

# undercurrent

*The Private, Exclusive Guide for Serious Divers*

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## Sipadan Water Village, Borneo, Malaysia

*orangutans in the jungle, orangutan crabs underwater*

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Dear Fellow Diver:

There's nothing like surfacing from a world-class dive and sharing the moment with a bunch of exuberant Italians. Although I couldn't decipher their lingo, I could definitely appreciate what they were jabbering about at the end of a 50-minute drift dive at Barracuda Point on Sipadan, where we'd seen almost every endemic species except barracudas.

In 80-foot visibility, I had come across four mammoth green turtles lounging at a cleaning station atop a coral head, with others queued up like autos at a car wash. Nearby, I had spotted a giant trevally that appeared to have a distended jaw, until a cleaner wrasse swam out of one gill slit. At the Aquarium, hundreds of fearless foot-long trevallys swam right up to my mask before gliding away. Later, I was entertained by two trumpetfish making beautiful music, with a couple of coronetfish sitting in. Ramil, our guide, used a magnifying glass to inspect a tiny chromodoris nudibranch, while six-foot-long white-tip reef sharks circled below. Ramil used an Etch-a-Sketch to identify critters in both English and Italian -- pretty impressive. Like most of my dives at Sipadan, we had ascended above 20 feet when the first diver reached 500 psi. There, in bright sunlight, it almost hurt my eyes to gaze at neon-colored anthias and other brilliant reef fish darting among the hard and soft corals.

I had come to the tiny island of Sipadan (pronounced Sih-PAH-dahn), off Borneo's northeast coast, after a week



The Bungalows at Sipadan Water Village



of touring jungle lodges in search of pygmy elephants, hornbills and orangutans. It had been a grand adventure, but for a diver, nothing to compare with the reefs of Sipadan. This legendary dive destination has a turbulent past. On Easter Sunday in 2000, Abu Sayyaf militants (affiliates of al Qaeda from the southern Philippines) invaded a dive resort there, taking several guests and staff members hostage. Most were released by September, after mediation by Libyan leader Muammar Gaddafi. The last escaped in June 2003. In 2004, the Malaysian government evicted all dive operations from the island, to safeguard Sipadan's pristine environment

above and below the water. So today, divers stay on nearby islands and travel to Sipadan's reefs by boat. The main tourism island is Mabul, home to Sipadan Water Village (SWV) and a number of other dive resorts. The government permits only 120 divers a day to visit Sipadan, and some dive operators dispense the permits to guests through lotteries.

SWV had been recommended by my travel agency, Reef & Rainforest, because it has the best record of scoring these limited permits. That opinion was borne out by Vickie Coker, owner of Travel Masters in Austin, TX, who told me, "The resort does the best job of coordinating permits and getting people to dive where they want to. They do not do a lottery system. They actually look at the demand and make the best decisions they can make, considering all the options." In fact, I got to Sipadan three out of four days of diving. Some others did even better. But I found that Mabul and nearby Kapalani have their own underwater attractions.

SWV is exquisitely designed, with chalets on piers stretching over a shallow, crystal-clear cove. After a week in the steamy rainforests, I was delighted to wash the sweat and DEET out of my clothes and enjoy my deck overlooking the Celebes Sea. SWV is bug-free, unlike the malaria zones I had just visited. (I heard they spray for insects, but I never noticed any evidence.) August temperatures were in the 90s, but it was a luxury to open my doors and windows at night to admit the cooler sea breezes. The piers radiate from a central complex that houses a bar, lobby and reception area. Nearby is the open-air dining terrace and a small "mini-mart" for trinkets and a few essentials.

The dive center, at the end of one pier, is well organized, with lockers, rinse tanks and outdoor showers. After lunch on our first day, my buddy and I reported to the dive center for a complimentary checkout. Rather than schlep dive gear all over Borneo, we had decided to rent everything except our masks, snorkels and booties, and we wanted to get accustomed to their gear. Divemaster Wit fitted us out with new-looking 2-mil shorty wetsuits, Italian-made Scubapro T-Sport BCDs, plus MK2 regulators, each with an octopus and metric pressure and depth gauges. He fitted us each with 12 kilograms of weight, which turned out to be way too much. He skipped a buoyancy test on the surface, instead instructing us to simply kneel on the sandy bottom and remove and replace our masks and second stages. Then he took us on a short exploration of part of the Mabul house reef known,



SWV's Dive Boats

somewhat grandiosely, as Paradise One. This was a classic muck dive, with more litter than critters on the otherwise featureless bottom. Wit used a pointer to show us macro specimens like a white-tipped anemonefish with eggs, a pipefish and a giant black frogfish. We also saw a sizable green turtle, a foot-long cuttlefish and plenty of yellow-striped snappers. The rental gear worked fine, except for a faulty buckle on one of my fins, which fortunately broke before I got in the water. Later, a strap broke on the same fin, confirming my bias against TUSAs despite their consistently high performance ratings.

The next day's diving assignments were to be posted at 5 p.m. on large whiteboards. Six boats were scheduled for three-tank day dives, and all but one were going to Sipadan, including ours. No boat was carrying more than nine divers. SWV offers unlimited self-guided shore diving, including night dives, on the house reef. A guided night dive runs about \$50 for one to three divers. Diving at SWV is a pretty relaxed affair. I'd stroll over to the dive center about 7 a.m., help myself to a complimentary snack and board my assigned boat to find my BCD and regulator properly set up on an aluminum 80 tank, then we'd cast off for a smooth 30-minute ride to Sipadan. Upon arrival, we checked in with the authorities, then headed for our first dive about 8:30 a.m. Everything was pre-planned, so we were never in the water with divers from another boat.

On site, the divemaster and boatman helped me gear up, and the buddy pairs backrolled off the side in buddy pairs to wait on the surface until the group was together. Most dives were leisurely wall drifts. We were to stay above the guide, unless we saw something deeper to check out (a leopard shark once lured me down to 108 feet). Typically, my profiles were 60 to 75 feet for about 50 minutes. The guide would eventually lead us all up the wall, where we could enjoy colorful safety stops, then surface to meet our boat, which had been trailing our bubbles. At the swim ladder, I held up each foot and the crew removed my fins, then I handed up my weight belt and slipped out of my tank, which they retrieved. Then we'd head back to the Sipadan jetty for a surface interval. Snacks were served under a pavilion on the grounds of the old Pulau Sipadan Resort, site of the Abu Sayyaf raid. After the second dive, a hot lunch was served, and I appreciated the bathroom and shower facilities in the compound.

While SWV is undeniably beautiful, the complex suffers from some Third World infrastructure problems. My bathroom plumbing leaked at first, and I never had hot water in my sink. Tap water was unpotable, so they supplied carafes of cool drinking water, which had to be replenished at the bar. My chalet also sported an array of non-working electrical switches. For most of my stay, my dive buddy and I were the only Yanks in the place, and while the European and Asian guests were cordial, people tended to stick together and converse in their native

## Digital Fish ID

To identify many of the creatures I saw in Sipadan, I used a digital version of the popular book *Reef Fish Identification: Tropical Pacific* by Gerald Allen, Roger Steene, Paul Humann and Ned Deloach. This handy tool is available on DVDs or by download from [www.fishid.com/blio.html](http://www.fishid.com/blio.html). Either option has a few clear advantages over the 500-plus-page book, which is heavy and bulky to pack. The digital versions are duplicates of the book, covering 2,000 species of fish with more than 2,500 high-resolution color photographs. The book retails for \$48, and a two-DVD package is \$55, while the download costs only \$29.95. I downloaded it onto an iPad, but it will work on an iPod Touch, Android device or computer as well.

One drawback: The digital versions are not interactive. They act more like an indexable PDF file without the interaction and auto-scaling of, say, a Kindle. You can leaf through the pages using the touch screen (resist the temptation to lick your finger as you flick each page). That can become tedious, so by tapping the bottom of the screen, you can bring up a control bar that lets you search by common or scientific name.

Only a few titles in this series are currently available by download, but more are on the way, according to Blio, the digital publisher. Blio software is currently available for purchase only in the U.S., Canada and Mexico, so complete your download before you leave for a tropical Pacific dive trip.

-- Larry Clinton

## Sipadan Water Village, Borneo

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

★ = poor      ★★★★★ = excellent

*World Scale*

tongues. Despite the bar being the chief Wi-Fi hotspot, it was virtually empty every night -- and sparsely stocked. There was no wine by the glass, and the cheapest bottle, an Australian shiraz, was around \$40. Fortunately, the local Tiger beer was an acceptable substitute. It would have had been more enjoyable if I had traveled with a group of friends, and we had brought our own refreshments to enjoy in our spacious, airy chalets.

Except for breakfast, the buffet-style meals were Asian cuisine, featuring unidentifiable, bony bits of meat, poultry or fish and stir-fried veggies. Salad makings were primarily lettuce, tomato and shredded cabbage, with a side of cole slaw. Desserts were dry cakes and/or fresh fruit. While the meals were tasty and nourishing, they quickly

became routine and mediocre. However, there was a selection of a la carte fresh fish, starting around \$22 per pound. On my last night, I discovered they also take special orders, as I watched a Chinese foursome enjoy a meal of lobster soup and a whole stonefish, the most venomous fish in the sea.

But the diving made up for these minor disappointments. At Turtle Cave, we made a penetration deep into the light zone, but to go farther and see the skeletons of turtles that had drowned inside, one has to be cave-certified and led by a cave diving instructor. On our second dive at Hanging Garden, shifty currents caused us to change the direction of our drift three times. Nevertheless, I was enchanted by the soft corals waving above us. The second time we dove Barracuda Point, we started out kicking upcurrent for 30 minutes, but were rewarded when a wall of 'cudas swept by, then performed a graceful circle dance for us. A school of trevallies accompanied us for a while, then handed us off to a batfish patrol. I also saw a grouper bigger than an NFL lineman resting on the bottom, and Sipadan's signature fish, a five-foot humphead wrasse. There were so many grey- and white-tip reef sharks, we got tired of pointing them out to each other. Ironically, I had my most dramatic sighting not at depth, but just below the deck of my chalet. Over morning coffee, I watched a 12-inch jellyfish being attacked by a longhorned cowfish. They disappeared under the pier, with the cowfish still pecking away at the defenseless jelly.

SWV is all about the diving, with little else to do. The village on shore seemed impoverished, and I was advised to watch out for overzealous begging kids. I did visit the nearby Mabul Water Bungalows resort one afternoon. It was as beautiful as SWV, but just as dead.

I've seen more colorful hard and soft corals in Fiji and the Philippines, but what struck me at Sipadan was the profusion of life, from feather stars to fish. Although I didn't do any shore dives, I snorkeled over Paradise Two, another part of the house reef, which apparently has the

## The Magnificent Name Game

Part of the fun of studying tropical fish in the Pacific is considering some of the outlandish names they've been given. In what appears to be a game of taxonomic one-upmanship, no extravagant adjective gets left behind. You saw a ghost pipefish? Well, I saw an ornate ghost pipefish! My giant frogfish is bigger than your ocellated frogfish. A robust ghost pipefish (the size and shape of a blade of grass) trumps a slender pipefish. And this list goes on, from the gorgeous shrimp goby to the splendid hawkfish. The next species discovered will probably be called something like the hyperbolic humphead.

-- Larry Clinton

best shore diving. The reef sloped further down than I could see in 45-foot visibility. A nice variety of coral outcroppings and soft corals punctuated the sandy slope. Banded sergeants and small black and white anemonefish flitted amongst staghorn and antler corals. A humphead bannerfish showed off his Jack Palance profile. The reef leads past the boat docks for two other resorts, Scuba Junkie and Borneo Divers, so I had to maneuver around the comings and goings of small craft.

The one day when I didn't get to Sipadan started with a muck dive off nearby Kapalani Island. It was raining when we descended on the "house reef," a bunch of man-made structures that sheltered exotic creatures like white leaffish and scorpionfish. Here, I saw my first lionfish of the trip, making me wonder if they hadn't all migrated to the Caribbean. Other highlights included a flamboyant cuttlefish hunting for prey, and an unattached blue- and white-striped remora desperately seeking a host. I moved back to Mabul for wall dives at both Young Lobster and Old Lobster, where the visibility exceeded 100 feet, making it a very acceptable substitute for the walls of Sipadan. Ramil spent 15 minutes finding a pygmy seahorse on a sea fan, and pointed out a rare clown frogfish and a primeval-looking crocodile fish lying on a ledge.

Ramil was always willing to listen to divers' requests, so because it was my birthday, I asked to see an orangutan crab. Sure enough, he produced two. They were less than an inch across, but under his magnifying glass, I could make out their oversize, hairy forearms, just like their arboreal counterparts. What a fitting end to a safari that started with orangutan encounters in the rainforest.

-- Larry Clinton



**Divers Compass:** There are no distinct seasons in Borneo, as temperatures and humidity are both high year-round; the rainy season for the northeastern part of Sabah, Sipadan's state, is from November to March . . . I flew to Kota Kinabalu, Borneo's capital, from Hong Kong (other gateways include Singapore and Kuala Lumpur) and from there, Malaysia Airlines flies 737s across the island to Sandakan, where a boat takes you to Mabul . . . My package at Sipadan Water Village included six nights in a standard room, all meals, three boat dives a day, transfers and hotel taxes at \$1,794 per person, double occupancy; a Sipadan entry fee, about \$13 per person per day, is not included . . . The nearest recompression chamber is at Semporna, 40 minutes away from Mabul by boat; military helicopters do fly in and out of the village near SWV . . . The dive boats don't have facilities for photographers, so any equipment adjustments must be made on shore and during the surface intervals between each dive . . . Website: [www.swvresort.com](http://www.swvresort.com)

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## Bandito Charters, Tacoma, Washington

### *how warm-water divers from Florida did diving Puget Sound*

While we devote nearly all of our travel stories to tropical destinations, more readers are looking for closer-by diversions, so we hope to provide a few more short pieces from time to time. We have written before about the beauty of British Columbia and its unique critters, but you can get more of the same in Washington State and Puget Sound without carrying a passport. Have a look at what faced warm-water Florida divers when they decided to see what that region has to offer.

\* \* \*

Dear Fellow Diver:

When my wife and I stepped out the doors of Seattle's Sea-Tac Airport, we immediately had doubts about the wisdom of our plan to dive Puget Sound in October. After living and diving for the past 30 years in southwest Florida, it seemed a little "cold" for such an undertaking. True enough, we had recently purchased DUI drysuits and spent three days training with them at California's Catalina Island. Now they seemed like somewhat puny protection. Diving the Emerald Sea, as Puget Sound is sometimes known, has been on our to-do list for many years. After reviewing the few Undercurrent reader reports I could find, I contacted Rick Meyers, pretty much a "no problem" kind of guy who owns Bandito Charters in Tacoma, 30 minutes south of the airport. (Seattle is 20 minutes north of Sea-Tac.) We would only be two, I said. "No problem," Rick said. We only wanted to dive for three days but would be arriving Saturday and leaving the following Saturday. "No problem." We needed tanks, weights and gloves. "No problem." How to pay: cash, check or credit card? "Whatever works." It was unnerving to work with someone so agreeable. Rick even arranged boat departures so we could sleep in a little (what luxury!), subject to Puget Sound's legendary tides. He quoted reasonable prices -- a three-tank dive is listed at \$95 on Bandito's web-site -- for what was essentially a private charter.

We stayed at a Hampton Inn in Tacoma, a 15-minute drive from the marina, where Rick arranged to store our gear between dives. Breakfasts were included with the room. An inexpensive comfort-food restaurant named Elmer's was nearby, and we occasionally "splurged" at Duke's Chowder House, facing the Sound, which offered four different chowders, lots of great salmon dishes and other seafood.

Rick and his wife, Jackie, live on their boat with a "Jack Russell Terror" named Jessie. Actually, Jessie is anything but a terror and was a real pleasure to have on the boat, where she regards herself as first mate. Bandito can take out as many as 28 divers at a time on its three boats. Obviously, we took the smallest, the Island Diver, which had plenty of room for six divers and gear. We weren't taking photographs (brought the housing, forgot the camera), so we didn't pay a lot of attention to such details as a camera table or rinse buckets. However, with Rick's well-organized approach to diving, I suspect there would be no problems. The cabin is enclosed with clear vinyl walls, and warmed with a heater that Rick says he scrounged from a bus. We were never cold, even as the outside temperatures varied from the upper 30s to the low 50s.

Though we hadn't asked for a guide, Jackie, a schoolteacher, dived with us on our first day and was welcome company as we faced the unknown. The first site was Maurey Island, filled with old underwater timbers and pilings. After adjusting our weights and getting used to the drysuits again, we followed Jackie as she pointed out the sights. Within 10 minutes, we had seen our first giant Pacific octopus. Small crabs on the bottom raised their pincers, doing the "wave" as we passed. Other highlights included lingcod, bigger crabs, nudibranchs, the lovely stalked white, pink and orange anemones, and a lion's mane jellyfish. A great start! The water temperature was in the 47- to 55-degree range (our computers couldn't agree), and visibility was 35 to 40 feet. When we surfaced, Rick had hot chicken noodle soup waiting. And there was hot water to squirt into our neoprene gloves and hoods before the next dive.

Our second dive site was at KVI, where scattered concrete debris sloped from 30 to 70 feet, with lots of hidey holes to be investigated. Lingcod lay on the bottom like logs with teeth and watched us warily. A sculpin on the bottom suddenly came into focus. Jackie left us on our own at the end of the dive, apparently convinced we weren't going to get in too much trouble in our



*The Island Diver*

## How About Recycling Your Old Dive Gear?

Reader Sandra Quick (Grand Rapids, MI) wrote us with this question. "I have old regulators, BCs, wetsuits, fins, etc. Is there any place that would accept this stuff? Most places don't want the liability, but I can't imagine some of it can't be salvaged. Help! I need some space, as I hope Santa is bringing me new gear."

Unfortunately, there isn't a simple way to recycle dive gear. The best bet is to first contact the manufacturer -- many are putting together recycling programs for their gear. While some companies will take their obsolete products back for free, others require you to upgrade to a newer product before they'll recycle. The gear easiest for them to recycle are BCDs, regulators, dive computers and instruments. Of course, whether companies use what you give them or just trash it is another question.

Second, ask your dive shop. Many have trade-in and resale programs for some dive gear. But those most likely to be tossed are rubber products -- masks, fins and wetsuits -- because there's often no place that recycles that material in small quantities.

Tanks are easier to recycle and therefore more likely to be taken back by dive shops. Aluminum tanks made after 1990 can often be re-certified and put back into use. If they're beyond repair, Jack Kuhn of Harbor Diving Center in Sausalito, CA, says he can still take them. "I have a few guys who like to cut them up and make bells and gongs out of them." Aspiring artists can get good ideas, from lamps to BBQ grills, in Fred Garth's article "Tubular Reincarnation: Uses for a Dead Scuba Tank," in the January 2012 issue of Australian magazine *Scuba Sport* (it's available to read for free at ScubaBoard; just type "tubular reincarnation" in the search box).

If your gear still has some life in it, consider re-selling it online at eBay. Donate it to your local Salvation Army or Goodwill Store, where profits go to job-training efforts and career services. (Some don't accept dive gear, so ask beforehand.) Or donate your gear to a nonprofit organization that uses divers, like your local aquarium.

Finally, local recycling centers remove useful metals from electronics and other products - that might be the most certain way to ensure what's useable doesn't just get trashed. Check the website [www.gotscrap.com](http://www.gotscrap.com) for the scrap metal recycler nearest you.

new drysuits and end up hanging upside down at the surface like mosquito larvae (as we had done in Catalina). During our 45-minute trip back to the dock, Rick, who has apparently worked at every occupation in the area, gave us the harbor tour with his insights into the local culture. We were back at 2:30.

Next day started at 9:30 a.m. and we decided to dedicate this day to finding the elusive wolf eel. They tend to be territorial, and Rick seemed to have a good idea where he might find some. At Z's Reef, we poked along the bottom, peering into every crevice and finding six Pacific octopi. Finally, I spotted a brightly colored shrimp at the opening to one hole, and delightedly pointed it out to my wife. She studied the hole but seemed not too impressed with the little shrimp. Instead, she pointed with vehemence deeper into the hole, where a wolf eel was guarding a clutch of eggs. As we backed away from the hole, a second eel calmly swam past us to join the first one. Obviously, a great dive. On the next dive, at Sunrise, a wolf eel lay on the bottom under a seaweed leaf, apparently convinced he was hidden. He looked like an older guy, with algae in his teeth, but seemed friendly enough.

For our final day of diving, we visited Saltwater State Park, a sunny garden with anemone "flowers" scattered among boulders and seaweed, numerous shrimps scampering along the bottom, scatted nudibranchs and an occasional flounder. We then returned to Maurey Island, where we saw more giant octopi (and one small octopus almost out in the open), lingcod, ratfish (don't touch -- poison spine), anemones, crabs and the lion's mane jelly. Back at the dock, Rick let us dry our gear in his storage area, and pick it up whenever we wanted over the next few days. He then discounted the already reasonable price he had quoted us initially "because we really hadn't been that much trouble." I would return to Bandito Charters, just for the pleasure of dealing with Rick. But first, perhaps a live-aboard to dive Alaska or British Columbia. For a warm-water diver, these cold Pacific waters are exotic indeed.

-- V.J.



**Divers Compass:** Bandito Charters is based at the Delin Docks Marina in Tacoma . . . Its excellent website ([www.banditocharters.com](http://www.banditocharters.com)) lists information on its operation, boats, maps, and hotel and restaurant recommendations in the area . . . You can reach the Tacoma Hampton Inn at 8203 S. Hosmer St. through the Hilton website ([www.hamptoninn.hilton.com](http://www.hamptoninn.hilton.com)), and you can always search TripAdvisor.com for more upscale digs.

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## Bonaire, Cozumel, St. Vincent...

### *legendary guide retires, dive shop disputes, and more*

**Changes at Dive St. Vincent.** This dive shop's owner, the legendary Bill Tewes (if you've ever dived with him you'll know why he is legendary) has hung up his dive fins due to declining health. However, Dive St Vincent continues to run under the leadership of Callie Richards, who has worked with Bill for 23 years. Bill, after guiding dives in Papua New Guinea, opened his operation nearly three decades ago, and with his good eye for the small stuff, turned St. Vincent into the critter capital of the Caribbean. ([www.divestvincent.com](http://www.divestvincent.com))

**Report from Bonaire.** Longtime *Undercurrent* correspondent Carl Mintz (Washington, DC) visited Bonaire in November and sent me an important update about a popular dive operation, and other goings-on around the island. "There is quite a dispute going on between some Sand Dollar condo owners and Bonaire Dive and Adventure, the dive operation originally associated with Sand Dollar. If you call the reservations office in the U.S. and do not specifically ask for them as your dive operator, you will be pushed to use Dive Friends Bonaire, which recently opened a shop on the Sand Dollar property. While the Dive Friends operation is okay -- the people running the operation are friendly and helpful -- it is located at the back of the Sand Dollar property, so getting from the dive shop to the water's edge is somewhat of a chore if you dive Bari Reef in front of Sand Dollar. It is easier to use Bonaire Dive and Adventure because of its location, proximity to the dock, location of the tanks on the dock, the large gear room for hanging and storing gear, and the large rinse tanks -- one is on the dock and the other is closer to the parking lot. Dive Friends currently has only a few small individual lockers with locks (several people in my group were short, so the upper lockers would be useless to them for storing gear) and one set of rather small rinse tanks. Dive Friends has no dock or pier of its own at Sand Dollar, and the shore entry/exit to Bari Reef is over rocky terrain, which could prove dangerous when the water is rough. For example, at my checkout dive on the first day, there was such a strong surge (unusual for Bonaire) that everyone needed assistance to get out of the water, the waves were that strong. Bonaire Dive and Adventure has a professional naturalist who leads dive trips (preceded by a detailed illustrated lecture), and also can take you out for bird-watching tours. ([www.sanddollarbonaire.com](http://www.sanddollarbonaire.com); [www.bonairediveandadventure.com](http://www.bonairediveandadventure.com))

"One of my favorite things is to dive with Dee Scarr, a naturalist and divemaster who really knows how to relate to the underwater creatures. She has been on the island for 30-plus years, knows the waters intimately, has an easy way with both new and experienced divers, and is adept at finding neat critters on her leisurely, unrushed dives. On one of them, I met up with nosy coneys and French angelfish, bristle worms, a 30-year old sponge, sharptail eels, morays, tarpon, cleaning stations, and a very shy octopus (<http://www.touchthesea.com>). Regarding restaurants, be advised that Bonaire is part of the Netherlands. Europeans still smoke a lot, and there are no rules about smoking and non-smoking sections in restaurants. It is disconcerting to go out for a fine dinner, only to have it spoiled by being seated next to folks who smoke throughout dinner."

## Death in Belize from Exploding Tanks

In the late afternoon of October 8, a loud explosion was heard around the town of San Pedro on Belize's Ambergris Caye. It occurred at the Amigos del Mar dive shop, and took the life of Hector "Chapin" Duran, who runs the tank compression unit. Duran, 39, was apparently filling dive tanks when one of them exploded, causing the wooden building to rock and shooting tank fragments out the door and into the water. A tank shard disemboweled Duran, causing a fatal injury. The police report stated that he was "seen lying face up, motionless, with a large cut wound over the abdominal area and the right side of his chest area, and a large cut wound to the palm of the right hand, with the right thumb severed."

*Undercurrent* senior editor Vanessa Richardson went diving with Amigos del Mar a few years ago, and remembers that the dive shop's air fill area is in an open space of the shop, close to where divers mill around before and after dives. Go into a properly constructed fill room in a U.S. dive shop, and you'll often see cylinders submerged in a reinforced tank filled with water, to prevent overheating and explosions. Nevertheless, dive shops and many live-aboards in Third World countries don't offer such protection and may fill unprotected tanks 10 feet away from you.

Besides the description of Duran's injuries, the authorities haven't released information about what caused the tank to explode. The television station News 7 Belize asked Fabrigas, a compressed gas manufacturer in Belize City, what could have gone wrong. Plant manager Ezquiel Ayala said one factor could be the accuracy of gauges. "My gauge could be showing 3,000 psi, but how accurate am I? It could be reading more, it could be reading less. We need to verify our gauges from time to time, and also ensure that we're not doing a 'fast fill.' If a tank exceeds 131 degrees Fahrenheit, the probability that it explodes or ruptured is increased. It could also be faulty equipment -- maybe the compressor is not set at a limit that it will automatically shut off."

Ayala told News 7 Belize that the regulation of safety standards for scuba gear in Belize has been lax, and there needs to be an active attempt by the relevant government authority to apply pressure to the dive industry. Amigos del Mar management sent out a press release, stating that it has cooperated with all relevant authorities in the investigation and will continue to do so.

Mark Gresham, CEO of cylinder inspection firm PSI-PCI, tells us his company has been investigating the incident but doesn't have enough information to speculate on a cause. "We've always maintained that fill stations in close proximity to anyone, especially divers fore and aft of dives, should be avoided, as 90-plus percent of cylinder accidents occur during filling. Fill stations should be treated as nuclear exclusion areas during filling. The trained fill station operator is the only person exposed to the cylinders of 40 psi or greater, per U.S. OSHA law -- which we know is not followed in most locations, especially those outside of the U.S."

So, my fellow divers, when the tanks are being filled, find a better place to hang out.

-- Ben Davison

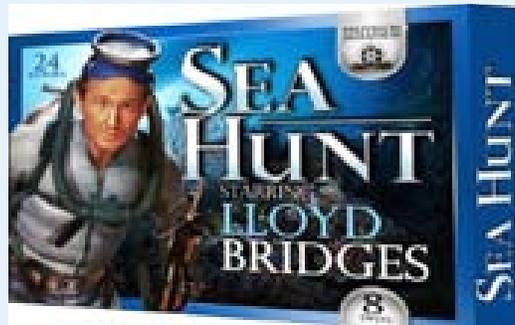
**Reef Environmental and Educational Foundation.** REEF sponsors a number of interesting (and, to some extent, tax-deductible) trips to learn how to identify fish and help with the fish counts. Divers get great experiences and generally very good hotel accommodations or quality liveaboards. Captain Jim Davis (Ponte Vedra Beach, FL) had no complaints about the diving and REEF program on his Cozumel trip last month, but cautions that most divers will do well to find a substitute for the assigned accommodations. "Being a long-time REEF member, I did not research the trip; the assumption was 'it's all good.' Safari Inn is bare bones and very noisy, with rooms no more than 50 feet from the busy, noisy main thoroughfare. Want cheap? This is it, with skimpy, uncomfortable beds, chairs and 'sofa,' an eight-foot piece of plywood with an inch of cushioning. Noisy A/C, a blanket the size of a small shawl, no phone, no TV, no refrigerator, a louvered door to the bathroom, with a sign saying 'no paper products in the toilet.' Out the door, it's an alley with a bit of trash hanging in a tree against a concrete wall. The photos I was sent made it appear the hotel was on the water. Not." If you're diving with Aqua Safari and want to lodge nearby, Davis recommends "spending a few more dollars to stay at the Casa Mexicana, perhaps a few hundred feet away, with a truly outstanding staff, furnishings, breakfast included, bar and lounge area, computers, TV, laundry service and elevator." See trips on REEF's 2013 schedule at [www.reef.org](http://www.reef.org).

-- Ben Davison

## A 24-Hour *Sea Hunt* Marathon

If you're old enough, you'll remember how you first got hooked on diving by watching Mike Nelson, ex-frogman turned freelance scuba diver, outwitting villains, disarming nuclear missiles and rescuing victims underwater, all while wearing a wetsuit and fins. The series *Sea Hunt*, which ran on TV between 1958 and 1961, ignited the craze for recreational scuba diving at a time when it was still brand new. Each episode (with star Lloyd Bridges doing mostly voiceover narration as obviously it's hard to emote while underwater) brought adventure and included pleas to viewers to understand and protect the marine environment.

*Sea Hunt's* four seasons of episodes have been hard to find on DVD until now. *Sea Hunt - 24 Hour Television Marathon*, an 8-DVD collection priced at \$30, just went on sale at Amazon. Bridges' two sons, Beau and Jeff, started their acting careers here, making appearances when both were tater tots. You can also order Seasons 1 through 4 separately for \$15 each. Order your choice of DVDs through us via [www.undercurrent.org](http://www.undercurrent.org), and our cut of the proceeds goes to save coral reefs.



## What Dive Shops Think About Your Gear *especially if you didn't buy it from them*

*Undercurrent* subscriber Chip Wright (Hebron, KY) sent us a letter about the Scuba Shack, a dive store in Florence, KY, where he once shopped but no longer does. "My wife and I did a refresher course there and ultimately bought our gear there. We have been happy with the gear and pleased with the instruction. However, the Shack will not allow you to dive with them unless you either rent their equipment or buy your gear there. If you bring in something you purchased elsewhere, they must "inspect it." The claim is that this is an insurance issue. Personally, I don't buy it, pun very much intended. Is the Shack just trying to force customers to buy from them, or could they have a legitimate argument? If so, is it because they can't get any better insurance coverage? Just how common is this?"

While this was a response of some dive stores when mail order and Internet purchases offered early competition with them, we thought most had given up such practices, realizing they're better off competing than setting up artificial barriers for their customers. We e-mailed and called the Scuba Shack for their response but never got a reply. We also put Wright's question in our monthly subscriber e-newsletter, asking if anyone had experienced something similar. We received plenty of feedback, from both divers and dive shop owners.

Most divers said their dive shops don't act like the Scuba Shack, and are very accommodating. Terry Taylor (Towson, MD) praises Aqua Ventures in Cockeysville, MD. "I have purchased the majority of my dive equipment there. The Aqua Ventures owner has been most gracious, still offering advice with the items not bought at his shop. They have always treated me fairly, often providing advice that was best for my needs but not always in their best interest. I feel a strong loyalty to my local dive shop, and will almost always purchase items from them before I look to other venues."

Mike Boom (Oakland, CA) also has a good dive shop/bad dive shop story. "Jim Steele, the owner of Steele's in Oakland, has no problems with people servicing their own regulators, and isn't put out by people buying equipment anywhere else. The opposite of Jim was a shop (now out of business, possibly for good reason) in Monterey that refused to fill a brand-new steel tank purchased elsewhere unless it had a visibility check first. There's a tiny chance that a brand-new steel tank could be rusty, but there's a much larger chance of an older tank 11 months after a check being rusty. They'd fill the older tank, bought at

their shop, though. I think shop Nazis are the result of the dive industry's tendency to be overly paternalistic: "We know best, and you must do everything through us."

On the other hand, says Bill Hickert (Russell, KS), you have to show some respect to the business owner, especially when the Internet is putting a major dent in his sales. "Why in the hell would he open his pool or his dive trips to people who support Internet shopping? Support your local dive shops or they will not be around, period. The local dive shop that falls over backwards catering to customers who shop on line and buy their gear everywhere else will find out soon enough that he can't pay his bills that way, and he won't be around either. I'm not saying treat your customers bad, but the customer should be grateful that he has a local dive shop still open."

That attitude was in favor years back, but we think it is fading fast. Noel Voroba, who owns Orbit Marine Sports Center in Bridgeport, CT, says "those policies are detrimental to diver retention. It's hard enough to attract new divers in this economic climate, and you'll lose them with policies such as you mention. I have never turned anyone away because they bought gear somewhere else. I have lost that sale, but I have an opportunity to gain another customer for service, upper level classes, global dive trips and local boat charters. It's insane for a shop to have such a rigid policy."

John McKenzie (Kingston, WA) works at Octopus Gardens Diving in Port Townsend, WA, and says that when people come to class with their own gear that has not been seen before, the shop inspects it free of charge. "They do this as a 'courtesy inspection' and not a 'shaming inspection.' They also offer a free regulator inspection and bench test to anyone who walks in the door with any gear. Shops need to be positive, and not punitive, in their competition with online retailers and other shops. Inspire divers to want to shop with them."

But dive shops do have rules and legalities they need to follow, says Doug Burch of FF Divers in Sellersville, PA, who has some frustration with price-focused divers. "I realize that in this economy, folks need to save, but I am getting tired of the abuse from some customers when they get hooked on the Internet, then take it out on a shop because they won't take care of gear not purchased there, even if the shop is a dealer for that line. Some folks just do not understand the restrictions and rules you must obey if you are a dealer for some of the major outfits."

While we understand all these points of view, in a world where more and more sales transactions are happening online, brick-and-mortar dive shops have a harder challenge staying in business. However,

## **"Naive" Fish Are Easy Targets**

Big fish that have grown up in marine reserves don't know enough to avoid divers with spear guns waiting outside the borders. An Australian research team working in the Philippines has found that there is an unexpected windfall awaiting divers who obey the rules and respect reserve boundaries - just wait outside them for big, innocent fish wandering out of the reserve.

"Educated fish normally turn tail and flee when a diver armed with a speargun approaches within firing range of them," says researcher Fraser Januchowski-Hartley. "But in our studies of marine reserves in the Philippines, Vanuatu and Papua New Guinea, where spearfishing remains a major way of harvesting table fish, we discovered that reserve-reared fish were much less wary and allowed people to get much closer. The fish are literally more catchable."

Studying fish movement across the boundaries of marine reserves, the team used underwater markers and measuring tapes to measure a large fish's 'flight initiation distance, and how close a diver can approach one before it decides to flee. Marine-protected fishes' typically scurried off when a diver got within 15 feet of them. But those living in fished areas were typically much warier and took flight at distances from 18 to 21 feet away. They also established that the "naivete radius," where fish spill out of the marine reserves, extended for at least 500 feet from the boundary.

The findings may help fishers become more supportive of marine reserves, says team co-leader Nick Graham. "In these parts of the oceans, spearfishing is still very much about survival and putting food on the table, so it's important that local fishers feel they're deriving some benefit from having a local area that is closed to fishing, or they may not respect it."

from a consumer standpoint -- and that is *Undercurrent's* point of view -- no customer likes "you can't do that" stipulations. Restrictive policies by manufacturers and dive shops refusing to cater to potential customers are ultimately losing strategies. An increasing number of divers are shopping far beyond their local dive shop. The mantra "support your local dive shop," while well intentioned, means little to a new generation of divers who use the Internet, iPhones and Fed Ex to conduct business.

-- Vanessa Richardson

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## Post-Op Diving

### *how you can suit up after major medical work*

In fall 2010, at age 52, *Undercurrent* subscriber Karin Doggett (Richmond, VA) found out she needed rotator cuff surgery. "I had six anchors installed and was told that it was important to let this heal properly. The recovery changed my lifestyle significantly -- I was in physical therapy for six months. Healing may continue for several years, and a re-injury may not be repairable. Due to all that, I've not dived since. I miss it very much and want to get back in the water soon."

I, too, had rotator cuff surgery -- probably from those 78-mile-per-hour fastballs I threw in high school and college -- and was wondering how that would affect my diving. I wasn't so much worried about how I would do once in the water (though a long overhand crawl would be impossible), but I was concerned about whether I'd be able to lift tanks, haul dive gear and be able to get in and out of the water. Turns out, with today's valet diving, it's not so difficult.

In our recent monthly e-newsletter, I asked *Undercurrent* readers to describe how their surgical experiences have changed their diving routines. Many of them wrote back, detailing their surgeries and recovery experiences. The good news: Their replies show that divers can definitely return to the sport, but you must work hard to regain dive-ready fitness.

#### **Talk to Your Doctor**

If you are about to go under the scalpel, let the surgeon know beforehand that you're a diver, says Edward McDevitt, an orthopedic surgeon in Annapolis, MD, who served as chief of orthopedics and sports medicine at the U.S. Naval Academy. "A lot of surgeons are athletic, many are divers, so they know what needs to be done to dive again after surgery."

Ed Heimiller (Streamwood, IL), has had four major surgeries in the past 12 years, returning to diving within six months after each one. "I have detailed discussions with the doctors prior to the operations to let them know about my active lifestyle, and to find out what limitations I would have afterwards."

Speak up even if you suddenly need an emergency operation, like Mike Masson (Santa Barbara, CA) did. "As they were wheeling me into the operating room for an emergency appendectomy, I asked the surgeon, 'What approach are you going to use? Will I be able to lift 50 pounds over my head in three weeks?' 'Why?' he asked. 'Because that's when I'm going on the dive trip of my lifetime, my scuba rig weighs 50 pounds, and I *am* going, no matter how this surgery turns out.' The doc turned to the surgeon-in-training and said, 'I guess we'd better use a laparoscopic approach.' They did, leaving only three Band-Aids, and the next morning I raised my scuba tank over my head."

#### **Take Time to Heal**

Before you dive, your repair will need to be sufficiently healed. For some operations, there will be a limit before you can even fly, because blood clots may be a concern. Bruce Bander (Calgary, AB) says his surgeon's concerns about his arm weren't about whether he could re-injure himself if not healed. "Dive

equipment is heavy, and you're playing with all that gear on an unpredictable ocean and a moving boat, so he recommended against my diving until the sutured tendon had more months to heal. His view was that if something unexpected happened, I would instinctively use the bad arm to help someone, grab equipment or catch myself on a boat and end up tearing the sutures."

The type of diving, plus depths and temperatures, also make a difference. Peter Milburn, who has run Dive Cayman Ltd. in Grand Cayman since the early 70s, contacted Divers Alert Network (DAN) after a major surgery, "and they told me to not do anything too deep for at least six months. I followed that advice and had no problems."

Mike Nelson (Ft. Myers, FL) was told by his doctor to stay out of the water for four to six weeks after a hand operation. "His concerns were germs and bacteria getting in before the incision fully healed, and any stress caused before my hand was back in shape. I didn't go back in for nearly eight weeks until I felt I could hang onto the boat ladder with one hand in case the other one slipped."

After having both rotator cuffs repaired, Robert Getz (Everett, WA) was allowed to dive after four months, but only in warm water. "I had to wait until a full six months to dive in Puget Sound. My surgeon's reasoning was that the diminished restriction in a 3- or 5-mm wetsuit versus what's involved with a drysuit and the heavier gear made it all right."

Bill Shepherd (Satellite Beach, FL) was cleared to dive three months after heart surgery, so long as he didn't go deeper than 100 feet and didn't do too many dives without rest. "Four months after surgery, I was in Palau and did 18 dives over six days, none deeper than 94 feet. I experienced no problems, and have been doing 45 to 60 dives a year since then."

### **Get (Back) into Shape**

Surgeons recommend a post-op rehabilitation program, which can be the difference between finning over reefs or being stranded in pain on the boat. On its website, DAN says, "When you're able to perform your exercise and daily living activities with full weight-bearing and no difficulties -- such as pain, swelling or stiffness -- diving would probably be allowed. There isn't much difference between the physical demand placed on joints during a gym workout and during scuba diving. As long as the area in your body has an adequate blood flow to help with the off-gassing of nitrogen, a problem is unlikely."

Fred Turoff (Philadelphia, PA) has had three shoulder and heel surgeries in the past seven years, but took Indonesia dive trips after each one. "I always allow four to five months of rehab and complete return to function. I live an active lifestyle, eat well, and know how to push myself for physical conditioning. Plus I'm 65, and realize I heal slower than I used to. So I give my body time to make necessary repairs and adjustments."

McDevitt, the orthopedic surgeon, says the recovery timeframe depends on the surgery, your age and what shape you're in. "You're never the same after surgery, so you have to work hard to get back to 100 percent." He tells his post-op patients to use the pool to do laps and jog along the bottom. "It's a great, easy way to use all the muscles. I had one patient who did that and was

## **The Dangerous Risk of Boats Without Dive Ladders**

I've heard of all kinds of odd dive injuries, but long-time reader Gilda Sprung (Bellaire, TX) reported the most unusual to us. "In 2011, my husband, Warren, and I took the *Rocio del Mar* in the Sea of Cortez, and unfortunately the pangas didn't have decent ladders. So after handing our gear up to the crew, they pulled us up by our arms. A week after we got home, Warren and I had severe pain in our left shoulders. His shoulder was fixable with therapy, but my rotator cuff was torn."

I've seen many people struggle to climb aboard pangas and Zodiacs. I've seen people roll over the gunwales and hurt their back, land on their head and twist an ankle. Rotator cuff tears are serious, painful to repair and rehabilitate, and may never get back to 100 percent. Aging divers might be best off to verify ahead that there are ladders for water exits, and to follow Sprung's solid advice. "Don't let anyone pull you into a boat by your arms."

diving the Caribbean 10 days later.” Dave Bridenbaugh (Cincinnati, OH) says water work was a big part of his therapy after knee replacement. Swimming and kicking proved to be beneficial, and actually sped up the healing process.”

Many readers say their rehab was hard -- literally blood, sweat and tears -- but essential. Greg Liebman (Round Lake Park, IL) needed six months of therapy after shoulder surgery last March. “The first few weeks were excruciating and demoralizing. I really doubted the wisdom of the surgery -- I had already learned to compensate by using my other shoulder for everything, like one-handed pulls up the dive ladder. I continued going to regular therapy twice a week for almost four months, then just weekly the last two. I did *all* the home exercises, and I didn’t do anything stupid to impede my progress. They promised me I’d be diving in September, and I was -- the Philippines -- and had absolutely no trouble with tanks, ladders or anything else. Just follow the rules, do your exercises, and all will be well.”

Sydney Youngerman-Cole (Boise, ID) had back surgery in October 2010, subsequently losing the use of her right leg, but returned to diving the following March. “I was only able to do this because of an extensive physical therapy routine that had me working in a pool, exercising on machines and doing a lot of yoga. The whole experience made me physically stronger.”

If you do feel yourself lagging on therapy, wanting to skip the exercise, Wayne Davis (Fort Collins, CO), who had bilateral knee replacement, says to ask yourself this question: If the other guy in the water was me, what would I like his physical state to be? “If that is not you, don’t put anyone else in danger.”

### **Take It Easy**

On your first dives, play it safe. McDevitt adds, “Follow the tables carefully, stay at 30 feet or so until you feel comfortable. And don’t cheat yourself.” Jim Harris (Austin, TX), who started diving 10 months after a motorcycle accident, recommends doing an easy, familiar dive first. He started with the lakes around his hometown. “It helped that there was no pressure to stay in the water, like there might have been on a Cozumel boat dive, and it’s easy to abort a shore lake dive if you’re uncomfortable.”

Forget your ego and ask for help. Wuni Ryschkewitsch (Gainseville, FL) has no trouble asking dive buddies for help after knee and hip replacements. “I was back in the water within six weeks of my hip replacement. I was afraid to carry my tank on my back down steep embankments and rocky water entries, so I asked my buddy to take my tank to the water, and I put it on there. I took off my tank in the water, and had my buddy pick it up and take it up the bank.”

Use the steps, or sit instead of stand to start dives, says Donna J. Wilson (Venice, IL), who had rotator cuff surgery. “For my first dive in Bonaire, I stayed away from the giant stride, because that can really jar

## **Watch That Giant Stride**

*Here’s a story we ran seven years ago, which still is just as current today.*

One of our readers returned from Bonaire and wrote, “My husband and I dived two to three times a day for six days. At the resort, the pier was five feet above the water, and we used a giant stride to get in. On the last day, we both experienced ‘groin pulls’ from the giant stride into the water. Two days later, I came down with the worst case of sciatica I’ve ever had! I ended up at the doctor’s office, and was put on meds to ease the pain and stop the spasms. My right leg went numb to the touch and hurt like you know what! Have you ever done an article about problems with the giant stride?”

We haven’t, but we asked Dr. Ern Campbell, a.k.a. the blogger Scuba Doc, what he thought of this injury. After all, sciatica is one painful problem. Here’s what he told us: “The impact of jumping off a dock in full gear will apply a significant force to the intervertebral spaces. For a person with poor muscular development or an incipient disc herniation, the impact may cause a protrusion of the disc onto the nerve root(s), thereby causing sciatica, pain down the leg, caused by irritation of the main sciatic nerve into the leg. Other things can cause irritation of, or pressure on, a nerve in the spine. Sometimes this may be a rough and enlarged part of a vertebra, brought about by aging, and sometimes rarer conditions, infections and tumors are to blame.”

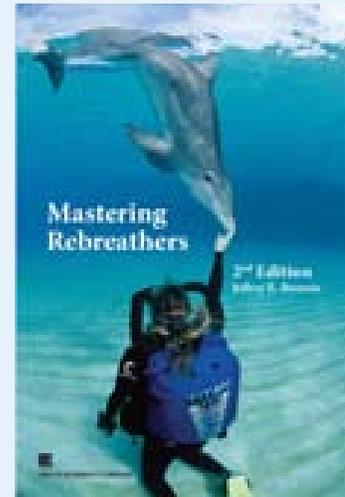
## Mastering Rebreathers, 2nd Edition

No question that one of the more significant developments in sport diving over the past 15 years is the fast rise of technical diving and the use of rebreathers. But they're complex to use and fraught with hazards for less-than-precise divers. Enter *Mastering Rebreathers, 2nd Edition*, by Jeff Bozanic, a long-time technical dive instructor, who published the first edition of this book in 2002. The dramatic changes in rebreather technology in the past decade make this revision essential.

While the book is a thick brick of 700 pages, half of it is made up of appendices, glossary and index, while the rest is neatly divided into 14 chapters. The first seven provide good background information, ranging from the history of and introduction to rebreathers, to diving physics and physiology. The latter chapters detail the prep work needed for rebreather dives, dive techniques, post-dive and emergency procedures, long-term maintenance and traveling with rebreathers. After going through those chapters, you'll probably appreciate the appendices -- dive tables, checklists and maintenance schedules for a wide range of rebreather models.

This is fundamentally geared as a textbook for novice rebreather divers, not a manual for the advanced. It doesn't cover deep, mixed gas, cave or decompression diving. Each chapter ends with multiple-choice and short-answer questions to test the reader's understanding of key concepts. It's a good way for beginners to make sure they're following along correctly, but also serves as a good resource for current rebreather divers who need a refresher on easy-to-forget things like arcane equations.

*Mastering Rebreathers, 2nd Edition* is only available through its publisher, Best Publishing, but you can order either a softcover version or the e-book download for \$43.85 ([www.bestpub.com](http://www.bestpub.com)).



your shoulder. On boat dives, I sat on the back platform and just went face forward into the water. On shore dives, I went off the steps on the pier, and didn't do shore dives that required walking out of the surf."

After back surgery last year, Mel McCombie (New Haven, CT) always dons and doffs her tank in the water, "so as to never climb up carrying the weight." That really cuts the stress.

Ask the crew for help -- that's what you're paying for. Greg Yarnik (Palatine, IL) says his wife, who had major surgery on her leg, can't walk with her dive gear on. "So we meet with staff in advance to discuss a plan where she does an entry from the rear of the boat after the divemaster brings her gear, which she dons in the seated position and then does a body roll off the end. We tip accordingly for the extra TLC she requires, and have yet to encounter any dive operation that didn't do right by her."

Nigel Haines (Sussex, England) recommends telling the travel agents who book your trips "of medical issues so they can forewarn the dive operators, and you'll get the appropriate assistance you may require."

The best way to ensure pain-free dive trips? Go by liveaboard, says Sharon Greenspan (McDonough, GA). Eight months after surgery, she took "a nice, cushy liveaboard in Indonesia, so there was little need to haul anything much heavier than my camera/strobe rig. No problem with backroll entries, and the tenders had ladders so I didn't have to body-flop into the boat."

### Don't Fear Setbacks

As with any type of injury, there's still risk while diving. "Shoulder surgery may seem mild but when you're in a bad current, your mask is getting ripped off and you're trying to hang on, it feels like your body is being pulled apart on a rack," says Judy Foester (Millbrook, NJ). "So my advice is to stay away from places with ripping currents."

Scott Patterson (Sacramento, CA) went diving at Catalina Island three months after back surgery, and says, "While trying to exit the stairway at the casino, a big surge grabbed me while I held the rail and

yanked me back. I just lay in the water screaming and couldn't do anything to stop the pain. People tried to help, but there was nothing they could do. After three more attempts, the pain eventually went away enough for me to get out. I tried again a few months later, on a dive boat in the same area. I still had pain, but the crew made all the difference. No giant strides, a crew member put my gear on me on the swim platform and I gently slid in. These things take a lot longer than you think to heal."

To end on an upbeat note, I'll leave you with a story that shows you're never too old to recover and dive again. We all love Gladys Howard, the owner of Pirates Point Resort at Little Cayman, and she wrote to tell me what happened after she was diagnosed with cancer in October 2011. "After I had completed all the chemo and radiation, I ended up with blood clots in my legs and in my filter that I had put in prior to surgery for knee replacement. I was determined to go diving on my 80th birthday on August 9th, and I indeed did make a dive to 80 feet on the Great Wall in Bloody Bay. Martha Steinhagen, my super dive instructor, stuck to me as if she was my twin, but I had no problems. I did the dive with a 63 nitrox tank, and stayed down for 63 minutes!" And here's her picture (above; Gladys is on the right) to prove it.



photo by Dave Reubush

-- Ben Davison

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## What's the "One DEMA" Product This Year?

*John Bantin reports on what's worth buying and ignoring*

Away from the oppressive hustle and bustle of the casinos, the roar of the massed one-armed bandits and the distraction of scantily-clad women, the Sands Expo and Convention Center in Las Vegas was the place where the world's diving trade met in November to chew the fat and show what they had to offer. The world's premier diving destinations had booths positioned cheek by jowl with all the equipment manufacturers, not only the long-established companies but also those hoping to break into the market with what they perceived to be the underwater equivalent of the best thing since sliced bread.

It's often the "One DEMA" product that provides the most entertainment for those seeking out the newest equipment. These are the products displayed hopefully by those who have come up with an engineered solution to a problem that probably doesn't exist and will have sunk without a trace within 12 months. But this year, several of those apparently no-hope products were back again in a more developed form.

For example, there was the automatic buoyancy control device that was shown about 15 years ago. It worked -- but truth is, it just wasn't needed. Most divers can manage the manual direct-feed and dump valve on their BC. Not to be discouraged, a Swiss manufacturer has picked up the lapsed patent and added a decompression computer. The SUBA series will be available pre-fitted to BCs. We'll see whether it was ahead of its time 15 years ago ... or whether there will never be a time.

Another company displayed Diver Guide, a device that monitors a diver's breathing. Fitted in place of the BC direct-feed control, it will sound a siren if it detects inactivity for more than 30 seconds. If that doesn't startle the diver back into life, it automatically fills the BC with air and sends the presumed-by-now-fatality back to the surface. You can be sure there will be no rush to purchase this by underwater photographers, who habitually hold their breath to get that all-important shot.

Some years ago, I reported on an Israeli company that brought us underwater texting. It has exhibited its UTC computer -- which can also text -- at DEMA every year since, but has been reticent at letting us members of the press have units to try. Now it has competition from Liquivision, the manufacturer of those technical diving computers with the OLED display and the tap-switch system. It introduced the Lynx, a new computer that can not only be wirelessly gas-integrated with up to ten tanks, but can receive texts from a boat unit more than a kilometer away -- handy for diver recall whether it be an emergency or simply a call for lunch.

Innovasub showed a housing complete with a pressure sensor that employs an app to turn the iPhone, iPod, smartphone or PDA into a capable diving computer with external module and a wide range of different algorithm options. It's predictably called the Divephone.

Casio, the Japanese watch giant, came to DEMA with Logosease, a diver communication system mounted on the mask that is activated orally and received aurally though the jawbone. Its software promises to unravel the garbled speech of a diver with a regulator in the mouth while the actual communication sent diver-to-diver is by ultrasonics. Unfortunately, there was no way to verify its workability at the show.

Oceanic's Jetpack is a backpack-style unit that can easily be used as an aircraft carry-on but also forms a BCD, allowing the user to carry all basic diving equipment on his person. Oceanic also showed the Aeris Manta, a wristwatch with a built-in dual algorithm computer in six different colors and the Oscar, a continuation of its OC computer range that comes with a wireless integrated gas system and the F10 free-diving computer. It also reintroduced its once popular side-exhaust regulator with the Manta 3 together with the similar Hollis 500SE, which has useful extra configuration details for technical divers. Atomic Aquatics showed its remarkable new super-lightweight titanium T3, which has been developed from the famously good T2x by, for example, paring away superfluous material from its first stage.

Other face-lifted regulators included Scubapro's G and R ranges, with the S range now available in a range of different metals and finishes, including a gold-look model. These sat alongside an interesting display of nearly all regulators Scubapro ever made. This brought a tear to the eye of some older attendees reminiscing over long-loved yet forgotten equipment.

Beuchat has face-lifted its VX10 Iceberg, and Mares has made some needed internal improvements to its novel Instinct model, including a novel shaped heat sink added to a first stage. TUSA also had an entirely new regulator on display, as did Sherwood with its SR-2, the replacement to the successful, if flawed, SR-1.

There were no really revolutionary new fins, but Aqua Lung showed its X-Shot fins, which are like the Hot Shot and Sling Shot fins but with their silicone tensioning-springs hidden within their form.

Meeting the demand for those divers who now want to side-mount their tanks for openwater diving as opposed to cave diving, several companies demonstrated side-mount rigs with corrugated hoses that could be swapped to feed from the top, instead of the bottom, of the buoyancy cell, and allow for more vertical ascents. These included Custom Divers, DiveRite and Hollis.

While BC improvements were aimed at the needs of women, most BCs and wings were simply evolutions from previous models. Many manufacturers showed new masks, usually with improved silicone skirt technology such as that used by Scubapro, with its flexible skirt ribbed for both resistance to collapse and comfort. Seac showed the 360 snorkel, with a revolutionary 360-degree valve mechanism that allows the snorkel to drain yet keeps the water out when used at any angle.



Casio's Logosease



Liquivision's Lynx Computer

There were plenty of sexy neoprene wetsuits visible all around the giant Expo hall, but of course, few of us have bodies that match the shape of the mannequins on which they were displayed. Apollo, the Japanese manufacturer, showed a drysuit with manual dump valves positioned at shoulder, cuff and ankle. That should take care of inversion problems! Fourth Element showed its new drysuit, augmented with colourful Lycra rash vests for use in warmer conditions.

A different novelty offering was the Scuba Buddy, a scuba trolley system suitable for shore divers, which converts easily to be taken on a dive as part of one's underwater gear.

An enterprising Norwegian came to show off SubWing, a steerable wing that can be used on a speedboat to tow a snorkeler below the surface for either search-and-rescue missions or simply having fun.

With more and more video being shot on cameras like the Canon 5D and Nikon D800, Dive and See showed an off-board monitor suitable for those shooting video, with high-end DSLRs alongside a stand-alone submersible recorder unit. Very promising was Vivid-Pix, a simple software solution for easily improving the color rendition of pictures taken underwater by the majority of us who simply record JPEGs on our compact cameras.

There has been some evolution in underwater lighting, notably with new products from Light & Motion that are brighter and with more duration than before, including the Sola Tech 600 and the Sola Video 2000. After many years, it seems that fluoro photography has at last caught the imagination with ultraviolet-emitting versions of these lamps. A larger 4000 lumen lamp was on display. Keldan, the Swiss manufacturer of top-quality and, thus, phenomenally expensive underwater lighting, is concentrating on the professional end with an impressive 7000 lumen lamp, also available as a 'high CRI' 5300 lumen version for the most vibrant and accurate color underwater.

I-Torch showed a range of diver's lights with batteries that would survive flooding, alongside the iPix smartphone camera housing. Ikelite also had the Vega, a new 2000 lumen lamp, plus the Manta, a new and welcome addition to its range of underwater flashguns.

Fantasea has made a major change with its camera housings in that its total allegiance to Nikon products has been broken -- it now offers housings for some popular compact Canon models, too. It also had a mini set-up with lights that made use of the GoPro camera, plus a range of other LED lights, including the BlueRay Extreme video light.

Epoch showed the Mini-DV, an amphibious camera complete with lamp that rivalled the GoPro for its small dimensions and competitive price. SeaShell continues to offer a plastic housing that can be adapted for a wide range of compact models, and this range has been extended as the possibilities increase. It also revealed its housing for iPhones to use them as underwater cameras.

Lastly, for those divers who already have everything, GreenForce, the Antwerp-based company well known for its powerful lamps and Hugyfot camera housings, offered a lamp head studded around its rim with diamonds. It costs many tens of thousands of dollars, of course, just what you need to leave to dry on your porch on Bonaire while you take a nap.

*John Bantin, a longtime contributor to Undercurrent, is the technical editor of DIVER magazine in the United Kingdom. For 30 years, he has reviewed virtually every piece of equipment available in the U.K. and the U.S., and makes around 300 dives per year for that purpose. He is also a professional underwater photographer.*

## Maiden Dive Boat Trips: Another Liveboard Owner's Point of View

In October's issue, our article "Maiden Voyage on a New Dive Boat?" carried stories from two Undercurrent readers about their experiences with the new *Carib Dancer*, and why divers should give brand-new or rehailed liveboards time to settle into their itineraries before booking a cabin. Frank Wasson, captain of the Florida-based liveboard M/V *Spree*, disagrees, saying our story isn't reflective of all dive boats. Here's his letter:

\* \* \*

Vanessa Richardson's characterization of new dive boats in new dive destinations unfairly paints the industry with a broad brush. Perhaps some liveboard operators do indeed rush vessels into service without properly shaking down the boat, but for many independent operators, our reputation is our only marketable asset. We compete against large corporations with seemingly limitless advertising budgets, and we can't afford to have a trip come back with the problems described in the article. U.S.-based liveboards are held to strict standards of operations by the U. S. Coast Guard, and a letter so publicly transmitted as the letter by Ellen Rierson would be the death of a small operation. [Note from Ben: Ellen Rierson wrote to us about her bad experience, which we printed in our article, and also posted her back-and-forth with the Aggressor Fleet on Scuba Diving's online forums, which is what Wasson is referring to.]

Witness the demise of Nekton Diving Cruises. The crew had gone unpaid for as many as six months by some accounts, and the tip share had not been distributed for even longer. The crew got on Internet forums to dissuade passengers from coming onto the Caribbean-based vessel, citing harsh working conditions and telling stories about the material readiness (or unreadiness, as it were) of the vessel. About a month after those posts started to appear, some of Nekton's long-time customers began posting stories of how disappointing their more recent trips had been. At that time, the *Rorqual* had been out of the yard for two years and was due for refit, and the *Pilot* was in the yard for refit, but no work was progressing.

There are many U.S. departures offering liveboard services to the Bahamas from reputable operators. Maybe not on a vessel as posh as the *Carib Dancer*, but certainly on vessels that offer good value for the dollar. Any U. S.-based operator that tried to put a vessel in operation right after a complex overhaul without at least testing the systems beforehand would find itself searching vainly for customers in short order. That said, the only thing guaranteed about a boat is that things will break and crew will quit, likely at the least opportune time. The job of management, both on site as well as in the home office, is to make customers think that nothing is amiss. The captain may be playing the part of the duck (calm on the surface, paddling like the dickens under water) to ensure that the customers' experience is nothing less than stellar. The other advantage of a smaller operation is that the person who can make decisions regarding compensation for a less-than-stellar trip is right there on station and can see personally the breakdown that has occurred.

I had the good fortune to be offered a tour of the *Carib Dancer* by Wayne Hasson while it was in the yard being prepared for its new itinerary, and I have to say I was impressed with what he [and Aggressor Fleet CEO Wayne Brown] had done to the boat. Remember, this boat is built from an older hull that takes a lot of care to keep floating safely. It was evident to me that the Waynes had spent considerable cash getting the boat ready to safely enter service. The key word here is safely. Although the *Carib Dancer* on the voyage in question may not have been up to Dancer Fleet standards, the boat didn't sink in a minor storm, or catch fire and have to be abandoned, as has happened recently to another large liveboard fleet. I didn't hear any complaints about vessel safety, or that any dives were missed.

The most important part of any dive trip is that all passengers returned to the dock in the same condition they left, none the worse for wear. This seems to be a case of poorly-managed expectations rather than a case of a bad dive boat. It's unfortunate, but not all dive trips go exactly the way we plan.

[Note from Ben: Yes, the divers did get home safely, but when we travelers pay big money for week-long ventures on a boat from a reputable fleet, we expect the boat and the trip to meet fleet standards; . In the case of the *Carib Dancer*, it was clearly not up to snuff during the first many weeks of voyages. Trips like those we described ought to be like previews of Broadway plays, where the patrons pay less and expect they are still seeing a work in progress before opening night. For liveboards, a few weeks at discount rates to ensure that all is in order and the crew is trained should be standard operating procedure. And as for the Nekton Fleet, Undercurrent reported on continuing problems with these boats for many years, from booking issues to leaking cabins, and passengers' overall dissatisfaction.]

## Flotsam & Jetsam

**Anderson Cooper Goes Blind.** Yes, you can burn your eyeballs. That's what happened to this CNN newsman when he spent two hours on a boat in Portugal without sunglasses and ended up blind for 36 hours. As he said on his talk show *Anderson Live*, "I wake up in the middle of the night and it feels like my eyes are on fire, and I think, 'Maybe I have sand in them.' I douse my eyes with water. Anyway, it turns out I have sunburned my eyeballs." He had a case of photokeratitis, which happens when UV light reflected off water, sand or snow burns the cornea. It usually starts a few hours after coming in from the sun, and while the effects are temporary, it can be so painful that people feel they can't open their eyes, as Cooper experienced. So even if the sun doesn't seem very bright while standing on that dive boat, don't forget your UV light-blocking sunglasses and broad-brimmed hat.

**Update to "Dive Micronesia" Discount Airfares.** In last month's e-mail newsletter, we mentioned United Airlines' discounted airfare to Micronesia destinations between now and March 31, 2014. Katrina Adams, the co-owner of Kosrae Village Ecolodge who gave us the original information, just alerted us that the net fare code she cited has changed. "The code that United uses is the same as the old Continental code: GG VUS MIC." So give that one to your travel agent or United rep when booking. Adams has the updated details on Kosrae Village's website at <http://kosraevillage.com/traveltips.shtml#vismic>

**Beware the HMAS Adelaide.** Australian medical experts say 2012 marked a record high of bends cases in the state of New South Wales, thanks to a new dive site on its central coast. The naval frigate *HMAS Adelaide* was sunk off Terrigal and Avoca beaches last year to become an artificial reef and since then, doctors have

reported significant increases in the number of divers with DCS. In August, when the dive season started, 27 patients had already been treated at Sydney's Prince of Wales Hospital. In comparison, there were 19 cases in total in 2011 and 28 in 2010. The medical pros say the contributing factors include the depth of the wreck (it lies at 105 feet), time between dives and relative diver inexperience.

**Another Use for Old Scuba Tanks?** How about for making motorcycles run? That's what Dean Benstead, an engineering grad student in Australia, is doing with his O2 Pursuit project, motorcycles powered by scuba tanks and rotary engines. He started with a Yamaha WR250R frame, then added an scuba tank and a 25-pound engine to power the rear wheel. Squeeze the throttle and air is released to accelerate the bike. The O2 Pursuit gets 62 miles on a full tank, and can hit a top speed of 87 m.p.h. "When the air comes out, it's in the same state as when you compressed it," Benstead said. "You haven't technically used anything." See the bike at Benstead's site <http://o2pursuitdeanbenstead.wordpress.com>.

**Thanks, Jessica Biel.** This Hollywood starlet was the one who got her new husband, singer/actor Justin Timberlake, to start diving and overcome his fear of sharks. While on a dive trip in Australia, Timberlake got cold feet when he spotted a shark circling the boat as he and Biel were about to jump in. As he told Jay Leno while on *The Tonight Show*, "It's not so much that I'm afraid of sharks, it's just that if I were in the ocean and encountered one, I'd probably do the same thing everyone here would do, which is flap and scream like a little girl. I had never gone diving before I met Jessica, and she actually talked me into it. I said, 'I got one rule. If we are on that boat and I see a shark, I'm not going in the water, it's not happening.' But he forced himself to overcome his nerves in front of Biel, and admits exploring the Great Barrier Reef with her was an unforgettable experience. "I just had this moment where I looked at her and was like, 'Ahh, whatever!' And we went in. It was actually really unbelievable."

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