

Pirate's Point, Little Cayman Island, B.W.I.

—For Wall Divers Only

Little Cayman Island, 80 miles east northeast of Grand Cayman, today holds a mystique for divers that Grand Cayman once held. It is here, people say, that one may find, perhaps, the most spectacular existing wall in all of the Caribbean. The wall remains unmolested, because (until recently) there has been no air available on Little Cayman. The only divers visiting came from the two resorts at Cayman Brac (seven miles away); both advertised wall trips to Little Cayman and were usually inconsistent in their delivery.

Little Cayman is a haven for serious rod-and-reel fishermen seeking bonefish and tarpons. Recently, I learned, an old fishing hotel, Pirate's Point, had put in a compressor, and with the reputation of Little Cayman's wall firmly in mind, took but a second to make my reservations. I was off to Grand Cayman, and then on to Little Cayman where I boarded a Cayman Airways Tri-Islander (Maximum capacity 17 passengers and 550 pounds of baggage) for the 40-minute flight.

Upon arrival at Little Cayman's airstrip, a 2,800-foot grass strip resembling the fairway of a fine golf course, my party and I were met by Sam McCoy, the congenial and enthusiastic manager of Pirate's Point, who quickly loaded us and our baggage into his pickup truck for a five-minute run to the resort. There are no paved roads on this island and no central source of power, for there are only 40 full-time residents. Only a few buildings can be seen in the dense tropical bush, most of them around the island's only settlement, Blossom Village, headquarters for a telephone booth and one small wooden government building, housing the office of the Customs Officer, the Immigration Officer, Fire Chief, Police Chief and airlines ticket seller. His name is Astley McLaughlin.

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Pirate's Point on the southwest shore in a lovely cluster of Australian

Pines and sea grape trees, has seven guest rooms: two very large nine-sided rooms in the main building and five smaller rooms in two separate buildings. It is but 30 yards to the all-coral beach in front of the resort.

After Sam had our baggage placed in our rooms, he explained that the bar was a "do-it-yourself" affair: mix your drink and record it on a card with your name on it. Breakfast would be from 7:30 to 9:00, lunch from 12:00 to 2:00, and dinner 6:30 to 8:00, (which turned out to be 8:30). A bell would be rung when



THE GROUNDS AT PIRATE'S POINT

each meal was ready. (They apparently have no objections to between meals raids on the refrigerator--at least no one told us not to.)

Since the boat was not located at the hotel, the modus operandi for each day's dive was a bit extra-ordinary. Each morning, supposedly at 8:30, but never on time, the dive truck would travel to the boat, sans divers, where the tanks would be loaded aboard, and the truck would return to the hotel. We would lounge about the hotel grounds until we saw the boat pass, whereupon we would hop into the truck for a 15 minute rough-road ride to Jackson's Point, on the north side of the island. There we would transport our gear 30 yards to the waiting dinghy, then journey another 50 yards to the dive boat anchored in Bloody Bay. Not once did we get into the water before 11 am; after two tanks we'd return at 3 pm, or later.

The dive-boat, a 30-foot Pacemaker fishing boat, is well equipped with depth finders, communication and navigation equipment. It has a water-level platform at the stern for exit and entry. Once on board, we suited up immediately for the 2-3 minute trip to the wall.

Our divemaster was David Pfitzer, from Cayman Kai on Grand Cayman. Pirate's Point has yet to hire a permanent divemaster, so divemasters are "borrowed" from other resorts. David was an eager, energetic, competent divemaster, though he had made few dives along the Little Cayman Wall. Not to worry. Sam McCoy, from long experience in fishing and ferrying divers knew precisely where to drop us. Since David had dived this specific spot, he briefed us on the dive, the signals and the procedures, sticking to the Grand Cayman Diving Organization rule of limiting the deep dives to 100 feet and 25 minutes, with a three minute decompression stop at 10 feet. Four of us were to go in the same direction so he could keep us in sight.

It took but one giant step off the platform to launch me into the underwater world of the Little Cayman Wall. As soon as the bubbles cleared I was thrilled. The bottom directly below was no deeper than 25 feet, but it dropped vertically to 6,000 feet, indeed an awesome and breathtaking sight. My buddy and I exchanged "OK" signals and slowly drifted down to the wall to 100 feet. What a panorama: a sheer vertical wall covered with healthy hard corals, red finger sponges, immense barrel sponges, purple, brown and mottled yellow tube sponges, the famous Cayman red sponges, basket sponges, azure vase sponges, enormous gorgonia and fans.

The wall is home to many banded coral shrimp, small purple cleaner shrimp, green, pink and blue-tipped anemones, corky sea fingers, sea rods and whip coral. I saw essentially every coral that exists in the Caribbean on this first dive: staghorn, elkhorn, finger, pillar, cactus, star, brain, whip, lettuce, flower, solitary, rose, leaf, ribbon, saucer and fungus. Visibility ranged from 125 to 150 feet, and there was no current. At first, I lost myself in the beauty of this lush wall, nearly missing a beautiful spotted eagle ray that glided by. From then on I divided my attention between the wall and the clear deep. Two ocean porpoises swam by, apparently attracted by the noise of five divers, then a white-tipped shark visited. Near the half-way point of our dive I found a large coral canyon, loaded with feather starfish, french grunts, snappers, groupers, parrot fish, squirrel fish, bigeyes, angels and trumpetfish, and a large moray at least six feet long.

My dive watch seemed to be running at least four times faster than real time, and before I could believe it, it was time to return to the boat. At 50 feet I observed a couple of large schools of jacks, and many chubs; a couple of large barracuda appeared suddenly, looked me over, swam along for awhile, then departed. Even decompressing on the anchor line was a pleasure, because I could look at this magnificent wall starting only 15 feet below us. It was easy to get back on the boat (Sam lifted my tanks while I was in the water) but then time slowed. The surface interval took forever, but diver conversation was animated and profuse. Everyone chattered excitedly about what he or she had seen. I was in awe. It was that kind of a dive.

The second dive would be 50 feet maximum for 50 minutes, with a 5 minute decompression stop at 10 feet. The boat stayed put. (How many places are there where you can dive the deep dive and the shallow dive down a wall without moving the boat?) I was the first one in the water, and my buddy was right behind: at 40 to 50 feet the wall was just as beautiful and awesome as at 100 feet. The marine life was even more abundant! Creole wrasse, angels, trumpetfish, black durgons, ocean triggers, the occasional queen trigger, parrots, yellow tail snappers, large groupers and barracuda thrived along the upper part of the wall among the gorgonia, large fans, sponges and anemones. I found a jack-knife fish swimming back and forth over brain coral, who became a cooperative photographic subject. At 40 feet, a hole in the wall turned out to be a marvelous tunnel leading up to a large cavern with an opening on the top of the wall about 20 feet. Inside, David motioned us into a lovely cave with a sand floor at 48 feet, having discovered an 8 foot nurse shark hosting two sharksuckers. After a few pictures of the nurse shark I decided to try for a close-up of the sharksuckers. I approached from behind, out-of-sight, I thought, from the nurse, who soon flapped her pectorals and made a cloudy departure. You can be sure my buddy gave her plenty of room at the mouth of the cave.

Diving continued to be sensational, and though one engine on the boat refused to start, the other adequately took us from the anchorage to Bloody Bay. If the remaining engine had failed it would only have been a short snorkel from Jackson's Point to the wall. At one place the wall begins only a few short strokes from the beach!

A couple of day's diving was made even more interesting when a good old

PIRATE'S POINT, LITTLE CAYMAN ISLAND, B.W.I.

Diving for Beginners	★	★	★	★
Diving for Old Pros	★	★	★	★
Beach Snorkeling (at Bloody Bay)	★	★	★	★
Meals	★	★	★	★
Hotel	★	★	★	★
Hotel Otherwise	★	★	★	★

★ poor. ★★ fair. ★★★ average. ★★★★ good. ★★★★★ excellent

boy, troubadour John Denver, showed up to dive. He was accompanied by the owner of Cayman's Undersea Photo Supply, Ron Mieselmann, who owns the best-stocked camera store in the islands. (I even found a 300 volt battery there for my Subsea Mark 100) and was teaching underwater photography to Denver. He proved to be a proficient diver. He and I found a very large porcupine fish which quickly darted into a hole and then inflated as Denver tried to retrieve him, obviously unaware that he could have been memorialized in a photo with John Denver. John, like the rest of us, was stoked by the Little Cayman wall, and we were stoked with his presence, made surrealistic as he hummed and sang along with the on-board tapes.

On one calm day, we decided to dive the south shore of Little Cayman. The wall began at 60 feet. Among the sand clusters and coral canyons the marine life was not nearly as abundant as on the north shore but there were the normal tropicals, snappers, parrotfish, trumpetfish, black durgons, queen and ocean triggers, chubs, feather stars, squirrelfish, bigeyes, and barracuda. The extensive hurricane damage on this windward side of the island was very obvious. This was indeed a good wall by most standards, but inferior to Bloody Bay. On our shallow dive here I saw large stands of elkhorn coral, (considerably damaged by the hurricanes), large coral canyons, and a few large tunnels. Though surge kept the visibility at 60 to 80 feet, the marine life here was more abundant than on the wall. I spotted a large barracuda in a cleaning station with his mouth opened wide displaying a very impressive set of teeth.

What with this exceptional diving it would make virtually no difference to me whether I lived in a tent and was fed beans three meals a day, yet I must admit this small lodge proved quite pleasant and comfortable.

Now, let me be explicit, dear readers. I've been diving 20 years. Nearly every decent spot reviewed by Undercurrent in the Caribbean I've either traveled to or written about. I will not say the diving here on Little Cayman is the best, because I dare not be so grandiloquent. I will only say, unequivocally, that in the Caribbean I have visited no place with better diving. No place. And God help Pirate's Point with that statement, because Undercurrent will have now filled their hotel forever. I just hope they get a divemaster.

I'm pleased to report that this small lodge indeed proved itself to be quite up to the task of making its guests feel comfortable and fully-fed. The rooms are attractive, well-furnished and maid service was daily. Most evenings I even found my covers turned back! Twin beds in every room can be pushed together if desired. Curtains help provide privacy, but the rooms are a long way from being soundproof. I brought insect spray with me, which I found necessary to keep my room cockroach-free. Bug repellent is essential to fight off the mosquitoes and "no see-ums", especially when the wind stops blowing. There is no air-conditioning but over-head fans kept the air moving even though outside temperature averaged about 85°. I slept well with just a sheet and the overhead fan turning slowly, not only because I was tired from a full day of diving and a good dinner, but also because of the soothing sound of the surf breaking only 50 yards away.

All the water at Pirate's Point is rain water, stored in the catchment system. The Rain Gods had been unusually selfish and we were permitted but one shower each day (and were not permitted to wash diving and photographic equipment). I suppose a small price to pay for the splendid diving. Sometimes the shower was a disappointing trickle. And the food? Nothing fancy, but quite acceptable. For breakfast Julie, the Caymanian cook and housekeeper, along with her able assistant, Eva, served french toast with large and tasty sausages and/or fried eggs and bacon accompanied by orange juice, coffee and milk. Cold cereal was always available. Lunches were usually cold sandwiches with fresh green salad,

but twice spaghetti and meat sauce was served with fresh green salad, hot rolls and butter and watermelon. The dinner entrees were steak, chicken Caymanian style, and fresh fish, served with fresh vegetables, cabbage Caymanian style, and boiled potatoes. There was also iced tea and coffee and desserts ranging from fresh pineapple to bread pudding. All the meals are served family style. The bar was not stocked as well as I might prefer, (\$1 for beer, \$1.75 or so for mixed drinks.) There was no mix for pina-coladas and other exotic drinks, and the rum ran out after only four drinks. Frequently, no ice was available. But there was plenty of cold beer and we opened fresh coconuts, found some pineapple juice and made our own pina-coladas. Life is tough in paradise.

So here at Pirate's Point we have perhaps the most incredible wall in the Caribbean along with a comfortable lodge, better than adequate food, and a fine setting. What more could one ask for? My trip ended far too soon. Parts of the reef I never got near and a wreck--an old pirate ship perched on a ledge at 200 to 250 feet--which can be viewed, I was told, quite clearly from 100 feet. Since there is such an underwater treasure here, I can only hope that it will be preserved for generations, and that the rape which has been conducted at most other Caribbean spots will not be permitted. Indeed the people of Little Cayman are very conservation conscious. One day an angry man and his wife, locals, motioned us to stop our boat. He shouted that a boat from Winston McDermott's shop on Cayman Brac (which I observed) was anchored in the shallows and divers with scuba tanks were taking conch: picking out the animals and leaving the shells in the bottom. In Cayman, scuba equipped divers cannot take conch, and conch shells are never returned to the water after a critter is removed because other conchs reportedly stay clear of empty conch shells and depopulate an area. McDermott, discipline your divemaster!

So, is anything wrong with Pirate's Point? Well it ain't cheap. The eight-day, seven-night package is available for \$1,060 single occupancy, or \$780/person double; that tab includes the room, meals and two tanks, and to this you must add 6% room tax and 10% service charge. Daily room and meal rate, without diving, is \$120; tanks run \$30 additional. Once you get to Cayman, the air fare to Little Cayman is \$55 round trip. But, given what I've paid to dive over dead coral, on walls that run no deeper than 40 feet and among fish as exotic as snappers, it was worth every last copper. In the Caribbean, if I may repeat myself, I've found no place better.

Diver's Compass: The generator that provided electricity at Pirate's Point is satisfactory for charging batteries...the 12-unit Kingston Bight Lodge and the 8-unit Southern Cross Club cater to serious fishermen, but do not provide scuba diving...for bird watchers there is a never ending parade of herons, egrets,

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frigates, boobies and other species...the dive shop has two compressors, 40 eighty-cubic-foot aluminum tanks...snorkeling is excellent at Jackson's Point ...you must reconfirm your flight 72 hours prior to scheduled departure; if you fail you will most likely be bumped...U.S. money is accepted everywhere in the Caymans...Sam will take guests to sandy beaches if they desire. I was saddened to find tar on one, no doubt from oil tankers...giant iguana are on the island, although they stay secluded...famous Tarpon Pond, a jungle lake, is filled with 4-6 footers.

New Findings on Decompression Sickness:

Concerns for Recreational Divers

The typical sport diver follows certain rules of thumb that he believes summarize the rules of no-decompression diving as outlined by the U.S. Navy tables. These rules generally are:

- The no-decompression limits of the dive tables are not exceeded by the bottom time of a dive or by the sum of a diver's residual nitrogen time and actual bottom time.
- The proper rate of ascent of 60 feet per minute is maintained by following one's smallest bubbles.
- When a diver surfaces and re-descends during a dive, care must be taken to ensure that the total bottom time of the dive does not exceed the no-decompression limits.
- Divers must wait at least 12 hours after diving before a subsequent dive will not be a repetitive dive.
- Alcohol should not be consumed until after diving for the day has been completed.
- The need for decompression can be avoided by diving within the no-decompression limits.

These, as well as other commonly accepted practices, are not completely accurate in light of recent

studies and findings related to decompression. Much of this emerging data significantly affect recreational divers, who should consider modifying their regular diving procedures to incorporate these new findings.

Decompression Limits Do Not Remain Constant

It is generally known that the dive tables were developed through test dives made by young, lean, experienced, male divers. Many recreational divers—those who are older, overweight, novices, females, etc.—should *not* dive the tables to their maximum no-decompression limits. Certain variables can predispose divers to decompression sickness, and therefore require a margin of safety i.e., reducing the time at a given depth. These include illness, injuries, scar tissue, medications, and anything else that alters physiology from normal.

Many divers do not realize that the no-decompression limits *are not constant*. They believe that dive schedules followed without consequence yesterday, last week, or last season can be repeated at any time with no adverse effects. However, new data suggest that some body tissues have much longer half-times than those used to develop the Navy tables. *The result*

YES, send my buddies free sample copies of *Undercurrent* with my compliments!

My Name _____
 Address _____
 City _____ State _____ Zip _____

Buddy #2 _____
 Address _____
 City _____ State _____ Zip _____

Buddy #1 _____
 Address _____
 City _____ State _____ Zip _____

Buddy #3 _____
 Address _____
 City _____ State _____ Zip _____

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can be a case of the bends after several days of heavy diving within the no-decompression limits!

Therefore, avoid the "knife-edge" of the tables, always allowing a margin for safety. This margin should include surface intervals as well as shorter bottom times than those specified.

Decompression Is Continuous

When a diver's bottom time is less than the no-decompression limit for a specific depth, the dive is called a no-decompression dive; but only because there is no planned *stage* decompression. Divers, however, are in fact continuously decompressing during ascent. Excess gas comes out of solution into the lungs and is eliminated through respiration. Surfacing too rapidly (i.e., faster than the recommended 60 feet/minute) results in improper decompression and can even cause decompression sickness. A study at the University of

"...the average ascent rate of recreational divers is between 120 and 200 feet per minute!"

Washington concluded that the *average* ascent rate of recreational divers is between 120 and 200 feet per minute! This is two to three times the proper rate of ascent. Little wonder why divers get bent within the no-decompression limits. They are not decompressing during their normal ascents.

Following exhaled bubbles is a poor method to gauge the ascent rate. Using a watch and depth gauge in combination is awkward, but it is accurate and worth practice to develop a "feel" for the correct rate.

The Invisible Bends

Divers also tend to believe that if a person doesn't get an obvious case of the bends that no problem exists. This isn't quite accurate because the phenomenon responsible for decompression sickness—the formation of nitrogen bubbles without complete dissolution—seems to occur inside each diver after every dive. It's just that the degree to which it occurs is too small to result in bends symptoms.

"Silent bubbles" are formed when a diver surfaces. These micro-neuclei can cause bends if further aggravated. They become trapped in the capillary beds of the lungs and will remain there until they break up and are eliminated.

A subsequent dive, however, especially to depths of 60 feet or greater, will release the "silent bubbles" into the system and divers become more likely candidates for the bends following the next ascent. This is one of the reasons why a series of short, deep, dives can end with decompression sickness even though the bottom time of all of the dives together is less than the no-decompression limit for the depth dived.

The diver would be far safer remaining at the depth for a given time than surfacing several times and hav-

New Rules For Flying After Diving

The United Kingdom Diving Medical Committee recently held a workshop to develop the basic scientific principles and set of guidelines for flying after diving. Two altitude limits were considered—2000 feet for helicopter flights and 8000 feet, the maximum cabin altitude for commercial aircraft flights. The Committee then recommended *minimum surface intervals prior to flying*:

No-decompression dives where the total time under pressure, regardless of depth, was less than 60 minutes within the previous twelve hours.

- for a cabin altitude of 2000 feet, a minimum of *two* hours before flying.
- for a cabin altitude of 8000 feet, a minimum of *four* hours before flying.

All other nonsaturation air dives, where the total time under pressure, regardless of depth, was less than four hours within the previous 12 hours.

- for a cabin altitude of either 2000 or 8000 feet, a minimum of *twelve* hours before flying.

Peter Edel of Sea Space Research Co., who attended the workshop as a representative of the U.S. Underwater Medical Society, reported recommendations to the Society for handling decompression sickness occurring during flights:

"Where a diver's symptoms consist only of a pain in a limb, he should be treated with analgesics and oxygen if available. *The plane can continue to its destination without diversion or adjustment in altitude.* "When a diver has other symptoms, advice should be sought immediately from a diving medical specialist. It may be necessary to reduce the cabin altitude and bring the diver to the nearest airport. In the meantime the patient should be given oxygen, if possible."

ing a lesser bottom time. Bounce dives, especially at the end of a day of diving—such as an excursion to free the anchor—should be regarded as very risky and avoided by prudent divers.

Something to bear in mind is that Navy divers tend to remain at the same depth for an entire dive and seldom make repetitive dives. Recreational divers take greater license with the Navy tables than the Navy does.

Why should divers decompress if they are within the no-decompression limits? Again, the "silent bubble" theory enters the picture. A few minutes spent at ten feet as a safety precaution can help prevent the formation of micro-bubbles, which may not cause problems by themselves, but which can cause problems on subsequent dives.

Since the Navy table limits do not apply to recreational diving, a safety decompression stop can prevent bends which might occur from what seemed to be a no-decompression dive. Finally, since the ascent rate is difficult to gauge accurately, a safety stop can help compensate for an ascent which was too hasty. A good rule to follow is to add the safety stop time to the bottom time of the dive and to keep the total time within the no-decompression limit for the depth dived.

Giving Bends A Boost

What about alcohol after diving? Isn't it OK to imbibe right after a dive? Too bad, a diver who has just ascended from the deep needs to wait for two very good reasons.

First of all, excess nitrogen can be trapped in the extremities because of blood shunting in these areas to reduce heat loss in the water. Alcohol causes vasodilation and can release the extra gas so quickly that decompression sickness can result when it would not have occurred if the diver had abstained.

Second, the effects of the alcohol may mask the symptoms of decompression sickness or render the diver into such a state that he or she wouldn't care about the malady! Alcohol, or anything that stimulates the circulation, such as a hot shower or vigorous exercise, should be avoided—up to 12 hours—after any diving where decompression sickness is even a remote possibility.

Alcohol, or anything that stimulates the circulation, such as a hot shower or vigorous exercise, should be avoided—up to 12 hours—after any diving where decompression sickness is even a remote possibility.

Once your surface interval is such that you're in the "D" group on the decompression tables, it's probably safe to exercise, shower, or imbibe.

Don't Test The Unknown

The final point is one which isn't comforting either—decompression is not understood. With all of the studies and theories on the subject, medical experts are still trying to determine exactly why and how decompression sickness occurs. Thus far, we are only able to keep bubble formation from causing injury, but there is still much to be learned. Look for a major break-through in the years to come. Until then, realize that recreational divers should not take risks which can lead to permanent disability. To minimize such risks, dive conservatively and use the latest procedures to reduce the possibility of decompression sickness.

Dennis Graver, the author of this article, is the Training Director of PADI, editor of PADI's *Undersea Journal*, and as written extensively for a number of publications. This is his first contribution to *Undercurrent*.

Dear Undercurrent

My Plana Fin Foot Pocket Ripped

Plana fins, made in Italy and marketed here by Sequest, are a fine new addition to sport diving. After trying Planas, many divers have switched, claiming the lightweight, flexible, fiberglass-reinforced Tecralen blade increases speed and reduces fatigue. The fins come with straps or with foot pockets. It is the foot-pocket version which leads to this chapter of *Dear Undercurrent*.

Dear Undercurrent:

Evidently, Plana fins are not being manufactured up to their original standards—the product is splitting at

the heels prematurely. I am a professional diver and when they first came out I bought a pair and was extremely satisfied. But after I lost weight, I needed a smaller size. My new Plana fins split at the heel after only three months of use. I did not keep the receipt, so I did not seek a refund. I went back to the store I bought them from, Sea Dwellers in Key Largo, explained the problem, and was told that it was probably just a bad batch, but they have had a turnover in stock and there should be no problem.

I bought a new pair, used them two weeks, and one heel started splitting, so I returned them. The polite man waiting on me checked with the owner, then said

they would mail the fins back to the company at their expense to let the company representative determine whether it was due to abuse on my part. He said that since I was a professional diver I put far more wear and tear on them than a sport diver, saying he could tell from the way the blades were scratched up that they had been misused. The fact is that the blades are made of clear plastic that scratches horribly the first time a diver takes them out to the reef. I pointed out that my first pair was still good after a year's use, and that certainly fins should be expected to last longer than 30 days of even professional use.

A month later, my husband returned to Sea Dwellers and the person there claimed that the Plana sales representative had rejected the defect claim, even though the split at the back top of the heel was nowhere near the fin and its coral rock scratches. I believe that Sea Dwellers didn't do anything with the fins except wait for me to come back for them.

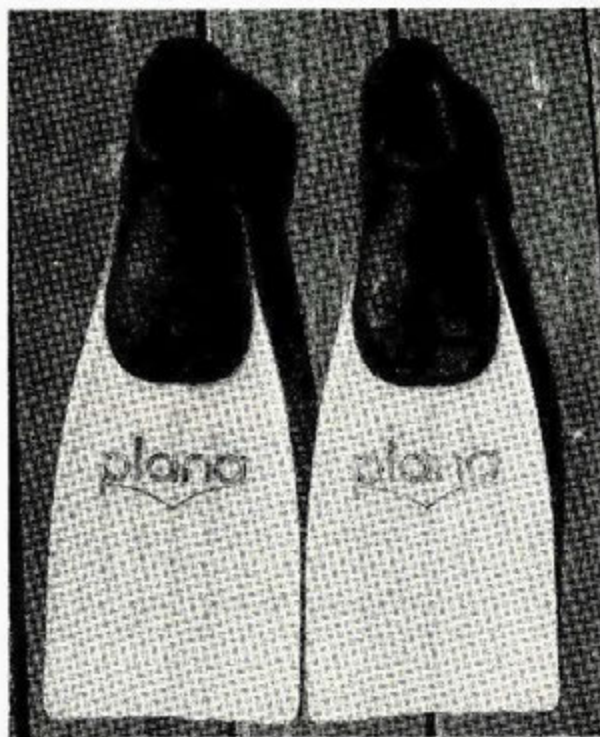
*Gail Feddern
Tavernier, Florida*

Dear Undercurrent,

This letter is in regard to Mr. [sic] Feddern's letter. His complaint is based on the two pair of Plana foot fins enclosed which he claims are only three months old.

We have spoken to Tom Hopkins, the rep in our area for Sea Quest-Mares (Plana) and he has agreed to replace the fins, so there is no problem there. However, he has not seen their condition either.

In all fairness, we felt that you should see the fins, as Mr. Feddern told us that he has directed his complaint



PLANA FINs



THE TORN HEEL

to you. All of us here at Sea Dwellers feel that they may be a little older than three months. We have dealt with Mr. and Mrs. Feddern in the past, and feel that their integrity is questionable. A few months ago they came in with one pair of fins. Since then their complaint has grown to two.

In the long run, we feel that these people are trying to take advantage of a reputable diving equipment manufacturer as well as ourselves. This is the first complaint we have had about the Plana foot fins and we feel that it is highly unusual that the same people are having problems with two pair. Regarding their condition, it is an insult to our intelligence to expect us to believe that they are only three months old. They have certainly been abused. I feel that if we accommodate the Fedderns this time by replacing these fins we can expect the problem to recur.

We appreciate your attention to this matter. We felt that a more accurate description of the problem was in order.

*Phyllis Yover
Sea Dwellers Sports Center*

Dear Ms. Yover,

Thanks for your letter and the two pair of fins. We inspected them carefully and, no doubt, one pair had been used more heavily than the other. The plastic blades were scratched, but certainly remain as functional as unscratched blades. Since Mrs. Feddern claims to use the fins nearly every day to collect tropical fish, the blade condition does not seem unusual.

The rubber heel was ripped, but it did not show the kind of deterioration that especially older rubber or rubber which had been left daily in the hot sun would show. The notion that the fins were abused seems a bit absurd (just how are fins abused?). Though the fins may not be three months old, they are certainly not ancient. Anyone with a sense of consumer fair play should realize that the consumer, Gail Feddern, has a complaint worth considering. It is one thing to rip a strap on a conventional fin—the strap can be replaced for a nominal price. Ripping the heel pocket on a Plana fin renders the fin useless, and at \$34.95 the pair, that's quite a price to pay for a few months (or two weeks) of wear. Consumers deserve more.

But the "three month old" fins are not even in question, now, are they? Gail Feddern only wants replacement for the also-ripped two-week-old fins. With you, Ms. Yover, focusing on the fins that are not even at issue, and then resorting to *ad hominem* arguments, you are missing the point and dodging the problem.

According to her letter, someone on your staff agreed to have the distributor determine if the fins had been "abused." When her husband returned for a replacement, he was told your claim had been rejected by the rep. Then in your letter, you acknowledge that the rep never saw the fins. Though you now indicate the fins will be replaced, it looks like it took a letter to *Undercurrent* to get a response from your shop.

Prior to your letter, we called Tom Hopkins, the Florida rep for Plana fins. "Yes," he said, there had indeed been a problem with a shipment of fins from Italy. He thought that most of the fins from that shipment had been caught before being shipped to dealers, but perhaps the fins received by Gail Feddern were defective.

Hopkins noted that Plana fins carry a warranty for the plastic blades, but the rubber heel does not fall under that warranty. Hopkins then told us that "the foot must be pushed into the pocket of the fin and then

the heel portion pulled over the heel. If the foot is not far enough into the pocket, it is possible to tear or rip the rubber."

We called Gail Feddern, who acknowledged that on some occasions she may not have slipped the fins on properly. She may have contributed to the problem.

Nevertheless, Ms. Yover, it seems that you and other members of your staff, were far too quick to presume the customer was wrong when, in fact, the fins may indeed have been defective. You've failed to listen carefully to your customer's request to have a single pair of fins replaced, and instead prefer to question the customer rather than the company that makes the fins.

There can be problems with the Plana fin. Even if the rubber is not defective, it is thin (necessary to maintain flexibility), and unless the purchaser of the fin is instructed in the proper way of putting on the fin, he can inadvertently rip the rubber and ruin the fin. In the future we suggest that you and all retailers selling Plana or any fins with foot pockets explain to their customers the appropriate technique for donning these fins.

We should add that we called Tom Schockley, of Dive Makai in Kona, Hawaii, who has kept several pairs of Plana fins aboard his boat for two years. Of their nine pairs, two have ripped at the heels after extensive use.

Increasing The Visibility Of Divers

The Value Of Flourescent Tape

As any diver knows, colors change and blend and disappear underwater. What shows up on film is entirely different from what the eye sees.

Clear water absorbs warmer colors such as red, yellow and orange. At a depth of 100 feet they are not visible. The human eye does possess remarkable adaptation processes to ambient light, and this disappearance of the warmer end of the color spectrum is

The Great White Likes Yellow

Writing in *Oceans Magazine*, Valerie Taylor reports that experiments conducted by her and her husband suggest that the Great White has been found to seek out warm, light colors, such as yellow, apricot and orange. Evidently, taste and edibility come second to color attraction, because the animal will even attack floats when bait is in the water nearby. The Taylors found that a dummy wearing a black wet suit was ignored, but one with an orange BC attracted an attack in a few minutes. The dummies were not stuffed with food, though there was chum in the water.

If the Taylors are correct, when it comes to the Great White, wearing black may keep you from going to your own funeral.

not quite as obvious to the eye as when recorded on film. Natural light photographs taken at a depth of 10 meters are usually almost devoid of red, orange or yellow, although the experienced diver can usually see them. An experienced diver will be more certain of what he is seeing than will be someone less experienced.

Other factors come into play in the poor visibility of colors underwater. Much of the light traveling underwater is scattered by suspended particles. This causes the brightness of the water background, and a "veiling brightness" between the object being observed and the eye—thus greatly reducing any contrast. If the contrast is low to start with because of the warmer, brighter colors having been already absorbed, the final contrast is very low indeed.

An object is visible if it appears of a slightly different brightness or color than its background. The human eye can detect brightness differences of between 1% and 2% if the light level is fairly high. If the water does not scatter light, but only absorbs it, the water background would appear black and all the light would come from above. However, as the water both absorbs and scatters, light will come from all directions.

Water does not absorb light of all wavelengths equally, and it is those wavelengths which are least absorbed that give the water its characteristic color. Clear ocean water is shown to be brightest in the blue green.

Chlorophyll containing phytoplanktons and partly decayed vegetable substances give yellow and green shades to coastal and fresh waters.

Some inland lakes can be quite black, others are quite brown or yellow or green, and springs blue. Combinations can run from black, gray, brown, yellow, green to blue. Obviously, absorption characteristics, and hence visibility, are totally different for these different colored bodies of water.

In most of the lakes, quarries, and seas of Canada and the United States, divers need to take special steps to increase their own visibility to other divers. Though divers have many colors available, the true *fluorescent* colors are far more visible than nonfluorescent colors. Because it is the blue end of the spectrum that provides fluorescence, fluorescence is most effective underwater, even in greenish water. It appears all the more brilliant because the warm colors originating at the surface have been absorbed, and the eye has adapted. The fluorescence will stand out to a stunning degree.

The 3M Company manufactures the "Scotchcal" brand of film in three fluorescent colors: red-orange, yellow-orange, and saturn-yellow. There is no great difference in color between the red-orange and

yellow-orange. Red-orange is cited by 3M Company as having a much greater durability when under heavy ultra-violet (i.e., sunlight degradation). The fluorescent materials can be attached to a diver's tank or sewn onto the wet suit. (In fact, buoyancy compensators could even be manufactured from fluorescent material.)

Too red a fluorescent material used in very clear water could mean that the red color emanating from fluorescence could be absorbed before it reaches the observer. In other words, the clearer the water, the cooler the fluorescent color should be. On the other hand, in such very clear waters the visibility of the diver is less of a worry than it would be in more turbid water. The underwater sensitivity of the eye to red is considerably increased, even in an adaption period of only 30 seconds. This would probably indicate that in the 3M Company "Scotchcal" range of colors the warmer red-orange and yellow-orange would be more suitable than the saturn-yellow.

Undercurrent has revised this article, which was written by Quentin M. Bennett, and appeared originally in the *South Pacific Underwater Medical Society Journal*.

Hanauma Bay Closed To Dive Operators

—Some Still Ignore Law For Own Profit

Honolulu's Hanauma Bay, a beautiful horseshoe-shaped cove about 20-minutes from downtown Honolulu, was once teeming with fish and coral, a remarkable representative of the complexity and splendor of a Pacific reef. But it was that very proximity to civilization that killed it. Divers in the 50's and 60's plundered the water, forcing the state to eventually declare it a marine reserve and regulate its use. But as the population in Hawaii skyrocketed and as tourists clamored for snorkeling and diving experiences, Hanauma Bay became a mecca for cheap dives for nondiving tourists who kicked the coral (see *Undercurrent*, Nov/Dec. 1980) and trashed the beaches, along with hundreds of other tourists who came for commercial beach parties or just about any other activity a beach and a bay would support.

So, by enforcing a 20-year-old previously unenforced law, the county of Oahu has closed Hanauma Bay and *all* county beaches to commercial activity, including organized snorkel and dive trips and diving lessons. Now, only individual dives not connected to any organized commercial effort may use the beaches.

Recently, we've seen communications from a couple of mainland alarmists urging divers to write to the

Oahu government to lobby for rolling back the law, on the spurious grounds that the legislation may sweep to the mainland and local governments everywhere will soon follow suit.

Of course, that's crazy. It's just not going to happen. But in Honolulu, things were getting out of hand.

In June, 1981, government officials called a meeting of all dive shops and other commercial groups to discuss the problem of crowds of tourists inundating the local beaches, especially at protected Hanauma Bay. Tour operators were bringing hordes of tourists for beach parties, snorkeling, diving, picnics, volleyball, and what have you. Litter was piling up, and so were the people. Locals couldn't find space on their beaches, let alone a place in the parking lots.

But the operators simply did not respond to the problem and took no action. So, in December, the city council invoked the existing law, closing the county beaches—and Hanauma Bay—to all commercial operations, which for a short time included concessions offering food and drink.

Letters to the newspapers decried the move, claiming it would kill tourism, kill business, and put dive shops out of business. None of that has happened.

We called several Honolulu dive shops in May to learn if they've been hurt by the action. With one exception, the dive shop spokespersons said they had suffered *no* economic loss. Their primary complaint was that they had been deprived of a safe and convenient site for their classes—and a safe and convenient spot to take tourists for their first introductory dive. Nevertheless they've found other locations, however less convenient.

The one dissenter we found was Rick Rickey, Manager of Waikiki Diving, Inc., who claimed his business was cut in half. "We get a lot of Japanese tourists," he said, "and in Japan they've made a big thing about the closing of the Bay, where Japanese like to take their group tours. We have been hurt."

Nevertheless, an underground economy remains in effect around Hanauma Bay. The *Honolulu Advertiser* recently reported that three of ten dive operators listed in the telephone book still offer tours of Hanauma Bay for roughly \$40. (American Dive, Aloha Dive Shops and Waikiki Diving, Inc.) Hanauma Bay Snorkeling Excursions pick up tourists at their hotels, provide snorkeling gear and a briefing, and drop them off in a parking lot. One individual entrepreneur flags down tourists, offers to rent snorkel-



No doubt the fear of sharks keeps an awful lot of weak-kneed folk from taking up diving. As an answer, we like this very quotable quote we recently read by Al Gemora, of San Diego's Diving Locker. Says Gemora, the sport of diving is indeed a "victim of sharks. There are usually more sharks swimming around in a single imagination than in 100 square miles of ocean. Few sports have been as misrepresented on television and in the movies as has diving. All you ever see are encounters with sharks and eels, divers flailing away with arms and legs to rescue a buddy in jeopardy. The truth is, divers don't swim with their arms, and people just don't encounter sharks. Like any sport, whenever there is a problem, you read about it. And a diving accident is much more interesting than someone falling off a roof."

It's not too early to begin shopping for gifts for your favorite diver. Let us suggest you consider a Chronosport for Christmas, specifically their Univer-

sal Diving Timer Quartz Multi-function Chronograph, handcrafted in the watchmaking capital of the world, Jura, Switzerland. The features include a scratch resistant sapphire crystal, screw-down crown and a uni-directional bezel. The timepiece has been pressure tested to 330 feet and is accurate to within 60 seconds a year. This little baby comes with a solid gold dial and hands with matching goldtone LCD display. The watch body and bracelet are solid gold. The price? A mere \$9000.

ing gear from a big bag on the ground, and claims to make as much as \$300 on a good day.

Although the government is making some effort to enforce the law and has ordered police to warn or cite people doing business at Hanauma Bay, the State Land Board doesn't believe it is doing enough to protect the precious underwater resources at the Park and recently fined the City of Honolulu \$2000. State and local governments continue to squabble over enforcement, and meanwhile Hanauma Bay continues to play host to too many tourists.

American dive operators need not get exercised over the closing of Hanauma Bay to commercial operations. In our view, the hordes of tourists descending on the Bay for the profit of commercial operations was quite simply excessive. The serious diver can find plenty of other places along the coastline to get wet. He's just got to be serious enough to travel a bit further.

Further, the once-beautiful Bay is a fragile ecosystem which has taken many years to recover from over-use and over-diving. It will now be reserved—and should be—for people who have been trained to respect what they see underwater. The commercial dive operators who continue to ignore the law for their own profit obviously don't have that respect.

Britain's *Diver* magazine recently reported what are, indeed, two of the oddest—and yukkiest—scuba diving accidents we've ever heard about. In the first case, an Australian woman complained of being deaf in one ear after a lake dive. Upon examination, she was found not only to be deaf, but also was bleeding profusely from that same ear. The injury was not permanent. A leech had crept under her hood, imbedded its incisors into her ear canal, then, when the leech swelled up with the blood it has ingested, blocked the ear canal, rendering her deaf until it could be removed. She required two days' hospitalization... In the second case, reported from south of France, a snorkeler inhaled a bee into his snorkel. The rush of air forced it deep into his throat. The stinger embedded in his larynx, which quickly swelled. The diver choked to death. Yuk!

The *Chicago Trib* claims that a hot shot California firm is now selling videotapes of tropical fish swimming around in a tank. The company says the tape, which comes complete with bubble sounds, will turn your TV tube into an aquarium, but with no cleaning, no feeding, no dead fish—and commercials... Oughta drive your cat crazy!