



100 years of science in Panama



Smithsonian Tropical Research Institute, Panamá

STRI news

www.stri.org

August 20, 2010

Tupper seminar

Tuesday, August 24 at 4pm,
Tupper seminar speaker will be Scott Wing, research scientist and curator, Department of Paleobiology, Smithsonian Institution
Terrestrial ecosystems during the Paleocene-Eocene thermal maximum: disruption associated with a major perturbation of the carbon cycle and climate

BDG

Tuesday, August 24 at 2pm,
the Behavior Discussion Group will meet with Ben Hirsch, Large Meeting Room
Familiarity breeds progeny: sociality increases reproductive success in adult male ring-tailed coatis (*Nasua nasua*)

Paleo-Talk

Wednesday, August 25 at 4pm,
Paleo-talk speaker will be Oris Rodriguez Reyes, STRI
Working with fossil leaves and woods: Examples from the Northeast of Mexico and several formations in central Panama

**Safety number:
212-8211**



Launching native tree series with 600 kids at Summit!

http://www.stri.org/espanol/arboles_panama/index.php

STRI, Biomuseo and *Aprendo* launched a collectable series on "Arboles nativos de Panamá y del Neotrópico [Neotropical and Panamanian native trees] on Wednesday, August 18 at the Summit Municipal Park, with 600 students from eight public and private schools. The project began in March this year when 100 schools in the country received a school kit including a special guide on how to grow native trees, a total of 100,000 seeds, seedlings and posters for each class. The guide, designed for students, teachers and the general public, was awarded by EuropeAid Innovation 2010, in the written media category.

On Wednesday, August 18, members of STRI's Office of Public Information, teachers and representatives from Biomuseo and *Aprendo* participated in a "tree hunt." Groups of children ages 8-10 went looking for clues left next to native species, to complete the exercise around a circuit in Summit. The groups finishing first were awarded prizes, while their teachers received a day-trip to BCI.

The issues will appear in the Sunday Edition of *La Prensa* newspaper for five weeks, starting on August 22. The series will present information provided by STRI's Project of Reforestation with Native

Species (PRORENA) with the support of the HSBC Climate Partnership. Twelve native trees will be presented: the Panama tree (*Sterculia apetala*), guayacan (*Tabebuia guayacan*), roble (*Tabebuia rosea*), cocobolo (*Dalbergia retusa*), cedro espino (*Pachyra quitana*), espavé (*Anacardium excelsum*) amarillo (*Terminalia amazonia*), balso (*Ochroma pyramidale*), guácimo colorado (*Luebea seemannii*), palo bobo (*Erythrina fusca*), balo (*Gliricidia sepium*) and guabita cansaboca (*Inga punctata*).

"At STRI, we are celebrating 100 years of friendship between the Smithsonian and Panama based on the scientific curiosity for knowledge of the

Arrivals

Michael Carrancho, associate director of Engineering and Technical Services at SI is visiting and working with colleagues at STRI's Office of Facilities Engineering and Operations, on several key projects in Panama.

Craig and Nydia Aughter Carmen Salisbury and Lynsey Shar, Butler University, to participate as instructors in the Butler University Field Course on the Natural World: a survey of biology, in Gamboa.

Allison Gardner, Amy Waymire, Janelle Jordan, Anne Bowersox, Brittany Valdes, Ana Baracaldo, Edward Stein and Christen Schwarz, Butler University, to participate in the Butler University Field Course on the natural World: a survey of biology, in Gamboa

Shirley Lim and Adeline Yong, Nanyang Technological University, to study mouthpart adaptations and gastric mill characteristics of common ocypodid crabs in the Rodman region, at Naos Island Laboratory.

Geoffrey Morse, University of San Diego, to study the diversity of armored scale insects in Neotropical rainforest canopies.

Kazuhiro Masunaga, Lake Biwa Museum, to study the speciation and origin of marine-shore dolichopodid flies.

Nalini Puniamoorthy, University of Zurich, to conduct a comparative study on the population differentiation of reproductive behavior and sexual dimorphisms in the Neotropical sepsid fly *Archisepsis diversiformis* (Diptera: Sepsidae), on BCI.

Isthmus' flora and fauna" commented Monica Alvarado, director of STRI's Office of Public Information. "We are proud to continue strengthening this friendship with projects that promote scientific curiosity and knowledge on Panama's biodiversity."

STRI, el Biomuseo y *Aprendo* lanzaron una serie de fascículos de la colección "Árboles nativos de Panamá y el Neotrópico, el miércoles 18 de agosto en el Parque Municipal Summit, con 600 estudiantes de ocho escuelas públicas y privadas. El proyecto dio inicio en marzo de 2010, cuando 100 escuelas en el país recibieron un kit escolar que incluye una guía especial sobre el cultivo de árboles nativos, 100,000 semillas en total, y plantones y afiches para cada clase. La guía, diseñada para

Book presented at Culebra

El sol, la tierra y tú [The sun, the Earth and You] by Gioconda Gaudeano was presented at Punta Culebra Nature Center on Sunday, August 15.

The author is a dermatologist who is trying to further awareness on the danger of ultraviolet radiation effects on human skin, due to the increase of greenhouse gases.

As part of the book presentation, STRI organized a workshop for children and a "solarmáforo" [a device to measure sunburn] was introduced. The device was designed at the Physics Department of the University of Panama with lights showing the incidence of ultraviolet radiation.

Money raised from this book will be donated to Fundacáncer, a Panamanian

estudiantes, maestros y el público en general recibió un premio para la Innovación de EuropeAid 2010, en la categoría de prensa escrita.

El miércoles 18 de agosto, miembros de la Oficina de Divulgación de STRI, maestros y representantes del Biomuseo y *Aprendo*, participaron en una "cacería de árboles". Grupos de niños de 8 a 10 años salieron a buscar las claves en o cerca de especies nativas, para completar el ejercicio en un circuito del Parque Summit. Los grupos que terminaron primero recibieron premios, mientras que sus maestros recibirán un viaje de un día a Barro Colorado.

Los fascículos aparecerán en la edición dominical del periódico *La Prensa* durante cinco semanas, a partir del 22 de agosto. La serie presentará información del Proyecto de

Reforestación con Especies Nativas de STRI (PRORENA) generada con apoyo del HSBC Climate Partnership. Se dará información sobre doce especies nativas de los árboles Panamá, guayacán, roble, cocobolo, cedro espino, espavé, amarillo, balso, guácimo colorado, palo bobo, balo y guabita cansaboca.

"En STRI estamos celebrando 100 años de amistad entre el Smithsonian y Panamá, basada en la curiosidad científica por conocimientos sobre la flora y fauna del Istmo" comentó Mónica Alvarado, directora de la Oficina de Divulgación y Medios de Comunicación de STRI. "Nos sentimos orgullosos de continuar fortaleciendo esta amistad con proyectos que promuevan la curiosidad científica y el conocimiento sobre la biodiversidad de Panamá.



foundation promoting studies and treatment to fight cancer.

El sol, la tierra y tú, por Gioconda Gaudeano se presentó en el Centro Natural de Punta Culebra de STRI, el domingo 15 de agosto.

La autora es una dermatóloga que busca aumentar la conciencia sobre el peligro de la radiación ultravioleta debido al aumento en los gases de invernadero.

Como parte de la presentación del libro, STRI organizó un

taller para niños, y se presentó un "solarmáforo" un instrumento para medir las quemaduras del sol. El instrumento fue diseñado en el Departamento de Física de la Universidad de Panamá con luces indican la incidencia de la radiación ultravioleta.

El dinero que se recoja con esta publicación será donando a Fundacáncer, una fundación panameña que se dedica a promover estudios y tratamientos para combatir el cáncer.

Departures

Rachel Page to Prague, Czech Republic, to participate in the 15th International Bat Research Conference.

Eldredge Bermingham to New York City and Washington DC, on official business. He will participate in meetings on the Smithsonian Institution Global Earth Observatories (SIGEO) and STRI-Woods Hole Oceanographic Institute's cooperation and research in Bahia Honda and Bocas del Toro regions.

New publications

Douglas, John K., and Wcislo, William T. 2010. "An inexpensive and portable microvolumeter for rapid evaluation of biological samples." *BioTechnics* 49(2): 566-572.

Dumbauld, Brett, Chapman, John, Torchin, Mark, and Kuris, Armand. 2010. "Is the collapse of mud shrimp (*Upogebia pugettensis*) populations Along the Pacific Coast of North America Caused by Outbreaks of a Previously Unknown Bopyrid Isopod Parasite (*Orthione griffenis*)?" *Estuaries and Coasts* Online.

Hartbauer, Manfred, Radspieler, Gerald, and Romer, Heiner. 2010. "Reliable detection of predator cues in afferent spike trains of a katydid under high background noise levels." *Journal of Experimental Biology* 213(17): 3036-3046.



HSBC reforestation: great success!

Roberto, Kelly & Adelvis

As part of the HSBC Climate Partnership, the Smithsonian and HSBC Panamá have teamed together for a second reforestation in one year. On Saturday August 14, Kelly Walsh, from STRI's Public Information Office and Climate Champions Adelvis Ortiz and Roberto Delgado, led a lively team of 30 HSBC volunteers to a plot in Parque Soberanía, near the Panama Canal Watershed experiment.

HSBC and the Smithsonian devised a plan to divide the tasks of opening the holes, adding organic fertilizer and planting the seedling, into small groups. This organization was practical, as there was constant movement, allowing HSBC to plant 300 seedlings in three hours.

After hearing a trivial complaint in midst of planting seedlings, someone turned around and said, "The reason we are here planting trees is so that you understand how easy it is to cut trees down and how hard it is for just one to grow back."

At the Smithsonian in Panama, we study the past, present and future of tropical biodiversity. The current climate change phenomena, a worldwide issue, is among our top priorities. Our association with the HSBC Climate Partnership gives us the opportunity to put this research into action, helping to re-establish the forest cover responsible for the environmental services needed for the operation of one of the world's most important economic waterways.

Information: Kelly Walsh

Como parte de HSBC Climate Partnership, el Smithsonian y HSBC Panamá se unieron por segunda vez este año para reforestar. El sábado 14 de agosto, Kelly Walsh, de la Oficina de Divulgación de STRI, y los Climate Champions del HSBC, Roberto Delgado y Adelvis Ortiz, lideraron a un grupo de 30 voluntarios del HSBC para sembrar en el Parque Soberanía, cerca del experimento de la Cuenca del Canal de Panamá.

EL HSBC y el Smithsonian hicieron un plan para dividir las labores de abrir huecos, añadir fertilizante y sembrar los plantones, en grupos pequeños. Esta organización resultó práctica, ya que hubo mucho movimiento, lo que permitió que se sembraran 300 plantones en tres horas.

Luego de una queja trivial de un compañero, uno de ellos se volteó y respondió "La razón por la que estamos aquí es para que ustedes entiendan qué tan fácil es cortar árboles y que tan difícil puede ser para que sólo uno vuelva a crecer."

En el Smithsonian estudiamos el pasado, presente y futuro de la biodiversidad tropical. El fenómeno actual del cambio climático es una de nuestras prioridades. Nuestra asociación el HSBC Climate Partnership nos dá la oportunidad de poner en acción nuestros estudios y ayudar a re-establecer la cobertura boscosa responsable por los servicios del ecosistema necesarios para la operación de una de las vías marítimas más importantes para la economía mundial.

New publications

Lafferty, Kevin D., Torchin, Mark E., and Kuris, Armand M. 2010. "The geography of host and parasite invasions." In Morand, Serge, and Krasnov, Boris R. (Eds.), *The biogeography of host-parasite interactions*: 191-203. Oxford: Oxford University Press.

Roche, Dominique G., Leung, Brian, Mendoza Franco, Edgar F., and Torchin, Mark E. 2010. "Higher parasite richness, abundance and impact in native versus introduced cichlid fishes." *International Journal for Parasitology* <http://dx.doi.org/10.1016/j.ijpara.2010.05.007>

Turner, Benjamin L. 2010. "Variation in the optimum pH of hydrolytic enzyme activities in tropical rain forest soils." *Applied and Environmental Microbiology*: <http://aem.asm.org/cgi/content/abstract/AEM.00560-10v1>

Zimmermann, Beate, Papritz, Andreas, and Elsenbeer, Helmut. 2010. "Asymmetric response to disturbance and recovery: Changes of soil permeability under forest-pasture-forest transitions." *Geoderma*: doi:10.1016/j.geoderma.2010.07.013

STRI in the news

"Biologists study rainforest host-plant associations" 2010. Physorg.com: August 19.

Tropical Ecology Workshop at Galeta

Seventeen students from the University of Panama in the cities of Panama, David, Santiago and Colón participated in an intensive field course on marine biology focused on the tropical and coastal habitats present at Galeta, from August 12 through 15.

The course was organized by STRI's Felix Rodríguez and Carlos de Gracia, president of the Youth Committee for Panama's Association for the Advancement of Science, the junior version of APANAC and STRI's Academic Programs coordinator Nélide Gómez.

The introductory course was lead by Santosh Jagadeenshan, postdoctoral fellow working with staff scientists Haris Lessios and Jeremy Jackson. Students were divided into four field research teams and their results will be presented as summaries at the forthcoming meetings of the XIII National Congress of Science and Technology 2010.

Easy access to protected habitats surrounding STRI's Galeta Marine Laboratory located on the Caribbean entrance to the Panama Canal, good facilities and the supportive staff of Galeta place this site as a cozy, idyllic center for marine biology education, in the midst of an international business zone with high tourism transit. During 2010, Galeta has hosted a Tropical Biology course with Princeton, the Panama Marine Ecology Program with East Carolina University, Introduction to Neotropical Research with Cape Henry Collegiate School, the "Gigante" course with the



University of Panama which was partly funded by Panama's National Secretariat for Science and Technology (SENACYT) and the latest Tropical Ecology workshop with COJUCIP, also funded by SENACYT.

Diecisiete estudiantes de la Universidad de Panamá en la ciudades de Panamá, David, Santiago y Colón participaron en un curso intensivo de biología marina enfocado en los hábitats tropicales y costeros presentes en Galeta, del 12 al 15 de agosto.

El curso fue organizado por Félix Rodríguez de STRI y Carlos de Gracia, presidente del Comité Juvenil de la Asociación Panameña para el Avance de las Ciencias, la versión juvenil de APANAC y la coordinadora de la Oficina de Programas Académicos de STRI, Nélide Gómez.

El curso introductorio fue liderado por Santosh Jagadeenshan, becario postdoctoral quien trabaja con los científicos de STRI, Haris Lessios y Jeremy Jackson. Los estudiantes se dividieron en

cuatro equipos de investigación de campo, y su trabajo se presentará en forma de resúmenes en la próximas reuniones del XIII Congreso Nacional de Ciencias y Tecnología, 2010.

El fácil acceso a los hábitats protegidos que rodean al Laboratorio Marino de Galeta localizado en la entrada Caribe del Canal de Panamá, sus buenas instalaciones y el personal de apoyo de Galeta sitúan a este lugar como un cómodo e idílico centro para la educación de biología marina, cerca de una zona internacional de negocios y un elevado tránsito turístico. En lo que va del año, Galeta ha sido la sede de un curso de Biología Tropical con Princeton, el Programa de Ecología Marina de Panamá con

East Carolina University, Introducción a la Investigación en el Neotrópico con Cape Henry Collegiate School, el curso de "Gigante" con la Universidad de Panamá que fue financiado parcialmente por SENACYT, y el este último curso con COJUCIP, el cual también contó con fondos de SENACYT.

