

The Year That Showed Us The Other Side of Paradise

"Inhabitants of the Atlantic Coast, the Gulf Coast and the Caribbean, beware: this hurricane season is shaping up as one of the most active in the last two decades." So cautioned an article in the *New York Times* in late June of this year. Five months later, after what would go down in the record books as the second most active season ever, this early warning from weather experts proved to be all too chillingly accurate.

A combination of atmospheric and oceanic forces made the 1995 crop of tropical storms and hurricanes more frequent and intense than they have averaged since the beginning of this century. Whatever the reason, the residents of the Caribbean — particularly the northeastern Caribbean — have cause enough to remember the 1995 hurricane season, after taking a battering from three successive major storms — Iris, Luis and Marilyn — during a three week period in late August to mid September. Hardest hit were the islands of St. Thomas, Antigua and Dutch St. Maarten. Island Resources Foundation maintains facilities in two of the three islands.

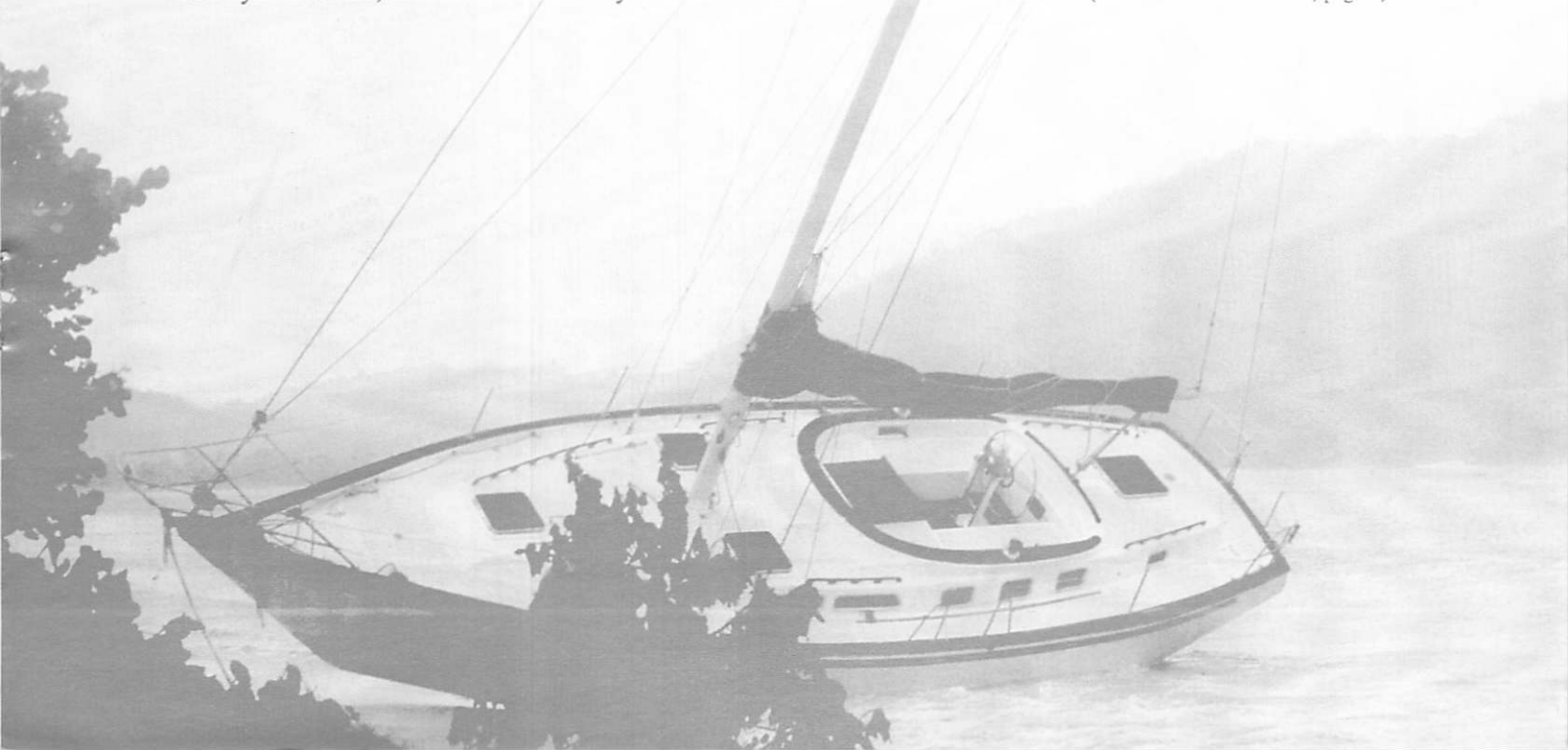
The Foundation's offices in Antigua and St. Thomas sustained damage to equipment and losses in the library collection. Overall, however, our physical damage and injury were less severe than the massive destruction apparent throughout Antigua following hurricane Luis and St. Thomas following hurricane Marilyn. For this, the Foundation is very thankful.

In the initial weeks following the storms, both offices functioned on generator power, and while electricity and intermittent telephone service were restored to the Foundation's offices by mid-November, in St. Thomas three-quarters of the island's telephones were still not in service and only about a quarter of the island had electricity. Full telephone service in St. Thomas is not expected until March of next year; full electrical capacity is not anticipated until early 1996.

The statistics can be overwhelming. As reported in a recent issue of *Caribbean Week*, the Government of the U.S. Virgin Islands estimates storm-related damage at US\$3 billion. Hundreds of people (out of a total population in St. Thomas of less than 50,000) remain homeless, months after the storm. Over 2.7 million square feet of blue plastic roof sheeting cover some 3,600 buildings and homes in St. Thomas. Only a few smaller cruise ships have returned to Charlotte Amalie, the once bustling hub of Caribbean cruise ship traffic, and many of the island's largest resort hotels do not expect to reopen until the spring of 1996, with devastating consequences for this tourism-driven economy.

And what of the natural environment? IRF Research Associate, Dr. Caroline Rogers (Research Director for the National Biological Service stationed at the V.I. National Park in St. John) reports that she and colleagues found coral colonies at Lameshur Bay

(continued *HURRICANES*, page 2)



on the south side of the island smashed and overturned to depths of almost 50 feet after Marilyn. Park scientists estimate that the amount of living coral at this site had not yet returned to pre-hurricane Hugo (1989) levels when Marilyn struck. And because corals grow very slowly, it will probably take several decades for this reef to recover. Additionally, Rogers noted that in areas like Leinster Bay where boats broke loose and went up on shore, more damage was caused by the boats than by the storm itself.

Following Hurricane Hugo, a fierce Category 4 storm which roared through the Eastern Caribbean in 1989, Island Resources Foundation carried out an assessment of coastal environmental damage in the U.S. Virgin Islands. As part of the government's post-Hugo recovery strategy, the Foundation evaluated over 50 hurricane-damaged coastal sites and designed monitoring and impact mitigation plans for sites identified as "priority" areas. A territory-wide plan for further reducing damage in future natural disasters through public-sector acquisition of hazard-prone and environmentally sensitive areas was also developed, but never officially adopted by the Virgin Islands Government. Thus, the lessons of Hugo had minimal effect on altering the reality of Marilyn.

The early months of 1996 will be a critical period for the islands impacted by the storms of '95. Island Resources Foundation took tentative steps to solicit donor community support for a post-Luis and Marilyn environmental recovery initiative in those Eastern Caribbean islands most affected. Unfortunately, the temporary displacement of IRF personnel following the storms and the demands of our own immediate site recovery left both the St. Thomas and Antigua offices less than fully operational for many weeks after the storm.

But it is not too late to assess long-term effects and design an intervention strategy to accelerate recovery. To this end, the Foundation invites donors, regional institutions, Caribbean governments and NGOs interested in helping to design and promote such an initiative to contact IRF's president, Dr. Edward Towle, in St. Thomas. As Dr. Towle recently noted, *"Many of the longer-term effects of the 1995 hurricanes — like Hugo in 1989 — will not be the result of the initial storms (whether Luis or Marilyn), but of ill-advised actions taken in the immediate response and recovery period following the natural disaster."*



A Letter To The Editor, Virgin Islands Daily News (Oct. 28, 1995)

Some thoughts after Hurricane Marilyn.

The sudden shock as the winds from this "little" hurricane started to tear things apart at 11 p.m. Friday night; the agonized cries for help on VHF from boats in the harbor; four adults, three children and a wet dog huddled in a bathroom with mattresses as the freight train winds shook and tore at our haven; finally collapsing on wet bedding in a back room for an hour until dawn; the tentative venturing out as gray, windy light broke through the glass and debris of our home to the gallery looking over town, and absolute incredulity at the massive damage visible on all sides.

Houses gone, trees twisted and downed, poles broken, the harbor swept clean of boats, seeing first one, then another and then another neighbor, taking joy in our survival and comfort in sharing the ordeal.

The Bryan clan firing up their pickup and chain saws and clearing the road, top to bottom; finding the propane tank in tact — hot coffee! And breakfast for the kids; going out to find friends, fellow workers and survey the structure of our livelihood — some with houses gone, some with only water damage, but nobody hurt.... People coming together in small communities of common interest to help and share. Anger over the looting, especially our government's failure to anticipate and prevent it, balanced by gratitude for the rapid and massive infusion of federal assistance; my Daily News delivered by 6 a.m., four days after the storm; the pleasure of watching the sudden blossoming of leaves on naked trees, balancing fatigue and occasionally the despair of wondering how to put everything back together again.

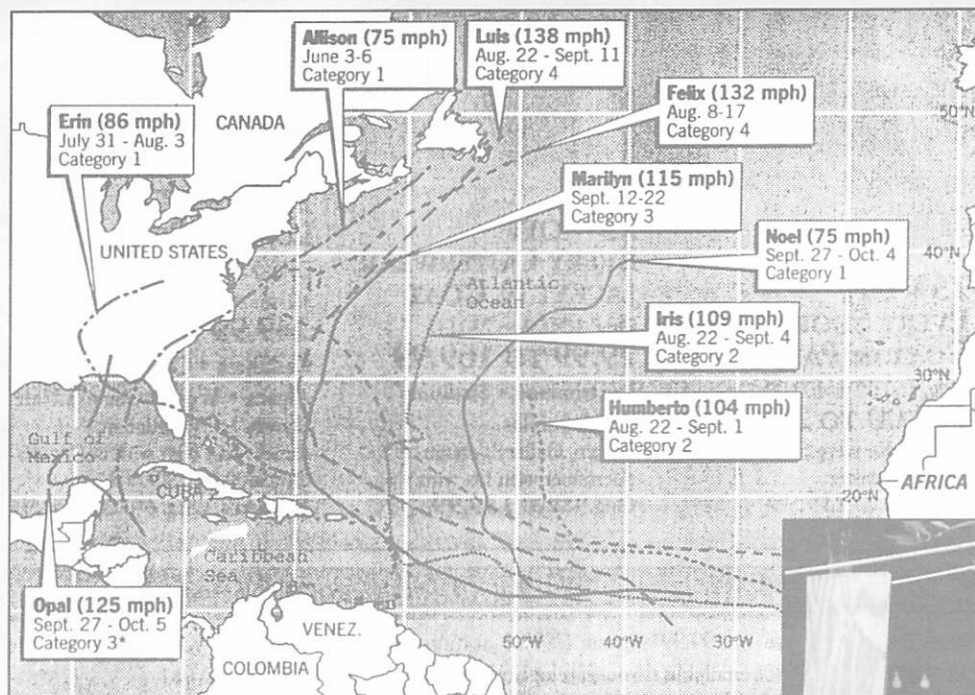
The sweet and sour blessings of a generator. ... A Main Street landlord showing up on the doorstep demanding his rent for October. The curse of traffic and lines, the aftertaste of siphoned diesel fuel; and, finally one morning, a dawn of Homeric proportions, truly "rosy fingered," a poignant reminder of the beauty and potential of life.

Charles Consolvo
St. Thomas

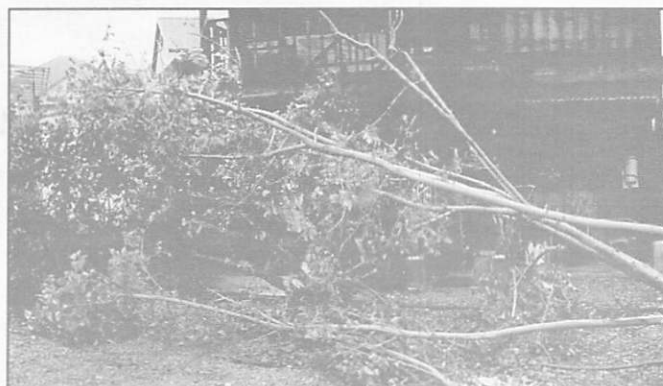
Charles Consolvo, a St. Thomas businessman, is a member of the Board of Trustees of Island Resources Foundation and has served as the Foundation's legal counsel for almost 20 years.

← The waterfront highway in Charlotte Amalie, St. Thomas, one week after Hurricane Marilyn. Instead of taxis and tourists, shipwrecked vessels line the waterfront's main road. Boats tossed ashore like toys by Marilyn's 100+ mph winds included an 82-foot U.S. Coast Guard cutter, seen in the background of this photo.

The Furious Season of '95



At right, IRF president Ed Towle is about to trade his computer for a hammer as the clean-up and repair process gets underway at the Foundation following hurricane Marilyn.



Trees down at IRF headquarters in St. Thomas following hurricane Luis — with Marilyn yet to arrive, one week later!



An estimated 80% of the buildings in St. Thomas were damaged in Marilyn. Not only windows and roofs but entire walls were stripped from the structures shown at the left, with the end units in the larger apartment complex now totally exposed.



Enormous losses were incurred by boat owners in the Caribbean during the last hurricane season — in particular in St. Maarten as a result of Luis and in St. Thomas as a result of Marilyn (the vessel shown at the left is at Red Hook in St. Thomas). All six deaths in St. Thomas and St. John as a result of the hurricane were of boaters.

New Biodiversity Program Associate

Kevel Lindsay of Antigua was appointed in September as Program Associate for the Foundation's Eastern Caribbean Biodiversity Program. Mr. Lindsay began work with Island Resources four days before hurricane Luis hit Antigua — it made for an exciting start-up to his tenure with IRF!

He joins the almost three-year-old Biodiversity Program, which is a joint venture of the Foundation and The Nature Conservancy, with primary funding at the present time provided by the U.S.-based Moriah Fund. Mr. Lindsay joins Biodiversity Program Director Bruce Horwith at the Foundation's Antigua office, where he will share responsibility for a regional program to assist governments and non-governmental organizations in conserving and protecting biodiversity by: improving available information on the region's flora and fauna; building a broader constituency for biodiversity conservation, and enhancing the network of protected areas in the Eastern Caribbean.

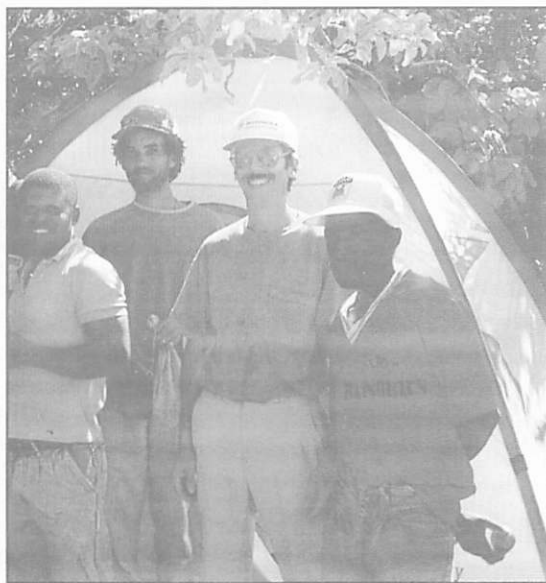
Prior to joining the Foundation, Mr. Lindsay was with the Forestry Unit of the Ministry of Agriculture in Antigua-Barbuda. He holds a Diploma in Forestry from the Eastern Caribbean Institute of Agriculture and Forestry in Trinidad. After his return home from college in 1990, Mr. Lindsay became an active participant of the Environmental Awareness Group, a conservation NGO in Antigua, where he continues to serve as an executive officer and active volunteer. He is the national representative from Antigua to the Society of Caribbean Ornithology and is well known and respected in the region. He was the 1993 recipient of the Euan P. McFarlane Award, given annually to a young Caribbean national who has demonstrated outstanding environmental leadership.

Although based in Antigua, Mr. Lindsay's area of focus will be a larger group of islands in the northeastern Lesser Antilles. Primary among these will be the **Island of Montserrat**, where the Biodiversity Program has been active for several years. Montserrat has been a focus of concern throughout the region since mid-July when loud rumbling noises, lightly falling ash and strong sulfurous smells from the Soufriere Hills in the south signaled unusual seismic activity and the beginning of a volcanic emergency which continued to the end of the year.

In August, the Government evacuated several thousand persons from the southern part of the island to a camp in the north. By September, the emergency appeared to be sufficiently reduced to permit evacuees to return home, but by December 1 seismic activity intensified once more (to the highest levels since the crisis began on July 18).

Evacuation of about 4,000 persons, including the capital of Plymouth, was ordered, with plans moving ahead for establishment of some permanent shelters in the north. The government has relocated for a period of up to four weeks, and most of the island's major businesses have also established outlets in the designated "safe" area.

Amid such uncertainty, the Biodiversity Program in Montserrat is temporarily on hold. Earlier efforts focused on Fox's Bay, the largest and biologically most important wetland on the island. With Kevel Lindsay's appointment, biodiversity program initiatives in Montserrat should expand considerably — provided, of course, the volcano cooperates!



In the center of the photo are Kevel Lindsay (second from the left) and Bruce Horwith from IRF's Eastern Caribbean Biodiversity Program. They are flanked by Government of Antigua foresters who are working with the Foundation, the Environmental Awareness Group of Antigua, and Fauna and Flora International in carrying out preliminary biodiversity assessments of offshore islands in the North Sound area of Antigua. Primary focus is on Great Bird Island, habitat for the endemic and endangered racer snake. A rat eradication program was implemented in December to protect the snake, as well as the seabirds which nest on the island.

LEADERSHIP !

For almost a decade, two of the Foundation's most recognized and effective programs have directly addressed the issue of leadership — both institutional and individual leadership.

A focused assistance program for environmental NGOs in the English-speaking Eastern Caribbean was first established by IRF in 1986 and its formal phase drew to a close in 1995 (of course, the Foundation will continue to support Caribbean conservation organizations, albeit less formally). In this our 1995 Annual Report, we would like to thank the many donor groups (over a dozen in all) who provided funding and other support for this program. We also thank the many non-governmental organizations who shared the last decade with Island Resources Foundation. It was a challenging, learning experience for us, as we hope it was for them.

A new publication from IRF in 1995 (*Widening The Circle of Leadership: Strengthening Conservation NGOs in the Eastern Caribbean*) provides a distillation of our experiences and findings after almost a decade of exploring the role and leadership potential of Eastern Caribbean conservation groups. It is available at a nominal charge (see page 7 for order information). The report is a continuation of the dialogue between IRF and its NGO partners, but is also intended for the donor community working in the region as many of the most significant findings focus on international development assistance as it is directed to and impacts upon small conservation NGOs. It also addresses the expanding potential for collaborative public and private sector partnerships in the environmental sector.

In addition to the institutional leadership role of NGOs, the Foundation recognizes the importance of individual leadership in advancing environmental stewardship and balanced development. To this end, IRF established the **Euan P. McFarlane Environmental Leadership Award** in 1988 to acknowledge annually one young (under 35 years) Eastern Caribbean national who has demonstrated outstanding environmental leadership. (For more information about nominations for the McFarlane Award, which carries an unrestricted US\$1,000 cash gift, contact the Foundation's headquarters in St. Thomas.)

The 1995 award recipient is **Mr. Jalaludin Ahmad Khan** of Trinidad. Although only 25, Jalaludin is already a recognized conservation activist who combines his formal training in the design arts with a love for and knowledge of his country's natural history. His efforts to increase public awareness about the plight of the endangered West Indian manatee — as highlighted in the media and published reports — have contributed to the establishment of a field research station in the Nariva Swamp, habitat to the Trinidadian manatee population.

The Caribbean Forest Conservation Association in nominating Jalaludin wrote, "... he can speak with the local bush man as well as with a university professor or minister of government. He is able to gain the confidence of local community members who are normally suspicious of outsiders, ... and is therefore able to gather more information about the status of species in Trinidad than most scientists, game wardens, forestry or other governmental researchers."

Our congratulations to Mr. Jalaludin Ahmad Khan.



THE MUKTI FUND BOARD — Martin Dupuis (far left) and Michael Dively (far right), co-founders of the Mukti Fund, are joined by fellow board members (l - r) William Moody of Rockefeller Brothers Fund, Judith Towle of Island Resources Foundation, and Thomas Fox of World Resources Institute.

Since 1991, the Mukti Fund, a private, U.S. foundation, has collaborated with Island Resources Foundation in support of institutional development for conservation NGOs in St. Kitts and Nevis. The Mukti Fund has awarded over US\$70,000 to IRF as part of a program to strengthen private sector Kittitian and Nevisian institutions that promote cultural and natural resource conservation.

In its 1995 publication, "*Widening The Circle of Leadership*", Island Resources Foundation recognizes the Mukti Fund as a unique donor organization which, although limited in financial resources, is extremely effective by *focusing* its grant-giving efforts and *sustaining* its philanthropic outreach over a substantial period of time. A case study is provided which traces Mukti's development and highlights its current assistance program.

The New Marketplace of Information and Ideas

For over two decades, Island Resources Foundation has developed its programs based on the premise that *information* is the key to informed decision making about the environment. In the 23 years since the Foundation began sponsoring environmental research and technical assistance programs focused on small developing islands, particularly those in the Caribbean, IRF has directly or indirectly sponsored hundreds of publications, workshops, and non-formal information products in support of this underlying premise.

Often, however, we realized that environmental research findings were not used as effectively as we had anticipated, due primarily to problems associated with accessibility and with the applicability of research findings to management requirements. Many of these problems have not been addressed in a systematic fashion in the past by governments, the donor community, and NGOs. Fortunately, emerging new technologies have begun to re-focus attention on information management needs, accessibility, and relevance.

Under the leadership of its vice president Bruce Potter, Island Resources Foundation has begun to explore its role in helping to define and build a new infrastructure for environmental information in the Caribbean. As coordinator of the Virgin Islands Resource Management Cooperative (VIRMC), and through its Eastern Caribbean Biodiversity Program, Island Resources is looking at an entirely new range of program issues and organizational development options.

In the emerging world of electronic information exchange, there should not be debtor nations. In the new balance of trade of ideas, very small players can contribute very big ideas (from *Wired*, April 1995).

In the months ahead, the Foundation will expand the amount of information it makes available on the Internet (for example, we want to eventually publish all eight *Country Environmental Profiles* for the Eastern Caribbean on the Internet). We will continue to disseminate news about available environmental information infrastructure in the Caribbean. We are encouraging development of information models which actively encourage the application of biodiversity information in planning and development control decision making. We are pursuing methods that ensure the comparability and inter-operability of conservation databases throughout the Eastern Caribbean. And we support the creation of "open access" coverage of environmental themes and data exchange policies that stress the sharing of both data and data products.

For more information on these initiatives, contact Bruce Potter at the Foundation's Washington, D.C. office or via the Internet at irf@irf.org.

Reinforcing Regional Networks and Information Exchanges

IRF collaborated in the following regional meetings and training activities in 1995. Participation was limited to those activities that provided an opportunity to share the current research, program findings, publications and new initiatives of Island Resources Foundation.

- ✓ Caribbean study tour sponsored by the American Museum of Natural History (January) [Bruce Horwith was Resident Naturalist aboard the *Sea Cloud*]
- ✓ NGO Consultations, sponsored by the Global Environment Facility (GEF), Washington, DC (February) [IRF is accredited to the GEF; it actively promoted accreditation by other Caribbean NGOs and disseminated information about the GEF to Caribbean groups unable to attend the Washington meetings]
- ✓ Third Biennial Gulf of Mexico Symposium, Corpus Christi, Texas (March), with international participation from Wider Caribbean countries [invited paper presented by Bruce Potter]
- ✓ Caribbean Meeting of Experts to evaluate progress in the implementation of the SIDS (*Small Island Developing States*) Program of Action, Port of Spain, Trinidad (May) [Bruce Potter represented the Foundation]
- ✓ Conservation Training Week for Latin America and Caribbean partners of The Nature Conservancy, Quito, Ecuador (May) [Biodiversity Program Director Bruce Horwith participated in the ecotourism module]
- ✓ Workshop on Integrated Planning and Management of Coastal Areas in the Wider Caribbean, Kingston, Jamaica (June) [IRF's president Edward Towle prepared the draft guidelines used as the basic document under review by this Regional Meeting of Experts]
- ✓ Coastal Resources and Habitat Management Training Seminar, sponsored by the ENCORE project of the Organization of Eastern Caribbean States, St. Lucia (July) [Edward Towle was a lecturer]
- ✓ Fourth Caribbean Marine Debris Workshop in the Dominican Republic (August) [invited paper presented by Bruce Potter]
- ✓ Regional Planning Consultation for CARICOM countries concerned about Global Climate Change, Barbados (September) [Bruce Potter was a participant at the invitation of OAS]
- ✓ Experts Meeting on Identifying and Monitoring Biodiversity and Its Utilization in Commonwealth Small Island Developing States, Malta (November) [attended by new Biodiversity Program Associate, Kevel Lindsay]
- ✓ Seminar on Facilitating Access to Environmental Information in the Caribbean, sponsored by Caribbean Conservation Association and UNEP/INFOTERRA, Kingston, Jamaica (November) [invited paper presented by Bruce Potter]
- ✓ Fifth Session of the Intergovernmental Oceanographic Commission of UNESCO, Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE), Barbados (December) [invited papers presented by Edward Towle and Bruce Potter]

New Publications From IRF In 1995

- ✓ Bruce Potter, *Global Environment Facility (GEF) Overview*, 4 pp.
Prepared following IRF participation in GEF NGO Consultations in Washington, DC (Feb.). US\$1.00.
- ✓ Judith Towle, *The Donor Directory: A Guide To Who Is Supporting Sustainable Resource Development in the Eastern Caribbean*, 86 pp.
Published version of this document is already out of stock, but IRF can provide a photocopied Directory for US\$12.00.
- ✓ Judith Towle and Bruce Horwith, *The NGO Directory: A Guide To Environmental Non-governmental Organizations Supporting Conservation and Resource Management Programs in the Eastern Caribbean*, 55 pp.
US\$5.00/copy to U.S. addresses; US\$7.00/copy to non-U.S. addresses (do not add 15% for postage and handling for orders of this publication).
- ✓ Judith Towle, Bruce Horwith, Giles Romulus, and Reynold Murray, *Widening the Circle of Leadership: Strengthening Conservation NGOs in the Eastern Caribbean*, 45 pp.
This publication represents a distillation of the Foundation's experiences and findings following almost a decade of focused assistance to conservation NGOs in the Eastern Caribbean. US\$5.00/copy to U.S. addresses; US\$7.00/copy to non-U.S. addresses (do not add 15% for postage and handling for orders of this publication).
- ✓ Bruce Potter, *Caribbean Environmental Information Infrastructure Initiatives*, 16 pp.
First presented as a paper at the Gulf of Mexico Symposium in Corpus Christi, Texas (March); presented in a revised form at the Fourth Caribbean Marine Debris Workshop in the Dominican Republic (August); and presented in its current form at a Seminar on Environmental Information in Kingston, Jamaica (November). US\$2.50.

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A Sample of IRF Accomplishments In 1995

- ✓ Ended the formal phase of a *nine-year program* that provided technical assistance and institutional development support to *conservation non-governmental organizations* (NGOs) in the Eastern Caribbean. IRF assisted its NGO partners in generating over US\$300,000 in direct funding for NGO projects on agroforestry, biodiversity, conservation, ecotourism, and institutional development.
- ✓ Drafted *guidelines to facilitate integrated coastal area planning and management in the Wider Caribbean*, including appropriate institutional arrangements and major components for plan preparation and program implementation (developed by IRF president Edward Towle for UNEP's Regional Coordinating Unit in Kingston, Jamaica).
- ✓ Prepared an updated *Hazard Mitigation Plan for the U.S. Virgin Islands*, developed by IRF vice president Bruce Potter, assisted by research associate David Brower and VI consultant Brian Turnbull, for the VI Emergency Management Agency. (Ironically, the contract for this work was signed by the Foundation and the VI Government the day before Hurricane Marilyn battered St. Thomas!).
- ✓ Assisted the *Organization of American States* in the development of information documents for CARICOM countries which are parties to the *Global Climate Change Convention*.
- ✓ Prepared an *Environmental Assessment Report* in the British Virgin Islands which, according to the Government's Planning Department, "sets a new standard for this type of work in the BVI."
- ✓ *Recipient of one of seven grants* awarded in 1995 by the Biosphere Reserve Directorate of the U.S. Man and the Biosphere Program.
- ✓ Facilitated the establishment of a *GIS Users Group for the British and U.S. Virgin Islands*, a new grassroots network to share information about new data sources and technology (under the aegis of the V.I. Resource Management Cooperative).
- ✓ Established a *home page for Island Resources Foundation on the World Wide Web*. Look in on the Foundation at <http://www.irf.org>.

Demonstrate Your Love For Islands Support Island Resources Foundation

- ☐ *Yes*, I want to help the Foundation maintain its commitment to islands.
Enclosed is my unrestricted gift in the amount of \$ _____.
- ☐ *Yes*, I would like to support the Foundation as a member in the classification checked below.
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- ☐ Associate (\$25) ☐ Sustaining (\$50) ☐ Sponsoring (\$100) ☐ Life (\$500)
- INSTITUTIONAL/CORPORATE MEMBERSHIP:
- ☐ Contributing (\$200) ☐ Donor (\$500) ☐ Patron (\$2,000)

NAME: _____

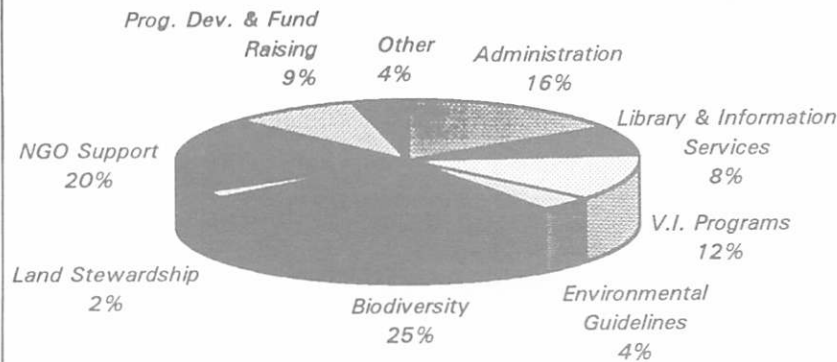
ADDRESS: _____

Please make check payable to Island Resources Foundation and mail with this form to:

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St. Thomas
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00802-1104

All contributions are deductible under U.S. tax guidelines.

Where the \$ Went (FY 95)



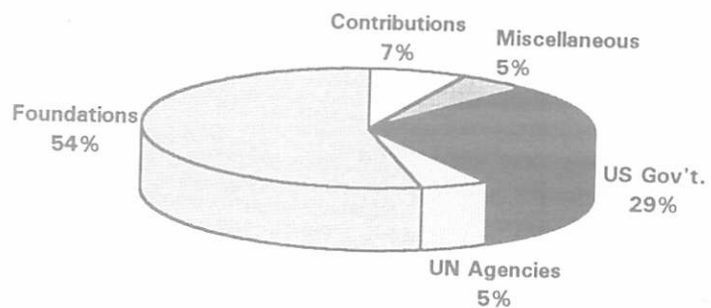
Island Resources Foundation...

- ✓ is a 23-year-old development assistance organization with a special interest in protecting and enhancing the environments of small islands, especially those in tropical areas;
- ✓ is a service organization that provides technical and professional planning assistance on contract or with donor support;
- ✓ is an interdisciplinary organization whose programs emphasize problem solving, technical skills building, institution strengthening and insular-focused research;
- ✓ is a major contributor to global initiatives designed to enhance the development options of small islands.

Island Resources Foundation...

- ✓ is a non-endowed, operating foundation;
- ✓ is a non-profit organization that is also tax exempt in the United States;
- ✓ funds its activities primarily through a combination of donor support, memberships, and contributions;
- ✓ also undertakes resource planning and environmental impact assessment work, often as a joint venture with public and private sector institutions.

Where the \$\$ Came From (FY 95)



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