

# reef notes



Reef Environmental Education Foundation Protecting Marine Life Through Education, Service and Research

*An Active Organization of Divers Committed to the Preservation of the Marine Environment*

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## REEF Celebrates 10 Years

Ten years of education, surveys, fish stories, and friendships were celebrated at REEF's Anniversary weekend, July 11th through the 13th. REEF members from all over the country traveled to the Florida Keys to enjoy this fun-filled weekend. Each day was packed full of parties, diving and catching up with old friends. The festivities started on Friday night with a sunset cocktail party at Rosemary Duke's home in Islamorada and continued with diving and surveying for 3 days. The main event on Saturday night took place at the Jacobs Aquatic Center. More than 80 members, staff, board members and friends packed the Center to enjoy a fabulous dinner with many accolades and recognitions. Paul Humann's description of REEF's history from its inception to today left everyone in the room full of pride to be associated with such an organization (see page 5 for the history). The Volunteer of the Year, Michael Coyne, was recognized for his continuous help with the database. Many other awards were presented, including recognition of our most active surveying members, the top 10 surveyors in each of REEF's Fish Survey Project regions. Recognition was given to the hard-working REEF staff, both past and present. Door prizes and the grand prize raffle were awarded; Robyn Osborn was the lucky winner of a livaboard trip to Belize, generously donated by Peter Hughes.



**Paul Humann speaking at the banquet.**  
Photo © REEF.

Many of the members from the very first REEF Field Survey attended and were awed to see the



**REEF members gather at the cocktail party on Friday night.**  
Photo © REEF.



**Divers prepare for a day of diving and surveying during REEF's 10 year anniversary event.**  
Photo © REEF.

timeline created by REEF's summer interns. The timeline stretched over the walls of the Aquatic Center and vividly illustrated the growth of REEF through the years. It began with 1993 and the first survey and extended to 2003, 10 years later, with 57,663 surveys and over 25,000 members internationally. Guests were invited to fill in the timeline with their personal stories and quotes about REEF. Quotes such as "REEF brings real meaning to diving and adds excitement and enjoyment", "a passion that always brings fun underwater", and "50,000 fish geeks can't be wrong" were posted on the timeline and demonstrated the mood of the weekend.

A fantastic time was had by all. If you missed this event, do not fear. REEF will be hosting similar events in the future for our members to get together and talk fish.

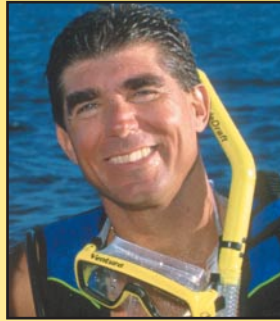
Finally, we at REEF would like to thank all of our members for their contributions. We are a member-driven organization that is sustained by our membership who provide data and funds. Without you, the Reef Environmental Education Foundation would not be here. Thank you for 10 years and still counting!

**A special thanks to Pat Ayers, Judie and Eric Clee, Deena Wells, Tom Isgar, Denise Mizell, and Cathy Coughlin who planned this event from the ground up.**

# Director's Corner

Hello REEFers!

What a summer! Who would have thought that 10 short years ago, what started with a small group of 17 divers would grow into a membership of more than 25,000, a database of more than 57,000 surveys, and a host of special projects and educational programs? Well, here we are—growing and accomplishing more than ever.



A number of special REEF members planned a 10 year celebration that was held in Key Largo in July. Pat Ayers, Judie and Eric Clee, Denise Mizell, Tom Isgar, Cathy Coughlin and Deena Wells poured their efforts into the recipe for a great time. A number of members, board and staff were recognized for their efforts, and Dr. Michael Coyne was awarded the Volunteer of the Year award for 2002. They all deserve our thanks for a great event.

On the work front, we have just completed our State of Florida monitoring effort to locate and survey 16 artificial reef sites in the lower Florida Keys. We've also finished year one of our five-year contracts to monitor the Spiegel Grove and adjacent natural reef areas and the Wellwood grounding restoration site. We are also continuing our monitoring projects at numerous National Marine Sanctuary locations around the U.S. Our ever-growing Advanced Assessment Team (AAT) members have undertaken the lion's share of the effort. Thanks to their support and expertise, REEF continues to lead the way in visual assessments of fish populations.

As our AAT ranks grow, so do the opportunities afforded to them. New projects on the horizon include assessments at the Olympic Coast National Marine Sanctuary in Washington, the second year of an assessment at Gray's Reef off the Georgia Coast, and the beginnings of a collaborative effort with the National Park Service.

As you may remember, in our last solicitation, we included a short questionnaire on where you would like to see REEF concentrate our future efforts. We asked and you responded well! More than 60% of the returns included survey responses. The number one response by almost a 2:1 margin was Marine Environmental Education. Not surprising, considering our mission and name! The second and third place responses were species-specific protection efforts and expansion of programs to new regions. You spoke and we are listening. We have already begun our planning to unveil new educational materials and programs, and we have moved our expansion efforts higher on the priority list as well. Keep your ears open for upcoming news on these and other expansion and protection efforts in the works.

Finally, I would like to thank all of our local volunteer teams for their efforts during Earth Day, Great Annual Fish Count and ongoing local survey programs. REEF's organizational structure is lean and mission-oriented. We rely on strong partnerships with local Field Stations, conservation organizations, and dive clubs to carry out the fieldwork of data collection and education of local divers. Without your generous efforts and enthusiasm, the REEF staff would only be able to accomplish so much. Thank you for your support and keep up the great programs!

Best Fishes and see you in the water!



Lad Akins  
Executive Director, REEF

## GAFC Makes a Splash in 2003



Volunteers and staff at the first annual Biscayne Underwater Park GAFC. Photo by Todd Kellison.

What do the Latin Divers Club, the PNW Critter Watchers, and the Project SEA-Link Adopt-a-REEF have in common? They were among the more than 31 organizations hosting more than 76 dive events for this year's Great Annual Fish Count (GAFC).

In a year in which we are forced to cut back on our event programs, the GAFC continues to shine on as a wonderful way to introduce the diving and non-diving public to fish surveying and local marine environments. From Massachusetts to Dominica, Cozumel to Canada, and Florida to Hawaii, the July event provides divers with a great learning experience and many opportunities to dive in and see what is swimming around in their local waters.

This year's GAFC brought a festive atmosphere to many of the group projects, such as the Latin Divers Club, Cozumel Marine Park volunteers, Montego Bay Marine Park, and divers at the Stellwagen Bank National Marine Sanctuary. These and other events combined dive outings with social picnics or barbecues to make fun daylong affairs. Though final numbers were not available at press time, it appears that the hearty northeast divers at Stellwagen Bank again topped the list for single event participation with more than 74 divers conducting 110 surveys! A complete summary of press coverage and survey results will be available on REEF's GAFC website at <http://www.fishcount.org>. Thanks again to all the volunteers that made this event such a success.



Cozumel Marine Park volunteers and staff dive for GAFC 2003. Photo courtesy of Parque Marino Volunteers.

## MPA News

REEF believes that Marine Protected Areas (MPAs) are an important tool for the protection of marine ecosystems, and we urge our members to stay informed of MPA initiatives. In each issue of REEFNotes, the MPA News feature brings you recent and noteworthy happenings.

### Protection of Caye in Belize Consolidates Large Area as Marine Reserve

In July, the water surrounding Little Water Caye off Belize's southeastern coast was declared the newest marine reserve in an area that serves as an important spawning aggregation location for more than 25 species of reef fish and the impressive whale shark. The acquisition of the island by Friends for Nature in Belize helps to consolidate a larger marine conservation corridor in the region. Gladden Spit and Silk Cayes Marine Reserve, created in 2000, are located to the east of Little Water Caye, and Laughing Bird Caye National Park is to the west. The island will house a marine research station and ranger headquarters and will serve as the management base for the nearby MPAs. While several conservation organizations, including The Nature Conservancy and Green Reef, study the grouper and snapper spawning aggregations of Gladden Spit, Friends of Nature will focus



Whale sharks are the focus of a new marine reserve in Belize. Photo © Paul Humann.

conservation efforts on the whale sharks that aggregate in Little Water Caye. A collaboration of conservation groups, researchers, and fisherman are currently working to formalize whale shark tourism standards for the area. Visit the Darwin Initiative's website at <http://www.york.ac.uk/depts/eeem/darwin/> to read more about whale shark research in the area and the efforts to develop whale shark tourism standards.

## Great Fishwatching Finds

What keeps us fishwatchers searching? Why do some of us keep surveying our same local reefs over and over again and report the same fish with little variation? It's precisely because of these little variations. Finding a rare fish on a dive, finding a species that has been on your 'hope list,' or observing unusual behaviors, color patterns or habitat preference are all thrills to fishwatchers everywhere.

If you have conducted surveys in the Florida Keys and reported fairy basslet, *Gramma loreto*, you may have received an email or phone call from REEF HQ questioning this sighting. Though widespread in the Caribbean, this species is not found on south Florida's reefs. However, you may remember an article in the REEFNotes Fall 2001, highlighting an extraordinary find of a single fairy basslet on Alligator Reef offshore of Key Largo on June 5, 2001 (<http://www.reef.org/webres/notes/fall01.pdf> - page 9). More than two years later, what is believed to be the same fairy basslet was sighted on the same reef, at the same ledge, under the same overhang on July 20, 2003. To local surveyors here in the Florida Keys, reporting a fairy basslet on a survey is extra special.

Earlier this summer, surveyors on the Pacific coast documented several sharpchin rockfish, *Sebastes zacentrus*. This species, normally found in deep water (330 to 990 feet), was sighted at



Sharpchin rockfish. Photo © Janna Nichols.

safe recreational diving depths at a seamount in south Hood Canal, Washington. Though the waters at this dive site are murky, chilly, and deep (80-90 feet), Pacific Northwest surveyors are very excited about this new find and plan to visit this site again soon. To read the story of the first sighting of this species as well as other cool critter finds by Pacific Northwest surveyors, visit <http://www.pnwscuba.com/critterwatchers/coolcritters.htm>.

The dragon moray eel, *Enchelycore pardalis*, is an exceptional find for fishwatchers in the Hawaiian Islands. This small eel sports a striking color pattern of vivid spots and streaks and its appearance is topped off by some rather funky, horn-like appendages on its head and snout. Only 9 surveys from Hawaii have reported this species. One reason for its rareness in the main Hawaiian Islands (it is more common in the remote Northwest Hawaiian Islands) could be the high demand for it in the marine aquarium trade.

## REEF Data Used in the 'Caribbean Reefs at Risk' Report

As part of an effort to provide information on the threats facing Caribbean coral reefs, the World Resources Institute (WRI) is developing a GIS-based analysis of threats including coastal development, sedimentation, pollution, and overfishing. Overfishing can be a major pressure on coral reef systems. It reduces levels of biodiversity that typically result in shifts in fish size, abundance and species composition, and it alters the ecological balance on the reef. Working in collaboration with REEF, the University of Miami, and experts from across the region, a validated region-wide indicator of the level of fishing pressure is being developed. Data from the REEF database on sixteen target species were provided to WRI. These data are central to the analyses, providing a unique regional-scale, fisheries-independent source of information on the status of reef fish communities. The goals of these analyses are to raise awareness of overfishing and other impacts as threats to the health of coral reefs in the Caribbean and to provide high quality information for more effective management. Reefs at Risk: Caribbean is expected to be published in Spring 2004. For more information, visit <http://www.wri.org/reefsatrisk/>.

The tropical eastern Pacific region has several species of jawfish, but the largest and most elusive is the giant jawfish, *Opistognathus rhomaleus*. Jawfish live in burrows and are often seen only with their heads protruding. Most species are small (2-6 inches), but the giant jawfish has a head the size of a dinner plate! Presently, this species has only been reported on 4 surveys in REEF's database, including the sighting of a pair during the 2002 REEF Field Survey to Baja, California at a dive site near Isla del Espiritu Santo. Hovering vertically above their burrow when the surveyors found them, the large fish (2+ feet) were quite a sight.

The potential of these and other exciting finds are what keep REEF surveyors excited, after 50 or even 500 surveys. Do you have a cool fish find? If so, submit your story for inclusion in REEF's online Member Forum - <http://www.reef.org/member/forum>.



The elusive dragon moray. Photo © Greg McLaughlin

# REEF Field Surveys

Reef Environmental Education Foundation (REEF) trips are your opportunity to take a vacation that counts! These week-long diving adventures are not only lots of fun, but they are educational and environmentally important. And there is no better way to improve your fish identification skills. An additional \$200 REEF fee will be added to each trip to cover the cost of the group leader, seminars, and survey materials (\*Fee is less on short trips). Prices do not include airfare. Please call Dive Reservations, Inc. at 888-363-3345 or email reef@diveres.com to find out more about a specific trip or to reserve a spot. For more information on REEF trips, please visit <http://www.reef.org/fieldsurv>

## 2003 Trip Schedule

**Quadra Island, British Columbia • Abyssal Diving and Lodge • Fish and Invertebrates • Oct. 7-12, 2003 • FULL**

**Southern Gulf of California/Sea of Cortez • M/V Don Jose • Oct. 19-26, 2003 • FULL**

**Barbados • High Tide Watersports • Nov. 8-15, 2003 • FULL**

**Provo, Turks & Caicos REEF Discovery Tour (led by Paul Humann) • Big Blue Unlimited • Nov. 1-8, 2003**

8 days/7 nights, \$1,206, includes diving (5 days of 2 tank boat dives), lodging, continental breakfast, and airport transfers. This week is for divers and snorkelers who are interested in learning more about marine life and seeing more in the water. Several short slide presentations will be scheduled during the week to teach and discuss reef fish and creature identification and behavior.

## 2004 Trip Schedule

**Virgin Gorda, BVI • April 17-24, 2004 • Max. 13 Divers**

7 nights/8 days - \$781.50, includes 6 days of 2 tank am diving with Dive BVI and lodging at Leverick Bay Resort, non-diver rate \$416.50. Websites: <http://www.divebvi.com/> and <http://www.leverickbay.com>

**Monterey Bay NMS, California • April 20-25, 2004 • Max. 15 Divers**

5 nights/6 days - \$320, includes 4 days of diving (3 days of 2 tank diving and 1 day of 3 tank diving) with Cypress Charters. This package does not include lodging - options include Monterey Plaza Hotel (group rate of \$175/ room + tax per night) and the Cypress Tree Inn (\$50 - \$150 per night). \*REEF Fee \$100. Websites: <http://www.cypresscharters.com/> and <http://www.montereyplazahotel.com/> and <http://www.cypressstreeinn.com/>

**Lee Stocking Island, Exumas, Bahamas • May 16-22, 2004 • Max. 11 Divers**

6 nights/7 days - \$1,017, includes lodging (dormitory style, 2 per room, private bathroom, large ocean view balcony), all meals, 4 full days diving (3 tanks/day) and one half-day diving (1 or 2 tanks), and round trip airport and island transfers from Georgetown, Grand Exuma. This Field Survey will be based out of the Perry Institute for Marine Science at the Caribbean Marine Science Center. Website: <http://www.cmrc.org/>

**Maui, Hawaii • June 19-26, 2004 • Max. 12 Divers**

7 nights/8 days - price TDB, includes diving with Extended Horizons and lodging at Kulakane Resort in Lahaina. We will focus our surveying effort on Lanai with an optional day of diving at Molokini. Websites: <http://kulakane.com/> and <http://www.scubadivemaui.com/>

**Dominica • July 10-17, 2004 • Max. 13 Divers**

7 nights/8 days - \$699, includes accommodations at Castle Comfort Lodge, breakfast daily, airport transfers, 5 days of 2 tank diving with Dive Dominica, and unlimited shore diving. A dinner package can be added for \$181. Non-diver price \$499. Websites: <http://www.divedominica.com/> and <http://www.castlecomfortdive.com/>

**Cape Breton Island, Nova Scotia • August 3-8, 2004 • Max. 13 Divers**

5 nights/6 days - \$480 USD, includes accommodations at Highlander Motel and 4 days of 2 tank diving with Scuba Tech. Non-diver price \$155 USD. \*REEF Fee \$100. Website: <http://www.geocities.com/cbdivel/scubatech.html>



Participants in the Ambergris, Belize Field Survey 2003. Photo © REEF.

**Channel Islands NMS • September 2004 • Max. 15 Divers**

Details are forthcoming.

**Manzanillo, Mexico • October 23-30, 2004**

7 nights/ 8 days - \$645, includes accommodations at La Posada Hotel, 5 days of 2 tank diving with Underworld Scuba, and unlimited shore diving. Websites: <http://www.gomanzanillo.com/scubamex/> and <http://www.gomanzanillo.com/hotels/posada/>

**Barkley Sound/Broken Group Islands, British Columbia • October 6-10, 2004 • Max 5 Divers**

4 nights/5 days - \$528 USD, includes accommodations at Broken Group Adventures in Bamfield, all meals, and 3 days of 2 tank diving. \*REEF fee is \$75

**Nassau, Bahamas • November 6-13, 2004 - Discovery Tour led by Paul Humann • Max 23 Divers**

7 nights/8 days - \$793 garden view or \$919 ocean view, includes accommodations at South Ocean Beach Resort, 5 days of 3-tank dives and 1 day of 2-tank diving with Stuart's Cove, and airport transfers. Websites: <http://www.stuartcove.com/> and <http://www.southoceanbahamas.com/>. Discovery Tours are for divers and snorkelers who are interested in learning more about marine life and seeing more in the water. Several short slide presentations will be scheduled during the week to teach and discuss reef fish and creature identification and behavior.

**Bequia • December 4-11, 2004 • Max 9 Divers**

7 nights/8 days - \$790, includes accommodations at Julie's Guest House, breakfast daily (dinner package available), 5 days of 2-tank dives with Bequia Dive Adventures, and transfers. Additional 2-tank dives can be added for \$76/ day. Website: <http://www.bequiadiveadventures.com>

## 2002 Volunteer of the Year: Dr. Michael Coyne



Leslie Whaylen congratulates Michael on receiving the award.

REEF staff were proud to present Dr. Michael Coyne with the 2002 Volunteer of the Year award. Michael was on hand to receive the award during the 10 Year Anniversary Banquet. Michael's involvement with REEF started in 1999 when he began helping us revamp the fish survey database structure and query capabilities. His efforts have completely revolutionized every aspect of how we process, access, and summarize data. He added a membership component to our database last year and serves as a lead contact person to assist with technology questions related to our website and database server. Michael is a fisheries biologist with NOAA's Biogeography Office, and he assists in that office's efforts to apply REEF data to various GIS and mapping projects. Outside of work, Michael is a sea turtle biologist and volunteer director of seaturtle.org. He was instrumental in adding sea turtle sightings to the REEF survey method and serves as a liaison between those sightings data and the scientific community. With limited staff and technical resources, REEF relies heavily on volunteers such as Michael, and we extend a big thanks to him and to the many other volunteers who help REEF achieve success.

## Survey Recognition Certificates

REEF joined with NOAA's National Marine Fisheries Service (NMFS) and Atlantis Pins to produce a series of survey level certificates. There are three levels of achievement: 25+ surveys, 50+ surveys, 100+ surveys. For each level, members will receive a specially designed certificate and pewter fish pin. Certificates and pins are only issued upon request. If you have reached one of these survey milestones, please email [lad@reef.org](mailto:lad@reef.org) to request your certificate.

# A Decade of Counting

## 10 Years (and more) of REEF

When marine life authors Paul Humann and Ned DeLoach first thought up the idea of enabling sport divers to report their fish sightings to some central location, they couldn't have envisioned how far their idea would go. A little more than ten years later, the REEF Fish Survey Project contains more than 57,000 surveys from thousands of sites throughout the Caribbean, along the North and Central American coasts, and Hawaii. What's more, REEF has become a highly effective grassroots organization that educates divers and non-divers alike on the importance of the marine environment and its inhabitants. In the midst of our celebration this summer, it was exciting to look back at REEF's beginnings and milestones as well as look toward our future.

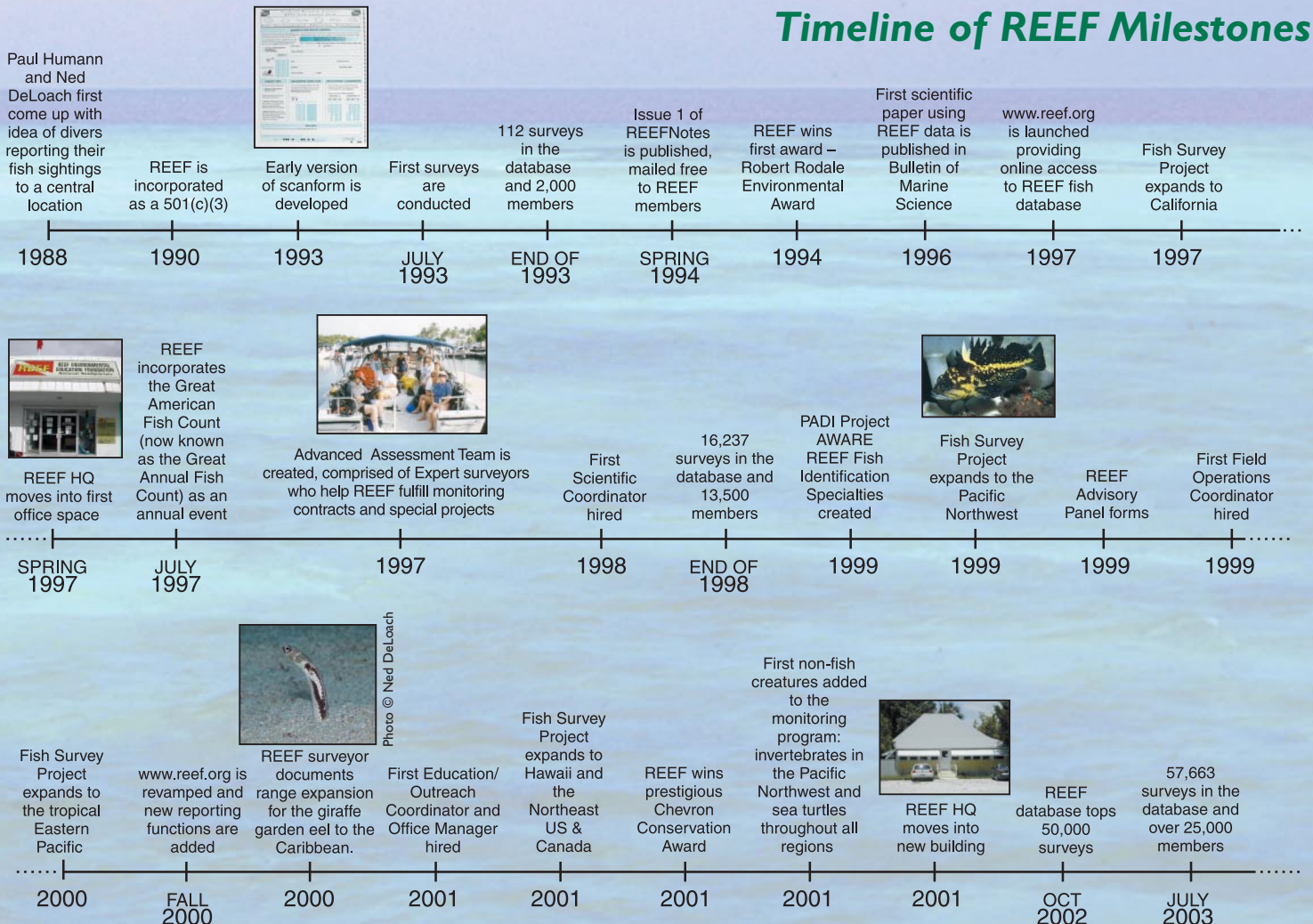
The idea of the Fish Survey Project came during a time when Humann and DeLoach were working on their first Caribbean fish identification book. They realized how little was actually known about the distribution of fish. At the same time, they thought of the thousands of sport divers and snorkelers who were donning a mask every day to catch a glimpse of the underwater world. Realizing that scientific resources and personnel to conduct fieldwork were limited, they figured that divers could do for fish what birders have done for birds for over 100 years. After a few more years of bouncing their ideas off others, they connected with several key people who would help make REEF a reality. Jim Dalle Pazzi worked pro-bono to incorporate REEF as a 501(c)(3) non-profit organization in 1990. Laddie Akins, at the time a dive boat captain in the Florida Keys and a keen fishwatcher, caught their attention as someone who could help field test their ideas. Laddie became the organization's Executive Director and started running REEF out of his home. Dr. Kathleen Sullivan Sealey of the Nature Conservancy and Dr. Jim Bohnsack of the National Marine Fisheries Service provided technical guidance on methodology and validity. The Nature Conservancy also provided three interns during the summer of 1993, Emily Schmitt, Brice Semmens, and Christy Pattengill, to assist Laddie with field testing. Adding two computer whizzes to the mix, Ken Marks and Emily's dad Jeff Schmitt, survey forms and data management programs were written. By the end of 1993, REEF had approximately 2,000 members, and 112 surveys had been conducted.

Over the years, REEF has achieved many milestones (see timeline). Headquarters eventually moved out of Laddie's house, and the staff has grown. The geographic coverage and scope of the Survey Project has expanded. REEF surveyors have participated in several monitoring programs and special projects. As we look toward the future, the REEF staff and board can only imagine where we will be. We are ready for anything, and we are proud to have such a dedicated group of members by our side helping make anything possible.

### 2002 Annual Report Available

REEF's 2002 Annual Report is now available online at <http://www.reef.org/annual02.pdf>.

## Timeline of REEF Milestones



## ID Books and CD-Roms

### Caribbean & North Atlantic Guides

#### Reef Fish Identification –

**Florida, Caribbean, Bahamas -**  
3rd Edition - \$39.95  
Paul Humann and Ned DeLoach

#### Caribbean Reef Creature ID -

2nd Edition - \$39.95  
Paul Humann and Ned DeLoach

#### Caribbean Reef Coral ID -

2nd Edition - \$34.95  
Paul Humann and Ned DeLoach

#### The Reef Set - \$125

Paul Humann and Ned DeLoach

#### Stokes Fishes of the Caribbean - \$12.95

F. Joseph Stokes

#### Reef Fish Behavior - \$39.95

Ned DeLoach

#### Marine Life of the North Atlantic - \$30.00

Andrew Martinez

### Temperate & Tropical Pacific Guides

#### Coastal Fish ID (California - Alaska) - \$32.95

Paul Humann, with Howard Hall and Neil McDaniel

#### Pacific Coast Inshore Fishes, 4th Ed - \$24.95

Daniel Gotshall **\*\*NEW\***

#### Rockfishes of the Northeast Pacific -

\$24.95 **\*\*NEW\***

Milton Love, Mary Yoklavich, and Lyman Thorsteinson

#### Whelks to Whales: Coastal Marine Life of

#### the Pacific Northwest - \$19.95

Rick Harbo

#### Shore Fishes of Hawai'i - \$19.95

John Randall

### Other Guides

#### Anemone Fishes and their Host Sea

#### Anemones - \$29.95

Daphne Fautin and Gerald Allen

#### A Guide to Angelfish and Butterflyfish - \$39.95

Gerald Allen, Roger Steene, Mark Allen

#### Coral Reef Animals of the Indo-Pacific - \$44.95

Terrence M. Gosliner, David W. Behrens, Gary C. Williams

### Nudibranchs and Sea Snails: Indo-Pacific

#### Field Guide - \$44.95

Helmut Debelius

#### Sharks and Rays of the World - \$44.95

Ralf M. Hennemann **\*\*NEW\***

#### Snorkeling Guide to Marine Life –

#### Florida, Caribbean, Bahamas - \$12.95

Paul Humann and Ned DeLoach

#### In-a-Pocket Waterproof Identification

#### Booklets - \$10.00

These handy guides fit right in your BCD pocket:

- Caribbean Fish-in-a-Pocket
- Caribbean Creature-In-A-Pocket
- Indo-Pacific Fish-In-A-Pocket.

### Identification CD-Roms

#### ReefNet Fish ID CD-Rom (2nd Ed.) - \$64.95

#### Reef Fish ID CD-Rom - \$39.95

#### Reef Creature/Coral ID CD-Rom - \$39.95

### Just For Kids

#### Under the Waves Video, Episodes 1-4 - \$19.95 ea.

#### Jump into Science: Coral Reefs - \$16.95

Sylvia Earle and Bonnie Matthews;  
Ages 4-10

For more details, or to place an order, visit REEF's online store at [www.reef.org](http://www.reef.org) or call REEF HQ at 305-852-0030.

## Survey Materials

### Survey Forms (Scanforms) - free

The basis of the REEF monitoring program, you can get these by either calling REEF HQ, sending an email, or using the online store. Please specify which region.

### REEF Starter Kit

The basic kit for all fishwatchers. Contains REEF underwater slate, underwater survey paper, 2 REEF scanforms, and a REEF BC tag. A waterproof color ID card is also included in all regions except the tropical western Atlantic kit, which contains the waterproof Fish-in-a-Pocket.

- Tropical Western Atlantic (Caribbean, Florida, Bahamas, Gulf of Mexico, Mid-Atlantic States) - \$25.00 (includes Fish-in-a-Pocket)
- Northeast US & Canada (Virginia - Newfoundland) w/ cold water slate- \$20.00
- California - \$15.00
- California w/cold water slate- \$20.00
- Pacific Northwest (Oregon, Washington, and British Columbia)- \$15.00
- Pacific Northwest w/cold water slate - \$20.00
- Tropical Eastern Pacific (Gulf of California to the Galapagos Islands) - \$15.00
- Hawaii - \$15.00



### Survey Slates

#### REEF Yellow Fish ID Slate - \$9.95

Slate has 60 spaces to list fish sightings and blank profiles to sketch "mystery fish". Includes attachable pencil and is designed to work with REEF waterproof survey paper.

#### Cold Water Survey Slate - \$15

Specifically designed for conducting a survey in high currents and cold water, this slate is slightly larger than our regular yellow slate and features a lanyard, an attached pencil and bolts to secure the waterproof paper and color id card.

#### Waterproof Survey Paper - \$0.60

One sheet of double sided waterproof paper, good for 2 surveys. Please specify region.

### Project AWARE

#### Identification Courses - \$105.

Courses include curriculum, slides, CD-ROM of slides (currently available for the TWA course only), and sample starter kit. Courses are available for the following regions: Tropical Western Atlantic (also available in Spanish), Mid-Atlantic, Northeast US, Flower Garden Banks NMS, Northern Gulf of Mexico, Gulf of California, Southern California, Northern California, Pacific Northwest Fish, Pacific Northwest Invertebrates, and Hawaii.

#### Course without slides - \$70.

(still includes CD-ROM of slides, currently only available for TWA)



The scrawled filefish can be seen by fishwatchers in tropical oceans around the world. Photo © Paul Humann.

## REEF Wearables

**REEF T Shirt - \$15**

**REEF Golf Shirt - \$35**

**REEF Cap - \$15**

**10 Year Anniversary Shirt - \$15**

**2003 GAFC T Shirt - \$10**

# Survey Numbers & Field Stations



## Field Stations

### USA and Canada Field Stations

#### California

Oceanside – Under Water Schools of America 760-722-7826 usascuba.com

#### Florida

Gainesville – Water World 352-377-2822 www.H2Oworld.com  
 Islamorada – Florida Sea Base 305-664-5625 www.bsaseabase.org  
 Key Largo – Dive In 305-852-1919 www.diveinkeys.com  
 Key Largo – Diver's Direct Outlet 305-451-8034 www.diversoutlet.com  
 Key Largo – Amy Slate's Amoray Dive Resort 305-451-3595 www.amoray.com  
 Key Largo – Horizon Divers 305-453-3535 www.horizondivers.com  
 Key Largo – It's A Dive 305-453-9881 www.itsadive.com  
 Key Largo – Kelly's On the Bay/ Aquanut Divers 305-451-1622 www.aqua-nuts.com  
 Key West – Florida Keys Community College 305-296-9081 www.fkcc.cc  
 Marathon – FL Keys Nat'l Marine Sanctuary 305-743-2437 www.fknms.nos.noaa.gov  
 Orlando – Northwest Divers 407-658-9464 www.nwdivers.com  
 Tampa – Depth Perception Dive Center 813-689-3483 www.depthperception.com  
 Tavernier – Conch Republic Diver, Inc. 305-852-1655 www.conchrepublicdivers.com  
 Winter Gardens - Florida Scuba Connection 407-654-1177 www.floridascubaconnection.com

#### Georgia

Lawrenceville – Dive.Dive..Dive... 678-407-2442 www.diveatlanta.com

#### Gulf Coast States (LA, AL, FL)

New Orleans – REEF Field Station of Northern Gulf of Mexico 504-276-4887 www.reefngom.org

#### Hawaii

Honolulu - Island Divers Hawaii 808-947-6583 www.islanddivershawaii.com  
 Maui - Ao'ao O Na Loko I'a O Maui (Maui Fish Pond) 808-975-9059 www.mauifishponds.info  
 Maui - Project S.E.A.-LINK www.projectsealink.org  
 Kona - Kailua - Jack's Diving Locker 808-329-7585 www.jacksdivinglocker.com

#### Maryland

Baltimore – National Aquarium 410-576-3800 www.aqua.org

#### Michigan

Ann Arbor – Huron Scuba Adventures 734-994-3483 www.huronscuba.com

#### New Jersey

Belle Mead - The Scuba Connection 908-359-1250 www.tscscuba.com

#### New York

Rome - Delta Divers 315-337-2800 www.deltadivers.com

#### Texas

Houston - SCUBA Houston 800-781-7821 www.scubahouston.com  
 Houston - Texas Gulf Coast Council 713-726-9737 www.tgccdiveclubs.org  
 Humble - WW Diving 281-540-1616 www.wwdive.com

#### Washington

Western Washington – Pacific Northwest Scuba 360-798-6414 www.pnwscuba.com

#### Canada, British Columbia

Victoria – Living Oceans Society 250-920-0733 www.livingoceans.org  
 Mississauga – ReefNet, Inc. 905-608-9373 www.reefnet.ca

Three new field stations were added over the last quarter to the list of dive operators and NGOs that support the REEF Fish Survey Project through financial contribution, teaching fish identification courses, organizing survey dives, and distribution and sales of REEF survey materials. REEF welcomes the M/V Oceanus and El Gran Azul both of the Mexican Yucatan, and and the Florida Scuba Connection in Winter Garden, Florida.

### Overseas Field Stations

#### Aruba

Paradera – Windie's WaterSport 297-872281 www.windieswatersport.com

#### Bahamas

Cat Island – Dive Cat Island 800-688-4752 www.hawks-nest.com  
 Nassau – Custom Aquatics 242-362-1492 www.bahamasvg.com/aquatic.html

#### Belize

Seasports Belize 501-2-35505 www.seasportsbelize.com

#### Bermuda

Flats - Bermuda Aquarium, Museum & Zoo 441-293-2727 www.bamz.org

#### Bonaire

Kralendijk - Photo Tours Divers 599-717-3460 www.bonphototours.com  
 Kralendijk – Bonaire Dive and Adventure 011-599-717-2229

#### British Virgin Islands

Peter Island - Paradise Watersports 284-495-9941 www.bviwatersports.com

#### Cayman Islands

Little Cayman - Southern Cross Club 345-948-1099 www.southerncrossclub.com  
 Grand Cayman – Wall to Wall Diving 345-942-6608 www.walltowalldiving.com

#### Cuba

Safty Dog Adventures 636-677-7504 www.sdadive.com

#### Curacao

Curacao Sea Aquarium 0599-9-461-6666 www.curacao-sea-aquarium.com

#### Dominica

Roseau – Scots Head Soufriere Marine Reserve 767-488-0140 www.avirtualdominica.com/SSMR

#### Honduras

Utila – Laguna Beach Resort 800-668-8452 www.utila.com  
 Utila – Utila Lodge Resort 504-425-3143 www.roatan.com/utilalodge.htm

#### Mexico

Yucatan Peninsula - Akumal Dive Adventures 505-992-3333 www.akumaldiveadventures.com

Yucatan Peninsula - M/V Oceanus 9988 920501 www.oceanus.com.mx  
 Cozumel - Aqua Safari 011-52-987-872-0661 www.aquasafari.com  
 Cozumel - "El Gran Azul" Educación Submarino 011-52-987-872-3223 www.isla-cozumel.net  
 Puerto Aventuras – Dive Aventuras 011-52-987-35129 www.diveaventuras.com

#### Puerto Rico

Guaynabo – Scuba Dogs 787-783-6377 www.scubadogs.net  
 Rincon - Oceans Unlimited 787-823-7436 www.oceans-unlimited.com

#### US Virgin Islands

St Thomas – St. Thomas Diving Club 340-776-2381 www.st-thomasdivingclub.com

#### West Indies

St. Vincent – Dive St. Vincent 784-457-4928 www.divestvincent.com

## Survey Numbers

### TWA top 25 surveyors

Laddie Akins (888)  
 Linda Schillinger (751)  
 Leslie Whaylen (616)  
 Judie Clee (618)  
 Linda Baker (606)  
 Sheryl Shea (552)  
 Deena Wells (542)  
 Joe Thomas (526)  
 Jean Kirkpatrick (509)  
 Peter Leahy (504)  
 Cathy Coughlin (461)  
 Christy Semmens (447)  
 Jessica Armacost (396)  
 Monty Doyle (344)  
 Edwin Steiner (320)  
 Emily Schmitt-Lavin (316)  
 Brice Semmens (312)  
 Elaine Morden (310)  
 Joyce Schulke (309)  
 Ken Deaver (306)  
 John Pitcairn (303)  
 Patricia Ayers (297)  
 Bruce Purdy (286)  
 Darlene Gehringer (286)  
 Ken Marks (283)

### PAC top 25 surveyors

Rachid Feretti (193)  
 Janna Nichols (147)  
 Tom Dakin (116)  
 Kirby Johnson (110)  
 John Williams (108)  
 John Wolfe (106)  
 Matthew Dowell (90)  
 Mike Delaney (87)  
 Alan Dower (84)  
 Wes Nicholson (78)  
 Claude Nichols (71)  
 Georgia Arrow (67)  
 Olga Khainova (61)  
 Alex Khain (61)  
 Bryan Nichols (56)  
 Dana Haggarty (54)  
 Christy Semmens (47)  
 Kim DeCrane (47)  
 Bruce Higgins (46)  
 Kawika Chetron (44)  
 Brice Semmens (44)  
 Jack Mackay (43)  
 Doug Biffard (39)  
 Kurt Steinbach (38)  
 Mark Dixon (37)

### TEP top surveyors

Richard Baker (240)  
 Kandie Vactor (128)  
 Beth Bruton (67)  
 Paul Humann (35)  
 Walter Briney (33)  
 Warren Hinks III (32)  
 Sandra Percell (31)  
 Clive R. Wood (25)  
 Janet Earnshaw (24)  
 Jeff Holmes (22)

### HAW top surveyors

Lynn Hodgson (59)  
 Fred Litt (59)  
 Chatten Hayes (54)  
 James Vaughn (44)  
 Michele Vaughn (44)  
 Dave Grenda (36)  
 Liz Foote (35)  
 Patricia Richardson (30)  
 Kathy Aguilar (26)  
 Wayne Batzer (25)

To view the full list, go to <http://www.reef.org/webres/notes/fall03.htm>.

## REEF Member Profile



**Kitty Philips** has been a member since 1995. She became hooked on REEF from the start. She surveys on every dive she takes. She says she loves counting fish. She continues, "I am still enchanted by their behaviors. I love the thrill of finding a new species to add to my life list. I know that I am adding data to a database that can be used to protect the marine environment I love. And perhaps best of all, I have met so many wonderful people who are also involved with REEF. To me, REEF is the way I give back to the environment with my time, money, and effort. It is an organization that also gives back - to its members and to the rest of the world by providing data for making informed decisions by government agencies. These decisions have an impact on the future of the seas of the world and therefore all our futures. It is one way that I can make a real difference, no matter how small."

Thank you, Kitty, for your support and kind words.



**Reef Environmental Education Foundation**  
**Post Office Box 246**  
**Key Largo, FL 33037**

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## **CONTRIBUTIONS**

We greatly appreciate the generosity of our core group of REEF contributors. (Based on donations received July 1, 2002 – July 1, 2003)

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Our valuable BRONZE SUSTAINERS are listed on <http://www.reef.org/webres/notes/fall03.htm>.

To become a REEF Sustainer, please contact Andrea at REEF HQ: (305) 852-0030; [Andrea@REEF.org](mailto:Andrea@REEF.org).

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- Donna Brown for donating images of Hawaiian fish.

## **REEF Giving...**

### **Philanthropy points:**

- If you know any organization or corporation (employer, doctor, grocery store, etc.) who may have an interest in supporting REEF or collaborating with REEF in some way, please feel free to contact Andrea in the Key Largo office, 305-852-0030.
- You can always give to REEF at : <https://www.reef.org/contribform.htm>
- When planning your contributions, always ask your employer if they offer a matching gift program.

For a full list of Donor's Rights, go to <http://www.projectconcern.org/donorrts.html>