

undercurrent

The Private, Exclusive Guide for Serious Divers

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MV Belize Aggressor III, Belize

good boat, great crew, easy diving

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Dear Fellow Diver,

It was a beautiful morning at Amberhead North, on Belize's Turneffe Atoll, perfect for our checkout dive and giving the guides an opportunity to spot any problem divers. In calm water, we had no requirement to stick with the guides, so my buddy and I headed off to explore, eventually returning to the sand patch where we had started. Oddly, the sand sported a fresh drag mark. My partner signaled, "Where's the boat?"

Earlier, the crew had told us if we surfaced far from the boat, just inflate our BCs and relax, and they will come get us. Knowing we were at the right spot, we surfaced and saw the Aggressor a few hundred yards away, its white hull gleaming in the sun. We bobbed up and down near other buddy teams waiting for a pickup. Soon the Aggressor came alongside, and a crew member threw us a life ring and towed us in.

Onboard, there were no complaints, just laughs, which spoke to the good nature of the 17 divers, who were mostly North Americans of a certain age, with the exceptions being two Chinese students from the University of Illinois, a brother and sister from Brazil, and one couple's teenage son. Three newbies were finishing their open water training. Liveboard divers know there can



Divers normally swim back to *Belize Aggressor III*



always be a jerk in the group, but not this time (unless it was I and no one called me out.

And where had the Aggressor gone? A crew member speculated that a barge had tied up at their mooring without allowing enough slack in the line and loosened the mooring pin, which set the Aggressor adrift.

The Belize Aggressor III is a 110-foot (33m) monohull that can accommodate 18 divers. An over-engineered shuttle boat that once ferried oil-rig crews in the Gulf of Mexico, she has a few minor

quirks. While the master stateroom is on the sun deck, most cabins are on the lower deck. We chose one amidships so we would have less movement. It was comfy, without being tight, with room for our luggage under the double bed lower bunk and upon the upper single bunk. There were no wall hooks, probably to discourage divers from hanging wet skins and swimsuits (a nod to preventing mildew). The air-conditioning worked well -- days were a balmy 90°F (32°C) or so -- as did the marine head if you followed instructions: flush early, flush often, and be careful what you put in the bowl. And one quirk: it was hard to hear the diving bell from my cabin and, in fact, I slept through one dive.

I had plenty of room to dress up on the spacious dive deck, where I stored small stuff in an underseat bin and hung other gear overhead; crew members cinched weight belts around the hanging wetsuits to prevent them from flying over the side. After gearing up, tank and all, I would back down the five steps to the stern platform, where a crew member helped me with my fins, then with a giant stride, I hit the water. After a dive and a climb up the wide stairs, the crew helped me with my gear, and I'd wash off the salt in one of the two swim platform showers (though the water pressure wasn't always up to snuff). Nightly, they rinsed everyone's rig.

At Turneffe Atoll and Lighthouse Reef (all low-lying, brush- and palm-covered cayes), the corals were healthy and diverse. In early April, the water averaged a cool 76°F (24°C). I spent the week in a 5mm wetsuit, while my partner needed her warm 7mm. Some divers -- especially the younger ones -- claimed to be comfortable in rash guards and board shorts, but I don't know how, especially with long bottom times, once 90 minutes. Visibility was more than 50 feet (15m) on most sites.

At Half Moon Caye Wall (Lighthouse Reef), a steep sand slope rose from the wall 50 feet down to 20 feet (6m), where turtle grass harbored lots of conch. While an occasional shark or Goliath grouper



Hot tub on the deck

You Won't Put Down Tropical Ice, A Sensational Scuba Thriller Set In Belize

After sharks rip a body from a frozen chumball in front of divers, all hell breaks loose at Captain Jack's Rum Caye Resort. *Scuba Diving Magazine* calls *Tropical Ice* a "must read for scuba divers" and says:

"From shark-feeding gone wrong and thugs on the streets of Belize to corrupt conservationists and a battle on the high seas, this eco-thriller by the editor of dive newsletter *Undercurrent* is jam-packed with twists and turns that make it hard to put down. While telling the story of Matt Oliver, a



travel writer who gets roped into an international mystery, [Ben Davison, writing as KL Smith] highlights the vicious effects of shark finning and other practices that further the destruction of environmental resources."

Frightening night dives, a beautiful rainforest lodge owner with her own deep secrets, secret jaguar hunts, corrupt Chinese expats raping reefs...it's all there in *Tropical Ice*, this great diving thriller, a real page-turner. [Click here](#) to order a paperback or e-book from Amazon or [click here](#) to order an autographed copy. (You can find these links on our homepage as well. www.undercurrent.org.)

cruised by, I became interested in watching hunting southern stingray buddy teams. Stingrays moved slowly along the sand, followed closely by a permit or jack, at times even several grunts, ready to pounce when a fluttering stingray flushed out morsels. A pair of gray angelfish joined the hunt.

One morning near Half Moon Caye, I peered out my porthole to see a small boat alongside. Wearing black fatigues, a Belizean park ranger toting an M4 carbine stood by while others wrestled scuba cylinders onto the Aggressor. The crew refills cylinders for the rangers stationed there, a smart way to stay friends with people who can make or break your operation.

On a dive at Quebarca, I eased up to a cleaning station where a dozen neon gobies attended to a 3-foot (1m) great barracuda. The 'cuda seemed unimpressed by me, so I got several good close-up shots, but left feeling like I'd interrupted someone's bath.

I'm a casual photographer, happy with a simple point-and-shoot SeaLife DC1400 that I can stuff into my modified BC pocket. I shoot mostly video -- senior eyes and all -- which can drain a battery, so I bring several and charge and change them religiously. The Aggressor's large camera table had electrical outlets on the shelf below, but no air gun. When Captain Jerome -- a professional, friendly and athletic fellow -- spotted me drying my camera with my deck towel, he brought out towels just for us photographers. All the six Belizean crew members were very accommodating.

After dives, photographers would gather in the salon or dining to work on photos. The salon features a large flat screen that the crew used for its end-of-week video/slide show and occasionally for movies.

I had a real photography challenge when I discovered a collection of blennies on a concrete mooring block. While my buddy had the patience to hover and wait, with less patience (and poorer eyesight), I kept my head up and was rewarded when a sailfin blenny popped from its hole. I maneuvered my camera in close before he pulled back. On a second dive here, I sank into the midst of a silversides' bait-ball flowing in and out of a coral head crevice, and with my camera running, they closed around me without much fuss. On the sandy bottom below, a lone lionfish drifted by, biding his time before sucking up a snack.



The Great Blue Hole of Belize

Every week, the boat visits the Great Blue Hole, a prehistoric cave with a collapsed roof, which appears as a deep blue hole in the middle of a light coral plateau (it was inaccessible by boat until Jacques Cousteau and his crew blasted a passageway in the early '70s). I skipped the 35-minute, 130-foot (40m) drop (coming back required two stops, one at 70 feet [21m], one at 15 feet [4.5m]), and took to the shallows, where I found sand tilefish, yellowhead jawfish, Pedersen cleaner shrimp, tube-dwelling blennies, and a school of midnight parrotfish.

While my buddy was shooting macro, a stingray buzzed her. We were encouraged to look for head-shield slugs in the turtle grass, but no luck.

After the Blue Hole, we toured the Half Moon Caye bird sanctuary, a good way to off-gas rather than lounging around the boat. Everywhere, hermit crabs crawled around in their snail shell homes like a convention of mini-Winnebagos. Two men cleaned fish on a wooden bench, tossing scraps to three nurse sharks maneuvering in a foot of water. I climbed an elevated platform to view nesting red-footed boobies while frigate birds soared overhead and iguanas posed for photographers below.

Yanis, the friendly yet saucy chef (she reminded me of a favorite aunt that nobody messes with), prepared lots of good food. Breakfasts were eggs to order, pancakes, French toast, or Johnny cakes, and bacon, sausage, or ham, plus toast and bagels, and a large bowl of fruit. Lunches

MV Belize Aggressor III, Belize

Diving (Experienced)	★★★★½
Diving (Beginners)	★★★★½
Snorkeling	0
Accommodations	★★★★
Food	★★★★
Services and attitude	★★★★★
Money's worth	★★★★★

★ = poor ★★★★★ = excellent

Caribbean scale

Flies in the Face of Good Business

Retail dive stores have some difficulty these days making a go of it, but here's a problem no one would expect: hover flies, pesky little things that look like bees but are harmless. However....

Open the door to Kimberley Park's Ocean Sports Scuba and Freediving School in Lompoc, California, and these little darlings are everywhere. And they're chasing customers away.

"People walking down the road avoid our dive shop like the plague 'cause they just see this swarm of flies and so they don't even want to walk by the front of our shop — which is not good as a retail place," said Park.

That's the case for shopper Elisabeth Box, who said,

"I was attracted to some things in the window, but I didn't stop because the flies were getting on my face and in my hair. That grossed me out."

"They've been here since we moved into the building, and we're cleaning it up, making it all shiny and new as a dive shop. [The flies have] been horrible from the start, but this time of year is for sure the worst," Park said.

The flies are harmless, but damn annoying. About the only way you can dodge them is to strap on your gear before you walk in the door.

– Channel Three News, Lompoc, CA

often started with a soup and could be Belizean fare (primarily spicy sautéed meats), hamburgers, tacos, burritos and a yummy taco salad.

Before dinner, we divers would gather on the top deck for storytelling and drinks -- wine and beer were complimentary, but best bring your own spirits. Dinners were tasty, on various nights featuring fish, shrimp, pork loin or roast beef, with plenty of fresh vegetables properly cooked. (The sole vegetarian always got something special.) Although I did not partake (much), desserts were reportedly delicious. Between-dive snacks were sometimes sinfully delicious; it was a kick to watch adult divers shoving too-warm chocolate chip cookies into their mouths while hopping around, half out of their wetsuits.

At a site called Aquarium, Spots, the resident reef shark with a white patch above and a little behind each eye, swam about, while a squadron of spotted eagle rays swam gracefully along the wall. This seemed to be a home for elderly or perhaps infirm trunkfish.

I chuckled watching one of the young college students push around a camera rig that seemed bigger than she was. On one dive, unbeknownst to her, a remora attached itself to her stomach.

Frequently, she would reach down to brush the area, not knowing what was there. The critter would dart away, then quickly return as soon as she went back to shooting. Then she would brush again.

But, even experienced divers sometimes get ahead of themselves. Divemaster Daniel, a trim and muscular guy, asked one diver, "Is your second stage breathing okay?" The diver was rigged and ready to go. He popped his second stage into his mouth, and when he didn't get any air, he reached back to turn on his first stage, which, it turned out, he had not attached to his tank. It was his bad luck that the whole scene was caught on video, much to our amusement. He had no "habitual" buddy, so there's a lesson there about the benefits of diving regularly with someone, keeping each other out of trouble.

I liked the night dives, though they were marred by unsightly bloodworms wriggling through the water. At Long Caye Reef, I watched a Scotch bonnet snail moving around like a mini-Roomba, bumping into things, then changing direction. At Ell Point, I dropped onto a shallow, sandy bottom that was home to many southern stingrays, several giant hermit crabs churning through the sand, a school of arrow squid, and a hunting Spanish slipper lobster.

One advantage of diving Belize is that from most U.S. cities, one can get there in a single day. Many flights arrive at Belize City at the same time, making for long, noisy lines at immigration. Be patient, take a deep breath and just go with it. Once through, we had to sit outside in the heat on concrete benches, babysitting our luggage, waiting for other arriving divers before boarding a van

When Sport Divers Meet Spearfishers

Jacob Dalhoff Steensen of Paralenz, the Danish manufacturer of the diver's POV camera, wrote to *Undercurrent* concerning spearfishing. The ecologically minded company has put together a code-of-conduct for spearfishing, urging spearfishers to restrict themselves to unendangered species, and to follow local laws on legal catches, size restrictions, closed seasons and protected marine areas. The goal is to spear sustainably.

Paralenz urges spearfishers to only catch what they are going to eat and to prevent injuring and losing fish.

All well and good. But in most countries, it is illegal to spearfish on scuba. Not so throughout the U.S. So when Paralenz urges spearfishers to respect other ocean enthusiasts, it reminds us that scuba divers often find themselves sharing the water (especially around Florida's shallower wrecks) with divers equipped to kill things.

It's not a good feeling to come face-to-face with a diver with a powerful supergun, primed and ready to shoot, as I once did in the confines of the *Spiegel Grove* wreck in the Florida Keys. At best, it takes the fun out of a dive.

— John Bantin

to the Radisson Hotel to wait again before boarding the Aggressor (may I whine about the rigors of travel?).

All in all, the Belize Aggressor offered a great trip for easy divers, inexperienced divers, any diver without great demands for gangbuster diving. Nothing exceptional, mostly predictable, and a very nice diving getaway.

-KM

Our Undercover Diver's Bio: *KM's interest in diving was sparked watching Jacques Cousteau specials in the '70s. Though he gained an appreciation for boat operations in the Coast Guard, he didn't learn to dive until he moved to the Army, where his instructors felt that hazing was a legitimate educational tool. He has worked as a volunteer drag boat race safety diver, volunteer search and recovery diver, and equipment technician, but regrettably had to maintain a real job until retirement and now spends most of his time goofing off.*



Diver's Compass: Two divers, standard double cabin, was \$5,990 for the seven-night cruise, plus nitrox (\$100/person) and port fees (\$95/person. The crew hustled and delivered, so we tacked on 15% of the cabin cost, in cash (the most sincere form of flattery) ... Nitrox levels fluctuated early in the week, but they soon stabilized the mix at 32 percent ... Five dives were offered every day but two; four dives on Blue Hole day and two on the last day, beginning at dawn ... they carry a pickup boat in case anyone gets in trouble.

Atlantis Dumaguete Resort, Negros Island, Philippines

an abundance of creatures in clean muck

If I see a ghost pipefish on an Indo-Pacific dive, I consider it a good dive. By that standard, I was over-the-moon on my dives along the Dauin Coast, on the south of Negros Island, which has several marine sanctuaries. I seldom ended a dive without seeing at least a dozen ghost pipefish and almost as many frogfish. What I saw diving with Dumaguete Resort was like leafing through a fish ID book.

At North Dauin, I spotted three stark-white mushroom pipefish at the base of a green mushroom coral. When I turned from one pair of ghost pipefish, I often bumped into another just a few feet away. Filament-covered ornate ghost pipefish in shades of red, black and yellow were prevalent, and I also spotted roughsnout, halimeda, and robust ghost pipefish. A couple of juvenile peacock razorfish caught my attention with their long first dorsal fin. Fighting male dragonets with erect golden predorsal fins added drama. Waspfish kept their distance. On this dive, I was impressed with the color variations of painted frogfish: yellow, black, cream, orange, and pink, and a black half-inch juvenile I peered at with my magnifying glass had bright orange dots and blue trim on the fin borders and tiny feet and toes. Every time I saw an orange speck, I would head toward it to see if it was a frogfish. Amazing how many times it was!



The bangka is pulled right up to the beach



Such a treasure house of critters on one dive!

Most dive sites were only a few minutes away over expansive brown sandy areas ending with low coral heads, and little, if any, current. And clean muck, unlike the trash-laden sites I dived in Indonesia at Mucky Mosque in the Alor Archipelago, Ambon and elsewhere. Visibility in the sandy areas beyond 10 feet (3m) was poor, but it increased in the coral areas. My dives ranged from 53 to 70 minutes at depths from 52 feet (16m) to 83 feet (25m).

The Dauin coast has several small low-profile resorts. Atlantis Dumaguete has 38 thatched-roof rooms in charming bungalows or two-story buildings with four units each, which vary in size and price. Spaced along meandering stone pathways, they're surrounded by orchids and lush foliage. However, after a rainfall, my dive buddy slipped on the slippery stones and cut his arm. There is an attractive pool, and the adjacent spa offers massages. The ambiance was only marred by the occasional smell of burning trash at nearby properties.

My spotless deluxe single room held a king-sized bed, a closet, a safe, a desk, a small refrigerator, Wi-Fi, a wall-mounted flat-screen TV, a ceiling fan,

Oman Aggressor Continues to Cancel Trips

We reported Erica Watson's disappointment and anger at discovering her trip on the *MV Oman Aggressor* was canceled just before she arrived in Oman and was preparing to board (*Undercurrent* March 2018), but it seems that the vessel is making a habit of canceling bookings.

Eric and Andrea Schindler (Tuscon, AZ) supplied us with a litany of emails from Aggressor Fleet that first confirmed that their booking for next August was definitely going ahead. They were concerned because they were the only two passengers on that trip and they were tying it in with a trip to Madagascar, and they had heard about Erica Watson's predicament. They didn't get a response from Darien Bacon of the Aggressor Fleet booking staff until more than a week later, on April 5, when he wrote:

"Since this is a new destination, I am not familiar with it and wanted to check with other staff first. This trip is definitely scheduled to run."

"The owner was in the process of making changes to the host hotel and where the yacht was docking, which have now been finalized." It wasn't until May 23, long after the Schindlers had booked the more complex part of their trip to Madagascar, that Bacon sent another

email with the bad news that the trip on *MV Oman Aggressor* for the week they had booked was not running after all, adding, "We will be issuing both of you a \$500.00 voucher for use on a future Aggressor reservation, and we will pay the cancellation/change fees for your airline tickets and cancellation fees for the hotel reservations also."

Clearly upset, and rightfully so, the Schindlers have sent Aggressor the details of changed flights, hotels and cancellation in the hope that they will be reimbursed. It's a long way to go from the U.S. to be stiffed after organizing such a complex trip, and it may indeed be impossible to reconstruct another itinerary that fits the time period and budget.

It certainly looks like the *MV Oman Aggressor* has problems, and we recommend against anyone booking this boat.

However, what do you think about the Schindlers' case? Cast your vote:

Is the Aggressor's offer of a \$500 voucher, flight and hotel cancellation fees an adequate response for canceling this trip three months before departure? What do you think? Vote **Yes** or **No** by going to: www.undercurrent.org/UCnow/OmanAggressor

an efficient AC, a shower, and glass water bottles (good for them for eschewing plastic!). On my porch, I could relax in my hammock-chair, or on one of two chairs, and there was a branch structure for drying items, but I had mine replaced because it harbored tiny ants. Whenever I needed something (e.g., hair conditioner), I asked at the front desk, and a minute later housekeeping delivered it. In fact, all the staff was helpful and friendly, including Matthew, the manager, and his assistant, Marco, who were always present and eager to converse or help out.

According to one of the owners, Englishman Andy Pope, Dumaguete targets North Americans over 50. Yet, during my nine days, there were but four Americans, and a Canadian, a French couple, eight divers from Shanghai and a couple from Taiwan. During meals, those who dived together sat together, but afterward, we all mingled. Jim Helleman, an underwater photographer leading a group taking shots for the resort, once gave a talk about his coral documentation in the Cayman Islands, and some staff members showed photos on other days.

A DAN Survey on Diver Fitness: Is Your Liver as Healthy as your Heart and Lungs?

You may be fit enough to float about neutrally buoyant and relaxed, but what if things go wrong? It's the unexpected event that will test your physical fitness and response: e.g., the buddy who suddenly finds he has no air, or the sudden down-current you weren't expecting, the difficult access to a boat in an angry sea state that deteriorated while you were diving, an unexpectedly long surface swim, the sea krait that slips between you and your BC, or that pesky titan triggerfish that comes at you head on and grabs your fin.

It's crises such as these that will test your wellbeing, your heart and your fitness to dive.

To determine just how fit divers are, DAN, the Divers Alert Network, surveyed the health of its members, noting that the average age of their divers is aging and with aging comes ailments that affect diving. They have just released data on their 2011 survey and discovered that DAN members are healthier than the equivalent segment of the U.S., and are more fit than their nondiving peers.

However, "the study comparing cardiac autopsy findings of diving-related fatalities to motor-vehicle fatalities suggested that diving-related fatalities had higher heart mass and left ventricular wall thickness than motor-vehicle fatalities, highlighting the role of cardiovascular disorders in diving fatalities."

While some countries (UK, Australia, and France, among others) mandate an annual health check for sport divers, it is not so in the land of the free, where many people resent mandates. But American divers should not be complacent about their health, especially since it not only affects them, but also people with whom they dive (if you have a heart attack diving,

someone goes to great risk to deal with you).

DAN respondents proved older than the general population, but both healthier and wealthier. No surprise about income. Scuba diving travel is expensive in more ways than one.

DAN divers tended to be Caucasian, well-educated and employed. They were more physically active than the general population, with fewer smokers, and more likely to get regular health check-ups. Yet, they were fatter than the average American, however less obese (a step up from fat).

Diving is a sport that heavy people can enjoy since they become weightless, provided they take it easy and don't get themselves into circumstances demanding hard work. Furthermore, the study says they don't visit the doctor often enough, and both toting heavy equipment out of the water and the possible stress of the unexpected underwater increases the risk of a cardiac event.

But, perhaps the big news of the DAN survey is that, compared to the general population, divers are more likely to be heavy drinkers, which carries its own physical risk.

Maybe that rule about the first drink of the day meaning you've done your last dive of the day should be extended to the first drink of the month?

Ranapurwala SI, Kucera KL, Denoble PJ (2018) The healthy diver: A cross-sectional survey to evaluate the health status of recreational scuba diver members of Divers Alert Network (DAN). PLoS ONE 13(3): e0194380.

<https://goo.gl/EWd8pR>

The dive shop -- a large covered three-sided building -- sits along the pathway running down to the water, across from the resort office, meeting room, and the well-equipped camera room with drying hoses. The shop, where they held pre-dive briefings, has a gigantic painted map with the dive sites numbered. There's plenty of space to hang wetsuits and BCDs, as well as individual cubbies. The hard-working crew loaded all the bangkas (small, traditional-styled outrigger dive boats, sometimes called bancas) or the larger (14m) 45-footer). To board, I took a short walk in knee-deep water to climb an easy ladder or ramp. At the dive site, it was a back-roll in, and a ladder climb out after handing-up my gear. I made nearly all of the four daily dives (two morning dives, beginning at 8:30, and two in the afternoon (we returned between dives for a bathroom break and cookies or muffins) and a night dive (viewing mandarin fish) was usually an option.



Atlantis Resort, Dumaguete

***Atlantis Dumaguete Resort,
Negros Island, Philippines***

Diving (Experienced).....★★★★★
Diving (Beginners).....★★★★★
SnorkelingN/A
Accommodations★★★★★
Food.....★★★★★
Services and attitude★★★★★
Money's worth★★★★★

★ = poor ★★★★★ = excellent

Worldwide scale

At Tes Talisay, I finned past low coral heads and an artificial reef with concrete barrels growing coral around them. Besides ornate ghost pipefish, I spotted stick pipefish, needle cuttlefish, two-inch dwarf cuttlefish (identifying blue spots on their fins), flamboyant cuttlefish, and a striking Kubaryana nudibranch. Looking closely, I saw slender crinoid shrimp on a same-color gorgonian. A six-inch (15cm) fingered dragonet blended well into the brown sand, as did the black-phase painted frogfish. Later on, at Punta, dragonets were courting, and the head of a Napoleon snake eel protruded from the sand, as swaying garden eels lifted from their burrows. Note that so far I've only mentioned critters and tropical fish: that's what you get here. No sharks, no big schools of jacks, no eagle rays. You come for the critters and the coral.

Each group of four divers had a divemaster, and my group included my traveling buddy and me, a couple from Taiwan, and sometimes a Shanghai diver. On my first dive, I felt rushed, so I spoke to the divemaster, hoping to repeat that dive at a slower pace. However, a French couple with us wanted a speedier dive, so the divemaster tried to accommodate all of us, which did not please anyone. So, they rearranged the groups with others who shared preferences. I became friends with the Shanghai diver, and once loaned him pesos on the bangka to buy T-shirts from local women who had paddled over. After thanking me, he said. "That's so American!"

Divemaster Warfi, an observant and helpful kind young man, was a masterful critter spotter who played traffic cop and had the photographers who wanted more time with shots go last. With so many critters, there was always another of interest nearby. However, those unable to overcome old habits queued anyway. I used a five-inch unobtrusive Paralenz camera for the first time, having never before taken photos during my thousand-plus dives. Having become frustrated when I couldn't identify something, I purchased this tube-shaped camera so I could ID critters later.



Jeepnee for airport trips

A 20-inch (50cm) peacock grouper slowly swam by, as well as marbled groupers, several species of sweetlips, and few moray eels.

We headed for the Apo Island trip on my third day, aboard a spacious 60-foot (18m) bangka, which has a marine head and cook-area (a resort chef came along to prepare a lunch of grilled meats and salads). The first dive was Rocky Point, with a stunning coverage of soft and hard corals as far as I could see, which was pretty far, given the visibility of 150 feet (45m). Large blue sea stars got my attention, as did a halimeda ghost pipefish, mating nembrotha, and a 12-inch (30cm) black giant frogfish perched on a sponge. Huge five-foot green sea turtles, many with attached remoras, frenetically rubbed their carapaces against sunken tree branches, probably scraping off small parasites, which scores of fish gobbled up. A few banded sea kraits -- those fascinating snakes -- hunted around the corals. This marine sanctuary was so awesome that I paid for a second trip.

On a drift dive at Mainit Point in one-to-two-knot current, I drifted over a large area of hot black sulfuric sand, a byproduct of nearby hot springs. Of course, I wanted to feel the heat, so I stuck my fingers in, withdrawing them too slowly to avoid burning their tips -- the skin later peeled. To get a reprieve from the current, I slipped behind a coral head, joining a two-foot star pufferfish with huge blue eyes doing the same. As I left my calm spot, a large school of barracuda swam by, and I flew past a black ornate ghost pipefish, which seemed to be hanging on to sea-grass for dear life.

In contrast, the next dive at Sahara had imperceptible current. Inside old and now open deteriorating fish traps, the fish looked as if they were posing. Yellow snappers schooled around beautiful coral heads.

The Lesson Of Walden Pond Or Why Not To Pee Underwater

While most divers think nothing of emptying their bladders, maybe we need to rethink that for the sake of the environment, at least if we're diving in landlocked areas, like cenotes, quarries or lakes.

You see, Walden Pond is no longer the clear, pristine pond that it was when Henry David Thoreau published *Walden: or Life in The Woods*, back in 1954. And it's swimmers' pee that has adulterated it.

According to researchers from Paul Smith's College in New York, the combination of climate change and human urine has drastically altered Massachusetts' Pond's chemistry since the 1920s, when hundreds of swimmers began showing up. Phytoplankton populations began increasing, resulting in murkier, greener waters. Phosphorus and nitrogen are necessary for phytoplankton to survive, and researchers say, "More than

half of the summer phosphorus budget of the lake may now be attributable to urine released by swimmers." In fact, *Yankee Magazine* reported in 2008 that Walden was thought to be among the most urine-filled of all of Massachusetts' 1,100 lakes and ponds.

Today, thousands of tourists and swimmers enter the water, and more urine in the lake means more phytoplankton, which in turn means a cloudier and cloudier Walden. If photosynthesizing plants at the bottom of the pond can't get enough sunlight, they will die; theoretically, the small organisms that feed on those plants would die next, and so on up the food chain.

For divers concerned about protecting their watery environment, there's something to think about here.

— From an article in *Live Science*, by *Brandon Specktor*, Senior Writer

A half hour into our second trip, the engine in their 45-foot (14m) banca made a strange grating noise and stopped. After an inspection, the crew radioed the resort, and 30 minutes later, we limped into Apo. Another banca arrived, and after our third dive, the crew tied the two together and we headed home, arriving just an hour later than the usual 3:30.

By then, I was ready for a shower, a drink and dinner. The covered open-air dining area and bar are just off the beach, making for welcome breezes in the humid 85-90°F (29-32°C) air. A courteous staff served all the meals. Dinner entrée examples included Szechwan chicken, pork tenderloin stuffed with feta cheese, prawns, and sautéed mixed vegetables in peanut sauce. I liked the desserts, especially their homemade ice creams and sorbets and a yummy citrus tart. They baked their own breads daily. Chef Cath was very accommodating and made a tasty sandwich with my leftover beef tenderloin for the next day.

Breakfasts included eggs, bacon, sausage, cereal with yogurt, breakfast burritos, pancakes, waffles, French toast, even a BLT, as well as fresh fruit, including mangoes, and juice for openers. Lunch, and dinner offered plenty of choices, always listed on chalkboards. For example, one day's lunch entrees were pork adobo with rice, chicken scaloppini, fish fingers with French fries, or penne pumpkin pasta. While the food was carefully prepared and varied, I found it under-spiced and a little flavorless. I wondered if this reflected British cuisine or if they were dumming down local food for North Americans. To be a first-class kitchen, they need to reconsider their flavor enhancements.

If you've never seen a ghost pipefish or frogfish -- or want to see one every dive -- then Dumaguete is for you. If you get bored with small creatures and want corals, at the end of the dive, you'll have them. If you want abundant soft and hard corals, Apo Island is only a 40-minute banca ride away. Five years ago, when I dived Tubataha on their liveaboard Atlantis Azores, Capt. Randy Wright showed us his photos and videos of Dumaguete. I thought it was marketing exaggeration. It wasn't. I was stunned at the offerings, and I'm now sorry that I waited five years to get here! But wait. I thought there would be more nudibranchs, but I only saw a smattering of Chromodoris, nembrotha, and phyllidia. But why complain! American co-owner Gordon Strahan told me that at their other resort, Puerto Galera on Mindoro, there are nudibranchs aplenty, so next time I visit Dumaguete, I'll make a stop there as well.

-J.D.

Our Undercover Diver's Bio: I began diving 15 years ago, quickly becoming obsessed with observing fish and critter behavior . A thousand dives later, with plenty of time to burn, I've made half my dives in the Caribbean and the remainder mostly in Indonesia, Philippines, Japan, Palau, Papua New Guinea, the Solomon Islands and Turkey. Using the excuse of absorbing local culture, I've drunk kava in Fiji, penis soup in PNG, and spat betelnut juice in Palau. I'm convinced it helped my fish ID skills in those regions.



Divers Compass. My nine-night stay at the resort totaled \$3,478, single occupancy, paid with credit card with no fees ... My package included accommodations for a single, all meals, snacks, internet access, five dives a day, one day trip to Apo, and the round trip from Manila to Dumaguete on Cebu Pacific Airlines ... My extras were \$1000 of that: nitrox, marine park fees, an extra Apo Island trip, massages, bottles of wine, and three nights at the Belmont Hotel in Manila (just a sky-walk away above crowded lanes of traffic between terminal three, for our domestic Cebu Pacific flights and access to our hotel and a few blocks' walk to good restaurants [and a casino] ... I did not know that tips had to be paid in cash only, and had to borrow from my buddy ... A resort shop sells T-shirts, dive lights, dry bags, etc. www.atlantishotel.com <https://www.belmonthotelmanila.com>

When Diving in the Maldives Disappoints

the right information guides expectations

Brought up on a diet of *National Geographic*, I was once thrilled to travel to Borneo to photograph the last surviving headhunter (now retired). I was disappointed to find an elderly gentleman, heav-

He wished he'd known how bad the coral bleaching was

ily bespectacled, neatly groomed and wearing a brown lounge suit. Times change, and with them, so should our expectations.

The Maldives once featured spectacular coral banks that went on without end and continued from near the surface to more than 100 feet (30m) deep. When I visited in early 1998, visibility was unexpectedly poor. By the middle of the year, the colorful coral banks had transformed into dramatic white constructions akin to an Italian wedding cake. They

had been subjected to a mass bleaching. By the fall of that year, it had all turned to rubble. I worried that my best friends, who had just invested in their own liveaboard, might go broke.

However, circumstances changed, and the broken reefs became inhabited by hordes of algae-eaters like redtooth triggerfish, and their predators like sharks. Diving changed with it, and the better dive sites became the mouths of the channels or 'kandus' between the 'thillas' (reefs) where divers could hook on in the current and watch the show.

Although there has been a certain amount of coral recovery in some places, normally where the current is strongest, the expectation that you can visit the Maldives for relaxing diving on pretty reefs is 20 years out of date.

In those days, those spectacular reefs were the source of many wonderful underwater photographs, and many of those shots have survived. Some tour

Phone For Your Deco Too?

Who would have thought a couple of decades ago, that we'd one day have a device in our pockets that could access all the information about any subject in the world? What we now call a phone is far more than that — and with phenomenal computing power.

The smartphones have killed the compact camera market because they can take great snapshots. So to a diver, it should be no surprise that an enterprising entrepreneur has coupled a smartphone with a depth-sensor, too, which, with the right app, can also replace the diving computer.

Now, you can put your smartphone in an underwater housing, and not only can you take photos on a dive, but you can also manage your decompression obligation. Like many diving computers, with the app provided, your phone can use the Bühlmann ZHL-16C algorithm just like the latest offerings from Aqualung and Oceanic.

"Wait a minute," I hear you say. "My phone has my whole life on it. I'm not going to risk flooding it."

Not to worry. While there are many underwater phone housings available, the Weefine Smart Pro housing has a built-in vacuum leak-test, just like a housing for an expensive DSLR or video camera. Before you get

wet, you can test its watertight seal using non-destructive air. A green light is good — a red light means it will leak, and so don't dive.

There is a limitation: it may need to be combined with good video-type lighting. So far, you see, it's not possible to harness the phone's in-built flash to fire an off-board strobe — but surely that day will come.

We haven't tried one yet underwater, but it seems to tick all the other boxes, including the option to fit additional fish-eye or macro lenses. With ever-more-demanding restrictions on what you can carry on a plane, not only weight, this might also be the answer for the world-traveling diver.

Marketed under the Kraken Sports brand in North America, the Chinese-made Weefine houses iPhones and most Android phones. Be aware that the third-party diving computer software is downloaded by scanning a key provided by Weefine and may not yet be available from Kraken. It is depth-rated to 260 feet (80m) and costs around \$400. For reasons of safety (it's always possible you might lose your hand-held phone during a dive despite its wrist lanyard), we suggest that you carry a second diving computer that uses the same deco algorithm to back it up.

operators and even magazines still publish them, mistakenly propagating the wrong idea about diving in the Maldives.

Lawrence Babcock of the Aquatech Scuba Center (Evansville, IN) fell into the trap of misinformation when he booked a trip for a group through Explorer Ventures. He told *Undercurrent* he'd booked the trip two years in advance and explained to the booking agent that he knew nothing about the Maldives: When was the best time to go and when would they see the most fish? He asked directly if they'd be sure to see mantas and whale sharks. They told him, he said, that there had been some mild coral bleaching.

Once there, he had no qualms about the vessel, *Carpe Vita*. The food was awesome, and the cabins were spacious. But, he wished he'd known how bad the coral bleaching had been. A lot of the dive sites were nothing more than rubble. "It looked like a bomb had gone off."

To add insult to injury, when they ventured to the marine park south of Ari Atoll, famous for mantas and whale sharks, they were surrounded by boats full of snorkelers. And, the mantas had moved on, as they often do from that area once the currents of the dry Southwest monsoon drop. (The best time to see mantas at the cleaning stations here is from January through the end of March when the ocean currents are at their strongest, and the diving can be quite arduous.)

Lawrence's group was unlucky to be at the end of that season when the winds start to change direction, bringing wetter weather from the Northeast, and the mantas congregate at sites such as Hanifaru, a long way from where they were (and subject of an article in April's *Undercurrent*). That said, it's always difficult to predict the appearance of pelagic creatures.

Relying on Explorer Ventures, Lawrence had unintentionally mis-sold the trip to 20 enthusiastic customers, and he wished that he'd received better information from them about the destruction of the reefs. Aquatech Scuba Center has a large travel business, and at least half his passengers were unhappy with the condition of the reefs.

But, the Maldives cover a lot of territory, seasons change, fish swim, and *Undercurrent* subscriber Gerald Canning (Cape Coral, FL) had a different story to tell of his April trip to the atolls south of Male aboard the *Carpe Diem*. The primary focus was large animals, and they spent at least two hours underwater with many manta rays that were consistently coming close enough to touch.

His group saw lots of gray reef sharks and whitetip reef sharks, with smaller numbers of tawny nurse sharks and blacktip reef sharks (*Carcharhinus melanopterus*), but only saw one whale shark.

And, he also observed that the diving dhoni that operated alongside the main vessel was far more comfortable than any day boat he'd ever been on.

Another Non-Native Species in Florida

Lad Akins, founder of the REEF (Reef Environmental Education Foundation), reports that divers from REEF and Eckerd College spotted a non-native orangespine unicorn fish, a popular aquarium fish native to the Indo-Pacific, while diving off Key Largo, FL, during early June. A rapid response team from REEF and the Phillip and Patricia Frost Museum of Science located and captured the fish at Molasses Reef. It's the fourth member of that species recorded in U.S. waters.

A month earlier, divers at Fort Lauderdale had live-captured a non-native Picasso triggerfish, first spotted by a snorkeler off Sunrise Blvd. A team from REEF and Frost Science spent two days locating and removing the elusive fish.

It was the second Picasso triggerfish recorded in U.S. waters, the ninth non-native marine fish removed through REEF's Early Detection/Rapid Response program and the 37th nonnative marine fish species documented in Florida.

Akins said, "When non-native fish are introduced into places [to which] they have not evolved, they have the potential to cause negative impacts. If we don't react quickly and wait to see what those impacts might be, we miss the opportunity for prevention."

The lionfish problem serves to remind us of the danger of non-native species, which are probably released into the ocean by well-intentioned but naïve aquarium owners.

If you spot a non-native marine fish species, immediately submit a report on REEF's online Exotic Species Sightings Form, which can be accessed at <http://www.REEF.org/programs/exotic/report>

Scuba Diving Can Be Hazardous to Your Health

the unseen enemy but just as deadly

Competitive free diver Julia Wheeler, 31 was recently training off the coast of Bali when fellow diver, Trista Fontana, spotted tons of plastic garbage drifting toward them. When the video got posted on the internet, social media went wild. And so it should.

Besides the hazard to marine animals that mistake discarded plastic items for food, much of the plastic will contain the dregs of previous contents: not just human food, but even blood, urine, and chemical contaminants.

People have been discarding their unwanted garbage in the sea for centuries. If you were to dive among the antiquities being discovered in Alexandria harbor by Frank Goddio, you'd be well advised to wear a drysuit and a full-face scuba mask, such is the level of pollution.

The same can be said of much of the ocean, thanks to the growing world population. Last month, *Undercurrent* noted the risk of infection while diving Indonesia's Lembah Strait, but this is not a problem unique to Lembah, and in many tropical areas, the various pathogens encountered can be more virulent.

In 2015, one of *Undercurrent's* travel writers wrote of a trip in the Philippines, "Not everything goes well for everyone on a dive trip, unfortunately. A serious and skilled photographer in my group lost

several diving days when his wife inadvertently poked him in his (one good) eye. It became infected, and after seeing a local doctor, he stayed in his darkened cottage for the next three days."

Paul Duxfield (Yorkshire, UK), a one-time dive guide and now teaching underwater photography, was less lucky. He cut his finger trying to break a stray thread from the stitching on his wetsuit. It became infected, and eventually, he had it amputated.

Way back in 2009, Ernest Campbell, MD, writing as "Scubadoc" (www.scuba-doc.com), raised awareness of the variety of bacterial hazards we divers should be aware of: enterobacteria, dysentery inducing shigella, salmonella, klebsiella responsible for rhinitis and respiratory infections and actinomyces (leading to sepsis and liver damage). The list goes on and includes viruses, parasites and noxious chemicals from the thousands of spills each year.

The opportunity for infection can be insidious. In September 2008, *Undercurrent* published an article regarding pathogens in freshwater rinse tanks. When 13 people suffered conjunctivitis the

same week in Fiji, the cause was tracked down to one infected local individual who had rinsed his mask in the rinse tanks of both the boats they were using. As for staying clear of the likes of conjunctivitis, the best thing to do is to rinse your mask separately and avoid communal buckets.

This March, *GMA News* reported that the Philippines Department of the Environment and Natural Resources had found that Coron Bay, a major tourist attraction in Palawan, was "swarming with a high amount of bacteria found in human

Will You Be the One to Submit Our 10,000th Reader's Report?

At the time of writing, our subscribers have submitted 9,969 independent on-line reader reports. That means it's only 31 more to the magic 10,000. Are you going to be the diver who logs that crucial one? If you are, and only our webmaster will know for sure, you will win a two-year extension of your *Undercurrent* subscription and an autographed copy of KL Smith's scuba thriller, *Tropical Ice*. And, we'll mention your name in *Undercurrent* too.

Resorts and liveaboard operators that aren't performing well don't like it, but your honest appraisals of dive trips are unique in the diving media and form the backbone of what *Undercurrent* has to offer. Sharing your experiences and reporting the good and the bad gives your fellow divers an honest view of what they may expect. And, we've even made it easier for you to file a report using the [online form here](https://goo.gl/AtsJbK). [<https://goo.gl/AtsJbK>]

No Side-Mount Tanks on Aggressors?

Side-mounting tanks for sport diving is becoming popular. Just as a technical diver might side-mount his travel and deco gasses, the sport diver can sling a tank (or two) clipped to the D-rings of his BC so that it lies alongside instead of wearing it on his back. There are even BC rigs specially designed for side-mounting.

You need to be able to strap a clip to both the neck and the body of a tank, and these clip systems are available in dive stores and included with purpose-designed side-mount rigs. You might need a different-length hose for the regulator.

Favorite with cave divers, because they also have easy access to the tank valves when underwater, the side-mounted tank offers great comfort advantages. It means that instead of staggering around on a rolling deck with a heavy tank on your back, prior to getting in the water, you hitch it on at the last moment. Similarly, it makes skiff rides more comfortable because you only clip on the tank immediately before rolling in. This can appeal to many older divers or others who have difficulty maneuvering.

Some, who have never dived with two tanks, have even taken to side-mounting two tanks, one either side, if the dive demands it.



This side-mount option was chosen by Richard Mertz and his wife (Mount Pleasant, SC) when they joined the *MV Turks & Caicos Aggressor* in April of this year. They had some good things to say, such as the food being good and seeing sharks on every dive. They thought the reefs to be in less-than-good shape, visibility disappointing and the ratio of a single divemaster to 18 passengers, poor.

However, they were shocked to discover they were not allowed to use their side-mount rigs, even with a single tank, and were required to use Aggressor rental BCs and regulators. If they'd known beforehand, they said they would have taken their backplates and wing configurations.

Why the Aggressor captain would not allow them to use their side-mounted rigs is a mystery to us, just as it was to Mertz. In fact, she became more irritated when she discovered at the end of the trip that, according to the Aggressor website, single side-mounts were entirely permissible.

When this was pointed out to Captain Amanda, the couple were credited with their Nitrox fee in recompense.

If you want to use any equipment other than a standard back-mounted rig and BC on an Aggressor, best get it in writing before you go.

feces and other forms of coliform due to wastewater being discharged directly from hotels and restaurants.”

In April, President Duterte of the Philippines closed the island of Boracay to tourism completely for six months, saying it was turning into a cesspool. The island is home to 500 tourism-related businesses, but the shut-down follows growing concern over the island's environmental health. Duterte accused hotels and restaurants of dumping sewage directly into the surrounding waters.

In a comprehensive paper¹, James H. Diaz, MD, states, “Many species of bacteria, especially *Staphylococcus aureus* and *Streptococcus* species, have been isolated from marine wounds and commonly cause impetigo, pyoderma, and erysipelas.

“Travelers with well-known risk factors for the increasing severity of marine infections, including those with open wounds, suppressed immune

systems, liver disease, alcoholism, hemochromatosis, hematological disease, diabetes, chronic renal disease, acquired immunodeficiency syndrome, and cancer, should be cautioned about the risks of marine infections through exposures to marine animals, seawater, — and the accidental ingestion of seawater.”

Traveling with a single broad-spectrum antibiotic may not be sufficient, and one may need a specific antibiotic to treat a specific infection. So, should you develop an infection, seek out a skilled medical practitioner. Meanwhile, keep your regulator in your mouth, your mask on your face and treat any skin abrasions with antiseptic.

So, if you're diving in tropical water, what should you do?

Peter J. Denoble, Vice President Mission, DAN, offered the following advice: “External ear infections are a hazard in warm tropical waters world-

wide, infection of cuts and scrapes, or eye-pokes are also widespread. Walking on the beach and wading the shallow waters carries risk of infection, not only abroad, but also on USA mainland beaches. The hazard of infections increases with the denser population as well as with a lack of sanitation. The main message should be that protection from cuts and scrapes, as well as protection of eyes and all mucosa, ingestion or inhalation of water, should be a second nature of divers (and swimmers)."

Also keep up to date on vaccinations: Hepatitis A and B, cholera, polio, typhoid, smallpox

Diphtheria, and Tetanus. If the water looks polluted or full of trash, avoid entering. Avoid taking out your regulator or removing your mask until you can rinse them — and yourself — in clean, fresh water. The same goes for all your life-support gear. If you get ill, the symptoms can take time to appear; be sure the medics understand that you may have been submerged in polluted water.

(¹ Diaz, J. H. (2014), *Skin and Soft Tissue Infections Following Marine Injuries and Exposures in Travelers*. *J Travel Med*, 21: 207–213. doi:10.1111/jtm.12115)

Diving Computer Algorithms Are Important

and you should be on the same page as your buddy

Tom Roos (London, UK) writes: "In May, in your article 'Things Are Not Always As They Seem,' you raise the safety aspect of dive computers giving significantly different no-deco times. I have been grappling with this for a while and thought I'd share my experience."

"On a dive trip to French Polynesia, my wife and I dove Suunto computers using the RGBM algorithm, while other divers had computers with more 'conventional' algorithms. As a result, we faced much longer decompression times at the end of dives. The RGBM algorithm is particularly punitive on repeat 'deep' dives after relatively short surface intervals."

"For example, on the second dive of the day to 100 feet (30m), after a surface interval a little longer than one hour, we required a deco stop 25 minutes more than other divers in the group. The diving conditions in French Polynesia mean that you can't just adjust your profile: you're often diving atoll passes in five-knot currents, and the instructions are to get down, find shelter in a gully on the bottom of the pass, hang on to the rocks and watch the show. Ending up with much longer deco times than everybody else in this situation is not safer. In fact, the opposite is true."

"To make an analogy, driving 40 mph on a highway is safer than driving 60 mph if you're the only car on the road. But if everyone else is going 60 mph, driving 40 mph is neither safer for you nor for anyone else. We ended up diving according to our-25-year-old Suunto Companions instead of our newer models."

"The diving industry needs to sort this out. If RGBM really provides a significant reduction in cases of DCS for non-high-risk individuals, it should be adopted universally (which would force a change in diving practice in many areas). If not, computers should at least be offered with dual algorithms. I would be keen to hear what experts in the field have to say."

Undercurrent Senior Editor John Bantin replies:

Computer manufacturers continue increasing the safety to their algorithms. The RGBM algorithms created by Bruce Wienke are becoming more common, with Suunto, Atomic Aquatics, Cressi and Mares using approximations of the algorithms. Modern Scubapro and Aqualung computer use similar algorithms. Other independent computer manufacturers opt for versions of the Swiss Bühlmann ZH-16 algorithm, which are freely available in the public domain.

Pelagic computers (Oceanic, Aeris, and clones thereof) originally used the older and very different DSAT algorithm. Oceanic sold a lot of these in the U.S. before it got into financial difficulty, so divers are still using them. The later models were indeed equipped with dual algorithms. (If you ask Bob Hollis, you'll discover I had a hand in that.) However, few users bothered to read the instructions and discover the option.

Later Oceanic models have both the old DSAT and the newer Pelagic+ algorithms available. The Pelagic+ is akin to a Bühlmann ZH.

Eventually, those old Pelagic DSAT computers (Oceanic, Aeris, and other clones) will be no more as they get replaced by newer models.

In the meantime, Tom, the problem you identify will continue. It should be up to dive operators and those organizing group dives to ensure that everyone in the group dives at least with a similar algorithm set.

Huish, the company that also markets Atomic Aquatics and Suunto computers (in North America), has recently brought Oceanic computers

back to the market, and they look remarkably like Aqualung models, which are now using the proprietary Pelagic Z+ (PZ+) algorithm, which is based on the Bühlmann ZHL-16C algorithm.

Gradually, all modern computer algorithm writers are converging toward similar results to those with the RGBM algorithm for sport divers. The Reduced Gradient Bubble Model algorithm takes into account the possibility of subclinical DCS, and is, therefore, thought to be safer, especially for divers making repetitive daily dives.

Unvarnished Truth Can Hurt But It's Still the Truth

A young ad agency art director, working on film on location in the Caribbean, said, “Look at that azure sky. Look at that idyllic white beach. Look at the palm fronds rustling in the breeze. Paradise. Why does it hurt?”

He was referring to the sunburn. Reality is inevitably imperfect.

I can understand why the people with dive operations at Lembah were upset about a recent article in *Undercurrent* written by John Bantin suggesting divers should avoid taking off their masks underwater to avoid eye infections — just as I can understand dive operators in Bali not liking the fact that *Undercurrent* gave the oxygen of publicity to the crisis of plastic pollution affecting some dive sites there.

Similarly, dive shops in Florida probably wished that NOAA Florida Keys National Marine Sanctuary kept quiet and not warned about the seasonal sea itch caused by the larvae of thimble jellyfish; just as businesses in Honduras would like the no-see-um irritation hushed up; just as dive operators in north Queensland would like the dangers of Irukandji jellyfish kept quiet. Dive operators in Raja Ampat probably despaired at the story we wrote about diver David Shem-Tov being grabbed by a saltwater crocodile there several years ago.

The Maldives has suffered from extensive coral bleaching — so much so that they've altered the sort of diving they do there. Two tiger shark attacks in Cocos, one fatal, surely haven't helped promote trips there. Dive operators in Tobago would probably prefer that the government's warning about the great number of ISIS fighters returning to their homes in Trinidad and Tobago was kept quiet. And surely, dive operators from Playa del Carmen and Cozumel didn't appreciate the reports of bombs planted on the ferries that travel between the two ports this winter. The list goes on ...

None of these problems is under direct control of

the dive businesses, but they'd all like them hushed up if they affect their business. That's only natural.

Of course, some events have an immediate link to the people concerned. Losing divers at sea can be without blame (although not always), just as boats catching fire or sinking aren't planned by their operators and usually represent a business disaster. Should *Undercurrent* keep quiet about such events? Though at times we're asked to, we won't. Our obligation is to you, our subscribers.

Hurricanes and other natural disasters can upset plans, and it's usually how a business coped with the after-effects that counts. A dive boat that kills a diver can obviously have blame attributed.

Undercurrent works hard to give a balanced view on injustices often engendered by social media, where a lynch-mob mentality is frequently apparent. Even then, those involved as victims can rail against it, seeing yet another unwanted highlight of something they wished would simply go away.

Everyone wants to promote their businesses with absolutely no negative press. But where does promoting the positive aspects of a location or service end and hiding the downsides begin to be wrong?

Undercurrent is in the business of the unvarnished truth. We try to tell both what is good and what is bad about a place. Business owners can kick and scream as much as they like, but they'll need to give their attention to the glossy dive magazines that have a policy that, if there's nothing good to say, say nothing at all. They need advertising revenue for their business model.

Undercurrent is paid for by subscribers who appreciate a balanced view. We'll continue doing what we do for as long as there are subscribers who want to read and support us.

— Ben Davison, Founder and Publisher

More Tiger Trouble in Cocos

getting to grips with a troublesome shark

On April 28th, a 30-year-old German diver had a lucky escape after being harassed by a tiger shark near Manuelita Island, Isla del Cocos, Costa Rica.

Details are slowly in coming, but Avi Klapfer, owner of the *MV Argo* and the *MV Seahunter*, has information from those who witnessed events, which happened during a dive from the *MV Okeanos Aggressor I*. He tells *Undercurrent* that the diver had separated from his group and was waiting to be picked up at the surface by a panga (skiff). He'd already slipped out of his BC and tank when the tiger shark grabbed it from him. The diver was shaken but unhurt.

If you are grabbed by a tiger, stay as passive as possible. It will probably let you go.

Klapfer told *Undercurrent*, "We were not present, [but] we did recover the gear the next trip. It shows a definite shark tooth rip but was in no way shredded. It looks more like an investigating bite, which is not a small matter whatsoever. We do look at it as a valid attack."

"We are following this strange behavior of what seems like one individual female shark around Manuelita and Chatham Bay. She tends to investigate divers on or near the surface. She is slow, investigative and not quick to approach."

Klapfer continues, "On our side, we [have] increased training for our dive guides. We descend and ascend as a group and keep a vigilant eye on it. Our divemasters are briefed and equipped to deal with any aggressive event if necessary."

Deirdre Boyle and Cynthia Flynn (Wilmington, DE) wrote to say they had witnessed a similarly close encounter during their trip on *MV Argo* in April. Boyle also told *Undercurrent* about a close encounter another group had in December.

Some might dismiss this as of little consequence. Others might see a pattern emerging, since last November, an American diver, Rohina Bhandari, died after she was severely bitten by a similar tiger shark at the same location (*Undercurrent* January

2018). This is the sixth confirmed unprovoked shark attack in Costa Rican waters since records began.

David Shem-Tov (London, UK), a repeat visitor to Cocos and someone who has had a close call with a saltwater crocodile (*Undercurrent* August 2009), writes, "The thought weighing on my mind if this continues, is which is worse: The destruction of the tiger shark, providing it is just one responsible for these attacks, or the effective ending of recreational diving in Cocos, which would

Oxygen Analyzers – What's New?

Richard Heath (Murrells's Inlet, SC) recently asked *Undercurrent*, "Now that I have been certified for nitrox use, I was going through the products you reviewed and was wondering if you had any preferred O₂ Analyzers not mentioned a couple of years ago?"

John Bantin, our senior editor, replies.

Of course, knowing the oxygen content of the gas you are breathing is essential to every nitrox diver. Oxygen analyzers are relatively simple affairs with the galvanic O₂ sensing cell being the most crucial part — and the most expensive. It needs replacing periodically, probably every two years.

Because of the expense — well over \$200 — divers are buying fewer O₂ analyzers than expected. In fact, most divers simply use the unit provided by their dive resort, liveaboard or dive store.

We published our original review of O₂ analyzers in February 2009. Of course, many are no longer available. However, the more popular models such as the Analox, Vandagraph, and Nuair are still on the market and more or less unchanged in design. They're price upward from \$250.

The least expensive recommended model is the NRC O₂ analyzer, which you can find for as little as \$150. <https://goo.gl/RRq1RP>

lead to the probable unsustainability of the already marginal marine protection program in Cocos by the Costa Rican authorities due to loss of income/incentives?”

I first reported on tiger sharks at Cocos while testing a new rebreather there in 2013. It’s important not to take your eyes off them. Although they appear to move ponderously, they’re sneaky, and it gets difficult when there are more than one of them.

Several times at Tiger Beach in the Bahamas, I’ve had to push an impressive yet persistent tiger shark away from me, because it was simply getting too close. I was surprised to find that they felt quite squidgy in places, especially behind the gill-slits.

I felt strangely detached when a huge tiger shark, 18 feet (5.5m) long, grabbed my tank and swam off with me. In fact, it happened twice on the same dive in February 2013, and I had started to think that my luck was running out.

A tiger seemed to have developed a predilection for camera rigs and other metal objects. My problem was that the animal took my tank while I was still wearing it. What do you do when a huge fish with teeth grabs you? Well, there’s not much you can do.

I remained as passive as possible and waited for

it to lose interest. I knew that to struggle would put me in conflict with those razor-sharp teeth. Those other divers who witnessed it preferred to stay out of the water for the next dive. You can read the full story in my book, *Shark Bytes* (available on *Amazon*).

If you are grabbed by a tiger, stay as passive as possible. It will probably let you go.

Recently *Undersea Hunter* added this announcement to its website: “Since December 2017, *Undersea Hunter* has taken all precautions to avoid any kind of incident with sharks at Cocos. We have implemented several new procedures to enhance the safety of all our passengers, including: having all our divers enter and exit the water together; increased training for the dive guides; equipping our dive guides with specially constructed aluminum sticks that can deter close encounters if necessary.”

“Prior to December 2017, the Cocos Island National Parks Department did not allow the use of any kind of defense stick, and furthermore, in the history of diving at Cocos Island, there had never been any kind of shark incident [before].”

“We strongly believe that by following the above procedures, any kind of serious incident with sharks can be avoided. This is a reminder to all visitors to Cocos Island how important it is to follow the safety guidelines of dive guides at all times.”

—*John Bantin*

Flotsam & Jetsam

Great White Shocker on First Florida Keys Dive. Cody Wabiszewski was making his first dive beyond 60 feet (18m) on the wreck of the *Thunderbolt*, off Marathon in the Florida Keys, when a great white shark swam by, surrounded by amberjacks, African pompano, and a huge cobia. He and his group did not panic, but marveled at the sight. “When looking at the shark, it is amazing, unbelievable, and freaking awesome, so you are not scared,” Wabiszewski told *FOX 13 News*. The group made a second dive hoping to see it again. <https://www.youtube.com/watch?v=ijbR91ulpGk>

Chinese Tourists like Palau. Doesn’t seem that long ago that the only visitors annually to Palau were a few thousand North American scuba divers.

Last year, however, 122,050 visitors arrived, with Japan, China, and South Korea as the top three sources. These days, there are direct flights from Taipei and Japan, while American flights hop, skip and jump.

Another Irrelevant World Record or Two. Cem Karabay, a Turkish diver, set a Guinness World Record for the longest ocean dive in cold water on April 24 at Gökçeada, Turkey. He stayed submerged for 30 hours and 20 minutes. American Lindsay Scott set a shorter Guinness Record for the fastest time to put on and take off a wetsuit: 43.13 seconds. (Does anyone care?) Can you think of another scuba diving record that might be set? What about the most weight worn by a neutrally buoyant

snorkeler? Or the fastest time to breathe down an 80 cu ft. (10-liter 230bar) scuba tank using a regulator? Send us your ideas.

Sea & Sea YS-D2 Strobe Failures. Four have failed Michael J. Millet (Dublin, CA), so he wrote to *Undercurrent* complaining about the lack of reliability. He owned the black Chinese-made models, which are no longer being produced because Sea and Sea has switched production back to Japan, and the new model is colored yellow. It is difficult to say what causes it, but the retreat back to production in Japan appears to have solved the problem. A tip: whatever strobe you use, avoid the higher amperage rechargeable AA batteries (2200mAh or more), which might produce enough heat to damage the unit.

Lionfish Go Deep. An Inspiration rebreather diver has logged his deepest lionfish kill. DiveTech's Drew McArthur culled a lionfish 340 feet (104m) deep in Grand Cayman waters. With divers seeing fewer lionfish on the reefs, some believe that they are living deeper, but McArthur says that's not what he's seeing down there. But they are easier to spear because they are not accustomed to seeing humans. McArthur told *Cayman 27* that his catch was not particularly big. Good news, but it does mean the intruder will never be eradicated.

I'd Never Do That Again. Recently, Northern Ireland's *Belfast Telegraph* wrote about a Reddit post that asked: "What's something you tried once, then immediately decided 'NOPE!' for the rest of your life?" We can understand most of the nine "winners," like sky diving, bungee jumping, or smoking cigarettes. But scuba diving was on the list as well, right alongside eating Crisco out of the can (looks like marshmallow crème) or tasting earwax. No doubt, the readers of *Undercurrent* would rather eat Crisco long before they would give up scuba diving.

Whale Shark Code of Practice. To counteract the effects of undisciplined snorkelers in the Marine Protected Area of Maldives South Ari Atoll, the environmental protection agency has published a video to teach visitors how to respect the animal, and it would sure be useful in similar places such as Holbox, the Philippines and elsewhere. You can see the video here: vimeo.com/148616963

A New Smartphone App to Save Florida's Reefs. If you're an underwater photographer, you can collect data to help save Florida's reefs by monitoring the health of coral clusters that the Coral Restoration Foundation has been growing in offshore nurseries. The app will teach you how to spot the differences between living and dead corals and identify whether corals have grown or fused together. You simply take photos and transfer them to your phone before submitting them with information you gathered. www.coralrestoration.org/citizen-scientist

The Most Valuable Treasure Ever Found. An underwater autonomous vehicle, Remus 6000, operated by the *Woods Hole Oceanographic Institute*, has discovered a Spanish galleon, the *San Jose*, laden with \$15 billion of gold, silver, and emeralds off Colombia, in the Caribbean. The 62-gun three-masted vessel sank in 1708 during a battle with Royal Navy ships. The location of the treasure, found three years ago, remains a Colombian state secret.

Shellfish with a Drug Problem. As more American communities battle with opioid addiction, Washington State scientists have found evidence that the drug's impact has flowed downstream. Mussels from the waters off Seattle in Puget Sound are testing positive for oxycodone.

undercurrent

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