

# STRI newsletter

August 7, 1992

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panamá

No. 32

## TUPPER CENTER SEMINARS

Tuesday, August 11, noon seminar speaker will be Kyle Summers, SI postdoctoral fellow.

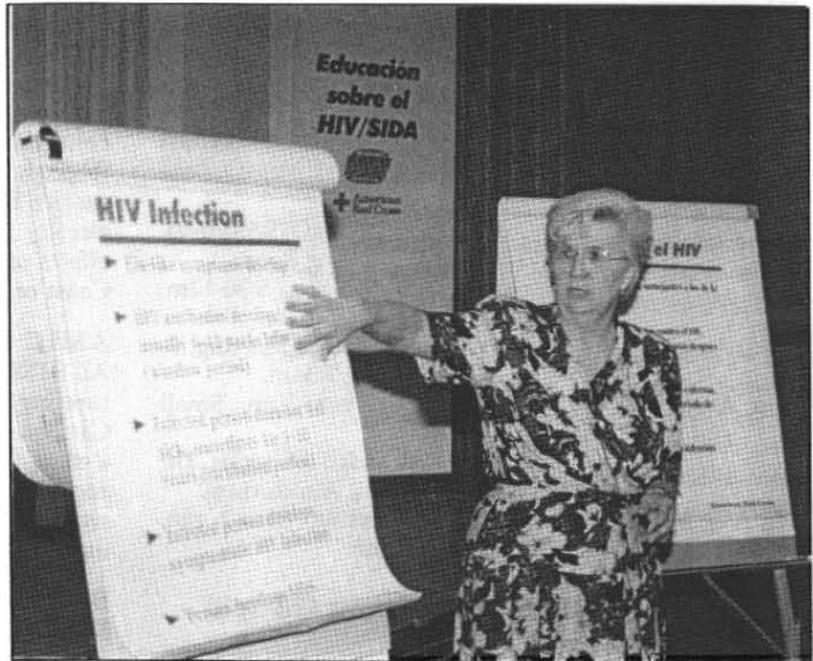
*Dart-poison frogs and the interaction of sexual selection with parental investment.*

### Abstract

The first part of this seminar reviews theoretical treatments of the relationship between sexual selection and parental investment, and reviews research on the mating strategies of males and females in several species of dart-poison frogs. Comparisons between male and female strategies within species with male parental care, and between species with male and female parental care suggest that the effect of relative parental investment is insufficient to explain the mating strategies of female dart-poison frogs in two species with male parental care (*Dendrobates auratus* and *Dendrobates jeucoelas*). The effect of variability in male parental investment is argued to have an important influence on female strategies.

The second part of the seminar reviews more recent research, which examines the evolution of female parental care from male parental care in dart-poison frogs. In particular, I will discuss attempts to test the hypothesis that sexual selection, in the form of a high cost of polygyny to females, caused an evolutionary shift from male to female parental care in the common ancestor of the clade containing the dart-poison frogs with female parental care (the *pumilio-histrionicus* group). This research involves comparative behavioral and ecological studies and the use of mitochondrial DNA sequences to infer the phylogenetic relationships in these frogs.

Finally, I will discuss other issues in dart-poison frog evolution that may be illuminated through the use of mitochondrial DNA sequences.



On Wed, Aug 5, Verdine Frederick, Manager of the Employee Assistance Program, Health Services Division at SI, Washington D.C., gave an AIDS Education Course to STRI employees and their families at the Tupper Center Auditorium. The same course was given to BCI employees the day before ••• El miércoles 5 de agosto, Verdine Frederick, Administradora del Programa de Asistencia a los Empleados de la División de Servicios de Salud del Smithsonian en Washington, ofreció un curso de educación sobre el SIDA a los empleados de STRI y sus familiares en el Auditorio del Centro Tupper. El mismo curso fue ofrecido a los empleados de Barro Colorado el día anterior.

(Foto: M.A. Guerra)

## Next Week

No noon seminar scheduled for August 18 due to AMLC meetings.

## PEOPLE

### Arrivals

- Douglas Coldwell, Aug 10-23, to work with Katharine Milton on the population dynamics of howler monkeys and spider monkeys on BCI.
- C. Buerkle, S. Fettig, B. Howlett, A. Nicotra, H. Parker, N. Greig and M. Webster, OTS students, Aug 10-14, to visit BCI and meet with scientific staff and visitors.
- S. Richardson, N. Yoon, A. Smith, OTS students, Aug 11-14, to visit BCI and meet with scientific staff and visitors.
- Ana Cristina Villegas and Astrid Ferrer, University of Missouri, Aug 12-24, to work on demography and physiology of a clonal plant, *Aechmea magdalenae*, in a seasonal tropical forest at BCI.

**Departures**

- Argelis Guevarra, Naos Marine Lab and Cynthia Martin, Culebra Exhibit project, Aug 8-21, to Monterey Aquarium, to attend marine education workshop.

**THINGS YOU SHOULD KNOW****At Tupper Center**

- Tue, Aug 11
- Introduction to STRI for OTS Students, 9-10:30 am, Small Meeting Room.
  - Scientific Staff Meeting, 9:30-12m, Large Meeting Room.
- Wed, Aug 12
- Amigos de la Biblioteca Meeting, 9-11 am, Small Meeting Room.
- Thu, Aug 13
- IUCN Meeting, 9am-3pm, Small Meeting Room.
  - Rerun of first video of series *The Buried Mirror*, 4-5pm, Auditorium.
- Fri, Aug 14
- Dobbo Yala Meeting, 9am-2 pm, Small Meeting Room.

**STRI Receives Contract to Continue Oil-Spill Research in Panama**

Critical research documenting the effects of oil pollution on tropical habitats will continue at the Smithsonian Tropical Research Institute with the award of a one-year contract for more than \$400,000 from the Marine Spill Response Corp., (MSRC) headquartered in Washington, D.C. The MSRC is an independent, oil spill response organization funded by a consortium of companies, including oil companies and shippers and receivers of oil. After the 1989 oil spill in Prince William Sound, Alaska, a task force of the American Petroleum Institute concluded that the capability to respond to major oil-tanker spills in the United States did not exist, in industry or government. The MSRC was formed to meet this need and to provide effective response to major oil spills. The earlier studies at STRI were funded by the U.S. Department of the Interior's Minerals Management Service.

The picture emerging so far from the study at STRI is one of long-lasting ecological damage to coral reefs and mangroves, with persistent contamination by oil released from mangrove sediments. Although mangroves have repopulated naturally, reef-building corals have not recovered after more than five years.

The high degree of variation in recovery within and among habitats and the potentially long time required for certain animal populations to recover underscore the need for continued studies. With the new contract, project staff will continue work, such as plans to:

- map changes in the distribution and extent of mangroves;
- conduct continuing studies of the two major coastal habitats of the region, mangrove forests and coral reefs;

- specific studies of populations and communities of plants and animals that may be of considerable economic value or ecological importance.

Many of the coastal environments—seagrass beds, mangroves, algal flats and coral reefs—and most of the common species affected by the spill are similar to those throughout the Caribbean, Gulf of Mexico and southeastern U.S. Observations from the work in Panama are already being used to assess the potential biological effects of planned oil and gas production near the Gulf Coast of Florida.

**AMLC Meeting**

All STRI personnel and visitors planning to attend the meeting of the Association of Marine Laboratories of the Caribbean (AMLC), which will be held at the Tupper Center, August 17-19, must be registered and pay registration fees in advance (\$25 without lunch; \$45.00 with lunch). Registration forms are available by contacting Ursula Schober at Naos (Tel: 28-4060 • Fax 28-0516).

**Behavior Discussion Group Meeting**

The Behavior Discussion Group (BDG) will meet again on Tuesday, Aug 11, 1992 at 5pm in the Tupper Meeting Room. Allen Herre is going to give an informal seminar on *Why would anyone put "sex ratio", "mutualistic interactions", "fighting among males" and "benign parasites" in one sentence?* For information on prior reading please refer to the BDG memo posted on your facility bulletin board or call Ursula Schober at Naos.

**Award**

STRI received a \$25,000 grant the Special Exhibit Fund for the development of the marine exhibition at Culebra Point.

**Felicidades**

A Zeida Batista quién recibió una beca de APEDE que cubre todos los gastos de su último año de la maestría de la Universidad Santa María la Antigua en Sistemas de Comunicación (Informática).

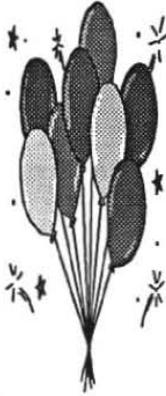
**ANNOUNCEMENTS****Available**

Rolls of 16 mm color film #7241. Daylight ASA 160 (23 din). Tungsten ASA 40. Frozen for at least 8 years. 1 roll developed April 1992 was perfect. Also one Bolex 16 mm camera with various Switar lens.

All of the above state of art in 1980 and still superior to video. If you have the scientific need for these supplies please contact Neal Smith at Tupper. More to be published next week.

**STRI August Birthdays**

Juan Carlos Roqueiro	1
Elena Lombardo	4
Donald Windsor	4
Alejandro Hernandez	6
Carlos Bonilla	7
Ricardo Gómez	7
Erick Lam	9
Victor Perez	13
Luis Polanco	13
Ross Robertson	13
Marcel Epailly	18
Mary Jane Eberhard	20
Amalia Herrera	25
Guillermo Caballero	27
Francisco Rivera	30

**Tienda Ecológica Educativa Artesanal**

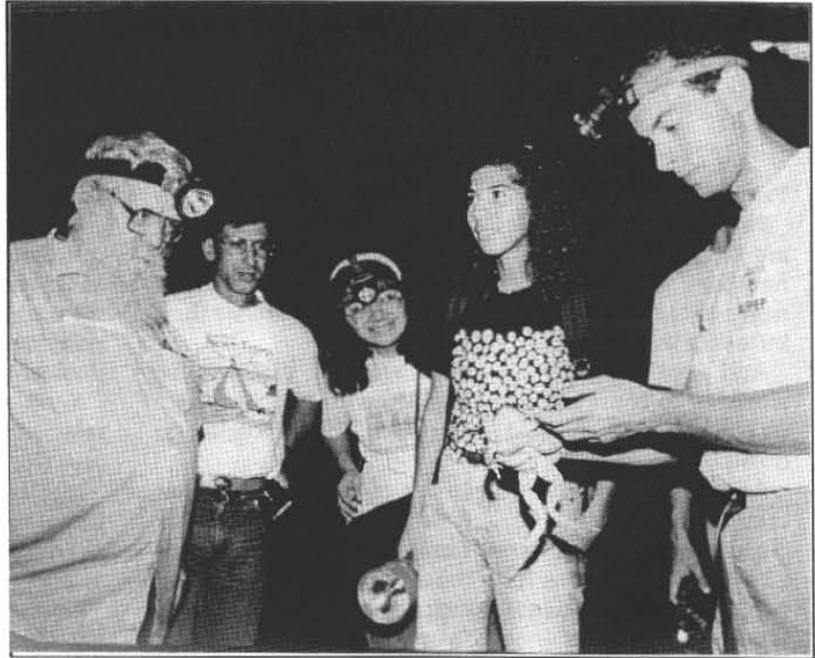
El Parque Natural Metropolitano le invita a la inauguración de la Tienda Ecológica Educativa Artesanal, donde encontrará libros, animales de cerámica, animales de tela, figuras de tagua, macramé de sogá, casitas de piedra pome, sobres de papel reciclado, refrigerios, etc.

Viernes 14 de agosto, 5:30 pm. Centro de Visitantes del Parque. El horario de la tienda será de 9am-1pm de martes a viernes y de 1-4pm sábados y domingos.

**National Research Council****—Fellowships for Minorities—**

Fellowships have been awarded to 100 minority scholars in two Ford Foundation programs. Fifty-five predoctoral students and 20 doctoral dissertation candidates have won awards in the seventh year of the Ford Foundation Predoctoral and Dissertation Fellowships Program. Fellowships also were awarded to 25 doctoral degree recipients in the thirteenth year of the Ford Foundation Postdoctoral Fellowship for Minorities Program. Both programs are administered by the National Research Council.

Predocctoral Fellowships provide funds for stipends and tuition for three years of tenure. Dissertation fellows receive a stipend for a nine or 12 month tenure. The Predoctoral and Dissertation Fellowships Program seeks to increase the presence of



*Herpetologists at STRI show Exxon fellows and volunteers the different species that compose the tropical frog chorus at the Summit Gardens lily pond. From left to right are Stanley Rand, Carlos Sotomayor, Marcela Moscol, Ifigenia Quintanilla and Mark Dansker ••• Herpetólogos de STRI muestran a becarios y voluntarios las diferentes especies que componen al coro tropical de ranas en la charca de lirios de los Jardines del Summit. De izquierda a derecha están Stanley Rand, Carlos Sotomayor, Marcela Moscol, Ifigenia Quintanilla y Mark Dansker.*

(Foto: M.A. Guerra)

under-represented minorities on U.S. college and university faculties. The Ford Foundation Postdoctoral Fellowships Program identifies individuals of high ability and enables them to engage in postdoctoral research and scholarship in an environment free from the interference of their normal professional duties. In sponsoring these fellowships programs, the Ford Foundation endeavors to support scholars in achieving their full potential and in attaining greater recognition in their respective fields. Further information and application materials will be available after September 1, 1992, from the Fellowship Office, National Research Council, 2101 Constitution Avenue, N.W., Washington, D.C., 20418.

**STRI NEW PUBLICATIONS**

McClearn, Deedra. 1992. "The Rise and Fall of a Mutualism? Coatis, Tapirs, and Ticks on Barro Colorado Island, Panama." *Biotropica* 24(2A): 220-222.

Herrera, Amalia and Jackson, Jeremy B.C. 1992. "Environmental Versus Taxonomic Variation in Lophophore Morphology of Panamanian Cheilostome Bryozoans." *Marine Biology* 112(1): 99-107.

## From the Personnel Office

*Some people are like good watches. They're pure gold, open-faced, always on time, dependable, quietly busy, and full of good works.*

## People

People who can get along with others are people who are most likely to succeed. Regardless of what we do, how long we live, or how we manage our lives, we can never avoid other people or their opinion of us or their influence in our lives.

And regardless of how much we may desire to be alone, or to come into contact only with people congenial to ourselves, it is safe to say that it is impossible to do so.

As long as we live, people are our judges, whether they be employers or employees, business associates or customers, members of our family, or the corner grocer.

No one can teach us fully the art of getting along with people. The fundamental principles can only be learned. It takes tolerance for another's opinions and manner and it takes courtesy, cheerfulness, intelligence —character.

The sooner we learn the significance of the truism that the world is made up of any number of people, the sooner we will be on our way to real happiness, to a realization that success involves an awareness that there are people around us who have the same feelings, the same emotions, the same ambitions as ourselves, and that, whatever we may think of them, we cannot succeed without taking them into account.

*Thomas J. Watson, founder of IBM*

The following is a contribution from Lizzie Leigh:

...ations

If we meet and I say, "Hi," that's a salutation.  
 If you ask me how I feel, that's consideration.  
 If we stop and talk awhile, that's a conversation.  
 If we understand each other, that's communication.  
 If we argue, scream and fight, that's an altercation.  
 If later we apologize, that's reconciliation.  
 If we help each other home, that's cooperation.  
 And all these ations added up, make civilization.  
 (And if I say this is a wonderful poem, is that exaggeration?)

Hasta la próxima!

*Carmen Acuna*

## De la Oficina de Personal

*Algunas personas son como los buenos relojes. Son de oro puro, abiertos, siempre puntuales, confiables, calladamente ocupados, y llenos de maravillosas obras.*

## Gente

Las personas que se llevan bien con los demás son las que tienen más probabilidades de tener éxito en la vida. Independientemente de lo que hagamos, cuantos años vivamos, o cómo maneemos nuestras vidas, nunca podremos evitar a la gente o las opiniones que tengan de nosotros o sus influencias en nuestras vidas.

Y no importa cuánto deseemos estar solos, o sólo relacionarnos con las personas afines a nosotros, podemos decir con seguridad que es imposible hacer esto.

Mientras tengamos vida, las gentes serán nuestros jueces, ya sean jefes o subalternos, colegas o clientes, miembros de nuestra familia, o el abarrotero de la esquina.

Nadie puede enseñarnos realmente el arte de llevarse bien con los demás. Sólo podemos aprender los principios fundamentales. Se necesita tolerancia ante las opiniones y maneras de los demás, y eso requiere cortesía, jovialidad, inteligencia —en otras palabras, carácter.

Mientras más pronto aprendamos el significado de la verdad que dice que el mundo está compuesto de cualquier cantidad de personas, así mismo estaremos en camino hacia la verdadera felicidad, a tomar conciencia de que el éxito encierra el conocimiento de que hay personas que nos rodean que tienen los mismos sentimientos, las mismas emociones, las mismas ambiciones que nosotros, y que independientemente de lo que pensemos de ellas, no podemos triunfar si no las tomamos en cuenta.

*Thomas J. Watson, fundador de IBM*

La siguiente es una contribución de Lizzie Leigh:

....ciones

Si nos encontramos y te digo "Hola", eso es una salutación.  
 Si me preguntas cómo me siento, eso es consideración.  
 Si nos detenemos a hablar un poco, eso es una conversación.  
 Si nos entendemos mutuamente, eso es comunicación.  
 Si discutimos, gritamos y peleamos, eso es una alteración.  
 Si más tarde nos pedimos disculpas, eso es reconciliación.  
 Si nos ayudamos mutuamente, eso es cooperación.  
 Y todas estas ...ciones sumadas hacen la civilización.  
 (Y si digo que este es un magnífico poema, será una exageración?)