water-conserving form of photosynthesis, crassulacean acid metabolism (CAM), where leaves exchange carbon dioxide with the atmosphere mainly at night. This makes *Clusia* species with CAP suitable for reforestation at dry tropical sites.

José Luis Andrade, from Centro de Investigación Científica de Yucatán in México, measures the water loss for 10 different *Clusia* species, using plants maintained by STRI's Plant Physiology program at the Santa Cruz experimental field facility in Gamboa.

Clusia es un género neotropical sorprendente debido a que entre sus varios cientos de especies se encuentran árboles, hemiepipítas, epífitas y bejucos.

En *Clusia* también se encuentran los únicos árboles que usan metabolismo de ácido crasuláceo (CAM), una forma de fotosíntesis especial que conserva agua, donde las hojas intercambian dióxido de carbono con la atmósfera, principalmente de noche. Esto hace que las especies de *Clusia* con CAM sean buenas candidatas para la reforestación de áreas secas.

José Luis Andrade, del Centro de Investigación Científica de Yucatán en México, mide la pérdida de agua de 10 diferentes especies de *Clusia*, en plantas del el programa de Fisiología Vegetal de STRI en las instalaciones de campo

de Santa Cruz en Gamboa.

Andrade mide los flujos de agua con sensores de disipación de calor para calcular las tasas de transpiración de árboles y arbustos enteros. Los resultados ofrecerán información cuantitativa sobre la extensión en que las Clusias con CAM conservan agua en comparación con las especies normales de *Clusia* que obtienen el CO₂ durante el día.

