

undercurrent

The Private, Exclusive Guide for Serious Divers

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Akumal, The Yucatan Peninsula, Mexico

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It's not Cozumel diving, but it's an alternative

Dear Fellow Diver:

Akumal is a Mayan word for the place where turtles gather, and it's fitting. I was warned in advance that it was slow there, a step down from the rush of Cozumel to the north, both in diving and overall activities. But after 15 years of diving in Cozumel, hustle and bustle was not what I wanted and the notion of easy bathwater diving in a sleepy, little town appealed more than once again bumping elbows with boatloads of Carnival cruisers.

There's no rocketing along walls and reefs as in Cozumel, but it's wrong to think mainland diving is a waste of compressed air. In my four full days of diving, there were turtles everywhere. On a gentle drift from Las Redes to Motorcycle, I hovered near a cleaning station watching a trio of tangs pick off parasites from a green sea turtle. It swam slowly away, not cowed by divers. Another hung out with me for several minutes. The highlight had to be a majestic, six-foot green moray swimming about in the daytime. Its prominent dorsal fin made it seem even larger -- this wasn't an eel you could get your hands around. It swam near me, obviously unafraid. Along with the turtles and the locals above water, it was on Akumal time.

An easy 80-minute drive south from the Cancun airport, Akumal is really two different towns with one name. On the ocean side of the coastal highway, the tourist area has seaside villas, restaurants, dive shops, an Internet café, and grocery marts. On the inland side is the older, quieter, whitewashed part of town with a pizza place, a simple restaurant, and a



The patio view at Casa Zama



walk-in joint where the locals buy barbecued chicken. I rented Casa Zama, a cheerful seaside villa that was a third of a mile walk from town. It was secluded from the road by a verdant garden with a lush bowered 40' walkway from the parking area. It has three bedrooms, a large, open living room/kitchen and full cooking gear, including a blender for the essential margaritas. And what a view -- a 180-degree span of the Caribbean, just 60 feet away. The sound of waves sliding into Half Moon Bay was the ideal background music, and the refreshing sea breezes meant I didn't even need a fan at night. The

rate is \$900 a week during low season, and \$1,400 during high season (Dec. 15- Mar 30), when the owners will also rent out individual bedrooms with a small refrigerator and microwave.

Akumal has two main dive operations -- Akumal Dive Shop and Akumal Dive Center. I chose the former based on a friend's recommendation about the friendly crew. Its shop is in the center of town, on the beach of Akumal Bay, and one gets a free locker and drizzly post-dive shower. On a whiteboard, staff lists the sites for the day's scheduled trips (9:30 a.m., 11:30 a.m. and 2:30 p.m.). I signed up a half-hour in advance of each dive, then geared up. While divers officially assembled and carried their own gear to the boat about 50 yards away, the staff carried ladies' tanks to and fro. Night dives depart at 5:30 p.m. with a four-diver minimum but on one diver's last day, after he was unable to find three other divers for any night dives, they took him out anyway.

NOAA Charges Florida Dive Boats with Illegal Spearfishing

The sinking of the *U.S.S. Oriskany* brought more business to dive shops in Pensacola, FL, but it also enticed a few to bend federal rules and run illegal spearfishing charters to the aircraft carrier and other Florida Panhandle dive spots. After a year of complaints, the National Oceanic and Atmospheric Administration (NOAA) ran a sting operation, with undercover agents posing as gung-ho divers with spears, to find the culprits. In December, it charged Jeff Folds of Southern Offshore Adventures and David Mucci of Blue Water Adventures with running illegal spearfishing charters without appropriate permits in federal waters.

Allan Coker, a special agent working with NOAA's law enforcement division, told *Undercurrent* the tip-offs started in summer 2007. Last summer, he placed undercover agents on board Folds' boat *Daisy D.* and Mucci's boat *YKnot*, then shadowed them with an undercover boat. "I called them as a diver asking for opportunities to go spearfishing in federal waters and they gave me prices, so it was obvious that they were doing this."

Besides operating with a federal charter, Folds was charged with illegal use of an explosive-charge device to take reef fish, and making a false statement to law enforcement officials. NOAA is fining him \$19,000 while Mucci's one charge got him a \$12,500 penalty. "We're getting attorneys

and fighting this," Folds says. "This makes us sound like a bunch of outlaws. You must have a reef permit for spearfishing in federal waters, but I don't advertise or do those charters. I charter to the *Oriskany* and if a passenger has a spear gun and asks to use it, I let him because there's no fish there to spear anyway."

Folds and Mucci believe the charges are a conspiracy brought against them by a rival dive shop. Apparently, the two main dive shops in Pensacola, Dive Pros and Maximum Bottom Time, have a rivalry. "We're affiliated with Dive Pros, while MBT never had any of their dive boats boarded or was charged, even with evidence that they also had spearfishers on board." Adds Mucci, "Out of all the six-pack operators on the Gulf Coast -- and I know for a fact there are at least a dozen without the proper licenses -- Jeff and I were the only ones who were fined. I find that highly suspicious."

Coker denies there's a conspiracy. "We never set foot in either one of those dive shops until after the investigation began, but we received more than one complaint about them and we were absolutely positive these two boats were doing illegal activities." He doesn't believe it's rampant, though. "There's a lot more boat activity since the *Oriskany* was sunk, but I don't think illegal spearfishing is widespread."

Overall, Akumal Dive Shop was a smooth operation. Jesus, the manager, sported the cheer and hearty laugh of an entertainer. Betty managed the front desk efficiently, always asking if I was happy with everything, and the other pleasant employees handled their duties professionally.

The boats are standard open skiffs, with tank holes in the seat running the boat's length. No need for shade covers because the boats go directly back to the shop between dives, and sites were no more than eight minutes away. Most of my dives had four divers per boat. Getting on and off was easy -- I simply walked into knee-deep water where the boats were moored and climbed over the side, but a ladder was available for short-legged divers.

After a synchronized backroll off the side and an OK to Freddy, the boat captain, we dropped down to the reef at La Tortuga. In the 80-foot visibility, sand patches mixed with ridged and grooved coral structures began at 40 feet. Divemaster Moises and Jim, happy to putt around the reefs, were quick to shake a rattle to show off a lobster, moray, turtle, ray or other critters. Moises, well-known for his critter-spotting, has a loyal customer following, while Jim is a transplanted Michigander. We dived as a loose group, staying in the divemaster's visual range. It was never a marathon to rush around with cameras and boast about visual sightings later, like I've experienced at Cozumel. I prefer to peer into crevices for the little hidden critters, and here I found several corkscrew anemones with their attendants, nearly transparent Pederson's cleaner shrimps.

When it was time for the safety stop, Jim sent up a little fluorescent float so Freddy would be there when we popped up. One by one, we handed up our weight belts, BCs and then fins to Freddy and climbed the ladder. Maximum depths for morning dives were 90 feet, while the latter two averaged 50 feet. The waters were indeed a warm bathwater, averaging 82 degrees, and the air temperatures in December were a few degrees warmer. Most dives were an hour long with the aluminum 80s, but Nitrox is available and Akumal Dive Shop promotes its technical dives.

The Yucatan is famous for its extensive, majestic cave systems called cenotes (pronounced say-NO-tay, and Mayan for "sacred well"), and Akumal is in the heart of cenote country, with some of the world's most expansive cave systems just down the road. I sprung for the extra \$75 to do the one-tank cenote dive that any basic open-water diver can do. The 75-degree fresh water (I had to adjust my weights) was so crystal-clear I felt like I was finning through air. Passing through the limestone stalactites and stalagmites covered with a jewel-like crystalline surface was like taking a trip to a grand, mysterious cathedral of diving, even though the depth only hit 30 feet.

Did This Diver Fake His Own Death?

For 11 hours on September 11, 2008, helicopters, boats and divers from four agencies searched the waters of Laguna Beach unsuccessfully for John Sung Park, 29, who went diving with friends but never surfaced. It was believed he perished underwater. But now investigators have announced that the native of Buena Park, CA, was spotted in Los Angeles, and they believe he faked his own death to avoid three arrest warrants and a sentencing.

Police from Laguna Beach and Newport Beach, along with the Coast Guard and the Orange County Sheriff's Department, began searching for Park when his two dive buddies said they never saw him exit the water. When his body wasn't found, it was thought he had been trapped in one of Laguna Beach's underwater caves. Nearly \$50,000 in resources was spent looking for him.

But before he disappeared, Park had two arrest warrants issued against him. One was an Orange County case where he pled guilty to possession of a controlled substance, receiving stolen property, forgery and second-degree burglary. He was expected for sentencing in that case on September 15, four days before he disappeared in the depths. The day before his dive, he sold his Mercedes and two weeks later, he allegedly showed up in L.A. at the home of the woman who bought the car, demanding it back. During the altercation, he swiped the car and ran down another woman as he fled. A \$95,000 warrant for his arrest has been issued. Keep an eye out for a black Mercedes with license-plate number 5ZUA733.

This reminds us of a case we reported nearly two decades ago when a diver faked his death off Florida, only to be found years later working as an instructor in the Maldives.

Akumal, Mexico

| | |
|-------------------------------|--------|
| Diving (<i>experienced</i>) | ★★★ |
| Diving (<i>beginners</i>) | ★★★★ |
| Snorkeling | ★★★★ |
| Accommodations | ★★★1/2 |
| Food | ★★★ |
| Service and Attitude | ★★★★★ |
| Money's Worth | ★★★1/2 |

★ = poor ★★★★★ = excellent
Caribbean Scale

Another unique feature of Akumal diving was the plethora of sharpnose puffers, shy, three-inch pixies with facial markings of lapis and emerald. Sure, you can find them occasionally on a Caribbean or Pacific dive, but here these little guys were prevalent at every site I visited. Literally hundreds everywhere, even out on the open sand flats, poking around for food.

Sometimes if there was even a little current, we would start at Motorcycle and get out at Las Redes, or go to Las Redes and go south or north. There weren't many colorful fish except the occasional butterflyfish or common blue tang but even they were laid-back, uncaring if I passed over them going about their sand-making business. The

hard corals were varied and healthy, but evidence of better days gone by was suggested by the forms of huge elkhorn coral, some the size of a Yugo, long since dead. I saw no big fish, unless one considers them to be scrawled filefish, a grouper and some gray angels, but others reported small sharks and eagle rays while I poked in crevices.

Cho Mak and El Pueblito, two small grocery stores in "tourist" Akumal, offer an adequate food supply. My favorite eatery was an inexpensive food bar next to Cho Mak. A \$3 bowl of excellent chicken soup was great after a night dive, tasty tacos were under \$5, and burger and fries were \$4. For another inexpensive dinner, head across the highway to Ultimo Maya, where the ceviche, beef la plancha, and chicken fajitas get high marks for flavor and good value. Cuevo el Pescador, specializing in fish, was more upscale but I made the mistake of ordering steak, which was overcooked. Another bad decision was to ask the Casa Zama manager to recommend a cook to prepare a dinner for my dive buddy and me at the villa. The cook charged me \$60 for shrimp, rice, beans, and avocados, with no leftovers. A similar restaurant meal for two would have cost \$30.

If you feel like staying in a hotel, past reader reports have given good marks to the Hotel Akumal Caribe, and the beachfront condominiums at Las Casitas Akumal. Above water, plenty of Mayan ruins are nearby for side trips. Just 20 minutes south of Akumal is Tulum, the seaside "Walled City," thought to be one of the most important cities of the Mayan era. Xcaret and Xel-Ha are Mayan ruins turned into eco-cultural theme parks, but locals told me that the latter has a "swim with the dolphins" feature and treats the dolphins badly.

However, not all is perfect in this paradise, and the diving surely won't meet the standards of Cozumel diehards. But every time I sat on the patio to enjoy the technicolor view of Half Moon Bay and gentle waves against the shore, I was glad I wasn't up north, where the booming horns and shrieking mobs announce the arrival of more cruise ships. If you just want an easy place to dive with a decent amount of marine life and non-diving activities, a friendly and efficient dive shop, tasty and cheap food, and easy living, then give Akumal a shot. It's also close enough to Cozumel that you can add a few days before or after a trip as a cool-down from the crowds.

-- V.B.H.



Diver's Compass: Akumal Dive Shop offers dives individually at \$50 or as two- to 10-dive packages ranging from \$70 to \$290; cenote diving is \$75 for one dive and \$140 for two . . . Casa Zama is one of the house-rental listings available from Akumal Direct Reservations (www.akumaldirect.com). . . Car rentals are cheap but the insurance is not; I used Easy Way Car Rentals (www.easywayrentacar.com) because their rates, including full coverage, was \$189 while Hertz wanted \$360,

and a representative was waiting for me when I arrived at the airport. . . Day trips to Cozumel can be done via ferry from Playa del Carmen, a 30-minute drive north, and Akumal Dive Shop also arranges Cozumel trips . . . Web sites: Akumal Dive Shop: www.akumaldiveshop.com; Hotel Akumal Caribe: www.hotelakumalcaribe.com; Las Casitas Akumal: www.lascasitasakumal.com

Cabo, Cozumel, Dominica, Naples

Some good finds, but what's with the bad customer service?

While the 512-page 2009 Chapbook was full of both super and stinging reviews, plus an endless number of tips on the good and not-so-good diving, we've gathered much more information since. To keep you updated as you plan your travels, here are more thumbs-ups and thumbs-downs about dive operations around the world.

What Is a Marine Park? We divers would like to think they are no-take zones but in reality, most permit locals to fish, as we reported about the Little Cayman Marine Park in October. Conrad Kantor (Westlake Village, CA) dived the Bonaire National Marine Park in November and wondered where his \$25 fee goes. "The marine park is a joke. The reefs are generally fished out, and I daily saw boats fishing there. I was here 10 years ago and it was pristine. Now, after a week of diving, no lobsters, frog fish, seahorses or anything more than six inches in length." We tried to contact the marine park's manager Ramon DeLeon but got an e-mail that he was out for all of January. The park's web site admits it is short-handed. "The size of the Park presents a challenge....The primary challenge of managing it is dealing with the varied groups and individuals who use it...each with their own agenda." In the past, the rangers needed police help to deal with residents spearing and line fishing and throwing nets illegally, but at least now they have special police powers and can write citations themselves. Unfortunately, with a small staff and a big patrol area, it looks like that may not be enough to keep the reefs pristine.

Comfortel De Champ, Dominica. If you're looking for a new place to stay while diving in Dominica, C. Vernon Hartline, Jr. (Dallas, TX) recommends this new bed-and-breakfast guesthouse where he stayed in October. "It's owned by an expat Dutch couple, Hans Schilder and Lise van de Kamp, whom I met diving last year. Great facility with a killer view of Portsmouth Harbor. Ceiling fans and A/C, well-stocked refrigerator, great cooked-to-order breakfasts, eco-friendly operation, great Spanish wines by the glass, and friendly hosts who love their newly adopted country. They are presently completing a new bar and hot tub." (www.godominica.com)

DiveTech, Grand Cayman. We've often written about how DiveTech does a good job catering to advanced divers, but reader comments still come in about how they don't cater to beginners, and how the staff has an attitude. In fact, staff seems to be giving every diver the cold shoulder in customer service,

says Mark Thorne (Raleigh, NC). "They're generally friendly and safety-conscious but if you need something or have questions, you have to ask. They do not proactively offer assistance or information. It reminds me of a place that has all the business it wants, and the staff feels they don't need to do anything extra to generate additional business. I felt a slight arrogant demeanor in most of the dive staff toward the divers, and they kept their distance." It's a great dive venue, but with a recession in full force, reducing dive travel spending, owners Nancy and Jay Easterbrook might consider giving their staff a course in customer service – and a few well-placed reprimands.

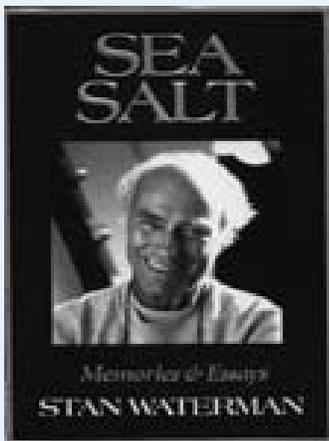
Barracuda Hotel, Cozumel. The reasonably priced Barracuda is certainly handy to all the action in San Miguel, but that means the cruise ships know about it as well. Says Dennis Jacobson (Lakewood, CO), "You should know that the crew members spend off-hours there, sometimes in large numbers. This is not all negative if you like meeting people from all over the world, but can make it loud during the afternoon hours." (www.hotelbarracuda.com)

St. Eustatius. The charming Old Gin House has great oceanfront rooms and a good dive operator, Golden Rock, whose owner manages the hotel. But it needs to loosen up for its customers. When Lourdes de Cardenas (San Juan, PR) was there in March, a tropical storm went through so she could only do half of the dives in her package. "Asked for a refund; did not get it, just a voucher for two free nights – the nights I did not use the hotel because I had decided to leave for St. Maarten. However, the voucher had to be redeemed before the end of 2008, and did not cover missing dives." Seems far too restrictive to us. Who returns in the same year and what's the big deal about sticking people in what will most likely be an unfilled dive boat a year or two later?

M/V Spree Moving to Key West. After finishing the hammerhead season in the Texas Flower Gardens, the boat is leaving the Gulf and moving to Key West to visit the Keys and Dry Tortugas. "This allows for fewer weather cancellations than the western Gulf of Mexico," owners Frank and Melanie Wasson wrote on their Web site. Starting May 15, they will run three- to five-day Dry Tortugas trips, with up to five dives daily. Their Web site will allow you to put down a deposit and pay in installments, a fine innovation in these difficult economic times. (www.spreeexpeditions.com)

Sea Salt: Stan Waterman's Story

If asked to name America's best representative for scuba diving and underwater videography, only one name could lead the list: Stan Waterman. His marvelous 2005 book *Sea Salt: Memories and Essays* has just been reissued and if you haven't read it, now is the time. Probably more people have been on a dive trip with Stan than any other diving icon and if you haven't, you still may. One of his great friends and *Jaws* author, Peter Benchley, now deceased, had this to say about Stan's book:



“Stan Waterman has spent more than half a century in, on and under the sea, and in these pages, he takes you with him on the amazing ride he calls his life. There is excitement enough in his encounters with wild animals and weird people to fill a hundred lives and all their fantasies. To cite just one example, have

you ever wondered what it would be like to dive in the open ocean with a huge school of certifiably anthropophagous sharks as they gorge on the carcass of a whale ... at night? Probably not. But hang on, because when Stan recounts scenes from the filming of the classic 1971 documentary feature film, *Blue Water, White Death*, you'll be there beside him, and astonished that anyone lived to tell the tale. *Sea Salt* is far more, however, than just a catalogue of critters and close calls. Stan has a profound rapport with the sea, and his command of language and literature eloquently conveys the depth of his feeling. The thoughtful, graceful writing sets the book a full step above most memoirs about the sea. Not only does Stan appreciate good writing -- you'll be pleased to encounter an occasional quote from Joseph Conrad or Henry Beston -- but he'll often turn a phrase or craft a paragraph that could well have come from the pen of a master.”

You can buy Stan's book at www.undercurrent.org at a low price offered by Amazon.com and our profits for the sale -- in fact, profit from any purchase you make while there -- will go directly to projects helping to save coral reefs. (288 pages, 32 pages of photographs, hardbound, \$30 list price.)

Dive Guides, or Lack Thereof, in the Florida Keys. If you don't like to dive without a guide, be aware that most Keys' dive shops don't assign divemasters to accompany divers in shallow dive sites, as Lois Wellner (Hamilton, OH) found out during her October trip to Abyss Dive Center on Marathon Key. “I was informed after the fact that dive shops in the area will only provide a divemaster upon request and for an extra fee. We were not aware of this until we had already booked the dive and were leaving the dock. Our mistake, but one other divers may want to consider before booking.”

Bahama Diver, Paradise Island. This story from one of our subscribers who lives in Macon, GA, is so bad, we've got to laugh. While the dive industry is promoting new efforts to get people to dive, this shop seems to have different ideas. “The divemasters did not introduce themselves, pushed the purchase of fish food and attempted to attract fish by dumping fish food throughout the dive. Even then, few fish showed. On the first dive, there was no coral and few fish of any size, an extremely boring dive. The dive boat did not have enough lead weights and they were so beat up that divers had to heft each one to guess the proper weight. The boat engine was turned off by yanking a rope attached to it. The boat ladder didn't have sufficient handholds above deck level, requiring hands-and-knees boarding. My buddy, doing his first openwater dive since becoming certified, was testing his buoyancy to find his 'sweet spot.' The divemaster swam over, messed with his gear, smacked his hand off his valve and wagged his finger at him.

Also, when my buddy was at surface, the crew asked him to take off his BC and hand it up. ‘Uh, don't you want my belt first?’ On the second dive, there were more fish and coral, but the divemasters continued to feed the fish and yanked critters out of their homes to show divers. When I refused to partake, they shoved a lobster in my face. When we had to cancel our second day of diving because of sinus illness, Bahama Diver refused to return our prepaid, full-priced fees. We paid \$119 for a \$50 dive. The purpose of our long weekend was to celebrate my buddy's long-anticipated certification but after this fiasco, he had no desire to return to the water, as ‘it's not worth it.’”

Turks and Caicos' Hurricane Aftermath. After being hammered by multiple hurricanes last summer, the islands' reefs are still in early-recovery mode, say two divers who visited a few months afterward. “A lot of the coral and sponges have been covered with sand and silt from the recent hurricane season,” says Jason Pellegatto (Worcester, MA) of his November visit to Providenciales. “The coral on the walls is pretty good, but the coral in the shallow areas has declined.” Says Hank Goichman (Los Angeles, CA), who visited in October, “The coral had a fine coat of sand, and the colors were muted. But there were plenty of fish, and we saw grey reef sharks and barracuda.”

Low Key Watersports, St. John. Divers who pay good money shouldn't get horribly bad attitude like Randy Thompson (Boynton Beach, FL) got from this place in November. “On my first dive on the second day, I had a crappy

setup. The octopus free-flowed badly. The dive captain, an antisocial, gruff type, kept yelling at me, 'Put your reg in your mouth! Turn the octopus face-down!' I kept saying it was down but because the free-flow was loud, I guess he couldn't hear me. He told me to swim back to the boat. Jeremy, the divemaster, appeared annoyed with me and messed around with it for a minute. When I lost hold of the ladder and put my hand on him, he said, 'I need you to hold the ladder and keep your hands off of me.' He fixed the problem, or kind of, clipped it to my BC and told me, 'Now I need you to keep your hands off of it. Don't touch it.' Like I was a little kid who had caused the problem by messing with it. As I descended and checked the gauge, I had a whisker more than 2,000 psi to start the dive. As if all this wasn't bad enough, the mouthpiece had been bitten clean through on one side and just the pressure of the water against it kept pushing that side out of my mouth, so I spent the whole dive holding the hose to keep it level." Low Key expects payment in full for any package up front, says Thompson. This is in addition to a hefty down payment before you arrive. "When I expressed surprise because the e-mails they sent me made no mention of this rigid policy, I got the cavalier, flip reply, 'No cash, no splash.' Real nice."

Good News in Cabo San Lucas. Readers have typically had problems finding a good dive operation in Baja California, but Georg Gottschalk (San Francisco, CA) found this one in November. "Sunshine Dive & Charter is run by Lars Helten, an extremely experienced instructor who has run dive shops from the Maldives to Bali. He provides free Nitrox on any dive (he can because he supplies all the other dive shops), and he and his crew are top-notch, flexible and accommodating. The entire operation runs smoothly and efficiently, and is lots of fun to dive with. When my guide and I followed a stray ray into the blue at Neptune's Finger, we found an entire school of devil rays, then hung at 80 feet while they circled us. At Gordo Bank, Lars eyed a hammerhead at 100 feet. We followed it down to 130 feet and hit upon at least 75 of them. Pelican Rock is a snorkel paradise, and the safety stop there was always literally in the middle of a huge swarm of tropical fish of every size and color. Lars will find just the right dive for anyone, from beginners to the most experienced divers." Sunshine has branches in San Jose del Cabo, Cabo Pulmo and La Paz. (www.bajadivecharter.com)

Club Cantamar, La Paz. I did a full review of this operation three years ago and it looks like the staff attitude I found still lingers, according to A.C. Davidson (Sacramento, CA), who visited in December. "The first morning, we were not even greeted with a hello. We had to ask about everything and were made to feel as unwelcome as could be. Divemasters Fabricio and Chucho did as little as possible to be helpful. While they were lackluster about their jobs, the captain of the *Siempre Si* was very helpful with cameras and getting divers back onboard. He even prepared the Mexican lunches. Always willing to redirect the boat to see whales surfacing, dolphins riding the wake, even an occasional turtle, so he made up for the poor service. Fortunately, the diving did, too. Diving with the sea lions was

phenomenal; they tugged at fins and prodded us with their noses. El Bajo lived up to its reputation with strong currents, but the reward was 250 schooling hammerheads."

Sipadan's Tight Permit System May Ease Up. In the January issue, we wrote how the Malaysian island's permit system of 120 divers maximum per day was screwing up many divers' travel plans, with some not getting a chance to set fins in its waters. Now after settling a territorial dispute with Indonesia, the Prime Minister is set to hand over administration of Sipadan to the Sabah state government. "We have set up a small panel to look into various aspects governing the administration of Sipadan," a Sabah official reports, "to ensure, among others, that the island's pristine environment remains

Ouch! Diver Spears Himself in the Groin

What a way to start the new year. An Australian diver had to be rushed to the hospital after stabbing himself in the groin with a speargun. The drama unfolded off the rocks at Point Perry, an hour north of Brisbane, when Greg Robertson, 25, was using a speargun for the first time. A big wave knocked him off the rocks and pushed him onto the speargun, which had been washed out of his hands by the wave. The six-foot-long spear rebounded off the rocks, pierced his inside upper thigh just millimeters from his genitals and femoral artery, and lodged several inches under the skin.

His friend Casey Jensen saw the incident and told the *Sunshine Coast Daily*, "The spear's barbed on the end, so it's locked in there. We joked about it...we told them to not spear themselves and mistake themselves for a fish, and then it actually happened."

A rescue helicopter dropped two crew on the nearby rocks, then performed a winch rescue in front of hundreds of onlookers gathered for the spectacle. Paramedics stabilized the bit lodged in Robertson's leg and unscrewed the long pole so there was only six inches sticking out. Robertson had surgery to remove the spear later that night and was reported stable and resting the next day.

This reminds me of one of my teenage spear fishing trips in Puget Sound. I took a friend out for the first time and as soon as he put his head underwater he saw an enormous fish, or so he thought, and jabbed it with his three-pronged Hawaiian Sling. Trouble was, the fish was his green Voit Frogfin, and he jammed himself in the top of his foot. He yanked the spear out on the beach, and the diver went diving again.

-- Ben Davison

untouched, and to plug the loopholes.” Then Sabah Parks will handle day-to-day running of the island. One proposal is to modify the restrictions to allow 120 divers in the morning, and another 120 in the afternoon.

Centro Sub Campi Flegrei, Naples. We don’t often write about European diving, but every so often there’s a reader report about a unique-sounding site -- and hey, the Euro is down. Robert Halem (San Jose, CA) recommends this Italian dive shop he dived with in October, but for the ruins instead of creatures. “Just as the Naples area is famous for Pompeii, it has another set of ruins underwater at Baia. The government has established a national park covering the archeological site, and diving with an approved leader is mandatory. The first dive is on a series of brick pilings that once supported a Roman causeway. Near one end of the row of pillars, the sea floor bubbles due to volcanic activity. If you put your hand in the sand, you can feel the warmth. On the second dive, we were in only 11 feet of water, but diving through a complete Roman village. You could see the two-foot-high remains of walls, and follow the doorways, rooms, and in some of the more opulent, complete mosaic floors. I was on a cruise, so had to rent all equipment but stuff was in reasonable condition. I had informed them in advance that I needed a 2X or

3X wetsuit but they had nothing large enough, so I had to dive in 72-degree water without a wetsuit. That would be my only issue with the operation, and I was more than compensated by the sights.” (www.centrosubbcampiflegrei.it)

Aggressor Cancels North Sulawesi Trips. Kent Roorda (Denver, CO), who had booked an upcoming trip on the *North Sulawesi Aggressor*, told us he was notified by the Aggressor Fleet that it has cancelled all future trips for that boat. “Apparently, they are helping all future booked passengers, as we were, with air and hotel cancellations and refunds.” We contacted manager Anne Hasson, who said trips were not profitable for the franchisee. Aggressor has taken the North Sulawesi itinerary off its Web site but as of mid-January, had not listed any details about the cancellations. If you booked a North Sulawesi trip on Aggressor, contact the reservations office ASAP at 800-348-2628.

That’s enough for this issue. As we and our readers uncover more developments, we’ll keep you informed, both in these pages and in our regular e-mail updates. (PS: If you’re not getting e-mails from us monthly, it means we don’t have your e-mail address. Send it to pete@undercurrent.org, with your name and hometown.)

-- Ben Davison

A Must Have for Nitrox Divers

oxygen analyzers that met our requirements

A diver’s life used to be simple. After filling your tank, you inhaled and if it was clean air, everything was OK. If it had an oily taste, you felt sick during the dive. If it was contaminated with carbon monoxide, you died. The deeper you went, the less time you had, and you had to consider how much nitrogen you might have absorbed. That was what decompression tables were for. That much hasn’t changed.

Then along came Nitrox. By increasing the amount of oxygen in “air,” the effects of nitrogen dissolving in the body at depth are reduced, which means, compared to air (Nitrox 21), longer dive times for any depth. If the no-stop times are kept the same as for air, an increased level of safety is introduced.

Increasing Nitrox’s Oxygen Level Comes With a Price

If you breathe oxygen at a partial-pressure greater than, say, 1.6 bar (that’s equivalent to pure oxygen at more than 1.6 atmospheres), there is an increased risk of oxygen poisoning. But arguments rage as to what the safe level is. After the statistical evidence for 1.6 was put forward at Planet Tec in the mid ’90s, the training agencies, ever mindful of litigation, set a maximum of 1.4 bar. With ordinary air, that would give it a maximum depth of 175 feet. However, Bret Gilliam once held the record for the deepest air dive to 475 feet. It’s been broken

since. I watched Rob Palmer do a sequence of air dives to 390 feet, and he got away with it for five of six dives – he died on that sixth dive. So we can only really say that oxygen poisoning is accumulative and affects each individual differently.

Because air is often supplied alongside Nitrox, even air divers need to analyze their tanks to be sure they’re filled with air and not mistakenly filled with Nitrox.

Since Nitrox contains increased oxygen, the amount being up to whoever mixes it, we need to analyze it ourselves to be satisfied we have the right mix for our dive plan. Because air is often supplied alongside Nitrox, even air divers need to analyze the gas in their tanks to be sure that its air and that they haven’t erroneously been filled with Nitrox.

Analyzer Calibration

A Nitrox analyser has an oxygen sensor that generates a voltage that varies according to the percentage of oxygen

Brownie's Third Lung Recalls Its Hookah Air Compressors

Note to subscribers: Whenever *Undercurrent* hears of a recall, we e-mail our subscribers with the recall information and include it in our newsletter. We previously publicized recalls of both the Aeris and Halcyon inflators. Here's the latest:

While few real divers use a hookah -- air supplied through hoses connected to a compressor either back on the boat or floating in a buoy -- their kids might. So be aware that Brownie's Third Lung has problems with components in some models of its compressors that can

cause premature wear and tear, and also stop air flow. Brownie's will inspect, repair and upgrade affected compressors at no charge and renew the warranty for another year.

The recall is for compressors manufactured since July 2007 with serial numbers 14421 to 15715 (that's for models F280X, F390X, C270, C390, CTD390) and serial numbers 14344 to 15762 (models E250 and EC2). The serial numbers are printed on a metal tag on the rim of the yellow storage case or, for commercial models, on the deck. Call Brownie's sales department at 800-327-0412 for a return authorization and details about shipping back the compressor.

present, and gives a readout on a voltmeter calibrated in percentages. An analyzer reading is affected by air pressure (weather) and the aging of the sensor cell, so before each dive, it needs to be calibrated at 20.9 percent O₂ with clean air passing around it. If you calibrate using pure oxygen instead of air, the sensor readings will be three times more accurate.

Recently, I was on a liveaboard with a diver who was a gas analyst from Siemens. He merely checked his tank each time to see that he didn't have air. He told me that the analyzer on board was so inaccurate, it was only good for telling whether you got air or something else, but nothing more. He just checked to see if it went over 21 percent but didn't bother with a final reading. Furthermore, he said, the little oxygen analyzer that I had held so much faith in was almost totally inaccurate. I was shocked. So what was wrong with the simple equipment that was available to us?

The problem stems from gas flowing over the sensor. He pointed out that the gas had to be stationary or controlled to a known rate. By simply increasing the flow, the apparent oxygen content increased. Cracking open a tank valve "just a little" and holding the cell over it is evidently not accurate enough for him. Temperature also makes a difference, and gas depressurizing from a tank can be very cold.

Some analyzers use the direct-feed hose to the BC, using the regulator first-stage as a flow control. It takes time to get a reading and this seems unpopular with divers impatient to get in the water. Divers will always look for the most convenient method. I have witnessed Nitrox being analyzed by holding the sensor in the mouthpiece of a regulator while the purge button was pressed.

But manufacturers have come up with designs to get a stationary sample of gas at the same ambient temperature and pressure with which the analyzer was calibrated. Some restrict the flow of gas over the cell while others attempt to capture a stationary sample. It seems that the bit of plastic tube that interfaces between the tank valve and the sensor is very important.

If your Nitrox is made by the older partial pressure blending system, you need to know your analyzer is exact, because there you may inadvertently get very high percentages of oxygen, if by mistake.

Oxygen Sensors

Depending on how much work an oxygen sensor does, its performance declines. Even when you are not using one, it will still be working if the sensor is surrounded by air. So sensors tend to have a shelf life of two years (some manufacturers now claim up to five years), provided their gas-barrier packaging has not been opened. They should provide a millivolt reading between 10 mv for air and 60 mv for pure oxygen. Used sensors become unpredictable when they reach the end of their useful life. While it does no harm to keep an analyzer in an airtight container, some experts tell me this adds little to the lifespan of a sensor because there are so many other factors to consider.

Heat shortens a sensor's life. Keep your analyzer out of the sun and away from any hot place. Other factors include the cleanliness of the lead anode and the exact composition of the electrolyte. Vacuum packing and freezing have inherent risks of damage. Some say that you should store it in an inert gas but this raises questions of wake-up time for the cell after it is brought out of storage. If you get a reading more than one percent different from your expectation, or are using a sensor that has been mishandled, do not use it to analyze the oxygen content of an unknown gas.

So should you trust your dive operator to analyze your Nitrox accurately, or should you carry your own analyzer? While you can trust most operators, today more divers have decided they want to know the precise amount of oxygen in their Nitrox, and tote their own -- and a good one at that.

I looked at several analyzers to see how convenient they were to operate. I also checked each against the same tank of Nitrox to see if there were differences in measurement. All the analyzers I tested were calibrated using the same tank of air, and all gave a reading of my sample gas within 0.5 of a

percentage point of each other. Knowing the inaccuracy of decompression theory, that's probably accurate enough.

VN202 This provides a choice of methods for sampling gas. The sensor cell is at the end of a flexible cable, and can be plugged into a conventional Quick-Ox sampling tube. Otherwise, it can be connected to a DIN tank connection (not a pressure-reducing valve), complete with a not similar chamber to the Quick-Ox and a long exit tube. Sample by turning the gas on for five seconds and off for five more. It proved quick and easy to calibrate. (Approximately \$245 with Quick-Ox and \$255 with DIN tank connection; purchase on the manufacturer's Web site www.vandagraph.co.uk)

Tek-Ox An analyzer designed to make use as convenient as possible. Simply hold the attached Quick-Ox sampling tube over the cracked tank valve, and let the gas migrate up inside the unit to its sensor cell. Then turn off the tank so that the trapped sample is static. I found it probably simplest to pull

off the sampling tube and wave it around in fresh air to get an initial setting, being careful to avoid backdrafts from boat exhausts, which could give errors while under way. The reaction time was quick and the display is big. It was my favorite among those intended for individual divers. (Approx. \$260; purchase at the manufacturer's Web site www.vandagraph.co.uk)

Dynatron OxySpy This Swiss-made analyzer is similar in concept to the simpler-looking but more expensive Nuvaire. Knowing that divers can be lazy, OxySpy is designed to be as convenient to use as possible. I thought the calibration procedure was a little confusing and also quite time-consuming, but it was very convenient to use once this was done. (Approx. \$290; www.dynatron.biz)

Analox O2EII A popular compact analyzer often supplied on dive boats. Simply wake it up by pressing a button. Calibrate it in air by adjusting a knob to get the right percentage according to a compensation chart provided on the LCD.

The Inadvertently Inflating Power Inflator

In our December e-mail to subscribers, we asked if any had experienced equipment problems they cared to share. The old bugaboo -- the power inflator that sticks, leading to constant BCD inflation and excessive buoyancy -- reared its head again.

Ken L, who has made 62 dives, said, "I had my inflator stick at the bottom of a fairly deep dive, but I kept my head, held onto a rock, had to pull it to stop and exhausted extra air in my BC. It was an Aeris standard inflator and either the spring isn't strong enough to pop it back out when using it or cleaning it is too difficult. At any rate, I purchased an inflator/regulator combo with much better controls and, in the process, eliminated a hose."

Tim Pinkerton (Calgary, AB) explained his problem and the solution -- disconnecting the inflator. However, a diver can also flare -- spread his arms and legs and position himself perpendicular to the surface -- to slow his ascent.

"After 33 years of diving, we are all bound to have experienced some sort of equipment failure. While I am meticulous in ensuring that my gear is 'well' serviced, I have encountered numerous occasions where my gear may not have performed as it should have. The latest, however, has to do with a stuck inflator. Inflators stick and more than once. On this particular occasion, however, while diving in Utila two years ago, my Halcyon inflator stuck. The solution is, of course, a simple one: simply disconnect the inflator and orally inflate the BCD. Regretably, this problem occurred during a night dive. During the course of my attempts to resolve the

problem by disconnecting the inflator, a new diver (Sweet Sue), unaware of my presence, kicked my mask off. Fortunately, it settled on a sandy bottom in 50 feet of water. With some joint effort with my dive buddy (my wife), we located the mask and completed a lovely arm-in-arm dive.

"Once I was topside, I simply replaced the inflator with a replacement inflator from my save-a-dive kit. Yes, granted mine is a little more comprehensive than most. However, I had the same recurring issue toward the end of this vacation. When I returned home, I learned that this particular stainless steel inflator had been recalled. Now, I should have probably solved the inflator problem prior to the trip. Just prior to this warm-water destination, I went ice diving and experienced a similar issue. I chalked this event to just a frozen inflator, but it did give the opportunity to have a great view of the ice with my face pressed nicely against it -- including the buddy that I took up with me.

"Had I spoken with my dive shop at that time, they may have been aware of the recall recently issued on the inflator. Alternatively, I could have searched the Internet, as it was eventually posted there. The point of this particular story is if you suspect a gear problem, there probably is one, so talk to your local dive shop and do some research of your own -- you may learn something not even your dive shop is yet aware of. I should add that it was a model Halcyon had recalled, and they were quick to replace both inflators that I had. They also had the recall posted promptly on their home page upon learning of the design error."

Then offer up the sampling hemisphere of the analyzer to the slightly opened valve of the Nitrox tank to be checked until the reading stabilizes. It may not be the most accurate way to do it according to the experts, but it is good for confirming an anticipated Nitrox mix. (\$325; www.analox.net)

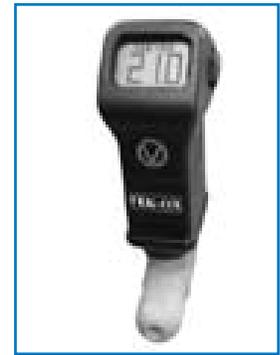
Nuvair O2 Quickstick This is merely a plastic cylinder containing the cell, a voltmeter, and the LCD readout with a simple hemispherical head containing a tiny orifice that you place firmly against the tank valve after cracking it open a little. It is calibrated for air (O2 20.9 percent) and supplied with a fine long-handled screwdriver. Alas, switching it off means taking the battery out, a cumbersome operation. (\$250; www.nuvair.com)

Alpha-1 This tough little unit in an anodized metal box comes with a long hose complete with constriction in-line offering a connection that conveniently clips over your tank valve. It proved simplest to use on a known tank of air as a supply for calibration. It was a workmanlike answer to the problem of knowing what gas mix I had, and its metal construction will give it certain longevity. (\$500; for sale at Andi International's Web site www.andihq.com)

OMS. Favored by many technical training agencies, this one comes with a DIN-connection regulator first-stage to operate as a pressure-reducing valve at the end of a hose. It also has an anatomical shape to help with holding it,

an on/off switch and a rotating knob for calibration.

I suspect most divers would just whip off the hose connection where it presses in at the sensor cell end, and wave the unit around in fresh air to calibrate it. Attaching it to a tank, I was able to get an apparently accurate reading that was quick, easy and free from user error. (\$482; www.omsdive.com)



Tek-Ox Analyzer

So which one to buy? All of the analyzers included here were adequate for the job. However, what separates them is not the core hardware but the method of gas-sampling. Only the Vandagraph analyzers with the Quick-Ox sampling tube attachment meet the requirement to analyze a stationary sample of gas. And of all these, Vandagraph's VN202 and Tek-Ox analyzers seemed the most convenient to use.

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.

Rebreather Firm Wins Its First U.S. Lawsuit

did diver error or product liability cause a user's death?

In our April 2003 issue, we ran an article titled "Is the Inspiration Rebreather a Death Trap?" It focused on the inquest of an Irish diver who, while using the rebreather manufactured by British firm Ambient Pressure Diving, died within minutes of entering the water. The jury was uncertain of the cause of death, while Ambient said it was due to diver error.

The Inspiration is a closed-circuit rebreather that recycles exhaled gas through a carbon dioxide scrubber, removing carbon dioxide and injecting oxygen at preset levels. Closed circuit rebreathers are pricey (the Inspiration has a list price of \$9,000) but they're becoming more popular with sport divers and underwater photographers because they provide more bottom time at greater depth and don't produce bubbles that bother marine animals.

At that time, 16 divers had died while using the Inspiration. Now, nearly six years later, the death count is 40. But while none of the investigations puts Ambient at fault, the manufacturer decided to stand up for itself in

the first U.S.-based case of product liability filed against it. Instead of settling with the plaintiff, typically the course taken with lawsuits involving dive equipment, Ambient decided to fight back in court.

The plaintiff was Stephanie Barrett, who was four months pregnant when her husband Robert Barrett drowned while using an Inspiration in a Bainbridge, PA, quarry on August 3, 2002. The 32-year-old dive instructor was teaching a student and had two dive buddies along with him. Stephanie, seeking \$5.75 million in damages, claimed a design defect in the Inspiration caused it to stop supplying oxygen after two minutes, when Barrett was 15 feet deep. Then, as is typical in liability cases searching for deep pockets, she sued a number of other parties, from the TDI instructor who certified Barrett six months prior to his death to the person who inspected his rebreather for the police investigation. Her claims of Ambient's breach of warranty, and unfair, deceptive trade practices were dismissed for lack of evidence, but the negligence and product

liability claims sat on the table and went to trial in New Hampshire, where Stephanie lives, in November 2008.

Ambient hired David Concannon, a lawyer in Wayne, PA, as trial counsel. He traveled to four countries and seven states to gather evidence to present to the jury. He even got Inspiration rebreather-certified and repeated Barrett's last dive eight times in the Bainbridge quarry. Concannon told *Undercurrent* that the plaintiff's attorneys "never visited the scene of the accident and never made any effort to interview any witnesses until three years after they filed the case. When I went to the dive site, I talked to the guy who brought Barrett to the shore, who said the Inspiration was turned off at the time. He had told the plaintiff's attorneys a year before the trial, but it was never mentioned in the 300 pages of expert report that the lawyers put together." That established the basis of Ambient's case that the death was due to diver error.

The plaintiff's star expert witness was Alexander Deas, manufacturer of the Apocalypse rebreather and an Ambient competitor. After tests in a pressure chamber to reconstruct Barrett's rebreather video display, Deas testified that a combination of electronic and software failures of the Inspiration's redundant control systems caused it to stop delivering oxygen. As a result, he claimed, Barrett passed out due to hypoxia and drowned. Deas estimated that within the first 45 seconds of the dive, the oxygen controllers disabled, and the primary and secondary power lines failed. Barrett would only have been conscious for six minutes and 20 seconds.

Because the Inspiration's computer data was never recovered, it's inconclusive how long he was conscious, Concannon argued at trial. Bill Hamilton, Ambient's diving physiology expert and a longtime consultant to the

technical diving community, disputed Deas' methodology, saying his six-minute timeline was not scientifically valid. Deas' six-minute estimate was further deflated when Barrett's three dive buddies said they were together for 10 minutes when Barrett swam away as they reached the quarry floor. It was a local dive instructor who discovered Barrett's body directly under the training platform where the dive buddies spent 38 minutes waiting for Barrett to return before they called the dive. Concannon faults them with negligence for not alerting the police until three hours after Barrett disappeared.



Inspiration Rebreather

David Pence, diving safety officer at the University of Hawaii and one of Ambient's expert witnesses, said Barrett failed to follow training guidelines by not reading the oxygen levels every minute of his dive. If oxygen was low, audible warnings would sound in Barrett's left ear, in tandem with visual alerts. His dive buddies admitted they immediately went into the water without performing equipment inspections, and they didn't see Barrett do it either. Pence also testified that Barrett was negligent by putting rubber seals on the Inspiration's regulators, which keeps dirty water and ice out but creates a "cork-the-bottle" effect by stemming oxygen flow. Ambient includes a two-page "Do's and Don'ts" letter with its rebreathers, which Barrett bought in June 2000, and one of the warnings is against the use of rubber seals. Barrett also used a less effective carbon-dioxide scrubber material not recommended by Ambient because it could cause carbon dioxide poisoning.

The eight-person jury was allowed to hear evidence of other deaths that occurred with the Inspiration, but Ambient also read the coroner's verdicts, showing the rebreather was not at fault. After a two-week trial, the jury found the plaintiff did not prove that Ambient was strictly liable for Barrett's death, and the judge dismissed Stephanie Barrett's request for a new trial. "If the rebreather was not turned on when it came out of the water, that's not Ambient's fault," says Concannon.

Even though the trial is over, Ambient and Deas still do battle. Concannon says that Deas is trying to get his competitors eliminated from the market or force them to license his design, and he bends his facts as an expert witness. Deas still believes he was right about product malfunction causing Barrett's death, and that Ambient tries to discredit any expert witness testifying against it in legal cases. "I've sat on the sidelines for too long but I've decided to get

The Major Cause of Dive Accidents

When asked to identify the main causes of diving accidents or near misses, U.S. Navy divers identified non-technical rather than mechanical or environmental causes. Complacency, followed by fatigue and inexperience, was the most common reply.

In a review of 1,000 recreational diving mishaps, inexperience and insufficient training accounted for 14 percent and 8 percent respectively of the contributing factors to the mishap. Also, in a review of 109 recreational diving fatalities that occurred in 2003, nearly 45 percent of victims had not dived in the 12 months prior to their mishaps.

Dr. P.E. O'Connor, The nontechnical causes of diving accidents, Society of the Undersea and Hyperbaric Medical Society, Vol. 34, No 1.

involved because the death rate from using their rebreathers is just too high.”

Hamilton says operator error is the case in the vast majority of rebreather deaths. “They’re due to ‘finger problems,’ in that divers press the wrong buttons. Outright failure of rebreathers is very unusual, but the diver should be trained well enough to know how to handle it.”

Bret Gilliam, a frequent *Undercurrent* contributor and expert witness in dive-related lawsuits (although not this one), reviewed the *Barrett v. Ambient* case and agrees with the jury’s verdict. “Rebreathers are not for everyone. They

should belong to the truly committed divers who will use them responsibly and respect their complicated mechanisms that require vigilant observation and compliance. They are not recommended for ‘weekend warriors.’”

Now, another case involving an Ambient rebreather-related death is being prepared in Los Angeles. Concannon says the facts are nearly identical to the Barrett case, and Alexander Deas says he may again be an expert witness for the plaintiff.

-- Vanessa Richardson

Abalone: The Fatal Attraction

why are divers killing themselves over these marine mollusks?

Just as the 2008 California abalone season was drawing to a close, a 29-year-old environmental engineer became the eighth person to die while hunting for the marine mollusks off California’s North Coast. Jonathan Su of Sunnyvale, CA, disappeared November 9 while freediving with a cousin at Fort Ross in Sonoma County. Eight days later, his body was found in 20 feet of water, his weight belt still attached. According to the *Press Democrat* in Santa Rosa, Su’s game bag was tangled in kelp, which may have prevented his body from drifting farther.

The cove at Fort Ross is considered one of the safest dive sites on the Sonoma coast, but on that day, noted Sonoma County Sheriff’s Sergeant Glenn Lawrence, there were 12-foot swells. In those conditions, added Lawrence, “Even an experienced diver can get in trouble.”

More Dangerous Than Skydiving

As a conservation measure, only free divers or rock pickers may take abalone, and in California, only on the North Coast, which starts just above San Francisco Bay. In these parts, the Pacific rarely warms up over 55 degrees and can dip into the high 40s, so full 7-mil wetsuits are necessary. Visibility is generally 15 feet or less. During extremely low tides, rock pickers clamber out to pick the mollusks out of pools.

Besides a state license, you need an abalone iron to pry the single-shelled mollusks off of rocks (before they can clamp down with very forceful suction) and a seven-inch, caliper-style gauge to measure each abalone taken. Abalone are found near kelp, one of their food sources. Divers reach the kelp beds by kicking out from shore, usually with the aid of a tube float or boogie board to support their catch. Others dive from boats or kayaks. Most divers do their hunting in 10 to 20 feet of water, but it’s a high-risk hobby.

Since 1987, 71 people have died while diving or rock picking along the North Coast. Of roughly 40,000 people licensed to take abalone, at least 23 have died since 2004 in Mendocino and Sonoma counties. By comparison, of about 300,000 licensed hunters in California, 11 have died in accidents since 2004. The website DropZone.com, which tracks skydiving fatalities, reports 12 skydiving deaths in California during the same period. “We deal with a lot of recreational activities, like hunting and fishing, and abalone diving takes more lives than any of them,” said Sergeant Shannon Barney, deputy coroner of Mendocino County. “There’s a lot of ways to get in trouble.”

Divers and rock pickers can be buffeted by strong waves that smash them against the rocks or sweep them out to sea. Three died in Mendocino County over two days in April 2007, when the ocean was particularly rough. All of the 15 abalone hunters who died in the last two years lived outside the North Coast area. Blake Tallman, who runs Sub-Surface Progression Dive Shop in Fort Bragg, says locals have an advantage because they can wait for good conditions. “The ocean is a lot more dangerous and unpredictable here than people think,” he said. “They definitely underestimate it.”

Kelp Can Be a Killer

Some fatalities are linked to heart conditions or other health problems, but two this year were caused by trouble in kelp beds. These were the only two deaths yet attributed specifically to kelp entanglement, but they may not be the last. North Coast beaches are home to bull kelp, one of the world’s fastest-growing and largest algae, which provide habitat for abalone. The amount of growth and number of kelp varies from year to year, depending on the amount of nutrients in the water, says Pete Raimondi, director of the Long Marine Lab at the University of California at Santa Cruz.

What's All the Fuss About Over Abalone?

Why are people willing to risk their lives scrounging for abalone? After all, these large sea snails are tough to find, tough to clean, and tough to eat unless laboriously hammered to tenderize before cooking. But abalone meat is considered a gourmet delight wherever it's harvested, including South Africa, Australia, New Zealand and Japan. In California, abalone has even more cache than Dungeness crab because it's so much harder to come by. With its delicate flavor and velvety texture (once properly tenderized), abalone adapts to a variety of cooking styles and preparations.

Abalone shells are also highly prized. The iridescent inner nacre layer of the shell (a.k.a. "mother of pearl") is used in jewelry, buttons, and as inlays in furniture and musical instruments, like guitars.

These single-shelled marine gastropods were once abundant off of California's coast and were harvested commercially until annual harvests exceeded the rate of re-population. By 1996, the total harvest was only five percent of the all-time high and in 1998, the California Department of Fish and Game closed the commercial industry. Now, only farmed abalone is commercially available for restaurants and specialty shops -- at a price.

Wild abalone can only be harvested by free divers or rock pickers for personal consumption, not for resale. Of the nine native California species, only the red abalone may be taken. The limit is just three a day and 24 a year. Legal abalone must measure at least seven inches in the shell. An eight-inch abalone will feed as many as four

people, and a ten-inch or larger abalone is considered a trophy catch. The seven-month season runs from April 1 to November 30, with a break in July.

Because no meat, even Kobe beef, is pricier than abalone, there are illegal hunters and poachers. So it's common to see Fish and Game officers watching divers with binoculars, and visiting those changing in and out of their wetsuits at their cars or campsites. Last year at my Marin County dive club's abalone hunt, a game warden gave a ticket to one of our licensed divers who had obtained his abalone legally but had failed to punch his game card. His \$500 fine was cut in half when he appeared in court.

Poachers are in for more trouble. The nonprofit watchdog Sonoma Coast Abalone Network reports that in just the first half of 2008, 40 individuals were arrested or taken to court on poaching violations, and the court doesn't mess around. For example, Californians Michael R. Henrie and Timothy S. Karley were each placed on 12-month probations and fined \$1,566 for taking three abalone over the limit. They also had to forfeit their dive gear that was seized on the day of the incident.

P.S. Pacific Abalone Farms of Monterey Bay offers live abalone in the shell for \$20 a pound (approximately 40 percent of the weight is meat) and \$80 per pound for processed abalone. Order via their Web site (<http://abalone.tv>). For more information, including a variety of tasty recipes, pick up a copy of *The Abalone Book* by Peter C. Howorth or *The Abalone Lover's Cookbook* by Jeri Siegel and Michael Hill, available at Amazon.com.

-- Larry Clinton, Jr.

This year's kelp could be the thickest and strongest in decades. "Kelp is having a very good year, after a series of bad years," Raimondi said. "It could be the most kelp many people have seen." That's because an upwelling of extra nutrients, probably created by cold water and strong winds, have fed this year's growth.

Kelp entrapped and killed an experienced 54-year-old diver in August. Mike Guerrero, a novice abalone diver from Castro Valley, CA, was in Sonoma County's Stillwater Cove when Craig Belluomini of San Bruno, CA, went missing. In an Internet posting, Guerrero described the attempts to rescue Belluomini, who was "floating like a scarecrow with his hands touching the surface," but was trapped underwater by kelp that had wrapped around his leg. Belluomini must have attempted to free himself because his knife was missing from its sheath, Guerrero wrote, and his weight belt was missing as well. Sonoma County sheriff deputies said Belluomini may have been underwater for 10

minutes before being cut free and pulled to shore, where CPR was unsuccessful.

Longtime diver Rich Baer of Scottsdale, AZ, drowned a month later when kelp wrapped around his waist and shoulders, and held his head five feet under water. His friend Ron Long said he was 30 to 50 feet away when he saw Baer make his last surface dive. When Baer didn't come up after a minute, Long swam down and found him. It took Long and another buddy three dives to cut Baer loose. By then, he estimates, Baer had been underwater five to seven minutes. Long, a certified diving instructor, said, "There was nothing that prepared me to go down in 12 feet of water and stare at the face of my best friend who was drowned."

Long believes he could have saved his friend's life if he'd been allowed to carry a small emergency cylinder of compressed air. "He was under for less than a minute and a half when I reached and saw him," Long maintains. Kelp entanglement made it immediately impossible to free his

buddy, but, he believes, “I might have been there in time to have shoved a regulator in his mouth before he took that fateful last gasp.”

Why Are Scuba Tanks Banned?

Long argues that California should change its rules and let certified divers carry a thermos-sized air canister for emergencies. The canisters could be sealed so that game wardens could determine if one had been used. “I firmly believe if I had one, Rich Baer wouldn’t be dead today,” Long said.

Harry Morse, a spokesman for the state’s Department of Fish and Game, said the scuba tank ban is intended to limit the overall harvest and protect the scarce resource. However, Morse told *Undercurrent* that he agrees the Fish and Game Commission should consider changing regulations to let some qualified rescue divers carry emergency air supplies. Long is currently soliciting ideas on how to approach the Commission, via the blog *Dead Fish Divers* (<http://abalonediver.blogspot.com>).

The Commission, which sets regulations and consults with the Department of Fish and Game, considers changes to recreational fishing every three years, and 2009 is one of those years. Its deputy executive director Adrianna Shea says the Commission is currently gathering recommendations from the Department, and will begin a public scoping process in May. At that time, the public can submit recommendations up until August, by letter or e-mail via the Commission’s Web site (www.fgc.ca.gov).

As divers’ travel budgets shrink in these lean economic times, it’s possible that more will opt for domestic diving along California’s North Coast. This could lead to an increase in what locals refer to as the “Sacramento syndrome.” After traveling long distances to the shore, some divers are determined to get in the water, no matter how rough the conditions. “By the time you get your wetsuit and your vacation house rental, you are spending a significant amount of money,” Sergeant Barney said. “You can’t spend all this money and not come home with something.” But that attitude, as we have seen, can kill the unsuspecting abalone diver.

As diver Shaun Stratton of Chico, CA, told the *Los Angeles Times*, “When you throw yourself into the food chain . . . you lose your advantages. You can’t just pull yourself out if you get in trouble.” Or as gonzo journalist Hunter S. Thompson once put it, “Civilization ends at the waterline. Beyond that, we all enter the food chain, and not always at the top.”

Author Larry Clinton, Jr. has brought home plenty of abalone and stories to go with them. He sautes them with his secret recipe and serves them with a chilled Chardonnay, accompanied by background music that his father wrote and performed, such as My Reverie, The Dipsy Doodle and other tunes performed during our last depression.

Thumbs Down: Gamboa Tours, Panama

The experience of Edwin Granite (Chaddsford, PA) with this tour operator in Panama City illustrates why serious divers should never book their trips through a tourist desk. Agents working on commissions booking trips with less-than-first-rate dive operations mean divers can end up paying far more than if they booked directly.

While at the Gamboa Rainforest Resort for Christmas, Granite made plans with Raiza, Gamboa Tours’ desk agent there, to do a day’s diving with ScubaPanama at Drakes Island and Buenavista Reef. “It was with the understanding that I would pay \$308 for diving, anticipating that I might be the only diver and required to pay for the entire boat. However, I had e-mailed ScubaPanama prior to arriving and if there were other divers, I would pay the standard rate of \$120 for one diver. Transportation, food and diving were to be provided by ScubaPanama, not Gamboa Tours.”

There were eight other divers on Granite’s trip. Two of them were also staying at the resort, and Granite found out later they paid \$308 too, but for both of them total. When he went to Raiza for a refund, she said the fee would remain \$308, then she put it on his hotel bill. “To my dismay, Raiza explained that if I had arranged the diving with a simple phone call directly to ScubaPanama or had the hotel concierge arrange the diving instead of booking with Gamboa Tours, I would have been charged by ScubaPanama for the one-diver rate without any additional charges.”

Granite wrote a letter to Gamboa Tours owner Gary DeLeon protesting the charge. In return, he got a measly \$44 credit on his Visa. “The reason I booked with Gamboa Tours is that usually when a tour operator books the arrangements for me, there may be an additional fee but the booking efficiency is better. The lesson I learned here is that booking directly with the dive operation is better, and exclude an intermediary tour operator whenever possible.”

He’s right in that tour operators can book trips efficiently in out-of-the-way locations, but Gamboa Tours charged the most expensive one-day, land-based dive we’ve ever heard of and, to rub it in, the diving was far from great. By now, first-rate dive operations worldwide should have Web sites with specifics about their trips and rates, and they should be able to answer questions and make trip confirmations by phone or e-mail.



Flotsam & Jetsam

Aggressor or Explorer? Here's two corrections to list for our January issue. In our story "What You'll Pay on Your Next Dive Trip," we accidentally printed Aggressor when it should have been an Explorer. Explorer Ventures is the liveboard fleet with the "5-5-5 Loyalty Program" that lets divers put their next trip on layaway. Regarding the Flotsam & Jetsam mention about yellow dive flags, the Web site www.TheDiveFlag.com is the right place to buy a flag for \$50, plus \$5 shipping.

A Dive Error to Laugh About. The *Los Angeles Times* ran a January 12 story about volunteer divers helping to get rid of a sunken trawler's fishing net that has been killing marine life near Catalina Island. While the story was well-intentioned, we were puzzled to read that the divers used tanks containing nitrous oxide, otherwise known as laughing gas. Did they want to giggle their way down to the bottom to make the work more fun? A day later, the *Times* printed a correction that the writer really meant Nitrox.

Round Up Fish on Your Next Trip. Divers of all levels can join staff from the

Boston-based New England Aquarium for a fish-collecting expedition in the Bahamas from May 3 to 13. You'll help them find reef fish and invertebrates for the 200,000-gallon Giant Ocean Tank and other tropical exhibits. The last day is spent in Miami, prepping fish for the trip to Boston. The tax-deductible fee will be between \$3,200 and \$3,500, which includes room, meals and cocktails on the *R/V Coral Reef II*, up to five dives per day, weights and tanks, and the opportunity to dive in the Aquarium's 200,000-gallon Caribbean reef exhibit. Contact Sherrie Floyd at 617-973-5248 or sfloyd@neaq.org.

The Ghost of Steve Irwin. Either Italian diver Pino Termini has been holding his breath too long during dives, or he really did see the ghost of Steve Irwin during a December dive on Batt Reef near Port Douglas, Australia. That's where Irwin was pierced by a stingray and died in September 2006. Termini told the Australian press, "As I started my dive, I saw somebody and was surprised because I saw no other boats around. Then I noticed the person had no tank or mask, and I realized that it was none other than the Crocodile Hunter himself. I freaked out, but Steve looked calm and at peace." Port Douglas dive shops say no one else has reported a sighting.

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