Tupper seminar

Tuesday, August 10, noon seminar speaker will be James LeFrankie, STRI's Center for Tropical Forest Science
New findings from the tropical forest plots in Asia

Bambi seminar

Thursday, August 12, Bambi seminar speakers will be Allen Herre, STRI, Carlos Machado, University of Arizona and DeWayne Shoemaker and Frank Dedeine, University of Wisconsin
Ecological and evolutionary interactions among figs, wasps, and *Wolbachia*

Arrivals

Seth Ring, Oregon State University, Aug 7 - Oct 6, to work with W. Douglas Robinson, in Gamboa.

Jeffrey Hubbard, University of Florida, Aug 9 - 19, to study Neotropical zingiberales: distribution in relation, on BCI.

Lainy Day, University of California at Los Angeles, Aug 9 - Sep 24, to work with Barney Schlinger, in Gamboa.

Condolences

To Lizzy and Egbert Leigh, for the loss of her mother Baba Trax Werner, on Tuesday, August 3, in Pennsylvania. They will be on leave until August 18th, to attend the funeral and other family affairs in Indiana and Iowa.

Smithsonian Tropical Research Institute, Panamá **www.stri.org** August 6, 2004

Starch grain analysis reveals processing of wild cereal grains on Paleolithic grinding stone

When the water level in the Sea of Galilee (8 x 13 miles long lake fed by the Jordan River in northern Israel) dropped in 1989, archaeologists rushed to excavate Ohalo II, an ancient fisher-hunter-gatherer-human camp. On the floor of one hut they found a large, flat, basaltic stone. The stone's uneven surface yielded starch grains of grass seeds, mostly from wild barley and possibly also from wheat. This evidence published by *Nature* (August 5, 2004), pushes back the date for the processing of close wild relatives of domesticated wheat and barley, a key step in cultural development, to 23,000 years before the present era. "Ten thousand years before people were cultivating cereals, they were processing wild barley: starch grain analysis establishes a clear link between an intensive exploitation of wild cereals and the subsequent development of plant cultivation and domestication in the region" explains Dolores Piperno, lead author of the article "Processing of wild cereal grains in the Upper Paleolithic revealed by starch grain analysis." See reviews in *EurekAlert!*, *Science Now, The Economist,* etc.

Cuando el nivel del agua bajó en el Mar de Galilea (lago de 13 millas de ancho y 7 de largo alimentado por el Río de Jordania en el norte de Israel) en 1989, los arqueólogos se apresuraron a excavar Ohalo II, un campamento antiguo de pescadores, recolectores y cazadores. En el suelo de una construcción rústica se encontró una piedra achatada grande de basalto. La superficie irregular de la piedra contenía granos de almidón de semillas de hierba, la mayoría de cebada silvestre y posiblemente también de trigo. Esta evidencia publicada en *Nature* (5 de agosto) hace retroceder el procesamiento de parientes silvestres cercanos del trigo y la cebada doméstica, un paso clave en el desarrollo cultural, a 23,000 años antes de nuestra era. "Diez mil años antes de que la gente estuviera cultivando cereales, estaban procesando cebada silvestre: análisis de granos de almidón establecen una relación clara entre la explotación intensiva de cereales silvestres y el subsecuente desarrollo del cultivo de plantas en la región" explica Dolores Piperno, autora principal del artículo de ayer "Análisis de granos de almidón revelan procesamiento de granos de cereal silvestre en el Paleolítico Superior." Hay reseñas en *EurekAlert!*, *Science Now*, *The Economist*, etc.

New publications

Aronson, Richard B., Macintyre, Ian G., Wapnik, Cheryl M. and O'Neill, Matthew W. 2004. "Phase shifts, alternative states, and the unprecedented convergence of two reef systems." *Ecology* 85(7): 1876-1891.

Fearnside, Philip M. and Laurance, William F. 2004. "Tropical deforestation and greenhouse-gas emissions." *Ecological Applications* 14(4): 982–986.

Krause, G. Heinrich, Grube, Esther, Karoleva, Olga Y. and Winter, Klaus. 2004. "Do mature shade leaves of tropical tree seedlings acclimate to high sunlight and UV radiation?" *Functional Plant Biology* 31(7): 743-756.

Correction

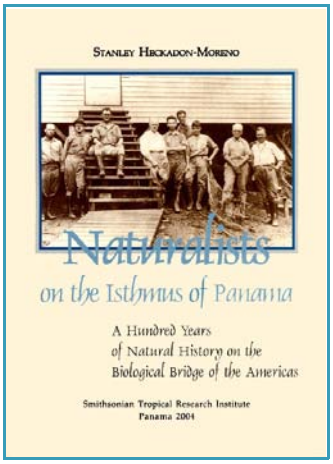
The following paper appeared in the *STRI news* of July 30th with authors in the wrong order. Should read: **Laurance, Susan G., Stouffer, Philip C. and Laurance, William F.** 2004. "Effects of road clearings on movement patterns of understory rainforest birds in Central Amazonia." *Conservation Biology* 18(4): 1099-1109.

Miscellaneous

For rent: Apartment in Albrook. 2bedr, 1bath, great garden, quiet neighborhood. Partially furnished. $450 per month. Please call Chimene 276-6621 or 674-6621

For sale: house hold things, complete kitchen set with pans and plates etc., and some furniture. Interested please e-mail Sabine Spehn at **spehn@biologie.uni-ulm.de**

New STRI book by Heckadon



STRI just published the book *Naturalists on the Isthmus of Panama: A hundred years of natural history on the biological bridge of the Americas* by STRI sociologist Stanley Heckadon Moreno, OCAPP director. The book compiles articles published in Spanish in *"Epocas" Segunda Era*, a monthly supplement to *La Prensa* on Panama´s natural history according to naturalists during the XIX and XX centuries. According to Ira Rubinoff, "This book, not only is an extremely valuable contribution to our knowledge of the history of natural sciences in this strategic region of the tropics, but also outlines the early history of STRI and other outstanding research centers who have worked in Panama..."

STRI acaba de publicar el libro en inglés Naturalistas en el Istmo de Panamá: Cien años de historia natural sobre el puente biológico de las América por el sociólogo de STRI Stanley Heckadon Moreno, director de OCAPP. El libro compila artículos publicados en *"Epocas" Segunda Era*, un suplemento mensual del diario La Prensa, que describen la historia natural del Istmo de acuerdo a naturalistas durante los siglos XIX y XX. De acuerdo a Ira Rubinoff, "El libro, no es solamente una valiosa contribución a nuestro conocimiento de las ciencias naturales de esta estratégica región tropical, sino que presenta un bosquejo del principio de la historia de STRI y de otros centros de investigación muy importantes que trabajaron en Panamá..."

Inéz Campbell: new Darwin fellow

Marine biologist Inéz Campbell, coordinator of STRI's Marine Exhibition Center at Culebra Point, was awarded a fellowship to pursue a master's degree in Development and Protection of Marine Resources at Heriot-Watt University (HWU), Edinburgh, UK. This fellowship is part of a three-year project financed by the Darwin Initiative Program allowing STRI and HWU scientists to assist Panama grant protecting status to areas in Las Perlas Archipelago, on the Pacific. Inez joined STRI's principal investigator for the project, Héctor Guzmán, and his crew early this year, conducting a census among fishermen of Las Perlas to find out their reaction to a possible protection status in the Archipelago. These surveys, along with fieldwork conducted with Jorge Urban, professor at Baja California South of Mexico Autonomous University (learning whale monitoring techniques), will serve as baseline field research for her cooperation on the Darwin Project. Urban tried to recruit Inéz for his whale project, but that meant leaving her job at STRI. Giving up a lifetime dream to study whales for STRI? "... No! Now that humpback whales are visiting Panamanian coasts, STRI may get involved in whale research... I'll be back in Culebra and whales can be part of our environmental education programs!" Inez will leave in September for a period of 12 months. Education specialist Jorge Ventocilla will replace her during this time.

La bióloga marina Inéz Campbell, coordinadora del Centro de Exhibiciones Marinas de STRI en Punta Culebra, recibió una beca para seguir estudios de maestría en Desarrollo y Protección de Recursos Marinos en Heriot-Watt University (HWU), en Edinburgo, Reino Unido. Esta beca es parte de un proyecto de tres años financiado por el Programa de Iniciativa Darwin, que permite que científicos de STRI y HWU asistan a Panamá en designar estatus de protección a áreas del Archipiélago de Las Perlas en el Pacífico. Inéz se unió a Héctor Guzmán, investigador principal del proyecto en STRI y a su equipo, llevando a cabo un censo entre pescadores de Las Perlas, para conocer su reacción ante la posibilidad de un estatus de área protegida en el Archipiélago. Este trabajo, junto con trabajo de campo llevado a cabo con Jorge Urban, profesor de la Universidad Autónoma de Baja California Sur en México para aprender técnicas de monitoreo de ballenas, servirán como base de su cooperación con el Proyecto Darwin. Urban trató de reclutar a Inéz para su proyecto de ballenas, pero eso hubiera significado dejar su trabajo en STRI. ¿Dejas tu sueño de toda la vida de estudiar ballenas por STRI? "¡No!... Ahora que las ballenas jorobadas nos están visitando, es posible que STRI las estudie... Yo regresaré a Culebra y las ballenas pueden ser parte de nuestros programas educativos!" Inéz viajará en septiembre. El especialista en educación, Jorge Ventocilla, la reemplazará durante 12 meses.