

Tupper seminar

Joseph B. Yavitt, Cornell University

Methane in peatland ecosystems, insights using molecular techniques

Peatland ecosystems cover 400 million hectares of land in northern latitudes, store roughly one-third of the organic carbon found in soil worldwide, and harbor methane-producing microorganisms that are a large source of the world's atmospheric methane. However, no one has been able to isolate and grow a methane producer from a peatland ecosystem, and thus we know almost nothing about the physiology of these microorganisms and their role in soil carbon cycling. I will describe how molecular techniques provide a powerful tool in this regard. Specifically, I have been using Restriction Fragment Length Polymorphism (RFLP) analysis of 16S rRNA genes as method of comparing the methanogen community structure among different peatland systems with different methane production dynamics.

Bambi seminar

Thursday, April 27, Bambi seminar speaker will be Ricardo Racines, STRI

Following hunter's behavioral patterns at the Gigante peninsula



Smithsonian Tropical Research Institute, Panamá

April 21, 2000

Elisabeth Kalko and Nélida Gómez join STRI's scientific staff

Elisabeth K.V. Kalko, professor at the University of Ulm, Germany and research associate from the University of Tübingen at STRI, and Nélida E. Gómez will join STRI's scientific staff, on a part-time basis.

Kalko received her Ph.D. in 1991 at the University of Tübingen, Germany with the dissertation "The echolocation and hunting behavior of the three European pipistrelle bats, *Pipistrellus pipistrellus* (Schreber, 1774), *Pipistrellus nathusii* (Keyserling et Blasius, 1839) and *Pipistrellus kubli* (Kuhl, 1819) in the field". Kalko's research interest is to integrate studies of physiology, behavior, ecology, and natural history of vertebrates to understand the ecological and evolutionary patterns of their diversity. She focuses her research on bats of the Chiroptera family since they offer optimal features for comparative studies, and provide crucial links to patterns and processes that affect the diversity of many plants and animals. Kalko publishes in international scientific periodicals and serves at the editorial boards of specialized journals. Her office and laboratories are on BCI.

Nélida E. Gómez received her doctorate in natural sciences from the Technological University of Braunschweig, Germany, with the dissertation "The fecal shields of larvae of tortoise beetles (Cassidinae: Chrysomelidae): a role in chemical defense using plant-derived secondary compounds" in 1997. She graduated at the University of Panama in 1984 and obtained a master's degree in Pharmacognosy from the University of Rhode Island in 1987. Gómez started working for STRI in 1984 as research assistant. In 1989 she accepted the position of scientific coordinator on BCI. After obtaining her Ph.D. in 1997 she re-joined STRI as chemist of Natural Products to design and develop scientific projects, prepare scholarly reports on scientific findings, and provide assistance for educational development and outreach programs. As staff scientist, Nélida will serve on a part-time basis. She will also be responsible for working on projects involving educational development and training. Her office will be at Tupper.

—From the Director's Office

Elisabeth K.V. Kalko, profesora en la Universidad de Ulm en Alemania e investigadora asociada a STRI de la Universidad de Tübingen, y Nélida Gómez, se unirán al cuerpo de investigadores permanentes de STRI, en medio tiempo.

Kalko recibió su doctorado en 1991 en la Universidad de Tübingen, Alemania, con la tesis "La ecolocación y comportamiento de caza de tres murciélagos europeos *Pipistrellus pipistrellus* (Schreber, 1774), *Pipistrellus nathusii* (Keyserling y Blasius, 1839) y *Pipistrellus kubli* (Kuhl, 1819) en el campo." El interés científico de Kalko es integrar estudios de fisiología, comportamiento, ecología e historia natural de vertebrados, para entender los patrones ecológicos y de evolución de su diversidad. Sus estudios enfocan los murciélagos de la familia Chiroptera, ya que estos presentan características óptimas para hacer estudios comparativos, y tienen lazos importantes con patrones y procesos que afectan la diversidad de muchas plantas y animales. Kalko publica en importantes revistas científicas internacionales, y forma parte del cuerpo editorial de revistas especializadas. Sus oficina y laboratorio estarán en BCI.

Nélida E. Gómez recibió su doctorado en ciencias naturales en la Universidad Tecnológica de Braunschweig, Alemania, con la tesis "Protecciones fecales de larvas de escarabajos tortuga (Cassidinae: Chrysomelidae): un rol en defensa química usando compuestos secundarios derivados de plantas", en 1997. Se graduó en la Universidad de Panamá en 1984 y obtuvo su maestría en farmacología en la Universidad de Rhode Island en 1987. Gómez empezó a trabajar en STRI en 1984 como asistente de investigación. En 1989 aceptó la posición de coordinadora científica en BCI. Luego de obtener su doctorado se reintegró a STRI como Química en productos naturales, para diseñar y desarrollar proyectos científicos, preparar reportes académicos sobre encuentros

Arrivals

Christian Ziegler, University of Würzburg, Apr 22 - Jul 31, to work on a photo-driven book on BCI.

Mary Jane West-Eberhard, STRI, Apr 23-30, on official business, at Tupper.

Eric Warrant, University of Lund, Sweden, Apr 23 - May 9, to study visual optics in nocturnal hymenoptera, on BCI.

Jianjun Gao, visiting scientist from Yamagata University, Apr 26 - Oct 31, 2003, to work on the ecologically guided bioprospecting project in Panama, at Tupper.

Departures

Richard Condit, Apr 22 - May 3, to Curitiba, Brazil, to present lectures at the University of Curitiba.

Anthony Coates, Apr 25 - May 2, to Washington, D.C., on official business at SI.

Joe Wright, Apr 25-30, to Gainesville, FL, to meet with Steve Mulkey regarding research projects.

Héctor Guzmán, Apr 26 - May 4, to Cartagena, Colombia, to continue work on coral connectivity and to attend the First Meeting of the Global Coral Reef Monitoring Network.

On holidays

Monday, May 1 is the celebration of Labor Day, and is a national holiday.

El lunes 1ro de mayo es Día del Trabajo en Panamá y es feriado para todos los sectores.

científicos y dar asistencia en el desarrollo educativo y en programas de extensión. Como científica en STRI, Néida laborará medio tiempo, ya que también será responsable por trabajar en proyectos relacionados a desarrollo educacional y entrenamiento. Sus oficinas estarán localizadas en el Centro Tupper.

Monuments conservation project in Panama

Proyecto para la conservación de monumentos

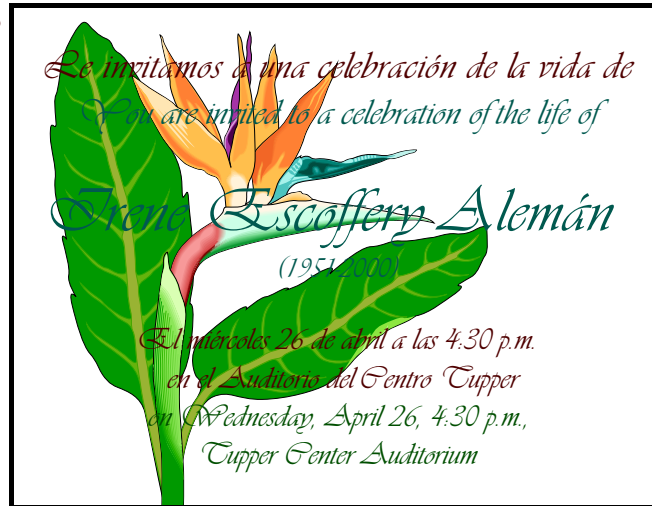
The World Monuments Fund, WMF and the SI Man and the Biosphere program, SI/MAB, will join Panamanian institutions and non-government organizations on a pilot project to conserve Spanish fortifications San Gerónimo in Portobelo, and San Lorenzo on the mouth of the Chagres river in the Atlantic. Principal funding for this project come from a donation from American Express to the Panamanian cultural agency INAC, through the WMF's World Monuments Watch program. STRI, INAC, ANAM, SI/MAB and non-government organizations will meet at the Tupper Center from Wednesday, April 26 through Thursday, April 27 to discuss their agenda, and make an official announcement of the project. For more information please contact the STRI's Office of External Affairs.

New STRI publications

Daly, John W., Garraffo, H. Martin, Jain, Poonam, Spande, Thomas F., Snelling, Roy R. Jaramillo, César and Rand, A. Stanley. 2000.

“Arthropod-frog connection: decahydroquinoline and pyrrolizidine alkaloids common to microsymbiotic myrmicine ants and dendrobatic frogs.” *Journal of Chemical Ecology* 26(1): 7385.

Jennions, Michael D. and Petrie, Marion. 2000. “Why do females mate multiply? A review of the genetic benefits”. *Biological Review* 75: 21-64.



El Fondo Mundial de Monumentos WMF y el Programa del Smithsonian para Monitoreo y Evaluación de la Biodiversidad “El hombre y la biosfera” SI/MAB se unirán con instituciones panameñas y organizaciones no gubernamentales en un proyecto piloto para conservar las fortificaciones españolas de San Gerónimo en Portobelo, y San Lorenzo en la desembocadura del Chagres en el Atlántico. Los fondos principales para este proyecto provienen de una donación de American Express al Instituto Nacional de Cultura, INAC, a través de un programa para monumentos de WMF. STRI, INAC, ANAM, SI/MAB y organizaciones no gubernamentales se reunirán en el Centro Tupper del miércoles 26 al jueves 27 de abril para discutir su agenda y anunciar oficialmente el proyecto. Para mayor información favor comunicarse con la Oficina de Asuntos Externos.

Levin, Simon and Müller-Landau, Helene C. 2000. “The emergence of diversity in plant communities”. *Life Sciences* 323: 129-139.

Morrow, Edward H. and Gage, Matthew J.G. 2000. “The evolution of sperm length in moths”. *Proceedings of the Royal Society of London B* 267: 307-303.

Stuntz, Sabine, Simon, Ulrich and Zotz, Gerhard. 1999. “Assessing the potential influence of vascular epiphytes on arthropods diversity in tropical tree crowns: hypotheses, approaches, and preliminary data.” *Selbiana* 20: 276-283.