

island resources

FOUNDATION

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The Year 1999 and Beyond . . .

In 1994, *Small Island Developing States (SIDS)* were the focus of a United Nations Global Conference that addressed their special vulnerabilities. By drawing attention to the special concerns of island states, world leaders recognized that islands were especially vulnerable to global environmental threats like climate change and sea level rise. In the years since that international assemblage, the islands of the Caribbean in particular have experienced a sharp increase in both the number and intensity of hurricanes, leaving many to question whether recent storm activity is part of a natural cycle or if the frequency of storms is increasingly influenced by global climate change.

While such issues cannot yet be fully assessed, the continued vulnerability of Caribbean islands—whether to damage from natural disasters, fluctuations in global economic markets, continued high transportation and communication costs, or dependence on a limited natural resource base—cannot be challenged. Providing assistance to small island states to meet these challenges has been the central mission of Island Resources Foundation for almost three decades. This report highlights some of our activities during the last year of the twentieth century.

Another Furious Hurricane Season

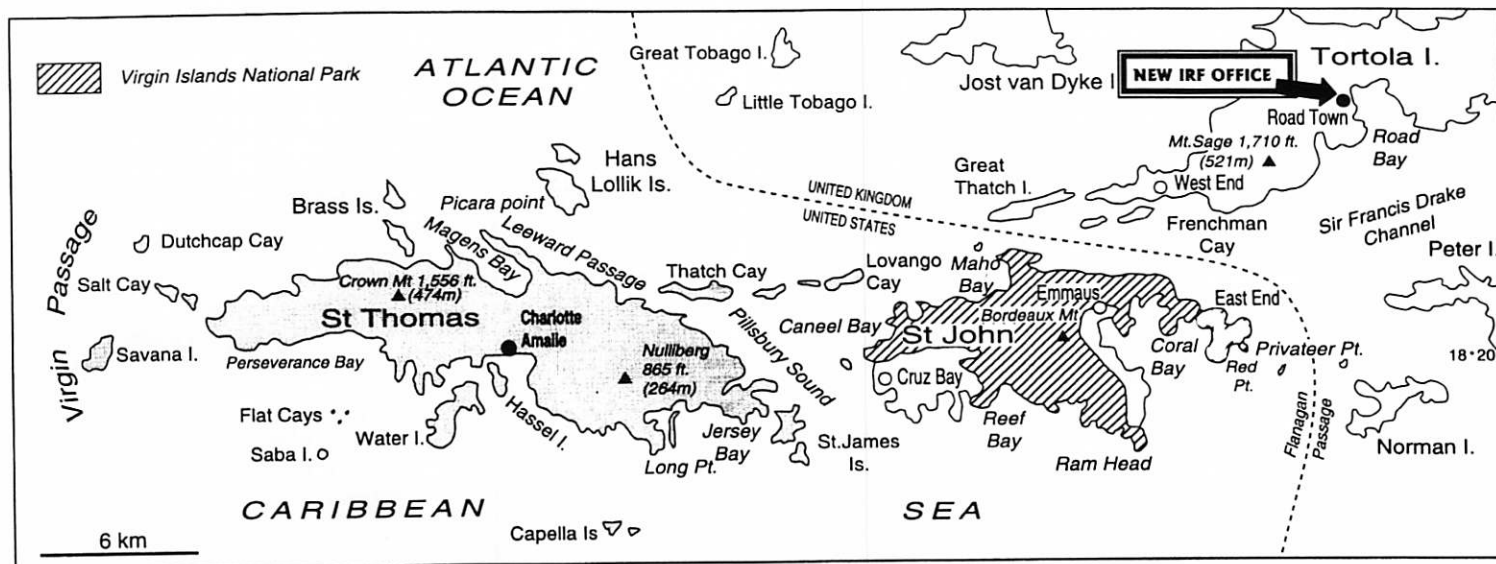
With 12 tropical storms (8 of which became hurricanes), the busy 1999 Atlantic hurricane season continued a trend of heightened activity that began ten years ago with hurricane Hugo. During 1999, the Caribbean was visited sequentially by Dennis, Floyd, Irene and Jose before it was surprised by Lenny in mid-November. Not only did Lenny form very late in the season, it was a bizarre west-to-east storm, developing south of Jamaica and moving initially in a southeast direction and then an east-northeast direction. Its impact was felt throughout the eastern Caribbean, with the majority of its damage inflicted on infrastructure and the environment, especially coastal roads, sea defenses, ports, docks, and beaches along more westerly (normally leeward and more protected) coastlines.

The Foundation now maintains research facilities in the American and British Virgin Islands and in Antigua. All three were impacted by some combination of the five Caribbean hurricanes as well as several tropical storms during the peak of the season. Fortunately, we came through all without any major damage, but so many "close calls" are stressful and place extraordinary demands on the Foundation's staff and institutional resources.

Our president, Bruce Potter, found himself in Annapolis when hurricane Floyd passed along the central Atlantic coast of the United States, where he was frustrated by a five-day power outage that was reminiscent of more long-term outages following Caribbean storms. Later in the season, he was in Nassau when Irene visited the Bahamas, in Antigua when Jose passed over that island, and finally waited out hurricane Lenny for three days in St. Kitts. Four hurricanes in one season must be a record of some kind!

(continued on page 4)

The northwestern Virgin Islands (American and British), where Island Resources Foundation now has two facilities, one in St. Thomas and a second in Tortola.



Selected Highlights

May — June

CARLOS RAMOS returns to the U.S. Virgin Islands to continue an EROSION AND SEDIMENT REDUCTION PROJECT begun in 1994 by the Foundation and a small group of collaborating institutions. Findings to date offer promise of drastically reducing the impact of sediments on insular coastal ecosystems.

Field investigations have focused on the island of St. John and on improved management strategies to protect the reef system and coastal environment of that island. But by example and policy changes, findings and recommendations will extend to other neighboring islands, including the British Virgin Islands.

On a larger scale, throughout the Wider Caribbean, over-development and ineffective land use controls are threatening to turn reef-rich waters into dead zones, with implications for key tourism and fishing industries. Therefore, the St. John studies are significant as one of the first long-term efforts to quantify and address this growing threat.

JIMENA ARENAS, a national of Colombia and



begins a summer internship with the Foundation. Jimena was assigned to the project, which the Foundation is developing jointly with CORALINA and the Center for Marine Conservation.

Foundation president BRUCE POTTER is invited to participate in a London conference organized by the Foreign and Commonwealth Office and the UK Overseas Territories Conservation Forum. Delegates from the UK Overseas Territories (principally island areas) were present, as well as NGOs, like Island Resources, who work with the Territories. Organizers hope the conference will lead to improved understanding of the problems faced by the Territories as they strive to address environmental issues with limited resources and technical capacity.

A team of resource planners from the Foundation, directed by BRUCE POTTER, begins work on a two-year WATER QUALITY ASSESSMENT of the U.S. Virgin Islands. The final report was completed in record time and submitted to the U.S. Government and the U.S. Environmental Protection Agency in July.

March — April

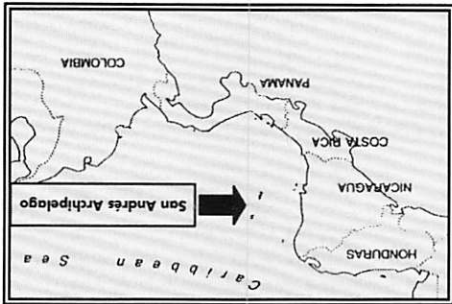
DR. JUNE MARIE MOW, director of CORALINA in the SAN ANDRÉS ARCHIPELAGO, meets with Foundation staff and other development organizations in Washington, DC.



Mow (center) at the Foundation's Washington office.

During the last two years the Foundation has worked with CORALINA, a Colombian national agency charged with environmental management in the San Andrés Archipelago, an isolated island chain in the western Caribbean 140 miles off the east coast of Nicaragua. Early English settlers gave their language and culture to the islands, although—as a legacy of colonial wars—the archipelago eventually became a territory of Colombia. Over its 300-year history, the sister islands of San Andrés and Providencia bred a self-sufficient Caribbean people whose independent culture mixes English, Colombian and Westindian traditions.

Island Resources and the CENTER FOR MARINE CONSERVATION are providing assistance to CORALINA for the development of a system of marine protected areas in the archipelago.



Island Resources Foundation meets with other NGOs and international organizations as partners in the WIDER CARIBBEAN NETWORK, organized by MONITOR INTERNATIONAL. The network is a mechanism designed to exchange information and provide support for the CARTAGENA CONVENTION and its Protocols. Signed by 23 countries, the Convention is a framework agreement to control pollution and protect endangered species in the Wider Caribbean.

January — February

KEVEL LINDSAY, coordinator of the Foundation's BIODIVERSITY CONSERVATION PROGRAM based in Antigua, begins a leave-of-absence to pursue a degree in environmental biology at Columbia University in New York. Partial support of Kevel's studies has been generously provided by the BERNARD HUBBARD of Nevis.

During Kevel's absence, support for the Foundation's Antigua office will be provided by the ENVIRONMENTAL AWARENESS GROUP.

Upon completing his studies, Kevel will return to Antigua to resume leadership of the Eastern Caribbean Biodiversity Conservation Program.



In partnership with THE NATURE CONSERVANCY and the CONSERVATION DATA CENTER at the University of the Virgin Islands, the Foundation's natural resource analyst JEAN-PIERRE BACLE begins photo interpretation of vegetation cover on St. Thomas and St. John (St. Croix). The product was completed in 1998). The product of this cooperative effort will be VEGETATION COMMUNITY MAPS of the U.S. Virgin Islands mapped at a scale of 1:9600.



Foundation president BRUCE POTTER participates in UNDP-sponsored roundtable discussions on Internet applications in Caribbean SIDS (Small Island Developing States). Bruce has long been a leader in promoting the use of environmental information technologies (especially Internet-based tools) in the Caribbean. He was subsequently selected by UNDP as a trainer for national workshops designed to build Caribbean networking capacity, strengthen the Web publishing skills of Caribbean organizations, and expand regional participation in SIDSnet services.

A new electronic mail service for FOUNDATION MEMBERS is launched. All members with email addresses are automatically placed on the list, which is one of eight e-groups moderated by the Foundation. Contact office@vbi.org for more information.

from the Year 1999

July — August

Ed and Judith Towle attend a MUKTI FUND planning retreat at the Pocantico Conference Center on the Rockefeller family estate in New York. Judith currently serves as chair of the Mukti Fund, a private foundation that pursues philanthropic grant-making in the eastern Caribbean country of ST. KITTS AND NEVIS.

In 1992, Mukti and the Foundation began a working partnership to support institutional development for conservation NGOs in St. Kitts and Nevis. JUDITH TOWLE directs this program, which now provides assistance primarily to the St. Christopher Heritage Society and the Nevis Historical and Conservation Society.

BRUCE POTTER is elected to the Board of the CARIBBEAN CONSERVATION ASSOCIATION at its annual general meeting in Barbados. This is the first time in over 20 years that the Foundation has been represented on the governing board of this regional organization (Ed Towle served as president from 1968-1974). Bruce's participation comes at a particularly critical time as the CCA seeks to redefine its role in the Caribbean amid important staff changes at headquarters in Barbados.

In August, the Foundation is represented by KEVEL LINDSAY at the 12th annual meeting of the SOCIETY OF CARIBBEAN ORNITHOLOGY in the Dominican Republic. Kevel's involvement with the Society is long-standing, and he is widely recognized for his many contributions on behalf of endangered bird species in the Caribbean.



Pictured above are participants at an August workshop in San Andrés to assist CORALINA (the environmental management agency) in planning for a marine protected areas system. The photographer is Bruce Potter, who, along with Jimena Arenas (third from left), attended the sessions on behalf of Island Resources Foundation.

The San Andrés Archipelago comprises an extensive reef system that incorporates two barrier reefs, five large atolls, and several coral banks extending over 350,000 square km, about 10 percent of the Caribbean Sea.

September — October

Two Canadians—LORI TESOLIN and WOLFRAM DRESSLER—begin six-month internships at the Foundation's BVI facility. Both internships were funded by the Canadian International Development Agency through the Winnipeg-based OCOD Youth International Program.

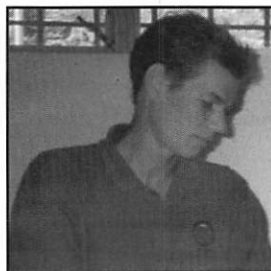
Lori and Wolf provided assistance in setting up the new ISLAND SYSTEMS ENVIRONMENTAL INFORMATION CENTRE at the Foundation's Road Town location. This facility is provided by the H. LAVITY STOUTT COMMUNITY COLLEGE, our institutional partner in the BVI. With backgrounds in Geographic Information Systems (GIS), the interns also assisted the



LORI TESOLIN

BVI Planning Department with mapping tasks and the BVI National Parks Trust with revision of its Systems Plan, including mapping of Trust holdings.

WOLFRAM
DRESSLER



At the invitation of the Friends of Fish organization, DR. EDWARD TOWLE participates in *BERMUDA AND THE SEA 2000*, a conference to provide public input while the Government prepares a new Green Paper on the marine environment. Dr. Towle is no stranger to Bermuda, having served as chairman of a Commission of Inquiry in 1991 that looked at controversial issues arising out of Bermuda's fishing industry. Since then, Towle and Island Resources Foundation have worked with a number of Bermuda environmental organizations. In his recent visit to the island, Towle spoke of the need to maintain a "delicate balance" between *using* and *protecting* Bermuda's marine environment, which includes the most northerly coral reef formation in the world.

November — December

IAN LAMBIE of Trinidad is honored as recipient of the 1999 EUAN P. MCFARLANE ENVIRONMENTAL LEADERSHIP AWARD. Since 1988, this \$1,000 cash prize has been given annually by Island Resources to individuals who demonstrate leadership in promoting conservation in the Caribbean. Lambie was honored specifically for his work with the Asa Wright Nature Centre and (since 1956) the Trinidad Field Naturalists' Club.

The UNEP Regional Office for Latin America and the Caribbean releases *CARIBBEAN ENVIRONMENTAL OUTLOOK (CEO)*, an overview report on the state of the environment in the Caribbean, one of three special "island group" reports produced as part of the biennial UNEP Global Environment Outlook (GEO II). The University of the West Indies (Center for Environment and Development) and Island Resources Foundation participated in writing the report.

The CEO report emphasizes that most of the Caribbean environmental issues that will demand policy attention in the new century are ones that are already well known. Future priorities will be aggravated forms of today's environmental problems, their emergence due primarily to a lack of proactive preventive action.

In November, UNEP, UNDP, and Trinidad's Environmental Management Agency sponsored a workshop in Port of Spain, attended by IRF's BRUCE POTTER. The training session focused on: preparation of national environmental plans in a common, GEO-compatible framework for State-of-the-Environment reporting, environmental policy analysis, and the formulation of models and scenarios for forecasting future conditions. Members of the workshop organized a regional *CARIBBEAN ASSESSMENT* mail list for sharing information. Anyone can join by sending a blank email to: carib-assessment-subscribe@egroups.com.



Richard Winchell (left), former director of the BERMUDA AQUARIUM, MUSEUM AND ZOO, is pictured with Ed and Judith Towle during Dr. Towle's recent consultancy in Bermuda to participate in a forum on managing the island's marine resources.

BVI ENVIRONMENTAL INFORMATION CENTRE

By year's end, the ISLAND SYSTEMS ENVIRONMENTAL INFORMATION CENTRE had been fully set up by Foundation staff at the BVI facility provided by H. LAVITY STOUTT COMMUNITY COLLEGE. A schedule for its use by students, researchers and other visitors will be announced early in 2000. The core of the Foundation's extensive environmental research library was donated last year to the Community College. It will be maintained initially by the Foundation at the Main Street Annex Building, which the College currently shares with the University of the West Indies School of Continuing Studies in Road Town.

In addition to extensive interdisciplinary holdings on each Caribbean island and on the wider Caribbean region, the new Information Centre also includes island-focused collections dealing with insular ecosystems, biodiversity, wildlife, fisheries, marine and coastal resource management, forestry and watersheds, tourism, pollution control, economic growth, land use planning, natural hazards and disaster mitigation, parks and protected areas, and marine archaeology.

Also available, at both large and small scale, is an extensive collection of terrestrial, coastal and marine maps and charts of the Caribbean region and each island system, including most satellite islands and cays.

Community-focused workshops and seminars on environmental, conservation and sustainability issues and on public uses for the new Information Centre are being planned in conjunction with the Community College and the BVI National Parks Trust. Persons interested in receiving program announcements or in volunteering to help with the new Centre or its community service/outreach program are invited to contact Dr. Edward Towle at etowle@irf.org or call the BVI office at 284.494.6954.

BIODIVERSITY UPDATE

A key element of the Foundation's BIODIVERSITY PROGRAM is support for technical studies and research to expand the biodiversity information base in the eastern Caribbean. To advance this program objective in 1999, the Foundation provided technical support and services for the Government of Antigua-Barbuda and for two NGOs in St. Kitts and Nevis.

Early in the year, the Antiguan Government launched a new initiative as part of its obligations under the Convention on Biological Diversity. As it began this process, the Government contacted Island Resources Foundation for assistance. Foundation program associate BRUCE HORWITH worked with the country to carry out a "stocktaking" of Antigua's biotic resources. The resulting report includes an inventory of what is, and is not, known about biodiversity in Antigua, Barbuda and Redonda, provides a preliminary identification of conservation priorities and threats to biodiversity loss, and forms a background framework for developing Antigua's National Biodiversity Strategy and Action Plan.

In St. Kitts and Nevis, the Foundation has been working with the Nevis Historical and Conservation Society and the St. Christopher Heritage Society to prepare:

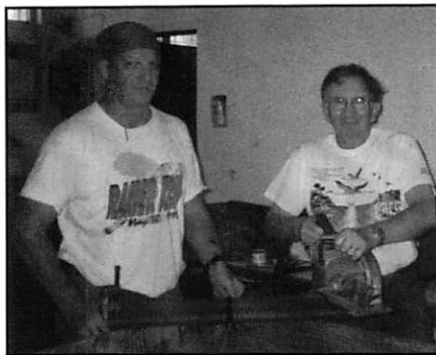
- A Biodiversity Profile of St. Kitts and Nevis
- A Vegetation Classification of St. Kitts and Nevis

Both studies were completed in November and submitted to our in-country partners.

As we look ahead to the year 2000 and beyond, the Foundation foresees a promising opportunity to build on its 27-year experience base of proven island conservation work by:

- Strengthening its historic, low-key leadership role with NGOs.
- Devising more effective means of biodiversity information generation, mapping, access, and management, specifically for enhanced strategic planning and environmental conservation within the Caribbean.
- Broadening the base of support for more effective wildlife and habitat protection and ecosystem management.
- Joining forces with Community College scientists in planning a BVI component for our biodiversity program.

It follows, of course, that new funding sources and mechanisms, and perhaps new partnerships and new methods of collaboration, will be required for addressing these tasks in an expeditious fashion. In the meanwhile, we look forward to the continued challenge of employing sound science to inform public policy in the search for ecosystem integrity and sustainability. For island societies, this is an especially delicate balancing act. We invite your counsel and would welcome your support. Let us hear from you—we'd love to have you on our team!



JEAN-PIERRE BACLE (left) and ED TOWLE build bookshelves for the new BVI library in Road Town. Jean-Pierre, Ed and Judith Towle and interns Lori Tesolin and Wolfram Dressler spent six weeks in the fall of 1999 setting up the BVI facility. Their task included unpacking, sorting, and shelving over 500 boxes of reference documents and library books shipped from St. Thomas to Tortola.

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