



REEF-in-Brief

The e-Newsletter of the
Reef Environmental Education Foundation

February/March 2007

1. **Welcome -**

Happy Wednesday from REEF! We're pleased to bring you this 2-month edition for February and March and look forward to bringing you monthly installments during the first week of the month, instead of the last. (Ok, AND we were swamped last month and couldn't get this out in time J) In this edition, the 2007 Field Survey season takes center stage, with news from the field on the 7th annual Grouper Moon Project in the Cayman Islands and a growing partnership to eradicate exotic lionfish in the Bahamas. You'll also meet some new faces around REEF-two talented and dedicated women have joined our Board and Staff-and learn how a few motivated individuals in the San Diego area are taking Field Station outreach to the next level. We hope winter's winding down in your part of the world and you're dusting off your surveying gear for a species rich and fun-filled upcoming dive season! And if you haven't made your donation to REEF yet, please do so here. Best fishes from the REEF staff-

Leda A. Cunningham, Executive Director

2. **2007 Field Survey-Big Island, Hawaii and Monterey Bay, CA**

Kona Coast - Are you looking to plan a great summer dive vacation? Then think about joining REEF's Director of Science, Dr. Christy Pattengill-Semmens, on the Kona Coast for some of Hawaii's best diving. The week-long project, August 4-11, will include seminars on fish identification and daily diving with the award-winning Jack's Diving Locker. Book today, spaces are limited. Visit <http://www.reef.org/fieldsurv/2007/Hawaii2007.pdf> to find out more or contact Travel For You at 888-363-3345 or reef@travelforyouinc.com.

Monterey Bay - Christy will also be leading REEF's annual Field Survey to the beautiful kelp forests and lush rocky reefs of Monterey Bay, CA, on May 22-27. This project will include training on common fishes, invertebrates and algae. The package includes diving with Cypress Seas Charter, as well as a shore dive at Pt. Lobos Marine Reserve and a behind the scenes tour of the Monterey Bay Aquarium. To check out the Flyer click <http://www.reef.org/fieldsurv/2007/monterey2007.pdf>. Contact Christy at Christy@reef.org to find out more or to book your space.

To find out more about these trips and to see our entire lineup of exciting Field Surveys 2007, visit www.reef.org/fieldsurv.



2005 Field Survey Team in Kona, Hawaii

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2007 Field Survey Season at a glance

(Space still available on all trips other than Exumas) <http://www.reef.org/fieldsurvey/>

- Tortola, British Virgin Islands – April 14-21
- Exumas – Sold Out – May 12-19
- **Monterey Bay – May 22-27**
- St. Vincent, Grenadines – June 9-16
- Paul Humann's Key Largo Discovery Tour – July 7-14
- San Juan Islands – July 22-27
- **Kona Coast, Hawaii – Aug 4-11**
- Woods Hole, Cape Cod – Sept 11-16
- Ned and Anna Deloach – Bonaire – Sept 22-29
- Utila Bay, Honduras – Oct 20-27
- Anguilla – Nov 10-17
- Cozumel – Dec 1-8

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3. Field Survey Trip 2007-Grand Turk

Hi everyone,

Just got back from Grand Turk and had a successful launch to our 2007 Field Survey Season. We had a wonderful group of surveyors, equally split between 3 new members and 3 veteran surveyors. After a couple of days of unseasonable winds that forced us onto the eastern side of the island where fishing is allowed and there were notably less species to survey, we spent the rest of the week surveying the famed western walls of the island. Unofficially, our team found 175 species during the week, including some notables such as the shortnose batfish, longsnout seahorse, threeline basslet, cave bass, quillfin blenny, arrow blenny, rusty goby, and a rare find indeed in the black brotula (acting as a cleaner inside a 3 foot long stove-pipe sponge, *Aplysina archeri*), at 92' depth. Although we did not see any whales, we heard migrating humpbacks on many dives along the 7,000 foot wall which was a welcoming sound.

Grand Turk offered some Old Caribbean charm with the locals (also known as "belongers") becoming increasingly interested in our group's activities as the week progressed. We also added a new field station for REEF, Blue Water Divers, who was also our operator for this trip. Patricia Broom also became our latest addition to the AAT, congratulations Pat! We added a new REEF member, a young lady on holiday, who works with the Cleveland Metroparks Zoo, welcome aboard to Sonia Di Fiore. And finally, our fish obsessions became contagious with one of the local Grand Turk dive instructors who will no doubt be a wonderful REEF ambassador!

Thanks to everyone for a great trip, especially the intimate week of fish counting. Next stop - Tortola in the British Virgin Islands for our April Field Survey led by Leda Cunningham. There's still a couple of spaces available, please give Tami a call if interested at 1-888-363-3345.

Joe Cavanaugh

Director of Field Operations

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4. Lionfish Partnership in the Bahamas

By Lad Akins, Special Projects

To address the invasive lionfish issues in the Bahamas, REEF became part of a multi-agency partnership effort with NOAA, the Bahamian government, College of the Bahamas and the dive operations of both Bruce Purdy and Stuart Cove. Under a permit from the Bahamas fisheries department, REEF Special Projects Director, Lad Akins, conducted a 7-day sampling effort in the Exumas in January and a 6-day project in New Providence Island in February. From these efforts 35 lionfish were collected from 11 sites. The specimens were shipped to James Morris at the NOAA research lab in Beaufort, North Carolina to determine its reproductive status. Additional studies are also being conducted by NOAA researchers on the subjects of predator-prey relationships, age and growth, genetics, and other key elements of lionfish biology, ecology, and population status.

Lionfish have become the first non-native marine fish to be well established in the Western Atlantic, with sightings from Rhode Island to the Turks and Caicos. Initial observations suggest that this may be possible due to a longer spawning season at southern latitudes. Feeding preferences of lionfish also suggest a direct competition with native reef fishes such as groupers and snappers. The NOAA Beaufort research lab is dedicating significant resources in helping to answer key lionfish questions, while REEF is assisting by coordinating sightings and collection efforts.

Bruce Purdy, owner of Blackbeard's Cruises, the Aquacat and Cat Papalu liveaboards, hosted the January collection that resulted in the first known Atlantic lionfish found in mangroves (near Shroud Cay). Stuart Cove, host of the February collections from his dive operation on the SW end of New Providence, helped the team collect both the largest (37.9cm) and the smallest (7.5cm) fish found so



Grand Turk Field Survey Participants from front L to R: Winona Ware, Mitch Rolling (Blue Water Divers Owner), Sonia Di Fiore, Patricia Broom, Marie Robbins, John Ware, Joe Cavanaugh, and Doug Harder.



far in the Bahamas. Nicola Smith, a Bahamian researcher, joined the team during the February effort and will be continuing to work with REEF throughout the year on collections as well as tagging studies and other related survey efforts. On board both collection trips was REEF Board member Andy Dehart, General Manager of the National Aquarium in DC, who helped collect two live specimens that will go on display at the Aquarium to address the issues of exotic/invasive species.

REEF has scheduled a third project, with Blackbeard's Cruises, to take place in the Berries and Northern Andros areas of the Bahamas during Earth Day and we will be planning additional projects with Blackbeard's and Stuart Cove later in the year.

For more information on this issue please contact Lad Akins, Special Projects at Lad@reef.org

To report sightings of lionfish or other non-native marine fish go to www.reef.org/exotics to enter your report.



REEF Board member Andy Dehart with one of 20 lionfish collected in the Bahamas. Photo by Sally Thomson/Stuart Cove's Dive Bahamas



from L to R- Andy Dehart, Travis Cove, Stuart Cove, Madison Everett, Sasha Cove, Lad Akins, and Brendan Ginn prepare a lionfish for NOAA researchers. Photo by Sally Thomson/Stuart Cove's Dive Bahamas

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5. Grouper Moon Project Update-2007

-by Dr. Christy Semmens, Director of Science

REEF survey teams participated in yet another successful grouper moon project this year!

The Nassau grouper on Little Cayman showed up by the thousands to spawn in great reproductive bursts in late January 2007. Members of the REEF Grouper Moon team and personnel from the Cayman Islands Department of the Environment (CIDOE) were on hand to witness the event, collect data and help with enforcement and monitoring of the no-take area that protects the Nassau grouper spawning aggregation site. While on the island, REEF staff and volunteers also gave talks on the importance of spawning aggregations to resort guests and locals.

In addition to the annual monitoring of the Little Cayman aggregation this year, we fielded a second team of REEF volunteers (including seasoned Grouper Moon veteran Denise Mizell) to help CIDOE staff on Grand Cayman search for Nassau grouper spawning aggregations. While it is generally believed that spawning aggregations on Grand Cayman are completely fished out, in recent years dive professionals have reported seeing migrating grouper during spawning season, suggesting that a spawning aggregation may be reforming. These reports prompted this year's Grand Cayman aggregation hunt. Despite nasty weather, high seas, and boat trouble, the Grand Cayman expedition found some exciting evidence that at least some Nassau grouper on Grand Cayman are aggregating to reproduce. Expeditions in future years will be well positioned to gather more detailed and exhaustive data on the reproductive activities of Nassau grouper on Grand Cayman.

Lastly, in 2006 the J. Edward Mahoney foundation awarded REEF a grant to expand the acoustic tagging research on Nassau grouper reproductive migrations to include fish from Cayman Brac. Like Grand Cayman, the Nassau grouper aggregations of Cayman Brac have previously been fished out. By monitoring the movements of tagged fish on Cayman Brac, we hope to be able to answer the question "what do reproductive aged fish do during spawning season on an island where aggregations have been exhaustively fished?" Watch future editions of REEF-in-Brief for more project updates.

To find out more, visit www.reef.org/groupermoon.



Nassau grouper aggregating during January full moon on Little Cayman Island. Photo by Heppell.

A special thanks to all of our 2006/2007 Grouper Moon supporters including: the J. Edward Mahoney Foundation and the NOAA International Coral Reef Conservation Program; the many REEF members who have made financial donations and volunteered on the project in 2007, including Carol Bryant, Judie Clee, Brenda Hitt, Denise Mizell, Franklin Neal, Alex Score, and Leslie Whaylen; the Little Cayman Beach Resort for donating Nitrox for the Grouper Moon field work and to other island businesses; McCoy's Fishing and Diving Lodge, Pirates Point and Southern Cross Club for their ongoing support of the project; Raymarine for donating a RADAR system to assist in enforcement of the grouper aggregation legislation and especially to our partners at the Cayman Islands Department of the Environment.

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6. Welcome two New REEF Team Members: Trustee Heather George and Office Manager Kim Sovia-Crandon

-by Leda Cunningham, Executive Director

REEF is pleased to welcome Heather George as the newest member of the REEF Board of Trustees. Heather is a consultant for various environmental organizations and companies. Current clientele include EcoMedia, Waterkeeper Alliance, the Aquarium of the Pacific and Global Warming Challenge. Her various talents include development, writing, event planning, and government relations. Prior to her current position, Heather served for five years at Santa Monica Baykeeper - a non-profit environmental organization dedicated to the protection and restoration of Los Angeles County's coastal waters. In her position there as Associate Director, she was responsible for fundraising, strategic planning, event production, community outreach, as well as program direction. Before this position, her work experience included event planning, marketing, and public relations positions at Southern California based companies. Heather is an avid scuba diver and enjoys travel, swimming, running, and creative writing. She holds a B.S. from UCLA.

We are also excited to announce that Kim Sovia-Crandon has joined the REEF Staff team as Office Manager. Kim will manage the accounts, keep REEF HQ operating smoothly, coordinate the Marine Conservation Internship program and assist with fundraising and special events.

We are fortunate to have found someone with a strong professional background in management, both in the private and non profit sector. Kim moved to the Florida Keys permanently over six years ago after residing in South Dade County for over 30 years. She has been involved with numerous conservation and environmental organizations and is familiar with the sensitive issues affecting Monroe County, our ecosystems and coral reefs. Her diverse background and many accomplishments on the local, state and federal level, not to mention her warm personality, will be true assets for REEF. Next time you call or email the office, drop her a 'Hello!' at (305) 852-0030, ext 0# or Kim@reef.org.



New Board of Trustees member Heather George at Manhattan Beach Pier, CA



New REEF staff Office Manager, Kim Sovia-Crandon saying Hi.

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7. Special Feature: San Diego Oceans Foundation Beefs Up REEF Survey Efforts in So Cal

-by Courtney Gosch, Program and Outreach Director, SDOF

REEF divers are citizen scientists that get involved in local conservation efforts by studying and reporting marine life; they "dive with a purpose." In the last year, San Diego Oceans Foundation (SDOF) has trained over 200 divers and snorkelers in the REEF survey method and submitted hundreds of surveys. SDOF strives to keep our volunteers interested and motivated, in return they survey year round, even in 58-degree water!

To keep our volunteers engaged we have a local fish expert lead guided fish count dives twice a month. Volunteers get help identifying those tricky fish in their natural environment and gain fish counting experience to build confidence. This also gives new divers a chance to explore different dive sites and meet others dedicated to ocean stewardship.

Learning never ends with SDOF! Every other month, we offer continuing education opportunities for our "Reefers." These events include lectures by expert scientists and conservationists, exhibits by renowned photographers and behind the scenes tours of local marine facilities and collections. This gives divers an opportunity to socialize off of the beach and learn even more about the underwater world.

SDOF also rewards volunteers for active participation in REEF's program by offering free dive trips, donated by Lois Ann diver charters, to local spots like the Yukon, the Ruby E and Point Loma Kelp beds. During the boat trips we review fish ID skills with flash cards, conduct fish count surveys and do other fun activities like underwater scavenger hunts.

We hope to continue to provide important data to REEF and engage even more divers in 2007 with five scheduled training courses on fish and invertebrate identification. SDOF has many other volunteer programs that may interest divers, from feeding and releasing White Seabass, to taking inner-city children snorkeling and teaching them about marine science. For more information on our local REEF program, or to learn about other volunteer opportunities, please visit www.sdoceans.org or email Courtney@sdoceans.org.

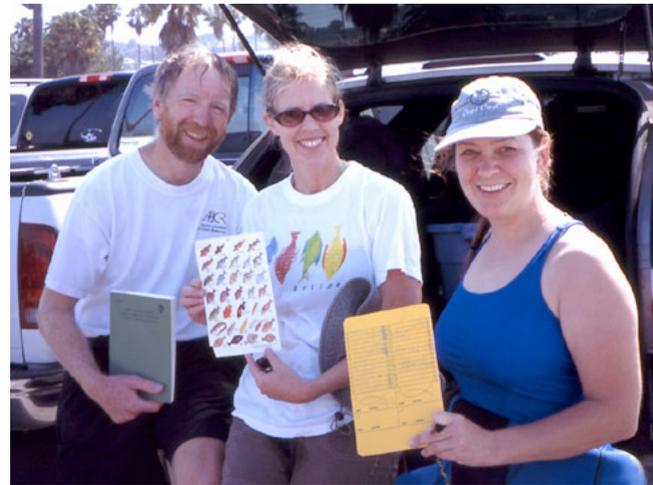


SDOF REEFers enjoy a behind the scenes tour of Sea World and a free day in the park.

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8. **REEF Parts - Things To Know** - Here are a few notes and news bits we'd like you to know about:

- **REEF Database Issues**-REEF is experiencing some hardware issues on our server. Some of you may have noticed that the REEF.org and Fishcount.org websites were down earlier this year but are now back up and running but only with minimal programs (and currently only working on Internet Explorer). None of our database programs are functioning. We are working with our host company to remedy this issue as soon as possible. Currently we are unable to answer any inquiry questions, we thank you for your patience.
- **Survey Material Update- NEW HAWAII SCANFORM**-If you are a REEF surveyor in Hawaii, you will notice a new survey scanform next time you submit data. The revised scanform includes an updated species list. Version 1 scanforms are still valid.
- **New REEF Field Station-Blue Water Divers**-Please welcome our latest addition to our Field Station Program, **Blue Water Divers** in Grand Turk, Turks and Caicos Island. [Blue Water Divers](#) for more information on becoming a REEF Field Station, please visit our website at <http://www.reef.org/member/fieldstations.htm>.



Volunteers discuss their fish count findings after a Sunday dive at La Jolla Shore.



Lucille Richard and Herb Gruenhagen, SDOF's Fish expert, all geared up for the GAFC.



- **New REEF Apparel!!!:** Check out our website for new REEF gear. Sweatshirts, polos, t-shirts, bags and more can be found at cafepress.com/reefstore.
- **Going on a trip?** order Scan forms, underwater survey paper, books, and other items at the [REEF online store](#)

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See You Next Month!

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