Gamboa seminar

Monday, July 19, the new Gamboa seminar series will be launched by Susan Finkbeiner, University of California-Irvine.
Gregarious roosting in Heliconius: Unraveling the mystery behind a unique butterfly behavior
The seminars will be held at the Gamboa School at 12pm. Jarrod Scott (scott2@wisc.edu) is the coordinator of the series.

Tupper seminar

Tuesday, July 20, Tupper seminar speaker will be Grace Chen, Michigan State University
Habitat isolation is the primary reproductive barrier between sister species of Neotropical *Costus*

Bambi seminar

Thursday, July 22, Bambi seminar speaker will be Nicole Michel, Tulane University
Of peccaries and platyrinchus: Mechanisms and consequences of understory insectivorous bird declines in fragmented Neotropical rainforest

Arrivals

Melissa DeBiasse, Louisiana State University, Carla Menegola, Universidade Federal da Bahia, Brazil and Robert Thacker, University of Alabama at Birmingham, to participate as instructors in the 2010 NSF Course on Atol Taxonomy, Systematics and Ecology of Sponges Course, at Bocas. The students participating in this course are from the US, Trinidad and Tobago, Sweden, South Africa, Mexico, Venezuela and Poland.

Smithsonian Tropical Research Institute, Panamá www.stri.org July 16, 2010

Bigger, sweeter and domesticated!

Little is known about the domestication of many tropical tree crops. The star apple or caimito is cultivated throughout the New World tropics for its edible fruits. It grows wild in central Panama, and is also cultivated in backyard gardens. The fruit of cultivated *Chrysophyllum cainito* is a treat for people living the "interior" of Panama, and a favorite of monkey populations.

A group of researchers from Panama and California led by Ingrid Parker, STRI´s visiting researcher from the University of California in Santa Cruz (photo above), published "Domestication syndrome in Caimito (*Chrysophyllum cainito* L.): Fruit and seed characteristics" in the June issue of *Economic Botany*. Parker and collaborators collected their specimens of the caimito tree in Central Panama, where they grow in both rural and urban communities in the Panama Canal Watershed. Parker and collaborators collected their specimens of the caimito tree in Central Panama, where they grow in both rural and urban communities in the Panama Canal watershed.

The team found that the fruits of cultivated individuals of C. cainito were larger, their pulp less acidic, and they contained lower concentrations of phenolics and more sugar. Their seeds were larger and more numerous and had fewer defenses. These results demonstrated significant phenotypic differences between fruits of cultivated and wild caimito trees in Panama, attributed to the effects of human selection associated with the process of domestication. You may obtain the article from calderom@si.edu

Poco se sabe sobre la domesticación en muchas especies de árboles de cultivo. El caimito se cultiva en los trópicos del Nuevo Mundo debido a que su fruto es comestible. Es silvestre en Panamá Central, pero también se cultiva en patios traseros. La fruta del *Chrysophyllum cainito* es una delicia para la gente en el interior de Panamá, y favorita entre poblaciones de monos.

Un grupo de investigadores de Panamá y California, liderados por Ingrid Parker, investigadora visitante en STRI de la Universidad de California en Santa Cruz (en la foto, a la izquierda), publicó "Domestication syndrome in Caimito (*Chrysophyllum cainito* L.): Fruit and seed characteristics" [El síndrome de la domesticación en el caimito (*Chrysophyllum cainito*): caracte-rísticas de sus futas y semillas] en el número de junio de la revista *Economic Botany*. Parker y colaboradores colectaron especímenes en Panamá central, donde el árbol crece en situaciones rurales y urbanas en bosques de la Cuenca del Canal de Panamá.

Los investigadores encontraron que las frutas de *C. cainito* cultivadas son más grandes, su pulpa es menos ácida, tiene menos fenoles y más azúcar. Sus semillas son más grandes, más numerosss y tienen menos defensas. Hay diferencias significativas entre la concentración de fenoles de las frutas cultivadas y la de las frutas silvestres, lo que se atribuye a efectos de selección humana, asociada con el proceso de domesticación.

Departures

Oris Sanjur to Washington DC, to meet with officials at SI´s Office of Sponsored Projects, Digital Smithsonian, the National Zoological Park and the National Museum of Natural History.

David Roiz and Isis Estribí to Washington DC, to participate in the Temporary Duty Travel: Federal Travel Regulation course and session.

New publications

Baeza, Antonio, Farias, N.E., Luppi, T.A., and Spivak, E.D. 2010. "Refuge size, group living and symbiosis: testing the "resource economic monopolization" hypothesis with the shrimp *Betaeus lilianae* and description of its partnership with the crab *Platyxanthus crenulatus*." *Journal of Experimental Marine Biology and Ecology* 389(1-2): 85-92.

Baugh, Alexander T., and Ryan, Michael J. 2010. "Ambient light alters temporal-updating behaviour during mate choice in a Neotropical frog." *Canadian Journal of Zoology* 88(5): 448-453.

Ghazoul, Jaboury, Butler, Rhett A., Mateo, Javier, and Koh, Lian Pin. 2010. "REDD: a reckoning of environment and development implications." *Trends in Ecology and Evolution* 25(7): 396-402.

Hastings, Alexander K., Bloch, Jonathan I., Cadena, Edwin A., and Jaramillo, Carlos A. 2010. "A new small short-snouted Dyrosaurid (Crocodylomorpha, Mesoeucrocodylia) from the Paleocene of Northeastern Colombia." *Journal of Vertebrate Paleontology* 30(1): 139-162.

Hirsch, Ben. 2010. "Tradeoff between travel speed and olfactory food detection in ring-tailed coatis (*Nasua nasua*)." *Ethology* 116(7): 671-679.

CTFS/SIGEO plot censused

Photo: Melissa Whitman

Field work of the first census of the 25.6 ha plot (320 m x 800 m) located in the US Yosemite National Park, was completed on July 9. Field work in this plot, associated with the Center for Tropical Forest Science/Smithsonian Institution Global Earth Observatories (CTFS/SIGEO) started last year during the last two weeks of June, where more than 13,000 individuals in ten hectares were censused. The rest of plot was completed at approximately the same time this year. As of today, the CTFS/SIGEO network has 40 plots in 21 countries: 4.5 million trees of 8,500 species.

The Yosemite Forest Dynamics Plot (YFDP), established in 2009, is located near Crane Flat in California. White fir *(Abies concolor*), sugar pine (*Pinus lambertiana*), and Pacific dogwood (*Cornus nuttallii*) dominate the landscape. The YFDP is complementary to the existing USGS/NPS Sierra Nevada Network of one-hectare plots located in Yosemite and in Sequoia and Kings Canyon National Parks. The plot is located in a type of forest that may be highly affected by regional and global climate changes.

El trabajo de campo del primer censo de una parcela de 25.6-ha (320m x 800m), en el Parque Nacional Yosemite de EU, se completó el 9 de julio. El trabajo de campo en esta parcela, asociada al Centro de Ciencias Forestales del Bosque/ Observatorios Globales de la Tierra de SI (CTFS/SIGEO) empezó en las dos últimas semanas de junio, cuando se censaron más de 13,000 individuos en 10 hectáreas. El resto de la parcela se completó en el mismo tiempo este año. Hoy día, la red de CTFS/SIGEO tiene 40 parcelas en 21 países, con 4.5 millones de árboles de 8,500 especies.

La Parcela de Dinámica de Bosques de Yosemite (YFDP), establecida en 2009, se encuentra cerca de Crane Flat en Calfornia. Tiene abetos blancos *(Abies concolor*), pinos de azúcar (*Pinus lambertiana)* y corno del Pacífico (*Cornus nuttallii*), que representan casi toda su vegetación. La YFDP complementa a la red de parcelas de una hectárea de USGS/NPS de Sierra Nevada en Yosemite y los Parques Nacionales de Sequoia y Kings Canyon de EU. La parcela se encuentra en un tipo de bosque que puede ser altamente afectado por cambios climáticos globales y regionales.

New publications

Heer, Katrin, Albrecht, Larissa, and Kalko, Elisabeth K.V. 2010. "Effects of ingestion by Neotropical bats on germination parameters of native free-standing and strangler figs (*Ficus* sp., Moraceae)." *Oecologia* 163(2): 425-435.

Parker, Ingrid M., Lopez, Isis, Petersen, Jennifer J., Anaya, Natalia, Cubilla-Rios, Luis, and Potter, Daniel. 2010. "Domestication syndrome in Caimito (*Chrysophyllum cainito* L.): Fruit and seed characteristics." *Economic Botany* 64(2): 161-175.

Smith, Carly J., Collins, Laurel S., Jaramillo, Carlos A., and Quiroz, Luis I. 2010. "Marine paleoenvironments of Miocene-Pliocene formations of north-central Falcon state, Venezuela." *The Journal of Foraminiferal Research* 40(3): 266-282.

Wikelski, Martin, Moxley, Jerry, Eaton-Mordas, Alexander, Lopez-Uribe, Margarita M., Holland, Richard, Moskowitz, David, Roubik, David W., and Kays, Roland. 2010. "Large-range movements of Neotropical orchid bees observed via radio telemetry." *PLoS ONE* 5(5): e10738.

Zulliger, Deborah E., and Lessios, Harilaos A. 2010. "Phylogenetic relationships in the genus *Astropecten* Gray (Paxillosida: Astropectinidae) on a global scale: Molecular evidence for morphological convergence, species-complexes and possible cryptic speciation." *Zootaxa* 2010(2504): 1-19.

2009 update

Thamm, Sven, Kalko, Elisabeth K.V., and Wells, Konstans. 2009. "Ectoparasite Infestations of hedgehogs *(Erinaceus europaeus*) are associated with small-scale landscape structures in an urban-suburban environment." *EcoHealth* 6(3): 404-413.

NEOTROPICAL ENVIRONMENT OPTION

Presents

The annual

NEO Graduate Student Symposium

Monday, August 2, 2010

8:15 a.m.

Tupper Auditorium

Smithsonian

Smithsonian Tropical Research Institute

McGill