

# undercurrent

*The Private, Exclusive Guide for Serious Divers*

April 2009

Vol. 24, No. 4

## Riding Rock Inn, San Salvador, Bahamas

*wall diving close to the U.S., but still far from crowds*

### IN THIS ISSUE:

- Riding Rock Inn, Bahamas . 1
- Get a Magnifying Glass ..... 3
- Get Published in the  
2010 Chapbook..... 4
- Travel Report Form..... 5
- Extra Costs on Your Next Dive  
Trip: Part II..... 7
- Mask's Upward Vision..... 7
- Real Aquarium Diving..... 8
- Anatomy of a Free Flow..... 9
- Creating One Big Happy  
Dive Group Trip..... 10
- Trip Leader's Risk ..... 11
- Why Divers Die: Part II .... 12
- A PADI Reminder About Safe  
Boat Diving..... 13
- Perfect Your Underwater  
Photos..... 14
- Hurricane Omar Hits Bonaire's  
Reefs But Saves Its Eels .. 15
- Flotsam & Jetsam..... 16

[www.undercurrent.org](http://www.undercurrent.org)

### Editorial Office:

Ben Davison, Publisher and Editor  
3020 Bridgeway, Suite 102  
Sausalito, CA 94965  
EditorBenD@undercurrent.org

Dear Fellow Diver:

With money tight for exotic dive trips, it's good to know interesting wall diving and numerous shark sightings can be had just 360 miles southeast of Miami. Morning dives were the best part of my trip to San Salvador. On one morning dive, after a 35-minute boat trip to North Pole Cave at the island's southern end, I passed a school of blue-striped and white grunts at the top of the reef, with chubs, schoolmasters and horse-eye jacks in the mix. Making like Santa Claus (the site name refers to his Christmas Eve descents), I entered a chimney at 60 feet, headed down to 110 feet, then into a crevice that exits into the blue at 135 feet. Curly wire corals grace the wall around the exit, along with big barrel sponges, one with three big spouts. One crack further on was loaded with a dozen black jacks. Yes, San Sal's walls put it among the better dive destinations in the Caribbean/Atlantic, offering up sharks on most dives.

The Bahamasair connector flight from Nassau to tiny San Salvador is a short hop but a world apart. I stepped off the plane into one of those delightful little airports where the luggage comes to you on a four-wheeled cart and shopping options are limited to rum or beer. Riding Rock's van driver surprised me by saying that my partner and I comprised the entire Saturday group of divers. Maybe it's the winter off season -- water is considerably cooler then -- or the economy that kept people away. The group on my planned dive-shop trip dissolved when the recession hit some of the divers hard, so my partner and I were the only ones that remained from that bunch. On the upside, we pretty much had the



Waterfront View of Riding Rock Inn



dive boat, the sharks, and sometimes the whole resort to ourselves.

Even for just two divers, Riding Rock's dive operation didn't give short shrift. No need to haul tanks to the 42-foot dive boat; they had been loaded and filled, always to 3,000 plus. Divemaster Lynn, a competent Brit with experience in the Pacific and Caribbean, prepped two divers for their last two open-water course dives. Captain Bruce, a Nassau native who has steered this boat for years, took us to the morning dive at Shangri-La,

where he hooked to a buoyed mooring line, the routine for all dives. The general pattern for dives was down the wall one way, then back along the top of the reef, usually at 40-50 feet, toward the boat. Current was nil all week. I was underwhelmed by Shangri-La -- not the big wall scene and swim-throughs I expected. Still, three reef sharks cruised a short distance off in the blue. They appeared on every dive, usually six-footers in a mellow mood, sometimes shadowed by a bar jack.

After plumbing the depths of North Pole Cave, I found what looked like a killing field of staghorn coral rubble back up top, with scattered live colonies. The coral did look very healthy at some sites but there were dead and algae-covered patches, too. A scientist at the reef research station there told me they have tracked significant loss of live coral since he started 17 years ago. It's not only from global warming, the increased desertification of the Sahara is stressing and killing corals in the Caribbean and Western Atlantic via a fungus that travels from Africa on dust particles in the trade winds.

The dive rules up front: computer required, 45 minutes maximum dive time, and a maximum depth of 100 feet unless the dive is planned deeper. The 8:30 a.m. dives were a 35-minute ride to San Sal's south end and its deep cracks, tunnels and sand chutes. The 2:30 p.m. dives were usually within 10 minutes of the marina. Because it was just us two on dives, I had plenty of time to explore the coral and cracks with my light and magnifying glass. The two V-hulled boats with twin diesel engines have bench seating along a rack for about 24 tanks on each side, sun cover, a head, and a DAN O2 kit. Each holds 20 divers. Lynn said a big group would get two divemasters, with entries spaced by five minutes. Drinking water and orange wedges were handed out during the hour-long morning interval on board. Captain Bruce and Lynn helped with gear and hosed off my BCD and regulator each afternoon, while I rinsed and hung my wetsuit at their dive shop.

Riding Rock is managed by San Sal native Michelle Williams, whose family has owned it for 20 years. The place is nothing fancy, 42 rooms in motel-like buildings bordered by the beach, pool and open-air bar. My deluxe room on the second floor was comfortable and spotless, with two queen beds, mini-fridge and cable TV. On the small balcony overlooking the ocean, I sat to read and watch kestrels flying between trees. The inn has the friendly feel of a family-run operation but the schedule is run on a strict Saturday-to-Saturday regimen. Conch fritters are served in the bar Saturday and Monday, night dives are Tuesday, BBQ is Wednesday..you get the idea. Tuesday afternoons are for an interesting two-hour tour around the island where Columbus probably landed in 1492. During high season, groups tour by bus but during this slow period, Michelle took us in her own car.

<b>Riding Rock Inn, San Salvador</b>	
Diving ( <i>experienced</i> )	★★★★
Diving ( <i>beginners</i> )	★★★★1/2
Snorkeling ( <i>from the boat at some sites only</i> )	★★
Accommodations	★★★★
Food	★★★★1/2
Service and Attitude	★★★★★
Money's Worth	★★★★
★ = poor      ★★★★★ = excellent	
<i>Caribbean Scale</i>	

Weather is definitely a concern in February because San Sal is north of the Caribbean. While daytime temperatures were comfortable, water averaged 75 degrees; I used a 3-mm suit but I got chilled at the end of dives. While an occasional cold front can bring wind, swells, murky visibility and cool temperatures on the boat, I had sun every day and wind just one afternoon. I wouldn't go there again in winter, because weather could spoil much of the week. When weather blew out the Tuesday night dive, management didn't offer to reschedule. I didn't press the point because I preferred sunny afternoon dives to cool evening ones but I had some regrets when Lynn said reef sharks are in hunting mode after dark, and lionfish use divers' lights to hunt.

Speaking of lionfish, that Indo-Pacific species is now common here (go online to the Undercurrent's September 2007 issue for details about how they got to the Atlantic and Caribbean). We saw up to six on most dives, usually in pairs nestled in the wall. Riding Rock divemasters once speared lionfish to reduce numbers locally, but no longer. As dive shop manager, Lynn told me she won't allow it until research demonstrates it's the right approach to eliminating them. Captain Bruce said he eats them regularly and finds them quite tasty. Skip the grouper, pass the lionfish?

One afternoon I walked to Cockburn Town to pass time. It's one of the two main settlements on San Sal, with a population of 1,200. I visited the few stores and bars, pausing to read the small-town announcements about upcoming Valentine's Day parties posted on storefronts. A rusty 10-foot iguana statue guards the town and the long, deserted beach to the south. Colorful bananaquits and palm warblers made more noise than the sparse car traffic. My kind of place.

In the inn's Driftwood Lounge, Peaches, the longtime bartender, suggested rum drinks with a dozen ingredients but I stuck with Kalik, a decent Bahamian beer at \$4. We ate in the 40-seat dining room, where a few fishermen and boaters sometimes joined us. Michelle told me rooms are already booked solid for most of June and July, when water temps reach the 80s. Then the place definitely would have a different feel, with 30 divers on the two boats and packing the funky Driftwood, which Lonely Planet calls the happening place on San Sal. I usually shared the bar with a few folks off a sailboat stopping at the RR marina or fishermen, who reported landing big wahoo daily.

Meals were above par for such an isolated venue. American-style breakfasts are to order. No menu, just order what you want in your omelet or what meat with your pancakes, with OJ and a choice of fresh fruit on the side. Lunch started with an excellent conch chowder, then a couple of choices like a sandwich or baked chicken. Dinners began with a simple salad and a glass of wine, followed by a couple of entrée choices. Half the time, I had fresh fish, usually wahoo or mahi. Other entrées included steak,

## Get A Magnifying Glass

When I was a new diver, I was out for the big stuff. But after seeing hundreds of barracuda and lobsters, I appreciated more diverse pleasures in the reef environment. That's where my magnifying glass comes in. The tiny shrimp lurking in the lettuce coral, the clinging crab in the anemone and the pipefish in the sand flats are easier to identify and a lot more spectacular with a good glass. I also get a lot more detail on other denizens, including the corals.

If you want to go small, you need a glass lens, not plastic. That's because the index of refraction of water is about 1.33. Plastic lenses have about the same index as water, so they become useless underwater. Optical glass has an index of about 1.52, so it works, though the magnification underwater will be a bit less than above.

Index of refraction? That's a measure of how much a substance slows the speed of light, and thus bends (refracts) it. Water's index of 1.33 also explains why objects appear a third larger underwater – and why your buddy swears that a three-foot grouper was a four-footer.

Magnifying lenses in your mask (bifocals) are not very useful for viewing underwater subjects except gauges. This goes for the plastic stick-on bifocals as well as the Mares ESA mask, which has separate lens frames in which you can put magnifiers.

Instead, you need a good hand-held glass. My favorite is from Edmund Scientific ([www.scientificsonline.com](http://www.scientificsonline.com)). Look for the Round Magnifier with 10X Spot Lens. The four-inch lens (you don't want a small one that you need to hold too close to the subject) is available there for \$11.95, plus \$7.50 for shipping. It fits in a BC pocket and has a hole in the handle for a lanyard. Happy hunting.

-- M.A.

## Get Published in the 2010 Chapbook!

We need your travel reviews for the *2010 Travelin' Divers Chapbook*, sent to subscribers at the end of this year. Here are three easy ways to send them in:

1. Complete the online form on our Web site ([www.undercurrent.org](http://www.undercurrent.org)). You can find under the Subscriber/Member sections after you log in. Online membership is free to all print subscribers.
2. Send your report in an e-mail or as an attachment to us at [ReaderRpt@undercurrent.org](mailto:ReaderRpt@undercurrent.org). Don't forget to put your name on the report.
3. Report your trip on the form on the opposite page (it is double-sided so you can fill out two trips) and mail it to: Undercurrent, 3020 Bridgeway, Suite 102, Sausalito, CA, 94965; or fax it to us at (415) 289-0137.

- Ben Davison

Cornish hen, and lamb chops. Dessert was homemade cake or pie.

Lynn was determined that I see great hammerheads, so we spent the latter half of my trip on the back reef where the big guys are common, but I would have been happy there anyway. Most sites had huge fields of garden eels, with rosy razorfish and the occasional green razorfish diving under the sand, yellowhead jawfish hovering above, bridled blennies, and tilefish near their rubble piles almost as big as beaver lodges. Southern stingrays all seemed to have a darkened bar jack hunting partner, and they were outnumbered here by smaller yellow stingrays. Halfway into the dive at Stew Pot, Lynn put two fists on her temples, and there it was -- a 10-foot hammerhead halfway up the water column. On the next dive at Three Barrels, I saw another, this time in better display as it glided over the reef top into the blue.

On my sixth and final dive day, I got to choose two sites to revisit. At Double Caves, one tunnel entrance was nearly barred by a big blue parrotfish. I entered another and emerged on the wall at 115 feet just as a reef shark passed. As I worked my way up, four eagle rays glided by in close formation. Soon after, two 10-foot hammers came into view just off the reef. I watched them disappear, then a minute later one of them returned for a second look at me. As I neared the lip of the reef, Creole wrasse poured over the top and parted around me, along with a school of yellow goatfish nearby. Great barracuda don't often aggregate, but 30 of them gathered over the sand here, as well as on several other dives. Clearly a good fishy Atlantic/Caribbean dive.

Riding Rock offers an all-inclusive package, but they're somewhat pricey. You could book a similar all-inclusive dive week at CoCoView for \$500 less but, depending where you live, you would probably pay more to fly to Honduras, and not get the variety of dive sites, nor the chance to swim with sharks. If you don't have the time or the airfare to travel double-digit hours for diving, fly to Nassau between May and July (or later if you recognize the hurricane risk), then take the daily puddle-jumper to San Sal. That's all it takes to get you finning along the walls and near the sharks.

-- M.A.



**Diver's Compass:** I paid \$1,663 per person for an all-inclusive, double-occupancy package in a deluxe room, with 17 dives over seven days . . . taxes and restaurant tips were included, liquor and boat tips were extra . . . I recommend the upstairs ocean-side rooms . . . The only other charge I incurred was \$20 for a golf cart ("keep to the left") on my last afternoon to go birding at the ruins of Watling Castle and walk miles of beautiful, deserted beaches . . . Bahamasair ([www.bahamasair.com](http://www.bahamasair.com)) charged \$190 for the round-trip flight from

Nassau; I had to layover there because I couldn't arrive early enough to catch the daily flight to San Sal, so I stayed at the Nassau Palm (\$156 double, breakfast included), did a nice walking tour of colonial downtown, then walked to the lively Fish Fry area for dinner . . . US dollars and plastic accepted everywhere . . . San Salvador has a chamber at the Club Med resort . . . Web site: [www.ridingrock.com](http://www.ridingrock.com)

# Travel Report Form



Fill out online at [www.undercurrent.org/members/UCnow/ma\\_rdrpt.php](http://www.undercurrent.org/members/UCnow/ma_rdrpt.php)

## DIVER INFORMATION

Your name \_\_\_\_\_ Telephone ( \_\_\_\_\_ ) \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
E-mail address \_\_\_\_\_ May we publish your e-mail address?  yes  no  
How many dives have you logged? \_\_\_\_\_ Where else have you been diving? \_\_\_\_\_

## TRIP INFORMATION

Name of resort or liveaboard \_\_\_\_\_ Name of dive operation \_\_\_\_\_  
Location (e.g., island, country) \_\_\_\_\_ Date of visit (month/year) \_\_\_\_\_ / \_\_\_\_\_

Circle one or more of the following that best describes the overall water conditions during your trip.

calm and flat     choppy     surge     strong currents     no currents

Water temperature was \_\_\_\_° to \_\_\_\_° F.    Wetsuit  yes  no \_\_\_\_\_ mm    Water visibility was \_\_\_\_ to \_\_\_\_ ft.

Could you dive your own profile?  yes  no    What restrictions were enforced while diving? (depth limits, etc.) \_\_\_\_\_

Select the words that best describe what you encountered on your trip.

**Sharks:**     none     1 or 2     schools    **Turtles:**     none     1 or 2     more than 2  
**Mantas:**     none     1 or 2     squadrons    **Dolphins:**     none     1 or 2     schools

Rate the following by circling a number. (*Five is best and one is worst.*)

Corals.....	1	2	3	4	5	Diving for experienced .....	1	2	3	4	5
Tropical fish.....	1	2	3	4	5	Condition of accommodations ..	1	2	3	4	5
Large fish .....	1	2	3	4	5	Level of service .....	1	2	3	4	5
Pelagics .....	1	2	3	4	5	Quality of the food.....	1	2	3	4	5
Small critters.....	1	2	3	4	5	Dive operations .....	1	2	3	4	5
Eco-friendliness/enforcement ...	1	2	3	4	5	Shore diving .....	1	2	3	4	5
Overall diving for beginners.....	1	2	3	4	5						

**COMMENTS** Please tell us the good, the bad, and what you wish you had known before you left home.

Return to *Undercurrent* • 3020 Bridgeway, Suite 102, Sausalito, CA 94965  
Fax to: 415-289-0137 • E-mail to [bendavison@undercurrent.org](mailto:bendavison@undercurrent.org)

# Travel Report Form



Fill out online at [www.undercurrent.org/members/UCnow/ma\\_rdrprt.php](http://www.undercurrent.org/members/UCnow/ma_rdrprt.php)

## DIVER INFORMATION

Your name \_\_\_\_\_ Telephone ( \_\_\_\_\_ ) \_\_\_\_\_  
 Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 E-mail address \_\_\_\_\_ May we publish your e-mail address?  yes  no  
 How many dives have you logged? \_\_\_\_\_ Where else have you been diving? \_\_\_\_\_

## TRIP INFORMATION

Name of resort or liveaboard \_\_\_\_\_ Name of dive operation \_\_\_\_\_  
 Location (e.g., island, country) \_\_\_\_\_ Date of visit (month/year) \_\_\_\_\_ / \_\_\_\_\_

Circle one or more of the following that best describes the overall water conditions during your trip.

- calm and flat     choppy     surge     strong currents     no currents

Water temperature was \_\_\_\_° to \_\_\_\_° F.    Wetsuit  yes  no \_\_\_\_\_mm    Water visibility was \_\_\_\_ to \_\_\_\_ft.

Could you dive your own profile?  yes  no    What restrictions were enforced while diving? (depth limits, etc.) \_\_\_\_\_

Select the words that best describe what you encountered on your trip.

- Sharks:**     none     1 or 2     schools    **Turtles:**     none     1 or 2     more than 2  
**Mantas:**     none     1 or 2     squadrons    **Dolphins:**     none     1 or 2     schools

Rate the following by circling a number. (*Five is best and one is worst.*)

- |                                   |   |   |   |   |   |                                |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|--------------------------------|---|---|---|---|---|
| Corals.....                       | 1 | 2 | 3 | 4 | 5 | Diving for experienced .....   | 1 | 2 | 3 | 4 | 5 |
| Tropical fish.....                | 1 | 2 | 3 | 4 | 5 | Condition of accommodations .. | 1 | 2 | 3 | 4 | 5 |
| Large fish.....                   | 1 | 2 | 3 | 4 | 5 | Level of service.....          | 1 | 2 | 3 | 4 | 5 |
| Pelagics .....                    | 1 | 2 | 3 | 4 | 5 | Quality of the food.....       | 1 | 2 | 3 | 4 | 5 |
| Small critters.....               | 1 | 2 | 3 | 4 | 5 | Dive operations .....          | 1 | 2 | 3 | 4 | 5 |
| Eco-friendliness/enforcement ...  | 1 | 2 | 3 | 4 | 5 | Shore diving .....             | 1 | 2 | 3 | 4 | 5 |
| Overall diving for beginners..... | 1 | 2 | 3 | 4 | 5 |                                |   |   |   |   |   |

**COMMENTS** Please tell us the good, the bad, and what you wish you had known before you left home.

Return to *Undercurrent* · 3020 Bridgeway, Suite 102, Sausalito, CA 94965  
 Fax to: 415-289-0137 · E-mail to [bendavison@undercurrent.org](mailto:bendavison@undercurrent.org)

# Extra Costs on Your Next Dive Trip: Part II

## *missed dives, tips and fuel surcharges*

In the January issue, we covered hidden costs and fees of a dive trip that can add a great deal more than you'd think to your total bill. This time, we're addressing fuel surcharges, the pressure for tips and the high cost of skipping a dive.

### Missed Dives

Many readers are frustrated if they aren't refunded for missed or canceled dives, but many dive shops have policies that can be tough to swallow. Diana Abrashkin (Boston, MA) dived with Hawaii's Bottom Time Divers last January. "I had booked two days of diving from home. My first day of diving was torture because I was freezing, even in my 5-mil wetsuit. I told the divemasters right then that I would not be diving the next day. When I went to claim my refund, the owner refused, saying they required 48 hours advance cancellation! This was terrible because 48 hours prior, I was still in Boston." Annoying, yes, but one would face the same problem is canceling a hotel with a similar policy.

More frustrating – and unfair – is when dives are cancelled by the dive shop. Ian Cooper (Auckland, NZ) had paid in advance for two dives with Truk's Blue Lagoon dive shop in September. He did his first dive but the second was cancelled because "the dive guide had done four dives that day and was cold. On shore, I asked the crew for a refund on the second dive or goods amounting to the value of. No answer from the crew, they just disappeared. I couldn't persist because the *S.S. Thorfinn* was to pick me up the next day. After the trip, I returned to the dive shop to get a refund and was told I could go for a dive now -- two hours before my flight to Guam."

Not every dive shop is so strict with cancellations. Neal Langerman (San Diego, CA) gives kudos to Cabo Pulmo Dive Resort in Baja California. "I spent 10 days at Cabo Pulmo Resort. As a result of some confusion on the resort's part and on my part, plus weather problems, I did not do all of the dives I paid for. When I went to settle the bill, I received a correct refund for the missed dives, and a large 'thank you.' Honest, fair folks to work with."

Jenny Collister, president of the dive travel agency Reef & Rainforest in Sausalito, CA, suggests purchasing only the minimum amount of dives beforehand and purchasing more after you arrive, if you're still up for it. "Many divers believe beforehand that three dives a day for a week will be no problem, only to regret it at trip's end when they're too tired or lazy to do the last few dives and wasted some bucks."

It's also a good idea not to pre-pay in case the worst happens, says reader Mona Cousens (Santa Barbara, CA). "At the Atlantis dive resort in Puerto Galera, I had a sinus infection and missed all 20 of my pre-paid dives. There were at least 15 dive operators within a two-minute walk of each other on the

beach. Had I not pre-paid my diving, I could have walked into any one of these operations and booked a dive package. Of course, for out-of-the-way destinations you must dive with the house operator and it is just bad luck if you get sick and miss your dives, but why not protect yourself in heavier-traffic places like Cozumel, Bonaire and Puerto Galera where pre-paid diving is just not necessary?"

If you have to pre-pay, consider travel insurance. Collister says, "If you have to cancel a dive, get documentation and the reason you canceled, and then you'll be reimbursed." Trip insurance is also a good idea for exotic locations, especially those with unrest. Protests in Thailand last fall that kept travelers there for as long as ten days more than intended would have been very expensive for those without trip insurance.

### Fuel Surcharges

Of the complaints we get from traveling divers, the most common is being upset with fuel surcharges as the price of

## Have Problems With Your Mask's Upward Vision?

Dear *Undercurrent*,

After reading John Bantin's article "Have to Replace Your Mask?" in the January issue, I have to ask, why does every article I've seen on masks always talk about 'downward vision'? I really want to know about 'upward vision.' When swimming along the bottom, eventually the neck gets sore and the back may take a beating if an arched back and neck are extended for a considerable amount of time. No article ever talks about the upward-viewing angle.

-- A Subscriber, Scotts Valley, CA

\* \* \*

Dear Subscriber,

I don't think the problem is mask design for upward vision. If you're swimming along at the proper angle, you shouldn't have a problem. You may need to look at your overall trim. Maybe your weights are worn too high or you need heavier fins if you're getting a sore neck. If you need to look up, taking in a little air may cause your trunk to rise, giving you better upward vision.

-- John Bantin

## Real Aquarium Diving

If you're short on funds for a dive trip, here's a good option: become a volunteer diver at the public aquarium nearest you. Many aquariums nationwide rely on recreational divers to help them with chores like fish feeding, coral cleaning and hosting live shows for their audiences. Most positions require only advanced openwater certification and 25 to 50 logged dives (some aquariums require rescue certification, and those with cold-water exhibits may want some dives to have been done in cold water). Big aquariums often have teams of 100-plus volunteer divers. Those advertising their open slots online include New York Aquarium in Brooklyn, Georgia Aquarium in Atlanta, Shedd Aquarium in Chicago and National Aquarium in Baltimore.

Time commitments range from a few hours to a couple of days per month and many volunteer divers stay on for years. Take Paula Di Flora, 56, who has volunteered at Kentucky's Newport Aquarium for the past seven years. After taking first-aid certifications, a buoyancy test and written assessments, she did training dives in the Coral Reef exhibit, then progressed to the Amazon Flooded Forest, the Kelp Forest exhibit, and finally the ultimate 385,000-gallon "Surrounded by Sharks" exhibit. A typical tour of volunteer duty can include cleaning windows, vacuuming tanks, scrubbing algae

off artificial coral, doing food prep and feeding animals. Di Flora also hosts live dive shows, speaking to the audience while in the tank. The aquarium's biologists pull Di Flora off the roster to do special tasks like feeding animals in quarantine and getting new animals used to divers before being put into exhibits.

The Oregon Coast Aquarium in Newport offers a \$225 three-day "Habitat Diver" course. Dive safety officer Vallorie Hodges says the course is crucial because volunteers are expected to become the eyes and ears of the aquarium's staff above water. "We teach them underwater skills like diving the exhibits without fins, and evaluating whether an animal got too rambunctious the night before or if a female needs to be moved into the nursery. Being able to identify animals and tend to them is an important part of their duties."

Di Flora says the rewards of being an aquarium volunteer go beyond spending time in the exhibit tanks. "When I go on dive trips now, my observance of animals in the wild is much better. I can find frogfish and octopus so much easier because I know what to look for. I've learned so much about aquatic life and their habits." You may start off by just cleaning kelp but, she says, "every opportunity they give you as a volunteer is an experience to become a better diver overall."

-- Ben Davison

oil drops. Unfortunately, our research has found that in many cases, the surcharge may very well be valid.

For example, one of our readers did a Raja Ampat Indonesia itinerary on Peter Hughes' new *Paradise Dancer* in December. "The fuel surcharge we paid back in \$4-a-gallon times of course was not reduced now that gas was down to \$1.75 per gallon in the U.S. -- and *much* cheaper in Indonesia." But there's a difference between gasoline and diesel fuel, which most liveaboards run on, says Peter Hughes vice president Larry Speaker. "When a barrel of oil declined to \$40 and prices at the gas pump went down at an equal rate in the U.S., an expectation was created in our guests' minds that this was occurring globally. But the comparison to U.S. gasoline prices is not an accurate foundation to base the belief on." He cites data showing that between November 2007 and November 2008, crude oil and U.S. gasoline prices declined by 39 percent, but diesel fuel in the U.S. dropped 15 percent and only 5 percent in Papua New Guinea.

Fuel prices aren't dropping much in Asia and Latin America because many governments control prices. A dive operator in Indonesia recently sent a memo to travel agents as explanation. "Indonesia has been reducing its significant subsidies on fuel. Before the major oil price increases, Indonesia's fuel prices were far behind world market prices due to those subsidies. The drastic reductions will lead to further price increases on local markets. We have seen a 50

percent increase in prices and now we can hardly get any subsidized fuel at all. We now pay more than double what we paid a year ago."

Jos Pet, cruise planner of the Indonesian liveaboard *Seven Seas*, says the price of diesel fuel in Sorong, West Papua, is US\$2.55 per gallon. A year ago, it was at \$1.43. The runup means *Seven Seas* won't eliminate the fuel surcharge of \$25 per night it started last September.

Jose Luis Sanchez, manager of the *Solmar V* liveaboard in Cabo San Lucas, Mexico, says that in February 2006, diesel fuel was around \$1.80 a gallon. In 2008, the monthly increases took it up to \$3; now the price has dropped to \$2.50. "The government will still increase it every month by a minimal amount and by the end of this year, we'll be paying at least 50 percent more than we did a year ago."

Simone Gerritsen, manager of the *Thalassa Dive Center* in Manado, North Sulawesi, wrote on the shop's Web site: "Not only is fuel one-third of our expenses, everything connected with the use of fuel, meaning everything that *needs* to be transported, has increased in price." Gerritsen told *Undercurrent* she doesn't plan to lower rates or surcharges because she doesn't expect fuel prices to come down. "The Indonesian government has taken back the subsidy for fuel used by companies. We use nearly 15,000 liters per month, which makes us a big user, hence the very high expenses."

When reader Tom Lopatin (Lake Hopatcong, NJ) inquired about a fuel surcharge for the *Undersea Hunter* in November, which makes the 36-hour passage to Cocos Island, he received a reply from office manager Alan Steenstrup that fuel is slower to drop in Costa Rica because the state-owned energy company Recope sets prices for the entire country. However, on December 12, Steenstrup e-mailed *Undercurrent* to say Recope dropped the price of fuel, so *Undersea Hunter* has just reduced the price of its trips by \$150. We checked Recope's historical rates to see how the rates have changed. In December, a gallon of diesel in U.S. dollars was \$4.40, but as of January 20, Recope lowered the price to \$2.90 per gallon (the price for a gallon of gasoline was \$2.69).

### Don't Forget Tips

This is a major hidden cost, because American divers usually leave tips ranging from 5 to 20 percent of their overall dive resort or liveboard cost, but that doesn't mean they liked to be pushed into tipping. Aqua Cat Cruises and its less-expensive Blackbeard's Cruises subsidiary are consistently mentioned by our readers for their aggressive push for tips. The latest came from E.M. Parkhurst (San Diego, CA), who dived with

Blackbeard's in October. There's a sign in bold letters on the lounge area wall where they sit you down to check out, stating that 15 percent equals \$300 and 20 percent is \$440. When you check out, the crew pulls out a ledger that tallies the outstanding cost for each guest, and you can see what everyone else tipped." Parkhurst decided to leave 12 percent, but that wasn't satisfactory for the crew. "I was asked if I was unhappy with anything. I said no, everything was fine. After that, I wasn't hassled about not leaving the suggested minimum."

For more about tipping and how to handle it, read our three-part series from our May-June 2007 issues, available in the "Back Issues" section at [www.undercurrent.org](http://www.undercurrent.org). If only dive operators read it too, and understood that good service will merit a good tip, not merely pushing for one.

Finally, the best way to protect yourself from creeping fees and hidden costs is by asking a lot of questions in advance and getting everything in writing. Says Collister, "Doing both of those things goes a long way toward protecting you if there is a problem at the front desk."

- - Vanessa Richardson

---

## Anatomy of a Free Flow

### *manual controls are a marketing gimmick*

It's very annoying when, just as you are about to start a dive, your regulator suddenly and uncontrollably gushes air. Those who dive in cold freshwater can experience a similar effect while underwater, and that can be life-threatening if air reserves are low. Free flows due to regulator freeze-up are caused primarily when ice forming around the mechanicals of a regulator first-stage disallows it from functioning properly. However, this doesn't explain why your regulator goes out of control just at that moment when you are about to enter a warm tropical sea.

Assuming that the first-stage of a regulator is working properly, air is delivered to the second-stage at 120 to 150 psi greater than ambient pressure. The pressure-sensing diaphragm at the front of the regulator (it doubles as a purge button) presses down a lever and opens the valve so that the exact right amount of air at a matching pressure enters the regulator body and allows you to inhale. It should be able to give you exactly the amount of air you require, neither more nor less.

Regulator designers strive to make the flow of air through the body of the second-stage clean and uninterrupted so breathing is as effortless as possible. They try to design in a "Venturi" effect, which results in a very clean flow of air rushing past the back of the pressure-sensing diaphragm. A sudden rush of fast-flowing air can cause an apparent drop in pressure behind the

diaphragm. This in turn is pushed in to compensate, thereby opening the valve more and causing the flow to increase.

This effect can happen where pressure differences are dramatic, at the cusp between water and air. That's why your regulator so often free-flows as you dip it in and out of the water, when you walk into the sea or plunge off the deck of a dive boat.

Many manufacturers get around this problem by including a Prebreathe/Dive switch on the second-stage. It positions a simple vane in the airflow to break up the Venturi effect. There is also an initial effort to "crack" open the valve. It can often be adjusted by means of a knob that can tighten the spring tension on the second-stage valve. If you want to inhale less air, simply draw on the valve more lightly. However, these spring-tensioners can often be used to make it slightly harder for the pressure-sensing diaphragm to lever the valve open - that can have the effect of correcting a badly set-up regulator's second-stage that might be leaking through its valve.

Many top-end regulators come with these two manual controls, the Venturi Plus/Minus or Prebreathe/Dive switch and a spring-tensioner to make breathing less effortless. It seems the market demands it. People want added value with their purchases, and divers are no different. But you don't need them.

Mares has designed away the need to disrupt the Venturi effect by using a patented bypass tube that feeds the air supply directly to the mouthpiece and not through the regulator's main chamber. The company also eschewed the use of a method to increase inhalation resistance, but people want knobs. So Mares has just introduced the Prestige 32 NTT, which has such a control. It doesn't operate a movable vane as used by other manufacturers because the designers have already designed out the need for it. It simply restricts the amount that the second-stage valve can be opened to when in the "minus" setting.

Atomic regulators use a vane that is actually adjusted by a mechanical depth sensor, meaning you never need to touch it. Some Italian manufacturers, notably Effesub, have also adopted this approach. If you just bought the regulator or had it serviced, it's a good idea to take it on a local dive to check

that the technician has set it up properly before going on a dive trip abroad.

If you have no PreDive/Dive or Venturi Plus/Minus switch, how do you avoid the annoying loss of gas that can occur just as you are about to start a dive? Avoid dipping the second-stage and the octopus of your regulator in and out of the water if you are shore diving. Also be aware that should your regulator free-flow in temperate conditions, you'll simply need to increase the air pressure inside the body of the second-stage by blocking the mouthpiece or turning the front diaphragm upward for a moment. There is never any need to smack it with your hand!

*John Bantin is the technical editor of DIVER magazine in the United Kingdom. For 20 years, he has used and received 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.*

---

## Creating One Big Happy Group Dive Trip

### *plenty of work, plenty of hassles*

Getting a group together for a dive trip can make a vacation more fun, memorable and even less expensive as there are more people to split costs. But it's not as easy as it might seem, especially if you decide to be the point person and handle logistics. There inevitably will be a few people who bail out early when they hear the total trip cost, or late, when their investment portfolio goes south or they hurt their back. There's the diver who forgot to mention he's vegetarian and another who wasn't expecting so much current.

If you're the trip leader, expect to be blamed for problems you never even expected, as one of our subscribers Greg Mac Pherson (Carrollton, TX) pointed out. "Like when TSA removed a knife one group member accidentally left attached to his regulator he was carrying onboard, and he wants to know why you did not warn him." Regardless, many *Undercurrent* readers who have organized group trips say it's worth the effort.

#### **Use Dive Travel Pros or Do It Yourself?**

But first you need to decide how big a role you want to play in the trip planning. Do you have a small group? Do you have organizational and negotiating skills? Do you want to save yourself some extra money by doing the grunt work? Then you can volunteer to be the trip leader and handle the bookings for everyone. If you don't have the time or the inclination to handle every single detail, then go to a trip-planning pro like a dive travel agent, dive shop owner who offers trips (make sure he has a track record), or a professional trip leader. It's also a good idea to get assistance when your group is in

double-digits, as handling special requests and flight arrangements for multiple divers can overwhelm even the most enthusiastic trip planner.

One of the advantages of being a do-it-yourself trip leader is you can also save yourself money or maybe even pay for the trip, as Dennis Jacobson (Lakewood, CO), whose groups may be as small as four, points out. "For exotic trips to faraway lands, I am all for latching on with a sponsored group. But to Florida, the Caribbean or Hawaii, I'll [pocket] the 10 to 25 percent savings by being the planner and booker. . . . By booking a trip for ourselves, we avoid the contribution for the dive-center trip leader to travel for free. It's very easy to book airfare and rental cars online. Direct contact with hotels, condo managers and dive concessionaires is a snap online, too, and they are always willing to discuss discounts and sometimes actually give them."

But if you're going to let the discounts pay for your trip, recognize there is a lot of hard work to do, before and during the trip, depending upon your group's expectations. Deb Fugitt (Fort Worth, TX) organizes dive trips to Indonesia and says most divers don't realize the time, financial risks and stress involved. "While they're napping between dives, I'm checking dive sites, organizing divemasters, and helping someone with a problem."

The honest thing to do is discuss the money you saved with your fellow divers – some groups let the trip leader pocket the discounts or get the free cabin since she did all the work, while other groups share the savings among everyone. You don't

## Trip Leader's Risk

Dear *Undercurrent*,

Several years ago, I was in charge of a group of 16 divers on a three-day spearfishing trip to the oil rigs near the Louisiana coast. One of the divers was killed when he was run over by the boat. The captain was instructed not to sound the horn until the boat was safely tied up to the rig. He failed to do so on the last, fatal dive; rather, he sounded the horn before the craft was tied to the platform.

The lawyer hired on my behalf by my homeowner's policy stated that if I had profited from the trip in any way (I paid the same share as everyone else), my policy would not have covered me. My insurance company paid \$10,000 in settlement for my involvement in this terrible mishap.

Group or team leaders taking a free or discounted trip should check with their homeowner's policy unless they have some other kind of liability coverage before making such an arrangement.

- - Terry Migaud, *Metairie, LA*

\* \* \*

Dear Terry,

We're sorry to learn of the loss of a fellow diver on your trip. I've written about insurance coverage for divers several

times for *Undercurrent*, and the situation you describe is instructive as it does indeed raise some important issues. In today's litigious society, if one has any formal involvement in a trip such as you did, expect to be included in a lawsuit if there is an accident.

Appropriate personal-liability coverage is critical whenever assuming a dive trip leadership position from which you profit financially. Of course, every such policy is different and case law differs from state to state. Also, depending on where the incident occurred, maritime law may apply rather than state law.

That said, routine homeowner's (or condo owner's or renter's) insurance typically does not include liability coverage for de facto business or profit-making activities. Most policies of this type exclude death, bodily injury and property damage resulting from business operations of the insured. While the term "business" may or may not be more specifically defined in the policy, the term generally means a venture undertaken for profit.

This is why instructors and divemasters have separate, specialized insurance policies to cover business pursuits. Even if a divemaster or trip leader is not being paid cash, the exchange of services involved in being able to dive aboard a boat at reduced or no cost would normally be considered a form of payment and thus a business pursuit.

- - *Doc Vikingo*

want to keep mum about discounts and then have the group stumble accidentally across the fact later - - that may make for a tense dive trip.

If you go with the same group of divers for years, you may be able to "surprise" them with the destinations. That's what Les Trumbull (Somerset, CA) has done with his dive club, arranging three "mystery trips" so far to Puerto Rico, the M/V Sea Dancer in the Turks & Caicos, and St. Croix. "The only thing I divulge is the cost, the dates, and that it's warm water someplace I haven't gone before. As the trip draws nearer, I give clues to help them guess the destination. But the place isn't divulged until we arrive at the airport (I book all air and land arrangements). They all worked out good, and everyone had a good time." Just be sure, however, that the destination you select doesn't require a visa.

Even if you're going to use a travel pro to make all the bookings, it's still up to you as the trip leader to do advance planning, says Stan Holz (Whitefield, NH). "I've planned so we can get our group's annual Caribbean vacation for many years now, usually for a group of 10. We're all friends but not all divers, so planning is a challenge. I try to find a dive operator who will accommodate snorkelers as well as the divers on the same boat. Choosing a locale with good diving

and nothing else doesn't work. Some of our group likes to play tennis, so I try to ensure tennis courts are at or near our hotel. I use a democratic process in filtering locales. Links to every place that looks promising are e-mailed to everyone, and they have the opportunity to make suggestions, add to the list, or veto a place. After two or three months, I get in touch with a travel agent who checks the connections, flight schedules, and pricing. That information is forwarded to the group for their review. Eventually, we always find a place that suits all our needs. If you're planning a group trip, your own preferences must take a back seat to the group's goals. Everyone has to have a say, and a consensus must be reached."

Holz says the best trips were Curacao and Bonaire, while the least successful were Grand Turk and Cayman Brac because of marginal resorts and poor snorkeling. "Unfortunately, not every desirable dive destination works for us, which can be a problem, as the divers in our group are still clamoring to visit Dominica. This year, the group decided to return to Bonaire for the third time, even though two couples bowed out because they've been to Bonaire several times already. Next year, I'll ask those couples what their first picks would be and go from there."

Or you can do as Jeff Bloomer (Saint Charles, IL), who researches destinations on *Undercurrent's* online reader reports, coordinates trip details, then lets divers make their own bookings because, he says, divers are a fickle bunch. "You have people commit to go, then back out and expect their down payments refunded. There's the cheap traveler wanting to be refunded for dives they didn't take. Because there is no money in it for me, it can get old. So now I only set up the trip, tell people the cost, give them plenty of notice, and it is up to them to get there."

### When and Where to Book

Whether you're handling all the travel details yourself, letting an expert make the bookings, or just a diver along on the trip, it's good to know this information below so you know what to expect during all phases of trip-planning

A year in advance is a good time to start planning, although give up to two years time to faraway locales that book up quickly, like the Galapagos and Sipadan. Most airlines won't let you book until just under a year before your trip dates, but you can still get price quotes from a travel agent.

Before selecting a destination, consider your group's overall dive experience, and the trip leader's own experience in planning. Ron Carmichael, who plans multiple dive trips through his Splash Dive Center in Alexandria, VA, says the Caribbean is a good place for a first-time dive group. "The less experience divers have, the more I would stick to traditional dive locations like Fiji, Bonaire, Cayman and Roatan. Most new divers are checking those off their list anyway. Also consider the length and economics of the trip. For Palau or Truk, I'll need 18 months' advance time, while a trip to Carolinas for \$500 will only need three months. I took 22 people to Antarctica last spring, which meant chartering a boat from Argentina and arranging for arctic training and gear. Logistics like that are not what a new trip leader is experienced to do, whereas places like Cozumel and Bonaire are filled with experienced dive operators who can set up things for you."

When Wendy Pacofsky, vice-president of Outdoor Travel Adventures in San Diego, CA, gets a trip leader in her office, she has a list of questions to ask. "First, I ask what the group budget will be, because that affects everything. It will narrow down destination accommodations, airfare and ground arrangements." If they don't have a place in mind, she asks these questions: What's the group size expected to be? What time of year are you traveling? How many days do you have, including travel time? What type of diving are you looking for – easy reef diving, big animals, photogenic dive sites? What's the group's diving level? Is your group small enough for a liveboard, or will you need a lot of rooms? Are you okay with red-eye flights and multiple connections, or do you want one-stop travel? Do you need land-based interests for non-divers?

For overseas destinations, the trip leader should keep up with current events there. "My friend had a group departing to the Solomon Islands a few days after a coup in 2000," says Fugitt. "I informed him of the situation there and advised him to postpone their trip. He did not inform his group and they all went. In the end, they had to be airlifted out by the New Zealand air force."

Equally momentous are special events, festivals and holidays that can affect travel. "Try to find out a year in advance what will be happening there," says Tim Webb, president of Caradonna Dive Adventures in Longwood, FL. "That also applies to events happening in the U.S. If you plan a dive trip during Super Bowl time, don't be surprised if a few bail out."

-- Vanessa Richardson

*Next time, we'll look at how dive groups can negotiate discounts, what details trip planners need to give to - and get from - their fellow divers, and best ways to manage the tricky process of getting deposits and payments from divers to travel operators.*

---

## Why Divers Die: Part II

### *overweighting and uninflated BCDs can cause big problems*

Every year, we highlight specific diver deaths from the Diver Alert Network's annual report on accidents and fatalities. In reviewing their latest report, which listed deaths that occurred in 2006, it's striking to see how many that occurred on or just below the surface, most of them drownings.

In diving's formative days, flotation, not buoyancy control, was the purpose of a life jacket. Early divers used the Mae West, adopted from the military. Then came the Fenzy, with an air bottle for inflation and the horse collar, which could be inflated

orally or with a CO<sub>2</sub> cartridge. It floated a diver with his mouth and nose clear of the water. Life-saving became secondary in the 70s with the introduction of the Scubapro Vest and subsequent designs. Today, as *Undercurrent's* technical editor John Bantin says, "None of the BCDs can be guaranteed to keep a diver from drowning. It depends very much on the weight of the tank/s, the amount of weights, and the manner in which weights are distributed around the diver. Big wing-style BCDs are notorious for putting a diver face down when fully inflated but there is no general rule."

## A Reminder About Safe Boat Diving from PADI

In our January 2009 issue, we reported on a diver who surfaced far from his boat on a dive near Fijian island Vanua Levu and spent 12 hours drifting in Somosomo Strait before getting ashore. After reading our story, an executive from dive agency PADI sent us this letter:

Dear *Undercurrent*,

I read your article with interest. This situation, exactly, is dealt with straightforwardly and repeatedly in the PADI Open Water Diver course. Here are a few points from the *PADI Open Water Diver Manual*.

**Boat Diving Procedures:** “When you break the surface, establish buoyancy and signal to the divemaster or crew that you’re okay. . . If you’re at the surface away from the boat, watch out for boat traffic. You can use an inflatable signal tube, whistle or other signaling device to attract the attention of the dive boat, or of other boats that might not see you.”

To avoid this situation: “Plan your dive and navigate so you finish near the boat with enough air so you’ll be back on board with 300 to 600 p.s.i. left in your tank. If there’s a current, you’ll find it easiest to ascent the anchor line, which keeps you from being carried past the boat.”

**Surface Problem Management:** “If you have a problem at the surface, immediately establish buoyancy. Stop, think, then act. Need help? Ask! Whistle, wave and yell. It’s the

smart, safe thing to do. Get help when you need it, before a small problem becomes a big one.”

**Surface Signaling Devices:** “You should consider surface signaling devices, like inflatable signal tubes, standard in your equipment setup. Visual signaling devices include brightly colored inflatable tubes or balls that you can blow up to be seen more easily, signal mirrors, and for diving at night, signal lights and flashers. Most divers keep an inflatable signal tube and/or signal mirror in their BCD pockets at all times. Audible devices are primarily whistles you blow and those powered by your low pressure inflator. ”

The PADI Open Water Diver course emphasizes problem prevention. What to do if a problem does occur is also covered completely, surface signaling included, even hand/arm signals at the surface to the boat crew. We know divers often don’t want to admit when a problem has occurred until it’s well into the situation, so we address that as well, and tell them why it is better to ask for help early. [We] deal head-on with these issues in the entry-level course, and build on them in continuing-education courses.

We hope that others learn from this situation, and I assume that is why you published the article. PADI acts responsibly in terms of training people to not only assess and minimize risk while diving, but in techniques to overcome adversity should it arise.

Julie Taylor Saunders  
International Training Executive  
PADI Worldwide

To illustrate the problem, here are several cases where divers’ BCDs offered no help.

Judith Silcox, 47, was lobster diving in July with Ronald Maloy, 53, from an anchored boat near Florida’s Big Pine Key. Because they were the only two on board, no one knows what happened to them in the water. Silcox was found floating face down by boaters passing by around 10:30 a.m. Her BCD was inflated and she still had on 16 pounds of weight. The boaters tried to get Silcox breathing and conscious, but it was too late. Maloy’s body, with all dive gear and tank still on, was found four days later when it drifted ashore on Cook Key.

This 44-year-old man with 20 lifetime dives was on a multi-day dive trip with three other divers. After a dive to 77 feet and a safety stop at 18 feet, he surfaced in obvious distress. His buddy deployed a safety sausage, but he sank below the surface. Finally, his buddy got him to the boat but he did not regain consciousness. While he died of an embolism, his sinking below the surface delayed any chance of rescue and resuscitation.

A dive isn’t over until one is safely in the boat. Climbing up a ladder with an uninflated BCD while still wearing weights is

risky business. A 62-year-experienced diver climbing back into the boat lost consciousness and fell back into the water. He then dropped below the surface, inhaling water. While he ultimately died of an embolism, this is another case where potential treatment may have been slowed because of inattention to dive gear.

### Watch Your Weights

Of course, for a BCD to be fully effective, a diver needs to drop his weights. Too many divers, now deceased, didn’t. In these cases, the diver’s failure to drop his weights contributed to his demise.

This 26-year-old made a solo, shore-entry dive into a river with a swift current. Immediately after descending, he returned to the surface calling for help. He then sank back below the surface, and his body wasn’t recovered until two days later. His gear was in good order but he was wearing 50 pounds of weight, none of which he had dumped during distress.

A 49-year-old openwater diver with 25 dives made a shore entry with his 17-year-old son into choppy water at Whaler’s Cove near Monterey, CA. The two dived to 80 feet, did a safety

stop at 15 feet, then surfaced and swam toward shore. The father started having trouble breathing. He was wearing 31 pounds of weight but did not drop it. His son started towing him back but after the father lost consciousness, the son swam to shore alone and called 911. Rescuers recovered the diver, who was pronounced dead at the hospital.

This 35-year-old experienced divemaster was helping to teach an advanced openwater course when he descended to 130 feet, but he was overweighted and couldn't get off the bottom without his buddy's assistance. He was assisted up to 80 feet, and the class instructor took him to the surface. The diver may have lost consciousness during the quick ascent, and he was definitely unconscious at the surface, where he couldn't be resuscitated. Nitrogen narcosis probably affected his judgment when it came to dropping weight.

This 39-year-old experienced diver panicked during a shore dive and grabbed at his buddy's mask. He then lost consciousness and got separated from his buddy. Rescue divers found his body later that day; he was wearing 57 pounds in weights.

Note that in many of these cases, the people assisting the distressed divers most likely could have released the diver's weights, but didn't. And finally, to use an automatic inflator, there has to be air in the tank.

Steven McAuliss, 39, was drysuit diving in the St. Lawrence River near Rockport, Ontario. He made a shore entry into frigid waters with dive buddy Vaughan Brennan to dive the *Kinghorn* wreck, but he was overweighted for the dive to 88 feet. McAuliss and Brennan became separated during the dive, and two divers later found McAuliss, unconscious at 40 feet with his regulator out of his mouth. They were unable to inflate his BCD because his tank was empty. They dragged McAuliffe to shore but he was dead by drowning.

Not long ago, we got an e-mail from a diver who was astonished to learn that he could inflate his BCD orally if his automatic inflator didn't work. While the point may not be relevant in this case, I suspect that it's a skill, if even learned, that has been long forgotten by many divers.

-- Ben Davison

---

## Perfect Your Underwater Photos

*these how-to guides will help you create a better images*

For underwater photographers at all levels, we have a selection of books on our website that explain how you can perfect your techniques, and create higher-quality photos and videos. Go to [www.undercurrent.org](http://www.undercurrent.org) and click on "Diving Books and Guides." Then click on "Complete List of Diving Books" at the top of the following page, and scroll down to see books listed in the "Photography/Video" section. Buy any of these great resources through us and you'll get Amazon.com's best discounted price. Plus, your purchase will help save the coral reefs that you're lighting and framing in your photos.

***The Underwater Photographer, Third Edition: Digital and Traditional Techniques.*** Martin Edge, a protege of photography pioneer Jim Church, provides the basics for beginning photographers but he also delves deep into digital and helps even skilled shooters better use their LCD screen and read histograms. For those who want to shoot manually, Edge explains how to use exposure modes and solve metering and focusing issues. He accompanies these issues with descriptions of his own technique and mechanics, making this a great teaching tool. (408 pages, paperback, \$29 current Amazon price.)

***Master Guide for Underwater Digital Photography.*** Jack and Sue Drafahl, the experts in underwater digital photography, created this must-have resource for shooters of any experience. It has great how-to information for topics from

dealing with blooming and backscatter to super macro and equipment maintenance. Also included are scores of full-color photos and a diagram for every digital underwater technique. (128 pages, paperback, \$23.)

***Adobe Photoshop for Underwater Photographers.*** This book by the Drafahls explains how to use your computer as a darkroom to perfect underwater images, fine-tune underwater film scans, and retouch and enhance digital images with Adobe Photoshop software. It's filled with color photos and thorough instruction on editing tools, exposure corrections and removing unwanted objects. (224 pages, paperback, \$26.)

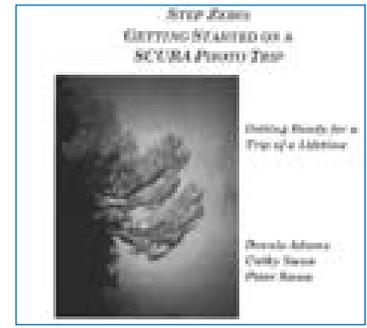
***A Diver's Guide to the Art of Underwater Photography.*** This book by Andrea and Antonella Ferrari is one of the most beautiful "how-to" books we've seen. Not only do they offer great technical guidance, the Ferraris also help the underwater photographer discover and develop the artist within. The book is filled with 360 spectacular images and rigorously field-tested digital techniques for framing and lighting, macro photography, fish portraits, above/below split images and more. Their easy-to-read advice applies to cameras ranging from basic point-and-shoot digital to complex housed professional DSLR systems. (360 pages, hardbound, \$60.)

***Oceanic Wilderness: Mysteries of the Silent Deep.*** To get some inspiration, we recommend a book from an amazing

photographer worth emulating. Roger Steene's scientific eye lets him capture unique behaviors of unique creatures, and his point of view moves him far beyond most professional photographers. This oversized coffee-table book has more than 500 surprising and stunning shots, making it one of the best books of underwater photographs published to date. (340 pages, hardcover, \$38.)

**Step Zero: Getting Started on a Scuba Photo Trip.** Here's the latest addition to our library. Not only does this book by Dennis Adams and Cathy and Peter Swan provide a full 17-page checklist of everything you will need to travel and shoot, it provides an orderly planning and procurement

schedule, plus scores of insider's tips. It's an essential book for anyone planning a first-time photo safari, and just as useful for any of us who have spent a week kicking ourselves about leaving at home that one crucial item and having to beg, borrow and jury-rig when out of the water, missing that once-in-a-lifetime opportunity below. (88 pages, paperback, \$33.50.)



## Hurricane Omar Damages Bonaire's Reefs But Saves Its Eels

Because it's out of the Caribbean's hurricane belt, Bonaire has ducked some major storms over the years. Not so in October, when Hurricane Omar hit the island. Marine park staff surveyed the reefs a few days later and reported a lot of overturned corals, significant silting, and rubble in shallower areas along the west coast.

*Undercurrent* readers who visited Bonaire afterwards report serious damage. "Omar stripped all life down to 25 feet so no snorkeling left; you have to go below 30 feet to see reef life," said Larry Polster (Martinsville, IN), who went in February. "It also took out most docks. At Town Pier, they had to scrape the pilings to inspect damage, so the famous night dive there is gone." Hal Berson (New York, NY), who visited last month, had the same observations. "Much of the coral was dead and most of the fish were juvenile. These were magnificent reefs but the truth is they will take quite some time to return."

The marine park survey stated damage is most evident on west coast sites and down to 50-foot depths. Shallows in the dive sites between Sabarieco and 1,000 Steps got the heaviest impact. The east coast, protected from the westerly winds, didn't get any damage. Omar was the biggest storm to hit since "Wrong Way Lenny," which moved west to east across the Caribbean in 1999, but the later storm had more impact. Omar's waves were more intense and came in a west-to-northwest direction instead of the typical southwest pattern, hitting the reefs directly and devastating some shore-side buildings.

Dee Scarr, owner of Bonaire dive operation Touching the Sea, told the *Bonaire Reporter* that while she saw less coral damage than expected, divers can help coral most by gently freeing them of debris, and reporting large obstructions to the marine park staff for removal. Now the most important thing to do is dust off the significant amount of silt resting atop sponges. Because sponges get oxygen and food by pulling in and filtering seawater, silt layers hinder the process.

For visiting divers who happen to see silty sponges, here's Dee's advice: "First, you must be a skilled enough diver to avoid making contact with the reef and live coral. Fan with your hand for best control, but don't touch the sponge. After the sponge is cleared of silt, look to see where the silt went. If it landed on living coral, gently fan it off without making contact. Be especially cautious when you're fanning close to the sand bottom, because the water movement that fans the sand off the sponge also lifts it off the bottom and on top of everything around it."

One upside is Omar may have flushed away the reason why Bonaire eels were turning up dead since last summer. Jerry Ligon, resident naturalist at Bonaire Dive & Adventure, had recorded 50 moray deaths by October, mostly spotted, green and viper morays. Two marine biologists from the University of Puerto Rico investigated and concluded the eels were affected by a bacteria called vibrio. One species of this genus is the primary agent in human cholera, so it's a gruesome bacteria for any creature to be infected with, liquefying stomach contents and causing abdominal pain and bleeding in the gastrointestinal tract and, obviously, death. Its presence in the water is a direct result of untreated sewage.

Luckily, Omar's heavy surf may have cleared away the vibrio source, "because since Omar, no more dead eels," Ligon reports. On dives in December and January, he saw mostly juvenile but healthy morays, which indicates to him that this generation is vibrio-free.

"Omar also cleaned out all the thick reddish algae that was covering the bottom and sections of coral rubble along the entire western coast and many sections of Klein Bonaire," says Ligon. "This algae was determined to be a death warrant for Bonaire's reefs." To prevent its return, resorts have been reminded to stop their sewage from accumulating and overflowing into coastal reefs. Now they are supposed to have their septic collection systems pumped out and hauled to the island center by "honey trucks" on a regular schedule, until Bonaire gets its sewage treatment plant built in 2012.

**undercurrent**

**The Private, Exclusive Guide for Serious Divers**

3020 Bridgeway, Suite 102  
Sausalito, CA 94965

Periodicals  
Postage PAID  
Sausalito, CA  
and Additional  
Mailing Offices

## Flotsam & Jetsam

**Guam Dive Safety Concerns.** The island's Visitors Bureau and members of its dive community say small dive shops may be putting tourists underwater without proper training or certified instructors. In October, a dive instructor and two divers he'd taken to Fish Eye Marine Park had to be rushed to the hospital after running out of air on the dive. Micronesian Divers Association instructor coordinator Chris Bangs told the *Pacific Daily News* he has seen dive companies giving novices a dangerously abridged lesson before their first dives. "Some just stuff them in a van, drive them to the [dive sites] and tell them, 'Here, stick this in your mouth.' They don't get a formal certifying agency course." The Guam Divers Industry Association wants to be given authority to inspect and license the dive operators.

**Fish with Heart Disease.** If there needs to be another reason why divers should stop feeding fish junk like Cheez Whiz, this is it. To understand how heart disease develops, scientists at the UC San Diego School of Medicine gave zebrafish a high-cholesterol diet (young ones are transparent, so it's easy to see what happens to their blood vessels). Just like in humans, the fishes' artery walls thickened and hardened as a result

of fat deposits, and they grew "little fat fish stomachs." To reduce the effects, researchers added the cholesterol-lowering drug Zetia to the fish tank water, and they could literally see that the medication greatly reduced thickening of the zebrafishes' arteries.

**Thai Dive Boat Capsizes, Killing Six.** Search teams have recovered the bodies of four European divers, one Japanese diver and the Thai cook on the *Choke Somboon 19*, which sank on March 8, 12 miles off the coast of Phuket. The boat, operated by Dive Asia, was returning to the resort town from a dive trip near the Similan Islands when it capsized during a storm. The five divers were trapped in their cabins when the boat capsized; the other 23 divers onboard were rescued shortly after the boat sank. The cook's body was found floating on the surface four days later and 12 miles away.

**Judge Favors Reefs Over Beach.** Judge Robert E. Meale ruled to deny the town of Palm Beach a permit for a beach-erosion project, saying officials failed to assure that the project wouldn't cause coastal damage. Palm Beach wants to dredge 700,000 cubic yards of sand from offshore to rebuild beaches, but Meale agreed with petitioners that the project would cover reefs and harm marine life, and that reef protection is a "matter of exceptional regulatory concern."

*Undercurrent* is the consumer newsletter for sport divers that reviews scuba destinations and equipment. We accept no advertising. Subscriptions in the U.S. and Canada are \$78 a year (addresses in Mexico, add \$20; all other foreign addresses, add \$35).

*Undercurrent* (ISSN 1095-1555, USPS 001-198) is published monthly by Undercurrent, 3020 Bridgeway, Suite 102, Sausalito, CA 94965, with the November/December issue being the annual book-sized *Travelin' Diver's Chapbook*. Periodicals rates paid at Sausalito, CA, and additional mailing offices. POSTMASTER: Send address changes to 3020 Bridgeway, Suite 102 Sausalito, CA 94965

### Letters to the Editor/ Submissions

**Undercurrent**  
3020 Bridgeway, Suite 102  
Sausalito, CA 94965  
Fax 415-289-0137  
EditorBenD@undercurrent.org

### Subscriptions/Address Changes

To subscribe, renew, change address, or order back issues, call 800-326-1896 or 415-289-0501, Mon.-Fri., 9-5 Pacific Time  
E-mail: [pete@undercurrent.org](mailto:pete@undercurrent.org) or write:

**Undercurrent**  
3020 Bridgeway, Suite 102  
Sausalito, CA 94965

**Editorial Office**  
Ben Davison, Publisher and Editor  
Vanessa Richardson, Senior Editor  
E-mail:  
EditorBenD@undercurrent.org

[www.undercurrent.org](http://www.undercurrent.org)

Printed on recycled paper 

**undercurrent**

April 2009 Vol. 24, No. 4