

STRI newsletter

March 31, 1994

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panamá

No. 13

TUPPER CENTER SEMINARS

Tue, Apr 5, noon seminar speakers will be Bill Berggren, Woods Hole Oceanographic Institution; and Marie-Pierre Aubry, Laboratoire de Géologie du Quaternaire.

Time and Strategy: Interpreting the Stratigraphic Record

Abstract

The stratigraphic record is our only support for reconstructing earth history. Not only does it yield the documentation of the (physical, chemical and paleontological) changes which have affected the planet through time, it also provides the chronology which allows us, through a complex network of stratigraphic correlations, to establish cause and effect relationships. As increasingly sophisticated technologies and methodologies are applied to earth sciences, our awareness of the complexity of the earth system is growing and it is now clear that our ability to decipher contingent relationships requires an ever increasing quality of chronologic resolution. Here is a survey of the latest chronological tools with emphasis on Global Polarity Time Scale (GPTS). The principle is that if stratigraphic sections are continuous, the thickness of magnetozones and biozones are proportional to their respective durations. Its use has suggested a reinterpretation of certain basic stratigraphic assumptions.



Leroy Watson Jr, member of the board of directors of ANCON, recently received from Ira Rubinoff, the original stock certificates for Islas Paraíso (Games y Bolaños) following an agreement for custodianship of the islands, signed by both Institutions •••Leroy Watson Jr, Síndico de ANCON recibe los certificados originales mediante STRI cede la custodia de las Islas Paraíso (Games y Bolaños) de manos de Ira Rubinoff, por un acuerdo firmado previamente por ambas instituciones. (Foto: A. Montaner)

Departures

- Martin Moynihan, Mar 31, to France, to resume research on reeves pheasants and finish a book, and to Italy, to attend a congress of the Cephalopod International Advisory Council and continue collaborative research at the Naples Marine Station.
- Tony Coates, Apr 2-5, to Washington D.C. on official business at SI.
- Joe Wright, Apr 4-12, to do research in the Mahave Desert.
- José Espino, Apr 5-11, to San Diego, to attend the International Conference on Underwater Education and to participate in a Instructor Training Workshop.
- Richard Condit, Apr 5-29, to Kenya and Zaire on CTFB business.
- Jorge Illueca, Apr 6-16, to San José, C.R. and Managua, Nicaragua, to participate of a joint UNEP-OAS mission to formulate the terms of reference for the preparation of a Integrated Management Action Plan for the San Juan River Basin.
- Pablo Amarís, Apr 6-29, to Miami, to visit suppliers of equipment for security and gamewarden personnel, and to visit the Everglades; then to Atlanta, GA, to attend a training course.
- Tony Coates, Apr 6-9, to Darien and Bocas del Toro on a research expedition.

PEOPLE

Arrivals

- William Berggren, Woods Hole Oceanographic Institute, and Marie-Pierre Aubry, Laboratoire de Géologie du Quaternaire, Apr 2-10, to participate in the Panama Paleontology project's next expedition to Darien and Bocas del Toro. While in Panama, they will also present a seminar at STRI.

THINGS YOU SHOULD KNOW

At the Tupper Center

- Tue, Apr 5 ■ Noon seminar by William Berggren and Marie-Pierre Aubry, Auditorium.
- Gigante Course, LMR, 5:30pm.
- Wed, Apr 6 ■ Isthmian College Society, Exhibit Hall and Auditorium, 8am.

At the Culebra Marine Reserve

- Tue, Apr 5 Howard Elementary School
- Wed, Apr 6 Kobbie Elementary School
- Thu, Apr 7 Los Rios Elementary School
- Fri, Apr 8 Instituto Nacional de Telecomunicaciones
- Sat, Apr 9 Asociación Fulbright

STRI-Costa Rica

Beginning April 1 all phone numbers in Costa Rica will become 7 digits rather than 6. The new phone and fax number for William Eberhard and Mary Jane West-Eberhard is (506) 228-0001.

ANNOUNCEMENTS

Reinvent Government —Put a Mac on Your Desk

MacWorld Expo Summit invites all Macintosh users, to register in "Reinvent Government and the Way You Do Business: Put a Mac on Your Desk" at the Washington D.C. Convention Center, May 10-12. For the complete brochure, please visit the STRI Office of Education, at the Tupper Center.

Urbanization & Forests

Announcement and Call for Papers

The Department of Biology at Chiang Mai University, Thailand, announces the International Symposium on Urbanization & Forests, 14-15th December 1994. The objectives of the symposium are to: ■ Provide a forum for foresters, conservationists, social scientists and planners to exchange knowledge and experience on the range of issues concerning the impact of urban development on the exploitation of forest resources; ■ Evaluate recent developments in technologies and urban planning that may help to reduce the adverse impacts of urbanization on forests; ■ Formulate recommendations to help policy makers to take into account the impact of their decisions on forest resources. For more information and application, please visit the STRI Office of Education at the Tupper Center.

Watersheds '94 EXPO

September 28-30, Bellevue, WA

The U.S. Environmental Protection Agency, the University of Washington Center for Streamside Studies, and state, tribal, local and non-profit organizations invite all the stakeholders and stewards who make up a watershed: local officials, land use planners, environmentalists, landowners, developers, farmers, loggers, state and federal officials, educators and scientists, to attend the Watersheds '94 EXPO, focused on creating the links... people, politics, science and stewardship, making watershed protection work, on the ground, in the real world. For more information, please visit the STRI Office of Education, or contact Andrea Lindsay, EPA, at (206) 553-1896 or U.S. EPA, WD-125, 1200 Sixth Avenue, Seattle, WA 98101.

NEW STRI PUBLICATIONS

- Gompper, Matthew E. and Hoyman, Anne M. 1993. "Grooming with *Trattinnickia* Resin: Possible Pharmaceutical Plant Used by Coatis in Panama.
- Schneider, J.A. 1994. "On the Anatomy of the Alimentary Tracts of the Bivalves *Nemocardium* - (*Keenaea*) *centifilosum* (Carpenter, 1864) and *Clinocardium nuttallii* (Conrad, 1837) (Cardiidae)." *The Veliger* 37(1): 36-42.
- Tyree, Melvin, Yang, Shudong, Cruiziat, Pierre and Sinclair, Bronwen. "Novel Methods of Measuring Hydraulic Conductivity of Tree Root Systems and Interpretation Using AMAIZED." *Plant Physiology* 104: 189-199.

PRESENTATIONS

- Barrios V, Héctor E. 1994. "Dinámica Poblacional de Curculiónidos de la Isla Barro Colorado." In: *XII Congreso Científico Nacional, 21, 22 y 23 de Marzo, Universidad de Panamá*: 52.
- Barrios V, Héctor E. 1994. "Comparación de la Diversidad de Insectos Formadores de Agallas en Dos Zonas Tropicales." In: *XII Congreso Científico Nacional, 21, 22 y 23 de Marzo, Universidad de Panamá*: 53.
- Illueca, Jorge E. 1993. "The United Nations Environment Programme (UNEP) and the Promotion of Integrated Management Plans for International Watersheds." In: *I International Symposium on Environmental Aspects of the La Plata River Basin, Foz do Iguacu, Paraná, Brazil, 8 December*.
- Matos, Cruz and Illueca, Jorge E. 1994. "Towards a New Institutional Arrangement: An Environmental Management and Sustainable Development Consortium for Latin America and the Caribbean: UNEP Programming Report.

OPPORTUNITIES

En la Universidad de Panamá

El Departamento de Estadística de la Facultad de Ciencias Naturales y Exactas de la Universidad de Panamá, planea la creación de un programa de estudios de Postgrado en el área de estadística, a fin de fortalecer las actividades de investigación en el país. Para tal propósito se ha programado la realización de una encuesta, a través de la cual se espera obtener información de los posibles candidatos potenciales para participar en el Programa de Maestría en estadística. Para los interesados, favor de pasar por la Oficina de Educación de STRI en el Centro Tupper para recoger copia de la encuesta.

La Facultad de Ciencias Naturales y Exactas también desea recordarles su interés en ofrecer estudiantes para la realización de su práctica profesional, temas de tesis y cualquier otro apoyo.

For Undersea Research

The National Undersea Research Center at the University of North Carolina at Wilmington (NURC/UNCW) announces opportunities for undersea research in the Atlantic Ocean off the southeast U.S., including the South Atlantic Bight (NC to FL), Florida Keys, and Gulf of Mexico, for calendar year 1995. Funded by the National Oceanic and Atmospheric Administration (NOAA), NURC/UNCW develops, funds, and conducts undersea science programs that address NOAA's mission to understand, protect, and manage aquatic environments and resources. The Center especially encourages integrated, multi-disciplinary research proposals relevant to regional and national marine issues. Research priorities for NOAA and the southeast U.S. include Biosphere and Living Resources; Coastal Oceanic Processes; Global Change Processes; and Lithosphere and Non-living Resources. Final proposals must be received no later than June 17, 1994. Interested investigators should visit the STRI Office of Education at the Tupper Center for more information.



On Monday, March 28, ANCON personnel invited STRI employees to a special outing to visit the Agroforestry Farm at Cabuya and the Chagres Environmental Education Center. Harry Barnes from STRI, with Rita Jordan and Jameen Alexander, from the SI Office of the Assistant Secretary for Research, listen to the Ancon translator (center) explaining one of the projects at Cabuya.

(Foto: M.A. Guerra)

Manejo de Areas Silvestres y Areas Protegidas

Colorado State University ofrece un curso de verano corto, especial en Fort Collins, Colorado, EE.UU. en español, para profesionales y técnicos interesados en mejorar el manejo de áreas protegidas, reservas naturales, cuencas hidrográficas protegidas, y áreas y vida silvestres (incluyendo el manejo de ríos para recreación y protección ambiental). El curso está diseñado para y orientado a funcionarios de campo de América Latina o para estudiantes de habla hispana matriculado en este campo de estudio, quienes actualmente residen en los Estados Unidos de Norteamérica. Para mayor información, favor de visitar la Oficina de Educación de STRI en el Centro Tupper.

Greater Miami Youth Symphony

La Embajada de los Estados Unidos, la Compañía Panameña de Aviación, el Hotel Europa y la Asociación Pro-Juventudes Musicales de Panamá, presentan the Greater Miami Youth Symphony en el Teatro Nacional, el día viernes 8 de abril a las 7:30p.m. Boletos a la venta en Librería Argosy, Bazar Madrid de Vía Porras y el Dorado y la Escuela Juvenil de Música. Platea \$10. Anfiteatro \$5. Palcos \$5. Galería \$2. Obras de Jacob, Tchaikovsky, Hovhaness, Anderson y Vaughan William.

ACKNOWLEDGEMENTS

CELA

"Justo
ArosemenaCENTRO DE ESTUDIOS
LATINOAMERICANOS

Panamá, 23 de marzo de 1994

Lic. Elena de Lombardo
Directora Adjunta para Asuntos Externos
Instituto Smithsonian de Investigaciones Tropicales
Balboa, Panamá

Estimada Elenita:

La semana pasada tuve el agrado de recibir los tres volúmenes relativos a la evaluación que ese Instituto realizó del derrame de petróleo en Bahía Las Minas, hace ya algunos años.

Deseo agradecerle de manera muy especial que nos hicieras llegar copia de tan importantes documentos que ya hemos comenzado a leer y sabemos que serán de gran utilidad para nosotros en el futuro.

Sin duda el Smithsonian merece no solo felicitaciones sino sobre todo el agradecimiento de todos los panameños que nos preocupamos por la conservación de los recursos naturales de este país. Te ruego que compartas con tus colegas nuestros sentimientos.

Te saluda atentamente,
Carmen A. Miró
Coordinadora de Investigación

Tabanids were his love when I met him. Bob Dressler slapped one of these flies on my sweater in the Colombian Andes which proved to be a new species. Neither Bob nor I shared its name. Sandy picked up some of his father's horticultural traits and was our acknowledged local master. He shared this with me.

I thought that his nickname "Sandy" was derived from his great shock of white hair, but it was apparently derived from Alexander his grandfather. Sandy died on February 10th at 87 in Gainesville, 1971, where he was a research associate at the Florida State Collection of Arthropods. He is survived by two children, David and Alice, and by his wife Elva. Elva painted the remarkable portrait of James Zetek which hangs in our insect collection. Sandy had lots of "Jimmy" stories but he and Zetek were convergent entomologists. Yes, an era.

by Neal G. Smith

OBITUARY

Graham Bell Fairchild 1906-1994

"Hiya Pal". A warm, burly, John Houston-like figure greeted me from behind his microscope. "So you want to know about bugs?" "Yes, Sandy, Martin told me to see you."

That's how I met G.B. Fairchild at the Gorgas Memorial Lab in April of 1966. "I went with Pops (David, his father), to the Island in 1925. God, I remember swinging on the limb of one of those big trees near clearing. Lots of fun in those days, Pal." Sandy followed his male predecessors in going to the night schools. He was straight Harvard to his Ph.D. in 1941; *Magna Cum*, in 1932. Medical Entomologist with Rockefeller before the war and officer in, that discipline during. He visited Panama in the late 30's and settled down here for his archive career in 1946-1970 as staff entomologist and later assistant director at Gorgas Memorial.



"With a little luck, they may revere us as gods."

Reflections on the Moynihan Era

by Ira Rubinoff, Director



Martin Moynihan transformed a small tropical field station into an internationally recognized center for evolutionary and environmental biology while actively continuing his studies on the social behavior and communication of birds, new world monkeys and cephalopods.

It was more than 33 years ago when, as a green graduate student, I met Martin Moynihan. I had just stepped out of the launch named "Snook" and was taking in the sites, sounds and smells of BCI for the first time. Accompanying me on the boat ride were Charles and Carol Bennett from UCLA. Martin pointed me towards the cabin I was to be occupying for the next three months and, after a brief conversation with the Bennetts, invited me to "...stop by later for a drink". Thus began a friendship that consu-

med much gin and wine, shaped my career and helped set the direction that STRI has followed for the rest of the century.

In those days, BCI and a tiny administrative office on the top of the Ancon District Court House made up an entire bureau of the Smithsonian Institution; the Canal Zone Biological Area. The Island was a good place to study the flora, fauna and ecology of a lowland monsoon forest, but Martin's research ambitions were already reaching much further. He persuaded Washington that there were many important questions that could not be solved by North American or European scientists during their summer vacation. Scientists, in long-term residence and from a variety of disciplines, were needed to address issues of seasonal, annual and long term variations in tropical systems. Researchers needed the opportunity to expand their work into wetter and dryer forests, into the highlands, and into marine ecosystems. Slowly, scientist by scientist, research site by research site, he built up the Institute by reasoned scientific judgement and the force of his personality. By 1966 the Canal Zone Biological Area was renamed the Smithsonian Tropical Research Institute to reflect the large proportion of research being conducted off the island.

Martin's greatest strength as a scientific administrator was his ability to select good people and to give them the freedom to pursue their

interests. Success for STRI did not come from finding scientists willing to do research or to prove received wisdom. It came, rather, from encouraging people willing to address interesting questions of their own and giving them the opportunity to do so, without the obligations of working with any particular systematic group or within any prescribed geographic area. He did not try to organize or direct the work of others and he had the good judgement not to channel all STRI's resources into scientific fads and fashions, most of which have promised more than they have delivered in explaining nature.

Even before joining STRI's staff, I began to learn the tricks of effective administration from Martin. In



With "Arun", a captive orangutan baby, to be released by the managers of the Orangutan Rehabilitation Center in the Langkat Reserve in North Sumatra, in February 1979.

highest level of the local US Naval Authorities for a request to convert the soon to be vacated Galeta Island Naval Station into a marine laboratory. Martin was undaunted. He uncovered a higher authority within the Pentagon for the disposition of this facility and extracted an approval for what was to become STRI's first Atlantic Coast Laboratory.

In the time before fax, DHL, and electronic mail, and when an international telephone call had to be booked hours in advance, Martin was the master of the imperative telegram. He could use "theatrical rage" as a means of getting attention from even the most aloof of Washington bureaucrats. Washington also held STRI on a much closer leash then than we are now, and radical changes could often only be accomplished at the risk of one's career.



With wife, anthropologist Olga F. Linares, at the Langkat Reserve

Martin's predecessor reputedly left office abruptly in a dispute over the

purchase of some ladders. Martin understood that to accomplish long term unpopular goals it was sometimes an effective competitive strategy to just outwait your opponents. Martin Moynihan has set STRI's standards for excellence, for research freedom, for internationalism, for the value of asking the right questions on nature, and for not giving any intellectual quarter to larger and better financed first-world universities or institutions.

It was Martin's decision to begin a marine program and to take advantage of Panama's unique geography in answering evolutionary questions. He encouraged us to work in the tropics wherever an important questions could be answered. When there was significant interest in research in the highlands of the Andes, he opened a small field station in Cali, Colombia to facilitate the work of STRI and visitors there.

By the early 1970's, Martin was losing patience with the bureaucracy in Washington and became increasingly jealous of the time administration was taking from his research. He thus decided to retire from his Director's responsibilities, but not before arranging, as much as was possible for his successor to be someone who shared his research philosophy and directions. Martin and I have not always agreed about the ensuing development of STRI, especially about the speed of growth and some of the priorities in the development of our physical plan. Nevertheless, I continue to value Martin's opinion and to look forward to the opportunity

of bringing him up to date on STRI's developments upon his return to Panama after lengthy field work abroad. While the players in Washington have all changed, we still share the camaraderie of having been actors in a long-running Broadway hit.



Studying kingfishers at the Langkat Reserve.

Martin is one of the most brilliant, and most intuitive scientists, I have ever met. He reads history and political science in three languages, and is now learning Italian for his cephalopod studies that are to be based in Naples. He is the most complete Renaissance man that I know, and his ability to judge scientific potential in others is unparalleled. STRI is very fortunate that while Martin Moynihan is retiring from the SI after more than 38 years of service, he will continue to use STRI as a research base and will continue to publish and to provide us with scientific and political counsel.