

Tupper 4pm seminar

Tuesday, June 19, seminar speaker will be Julia Velasquez Runk, University of Georgia
The rivers for the trees: Wounaan cosmology and environmental conservation in eastern Panama

Charla en Colón

Thursday, June 21, speaker for "Charla del Mes" will be Omar R. Lopez, at 7pm, Hotel Meliá Panamá Canal
La flora exótica de Panamá: origen, distribución y abundancia

Bambi seminar

Thursday, June 21, Bambi seminar speaker will be Mike Ryan, STRI research associate from the University of Texas
To BCI & back: 30 years with the Túngara frogs

Arriving next week

Michael Caldwell, to study multimodal signaling in the red-eyed treefrog, in Gamboa.

Paul Schaeffer, Dominique Wagner and Patrick Mineo, to join STRI's Automated Radio-Telemetry System project, in Gamboa.

Martine Mann, to join the project "Poison or Passion", on Bocas del Toro.

Jose Palacios and Laura May Collado, to study boat traffic and potential negative effects on the behavior and acoustics of a resident bottlenose dolphin, in Bocas del Toro.

**Safety number:
212-8211**



Smithsonian Tropical Research Institute, Panamá

www.stri.org

June 15, 2007

Upgrading the STRI Library

The STRI Library is undergoing general refurbishing on level 100 including the annex. The catalog section, reading room and reference section will be reorganized.

New windows are being added for the reading room, and the communication system will be enlarged with eight new computer stations.

The designer was Linette Yanisselly. Mejores Acabados is the contractor. The project is scheduled to be completed in July.

En la Biblioteca de STRI se lleva a cabo una remodelación



general en el nivel 100, incluyendo el Anexo. El amoblado, sección de catálogo, salón de lectura y sección de referencias se reorganizarán.

Se añaden nuevas ventanas para el salón de lectura y el sistema de comunicación se expandirá

con ocho nuevas estaciones para computadoras.

El proyecto contó con el diseño de Linette Yanisselly, y el contratista es Mejores Acabados. Se espera que el proyecto sea entregado en julio.



A workshop on how to write successful scientific proposals was held at STRI from Thursday, May 31st to July 1st at the Tupper Center Auditorium. The workshop was

Workshop on how to write scientific proposals

organized by Nélida Gómez, coordinator of STRI's Office for Academic Programs.

Forty-seven Panamanian students from different provinces including students associated with STRI participated in the workshop.

The topics included the use of research tools, the level of knowledge needed to start an investigation, how to formulate questions and hypotheses, how to write a compelling introduction and executive

summary and how to prepare research budgets. The workshop also included an evaluation of the research proposals produced by the participants during the workshop.

The instructors of the two-day intensive course were Gómez, who holds a Ph.D. from Braunschweig Technological University in Germany, Roberto Cipriani, with a Ph.D. from the University of Chicago, Hermógenes Fernández, with a

Arriving next week

Kelsey Ellis, to study the factors affecting the population dynamics of the Barro Colorado Island howler monkeys.

Dennis Kyle and Roger Linington, to participate in the ICBG annual meeting

Robert Stallard, to continue research at STRI.

OFEO executives from Washington DC and Kling Stubbins Planning firm, to participate at the data collection process for the new STRI Master Plan. The group's leader is Harry Rombach and the project manager is Jane Passman. The project is expected to last for 16 months. Members of STRI's scientific community and administrators will attend the meetings.

Departures

Amalia Herrera, to Charlotte, NC, to participate in the 14th International Bryozoology Congress.

Rolando Pérez, to Manaus, Brazil to provide training to botanists at the BDFFP.

D. Ross Robertson and James L. Van Tassell, to Caracas, to collect and photograph fish specimens.

Milton Solano to San Diego, CA, to attend the 27th ESRI User Conference.

Tania Quiel, to Miami, to attend meeting to coordinate Internet 2 projects with the International University of Florida and Ampath.

David Roubik, to Washington DC, to use photographic facilities at SI.

doctorate from the University of Puerto Rico, and Vielka Chang-Yau and Angel Aguirre, librarians at STRI.

Un taller sobre cómo escribir propuestas científicas exitosas se llevó a cabo en STRI del jueves 31 de mayo, al viernes 1ro de julio en el Auditorio del Centro Tupper. La organización del taller estuvo a cargo de Nérida Gómez, coordinadora de la Oficina de Programas Académicos.

Recycling at the Smithsonian

Nowadays everybody talks about climate change, pollution, and the greenhouse effect... The problems appear insurmountable and many believe that unless politicians make some key decisions soon, our planet will change forever for the worst.

But every one of us contributes to climate change and each and every one of us can do something about it. At STRI some of our studies are dedicated to conservation biology. Still we create mountains of waste.

The Smithsonian Directive 404 states that all SI facilities must support the Executive Order 13101, "Greening the Government through Waste Prevention, Recycling and Federal Acquisition."

At STRI, the 'new' recycling committee invites you to collect soda cans, glass, paper, printer cartridges, and plastic bottles. Containers for these items were placed at every facility. Ask a member of your facility's recycling committee about their location.

Most materials can be recycled in Panama, and a large proportion of recycled material is put aside during the trash collection. You can separate recyclable materials at home in different bags.

Cuarenta y siete estudiantes panameños incluyendo estudiantes asociados con STRI, participaron en el Taller. Se tocaron los temas del uso de herramientas para la investigación, cómo formular preguntas e hipótesis, cómo escribir una buena introducción y un resumen ejecutivo y cómo preparar presupuestos de investigación.

El taller culminó con una evaluación de las propuestas

hechas por los participantes durante el taller.

Los instructores del curso intensivo de dos días fueron Gómez, quien posee un doctorado de la Universidad Tecnológica de Braunschweig, Roberto Cipriani, doctorado de la Universidad de Chicago, Hermógenes Fernández, doctorado de la Universidad de Puerto Rico, y Vielka Chang-Yau y Angel Aguirre, bibliotecarios en STRI.

Recycling Committee

Members:

Ancon:

Argelis Ruiz, Amalia Herrera

BCI:

Belkys Jiménez, Emma Sayer, Oris Acevedo

Bocas: Volunteer needed!

Procurement: Mirna Fernández

Culebra: Inez Campbell

Galeta: Illia Grenaldi

Gamboia:

Margareta Kalka, Natalia Anaya, Argelis Ruiz

Naos: Anibal Velarde

Tivoli/Tupper/Pastor's House:

Simon Tierney
Ivette Mckenzie

Hoy día, todos hablan sobre el cambio climático, la contaminación, los efectos de los gases de invernadero. Los problemas parecen insuperables y muchos creen que, si los políticos no toman decisiones clave muy pronto, nuestro planeta cambiará hacia su destrucción. Pero cada uno de nosotros contribuye al cambio climático y cada uno de nosotros pueden hacer algo. En STRI, parte de nuestro trabajo es estudiar biología de la conservación. Sin embargo, producimos montañas de desechos.

El "Smithsonian Directive 404" establece que todas las instalaciones del Smithsonian

deben apoyar la Orden Ejecutiva 13101, "Greening the Government through Waste Prevention, Recycling and Federal Acquisition." [Reverdeciendo al Gobierno a través de la Prevención de Desechos, Reciclado y Adquisición Federal].

En STRI, el nuevo comité de reciclado lo invita a coleccionar latas de soda, vidrio, papel, cartuchos de impresoras, y botellas plásticas. Se han dispuesto contenedores para estos productos en todas las instalaciones del Instituto. Pregunte a un miembro del comité de reciclado en su lugar de trabajo, sobre dónde están localizados los contenedores.

La mayoría de los materiales pueden reciclarse en Panamá, y una gran proporción de material para reciclar se pone a un lado durante la colecta de basura. Usted puede separar los materiales reciclables en su casa en diferentes bolsas.



New publications

Davidar, Priya, Rajagopal, B., Mohandass, D., Puyravaud, Jean-Philippe, Condit, Richard S., Wright, S. Joseph, and Leigh, Jr., Egbert Giles. 2007. "The effect of climatic gradients, topographic variation and species traits on the beta diversity of rain forest trees." *Global Ecology and Biogeography* 16(4): 510-518.

Giannini, Norberto, and Keller, Roberto A. 2007. "Problems with the application of cladistics to forest fragmentation studies." *Cladistics* 23(3): 297-299.

Ricklefs, Robert E., and Bermingham, Eldredge. 2007. "The West Indies as a laboratory of biogeography and evolution." *Philosophical Transactions of the Royal Society of London Online*.

Sautu, Adriana. 2007. "Seed biology in the tropics [book review]. Tropical tree seed manual, edited by J.A. Vozzo, 2002." *Tropinet* (Supplement to *Biotropica*) 18(2): 7.

STRI in the news

"Oceans expert foresees dire straits" by Joe Amarante, Register Staff. 2007. New Haven Register.com at <http://www.nhregister.com>

"New \$100m HSBC partnership launched to tackle global climate change. 2007. The Malta Independent Online. Wednesday, June 13.

"Color pattern spurs speciation in tropical fish." 2007. Science Daily: June 12. <http://www.sciencedaily.com/releases>

More waves about the state of the oceans

In 2006, a group of scientists led by Boris Worm from Dalhousie University in Canada that included STRI's Jeremy B.C. Jackson, published the article "Impacts of biodiversity loss on ocean ecosystem services" in *Science* (November 3). The article attracted international media attention due to its projection that marine resources would collapse by 2048 if corrections and management policies would not be implemented.

Several groups of scientists with different points of view than those published in the above mentioned article, have published their comments in *Science* and other media. In the recent issue of *Science* (June 1st) three more comments were published in its Letters section, edited by Etta Kavanagh, entitled "Biodiversity loss in the ocean: How bad is it?" The authors are all associated with fisheries services of several institutions in the US.

Worm *et al* responded to the letter by Murawski *et al* in the same issue of *Science* with the Technical Comment "Response to Comments on 'Impacts of biodiversity loss on ocean ecosystem services.'" The authors "show that globally declining fisheries catch trends cannot be explained by random



Photos: Edgardo Ochoa

processes and are consistent with declining stock abundance trends. Future projections are inherently uncertain but may provide a benchmark against which to assess the effectiveness of conservation measures. Marine reserves and fisheries closures are among those measures and can be equally effective in tropical and temperate areas—but must be combined with catch-, effort-, and gear restrictions to meet global conservation objectives."

Jackson, who since his article "Historical overfishing and the recent collapse of coastal ecosystems," also published in *Science* in 2001 (July 27) has dedicated a great deal of his time to "open the eyes" of the public, politicians around the world and decision makers. On Wednesday, June 13, he participated in the International Festival of Arts & Ideas forum, at the Thomas E. Golden Center at Yale University, New Haven. According to *The New Haven Register*, Jeremy "rode into town like a modern-day

Paul Revere, with what he called "a really depressing talk, with a little bit of hope at the end."

"...It's up to you," he said. "You can decide if there's going to be an ocean you want to take your grandkids to in the next 20 years." "...The 'little bit of hope' he promised? Jackson showed evidence that in some islands north of Hawaii, sporting coral reefs did recover somewhat from the heat-caused bleaching. The islands that did the best were the ones without people around them.

Jackson said of carbon emissions, "We have to fix that on a massive scale. ... It's about politics and citizenship ... and having the will to make social change of profound importance."

All of the articles mentioned in this piece can be obtained from: calderom@si.edu



The secrets of success

Story: Jim Dalling
Edited by M Alvarado,
ML Calderon
Photo: MA Guerra

About 15 % of tree species on BCI are pioneers, found only in forest gaps that form when trees fall. Despite sharing similar requirements for successful regeneration, pioneer species show a diversity of reproductive traits including orders of magnitude variation in fecundity, dispersal distance, and the ability for seeds to survive in the soil.

Elena Lobo, doctoral student at the University of Illinois, studies how reproductive traits of pioneers influence recruitment. Are there optimal combinations of traits that maximize recruitment success? How might traits be influenced by rates of forest disturbance? One puzzling trait shared by many pioneers is prolonged seed dormancy. Dormant seeds are unable to germinate even when exposed to favorable conditions for seedling growth. Experiments are underway to measure how long seeds remain dormant, and the potential fitness cost of this trait compared to non-dormant seeds.

Cerca del 15% de las especies de árboles en Barro Colorado son pioneras, y se encuentran únicamente en los claros del bosque producidos por la caída de árboles. A pesar de compartir requisitos similares

para su regeneración exitosa, las especies pioneras muestran una diversidad de características reproductivas que incluyen órdenes de variación de magnitud en fecundidad, distancia de dispersión, y la habilidad de las semillas de sobrevivir en el suelo del bosque.

Elena Lobo, estudiante doctoral de la Universidad de Illinois, estudia cómo las características reproductivas de las especies pioneras determinan su reclutamiento.

¿Será la combinación óptima de sus características lo que maximiza su éxito de reclutamiento? ¿Cómo pueden las características ser influenciadas por las tasas de alteración en los bosques?

Una característica enigmática compartida por muchas especies pioneras es la capacidad de la semilla de permanecer en estado durmiente por mucho tiempo. Las semillas durmientes no pueden germinar aún cuando se exponen a condiciones favorables para el crecimiento de plántulas. Se están llevando a cabo experimentos para medir por cuánto tiempo las semillas permanecen durmientes, y el costo potencial que esta característica puede tener para la salud de la semilla, comparadas a las semillas viables.

