

# undercurrent

*The Private, Exclusive Guide for Serious Divers*

October 2013

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## *Turks & Caicos Explorer II*

*Plenty of fish - - and mysterious gnomes*

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Dear Fellow Diver:

It had been 500 dives since I was last aboard the Turks & Caicos Explorer II, and I was eager for a repeat. While packing, I decided to leave my out-sized magnifying glass at home, figuring I wouldn't need it. Wrong! On my third day, at Elephant Ear Canyon, the search was on for sea slugs in a large sandy area speckled with sea grass. And behold: a leech headshield slug in its orange, blue and black vertical stripes, not more than half an inch long. Another sea slug nearby had white and black horizontal dots. And there was a white-spotted sea hare, smaller than one inch. Caribbean macro heaven and a great trip. Though the shark that was rudely punched in the snout may not think so.

The 124-foot boat was just as comfortable and clean as I remembered. Ten large, individually air-conditioned cabins with bathrooms and sinks can hold 20 divers (six were on this trip.) The cabin configurations include bunks, side-by-side singles separated by a small dresser, and two king-bed master staterooms on the upper deck. My bed was firm and comfortable, with soft sheets. The ride was smooth, thanks to the vessel's stabilizers, although during the French Cay crossings, one queasy fellow spent a lot of time in his bunk.

The seven-member crew created a family-friendly atmosphere. Ken Kimmey has captained the boat for four-plus years. Mark, the Jamaican engineer, has been aboard four years. Stan, the chef -- forever. Maria, the purser, and dive



*Turks & Caicos Explorer II*



instructors Simon, Casey and Martin were more recent additions. Three have a history with the theatre, and it showed with their good-natured banter and Martin's wild water entries and dance moves. Maria's quips hinted at her previous career as a stand-up comedian. However, their no-nonsense demeanor took over when it was time to gear up -- they checked equipment, made sure air was on, and carried fins to the dive platform. During the dive briefing, Captain Ken, in his folksy manner, emphasized that this was "our trip" and they were there to make it as good as possible.

As a single diver on board, I buddied up with Petros, a Greek in his late 30s who teaches physics at the International School in Oman. Boris

and Konst, a Ukrainian-born, Canadian-residing father and college-freshman son, had been diving three years. On one dive, Konst dropped to 105 feet, deeper than the group, then after checking his computer, he quickly ascended to his father, who was above the group, and they returned to the boat. On deck, Konst fretted about his rapid ascent and requested oxygen, though he was symptomless. A crew member called Divers Alert Network, then administered oxygen for an hour. Konst felt fine, but was not allowed to dive for 24 hours. As for the other twosome aboard, I often saw one chasing down her wandering buddy. We became a convivial group, eating meals together with the crew at the three tables. We socialized on the open-sided, canvas-top-covered flydeck (it was also the dedicated area for the two smokers). It had a small fridge stocked with beer and soda; all beverages were complimentary.

The trip was seven nights, with 27 dives over five days. One night dive was said to be "so-so," so we skipped it to recap the day during cocktail hour. The water temperature averaged 83 degrees, visibility ranged from 60 to more than 100 feet, and my dives varied between 64 and 100 feet deep. Days were sunny, averaging 86 degrees, and the breeze kept us cool while lounging on the decks. While we occasionally saw the Turks & Caicos Aggressor II moored in the distance, we had every dive site to ourselves.

Diving became progressively better after our first stop at Northwest Point in Providenciales, then off to West Caicos and finally French Cay before returning to West Caicos. All my dives began by dropping down to cruise the wall, then rising to 45 feet to sandy flats with colorful coral heads. While soft corals were few, there were lots of sponges, whips, and sea fans on the walls. Jawfish and garden eels were commonplace. Occasional peacock flounders with their distinctive blue-ring markings glided down to land on a coral. Large lobsters sequestered themselves in crevices, while a few walked about freely (it was two weeks before lobster season started). Twilight dives revealed large crab navigating the wall. On most dives, there were a couple of lionfish, and reef sharks ranging from one to several. Large grouper and barracuda roamed the sites. I spotted flamingo tongues on all dives, and at Dax Canyon in French Cay, I found two fingerprint cyphoma and one spotted cyphoma.

I always entered the water with a giant stride off the six-foot-long entry deck, while other divers took the five-foot side-entry drop. Because the boat was moored only by a line from the bow, the boat would swing a full 180 degrees in roughly a figure-eight pattern. To dive with a guide, we were instructed to hold onto the trailing rope before descending; otherwise, head straight down with your buddy. Once, upon return, as my buddy and I were enjoying a fast ride on the hang-line, the boat swept its arc and I heard a loud noise. Not knowing

what it was, I didn't lose time exiting the water. Turns out, the mooring pin broke. (When I was previously on this vessel, no amount of skill with the compass helped me find the boat when the pin broke and the boat drifted away). A chase boat was always in the water but never used; Captain Ken made it clear in his briefing that it was not a taxi.

The days began with breakfast at 7 a.m., then an 8 a.m. dive, snack, 10:30 a.m. dive, lunch at noon, 1:30 p.m. dive, snack, 4 p.m. dive, snack, then either a 6:30 p.m. twilight dive before dinner or a night dive after dinner. When two of us voiced a preference for twilight rather than night dives, we got them on three days. On the last day, we did a dawn dive at 6 a.m., followed by breakfast, then a dive at 8 a.m. When we once tried to enter after just an hour of surface time, it was no go; Casey said insurance rules dictated a minimum of 90 minutes between dives. Other rules: return with 500 psi, do a buddy dive or have a solo certification (offered on board), and max dive time is 60 minutes. If any diver had not surfaced in 70 minutes, they would initiate a search. It wasn't necessary.

Northwest Point had quite a bit of algae growth where the corals had been sand-blasted during previous storms. That did not deter the usual fish -- large grouper, garden eels, squirrelfish, blue-headed wrasse, parrotfish, clown wrasse, honeycomb cowfish, spotted and smooth trunkfish, and the ever-present black durgon. At Eel Garden's wall, I spotted a pipefish with its tail wrapped around wispy growth along the undersea communication cable line. The Amphitheater had a sand plateau full of coral fairy chimneys, where colorful small fish swarmed, including clown wrasse in all their color and pattern variations. Two small morays, spotted and goldentail, were well hidden. Over the wall, there was an impressive cascade of plate coral, and at 85 feet was a large elephant ear sponge, with black coral and an orange rope sponge.

The spacious dive deck had bins underneath benches, and we hung our wet-suits in the middle. Crew members filled tanks in place (usually to 3000 psi), and oxygen analyzers recorded nitrox percentages (the range was from 33 to 35.6). Dedicated to cameras were a deep rinse tank, a large table and lint-free drying towels (oddly, only one diver toted a camera). Two metal containers had fresh water and chemicals (changed twice daily) for gear, and two even smaller ones for masks. The crew gave good briefings with hand-drawn charts. When I exited the water, a crew member recorded my psi and depth -- and that I was back on board.

On a twilight dive at Rock Garden in West Caicos, the fish were out in force. Harlequin bass flitted above coral rubble. A large reef shark showed a battle scar that looked like something took a big bite out of its fin, (or maybe a propeller was the culprit). Another shark had a hook in the side of its mouth. Presumably, it will rust away.

After another diver and I expressed an interest in a drift dive, our accommodating Captain Ken arranged a dive at Spanish Anchor, with Casey towing a float for the captain to follow. Trouble was, there never was a wisp of current. So with no easy drifting, we divers needed a lot of energy, and Chef Stan dished it out. Of course, one of the topics at the dinner table was how many calories one actually burns diving, and the responses widely varied [Note from Ben: See Undercurrent, May 2013 for the latest information]. On the first night, it was roast beef, gravy, roasted potatoes, salad, vegetables and key lime pie. Other dinners included tender grilled steaks with delicious mush-

## *Turks & Caicos Explorer II*

Diving (experienced)	★★★★
Diving (beginner)	★★★★★
Snorkelling	★★
Accommodations	★★★★★
Food	★★★★ 1/2
Service and Attitude	★★★★★
Money's Worth	★★★★★

★ = poor      ★★★★★ = excellent

*Caribbean Scale*

room gravy; pork tenderloin with gravy, applesauce, slaw and rice; ribs, baked beans, and cornbread; and the last night's traditional turkey dinner with all the trimmings. (Vegetarians, let them know your food preferences before you travel.) Nightly soups were tasty, especially the conch chowder. Hamburgers, tacos, sandwiches and lasagna were among the lunch fare. Snacks never let us down with cake, cookies, pizza, brownies, muffins, and cheese and crackers. Fresh fruit was always available, as were jars of cookies, candy and peanuts. Varying breakfasts included surprises of French toast, pancakes, omelets, sausage or bacon, and always sliced fruit. On our last night, we went ashore for dinner.

Reaching the best diving at French Cay is not always a given. Weather can make the 17-mile trip from West Caicos too rough to travel, but the sea goddess blessed us. Dolphins swam alongside the boat and underwater, the number of fish, intensity of coral colors, and water clarity increased considerably. Plus, no algae on the reef. A couple of spotted eagle rays welcomed us, and reef sharks made loops. Juvenile and adult spotted drum hid under ledges. At Rock and Roll, while Boris was trying to get a good shot of a stingray, a curious nurse shark swam up to him. Boris hit it in the snout. It darted away. My pissed-off buddy, making a beeline to Boris, honked his air-horn and rattled his shaker. Crossing his arms in a stop-that signal, he swam up to Boris. I could even hear the loud, angry shouts through their regulators. I expected an underwater fistfight, but each angrily moved away from the other. Regardless, the shark who had suffered this indignity followed Boris for the remainder of the dive. On board, the two divers avoided each other for a day, eating at separate tables. For some reason, Boris did not dive the next two dives.

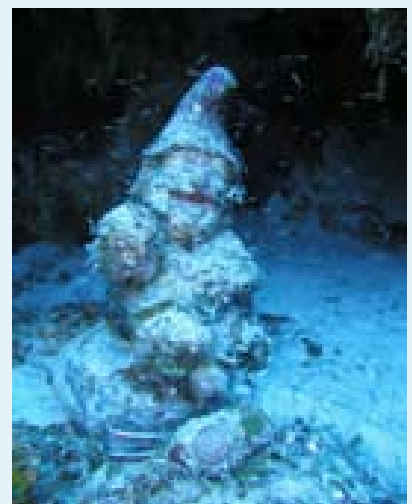
Angling to catch one of the two hang-lines at French Cay became more of a challenge as the wind swung the moored boat at a good clip. Lousy at judging the trajectory, I hung close to my buddy at the safety stop and shadowed him while he waited at the right "bus stop" for the speedy swing-by. Trying to fin to catch it would have been a losing race. After five great dives at French Cay, the worsening wind and waves led Captain Ken to depart for West Caicos and Spanish Anchor. There, I spent 20 minutes at twilight watching two white-spotted filefish, one in orange phase and one in olive brown. Swimming around each other, they came side by side with tail fins flicking. As they ascended together, tail fins flared and colors on both changed. I've seen courtship dances before, but never so graceful and poignant.

On our last day, we dived Spanish Anchor again. At the end of the cut in the wall, leading to the anchor at 100 feet, there was a colorful ceramic statue of a grinning gnarly gnome (I saw another in Northwest Point's waters). The little guy was a foot tall, with the typical red conical hat, and perched on a recessed ledge. No one knows how the gnomes got to the sites, but I hear they've been there a long time; fable says they guard buried treasure. But was it the work of a self-proclaimed underwater gnome-planter-dive-instructor from Scotland? (see sidebar)

The last dive of the trip was Magic Mushroom, where I watched a territorial battle between two 12-inch redband parrotfish, going in circles with their mouths locked onto each other's mouth. They would separate and then go at it

## Gnomes Below?

Our fearless travel writer discovered a couple of unusual underwater critters on her Turks & Caicos trip: gnomes, the little guys who usually live hidden away in forests. If you've ever encountered such a short fellow on one of your dives, you might want to know of the likely culprit behind the diaspora. Check the websites [www.scubaherald.com/scuba-gnomes-we-have-rights](http://www.scubaherald.com/scuba-gnomes-we-have-rights) and [www.gordonmackie.com/scuba\\_gnomes.htm](http://www.gordonmackie.com/scuba_gnomes.htm)



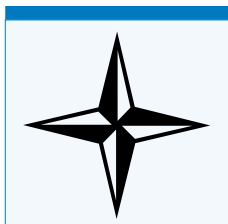
At The Anchor, West Caicos

again. On this last dive of the trip, my dive buddy and I spotted a fish unique to both of us, a beautiful pearly, almost translucent all-white critter, more butterfly-shaped and sized than anything else, with two black spots, one near the eye, the other the tail. Must be the magic of the mushroom!

After five trips with Explorer Ventures, I still find them consistent in their high quality of product -- crew, boat maintenance and safety. With the easy diving, the Turks & Caicos Explorer is great for beginning and intermediate divers; advanced divers can find their pleasures, too, but have to work at it. And don't forget your magnifying glass.

-- J.D.

PS: The seventh passenger on my trip was Wyoming resident Clay McCardell, owner of Explorer Ventures, who was visiting (but not diving). Clay established Explorer Ventures in 1987, and now has a fleet traveling the waters in Turks and Caicos, Saba/St. Kitts, the Maldives, the Galapagos and the Bahamas. A great storyteller, Clay is an enthusiastic, affable and adventurous fellow who loves motorcycles, flying, horses and, of course, diving.



**Divers Compass:** I made liveaboard reservations directly with Explorer Ventures, and paid \$2,295 for a single willing-to-share cabin; Live Chat is a real bonus in making reservations, and staff are quick with knowledgeable responses . . . Nitrox for the week was \$150, the fuel surcharge and Turks and Caicos hotel tax totaled just under \$210 . . . Turks and Caicos is 550 miles and a 90-minute flight southeast from Miami to Providenciales; it comprises 40 islands and cays, eight of which are inhabited . . . The U.S. dollar is the currency, English the language .

. . . I stayed at the Ports of Call Resort, a few minutes' walk to a few open-air restaurants and the long, pristine, white-sand beach of Grace Bay, where I snorkeled and noted that the only interesting critters were 15 large cushion sea stars scattered about the sand . . . Websites: [www.explorerventures.com](http://www.explorerventures.com); [www.portsofcallresort.com](http://www.portsofcallresort.com)

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## Seeking More Exotic Diving?

*how about Russia, the Sardine Run, or an underwater cemetery?*

**The Okeanos Aggressor.** Our readers always report excellent trips on this craft, save the *mal de mer* that hits some divers during the long crossing from the mainland. That said, Andrew James Gregor (Lafayette, CA), there in August, reports divemaster behavior against which we have railed for years: being more interested in their own personal photography than observing their divers. And in the rougher waters off Cocos Island, where divers have disappeared with too much frequency, that's not the best behavior. As Gregor writes, "Captain Alberto and his crew were stellar. Warren, the other divemaster, is phenomenal. Having said that, these are difficult dives, even for experienced divers -- we had strong currents at times and it was a wild ride . . . It is hard not to like Alberto (or 'Beto' as he is known) and he runs a great operation, but he is generally more interested in taking photographs and video than watching his group. We were split up on more than one occasion, and it was clear he did not know where we were, which pissed off some people. He also does exactly what he and his crew said *not* to do: rush towards an animal, lights ablaze. Other than that, I highly recommend this boat and this crew -- they took fantastic care of us." ([www.aggressor.com](http://www.aggressor.com))

**Diving in Russia.** If you're looking for the next great adventure, here's a possibility: Russia, Siberia and Lake Baikal. Trips there are being offered by 56th Parallel, a new adventure travel company based in both Australia and Moscow ([www.56thparallel.com/activity/scuba-diving](http://www.56thparallel.com/activity/scuba-diving)).

**Neptune Society Memorial Reef.** If you're a serious diver and ocean lover, then perhaps you have decided to spend eternity underwater, like our longtime subscribers Warren and Gilda Sprung (Houston, TX). They went diving to preview their eventual home, and Warren tells us, "Years ago, we decided to spend eternity at a underwater cemetery off Miami called Neptune Society Memorial Reef. ([www.nmreef.com](http://www.nmreef.com)). When we checked with local dive shops, one dive shop offered to take the two of us out -- for just under \$1,000 for two dives. Then we found Miami Bay Tours, owned and operated by Mike Smith, a fantastic man and a full-time Miami police officer. He took us in his immaculate, twin-250hp, 28-foot covered boat, complete with rinse bucket and plenty of legal liquid refreshments." The Neptune Memorial Reef has large sculptures as gatekeepers, memorial columns, gates -- it's an unusual underwater park, for sure. Warren reports that though there is some storm damage, it's in "overall good shape, with lots of growth on pillars, and quite a bit of sea life. This is not a trip for a lot of diving, but the memorial was crawling with marine critters. Lobster, green moray, all sorts of reef fishes and critters, plus the cemetery itself is well worth the trip. There is also a small reef nearby; I saw a nurse shark and several large schools of reef fish. Definitely worth adding to your bucket list. Mike charged us \$110 each for the two dives, and he refused to accept a large tip (he cut it in half!)." ([www.miamibaytours.com](http://www.miamibaytours.com))

## When Shark Shields and Great Whites Collide

After a spate of shark attacks in the New South Wales region of Australia a few years ago, sales of the electronic repellent device known as Shark Shield skyrocketed all over Australia (they're sold online at [www.sharkshield.com](http://www.sharkshield.com)). Shark Shields generates an electrical field, or a "shark-safe zone," 25 feet in diameter around the diver. Electrodes generate a pulsing sensation detected by the shark through its sensory receptors, and create muscular spasms that send the shark fleeing but cause no lasting effect. The latest iteration is Shark Shield Freedom7, which differs from previous models in that the electrodes trail behind the leg of the diver, instead of one electrode placed on the tank and the other on the diver's ankle. As a result, the electric field source of is located behind the diver instead of being centered on him.

Scientists from the South Australian Research and Development Institute wanted to find out whether the different location and configuration changed the Shark Shield's efficiency. They chose white sharks as the test group, as they are responsible for the most unprovoked attacks, and they have shifting swimming patterns based on their habitats and hunting strategies.

In the first experiment, the researchers used "static bait," fish oil and chopped bluefin, behind the stern of their anchored boat, to bring out the sharks in the Neptune Islands, a popular cage-diving site in South Australia. The Shark Shield was placed five feet away from the bait. During 116 trials, the amount of bait the sharks took was not affected. However, the electric field typically increased the time it took them to eat the bait, and the number of their interactions per approach.

In the second experiment, they used a seal decoy towed behind a moving boat (with the Shark Shield streaming seven feet behind the seal) near Seal Island in South Africa, where sharks love to hunt, often breaching in the process. Ninety-eight of the 189 tows were performed with the Shark Shield turned off, and 91 with it turned on. When it was not turned on, great whites made 16 breaches and 27 surface interactions with then. When it was turned on, there were no breaches, and only two surface interactions were observed during the tows.

The researchers think that even though white sharks are still able to get bait located close to a strong electric field, it can make them hesitate and take longer to eat it. However, responses varied by individual sharks, with some less affected than others. The reason why is still unknown -- motivation, different feeding histories, dominance hierarchies or individual experiences may play roles. And while tests of the electric fields have produced a behavioral reaction in some sharks, the responses vary across species. Because Shark Shield hasn't been scientifically tested on all shark species, it can't be relied on to prevent shark attacks in all situations.

*C. Huveneers , P.J. Rogers , J.M. Semmens , C. Beckmann, A.A. Kock AA, et al.; Effects of an Electric Field on White Sharks: In Situ Testing of an Electric Deterrent. PLoS ONE (2013) 8(5): e62730. doi:10.1371/journal.pone.0062730*

**Club Ocellaris, Philippines.** We've had good things to say about this Anilao resort, the diving, and the owner with the improbable name of Boy Venus in the past, but Jeanne Reeder (Columbia, MO) had a bit of a difficulty while there in August. "Not a 'Club Member'? Beware. I wanted to go to the Nudibranch Capital and indulge in locating and identifying these esoteric critters in their multicolor glories. Where to go was a no-brainer -- Club Ocellaris. Critter ID folks of the first order have all gone there and never left without identifying new species. Not receiving any response from Club Ocellaris after my weeks of e-mailing foreshadowed my experience. Getting a reservation was like pulling teeth, and I finally had to ask my very patient agent, Katie at Reef & Rainforest, to intervene. Returnees get priority and 'virgins' often do not receive a response. Divemaster Perry explained that Boy does not want people there who aren't good divers and who kick up sand. Regardless, the welcome by manager Joy at Club O was gracious. There was no briefing about anything, even the basics such as a schedule for meals and dives . . . Expected state-of-the-art facilities for cameras, but extra electrical plugs in or around our rooms and a wooden table were just about it . . . 14 guests backrolling from three bancas, and exiting via a vertical ladder . . . There were no expectations to stay with the divemaster, dive with a buddy, limit dive time, depth, or amount of psi tank reserves . . . Sometimes the driver would pick us up, other times we swam back to the boat. Hoarding a sighting was the rule, so other divers were either patient or wandered off to get their own unique treasure recorded. As I studied the behavior of my macro subjects with my magnifying glass, I was unceremoniously nudged away by a photographer more than once, as well as waved off by the divemaster who gave priority to the diver with the camera . . . On most dives, I spotted at least a dozen nudibranch, often many more . . . I might have spotted more species if it weren't for the distraction of frequent pygmy seahorses, frogfish (giant frogfish, white phase and the yellow painted frogfish) and rhinopias. Return divers knew the routine and the dive sites very well. The granddaddy of 26 repeat visits complained that the macro diving was not what it used to be, and that divers should keep their fins off the silt. There was deference by both the staff and the returnees to the people with the most dives. My dive buddy and I were clearly outsiders but were warmly accepted after the first diving day; still, I felt we had to 'prove' ourselves undersea . . . On half of my 12 dives in three days in Anilao, I exited not having a clue where the other divers were. Not infrequently, strong currents and low visibility made the separation easy. Will I return to Anilao? You bet -- the sooner the better. But to Club 'O'? Nope."

*"Not receiving any response after weeks of e-mailing the resort foreshadowed my experience. Getting a reservation was like pulling teeth."*

**Maluku Divers, Indonesia.** If you're looking for muck diving, then Mona Cousens (Santa Barbara, CA) says to consider this Ambon-based outfit, with all its warts. She was there in December and reports that the rooms aren't much -- no walkways to them, darkly lit, no privacy on the decks -- but the resort has a great camera room and world-class muck diving. "The boat goes out three times per day, and you are welcome to book an additional night dive or Mandarin fish dusk dive. Sites are within minutes. I saw many different species of frogfish, ghost pipefish, robust pipes, a hairy octopus, devilfish, stonefish, rhinopias, and tons of small shrimp and crab. You are kept very busy underwater . . . The resort is in an area where there are no other dive resorts. When you go out in your boat, you will be the only ones on that site . . . There is a massive amount of trash in the water, but the water is clean. While Lembah has some serious bacterial problems with the water -- and every time I go there, I get skin rashes or staph infection -- here the water is clear. It is just filled with cups, bottles, bags, yogurt containers, sanitary napkins, diapers, you name it. The Bay of Ambon has a circular current, so the trash just goes round and round, never out to sea. It is a shame, because the diving is wonderful for muck lovers . . . Maluku is in drastic need of some TLC. It is a great place to spend three to five days before or after a liveaboard trip. It is only 10 minutes from the Ambon airport, so it's a good transition hotel." ([www.muckdivingindonesia.com](http://www.muckdivingindonesia.com))

## Sunscreens that Protect Divers as well as Reefs

In last month's issue, we ran a story about the actual results of many high-SPF sunscreens, and how many of them just use high numbers as a gimmick. We listed the results of *Consumer Reports'* survey of sunscreens, and then listed the ones they ranked as best buys.

But how well do those sunscreens protect the reefs, asks subscriber Lisa Evans (Fort Collins, CO). "I was dismayed to see there was no information about the damage done to coral from many commercial sunscreen products. I've researched this, and while I still use conventional sunscreen for land-based activities, I make it a point to buy reef-safe sunscreen for my dive trips. Right now I have Goddess Garden 30 SPF (<http://goddess-garden.com>). I encourage you to help readers become aware of the potential damage their sunscreen is causing to coral reefs."

You're right, Lisa. While it's counter-intuitive to think that 15 divers from a liveaboard, each putting on two tablespoons of sunscreen before diving over an area several acres across and 75 feet deep, will be wearing enough of any chemicals to affect the reefs below, washed-off sunscreen can damage corals. The U.S. National Park Service reiterates what Evans says: Chemicals in sunscreen can lead to bleaching, dying coral. A 2008 study in the journal *Environmental Health Perspectives* found that up to 6,000 tons of sunscreen enters reef areas annually and it does not spread out

rapidly or evenly over the entire ocean, but concentrates on popular tourist sites. It's estimated that 90 percent of snorkeling and diving tourists are concentrated on 10 percent of the world's reefs, meaning our favorite dive spots are exposed to the majority of sunscreens.

So with the corals in mind, "reef safe" biodegradable sunscreen is better than the conventional choices. Look for a brand that uses physical sunblocks such as titanium dioxide and zinc oxide instead of chemical ones. And read the label. A product advertising itself as "reef safe" doesn't necessarily mean what it says. Look at ingredient lists to make sure reef-damaging substances (such as oxybenzone, butylparaben, octinoxate and 4-methylbenzylidene camphor, all of which have been shown to cause coral bleaching even at low levels) aren't included. Apply sunscreen at least 10 to 15 minutes before going in the water so that the lotion absorbs into your skin. PADI lists its recommended reef-safe sunscreens at [www.padi.com/blog/2013/06/27/coral-reef-safe-sunscreen-for-scuba-diving](http://www.padi.com/blog/2013/06/27/coral-reef-safe-sunscreen-for-scuba-diving).

Ironically, the environmentally-friendly sunscreens on *Consumer Reports'* survey got the lowest marks for sun protection. The only one that got decent marks was California Baby SPF 30, scoring 50 out of 100. So divers have a dilemma: Protect against melanoma and harm the reefs, or save them at the expense of your own hide. Better yet, just stay out of the sun.

**Orca Diving Centre, Croatia.** This country along the Adriatic Sea is on the map for European tourists, but if you go to see the sights, should you drag your gear along? David Schwab (Baumholder, Germany) visited the town of Pula in August and says, "The Orca Diving Centre serves the resort area of Verudela and is at the five-star Park Plaza Histria. The dive shop is adequate -- plenty of rental equipment in good shape, although finding a wetsuit that fits properly might be a problem. The dive staff is well qualified and provides first-class service. Dive sites are on the house reef just outside the dive center, others are accessed by a small boat, and wrecks and other sites reached by a larger boat. Visibility was terrible at all three sites, though I was told this is not always the case . . . The house reef is full of rocks and cement blocks. The local site of Fraskeric was an interesting tour through some tunnels and thermoclines (60 to 82 degrees) with a bit better visibility, a couple of crabs, lobsters and small fish. The wreck *RN Giuseppe Dezza* was at 100 feet with six foot visibility -- a real challenge, especially for a one-tank, 30-minute dive that took three hours round-trip. Diving here is for occasional divers, not for more serious divers." ([www.orcadiving.hr](http://www.orcadiving.hr))

**The Sardine Run.** It's one of the more spectacular experiences for divers anywhere in the world, but you have to go a long way -- South Africa -- to see it. Garru and Robing Schiendeelman (Limericka, PA) did in July, and chose Seal Expeditions, using its Mbotyi River Lodge as their base. "Owner Nic has put together an outstanding group of people who love what they do, and it shows. Safety is the top priority, followed only by making sure every guest has a great experience. If you go with the attitude of knowing you have to take what Mother Nature gives you, you will enjoy the trip of a lifetime. This is not an easy trip. Most of the time in the water is by snorkel in choppy water, and you are on and off the inflatable (no ladders) multiple



times per day. We were able to scuba just four or five times all week. We saw bait balls every day but one. Hundreds and hundreds of dolphins, gannets diving, sharks everywhere, humpbacks daily. Clive, our skipper, and divemaster Fabio were the best. The beach launch was a lot easier than expected and really exciting, as was the beach landing. Hotel and food are basic but adequate. But you are there for the wildlife and that was five stars!" ([www.sardinerun.com](http://www.sardinerun.com))

**Jack's Diving Locker, Hawaii.** Another unique dive is off the Kona Coast of the Big Island. Ernest Lavagetto (Walnut Creek, CA) gave it a go in August with Jack's Diving Locker. "The Pelagic Magic Night Dive is unique in the world. You are taken three miles off the Kona Coast, where the ocean is well over a mile deep. The late-night dive allows you to experience the daily upwelling of small pelagic creatures -- ancient life forms and small creatures that the larger, more evolved sea life eat -- that spend the daylight hours at great depths. While it is unnerving to jump into the deep, late-night ocean darkness, the display of small creatures is amazing (the largest life form I saw was squid moving by at about 20 miles an hour). I wish I had had more lights with me so I could see a larger area. You are tied to the boat on an individual 35-foot line. The ocean creatures come to you, and you quickly lose a sense of where you are and where you are going in the darkness. During the one-hour-plus dive, the boat had drifted almost four miles with no sense of the movement on my part. Bring a camera, still or video (you can also buy a video from Jack's), because there is no better way to report to your friends the strange creatures that you will see." ([www.jacksdivinglocker.com](http://www.jacksdivinglocker.com))

**Bequia Dive Adventures.** Bequia, one of my favorite Caribbean isles, is just a ferry boat ride away from St Vincent. Kristin Weck Farrag (Dundee, IL) made her eighth trip there in July, and though she had a remarkable time, it was also marred by tragedy. "Bequia Dive Adventures is a friendly and efficient operation, very safety- and environmentally-minded. Boats are small and groups are small -- usually not more than six divers. I saw tons of fish and critters -- schools and schools of Creole wrasse, grunts and cardinal and soldierfish, some highats and juvenile jackknife fish, and also a praying mantis shrimp out in the open! Loads of juvenile, intermediate and adult spotted drumfish and trunkfish, a frogfish, seahorses, shrimps, crabs, spotted and chain eels, white spotted filefish, trumpetfish, hamlets, peacock flounders. Loads of sponges in every color make this a unique destination in the Caribbean . . . While I was there, Laury Stowe, one of the partners in the dive shop and a fantastic divemaster, was tragically killed, electrocuted by the compressor. We were shocked and very saddened. We will sorely miss Laury, and our hearts go out to his family and dive shop partner, Ron Williams." ([www.bequiadiveadventures.com](http://www.bequiadiveadventures.com))

- - Ben Davison

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## GoPro vs. a Standard Camera

*which one fits your photo/video skills and needs?*

It was way back in 1968 when Andy Warhol predicted there would come a time when everyone would get 15 minutes of fame. Thanks to YouTube and Facebook, that time is now. Judging by the quality of some of the offerings, thank goodness it's only 15 minutes. Everyone now shoots video, whether it be on their phone, their GoPro, their compact camera, a digital single-lens reflex (DSLR) camera or an Epic camera with 4k resolution (the latest must-have), and the Internet is jammed solid with the results of their labors.

It's no different with those who go underwater. The aft decks of dive boats are crowded with expensive photographic equipment, ranging from the inexpensive to the obscene. The big question revolves around whether those who invest heavily in gear can justify it when they come to the results.

Nobody is denying that a HD 4k video setup produces better quality results, but do you actually need to spend vast sums of money for that?

The little GoPro Hero, now in its third incarnation, has been incredibly successful product, because it is available at an attainable price (list prices range from \$200 to \$400; <http://gopro.com/hd-hero3-cameras>), and it neatly dovetails into whatever else you might be doing without turning it into a film shoot. I've seen people with these little cameras, around the size of a packet of cigarettes, attached to bike helmets as they hurtle in and out of city traffic. Rather like the little camera that sits at the front of my car and records the scene in a continuous loop, I don't expect to get a movie from it, just evidence in case of a road traffic accident.

If you intend to kitesurf, freefall from an plane, kayak over a waterfall, jump off the highest mountain or ski through an avalanche, the little GoPro Hero, or one of its clones (the Liquid Image Ego, the Drift, the Sony Action Cam HDR-AS15) can record your point of view in a way that no other camera could without being fatally intrusive.

The BBC's Natural History unit habitually uses banks of GoPro cameras on specially-made rigs to get "time slice" effects for its television shows, but these effects are never on the screen long enough that the quality is important. I recently followed a BBC crew into the water at Tiger Beach in the Bahamas when they asked me to look out for one of their cameras that had been grabbed by a shark. The cost to the BBC is such that these little items are essentially considered disposable. So the GoPro and its clones are cheap, compact and can shoot both video and stills. What's more, the GoPro is available with a specially-designed underwater housing for \$50 that will let you take it along on a leisure dive.

It's all a question of results. Is a GoPro right for what you want to achieve? Once you go underwater, the limitations imposed by the medium affect all cameras equally. For example, daylight is filtered blue once you get more than a few feet from the surface. Those able to shoot in RAW mode (usually the top-end equipment lets you do this) are able to correct the color by playing down the blue channel, to the benefit of the red and green channels when they take their recordings to their post-production computer. With a big digital sensor, they can also run their cameras at very high light-sensitivity settings, around 60 times more than is available on a GoPro, without any grain spoiling the picture. They can also have the benefit of wide light-gathering lenses. Those with simpler cameras will need to supply some independent white light in the form of a suitable underwater lamp.

Don't expect to entirely solve the color problem by simply fitting a color correction filter over the lens. A filter does what it says: It filters out unwanted colors and passes only the color you want to record. However, if you are more than a little way from the surface, this will have detrimental effects on the ability of that little lens to grab what little light that's not blue, and very dark images will result. This means that the compact benefit conferred by these tiny cameras is already compromised by the addition of more equipment. You'll need lights. These will be best if they have a total output of 1,200 to 5,000 lumens. You cannot have too much.



GoPro Hero3

If you've ever watched a Hollywood movie being made, you'll be aware of the extraordinary lengths film crews go to in order to maintain a steady camera. Holding a matchbox-sized camera at arm's length, it's almost impossible to record a steady image. This isn't important if the user is flying down between the trees in parachuting gear, but underwater, we like to see the subjects move about rather than the camera. Your wobbly, hand-held point of view is enough to make your audience feel sick. I'm glad I was never tortured into watching shots from that cyclist's helmet. Do you really think a diver

with a head-mounted unit would come back with anything more than passably watchable?

You can solve this problem to a degree by fitting the GoPro to a specially bought rig with grips that will also carry the lights you'll need. Already, you'll notice that the camera you jump into the water with is not as conveniently small as you might have originally thought. In fact, it's now as big as some compact cameras in their housings. Similarly, if you want to shoot any real close-ups, you're going to need to add supplementary lenses to the mix.

If all you want is a simple visual document of your dive, these little cameras do a great job. If you are happy to see your dive recorded in glorious marine blue, it will do. Visibility is not as good in air either, and natural light shots will also lack contrast. If there's not a lot of ambient light, the images might be rather grainy.

In no way do I dis the GoPro Hero or its clones. Because of their tiny dimensions, you can get shots you might otherwise miss. The wide variety of mounting accessories available give a clue to this -- they even include a four-rotor miniature helicopter (but that's not for use underwater, unfortunately). Mounting a camera on the end of a pole can allow you to stick it down a hole or into a shark's mouth, something you might not be inclined to do if your head was closer to the camera. It's a question of using the right tool for the job.

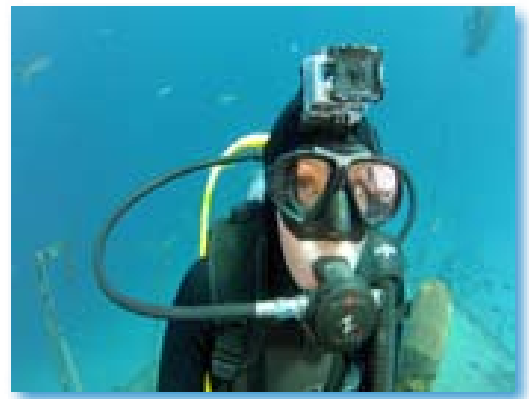
A GoPro owner might feel a little smug at the airport check-in when he sees those with bigger photographic outfits jumping through the required hoops to get their gear on board. The GoPro stows almost unnoticeably in a pocket.

The success of these little cameras relies on the content of the shots they can get rather than the quality. If you are going to do something dramatic and want to record the sequence, the GoPro Hero and its clones are ideal. For example, grabbing the moment when you first jump in.

I habitually have a GoPro Hero 3 Black mounted atop my expensive Nikon camera in its housing, while shooting high quality stills. It is depth-rated to 195 feet, and will shoot slow-motion at 120 frames per second, which is very useful when recording fast-moving fish like sharks, but its lens behind the flat underwater port has a fixed angle of view. (At the 4k setting it shoots at only 15 frames per second, which is less useful since everything then gets speeded up.) I use the GoPro in case something happens during shooting that I would like a fly-on-the-wall recording of. Like that little camera that monitors my driving and will come in useful in the event of an accident, it hasn't happened yet.

A GoPro Hero 3 in top-of-the-line "Black" costs \$500, but once you add lamps and a decent grip, that can escalate to as much as triple the price. If you go for an independent housing and separate monitor, start thinking in terms of doubling that again. However, when it comes to high end DSLRs, that can start to look cheap. On the other hand, a good compact, such as the Canon Powershot G15 in a submarine housing, can be acquired for around \$1,000, plus the cost of lamps, and it will shoot video and much better quality underwater stills, too.

If you want to come back from dive trips with luscious underwater scenes to relish for their beauty, you might do better spending your cash on a compact camera, a Micro Four Thirds system or even a DSLR. Each will shoot progressively better defined images in video-clip form that are the equivalent of snapshots with movement. If you want stills, you will always be better off underwater with a camera that can work in conjunction with a strobe. It's a question of managing expectations.



**The GoPro Hero3 in Underwater Housing**

None of them will automatically provide you with a block-busting movie, though. For that, there are a few other skills you will need to acquire. Meanwhile, we hear the GoPro Hero 4 is on the way.

*John Bantin is the former technical editor of DIVER magazine in the United Kingdom. For 20 years, he used and reviewed virtually every piece of equipment available in the U.K. and the U.S., and made around 300 dives per year for that purpose. He is also a professional underwater photographer, and author of Amazing Diving Stories, available at [www.undercurrent.org](http://www.undercurrent.org).*

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## Divers Who Do Good

*they love the ocean so much, they started nonprofits*

It's pretty much a given that we divers love the ocean, and the marine life living in it. We also know firsthand that marine life is being depleted, even dying or being destroyed at an alarming rate. That's why we're thankful for many who contribute one way or another to causes that tackle the problems. And it's why we want to draw attention to three divers who started organizations for saving the reefs and protecting marine life. [By the way, *Undercurrent* is officially a 501(c)(3) organization, and all profits, after expenses, go toward saving coral reef habitats.]

As you'll see, these three are "Joe Divers," sport divers with no prior experience in the dive industry or nonprofit management. They just loved diving so much -- and the places they dive in -- that they wanted to do what they could to keep them pristine for other divers to enjoy. Ultimately, that meant starting a nonprofit organization, either part- or full-time. It takes a lot of time and effort, but they all say their passion for diving makes it worthwhile.

If you are wondering what you can do to protect your favorite dive spot, or you have a good idea for ocean conservation or improved diving, don't think you can't do it -- just do it. As these divers show, anything is possible.

### Protecting the Reefs

Don Stark has been diving the Turks & Caicos since 1993. He loved it so much that he bought a condo there for vacations (he lives in Vermont, where he is a consultant in the biotech and pharmaceutical industries). As he spent more time in the islands, Stark noted that the government was chronically underfunded and understaffed, meaning protection of the degrading reefs was subpar. Stark worked as a volunteer on the New England Aquarium's dive team, and he wondered how he could use that experience in his vacation home. He talked this over with his business partner and dive buddy, Dave Stone, and together they started the Turks & Caicos Reef Fund (TCRF) in 2010. ([www.tcreef.org](http://www.tcreef.org))

The fund is modeled after successful marine parks programs on Bonaire and other islands, raising money by selling \$10 dive tags and wristbands to users of the reefs -- divers and snorkelers -- to finance reef protection. The Department of Environment and Maritime Affairs, in charge of the marine parks, didn't want to initiate a park use fee, because the funds would not be steered by the Treasury to the parks. With TCRF around, the Department can steer contributions to Stark and Stone to help them do their job.

The big project now is installing dive and snorkel boat moorings. The government hasn't had funding or staff to maintain the moorings for years. The TCRF raised more than \$30,000 to fund that project and hopes to have all moorings back in place within a year, then they plan to add more. After recent incidents where visiting yachts damaged reefs by dragging their anchors, TCRF also plans to install yacht moorings throughout the islands, having raised \$16,000 so far to fund that effort. And it just started a coral nursery project to create a source of corals for reseeding the natural reefs, as well as for the artificial reefs it's proposing to install in Grace Bay to take the pressure off two popular snorkeling reefs nearby.

TCRF's goal is to put at least 85 percent of every dollar raised into its projects, and it has so far succeeded. Besides selling dive tags, TCRF's major source of money is a big annual fundraiser held on Providenciales. Aside from the mooring programs and coral nursery, the TCRF needs funding to help pay costs in the legal case it's participating in to stop a Sea World-like dolphin park from being built in the Turks & Caicos (the judge ruled against the plaintiffs last month, but the TCRF is looking to appeal).

Stark now lives more than half the year on Providenciales, because the TCRF has essentially become a full-time job. The downside: "Everything takes twice as long as in the U.S.," says Stark. "It can be frustrating, but once things get moving, it moves fairly quickly. And we have a strong working relationship with the government and other marine organizations here."

His advice for those who want to start a similar organization: Be present. "You need to have a presence in the area you're protecting almost all the time. When opportunities come for publicity and certain activities, you need to have your feet on the ground. It would be hard to do if I didn't have a business partner there, and we coordinate schedules to make sure one of us is there at all times." And don't get frustrated, he says. "Things move a lot more slowly, both in the Caribbean and in nonprofits."

### Restoring the Coral

Ken Nedimyer sounds like a proud parent when he talks about his "nursery" off the Florida coast. "Especially when they start getting big, and they're spawning and there's fish living inside there, I get real excited, and I can't wait to see it in five more years," he said. Over the past decade, Nedimyer and a small team have developed new techniques to grow and replace coral damaged by environmental changes. Through his Coral Restoration Fund (CRF), he plants coral as part of the conservation effort in the Florida Keys, and he's now extending his efforts worldwide ([www.coralrestoration.org](http://www.coralrestoration.org)).

Nedimyer has been diving since 1970, and made his living as a commercial fishermen, catching fish and lobster in the Keys. During that time, he started seeing fewer fish and more dying reefs. Florida's coral cover has dropped from 50 percent 30 years ago to 7 percent today. "I thought, 'How could I do something about this?' and over time, I started trying things." Nedimyer said. The winning idea came in 1994, when he started an aquaculture farm in the Keys to grow "live rock," rocks submersed in the ocean to get colonized by beneficial bacteria and encrusting organisms that are later placed inside aquariums. High-quality coral started settling on the rock, and Nedimyer could have sold those, but instead he used them to test techniques for re-attaching branches of staghorn coral that had been broken off the rocks. That led to a pilot coral restoration project, which has since led to the CRF, a large-scale coral nursery and restoration program.

The CRF team removes pieces of healthy staghorn and elkhorn coral every six months, then mounts them onto concrete slabs where they grow until they are ready for transplant. Nedimyer recently received government permission to plant 100,000 pieces of coral on protected reefs in the Florida Keys over the next three years. And he is also going global, starting up nurseries in Bonaire and Colombia. "The corals we work with are mostly Caribbean and the need for those is everywhere, so we think we have found a big solution," he says.

## Thanks to Our Subscribers, We're Giving Away \$3,000

*Undercurrent* is awarding \$1,000 to each of the three groups profiled here. The stellar work of their founders clearly deserves recognition, and a check will go to each in the next 10 days.

Whenever you buy a book from *Undercurrent*, our profit goes to preserve our world's reefs. When you click on a book on *Undercurrent's* website -- or on the Amazon icon -- then anything you purchase produces a profit for us. If you buy a \$10 book, \$100 pair of shoes or a \$1,000 camera, we get about five percent.

Thanks to your purchases, we are able to make the \$1,000 awards to our fellow divers who have volunteered long hours to help preserve our oceans. Thanks to them . . . and thanks to you, our readers, for supporting us.

The CRF has a big federal grant from the National Oceanic and Atmospheric Administration, but Nedimyer relies mostly on private donations to fund operations and pay his three-person staff. (He has 20 local volunteer divers who help out on weekends, and “a whole army” from all over who schedule dive trips just to come help.)

His advice for starting a nonprofit: Besides having a burning passion and surrounding yourself with smart people, just do it. “Take baby steps. One small step will lead to bigger steps and when you look back, you’ll be amazed at how far you’ve come.”

### **Cleaning Up the Ocean**

Heather Hamza was a volunteer diver in Los Angeles, cleaning up kelp beds, but she wanted to do more. When she heard about a group that removed derelict fishing nets from wrecks, she signed up to help. But as a technical and cave diver who had previously been certified for the rigorous training from Global Underwater Explorers (GUE), she wanted to use that training (Nitrox dives with double tanks and drysuits) in cleanup efforts so her group could bring up more nets. As if they heard her from afar, two GUE-trained divers from Holland who had founded a nonprofit called Ghost Fishing contacted Hamza to ask if she could help spread their efforts to the States. So when Hamza isn’t working at her day job as a nurse anesthetist, she is U.S. coordinator of Ghost Fishing ([www.ghostfishing.org](http://www.ghostfishing.org)), directing a group of 50 volunteer divers who remove old fishing nets from wrecks in Southern California to prevent further “ghost fishing” of marine life that can get tangled up in them .

## **You Don’t Have to Start a Nonprofit to Do Good**

When you see underwater habitat or critters being destroyed, do you speak out? Seattle dive instructors Bob Bailey and Scott Lundy did -- and the result was that Washington State ruled to protect the giant Pacific octopus.

It started in October 2012 when Bailey and Scott Lundy finished a dive in Seattle’s Seacrest Park and witnessed a young man throwing a live, 30-pound, giant Pacific octopus in the back of a pickup truck. When they confronted him, the man said he was hunting, and that it was legal. Bailey responded, “It’s legal, but nobody does that. It’s wrong.”

Lundy took photos of the squirming octopus in the pickup -- and its 19-year old captor, Dylan Mayer -- and Bailey posted them online. Bailey said his decision was made in response to Mayer’s comments that he was within his rights to take octopus from the site, and that he was coming back tomorrow to take another one. (When the media found out who Mayer was, he told them he was using the octopus for an art project, and then would eat it.) “I felt that issue needed to be addressed immediately -- one determined hunter could clean out a dive site of giant Pacific octopus in a week, and stay perfectly within his legal rights. So I took the action because, frankly, I didn’t know how else to stop him from another hunt in our area. Seacrest is a park, and responsible hunters just don’t hunt in parks.”

Within 24 hours of posting his photos, Bailey received a big response. “Dozens of people with the wherewithal to get involved in a constructive manner, and hundreds who expressed outrage either in favor of or against what I did.” After gauging the responses (which included hate mail and death threats), Bailey stepped out of the limelight and let Lundy be the spokesperson. Lundy contacted several organizations and dive industry professions, and organized a meeting with Washington’s Department of Fish and Wildlife Commission the week after the octopus was captured. Bailey was one of the divers who spoke before the panel.

In August, the Fish and Wildlife Commission voted unanimously to prohibit recreational hunting of giant Pacific octopus at seven popular dive sites in Puget Sound, one of which is Seacrest Park. Bailey is happy with that decision, and glad he played a part. “I think bringing something to the public’s attention is fine. However, after experiencing what happens afterwards, I would recommend that you do so without publicly identifying the person you’re taking issue with. The biggest mistake I made was putting Dylan’s face out there. I didn’t realize how crazy some people are when they can hide behind a keyboard, and I in no way condone what happened to his family. They didn’t deserve to be pummeled and threatened by anonymous Internet users -- and neither did he.”

At least once a month, Hamza's group, all GUE-trained, is removing nets on shipwrecks ranging from 60 to 150 feet deep. They go as far out to Catalina Island and as far south as the Coronado Islands, in Mexican waters. Her husband, who runs a dive shop, handles the 501(c)(3) management aspects, while she plan and organizes trips, recruits volunteers and markets the organization. When she's not planning four trips simultaneously (because there are recon trips to survey the wreck and nets before the actual trip to remove them), Hamza is asking dive manufacturers for free gear, and dive shops for discounts on charter boats. Right now, she's working with the new Animal Advocacy Museum in Pasadena, setting up a big display on ghost fishing, and planning a formal presentation so she can also do some fundraising.

But getting money for such a good cause is not so easy. "The state's Department of Fish and Wildlife was interested, but they're broke," she says. "And other groups don't want to fund us. They're scared about liability, because what we do borders on commercial diving. Even when we said we would sign any liability waiver, they said no." Hamza says any money that's donated will go toward boat charter fees, to take the financial load off volunteers, who currently split the costs.

Her newest job role: net recycler. She's talking with Aquafil, an Italian manufacturer of nylon polymers that just started a program to recycle fishing nets into yarn to make carpeting, socks and other textiles. "We bring up hundreds of pounds of nets, and we've just been throwing them into the garbage," says Hamza. "I'm meeting with Aquafil's president soon to talk about how to get these nets to their processing plant in the South." So funding for that aspect would be a good idea, too.

While Ghost Fishing takes over all non-working hours, Hamza says it's what feeds her soul. "The ocean has given me so much pleasure, and this is the least I can do to pay her back." It also helps that she has experts to steer her through back-office duties. "With a nonprofit, it's all about the paperwork, so it's good to have an accountant who knows about nonprofits, and a good lawyer. I don't know about financial and legal stuff, but I'm learning as I go. It's great job training."

- - Vanessa Richardson

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## How to Avoid a Flight from Hell

*it often boils down to how you book your plane tickets*

*Undercurrent* reader John Davis (Englewood, CO) wrote us about his dive trip to Dominica in July, and the hellish experience he had getting to and from there on US Airways and the Caribbean airline LIAT. His experience is a cautionary tale for all traveling divers.

"On my first flight, US Airways was 90 minutes late leaving, so we arrived late in Charlotte, N.C. When I got to San Juan, LIAT had already departed. When I approached the US Airways desk with my dilemma, they disavowed any responsibility, saying I did not book them for the entire trip -- this in spite of the fact that it does not fly to Dominica. I was told by LIAT's representatives that it would be Monday before I could fly to Dominica (it was Saturday), but it was okay if we flew standby.

"The next day, six in my group got seats while the other two still were stuck with the Monday flight, but because we technically missed our flight, LIAT charged us an additional fee. Unfortunately, our luggage and dive gear did not arrive with us. It didn't arrive on Monday when the other two in my group arrived -- with their baggage. It didn't arrive Tuesday, either. Three of us got our luggage and gear at 1:30 a.m. on Wednesday, the others late Wednesday afternoon. Because of all this, we had to buy T-shirts and bathing suits, and on Wednesday finally dived with our equipment.

"On August 3, we woke up at 5:30 a.m. to start our trip back. We all checked into the airport no later than 8:30 a.m. for a 10:40 a.m. departure. LIAT did not show up with an airplane until 1:10 p.m. There was no

apology or explanation for being late. Unfortunately, we did not arrive in San Juan until after my US Air flight departed for Charlotte. We were able to get a later flight to the U.S. I got to Charlotte late that night and, once again, had to buy a hotel room to stay the night, then fly back the next morning.

“My family spent over \$1,000 for extra hotel rooms and missed-flight penalties. US Airways did not want to take responsibility in either flight direction, and they charged us more money whenever they could.”

John, my apologies for your ruined vacation. You were unfortunately caught in a perfect storm of events. You couldn't have done much to prevent the missed flights, but after talking to Ken Knezick, owner of Islands Dream Travel ([www.divetrip.com](http://www.divetrip.com)) in Houston, may we suggest one thing for future overseas dive trips? Buy a single ticket (i.e., with flight legs combined), not separate tickets for each airline. By having one ticket between Colorado and Puerto Rico, and another between Puerto Rico and Dominica, the airline with which you're connecting doesn't expect you. Neither will care that you missed the other's last flight; you will have no priority for the next flight, and they will charge to rebook you. If you book your own tickets directly on the web, you will find it difficult, if not impossible, to produce combined tickets. That's where a travel agent can be critical.

## A Diver with Heart Issues: Could His Death Not Be Accidental?

Many divers hold accidental death policies, presuming that should a problem dive lead to their death, their family would have financial help to cover their loss, particularly where potential income is lost. But it seems that not all diving deaths are accidental, as this Michigan case concludes.

On December 26, 2008, Paul and Pamela Linton-Hooker were diving in Belize. They had just gotten into the water and were still on the surface when Paul appeared to go unconscious and started sinking. When he was taken out of the water, CPR couldn't revive him and he died. An autopsy performed in Belize identified the cause of death as “bronchial aspiration asphyxia,” which means he vomited in the water and that caused him to drown.

The couple had a group accident insurance policy with AIG through Pamela's employer, and she submitted a claim for accidental death benefits based on his death. But AIG denied the claim in October 2009, saying that no benefits were payable because “substantial evidence exists that your husband died from sudden incapacitation, due to heart disease, and that this heart disease contributed in whole or in part to his death.” In the Linton-Hookers' policy, AIG wrote that it specifically excluded from coverage “any loss caused by, or resulting from . . . sickness, disease or infections of any kind.”

AIG used a forensic pathologist to look into Paul's past medical history, and he found that it was notable for coronary heart disease, a heart operation three years before his death, hypertension, smoking up to three packs per day for 30 years, marijuana and alcohol use. Looking through Paul's medical records, Cohen found that Paul experienced chest pains after he jumped in a lake back in December 2005. Six months later, Paul experienced chest pain during a dive at 85 feet deep or more. The forensic pathologist concluded that the primary cause of his death was heart disease.

In August 2010, Pamela Linton-Hooker filed an appeal from the benefits denial, using the Belize autopsy report as proof that her husband's was an accidental death. AIG used a second forensic pathologist, who described the Belize autopsy as “woefully inadequate,” noting that no mention is made of the condition of Paul's coronary arteries, and there was no indication that any of his organs were dissected in any detail. Therefore, Pamela can't prove that her husband's death resulted from an accident.

In March 2012, the judge agreed with AIG that the Belize autopsy was not solid evidence of an accidental death, and that it didn't exclude the conclusion that Paul's death was caused by heart disease. AIG's medical experts effectively explained that both the bronchial aspiration asphyxia and the heart disease could have caused his death. Thus, the ruling went against Pamela Linton-Hooker, and her request that AIG pick up her attorney fees was also denied.

This means, of course, that if coverage is critical to a family, a broader life insurance policy is essential.



I've been flying LIAT in the Caribbean since the 70s, and have many times written about its lack of dependability for what is essentially a commuter airline between islands. In fact, it's an old joke that LIAT means "Leave Island Any Old Time." But we divers take a chance with connectins, arrivals and departures when we fly any commuter airline serving small countries, such as those in the Caribbean or the Pacific.

When it comes to the Caribbean, Puerto Rico is often a trouble spot because there are fewer flights to other small island countries than one might find elsewhere. Flights between San Juan and Dominica are scheduled to hook up with tourist flights from the mainland; if you miss yours, you can be stranded for a day, even longer. When I go to Dominica, I fly from the U.S. to Barbados, and then take one of the many flights to Dominica that go back and forth all day long. That way, if I miss one flight, there are a few more I have a shot at. There are other hub substitutes for Puerto Rico when flying in the Caribbean. Total airfare may be more, but well worth it to avoid an experience such as yours.

Knezick also has this extra advice: When traveling by air, have plenty of time to spare. "I am a major proponent of planning generous connection times between flights," he says. "If, for instance, I'm flying to Los Angeles to connect to a trans-Pacific flight, I'm going to schedule a four-hour span in which to make that connection."

Another of his adages is "The best laid plans of mice and men..." "Sometimes our best efforts will be stymied, and things will go wrong. That's the time to dig into the extra reserve of patience -- probably money as well -- and make the best of it."

And for us divers who travel to the farthest corners to get wet, by skimping on connection time we risk missing a day or more of diving, the only reason we scheduled the trip in the first place. Take an extra day and relax.

- - Ben Davison

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## I'm Offended by This!

### *what we dive boat captains must encounter*

It used to be that people "took offense at"; now people "are offended by." The first implies that there is choice involved in your reaction to a perceived insult to your person or beliefs. You can ignore the insult -- or "take offense" at it.

But today there is acceptance of the idea that one should be, or at least act as if you are, offended by any idea that even slightly differs from one's own beliefs. This is a product of political correctness and the dumb idea that everybody should be nice to everybody else.

Personally, I find the whole concept of "being offended" insulting to my character. I choose not to be offended by anything anyone says about my beliefs and my character. To me, any insult says something about the person insulting me. I think how pathetic and weak-brained that person is. I choose not to be a victim. Nobody has to "take offense," but if you wish to be a victim, and perhaps thereby gain sympathy or even compensation, and limit others their freedom of speech, then just go ahead, you sad excuse for a human being.

As a young child my mother taught me, bless her, that "sticks and stones can break your bones, but words will never hurt me." I believed her, so instead of crying at insults, I wondered at the diseased minds of those offering insult, and laughed at them. Not that I think that insult does not have its place -- far from it. I regard insult rather like graffiti in that some walls deserve it. But it is not the giving you should worry about -- it is the acceptance.

## Can Divers' Potentially Fatal Heart Changes Really be Found?

Researchers in Pisa, Italy recently published results of tests they performed on scuba divers hearts. Using an underwater ultrasound scan, they discovered significant changes in cardiac function both during and after a dive. That test could be used to identify divers with undetected heart disease or cardiac abnormalities that might prove fatal during a dive, they wrote in *Acta Physiologica*.

They tested 18 scuba divers, 16 men and two women, who averaged 42 years old and had made at least 100 dives. None smoked or had hypertension, heart or lung disease. They conducted cardiac-ultrasound tests on land before and after diving, and underwater at two depths. The divers wore suits with access for an ultrasound probe and maintained a kneeling positions at a depth for specific time periods.

Among the heart changes recorded during and after the dive: The volume of the left ventricle, a lower heart chamber that pumps newly oxygenated blood to the body, increased significantly, while the flow of blood into the ventricles decreased. These changes may be due to a diving-related shift of blood from the lower extremities to the upper body, exerting a constrictive effect on the chest. Bradycardia, the term for a slow resting heart rate that can cause dizziness and weakness if it falls below 50 beats per minute, was documented after but not during the diving. The cardiovascular changes that occur during a dive may increase the risk of cardiac problems in divers who are unfit, overweight or have underlying heart disease.

Petar DeNoble, vice president of medical research at Divers Alert Network (DAN), says other studies have concurred with this one's findings, so the results are not unusual. But while the concerns for this study were about divers with pre-existing heart conditions, the study used 18 healthy divers. And the results of the recorded heart changes aren't that significant, because they're only temporary changes. "Other studies describe that the heart changes return to normal in less than an hour after a dive," DeNoble says. "There are no studies exploring how these temporary changes may acutely affect divers with pre-existing conditions or how long these changes may persist in such divers. So there may be negative effects or an increased risk of arrhythmia, but the way to establish that is to measure an outcome of interest during the study, and that is actual arrhythmia."

That's what DAN is trying to do in one of its new studies: identify people with heart conditions who are vulnerable to changes underwater, then follow them during dives with continuous EKG monitoring to measure if there's any increased incidence of cardiac arrhythmia. DeNoble also wants to look at the cumulative effects of multi-day diving. "Are there any cumulative effects during three to five days of diving, and does this lead to death?" He wants to enroll 120 people in the study to do five week-long trips on liveaboards. He is planning to book and announce those trips soon so he can have all the data for analysis by the end of 2014.

Other study subjects DAN is looking for: divers with pacemakers. DeNoble's other study is researching divers with implanted pacemakers or defibrillators choosing to dive with or without medical clearance. The study consists of a 10-minute online survey, plus a possible follow-up interview if additional clarification is needed.

**If you're interested in being a test subject in either study, contact DeNoble's team by e-mailing [research@dan.org](mailto:research@dan.org). Participation should be done with the goodness of your heart (no pun intended), as there's no payment for taking part in the studies.**

As captain of a liveaboard and cruise director on others, I have often been in the position of receiving complaints about other passengers. The complainer usually states that he or she has been offended by the behavior or opinions of others, and expects me to sort it out. One passenger was offended by the fact that another passenger had put his dive bag on top of hers. I did not know what those dive bags were up to, but I gave them the benefit of the doubt, and assumed the complaining guest was, in fact, nuts. Of course, running a liveaboard entails diplomatic skills Henry Kissinger would be proud of, so I came straight out with it. "You're nuts! Go diving before I throw you, and your bag, overboard." Amazingly, the reputation I gained by acting swiftly and firmly irapidly reduced the number of guests becoming "offended." True, some found my response offensive, but I made it clear that it did not bother me -- it was their problem.

I could recommend this type of response to any political party. Instead of trying to introduce legislation to make the *giving* of offense illegal, they should be making the *taking* of offense illegal. Silly people, why do they always get it wrong?

So then I started to think of behavior on any dive boat I was running that I would consider, if not offensive, then at least in bad taste -- or more importantly, behavior that would detract from the fabulous experience my guests would otherwise experience under my guidance. Selfish behavior would seem to be top of the list. Someone who scoffs down more than their fair share of the delightful gourmet delicacies provided between meals; insists on inflicting on everyone else their appalling taste in music on the ship's sound system; always pushes to the front of the line to get in the water first; elbows through the crowd around the sea fan with the pygmy seahorse to make sure they get their photo, then hogs the spot; keeps going on about wind turbines, and how useless and ruinous they are (whoops, that's me); or crashes into a photographer shooting a critter he or she had just found, disturbing the critter and stirring up a fog of silt and sand.

Then there are those who insist that their dive bag is kept in place, blocking the saloon, as it contains essentials they simply cannot have on board without immediate access; or come to dinner without a shirt on (I think this holds the record for the number of complaints I have received). More obscure are complaints about divers washing their wetsuits in the camera dunk tank, but I have indeed heard them.

There are probably thousands of these sorts of niggles that can upset guests. Boats are small and not very private. A liveaboard is a tiny place for a dozen or more divers, and people should be thoughtful about their behavior. Yes, they might get away with it at home, especially if they live alone or in the middle of a desert, but on a dive boat, you have to be considerate of others. Alas, some people do not know the meaning of the word. Well, two words -- "considerate" and "others."

My advice to those of you who find yourselves confronted by potentially offensive behavior is this: Don't take offense, take revenge. I'm actually all for forgiveness -- but only after I have had revenge. It is in my stars, but of course as a Scorpio, I do not believe in any of that astrology nonsense.

In Papua New Guinea, "payback" is the embodiment of the revenge principle. Basically, if you do something that offends someone, then he, or his clan, will do something back to you (or someone who looks or speaks like you) more terrible than you did in the first place. This means you have to pay back the payback with an even more terrible deed, and so it escalates until a peace meeting is held where compensation is handed out. Then more fighting breaks out over the size of the compensation. A recent front page in a Port Moresby newspaper reported that 10 people were killed when fighting broke out after a peace ceremony.

So keep the revenge petty, not serious. This use is much underrated in today's society, but I used it regularly on board. To the foul-mouthed braggart, smear a little vegemite on his mouthpiece. To the pusher that always has to be first in the water, try popping his dive skin in an old ice cream container filled with water and place it in the freezer overnight. To the one whose bag is always in everyone's way, move it then put some heavy (greasy) gear on top of it to make it inaccessible. And so on. Use your imagination.

The wonderful thing, of course, is that you can pretend it was just a joke and laugh it off. This puts the offender in the difficult position of not wanting to appear a bad sport, while seething with anger. Oh my, what fun! It is not likely that they will "get it," but it will make you feel much better.

Please note that I am absolutely not suggesting physical violence, merely a harmless means of dissipating your frustration and not getting offended. I admit I have witnessed rare fistfights break out between guys offended by each others' behavior or viewpoints. And it is true that now and then, two people will come aboard who are totally incompatible, and then my best ploy has been to keep them separated.

You would think that with diving as a common denominator, life on board a dive boat would be totally congenial, and mostly it is. But if you are confronted with behavior, or hear an opinion that you find at odds with your own mores, by all means, try to get the behavior modified -- sometimes a gentle word does wonders. But whatever you do, do not take offense. I'd find that offensive.

*Bob Halstead, considered the father of Papua New Guinea liveaboard diving ([www.halsteaddiving.com](http://www.halsteaddiving.com)), is a well-known diving curmudgeon and a frequent contributor to Undercurrent's blog. Read more of his commentaries at [www.undercurrent.org/blog](http://www.undercurrent.org/blog).*

# Flotsam & Jetsam

**Shark Finning in the Caymans?** Scientists conducting the first ever "shark census" there warn that the Caymans' shark populations could be at risk from over-fishing, including shark finning. There are far fewer sharks there than expected, based on what is seen elsewhere in the Caribbean and Central America. The researchers, from Marine Conservation International, expected to see at least 11 additional species, and higher numbers of sharks, and also found evidence of shark finning. They estimated that sharks are worth \$1.6 million to the Caymans annually in terms of their consumptive value as a "fishery," but their value to tourism and diving was estimated at up to \$60 million, so a shark is worth 40 times as much to the Cayman economy alive in the water as it is dead on a boat. There's a draft national conservation bill, which includes protection for sharks, but it has yet to be debated in the Legislative Assembly, despite being on the books for almost a decade. The only current relevant legislation is a ban on feeding sharks.

**Diving Up the Career Ladder.** Nosipho Mnguni and Nomcebo Ndlela are the first and only women scuba divers in the Royal Swaziland Police Service's nine-person dive unit. In an interview with the Times of Swaziland, Mnguni says her job is "more of a hobby," as she is a natural-born swimmer, while Ndlela didn't know how to swim before learning of the unit, "however, I had never in my life backed down from any challenge." Being fearless enough to dive into a crocodile-filled river when some men won't means they've made their mark in a male-dominated profession, and they've blended so well with their male counterparts that the duo considers them family. "When duty calls, none of the team considers the other as male or female," says Mnguni. But they hope more women will join them. Says Ndlela, "Being a female

has nothing to do with keeping from doing what you desire or chasing that dream."

**One Reason for Fewer Divers: Wimpiness.** The days of the thrill-seeking action male are over, according to a study from St. Andrews University in Scotland. Compared with the action men of the 1970s, today's men are wimps, much less interested in adrenaline-rush pastimes, including scuba diving, and more averse to risk. Psychologists gave men a sensation-seeking test and found their willingness to engage in physically-challenging activities has tailed off dramatically in the past 35 years, since the tests were first carried out. In the late 70s, men were 48 percent more likely than women to say they would seek out thrills. But now, men were only 28 percent more likely, and that's not due to a rise in risk-taking among women. Study researchers say the diminishing interest could be due to lower levels of average fitness today. But we wonder: How does this account for today's surge in high-risk sports ranging from base jumping and 60-foot wave surfing, and high participation in marathons, mountain biking and the like?

**You Never Know What You'll Find Underwater.** Yachters near the Spanish town of Calpe got a shock in July when they discovered a badly-decomposed skeleton still wearing full scuba gear and a backpack with 500 euros in cash, a cell phone and a passport for a Moroccan man named Abdelaziz Elfayafi. Two months later, the police confirmed that he was indeed the diver, and died of natural causes. The 22-year-old college graduate had been doing clerical work and was looking at starting a business with his brother in Tangier months before he died, but that doesn't explain why Elfayafi was found where he was. His sister, Farah, told the press, "I think there is a secret behind my brother's death." . . . Meanwhile, in Sweden, a diver finning along at 46 feet near the west coast town of Salto found a well-sealed package containing a dismembered body. Police have not identified the body, but conceded the packaging was "well-made." Bjor Blixter of the Gothenburg police said, "It was done in a manner that shows the body was not meant to be found."

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