

island resources

F O U N D A T I O N

environmental planning for sustainable island development

ANNUAL REVIEW for 2009

Since its founding in 1972, Island Resources Foundation (IRF) has established a significant body of work addressing the differences between insular and continental systems while supporting the emergence of island-focused and island-specific environmental guidelines, practices and institutions.

In further pursuit of this mission, during the last twelve months Island Resources Foundation has:

*"Island communities display rich and diverse cultures, languages, societies, histories, governance forms and livelihoods. Yet island characteristics such as isolation, restricted land area and limited ... resources bring about significant environmental and social challenges. The **same characteristics** also **yield opportunities** for **tackling these challenges effectively** (emphasis added)."*

Ilan Kelman

Full text at www.eldis.org/id21ext/insights70editorial.html

- Carried out preliminary planning for the proposed **Nevis Peak National Park**.
- Completed a 5-year Conservation and Management Plan for the **protection of bat species** in the US Virgin Islands.
- Produced the first **Environmental Profile** in the British Virgin Islands, for the island of **Jost Van Dyke**.
- Designed and implemented an outreach strategy for the **Global Environment Outlook** for Latin America and the Caribbean.
- Provided a biodiversity inventory and status assessment report for the proposed **Wallings Forest Protected Area** and the **Codrington Lagoon National Park** in Antigua and Barbuda.
- Worked in partnership** with the Environment Division of Antigua-Barbuda, the Nevis Island Administration, the Caribbean Coral Reef Institute at the University of Puerto Rico, the Jost Van Dykes Preservation Society, the BVI National Parks Trust, the Nevis Historical and Conservation Society, UNEP's Regional Office for Latin America and the Caribbean in Panama, the Organisation of Eastern Caribbean States, and Environment Tourism Consulting in Antigua.
- Assisted the BVI National Parks Trust in managing its newest protected area, the **Sandy Cay Habitat Management Area**.
- Provided guidance and support for the Caribbean Philanthropy Network (**CPN**), the Caribbean Conservation Association (**CCA**), the Small Island Developing States Network (**SIDSNet**), the BVI Planning Committee for the 2012 International Small Island Studies Association (**ISISA**) meeting, and the Global Islands Partnership (**GLISPA**).
- Continued its **16-year program** of research, erosion modeling, and development of **best management practices for sediment control** in the Caribbean, at sites principally in Puerto Rico and the USVI.
- Honored an islander from the Netherlands Antilles with presentation of the **18th Euan P. McFarlane Award** for Outstanding Environmental Leadership in the Insular Caribbean.
- Contributed to the preparation of a Land Use Zoning and Management Plan for the **integrated development of the Body Ponds Watershed** in Antigua.

Some of these accomplishments and more are detailed in the pages of this Annual Review for 2009.



The island of Jost Van Dyke, British Virgin Islands, from the north shore of Tortola

Jost Van Dyke was the subject of an *Environmental Profile* prepared by Island Resources Foundation in 2009, in partnership with the Jost Van Dykes Preservation Society with funding provided by the UK Overseas Territories Environment Programme.

[Photo Credit: Saraheva Krancic]

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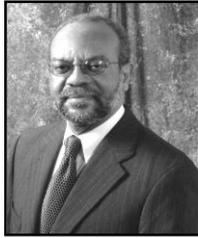
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Notes on Staff, Trustees, Associates and Projects

Island Resources Foundation has announced the appointment of **Dr. Michael E. O'Neal** as **Senior Research Fellow**.

Dr. O'Neal is a national of the British Virgin Islands and an anthropologist by training, having earned a Ph.D. Degree in Development Anthropology from the Union Institute. Over the course of his fifteen-year tenure at the H. Lavity Stoutt Community College in the BVI, Dr. O'Neal played a central role in the growth and development of the College, serving first as Vice President and then as the third President, stepping down from the presidency at the end of 2008, in part, to pursue earlier interests in international development and the environment. Welcome aboard, Dr. O'Neal!



The recent publication of *The Wild Plants of Antigua and Barbuda* highlights one of the passions of IRF ecologist and conservation biologist **Kevel Lindsay**—namely, the discovery and cataloguing of plant species in the insular Caribbean. Additionally, reflecting his other biodiversity passions—birds and bats—Kevel has been elected to the board of the Society for the Conservation and Study of Caribbean Birds, while he and IRF colleague, **Jean-Pierre Bacle**, continue their study of Caribbean bats, including recent publication of their research efforts in the Virgin Islands and Antigua: (i) “New Records of Bats from the British Virgin Islands” (with Gary Kwiecinski and Hugh Genoways) in *Caribbean Journal of Science*, Vol. 45, No. 2, 2009 and (ii) “First Record of *Ardops nichollsi* from Antigua, Lesser Antilles” (with Gary Kwiecinski, Scott Pedersen and Hugh Genoways) in *Mammalia*, 74 (2010).



Pictured (l-r): Chris Pratt, Carolyn Thomas, and Melanie Pearson, who, with IRF's Kevel Lindsay, are co-researchers and co-authors of a new publication that catalogues and illustrates approximately 500 species of native and naturalized plants in Antigua.

IRF Trustee and Senior Program Associate **Barbara J. Lausche** is the author of a new book from the Environmental Law Programme of the International Union for Conservation of Nature (IUCN) and the International Council of Environmental Law (ICEL) entitled *Weaving A Web of Environmental Law*, IUCN/ICEL, Bonn, Germany (563 pages). She is currently working on a revision of IUCN's *Guidelines for Protected Areas Legislation*, which represents an updating of her original work prepared in 1980.



IRF Trustee **Nicolas Drayton** has joined the University of the Virgin Islands (UVI) as program coordinator for VI EPSCoR, the **VI Experimental Program to Stimulate Competitive Research**, a program housed at UVI with a mission to expand the VI Territory's capacity for scientific research and education. Prior to joining UVI, Mr. Drayton headed the Ocean Conservancy's Caribbean program office, and earlier in his career he served as director of the BVI National Parks Trust.



In honor of her years of service, a scholarship fund (in the marine sciences) was established by the **University of the Virgin Islands** in the name of retiring UVI President and IRF Trustee, **Dr. LaVerne E. Ragster**. It has been the Foundation's good fortune to be associated with Dr. Ragster for more than 25 years, as a colleague, often as a partner, and as a member of IRF's Board of Trustees since 1993.



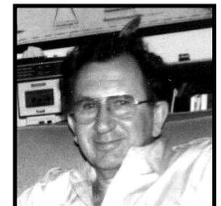
Dr. LaVerne Ragster and her husband, Lloyd Gardner, an IRF Program Associate

IRF Vice President, **Judith Towle**, and Senior Research Fellow, **Dr. Michael O'Neal**, are serving on the Advisory Board of the **Caribbean Philanthropy Network (CPN)**, a Ford Foundation-funded program of the Community Foundation of the US Virgin Islands. A primary CPN initiative—a review of the legal and regulatory framework for philanthropy in the Caribbean—is led by CPN board members **Judith Towle** and **William Moody**, Distinguished Fellow of the Rockefeller Brothers Fund and an advisor to IRF during its eight-year Sandy Cay project in the BVI. The outputs of this initiative will be reviewed at the annual meeting of the Caribbean Philanthropy Network in St. Thomas, Virgin Islands in May of 2010.



Above:
Judith Towle and Bill Moody

IRF founder and past president, the late Dr. Edward L. Towle, was recently honored by the **H. Lavity Stoutt Community College (HLSCC)** in Tortola, BVI when the College's environmental library was dedicated in his name and memory as the **Dr. Edward L. Towle Island Systems Environmental Collection**. In a ceremony including three HLSCC presidents (current president, Dr. Karl Dawson; immediate past president, Dr. Michael O'Neal; and former president and current chairman of the Board, Dr. Charles Wheatley), Dr. Towle was remembered as an educator, historian, environmentalist, who cared passionately for the unique Caribbean library he created and built over a 30-year period. That library was donated to HLSCC in 1997 and is now housed at the College's Paraquita Bay Campus. Judith Towle, who spoke at the dedication, recalled the launching of the library in the early 1970s:



Ed determined that the library would include non-traditional, so-called "gray" literature, and other unpublished material and, equally important, that this information would be available within an open-access framework. The subject matter—the environment, small island systems, sustainable development in the Caribbean—were all relatively new subjects for the region. And because these were pre-Internet, pre-Google, even pre-personal computer times, the service function provided by Ed's library—and his extensive distribution network—fulfilled a growing need and was unique for its time.

The Towle Collection is open to the public at HLSCC's Learning Resource Centre in Tortola.

Island Resources Foundation has announced the 18th recipient of the **Euan P. McFarlane Award for Outstanding Environmental Leadership in the Insular Caribbean**. He is **Rueben J. Thompson of St. Maarten**, the first honoree from the Netherlands Antilles. IRF has overseen management of the \$1,000 award since it was established in 1987. Recipients have included environmental leaders from St. Lucia, Barbados, Antigua, Dominica, Trinidad, St. Croix, Guadeloupe, St. Kitts, Nevis, Jamaica, British Virgin Islands and St. Vincent.



Mr. Thompson's name was put forward by Natalie Collier, president of **Environmental Protection in the Caribbean (EPIC)**, in a nomination that emphasized his environmental leadership and advocacy skills for, among other accomplishments, the Love the Lagoon project and on behalf of the historic Emilio Wilson Estate. His nomination was also supported by Paul Hoetjes, Department of Environment and Nature, Curacao, who wrote, "Rueben is a young St. Maartener who has been instrumental in achieving important victories for nature conservation on St. Maarten, no small feat on an island where the pressure of development is enormous."



Under the leadership of IRF's **Dr. Carlos Ramos-Scharrón**, erosion studies at Fish Bay (St. John, USVI) have been recognized by the **Rainforest Alliance** for "the use of specialized GIS tools to identify, prioritize and implement best management practices for controlling land-based sediment flow." Watersheds at Fish Bay and elsewhere on St. John were employed as demonstration sites for the application of similar practices elsewhere in the Caribbean. The Rainforest Alliance has included the project on its **Eco-Index**, a database of information about more than 1,250 inspiring conservation projects in the Americas.

Also at **Fish Bay, St. John (USVI)**, on a portion of the 44 acres of green space owned by Island Resources Foundation, volunteers from the Estate Fish Bay Owners' Association have created a **native plant garden** under the direction of St. John horticulturist **Eleanor Gibney**. The garden displays the types of plants and trees that grow naturally at Fish Bay, and the entrance sign, pictured at right, encourages residents to use the garden, before excavating, as a guide to what could grow on their land or may already be present and in need of preservation.



St. Lucia may be home to the **smallest beetle in the world**, according to results of a 2009 assessment carried out by **Dr. Michael Ivie**, a beetle specialist who has assembled the world's largest collection of West Indies beetles. The discovery of an unknown species measuring a third of a millimeter was made during a 3-month study in St. Lucia. Dr. Ivie has been an IRF Program Associate for over 25 years and served as chief scientist for IRF's 2001 ecosystem study of Sandy Cay in the BVI.

IRF's president, **Bruce Potter**, is a member of a core group of ten global experts assembled by the UN's Department of Economic and Social Affairs/Division for Sustainable Development to provide strategic input for revitalizing **SIDSNet**, the **Small Island Developing States Network**. The rationale for SIDSNet dates to 1994 when the United Nations sponsored a Global Conference in Barbados on the Sustainable Development of Small Island Developing States (**SIDS**).



The emergent Barbados Program of Action called for the formation of a network to facilitate the exchange of experience among the SIDS, with an early emphasis on information management as a response to the unique development challenges of SIDS. The long-term vision was to enable interaction around the Barbados Program of Action and provide a voice for SIDS on island sustainable development issues. In the intervening years, that early focus has shifted from information access and availability to transforming information into knowledge for informed decision-making.

Mr. Potter currently heads the Foundation's strategy to support emerging information management technologies that advance small island sustainability, and he moderates the Foundation's 30 electronic mail lists, most of which address issues of special relevance to small islands.

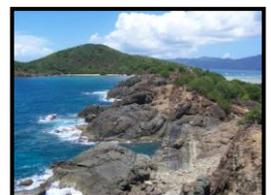
Jost Van Dyke Environmental Profile

Despite its three centuries of modern habitation, Jost Van Dyke [British Virgin Islands] has only been lightly developed, with economic growth proceeding at a slower pace compared to its larger nearby neighbours—Tortola in the BVI and St. Thomas in the USVI. Much of the island's environmental and cultural elements remain relatively intact; its lifestyle seems less hurried and stressful than on more developed Caribbean islands.

Yet the pressures for change and growth are also evident, and Jost Van Dyke (JVD) finds itself positioned between a past it does not want to lose or squander and a future that promises more options with expanded growth.

Thus begins a 135-page document, **The Jost Van Dyke Environmental Profile**, prepared by Island Resources Foundation in 2009. The study, the first environmental profile available for the British Virgin Islands, is the ninth Caribbean profile prepared by IRF, including, to date: Anguilla, Antigua-Barbuda, Dominica, Grenada, Montserrat, St. Kitts-Nevis, St. Lucia and St. Vincent. Although the *JVD Profile* is not of the entire BVI chain of islands, the lessons learned about JVD's environmental future through the profiling process might well provide a fresh approach to understanding environmental change in the BVI as a whole.

The *JVD Environmental Profile* is a synthesis of the "state of the environment" of Jost Van Dyke—and of the uninhabited, immediately adjacent smaller islands of Little JVD, Green Cay, Sandy Cay and Sandy Spit. The *Profile* opens with an introductory description of the natural and physical features of the five islands and of Jost Van Dyke's community setting. This is followed by a second introductory chapter focusing on the BVI's institutional and legal framework for protecting and managing the environment. *(continued, page 4)*



Northeast coast of JVD, looking toward Little JVD (Photo: JP Bacile)

The chapter on biodiversity is based on field work and research carried out by IRF environmental scientists, **Kevel Lindsay** and **Jean-Pierre Bacle**. It provides the first comprehensive inventory and assessment of JVD's terrestrial environment. The chapter on Jost Van Dyke and the sea, prepared by IRF Program Associate and BVI marine biologist **Clive Petrovic**, examines JVD's marine and coastal resources, maritime traditions and the economic primacy of the sea in the lives of Jost Van Dykians.



Kevel Lindsay searches for frogs in *Tillandsia* (commonly known as Wild Pine or Bromeliad), during field investigations for the Jost Van Dyke Environmental Profile project.

Additional chapters turn to the island's historical heritage and cultural traditions, with an inventory and assessment of historic sites by historian **Michael D. Kent** of H. Lavity Stoutt Community College, and the non-tangible artifacts of JVD's cultural heritage explored by **Susan Zaluski** and **Rosemary Delany-Smith** of the Jost Van Dykes Preservation Society.

The *Profile* concludes with a discussion of waste management and pollution control with a final look at the future and at the central question that guided the Profile Project —

How can the Jost Van Dyke community and the BVI Government find the needed balance between what they want to protect and how they want to grow?

The *JVD Environmental Profile* is one product of a larger program supported by the **Jost Van Dykes Preservation Society**, under a grant to the Society from the **UK Overseas Territories Environment Programme** (OTEP). **Judith Towle** served as IRF project director and *Profile* editor, while **Jean-Pierre Bacle** coordinated IRF research and field activities.

Antigua, Barbuda and Nevis

In 2007, the **Organisation of Eastern Caribbean States (OECS)** secured funding from **USAID** for a project to conserve biodiversity in OECS countries by improving legislation, management and conservation. Seven sites were identified for support, three of which became the focus of IRF assistance in 2009:

- (1) The proposed **Wallings Forest Protected Area** in Antigua — one of the earliest and most successful examples of reforestation in the Lesser Antilles.
- (2) The **Codrington Lagoon National Park** in Barbuda — long a natural-area icon in the country, with a largely unpopulated lagoon encompassing a wild area teeming with birds, insects and flowers.
- (3) The proposed **Nevis Peak Protected Area** in St. Kitts and Nevis — the dominating central peak on Nevis, usually obscured by cloud cover.

IRF assembled teams of experts for each of the three target areas to carry out field research and biodiversity inventories, to liaise and coordinate with government officials, and to consult and interact with local communities and stakeholders.

In Antigua and Barbuda, IRF's participation was coordinated directly with the **Environment Division** of the Government of Antigua and Barbuda, with further participation by volunteers from the **Environmental Awareness Group**, a local NGO. In Nevis, IRF worked on the ground with the **Nevis Island Administration** and the **Nevis**

Historical and Conservation Society, with project funding provided directly by the OECS.

A variety of products were produced by IRF staff and associates working on the three islands, including:

- ✓ Literature reviews for all three sites;
- ✓ Biodiversity inventories and status assessments for all three sites;
- ✓ Boundary recommendations for the proposed Nevis Peak National Park and Camps River Watershed;
- ✓ A Management Plan for the proposed Nevis Peak National Park and Camps River Watershed.



Pictured are some of the members of IRF's Nevis Peak research team, including (l-r): plant specialists Melanie Pearson and Carolyn Thompson from Antigua; nature tour guide James Johnson from Nevis; and IRF's Jean-Pierre Bacle and Kevel Lindsay.

In association with **Lucia Mings** of **Environment Tourism Consulting Ltd. (ETC)**, based in Antigua, IRF assisted with preparation of a Land-Use Zoning and Local Area Management Plan for the **Body Ponds Watershed**, the most significant watershed on the island of Antigua.

IRF's **Bruce Potter** assisted with both the zoning and area management plans, Program Associate **Clive Petrovic** provided an assessment of the marine environments within the watershed, and IRF's **Carlos Ramos Scharrón** prepared an assessment of sediment sources and guidelines for a sediment monitoring strategy.

The Body Pond studies are part of a larger effort, *Demonstrating the Development and Implementation of a Sustainable Island Resource Management Mechanism (SIRMM) in a Small Island Developing State*, funded in Antigua as a full-size Global Environment Facility (**GEF**) project.

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