

## Tupper 4pm seminar

Tue, Apr 5, seminar speaker will be Stephen T. Jackson, University of Wyoming  
**Title to be announced**

## Bambi seminar

Wed, Apr 7, Bambi speaker will be Jeremy Lichstein, Princeton University  
1: **Using forest inventory data to estimate sapling growth and mortality as a function of light**  
2: **Effect of intra-specific variation on community dynamics in a simple plant competition model**

## At Culebra

Wed, Apr 6, monthly talk speaker will be Stanley Heckadon-Moreno, STRI  
**Estudiosos de los peces de aguas saladas y dulces de Panamá, siglos XIX - XX**

## Workshop

Wed, Apr 6, STRI will hold the workshop "Seed dormancy from an ecological point of view" organized by CTFS and PRORENA, from 8am - 5pm, at Tupper.

## Arrivals

Mylthon Jimenez, Universidad de Concepción, Chile, Apr 2-30, to work with Frederick Meinzer, on BCI.

Richard Aronson and Ian Macintyre, Dauphin Island Sea Laboratory, Apr 3-14, to study the climate change and mass mortality of corals on opposite sides of the Central American Isthmus, on Bocas del Toro and Naos.

Randall Moore, Oregon State University, Apr 8, to continue avian communities studies, on BCI.



Smithsonian Tropical Research Institute, Panamá

[www.stri.org](http://www.stri.org)

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## Tough decisions in fellowship meetings

"We always regret to let go some of the candidates" said staff scientist Nancy Knowlton who traveled to Panama to attend the yearly fellowship meetings, "but this year was specially tough."

Simon Tierney from Flinders University, Australia was granted the Three Year Tupper Fellowship to study the evolution of nocturnal sweat bee genus *Megalopta* with

"Siempre lamentamos no poder aceptar algunos de los candidatos", comentó la científica Nancy Knowlton, quien viajó a Panamá para asistir a las reuniones anuales para seleccionar becarios, "pero este año fue especialmente difícil."

Simon Tierney de Flinders University, Australia, fue seleccionado para la beca Tupper de tres años, para estudiar la evolución de las

William T. Wcislo. Julia C. Mayo, Panamanian from Universidad Complutense de Madrid received a postdoctoral fellowship to work on small-scale architecture in pre-Columbian Panama with Richard Cooke; and Emma J. Sayer from the University of Cambridge was also granted a postdoctoral fellowship to work with Benjamin L. Turner to find out if increased primary

abejas de miel nocturnas *Megalopta*, con William T. Wcislo. Julia C. Mayo, panameña en la Universidad Complutense de Madrid recibió una beca postdoctoral para trabajar en la arquitectura a pequeña escala en el Panamá precolombino, con Richard G. Cooke; y Emma J. Sayer de la Universidad de Cambridge también recibió una beca postdoctoral para trabajar con Benjamin L. Turner y averiguar

production will turn tropical forest soils into a carbon source. Jacob R. Goheen from the University of New Mexico, Elaine R. Hooper from the University of Illinois at Chicago, Karin C. Jander from Cornell, Eloisa Lasso from the University of Illinois at Urbana-Champaign and Paula A. Trillo from the University of Montana, were granted pre-doctoral fellowships.

si el aumento de la producción primaria convertirá los suelos de los bosques tropicales en una fuente de carbón. Jacob R. Goheen de la Universidad de Nuevo Mexico, Elaine R. Hooper de la Universidad de Illinois en Chicago, Karin C. Jander de Cornell, Eloisa Lasso de la Universidad de Illinois en Urbana-Champaign y Paula A. Trillo de la Universidad de Montana, recibieron becas para estudios de pre-doctorado.

## Departures

William F. Laurance, Apr 6-9, invited by Stanford University to give the annual Boething Lecture.

## New publications

Bass, Margot, Mejia, Janisse, Laurance, William F., and Finer, Matt. 2005. "Scientists decry Petrobras plan for Ecuador roadway." *Eco Américas* 2005(March): 2, 11.

Cassia Oliveira, Rosana de, Franco Nunes, Francis de Morais, Soraggi Campos, Ana Paula, Matos de Vasconcelos, Soraya, Roubik, David Ward, Goulart, Luiz Ricardo, and Kerr, Warwick Estevam. 2004. "Genetic divergence in *Tetragonisca angustula* Latreille, 1811 (Hymenoptera, Meliponinae, Trigonini) based on rapid markers." *Genetics and Molecular Biology* 27(2): 181-186.

Eberhard, William G. 2004. "Why study spider sex: special traits of spiders facilitate studies of sperm competition and cryptic female choice." *Journal of Arachnology* 32(3): 545-556.

Lessios, Harilaos A. 2005. "*Diadema antillarum* populations in Panama twenty years following mass mortality." *Coral Reefs* 24(1): 125.

Salazar, Camilo A., Jiggins, Christopher D., Arias, C.F., Tobler, A., Bermingham, Eldredge, and Linares, Mauricio. 2005. "Hybrid incompatibility is consistent with a hybrid origin of *Heliconius heurippa* Hewitson from its close relatives, *Heliconius cydno* Doubleday and *Heliconius melpomene* Linnaeus." *Journal of Evolutionary Biology* 18(2): 247-256.

## STRI's new book

STRI staff scientist David W. Roubik and colleagues Shoko Sakai and Abang A. Hamid Karim edited the book *Pollination ecology and the rain forest: Sarawak studies*, published by Springer's the Ecological Studies series. "The groundbreaking canopy-access and rain forest research at Lambir Hills National Park in Sarawak, Malaysia, has contributed an immense body of knowledge. Its major studies over more than a decade are synthesized here for the first

time. The focus of this unique volume is on plant-animal interactions and some of the foundations that create and maintain tropical diversity, especially pollination and the phenomenon of the General Flowering. The work discussed has implications for tropical biology, ecology, and pollination studies. The power of the El Niño-Southern Oscillation events and drought, particularly in their effects on mutualisms, are discussed in detail." It sells at Springer.



## PNAS: Global energy gradients and size in colonial organisms, by Mike Kaspari

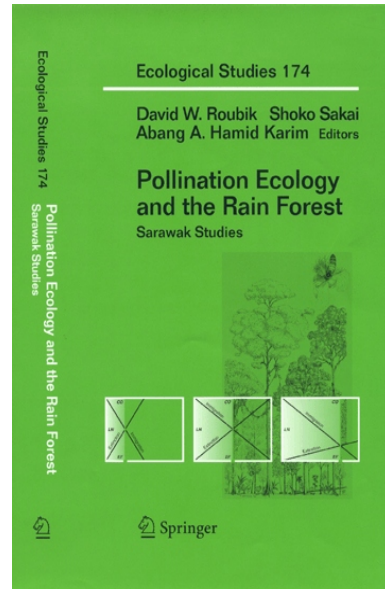
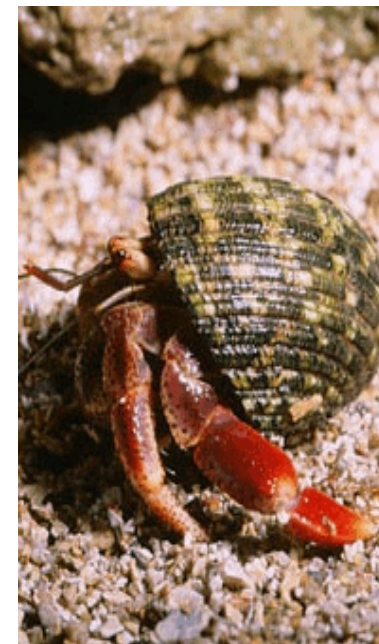
Michael Kaspari STRI research associate from the University of Oklahoma just published "Global energy gradients and size in colonial organisms: Worker mass and worker number in ant colonies" in the *Proceedings of the National Academy of Sciences* (online). The article was reviewed by *New Scientist* and interviewed Kaspari. "Global warming might shrink ant workers by as much as a third" he said. "And since ant species with small workers appear to be particularly

successful at invading, ant invasions - already destructive - may become more common in a warming world." "We are the first people to show that the size of an organism varies in predictable ways, and not just with latitude but based on two fundamental properties of the ecosystem - temperature and productivity". The complete article in *New Scientist* can be seen at [www.newscientist.com](http://www.newscientist.com). Kaspari's article was distributed by Neal G. Smith.

## HSBC maintains support to education efforts in Culebra

HSBC Bank president Joseph L. Salterio confirmed his support to STRI's educational program "You and the Sea with the Smithsonian" for the third consecutive year. HSBC will donate \$20,000 which allowed 19,000 Panamanian students to participate in the program in 2004. Salterio is also the president of Fundación Smithsonian de Panama, whose mission is to support and promote STRI activities.

El presidente del Banco HSBC Joseph L. Salterio confirmó su apoyo al programa educativo de STRI "Tú y el mar con el Smithsonian" por tercer año consecutivo. El HSBC donará \$20,000, lo que permitió que 19,000 estudiantes panameños participaran en el programa en 2004. Salterio también es presidente de la Fundación Smithsonian de Panamá, cuya misión es apoyar y promover las actividades de STRI.



## Congressional visit on BCI

Meredith Davis, legislative assistant fo US senator William H. Frist, Julia D. Warner, legislative assistant to US congressman Vernon Ehlers with Pherabe Kolb and Carey Wilkins from SI Office of Government Relations visited STRI facilities to get acquainted with STRI research project and educational efforts. The assistants are working on a draft bill to strengthen science education in the US. The photo shows Martin Wikelski from Princeton University, briefing the visitors on the Automated Radio Telemetry System, on BCI.

Meredith Davis (center, photo above), asistente legislativa del senador de EU, William H.



Frist, Julia D. Warner (right), asistente legislativa del congresista de los EU, Vernon Ehlers, junto con Pherabe Kolb y Carey Wilkins de la Oficina de Relaciones Gubernamentales de SI, visitaron las instalaciones de STRI para familiarizarse con los proyectos de investigación y los esfuerzos

educativos que lleva a STRI. Las asistentes trabaja actualmente en un borrador de ley para reforzar la educación científica en los EU. La foto muestra a Martin Wikelski de la Universidad de Princeton explicando a las visitantes sobre el Sistema de Radio Telemetría Automatizada (ARTS) que se realiza en BCI.



Carlos Vergara Chen, presented his master's thesis "Divergencia molecular y relaciones filogenéticas entre especies de *Cynoscion* en base a secuencias de AND mitocondrial" [Molecular divergence and phylogenetic relationships among *Cynoscion* species, based on mitochondrial DNA sequences] at Panamá's Catholic University Santa María la Antigua. His advisors were STRI deputy director Eldredge Bermingham and the Catholic University professors Ernesto

Quintero and Luis Wong Vega. Vergara also presented two copies of his thesis to Stanley Heckadon-Moreno, who coordinated the STRI-Elektra Fellowship Program for the STRI Library and Galeta. The fellowship allowed Vergara to carry out his field work, on the Caribbean side of the Ishtmus, based at Galeta Point Marine Laboratory. Carlos Vergara Chen presentó su tesis de maestría "Divergencia molecular y relaciones filogenéticas entre especies de *Cynoscion* en base a secuencias de ADN mitocondrial" en la Universidad Católica Santa María la Antigua. Sus asesores de tesis fueron el subdirector de STRI, Eldredge Bermingham y los profesores de la Universidad Católica Ernesto Quintero y Luis Wornig Vega. Vergara también entregó dos copias de su tesis a Stanley Heckadon-Moreno,

## Elektra student presents master's thesis

coordinador del Programa de Becas STRI-Elektra, para la Biblioteca de STRI y Galeta. La beca le permitió hacer su trabajo de campo en la costa caribe del Istmo de Panamá, con base en el Laboratorio Marino de Punta Galeta de STRI.

## Last minute news

Anne Bowen, clinical psychologist from the University of Wyoming will present a seminar on VIH prevention at the conference Hall of Hospital Santo Tomás, on Tuesday, April 5, 10am. Everybody is welcomed. The seminar is organized by Instituto Conmemorativo Gorgas. She is coming to Panama with husband Stephen T. Jackson who is giving the Tuesday seminar at Tupper.

## April birthdays

Helena Fortunato	1
Sabina Walker	1
Diomedes Abrego	1
Ricardo Jaén	1
Nelson Hernández	1
Axel Calderón	2
Mercedes Denis	3
Luis Moreno	7
Dolores Piperno	7
Nelly Flores	9
Myriam Venegas	9
Apolonio Valdez	10
Marcela Paz	10
Ricardo Chong	11
Zeus Capitán	11
Efraín Domínguez	12
Joana Madera	13
América Staff	14
Dumas Gálvez	16
Jorge Ceballos	22
Ismael González	23
César Alvarez	25
Rubén Gall	26
Marcos Guerra	27
Jeannete Egger	28

## Miscellaneous

Queen size canopy bed from Ikea brought from New York. Never been used. Still in its original package. Includes the queen size mattress. \$900. Interested please call Monica Castillo at 533-5177.

For rent: duplex in Diablo Heights, 3bedrs, 2½ bathrs, maid's quarters, central alarm, gas, water, trash, internet. Fenced-in yard, 2 parking spaces, \$1200. Interested please Call Ximena at 617-8521, 232-8521.

## STRI news 2005

General editor: Marialuz Calderón  
Assistant editor: Adriana Bilgray  
Director: Mónica Alvarado  
Photography: STRI's Photographic Department

If you want to be featured in the news section of the STRI news or in "Science in Progress" column, please contact Mónica Alvarado or Marialuz Calderón

# Monitoring birds with Jeff Brawn (one of three)

With Marcos Guerra,  
Pipeline Road

*MAG:* Jeff, will you tell us about you and your project on Pipeline Road over the years, your students, and what are we doing here today?

*JB :* “I work at the University of Illinois and have been working in Panama on the ecology of birds for nearly 20 years... What we are doing here today is mistnetting birds. Mistnetting birds to characterize the community or estimate the abundance of birds is not a good technique. Rather, we use them to get the birds in our hands, mark them, and do lots of measurements. For example, we take blood samples for DNA analysis and store blood smears to look for parasites.

This is the longest term study of birds using mistnets to examine the demography of birds in the Neotropics. It started in 1967 with James Karr, for some time deputy director at STRI. To estimate how long birds survive and other demographic parameters, we mark them with a numbered leg band and then release them. Over the years we have built up a large capture-recapture data set. These data are then modeled to estimate demographic parameters such as survival rate.

I became principal investigator of the Pipeline Road project in what used to be the Limbo Hunt Club, in

1991. For several years I have worked with Scott Robinson, from the University of Florida.”

*MAG:* “Jeff, hablemos de ti y tu proyecto en Pipeline Road a través de los años, tus estudiantes, y ¿qué estamos haciendo hoy aquí?”

*JB:* “Yo trabajo en la Universidad de Illinois y he trabajado en Panamá en ecología de aves por cerca de 20 años... lo que hacemos hoy aquí es capturar aves con redes de neblina. Capturar aves con redes de neblina no es una buena técnica para caracterizar una comunidad o estimar la abundancia de las

aves. Las utilizamos para poder tener el ave en la mano, marcarla y hacer muchas mediciones. Por ejemplo, estamos haciendo exámenes de sangre para análisis de ADN y almacenar frotis en busca de parásitos.

Este es el estudio a largo plazo más antiguo usando redes de neblina para demografía de aves en los Neotrópicos. Empezó en 1967 con James Karr, quien fue subdirector de STRI por un tiempo. Para estimar por cuánto tiempo sobreviven las

las aves, se marcan con un anillo numerado y se liberan. Co los años hemos compilado una base de datos de capturas-recapturas. Con esta información hacemos un modelo para estimar parámetros demográficos como la tasa de supervivencia.

Yo me convertí en investigador principal del proyecto en lo que fue el Club de Cacería Limbo, en 1991. He trabajado por varios años con Scott Robinson, de la Universidad de Florida.”