Tupper 4pm seminar

Tue, Jun 6, 4pm seminar speaker will be Eva Toth STRI
The advantages of being social: colonization rate and success of sponge hosts by *Synalpheus* snapping shrimps

Monthly talk

Wed, Jun 7 monthly talk speaker will be Robert B. Srygley, University of Oxford
Las mariposas vienen del mar: migraciones de mariposas a través del mar Caribe y el istmo de Panamá

Bambi seminar

Thu, Jun 8, Bambi seminar speaker will be Tommaso Zillio, STRI Postdoc
Spatial scaling relationships in ecology

Arriving next week

Fumie Iizuka, University of Arizona, to study long-term history of native American people of Panama and neighboring areas, at the CTPA.

Adam Roddy, University of Utah, to conduct the project: Do differential responses to desiccation, herbivory and light determine the habitat specializations of rainforest trees along a rainfall gradient?

Karen Warkentin, Boston University, to continue her project on how embryos assess danger: the role of vibrational cues, in Gamboa.

Grace Chen, Michigan State University, to study the effects of biotic interactions and abiotic stress on plant adaptation in the tropics, in Gamboa and BCI.

Smithsonian Tropical Research Institute, Panamá www.stri.org June 2, 2006

STRI celebrates International Biodiversity Day in Sarigua

STRI was invited to participate in the celebration of the International Biodiversity Day on Monday, May 22 in an event at Parque Nacional Sarigua, organized by Panama´s Environmental Authority (ANAM). This year's celebration was dedicated to efforts to fight the proliferation of desert areas.

Rolando Pérez, from STRI's Center for Tropical Forest Science (CTFS) offered the talk "Arboles del Parque Nacional Sarigua y los Alrededores" [Trees at Parque Nacional Sarigua and surrounding areas], and led participants to a walk to see the trees along the different trails in the park.

A guide with the same title "Arboles del Parque Nacional Sarigua y los Alrededores", produced by Pérez with a research grant provided by the CTFS rests at the STRI Library and the Park´s Station.

According to Sebastián González, director of the Parque Nacional Sarigua, this document is one of the few scientific works conducted in the area that can also be used by visitors and students from high school as well as university students.

Photos, descriptions and information about Panamanian palms, trees and shrubs are featured in the CTFS web site: **http://ctfs.si.edu**

STRI fue invitado a participar en la celebración del Día Internacional de la Biodiversidad el lunes 22 de mayo, organizado por la Autoridad Nacional del Ambiente (ANAM). La celebración de este año fue dedicada a los esfuerzos para luchar contra la proliferación de áreas desérticas.

Rolando Pérez, del Centro de Ciencias Forestales del Trópico de STRI ofreció la charla "Arboles del Parque Nacional Sarigua y los Alrededores" y lideró una caminata con los participantes para conocer los árboles a lo largo de diferentes senderos del parque.

Una guía con el mismo nombre "Arboles del Parque Nacional Sarigua y Alrededores" producido por Pérez con fondos suministrados por el programa de becas para investigaciones del CTFS reposa en la Biblioteca de STRI y en la Estación del Parque.

De acuerdo a Sabastián González, director del Parque Nacional Sarigua, este documento es uno de los pocos trabajos científicos llevados a cabo sobre el área, que también puede ser usado por visitantes y estudiantes de secundaria y universidad.

Fotos, descripciones botánicas e información sobre palmas, árboles y arbustos panameños aparecen en la página de web del CTFS: **http://ctfs.si.edu**

More arrivals

Christina Riehl, Princeton, to join STRI´s Automated Telemetry Project, on BCI.

Andrew Mason, University of Toronto, to study the communication at extreme frequencies in rainforest katydids, on BCI.

Jose Luis Andrade, Centro de Investigación Científica de Yucatan, to collaborate with Klaus Winter, at Tupper.

Katia Silvera, University of Florida, to study Crassulacean acid metabolism (CAM) in tropical plants, at Tupper.

Gregory Adler, University of Wisconsin, to study the diversity and abundance of rodents, on BCI and Gamboa.

New publications

Malhi, Yadvinder, Wood, Daniel, Baker, Timothy R., Wright, James, Phillips, Oliver L., Cochrane, Thomas, Meir, Patrick, Chave, Jerome, Almeida, Samuel, Arroyo, Luzmilla, Higuchi, Niro, Killeen, Timothy J., Laurance, Susan G., Laurance, William F., Lewis, Simon L., Monteagudo, Abel, Neill, David A., Vargas, Percy Nunez, Pitman, Nigel C. A., Quesada, Carlos Alberto, Salomao, Rafael, Silva, Jose Natalino., Lezama, Armando T., Terborgh, John, Martinez, Rodolfo V., and Vinceti, Barbara. 2006. "The regional variation of aboveground live biomass in old-growth Amazonian forests." *Global Change Biology* Online.

Olendorf, Robert, Rodd, F. Helen, Punzalan, David, Houde, Anne E., Hurt, Carla, Reznick, David N., and Hughes, Kimberly A. 2006. "Frequency-dependent survival in natural guppy populations." *Nature* 441(7093): 633-636.

Nature: "Where the fish are greener?"

Carla Hurt, from Scripps doing research at STRI´s Naos Island Laboratories, published the letter "Frequency-dependent survival in natural guppy populations" with colleagues Robert Olendorf (principal investigator), F. Helen Rodd, David Punzalan, Anne E. Houde, David N. Reznick and Kimberly A. Hugues in Nature (June 1), vol. 441: 633-636.

"One of the trickiest problems in evolutionary biology is to explain how natural populations maintain an element of genetic diversity. Of all the proposed mechanisms, theory shows that frequency-dependent selection can be the most potent, yet there is only indirect evidence for its importance in natural populations. An experimental manipulation in natural populations of guppies now shows that there is a significant survival advantage for rare genotypes (exotic colouring in males) in natural populations of guppies. This is perhaps the best experimental evidence yet that frequency-dependent selection can be a potent mechanism maintaining genetic variation in natural populations."

Editor´s summary, Nature

NSF grant to Laurance and Harms

STRI's William F. Laurance and Kyle Harms, of Louisiana State University received a grant of $450,000 from the National Science Foundation to fund the project "Ecological impacts of habitat fragmentation on Amazonian tree communities." The funds will be used to continue their long-term studies of complex tree assemblages in the Amazon and to extend their work to smaller (1-10cm) wide trees, as well as larger trees.

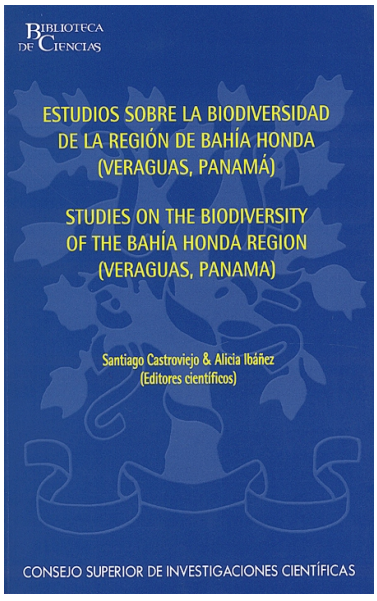
William F. Laurance de STRI, y Kyle Harms, de Louisiana State University recibieron fondos por la cantidad de $450,000 de National Science Foundation, para financiar el proyecto "Impactos ecológicos de fragmentación del hábitat en comunidades de árboles amazónicos."

Los fondos se utilizarán para continuar sus estudios a largo plazo de las formaciones de árboles complejos en el Amazonas y para extender su trabajo de árboles de pequeño diámetro (1-10 cm) a árboles más grandes.

New book on Panama´s biodiversity

Annette Aiello, Karla Aparicio, Mireya Correa, Clementina Chung, Stanley Heckadon-Moreno, Alicia Ibáñez, Belkys Jimenez, Diomedes Quintero, Noris Salazar-Allen and Rafael Samudio are some of the contributors to the new book edited by Santiago Castroviejo and Alicia Ibáñez in Spanish and English *Studies on the biodiversity of the Bahia Honda Region (Veraguas, Panama)*. The book was published in 2005 as volume 20 of *Biblioteca de Ciencias Series*, in Madrid. Castroviejo is a research profesor at Real Jardin Botanico, Madrid. Ibáñez, who recently obtained a Ph.D. from Universidad de Salamanca, works in a biopropection project with STRI´s International Collaborative Biodiversity Groups in Panama.

Annette Aiello, Karla Aparicio, Mireya Correa, Clementina Chung, Stanley Heckadon-Moreno, Alicia Ibáñez, Belkys Jimenez, Diomedes Quintero, Noris Salazar-Allen y Rafael Samudio



More publications

Pandolfi, John M., and Jackson, Jeremy B.C. 2006. "Ecological persistence interrupted in Caribbean coral reefs." *Ecology Letters* Online.

Reeves, R. Guy, and Bermingham, Eldredge. 2006. "Colonization, population expansion, and lineage turnover: phylogeography of Mesoamerican characiform fish." *Biological Journal of the Linnean Society* 88(2): 235-255.

Robertson, D. Ross, Karg, Frances, Leao de Moura, Rodrigo, Victor, Benjamin C., and Bernardi, Giacome. 2006. "Mechanisms of speciation and faunal enrichment in Atlantic parrotfishes." *Molecular Phylogenetics and Evolution* Online.

Sayer, Emma J., Tanner, E., and Cheesman, A. 2006. "Increased Litterfall Changes Fine Root Distribution in a Moist Tropical Forest." *Plant and Soil* 281(1 - 2): 5-13.

STRI in the news

"PanAfrica: Report urges rethink on value of forest resources." 2006. *SciDev.Net* (London) May 25.

"Scientific group endorses radical plan to save rainforests." 2006. *Eurekalert!* May 19.

"A study of young coral could assist efforts to protect reefs" by Jerilyn Watson, Lawan Davis, Jill Moss and Cynthia Kirk. 2006. *Voice of America News*, May 15.

"Lemos y el Laboratorio Marino de Punta Galeta, Colón" by Stanley Heckadon-Moreno. 2006. *Epocas* (Supplement to *La Prensa*): 10-11.

son algunos de los autores de un nuevo libro editado por Santiago Castroviejo y Alicia Ibáñez en Español e Inglés Estudios sobre la biodiversidad de la región de Bahía Honda (Veraguas, Panamá). El libro fue publicado en 2005 como el volumen 20 de la serie Biblioteca de Ciencias en Madrid. Castroviejo es un profesor de investigación en el Real Jardin Botanico en Madrid. Ibáñez, quien recibió recientemente su doctorado en la Universidad de Salamanca, trabaja en un proyecto de bioprosección en los Grupos de Cooperación Internacional para la Biodiversidad (ICBG) de STRI, en Panamá.

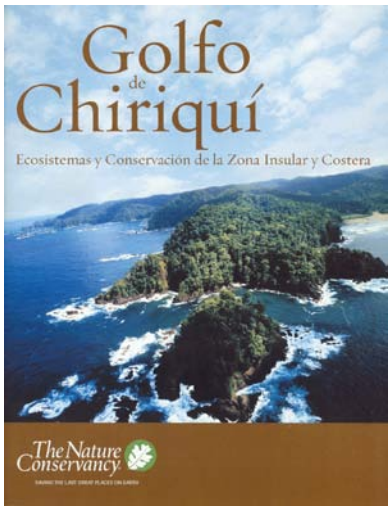
Golfo de Chiriquí, by A. Ibáñez

Alicia Ibáñez, biologist at STRI´s International Collaborative Biodiversity Groups (ICBG) authored the book *Golfo de Chiriquí: ecosistemas y conservación de la zona insular y costera*, 2006 [Golf of Chiriqui: coastal and insular zone conservation and ecosystems].

Golfo de Chiriquí is oa a project supported by The Nature Conservancy in Panama (TNC) to gather and analyze scientific information on the region´s natural resources. Aiming to promote a sustainable development in Golfo de Chiriquí, that includes Coiba Island National Park, the TNC provided funds to Héctor Guzmán, to access reef communities; Juan L. Maté, to study fisheries situation, and Ibáñez, for the analysis of ecosistems, published in this book.

Alicia Ibáñez, bióloga en los Grupos de Cooperación Internacional para la Biodiversidad de STRI, es la autora del nuevo libro Golfo de Chiriquí: ecosistemas y conservación de la zona insular y costera, 2006.

Golfo de Chiriquí es parte de un proyecto financiado por The Nature Conservancy (TNC) para recoger y analizar información científica sobre los recursos naturales del área. Con el objetivo ayudar a un desarrollo sostenible del Golfo de Chiriquí, que incluye al



Parque Nacional Coiba, TNC suministró fondos a Héctor Guzmán para estudiar las comunidades de corales, a Juan L. Maté, para medir la situación pesquera, y a Ibáñez para el análisis de los ecosistemas, publicado en este libro.

STRI´s CTFS and Yale seek program director

The joint program between STRI´s Center for Tropical Forest Science and Yale School of Forestry and Environmental Studies seeks a program director to oversee both Asian and Latin American education programs, initially based in New Haven.

The position has a duration of five years, with continuation possible. Extensive travel to field sites in Asia, Latin America, Panama and Singapore is expected. The chosen candidate will report to principal investigators from Yale and STRI. He/she will develop and administer a tropical forest biodiversity education program to educate practitioners and educators based in Panama and Singapore. Supervise and train teaching fellows, assistants, interns in the delivery of workshops, field trips, etc. Ensure program quality, monitor project finances, and manage fund-raising. Requires master's degree in a discipline relevant to tropical forest biodiversity conservation. PhD preferred. Must have two to five years of related experience in Latin America or Asia (may be graduate field work), expertise in applied research and teaching, and supervisory experience. Fluency in English and at least one other related language, preferably Spanish or Malay.

For full details, please apply on line at www.yale.edu/jobs. Include resume, cover letter and three professional letters of recommendation. Reference source code EACH33769 on all correspondence. Application deadline is June 30, 2006. Salary range: $45K to $65K plus benefits. For general inquiries, please contact professor Mark Ashton, Yale University, School of Forestry & Environmental Studies at: **mark.ashton@yale.edu.**

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science in progress:

Living on suspended soils

Story by Gabriela Castaño-Meneses
Edited by M Alvarado & ML Calderon
Photo: MA Guerra

The canopy is a generous ecosystem capable of maintaining a large diversity of plants and animals. Nutrients and debris from trees and epiphytes accumulate, offering suspended soils to groups like mites and collembolans.

With nearly 8000 species known worldwide, collembolans conform a dominant group in tropical forests due to their abundance, and reach huge densities in the canopy. Collembolans are small hexapods of less than 2 mm in length, whose main activity is decomposing vegetable organic matter. They also play an important role serving as food to a great variety of arthropods.

Gabriela Castaño-Meneses, postdoctoral fellow from Universidad Nacional Autónoma de Mexico working with IBISCA (Investigating the Biodiversity of Soil and Canopy Arthropods) studies collembolans in San Lorenzo forest on the Atlantic coast of Panama, to determine their diversity, abundance and vertical stratification.

These studies will allow the establishment of the necessary bases to determine the importance of collembolans in canopy leaf litter decomposing processes.

El dosel del bosque es un ecosistema generoso, capaz de mantener una gran diversidad de plantas y animales. Nutrientes y detritus de árboles y epífitas se acumulan en el dosel, ofreciendo suelos suspendidos a grupos como ácaros y colémbolos.

Con cerca de 8000 especies conocidas a nivel mundial, los colémbolos conforman un grupo dominante en los bosques tropicales debido a su abundancia, alcanzando enormes densidades en el dosel. Los colémbolos son pequeños hexápodos de menos de 2 mm de largo, cuya actividad principal es descomponer la materia orgánica vegetal. También juegan un papel importante, al servir de alimento para una gran variedad de artrópodos.

Gabriela Castaño-Meneses, becaria postdoctoral de la Universidad Nacional de México, quien trabaja con IBISCA (Investigando la Biodiversidad de Artrópodos en Suelos y el Dosel) estudia los colémbolos en el bosque de San Lorenzo en la costa atlántica de Panamá, para determinar su diversidad, abundancia y su estratificación vertical en el dosel y sotobosque.

Estos estudios permitirán establecer las bases necesarias para determinar la importancia de los colémbolos en los procesos de descomposición en las hojarascas acumuladas del dosel.