

STRI newsletter

July 23, 1993

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panamá

No. 30

TUPPER CENTER SEMINARS

Tue, Jul 27, noon seminar speaker will be Howard Lasker, University of Buffalo at New York.

Fertilization Success Among Broadcast Spawning Marine Invertebrates

Abstract

Analyses of marine invertebrate population dynamics and life history strategies generally assume that all eggs are fertilized and that the low recruitment rates of many species can be attributed to predation and advection of larvae offshore. Species that release eggs and sperm into the water column may lose many potential recruits when eggs are not fertilized. Measurements of the fertilization success of gorgonians in the San Blas have shown that fertilization rates are frequently low and are extremely variable. Fertilization success varies between species, sites on reefs and times within spawning events. Reproduction is often sperm limited among these populations. In some cases low fertilization rates may affect population dynamics and in all cases low and variable fertilization success creates a selection pressure which must be considered in life history analyses.



Expansion and renovation of the STRI Library initiated recently, will include the construction of 4 additional floors all for book stacks, and the renovation of the existing building for additional reading area and more office space *** La expansión y renovación de la biblioteca del STRI que empezó recientemente, incluirá la construcción de cuatro pisos adicionales para libros y la remodelación del edificio existente para área de lectura adicional y mayor espacio adicional para oficinas.
(Foto: A. Montaner)

U. de PANAMA • STRI

Serie de Seminarios

Para reiniciar la serie de seminarios de la Universidad de Panamá y STRI, William Eberhard hablará sobre:

La Hembra Manda: Selección Sexual por Escogencia Crítica de la Hembra

el jueves 29 de julio a las 5:30pm en el Salón A12 de la Facultad de Derecho de Universidad de Panamá. Habrá transporte disponible desde el Centro Tupper. Para reservar su cupo, favor de comunicarse con la Oficina de Educación.

PEOPLE

Arrivals

- James Thomson, State University of NY at Stony Brook, Jul 26-30, to study strangler figs, genetic mosaics and tropical conservation, on BCI.

- Joel Sherzer, University of Texas at Austin, Jul 27-16 Aug, to visit STRI and consult with colleagues, at Tupper.
- Sascha Steiner, Univ. of Vienna, Austria, Jul 27-17 Sep, to carry out a comparative sperm ultrastructure of 3 morphotypes of *Montastrea annularis*, in San Blas and Naos.
- Katherine Milton and Lamont Allen, University of California at Berkeley, Jul 27-18 Aug, to study the effects of parasites on a free-ranging howler monkey population in Panama, on BCI.
- Jay Schneider, Jul 27-2 Aug, for a brief orientation visit before starting his postdoctoral fellowship in October.
- Carlos Perez Santos, Museo de Ciencias Naturales, Spain, Jul 29-28 Aug, to study earthworms of BCI, Panamá, at Tupper Center.

Departures

- Gabriel Martinez, Procurement Office, Jul 26-14 Aug, to Orlando, on vacation, and then to Washington D.C. for a training course at the Smithsonian Institution.

THINGS YOU SHOULD KNOW

At Tupper Center

- Tue, Jul 27 Noon seminar by Howard Lasker, Auditorium.
- Fri, Jul 30 Volunteers Award Presentation, Large Meeting Room, 9am.

Nuestros Bosques: Nuestra Herencia

The Exhibit *Nuestros Bosques: Nuestra Herencia* will remain open to the public at the Tupper Center Exhibit Hall until August 10.

At the Culebra Marine Biological Reserve

Tue, Jul 27 Panama Canal College, Marine Biology Class, 9am.

Wed, Jul 28 *Agencias de Viajes Victoria*, 9am

Thu, Jul 29 *Escuela de Tecnología Médica, Universidad de Panamá*, 1:30pm

ANNOUNCEMENTS**From the Office of Design and Construction**

by Fernando Pascal

Several of bid openings were recently held at the Office of Design and Construction. Cost proposals were received for the renovation of Building 352 in Naos (2nd floor) and a new storage building for ultra-low-freezers also at Naos. It is expected that work at the sites will begin during the month of August. Also recently, a construction contract was awarded to Diaz y Guardia for the expansion and renovation of the STRI Library. The contract, which totals over \$900,000, includes the construction of 4 additional floors (all for book stacks) and the renovation of the existing building to be used as reading area and additional office space.

On BCI, the construction contract for a new Laboratory building progresses in a satisfactory manner. The contract also includes the construction of an eight-unit workers' dormitory building, a new pier, extension of the concrete pathway, and extension of all utility mains for future construction.

Numerous other minor projects were also recently completed. Some of these included the exterior cleaning and painting of Building 183 in Gamboa, exterior cleaning and painting of all buildings at Naos, improvements to the Tivoli and Tupper parking lots, installation of rain gutters and down spouts for the Pastor's House, exterior cleaning of the Ancon Building 235, etc.

Scheduled to begin later this year is the renovation of Ancon Building (235) in front of the Supreme Court, the installation of a new central air conditioning system on the ground floor of Building 352 in Naos, the construction of a new pier in Gamboa, the purchase and installation of a new backup electrical generator for the Tivoli/Tupper site, miscellaneous improvements to the BCI electrical systems, installation of sprinkler systems and smoke detectors at all buildings at Naos, improvements to the BCI communication systems, and the installation

of a new filtration system for the Naos Sea water system. Also planned for early next year, is the exterior cleaning and painting of the Tupper Center. Believe it or not, over three years have passed since the Tupper Center was inaugurated.

New Books at STRI Mini-Bookstore

Chemistry Imagined: Reflections on Science, by Roald Hoffmann and Vivian Torrence, \$22.20

Environmental Restoration: Science and Strategies for Restoring the Earth, by John J. Berger, \$22.00

Global Biodiversity Strategy, Published by the World Resources Institute, The World Conservation Union and the United Nations Environmental Programme, \$27.95

The Living Ocean: Understanding and Protecting Marine Biodiversity, by B. Thorne-Miller and J. Catena, \$12.95

Marine Plants of the Caribbean, by D. Scullion Littler, M.M. Littler, K.E. Bucher and J.N. Norris, \$22.20

Research Priorities for Conservation Biology, edited by Michael E. Soulé and Kathryn A. Kohn, \$9.95

Saving the Tropical Forest, by Judith Gradwohl and Russell Greenberg, \$24.95

Seed of Change, by Herman J. Viola and Carolyn Margolis, SI Press, \$27.75

Semillas de Cambio, by Herman J. Viola and Carolyn Margolis, SI Press, \$30.00

STRI NEW PUBLICATIONS

Robertson, D. Ross, Schober, Ursula M. and Brawn, Jeffrey D. 1993. "Comparative Variation in Spawning Output and Juvenile Recruitment of Some Caribbean Reef Fishes." *Marine Ecology Progress Series* 94: 105-113.

Ryan, Michael J. and Rand, A. Stanley. 1993. "Phylogenetic Patterns of Behavioural Mate Recognition Systems in the *Physalaemus pustulosus* Species Group (Anura: Leptodactylidae): the Role of Ancestral and Derived Characters and Sensory Exploitation." In: *Evolutionary Patterns and Processes*: 251-267. The Linnean Society of London.

Weerd, W.H. de and Glynn, Peter W. 1992. "A New Presumably Now Extinct Species of *Mellipora* (Hydrozoa) in the Eastern Pacific" *Zoologische Mededelingen* 65: 267-276.

Se Vende

Toyota starlet 1982, cuatro puertas, excelentes condiciones, 1.000cc. Favor comunicarse con Laura Schneider al 25-0064. \$2,700.

POSITION AVAILABLE

Field Assistant at San Blas

Asistente de Campo en San Blas

Applications will be accepted effective immediately to work at STRI Kuna Yala Field Station, San Blas.

Duties: Assist in collection of plankton samples and of water samples for monitoring water quality, assist in collection of data on population dynamics of corals, reef fishes, sea urchins, sponges and algae. Responsibility to explain STRI activities to the local community.

Requirements: Bachelor's degree (or equivalent) in Marine Biology, Aquaculture, or Fisheries; experience with biology of coral reef organisms. Permanent residence in local community in San Blas. Languages: Kuna, Spanish. Scuba certification and small boat handling experience desirable. This is a contract position, until Sep 30th with option to be renewed for six additional months.

Salary: \$10,800 per year plus medical benefits.

Please bring curriculum vitae with recent references to the Office of Human Resources, Tivoli *** Estaremos recibiendo aplicaciones para trabajar en la Estación de STRI en Kuna Yala, San Blas. **Funciones:** Ayudar en la colecta de muestras de plankton y de agua; ayudar a coleccionar datos sobre la dinamica de la poblacion de corales, peces de los arrecifes, erizos de mar, esponjas y algas. La persona tendra la responsabilidad de explicar las actividades de STRI a la comunidad local. **Requisitos:** Licenciatura (o equivalente) en Biología Marina, Acuicultura o Pesquerías; experiencia en la biología de los animales de los arrecifes. Residencia permanente en la comunidad de San Blas. Idiomas: Kuna y español. Certificación SCUBA y experiencia en manejo de botes pequeños preferible. Esta es una posición por contrato, hasta el 30 de septiembre, con opción de renovación por seis meses más. **Salario:** \$10,800 al año, más seguro médico. Interesados traer curriculum vitae con referencias recientes a la Oficina de Recursos Humanos en Tivoli.



From July 10-23, STRI joined INRENARE's exhibition at the Lottery Building auditorium that celebrated "Natural Resources Month" by producing a photo mural on our activities throughout the Isthmus *** Del 10-23 de julio, STRI colaboró con la exhibición de INRENARE en el Auditorio de la Lotería Nacional de Beneficencia que celebraba el Mes de los Recursos Naturales, con un mural fotográfico de nuestras actividades a través del Istmo. (Foto: A. Montaner)



Be a designer
(or just look like one)

Be part of the Smithsonian's
150th Anniversary Celebration:

design a special
150th anniversary logo!

In 1996, the Smithsonian will celebrate its 150th anniversary. Visually and graphically inclined Smithsonian staffers and volunteers are invited to help the Institution design a special logo for this event.

Send us your design for a logo that captures the spirit of the Smithsonian during its century and a half of service to the nation and the world. Work with other members of your bureau or office. Send your design ideas on an 8 1/2 x 11 sheet of paper with your name and daytime phone number on the back. Indicate how the image would look when reproduced in both large and small sizes. This logo could be banner or postage stamp-size. Submit your design in black and white only. Send your best design or designs by July 31 to Logo design, Office of Public Affairs, Arts and Industries, Room 2410, Smithsonian Institution. From the entries a panel of judges will select 3 people who will work together on the final logo design.

STRI NEW BOOKLIST

Analysis of wildlife radio-tracking data / Gary C. White, Robert A. Garrott. QL60.4.W45 1990X STRI.

Animal minds / Donald R. Griffin. QL785.G715 1992X STRI.

Apomixis in plants / authors, Sven E. Asker, Lenn Jerling. QK826.A85 1992X STRI.

Bats: a community perspective / James S. Findley. QL737.C5F56 1993X STRI.

Beyond natural selection / Robert Wesson. QH366.2.W47 1991X STRI.

The Biology of millipedes / Stephen P. Hopkin and Helen J. Read. QL449.6.H67 1992X STRI.

Biology of the pitvipers / editors, Jonathan A. Campbell, Edmund D. Brodie, Jr. QL666.O69B615 1992 STRI.

Biotic interactions and global change / ed. by P.M. Kareiva, J.G. Kingsolver, R. B. Huey. QH546.B55 1993X STRI.

The Birds of Pakistan, v.2: Passeriformes: Pittas to Buntings / T.J. Roberts. QL691.P18R63 1991X v.2 STRI.

The Birds of Tikal: an annotated checklist for Tikal National Park and Peten, Guatemala / Randell A. Beavers. QL687.G9B43 1992X STRI.

Chance and chaos, David Ruelle. QA273.R885 1991X STRI.

Chilies to chocolate: food the Americas gave the world / ed. by N. Foster & L.S. Cordell. SB176.A48C45 1992X STRI.

Conserving biological diversity in managed tropical forests / edited by Jill M. Blockhus... [et al.]. QH77.T73C75 1992 STRI.

Cormorants, darters, and pelicans of the world / Paul A. Johnsgard. QL696.P4745J64 1993X STRI.

Dynamics of Southwest prehistory / edited by L.S. Cordell and George J. Gumerman. E78.S7D96 1989X STRI.

El Niño: historical and paleoclimatic aspects of the southern oscillation / edited by Henry F. Diaz and Vera Markgraf. GC296.8.E45N56 1992X STRI.

Ethnobiological classification: principles of categorization of plants and animals in traditional societies / Brent Berlin. GN468.4.B47 1992X STRI.

Evolutionary conservation of developmental mechanisms: 50th Symposium of the Society for Developmental Biology, Marquette University, June 20-23, 1991 / editor, Allan C. Spradling. QH458.S63 1993X STRI.

The Global role of tropical rainfall / edited by John S. Theon... [et al.; proceedings of the International Symposium on Aqua and Planet]. SB351.H5D85 1992X STRI.

Honeybees in mountain agriculture / editor, L.R. Verma. SF531.H38H77 1992 STRI.

In situ hybridization: a practical approach / edited by D.G. Wilkinson. QH452.8.I52 1992X STRI.

The Inevitable bond: examining scientist-animal interactions / edited by Hank Davis, Dianne Balfour. QL55.I44 1992X STRI.

International organizations: a dictionary and directory / Giuseppe Schiavone. Ref JX1995.S325 1993X STRI.

John Shaw's closeups in nature. TR683.S53 1987X STRI.

Kava: the Pacific drug / Vincen Lebot, Mark Merlin, and Lamont Lindstrom. GN663.L43 1992X STRI.

Manipulation of the avian genome / edited by Robert J. Etches, Ann M. Verrinder Gibbins. SF492.M36 1993X STRI.

Marine coastal eutrophication: the response of marine transitional systems to human impact problems and perspectives for restoration proceedings of an international conference, Bologna, Italy, 21-24 March 1990 / edited by R.A. Vollewnweider, R. Marchetti, R. Viviani. QH91.8.E9M33 1992 STRI.

Molds, molecules, and metazoa: growing points in evolutionary biology / edited by Peter R. Grant and Henry S. Horn. QH359.M64 1992X STRI.

Molecular plant pathology: a practical approach / edited by Sarah Jane Gurr, Michael J. McPherson, and Diana J. Bowles. SB732.65.M65 1992X v.2 STRI.

Perturbing the organism: the biology of stressful experience / Herbert Weiner. QP82.2.S8W45 1992X STRI.

Phytochemical resources for medicine and agriculture / edited by Herber N. Nigg and David Seigler. RM666.H33P485 1992X STRI.

Plant analysis as a guide to the nutrient requirements of temperate and tropical crops / editors, P. Martin-Prevel, J. Gagnar, P. Gautier. QK867.A54 1987X STRI.

Population genetics of forest trees: proceedings of the International Symposium on Population Genetics of Forest Trees, Corvallis, Oregon, U.S.A., July 31-August 2, 1990 / edited by W.T. Adams... [et al.]. SD399.5.I56 1990X STRI.

Spiders in ecological webs / David H. Wise. QL458.4.W57 1993X STRI.