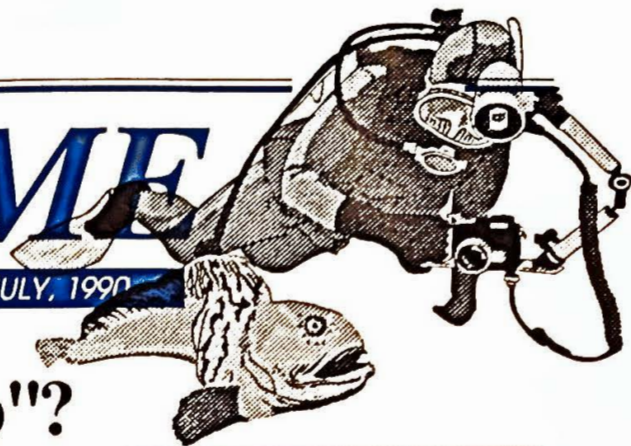


# BOTTOMTIME

NEWSLETTER OF THE NOVA SCOTIA UNDERWATER COUNCIL JULY, 1990



## Halifax Harbour "Cleanup"?

After months of study and public meetings, the Halifax Harbour Task Force is nearly ready to release its recommendations for spending the \$20 million budgeted for the Harbour Cleanup. Led by oceanographer Bob Fournier of Dalhousie University, the Task Force has examined such matters as floating pollution, suspensoids, bottom debris, and chemical waste. Although the raw sewage dumped into the harbour receives the most publicity, it is by no means the only source, or even the chief source, of harbour pollution.

In examining viable options for the cleanup, the Task Force had to determine the uses of the various parts of the harbour, such as commercial navigation, tourism, boating, swimming and fishing, and then determine the level of cleanup necessary to ensure the satisfactory use of the harbour. As with all political funds, there is pressure to use the money on other projects under the guise of the original funding. For instance, there is a proposal to use part of the funds to connect the Aerotech Park to a sewage treatment system.

The Task Force publishes a newsletter detailing latest developments and concerns. Those who wish to receive it, or to express their views on the cleanup, should contact the Task Force at 902-423-8629.

## Diving Legislation Pending

Last November, the Council was surprised to learn that the Nova Scotia Department of Labour had completed "Draft #7 - Regulations Respecting Underwater Diving Operations Made Pursuant to ... the Occupational Health and Safety Act". The Council had more than a year earlier requested the provincial government to apprise it of any and all legislation affecting scuba divers, but this legislation got to the seventh draft before the Council heard of it.

The legislation purports to affect only commercial divers, but the applicability section included "every employer, constructor, supervisor, employee and self-employed person engaged in underwater diving operations". This

definition is sufficiently vague to include scuba instructors, and those sport divers who take on an occasional job searching for a lost anchor or examining the hull of a fishing boat.

The proposed regulations set standards for diving operations, equipment, air cylinders, and safety precautions. All divers affected by the regulations must have passed a dive course and must be qualified in first aid and C.P.R. Divers must also be medically checked each year and must keep a log book of all dives. A daily log must also be kept by the employer. The diver must wear a safety harness with lifting ring, and must have a bail-out system (independent source of air suffi-

Continued on page 18

### New features premiering in this issue

#### ◆ Underwater Photographic Techniques

A column written to assist photographers in this exciting hobby P. 9  
by Bob Semple

#### ◆ Nova Scotia's Shipwrecks

Basic information to orient and guide the diver, novice or advanced P. 3  
by members of the NSUC

#### ◆ News in Brief & Comment

Up-to-date underwater news and trends P. 4  
by our editorial staff

#### ◆ Travel Feature

Diving the Great Barrier Reef P. 10  
by Roland Morrison

### Departments

- Executive Board Report  
The AGM P. 5
- Regional Reports P. 6
- The diving clubs of Nova Scotia P. 12
- Coming events P. 13

## EDITOR'S REPORT

The publications received this month included the Spring, 1990's issue of *Spray Magazine*, Atlantic Canada's Sail and Power Magazine. Their phone number is (902) 421-1761 if anyone is interested in more information on subscribing.

Another publication received was the N.S. Trails Federation newsletter April, 1990. Their mailing address is P.O. Box 3010S Halifax, N.S. B3J 3G6. The NSUC is mentioned for expressing concern on water access.

I also receive regularly diving council magazines from across Canada that divers, who are travelling across Canada, may be interested in consulting.

I also received 1989-90, Issue 4 of *Underwater Archeology*, newsletter of the Underwater Archeology Society of Nova Scotia. The mailing address is the Maritime Museum of the Atlantic, 1675 Lower Water Street, Halifax, N.S. B3J 153. Telephone inquiries can be addressed to Trevor Kenchington (president and Editor) at 902-889-3555. Diving and fieldwork inquiries can be addressed to Colin Frazee-Whitelock.

Two other publications jam-packed with information for the diver include Dave Barron's *Diver's Free Press* and the NSUC's *Passport to Diving*, which has just come off the press.

Binding. I have submitted the 1984, 1985 and 1989 *Bottomtimes* and have used 1988's bound volume as a

reference. The 1988 volume has been taken from the Archives. It will be returned as soon as Campbell's completes the binding.

### BOTTOMTIME'S PUBLISHING SCHEDULE

|           | Deadline<br>Date | Publishing<br>Date |
|-----------|------------------|--------------------|
| January   | 1                | 15                 |
| February  | 15               | 28                 |
| March     | -                | -                  |
| April     | 1                | 13                 |
| May       | 15               | 30                 |
| June      | -                | -                  |
| July      | 1                | 13                 |
| August    | 15               | 30                 |
| September | -                | -                  |
| October   | 1                | 15                 |
| November  | 15               | 30                 |
| December  | -                | -                  |

Please forward newsletter material to  
Pamela Geddes, Editor, *Bottomtime*, PO Box 34,  
Armdale, Halifax, N.S. B3L 4J7

Items received for publication in *Bottomtime* after the deadline will be held for the following issue. There is absolutely no exception, unless declared urgent by the President or Vice-President.

## BOTTOMTIME

JULY, 1990

Newsletter of the Nova Scotia Underwater Council

Editor - Pamela Geddes

Advertising Manager - Roland Morrison

Guest copy editor - Deborah Seed

Designed and published by New Media Services

Submissions to *Bottomtime* published at the discretion of the editor. Articles do not necessarily represent the views of the NSUC. Our aim is to generate opinions, communication with and feedback from our members. No part of this magazine may be reproduced without the written permission of the Nova Scotia Underwater Council. Publishing *Bottomtime* is possible through the Nova Scotia Sport and Recreation Commission and Sport Nova Scotia.

### THE NOVA SCOTIA UNDERWATER COUNCIL

#### ■ Area Directors ■

|                |          |                 |
|----------------|----------|-----------------|
| Vacant         |          | Cape Breton     |
| Danielle Gough | 864-3046 | Central         |
| Gary Mattinson | 895-3909 | Fundy-Highlands |
| John Pothier   | 762-2241 | South Shore     |
| Sylvain Roy    | 765-3786 | Valley          |
| Joe Christie   | 875-3732 | Commercial      |

#### ■ Executive ■

|                        |          |                |
|------------------------|----------|----------------|
| Lynn Gallant           | 434-3675 | President      |
| Vacant                 |          | Vice-President |
| Colin Frazee-Whitelock | 864-1157 | Secretary      |
| Dave Rodwell           | 765-6671 | Treasurer      |
| John Webber            | 477-2662 | Past President |

#### ■ Committees ■

|                   |          |                   |
|-------------------|----------|-------------------|
| Pam Geddes        | 477-2909 | <i>Bottomtime</i> |
| Bob Trider        | 469-6440 | U/W Hockey        |
| Roland Morrison   | 463-3796 | Constitution.     |
|                   |          | Subsea Horizons   |
| Barbara Turney    | 477-8636 | Membership        |
|                   |          | Registrar         |
| Darlene MacDonald | 827-2944 | Sea Hunt          |
| Mike Turney       | 477-8636 | Sea Hunt          |
| Danielle Gough    | 864-3046 | Marketing         |

Membership is open to individuals, clubs, or commercial diving enterprises. Dues are set annually - usually at the Annual General Meeting. Individuals may join by sending an application or letter with the \$14 fee to the Treasurer.

THE NOVA SCOTIA UNDERWATER COUNCIL  
P.O. Box 34, Armdale Halifax, N.S. B3L 4J7

# Nova Scotia's Shipwrecks

## Kerplunk - she's really sunk

The wreck of the *Costa Rican Trader* which sank in May, 1967 in Halibut Bay has sunk for the second time. The midship was extensively salvaged but now the bow lies in 60 feet of water. The stern lay till this year on the rocks with paint showing on her funnel. The bow section lay in approximately 77 feet.

I dived her last year and also swam into the stern after Hurricane Hugo had blasted its way up these shores. The angle of her battered stern had dramatically changed and the holes



were much greater. At some point during one of the winter storms she came off the rocks and now lies

in 30 feet of water. Her funnel is nowhere to be seen. Alas, she did not stay in one piece and the wreckage is spread out over a surprisingly large area. Marine life has already taken her over. In two dives spaced a month apart, I could see the change: soon, the stern will look no different than the bow.

**Photo** Taken in 1989, it is probably one of the last of any surface part of the wreck.

**Directions** Boat dive. Ask dive shops for charters.

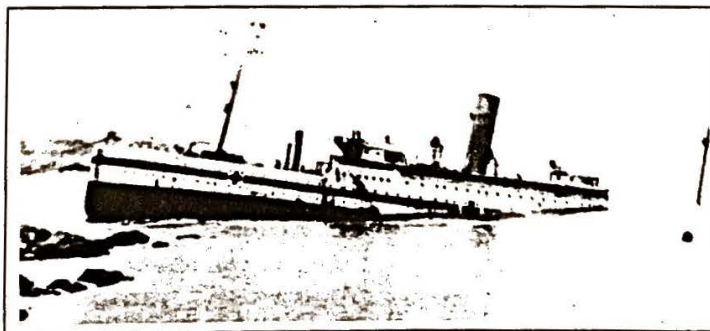
Colin Frazee-Whitelock

## The *Letitia* - and then some

During the first World War, Halifax was the busiest harbour on Canada's east coast. The masters of each vessel had many hazards to contend with, such as submarines, inexperienced crew and the inclement weather the North Atlantic is famous for.

On August 1, 1917 the hospital ship *Letitia* was on her way to Halifax. On board were her crew and over 500 wounded returning from the battle fields of Europe. The *Letitia* encountered thick fog and ran aground approximately one quarter mile south of Portuguese Cove. None of the wounded men were lost, but a crew member who was asleep when the "abandon ship" order was given jumped over board and drowned. One of the

ship's mascots, a cat, was never found, but the canary faithfully abandoned the ship with her crew.



This wreck site has been described in many ways by divers and in publications. The wreck lies in 30 to 140 feet of water. There is ample wreckage in the shallower depths to allow novice divers a chance to see something different on each dive. The bottom slopes gradually to approximately 60 feet and then drops off sharply to

approximately 100 feet. The visibility is usually good, allowing divers to view a relatively intact

section of the stern laying upright at about 120 feet.

Marine life is very abundant at all depths and varies from the anenomes and other invertebrate life forms to mackerel, cod, pollock and even the occasional torpedo ray in the summer months.

There are various artifacts to be seen on the *Letitia*, ranging from the occa-

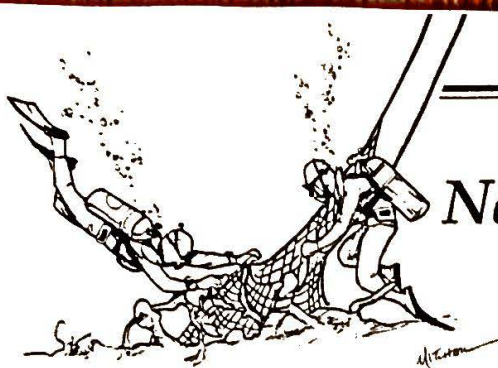
sional porthole to bottles and ceramic tile.

There is also the possibility that under the wreckage of this 5764 ton ship is another wreck. There have been several old bottles found while diving the *Letitia* that seem out of place on a wreck that occurred in 1917.

**Photo** The *Letitia* lies aground prior to being salvaged and remains scattered over the bottom. (Photo from *Atlantic Diver Guide*, Vol. II: Nova Scotia, by David N. Barron)

**Directions** From boat or shore, 16 km. from Armdale Rotary on #349, east on South Point Rd. to end. Shore begins 150 metres across field beyond end (ask permission from last house on left).

John Webber



## News in brief & comment

### Shipwrecks for non-divers

Winter erosion has exposed a wreck at the high-tide line on Conrad Beach, near Lawrence-town, just east of Dartmouth. It is possible that the site will disappear as the beach recovers its summer profile. The site is being investigated by the Underwater Archeology Society of Nova Scotia. Preliminary findings indicate that it seems to be the three masted *Advent* of 256 tons net, built in Parrsboro in 1902 and abandoned at sea off Halifax in 1916.

*Take the Lawrencetown Road to beyond West Lawrencetown, then turn south onto Conrad Road, go right to the end, leave your car and walk straight towards the sea. Turn left at the high-tide line and go about a third of the way towards the end of the beach*

### Sable Island: shipwrecks and lifesaving

The Nova Scotia Museum has produced a new leaflet with the above title, primarily oriented towards children. It includes a chart of over 250 wrecks known to have occurred around the island, an offshore sand bar, about

45 km. long and over 100 km. from the mainland; the oldest is 1583, the most recent is 1947. Since the island is made of mobile sand, most wrecks are well covered.

*The leaflet can be picked up free at the Museum.*

### Sonar survey of Halifax harbour

In April, Dr. Gordon Fader of the Atlantic Geoscience Centre, Bedford Institute of Oceanography, presented findings of his side-scan sonar survey of the harbour, with many comments on the geology of the harbour floor, the realities of the proposed "cleanup", and the practicalities of this method. Contrasting with the almost total lack of human activity to be found on the Continental Shelf is the mass of anchor marks, wrecks (about 20), traces of possible wrecks (about 300), pieces of debris (about 300) and sewage banks detected in the Harbour. Some of the wrecks are well known to divers but others were entirely unknown until recent surveys.

Highlights included the finding of two old shorelines that ring Bedford Basin at a depth of around 25 metres and that are thought to be

lake shores from before the Basin was flooded with salt water 5800 years ago. The footings of two late 19th century railway bridges across the Halifax Narrows were also found.

### Oldest shipwreck in the world

Dating from the Helladic Period, around 1200 B.C., and discovered only in 1975, the unknown ship, lying in only 65 feet depth off the Greek island of Dokos, is finally being excavated. Excavation has yielded stone anchors and more than 500 assorted ceramics.

### Caribbean Dive Trip

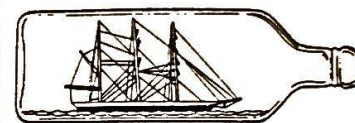
As announced in a previous issue, a dive trip is being planned for 10-15 participants for the fall of 1991. Six places in the group are still available.

The trip will be to Bermuda, Florida, or the Caribbean, depending on cost and the wishes of the participants. Anyone wishing to participate in the trip must be willing to sell Sport Nova Scotia lottery tickets, and do other fund raising. For instance, a booth may be entered at SubSea Horizons to raise funds.

Through group dis-

counts, rebates, and fundraising, it is hoped that the price of the trip will be brought down to \$500 for each participant.

*If interested, please contact Roland Morrison, c/o NSUC*

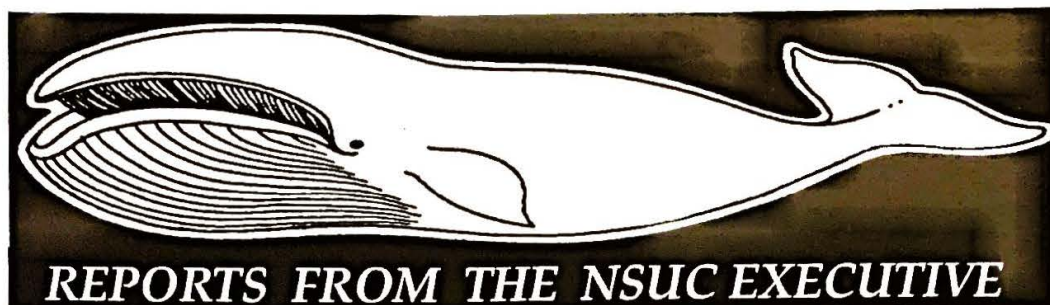


### Subsea Horizons Update

Planning has already begun for next year's show, with the Dartmouth Sportsplex having been chosen as the site. The date of the show has tentatively been set for May 4, 1991.

Confirmed attractions will be treasure-diver Robert MacKinnon, with a display of salvaged gold coins, and the Navy's Fleet Diving Unit. The F.D.U. plans to exhibit a remote operated vehicle (ROV), a mobile recompression chamber, Superlite 7 dive helmets, a newt suit, and underwater communications systems.

While the normal diving equipment prizes will be offered by dive shops, the show organizers will offer a grand prize of a dive trip for two to either of Tobermory, Ontario or St. John's, Newfoundland. Watch future issues of *Bottomtime* for more information.



## N.S. shipwreck inventory

Whereas the inventory now contains in excess of 4,500 wrecks, the expected total number of wrecks in the Province, including all waters out to the edge of the Continental Shelf, has now risen to roughly 6000 listings. While there are scattered records going back to Sir Humphrey Gilbert's ship on Sable Island in 1583, data is essentially complete back to 1867. The Nova Scotia Museum's current work on the project combines: (1) extending the coverage of basic data back in time; with (2) adding detailed information on already-listed vessels in the most heavily-dived area near Halifax.

Source: Underwater Archeology, newsletter of the U.A.S.N.S.

## Government funding

Lack of funding is threatening work to sustain the N.S. shipwreck inventory. The Museum is having trouble finding an appropriate computer as well as funds to pay for staff and site surveys. A similar situation prevails in Parks Canada with regard to underwater archeology.

The 1990 edition of the Annual General Meeting was held Saturday, June 9, 1990 at CFB Cornwallis, with 28 members in attendance, mostly from the CFB Greenwood and CFB Cornwallis clubs. Out-of-town members and guests were accommodated gratis in barracks on the base. The rooms themselves were comfortable, although the "baby elephant" tramping around upstairs made conversation impossible from time to time. An additional treat was the \$2.00 breakfast Saturday morning at the Combined Ranks Mess.

### AGM Highlights

The meeting commenced at 10 am. Highlights of the business conducted follows:

- Mares was announced as corporate sponsor for the Sea Hunt
- Our new **Passport to Diving** book was unveiled
- The professional format for the June issue of *Bottomtime* was introduced
- The problems with the Canadian Federation for Underwater Activities were discussed
- Bob Semple was announced as winner of the 1991 Aggett award
- Shipwreck categorization is being undertaken by the N.S. Museum - 4500 shipwrecks have been put on the data base
- Legislation regarding commercial diving
- A \$6700 grant was re-

ceived from the Sport and Recreation Commission

- There is a problem getting volunteers
  - Subsea Horizons is to be bigger and better - it is scheduled for May 4, 1991 at the Dartmouth Sportsplex
  - The NSUC has 182 individual members and 14 commercial members as of June 9
  - The Quebec Underwater Council (Federation quebecoise des activites subaquatiques) is making a French version of the hyperbaric video under a licensing agreement with NSUC
  - The Past President is now a voting member of the Board of Directors and Executive Committee
  - Club membership was reintroduced; the fee was set at \$20 per year
  - The \$17,000 Budget was amended and approved
  - A new auditor, Mike Fredericks of National Sea Products, was appointed
  - All members will get a sub to *Divers Free Press*
  - Elections were held: Treasurer - Dave Rodwell; Fundy-Highlands - Gary Mattinson; and Commercial - Joe Christie
- The Vice-President's and Cape Breton Area Director's positions are vacant. There were two nominees for VP, but one declined and one was barred by Section 14 of the bylaws (2 executives maximum from one club can oc-

cupy Council board positions).

Following the close of business, the Cornwallis Club hosted a barbecue. Underwater videos were shown until the commencement of the Evening Social at 7:30 pm.

The first speaker was Calum Ewing, President of the Aquantics. Calum was instrumental in creating the N.S. Museum's shipwreck database, and, aided by a slide presentation, he explained the database to the assembly.

Carl Haycock of Briar Island Ocean Studies followed Calum with a presentation entitled "Whales in the Bay of Fundy". Carl showed a fascinating selection of shots of whales, mostly humpbacks, and explained the scientific method of identifying whales by tail markings and colorations.

Bob Semple then presented a show on "Diving in the Maritimes".

It featured a newly-discovered wreck in P.E.I., some wolf fish antics, and macro photography at Paddy's Head.

After the presentations, two draws were held. A framed underwater photograph donated by Bob Semple was won by Shelley Walker while John Webber won a whale-watching trip for two, donated by Briar Island Whale Watching.

Our thanks to Vic Sparks who arranged the local facilities, and to Gord Murray and Ann Smith who coordinated the Evening Social.

## REGIONAL REPORTS

### CAPE BRETON

The diving season is unfolding with many local divers shaking the cobwebs out of their equipment and looking out on water not choked with ice floes.

There have been other changes in the Cape Breton area over the last year. Yet they are not all positive.

The state of activities for this year in Cape Breton will be determined by the one surviving active club, the Nova Dive Masters.

With the change in their executive, and the establishment of a permanent mailing address, they seem to be back on the track.

There should be many dives of a very interesting and varied nature planned for the coming months. A small club which has been through many ups and downs, it can boast a

powerful list of resources among its members. These include at least six large inflatables, five compressors varying from suitcase-sized portables to 15 cubic feet/minute systems having 10,000 cubic feet of storage, three instructors in the club who between them can offer both N.A.U.I. and P.A.D. I. certifications.

There are also people in the club having a considerable knowledge about the wrecks and dive sites in the Cape Breton area that many people do not know about.

As a member I can state that the club is more than willing to help anyone who is interested in setting up a dive or just happens to be in the area and wants to know of a nice spot to go diving for the day.

Both Alfred Sampson and Gus

Ruan are running very interesting dive-charters in Louisbourg Harbour. They are more than willing to set up dives to other sites.

It would do people well to think that as little as five years ago we had no shops, charter services, compressors of any consequence, and very little dive instruction available on our island. Many times in the past I have had people come up to me with the story of taking a dive course, paying their money, and not receiving a "C" card for months.

Over the last few years, this has slowly begun to change. We now have to the best of my knowledge four active instructors in the area offering H.A.U.L. and P.A.D. I. certifications, two charter boat operations, three dive clubs, with many



### CENTRAL AREA

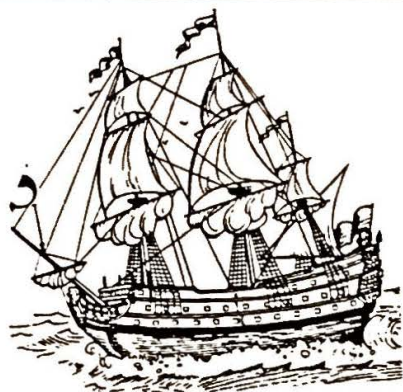
Congratulations to the Dartmouth Dolphins on their muscular dystrophy dive. Apparently there were 32 divers and over \$2000 in pledges acquired.

The Aqualantics have been very active and have arranged lots of boat

dives for the summer. Guests are welcome if room allows. You can arrange for dives by calling one of the members or attending a meeting.



Volunteers collected more than 1,000 bags of garbage, hundreds of old tires and a good assortment of other junk from Dartmouth lakes and shorelines Saturday during the annual clean-up day. Three old boats were raised from the bottom of Maynard Lake by the Fleet Diving Unit from CFB Shearwater, while city works crews pulled three wrecked cars from Martins Lake. Tom Cuddihy, left, and Anne Dawson were some of the members of the Dartmouth Dolphins Scuba Club who lent a hand cleaning up Big Albro Lake.



more divers being certified. This appears to be very positive.

But it is all so fragile if the divers of the island do not support them. The support for their diving tours comes from tourists. It must be toughsledding to stay in business for the one dive shop in the area when people would rather go to Halifax to save \$20 on a large purchase but moan and groan when there is no dive shop in the area to pick up O rings, fin straps, air, and all the small things an active diver constantly needs.

This outlook stems from the fact that many Cape Breton divers have become very self-sufficient and, I am sorry to say, very cynical of any new operation. This attitude must change. If divers want these operations to grow and offer more serv-

ices, continued growth and services must be supported with diver patronage instead of sending all business to the larger centres. It all boils down to the old saying, "Use it or lose it".

The divers of Cape Breton are the ones who will decide whether we end up with a flourishing sport diving community or a loose-knit

assortment of groups, who occasionally get together for a dive if they know someone with a boat or if they can get air or equipment from some source.

Yours in diving  
George K. O'Neil  
Cape Breton Area Director

## ☛ Cape Breton diving at a glance

### Pools

Y.M.C.A. 539-7880 Active with scuba  
Radar Base 562-7110 - Uncertain  
Centennial 564-4501 - No training  
Northside - Closed  
Canadian Coast Guard 564-3660  
Will only allow training through  
the Y.M.C.A.

### Dive Shops

SeaQuatic Ventures Alfred Sampson  
Tel: 564-5662

### Courses Held

Agency/Type/# of Courses/Instructor  
N.A.U.L. Basic 4 Greg MacDougall  
P.A.D.I. Basic 5 Alfred Sampson

### Diving Accidents

None to the best of my knowledge

### Clubs

Name/Address/Status  
Nova Dive Masters P.O. Box 1921,  
Sydney, N.S. Active  
C.C.G. Octopus, C.C.G. Sydney, NS  
Inactive  
C.F.S. Sydney - Closed

### Air Stations

Those I personally know who have  
their air checked by a qualified  
testing facility.  
Sea Quatic Ventures Sydney, N.S.  
Tel: 564-5662  
George O'Neil Sydney, N.S.  
Tel: 564-5559  
Marshal Kaiser Baddeck, N.S.  
Tel: 295-2343

George O'Neil

The Underwater Adventurers have been diving on the S.S. *Atlantic* frequently.

**Aqua Dive News** The annual dive will be held at Murphy's Cove July 27, 28, and 29. Courses are available in P.A.D.I. Rescue and P.A.D.I. Advanced.

**Divers World** They are opening July 14, 1990. Everyone is welcome to attend. Special events include an exhibit of treasure, "History Salvaged from the Sea", featuring rare gold and silver coins recovered from shipwrecks. Another exhibit features vintage diving equipment. The door prize enables ten people to go on a boat dive on July 15 with official representatives from Atlantic Diver, Mares Canada, Pelican Canada, U.S.

Divers and Wenoka. Lots of new gear is on special. Divers bringing regulators B.C.s in for repair will get a loaner. A full charter service is available weekdays and weekends. Both charter boats are coast guard approved. Divers World recently hosted a special trip (dive charter) for two guests from *Underwater USA* magazine.

**Dive Masters** Jim Henneberry had a grand opening two weeks ago. It was very successful with a large number of people attending. All customers received baseball caps. Jim had a two-page spread in the *Daily News*, which I thought represented diving very well. Jim is offering a course on wreck diving and deep diving as well as a Master Diver

program. Phone for details.

**Nautilus School of Diving** Mike Chambers reports that lots of sale items are in his store. He is doing a regular charter starting July 8 with Ed Kiley's boat. The Club Aquarius is hosting a BBQ at Sandy Cove on August 22. Guests are welcome. Please check with Mike for details.

**Northern Shore** Lorne Piercey is giving courses in Basic, Advanced, and other specialty diving courses. The management and staff wants all present and future divers to know that their number-one priority is customer service. With increased competition in the diving market, they would like to maintain the competitive spirit.

Danielle

# How to play the membership drive lottery

**1. How to Play:** Simply register with the NSUC as an Individual, Family, or Associate member and automatically receive one entry in the contest. One entry is awarded for each person named in a Family Membership application. Receive an additional entry for renewing membership in 1991 prior to April 30, 1991. Also receive one entry for every 5 members recruited in the above categories. Recruited members must be new members or those who haven't been members since prior to the 1989-90 membership year. Mark the recruited member's application form conspicuously with "Referred by \_\_\_\_\_" (your name goes in the blank).

**2. Contest Deadline:** All membership forms must be received with applicable membership fees by April 30, 1991. The Draw will take place at Subsea Horizons, May

4, 1991. The address for submission of forms and fees is: Membership Contest, N.S. Underwater Council, P. O. Box 34, Armdale P.O., Halifax, N.S., B3L 4J7.

**3. Eligible Contestants:** The contest is open to all members and non-members except NSUC Board of Directors, club membership registrars/secretaries and employees of donors. Dive shop employees and instructors are eligible, but may not win prizes donated by suppliers with whom their shop has an exclusive contract. Substitute prizes will be awarded instead.

**4. Prizes:** They must be accepted as awarded - no exchanges and no cash equivalent. The prizes include Cressi-Sub regulator, Fitzwright/SeaQuest B.C. and Air Source, Suunto triple console, Sherwood Blizzard regulator & Spirit B.C., a Brooks custom wet suit with all options, and an Oceaner Sub-Arctic wet suit.

## Bottomtime Annual Report 1990

*Submitted to the AGM, June 9, 1990*

This year I missed the NSUC's AGM due to being in a muscular dystrophy benefit dive. I would have liked to thank personally the Cornwallis members for their NSUC support.

All 1989 *Bottomtimes* were on schedule and July's issue is in print. From now on I will hold late material for the next issue unless declared urgent by the NSUC president or vice-president.

I am still working on getting all past issues of *Bottomtime* bound and held at the N.S. Archives.

Rob Newton, Mike Turney, Sport Nova Scotia, Greg Doughty, Lynn Gallant, and Roland Morrison have

helped me last year. Tony Seed of New Media Services produced a professionally-done *Bottomtime* for June. A mock-up was done and some files were set up on a MacIntosh disk at Sport Nova Scotia and the result was transferred to Tony Seed for professional input...

Thank you all. If anyone else has been forgotten and is worthy of credit for helping me, I will acknowledge them with an apology next issue.

Roland Morrison and Lynn Gallant have had enough NSUC business and meetings of their own and have still found time for me and the newsletter. They deserve some applause for their

## LETTERS

Dear Lynn, the Executive, and Board  
Thank you for submitting my name to receive a Sport Nova Scotia Service Award this year. I really think there were other more deserving people who could have received it instead of me but I do appreciate the honour you have done me. It is always nice to be noticed.

Yours truly  
Jane Biggs

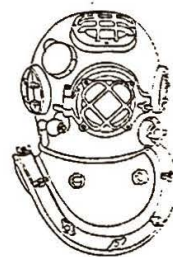
dedication to all aspects of NSUC, especially how it relates to me and the newsletter.

Thank you, Pamela Geddes

## INTRODUCING DIVERS WORLD

# STYLES, COLORS AND FUNCTIONS TO MEET ANY DIVING REQUIREMENT

1 Lakeside Place  
Unit 11 ♦ P.O. Box 314 ♦ Lakeside  
Industrial Park ♦ Halifax, N.S. B0J 1Z0  
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## EXPERIENCE THE DIVERS WORLD

# Underwater Photographic Techniques



## My photo's got the blues ...

first of a series  
by Bob Sample

Underwater photography is an exciting hobby. Even after the first time a novice photographer can come up with astonishing results. To achieve consistently good results, however, you need to have a working knowledge of some of the major problems to be confronted in this unique environment and the methods to overcome them. These basic problems will be the theme of the first four articles. Hopefully this series will help you to identify certain problems and learn the proper technique or equipment to solve them.

### Problem: Too Blue!

One of the major problems in underwater photography is colour absorption. As sunlight penetrates the surface of the water, various portions of the light spectrum are selectively absorbed. This is why pictures taken underwater look blue, even from only a few feet down. The diver has seen all sorts of colourful things during the dive but the film has rendered them all with a bluish tinge.

The longer wave lengths of light, the red portions of the spectrum, are selected first (see diagram). By the time you reach 15-20 feet, you have difficulty seeing any true red colour. At greater depths, the red objects look a muddy brown. If you cut your finger, the blood will actually look dark green. Orange is lost at approximately 30 feet, and by about 60 feet the yellows are only pale yellowish-green colour. Deeper than that the world becomes a monochrome of blue-green which gradually turns into a grayish-black.

The depth to which each colour actually travels depends on various factors such as light intensity, clarity of water and even weather conditions (a cloudy day can even make a few feet look bluish). Florescent-coated objects, however, don't seem to be affected. A photo which I had taken at 100 feet was entirely bluish except for a bright red tab of colour on the end of a diver's snorkel.

Your mind can be tricked into thinking that you are really seeing the true colour. That buoyancy compensator which was yellow on the surface is still yellow. This is known as subjective vision.

Your film, on the other hand, is not as easily fooled! The film is balanced for daylight conditions and will not shift to changes in intensity.

This is why this kind of film taken indoors under tungsten light will appear orange or why indoor film taken outdoors in natural light will appear blue. Our eyes might be able to adjust to colour changes but the film cannot!

How does one go about solving this problem? The method is simple: **choose the right film.** Black and white film gets around the problem entirely. Good monochrome blue photographs can also be taken with colour film (i.e. silhouettes).

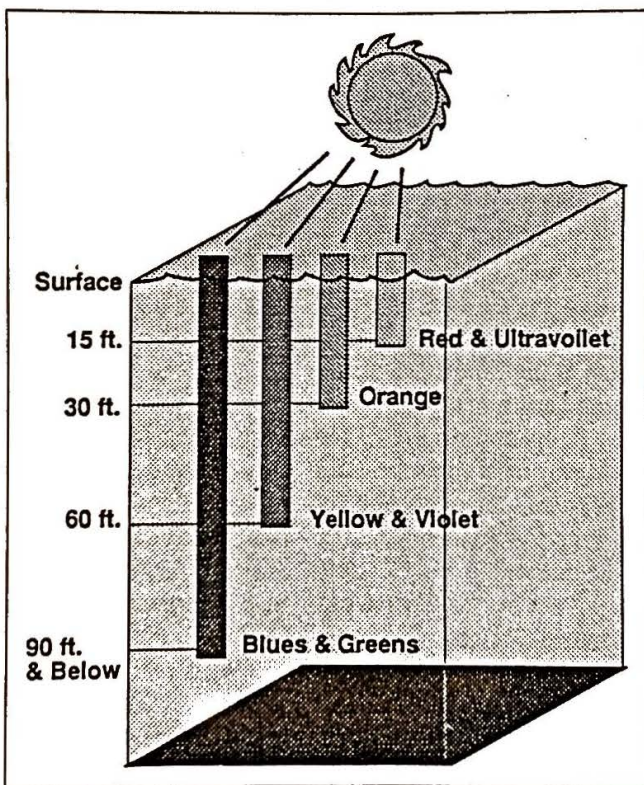
Another method is to use **filters.** Filters do not add colours - they selectively remove some of the other colours (i.e. blue colours). This method has a depth limit. Over 20 or 30 feet, the

filter may have little or no value.

What is the best method? **Artificial light.** A good electronic flash will restore much of the absorbed light for short distances. Flash bulbs work well but, being bulky, breakable and litter for the bottom, they are outdated.

A person beginning underwater photography should seriously consider purchasing an underwater strobe if they intend to produce colourful pictures of fish and marine life.

**One final tip:** Keep in mind that colour is absorbed not only vertically but also horizontally. Light traveling from the strobe is also filtered from the distance to the object and back to the camera. The light to an object only 10 feet away has to travel out and back a distance of 20 feet! A lot of red colour will be filtered out. **Get close to the subject for best colours.**



# Underwater Photographic Techniques



## My photo's got the blues ...

first of a series  
by Bob Semple

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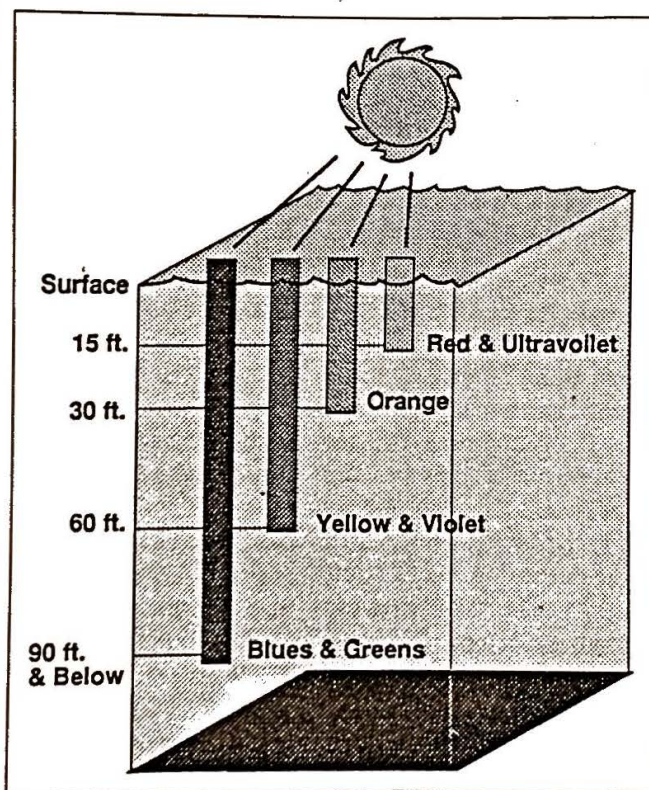
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# DIVING THE GREAT BARRIER REEF

by Roland Morrison



After a week in Fiji and two weeks in New Zealand, my wife Charlotte and I arrived in Cairns, Australia, in the early afternoon of Wednesday, April 4. We had left Christchurch, N.Z., in early fall, so the tropical heat in Cairns hit us like a hot towel in the face. We checked into a downtown hotel in Cairns (pronounced "cans" in Australian), about 100 yards from the waterfront. Gathering about 100 brochures, we retreated to our air-conditioned room to study them and make our choices. There was a plethora of diving choices, along with other activities such as white-water rafting, aborigine shows, a rail trip to Kuranda, tours of the bush and outback, and even an amphibious assault on the jungle in a World War II DUKW. For our diving/snorkelling activity, we chose Great Adventures, which offered catamaran service to several of the offshore islands and reefs.

Early the next morning, a bus took us to the pier, and we boarded a huge double-deck catamaran. Our first stop was the famous Green Island, where we had originally hoped to spend a couple of nights. Unfortunately, the accommodations were being renovated, so we had only two hours to explore. It was humid and hot, though not so humid as Fiji. We explored the pathways, the open air restaurant, the minuscule dive shop, and the crocodile aquarium with its museum of Polynesian artifacts. Most of the crocs were submerged and not moving, so looking at a 19-foot vicious croc was actually a boring experience. By contrast, the artifacts were interesting, but had little explanation. We finished our island tour by visiting the underwater observatory at the end of the long jetty where the catamaran tied up. The observatory had port holes about eight feet underwater so that tourists could watch the fish only inches from their eyes.

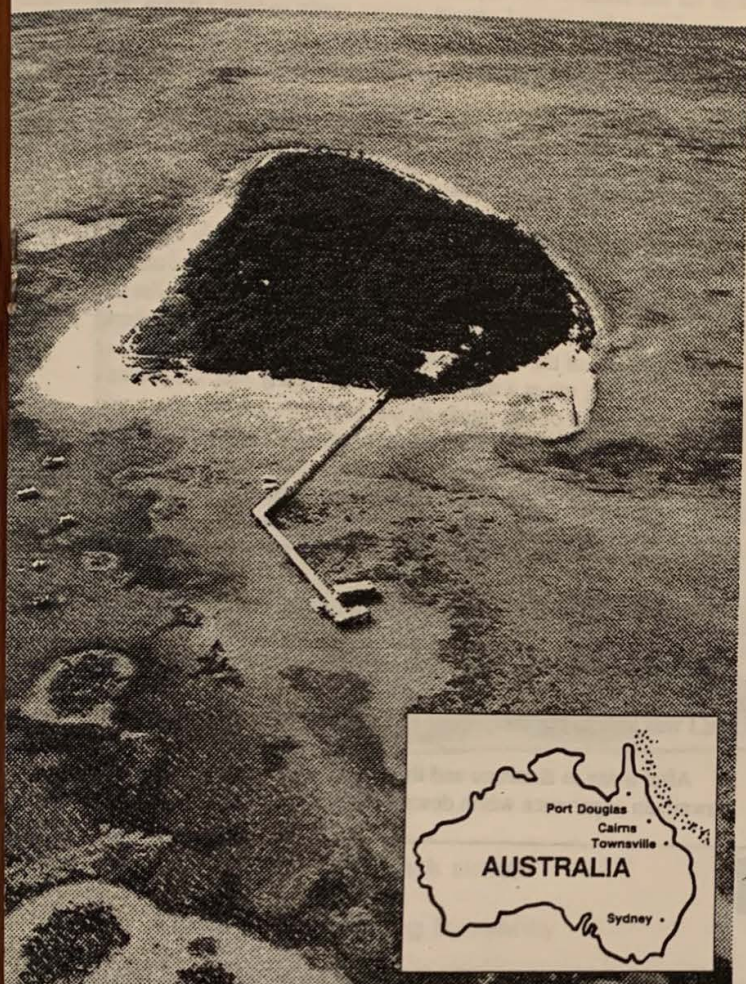
Aboard the catamaran again, we headed to Norman Reef on the Outer Barrier Reef. The facility on the reef was a huge floating deck ("pontoon" in Aussie), complete with tables, sun umbrellas, fresh water showers, underwater observatory, and mini-galley. The catamaran stayed tied up to provide washrooms. Glass-bottom boat rides and "semi-submersible" rides were also available, and for an extra price, so were scuba and "snuba". Snuba means using a 30-foot low-pressure hose to connect a scuba tank on the surface to a diver. The submersible is actually just a boat with view ports below the waterline. My dive started right off, so Charlotte went on the semi-submersible while I met the dive group.

There were only two other tourist divers besides myself, a Vancouver woman and an American. I buddied up with the American, and we suited up. I put on my Henderson dive skin, much to the disgust of the dive guide, although he himself was wearing a shortie. I explained that I wanted the skin for protection against the sun, not for warmth. Anyway, the guide briefed us, and limited us to a maximum 30-minute bottomtime.

I was disappointed that we didn't go anywhere special to dive: once underwater, I was also disappointed to find only thirty to forty feet of visibility. Unfortunately, only two weeks before our arrival, northern Australia had had 74 inches of rain in 72 hours. The run off was still causing poor visibility. Swimming in about 30 feet of water, I was able to photograph several varieties of colourful fish. I was also able to find several "cleaning stations" where small wrasse-sized fish clean dead flesh and parasites off larger fish and even enter their mouths! The highlight, however, was a huge clam with a gorgeous blue-fringed mouth three feet wide.

We swam through an anenome and soft coral-decorated tunnel, between colourful reefs, and back to the far side of the pontoon. The dive guide asked us to check our gauges -- I had 1800 psi left, but had to show him my gauge since they measure air by bars (21 bars = 2800 psi approx.). By showing him "18" by hand signals, he thought I was telling him I had just about a full tank after 30 minutes of bottomtime. Just after my American buddy signalled that he was okay on air, he came clawing at me with his regulator out of his mouth. Finding no octopus, he pushed me aside and grabbed the guide's spare second stage. We surfaced together (we were in only 20 feet at this time), and the American explained that his pressure gauge must have stuck because it was still registering 5 bars. This experience convinced me to dive with a second regulator.

After washing my gear, I found Charlotte snorkelling about 40 feet away from the pontoon. She was very excited. A huge Giant Maori Wrasse (also known as a Humpheaded Wrasse) had snuck up behind her. She had been calmly snorkelling along, minding her own business, and had turned to go back to the pontoon only to come face to face with "Wally". He was about 4 feet long and 16 inches deep. Wally actually was harmless, and was a favourite pet of the pontoon staff.



Green Island, on the Great Barrier Reef, and the subsea coral reef

Charlotte yelled at me to grab the Nikonos and to get in the water. As I was standing on the platform about to enter the water, one of the crew was throwing prawn scraps at my feet. Wally appeared, did a slow roll through the prawn pieces, getting a belly rub from the crewman, banked, and came back for a second pass. At Charlotte's urging, I chased after him with the Nikonos (without the strobe) and got a picture for our album. Once all the prawn had been thrown into the sea (they advised us that only "natural" food should be thrown to the fish), Wally disappeared. We swam around briefly, while a second dive group went out, and then we caught the last of the prawns and a chicken barbecue lunch. All too soon it was time to shower and get ready to go back to Cairns. The whole day had cost each of us about \$65 Australian, with an extra \$35 for my dive.

We spent four days in Cairns. It reminded me of what Southern California must be like, with hot sun, tanned and scantily clad bodies everywhere, and a laid-back, almost hippy attitude. We did some shopping, ate some wonderful meals (try the buffalo!), and took a side trip to Kuranda by a railway that was out of 19th century Africa. I

*"She had been calmly snorkelling along, minding her own business, and had turned to go back to the pontoon only to come face to face with 'Wally'. He was about four feet long and 16 inches wide."*

would have liked to dive Cod Hole, but that was a weekend trip. I did buy a flashy SSA dive skin, and found that Pro Dive had the best dive shop prices.

We then rented a car and headed south towards Brisbane. In Townsville we visited an aquarium, which had a Plexi-glass shark tunnel, so that you could walk through it while the animals swam above and beside you. There was also a reef tank. This tank was particularly interesting, since it contained living soft and hard coral, as well as the usual fauna and flora found in a reef environment. What was even more interesting was that no food was added to the tank. Natural seawater was fed into the tank, so that the only food was the natural plankton found in seawater. The aquarium complex also had a sensurround theatre which I would recommend to anyone not afraid of soaring.

My last chance to dive the Great Barrier Reef was in Gladstone. Even though the weather was not particularly good, we booked a trip on Wistari Reef Adventures. This cost us about \$50 Australian each, and its program was virtually identical to the one on the Great Adventures tour. Again, a pontoon was anchored over the reef (Wistari), with a glass-bottom boat, semi-submersible, underwater observatory, skin diving, scuba diving, and "snuba" diving. Since the Great Barrier Reef is farther offshore the farther south you go, the ride was much longer this time. Outside the shelter of the harbour the water got rough, and the kids who were yelling "yippee" began using barf bags. I must admit that I had a firm grip on a table and stared straight ahead while my loving wife kept asking me if I needed "the bag". I made it anyway, perhaps in some measure due to the Graval Charlotte gave me part-way through the trip out.

The pontoon was very similar to the one in Cairns, except that it had heads and a change room. The catamaran left us to deliver a load of passengers to Heron Island, which is even more famous than Green Island. Perhaps due to the weather, there was a grand total of eight tourists who boarded the pontoon, so we had the huge facility to ourselves. Our little group was very compatible, and we made a valiant effort to put away food for at least fifty people. All eight of us piled aboard the submersible for a tour of the reef. Although I had originally disdained the vessel as a fake submarine, once seated inside with a large port on either side, I thoroughly enjoyed the view. It was like flying low over the reef - at times only inches away from it. We saw all kinds of fish, including a large sea turtle and a white-tipped shark. I was excited about seeing a shark in the wild. Later I was to come even closer to one.

continued on page 12

## Great Barrier Reef ... continued from page 11

We snorkelled away from the pontoon, glad to be wearing our dive skins as it was cool in the water. A trio of batfish hung around us, although they had a limit of about 100 feet from the pontoon, and wouldn't go any farther. After about an hour it was time for my dive.

A boat from Heron Island arrived to take me to join the resort group in a dive. They piled into the boat, and the dive guides decided to "do" the Hole in the Wall. After my episode on Norman Reef, I borrowed an octopus and attached it to my first stage. The other divers from the resort on Heron Island were all wearing dive skins and wet suits, so I wondered if I would be cold in a dive skin and 1/8" neoprene vest. When I told them I had been diving in New Zealand, they told me I'd have no trouble.

I was referred to as the "pontoon guy", and was originally buddied up with one dive guide, then with a resort diver. We entered the water, but my buddy only got to five or six feet before he started up. Confused, I spun around to see if there had been a general recall. There wasn't but my original buddy was signalling for me to follow him. So I did, along with three or four others. We then spread out and explored the bottom. The water was colder, though not uncomfortably so, and the coral was not so pretty. There seemed to be just as many fish around, and I got a few good shots — a clownfish in an anemone, a squirrel fish, a scarlet sea urchin, and another orange fish I can't identify. I missed getting a picture of a sea turtle, however. As the dive progressed, more and more divers ran out of air until only the dive guide and I were left. He signalled me that he would look for a moray, and started poking into some rocks. I had my head down trying to frame a macro shot when I heard a yell or scream underwater. I looked up, but couldn't even see the guide. Hearing another yell, I poked my nose over a ledge to see what was going on.

The dive guide had spotted a white-tipped shark lying motionless on the bottom. We approached it broadside very slowly, and about fifteen feet away I started getting ready to take a photo. The guide thought this was rather pansy of me, so he grabbed my camera to take a close-up frontal shot. Unfortunately, the camera was attached to my wrist by a lanyard, and the commotion inspired Mr. Shark to move off. It was very exciting to see my first shark only fifteen feet away! Although he was only about six feet long, he was still big enough to take an uncomfortable bite.

The two of us swam around a bit more, and foolishly I finished my film. Getting down to about 800 psi, I looked around and noticed Mr. Shark again lazing on the bottom. This time I forced the film and took a shot which ended up being only a half-frame of my first shark! I then eased out of there. A minute later, I looked around to see our friend following me at a distance of about twenty feet. Of course I then swam ahead of the guide to put him between the shark and myself. However, no attack came, and I surfaced without incident. My guide outlasted me by about 10 minutes, and returned with 5 bars still left in his tank! On surfacing, he informed me that white-tipped sharks, not to be confused with white-pointers, are docile, and not known to be aggressive. It was nevertheless a real shark.

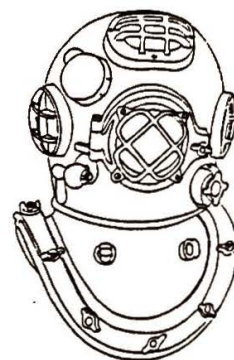
I bummed an early ride back to the pontoon, hoping to do some more snorkelling with Charlotte, but I got side-tracked by the food. The catamaran arrived a short time later, and we were off to the mainland. The trip in was a lot smoother since the wind was at our backs, and I was able to put away quite a few sweets with no queasiness.

After a day in Brisbane and three nights in Sydney, we flew to Hawaii, an experience worth describing in another article.

## INTRODUCING DIVERS WORLD



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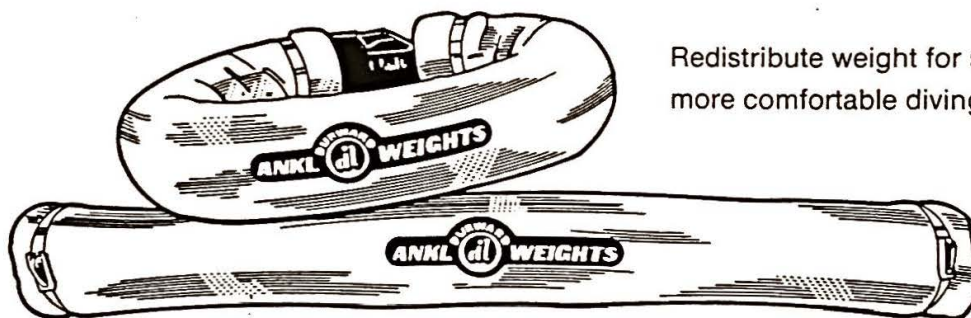
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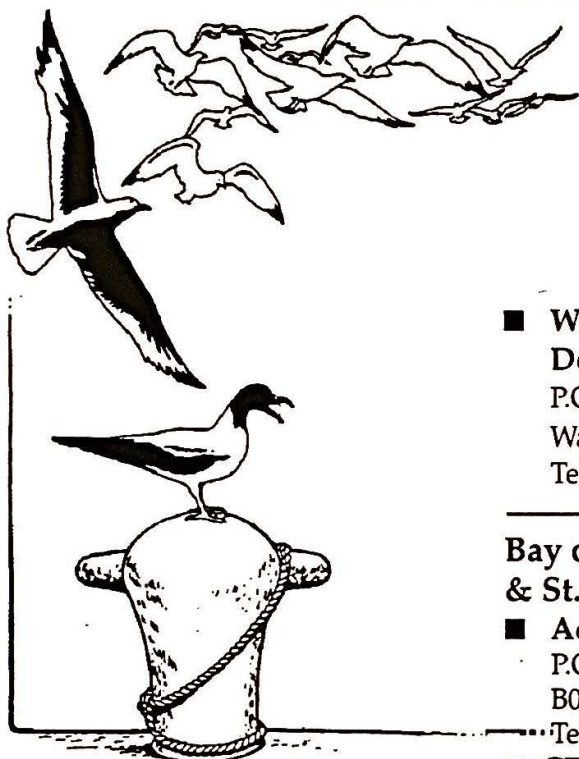
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# The diving clubs of Nova Scotia



## The Central Area

- **Aqualantic Scuba Club**  
P.O. Box 2944,  
Dartmouth East  
Dartmouth, N.S.  
B2W 4Y2  
Tel: 434-2768
- **Krakens**  
c/o Bob Trider  
53 Tremont Street  
Dartmouth, N.S.  
B2Y 1X3  
Tel: 469-6440
- **Dartmouth Dolphins**  
c/o Aqua Dive Scuba Shop  
77 Prince Albert Road  
Dartmouth, N.S.  
B2Y 1M1  
Tel: 434-8615
- **Shearwater Scuba Club**  
Box 69, CFB Shearwater, N.S.  
B0J 3A0  
Tel: 463-6556
- **The Underwater Adventurers**  
P.O. Box 301, Station M  
Halifax, N.S. B3J 2N7  
Tel: 425-5331

- **Waverly Volunteer Fire Department Dive Team**  
P.O. Box 68,  
Waverly, N.S. B0N 2S0  
Tel: 861-1111

## Bay of Fundy & St. Mary's Bay

- **Acadia Scuba Club**  
P.O. Box 1241, Wolfville, N.S.  
B0P 1X0  
Tel: 542-2419
- **CFB Cornwallis Scuba Club**  
P.O. Box 295, CFB Cornwallis,  
N.S. B0S 1H0  
Tel: 638-3574
- **Greenwood Underwater Club**  
P.O. Box 1703, Greenwood,  
N.S. B0P 1N0  
Tel: 765-6058
- **St. Mary's Bay Scuba Club**  
RR#1 Box 45E, Meteghan  
Digby County, N.S.  
B0W 1M0  
Tel: 645-3225

## South Shore

- **West Pubnico**  
Dive Shop West Pubnico,  
Yarmouth County, N.S.  
B0W 3S0  
Tel: 762-2241

## Truro

- **Scotia Divers & Recreation Association**  
P.O. Box 124, Truro, N.S.  
B2N 5B6  
Tel: 893-4438

## Cape Breton

- **Nova Dive Masters**  
c/o Patrick Farrell  
201 Fatima Drive  
Sydney River, N.S.  
B13 1L9

This will be the last time non-member clubs will receive a free listing in Bottomtime. Club membership costs \$20 and is available from the NSUC Treasurer.

## DIVING CLUB NEWS

### Cape Breton - The Nova Dive Masters Reorganize

Dear Lynn:

We are sorry for the delay in forwarding our yearly dues to NSUC but the club finances have been in somewhat of a shambles. The situation has now been resolved with the appointment of a new treasurer. We hope to have everything running smoothly from now on.

The Nova Dive Masters now has a post office box so all correspondence may now be forwarded to P.O. 1921, Sydney Post Office, B1P 6W4.

The following is a list of the officers of the Nova Dive Masters for 1990:

Gordon Smith - President;  
Alex Smith - Vice President and Membership chairman;  
George K. O'Neil - Treasurer-Secretary; and  
Gordon MacVicar - Dive Coordinator.

*yours truly, Alex Smith*



## COMING EVENTS

Coming events is a calendar of events of interest to divers in Nova Scotia and the region. To have an event included, please write to **BOTTOMTIME**. The deadline for listings is detailed on page two.

**C.F.B. Greenwood Club Meeting** at the Base Recreational Center at 7:00 pm usually the first Sunday of each month.

**C.P.R. Course** at the Nautilus School of Diving, Quinpool Road, Halifax, N.S., 6:30 pm on Thursdays, Check with Mike Chambers.

**Aqualantic Dive Club Meeting** at the MicMac Boat Club in Dartmouth, N.S. at 7:30 pm usually the second and fourth Wednesday of each month.

**Dartmouth Dolphins** meet the first Sunday of every month, Aqua Dive Scuba Shop, 77 Prince Albert Road, Dartmouth, at 7:30 p.m.

**Underwater Archaeology Meetings** the first Monday of every month

at 7:30 pm at the Maritime Museum of the Atlantic on Lower Water Street in Halifax, N.S.

**Underwater Hockey** at the Dartmouth Sportsplex is discontinued until September. Contact: Bob Trider. Tel: 469-6440.

**Maritime History Exhibition**, New Brunswick Museum, 277 Douglas Avenue, Saint John, to June, 1991.

**Scuba-Doobah-Due** in Prince Edward Island at the end of July, 1990. Annual weekend of diving events, camping and prizes. Details from: P.E.I. Underwater Council, Box 2612, Charlottetown, PEI C1A 8C3.

**"Restoration, preservation and maintenance of historic vessels"**, an international, professional workshop based in Halifax, August 5-10. Contact: David Walker,

Maritime Museum of the Atlantic.

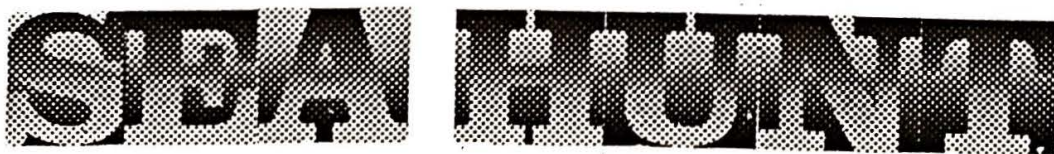
The Canadian Federation of Underwater Activities (CFUA) has proclaimed September 3, a **national environmental diving awareness day**. Details from: CFUA, #208-5334 Yonge Street, Toronto, Ontario M2N 6M2.

**Board meeting**, Nova Scotia Underwater Council, Sport Nova Scotia, 5516 Spring Garden Rd., Halifax, September 8, 10am. Members welcome to attend as observers.

The Nautilus School of Diving will travel to Key West, Florida, with Nova Scotia divers, October 21-28.

**"Jack Tar in history: seamen, pirates and workers of the North Atlantic world"**, Saint Mary's University, Halifax, October 25-28. Contact: Dr. Colin Howell, History Dept. Tel: 420-5756.

### Announcing the 1990 Mares



Another event brought to you by the Nova Scotia Underwater Council  
**September 9, 1990 - Crystal Crescent Beach, Sambro**

**Fees: NSUC members - \$12.00**

**Non-members - \$15.00**

*Must have 'C' Card to enter water*

**\$2.00 of each registration to be donated to the Abilities Foundation**

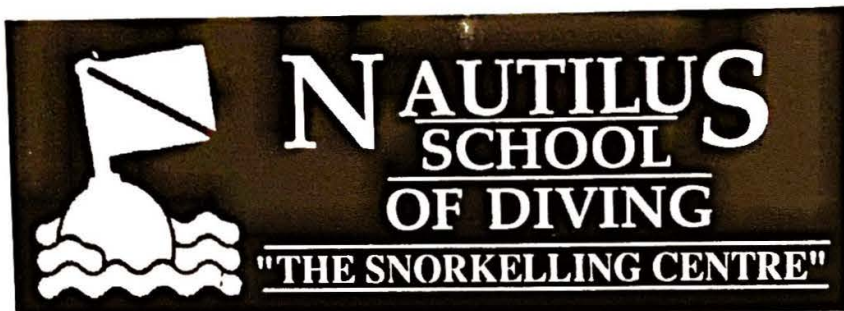
**Registration begins at 9 a.m.**

**SEAHUNT starts at 11 a.m.**

For more information, contact:

Lynn Gallant 434-3675

Darlene MacDonald 827-2944



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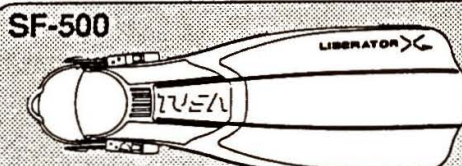
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## Diving laws vague, flawed

from page one

cient to get to the surface).

Depending on the depth and the hazards associated with the dive, either three or four persons, are required: a diver, a stand by diver, a dive tender, and a supervisor. A diver may dive alone, but only if a lifeline is used. Without a lifeline, a buddy is required. Further, scuba may only be used to 30 meters. Below that depth, surface-applied air is to be used.

There are requirements for the surface base (wharf, boat, platform, etc.) as well. If a vessel is used, it must have a radio, and either a secondary propulsion system or a secondary means of transporting an injured diver. If the dive is hazardous or below 30 meters, a recompression chamber must be available for the diver. The necessary dive flags, lights, beacons, etc., must be displayed to define the dive area and thereby warn other craft to keep out of the area.

While the regulations may be a step in the right direction, there are certain flaws.

Firstly, no difference is made between large commercial operations and self-employed contractors. A large diving operation may be able to afford a compression chamber, standby divers and secondary propulsion system, but the smaller enterprise inspecting a hull cannot meet such requirements.

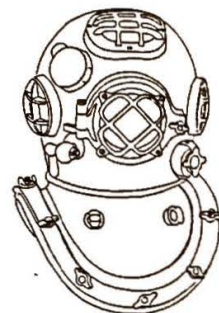
The Department's grasp of diving is outdated: the regulations speak of reserve valves and dive watches, when dive computers are becoming the norm. Although secondary air supplies are mentioned, second stage octopi are not. Further, except in the case of underwater blasting, no training is decreed other than a "certificate confirming successful completion of a diver's training course".

The Council submitted a critique of the draft last Novem-

ber. The Department is planning a meeting for all interested parties on September 13, 1990 to discuss the submissions received and to consider further input. From this meeting it is hoped to form a smaller advisory committee. Any council members who feel they may be affected by this legislation should contact Mr. Gerald Muise, Chief Inspector, Occupational Health and Safety Division, Department of Labour, P.O. Box 697, Halifax, Nova Scotia, B3J 2T8. (tel: 902-424-8603) A copy of Draft #7 can be obtained from Mr. Muise, as well as an invitation to the September 13th meeting.

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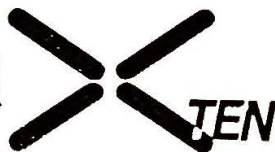
Contact Colin Frazee-Whitelock ☎ Tel: 864-1157

# *The Nova Scotia Underwater Council Association of Divers - our objectives*

- 1) To be a representative body for the scuba diving community so as to preserve, support, and promote diving and diver safety in the provinces;
- 2) To ensure that training programs are given to a recognized level of quality, to foster and encourage the safe handling and usage of all approved types of equipment used in the sport of scuba diving;
- 3) To make available to all members information concerning safety, medical, technical, and research data concerning the sport of scuba diving; and
- 4) To cooperate and participate with the provincial government on projects and policies that lead to the recognition of sport diving as a significant recreational activity.

*To join, contact the NSUC today!*

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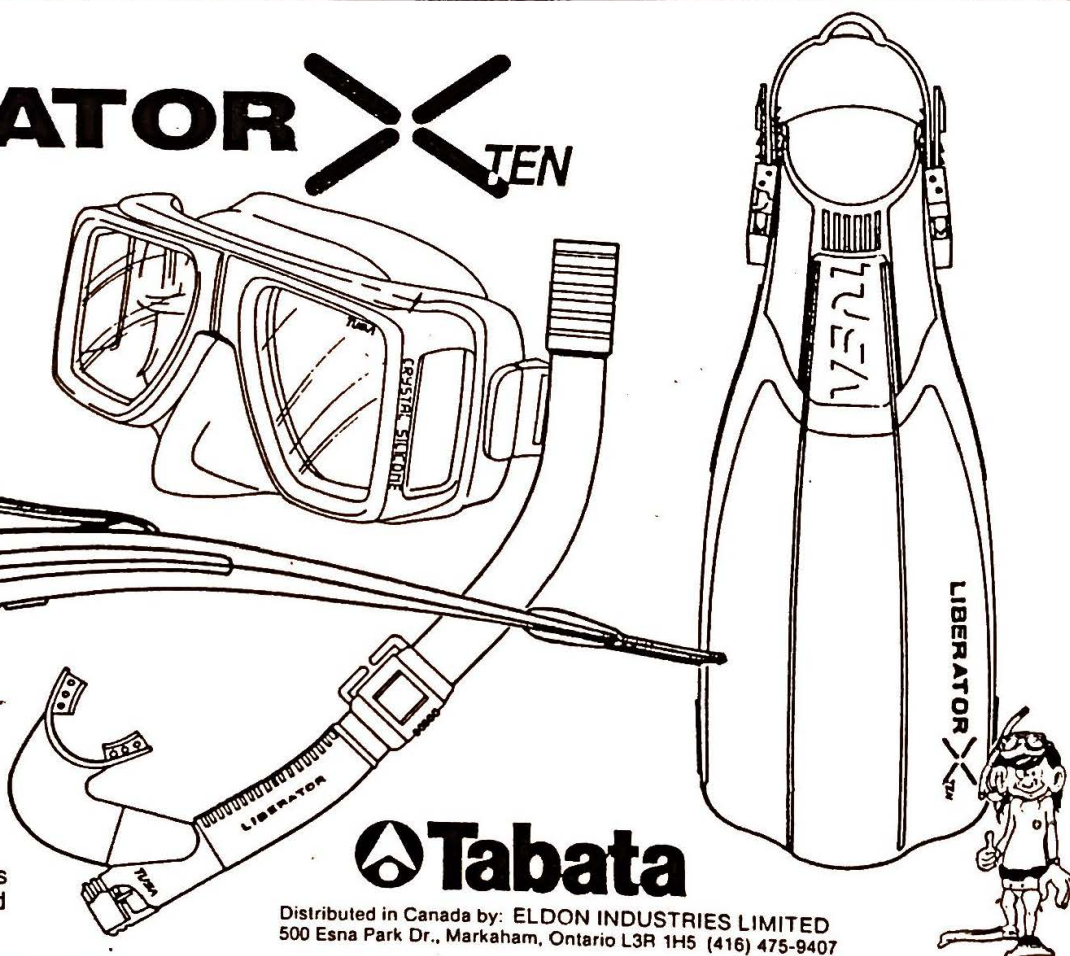


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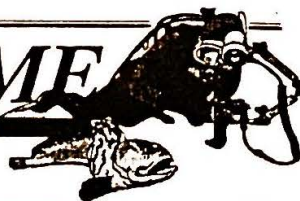
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