

STRI newsletter

February 05, 1993

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panamá

No. 6

TUPPER CENTER SEMINARS

Tue, Feb 9, noon seminar by Douglas Emlen, Princeton University.

Evolution of male horn-length dimorphism in the dung beetle Onthophagus acuminatus

Male beetles of this species occur in two forms: with and without horns. This seminar will present the results of experiments conducted on BCI during the Fall of 1992 which address the significance of dimorphism at both developmental (proximate) and selective (ultimate) levels of analysis. Results suggest that an environmentally-sensitive (plastic) developmental mechanism produces the dimorphism, and that a mating system based on two discrete male reproductive tactics has favored morphological specialization into two distinct male shapes.



Next Seminar

Tue, Feb 16, noon seminar by Bridget Stutchbury, York University, Toronto.

The evolution of extra-pair fertilizations in hooded warblers

Behavior Discussion Group

The next Behavior Discussion Group Meeting is scheduled for Tue, Feb 9, from 5 to 7 pm in the Tupper Meeting Room. Doug Emlen will be available to discuss in more detail questions that may arise at his noon seminar. Copies of (parts) of the articles recommended for optional background reading will be made available on BCI (Lounge), in Gamboa (Bldg. 183), at Tupper (Lounge), and at Naos. For logistical reasons, we will not be able to take sub-orders for this meeting.

Audubon Society

Thu, Feb 11, 7:30 pm, at PCC Training Center, Insects of Panama by Annette Aiello. The Audubon Society is scheduling a field trip to El Valle for Feb 13-15, for more information, contact Norita Scott at 52-6193, evenings.

On Jan 26-27 Elizabeth Kalko, Argelis Guevara, Jeremy Jackson and Stanley Heckadon participated in the second workshop on the Environmental and Social Agenda for Bocas del Toro. This event gathered community leaders, government officials and the private sector at Isla Colon High School, and was co-sponsored by STRI, INRENARE, WCI, Chiriquí Land Co. and Petroterminales de Panamá.

(Photo: A.Montaner)

PEOPLE

Arrivals

- Eugene Morton and Kim Derrickson, National Zoological Park, Washington, D.C., on Feb 6 - Mar 31, to study the individual territoriality in two tropical birds: Why not cooperate?, at Gamboa.
- Lisa Barnett, new STRI Development Officer, Washington, D.C., on Feb 7 - 14, to become familiarized with STRI scientific and administrative staff and visit various STRI facilities.
- Gretchen North, University of California Los Angeles, on Feb 8 - 14, to continue working in Park Nobel's project on hydraulic properties of epiphytic plants, at BCI.
- Gary Ridgway and Michael Fischesser, Office of Environmental Management and Safety, SI, on Feb 10 - 15, to give the Tree Climbing Course, at BCI.
- James Conaway, writer based in Washington, D.C., on Feb 8 - 15, to interview scientific and administrative staff, and visit various research facilities. Mr. Conaway is writing the book "The Smithsonian: The First 150 Years", SI Press, to be published in the fall 1995 to mark the beginning of the institution's 150th anniversary celebration.

THINGS YOU SHOULD KNOW

Safety Warning

Recently, failure to use a dangerous chemical in the appropriate place not only got a visitor hospitalized but disrupted the work of other STRI staff members. Please take safety procedures seriously. Be aware that risking your health and those around you may be in extreme cases grounds for you to be asked to leave STRI. Please be firm in letting your colleagues know that you expect them to work safely.

From the Library

Due to fumigation, the STRI library will remain closed to patrons during the following days: Fri, Feb 19 starting at 3 pm • Sat, Feb 20 and Mon, Feb 22 • It will open as usual on Tuesday, Feb 23.

From Photographic Services

From now on, the schedule to take pictures for IDs and Polaroid Instant Pictures returns to normal: Tue and Fri from 9 to 11 am.

At Tupper Center

Mon-Fri, Feb 8-12	■ Programa de Humedales, UICN, 8 am-5 pm, Small Meeting Room.
Tue, Feb 9	■ Seminar by Douglas Emlen, 12 noon, Auditorium.
	■ Scientific Staff Meeting, 1:30 pm-4 pm, Large Meeting Room.
Wed, Feb 10	■ Diving Safety Meeting, 9 am-11 am, Large Meeting Room.
Thu, Feb 11	■ Eco-Tours Group: Smithsonian Associates, 11 am- 1 pm noon, Auditorium and Exhibit Hall.

ANNOUNCEMENTS

Visit by Developmental Officer

Lisa Barnett who recently joined the STRI office in Washington as development officer and proposal writer will be visiting STRI from 7-14 Feb to become acquainted with the STRI administrative offices and to discuss fundraising priorities and opportunities with the research and education staff. Lisa will be participating in the Scientific Staff meeting scheduled for February 8 at 1:30 p.m.

Turner Foundation Grant Awarded to STRI

The Trustees of the Turner Foundation, Inc. have authorized a grant to the Smithsonian Tropical Research Institute to expand tropical rainforest research in the buffer zone of the Barro Colorado Nature Monument.

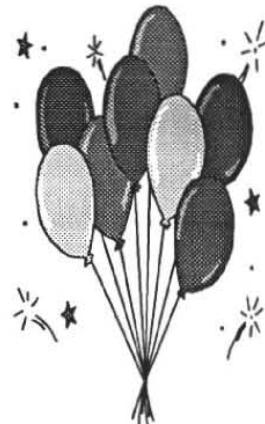
Space in Research cruise

The Department of Biology of Texas A&M University at College Station is inviting Smithsonian personnel

and/or Panamanians interested in joining the cruise in their ship the R/V GYRE from Panama to Costa Rica in the eastern Pacific tentatively scheduled for 6-12 April 1993. Their primary objective is to locate and capture pelagic sea turtles for blood sampling, food habitats studies, and satellite telemetry, in addition to collecting physical and biological oceanographic data. Because they have few days to fully cover their own objectives, anyone willing to participate will be limited to the study area and stations that they determine prior to the cruise. If there are researchers that would like to join the cruise, or if there are people interested in assisting with this research please contact Pamela Plotkin or David Owens by FAX (409) 845-2891 or phone (409) 845-7752 or 845-7784.

February Birthday at STRI

Alcibiades, Cedeño	2
Martin Moynihan	5
Gilberto Batista	6
Eduardo Navarro	6
Mireya Correa	6
Gloria Zelaya	7
Karl Kaufmann	8
Roberto Borrel	10
Isis Ivancic	12
Ricardo Cortéz	14
Georgina de Alba	15
Walter Dillon	18
Robin Foster	18
Gilberto Ocaña	22
Alvaro González	27
Consul Chamorro	28
Vielka Chang-Yau	29



Needed

Plastic "ice cream" containers any size, to use in the Marine Science Education Program. Please send empty, clean containers to the Office of Education, attention Cindy Martin.

From Security • De la Oficina de Seguridad

There is a new doorbell in the entrance of the Tupper Center, next to the library. The doorbell is to call the guard in case you need to enter during non-working hours. ••• Se ha colocado un timbre en la entrada al complejo Tupper al lado de la Biblioteca. El timbre es para llamar al guardia cuando se desee utilizar esa entrada fuera de horas laborables.

Nota de Agradecimiento

Rosa Zambrano y toda su familia agradecen a todos los compañeros de trabajo de STRI por las muestras de simpatía y apoyo recibidas por el fallecimiento de su querida madre.

STRI FEATURE**Guardians of the Barro Colorado Nature Monument**

Though Juan Barria and Basilio Mela wore long-sleeved uniforms and ball caps, they seemed indifferent to the blazing noonday tropical sun as they bounced over the glaring surface of Lake Gatun in a small skiff. The boat slowed as they searched the shoreline for a landing site, but a shout from Mela prompted Barria to gun the motor to outrun large, stinging insects zooming toward them.

Barria and Mela are 2 of 13 members of the Smithsonian Tropical Research Institute game warden force who are dedicated to guarding the Barro Colorado Nature Monument (BCNM) on the Panama Canal.

They are trained in security, know about natural history, have CPR qualifications and can swim. They work both day and night in rotating shifts, and a "week" of work is compressed usually into three consecutive days.

"The *guardabosques* are our unsung heroes," said STRI director Ira Rubinoff. "They protect Barro Colorado for future generations."

The game wardens patrol 5,564 hectares (13,743 acres) of monument, including the 1,564 hectares (3,863 acres) of Barro Colorado Island (BCI). As a result of the 1977 Panama Canal Treaty, STRI's responsibility was extended to include the adjacent peninsulas that, with the island, became the Barro Colorado Nature Monument. The designation of a "nature monument", an area that is strictly preserved for scientific activity, comes from the 1940 Convention for Nature Protection and Wildlife Preservation in the Western Hemisphere, ratified by most countries in the Americas.

Since 1980 the game wardens have conducted their protection activities with members of the Panamanian Forestry Police. The STRI game wardens and the members of the forestry police work as a team. "He's very important to us—we depend on him," game warden Enrique Marciaga said of policeman Eladio Meneses.

To get the job accomplished, STRI game wardens need physical stamina and



*The game warden Basilio Mela points to one of the wooden platforms used by poachers in the Barro Colorado Nature Monument *** El guardabosque Basilio Mela señala un observador de animales (mampuesto) colocado por un cazador en el Monumento Natural de Barro Colorado.*

(Foto: G. Sotomayor)

flexibility. "One must be ready to go into the forest at any time—at night, in the rain, with mosquitos. They must be ready for anything," said STRI game warden supervisor Alejandro Hernandez.

Poaching is the most serious problem that the game wardens encounter in the Nature Monument. Since BCI has been protected for 70 years hunters are able to readily find wildlife within the nature monument boundaries. Most of the poachers are market professionals who sell the meat for profit.

"It is difficult for the hunters to understand that what they are doing is prohibited. We need more alternatives and more education," said Mela.

The game wardens are working with a group of STRI scientists and technicians, who in collaboration with local agencies, are seeking to provide alternatives and education for people living near the BCNM.

However, for now, the basic protection of the Barro Colorado Nature Monument must remain a priority. The nature monument and nearby Soberania National Park protect species of animals and plants that are part of Panama's biological heritage. Many of these species have disappeared from other areas due to deforestation or overhunting. Barro Colorado, Soberania National Park and other natural areas protected by the government of Panama provide some hope for the future.

"Without this basic protection by the game wardens, Barro Colorado and adjacent forests would be quickly undermined," Rubinoff said. "It would all become a wasteland."

Los Guardians del Monumento Natural de Barro Colorado

A pesar de que Juan Barría y Basilio Mela Pimentel tenían puesto uniformes con mangas largas y gorras, parecían indiferentes al intenso sol tropical del mediodía, mientras recorrían en su pequeño bote la brillante superficie del Lago Gatún. El bote había disminuido la velocidad mientras encontraban un lugar adecuado para atracar, pero un repentino grito de Mela hizo a Barría acelerar el motor para escapar de unos grandes insectos que volaban tras ellos.

Barría y Mela forman parte del equipo de 13 guardabosques del Instituto Smithsonian de Investigaciones Tropicales que se dedica a la protección del Monumento Natural de Barro Colorado en el Canal de Panamá. Los guardabosques poseen entrenamiento en seguridad, conocimientos de historia natural, certificaciones de participación en programas de resucitación cardiopulmonar (CPR) y saben nadar. Trabajan día y noche, usualmente en turnos rotativos, por lo que una semana de trabajo se comprime usualmente en tres días consecutivos.

"Los guardabosques son nuestros héroes silenciosos," dijo el director del Instituto, Ira Rubinoff, "ellos garantizan la integridad del Monumento Natural de Barro Colorado para las futuras generaciones."

Los guardabosques patrullan las 5,564 hectáreas del Monumento, que incluye 1,564 hectáreas de la isla de Barro Colorado (BCI). Como resultado del Tratado del Canal de Panamá de 1977, la custodia del STRI se extendió a las penínsulas aledañas que junto con la isla de Barro Colorado forman el "Monumento Natural de Barro Colorado." La denominación de "monumento natural", que significa un área estrictamente protegida y dedicada a la investigación científica, proviene de la Convención Hemisférica para la Protección de la Flora, Fauna y Bellezas Escénicas de 1940 ratificada por la mayoría de los países americanos.

Desde 1980 los guardabosques desarrollan sus labores de protección en estrecha colaboración con los miembros de la Policía Forestal de Panamá. Es un trabajo de equipo; "él es muy importante para nosotros," destaca el guardabosques del Smithsonian, Enrique Marciaga, refiriéndose al policía forestal Eladio Meneses.

El trabajo de los guardabosques exige flexibilidad y resistencia física. "Hay que estar dispuesto a internarse en el bosque día y noche, bajo la lluvia, con mosquitos. Hay que estar listo para lo que sea..." destacó Alejandro Hernández, supervisor del cuerpo de guardabosques del Smithsonian.

El mayor problema que confrontan los guardabosques dentro del Monumento es la cacería furtiva. Por ser un área natural protegida durante los últimos 70 años los cazadores encuentran dentro del monumento una gran variedad de fauna silvestre. La mayoría de los cazadores furtivos son profesionales que venden la carne de su cacería en el mercado para obtener ganancia económica.

"Es difícil para los cazadores comprender que lo que ellos hacen está prohibido, ... se necesitan más alternativas y más educación," destacó el guardabosque Mela.

Actualmente los guardabosques colaboran con un grupo integrado por investigadores y técnicos del STRI que se propone trabajar en coordinación con otras instituciones nacionales en la búsqueda de alternativas y programas de educación en áreas naturales aledañas al Monumento Natural de Barro Colorado.

Sin embargo, por ahora, la protección integral del Monumento debe mantenerse como una tarea prioritaria. Reservas naturales como Barro Colorado y el cercano Parque Nacional Soberanía protegen especies de flora y fauna que son parte del patrimonio biológico de Panamá. Muchas de estas especies ya han desaparecido en otros sitios donde sus hábitats fueron destruidos y donde los animales han sido cazados hasta su extinción. Los bosques del Natural de Barro Colorado y el Parque Nacional Soberanía junto con las otras áreas protegidas por el Gobierno de Panamá brindan aún alguna esperanza para el futuro.

"Sin esta protección integral que es el trabajo diario de los guardabosques, Barro Colorado y los bosques aledaños se perderían rápidamente ... y estas tierras se convertirían en un desierto ..." puntualizó Rubinoff.

STRI NEW PUBLICATIONS

Robertson, D. R. 1992. "Patterns of lunar settlement and early recruitment in Caribbean reef fishes at Panamá." *Marine Biology* 114: 527-537.

Salazar Allen, Noris. 1992. "Notas para la revisión de las especies de Octoblepharum del neotrópico." *Tropical Bryology* 6:171-179.

Schober, U. M. and Ditrich, H. 1992. "Anatomy and use of the caudal spines in the aggressive behaviour of a surgeonfish (Osteichthyes: Acanthuridae)." *Mar. Behav. Physiol.* 21: 277-284.

Smith, Alan P., Hogan, Kevin P., and Idol, Jacqueline R. 1992. "Spatial and Temporal Patterns of Light and Canopy Structure in a Lowland Tropical Moist Forest." *Biotropica* 24(4): 503-511.

Al Cierre

El martes 9 de febrero, a las 3:30 pm, en el Auditorio del Centro Tupper, los Doutores Manuel Alba e Ismael Vallarino de la Caja de Seguro Social hablarán sobre el Córula. Se invita a todos que asistan y que se interesen sobre tan importante tema.