

Tupper 4pm seminar

Tuesday, December 11, 4pm seminar speaker will be Brian Leung, McGill University
Forecasting and management of biological invaders

Monthly talk

Wednesday, December 12, 6pm Monthly talk speaker will be Aydee Cornejo, Movimiento de Investigaciones Biológicas de Panamá, at the Tupper Center Auditorium
Insectos acuáticos del Parque Nacional Campana

Arrivals

Michael Kaspari, University of Oklahoma, to study the regulation of local decomposition: four experiments at BCNM.

Christopher Dick, University of Michigan, to study the population genetic structure of widespread Neotropical trees, on BCI and Gamboa.

Suzanne Rutishauser, University of Wisconsin, to work on the project "Do lianas cause chronic disturbance and alter successive trajectories in tropical forests?", in Gamboa.

Chris Jiggins, University of Cambridge, to study the mimicry, genetic variation and speciation in butterflies, in Gamboa.

Departures

Jefferson Hall to Washington DC, to attend the Agua Salud Meeting.

Rachel Collin to Washington DC, to attend the Agua Salud Meeting, then to Montreal, to participate in the STRI-McGill NEO Program student preliminary exam.



Smithsonian Tropical Research Institute, Panamá

www.stri.org

December 5, 2007



Tupper 4pm seminar
Thursday, November 20, 4pm seminar speaker will be Brian Leung, McGill University of California, Santa Barbara. Come meeting, insectos acuáticos del Parque Nacional Campana. A climate modeling approach.

Palco-Talk
Wednesday, November 21, 7pm Talk speaker will be Steve Shogren, University of California, Santa Cruz, at 6pm, STRI, Panamá.
Impact of upliffe on climate through time: from Africa to North America

Bambi seminar
Thursday, November 22 in Thursday Day, and there will be no Stri seminar on Sat.

Arrivals
See Kelly, University of British Columbia, Canada, to study amphibian diversity in Central America. An investigation on multiple scales of Tupper and Ugalde, University of Wyoming, to join a project to...

STRi news 2007

Why do so many species live in tropical forests and coral reefs?
Debate over a controversial hypothesis of biodiversity and species abundance. A group of scientists including STRI plant biologist Stephen P. Hubbell published the article "Patterns of native species abundance in maldivian and coral reefs" in the November 17 issue of Nature (416: 45-49). The team, that includes Greg Valverde (leading author) and Joseph Bazzaz from the STRI, and physicist Amos...

Steve Hubbell's natural history is based on the concept that tropical forests are biologically saturated and highly buffered to disturbance.

Smithsonian Tropical Research Institute, Panamá www.stri.org November 14, 2007

OBIO brings maps, shots, news to your PC!

The Office of Bioinformatics (OBIO) is pleased to announce the Digital File Manager (DFM) website at www.stri.org/dfm

The DFM replaces the former STRI photo database system. As well as providing access to STRI's digital photographic collection, the DFM also includes virtually all kinds of digital files including: audio, video, document files (see: *STRi News*, below), PowerPoint presentations, maps, etc.

The DFM is backed by an extensive metadata system that allows contributors to document almost all aspects of each file's contents (i.e. who, what, when and where). This system also allows contributors to control how files are made available, how they may be used, and who can see them. The DFM is also linked to the most recent, up-to-date species lists to aid in file searches.

As of this date, the DFM has over 11,000 photos, 150 audio files (see audio files, below) and 1,500 documents. We expect these numbers to increase rapidly as new contributors come forward, and as OBIO continues to digitize the STRI Photographic Department slide collection. If you have digital photos, audio recordings, videos or important documents that should be added to the DFM, please contact Steven Paton. OBIO will continue to work on the DFM over the next months to improve its functionality. Any comments on how to improve the site are welcome.

STRi News. OBIO and the Office of Communication and Public Programs are happy to announce that the entire collection of *STRi News* can now be found on-line on the new DFM. Beginning in 1979, *STRi News* (and occasional editions of *Informa*, *FullMoon* and *STRi Research News*) has been published over 1360 times and represents a unique set of

snapshots of who and what we have been. We would like to thank Annette Aiello for providing her almost pristine collection of newsletters, and Omar Díaz for digitizing this collection, without whom, this accomplishment would not have been possible.

Audio Files. Earlier this year, Diane Hope, a sound recorder specialist donated her time and skills and came to STRI in order to make professional quality sound recordings. The approximately 150 recordings include: sounds capes, individual species recordings, and interviews with a number of STRI scientists and key staff members. The recordings are available on the DFM. Thanks to all those who made yourselves available to be interviewed.

La Oficina de Bioinformática (OBIO) se complace en anunciar el nuevo sitio de web Digital File Manager (DFM) en: www.stri.org/dfm

New publications

Hu, Xin-Sheng, He, Fangliang, and Hubbell, Stephen P. 2007. "Species diversity in local neutral communities." *The American Naturalist* 170(6): 844-853.

Kaiser, Kirstie L. 2007. The recent molluscan fauna of Ile Clipperton (Tropical Eastern Pacific). San Diego, California: San Diego Shell Club.

Krause, G. Heinrich, Jahns, Peter, Virgo, Aurelio, Garcia, Milton, Aranda, Jorge E., Wellmann, Eckard, and Winter, Klaus. 2007. "Photoprotection, photosynthesis and growth of tropical tree seedlings under near-ambient and strongly reduced solar ultraviolet-B radiation." *Journal of Plant Physiology* 164(10): 1311-1322.

Turner, Benjamin L., Condrón, Leo M., and Richardson, Sarah J. 2007. "Soil organic phosphorus transformations during pedogenesis." *Ecosystems* 10(7): 1166-1181.

Thesis

Coronado Rivera, James. 2007. *Netelia gray* (Hymenoptera: Ichneumonidae: Tryphoninae) de Costa Rica; y anatomía del sistema reproductor de las hembras de Ichneumonidae. Tesis de maestría. San José Universidad de Costa Rica. Advisor: William Eberhard.

STRI in the news

"Around the Mall: Up in Smoke?" by Jess Blumberg. 2007. *Smithsonian* 38(9): 27, 31.

"Need for environment education stressed." 2007. *Gulf Times* (November 24). Qatar.

El DFM reemplaza la antigua base de datos fotográfica. Además de suministrar acceso a la colección fotográfica digital, DFM también incluye todo tipo de documentos digitales como audio, video, archivos de documentos (vea *STRI News* abajo), presentaciones en PowerPoint, mapas, etc

El DFM está apoyado por un sistema de metadata extensiva que permite a los contribuyentes documentar casi todos los aspectos del contenido de cada archivo (i.e. quien, qué, donde y cuándo). Este sistema también permite a los contribuyentes controlar la manera en que los archivos estén disponibles, cómo deben usarse, y quienes los pueden ver. El DFM también tiene enlaces a las listas más recientes de especies para ayudar en las búsquedas de archivos.

En este momento, el DFM tiene más de 11,000 fotos, 150

audios (vea audios abajo) y 1,500 documentos. Esperamos que estos números aumenten rápidamente cuando los nuevos contribuyentes se acerquen a OBIO para continuar digitalizando la colección de diapositivas del Departamento de Fotografía de STRI. Si usted tiene fotos digitales, grabaciones de audio, videos o documentos importantes que deben ser incluidos al DFM, favor de ponerse en contacto con Steve Paton. OBIO continuará trabajando con el DFM durante los próximos meses para mejorar su funcionamiento. Cualquier comentario para mejorar el sitio será bienvenido.

STRI News. OBIO y la Oficina de Comunicaciones y Programas Públicos se complacen en anunciar que la colección completa del *STRI News* puede encontrarse digitalizada en el nuevo DFM. Empezando en 1979 el *STRI News* (junto ocasionales ediciones del *Informa*, *Luna Llana* y *STRI*

Research News han sido publicadas más de 1360 veces y representan un juego de vistas únicas sobre quienes somos y qué hemos estado haciendo. Queremos agradecer a Annette Aiello por haber suministrado su colección casi prístina de del *STRI News*, y a Omar Díaz por la digitalización de dicha colección. Sin él, este logro no hubiera sido posible.

Audios. A principios de este año, Diane Hope, profesional de grabaciones de audio donó su tiempo y habilidades para venir a STRI y hacer grabaciones de calidad profesional. La colección de cerca de 150 grabaciones incluyen: grabaciones ambientales, grabaciones de especies individuales, entrevistas como científicos y miembros clave del personal. Las grabaciones están disponibles en DFM.

Agradecemos a todos los que se prestaron para ser entrevistados.

Adriana Sautu appointed to the Metropolitan Park's Patronato

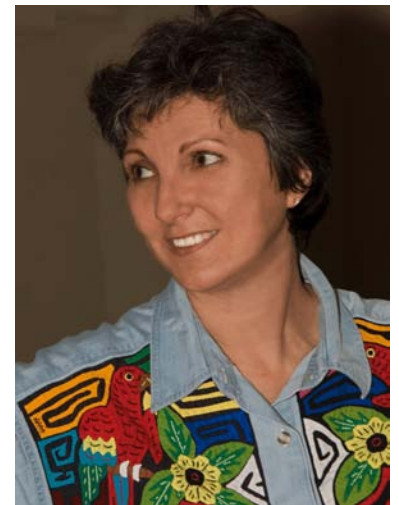
STRI acting director Eldredge Bermingham appointed CTFS' biologist Adriana Sautu as STRI representative at the Metropolitan Park's Board of Directors effective July 7, to replace Elena Lombardo.

Sautu graduated as biologist at La Plata National University, and holds a master's degree in environmental education from the University of Kentucky. She started working for STRI in 1991, as a volunteer in the STRI Herbarium. Her seed biology research, initiated in 1994, was conducted at the Metropolitan Park for six years. In 2005 Sautu and members of STRI's Office of Communications and Public Programs obtained the funds to carry out a pilot program "A Living Book" for continuous docent training in the use of informal environmental education centers, based on

the Park. To this date, over 100 teachers have benefitted from the program. Additional funds were approved to continue the effort.

El director encargado de STRI, Eldredge Bermingham nombró a Adriana Sautu como representante de STRI en el Patronato del Parque Natural Metropolitano a partir del 7 de julio de 2007, en reemplazo de Elena Lombardo, de STRI.

Sautu se graduó de bióloga en la Universidad Nacional de La Plata y obtuvo una maestría en educación ambiental en la Universidad de Kentucky. Empezó a trabajar en STRI en 1991 como voluntaria en el Herbario de STRI. Sus investigaciones sobre biología de semillas se llevaron a cabo en el Parque durante seis años, a partir de 1994. En 2005, Sautu y miembros de la Oficina de



Comunicaciones y Programas Públicos obtuvieron fondos para llevar a cabo un programa piloto "Un Libro de Vida" para la capacitación continua de docentes en el uso de centros de educación informales, llevado a cabo en el Parque. Hasta la fecha, más de 100 educadores se han beneficiado de este programa. Se han aprobado fondos adicionales para continuar con este esfuerzo.

Sally Craig Levings

From Steve Garrity

I am sorry to report the death of Sally Craig Levings on August 2, 2007, after a ten-year battle with cancer. As many of you will recall, she spent various periods at STRI from the late 1970s until the mid 1990's.

Sally first arrived at STRI in 1975 as a Harvard graduate student with an NSF pre-doctoral professional development grant to study forest floor leaf litter arthropods at BCI. It was here she did her dissertation research and contributed to the ESP project until leaving for Cambridge in 1978 to finish her Ph.D. requirements and continue her work at the Museum of Comparative Zoology. In 1979, she married Steve Garrity, another frequent visitor of STRI, and accompanied him in 1981 when he returned to Panama to commence a STRI pre-doctoral fellowship. Until leaving for a position at University of Rhode Island (URI) in 1983, she collaborated with Steve, Mark Bertness, John Cubit, Haris Lessios, and many others at BCI and both marine laboratories.

After a number of years as a visiting assistant professor at the Zoology Department at URI, Sally moved to the panhandle of Florida, where she and Steve formed the consulting firm of Coastal Zone Analysis. Their first major contract was to participate in the study of the effects of the Panama refinery oil spill on the biota of the Caribbean coast. Sally returned to Panama many times to help Steve with fieldwork and to

participate in that project's meetings and analysis of data. Subsequent to that project, she and Steve were contracted through the 1990's by local, state, and federal agencies for assessments and analysis of the effects of oil spills on the marine environment in such areas as Hawaii, Tampa Bay, and American Samoa.

Although the uncertainty resulting from Sally's cancer diagnosis and subsequent treatment prevented her from making the same level of commitment for field work and travel, she could not be tied down for long and continued some writing and analysis. When she felt well enough, she helped at her friends' nursery on a part time basis. Later on (2001-2004), her apparent remission and improvement allowed her to work for the Florida Department of Environmental Protection, developing biomonitoring programs for the analysis of industrial discharges and their associated ecological effects. After that, she traveled twice to Asia with Marian Goldsmith of URI to participate in an international program which examined research programs at universities in China and instructed scientists and students on experimental design and data analysis.

When Sally was diagnosed with metastatic cancer in early 1997, the physicians gave her little hope for surviving until the end of the year. Those of you who knew her would not be surprised at her reaction after the initial shock subsided. At that point Dr. Levings started on a remarkable journey to try



to prove them wrong. She first immersed herself in all the literature and research that could be found for her disease, including the latest research on its characteristics, causes, and treatment, including ongoing clinical trials. Simultaneously, she consulted with a number of oncologists for their opinions, none of which were very encouraging.

Her dissatisfaction with most of these ideas and the various things she learned in her own research led her to design her own treatment regime. With this in hand, she and Steve commenced a search for an appropriate oncological group who were receptive to her ideas and thought they were worth trying along with some new procedures that were showing some promise. I am sure that they (she?) left more than a little turbulence in their wake as they weeded out those who didn't make the short list!

One of the procedures in her regime was oophorectomy, which most oncologists at the time would be too timid to even suggest to their patients. Interestingly, that same treatment has become a mainstream option in current treatments. Sally endured the

pain and suffering of multiple surgeries, total stem cell rescue, radiation, and chemotherapy, and became essentially cancer free when the dust settled. Interestingly, Sally's bibliography includes authorship with her oncologist on a paper describing her treatment regime that was presented at an oncology conference.

Annual testing showed no sign of the cancer's return until late 2006. Unfortunately, the same options could not be repeated and Sally died surrounded by family and friends at the home she and Steve built in Sopchoppy, Florida. She is survived by Steve, her mother, her sister, a son, a daughter, five grandchildren, and a large circle of other family and friends.

Those of us who knew Sally and experienced her tenacity, determination, and work ethic—whether in the field, during the question period of a seminar, in the dining hall, or in the middle of good argument—must agree that she wasn't the recipient of a gift of an additional number of years of life. She took them! Her family and friends will miss this extraordinary woman.

“Up in smoke?”

Taken from Around the Mall, *Smithsonian*

December, 2007: 27, 31

Story: Jess Blumberg
Smithsonian

Summary: M Alvarado
and ML Calderon
Photo: MA Guerra

In the December issue of the *Smithsonian* magazine, Jess Blumberg offers an update of the efforts conducted by the Biological Dynamics Forest Fragments Project (BDFFP) to study “how to save the imperiled Amazon rain forest. Now, their research is also under siege.”

The BDFFP, operated jointly by STRI and Brazil’s National Institute for Amazonian Research have gathered crucial data for nearly 30 years on the environmental impact of farming, logging and human settlements.

“Now, however, the study area is threatened by those very same activities. “It would be tragic to see a site that’s given us so much information be lost so easily” says STRI’s William F. Laurance, who has been working on the project for 12 years.

Laurance and colleagues have focused their studies on forest fragmentation, finding that the larger the fragment, the better. If it’s too small, the entire ecosystem unravels: drying winds penetrate the interior,

killing trees. However, the Brazilian government is “within its mandate to use land for economic development”

The scientists are seeking the help of sympathetic agencies in Brazil. Laurance emphasizes that is little to be gained by colonization, as the Amazon’s low-quality soils makes for poor agriculture. “The social and economic benefits are paltry relative to the scientific and conservation benefits,” he says.

Read the complete story at:
<http://www.smithsonianmag.com/science-nature/upinsmoke-200712.html>

En el número de diciembre de la revista *Smithsonian*, Jess Blumberg ofrece una actualización de los esfuerzos que lleva a cabo el Proyecto de Dinámica Biológica de Fragmentos de Bosques (BDFFP) para estudiar “cómo salvar el bosque tropical del Amazonas que se encuentra en peligro.

Ahora, las investigaciones también están bajo ataque.”

El BDFFP, operado conjuntamente entre STRI y el Instituto Nacional de Brasil para Investigaciones, ha acumulado información crucial por cerca de 30 años sobre el impacto que la agricultura, sustracción de madera y asentamientos humanos tienen sobre el ambiente.

“Ahora, sin embargo, el área de estudio está amenazada por estas mismas actividades.” “Sería trágico ver que un lugar que ha suministrado tanta información se pierda tan fácilmente” aseguró William F. Laurance de STRI, quien ha trabajado en el proyecto por 12 años.

Laurance y colegas han enfocado sus estudios en la fragmentación de bosques, encontrando que mientras más extenso es el fragmento, mejor. “Si es muy pequeño, todo el ecosistema se desintegra: vientos calientes penetran en el interior, secando y matando a los árboles.” Sin embargo, el gobierno de Brasil tiene “en su mandato usar las tierras para el desarrollo económico”.

Los científicos están reclutando agencias brasileñas para que los apoyen. Laurance enfatiza que hay muy poco que ganar con la colonización, ya que los suelos del Amazonas son pobres para la agricultura.

“Los beneficios sociales y económicos son triviales al compararlos con los beneficios científicos y de conservación” asegura.

Lea la historia completa en:
<http://www.smithsonianmag.com/science-nature/upinsmoke-200712.html>