

## Bonaire, Netherlands Antilles,

### -- Low Cost Living, High Quality Diving

For most of us divers, the cost of travel to a tropical site requires deep pockets. It's bad enough when just two people want to head for warm water diving. But if one has to contend with the charges of a family -- well the tab is out of sight. One can save some money by planning air travel well in advance, but ground accommodations, food and diving stay quite fixed. What to do? One of our regular writers wanted to solve the problem for himself. Here is his report:

\* \* \* \* \*

I needed a place to take my family for a diving vacation, the first ever as an "all certified family." But for six divers and a child, the price would be astronomical. Since we had been separated during the year, we wanted some uninterrupted "togetherness" and would pay the price -- at least some price. I wanted good weather, smooth water conditions, uncrowded dive boats -- and good beach diving to allow two new divers to gain confidence in themselves.

Where to go? Cayman was a possibility. St. Thomas and St. Croix were two others. St. Lucia has beach diving. And so does Maui and the Kona Coast of the big island (but winter storms could be tough during Christmas, the time of year I would be traveling). My choice wasn't simple, but Bonaire in the Netherlands Antilles, off the coast of Venezuela, would certainly meet my requirements. Many times in the pages of Undercurrent we have written of the abundance of beautiful and lush reefs, of the plethora of fish, and many times we have said that Bonaire clearly rates among the very best for Caribbean diving.

But what about the cost? It would be very expensive to fly, feed, sleep and dive this mob for 9 nights, 10 days. And there were the Christmas crowds. Could seven of us sit together for meals? On the boats our "togetherness" would be shared with too many others. This would take some thought.

With these requirements in mind -- 3 rooms, 3 meals per day, and unlimited

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diving -- I checked resort prices at Bonaire for 9 nights/10 days: Flamingo Beach Hotel, \$8751; Bonaire Beach Hotel, \$6344; Caribe Inn \$6026; Habitat, \$5807.

Wow! These numbers didn't include airfare! So I turned to a handy copy of Skindiver for a little help and there I found advertisements for several bungalows on Bonaire: Bachelor's Beach Apartments, Bonaire Beach Bungalows, Bonaire Sunset Villas, Coral Villas, and Carabela Bungalows. A few telephone calls brought brochures and price lists. I settled on Bonaire Beach Bungalows for uninterrupted "togetherness," good diving and a reasonable price. And indeed the price was reasonable: for six adults and one child, unlimited diving for six, food, a rental car and taxes, the tab for 9 nights and 10 days was \$3229, 45-65% of hotel living. We were our own maids, chefs and waiters, although we did manage a couple of dinners out. The cost breakdown was as follows: Bungalows, \$1465; Food, \$700; Diving, \$720; Rental Car, \$271; Taxes, \$73.

At the Bonaire airport, we were met by the Bungalow's caretaker who drove us the five minutes to the bungalows. It was love at first sight. Situated only 15 feet from the water on ironshore about 6 feet above sea level, they were no doubt on the edge of first rate diving. Two large piers extended into the sea from the large sundeck, with a ladder for easy entry and exit. Each nicely appointed bungalow -- two, two bedroom units and two four bedroom units -- has a fully equipped kitchen, a large bathroom with a shower, and air-conditioning. A laundry room was located just behind one bungalow. Each bungalow had sheets, towels, hot and cold fresh water, lounge chairs and tables on the patio. A nice sandy beach is located less than 200 yards north and has good snorkeling.

Right out front is Roy's Choice, a reef only a three-minute snorkel away. Here is typically fine Bonaire diving. A

### Vacation Home Rentals

Tracking down a home or condo to rent in the tropics is not as difficult as one might imagine.

The best place to begin is with your own travel agent, but if he can't help he can at least provide you with the names and addresses of the government-sponsored tourist bureaus representing the locales in which you may be interested. You can track down tourist bureau numbers yourself by calling information in either New York or Miami for Caribbean destinations and in Los Angeles for South Pacific destinations. Most tourist bureaus will be able to provide a listing of local real estate agents and, in some cases, a listing of rental properties. If you're only interested in the Caribbean, the Caribbean Tourist Bureau in New York can help.

Caribbean Home Rentals has listings throughout the Caribbean. Vacation Home Rentals Worldwide has listings in the Caribbean, Bahamas, Central America and Hawaii.

Individual property listings can often be found in the classifieds of major metropolitan newspapers and city magazines. From time to time rental properties advertise in *Skin Diver*. Following are a few addresses and telephone numbers to help.

Caribbean Tourist Bureau  
20 E. 46th St.  
New York, NY  
212/682-0435

Caribbean Home Rentals  
P.O. Box 710  
Palm Beach, Florida 33480  
305/833-4454

Vacation Home Rentals Worldwide  
235 Kensington Avenue  
Norwood, N.J. 07648  
212/682-0435

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lush and healthy colorful coral garden starts at 45 feet and slopes steeply down to 105 feet to a level sand beach where garden eels sway. After reaching the reef, a 90°, a turn in either direction allowed me to choose a depth of 50 to 100 feet. The corals, gorgonia, fans, and marine life were most abundant between 50 and 90 feet. The largest fish were groupers and parrotfish (as is typical in Bonaire), and all the tropicals were represented. Many varieties of sponges graced this underwater garden, including azure vase and large purple tube sponges. In several dives, I never found this reef boring; each seemed to reveal something new. This was an excellent place for the first night dive for three of my clan. Even the shallows just off the ironshore had many interesting critters: gold spotted eels, morays, more anemones than you can imagine, featherdusters and colonial cup corals.

Obviously, there were no dive facilities on the premises but tank rental (aluminum 80's filled to 3000 psi), refills, and boat trips were easily arranged with Bruce Bowker of the nearby Caribe Inn. (Take care of boat reservations ahead of time through the owners of Bonaire Beach Bungalows when making rental arrangements.) Bruce owns the Caribe Inn and has been on Bonaire for about 13 years. He insists on each diver having a C-card.

Since so many excellent dive sites are accessible all along the island's shoreline, one can dive his tail off for only the price of a tank and airfills for ten days. Although most beach sites were once marked, those markers are now missing (one local claimed that the dive operators don't want signs in place because it takes away from their boat business), but a local map sold by the shops can get a diver close enough. One of the best beach dives is Karpata, with many ancient anchors almost overgrown by large coral heads, old anchor chain, lush drop-offs, and more than abundant marine life. I dived the pier, a macrophotographers' paradise, in downtown Kralendijk at night: colonial cup corals almost cover the old pilings. The dive must be made slowly because each old tire, each piling, each piece of junk must be thoroughly searched if you are to find the sea horses, tiny red crabs, the little sharpnose puffers, morays, arrowcrabs, octopus, top hats, and juvenile spotted drums. The dive can be confusing. After a few turns under the outer pier, it is very spooky to look around this limbless and darkened forest of dead tree trunks and not have a clue which way is out. Wear a compass.

The Hilma Hooker, a 238-foot freighter lying on its starboard side in 100 feet of water, is a new addition to Bonaire diving. Marked by two orange and one white buoys easily visible from the beach, it lies about 100+ yards out from the ironshore, across from the salt ponds. After scouting out a good entry point, we snorkeled out 30 yards, then submerged to navigate with a compass. But, I quickly encountered a current too strong to swim against which rapidly pulled us away from the Hooker. I reversed course, with my family alongside and finned for what seemed like hours before we arrived back at the beach well to the north of where we entered the water. So, there's one problem with diving on your own in strange waters; Current. No doubt, it should definitely be checked before diving the Hooker without a guide. And that's reason enough to state unequivocally that you shouldn't attempt a vacation like this unless you're confident with your skills or travel with a well seasoned partner.



Not to be outdone by Mother Nature, we tried again the next day and found little current. The visibility was only about 50 feet and I thought we had missed it again, but suddenly I sighted the port railing 50 feet ahead. The Hooker has not been down long enough to have interesting growth, but many fish have found homes. The yellowtails were so thick it was almost impossible to take pictures. A couple of very large barracuda followed me, watching my every move. Large snappers swam just above the sand, in and around the upper deck. Many crevelle jacks, french angels, spanish hogfish, puffers, chromis, a swarm of bait fish, and some trumpet fish provided company as I toured the ship. The hatches and port holes have been removed, making penetration easy and safe. The reef just east of the Hooker is beautiful and in itself worth a dive.

I visited all the other dive resorts on the island and, as I expected they were busy and crowded. It certainly made me appreciate my privacy and flexibility. If we wanted to mingle, it was a 5-minute drive to the bar and barefoot casino at the Flamingo Hotel, where scores of divers mingle and dive daily. The Hotel Bonaire has greatly improved its hotel and dive operation and Captain Don still maintains his loyal customers at the Habitat. Since I don't have the space to comment further about these operations, let me refer you to two back issues; my own Bonaire review in September, 1981, and the good reader update in the May, 1985 issue.

I did take a few boat dives with Bruce Bowker. He's exceptionally courteous, prompt and businesslike, while showing great concern for the happiness of his guests -- my family and I were treated just as well as those guests staying at the Caribe Inn. Bruce carried on conversations with his guests, while maneuvering around porpoises, sailfish and turtles when they were sighted. He helped everyone suit-up. He has two fast boats and keeps his groups small. When asked, he acted as tour guide, first briefing divers on the site, then underwater pointing out the critters that the less experienced eye would inevitably miss.

Now I must admit I like the ease of walking from my hotel room to the dive boat, but then I had the ease of walking from my bedroom to dive from the beach. And I too enjoy having no responsibility at meal time other than chowing down, but then the cash savings more than made up for the hassle of cooking, cleaning and driving. The market was only a five-minute drive away. Prices were a little higher than in the U.S., but I had no problem buying fresh vegetables, fruits, eggs, frozen meats, or almost anything else we wanted. Fresh fish can be found at the fish market near the pier. A short drive to Lac Bay and then a few minutes of wading around in the shallow water netted us many short spined sea urchins. The roe is delicious eaten right out of the shell or collected and put on a salad. We did eat a few dinners out: The Chibi Chibi at the Flamingo was good, but a little overpriced for people not on their meal plan; the ZeeZicht, the Hotel Rochaline's restaurant, the China Garden and the Den Laman Aquarium restaurant were all reasonable and satisfactory.

Star Chart:	
Beach Diving:	★ ★ ★ ★ ½
Photography:	★ ★ ★ ★ ★
Beach Snorkeling:	★ ★ ★ ★ ½
Moneysworth	★ ★ ★ ★ ★
★ poor, ★★ fair, ★★★ average, ★★★★ good, ★★★★★ excellent	

Bonaire diving remains essentially as written up previously in Undercurrent, the most virgin of the heavily dived Caribbean islands due to extraordinary conservation measures established nearly 25 years ago (we can all give our thanks to Captain Don Stewart for this). Over Christmas, the water temperature was 78° to 80°F, the underwater visibility ran from a high of about 125 feet to a low of about 30 feet after a small tropical storm. The weather was generally excellent,

large quantity. This may be significant in older divers or those with an underlying heart problem.

**Tobacco:** Smoking irritates the lining of the airways which, as a result, produce increased mucus. The mucus may plug airways and lead to an embolism. In smokers, less oxygen is distributed to the body. A person serious about diving doesn't smoke; nor does a person serious about life.

**Alcohol:** Alcohol depresses the central nervous system and increases the chances of an accident. Experiments have demonstrated increased effects of alcohol under 4 or 6 atmospheres of pressure. This occurred even 90 minutes after alcohol ingestion, when the subjective effects of the alcohol were fading. (Interestingly, rates at 7 atmospheres showed some reversal of the surface effects of alcohol.)

Alcohol is frequently associated with drownings. In analyses of drownings in the United States and Australia, about 50 percent of the adult victims had elevated blood alcohol levels. Similar blood studies are not available for those persons who drown while diving.

Alcohol causes blood vessel dilation. One may get the initial impression that alcohol is warming him up, the reverse is true. Alcohol causes the body to lose heat.

Exercise followed by drinking is particularly dangerous, since this combination may cause profound falls in blood-glucose levels. Low blood glucose leads to weakness and confusion, and interferes with temperature maintenance.

It has often been theorized that alcohol consumption may increase the risk of decompression sickness, but this has not been experimentally established.

**Marijuana:** Studies show that marijuana clearly impairs short term memory, alters time perception, and decreases learning ability. It also impairs muscular control. Although no scientific studies of marijuana on diving have been conducted, divers have reported plenty of unpleasant experiences: increased susceptibility to the cold, reduced breathholding capability, unexplainable fear and apprehension about the dive, and unpleasant and unreal heightened sensitivity to underwater surrounding. Some have reported decreased alertness

to the point of unconsciousness. All of these effects seem to get worse the deeper one goes. Conversely, Chris Dueker reports that "rats given the active ingredient in marijuana and then pressurized, demonstrated some reversal of the drug's usual effects." Still, the empirical evidence for humans seems to suggest the contrary. Furthermore, Ken Kizer says "I have not heard of anyone who enjoyed diving after toking up."

**Cocaine:** In addition to causing marked changes in mental function, cocaine increases blood pressure and heart rate. It can also increase the likelihood of an oxygen seizure or disturbance of heart rhythm. Kizer reports that he was involved in the treatment of a diver "who had snorted coke a few hours earlier and who suffered oxygen seizures during recompression under conditions that were most unlikely to cause oxygen seizures.

**Hallucinogens:** Is any comment needed?

**Amphetamines:** Speed and other amphetamines have been studied under pressure. It was once theorized that amphetamines might counteract the narcotic properties of nitrogen. That's not the case. Rats trained for high pressure performance had poorer function when they were administered amphetamines then pressurized. Amphetamines impair judgment, problem-solving ability, and muscular coordination.

**Barbiturates, sedatives, tranquilizers.** At the surface, minor decreases in performance, which could be very serious underwater, can go undetected. Animal experiments reveal that pressure effects are not the same for all sedatives and tranquilizers. Some appear unchanged by pressure, others have their properties enhanced, and still others may be counteracted. As a rule, they should be avoided. Divers need to face reality without sedation.

**One final note:** Psychoactive drugs have a complicated system of absorption, metabolism and elimination. They can remain active in the body long after they're ingested. While on the surface the effects may seem to be worn off or diminished, they may very well return under pressure.

*To be continued next issue.*

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## Dear *Undercurrent*:

Dear Publisher:

Since there are no holds barred when I take on the dive industry, I trust I can raise an issue with you as well.

When I picked up the printed copy of the last issue of *Undercurrent*, I was deeply embarrassed when I found that your typesetter turned the name of Preston Colby into "President" Colby and your proofreader didn't pick it up.

In fact, I've received several comments recently concerning what seems to be a continuing stream of typographical errors.

Out here in Sausalito, my writers and I take a lot of pride in our work. Sure, we occasionally have misspellings slip by, but the proofreaders are on your end. Can you do something to get this straightened around?

Sincerely,  
Ben Davison

Dear Ben,

First, my apologies to Preston.

And second, I acknowledge that we've had some problems here in New York. That's why I've recently changed the top management of ATCOM and installed a long time employee, Beverley Walker, as President of my newsletter company.

I can assure you that Beverley is well aware of the problems and is moving quickly to correct them. We have a great deal of pride as the publisher of *Undercurrent* and will see to it that our professionalism and reputation continue to expand.

Sincerely,  
Lloyd deMause  
Chairman

## Tipping Your Dive Guide

### —Is A Well Placed Five Spot Appropriate?

"If ever there were a bunch of cheap bastards in this world, it's divers. I've been leading dives on Cayman for a year, and when my buddies and I get together in the evening for a couple of drinks and compare tips, I might as well have not worked. The bartenders and cab drivers do better than I do. I get a reasonable salary, but this is a service industry and divers are blind to it."

So said a dive guide on Cayman recently. One who wishes to remain anonymous.

Surely, tipping is a fact of life with most of us. We do it every day, in restaurants, barbershops, beauty parlors, and taxis. So pervasive is tipping that the

IRS assumes that waiters and waitresses get tips and taxes these workers at a presumed rate of their income -- whether or not they do indeed get tips.

If tipping is standard operating procedure when one gets served, what is the standard operating procedure for divers when one gets a great day dive or has an exceptional week on a dive boat? To those divers who consider tipping -- and it seems that most *do not* -- there are contradictions.

Too many divers instructors and boat captains have been considered to be "professionals" and so were not tipped. When was the last time you tipped your dentist, or surgeon? But they have also provided ser-

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with an occasional hard shower lasting less than 15 minutes. Daytime temperatures ran 80° to 85°, cooling off to 70° at night. To contend with mosquitoes and no-see-ums, I used a half-and-half mixture of Avon Skin So Soft and water. I had no problems. The wind blew at 10-15 knots all day and night, making air-conditioning unnecessary. The swells crashing against the ironshore in front of our bungalows lulled me to sleep every night.

I indeed got what I wanted from this dive vacation at Bonaire Beach Bungalows. My family had more time together than we have had in years, at a cost of less than half of what it would have been at the other resorts, and we had what the hotels could not provide: privacy, togetherness, and flexible dive and dining schedules. I'm going to consider other dive vacations away from the madding crowd and if you're interested, I've included a listing of a few people who can find you bungalows, condominiums, or houses in the islands. But, you'll be hard pressed to beat Bonaire and its Bungalows.

**Divers Compass:** For Bonaire Beach Bungalow reservations, contact Rene Hakkenberg, P.O. Box 264, Waverly, PA 18471; telephone 715/586-9230. Individual bungalows are \$480/week 1 May-14 Dec.; \$570/week 15 Dec.-30 Apr. Duplex-type bungalows are \$430 and \$520, low and high season, respectively. . . if you wish, shopping can be arranged prior to your arrival so your refrigerator is full of food when you arrive. . . Conserve water and electricity; it costs the owner 15 cents everytime you flush the john. . . The west and south sides of Bonaire are marine sanctuaries and nothing can be taken, even dead shells and corals. . . the long spined black sea urchins practically disappeared from Bonaire waters and are just now making a slow come-back, so don't kill them to feed the fish. . . Be careful surfacing from a dive near the drop-off in front of the bungalows since dive boats often race across that area; by staying under until the depth hits 10 feet, you will keep well out of the path of the dive boats.

## Drugs And The Diver: Part I

### —The Good, The Bad, And The Unnecessary

Any diver with a modicum of gray matter knows he ought not to get loaded on alcohol, acid, marijuana, cocaine, or any other mind-altering substances before hitting the water. Not all divers follow the rules, however, and each year a couple of fatalities in the United States can be attributed to the ingestion of one substance or another.

These aren't the only drugs that affect diving. Plenty of others have an effect, (some even positive), and a number of people have begun to shed some light on the effect of certain drugs under increased pressure.

Two physicians, Christopher W. Dueker and Kenneth W. Kizer, have recently published summaries on the effect of certain drugs on divers. We have liberally combined relevant parts of their work with other research for this report.

\* \* \* \* \*

Divers use drugs for four reasons:

\*to facilitate diving

\*to treat nondiving conditions

\*to prevent or treat diving maladies

\*to enhance pleasure

The surface effect of any drug may differ significantly when one goes below. And, as individual response on the surface differs from person to person, it may differ even more when diving. Although much is known about the effect of some drugs, too much is unknown.

It is known that pressure alone, has a number of effects. Some mental depressants are made more potent by pressure, while others seem to be counteracted. Pressure can change the automaticity of heart contractions and the way that nerve impulses are conducted between nerves or transmitted from nerve to muscle. Although these effects are most noticeable at great pressure, they have been detected at scuba depths. Drugs can potentiate these effects.

It would be virtually impossible to evaluate every drug, so decisions must be made as to which are most relevant to diving. Then one must determine which

effects are to be investigated. Is it more important to know if the predicted effects of a medicine have been modified by pressure or to know if that medicine causes unsuspected behavior under pressure? In most experiments, it is possible to look for only a few types of changes. Furthermore, different depths have different influences. Investigations at very high pressures may not be applicable to shallow scuba diving. Relatively few investigations have been made of drug actions at scuba depths. Most of the more recent research has been conducted at great pressures and depths comparable to deep saturation diving.

The effect of breathing gases at increased pressure produces physiological changes. Nitrogen narcosis is familiar to all divers. Increased carbon dioxide can cause headaches and depress mental functions. Various drugs could aggravate these conditions.

Exercise causes a number of physiological effects, which can be altered by the action of drugs. Even in the clearest water, vision is distorted. The ability to localize sounds is markedly changed. Cold water decreases tactile sensations and alertness. Surge may evoke nausea. Drugs can affect any of these responses, as well as increase anxiety.

The evaluation of drugs is very complicated. Individual divers should become aware of current information about drugs they use, and their possible effects on diving. One needs to be sensitive to subtle surface affects to be aware of any enhanced effects underwater. This is the current level of knowledge of many drugs.

### Drugs Used to Facilitate Diving

**Antihistamines:** These may cause considerable drowsiness. They have been shown to significantly decrease mental alertness, cognitive performance and muscular coordination when tested under pressure. Some divers are substantially bothered by dry mouth and blurred vision when taking antihistamines.

Susceptibility to antihistamines varies markedly among individuals. Some people have used them for years and have never been troubled when diving. Others have serious responses.

*Diphenhydramine (Benadryl)* seems to produce the greatest functional change, both in laboratory animals and humans.

**Antimotion medications:** The more common medications are antihistamines: *dimenhydrinate (Dramamine)*, *meclizine (Bonine)*, and *cyclizine (Marezine)*. They do impair some divers who use them to prevent motion sickness in rough water boat rides or for rough water diving.

*Scopolamine (Transderm V)* is administered by a skin patch placed behind one's ear; the patch permits continuous absorption of the drug. Although it has a number of potentially serious side effects (it may increase the effects of nitrogen narcosis, affect heart rhythm, increase the rate of airway plugging,

pulmonary over-pressurization and air embolism), few of these side effects are actually known to have occurred in the several years the drug has been on the market. Dr. Kizer writes that "it would appear that it is relatively safe for use by divers." Certainly, many sailors and fishermen swear by it.

Powdered *ginger root* has received attention as a possible anti-motion sickness medication. In a study comparing the relative effectiveness of *ginger root* to Dramamine, ginger was found to be superior in controlling nausea and vomiting. It seems to work directly on the gastrointestinal tract, minimizing its effect on other systems. Further studies are required to determine its true usefulness.

**Decongestants:** Divers most commonly use *pseudoephedrine (Sudafed)*. Under pressure it has been shown to produce detectable slowing of judgment and some impairment of coordination, but the magnitude of such effects is small. It is relatively safe when used by sport divers, but it should *not* be combined with an antihistamine.

Another decongestant, *phenylpropanolamine (PPA)* is a constituent in more than 70 nonprescription appetite suppressants and decongestant preparations. Although no studies on diver safety have been done (and some reports in the medical literature have raised concern about toxicity) it is probably safe when used in low doses.

Decongestants have cardiovascular effects that may increase the risk of suffering a disturbance of heart rhythm, which, of course, could be fatal. Furthermore, so-called "head-colds" often carry with them inflammation in lower airways; plugging could lead to embolism. The question to ask is whether the condition for which the drug is being taken is sufficient reason itself not to dive.

*Nasal sprays and drops* are used by some divers. They seem to produce few adverse effects. However, if a short action preparation is used (or if you are addicted to them) the decongestant effect may wear off during a dive. It could then become difficult to clear the ears upon ascent. Because of its long duration of action (although no studies have shown it to act longer than other compounds), *oxymetazoline (Afrin)* has become quite popular among divers.

Some people find a topical *corticosteroid aerosol spray* to be helpful. They have none of the complications of the aforementioned drugs, but must be started at least three days before you want the desired effect. They seem to work for only half the people who try them.

### Drugs Used Recreationally

**Caffeine:** For most people, it should not be a problem. It increases heart rate and blood pressure, but in most persons these effects are so slight as to be of no consequence. Caffeine does tend to increase the frequency of irregular heart beats especially if taken in



vices as dive guides, tour conductors of the underwater world. Since some people believe that "tips" is an acronym for "to insure prompt service" and that is what most divers want, why aren't instructors or captains tipped?

John Englander, President of NAUI and President of UNEXCO in the Bahamas told *Undercurrent* that, "UNEXCO's policy has been to discourage tipping. Our divemaster's and dive guides are instructors and we feel an instructor is a professional and should be treated in a professional manner. We pay a competitive wage and feel that good service should be extended to everyone, not just those who are big tip-pers."

John Fine once an instructor, and now a professional photographer and writer, echoes Englander's feelings. "When I was an instructor at a resort, I took offense at the idea of a tip. No one offered me one and I wouldn't have taken it if it had been. When I go on a trip I don't tip. I may give a gift of one of my books, or a T-shirt, something like that. But not money. On the other hand I might tip a boatman or someone else who provides service. But an instructor is a professional who shares an experience with you and I feel that tipping is reserved for servants not someone you share equally with."

On the other hand, some tour operators, for one Carl Roessler of Sea & See Travel, encourage tipping. As Carl told us, "tipping is the fastest method of letting the skipper and crew know that you either enjoyed a trip or things were wrong. If someone has a bad time and waits until they get home to write to us, and then we write to the boat, it may take a couple of months to get a situation straightened out. Tipping announces your perceptions right now."

Further compounding the tipping dilemma is how tips may affect wages. One dive guide from Sunset House in Grand Cayman told us, "when I was looking for a job a boat operator offered me \$50 a month and told me that the rest would come from tips. I turned that down fast!"

Some resorts state that a given percent is added to the bill for 'gratuities.' But this may or may not apply to the dive operation and in some cases does not even apply to the bartender. This gratuity is usually for the person that cleans your room, waitresses and cooks. But those folks who tend to your daily diving needs are not necessarily part of this system. Who thinks about the guy or gal back in the shack who keeps the tanks filled, repairs the motors on the boats and cleans the sand out of the dive shop area? Admittedly, this person may also be the dive guide and the boat operator, but it is still done; and for the most part goes unrecognized, unless you are the one that gets a short fill or are on a boat when the motor quits.

Right now there are no widely accepted formulas that can be applied across the board to make tipping

an easy computation. Some tour operators suggest amounts which vary by the location. Amos Nachum, president of La Mer, told us that, "tipping must reflect where you are. You will be expected to tip more in the Red Sea than in the Galapagos because the standard of living and the expenses of living are higher there. We make suggestions but do not attempt to enforce tipping, that is up to the individual." And today, one can say that the typical sport diver is not a tipper.

Lisa Choquette of Dive Makai on the Island of Hawaii, told us, "only about 5% of the diver's tip. We don't turn it down but we also don't make people feel that it is expected." When asked how much the

### The Wages Of Diving Instructors

According to Jim Williams, Dean of the PADI International College, beginning instructors who have completed a ten week course can expect salaries and commissions ranging between \$12,000 and \$24,000 per year. The actual figure is a function of the location of the shop, its volume of business, the number of students trained by the instructor, and the commissions on sales. Work weeks can run from 40 to 60 hours. Sixty percent of the positions available are in retail stores, primarily in the United States.

Williams claims resort instructors receive from \$12,000 to \$18,000/year, plus room and board. In most cases, the eight hour day is a rarity, and the five day work week non-existent. Only in Hawaii are hours and wages somewhat commensurate with the mainland U.S.

Cruise ships pay starting instructors from \$800 to \$1100 per month, with room and board. He cites one cruise ship contractor who offers incentives so that an instructor in five years could make \$30,000/year, room and board and 2+ months vacation.

PADI receives requests for instructors with special skills (deep diving, search and recovery, equipment repair, outboard maintenance, e.g); for couples, for management trainees, for boat captain trainees and for instructors facile in Spanish, Japanese, French, German or Portuguese.

Williams delivered this report at NAUI's IQ 85 conference in November, 1985. *Undercurrent* suggests that before anyone gets enticed about salaries in the industry, contact those stores or resorts that might interest you as a future employer. Ask them specific questions about current salary levels. Discussing salaries with other instructors rather than management can also be helpful.

average tip was, Lisa told us, "it varies from \$5 on up. One guy gave us \$100."

How much to tip and who to give the tip to varies from diver to diver. *Undercurrent* surveyed some of the divers who have responded with 'Reader Updates' to find out how traveling divers handled tipping. Jovita Mask of Raleigh, NC, told us that "I give the tip to the person who organized the trip and let him/her distribute it. For example, on a 10 day boat trip I usually give \$80. If I am going out from a resort on a two tank dive day, I tip \$5.00 per day."

When we asked David Dennis of Aledo, Texas about tipping he told us, "I never heard of anyone tipping dive guides. I don't tip, but I do take the dive master out to dinner and if we are sitting around the bar talking at the end of the day I'll buy him a few drinks. But I don't tip."

Bruce Sinclair of San Jose, CA, said, "if the boat people have gone out of their way to make sure that we had a good time, everyone in the group will put in \$5.00 and we put it in an envelope and give it directly to the guide."

Dr. Christian Gronbeck of Kentfield, CA, approaches tipping from the other direction, before the fact rather than after. "When I get on a boat or reach a resort I give \$20 to the divemaster and I usually get good service during my vacation. If they also go out of the way to point out things that I might miss, or give me a friendly hand with gear or point out some technique that will increase my diving pleasure, I also tip again at the end of the trip."

To whom to give the tip, is another protocol problem divers face. We checked around and here is what we found out. On live-aboard boat operations, tips are either shared equally among the crew or shared on a percentage basis. No one is left out. Most resort operations that we talked with also follow this plan. The tip is usually put into an envelope and can be given to any member of the crew. Roy Hauser of Truth and Conception fame told us, "we use the open hat. A diver can put in as much or as little as he feels the trip deserves. Tips are shared on an equal basis among the crew. While we try to give the same service to every diver or group that comes on board one of our boats, let's face it; if a group tips, the crew gets a little sharper. It's only human nature."

But the questions about tipping are still unclear. One possibility is to check with the tour guide, if you

are going in a group. If going it alone you may check with the resort operator about tipping practices, who is to receive any tips, who is covered by the added on percentage (if any) for gratuities.

If you have any doubts about someone sharing, then give it to the dive operator or to the skipper/divemaster. If there is someone that you particularly felt didn't do right by you, then state that in a note in the envelope with your tip. If the guide was a real putz but the tanks were always full, the boat and shop clean and the boatman or other employees were friendly and helpful, why should they suffer because of one jerk?

It seems silly not to tip a guide who's served you well just because he is an instructor. Sure he's a professional, but it doesn't take much more training time to become a barber than it does to become a dive instructor. Tipping for guided service -- whether for river rafting, fly fishing, or bird watching -- is acceptable procedure, if you get first class service. If your guide, instructor or not, goes out of his way for you, a tip is an appropriate response -- perhaps not just for a day's dive, but certainly if you've stayed a week.

As to those who help on the boat -- the kids with the tattered shorts and the beaten up running shoes without laces -- give them a tip if they're half good. In the Caribbean these helpers are lucky to get \$200 a month U.S. a pittance to a traveling diver. An extra \$5 to a local who has been a particular help will be put to good use.

Generally, it's not good form to tip an owner or manager of a business. But in diving, the owner is often the captain and the guide. Should you tip? If you get highly personalized service and more than you expected for your money, you might want to tip -- or leave a gift, like a bottle of good wine (or rum). If not, forget it. He makes enough.

In the final analysis, some people tip and in the dive world most don't. No hard and fast rules apply as to how each individual feels about tipping. But one thing is clear; most will appreciate it and if they don't they will tell you. If you plan to go back to a specific resort or boat, it won't hurt to show a little largesse. Even \$5.00 per day doesn't make the cost of a trip or a good dive excessive.

Don't worry about being a cheap bastard. If you get good service, recognize it.

## **Diving Injuries And Your Financial Health**

### ***—Your Bank Account Will Suffer If Trends Continue***

The future of hyperbaric treatment for sport diving injuries may be in deep trouble. Treatment costs are high and insurance coverage is usually inadequate.

As treatment facilities and air ambulance operations find it increasingly difficult to get reimbursed, fewer are making their services available.

And some divers are choosing not to seek treatment rather than incur high medical bills that must be paid out of pocket.

If current trends continue, the viability of the Divers Alert Network (DAN) at Duke University Medical Center in Durham, N.C., could be inhibited. If the facility can't make referrals, its ability to operate will be limited.

In 1985 Duke treated 17 dive accident patients, 13 of whom suffered from various degrees of decompression sickness. Visits ranged from seven hours to 23 days, with an average treatment bill of \$6,668 for a four-day stay. Generally speaking, chamber fees throughout the United States run from \$100/hour to more than \$300/hour. While fees are usually lower at non-hospital-based facilities, many insurance policies will not cover treatment outside a hospital.

Duke's \$239/hour fee covers the chamber and an operator, a nurse or nurses in the chamber and medical supplies or drugs used in treatment. It does not include the physician's fee or charges for the hospital stay.

Figures from a worst-case accident illustrate how easily a diving accident could turn to financial ruin. Last spring Duke treated a diver with decompression sickness who arrived completely paralyzed via air ambulance from the Caribbean. After a 14-day hospital stay, he was 80-percent recovered—that is, he could walk with a cane. *His bill totaled \$33,538—not including two days of treatment in the Virgin Islands.* He continues to improve with a daily exercise program. If long-term in-hospital physical therapy had been necessary, his bill could have been increased by \$15,000. (For actual cost breakdown, see accompanying table.)

#### Treatment Expense For Serious Diving Injury

Jet air ambulance	\$9,600
Helicopter (airport to hospital)	198
Medication	152
X-rays, CAT scans, Ultrasound	1,372
Lab fees	104
Medical supplies	347
Physical therapy	979
Occupational therapy	230
Hyperbaric chamber treatment	14,522
Emergency room	250
Pulmonary function	80
Hospital room and board	5,704
<b>Total</b>	<b>\$33,538</b>

While chamber treatment accounted for almost half the above bill, jet air evacuation costs totaled almost \$10,000. Fortunately, the diver was a government employee and payment was guaranteed. Most

private air ambulances will not take off otherwise. In another case, a woman injured off Cozumel, Mexico, had to write a personal check for \$6,950 for air transport from Cozumel to Galveston, Tex. Her insurance company has refused to pay her bill.

When it comes to air transport, divers don't have as many options as they might believe. Commercial airline tickets are less expensive than private services, but a ride in a cabin that's only pressurized to 8,000 feet can allow problem bubbles to get larger, possibly causing further harm. Privately chartered jet ambulances are specialized aircraft that can maintain sea level cabin pressure.

Contrary to popular rumor, the U.S. Coast Guard is *not* obligated to transport injured divers, although they have on occasion. The Coast Guard's main mission is rescuing persons from sinking vessels at sea. Officially, Coast Guard flight surgeons must determine if a "life or death" situation exists which would warrant a jet evacuation. In most cases, if a diver is conscious at the surface, he or she will live. Permanent injury, not death, is the risk. Further complicating the situation is the fact that federal law prohibits the Coast Guard or military operations from competing with private enterprise. If a private air evacuation service operates in the vicinity, the Coast Guard must refer the flight to them.

Not every case of decompression sickness is going to require air evacuation and a two-week hospital stay. Ideally, a diver with a mild case of the bends will seek and receive immediate treatment and be discharged the same day. The bill could be less than \$1,000.

The typical case falls somewhere in between, and usually involves delays of several days, extended treatment sessions and decreased effectiveness. A diver who experiences tingling and numbness after a Sunday dive may attribute the symptoms to something else and not seek treatment for a day or so. Admitted through the emergency room, he or she might receive three hyperbaric treatments and be discharged in three days. If out-patient physical therapy isn't necessary, the bill would average \$4,200.

How much of that bill—or any other—the diver's insurance company would cover depends largely on the specific policy. Many will not cover air evacuation or any treatment at all outside the United States. Some will reimburse only for treatment at multiplace (more than one person) chambers in a hospital. There are only 19 such chambers in the country. At least one company would only cover diving injuries if treatment were a matter of "life or death." A few insurance companies, mistakenly perceiving diving as a high-risk sport, won't cover dive injuries at all.

For example, under their major medical policy, Connecticut General will cover five diagnoses (including decompression sickness) requiring hyperbaric

treatment inside or outside the country. According to a claims office spokesperson, the company has no specific guidelines for diving accidents, and each bill would be reviewed individually for "medical necessity." If air ambulance transport was deemed "just a convenience," it wouldn't be covered. A representative of The Equitable stated that such coverage is determined at the time each individual policy is written, and that divers who go below a certain depth may not be covered.

Blue Cross/Blue Shield is not one company, but many individual companies whose policies vary. Blue Cross of Pennsylvania will cover in-patient hyperbaric treatment as well as air transport, but only within U.S. boundaries. In New England, a monoplace (single-person) chamber was refused reimbursement by Blue Cross because it was not a multiplace chamber or hospital based. One official of a Caribbean air ambulance company said that they are reluctant to accept Blue Cross policy holders because of past refusals to pay.

Normally, when a person has an accident and either has inadequate or no insurance and is unable to pay any other way, that individual is referred to a so-called "charity" hospital. In most instances, this is satisfactory. However, these facilities do not have hyperbaric chambers, so injured divers have nowhere to turn. On a few occasions, DAN has been able to persuade a private facility to accept a patient who couldn't pay, but hospitals are reluctant to do so.

The alternative for many divers is to forego treatment, especially of mild cases of decompression sickness. Although the symptoms may disappear on their own, ignoring them can lead to damage that may not appear until sometime later.

In an attempt to provide a solution, DAN is negotiating with air ambulance companies to provide an emergency transportation insurance package. The

package, which would be offered for approximately \$36/year, would cover transport from anywhere in the United States, Canada and the Caribbean. DAN is also investigating the possibility of offering an insurance package that covers hyperbaric treatment. It would be in the same price range.

While the odds of being injured are low, problems do occur. The well-prepared diver will know not only how to react in case of a dive emergency, but who's going to pay for it.

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### Is Your Insurance Adequate?

Many divers are unaware that their insurance coverage might be inadequate. The following questions should be answered in writing by the insurance company's claim department:

1. Will they cover hyperbaric chamber treatment for scuba diving injuries?
2. Are there any restrictions on the type of chamber that can be used?
3. Who can authorize treatment?
4. Can a DAN physician authorize treatment over the telephone?
5. Are there any restrictions on how much they will pay for hyperbaric treatment?
6. Will they pay for air ambulance transport to a chamber?
7. Will they pay for transport or treatment outside the United States?

## Free Flow



Treasure finder Mel Fisher, who last July discovered the \$350 million booty from the Atocha off the Florida Keys, is back in the news. A partner said that last May Fisher gave him a 1711 silver coin that Fisher said was worth \$10,000. An independent

appraiser, the American Numismatic Association Certification Service, has determined that the coin is a fake. The Associated Press reported that Fisher said he did not know where the coin came from. "Sometimes when we are all sold out of our regular coins we salvage, we buy other coins from other salvagers, contractors, and beach combers and resell them in our gift shop or give them away." Fisher said he does not have these coins authenticated.

**What to do in case of painful stings from lionfish, scorpion fish, stone fish or other members of the Scorpaenidae family of venomous bony fish? In a study of 51 cases, researchers found that immersion in hot water produced complete or moderate relief in 84 percent of the cases. Those findings were recently reported by Dr. Ken Kizer in the *Journal of the American Medical Association*.**