

Tupper 4pm seminar

Tuesday, July 8, 4pm seminar speaker will be William F. Laurance, STRI

Long-term changes in key tropical reserves and research sites: Is the baseline shifting?

Bambi seminar

Thursday, July 10, Bambi seminar speaker will be Peter Pollard, Griffith University

The missing carbon link

Bocas' Open House

STRI's Bocas del Toro Research Station will hold weekly "Open House and Tour" every Thursday and Friday, 3pm.

Arrivals

Erin Kurten, Stanford University, to study the effects of mammals on plant functional diversity, on BCI and Gamboa.

Miguel Osorio, Universidad de Panama, to join the CTFS arthropod initiative at Tupper.

Filippo Giachi, Università degli Studi di Firenze, Italy, to study tadpole schooling and parental care in an aquatic-breeding tropical frog, *Leptodactylus insularum* in Gamboa.

Geoffrey Andrew Fricker, University of California, Los Angeles, to study forest structure and species richness: integration of remote sensing and in-situ measurements in a 50ha plot of tropical forest on BCI.

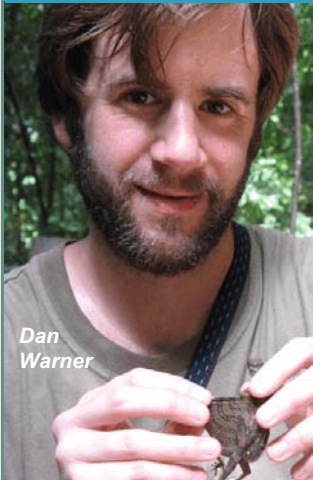
Jonathan Drury, University of Georgia, to study the influences of predator risk and climate on avian physiology in varying microhabitats, in Gamboa.



Smithsonian Tropical Research Institute, Panamá

www.stri.org

July 4, 2008



Dan Warner



Nathalie Seddon



Joseph Tobias



Kyle Summers

Candidates to join STRI, present seminars

Seven short-listed candidates presented seminars at Tupper as part of the a selection process to join STRI as staff scientist in marine or terrestrial studies working anywhere in the tropics. Ideally, research initiated by the successful candidate will complement existing programs. STRI is especially looking for expertise in vertebrate biology, anthropology, archaeology, paleontology and climate change.

On Monday, Daniel A. Warner, 33, presented a seminar on sex determination in an Australian lizard. He obtained his Ph.D. at the University of Sidney in 2007, and has more 30 publications in peer-reviewed journals including "The adaptive significance of temperature-dependent sex determination in a reptile" authored with R. Shine in *Nature* (2008) vol. 451:566-568.

Nathalie Seddon, 34, with 31 articles in peer-reviewed journals including "The latitudinal gradient in recent speciation and extinction rates of birds and mammals" in *Science* by Joseph Tobias *et al.* and Tobias, 38, with 80+ publications, scientific and popular, both at the University of Oxford, base their work on birds as they develop parallel research themes. Seddon talked about signal evolution and Tobias focused on competition and social signals. They are both graduates from Oxford.

Kyle Summers 35, former STRI fellow, with a Ph.D. from East Carolina University, talked on evolutionary ecology of the poison-dart frogs. He worked at Bocas and has 30 peer-reviewed papers including "The evolution of coloration and toxicity in the poison frogs" with M. Clough, in *Proceedings of the National Academy of Sciences* (2001).

Rachel Page with a Ph.D. from the University of Texas at Austin, José Iriarte from the University of Exeter, UK and Aaron O'Dea, STRI's Center for Tropical Paleontology and Archaeology (CTPA) are also familiar faces at STRI. Page, 34, held a predoctoral fellowship here and has worked with Elisabeth Kalko and Michael Ryan on frog calls and frog-eating bats. She is co-author of "Cues for eavesdroppers: Do frog calls indicate prey density and quality?" by Bernal *et al.*, published by the *American Naturalist* in 2007.

Iriarte, 34, with a Ph.D. from the University of Kentucky held a Mellon postdoctoral fellowship at the CTPA working with Dolores Piperno. Was first author of "Evidence for cultivar adoption and emerging complexity during the mid-Holocene in the La Plata basin Plata basin" published by

More arrivals

Dominique Wagner, University of Minnesota, and Carrie Sgueo, Miami University, Ohio, to study energetics and muscle metabolism of clay-colored robins in Gamboa.

David and Jeanne Zeh, University of Nevada, to study the maternal inheritance of mitochondria as a constraint on male adaptation, in Gamboa.

Patricia Jones, University of Texas at Austin, to join the project of female choice in túngara frogs, in Gamboa.

Krista McGuire, University of California at Irvine, to study the links between plant and fungal diversity across latitudes, on BCI.

Louis Santiago, University of California, Riverside, to study nutrient limitation of physiological processes in lowland tropical forest trees, on BCI, Gamboa and Tupper.

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

Lorna Watt, Michigan State University, to study the effects of biotic interactions and abiotic stress on plant adaptation in the tropics at Bocas.

Elizabeth Sargent and Brian Wysor, Roger Williams University, to study marine algal diversity of Southern Central America, at Bocas.

Adriane Esquivel Muelbert, Universidade Federal do Paraná, to study the tree flora of the Neotropics, diversity and distribution patterns, at Bocas.



Page



Iriarte



O'Dea

Nature (2004) which attracted incredible attention by the media.

O'Dea, 31, won a postdoctoral fellowship at STRI after obtaining his Ph.D. at the University of Bristol, UK. Since then has worked with Jeremy B.C. Jackson at the CTPA and Scripps. O'Dea is the leading author of "Environmental change preceded Caribbean extinction by 2 million years" published by *PNAS* (2007) with Jackson and other colleagues. His work on cupuladriids and the emergence of the Panamanian Isthmus was featured by John Barrat in *Inside Smithsonian Research* (2006) and others.

Los siete mejores candidatos que optan por una posición de científico permanente en STRI presentaron seminarios como parte del proceso de selección. Los candidatos deben realizar investigaciones terrestres o marinas en cualquier lugar del trópico, y preferiblemente complementar los programas ya existentes en STRI sobre estudios sobre biología de vertebrados, antropología, arqueología, paleontología y cambio climático.

El lunes, Daniel A. Warner, 33, Iowa State University, presentó un seminario sobre la determinación del sexo en una lagartija de Australia. Obtuvo su Ph.D. en la Universidad de

Sidney en 2007, y tiene 35 publicaciones en revistas auditadas por pares, incluyendo "The adaptive significance of temperature-dependent sex determination in a reptile" junto con R. Shine en *Nature* (2008).

Nathalie Seddon, 34, becaria de investigación y Joseph Tobias, 38, investigador posdoctoral en Edward Grey Institute of Field Ornithology, de la Universidad de Oxford estudian la diversidad tropical y cómo debe conservarse. Basados en estudios sobre aves, trabajan en el desarrollo de temas de investigación paralelos profundamente interconectados. Seddon presentó un seminario sobre la evolución de señales en aves y Tobias habló sobre competencia interespecífica y la evolución de señales sociales.

Kyle Summers, ex-becario de STRI de la Universidad de East Carolina presentó su trabajo sobre la ecología evolutiva de ranas venenosas. Ha trabajado en Bocas del Toro y tiene 30 artículos publicados en revistas auditadas por pares, incluyendo "The evolution of coloration and toxicity in the poison frogs" con M. Clough, en *Proceedings of the National Academy of Sciences (PNAS)* (2001).

Rachel Page, de la Universidad de Texas en Austin, José Iriarte de la Universidad de Exeter y Aaron O'Dea del Centro de

Paleoecología y Arqueología de STRI (CTPA), también son caras conocidas en STRI. Page, 34, fue becaria predoctoral en STRI y trabaja con Elisabeth Kalko y Michael Ryan en llamadas de ranas y murciélagos que comen ranas. Es co-autora de "Cues for eavesdroppers: Do frog calls indicate prey density and quality?" por Bernal *et al*, publicado por *American Naturalist* in 2007.

Iriarte, 34, fue becario posdoctoral Mellon en el CTPA y trabajó con Dolores Piperno. Es el autor principal de "Evidence for cultivar adoption and emerging complexity during the mid-Holocene in the La Plata basin." publicado por *Nature* (2004) que atrajo una increíble atención de los medios.

O'Dea, 31, ganó una beca postdoctoral en STRI luego de terminar su doctorado en la Universidad de Bristol, Reino Unido. Desde entonces trabaja con Jeremy B.C. Jackson en el CTPA y Scripps. O'Dea es autor principal de "Environmental change preceded Caribbean extinction by 2 million years" publicado por *PNAS* (2007). Su trabajo sobre cupuladriids y el surgimiento de Istmo de Panamá fue tema de un artículo de John Barrat en *Inside Smithsonian Research* (2006) así como otros medios.

More arrivals

Jessie Alden, Roger Williams University, to conduct preliminary investigations for the NSF proposal: RUI: Collaborative Research: Marine Algal Diversity of Southern Central America, at Bocas.

Christian Salcedo, University of Florida, to study the behavior, mimicry and chemical ecology as joint forces driving speciation in *Heliconius* butterflies in Gamboa.

Nina Wurzburger, and Sarah Batterman, Princeton University, to study nutrient augmentation on BCI.

Lee Buckingham, Sarah Pasquini and Caroline DeVan, University of California, Riverside, to study nutrient limitation of physiological processes in lowland tropical forest trees, on BCI.

Wayne Sousa, University of California at Berkeley and students Elizabeth Dow, Connor Dibble, Fetcher Halliday and Jake Sousa, to study the patterns and mechanisms of canopy tree regeneration in a Caribbean mangrove forest, at Galeta

Participants of the field course "Tropical Field Phycology" 2008, to Bocas del Toro.

STRI in the news

"Nature parks: loved to death?" By Erik Stokstad. 2008. ScienceNOW Daily News: 3 July 2008.

"Bio-combustibles: la cruda realidad. Biofuels: the "crude" reality, by Sofía de Kosmas. 2008. *Panorama* (July): 122-134.

R, R & R!



Anna Lisa Porras leaves Fundación Smithsonian

Anna Lisa Porras, who was appointed executive director for Fundación Smithsonian de Panamá on September, 2000, resigned from her position in May this year. On Thursday, June 26, a group of Fundación Smithsonian representatives, SI former acting secretary Cristián Samper, STRI director emeritus Ira Rubinoff, acting director Eldredge Bermingham, scientists and other STRI representatives and members of the staff held a farewell ceremony at the former Corotu Plaza with Anna Lisa, to thank her for all her contributions to STRI and Fundación Smithsonian and to present her with gifts from both institutions.

Anna Lisa Porras was instrumental in the broadcasting of the Jason Project in Panama, donations from HSBC and other members of the Fundación and many more activities promoting STRI and its projects to the community. We wish her success in this new phase in her life.

Anna Lisa Porras, directora ejecutiva de la Fundación Smithsonian de Panamá desde septiembre de 2000, dejó su posición en mayo de este año.

El jueves, 26 de junio, un grupo de representantes de la Fundación Smithsonian, Crisitán Samper, ex-secretario encargado de SI, el director emérito de STRI Ira Rubinoff y el director encargado Eldredge Bermingham participaron en una ceremonia de despedida en la antigua Plaza Corotú del Centro Tupper con Anna Lisa, para agradecerle todas sus contribuciones a STRI y a la Fundación, así como para hacer entrega de regalos de parte de ambas instituciones.

Anna Lisa fue instrumental para la transmisión del Proyecto Jason en Panamá, asegurar donaciones del HSBC y otros miembros de la Fundación y en otras muchas actividades para promover STRI y sus proyectos a la comunidad. Le deseamos muchos éxitos.

New publications

O'Dea, Aaron, Jackson, Jeremy B.C., Taylor, Paul D., & Rodriguez, Felix. 2008. "Modes of reproduction in Recent and fossil cupuladriid bryozoans." *Palaeontology* 41(4): 847-864.

Cernusak, Lucas A., Winter, Klaus, Aranda, Jorge, & Turner, Benjamin L. 2008. "Conifers, angiosperm trees and lianas: growth, whole-plant water and nitrogen use efficiency, and stable isotope composition ($\delta^{13}\text{C}$ and $\delta^{18}\text{O}$) of seedlings grown in a tropical environment." *Plant Physiology Preview*. Online at <http://www.plantphysiol.org/cgi/content/abstract/pp.108.123521v1?ct=ct>

From OBIO

Marcos Guerra will be taking "Portrait" style photos of the STRI scientists, and senior administrative and support staff. These photos will be used when formal photos of people are required, e.g. national and international media, immigration, etc. Business attire is recommended. We frequently receive requests for this type of photo so we ask for everyone's participation. Photo sessions should last no more than 10 minutes. Photos will be taken in his office, Room 536, every Friday from 9am to 4pm. Please make an appointment with Marcos ahead of time. Marcos will arrange special days for going to Naos and BCI and taking photos.

Make note that Marcos moved to office 536, fifth floor.

Chain reaction may result in eco-suicide in Las Perlas

Smithsonian Tropical Research Institute, July 4, 2008

Story: Héctor Guzmán & B King
Edited by M Alvarado & ML Calderon
Photos: MA Guerra & A Schmid

A survey of coral biodiversity in Panama's Las Perlas Archipelago, published by STRI's Héctor Guzmán and colleagues in *Environmental Conservation* (*) has resulted in clear conservation recommendations for a new coastal management plan.

The Las Perlas Marine Special Management Zone is the most recent addition to a major regional marine conservation corridor extending from Costa Rica to Ecuador. The 1688-km² zone includes 250 mostly uninhabited rock islands and islets. The authors counted 57 coral species. The Gulf of Chiriquí has 74, Caño Island Biological Reserve in Costa Rica has 43 coral species.

In Las Perlas, coral cover and coral species richness do not go hand in hand. Extensive areas of coral can be low in species diversity, whereas smaller, patchy areas of coral can be higher.

The authors recommend that the management plan protect a significant proportion of the coral communities. Bajo Trollope, San Jose Island, the southern coast of Pedro Gonzalez Island, and San Telmo, Galera,

Mogo-Mogo and Pachequilla islands should be fully protected marine reserves.

Developers plan to build entirely new towns on several of the islands in this fragile ecosystem. But, according to Guzman, "Whatever you do to an island affects the others. It's a chain-reaction."

* Guzman, H., Benfield, S., Breedy, O. & Mair, J.M. 2008. Broadening reef protection across the Marine Conservation Corridor of the Eastern Tropical Pacific: distributions and diversity of reefs in Las Perlas Archipelago, Panama. *Environmental Conservation* 35:46-54

Un estudio de la biodiversidad de corales en el Archipiélago de Las Perlas publicado por Héctor Guzmán, de STRI y colegas en *Environmental Conservation* (*) se ha convertido en recomendaciones claras para un nuevo plan de manejo costero.

La Zona Marina Especial de Manejo de Las Perlas es la adquisición más reciente de un corredor de conservación marino regional que se extiende desde Costa Rica hasta Ecuador. Esta zona de 1688 km² incluye 250 islotes rocosos deshabitados. Los autores contaron 57 especies de corales. El Golfo de Chiriquí tiene 74 y la Reserva Biológica de Isla del Caño en Costa Rica tiene 43 especies de corales.

Pero en Las Perlas la cobertura de coral y la riqueza en especies coralinas no van de la mano. Hay extensas áreas coralinas con poca diversidad mientras que otras áreas más pequeñas, parches de corales, la diversidad es mayor.

Los autores recomiendan que el plan de manejo proteja a una proporción significativa de las comunidades coralinas. Bajo Trollope, San José, la costa al sur de la Isla de Pedro González y las islas de San Telmo, Galera, Mogo-Mogo y Pachequilla deben ser reservas marinas totalmente protegidas.

Los desarrollistas planean construir ciudades enteras en varias islas en este frágil ecosistema. Pero, de acuerdo a Guzmán, "Lo que se haga en una isla afecta a las otras. Es una reacción en cadena."

