



Smithsonian

# 100 years of science in Panama



Smithsonian Tropical Research Institute, Panamá

STRI news

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February 4, 2011

## Gamboa seminar

Monday, February 7, Gamboa seminar speaker will be Stuart Dennis, University of Sheffield, UK

**Coping with predators: Phenotypic plasticity in Cladocera**

## Tupper seminar

Tuesday, February 8, Tupper 4pm seminar speaker will be Howard Falcon-Lang, University of London

**The rise and fall of the carboniferous coal forests**

## Paleo-Talk

Wednesday, February 9, PaleoTalk speaker will be Howard Falcon-Lang, University of London

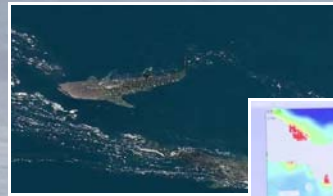
**Early angiosperm evolution and ecology: seeing the trees from the wood**

## Bambi seminar

Thursday, February 10, Bambi seminar speaker will be Kevin Tidgewell, Scripps Institution of Oceanography

**Drug discovery from marine Cyanobacteria**

The new "Bambi Jefe" is Stephanie Ramirez. Please contact her on the Island if you wish to give a seminar.



## Grandes Viajeros del Pacífico wins film festival

[www.youtube.com/watch?v=ow3AKDVMqgA](http://www.youtube.com/watch?v=ow3AKDVMqgA)

*Viajeros del Pacífico*, a documentary produced by Albatros Media and directed by Alejandro Balaguer, won the first prize of the National Wildlife Conservation Film Festival in the category of Foreign Film, on December 2010.

The awarded film features STRI marine biologist Héctor M. Guzman diving with a group of five whale sharks while traveling in the Tropical Eastern Pacific. In the video, Guzmán tags a radio-transmitter to one of the sharks in order to follow its voyages.

Guzmán studies the ecology and population dynamics of coral reefs; taxonomy of corals, conservation biology; human impacts on marine ecosystems, coastal

management, fisheries and marine pollution. He currently works on migratory patterns of large deep-water species in the Eastern Pacific, shark fishery, and marine reserves networking. Guzmán leads STRI's reef monitoring network of 33 sites along the Isthmus of Panama, implemented over a decade ago with partial funding by Nature Conservancy.

*Viajeros del Pacífico*, un documental producido por Albatros Media y dirigido por Alejandro Balaguer, ganó el primer premio del Festival de Filmes de National Wildlife Conservation en la categoría de filme extranjero, en diciembre de 2010. El documental muestra al biólogo marino de STRI, Héctor M. Guzmán buceando con cinco tiburones ballena mientras éstos viajaban en el

Pacífico Oriental Tropical. En el video, Guzmán adhiere un radio-transmisor a uno de los tiburones, para poder seguir sus movimientos durante sus extensos viajes.

Guzmán estudia la dinámica de poblaciones y ecología de los arrecifes coralinos, taxonomía de corales, biología de la conservación, el impacto humano sobre los ecosistemas marinos, el manejo de las áreas costeras, la pesquería y la contaminación del mar. Actualmente trabaja en los patrones de migración de especies de alta mar en el Pacífico Oriental, la pesca de tiburones, y las redes de reservas marinas. Guzmán lidera la red de monitoreo de arrecifes de STRI con 33 sitios a lo largo del Istmo de Panamá creada hace una década, con apoyo parcial de Nature Conservancy.

## Arrivals

Kerstin Wilhelm, University of Oldenburg, Germany, to study functional relevance of heteroblasty in Bromeliaceae, on BCI

Veronica and Iain Cottontail, University of Ulm, Germany, to study emerging infectious diseases: Impact of anthropogenic change on the prevalence of blood parasites in Neotropical bats in Panama, on BCI

Lei Chen and Xiangcheng Mi, Institute of Botany, Chinese Academy of Sciences, to study plant reproductive biology and seedling recruitment, on BCI

Daniel Bisaccio, Northeastern University, to participate as instructor in the 2011 Three Oceans/Northeastern University field course, at Bocas

William Iseckee, Synclair University, to participate in the Barro Colorado Island Mammal Census, on BCI

Roberta Martin, Gregory Asner and Joseph Mascaro, Carnegie Institution, to study the spectral, chemical and taxonomic characterization of Panamanian rainforest species in support of the Carnegie Airborne Observatory, on BCI

Barbara Huber, Muséum National d'Histoire Naturelle, France, to study the evolution of mimicry in *Heliconius*, in Gamboa

Daniel Stanton, Princeton University, to participate in a project redefining nutrient limitation in lowland tropical forests, on BCI



## ICBG researchers to visit Rancheria Island

This month a group of researchers and students from STRI and the Universities of California and Connecticut will visit Ranchería Island, part of Coiba National Park. STRI has served as custodian of Rancheria Island since 2001. The island has been used as a research base for STRI scientists and collaborators, including those who played a principal role in the scientific discoveries that led to the establishment of Coiba National Park by law in 2004 and its designation as a World Heritage Site by UNESCO in 2005.

The STRI scientists and visiting university researchers are supported by the National Institutes of Health (NIH), and will be carrying out projects under the auspices of the International Cooperative Biodiversity Group (ICBG). NIH/ICBG support was instrumental in the scientific discoveries that led to the development of Coiba National Park. The STRI/ICBG researchers utilize knowledge of marine and plant species gleaned across decades of study to discover new chemical compounds useful in the fight against cancer and tropical diseases, such as malaria, Chagas, leishmaniasis and dengue fever.

Identification of novel chemical compounds from studies of marine and terrestrial plant specimens will be used in the search for improved and less expensive treatments for tropical disease.

STRI advances research projects on Ranchería Island jointly with the University of Panama, Panama's Secretariat for Science, Technology and Innovation (SENACYT) and other institutions. According to Alicia Ibáñez, a STRI researcher, "the Park is crucial to these investigations since it provides access to a variety of terrestrial and marine ecosystems encompassing a great diversity of species of plants, animals and microorganisms, and the potential for significant new drug discoveries."

Este mes, un grupo de investigadores y estudiantes de STRI y las universidades de California y Connecticut visitarán Isla Ranchería, parte del Parque Nacional Coiba. STRI ha fungido como custodio de Isla Ranchería desde 2001. La Isla ha sido utilizada como base para investigaciones de científicos y colaboradores de STRI, incluyendo aquellos que jugaron un papel importante en los descubrimientos científicos que llevaron al establecimiento

del Parque Nacional Coiba por ley en 2004 y su designación de Sitio de Patrimonio Mundial por UNESCO en 2005.

Los científicos de STRI y sus académicos visitantes son financiados por los Institutos Nacionales de Salud de los EU (NIH), que estarán llevando a cabo proyectos del Grupo de Colaboración Internacional para la Biodiversidad (ICBG). El apoyo de NIH y ICBG fue instrumental en los descubrimientos científicos que llevaron al desarrollo del Parque Nacional Coiba. Los investigadores de STRI/ICBG utilizan conocimientos de plantas y especies marinas compilada a través de décadas de estudio para encontrar nuevos compuestos químicos útiles en la lucha contra el cáncer y las enfermedades tropicales como la malaria, Chagas, leishmaniasis y dengue.

La identificación de compuestos químicos novedosos resultado de estudios de especímenes marinos y plantas terrestres se usarán para la investigación de tratamientos mejores y menos costosos para las enfermedades tropicales.

STRI adelanta proyectos de investigación junto con la Universidad de Panamá, la Secretaría Nacional para la

## More arrivals

Ann-Chee Cheng, University of Connecticut, to participate in the ICBG project on tropical disease drug discovery from marine and plant resources in Panama, on Coibita and Tupper

Trey Crouch, University of Wyoming, to join the Agua Salud Project-Hydrological Studies, on BCI

Loreli Carranza Jimenez, Universidad Autónoma de Puebla, Mexico, to study the spectral, chemical and taxonomic characterization of Panamanian rainforest species in support of the Carnegie Airborne Observatory, on BCI

Yader Rouiz, Universidad de El Salvador, to study the community composition and dynamics in a Neotropical lowland forest, on BCI

Roger Linington, University of California, Santa Cruz, to join the ICBG: Training, conservation and drug discovery using Panamanian microorganisms.

## Departures

William T. Wcislo to San José, Costa Rica, to visit Palo Verde National Park as visiting faculty with the advanced studies course run by the Organization for Tropical Studies (OTS).

Héctor Guzmán to El Salvador, to visit San Salvador, Los Cobanos and Puerto Libertad to continue tagging whale sharks.

## New publications

Dalling, James W., Davis, Adam S., Schutte, Brian J., and Arnold, A. Elizabeth. 2011. "Seed survival in soil: interacting effects of predation, dormancy and the soil microbial community." *Journal of Ecology* 99(1): 89-95.

Ciencia, Tecnología e Innovación (SENACYT) y otras instituciones. De acuerdo a Alicia Ibáñez, investigadora post-doctoral en STRI, "para

## New books

STRI research associate George R. Angehr and Robert Dean recently published *The birds of Panama: A field guide*, through Cornell University Press. It sells for \$35 at the STRI Bookstore, at the Tupper Center.

This user-friendly identification guide features color illustrations of more than 900 species; range maps that show the distribution of Panama's birds; descriptions, identification, habitat, behavior and vocalizations; range maps and species accounts opposite illustration pages, and more.

According to Paul Ehrlich, this book is "A much-needed guide to one of the richest and most interesting avifauna in the New World. I can't wait to get back to Panama with it in my pack."

STRI presented the books: *Gamboa: Una guía para su patrimonio natural y cultural* and *Gamboa: A guide to its natural and cultural heritage* on Thursday, February 3, at the Tupper Center Auditorium. The book is authored by STRI communication associate Jorge Ventocilla and Kurt Dillon, an architect.

"The guide is the first complete monograph dedicated to a single town of the former Canal Zone to be produced in Panama. Its research is meticulous and it does not separate architecture and urban form from the natural features, which surround and permeate them. In sum, it reveals how history,

estos estudios el Parque es de gran importancia, ya que suministra una gran diversidad de especies de plantas, animales y microorganismos, así como el

El investigador asociado a STRI George R. Angehr y Robert Dean, acaban de publicar el libro *The birds of Panama: A field guide*, con Cornell University Press. Se vende por \$35 en la Librería de STRI en el Centro Tupper.

Esta guía de identificación de fácil uso, muestra ilustraciones a color de más de 900 especies, mapas de rango de la distribución de estas aves en Panamá, descripciones para la identificación, hábitat, conducta y vocalización de las aves e historias sobre las especies con sus ilustraciones en la página opuesta, y mucho más.

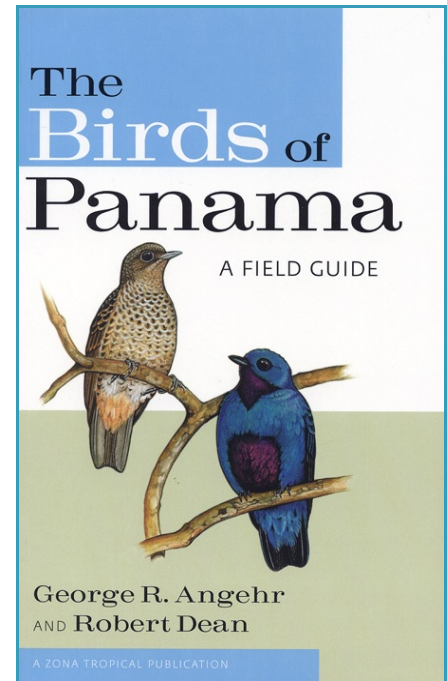
De acuerdo a Paul Ehrlich, este libro "Es una guía que se necesitaba para la avifauna

nature, architecture and planning are unified in Gamboa..."

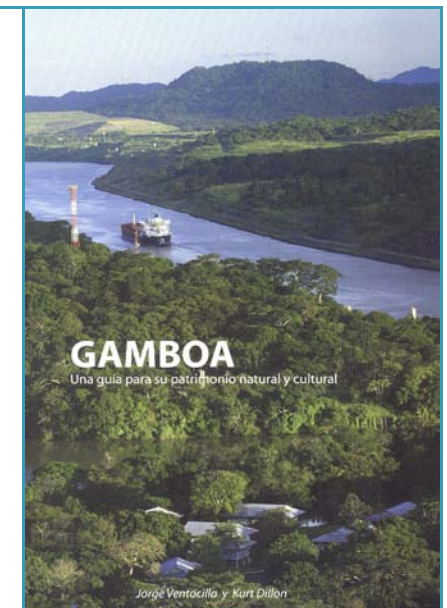
STRI presentó los libros *Gamboa: Una guía para su patrimonio natural y cultural* y *Gamboa: A guide to its natural and cultural heritage* el jueves 3 de febrero en el Auditorio del Centro. El libro tiene como autores a Jorge Ventocilla, asociado en comunicación de STRI, y el arquitecto Kurt Dillon.

"La primera monografía completa editada en Panamá sobre un poblado de la antigua Zonal del Canal. Ha sido investigada minuciosamente, sin separar arquitectura y forma urbana, de

potencial para descubrir nuevos medicamentos significativos.



de uno de los puntos más ricos e interesantes del Nuevo Mundo. No puedo esperar a volver a Panamá portándolo en mi mochila."



la naturaleza que rodea y permea el lugar. Esta obra nos viene a decir que historia, naturaleza, arquitectura y urbanismo se reúnen en Gamboa..."

## New publications

Gonzalez, Sergio C., Touchon, Justin C., and Vonesh, James R. 2011. "Interactions between competition and predation shape early growth and survival of two Neotropical hylid tadpoles." *Biotropica* doi:10.1111/j.1744-7429.2010.00748.x

Kaspari, Michael, Chang, Charlotte, and Weaver, Johanna. 2010. "Salted roads and sodium limitation in a northern forest ant community." *Ecological Entomology* 35(5): 543-548.

Krause, G. Heinrich, Winter, Klaus, Krause, Barbara, Jahns, Peter, Garcia, Milton, Aranda, Jorge, and Virgo, Aurelio. 2010. "High-temperature tolerance of a tropical tree, *Ficus insipida*: Methodological reassessment and climate change considerations." *Functional Plant Biology* 37(9): 890-900.

Medina, Daniel, Jaramillo Adam, Cesar A., and Ibanez D., Roberto. 2010. "Distribution record. *Craugastor tabasarae* (Tabasara rainfrog)." *Herpetological Review* 41(4): 506-507.

Montes, Camilo, Guzman, Georgina, Bayona, German, Cardona, Agustin, Valencia, Victor, and Jaramillo, Carlos. 2010. "Clockwise rotation of the Santa Marta massif and simultaneous Paleogene to Neogene deformation of the Plato-San Jorge and Cesar-Ranchería basins." *Journal of South American Earth Sciences* 29(4): 832-848.

Plath, Mirco, Mody, Karsten, Potvin, Catherine, and Dorn, Silvia. 2011. "Do multipurpose companion trees affect high value timber trees in a silvopastoral plantation system?" *Agroforestry Systems* 81(1): 79-92.

## "Afternoon at the Museum"

The Internal Audiences Committee for the Centennial Celebration began its 2011 season with "An Afternoon at the Museum", on Thursday, February 3. It was an afternoon dedicated exclusively to all STRI members by the Panama Canal Museum staff, in which STRI members had the opportunity to experience the Panamanian Passages exhibition, a display that celebrates Panama's natural history and culture, as well as receive a guided tour of the other museum galleries.

Panamanian Passages is a joint effort by the Smithsonian Latino Center, the Panama Canal Museum, and the Smithsonian Tropical Research Institute, the version exhibited at the Panama Canal Museum is presented with an introduction to the 100 Years of Smithsonian Science in Panama.

El Comité de Audiencias Internas para la Celebración del Centenario inició su temporada 2011 con el evento *Una Tarde en el Museo*, el jueves, 3 de febrero. Fue una tarde exclusivamente dedicada a los miembros de STRI por parte del Museo del Canal Interoceánico.

Los participantes tuvieron la oportunidad de ver la exhibición "Pasajes Panameños", la cual resalta la historia, riquezas culturales y naturales de Panamá y dar un recorrido guiado por las otras salas del Museo. "Pasajes Panameños" es una exhibición resultado de un esfuerzo conjunto entre el Centro Latino

del Smithsonian, el Museo del Canal Interoceánico, y del Instituto Smithsonian de Investigaciones Tropicales, y en la versión exhibida en el Museo del Canal Interoceánico, la acompaña una introducción a los 100 Años de Ciencia del Smithsonian en Panamá.

