

ISLAND RESOURCES FOUNDATION

Caribbean Headquarters

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December 1988

Dear Members and Associates of IRF:

As the year draws to a close, we take this opportunity to visit with our members, friends, and associates, to review the accomplishments of the last twelve months, and to remind you once more of our need for unrestricted donations and gifts. A donation envelope is enclosed, and we hope you will include the Foundation among those organizations and charities to which you lend your support. Remember that non-cash contributions are also welcome -- automobiles, boats, computers, equipment and supplies. Donations from U.S. residents are tax deductible.

We look forward to keeping in touch with you during the year ahead as we expand and strengthen our programs of environmental planning, integrated development, technical assistance and applied research. On behalf of the Foundation, its Board and staff, we extend to you our best wishes for the new year.

Edward and Judith Towle

ENVIRONMENTAL PLANNING

ST. LUCIA "ENVIRONMENTAL PROFILE" NEARS COMPLETION

In June of this year, the 400-page draft "Country Environmental Profile" (CEP) for St. Lucia was made available for review by the Island Resources Foundation project team. This comprehensive look at the environment of St. Lucia identifies key problems and policy issues, links these concerns to overall development planning in St. Lucia, and provides specific action recommendations for follow-up.

The Country Environment Profile project for the Eastern Caribbean is carried out under the aegis of the Caribbean Conservation Association in Barbados, with IRF heading the team of experts responsible for preparing each profile report. Work has now begun on the Grenada Profile, with completion scheduled for the spring of 1989.

In St. Lucia, CCA and IRF were assisted by a team of local experts selected for specific sectoral or thematic studies. All in-country coordination for the project was provided by the St. Lucia National Research and Development Foundation, a local non-government organization which has recently taken an increasingly prominent leadership position for conservation/development concerns in the country.

Overview of St. Lucia Profile

The St. Lucia Profile is organized into six sections:

- a detailed description of the country focusing on the natural and physical environments, land capability and land use, demographics, and historical and economic background;
- a discussion of "common property resources," including forests, wildlife, water, marine and coastal resources, parks and historic/cultural resources;
- the rural environment and the key role of agriculture in the St. Lucian social and economic fabric;
- the urban environment, related industrial activities and their impact on the environment;
- the institutional framework for environmental management in St. Lucia, both public and private sector roles;
- summary of the key environmental issues and problems facing the country, including policy and program-specific recommendations.

Information on how to obtain a copy of the draft St. Lucia Environmental Profile is included in the publications insert to this newsletter.

CONSERVATIONISTS HONORED

ACHIEVEMENT AWARDS

Yves Renard

Congratulations to Mr. Yves Renard of St. Lucia, first recipient of the Foundation's McFarlane Fellowship Award for outstanding environmental leadership in the Eastern Caribbean. Mr. Renard is a regionally recognized environmentalist, serving as president of the Caribbean Conservation Association since 1986, as an environmental advisor to several Caribbean governments, and most recently as IUCN Councillor for the region. He is the first of many young West Indian leaders who will be acknowledged by IRF through its McFarlane Award for their commitment and service to the West Indies.

Over the years, Yves has successfully balanced conservation programs in St. Lucia with sustained rural development practices, thereby adding a new dimension to environmental planning in the country. His sensitivity to the rural poor is reflected in his close working relationship with resource users -- farmers, fisherman, charcoal producers. By his example, Yves has consistently challenged other practitioners in the region to incorporate local participation as a critical component in environmental development projects.

IRF is proud to count Yves in its roster of program associates and was equally proud to honor him with the 1988 McFarlane Award. The Award, which includes a \$1,000 cash gift, was presented at the annual meeting of the Caribbean Conservation Association held in September.

Edward Towle

The president of Island Resources Foundation, Edward Towle, is one of this year's recipients of the Global 500 award, presented in recognition of his contributions in protecting and enhancing the global environment. The award from the United Nations Environment Programme (UNEP) is so named because its scope is global and because UNEP will make 500 such awards between 1987 and 1991.

United Nations Environment Programme
Programme des Nations Unies pour l'environnement
Programa de las Naciones Unidas para el Medio Ambiente
聯合國環境規劃署
برنامج الأمم المتحدة للبيئة
Программа ООН в области окружающей среды



This is to certify that

Edward L. Towle

has been elected to the Global 500 Honour Roll of the United Nations Environment Programme in recognition of outstanding practical achievements in the protection and improvement of the environment.

Mstata K. Toiza
Dr. Mstata K. Toiza
Executive Director
United Nations Environment Programme

Towle, who has devoted over 20 years to the conservation and development of island systems, is the founder of Island Resources Foundation. He was the first active president of the Caribbean Conservation Association and is the author of two pioneering studies on island ecosystems -- Ecological Guidelines for Island Development (IUCN, 1975, with Canadian geographer John McEachern) and The Island Microcosm (USNPS, 1985).

The IRF president was recently asked by the U.S. Agency for International Development, Regional Development Office in Barbados, to serve on an advisory group planning regional development strategies for the Eastern Caribbean for the next five years. Towle served on a panel of experts selected by AID for their experience and knowledge in the natural resources/environment sector.

PRIVATE SECTOR INITIATIVES

IRF MINI-GRANT PROGRAM FOR NON-GOVERNMENT ORGANIZATIONS

Under the Foundation's Institutional Development Program for Non-government Organizations (NGOs), eight Eastern Caribbean groups have received grant support from IRF. This support is designed to provide modest operational assistance to selected private sector, non-profit groups interested in improved program planning and expanded community service,

particularly in the environmental sector.

NGOs receiving direct support under this grant program are:

- Antigua - Barbuda Cooperative Farmers Association
- British Virgin Islands Hotel and Commerce Association
- Dominica Association of Industry and Commerce
- Grenada Hotel Association
- Montserrat National Trust
- Nevis Historical/Conservation Society
- St. Lucia Manufacturers Association and Small Business Association
- St. Vincent JEMS Progressive Community Organization.

Additionally, the Foundation publishes an NGO newsletter which highlights information about regional and international NGOs with news of donor group activity in the region. A further emphasis is on the basic building blocks of institutional growth. For example, the "NGO News" has covered such organizational topics as: strengthening the NGO Board; effective use of volunteers and interns; the NGO and computers; business ventures for NGOs; and institutional self-evaluation.

If you would like more information about IRF's NGO project or wish to have your name added to the "NGO News" mailing list, please contact Judith Towle at IRF headquarters.

CULTURAL RESOURCES

CHRISTIANSTED HARBOR MARINE ARCHAEOLOGICAL SURVEY

Preparatory to the dredging of the "Old Schooner Channel" in Christiansted Harbor, St. Croix (Virgin Islands), a marine archaeological study was conducted for the V.I. Port Authority by Island Resources Foundation. This survey represents the fourth such study carried out by the Foundation in Virgin Islands waters in the last four years.

The purpose of the survey was to locate submerged cultural resources which might in this case include shipwrecks, small watercraft, lost or jettisoned cargo,

and historic trash or garbage deposits. Over 90 potential sites were identified by a magnetometer survey, with 20 of these selected for more detailed inspection by the project team. Two clusters were subsequently identified as archaeologically and historically significant, but both sites lay beyond the boundaries of the Port Authority's dredging project.

IRF staff was able to deploy successfully a new system of geopositioning in the course of carrying out the project. All maps were drawn entirely by computer, including direct integration of the positioning (navigational) and archaeological field data.

Team leader Ed Towle was assisted by marine archaeologists J. Barto Arnold and Stephen James, student intern Greg Whittaker, and John "Chip" Ryther from the firm of EG&G, which provided the geopositioning equipment, the magnetometer and the computer which integrated the output of the navigational and electronic search systems.

SUNDRY NEWS

OTHER IRF PROGRAMS AND ACTIVITIES IN 1988

Biosphere Reserve Research Series Completed - Since 1983 IRF has managed a series of research activities focused on the Virgin Islands National Park on the island of St. John. Under the aegis of the Virgin Islands Resource Management Cooperative (VIRMC) and with funding from the U.S. National Park Service, IRF has overseen 31 projects related to the National Park which has been designated by UNESCO as an international Biosphere Reserve (VIBR).

Thirty publications were produced under this project and are now available for distribution. The most recent reports (phase three of the overall project) are listed in the publication insert to this newsletter. A complete listing of the VIRMC reports can be obtained by writing IRF or the V.I. National Park.

The final volume in the series (report #29) represents a synthesis of the five years of research carried out by the

collaborating members of the V.I. Resource Management Cooperative. It was prepared by Dr. Caroline Rogers, research biologist at the V.I. National Park, assisted by Mr. Robert Teytaud, an IRF research associate.

A special VIRMC report issued during 1988 was prepared by IRF associates Bruce Potter, Ken Green and Mel Goodwin. Entitled "Management of Natural Resource Information for the Virgin Islands National Park and Biosphere Reserve," this study provides an overview of how natural resource/environmental information is generated, filed, exchanged and utilized by those institutions linked to the V.I. Biosphere Reserve.

IRF resource associates, and members with legitimate research interests regarding Virgin Islands and Caribbean planning, biosphere reserves, tropical insular ecosystem mapping and long-term monitoring, or GIS/MIS database management are welcome to request free of charge single copies of the Biosphere Reserve technical report series.

Biodiversity - According to the Smithsonian Institution, recent esti-

mates place the total number of plant and animals species on our planet at more than 30 million -- an amazing variety of living things. Yet, as fast as new species can be identified, others and their habitats are being destroyed.

Acknowledging that the conservation of biological diversity is a proper and integral part of its broad mandate, the U.S. Agency of International Development (AID) has turned to the National Academy of Sciences for guidance on how to monitor and evaluate the effects of its projects on biological diversity.

As a result, a committee on AID Biodiversity Criteria was established by the Academy in February of this year, and IRF's president, Ed Towle, was asked to serve as a member of this important body.

At the same time, the World Resources Institute in Washington, D.C. was asked by AID to update and expand upon its report on biological diversity for the Eastern Caribbean. The team which prepared this study included IRF research associate Robert Teytaud.



**Volunteers Needed for
Sea Turtle Research
at the
Green Turtle Research Station
Tortuguero, Costa Rica**



THE BIOLOGY OF NESTING LEATHERBACKS

by James Spotila, Ph.D.

10-Day Departures: March 17, 24, 31 and April 7
17-Day Departures: March 17, 31

HATCHLING LEATHERBACK STUDIES

10-Day Departures: June 16, 23
17-Day Departure: June 16

ANNUAL GREEN TURTLE TAGGING RESEARCH

Center for Sea Turtle Research
University of Florida

10-Day Departures: July 14, 21, 28, August 4, 11, 18, 25 and September 1
17-Day Departures: July 14, 21, 28, August 4, 11, 18, 25

All inclusive cost from Miami
10 Day Programs — \$1,410*
17 Day Programs — \$1,722*

Join the team of volunteers helping with Turtle Research at the Green Turtle Research Station in Tortuguero, Costa Rica. Your help is needed to carry on this tradition of research started 30 years ago by the late Archie Carr.

The Green Turtle Research Station is operated by the Caribbean Conservation Corporation.

For details, contact:

Massachusetts Audubon Society

Natural History Travel
Lincoln, MA 01773
1-800-289-9504



► *A donation of \$50 will be made to any organization identified by you as providing the advertising that attracted you to the program. ◀

In cooperation with the CARIBBEAN CONSERVATION CORPORATION.

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RECENT IRF REPORTS AND PUBLICATIONS - 1988

	<u>Price</u>	<u>Send #</u>
Towle, Judith and Edward (eds.), <u>ST. LUCIA COUNTRY ENVIRONMENTAL PROFILE</u> . (Draft only) U.S. AID-funded study prepared under the aegis of the Caribbean Conservation Association. 409 pp.	\$45.00	[]
[IRF Occasional Paper #49] McElroy, J. de Albuquerque, K., and Towle, E., <u>Old Problems and New Directors for Planning Sustainable Development in Small Islands</u> . Reprinted from <u>Ekistics</u> (March/April-May/June 1987). 7 pp.	\$ 1.00	[]
Coulston, M.L., <u>FIRST QUARTER MONITORING REPORT: PILOT EXPERIMENTAL SEAGRASS TRANSPLANTATION PROJECT</u> (November 1987), 15 pp.	\$ 2.00	[]
Coulston, M.L., <u>SECOND QUARTER MONITORING REPORT: PILOT EXPERIMENTAL SEAGRASS TRANSPLANTATION PROJECT</u> (February 1988), 13 pp.	\$ 2.00	[]
Coulston, M.L., <u>THIRD QUARTER MONITORING REPORT: PILOT EXPERIMENTAL SEAGRASS TRANSPLANTATION PROJECT</u> (June 1988), 12 pp.	\$ 2.00	[]
Coulston, M.L., <u>FOURTH QUARTER MONITORING REPORT: PILOT EXPERIMENT SEAGRASS TRANSPLANTATION PROJECT</u> (August 1988), 13 pp.	\$ 2.00	[]
N.B. These four monitoring reports are a follow-up to a 1987 study:		
Coulston, M.L., <u>PILOT EXPERIMENTAL SEAGRASS TRANSPLANTATION PROJECT, SOUTH SHORE, St. CROIX, U.S. VIRGIN ISLANDS</u> (including appendix on survey phase and methodology). Prepared under contract for the V.I. Port Authority, August 1987. 36 pp.	\$ 5.50	[]
James, S., Arnold, J.B., Towle, E., and Tyson, G., <u>SEARCHING FOR HISTORIC SHIPWRECKS: REPORT OF A MARINE ARCHAEOLOGICAL SURVEY OF THE "OLD SCHOONER CHANNEL", CHRISTIANSTED HARBOR, ST. CROIX, U.S. VIRGIN ISLANDS</u> . To be released in January 1989. Approximately 50 pp. with maps. Price quoted is pre-publication price.	\$ 7.00	[]

NEW 1989

ORGANIZATIONAL PROFILES

OF WHO IS DOING WHAT IN SUPPORT OF PROGRAMS FOR SUSTAINABLE RESOURCE DEVELOPMENT AND ENVIRONMENTAL MANAGEMENT IN THE EASTERN CARIBBEAN

A GUIDE TO DONOR ORGANIZATIONS AND TECHNICAL ASSISTANCE AGENCIES

This Directory -- which includes 109 organizational/program entries -- is published as a public service by Island Resources Foundation. All information included has been supplied by the listed organizations or has been taken from the files of Island Resources Foundation.

The Directory is provided without charge to Eastern Caribbean NGOs participating in Island Resources Foundation's Institutional Development Project. Copies may also be purchased as follows:

[indicate no. of copies requested]

_____ \$US15.00 for members of Island Resources Foundation
_____ \$US18.00 for non-members of Island Resources Foundation
_____ \$US 4.00 for postage and handling

The Directory is provided in a customized 3-ring binder. Payment must be made in U.S. currency by U.S. bank draft or international money order. Send form on back with prepayment for number of directories indicated above.

The following reports have been published jointly by the U.S. National Park Service and the Virgin Islands Resource Management Cooperative (VIRMC), 1988, as a part of ongoing research, resource management, and educational activities related to the Virgin Islands Biosphere Reserve on the island of St. John. Photo-copies of individual reports in the series may be purchased from Island Resources Foundation, which has acted as the local contracting agent for VIRMC since its formation in 1982. N.B. A LIMITED NUMBER OF PRINTED COPIES OF THE VIRMC REPORTS ARE AVAILABLE FOR DISTRIBUTION AT NO CHARGE. WHILE THIS SUPPLY LASTS, COPIES WILL BE SENT FOR POSTAGE AND HANDLING COSTS ONLY (one copy of each report per institution or individual). For a list of Reports #2-22 (published in 1986 and 1987), please contact the Foundation's publications office.

Report # 1	ABSTRACTS OF VIRGIN ISLANDS BIOSPHERE RESERVE RESEARCH REPORTS # 2 - 28.	NC	[]
Report #23	Nichols, M., MAN'S LONG-TERM IMPACT ON SEDIMENTATION: EVIDENCE FROM SALT POND DEPOSITS. 31 pp.	\$ 5.00	[]
Report #24	Rogers, C., RECREATION USES OF MARINE RESOURCES IN THE VIRGIN ISLANDS NATIONAL PARK AND BIOSPHERE RESERVE: TRENDS AND CONSEQUENCES. 36 pp.	\$ 5.50	[]
Report #25	Williams, S., ASSESSMENT OF ANCHOR DAMAGE AND CARRYING CAPACITY OF SEAGRASS BEDS IN FRANCIS AND MAHD BAYS FOR GREEN SEA TURTLES. 38 pp.	\$ 5.50	[]
Report #26	Tobias, W., Telemaque, E., and Davis, M., BUCK ISLAND FISH AND SHELLFISH POPULATIONS. 32 pp.	\$ 5.00	[]
Report #27	Earhart, J., Reilly, A., and Davis, M., INITIAL INVENTORY OF THREE PERMANENT FOREST PLOTS IN THE VIRGIN ISLANDS NATIONAL PARK. 126 pp.	\$19.00	[]
Report #28	Ramos-Perez, C. and Gines-Sanchez, C., GEOCHEMISTRY OF ST. JOHN AND INFLUENCE ON MARINE SYSTEMS. 40 pp.	\$ 6.00	[]
Report #29	Rogers, C. and Teytaud, R., MARINE AND TERRESTRIAL ECOSYSTEMS OF VIRGIN ISLANDS NATIONAL PARK AND BIOSPHERE RESERVE. 131 pp. (pre-publication price quoted). N.B. A limited number of copies of this volume will be distributed to cooperating institutions and individuals without charge.	\$10.00	[]
Special Report	Potter, P., Green, K., and Goodwin, M., MANAGEMENT OF NATURAL RESOURCE INFORMATION FOR THE VIRGIN ISLANDS NATIONAL PARK AND BIOSPHERE RESERVE. 45 pp.	\$ 6.00	[]

ORDER INFORMATION

All items are quoted in U.S. dollars and will be mailed fourth class book rate to U.S. addresses or printed matter (surface) rate to non-U.S. locations UNLESS first class or air mail postage is specified with the order. Postage will be billed directly. Additionally, handling charges are: \$3.00 for orders \$5.00 - \$25.00; \$4.00 for orders \$26.00 - \$50.00; and \$5.00 for orders over \$50.00. Please submit payment in U.S. dollar draft drawn on an American bank or as an international money order; there will be a \$10.00 service charge for cashing foreign checks or other foreign money instruments.

Check items and quantity required above and complete information requested below. Mail form to: Publications Office, ISLAND RESOURCES FOUNDATION, 1718 P Street, NW, Suite T4, Washington, D.C. 20036.

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ISLAND RESOURCES FOUNDATION REFERENCE LIBRARY

The Island Resources Foundation Reference Library is a unique collection of over 10,000 books, periodicals, documents, unpublished reports, maps, video tapes, aerial/underwater photographs and other material that is a source of historical baseline and current information focused on the interdisciplinary aspects of insular systems and resource management, with primary emphasis on the Caribbean. The IRF library is designed to be responsive to the needs of the Caribbean development planner, to provide ready access to information on specific countries/islands, and to facilitate the development of regional perspectives -- e.g., avoiding mistakes made by planners on other islands dealing with identical resource development and management issues.

This collection comprises unpublished reports (including environmental impact assessments) from both governmental and private sector sources which are not often readily accessible to the average researcher. These reports contain valuable baseline data and detail previous work done on a specific site.

The IRF library is located at the Red Hook, St. Thomas headquarters of the Foundation, although some international, non-Caribbean materials are available at IRF's Washington, D.C. office.

Caribbean Insular Systems Resource Management Database

A Caribbean insular systems database supplements the IRF reference library. It is a computerized database that uses the bibliographic software program REFMENU (a customized dBase III+ program). It takes the form of a series of country and topical bibliographies with references extracted primarily from the IRF library but also from other regional and extra-regional repositories.

The aim of this database is to assist the library user/planner by facilitating quick identification of and access to documents relevant to his/her research. This can be done by means of a keyword search -- by author, publication title, journal, geographic area, subject matter, or library location.

Site-specific bibliographies currently being compiled by IRF (some in preliminary stages of development) include the following countries:

Caribbean Regional
Anguilla
Antigua and Barbuda
Bahamas
Barbados
Belize
British Virgin Islands
Dominica
French West Indies
Grenada

Jamaica
Montserrat
Netherlands Antilles
Puerto Rico
St. Kitts and Nevis
St. Lucia
St. Vincent and the Grenadines
Trinidad and Tobago
Turks and Caicos
U.S. Virgin Islands

Primary topics of keywords that can be used in searches for references that pertain to specific subjects include the following topical areas:

Agriculture	Legislation
Algae	Lobsters
Anthropology	Man and the Biosphere (MAB)
Aquaculture	Mangroves
Archaeology	Mariculture
Beaches	Marinas
Biology	Marine Mammals
Biosphere Reserve	Meteorology
Birds	Migration
Boats/Ship-building	Museums
Botany	Natural Disasters
Brine Shrimp	Oceanography
Charcoal	Oil Spill
Charter Boats	Parks/Reserves
Ciguatera	Politics
Coastal Zone	Pollution
Conch	Recreation
Cooperatives	Renewable Resources
Coral Reefs	Resource Management
Culture	Rum
Demography	Rural Development
Diseases/Pests	Salt Ponds
Dredging	Sand Mining
Ecology	Seagrass
Economy	Sewage
Education	Sharks
Energy	Taxation
Environmental Impact Assessment (EIA)	Tourism
Erosion	Toxicology
Exclusive Economic Zone (EEZ)	Trade
Fisheries	Training
Forestry	Transportation
Geographic Information System (GIS)	Turtles
Geography	Urban Development
Geology	V.I. Resource Management Cooperative
Health	Waste Disposal
History	Water Resources
Hydrology	Watershed Management
Infrastructure	Wetlands
Institutions	Wildlands
Land Use	Wildlife
Law of the Sea	Women

IRF Reference Service

Full searches of IRF's reference library as per the above countries or topics can be provided at US\$50.00 per search. Special rates are available for multiple searches, Caribbean non-government organizations, and students. Readers wishing more information on IRF's library reference service should contact Mr. Ian Jones at the St. Thomas headquarters office.

Up-to-date computer print-outs of the bibliographies for the Caribbean countries listed verso are available from IRF at US\$0.40 (EC\$1.00) per page (plus postage). Pagination varies: for example, (December 1988) the Dominica bibliography was 23 pp., the St. Lucia was 50 pp. Bibliographies are also available on diskettes (all files are IBM/PC compatible).