

SEMINAR

The luncheon seminar on Tuesday, December 17 at 12 noon in the Ancon Conference Room will be given LAUREL DUQUETTE, Washington State University, who will speak on:

Activity Patterns of Migrating  
Caribou

On Thursday, December 19 at 12 noon in the Ancon Conference Room MEREDITH JONES from the National Museum of Natural History will give a seminar. Dr. Jones will speak on:

The Vestimentifera -- Giant  
Tube Worms of the Hydrothermal  
Vents

ARRIVALS & DEPARTURES

Dec. 14 - Arriving, JULIAN MONGE, University of Costa Rica on a 3-month fellowship to study defense of perching microhabitat by Hamadryas butterflies. He will be in Gamboa.

Dec. 16 - Arriving, MARY HAGEDORN, Cornell University, and RANDY ZELICK, Scripps Institution of Oceanography, to study electric fish in the Parque Nacional Soberania. They will be here for one month.

Dec. 16 - Arriving, WILLIAM GLANZ, Univ. of Miami, and his assistant B. BOCHAN, to work on the ESP project: "Population ecology of Sciurus granatensis in relation to Dipteryx fruit availability.

Dec. 17 - Arriving, MEREDITH JONES, National Museum of Natural History, for a 3-day visit.

Dec. 19 - Arriving, DENNIS RASMUSSEN, Animal Behavior Research Institute, to conduct a field course in primate social behavior. He will be here until January 17.

Dec. 20 - Leaving, HARIS LESSIOS, to attend the meetings of the American Society of Zoologists in Baltimore, Maryland. He will also take a few days leave and will return December 31.

REGENTS FELLOW

Distinguished molecular geneticist DANIEL NORSE was recently appointed as a Regents Fellow at STRI. Formerly at Harvard University, Dr. Morse is currently professor of genetics at the University of California at Santa Barbara. He will be in residence at STRI during 1986.

UNA INVITACION/AN INVITATION

Invitamos cordialmente a todos los empleados, investigadores asociados, estudiantes y visitantes a asistir a la Fiesta de Navidad, el viernes, 20 de diciembre en el patio del Tivoli, de 4 de la tarde a 8 de la noche.

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Employees, research associates, visitors and students are cordially invited to the STRI Xmas Party on Friday, December 20 to be held at the Tivoli Patio from 4 - 8 p.m.

LIBRARY NEWS

Starting next week the Library will be experimenting with new evening hours. The library will open until 6 p.m. Tuesdays, Wednesdays and Thursdays. We hope this will provide STRI personnel 'after hours time' to utilize the library.

Reminders

Eating, drinking and smoking is not permitted in the Library.

We ask that you do not bring any kind of food into the library.

The trash barrel outside the library entrance is to dispose refuse. Please do not use library restroom baskets for that purpose.

The library has a constant battle with local fauna and does not want to attract its undue share.

ON LEAVE

NICOLAS ALMANZA: Dec. 16 - Jan. 10.

BARBARA CUSATTI: Dec. 16 - Jan. 3rd.

JAMES KARR: Dec. 23 - 26.

ELENA LOMBARDO: Dec. 23 - Jan. 7.

FERNANDO PASCAL: Dec. 23 - Jan. 3.

HARIS LESSIOS: Dec. 23 - 26.

WEDDING BELLS

FELICITACIONES a YARA CERRUD Y JOSE ALVES por su matrimonio, que se celebrará el sábado, 14 de diciembre.

MORE ON THE BACK

## LIBRARY NEWS

### New books:

- THE BAMBOOS, A FRESH PERSPECTIVE ( F.A. McClure, 1966) SB317 B2 M16 STRI
- BATS ( Glover Morrill Allen, 1939) QL737 C5 A42 STRI
- BIBLIOGRAFIA AGROPECUARIA DE PANAMA ( Ana Luisa Martinez, 1983) Z5065 P2 M38 STRI
- BIOLOGY OF AUSTRALASIAN FROGS AND REPTILES ( Gordon Grigg, Richard Shine and Harry Ehmann, eds., 1985 ) qQL 663 A1 B61 STRI
- THE BIRDS ( Oskar Heinroth, 1958 ) QL 673 H413x STRI
- BREVE CARACTERIZACION DE LA ACTIVIDAD FORESTAL EN CUBA ( Centro de Investigacion Forestal (Cuba), 1985 ) SD 152 C9 B84 STRI
- CONTRIBUCION A LA EVALUACION POBLACIONAL DE CICHLA OCELLARIS BLOCH Y SCHNEIDER, 1801, EN EL LAGO DE LAS CUMBRES, REPUBLICA DE PANAMA. ( Eugenio Alberto Chen Fong, 1985) QL 638 C55 C518 STRI
- CULTURAS INDIGENAS Y AREAS PROTEGIDAS EN CENTRO AMERICA ( Guillermo Archibold, 1985) SD 571 C96 STRI
- THE DANCING BEES: AN ACCOUNT OF THE LIFE AND SENSES OF THE HONEY BEE. ( Karl von Frisch, 1955 ) QL568 A6 F917 STRI
- DIRECTORY OF COLEOPTERA COLLECTIONS OF NORTH AMERICA (Ross H. Arnett, Jr., and G. Allen Samuelson, EDS., 1969 ) QL 577 A 75 STRI/REF
- EDUCACION AMBIENTAL SOBRE EL BOSQUE LLUVIOSO ( Klaus Berkmuller, 1984 )QH 541.5 R27 B513 STRI
- EVOLUTION IN THE GENUS DROSOPHILA ( John Thomas Patterson, 1952 ) QL 537 M6 P3 STRI
- GEOGRAFIA DE PANAMA: ESTUDIO INTRODUCTORIO Y ANTOLOGIA ( Omar Jaen Suarez, 1985) F 1563 J22 STRI REF
- A GUIDE TO SPECIES SELECTION FOR TROPICAL AND SUB-TROPICAL PLANTATIONS ( Derek B. Webb, 1984 ) q SD 434 W365 STRI
- THE IMPERATIVE CALL: A NATURALIST'S QUEST IN TEMPERATE AND TROPICAL AMERICA ( Alexander F. Skutch, 1979 ) QL31 S53 A33 STRI
- THE INSECT GUIDE: ORDERS AND MAJOR FAMILIES OF NORTH AMERICAN INSECTS ( Ralph Brownlee Swain, 1948 ) QL 467 S98 STRI
- THE INSECTS ( Urless Norton Lanham, 1964 ) QL 467 L33 1964 STRI

## SPACE SHUTTLE EARTH OBSERVATIONS PROYECT: CALL FOR PARTICIPATION

I am looking for international scientists as developmental focal points for the scientific usefulness of high-resolution (perhaps 20-meters nominal at nadir) color visible and color infrared photography taken by Space Shuttle astronauts.

As an individual scientist, I am primarily interested in global deforestation trends; atmospheric attenuation, acid rain, and climatic trends; desertification; stream and reservoir sedimentation; irrigated agriculture; water development projects; large-scale land use conversion; and water pollution. These simple interests do not exhaust the applications of the Space Shuttle photography or the associated satellite digital imagery by any means.

My responsibilities in the Space Shuttle Earth Observations Project and perhaps the Space Station Earth Observations Program are to select ground sites for the astronauts to document; passes; to recommend photography equipment/procedures; to provide mission pre-flight global climatologies; to brief/debrief astronauts before/after their flights; to update the crew during their mission of rapidly evolving terrestrial events (volcanoes, tsunamis, floods, etc.); and to review films after the mission for scientific utility. With an increasing mission frequency, filmloads of 1800 or so frames, and 5 - 10 satellite digital images per mission, the data stream has begun to inundate me. Therefore, I am looking for environmental scientists who may wish to use this data in their research. This is a wholly cooperative and individual venture.

If you judge this photography of merit, I would like to encourage you to use it freely. This data is open to the public eye. I feel the best way for this data to remain public is to incorporate it broadly into the internationally scientific literature.

What I can offer you in this endeavour are:

a. the data (photography in various formats). This may also apply to selected scenes in the archive of U.S. astronaut photography dating to 1964.

b. an informal scientist-to-scientist invitation to participate by selecting sites of interest to you PRIOR to a particular Space Shuttle mission. This will enable you to designate with the greatest precision the area desired, film, spatial resolution desired, time of the year, etc.

c. the opportunity to use this data without restriction.

What I would ask from you in return, if you wish to participate, is:

a. written site requests, site specifics, and site histories that I may use in astronaut pre-flight briefings. I have found that the astronauts are, indeed, exceptional young people. Further, their spirit of cooperation and scientific curiosity are very high. They do their best job, and thus produce the highest quality product, when most thoroughly briefed on what it is they should do and why. Sites will be reviewed for applicability by NASA. As I understand it, site requests that have a military flavor or are of direct intelligence value (as far as we scientists understand such things) will not be accepted. As the program matures, other limitations may be made.

b. that two copies of any final publications that pertain be sent to me. One copy will be placed in the training library maintained for the astronauts. The second will be put in the Space Shuttle Earth Observations Project library.

My intention with this missive is to increase awareness and participation by the international scientific community in the Space Shuttle as a platform of opportunity for earth observations, and second, to plan for more sophisticated instrument and camera suites that may be permanently installed on an open Space Station. I hope that you find this informal invitation to be of interest to you as well as a growth opportunity for us all. All are welcome in an exciting opportunity to study OUR somewhat small and very finite planet.

my address:

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