

undercurrent

The Private, Exclusive Guide for Serious Divers

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Atlantis Azores, Philippines

fantastic liveaboard but only fair diving at Tubbataha Reef

IN THIS ISSUE:

Atlantis Azores, Philippines	1
Why You Need <i>Undercurrent</i> . . .	5
How Much Post-Dive Activity is Too Much	6
Bahamas Sharks Threatened by Asian Appetites	7
Is the Lionfish Really a Threat?	8
Round 'Em Up: Lionfish Derbies	9
Wakatobi Coral is Fine, But Elsewhere, Not So Much	10
Trip-Ruining Divemasters	11
Diving with Erectile Dysfunction	12
Guaranteed to Travel Light: Two BC Comparisons	14

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Dear Fellow Diver:

When the captain opened the dive deck of the 107-foot-long Atlantis Azores, it was time to see whether diving on the remote Tubbataha Reef would live up to its billing. After our 12-hour, open ocean steam from Puerto Princesa, we had anchored for the night on the southern end of the North atoll. Scott, our boyish, stocky American captain, explained that this would provide more shelter than the South atoll from the prevailing winds and chop. It was time to dive.

I'd chosen this itinerary because of the promise it held to see lots of big stuff. There wasn't a lot of information to be found on Tubbataha before I booked the trip. No entries in Undercurrent (I should have seen that as a warning), but glowing reviews on TripAdvisor.com, in Asian Diver and a website called "Dive Happy" described squadrons of sharks, jacks and possibly manta rays. So after backrolling off the skiff with the five other divers on board, I descended down the steep wall known as Amos (AH-moce) looking for that big stuff. Well, there was big stuff all right, but not what I was hoping for. Huge sea fans and even larger barrel sponges sprang from the wall but their effect was diminished by the sparseness of healthy corals and large fields of dead, broken, branching coral. It looked like a monochrome beige ghost town. "Well," I thought, "it's a check-out dive, so chalk it up."

But dive two, on another section of Amos, was much the same: big sponges and coral, with the addition of small numbers of typical Pacific denizens like Moorish Idols, butterflyfish and triggerfish, and more fields of broken corals. By the time I surfaced after our



Atlantis Azores



third dive (we did four to five dives a day), from a site called Wall Street, I was concerned. You guessed it: fields of dead corals. I did spot a couple of small white-tip sharks but not the thriving schools I'd expected. I posed next to a few sponges for staff photographer Randy, but because I'd taken plenty of sponge and fan shots already and there was not a single anemone fish to capture on my Nikon, I was frustrated.

Dive four, at Southpark, sent me into near depression. The only diversion was an eagle ray off in the blue. Back on the skiff, when our divemaster, Jess, asked the typical "Good dive?" I answered, "Nope. I have to be honest, I'm pretty disappointed." Jess just looked down at his feet.

But I certainly had no complaints about the boat. The Atlantis Azores, built in 1989 and refitted in 2005, is operated by the folks who run the two Atlantis resorts in the Philippines, at Puerto Galera and Dumaguete. This was my eighth liveaboard trip, and I found the Atlantis to be

among the best. It's spotless; every inch of carpeting looks brand new and covers not only the floors but also the walls of the cabins and the salon. There's abundant oak wood paneling, window trim and balustrades.

My cabin, #6, is a bit tight for double occupancy but plenty roomy for me. Beautifully appointed with flawless wood trim, a double lower and single upper bunk with good reading lights and a large vanity that housed a sink, it provided plenty of storage in three large drawers, a lower storage cabinet and plenty of under-bunk space. No closet, but I used a spare towel bar near the cabin door to hang clothes. There was a large medicine cabinet above with a mirrored door. The air conditioning was easily adjustable. The ensuite head had a full-size marine commode and separate shower stall.

And the food? Worthy of a four-star restaurant. Chef Norman, in toque and checkered pants, made multiple main courses, each a special creation with elegant presentation. Each day began with rolls, fresh fruits, yogurts, cereals, etc. Full breakfast followed the first dive, with plates of French toast, potatoes, rolls, bacon, sausages, and eggs with a choice of preparation. Lunches were multi-course hot meals, with all manner of meats, fish, pastas and salads. Juices, iced tea and coffee were always available. There was also a never-ending variety of hearty "snacks," ranging from just-baked cookies to barbecued chicken wings or shrimp. Dinners ranged from the Philippines' ubiquitous pork to beef to pasta and piles of skewered, barbecued shrimp. Bowls of rice accompanied lunch and dinner, along with delicious soups, wildly varied in ingredients and flavors. Local vegetables made an appearance at most meals, and some form of salad appeared at every repast. A number of dishes had some heat, and there were always bland choices to be had. Norman's desserts were religious experiences, like an incredible chocolate mousse with a gelled mango topping. The portions served were often enough for twice the number of us guests.

The staff balanced the formality and grace of a Michelin Guide server with the friendliness of your local bartender. At least two crew members were always ready to help make the meal pleasurable, offering drinks or picking up a dropped napkin. With only six of us onboard, personal attention was exceptional.

My fellow passengers were as pleasant and entertaining as the crew, though considerably more varied. A young Englishman was on leave from a research ship taking seismic readings in the North Sea. A friendly duo from New York State was the only couple on board, he a web entrepreneur and she a private jet hostess who once served soup to a grateful Henry Kissinger. The 1968 U.S. Olympic gymnastics team had one of our passengers as a member, now a college gymnastics coach. And there was a weathered, gregarious, 66-year-old Dutchman who spends months each year in the Philippines.

Thankfully, the diving got more interesting as the week progressed, though never near the picture painted in other print and online publications. At the Delsan wreck on the South Atoll spun a vortex of hundreds of small barracuda, amid which a gray reef shark patrolled and even swam right up to my camera. The site was sunlit and thick with healthy branching corals. A gold-spotted eel peeked out of its hole, and a small hawksbill turtle swam by. During the safety stop, a large school of jacks circled. A bumphead wrasse was a highlight of the Malayan wreck site, which also featured a friendly hawksbill and lots of reef fish. Triggerfish City, heavily populated with aggressive titans patrolling the "cone of danger" above their hollowed-out, circular sand nests, was home to a large gray reef shark lazing under a ledge, and a few juvenile to mid-sized white tips, black tips and grays. A nudibranch drought was broken by a sighting of a gigantic maroon nudie that still remains unidentified. This was also the site of our only night dive, more of a twilight dive. Those titans were especially aggressive. We were told to face our tormentors, who often went well beyond their nests to harass us. As the dusk deepened, an octopus made a grand entrance. At first deep burgundy in color, it quickly transformed to sandy beige, matching the surrounding sea floor. It changed shape from squished ball to fully splayed array of tentacles. Back on the dive deck, we were greeted with steaming mugs of hot chocolate.

On most dives, I spotted turtles, most unafraid of divers, as well as clown triggers and surgeonfish. Among the many butterflyfish, most abundant were pyramids, their glowing yellow bodies marked with the stark white shapes for which they're named. The corals, when healthy, were all in shades of tan, without the color seen in Fiji, for example. Water hovered around 86 degrees, and on one dive, I saw 90 degrees register on my Suunto. Visibility averaged 75 feet or better. Current varied tremendously. One dive featured two changes of current within the hour. Some were strong, but never fierce; probably around one knot.

Skiff diving was the order of the day. Crew brought everyone's gear on board the mother ship only for tank filling, then immediately returned it to the skiff until each diver's last dive of the day. A bit off-putting was that Nitrox readings could not be checked by divers; they were taken by crew and then entered into a logbook which each diver had to sign to acknowledge the mixture before diving. (It's ironic that the training video used for Nitrox instruction on board emphasized repeatedly the need for divers to personally check their Nitrox mixes before diving!) But overall, the operation was safety conscious, well organized and well run.

After a thorough briefing, we carried masks and fins, and boarded the skiff while crew handled the cameras. BCs and tanks were stacked in the front of the skiff, while weight belts and integrated pockets remained on the floor until suiting up. Cameras were kept in the stern, under the watchful eye of the skiff driver. After short rides to sites, we suited up on the gunwales with help from the divemaster and boat driver, then a countdown and a backroll over the side. Descents and ascents were conducted as a group. A sturdy, portable ladder made it easy to ascend, after removing and handing up camera, weights, BC and fins. Dives were limited to 100 feet and lasted one hour on the dot. They were overseen by divemasters, one with the divers who was on constant lookout for exotic marine life, and one on the skiff, watching bubbles. The crew was a delight, almost always genuinely smiling and laughing, with Ambo being the most impish and rambunctious. That all but Captain Scott and Randy, the free-spirited American photo pro, were Filipinos posed no language or other barriers. In fact, a crew member named J.R. was a dead ringer for our current Commander in Chief. Captain Scott, and soon the rest of us, referred to him as "Obama."

On the last day of diving before the steam home, a head cold had spread through our group and kept me from diving, so the crew began rinsing my gear for departure. I retired to the salon to watch The Hurt Locker with the crew, many of whom had their first respite in a week of dawn-to-dusk duties.



But Where Are the Fish?

Atlantis Azores, Phillippines

Diving (<i>experienced</i>)	★★1/2
Diving (<i>beginners who can handle current</i>)	★★
Accommodations	★★★★
Food	★★★★★
Service and Attitude	★★★★
Money's Worth	★★★★

El Galleon Resort

Diving (<i>experienced</i>)	★★★★★
Diving (<i>beginners</i>)	★★★★
Accommodations	★★★★★
Food	★★★★
Service and Attitude	★★★★★
Money's Worth	★★★★★

★ = poor ★★★★★ = excellent

Worldwide Scale

The salon holds comfortable couches, an entertainment system with a large flat screen and an assortment of digital audio and video devices, and a comprehensive collection of marine ID books. The lower portion of the salon houses two long tables that seat 10 each. A long, two-tiered charging station is built into one wall, with the top row for 110 volts and the bottom for 220. The covered dive deck is spacious and spotless, with a three-tiered camera table complete with compressed air hoses. The diver stations have large storage bins under the benches. Two large rinse tanks are dedicated to wetsuits and cameras respectively. I found the two strong, hot-water showers, always stocked with soap and shampoo, to be a better venue than my cramped cabin shower. The upper sun deck had under cover a large table with padded benches, a hot tub and an open area with chaise lounges.

On my last night, I retired to my cabin for the overnight steam back to Puerto Princessa. Nestled in my cozy bunk, I thought that the Atlantis Azores is a spectacular liveaboard in every way. I just wished the diving at Tubтатаha Reef had lived up to the delights of the boat.

The irony was that my next stop, the El Galleon Resort in Puerto Galera, provided some of the better diving I've seen in the Pacific. It gives Papua New Guinea, the Solomons and, at times, even Raja Ampat a run for their money, especially for the small stuff. I had been advised by my fellow Dutch diver to "put your macro lens on the camera and leave it there." Exactly one minute into my first dive, right off the resort's dock at a site called Small Lalaguna, I was shown a blue ribbon eel waving in the breeze. Five minutes later, an ornate ghost pipefish. Dive #2, at Sinandigan Wall, was a nudibranch fetishist's peep show. It seemed as though nudis were crawling along every stretch of this beautiful wall and surrounding coral heads. Just about every kind of Chromidoris and Nembrotha were on display, as well as countless other varieties.

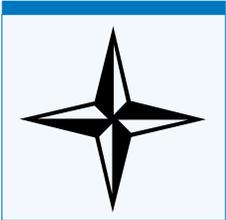
Three huge frogfish stole the show on the decomposing Sabang wrecks, with multiple seahorses, hermit crabs and another ornate ghost pipefish in the seagrass. A night dive on the same site brought us into what I call the Land of the Royal Urchins, where dozens of the spectacular black-spiked and royal purple-patterned creatures scoured the sea floor, reminding me of Star Trek's "tribbles."

The crowning glory of dive sites, though, at least from the perspective of reef beauty, was Verde Island. This two-tank morning trip, 40 minutes from the resort, ranks among the best sites I've dived in the world. It's actually two seamounts off the coast of the eponymous island, each topping out about 35 feet below the surface. It's hard to describe the utter riot of corals, fish, invertebrates and colors that blanket every inch of these sites. The first dive turned up every kind of nudibranch in the book, as well as loads of anemone fish, lionfish, scorpionfish, lobsters, an octopus, lots of eels, a barramundi and a beautiful juvenile batfish lazily swimming tight patterns under a coral ledge. There is current to contend with on the narrower of the two pinnacles, including a fairly fierce downcurrent at a point that is the convergence of two streams of water flowing around the seamount. As luck would have it, I had disconnected my autoinflator for this dive because it was leaking air on the boat. As I approached

the point, I found my Suunto Cobra's depth readings plummeting from 80 feet to 97 feet. Inhaling a gust of gas from my primary, removing it from my mouth, inserting the inflator and exhaling proved to be too lengthy a process to counter the downcurrent. To my amazement, divemaster Larry appeared from above, grabbed my tank yoke and gave me a huge boost upward and out of the current. I was amazed and grateful, to say the least.

I thoroughly enjoyed the diving, the resort and the staff of the El Galleon, one of the most efficiently run operations I've experienced. Through deft management of their dive boats, they managed to make an overbooked resort of some 60 divers seem like a liveboard. And the fare was half that of the Atlantis Azores. I'll certainly consider a return trip there.

-- D.L.



Diver's Compass: Weather permits diving at Tubbataha from mid-March to mid-June; the Atlantis Azores spends time in other Philippines locales, including the Dumaguete area, described as the "new Lembeh" for its profusion of exotic critters . . . The seven-night Tubbataha trip runs \$2,595, twin share, with additional charges for Nitrox (\$125) and marine park fees (\$75); juices, sodas, beer and wine are included in the package . . . I booked my trip through Island Dreams travel agency's very knowledgeable Tina Robinette (www.divetrip.com).

. . . Round-trip airfare from Manila to Puerto Princesa is \$125, with baggage charges for weights in excess of 20 kilos; most major Asian airlines fly into Manila . . . It's a 10-hour steam to the nearest working recompression chamber at Cebu; dive profiles are appropriately conservative . . . The El Galleon Resort is easily reached via car and "bangka" boat from the Manila airport, though the journey can take six hours or more in the unbelievably dense Philippines traffic . . . Rooms range from rustic to deluxe, three-story A-frames with private pool, none overly expensive; they bumped me up to the deluxe A-frame, but it was still only \$1,290 for 7 days, all inclusive (three meals and up to five dives a day) . . . The resort has meal plans, but there's better food on the a la carte menu, and it's not much more expensive than the buffet . . . I split the \$310 transfer charge with four other divers . . . Websites: Atlantic Azores: www.atlantishotel.com/liveboard; El Galleon Resort: www.asiadivers.com/elgalleon

Why You Need *Undercurrent*

we really give you the truth about "undiscovered" dive sites

From the first day of publishing *Undercurrent*, my goal has been to provide accurate and honest information about diving and dive destinations. There was too much foolishness in the print publications, with articles like the best 10 undiscovered Caribbean dive destinations or the five best dive destinations in the world, inevitably chosen because advertisers had ponied up. Well, it's still going on. Recently the website WideWorldMag.com picked the 10 "best dive sites on the planet that you didn't know about." Most every destination listed we have written about endlessly, as have our readers. Ari Atoll in the Maldives, the Galapagos Islands, Saba, the Similan Islands in Thailand, Curacao and the Orkney Islands' Scapa Flow are six of the top ten sites "you didn't know about." Balderdash.

The others have some merit - - drysuit liveboard diving in Spitsbergen, Norway; Farne Islands in the U.K.; Pemba Island, Tanzania (not everyone raves about the diving); and liveboard diving in the Red Sea from Port Sudan. So rather having you rely on sources more interested in hype than truth, let us tell you about a few destinations to consider . . . and some maybe not to consider.

Jupiter Dive Center, Florida. This dive shop north of Palm Beach gets continuing good reviews from *Undercurrent* readers. The Gulf Stream runs a mile off shore, making dives here far more fishy than most other spots

in the Caribbean/Atlantic region. Brent Barnes (Edmond, OK) writes that Jupiter's boats are "equipped with all safety equipment, and excellent dive briefs were given. With 18 divers on Saturday, the boat was crowded. All diving is done as drift dives, and the captain is excellent at following the divers. In August and September, the goliath groupers congregate. In our three dives on Sunday in mid-August, we counted 57 goliath grouper! Many were enormous. This is the same area where lemon sharks congregate for mating in the late winter/early spring. We saw several reef sharks, nurse sharks and many green and hawksbill turtles." Veronica Harding (Valrico, FL) also finds Jupiter hard to beat. "They are organized and efficient both on land and in the water. JDC has two boats and pack in a lot of divers, particularly on summer weekends, but this is the only dive center we don't mind diving with a full boat. Marine life there appears to be on steroids - - sharks, goliaths, massive morays, turtles the size of boulders. Visibility varies from 40 to 80-plus feet. Some dives in summer season are 82 degrees top to bottom, but be prepared for upwellings and thermoclines (down to upper 50s once in a while). Diving is drift, and currents can range from benign to really ripping. Some dives took us well over a mile on a single tank. Once at depth, most of the dives are at a very relaxed pace. Dive depths range from 60 to 90 feet. Divemasters know their sites, and the deckhands assist wherever necessary. Divers are responsible for setting up and changing out their own tanks. If you're an experienced diver,

How Much Post-Dive Activity is Too Much?

A reader recently wrote our regular contributor Doc Vikingo to ask: "We all know that strenuous work after a dive is bad. My question is, how much is too much? Example: I make a shore dive in which I will swim out 200 yards and stay at 20 feet for two hours (shark's teeth hunting). Surface swim back the 200 yards, then hump my gear back across the beach to the parking lot, about another 150 yards. Am I making myself more likely to suffer from decompression sickness? Is this situation something to worry about?"

Doc's response: "Actually, we are no longer so convinced that all strenuous post-dive activity increases the risk of DCS. For example, a study in the June 2006 issue of *Aviation, Space and Environment Medicine* found that post-dive strenuous exercise after a single field dive to 100 feet reduces post-dive gas bubble formation in well-trained military divers. Additional findings are needed for normal sport divers.

"The main problem is we don't yet know the level of strenuousness and the timing of post-dive exercise to suggest to the typical recreational diver. And acceptable levels of nitrogen loading at the time of strenuous post-dive activity are a related unknown. Pending the evidence necessary to better specify such parameters, humping gear back to the parking lot should be done with care. Rapid or powerful movements of joints or other skeletal and muscle surfaces are theoretically worrisome. Such actions may sow the seeds of DCS.

"If I may get scientific for a moment, by the processes of nucleation and cavitation, turbulence in fluids adjoining moving body surfaces results in the formation of minuscule entities named micronuclei. Given a sufficient inert gas loading, these may serve as receptacles for the diffusion of gasses passing from the dissolved to the free gas phase as the diver ascends. If micronuclei grow to bubbles of critical size and number, DCS may follow. So it is wise to handle heavy gear gently, perhaps by making several trips rather than just one, or even using a cart. The activity should not involve undue strain on the knees. The most knowledgeable DCS researcher I know has a near pathological fixation on knees as engines of micronuclei formation.

"Until further study, it is prudent for a diver to remain mildly active before and after a dive, and during ascent and the safety stop. Possibly the worst thing the diver can do is to become sedentary immediately after a dive, e.g., take a nap. Sedentariness reduces blood circulation and therefore off-gassing efficiency. As such, easy swimming between dives well might be beneficial.

"Divers in such places as the Galapagos may wish to take to land between dives. I can see no harm from leisurely walking or hiking, provided it does not involve steep inclines or declines that stress the knee and other leg joints. Gym workouts right after diving should be limited to light exercise. Heavy lifting and vigorous aerobics probably are best avoided. As a final caution, whatever type of exercise you chose, stay well hydrated.

"In conclusion, DAN's advice on the timing of exercise during diving is, 'Physical fitness - - including both strength and aerobic capacity - - is important for divers, both for physical safety and decompression safety. Regular exercise training is best scheduled to separate intense exercise and diving. Intense physical training should be done 24 hours on either side of diving activity. Any exercise within 24 hours of diving should involve the lowest possible joint forces.' While I personally find the specified time parameter to be conservative, a diver is exceedingly unlikely to sustain exercise-related DCS issues if you follow this rule of thumb."

make sure to do the three tank dives on Friday and Sunday mornings. These offer a wider variety of sites, along with fewer and more experienced divers.” (www.jupiterdivecenter.com)

The Tambora, Borneo. Well, not every destination is great, as Richard Troberman (Seattle, WA) unfortunately learned. His experience gives fair warning. With thousands of reports on our website, the absence of information about a destination is a cautionary sign. “For several months, I had been watching for a reader report on Borneo or the *Tambora* but never saw anything. Now I think I know why. The diving on the east coast (East Kalimantan and Celebes Sea) was extremely disappointing. The reefs along the entire east coast have been totally destroyed by dynamite fishing. I went for the big stuff but all I saw, for the most part, was small stuff. Even the large numbers of mantas reported to frequent Sangalaki were absent; I saw four or five. I saw only a handful of sharks (white tips, black tips, grey reef sharks), and a few tuna and giant trevally. The barracudas were present in large numbers at Big Fish Country and Barracuda Point, but that was one of the few bright spots. We traveled down the east coast of Borneo, then crossed the Makassar Strait for exploratory diving along the west coast of central Sulawesi before ending the trip in Palu, Sulawesi. The reefs on the Sulawesi side are in even worse shape than those in Borneo! The *Tambora* is a wooden, Indonesian-style boat in its second year of operation. *Tambora* claims to have been built by divers for divers but it has some odd features. Wetsuits are hung in an interior dive staging area, where there is no ventilation or any opportunity for the suits to dry between dives or even overnight. The *Tambora* is well equipped for cameras. Diving is done from two inflatable tenders: 36 dives were offered during the nine and one-half diving days. Nitrox. The dive guides were good at finding stuff. The food could best be described as average. We encountered heavy unseasonable rain, and all of the cabins leaked. The owner of the *Tambora*, who lives on the boat, says this problem will be resolved. One highlight was a night land excursion on Sangalaki Island to see nesting sea turtles and the release of hatchlings. Another highlight was a snorkeling trip to a saltwater lake on Kakaban, home to four types of non-stinging jellyfish. There were a few nice walls and some good current dives and muck dives. But the widespread destruction of the reefs really put a damper on this trip.” (www.tamboradive.com)

Living the Dream Divers, Grand Cayman. And for every rule there is an exception, and that might be Living the Dream Divers. Brett Rosenhaus (Lake Worth, FL) has been “diving for 25 years and reading *Undercurrent* for 20. When I was looking for a new dive operator in Cayman, I was apprehensive when there were no reviews about them on *Undercurrent*, but Gary, Johan and Liz are genuine, caring and professional. They didn’t hesitate to call off a dive when they felt conditions were not safe. Their boat is brand new, wide open and built for 18 divers. They carry no more than eight divers. I don’t know why there aren’t other reports on *Undercurrent*, but don’t hesitate to use them -- they are one of the finest operators I have ever dove with.” Why no other reports? Well, they are a new operation,

Bahamas Sharks Threatened by Seafood Exporter’s Expansion

An abundance of sharks in the Bahamas draws divers, but while sharks draw tourism dollars for the island nation, they’re not protected from shark fin-seeking fishermen. Therefore, they may be targeted for soup bowls over in China. According to Bahamian newspaper *The Tribune*, the export company Sunco Wholesale Seafood Ltd., which currently harvests sea cucumbers for the Chinese market, is considering expanding its operations on North Andros Island to include shark finning and harvesting of sea urchins. The Bahamas doesn’t have any regulations in place to control the harvesting. Long-line fishing was banned 20 years ago but sharks are still unprotected because they’ve never been commercially fished in Bahamian waters.

The Bahamas National Trust (BNT) and the Pew Environment Group are launching a campaign to get shark-

protection legislation in place. They’ve written to Larry Cartwright, Minister of Agriculture and Marine Resources. As a former fisherman, Cartwright agreed the country’s sharks should be protected. But as he told the *Tribune*, “I wouldn’t say shark finning is not going to happen here because what’s happening elsewhere. I am sure it will come this way eventually, and when the time comes, we will look into legislation.”

How can divers stop shark finning? BNT director Lynn Gape says a good first step is to sign the petition the BNT is co-sponsoring. The goal is to get 15,000 signatures so the petition can be sent to Cartwright and Bahamas Prime Minister Hubert Ingraham. Sign it at: <http://www.thepetitionsite.com/takeaction/549/487/335/>.

and it takes a while for our established readers to give up on old friends and try someone new. So thanks, Brett. And there is at least one other review now. (www.livingthedreamdivers.com)

Mantana Beach Resort, Fiji. With summer down under coming up, it's a good time to consider a Fiji trip. While a lot of our readers like Wanavanu Resort, Mantana has its supporters, one being Cindy Edgerton (Bellevue, WA), who found Mantana last March, when the water ran 77 to 82 degrees. "Six of us had the resort to ourselves for several days. Diving was very good -- lots of swim-throughs and interesting topography. Generally not a lot of current. Yellow Wall had fabulous yellow soft coral and a large swim-through, combined with a good mix of large and small critters -- three eagle rays, two clown triggers, various wrasses, butterfly fish and groupers. Evil Trench had a chimney that started at 100 feet and went down to 182 feet, where there is a large cave you can swim through and out to the blue ocean. Lots of large lobsters in the cave, and occasional sharks (advanced divers only). At King Kong Mountain, I saw a white-tip shark, two hawksbill turtles, stingray, clown and titan trigger fish, lyretail grouper, reticulated butterflyfish, emperor angelfish and a flame angel-fish. This was my seventh trip to Fiji but I saw fish here I hadn't seen before, including the Fiji clown blenny. Mantana's bures are basic but have the essentials -- queen bed, private bath, solar hot water with gas backup, ceiling fan and window screens. All bures are down near the beach, and the dining area is above them. The beach bar is open for happy hour before dinner. Food was basic but good (you pre-order lunch and dinner at breakfast)." One thing to keep in mind about Fiji, it has summer cyclones, and Edgerton said, "We were delayed getting here, due to Cyclone Tomas, and after it passed through, we had a stationary front that dumped rain on Kadavu for several days, impacting visibility." (www.divekadavu.com)

Nakia Resort, Fiji. On Taveuni, we hear good things about this resort, but Cyclone Tomas had an impact there as well, says Jason Pellegatto (Worcester, MA). In May, there was "a lot of damage to the hard coral in shallow water at the top of the reef. However, once deeper than 20 feet, the hard and soft coral were in excellent condition and looked to be unaffected. On all dives, there were thousands of gold and purple anthias swirling about the reef, feeding on plankton in the currents. I also saw schools of blue fusiliers, barracuda, yellow tail barracuda, tuna and trevally. On most dives, white-tip reef sharks were seen, and four dives had large Spanish mackerel and grey reef sharks. Closer to the reef, there were lots of tropical fish, anemonefish, and I saw a dozen blue ribbon eels. Nakia Resort consists of a house for the owners, four bures for guests, swimming pool and an excellent restaurant. The bures are only a couple of years old, spacious, very clean, and the beds are comfortable. There isn't AC but this wasn't a problem in the dry season. The restaurant serves fresh fish, good steaks, and salads and vegetables picked from gardens on site. Every night features just-baked desserts. Nakia arranges trips to coastal walks, waterslides and other activities. Taveuni Ocean Sports has a well-maintained, fast catamaran dive boat with dual four-cycle outboards, so there was little noise and no fumes. Owners Julie and Aaron are avid divers, as excited to go diving as the guests, and work hard underwater to point out interesting and unusual marine life." (www.nakiafiji.com)

That's it for this month. Don't forget to go to www.undercurrent.org to file your trip report.

-- Ben Davison

Is the Lionfish Really a Threat?

are experts overstating their effect, or is there a tipping point?

The Pacific "lionfish invasion" in the Atlantic and Caribbean is doing serious damage. Readers report seeing them at nearly all Caribbean diving venues and in increasing numbers. What does it really mean for this body of water, stretching along the American coast down to Mexico, Belize and Venezuela?

William Alevizon, a retired professor of marine biology, asked that on *Undercurrent's* blog this summer. In his post, "The Great Lionfish Threat," Alevizon questions, "Will lionfish simply turn out to be just another interesting fish

for reef divers to watch, or will the entire fish population of the Caribbean eventually be reduced to one single lionfish the size of Aruba, waiting patiently for the next cruise ship to pass by?”

Pacific lionfish were brought to the U.S. via the aquarium trade, and experts believe they were introduced into our waters during Hurricane Andrew in 1992, when a broken beachside aquarium released them into Florida’s Biscayne Bay. In the 18 years since, they’ve been spotted as far north as New York’s Long Island and as far south as Columbia’s Caribbean coast. They can live in warm or cold water, on shallow reefs and in deep water environments. In some coral reefs, they outnumber native species.

While Alevizon agrees the lionfish is undoubtedly here to stay, he thinks viewing lionfish as a threat is overblown at this point. “The scientific basis for these concerns is minimal at best, based upon one or two published short-term studies from small patch reefs in a limited area. How these results might extrapolate to large reef areas throughout the region is purely speculative.”

But right here, right now, are lionfish the future straw that will break the back of the already-ill Caribbean reefs? Is there a tipping point where, with the addition of another season of lionfish egg hatching, the Caribbean is doomed? We put these questions to some marine ecology experts currently studying the lionfish invasion to see what they know as fact, what they can only speculate on, and their thoughts about long-term effects.

“If lionfish populations continue to increase as rapidly as they have in the invaded region, and if their predation continues unabated, we could see dramatic impacts,” Lad Akins, director of operations for REEF, told *Undercurrent*. “While much of the current research is still unpublished, indications are that lionfish impacts will likely be severe.”

Lionfish prey on a wide variety of fish invertebrates and mollusks, basically any moving organism that will fit into their mouths, up to two-thirds of their body size. “When they invade, they eat the abundant prey first, and then start dieting on other species,” says James Morris, an ecologist with NOAA’s Center for Coastal Fisheries and Habitat Research National Ocean Service in Beaufort, S.C. That includes ornamental species, commercially valuable species and ecologically important species.

And they eat constantly, meaning one or two lionfish could quickly wipe out most, if not all, marine life on a single reef. Mark Hixon, a professor of zoology at Oregon State University, studied small coral reefs in the Bahamas and found that a single lionfish per reef reduced the juvenile fish population by 79 percent in just five weeks. Many species were affected, including herbivorous fish, like parrotfish and surgeonfish, and fish cleaners such as shrimp, which sets the stage for more parasitic fish, coral reefs overwhelmed by seaweed, and ecosystems ruined. One large lionfish was observed eating 20 small fish in a 30-minute period. When attacking another fish, a lionfish uses its large, fan-like fins to herd smaller fish into a corner, and then swallow them in one quick strike. And because of their natural defense mechanisms, they aren’t afraid of most other marine life. “We basically had to abandon some studies we had underway in the Atlantic on population dynamics of coral reef fish, because the lionfish had moved in and started to eat everything,” Hixon said. If that continues, picture desolate reefs devoid of fish and covered in algae.

Is There a Tipping Point?

Sure, Caribbean reefs could carry on with the number of lionfish swimming around and being fished out right now, but the problem is that lionfish grow and multiply at an alarming rate. Morris says a single female lionfish

Round ‘Em Up: Lionfish Derbies

REEF now sponsors “lionfish derbies” with divers searching for and hunting down lionfish. In July at the Bahamas’ Green Turtle Cay, contestants captured 941 lionfish in just two days. The biggest one caught was 19 inches long and weighed four pounds. The only good news is that the number of lionfish caught was down from last year’s derby high of 1,400-plus fish. “Awareness is much higher than last year, and Bahamians and visitors alike are spearing lionfish whenever they see them,” says Akins.

Last month in Key Largo, 100 divers rounded up 534 lionfish. Participating dive teams can win \$1,000 for capturing the most lionfish, and \$500 for bringing back the biggest one. Afterwards, the captured fish are sent to the kitchen and brought back as dinner, either fried or in citrus ceviche. The next Keys Lionfish Derby will be October 16 in Marathon, followed by November 13 in Key West. Go to REEF’s website at <http://www.reef.org/lionfish/derbies> for details.

The Coral is Fine at Wakatobi, But Elsewhere...

A Flotsam item from last month's issue mentioned the Wildlife Conservation Society's reports of major coral bleaching in Indonesia, especially in the Wakatobi islands, where 35 percent of the corals have turned white. Henrik Rosen of Wakatobi Resort wrote us to say that's not true at his place. "Wakatobi is far from the Andaman Sea and other hot spots that experienced severe bleaching. It looks like we got spared from hot temperatures by upwelling currents from the Banda Sea, like many times before. In Waitii's shallow top reefs and sheltered bay, some of the corals bleached slightly. However, all other dive sites showed no bleaching. Now with temperatures down, most corals recovered in Waitii. What contributes to the health of the corals in our vicinity is the excellent seawater quality (no pollution)."

We asked our e-mail subscribers who've been to Wakatobi recently if they can confirm Rosen's comments. "I saw no bleaching, the reefs were sensational and the critter life superb," says Alvin Rosenfeld (New York, NY) who was there in late July. "In fact, there was a guest I spoke to at the resort who said the reefs were in better shape now than 30 years ago when he first visited," says Steve Kraus (Vancouver, BC), who visited in March. "Kudos to Wakatobi's conservation program. We are heading back next spring."

Wakatobi seems to be one of the lucky few dive resorts that's spared global bleaching. The Caribbean will take a big hit this year. According to NOAA, above-average temperatures mean strong coral bleaching through October in the southern Caribbean. NOAA says it could be as severe as in 2005, when the largest thermal stress incident on record bleached over 80 percent of corals and killed over 40 percent of them across the Caribbean.

produces about 2 million eggs a year, and her hatchlings become sexually mature in a year. From REEF's fish-tagging work in the Bahamas, Akins has found that the fish themselves grow at rates up to .5 millimeters a day, much faster than native comparable species like coney, graysby and hind. "From a single report in 2004 in the Bahamas, there are now densities of more than 200 lionfish per acre in some areas. From the first report in the Florida Keys in 2009, we are now getting reports of divers removing dozens in a single day."

What about sterilizing lionfish, as scientists have done with mosquitoes to try and eradicate malaria? Akins says it has been considered but there are problems with this. "First, lionfish are pair spawners not aggregate spawners, so the number of sterile lionfish required to be introduced would be staggering. Where would these fish come from? Second, lionfish are very long lived, up into decades, and introducing additional long-lived individuals into the system would only increase the long term-impacts. Successful control through introductions of sterile populations usually involve short-lived, highly-productive organisms."

In an effort to stop, or at least slow down the fearless invaders, the National Science Foundation recently awarded a three-year, \$700,000 grant to Hixon and his team to find out why lionfish are so successful in surviving. He intends to compare lionfish populations in the Pacific and Atlantic oceans to find out why they are rare in their native home but thriving overseas. "Something, a parasite, predator, or disease is limiting them in the Pacific," he says. If the researchers can discover what that is, they hope to use it to create a similar lionfish attacker over here. Currently, there's no other effort to create one. A divemaster at Little Cayman Beach Resort has trained groupers hanging around the dive sites to appreciate the taste of lionfish. But lionfish have been offered up to moray eels, sharks and other predators with limited success. "They don't look like their conventional prey," says Hixon, and the groupers and shark don't enjoy the venomous spike that comes after taking a bite.

So the experts say humans are the best hope as the lionfish predator. That's why NOAA and REEF are leading the efforts to get people to eat lionfish. NOAA recently organized a five-city tasting tour with celebrity chefs as part of a campaign to get lionfish commercialized and served in U.S. restaurants. REEF is coming out with a cookbook by year's end for people to eat it at home. We wrote last October about a seafood distributor shipping lionfish fillets to upscale East Coast restaurants. Another middleman, Traditional Fisheries, has organized 24 Cancun fishermen to catch lionfish and is talking to fishermen in Belize and farther south.

While chefs like the taste of lionfish, it's improbable that any serious fishery can develop. Catching lionfish is costly and labor-intensive, plus lionfish are slyer and trickier than most commercial fish when it comes to getting caught. They don't fall for the hook-and-line approach, and they're hard to get into fish traps, so the only way to catch them is to literally dive with nets and spears. And while they swim close to shore in some places, lionfish also

inhabit deep-water reefs in an endless number of areas that divers don't visit. "Eating lionfish appears to be a viable strategy in near-shore environments where they're easily accessible," says Morris. "Off the East Coast, like North Carolina, it's less of a viable concept because of the cost of getting to the habitat where lionfish are. But it's a good control strategy for southern Florida and the Caribbean. "

However, with no big, tested plan to keep the lionfish population from exploding, it unfortunately looks like we're still heading there. From where we sit, it looks like there is no end in sight for lionfish proliferation and habitat expansion. It doesn't look like we mere mortals can do much about it. It will take a significant Darwinian tweak to alter the lionfish invasion, and those don't happen overnight.

-- Vanessa Richardson

Trip-Ruining Divemasters

hazardous, me-first attitudes

For most divers, dive guides on day boats and liveboards are critical to our diving experience. A good guide knows where to find the critters, knows the terrain, understands the currents and quirks of dive sites, all the while keeping an eye out for troubled divers and ensuring that everyone gets back to the boat safely. But every so often, amateurish or bored guides ruin the experience.

Burt Jones and Maurine Shimlock, authors of *Diving Indonesia's Raja Ampat*, give a perfect example of the hellish dive guide, whom they dealt with last spring. "From the time he arrived at the dock dressed to kill in a custom wet-suit, this guy was worse than useless. His briefing was basically a command to 'follow me,' yet he consistently put us in the water downcurrent from the site. We had to fin like crazy to get to the "sweet spot." Once on the site, this so-called guide never looked back; he just cruised the reef at warp speed, then ascended and got back on the boat well before the 60-minute bottom time limit. On the afternoon dive he carried a camera - - his, not a guest's. Now the inexperienced divers were being led by a guide preoccupied with finding his own photographic subjects instead of paying attention to the people he was supposed to watch over. He was also dangerous to the animals underwater. Nudibranchs were de-gilled, crabs tweaked, leaf fish nearly speared with pointers. Seems he wasn't even a certified divemaster. He explained that his rich uncle's cousin owned the operation, and that's how he got the job. When asked how he planned to deal with an emergency, the kind that might take some training to be able to handle well, he just shrugged and said, "Don't worry, be happy."

If you're an experienced diver, you no doubt have been underwater with a lousy guide or two. Not long ago, we asked *Undercurrent* subscribers about their own guide-from-hell stories, and how their dives might have been affected or even ruined by their guide. We got plenty of responses, which shows that some dive operations should pay more attention to the people they hire, and train them better in an area they seem clueless in: customer service. And while in some cases there's a bit of humor in the retold story, at the same time divers can be in serious danger.

Self-Serving Photographers

Similar to Jones and Shimlock's experience, a few readers said their guides were more focused on their cameras than on their divers, often trying to get their photos first, while everyone else waits. Neal Langerman (San Diego, CA) said his Galapagos divemaster "did a three-hour-plus orientation lecture, most of which was describing his video expertise. He managed to cast two divers adrift on Wolf Island, all the while with his face plastered to his video camera. Too many divemasters think preparing a trip video is more important than the guests' actual diving experience."

Bored with Diving, the Critters and Us

Maybe they're burned out, but the bored dive guide needs to get another job. Mary Wicksten (Bryan, TX) says she's had plenty of bored divemasters, "the ones who want to get the dive over ASAP, and loathe photographers

who stop for a look at anything. The worst divemasters I've ever had were aboard the *Palau Aggressor*. They were not interested in anything, and just hung back from the group, hovering over the bottom. They did not point out anything of interest, even a shark, and took us on a worthless night dive over a thicket of staghorn coral."

Just Plain Bizarre

Bill Utterback (Cedar Rapids, IA) had a Nazi-like divemaster last summer at Wakatobi Resort in Indonesia's Lembeh Strait and told us that, "When some on our boat went deep on a dive and reported seeing pygmy seahorses, she then limited the depth on my dive. She told me she and another dive guide had agreed not to show us pygmy seahorses, but when I spoke to that other guide, I got the impression this agreement was only in her mind. She also told me there were no pygmy seahorses on the house reef but later took two other divers to the sea fans where they were located." This lady is one bizarre divemaster, but Utterback outsmarted her. "For the rest of the week, our group provided her with a camera so she would spend time looking through a lens rather than limiting our diving."

It's All About Me, the Divemaster

Ed Svitol (Alpharetta, GA) was heading to a morning dive in Palau on a Sam's Tours boat, when his divemaster had the boat driver swing 25 minutes out of the way because she had forgotten something on the boat she lived on. "By the time we got to the Blue Corner, we were one of six dive boats mucking up the site. And Sam's Tours makes a big speech about 'leaving early to be there first.' Then once we were in the water, she disappeared. She never told us where she was and why she took off. At least the divemaster on the *Manthiri* in the Maldives was honest when he told us, 'I'll be leaving you because I'm making a movie.'"

The Distracted Boat Diver

On that same Palau dive, Svitol reports, it turned out the disappearing dive guide came in handy. "We surfaced to find the boat driver asleep some 200 yards away. She finally surfaced between us and the boat and woke him up to come pick us up."

Diving with Erectile Dysfunction

You've seen the ads, ad nauseam. Cialis (tadalafil), Viagra (sildenafil) and Levitra (vardenafil) are prescription drugs used to treat erectile dysfunction. Known as PDE5 inhibitors, they work by increasing blood flow to certain areas of the penis. Like all medications, they have side effects that divers need to consider. Most worrisome is a potentially dangerous decrease in blood pressure in those taking certain other drugs that also dilate blood vessels. Nitroglycerin, a drug sometimes prescribed for chest pain due to coronary heart disease, is the principal example.

Aside from this, possible side effects tend to be transient and only mild to moderate, but still can be problematic for divers. In order of reported frequency, these include headache, upset stomach and nasal congestion. Cialis also may cause muscle aches and sore back.

Taking one of these medications in proximity to diving could impede equalization of the ears and sinuses; cause a headache and sore muscles; and result in heartburn, bloating, nausea and burping. These complaints could be further exacerbated by the prone and sometimes head-down posi-

tions assumed while diving. The well-known "blue vision" (seeing a blue tinge to objects) that is a potential side effect of Viagra also can occur with Cialis and Levitra. Those with retinal disease will want to consult with their ophthalmologist before starting the drug.

A diver taking one of these drugs will want to monitor for topside adverse reactions before diving. Among other advantages, this may prevent symptoms like headache and muscle ache from being confused with decompression illness or vice-versa.

There is no reason to suspect these medications increase the likelihood of DCI. In fact, there is theoretical reason as well as preliminary research suggesting that PDE5 inhibitors and other drugs that enhance nitric oxide activity actually could reduce such risk, but this work has a long way to go. Of course, any limitations or risks imposed by the condition(s) causing the erectile dysfunction, e.g., diabetes, obesity, psychiatric disorder, also must be considered.

As a final note, be aware that Cialis has a much longer half-life than either Viagra or Levitra, and with regular and continued use, Cialis blood levels go on rising for about a week.

-- Doc Vikingo

Tom Pauley (Bishop, CA) just returned from Palau last month, where he had to drift more than 20 minutes waiting for the Maml Divers boat to pick his group up after diving Peleliu Express. “Turns out he was fishing. After this happened, I noticed it with other dive operations in the area; the divers go down and the boat goes off fishing for a while. Actually, this happened to me at Belize’s Ambergris Caye. Same deal; he was off fishing, and we waited 30 minutes. The Belize dive was with a low-budget shop but in Palau, this was a highly advertised business rated five stars in the dive magazines. So what are we paying for?”

Speedy Gonzalez

Bear Johnson (Fresno, CA) signed up for a night dive with a well-regarded dive shop in Cozumel but the divemaster didn’t live up to his shop’s reputation. “Once in the water, we all met up on the bottom and he took off swimming at a very fast rate. When he saw something of interest, he would circle his light around the animal but never stop swimming. Since I didn’t have a buddy, I tried to stay with the divemaster. From time to time, I would slow to look at animals, only to have to race to catch up with him. Finally, I looked back only to see a black ocean. All the other divers were gone! I grabbed the divemaster’s fin to get his attention. He gave the signal to ascend, and we both surfaced. I couldn’t image what was going through the other divers’ minds when they were left on their own drifting in a black ocean at night. Once back on the boat, I went to have a talk with the divemaster, but he quickly climbed up to the bridge where customers were not allowed and didn’t come down after we docked.”

“She began her descent slowly, too slowly for the divemaster, so he grabbed her BC and pulled her under.”

Insufferably Rude

We got a bunch of comments from readers about divemasters who don’t know how to be polite. When James Bonnette (Shreveport, LA) went to Cozumel last year, Scuba Club Cozumel gave him “the absolute worst divemaster. From the start, he sat on the bow of the boat with his iPod in his ears while he read a book. He at no time associated with any of us. When it was time to dive, he gave a short briefing, and started the dive into the current. We thought he was taking us to a location to start a drift dive. Not the case. He swam against the current the entire dive. When we complained about the dive, he said we were inexperienced divers. There were many of us with hundreds of dives under our belts. It was insulting for him to treat us in such a manner.”

Liz Morini (Plymouth, MA) nicknamed her Curacao divemaster “Smiling Johann” because he was anything but a cheerful guy. “Of the 10 divers who had signed up, he asked how many of us had never gone on a night dive before. Six people raised their hands. Smiling Johan said in disgust, ‘This is great, I can’t believe it! You better not crowd me when we’re in the water, and don’t shine your light in my eyes.’ How encouraging.”

It goes beyond mere rudeness when a guide manhandles one of his divers on purpose. While at Queensland’s Lizard Island Resort last November, Mike De La Chapelle (Seattle, WA) was doing his three-minute safety stop at 15 feet, when the divemaster pointed to his watch and signaled him to go to the surface. “I gave him the OK, intending to surface when my dive computer said I had completed my safety stop. He went to the surface but about a minute later, I found myself being dragged to the surface by my tank valve. Needless to say, I was angry and demanded an explanation. I was told the state of Queensland does not allow dives of greater than 60 minutes duration, and that he could lose his divemasters’ certificate if he allowed clients to do so.” Doesn’t sound like this guy considered the possibility that his macho attitude could lead some divers to overreact and panic, maybe even embolize.

John McMahan (Hoffman Estates, IL) says that on a dive trip at the Philippine island of Dumagete, his wife, a new diver, had the divemaster as her buddy. “She began her descent slowly, too slow for the divemaster, so he grabbed her BC, and pulled her under! She began to panic, but he just dragged her along on the dive. Back at the dive shop, we asked the manager at the shop about the divemaster’s credentials. The answer was a shock. He was not certified as a divemaster but had been diving many years, and surely was a ‘master of diving.’”

The Lost Dive Guide

Sometimes it's all too obvious when a divemaster is new to the dive sites -- or new to diving. David Funderburk (Greeley, CO)'s three-tank dive day with Manta Scuba Divers in Baja California last May was ruined by a divemaster who, although saying she had been diving for four years, acted like a total novice. "On my first dive, she took us to the sandy bottom at 67 feet and motioned us to stay there. After 18 minutes, she returned and had us surface. Apparently she had become lost and had to surface herself to get oriented. The second dive was uneventful but the third dive she aborted after 20 minutes, and no reason was given."

Jeanette Teller (San Francisco, CA) "had a divemaster on the *Big Blue Explorer* in Palau who led us on horrible dives. Then I found out it was only her second week in Palau, so of course she didn't know where she was going. There were two dive boats, ours with one divemaster who didn't know the area, and the other boat with two divemasters who did know the area. Who made that staffing decision?" She's got a point. For all the money one must pay to travel half the world to dive, one expects that a dive master has been sufficiently trained about the underwater environment to provide a decent dive. Being a good diver requires more than just passing a course.

A reader from Woodbury, NY was a newbie diver while on a wreck dive at Cayman Brac, and told us, "I was sucking air somewhat quickly, at 700 psi. I signaled to the divemaster, and when she looked at my gauge, she bugged out! She signaled me to go back to the boat, did not even bother offering her octopus or escort me back to the boat. I, of course panicked, and swam up as fast as I could, no safety stop. Fortunately, no problems ensued but this divemaster must have been quite inexperienced, not being able to handle a simple low-on-air scenario." Of course, an experienced diver should know that 700 psi is no reason at all to panic or swim fast to get back to the boat on a guided dive, but obviously our reader was too inexperienced to know that -- as was the dive guide who should have seen to it that her charge didn't unwittingly panic.

Burt Jones and Maurine Shimlock have a few questions that both dive operators and the divers using their services should consider as food for thought. "Should we, the customers, demand transparency? Should all operations be required to display their employees' credentials so that you can see exactly who you are diving with? Wouldn't you rather dive with a professionally trained guide, one who could deal with emergencies, who wants you to enjoy your experience and does everything possible to make that happen?" Yes indeed.

-- Ben Davison

Guaranteed to Travel Light

the Scubapro Litehawk vs. the Dive Rite TravelPac

Scuba diving for *Undercurrent* readers is irrevocably linked with traveling abroad. Now that airlines are charging for every last bag, it can get expensive if you check in with a ton of baggage, which is why equipment manufacturers are fighting to come up with new lightweight gear. Aside from camera gear, the BC is the heaviest and most cumbersome piece you'll carry. While many divers have decided to rent a BC at their destination, others note that it can make economic sense to buy a lightweight BC just for your trips abroad. It will save its cost in excess baggage charges in no time at all.

John Bantin, perhaps the most experienced equipment tester of all, has tried the two most recent lightweight BCs to come on the market; the Scubapro Litehawk -- which he calls a "travel wing," though some manufacturers avoid that reference -- and the Dive Rite TravelPac, a substantially made wing-style BC with a slight diversion from Dive Rite's well-established technical diving Transpac system. Here is his report:

The Harnesses

The top part of the Litehawk harness is part of the buoyancy cell, whereas the lower part is separate and

threaded through the small, hard backpack. The two parts are joined by quick-release buckles at the shoulders. The rotating nature of these buckles allows for a comfortable arrangement that would suit curvaceous ladies as much as men who are all steel and whipcord.

The TravelPac harness is permanently fixed to the buoyancy cell, too. There's a removable cushion. It has two large D-rings at the waist and two adjustable for height (with difficulty) on the shoulder straps. There are harness breaks with pinch clips to make climbing out of it easy. A crotch strap eliminates the risk of a loosely worn tank falling over your head during a duck dive.

Both BCs have a conventional sternum strap to prevent the shoulder straps from slipping off, but my lady friend discovered this was a little tight on the TravelPac. I had no such problem. Both BCs employ a five-centimeter webbing belt and buckle akin to a weight belt.

The Camband

The Litehawk employs the unique Scubapro stainless-steel cinch strap that makes for swift tank swapping. It allows you to pull the BC off a tank without pulling it over the top, so you don't have to remove the regulator first. It's easy to adjust the cinch strap for tanks of varying sizes, easier than using the conventional stainless steel camband buckle on the TravelPac.

Integrated Weights

The manufacturer's specification does not include an integrated weights system. However, on each side of the Litehawk's waist belt is a small pocket mounted and closed with a pinch-clip. Dare I suggest you could stow a couple of four-pound weights (or even more) in each? Of course, these could not be dropped easily in case of an emergency, but I found that in conjunction with the same amount of weight on a belt that could be dropped if needed, they made wearing a separate weight belt more agreeable. I wouldn't suggest this if the weight you stowed in the pockets was the only weight you needed. Dive Rite offers the option of QB weight pockets for use with the TravelPac's waist belt. These are at extra cost, have a quick-release feature and can hold nearly eight pounds each.

In the Water

Gently restrained by an elastic strap threaded through it, the Litehawk's buoyancy cell is kept nice and tight when it is not needed, yet there doesn't seem to be a problem with air getting trapped in the wrong part, and it certainly doesn't flap. The TravelPac's donut-shaped buoyancy cell is small and neat and in no need of restraining, and air easily finds its way to either dump valve, whichever is the highest at any given moment. Air always migrates to the highest point, which is behind the shoulders for good diver attitude while finning.

Control of Ascent

With the usual three ways to dump air during an ascent (that is to say, by pulling on the corrugated hose, pulling on a cord and toggle at the right shoulder, or by pulling on a bottom dump), the control of ascent with the Litehawk proved easy. The TravelPac leaves you with the choice of pulling on the corrugated hose to activate the shoulder dump, or using the bottom dump, so you need to raise that side slightly to get rid of the last vestiges of air.



Scubapro Litehawk



Dive Rite Travel Pac

It's a shame that nearly all BC manufacturers opt to face the bottom dump, where fitted, downwards so that it is less effective when doing an ascent with the diver in a horizontal position, but that seems to be the way it is, and both these wing-style BCs are no exception. It's a system that certainly works well, and is quick to locate when dumping flotation air at the surface for a rapid, head-down descent.

Surface Support

The Litehawk's buoyancy cell become enormous when inflated so that there is a massive amount of surface support available. The cell widens out sensibly towards the bottom to give lift where it is needed. If you use the aforementioned pockets for weights, you need to be sure that your other weights are well round to the back or you'll be pushed forward onto your face by a fully inflated BC.

The buoyancy cell of the TravelPac is much smaller. It's likely to leave you a lot lower in the water at the surface, but enough is enough. Assuming you've traveled somewhere warm, you'll probably be wearing a 5mm or 3mm suit and not a lot of weight. Without a trim-weights option on either, I used an additional short camband to lash a couple of four-pound block weights to the lower part of my aluminium tank for better weight distribution, and to rid myself of that floating tank feeling.

Which Is Better?

The TravelPac is robustly made, to say the least, but it doesn't offer the maximum lift of the Litehawk. The Litehawk isn't flimsy but its larger wing needs the elastic cord to stop it from becoming unwieldy when not fully inflated. The TravelPac offers simplicity and technical diving credibility at an inflated price, while the Litehawk offers a few extras for the single tank diver.

I think the traveling diver will be more content with the greater lift of the latter, especially if he finds himself surfacing in a rough sea, and the \$20 price difference will go nicely towards the cost of checking another bag!

The Scubapro Litehawk retails for \$358. It has a dry weight of six pounds and a lift of 56 pounds (**www.scubapro.com**). The Dive Rite TravelPac retails for \$389. It has a dry weight of 5.7 pounds and a lift of 27 pounds (**www.diverite.com**).

Other lightweight BCs to consider are Oceanic Islander (\$500; **www.oceanicworldwide.com**) and the Aqua Lung Zuma (\$395; **www.aqualung.com**)

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.

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