

Undercurrent

The Private, Exclusive Guide for Serious Divers

Vol. 18, No. 2

February 1993

RV Sea Dragon; Bahamas

—A well-priced liveaboard

Dear Reader,

Late spring to early fall, Bahamas diving is generally warm, calm (save for the possible hurricane) and interesting. To get to the best diving, traveling by liveaboard is essential. Two of our long time reviewers took separate trips last summer and here are their reports - in time for you to make reservations for this year.

* * * * *

Some casual visitors have from time to time rated Bahamas' diving as rather tame. On the contrary. Over the years, I have experienced excellent diving: the blood and guts shark feed at Stella Maris, the rocket ride through Current Cut at Eleuthera, and the 130 foot "Drift Dangle" over the Continental Shelf at Bimini. An extended trip last summer on the Research Vessel Sea Dragon to Conception Island and San Salvador reinforced my convictions about the good diving available with the right boat and operator.

I made my first trip with Captains Dan Doyle and Sue Ford on their RV Sea Dragon in 1991 to the Northern Exuma Cays. I was impressed with their operation. The Sea Dragon is not well known, because it only leases as a full charter and does not handle individual bookings. Nonetheless, they provide the name and phone number of groups looking for people and I found two ten-day, back-to-back trips in July.

They usually offer half a dozen dives a day, concentrating deep morning dives on the walls, afternoon dives on the shallower reef crests, and late afternoon and night dives on the more shallow coral heads in calm anchorages. We made many dives on the extensive wall complex west and south of Conception Island, an uninhabited low-lying swampy formation at the eastern part of the Bahamas chain. This magnificent wall is pristine, beautiful and full of life from the top into the depths.

After several days there, while returning from a pursuit of a large shark

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into the blue, I looked back at the wall and envisioned a medieval castle complex straight out of Ivanhoe. Narked? I don't think so! The craggy wall looked like a gigantic fortress complete with coral parapets, battlements, palisades and towers. The huge sea fans and whips appeared to be battle flags and pennants flying the colors of the defenders over the castle walls. Large purple tube sponges looked like cannons aimed at invisible invaders at sea. The barrel sponges could have been huge vats of boiling oil ready to pour on attackers, or perhaps, mortars prepared for medieval artillerymen to fire shot and shell at armies of the deep. The tunnels and caves running through the wall could have been secret passageways leading to the dungeons and keeps of the masters of the castle. Large grouper being cleaned at stations on the wall looked like wary sentinels staring out beyond the battlements, alert to the approach of phantom foes. The incredible blue of the water, the imposing fortress wall, and the breath-taking vista combine to make this one of the best dive sites in the Bahamas.

The abundance of life here was stunning. I saw sharks on four consecutive dives and encountered two mature hammerheads in a mind-boggling courting episode. For several minutes at 50 feet, my buddy and I witnessed close up a 7-8 foot male hammerhead attempting to establish a romantic relationship with an even larger female. Only after he sank his formidable teeth into her flesh in a big time love hickey did she rudely bid him farewell and flash off into the pelagic depths.

At "Hole in the Wall", "Tunnel Heaven", and "Grouper Ledge", I saw large barracuda; turtles; black, Nassau, and tiger groupers; schools of horse eye jacks; juvenile spotted drum; myriad crinoids; angelfish; diamond blennies by the score; prowling black jacks; and healthy families of most of the tropical fish found in these waters.

One unusual dive is the "Two Hundred Foot Chain", a massive anchor chain lost in the distant past. Wrapped around the coral top, it plunges down the wall 200 feet to the anchor. In keeping with my mental set, that chain looked very much like the remnants of an old drawbridge chain that had secured the castle moat in days of yore. On my last dive, Captain Dan led several knights errant on a ride down that chain to view the ancient anchor (and grail?).

The deep dives at San Salvador were off the wall at French Bay at the southern tip of the island. There was good diving here as well, though I found the diving better at Conception. We nicknamed one spot "For Crinoid Out Loud." It featured a profusion of feather stars, creole wrasse in mass, the elusive peppermint bass, hamlets, spotted eels, coney (including a few golden phase), a school of Southern sennet (which resemble barracudas), and a number of barracuda at cleaning stations. One memorable 6:00 a.m. dawn patrol dive caught the reef changing from night-time activity to daytime. A surprising number of grouper preyed on octopi. I was also impressed with the number of entenophora on this dive; their shimmer-

SEA DRAGON CARIBBEAN STANDARDS

Diving for Advanced	★★★★★
Diving for Beginners	
(You'll need an experienced buddy)	★★★★
Food	★★★★★
Accommodations	★★★
Boat Over All	★★★
Down Home Ambience	★★★★
Money's worth	★★★★★

★ poor, ★★ fair, ★★★ average, ★★★★ good, ★★★★★ excellent

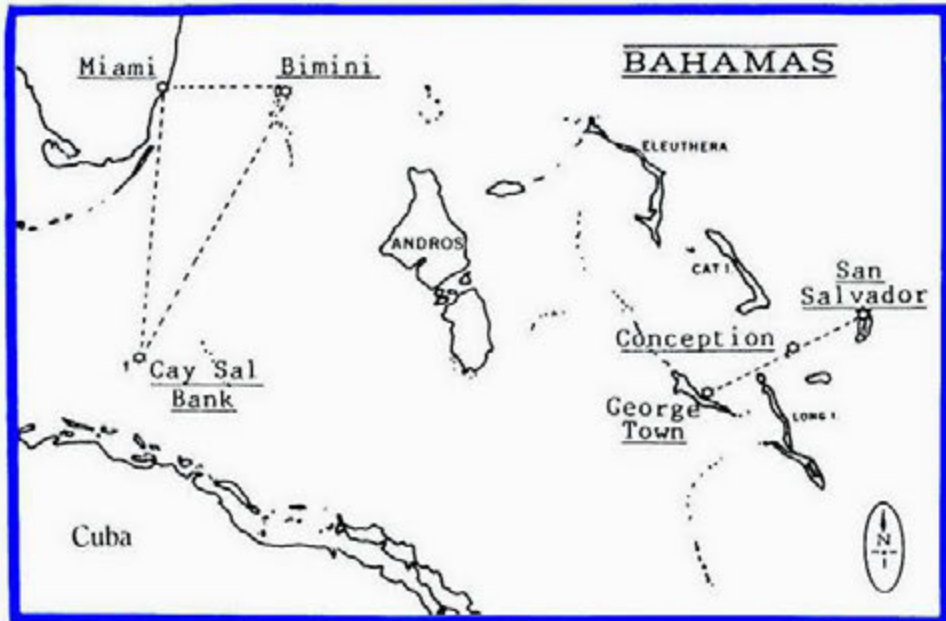
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ing iridescent cilia were a thrilling vision to start the day.

The abundance of algae in the shallows at San Salvador detracted from the beauty of the reef, but there was still plenty to see. The grouper at the sites dived by Riding Rock Inn were obviously accustomed to divers, demanding food in their bullying piscine way.



On night dives on the coral heads and on the top of the wall, I floated past sleeping turtles, nurse sharks, fully extended basket stars, and lots of flamingo tongues. Dozens of tiny hermit crabs played "king of the mountain" on a stripped stalk of soft coral. Innumerable shrimp flashed their red eyes at us while remaining tucked away in the coral. Highlights in the darkness included a beautiful luminescence, and an unusual comet star we called "Neptune's Garden Rake".

Dan and Sue have been operating the Sea Dragon since 1980 (assisted by a crew of three young, capable women). Virtually all of their business is repeat and word-of-mouth. They find a major job is juggling their schedule to fit in the satisfied customers that want to charter the boat during the year.

The Sea Dragon, not yacht beautiful, is built from a classic fiberglass 65 foot trawler hull with the interior designed by Dan. The main deck consists of an open bow, then an enclosed area encompassing the bridge and the salon/galley. Aft is a large covered area housing the compressors and an ice maker. To the rear is the dive area with a middle row of eighteen tanks and sit down benches. Two rows of stowage bins are provided for dive gear.

The upper deck provides living quarters for Dan and Sue and a large uncovered area for watching constellations at night. Below decks are four double passenger cabins, air-conditioned and supplemented by an electric fan in each room. The small cabins are adequate, with two criss-crossing upper and lower bunks, a small closet, and three large shelves. The engine room is separated from the guests' quarters by soundproofing and watertight doors. There is one large head with sink, toilet and shower and a smaller head with sink and toilet. Considerate use of the facilities by the guests led to minimum waiting time. A large capacity freshwater maker allowed unlimited (but careful) use of water.

In the salon/galley are a television, VCR's, and a CD player with high quality speakers. The large dining table is used for interminable gin rummy and cribbage games, and camera and computer maintenance. Sue, an amateur marine biologist, can usually point out unusual creatures seen on the dives in one of the 40 or so marine life volumes on board. The galley provides ice, drinking water and snacks twenty-four hours a day. An ice chest in the salon is always full of gratis beer and soft drinks, and while there's plenty of free liquor from bottles previous guests have left on board, it's wise to bring your own.

Diver Scouring Reefs for Possible AIDS, Cancer Treatments

A Florida diver, Don DeMaria, is on a four-month mission to Papua New Guinea, where he is collecting uncatalogued specimens of invertebrates and plant life that researchers hope will yield substances that can help develop a cure for AIDS and cancer. "There maybe some chemical compound in some invertebrate in the Pacific that might do it," DeMaria said.

Marine biologist Patrick Colin of the Coral Reef Research Foundation of California said that the National Cancer Institute had provided \$3 million for five years of species sampling. Colin told the *Miami Herald* that the NCI is particularly interested in chemicals that animals have for deterring predators—or for being a predator. Extracted chemicals will be applied to about 60 strains of cancer and AIDS cells for observation of reactions.

For information, contact the Coral Reef Research Foundation of California, 270 N. Cannon Drive, #1524, Beverly Hills, CA 90210.

This operation is geared to experienced divers. No hand holding here. At each dive site, Dan gave a detailed briefing of the features below, fish life, and currents. After each briefing, it was our decision whether to venture out on our own. Whether you use a computer (Skinny Dippers are for rent) or dive tables, you set your own depth and bottom time. There are no arbitrary depth limits. A hang line is provided for safety stops on the deeper dives and oxygen and first aid supplies are on board. If you want to have a beer with lunch, that, too, is your decision. On three trips on the Sea Dragon, I never saw a diver abuse alcohol and dive. Common sense works as well as tight-ass rules established by some diver operations, without the bad vibes.

Dives were never delayed awaiting fills of the aluminum tanks (to 3200 psi). Captain Dan

always put the boat right on the dive sites, keeping anchor damage to a minimum. Dan had an uncanny ability to drop the hook in the sand and hang the boat over the edge of the wall. He was not stingy about fuel and moved the boat several times a day to obtain the best diving.

Relatively new divers with experienced dive buddies should have no problem with this boat, especially on the shallower dives. We never dived in stiff currents or fought swells in reboarding the boat. Dan picked his sites carefully, using tide tables as well as his years of experience in these waters.

The food was ample, tasty and filling – what you might expect at a family get-together at the beach. Breakfasts included French toast; waffles with strawberries; eggs with bacon, sausage or ham; banana nut bread; cereal; cream of wheat; blueberry muffins; and juices. Lunches were served cafeteria-style and included spinach and meat lasagna; deli sandwiches with French fries; turkey left-overs with trimmings; spaghetti and meatballs, along with a variety of breads, pickles, onions, tomatoes, chips and dressings. Dinners were served family-style at the large table: freshly caught kingfish; baked grouper; conch fritters; pork chops, brown rice; broccoli, corn bread; crab linguini; roast turkey with all the fixings including yams, cranberry sauce and vegetables.

Desserts and snacks were always well received and featured home made ice creams prepared in a hand-crank ice cream maker, which I volunteered to crank in exchange for pan licking privileges. Also popular were brownies from scratch, German triple layer chocolate cake, blueberry pie, mango cobbler and baked cherry popovers. After the night dive, lots of leftovers were always available. No complaints about the quality or quantity of food on these trips.

The Sea Dragon reminds me of a comfortable old beach house or fishing lodge that the gang returns to year after year. It is comfy, snug, and it works. The cabin and heads are full of ducts, pipes, wires, conduit, blowers, motors, fans, exhausts, fuses, tubes and boxes. Not aesthetically pleasing, but handy when Dan

has to repair something. The CD collection runs into the hundreds; classical, show tunes, New Age, country, rock, oldies and mouldies are always playing over the speakers. Two Australian sheepdogs, Ariel and Smokey, have the run of the boat. Like semi-spoiled kids, they are noisy, curious, friendly, and everywhere. Ms. Ariel came into heat and for a number of days Mister Smokey howled, moaned and yipped more than usual and attempted constantly (even at meal times) to get down and dirty. If you are not a canine fan, be forewarned.

Dan and Sue were always helpful. When my ancient EDGE popped a battery wire, Dan had his soldering iron out and repaired it in minutes. Sue is a devoted diver and loves to show off sights not usually seen by even experienced divers. She is particularly keen at finding miniature reef inhabitants. She found decorator crabs, anemone crabs, reef crabs where I had previously seen only scenery. It's beyond me how they maintain their enthusiasm after almost 20 years of continuous service on their boats.

To sum it all up: I liked this boat. I liked the captains. I liked the crew. I liked the food. I liked the diving. Five stars for the money I spent.

J.G.

Divers Compass: The boat normally departs from either Nassau or Georgetown, Exumas; service from Nassau to Georgetown is by Bahamas Air. . . .book through Out-Island Oceanics, 717 S.W. Coconut Drive, Fort Lauderdale, FL 33315 (305/522-0161); the charter rate is \$1250/day (\$156/person) for the first five days (minimum) and additional days at \$1,100. . . .every charter day includes a full day of diving; no one tank days hereJuly water temperature is 81 degrees F; winter water temperature drops to mid 70's. . . .the bridge is chock-a-block full of electronic gear including, single side band radio, satellite navigation system, weather fax, radar, cellular telephone. . . .emergencies are coordinated with DAN and Bahamas Air Sea Rescue. . . .tipping is up to you; no recommendations nor suggestions are offered; I tipped the crew, but not the owners.

MV Sea Fever; Bahamas

—An alternate choice

Dear Reader,

I love exotic places. I hate traveling to them. I fondly remember my dives last year in Sipadan. I also remember the 48 grueling hours of airplanes and airports to get back home. Before that long journey, I opted for a kinder and gentler trip, requiring only one nonstop flight each way: the Sea Fever out of Miami, for six-night, five-and-one-half-days in the Bahamas. The Bahamas aren't as exotic as Sipadan, but with limited time and money, life underwater can be especially attractive.

On Friday evening, I flew from Pennsylvania to Miami, overnighing at a hotel near the Sea Fever's berth. I was on the boat at 8:00 A.M., and at 2:47 P.M. took a giant stride into 80-degree F, 75-foot visibility waters of Cat Cay, near Bimini. On this first dive, I watched two spiny lobsters grapple with each other, carapace to carapace. Were they fighting or mating? A third lobster was a voyeur to the action. A school of Atlantic spadefish curiously circled me during the dive. Black coral adorned the sides of the reef in 60-70 feet of water. Considering how easy it was to get there, it was exotic enough.

The Sea Fever is not so exotic - no fancy carved hardwood interiors here.

But, she's equipped with three turbo-charged diesel engines that provide a speedy 21 knots' worth of cruising power, shrinking travel time from Miami to distant dive sites. On this trip, the Sea Fever easily made the far-ranging trip to Bimini, the various cays south, and to Cay Sal Banks between Florida and Cuba. Other than the first morning, we traveled at night or in-between dives - of which we did five or six a day).

MV SEA FEVER

Diving for Experienced	★★★
Diving for Beginners	★★★★
Accommodations	★★★ (1/2)
Food	★★★ (1/2)
Money's Worth	★★★★

★ poor, ★★ fair, ★★★ average, ★★★★ good, ★★★★★ excellent

Twenty years ago, captain Tom Guarino acquired the Sea Fever, formerly an oil rig crew boat, and outfitted her for diving. She's 90 feet long, aluminum-hulled, and air-conditioned throughout. Her seven staterooms could accommodate 20 close friends, but normally 14 passengers are booked. Ask for cabins 1, 2, or 3, which are larger and have double bunks for more comfort. All cabins have a sink, mirror and closet. The Sea Fever sports two heads with showers, an E6 film lab, a large salon with stereo, TV and VCR equipment, comfortable seats in the dining area, a spacious dive gear area, and sun deck. The desalinator made ample water, so we could rinse and shower at will. All in all, a comfortable craft and apparently safe as well: she has Loran C, radar, radio/telephone, depth finder, life preservers, life raft, and fire-fighting equipment.

Mako Attacks California Diver

A 31-year-old diver was attacked by a shark in the waters off of San Onofre State Beach north of San Diego on November 30.

John Regan was attacked in about 15 feet of water. He suffered nearly a dozen puncture wounds to the right calf. He returned in his boat to Newport Beach harbor, ultimately refused medical aid by paramedics and was able to drive himself home.

Authorities believe Regan was attacked by the particularly vicious Mako shark. "They are pretty nasty," Oceanside police Sgt. Reggie Grisby said of the species. "They're not friendly at all. They sneak up on you."

Shark attacks on divers are rare throughout the United States. In northern California, divers have occasionally been attacked by great white sharks near seal feeding grounds.

Divers in the Bahamas and the Florida Keys and deep waters off the Gulf Coast may face aggressive tiger and bull sharks up to 15 feet in length that often "stage sneak attacks," says biologist George Burgess, director of Florida's International Shark Attack File.

Another shark tactic common in these waters is a "bump and bite" attack, where Burgess believes the animal bumps its prey several times to determine its size.

Should a shark begin bumping you underwater, kick or punch at its body. Burgess claims this will scare the animal away before it tries to bite.

Two islands of benches (gear stowage under the seats) and tank racks are built into the semi-covered dive gear area. By filling the aluminum 80's in place, the crew never needed to remove the BC's. I entered off the side of the boat, but some preferred the stern dive platform. Fresh water buckets are provided for gear, cameras, and masks. The crew always helped us don our gear or handed down our cameras, which we kept on the tiered camera table between dives. Tom encouraged us to rehydrate ourselves with ice water or Gatorade from coolers in the dive area.

Normally, the crew consists of Tom, Allan (engineer), Steve (divemaster), Chris (cook), and Eileen (stewardess), but, on our trip, Russ sharpened his skills as an alternate captain, and Sheri perfected her role as an alternate divemaster. All did a fine job. And that Tom! No burnt out diver, he's in the water several times a day, then back on board running the ship. Clearly, a type-A kind of guy, but a laid back type-A, if there is such a thing.

What also made the trip easy going was the lack of "rules." Perhaps the captain's perusal of our log books convinced him we were all seasoned divers and he thus eliminated a litany

They Didn't Return My Deposit

Dear Undercurrent,

"We originally scheduled a trip on the *Sea Fever* for August 1, 1992 and paid a \$733 deposit on April 30. On June 1, we notified *Sea Fever* that we would not be able to go on that trip; I am a medical professional and my boss was not having any success in locating a replacement for me.

"The *Sea Fever* office reassured us that if our spots were sold, we would probably get our full deposit back. About the middle of July, we were told that one of our spots had been filled. On July 30, just two days before the cruise was to depart, we were informed that they had to turn away several couples due to having only one "spot" left. Therefore, the decision was to refund only half (\$366) of our deposit.

"We gave two months notice of our inability to attend the cruise. We feel this was ample time for *Sea Fever* to find replacements for our "spots". Further, why should we be penalized because they booked a single person in a couple slot, and then turned down several couples that would have taken both slots?

"Many popular cruise lines (such as Carnival) offer a full refund if canceled less than 45 days before departure, and only a \$100 penalty if canceled between 45 and 30 days before departure. Go Diving, which arranges many diving vacations, deducts only a service charge of \$15 for a vacation canceled 60 days or more in advance of departure.

"We felt we were due the remainder of our deposit,

namely \$366, as we gave a full 60 days notice, and had to change our plans due to circumstances beyond our control."

Kathryn Koven
Aiken, South Carolina

Dear Kathryn,

We like to side with our readers, but I'm afraid we can't this time.

As you explained on the telephone, you had received a copy of *Sea Fever's* cancellation policy that states that if a trip is canceled less than 90 days prior to departure for individuals and 120 days for groups, the deposit is forfeited. You canceled 60 days prior to departure.

Booking policy is first come, first served. Had *Sea Fever* turned down one paying passenger to wait for a couple, and then been unsuccessful, requiring you to forfeit \$733, would you have been equally upset?

As a traveling diver, I don't like the 60 and 90 day cancellation policies in the least. But, it's tough for small dive operations to fill spaces on short notice, and if they inform me of their policy, I can't complain.

If you have trip insurance, you can get a refund for medical reasons. But, for other reasons, "you pays your money and you takes your chances."

When the rules are clearly stated, both sides must play by them.

C.C., travel editor

of arbitrary rules. But I believe this is the boat's norm. After signing hold-harmless forms and showing our C-cards, we were not insulted by an insistence on buddy diving, depth, times, etc. We were asked to sign in and out on each dive, and to practice good buoyancy control. We were advised not to drink and dive, but a lunch time brew was never prohibited. The lack of a schoolmaster/schoolchild atmosphere was refreshing; especially, since I and my buddies are careful computer divers, and I always stopped off on the hang line for an obligatory off-gassing.

Some thought the food plebeian, but excellent pasta creations, with Tom's special sauces, nurtured me for the extensive diving. Complimentary vin ordinaire was served with most dinners that variously consisted of roast beef with horseradish sauce, pasta and Caesar salad, baked ham, pasta with fresh conch sauce, baked fish with caper sauce. Excellent fresh salads accompanied the meals. Lunches might be Italian sausage sandwiches, ham and cheese sandwiches, or a chicken taco salad. Breakfasts were standard fare: eggs, pancakes, waffles, French toast, cereal. Fruit and snacks were always available. Meals were all buffet-style, and guests returned their plates to the galley.

Now, what about the diving? Up there with the more exotic destinations? Well, yes and no. My dive log recalls the following experiences:

Tuna Cay South - one-knot current, queen angels, three-foot turtle, school of blue-striped grunts, spotted moray eel, and green-tipped anemone with arrow crab, 67 feet, 75-foot visibility.

Damas Cays, Cay Sal Banks - lots of queen angels (a spawning area?) and lots of lobsters (they knew they were out of season!), 30 feet, 40-foot visibility.

Blue Hole, Cay Sal Banks - 150-foot diameter hole starts at 20 feet and goes down to 350 feet with a large undercut at 60 feet. Big stalactite at 130 feet. This hole hosts two tame nurse sharks who, I was told, loved to have their tummies scratched. I only saw a glimpse of one - 130 feet, 50-foot visibility.

Shark Reef, Ocean Cay - the crew fished during the cruise from Bimini for "snacks" for one seven-foot and three four-foot bull sharks that appeared upon our entry. We all signed forms indicating we understood diving with sharks was insanely dangerous but wanted to do it anyway. The "within reach" situations with these beautiful, graceful, and to some, frightening creatures was exciting, indeed. My clearest memory is the thundering sound of 14 regulators exhausting simultaneously as some divers almost hyperventilated. Though it was possible, no one petted the animals. Two days later, we made an even better shark dive (without the bait fish) - I got photos that will convince my bosses that my company insurance is inadequate.

On other dives, we visited another blue hole, a sunken tug-boat, and had several good dives at Victory Reef, with interesting spur-and-groove formations. One dive had a bit of current, but in general, it was easy diving all the way. That's not to say the weather cooperated. Our early May schedule pushed the limits for optimal weather. A strong, persistent wind from the North-east caused the captain to opt for protected, not-so-good sites. I can't complain, but June and July would be better.

A good boat and crew. Great friends and easy accessibility make a trip to the Bahamas a comfortable journey. Superb diving? Not for the experienced, so it's three stars, but better for beginners: four stars. Fun diving? You bet. Accommodations were adequate, as was the food. 3.5 stars each. Moneysworth? About \$50 a tank, bed and food included. Not bad at all.

G.P.

Diver's Compass: For six nights: \$1,200 including port departure tax, \$50 Bahamian water-sport tax, and 4 percent charter tax (800/443-3837); 305/531-3127); they'll book your overnight hotel, minutes from the boat's berth. . . . watch out for

Two Fathom Hickey

This letter appeared recently in the *New England Journal of Medicine*. We take full responsibility for any errors due to editing.

We recently treated a "two-fathom hickey", an entity not previously described in the medical literature.

A 37-year-old woman scuba diving in 12 feet of water near the Cayman Islands was hand-feeding stingrays that were from 3 to 5 feet long. One of the fish missed the offering and sucked the woman's wrist into its mouth, producing a partial-thickness-contusion-avulsion wound.

Feeding "tame" stingrays is a popular tourist activity in the Cayman Islands. "Hickeys" are not uncommon and are apparently self-limiting injuries. The wounds are superficial and contain neither venom nor retained stingray integument. Local therapy, which includes careful scrubbing with soap and water, appears to be adequate. Neither topical nor systemic antibiotics appear to be indicated.

Another matter, however, are defensive stingray "attacks," which result in puncture or laceration by the ray's tail. An estimated 1500 injuries occur yearly in the U.S.

Envenomation produces an intense local reaction, with pain and systemic symptoms that range from nausea and vomiting to arrhythmias and death. Treatment includes immediate local suction and irrigation to remove the venom, as well as hot-water soaks (45 to 50 degrees C) to attenuate the venom. Necrotic material and retained stingray integument should be removed and the wound closed loosely with drainage.

Secondary infection is common, and broad-spectrum antibiotics are often administered.

Robert E. Falcone, M.D.
Anne P. Miller, M.D.
Grant Medical Center; Columbus, OH

Miami taxicab drivers' rip-offs due to "broken meters". . . .C-cards and log books required. . . .Bring your own towels and soap; six-packs of soft drinks and beer sell on board for \$3.50 and \$4.50, respectively; wine was served with meals; bring your own hard stuff. . . .cabins are not made up daily. . . .Bring Dramamine or "Scop" patches; open water crossings can be uncomfortable. . . .the "sun deck" is without chaise lounges or mats, an unnecessary oversight. . . .the crew prepares a video of the trip for \$45. . . .at the end of the trip, we divers passed the hat among us for tips, then presented them to Tom for his sharing with the crew.

The Greenpeace Book on Coral Reefs

I've devoured books on coral reefs over the years, reading the text and gawking at the pictures by Carl Roessler, David Doubilet, and Chris Newbert, just to name a few of the top shooters. Though I still periodically thumb through them, after awhile, picture books with texts about the underwater wilderness begin to seem the same.

Not so for *The Greenpeace Book on Coral Reefs*, perhaps the most environmentally important book on reefs for the general reader ever published. Written by Sue Wells (who coauthored the massive three-volume United Nations study entitled *Coral Reefs of the World*) and Nick Hanna (a member of the Coral Reef Team of the Marine Conservation Society), it is a unique treatment of my favorite subject.

Illustrated with hundreds of photographs (contributing photographers include Doug Perinne, Howard Hall and Norbert Wu) to support the text, the authors begin with an obligatory chapter on reef life. While it's an excellent review of the reef, the essence of the book is the relationship between people and reefs.

In the next chapter, we learn how reef material has historically been used for food, decoration and building. I find it astonishing — and alarming — that up to 650 tons of giant clam shells are each month being crushed in Indonesia to make high quality floor tiles.

I object less, when I learn that chemicals from sponges have provided a model for a new drug, Ara-C, which is used against herpes and some cancers, and that, since 1982, more than 5000 people have had coral skeletons implanted to repair cancer-damaged or fractured bones.

The chapter on "Vulnerability and Resistance" provides a wealth of current information on the effects of global warming and ozone depletion, and the causes of coral bleaching.

It also put the blame on humans for the proliferation of the Crown of Thorn starfish, whose increasing numbers have been cleaning out reefs along Australia's Great Barrier Reef. The authors cite evidence that the outbreak may be due to a number of factors: the run off

from heavy rainfall (greater because of agriculture and the destruction of rainforests), overfishing, and the collection of mollusks such as the giant tritons that feast on the starfish.

Traditional fishing has an insignificant impact on the reefs. Techniques such as cutting up sea cucumbers and placing them in shallow pools so that the poison intoxicates fish and floats them to the surface still make sense in small communities. But, strong words on commercial fishing tell how we are rapidly depleting stocks and killing reefs.

As you might imagine, the curio trade is rendered harsh judgment. While it's illegal to collect conch in Florida for sale, Keys' shops are filled with conch ripped from Philippines' reefs. And a photo taken in no-more-a-proclaimed haven for preserving reefs than Grand Cayman, shows a shop selling dried puffers, sea fans and laquered sharks.

Much of the Greenpeace book deals directly with the effect of diving on reefs, providing, I think, a balanced view. While clearly opposing the taking of shells on scuba in Hawaii, they laud PADI for its effort to turn the sport diving community into an active force for conservation.

If you, too, are to be an active force for conservation, reading this book can be your first step. It's highly readable, filled with fascinating information, and illustrated with fine photos. Indeed, it has a strong point of view — that we must preserve our coral reefs — a point of view, I trust, that we divers all share.

It concludes with a section on how divers and snorkelers can help and what organizations you can contact for more information. If you're serious about preserving our underwater wilderness, this book belongs in your library.

Ben Davison

The Greenpeace Book of Coral Reefs, by Sue Wells and Nick Hanna, is published by Sterling Publishing, New York. It's available in many bookstores or can be ordered directly through *Undercurrent* by sending your check for \$29.95 + \$5.00 for shipping and handling to *Undercurrent*, 175 Great Neck Rd., Suite 307, Great Neck, NY 11021.

The Extra Weights We Carry

— *The psychology of dependency*

Freelance writer Annette Cheatham recently submitted a piece illustrating the serious problems of a buddy-dependent diver. It begged, however, for outside commentary, so we asked her whether she would discuss the situation with a long time diving buddy, who happens to be a psychologist, and permit him to comment on the relationships she described. She agreed, so here is her story, followed by a commentary by Dr. Michael H. Smith.

As a newly certified diver with eight dives under my belt (the deepest to 51 ft.), I felt confident and adventurous. Ready for a *real* dive, I was game for anything. Gathering my husband, kids, gear, and lunch, I set out for Blue Grotto in Williston, Florida.

Upon our arrival, we checked into the office and paid for the privilege of diving. Their introductory speech described our site as 110 ft. of 72 degree, crystal clear water with 110 ft. visibility. The lecture proved to be a mixture of information and scare tactics, describing the four levels of descent and the skill necessary to go to each depth.

“During our surface interval, I was subjected to the jokes of the guys calling me a wimp and sissy.”

We all nodded in agreement and signed the liability waiver. As we geared up, I was unimpressed by the small, pondlike opening complete with ducks. Where was the danger our host had warned us about? This pool looked about as dangerous as my bath tub.

After planning our dive and setting my Sherwood Source computer, three of us hit the water. Descending to the first level, a wooden platform at 15 ft., we gathered our bearings to continue to the second level at 60 ft. At that depth, my comfort level was under more pressure than my ears and I was ready to ascend. Being the brave men that they are, my husband and son pointed down and gave me the old ‘come on’ wave. I decided to hang at 60 ft. and watch some students do their check out dives while the guys continued down to investigate. Ten minutes later, they returned and we headed to the surface.

During our 90 minute surface interval, I was subjected to the jokes of the guys calling me a wimp and sissy. Not being timid, I agreed to venture the full depth with them on our second dive and ignored the little voice in my head saying “Check your dive plan”.

Hitting the water for our second dive, we descended slowly to the third level at 80 ft. I paused on a limestone-

shaped peace sign, and felt the icy fingers of fear crawl down my neck. I had to consciously think: calm, quiet, breathe slowly. The guys pointed down into a narrow crevice that disappeared into the darkness of the fourth level, the cavern. Having second thoughts, I paused to regulate my breathing and clear my mind. As I looked into my son’s eyes, I let pride rule, grabbed the guideline, and followed him down.

The descent was slow. With every foot, the darkness became a blacker shade of black. When we reached the bottom, my console grazed my hand, nudging me to check it. A small red beacon of warning blinked from my computer. We were at a whopping 110 ft. As if dropping the console would erase the readings, I let it go like a hot iron. Looking around, I found myself in a narrow horse-shoe shaped passage that was totally enclosed by limestone. The only light was artificial. I thanked God for the all mighty dive light and promised to buy stock in Eveready if I ever saw the light of day.

My heartbeat became a staccato beat of fear, my mind played games, and my breathing raced to keep pace with my body and mind. I was no longer in open water, an emergency ascent was impossible. Anxiety now turned to mild panic. My rapid, shallow breathing gave new meaning to the term “hoser.” When I thought it couldn’t get any worse, my son took the light out of my hand to explore an opening that branched out about five feet from the guideline. My light gone, my son out of sight and no clear path to the top. Panic became sheer terror. Forgetting that my husband was behind me, I began to flail my free hand, not letting go of the guideline, and smacked my husband’s regulator out of his mouth.

My husband cleared his head, replaced his regulator and grabbed me with both hands. My son came back to the line and I focused on the guys and my breathing. We were finally ready to begin the ascent, eager to see the light. We found our way into open water and made three minute safety stops at both 30 and 15 feet.

Climbing out of the water, I unhooked the clips on my BC. But, I felt a sudden rush of dizziness, like I had been smacked in the head with a bat. I dropped down on my knees and dropped my gear. I was disoriented and weak. Blood started to trickle from my nose as I lay on the deck like a dead fish.

After five minutes, I made my way to the table where our gear was, wondering why the guys hadn’t helped me. They too, had experienced the dizziness and bloody noses. I checked my computer. The flashing red light told me that the second dive had been to 110 ft. for 22 minutes. Not only had I broken a single dive limit, I had made a 60 ft. 35 minute dive before that.

For the next three days, the three of us suffered frequent nose bleeds, horrible headaches, dizziness and stiff

joints. We denied that we had a problem, and did not seek medical help. Finally, I called a dive buddy who is a registered nurse and cried on her shoulder. After talking to a doctor friend of hers who specializes in dive medicine and accidents, my buddy informed me that we had been mildly 'bent' and that everything would be all right in a few days. She said to consider ourselves lucky that our stupidity hadn't killed us.

The Blue Grotto experience cost me three days of work due to illness, as well as the loss of confidence in my diving abilities. I did not follow my dive plan. I had failed to check my gauges. I had not taken responsibility for myself, and had panicked.

Diving after my bout with the bends was a frightening ordeal of constantly monitoring my computer in shallow depths. Not very enjoyable but necessary to restore my nerve. After numerous 'safe' dives with family and friends, I am once again enjoying the wonders that the sport has to offer. Following dive plans, checking gauges and saying no to anything that makes me uncomfortable has allowed me to continue to dive and live.

Diver error is the most common cause of diver deaths. Diver does something stupid, diver dies (in this case almost dies). Yet because Ms. Cheatham survived, we can ascertain what really happened. As we peel away the story's layers, we can become more aware of the unseen psychological weights she carried — perhaps many of us carry. Weights that can kill.

Layer 1 - The Basic Skills

For experienced divers — and even those not so experienced — there are some glaring errors: a novice diver doing a cave dive; no cave diving training; second dive deeper than the first; vague dive plan; lack of buddy agreement.

“...a husband-dependent woman who was told to ‘learn to dive or be left alone’.”

Any of these mistakes by itself can kill. The author told me that her training was excellent and she trusted her instructor. Except for cave diving, Ms. Cheatham believes that her errors had been covered in her certification training. Thus, let's proceed to other layers for the real causes.

Layer 2 - The Weight of the Couple

Paring up with someone else is fraught with inherent difficulties. As in any attempt at teamwork, good buddy diving requires training, practice, and a compatible meshing of personal styles, not often discussed in training.

Yo, Jacques

While it was the French government that sank Greenpeace ship, *Rainbow Warrior*, when it was protesting nuclear testing on coral atolls, the French people have some environmental sense about them.

For the fifth year in a row, Jacques Cousteau has been named the most popular man in France, according to a poll conducted by the *Journal du Dimanche*.

At the age of 82, he has few regrets. Asked what he would have done differently in his life, Cousteau responded with a story his father told him.

“One day my father was invited to England to celebrate a woman's 115th birthday. He was welcomed by an old lady in an armchair holding a glass of cognac and a cigar.

“A journalist asked her the same question, and she answered, with a delicious British accent: ‘Oh, the same thing, but more often!’”

Since we now accept that buddy breathing is passe and that self survival is critical, a case can be made for relying very little on your buddy.

Diving with a spouse compounds the complexities. The buddies bring their marital relationship and its full ramifications to the dive. In this case, we have a self admitted, husband-dependent woman who, she told me, was told to “learn to dive or be left alone.” Her husband was the experienced diver and he would lead the team.

This volatile mix of demands with authority is a recipe for disaster. Serious inexperience coupled with fear of assertion (or fear of abandonment) seems to have prevented Ms. Cheatham from exercising independent good judgment.

Layer 3 - The Weight of Family

This story is further compounded by a mother diving with her child. Concern for a child's safety is a deep-seated parental instinct. Research has shown, however, that most parents will only risk their lives to save children if there's a real chance of success. This case falls within this framework: there was enough of a threat yet not a suicidal mission.

Another issue is the parent's age and the relationship between all family members. The child was 15 and the parent 31. Ms. Cheatham told me that she felt competitive with her son and that “if he could do it, I could too.” Research shows that parents who have children in their 20's or younger have much greater difficulty separating their own identity from their child's.

This competitiveness was exacerbated by the teasing from the son and stepfather pairing together and calling the author “a wimp.” The teenage son bonded with the stepfather and stripped the mother of authority and self confidence over herself and her child. Independent good judgment was again impaired.

Layer 4 - The Weight of Personal History

Ms. Cheatham told me that: "My father threw me in a pool when I was six and told me to swim. I almost drowned and was rescued by a lifeguard. That was one of the nicer things he ever did for me. My father was arrested."

Such a parental relationship can foster deep seated insecurity and dependency, preventing a true independent self from emerging. In addition, the drowning trauma, untreated, raises the possibility of Post Traumatic Stress Disorder symptoms that may explain the fear and panic on the dive.

Conclusion

Each of us brings our own psychological weights to every dive. What we can learn from this case is that diving is much more than a technical equipment-based sport. It's equally social and psycho-historical. Every diver needs to understand what brings him or her to the water and how to manage the unseen weights that we all carry.

Annette Cheatham is a professional writer who moved recently from Florida to Colorado Springs, Colorado. Dr. Michael H. Smith is a business consultant and organizational psychologist in Oakland, California. He has written previously for *Undercurrent*.

Move your weights from your rails to your keel

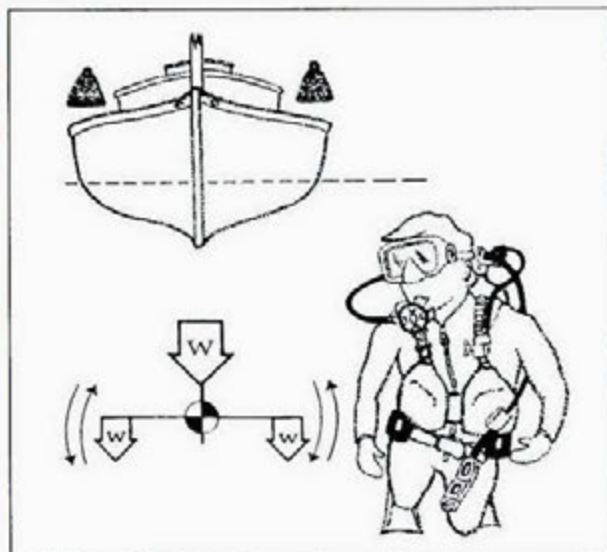
Thanks to the weight carried in their keels, sailboats are difficult to tip over. Divers ought to pay attention.

With tanks up and bellies down, many divers always seem to be struggling to remain horizontal. Turn slightly, and sidemounted weights and a shifting tank start you rotating. Relax too much, and you may gravitate to the classic turtle-on-his-back position.

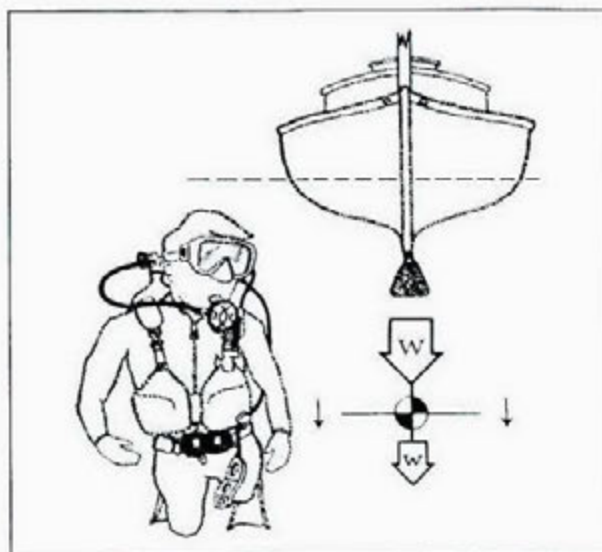
Why carry weight on your rails rather than your keel? Why waste air and energy maintaining stability? Rid yourself of your lead love handles and stash your weight on your keel, as if you were a sailboat. Suspend your weight at your navel. It provides amazing stability.

I've made about 12,000 dives this way and introduced the technique to nearly all my guests during the past 15 years. Most returning guests report that they far prefer this simple system.

To rig the belt, place all your weight close together, about three inches from the buckle. When you put on the belt, center the weight over your navel and place the buckle to the right side so you don't confuse it with your BC buckle. This will facilitate a right hand release. When you release a weight belt rigged this



WEARING WEIGHTS THE CONVENTIONAL WAY



THE PREFERRED WAY

way, it drops freely without the weights getting caught in the BC or tank.

Carry two weight-keepers in your travel kit, so you can put them on your rented belt. Or insert the belt through the first slit in the weight, make a half turn, then run the belt back through. That twist will secure the weight on the belt so it won't slide. If you have a particularly small or large waist, carry your own personal weight belt with you.

After you've descended several feet, it doesn't hurt to tighten your belt so it won't sag like saddle bags or spin around you. Women with prominent pelvic bones will no longer be bruised with the lead, since the weights need not even touch the body while swimming.

Once you become proficient in this simple technique, you'll appreciate the greater stability and ease of diving.

The only drawback: putting on the weight belt is slightly more cumbersome, a negligible price to pay for a more comfortable and safe dive.

Fred Good, Proprietor & new father
St. George's Lodge, Belize