

We're Late...

As you may have noticed, there was no July *Dive Log*, due to a number of production problems on our end, as well as extra effort in trying to come up with material. However, to make up for it, this issue is a double-thick one. For those of you who are advertisers, your ads appear twice in this issue so that you don't miss out either.

One of the things that would help us, since this newsletter is entirely a volunteer effort, are more submissions from UDNH club members, as well as other readers. Had an interesting dive vacation? Write it up and send it to us. Experienced a unique local dive? Write it up and send it to us. Have some dive related topic you want to share with others? Write it up! This newsletter can only be successful with your contributions.

Also, thanks to some recent computer enhancements, and a new printing process, we can now scan in photographs as well as slides and negatives, and print them in the newsletter, in a high-quality format. For those of you that are tech-heads, we dump the newsletter into a PostScript file (it's huge - about 70 megabytes), and then have our local printer, New England Duplicator, print it on their Xerox Docutech Printer/Copier at 600 dpi.

For those of you who are Internet Surfers, in the works is a way to put all of this year's newsletters on the Internet's World Wide Web. We'll keep you posted on how this effort matures.

As always, if you have any contributions please send them in (see Page 2 for contact information), and suggestions on improving the newsletter are also appreciated.



UDNH Club Polo Shirts

The United Divers of New Hampshire are in the process of producing a new garment all club members should have - the Official UDNH Polo Shirt.

Each high quality blue polo shirt comes embroidered with a multi-color UDNH logo, and is available in a range of size, all the way up to XXL. As an extra feature, for a small fee, polo shirts can be customized with a person's name, for that added personal touch.

Polo shirts are \$30 a piece, and name customization is an additional \$3. In order to be able to place the order at these prices, the club needs to order at least 3 dozen shirts, so reserve yours now by calling Jim Fredricks at 668-7124, or catching him at an upcoming UDNH meeting.

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Lobster Raffle!

At the August 21st UDNH meeting, the club will be raffling off 20 pounds of live and kicking lobster! Raffle tickets are \$1 each, or 6 for \$5. Proceeds from the raffle help contribute to the Jay Lewis Memorial Fund (used for scholarships) and also help defray the costs of the annual UDNH Banquet, held in mid-November. For people who want to help out with these worthy causes by purchasing raffle tickets, but who are not wild about lobster, please note that the winner of the raffle will receive a gift certificate to a local seafood store equivalent to the value of 20 pounds of live lobster. The gift certificate can be redeemed for any type of seafood the store offers. For anyone interested in the chances of winning, 1200 raffle tickets have been printed, but it's not clear how many have been sold, although it seems sales have been brisk.

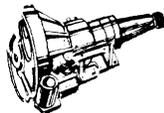
PUBLIC SERVICE ANNOUNCEMENT

Diver There, Please Beware

The United Divers of N.H. urge boaters to stay well away from a red flag with a white stripe or other flags in the water. They signal that scuba divers are in the area.



The above Public Service Announcement appears on page 58 of the 1995 New Hampshire Saltwater Fishing Digest, published by the New Hampshire Fish & Game Department. It should serve as a reminder of what UDNH members have helped make happen in terms of Diver Safety in the State. Our voice counts.



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The Newsletter of the United Divers of New Hampshire

Editors: Jake Richter
Linda Richter

Submissions

Editorial contributions may be e-mailed to jake@strokeofcolor.com or FAXed to 603-432-0817. Written submissions on paper or PC floppy, and photographs in the form of prints or slide can also be sent to:

Jake Richter
Editor
Dive Log
12 Heritage Lane
Derry, New Hampshire 03038

Please include a brief byline and author contact information with your submission. Submission shall automatically constitute an expressed warranty by the contributor that the material is original and is in no way an infringement on the rights of others. While no compensation is paid for published submissions, a byline indicating the source of an article will always be provided. Authors grant *Dive Log* and United Divers of New Hampshire first print rights to the submission. *Dive Log* and its editors reserve the right to edit all materials as needed. The opinions stated in the articles in *Dive Log* are those of the writers and do not necessarily reflect the opinions of the United Divers of New Hampshire or the editors of the *Dive Log*. For further information, please contact Jake Richter at 603-432-0234.

Membership

Annual dues for membership for 1995 in the United Divers of New Hampshire are \$25/individual or \$35/family. Dues are not prorated for members who join later in the year. To join, please contact Phil Morrison, 603-529-4361.

Subscriptions

Subscriptions to *Dive Log* are included in the UDNH membership fees. Non-members may subscribe to the newsletter for \$15/year. Subscription inquiries should be addressed to Phil Morrison, 603-529-4361.

Advertising

Rates for a full year placement range from \$75 to \$200, depending on placement size and location. For detailed information on advertising in *Dive Log*, contact Wayne Russell, 603-669-7124.

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DAN Responds to *Lancet* Article About Long-Term Consequences of Diving

Recreational divers should not be unduly concerned about a recent article on the long-term consequences of diving, published in the British medical journal *Lancet* in early June 1995, according to Divers Alert Network (DAN).

According to DAN's Executive Director Peter Bennett, Ph.D., D.Sc., the findings of Dr. Jurgen Reul and colleagues from the Technical University of Aachen, Germany, need to be put in context and not cause more concern than is appropriate. First, these findings are not new. It has been a controversial question for many years whether or not both sport and commercial divers have changes in their brains as a result of diving, but there has been no substantive proof.

The supposition of any damage to the brain rests on the occurrence of so-called "silent" bubbles occurring in the blood or brain and spinal cord. That such bubbles do exist has been well demonstrated by Doppler technology in blood and tissue studies of animals' spinal cords. Whether or not, however, these silent bubbles are the cause of changes in the brain is unproven.

Further, in most cases the lungs will filter out such bubbles, except when there is a hole in the heart, or patent foramen ovale, when bubbles will pass to the arterial side and reach the brain and spinal cord. Spontaneous growth of bubbles in tissue during ascent is another question and relies on an adequate tension of gas in the neurological tissues accompanied by too rapid an ascent. Hence, it is more likely in deeper dives and with more rapid ascents.

In this regard, all our recent knowledge, as pointed out in a recent DAN editorial, advises slower ascents from the standard 60 feet per minute. Most suggest 30 feet per minute or slower today. Further, recent research shows a 3 to 5 minute stop at 15 feet does markedly reduce or eliminate silent bubbles. DAN will soon be mounting a research study to investigate the occurrence and control of silent bubbles and the effect that the rate of ascent has upon them.

In the meantime, divers should not be unduly concerned about this information. More research is needed, but the world is filled with many divers who have been diving for over 40 years who show no unusual deterioration in their abilities which would affect their quality of life.

Scientific Background:

- The *Lancet* article is titled "Central nervous system lesions and cervical disc herniations in amateur divers." They studied 102 subjects, 52 amateur divers and 50 from other sports using magnetic resonance imaging (MRI) of the brain and cervical spinal cord.

In the diving group, one had a history of neurological decompression illness. Small areas of "focal hyperintensity" were seen in both the divers and non-divers. Twenty-seven of 52 divers and 10 of the 50 non-divers had these areas. Further, 32 of the divers had some abnormality of the cervical disks compared with only nine of the non-divers. The disks are "cushions" between the bony vertebrae of the spine.

- Does this mean that diving is dangerous to the brain and cervical spine? Probably not. Other studies in which MRI studies of the brain were performed in divers and non-divers have shown no differences. Interestingly, in a

continued on next page...

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study referenced a few years ago by Dr. P.A. Rinck, the percentage of hyperintense lesions seen in the non-divers was very similar to the percentage of divers in the recent study by Reul.

- One of the weaknesses of Dr. Reul's study is that he found no relationship between the number of lesions and years of diving or number of decompression dives. If indeed these areas of hyperintensity were caused by diving one would expect that those individuals with the least exposure would have the fewest, and vice versa. It may be that the study demonstrated not that divers have an increased probability of getting hyperintense areas in the brain, but rather his non-divers have a lower probability.

Perhaps engaging in swimming or running, as his non-divers did, reduces the likelihood of seeing these white areas. Finally, the importance of these areas in the brain is not known. Since such a high proportion of the normal population has them, and none of his divers had any neurological abnormalities, there is no evidence that they are of any importance.

- Finally, what could the spinal results mean? Dr. Reul infers that microbubbles caused by diving could account for this disk degeneration, an interesting hypothesis but probably not the most likely one. It is difficult to understand how microbubbles could induce disk degeneration and no evidence for this has previously been reported.

Moreover, there are other more likely explanations for the difference between the two groups. Perhaps swimming and running (non-divers) results in a lower likelihood of disk degeneration. Alternatively, the lifting of tanks and weight belts which is a necessary part of

diving could increase the likelihood, totally independent of microbubbles.

- Another Norwegian study in 1994 studied the neuropathology of spinal cords of both 10 professional and 10 recreational divers who had died. The microscopic examination did not reveal any spinal cord damage, degeneration or scar formation.

- Certainly, Dr. Reul's results should not be discounted. However, in the absence of neurological decompression illness, many other studies in which divers were compared with non-divers, have failed to demonstrate that diving causes long-term neurological impairment or any functional abnormalities.

UDNH Board Elections

It's that time of the year again, when the United Divers of New Hampshire club needs to elect new Board members. Last year's election efforts didn't go too smoothly, so we want to make sure to remind everyone now to think about whether or not they would like to help guide the UDNH club towards greater membership, glory, and benefits to club members. There are five positions open: President, Vice President, Treasurer, Secretary, and Dive Coordinator. At an upcoming meeting, the current Board will discuss what the tasks of each position are, as well as what the benefit is of being a Board member.

It should be noted that generally, Board elections happen at the last meeting of the year, usually the first Monday in November, and obviously, all nominations are due in before then.

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Dive Show & Symposium in PA

Beneath The Sea, a not-for-profit agency, announces the BTS/Dive Philadelphia Scuba Expo. Three days of fun, October 6-8, 1995, at the Valley Forge Convention Center, King Of Prussia, Pennsylvania.

BTS/Dive Philadelphia is open to divers at all levels and invites non-divers to come experience the joys of the underwater world. The Expo features exhibits, speakers, prizes, workshops on CPR, VCI, first aid, photography, and other topics, the UHMS Medical Symposium (see below), a technical diving symposium, the Cayman Islands party, a Bloodmobile, the Dive Philadelphia/Lawrence Factor Air Aware Awards, and more.

Grand Prize for a lucky Expo attendee: One week trip aboard the M/V Turks & Caicos Aggressor liveboard.

Expo entry fee is only \$6 at the door, Seniors and students \$4, children under 12 free. Workshops are separate admission. Preregister by mail for free admission to the Cayman Islands party Saturday evening.

UHMS Medical Symposium

The Medicine & Physiology of Diving (in plain English) - an exciting one day symposium Saturday October 7, 1995, 8:30 am - 5:30 pm. Features top experts. Proceeds benefit the Undersea Hyperbaric Medical Society (UHMS). Valley Forge Convention Center, King of Prussia, PA.

Symposium fee is \$79 before September 15, 1995, \$69 for UHMS members, medical residents, and full time students. \$89 at the door. The course director is Dr. Jolie Bookspan. Pre-register by mail for free admission to the BTS/Dive Philadelphia exhibits, and the Saturday evening Cayman Islands Party.

In addition to a joint panel discussions, the symposium features:

- *Safe use of tables and computers, Avoiding the bends* - Dr. Fred Bove, M.D. Ph.D. Chief of Cardiology, Temple Hospital.

- *How to lift your gear without killing your back and neck* - Marla Tonseth, P.T., M.B.A.

- *Been there, done that, Diving research explained* - Maurice Cross, M.D., Director DDRC England.

- *The diving physical, What and why for divers and physicians* - Owen O'Neill, M.D. Exec Dir. St. Agnes Hyperbaric Medical Center.

- *Pulmonary considerations in diving* - Lawrence Martin, M.D. Chief of Pulmonary and Acute Care, Mt. Sinai Cleveland.

- *Decompression and bubble physiology, Then to now* - Richard Vann, Ph.D. Director, Hall Research Center Duke University.

- *Epidemic of decompression illness - The lobster divers of the Miskito Coast* - Thomas Millington, M.D. Thousand Oaks, CA.

- *Decompression treatment, history and procedures* - Ed Thallmann, M.D. Duke University.

- *Vision and vision correction underwater* - Richard Clompus O.D., Clompus and Reto Vision Associates

For more information on the Expo or the Symposium, and a ticket order form, send a stamped, self addressed envelope to BTS/Dive Philadelphia PO Box 547 Southampton, PA 18966 (215) 552-8114.

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Keep Your Wallet and Keys Dry

Back while we were at DEMA, the annual dive industry show, one of the exhibitors gave us some samples of their wares, which in this case were water proof pouches (pictured below) you can wear while diving or snorkeling to keep your possessions safe from water. The company is Watersafe Inc., of Downington, PA.



The Watersafe pouches come in three sizes: Waterpocket (7"x5"), Waist Pouch (9"x6"), and Shoulder Bag (12"x12"), and range from \$12 to \$22 in price. All the pouches come in a variety of colors, with the two larger ones even available in camouflage.

Watersafe claims that the pouches are leakproof to at least a depth of 130 feet, and that they are also odor proof and humidity proof. The construction seems pretty simple. There's an outer nylon pouch, with a belt strap on it, and inside there are two extra heavy duty Ziploc bags that Watersafe claims were specifically developed for them. While we can't vouch for that statement, we did find the bags to be especially puncture resistant compared to regular plastic bags (important if you have things like keys in them at depth).

We field tested the Watersafe pouches while doing some snorkeling in Mexico in April, and found them to be very effective in keeping water out in rough water conditions (we were snorkeling through caves at a place called Xcaret). The only drawback we found to the pouches was that by being secured to your waist at the top of the pouch, the air trapped in the extra thick internal Ziploc bags would cause the bottom of the bag to flip up towards your chest. This could be easily remedied by weighting the bag, or using Velcro to secure the bottom.

We've donated two of the Watersafe pouches to an upcoming UDNH meeting raffle for others to play with. For more information on Watersafe pouches, you can call 800-355-1126.

Florida Dive Boat Captain Wins First DAN Oxygen Provider Award

Bob Johnson, a dive boat captain with Rampage Dive Charters in North Palm Beach, Fla., was recognized recently with a Divers Alert Network (DAN) Oxygen Provider Award. He is the first such award winner in an ongoing program developed by the DAN Training Division to recognize individuals trained in the DAN Oxygen First Aid in Dive Accidents course who utilize their skills to render emergency oxygen first aid to an injured diver.

Johnson was honored for his quick thinking and solid demonstration of skills in oxygen first aid administration in an incident off the Florida coast in May 1995. A DAN Oxygen Provider since April 1994, Johnson keeps oxygen equipment on his boat at all times. When, eight minutes after surfacing, a 30-year-old woman experi-

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enced numbness on her right side and loss of peripheral vision, Johnson responded to her by delivering emergency oxygen.

According to Johnson's DAN Oxygen Instructor and award nominator, Andrew Mrozinski, it was the first dive of the day and conditions were good. The group descended 90 feet with a 20-minute bottom time, Mrozinski said. However, the diver developed problems when she surfaced.

Johnson radioed the local emergency medical services and returned to shore with the injured diver. Within 15 minutes of beginning oxygen, the neurological symptoms had subsided.- The woman was transported to the local hyperbaric chamber, where, after recompression treatment, she made a complete recovery. The attending hyperbaric physician, who diagnosed her with cerebral arterial gas embolism, stated that the extent of the recovery was due largely to Johnson's immediate and proper use of oxygen and oxygen equipment.

The importance of providing 100 percent oxygen for the emergency treatment of decompression illness has been known for more than a century. In the mid-1970s oxygen first aid emerged as a treatment for diving injuries, and Divers Alert Network, a nonprofit dive safety association, has been a leader in its development. DAN and its network of instructors has trained more than 30,000 oxygen providers since the inception of its Oxygen Program in 1991. A goal of DAN Training is to have oxygen and someone trained in its use on every dive boat.

To receive the award, a DAN Oxygen Provider needs to have rendered emergency assistance using oxygen to an injured diver: the incident does not have to be dramatic,

nor does it have to prevent death or permanent injury.

DAN Training Coordinator Bill Clendenen said, "DAN Training's goal with the Oxygen Provider Award is to recognize those individuals who use the skills learned during the DAN Oxygen Program to assist an injured diver. This is our way of saying 'thanks' for making diving safer."

To nominate an individual (you may nominate yourself), request a copy of the Oxygen Provider Award nomination form from DAN Training, 3100 Tower Blvd., Ste. 1300, Durham, N.C. 27707; (919) 684-2948; FAX: (919) 490-6630. USA 24-Hour Diving Emergencies (919) 684-8111 - Medical & General Information (919) 684-2948

Divers On Two Coasts Attack U.S. Navy's Claim Of Perpetual Ownership of Shipwrecks and Sunken Aircraft

[Via the Internet] In civil cases filed in Seattle, Washington, and Long Island, New York shipwreck divers and aircraft salvors have attacked the U.S. Navy's claim to perpetual ownership of sunken warships and aircraft.

The Navy's policy of refusing the requests of private entities for permission to recover and preserve sunken - yet highly prized - Second World War fighter aircraft has meant that these valuable warbirds continue to disintegrate underwater. To challenge this curious Navy policy, on May 24th, Historic Aircraft Preservation, Inc. ("HAPI") filed an admiralty, or maritime arrest of a World War II Wildcat Fighter airplane that crashed on a

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training mission and sank in 180 feet of water beneath Lake Washington, east of Seattle. HAPI asserts that the aircraft has been abandoned by the Navy and that it should be designated the exclusive salvor of the Wildcat.

Moreover, because the plane's corroding fuel tank is still filled with approximately 90 gallons of aviation fuel - a hazardous substance - HAPI contends that the wrecked aircraft is in violation of both federal and state environmental laws. Thus, if in fact the Navy is found to still be the owner of the sunken Wildcat, it will be liable for the salvage and cleanup costs incurred by HAPI. United States District Judge Thomas S. Zilly of the Western District of Washington in Seattle will determine the final disposition of the Wildcat.

HAPI is represented by attorneys Peter E. Hess, Esq. of Wilmington, Delaware, David J. Bedernan, Esq. of Atlanta, Georgia, and Jeffrey L. Jernegan, Esq. of Seattle, Washington.

Meanwhile, on the East Coast, on May 23, 1995, Under Sea Adventures, Inc. ("USA, Inc.") filed an admiralty arrest of the U.S.S. *San Diego*, an armored cruiser which sunk in 110 feet of water approximately six nautical miles south of Fire Island, New York after striking a German mine laid by a U-Boat in July, 1918. USA, Inc. contends that when the Navy sold the *San Diego* for scrap in 1957 for \$1,221.00 to New York's Maxter Metals Corp., it formally abandoned the shipwreck. Because of an outcry by environmentalists, recreational fishermen and divers, Maxter never salvaged the *San Diego*, which has since become the single most popular shipwreck diving destination in the United States.

USA, Inc., which charters the Research Vessel *Wahoo* to take divers to explore and recover artifacts from the *San Diego*, filed the admiralty arrest in the face of increasingly strident rhetoric by the Naval Historical Center condemning the recovery of artifacts from the shipwreck. The Navy intends to deploy a Mobile Diving and Salvage Unit on the *San Diego* from June 4-14, 1995, ostensibly to assess the danger the shipwreck presents to recreational divers. The wreck has continued to deteriorate and in recent years, divers have observed it to be collapsing at an accelerating rate.

USA, Inc., echoing the sentiments of the wreck diving community - who, for more than thirty years, have been freely and openly diving the *San Diego* and recovering, preserving and displaying her rich trove of nautical artifacts - believes that the Navy's ultimate goal is to prohibit any future artifact recovery from the shipwreck while prosecuting those divers who continue to pursue their avocation on the World War I shipwreck. Judge Arthur D. Spatt of the United States District Court for the Eastern District of New York will have to decide if the *San Diego* has in fact been abandoned by the U.S. Navy. USA, Inc. is represented by attorneys Peter E. Hess, Esq. of Wilmington, Delaware and Richard Lefkowitz, Esq. of Garden City, New York.

For further information, kindly contact the following persons:

Robert Mester, President, HAPI: (206) 848-4046
Steve Bielenda, President, USA, Inc.: (516) 928-3849
Peter E Hess: (302) 777-1715
David J. Bederinan: (404) 727-6822
Richard Lefkowitz: (516) 873-7070



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New Diving Physiology Book

A new book, *Diving Physiology in Plain English*, written by research physiologist Dr. Jolie Bookspan, formerly scientist for the US Navy, has just been announced. Dr. Bookspan wrote the book so that it would be clear enough for divers at any level, while still providing substance for the advanced. Topics in this 246 page illustrated book include:

- Decompression tables and computers - What are m-values, compartments, half-times, tissues, tensions, saturation ratios, and other decompression terms? What do they mean to you as a diver?
- Physiology of decompression sickness, oxygen toxicity, diving headaches, and lung injury. How to lower your risk.
- Technical diving - What to do when you have to "go" on long hangs. How to rehydrate underwater. Gas switching, nitrox, heliox, trimix, hang mixes, carbon dioxide retention, are you colder breathing helium? more...
- Special considerations for men divers - Effects of pressure on testicular and penile implants, hair replacement, fertility, hernias, steroid use, snoring, chest muscle implants, heart disease, sinking legs, sudden death, more...
- Issues for women - Pregnancy, breast implants, contraceptive drugs, osteoporosis, more...
- Diving in cold and heat
- What to eat for best performance?
- How to get in shape for diving.
- Why do you have to 'pee' when you get in the water?
- Dive reflex

- Free radicals, enzymes, and O₂ toxicity
- What to do for swimmer's ear and marine stings.
- Large annotated glossary

The book is selling for \$30 plus \$5 postage and handling in the U.S., and is available from the Undersea and Hyperbaric Medical Society, Inc. (UHMS), 10531 Metropolitan Avenue, Kensington, MD USA 20895-2627 . Phone: (301) 942-2980 . FAX (301) 942-7804.

Dive In Sunny Cozumel!

We, the Editors of the *Dive Log*, avid warm water divers, are setting up a group trip to the island of Cozumel in Mexico, named as one of the top three dive sites in the world by Jaques Cousteau.

The trip is scheduled for the week of December 2nd through December 9th - 7 nights and 8 days of fun and rest, not to mention some outstanding diving.

Cost is \$800 per person, double occupancy, for roundtrip airfare from Boston, accommodations at the Plaza Las Glorias luxury hotel in Cozumel, and transfers from the airport to the hotel in Cozumel.

The Hotel

The Plaza Las Glorias is located right on the water's edge, with the hotel designed so that all rooms have an ocean view. The rooms we have blocked for our group are all Junior Suites, offering a kitchenette with sink, refrigerator, microwave oven, and single burner stove top, as well as utensils and dishes. These rooms come with either a king size bed, or two double beds in the upper sleeping area, and a day bed in the lower section. All rooms also come with air conditioning, a phone, and

continued on next page...

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View from a room at the Plaza Las Glorias

TV (including some U.S. stations). All the rooms can sleep 2 or 3 people comfortably (for triple occupancy, the trip cost drops to \$700 per person).

The hotel offers three separate restaurants, a lobby bar and a pool bar, a nice pool to go with the bar, a sandy beach area with reed shades and lots of lounge chairs, its own dive shop and dock for dive boat pickup, and is within easy walking distance of San Miguel, the only town on the island of Cozumel, for great shopping and dining.

The Diving

Diving is quite an experience in Cozumel. The water averages around 85 degrees year round, with visibility running anywhere from 100 to 200 feet. Cozumel is located at the edge of a 4000 foot channel, with an amazing variety of fish and coral life. The most unique thing about Cozumel is that all the diving is drift diving. Your Mexican divemaster takes you out in groups of 6 or 8 divers, and you drift leisurely along the reef. If you want to stop and examine something (as photographers might need to do), a light kicking motion with your fins

it all it takes. We've been to Cozumel over a half-dozen times, and have yet to be bored by the variety we've found in the waters there. We've seen turtles, sting rays, nurse sharks, Cozumel toadfish, a plethora of angelfish, moray eels, octopi, large groupers, huge gorgonians, nudibranchs, sharp-tailed eels, and much more.



An Octopus presents himself to us

The best Cozumel diving is done by boat, which picks you up between 8 and 9am at the small pier at the hotel, and drops you off there as well. A two tank morning dive costs around \$50-\$55, and includes tanks (aluminum 80s) and weights as well as refreshments between dives. A three tank dive (two in the morning and one in the early afternoon) is only \$10 more. One tank night dives, run almost every day, are around \$35. If you get a one week dive package, it'll run you around \$300-\$350 dollars, including 6 days of 2 tank dives, a night dive, and unlimited tanks for shore diving. Note that diving is not included with the package price mentioned earlier because we don't know exactly how many divers are going to be going, and what sort of package rates we might be able to negotiate (there are over 40 dive operators in Cozumel, and we are not required to use

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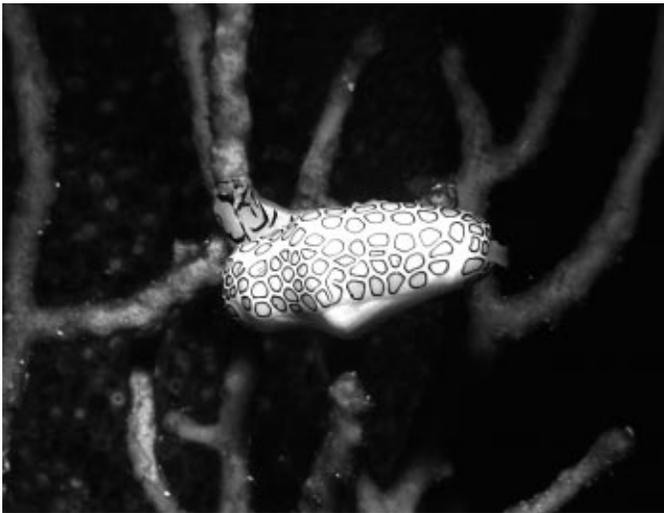
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the one at the hotel, although we have had good luck with them in the past). The hotel maintains secure dive gear lockers about 100 feet away from the pier, along with large rinse tanks to help clean off your gear after a dive.

By the way, we recommend that you bring your own gear with you, instead of renting gear in Cozumel. The rental gear is questionable sometimes, and you're always better off with gear you're familiar with. We should also add that PADI and NAUI training for all levels of dive certification are available in Cozumel, with the exception of the Ice Diving Specialty course, for obvious reasons.



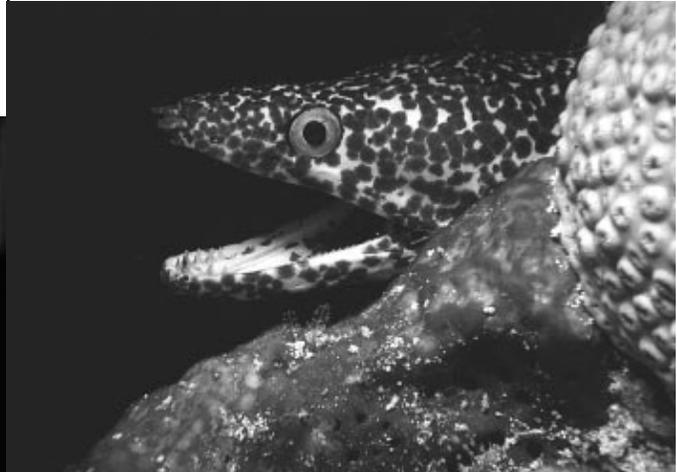
A Flamingo Tongue Nudibranch on a Purple Sea Fan

Snorkeling & Shore Diving

Cozumel offers excellent snorkeling and shore diving in addition to the boat diving, and it's as easy as just dropping into the water at the hotel. Near shore, the currents are very mild, so there's no problem with having to struggle to swim around. It's also a great place to go for a check out dive the afternoon of arrival,

and for night dives as well. We will usually, during one night of the week, take a taxi about a mile down the road, drop into the water, and drift back towards the hotel for an hour plus night dive. For additional snorkeling and shore diving, there are numerous parks on the west side of the island (same side we're on) that offer a great variety of marine life.

Several of the dive operators also offer boat snorkeling trips to help get you to areas that are not as accessible from land.



Spotted Moray

Day Trips

For non-divers and divers who want to take it easy, there are several tours available to the mainland, including visiting famous Mayan ruins like Chichen Itza and Tulum, as well as the snorkeling destinations of Xcaret and Xel-Ha. Day trips to Cancun for real party animals are also available. Prices for these trips vary, and several tour operators set up shop right in the hotel lobby.

continued on next page...

<u>WRECK DIVING</u>	M/V DIVEMASTER	<u>SPORT FISHING</u>
	<p><u>CAPTAIN BILL'S CHARTERS</u> "Fishing and Diving at its Best"</p>	
<p><u>NIGHT DIVING</u> 942-8563 Days</p>	<p>Bill Wagner 145 Griffin Road Deerfield, NH USCG# 675776</p>	<p><u>COD FISHING</u> 463-9028 Nights</p>

Currency & Shopping

Mexican currency is called the peso (actually it's the Nuevo Peso - New Peso, symbol is N\$), and runs currently around 6 N\$ to 1 US\$. All stores and shops in Cozumel accept US dollars, but the exchange rates they give you are wildly different. We've had ones convert US dollars from as little as 5 N\$ to 6.5 N\$ - quite a range. The best bet we've found is to carry ample pesos with us, and before buying something checking to see what the exchange rate offered is to see if using dollars (via cash, traveler's cheques, or credit card) is the best deal or not. Note that hotels and dive shops run everything in US dollars. There are also several ATM machines in town which provide decent exchange rates, so you don't have to worry about running out of cash.

The shopping in Cozumel is very tourist oriented for the most part, but the further you get away from the ocean, the easier it is to haggle for a good deal with a merchant (the most expensive shops and restaurants are located on the water's edge). Some of the things that are inexpensive are t-shirts and local craft goods, like blankets and hammocks. There are a few duty free shops as well, and you can purchase Cuban cigars if that's your inclination.

Transportation

Most island transportation is accomplished by Taxis, which are very inexpensive. A ride anywhere downtown will run you around a dollar, while a ride to the Chankanaab National Park (for snorkeling and beaching) may run around three dollars. Taxis are always available, and if you're walking around, you will frequently hear little "beeps" as the free taxis try to get your attention to see if you want a ride.

For the more courageous, car and moped rentals are available. Our one rental experience was a Jeep without power steering, a poorer suspension than normal, no top (it does rain occasionally in Cozumel, but not for long), and a steep price (\$50 for the day). For the price, we could have rented a Taxi for a day, and gotten a personalized tour of the island including the many Mayan ruins there as well. We'd recommend staying away from the mopeds entirely unless you have lots of experience.

Also, for the adventurous, ferry rides to the mainland (specifically Playa Del Carmen) are available hourly for around \$15 round trip.



A Brittle Star creeping out of his sponge

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Food & Water

Many a person has heard the horror stories of Montezuma's revenge as the result of drinking the water in Mexico or having a salad. In the large number of trips we've made to Mexico over the last 5 years (close to 10 trips), we've never had a problem with this. In Cozumel, for example, all the tap and shower water is purified at a desalination plant just up the street from the hotel. Additionally, safe bottled water can be found at every restaurant, market shop, and hotel.

As far as the food goes, it's wonderful, and if you take a little effort, amazingly inexpensive. For example, at one of our favorite restaurants, El Moro, located in a maze of dirt alleys, you can get huge margaritas, appetizers, main courses, and dessert for \$10 a person, with tip. The closer you get to the waterfront, the more expensive the food becomes, of course. For cuisines, a wide range is available, ranging from several types of Mexican, to BBQ, pizza, seafood, Italian, and American. In the latter category, we should point out that there are a Dairy Queen, a KFC, a Pizza Hut, Domino's Pizza, and Subway fast food places on Cozumel, in case you miss food from home.

Deposits & Other Stuff

We could go on and on about how wonderful we think Cozumel is, and perhaps the UDNH Board will let us do a presentation on Cozumel as part of an upcoming dive meeting, so we can show you slides of the underwater and above water scenery.

Anyhow, to recap, the price for the trip is \$800 per person double occupancy. If you're a single traveller,

we'll try to set you up with another single, but can't make any guarantees (for those interested in the breakdown, the airfare is \$500 per person, and each room is \$600, for the room, which breaks down to a double occupancy room being \$300 per person).

We have 20 seats blocked on the flight. We also have 15 rooms blocked at the hotel in case some of you would like to have friends from other parts of the country meet you in Cozumel. Note that it might be possible for a few people to extend their stay in Cozumel by as much as a week if a longer trip is desired (we're probably going to do that) at no increase in the airfare, but still having to pay for accommodations.

For anyone that wants to go on this trip with us, we'll need a \$100 non-refundable deposit per person as soon as possible to reserve your space. Another \$200 would be due by October 1st, and the balance no later than October 23rd. We currently (as of mid-August already) have 8 plane seats accounted for, and expect that the remaining seats will go quickly).

Please note that travel to Mexico for US citizens requires proof of citizenship which may be a passport or birth certificate with a raised seal. A driver's license is not valid proof of citizenship. Children must travel with both parents or their guardians or have a notarized letter from the same stating travel is approved by the missing parent or guardian.

If you have any questions, please give us a call at 603-432-0234 as soon as possible. Additional contact information can be found on page 2 - *Jake & Linda Richter*

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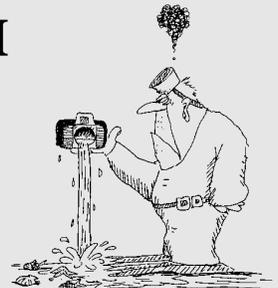
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Recently introduced by Palancar Industries Inc., in conjunction with Divers Alert Network, the DAN Tag provides divers protection and confidence without sacrificing style. Each DAN Tag is two-sided, measuring 2-1/4 x 3 inches and features an easy-to-recognize DAN logo. DAN membership and medical identification details are also included. All tags are made of a special waterproof paper called Teslin(r) and are encased in a colorful shell made from high-impact aircraft-quality material. Each negatively-buoyant tag is sonic weld-sealed using a high-tech process that ensures no water damage - no matter how deep you dive.

"Few divers have their DAN member cards with them while they are diving," says Dan Orr, DAN's Director of Operations. "The DAN Tag will be with the diver at all times. It will provide important information to DAN and other medical facilities in the event of an accident or illness. This information could minimize delays in the diver's evacuation and treatment."

The tag clips to a diver's buoyancy control device (BCD) and provides simple access to important medical and insurance information in the unlikely event of a diving-related accident. Economically priced at just \$7.95 each, DAN tags come in a variety of colors, for easy coordination with any shade of dive equipment. Introductory colors include vivid amber, lime green, hot pink or light gray. Palancar, a strong DAN supporter, will make a donation to the nonprofit organization for each DAN Tag sold.

The DAN Tag is available exclusively to DAN members through retail dive stores. Divers interested in purchasing one can pick up an application form from one of the participating retail outlets. For more information or for dealer inquiries, contact Palancar Industries at (818) 963-9660 and Divers Alert Network at (919) 684-2948.

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For those of you who'd like to get your favorite photos or 35mm slides or negatives scanned into a computer for editing, distribution, printing, or storage, Stroke Of Color is now offering such services on a trial basis in order to figure out how much to charge for these services.

Stroke Of Color is a company Linda Richter (one of the editors of the *Dive Log*) started last year to sell art and photos, as well as provide artistic services and desktop publishing support to select clients. The business stalled for a variety of reasons, not the least of which was a baby. *Stroke of Color* is now being geared back up, with photo and slide scanning being among the initial services being offered.

For more information, call 603-432-0234, send e-mail to linda@strokeofcolor.com, or send a FAX to 603-432-0817.

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The Early Days of SCUBA in the USA

by Ray McAllister

One of my good friends at Diver's Haven in Fort Lauderdale, Florida, gave me a book to read recently. He said, "this will really interest you, and perhaps you'll even know some of the people in it!"

I took it home and started to read it when I had a few minutes free, and the minutes ran into hours. It was "The Last of the Blue Water Hunters," by Carlos Eyles. He was right, I did know some of the guys in it, and the places, and the fish! It got me reminiscing about the early days of SCUBA and the way we started diving with none of the modern conveniences of today. Some of the tales the old time divers can tell are harrowing, to say the least.

In 1951, I attended Scripps Institution of Oceanography, as a graduate student in marine geology. Because I was already married at the time, I needed work and thus became a student research assistant at Scripps. Within a few days of my arrival in September of 1951, I met Chuck Fleming and Connie Limbaugh, both of whom were already accomplished divers. I haunted them and soon was allowed to go out with them on the WW II amphibious 2 1/2 ton truck, the DUKW, which we used as a diving and sampling platform.

A few days later I was allowed to make my first dive with the Aqualung. At this time we used a hodgepodge of equipment from a variety of sources. My first faceplate was a reddish rubber mask from Japan. Fins were giant Duckfeet, and later Churchill fins. Tanks were originally French triples, with the post valve on top, but the emergency air supply controlled by a valve on the bottom of the center tank. We also had US or Canadian made 72 cubic foot tanks which, in our

ignorance, we banded together into triples so we could stay under longer, in total violation of what we would later come to know of as the decompression tables. The regulators were French and fairly soon thereafter, Canadian, two hose units without non-return valves. There were no wet suits, no tank pressure gauges, no consoles, no buoyancy compensators, etc.

Although it was considered somewhat sissy to use inflatable vests, I managed to adapt a US Navy inflatable for my use. My first dive was in 90 feet of 60 degree water, and that was after my training. The training was really extensive - Chuck or Connie told me to jump into the water after they were gone, to stay in their bubbles and try to get to the bottom. They told me that if my ears hurt, don't push them too hard or the drum might rupture and, oh yes, don't hold my breath on the way up, cause it could kill me!! On the first dive I got to 20 or 30 feet with my ears killing me, and was hooked.

My second dive was to the full 90 feet, by virtue of pushing my ears as hard as I could.

My third dive was in the Scripps Submarine Canyon, at a spot where the echo sounder showed 145 feet. I will never forget it. Chuck and Connie told me, wearing a set of small French triples, to stay with them, and they had a set of 72 cubic foot triples, with perhaps twice the air. They suggested that I try to tell them when I left to return to the surface and, (again) oh yes, don't hold my breath cause it might kill me! Well, inevitably I ran out of air and headed towards them to tell them my rig was breathing hard (I'd never experienced this before). They were headed down the canyon and seaward at the time, and my air shortage got more desperate as I chased, but couldn't catch them, till I turned for the surface and made essentially a free ascent.

continued on next page...

GARY CARBONNEAU

UNDERWATER PHOTOGRAPHY

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I'm sure it was the high pressure oxygen still dissolved in my body fluids that kept me alive to the surface. I came out of the water like a Polaris Missile, through off my faceplate and screamed. Once in the DUKW I found out that I had a reserve in the French tanks, but that it took six full turns of a little petcock on the bottom to get the air. I don't know if my shaking was caused by temperature or fright, or both. After a dozen or more dives in the fall of 1951, I told Connie, who was in charge of the diving program at Scripps, that my research had shown me all sorts of dangers in diving. I told her that we should have a formal divers' training course, because others were also starting to dive. As we talked it up, and as it became clear what a fabulous research tool the Aqualung would be, Connie agreed, and I started teaching a course that grew as we learned. Even US Divers was mixed up about the difference between the bends and air embolisms at that time, and worse, my letters to them were unsuccessful in persuading them to change the misleading language in their little booklet which went with a new Aqualung.

We taught our divers to breathe regularly or exhale on the way up, to observe the US Navy Decompression Tables, and I added what I could about the diving diseases, pressurized gas problems, hypothermia, and equipment problems. Shortly thereafter, I was given a Diving Instructor Card #1 from Scripps. I believe it may have been the first Instructors Card in the US, outside of the US Navy. We helped the Los Angeles Department of Parks and Recreation develop their training program and instruction book, based upon our experience. They were, of course, only a short time behind us, as were many other groups.

After a year of diving in the icy California waters, with summer temperatures from 60 to 65 degrees on the surface, and perhaps 5 to 10 degrees lower at 100 feet,

we got tired of the extreme shivering we were experiencing and started experimenting with protective clothing. It was nothing to come up after half an hour in the winter 50 degree water, swimming in the fetal position, holding the mouthpiece in our chattering teeth with a hand shaking so bad it was really not helping at all. Candy bars for quick energy resulted in blood and chocolate running down our chest, for our tongues were uncontrollable and kept slipping between our teeth as we chewed. So we went to Navy divers woolen underwear. It slowed down flow of the slightly warmed water close to the skin, so it helped, but not much. The next step was procurement, from government surplus, of 10 UDT back entry rubber dry suits. The only thing we could be sure of was that they WOULD leak! Nonetheless they prolonged our time underwater and we only shivered moderately upon surfacing. It was pretty bad to come up with both legs full of salt water and urine, for warming up our suits was almost mandatory in that cold water. You could hardly climb aboard the DUKW, or walk.

I remember one day when we stopped the DUKW between the two buildings on the Scripps lower campus, and when I got off, they grabbed me and turned me upside down so it all ran out through the one large opening in the suit, all around my face. I was deluged with seawater and urine and almost drowned. Worse yet, a whole lot of students were watching for it was an event when we came in from a dive.

Then came Perelli rubber dry suits. I had a waist entry dry suit which sealed by rolling a ring into a groove in a waist seal. The seal stayed dry, but we almost always tore the thin rubber during our dive, with an icy stream of water down the back or leg. Later I read somewhere that the US Army was manufacturing 3/8 inch urethane foam suits for soldiers to wear in wet foxholes in the



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winter. Somehow I managed to locate two of them and have them assigned to Scripps for "experimentation"! It was almost impossible to wear enough weight to get underwater with them but they sure were warm on the surface.

The real miracle came when we heard that Dr. Hugh Bradner, at the California Radiation Laboratory, had made three wet suits of about 1/4 inch foam neoprene, and used them in cold tank tests of heat loss when humans were immersed in cold water. After his experiments he apparently gave two of the suits to the UDT (Underwater Demolition Teams) and one to Wheeler North. I got the one from Wheeler and one from Chief Giannotti, of the UDT. We tried them immediately. The only man in our group who was small enough to fit in one of the suits was Jim Moriarty. We put him in one and dove around the end of the Scripps Pier in 20 feet of water, in the winter as I recall. When we came up we asked Jim how he felt, and he told us it was great. I pulled out the bottom of his jacket and shoved my arm into an oven! While he screamed about the cold hands, everyone of us had to feel how well the suits worked.

A few months later I bought EDCO wetsuit #75 with money I raised by poaching green abalone and selling them to the bar girls along the beach. I could get a dollar an abalone from the girls, and by offering to clean them, and leaving the guts in the shell so they would look bad, they would agree to my offer to dispose of guts and all. When I dumped the guts, I'd sell the shell to another gal, in a different bar, also for a dollar. The new suit was heavenly, and made cold water diving a great new sport, carried on in relative comfort. I remember the enormous act of will power when I decided to split my wetsuit up the front and sew in a zipper, to make it easier to get into. Being slick rubber on both surfaces, the only way to get into one was by liberal

application of tire talc, which we got from filling stations, or later, by using corn starch as lubricant.

Later came the non-return valves for the mouthpieces of twin hose regulators. If you lost the mouthpiece, and the hoses filled with water, something that happened infrequently, it was pretty terrifying. Prior to the non-return mouthpiece, one was forced to pinch the exhaust hose and suck out and drink salt water from the intake side until air finally came. We had also learned to hold the mouthpiece over our heads and pull smartly up, which lowered the pressure in the hose and caused air to flow, but the non -return mouthpiece was, perhaps, the first of the many modern devices which made diving safer and easier.

During this period I really looked up to Connie and Chuck, and to Earl Murray, Phil Fleming, Jack Prodanovitch, Wally Potts, Lamar Boren and the rest of the old timers. The Bottom Scratchers was one of, if not THE, first real dive club. They told me I had to be able to free dive 50 feet, take five abalone in one free dive, and catch a horn shark bare-handed to be a Bottom Scratcher. It seemed as far away as the moon, for I have a severe Eustachian tube problem and had to force my ears on every dive. Now, after 35 years of diving, I could probably do all three in one free dive if a horn shark would oblige by staying close by.

My hero worship of the Bottom Scratchers was badly strained by an incident near the Casa Cove, in La Jolla. Some guy got caught in a rip current while I was privileged to sit below a couple of Bottom Scratchers, on the Casa Cove seawall. I asked them why they didn't go save him and they assured me they would, that he wouldn't drown. I couldn't take it and ran to my house, on the water a few hundred feet away, got an inner tube,

continued on next page...

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jumped into the rip and squirted out to the drowning man, who by that time had two Bottom Scratchers alongside of him. All three promptly knocked me off the tube as they grabbed it for dear life. I invented a number of new epithets that day, and eventually was permitted to get an arm over the tube, and we brought the guy ashore.

South of the La Jolla Cove was another cove called Boomer Beach. Here we would dive and spearfish. I can remember many a day that I was too chicken to shoot at an enormous fish, looking like the side of a mountain, that frequented this area. It was eerie swimming around underwater listening to the thumps that these great grouper or seabass made when they flicked their tails. From time to time we would go to Los Coronados, a group of islands off the northern Mexican Coast, with the UDT guys from the Amphibious Base at Coronado, San Diego. We dove from drop ramp personnel landing craft, perhaps LVP's or some such. Again, I watched my heroes, the UDT, and learned a good deal from them, but was never in their class. During one of these trips Chief McLarty free dove down and speared a 700 pound jewfish, with breakaway gear. He landed the fish, after diving 60 feet, knifing it repeatedly as it jammed itself into a cave, and wrestling it to the surface. They were among the real Blue Water Hunters! They caused me to catch the largest California spiny lobster I've ever taken. I was diving from the landing craft and saw an enormous lobster back under a big overhang. No way was I going to touch that mother. Then I saw a UDT diver at the other end of the overhang and he seemed to be watching to see what I'd do. Well, rather than be ostracized from future dives I swam back and grabbed and managed to land a 19 pound, truly, lobster. When I brought it aboard they thumped me on the back and said good things which made me puff up like I'd won the Medal of Honor.

Sometimes when we'd go to Los Coronados, we'd go through schools of blue sharks, long and sleek, literally for miles. We never saw any at the Coronados, but only in open water, where they congregated by thousands. The tales that came out of some of the dives from that time! Like the two divers who were taking some of the earliest movies underwater off Guadalupe Island, Mexico! One of them saw his buddy, who had the camera, looking at him with horror. Before the first diver could move, he felt something come down over his wetsuit covered head, and gently squeeze. He froze. The squeeze happened again. Then in a tremendous swirl of water, the elephant seal that had taken him from behind, left without doing any physical damage. The second diver, with the movie camera, had not touched the trigger to start the camera during the entire episode. He thought he was going to see brains spurt in all directions from his buddy's head, and pictures were not important.

Another diver speared a halibut in the Scripps Canyon. The eyes were far enough apart that he figured it was 8 or 10 pounds, but when it rose from the ledge in the Canyon, it was bigger than he was. He stood on it yanking at the spear until, frightened at the headlong plunge, he abandoned spear and halibut.

On another occasion, after a couple of great white shark attacks on several California divers, fortunately nonfatal, a couple of local SCUBA divers dove in the La Jolla Cove area. During the dive a great white grabbed the one diver, Pamperini or some such name, and swam off with him. His buddy said his head and one arm stuck out one side of the shark's mouth, and his feet out the other, as he disappeared. Well, true or not, because some said it was a way to disappear without a trace, it didn't help my state of mind some weeks later when we planned to do a night dive in the Cove, looking for

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lobster or cabezone for food. With primitive lights by today's standards, mine being a waterproofed Navy battle lantern, we began our dive and as we swam out in the Cove, I saw, no more than six feet below me, the head of the biggest shark I'd ever imagined. I came straight up out of the water, let out a tremendous yell, and left a huge wake as I blasted for the shore. I made it before the shark, and my buddies all scattered and made it, too. The next day, during daylight, I went back and found the shark! It was a rock, sticking up in the offshore Cove area, with a top that, illuminated only from above, looked just like a shark's head. I hadn't waited to see that a few feet further on it was truncated and disappeared. My buddies didn't razz me too much over that one.

While working with some dummy mines in the entrance to San Diego Harbor, my buddy and I saw the largest lobster in the world. It was in a hole on the bottom about the size of a bushel basket, and with a little piece of grass over it. We got up close and I signaled, "One, two, three, grab—OK?" He gave me the OK sign. So, one, two, three, and I grabbed for the base of one antenna. I missed the antenna and caught a front leg, and a split second later was wiped out on the entrance to the hole, as the lobster retreated backwards. My hand around the leg slipped off. I put my faceplate back on, felt my bones to make sure nothing was broken, and went up. When I asked him why he hadn't grabbed, he said he thought I was kidding; that his daddy hadn't raised any damn fools. We estimated it at 25 pounds at least.

Even at the end of my stay in California I couldn't free dive more than 20 or 30 feet without severe pain in the ears. It was doubly annoying to be SCUBA diving in the kelp beds and have Ed Light, a local diving kid, free

dive down, thumb his nose at us and take off horizontally through the kelp, looking for food. And I was at 50 feet at the time. We thought Ed was a goner one day, because we were on the beach and he was offshore in the kelp beds. We saw the fins of two large killer whales between us and the kelp, and knew they had spotted Ed with their sonar. We screamed and screamed but he didn't hear us until it was too late. The killers had gone by and ignored him completely. I do believe he was shivering more than usual when we told him though. Those were good days in spite of the cold water. We ate abalone in every possible way, fried, broiled, fricasseed, in burgers, thin slices, croquettes, chowder and so on. If I never see another abalone it will be one week too soon. And we ate lobster, cabezone, California sheephead (something like Florida hog snapper), and scorpion fish, which, in spite of its greenish blue flesh, is excellent eating. The giant bull kelp made good kelp candy and preserves, too.

By the time I left for another graduate school, the taming of the divers had progressed. We trained them, they had wet suits and non-return valves, the buddy system had caught on, we had American made equipment, and not only the hardy, but almost everyone was diving. All this took only about 3-4 years, too. Much of the diving, in those days, was done from paddleboards. These were often homemade, sort of like a surfboard for a beginner, with a fair amount of flotation. We would put tank, regulator and speargun under a piece of netting held on with two lengths of automobile inner tube. Each paddleboard carried a small killick or anchor, which was very light since it didn't have to hold much. We'd drop down in the kelp, place the anchor and go hunting. If we were out of the kelp, we'd take the board with us since it didn't have any drag to speak of.

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<u>WRECK DIVING</u>	M/V DIVEMASTER	<u>SPORT FISHING</u>
<u>CAPTAIN BILL'S CHARTERS</u>		
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<u>NIGHT DIVING</u> 942-8563 Days		<u>COD FISHING</u> 463-9028 Nights

I have, by the way, tried several times to get paddleboards into the Florida diving community, with no success. I still don't know why! In any case we'd often come home with a dozen abalone, or a nice grouper, some kelp bass, or other delectables for supper.

Some older divers have heard of the La Jolla Long Rifle, a spear gun developed, probably by several of the Bottom Scratchers, to get the big fish. They had to have shock power, so sported several natural rubber bands. They had to have some way of allowing the diver to disconnect from a huge fish which was still going away when all the line to the spear was out, so a container was fastened to the barrel, with coiled line in it, often more than a hundred feet of it. At the end of the line was a pull inflator which blew up a piece of inner tube to make a float to mark the big fish for the next dive. It was gear of this sort that enabled Chief McLarty to take that 700+ lb. jewfish, free diving at 60 feet. Since several of the Bottom Scratchers worked for the aircraft companies in San Diego, an idea was born. One of them drafted a series of new parts to be made of high quality stainless steel, aircraft stainless if you will! Each was given a part number which looked correct. No two of the new parts had consecutive numbers. When a Bottom Scratcher or friend (I got a set) wanted a Long Rifle, one of the guys would take a list of parts to the inventory area, pick out one of each part from its bin, and take them home for assembly. The handle was one part. The spear holder was another. The trigger was a separate part as was the sear, and so on. We had to get a stainless welder to put them together, but what a gun we had. Mine took a 500 lb jewfish under a Louisiana oil production platform some ten years later. I guess I still have it around here someplace.

Long before the divers logbook became fashionable I had all the divers under my supervision fill out a very complex set of forms after each dive. It resulted in a plethora of data, almost impossible to assimilate. Today, with computers, it would be invaluable. We mapped the submarine canyon heads, tried to start turbidity currents in the canyons, implanted underwater instruments, observed the squid mating at night in the La Jolla Submarine Canyon (Cousteau was later to "discover" this phenomenon and make a special of it), and even found a graveyard of "killed" stone bowls, fishing weights and other stone Indian artifacts, underwater off La Jolla, California. During our spare time we hunted California spiny lobster, fish and abalone for food, and dove just because it was such a great sport.

Since stereo photography had interested me for years, I designed an underwater stereo housing for a Kodak stereo camera and took some very early underwater color photographs, about 1952, (and I still have a number of them). Bill Bascom had somehow gotten hold of a Fenjohn underwater movie camera, which used a 16 mm gun camera from World War II fighter planes. Although it had many drawbacks, including fixed focus and a 50 foot film magazine, it was pretty special to us. Bascom wouldn't let us get close to it, no matter how we begged. During the Capricorn Expedition, I believe, Chuck Fleming was poking around in Bikini Lagoon before the atom bomb tests, and collecting critters for "before and after" studies. All of a sudden he saw Bascomb, off in the distance, taking underwater movies of him. Chuck said it really warmed the cockles of his heart, until TILT, he realized that Bill wouldn't waste film on him. Chuck looked up and saw a giant shark hovering over his back, apparently waiting to see what Chuck would unearth as he turned over rocks. Chuck would never believe that Bascomb wasn't trying to get the first shark-eats-man footage.

On another expedition, touching at what was to have been Falcon Island in the far South Pacific, they found no island after the century or so since the HMS Falcon had discovered it. It was an ash cone built by a recent eruption at that time, and had been eroded away till all that remained was a bank, covered with coral et al, more than 100 feet deep. All hands that could dive went over the side to collect. Each had a gunny sack to put specimens in. At the end of the dive Roger Revelle, the Director of Scripps Institution of Oceanography, was opening each bag and pulling out the specimens on the wardroom table. Many oohs and aahs later he came to the end of one bagful and took another one from Walter Munk, world famous physical oceanographer and geophysicist. After pulling out a bunch of goodies and throwing them on the table for all to see, he reached in one more time and pulled out a soft, squishy specimen, looked at it for a second and yelled, "Good God, Walter, don't you know shit when you see it?" Walter had dutifully collected excrement flushed by the research vessel, far above.

Diving was a big thing to them and to me. We carried tanks on our expeditions, and used SCUBA for local research along the bottom and in the submarine canyons. It was especially valuable for biologists and geologists. We could now observe what most people only read about, and what often was based on speculation by surface bound scientists. The cryptic critters

were there for us to see, under ledges and back in holes. Although we started way back then, there is still much to see and to learn. I'm still diving today, and intend to continue until the Grim Reaper catches me from behind, somewhere under the surface in God's water world. And my memories of those halcyon days of diving are fresh and great. If you date from the early fifties, get in touch at (305) 426-0808, and lets swap tall tales of diving.

Ray McAllister is a Professor Emeritus, Department of Ocean Engineering, at Florida Atlantic University in Boca Raton, Florida. Ray styles himself a "Diving Dinosaur", having been an active diver for 43 years. In those years, Ray has been on countless marine field/research expeditions, written numerous articles about diving, and done many other water things we can only dream about doing. Ray can be reached via e-mail as mcallist@gate.net.

New Jersey State Aquarium Activities

While the newly opened New Jersey State Aquarium in Camden, NJ, is not quite next door, the following news items we pulled off the Business Wire news service might still be of interest, especially as this Aquarium was recently featured as part of a story on the expanding Aquarium market in the U.S. in the program, *T.V. Nation*, on FOX. Among the things that the program mentioned was that the NJ Aquarium had discovered that native New Jersey fish, which are predominantly brown in color, were really not too popular an attraction for some reason. The Aquarium then decided that colorful tropical fish would provide a greater draw. According to *T.V. Nation*, the New Jersey Aquarium is one of over 20 new aquariums that will be opened around the nation before the end of the decade.

Dive into volunteering weekdays at the New Jersey State Aquarium

Calling all divers...Are you available two weekdays a month? Would you like an underwater adventure with two dozen sharks and about 1,400 other fish?

The New Jersey State Aquarium needs weekday volunteers to do SCUBA shows in the huge 760,000-gallon ocean tank. Candidates must be certified SCUBA divers at least 21 years of age, have 25 logged dives and be available to volunteer two weekdays a month starting in December.

The Aquarium also needs Education volunteers who have an interest in the marine environment and enjoy sharing their knowledge with others. Education volunteers receive training in oceanography and marine life, starting in September. They must be at least 14 and volunteer a minimum of 4 1/2 hours during the week.

Volunteer benefits include free parking, free individual admission to the Aquarium, continuing education, field trips and discounts on most food and merchandise.

For information on these and other volunteer opportunities at the New Jersey State Aquarium, call the Volunteer Office at 609/365-3300, ext. 305.

Aquarium bids summer farewell with Second Annual Sandcastle Festival Labor Day Weekend

Twenty-five tons of sand will become the stuff dreams are made of over the three-day Labor Day weekend, as sand sculptor Bill Comrey brings a new creation to life each day at the New Jersey State Aquarium.

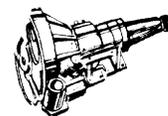
In addition to crafting his own creations, Comrey will give visitors a hands-on demonstration designed to launch their own artistic careers at 1:30 p.m. each day.

Comrey, a Harrisburg, Pa. resident, is a credit union president who turned to sand sculpture as a vacation diversion 18 years ago.

His first creation was a 15-foot submarine his young children could climb into. He makes his magic using ordinary household items such as a garden trowel, shovel and melon scoop — and a lot of sand and water.

During last year's festival, Comrey created a sea dragon with its tail wrapped around a castle; King Neptune and a mermaid; and a seal mother with her pup. This year,

continued on next page...



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he will again create a different sculpture each day. Each one takes from four to seven hours to complete. Weather permitting, by Monday there should be three masterpieces for visitors to admire.

Ocean Base Atlantic at the New Jersey State Aquarium will be open from 9:30 a.m. to 5:30 p.m. on Saturday and Monday of Labor Day weekend; on Sunday Sept. 3 the Aquarium will be open from 9:30 a.m. to 8 p.m., and the price after 5 p.m. will be \$5 on Sunday.

Regular admissions are \$9.95 for adults, \$6.95 for children ages 3-11, free for children 2 and under, \$8.45 for students with ID and senior citizens. For tickets in advance with a credit card, call 800/616-JAWS. For information, call 609/365-3300.

Seamark '95 Photo Auction

Many of you may be familiar with Seamark, the annual fund-raising benefit organized by divers in New England to help children with disabilities, in particular the children who at the Cotting School. Seamark has been going on since 1975, and is held at the New England Aquarium in Boston.

This year, Seamark is being held on the evening of Saturday, October 21st. Tickets to the event will be available at an upcoming UDNH club meeting (pricing will be available at that time as well).

One of the most important fund raising aspects of Seamark has been the Annual Photo Auction, where divers from around the world supply prints of their favorite underwater photographs, and Seamark attendees bid for them. Last year's photo auction raised over \$4,000 for the Vision Clinic at the Cotting School!

In preparation for this year's event, the Seamark Planning Committee is once again asking for contributions to the underwater photo auction.

As with last year, there are no rules for auction donations, but based on experience with prior photo auctions, Seamark recommends the following guidelines:

- No size restriction, although 8 x 10 and 16 x 20 prints seem to do best.
- Mats enhance the photo presentation and are appreciated.

- Frames do not necessarily add to the value of the picture and they complicate shipping and handling.
- Please name your photo to identify subjects in the photo and to facilitate auction organization.
- Many buyers appreciate a "50 words or less" story on the back of the print describing when and where the photo was taken etc.

The deadline for donations to the Seamark '95 Photo Auction is October 2, 1995. Please ship or deliver Photo Auction donations to Diane Newark at the Cotting School, 453 Concord Avenue, Lexington, MA 02173. If you have any questions, please call the Photo Auction Coordinator, Carl Greenbaum (617-271-8090 days or 603-889-6853 evenings).



Dive Equipment Mart

For Sale:

- Women's 1/4" two piece wetsuit (Henderson, size medium). Excellent condition. Used for three dive seasons. Asking \$100.00. If interested, call Sunita at 603-595-0773.
- Gates Dry Suit w/gloves & hood, XL, good condition. Call Mike Lodise at 382-1386 for more information.

The Equipment Mart is a service offered by *Dive Log* to the members of the United Divers of New Hampshire dive club. If you have any equipment you are interested in selling, or are looking for any particular piece of dive related equipment, please drop the editors a note. Their contact information can be located on Page 2. Note that only personal articles will be offered, as commercial advertising and sales are handled separately via vendor advertisements. *Dive Log* makes no warranties or representations as to the suitability or state of any equipment offered via the Equipment Mart, as ascertaining those conditions is the responsibility of the purchaser of such goods.

Meetings and Events

August 21 - Meeting

- Presentation by Bruce Smith of the Marine Division of the New Hampshire Fish and Game Department. Open pool time follows.

September 18 - Meeting

- Presentation by Wayne Russell and Lea Nichols. See 15+ years of Club History. Open pool time follows.

October 2 - Meeting

- Presentation TBA. Open pool time follows.

October 16 - Meeting

- Presentation by Norm Depres, World Famous Underwater Photographer. Open pool time follows.

October 21 - Event

- Seamark '95 at the New England Aquarium. Tickets available at an upcoming UDNH club meeting.

November 6 - Meeting

- UNDH Elections, and last meeting of the year. Open pool time follows.

Mid-November - Event

- The Annual UDNH Banquet will happen sometime around the middle of November. An exact date and location will be determined soon.

January 15, 1996 - Meeting

- First meeting of 1996.

March 2-3, 1996 - Event

- The 42nd Annual Sea Rovers Clinic at the Copley Plaza Hotel in Boston. Ticket information to be announced by year end.



An Anemone Crab in a Pink Tipped Anemone



Club Meetings

Meetings are held the first and third Mondays of each month, except for January, November, and December. We encourage potential members to attend a meeting or two to experience our club before joining. The meetings are held at the YMCA on 30 Mechanic St. in Manchester. The meetings start at 7:16 PM. Each meeting consists of a short business portion followed by a variety of presentations and discussions. Immediately following the club has an hour of pool time for swimming, trying out gear, and the occasional game of underwater hockey. Members and guests often meet afterwards at a local restaurant for food and drink.

Extreme Weather

Meetings will be held if the YMCA is open. You can call them at 603-623-3558. Check close to the meeting time as the front desk often has no advance warning of early closures.

Get in the Swim

After every meeting, the YMCA pool is open to our dive club for an hour of fun and fitness. Join our lap swimmers in the great race to swim the most miles! Or dive into a pick up game of underwater hockey.

Don't wait for the ice to thaw before trying out that new equipment, the pool is the perfect place. Check out the club calendar for special presentations in the pool like dive knife use or try out a dry suit.

So bring a suit and a towel to every meeting and get into the swim.

United Divers of New Hampshire Contact Information - 1995

President	Wayne Russell	603-669-7124
Vice President	Jim Fredricks	603-668-3978
Treasurer	Phil Morrison	603-529-4361
Secretary	Don Eva	603-672-5608
Dive Coordinator	Jim Davis	603-485-8039



United Divers of New Hampshire
P.O. Box 703
Manchester, NH 03105

Forward and Address Correction Requested



Dive Log is the monthly newsletter of the United Divers of New Hampshire, an organization dedicated to educating divers and expanding the knowledge of diving in the State of New Hampshire and New England.

In This Month's Issue:

- **This Issue is Late**
- **UDNH Club Polo Shirts**
- **Lobster Raffle**
- **NH Saltwater Fishing Digest**
- **DAN Responds To Dive Concerns**
- **UDNH Board Elections**
- **Dive Show & Symposium in PA**
- **Keep Your Wallet & Keys Dry**
- **DAN Awards Oxygen Provider**
- **Can The Navy Claim Wrecks?**
- **New Diving Physiology Book**
- **Join Us In Sunny Cozumel!!!**
- **The Dan Tag Can Save Your Life**
- **Photo & Slide Scanning Service**
- **The Early Days of SCUBA**
- **The NJ State Aquarium**
- **Seamark '95 Photo Auction**
- **The Dive Equipment Mart**
- **Meetings & Events**