# 2003 Summer Course Schedule

**Skin Diving (Snorkeling) ~** Learn proper snorkeling techniques & skills in just a few hours.
Cost: $40.00
Dates:
Sunday June 22; Sunday July 13
Sunday August 10

**Basic Open Water** ~ Full Certification as a Scuba Diver
Cost: $395.00
Dates:
Friday Evening, Saturday & Sunday June 20-22;
Openwater: Sat & Sun June 28, 29

Friday Evening, Saturday & Sunday July 11-13;
Openwater: Sat & Sun July 19, 20

Friday Evening, Saturday & Sunday Aug. 8-10;
Openwater: Sat & Sun Aug. 16, 17

**Rescue** ~ Learn the skills required to prevent and manage diving emergencies. Improve your diving skills.
Cost: $350.00 + manual
Dates:
Thursday Evenings, May 8, 15, 22;
Openwater: Sat June 14

**Divemaster** ~ The first level in becoming a Scuba Instructor. Learn to organize, conduct and supervise recreational diving activities both land and boat based. Work as a instructional assistant.
Cost: $450.00 + manual
Dates:
Friday Evening, Saturday & Sunday June 20-22;
Openwater: Sat & Sun June 28, 29;
Plus additional open water T.B.A.

**CPROX & CPR1st** ~ Learn the necessary skills to save a dive buddies life. You will learn the basics of CPR and Oxygen administration, or CPR and First Aid.
Cost: CPROX or CPR1st $90.00
CPROX and CPR1st (combined) $160.00
Dates:
Saturday May 24—CPROX 9:30 am
CPR1st 1:00 pm
Tuesday July 15— CPROX 7:00 pm
CPR1st 9:00 pm

**Nitrox Diver** ~ Certification allowing the open water diver to use Enriched Air Nitrox (EAN) mixes up to 40% Oxygen.
Cost: $150.00 + manual
Dates:
Thursday May 29-7pm; Saturday May 31-9am;
Saturday August 2-9am;

**Night / Low Visibility Diver Specialty** ~ Learn the procedures, techniques, and potential hazards associated with night diving or limited visibility so that you will be able to enjoy night diving with maximum confidence and safety.
Cost: $150.00 + manual
Dates:
Friday Eve June 27-7pm, Sat. July 5, 6
Friday Eve 7pm, Saturday August 15, 16

**Navigation Specialty ~** Learn how to navigate properly underwater using both natural and compass type navigation.
Cost: $150.00 + manual
Dates:
Sunday June 8; Sunday July 27

**Search & Recovery Specialty** ~ Learn the special skills and techniques necessary to successfully plan, execute and evaluate a search and recovery dive.
Cost: $150.00 + manual
Dates:
Saturday July 26

**Wreck Diver Specialty** ~ Learn to use equipment and techniques commonly employed while wreck diving. This course is a limited penetration course.
Cost: $190.00 + manual
Dates:
Friday Eve, Saturday & Sunday August 8-10

**Deep Diver Specialty** ~ This course will provide the necessary training to plan and execute dives between the depths of 60 ft to a maximum of 130 ft. This course includes 4 dives.
Cost: $190.00 + manual
Dates:
Saturday & Sunday July 5, 6

**Dry Suit Diver** ~ This course allows you to develop knowledge and skills to properly use a Dry Suit. It will discuss the different types of dry suits, accessories, maintenance and how to make basic repairs.
Cost: $150.00 + manual
Dates:
Saturday June 7

**Underwater Photographer Specialty** ~ This course allows the student to experience some of the special considerations of underwater photography, with a discussion of many areas of interest.
Cost: $150.00 + manual
Dates:
Saturday & Sunday August 23 & 24

**Boat Diver Specialty ~** Scuba diving from boats is an everyday occurrence. Divers are frequently not aware of the special procedures and etiquette used when boat diving. This course is designed to introduce divers to some different types of boat diving and the skills needed to plan and conduct a boat dive with maximum safety.
Cost: $150.00 + manual
Dates:
Wednesday Eve June 18, 25 & Thurs Eve June 26

**TDI Advanced Nitrox & Decompression Procedures ~** This course examines the use of EAN21 through EAN100 for optimal mixes to a depth of 150fsw and the theory, methods and procedures of planned stage decompression.
Cost: $595.00 + manuals
Dates:
Friday Eve, Saturday & Sunday Sept. 5-7

**PSI Visual Inspector** ~ Learn the proper techniques used to visually inspect and certify cylinders. Attendees of this course must show proof of employment with a retail scuba store or attendance request letter from scuba club president.
Cost: $255.00 + manual
Dates:
Saturday July 19

**Courses are continually added to our schedule. If you don't see the one you are interested in, please call us.**
**Instructor Courses are also available. Call for information and registration.**
***Please be properly prepared for your course. Pre-registration is a must, as all academic material must be read prior to attending any of the courses.***

**For Additional Information and/or Registration Call Scuba Shack at 705 687-5879 or visit www.scubashack.on.ca**

# Bottom Times

Scuba Shack Spring 2003 Issue

## from Dean's Desk

## Our Feature Story:

**A Cold Day in the Ice Room . . . page 7**

To coin an old phrase, we have certainly hit the ground running this spring. So much so, that I have to apologize for the tardiness of this Spring Newsletter. We have added a few new sections though, by some extremely gifted and talented people, and the Scuba Shack would like to thank them all for their contributions.

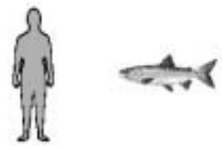
Over the winter, the Scuba Shack has increased its retail floor space and we are in the process of revamping the main floor to accommodate all of the wet suits, shorty's, dry suits and underwear on the main floor and will soon have all of the renovations completed.

We have also increased the number of courses and Instructors this year. This has allowed us to offer you more courses with more frequency than in the past. (Course schedule is on the back page).

**Gary Hoadley** is now instructing Open Water classes and Basic Nitrox courses. He will be expanding on his instructor level and certifying for more of the specialty and technical courses. As a long time, highly experienced cave and cavern diver, Gary will be heading up the technical training including Advanced Nitrox and Deco and Introduction toTrimix and Advanced Trimix. With enough students, we will be offering Cavern and Cave certifications as well. Be ready to travel as the caves are in Florida. Interested? Contact us for more information

The Scuba Shack proudly welcomes back **Doug Fletcher**. Doug has been one of our instructors for many years and has just returned to us after a short hiatus. Anyone taking specialty courses this year will have the benefit of Doug's years of experience and vast knowledge of diving. . . . **Continued on page 6**

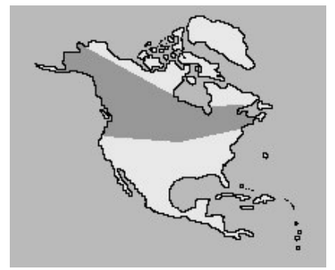
# Freshwater Facts



## Lake Trout

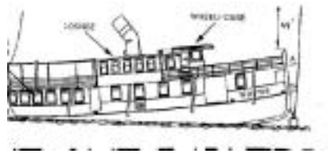
One of the most important commercial freshwater fishes and a popular sport-fishing species in North America, the lake trout is actually a char, not a true trout. It has now been successfully introduced into lakes out of its natural range. A beautiful fish, it has characteristic pale spots on head, back and sides. Lake trout feed on fish, insects, crustaceans and plankton. From late summer to December, lake trout spawn in shallow, gravel-bottomed water. There is no nest, but males clear the spawning ground of debris. The eggs are laid on the gravel and settle among the stones; they remain there for the winter and hatch in early spring.

**Class:** Fishes: 4 classes
**Order:** Salmoniformes: Salmon
**Scientific Name:** Salvelinus namaycush
**Family:** No Fish family information
**Size:** 1.2 m (4 ft)
**Conservation Status:** Non-threatened
**Habitat:** lakes, rivers
**Diet:** Fish **Range:** Canada, N. USA



# Diver Down

Starboard-side upper deck and bow section of the Waome.



## Dive Sites: The Waome

By far, the best wreck in Lake Muskoka is the Waome. The Waome was a steamship built in 1912 in Gravenhurst. The ship was originally called the MINK but was renamed the Waome in 1928. Dimensions: 78 feet long, and a 14-foot beam. Caught in a storm on October 6, 1934, the Waome was lost near Keewaydin Island. The ship had a crew of five, the captain and one passenger (a minister). The ship sank in less than one minute, with the loss of one crewmember and the minister. The captain died of a heart attack while swimming to shore after the ship went down.

Today, the wreck sits upright in about 73 feet of water, and is in fairly good shape. Because of the presence of tannic acid, the water is tea-coloured. The wreck site is very dark and cold, so two dive lights and a full 7mm wet suit are a minimal requirement. With many decks to explore, this is a very interesting dive. The upper deck contains a few benches, the wheelhouse and lounge. The lower deck has a cargo area boiler room, engine room and dining room. The windows are gone, which allows for many entry and exit points, but care must still be taken when exploring the interior of the wreck.

# Tech Talk with Gary Hoadley

*Dive industry professionals refer to annual regulator service as a "tune-up". Done properly, it's more like a complete overhaul.*

Regulators are complex but reliable mechanisms and will give you years of service, if you have them inspected at least once a year. Dive industry professionals have created the impression that annual regulator service is simply a "tune-up"; however, done properly, it's more like a complete overhaul. Regardless of the type of regulator you own - balanced or unbalanced, pilot or downstream, piston or diaphragm, an overhaul involves similar steps, although some parts may differ. Customers often wonder what a repair technician has actually done to their regulator when it's returned with a bag of miscellaneous O-rings and odd-looking metal parts. Let me give you a brief summary of what is involved in routine regulator servicing.

To refresh your knowledge: All modern scuba regulators are two stage. The first stage mounts on the scuba tank and takes the breathing gas from cylinder pressure (3000psi) when full, to a pressure approximately 145 psi. This is called the intermediate pressure, and flows through the low-pressure hoses to both second stages - primary second stage and octopus, and the inflator hoses - BC and/or dry suit.

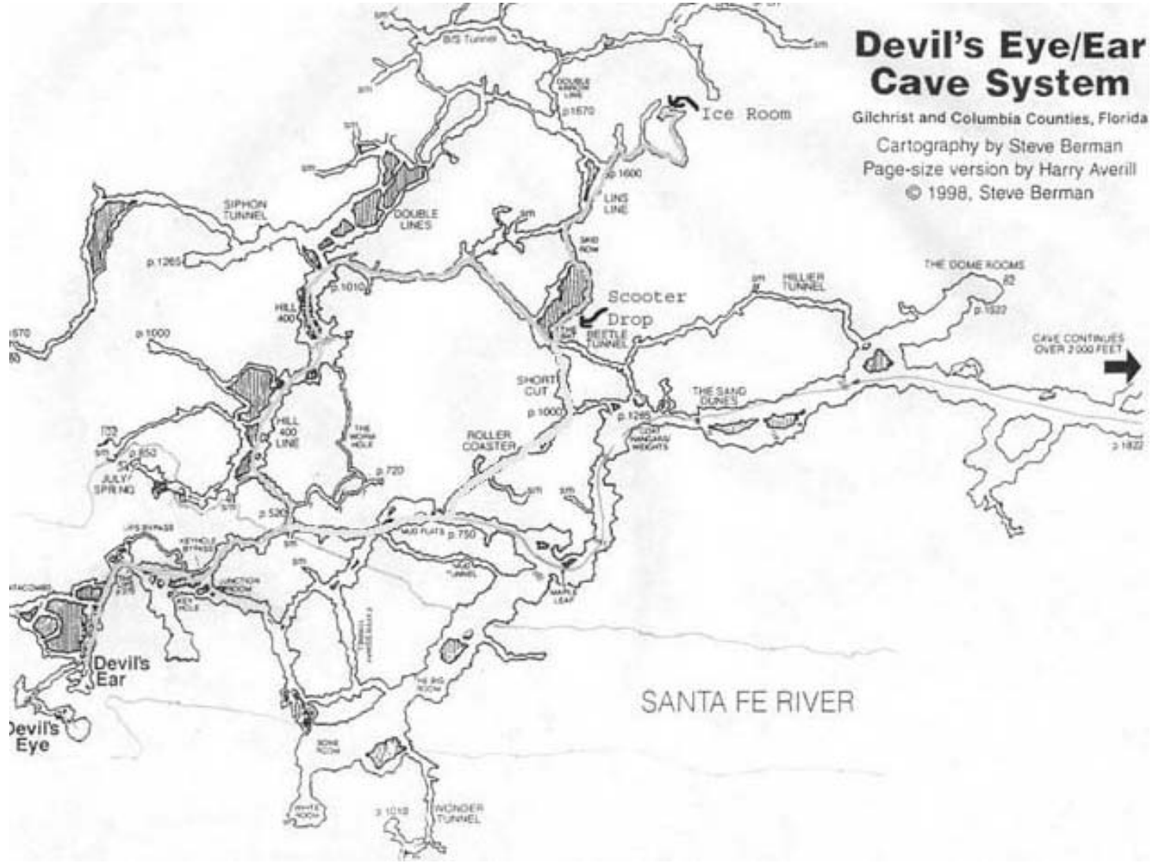
**. . . continued on page 4**

# Dive Shop with this months specials


ATLAS™ Superior Simplicity.

Pre-dive/dive switch to prevent unwanted freeflow.
High performance regulator.
ABS/Polycarbonate housing.
Factory set diver inhalation effort.
302 passivated stainless steel lever.
Orthodontic mouthpiece.
2 high pressure ports.
4 low pressure ports.
Nitrox (EAN) Compatible to 40%.

**Our Price only:** ***$376.00***



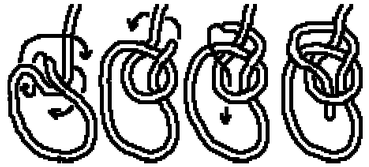
"lay" of the land didn't quite match my visual image of what the map looked like rior to the dive. Seems we turned sharper turns than what the map would have indicated.
We took the last jump and swam to the end of the line into the ice room. This is a chamber that you swim up into, off of the ~90 foot horizontal bedding plane that apparently characterizes most of the area between double lines and the Bats. The chamber did indeed have a portion of the ceiling covered with white limestone, but no spectacular ice formations :). I was actually warmer in the ice room than at the surface before the dive, by the way. We swam around a bit and at the far end of the room, on top of some breakdown, was a memorial plaque with the name of Kevin Cook (I think that was the last name). D. said later this was the name of a guy who died free diving in the main Ginnie basin. Does anybody know anything more about this guy? We speculated on why a freediver plaque would be stuck here, some ~1,700 feet back in Ginnie. I've now seen this marker and the Rouse's marker just on the other side of the Hinkel. It is somewhat creepy and sobering to come across underwater memorial plaques.
We slowly reformed the team, with G. now leading and D. in the back and proceeded to swim out. Once you hit the bedding plane you actually have to swim against a mild flow while going towards the east (right side of the map). Any dust you stir up slowly moves behind you. On the way out, however, any stirred-up silt tends to follow you like the cloud of dirt surrounding PigPen of Peanuts fame. We had a few spots where you had to keep a close eye on the line on the ceiling in the really low areas, but nothing stressful nor requiring touch contact. It was nice diving with two folks who knew when to really slow down to preserve viz. I retrieved my jump reel and assisted D. in retrieving her two reels, then we swam back to the Bats. We reconnected our scooters and took the short cut to the roller coaster on out to the mainline. I was pleasantly surprised to see that it is possible to scooter in the short cut/roller coaster passages with no cave damage.
The ride out was way too short and eventually we recovered our O2 bottles. My deco time was 15 minutes, the dive time 82 minutes, max depth was 97 feet and I was diving 28% (Ginnie air top off after a previous dive). All in all, a pleasant mix of the known and unknown.



# Scuba Skills

## Knotty Bits: The Bowline

The Bowline Knot is one of the most used loop knots. This variant is most used in the world. Probably due to its simplicity, security, and its relationship with the Sheet bend. Keep the cross point in step A between a finger and thumb and make a clock-wise turn with your wrist. Without the loop in between, it is the same knot.
If the loop is expected to be heavily loaded, the bowline is, in fact, not secure enough. There is a rule of thumb, which states that the loose end should be as long as 12 times the circumference for the sake of safety.



A B C D

## Always Learning

### Losing Energy Without Even Knowing It

Here are some ways you lose energy without working up a sweat.

**Heat loss** is probably the biggest energy thief. Its effect is pretty obvious in cold water, where two dives a day are enough for many. What's surprising is that warm tropical water can actually take more heat out of you in a day than colder water can. Fooled by its apparent warmth, you don't protect yourself as much and you stay in longer.

Continued on page 5 . . .

## hanging out at . . . The Deco Bar

## Featuring . . . Michael Pataran
Executive Chef, Wildfire at Taboo Resort

**Pre-Dive Smoothie**

| | |
|---|---|
| • Fresh pear, cubed | 1 med. |
| • Fresh figs, chopped (substitute dried) | 3 |
| • Fresh Banana, chopped | 2 |
| • Fresh strawberries, chopped | 3 |
| • Fresh blueberries | 1/2 cup |
| • Soy drink (soy milk) | 1/2 litre |
| • Low-fat yogurt | 1/2 cup |
| • Lecithin powder | 2 tsp. |
| • Bee pollen | 2 tsp. |
| • Green tea powder | 1 tsp. |
| • Chile powder | 1/4 tsp. |
| • Maple syrup | 1 tsp. |

(Yield: 3-8 ounce glasses)

2. Drink at least 1 hour prior to diving
3. Drink at room temperature for quicker absorption
4. Leftovers will keep for up to 3-4 days

## Tech Talk . . . Continued from page 2

The second stage is the part that the mouthpiece is attached to, and it's function is to reduce the intermediate pressure to ambient pressure. More specifically, it reduces the pressure of the air you breath to match the pressure of the surrounding water, i.e., 14.7 psi or 1 atmosphere at the surface, 44.1 psi or 3 atmospheres at 67 feet of fresh water. It is because of this second stage ability that you are able to breath comfortably at various depths.

Prior to any disassembly, the first stage is connected to a pressure gauge so that the technician can determine if the regulator is delivering the correct intermediate pressure. Also, any fluctuations in pressure readings are noted that may indicate internal problems. Once the first stage is fully disassembled, the metal parts are cleaned with a weak acid solution, and all plastic parts are cleaned by hand. Some parts may even be placed in an ultrasound machine to ensure removal of all deposits and corrosion. Each part is inspected for wear, and replaced if necessary. All O-rings are replaced regardless. Upon reassembling, metal threads and O-rings are lubricated and special tools are used to reinstall the tiny pieces.

Turning to the primary second stage, the mouthpiece and exhaust tee is removed to inspect the exhaust valve and its ability to seal. The case is opened and all parts are removed. Cleaning and inspection are the same as for the first stage. All O-rings and the valve seat are replaced, as with the exhaust valve if required. Before reassembling, a rough adjustment is made to the main valve that controls inhalation effort. The low-pressure hose is reattached and the process is repeated for the octopus.

After the components are assembled, air pressures are checked and adjusted. The intermediate pressure is adjusted by using the intermediate pressure adjusting gauge, and second stage breathing resistance and free flow under pressure adjustments are made accordingly. The final check and adjustments are done using a Magnahelic gauge. The technician then places all the old parts in a plastic bag for the customer to inspect.

Be careful to keep your regulator clean and dry after every dive, have annual regulator maintenance, and you will receive many years of trouble-free diving.



## A COLD DAY IN THE ICE ROOM

By Jeff Bauer, Tallahassee Florida
D = Debra Green, Ft White Florida
G = Gary Hoadley, Muskoka, Ontario

Met D. and G. early Sunday afternoon for a Ginnie Springs dive to an area that I had not been to before. The air was chilly and we quickly noticed it was warmer in the water than out. The early morning clouds had moved away, allowing the sun to provide meager amounts of warmth.
D. had been to the ice room before, a chamber that I didn't even know was in Ginnie as it doesn't show up as a named room on any of the maps I have. Naturally G. and I were intrigued and game for the adventure, as we all have done a number of dives together before and felt comfortable as a team. The plan was to scooter to the Bats via Hill 400 with me in the lead. After reaching the Bats we would clip off the scooters and swim to the ice room, with D. leading.

We scootered uneventfully into Devil's ear and made decent time up Hill 400 to the Bats. The cave visibility in the main passageways was murkier than usual, but still manageable. It's still amazing to me how quickly distances zip by on a scooter compared to the swim time. I have done enough of both now to feel comfortable about what a proper distance and cave familiarity should be when figuring out things like gas management and maximum scooter penetration. Scootering to the Bats feels relatively safe, since I am familiar with multiple exit points from here and it is only around 1,000 feet back. Funny how not too long ago I can remember feeling that swimming to the Bats was a Major Accomplishment laced with a bit of trepidation at what was a Great Distance for me at that point in time.
I paused momentarily just after the Bats, waiting for D. to show us where to go next. I thought briefly that perhaps the jump was a bit farther up and started to go around the corner, but was flashed back. D. and G. had clipped their scooters immediately in front of the Bats and I came back to do the same. D. then proceeded to swim over the line with the three bats hanging on it onto a small jump that I hadn't noticed before, even though it was right there all along. I guess the silliness of seeing rubber bats in the cave masks this passageway. We proceeded to follow D., with me in the middle. The passageway continued to shrink in all dimensions until we were in a low passage that is just passable on backmount (all you had to do was follow the scratch marks on the ceiling!). D. proceeded to do the next two jumps (one into the area named "skid row" on the map and the other in "lins line") and I was ready with my reel for the last jump to the line that terminates in the ice room. This entire area is characterized by a low ceiling (most of it side mount area) that spreads out in most directions. I can see how not following proper line procedures could get one into trouble real quick in a zero viz situation. The floor is mostly silt and the permanent jump lines usually trace along the ceiling, since that's pretty much the only way to get the line secured from one point to the next. This is definitely the sort of place you want to be brought to by a seasoned veteran, since jump lines abound everywhere. I also remember thinking how the

long, the Big Room is one of the largest tunnels in the Suwannee River Basin cave diving region. Branching from the Bone Room is the beautiful and unique White Room. Aptly named for its white limestone walls and ceiling, this room appears to be fed by a clear spring source tunnel, often noticeably clearer than the main passage. The White Room jump is some 30' off the Main Line and has a restrictive entrance.

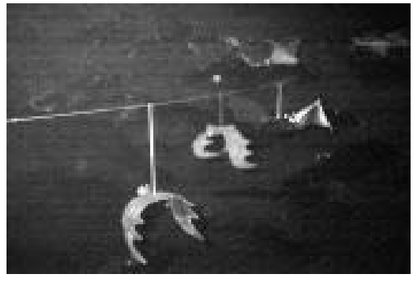
The Hill 400 area leads to a vast array of diving areas. Some 400' from the entrance, the Hill 400 line is a large passage on the left side of the main conduit. The Hill 400 tunnel itself remains relatively large, generally measuring at least 10' by 10' but contains numerous side passages with silty conditions and reduced size. It is through Hill 400 that divers can encounter the Bats; 'fake' bats hang from a jump line that stretches along the ceiling.

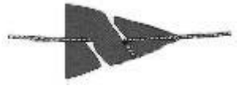
The most popular of these regions is known as the Double Lines, and contains an array of smaller often single file passages that wind back and forth through their limestone host. Cave divers looking for an interesting tour could follow the Hill 400 line along its roughly 1,500' course through the Hiller Tunnel, and back to the main passage or shortcut out of that circuit at the Roller Coaster.

Mainland is located slightly more than 3,000' from the entrance and some 100' before the Hinkel restriction. While several of the larger areas in Mainland widen significantly, some areas in Mainland are fairly small, have single file restrictions with a high silt potential. The Mainland's area is often clouded by tannin stained water percolating into its interior sometimes significantly reducing visibility.

**THE DEVIL'S EYE**


**THE BATS**







## Always Learning . . . continued from page 3

**Swimming in scuba gear** seems almost effortless because of your apparent weightlessness. But water is 800 times denser than air, creating 800 times more resistance to every movement you make. Finning along a wall, you're focused on the formations and life forms, not on the work you're doing. Sweat doesn't run into your eyes to remind you of it. But four hours a day of this is strenuous compared to the sedentary lives most of us lead.

**Breathing** is a muscular activity that requires energy just like any other. Breathing dense compressed air, through the resistance of a regulator, increases the workload of every breath. You're not aware of it, you don't feel tired from breathing, but it's a stress you're not used to, and it burns extra energy. Furthermore, the dry compressed air wicks away both moisture and body heat from our lungs with every exhalation.

**Travel** to a dive site itself is fatiguing. It's no surprise that humping your dive gear over rough terrain to the water's edge, or over a parking lot and along a wharf burns up energy. But discomfort, dehydration and anxiety also take a toll. Even after you arrive at the dive boat or shore entry point, things like adjusting to different equipment requirements (i.e., full 7mm exposure suit instead of a 3mm for tropical dives, extra dive lights, pony bottles etc.), diving to a depth greater than you may be used to, or even diving with a new buddy just assigned to you also cost energy.

### Preserve Your Energy: Stay Warm

Water at 80F feels warm, but it's not. When water is in contact with your skin, especially when its flow can disrupt the boundary layer next to your skin, it is very effective at sucking away heat. Immersion in 80F water causes the same rate of heat loss as exposure to 42F air. The loss of even two degrees of temperature in your body core brings on mild hypothermia. The chief symptoms of mild to moderate hypothermia are fatigue, mild confusion, impaired coordination and a reluctance to dive.

Heat lost is energy lost. Your body tries to cope by urging you to rest (you feel tired), by urging you to take on more fuel (your appetite increases) and by burning its fat stores. But your body's ability to generate more heat is limited. Basically, you have a fixed "bank account" of heat, which declines gradually through a week of diving. You have to spend it slowly both in the water and out of it.

In next issue of ***'Bottom Times'***

**How To Stay Warm In The Water**

## Final Check

This creature inhabits our waters. Do you know what it is? If you do, it could be worth %15 off on your next purchase at the Scuba Shack. Tell me the following:

1.) What is its common name?
2.) What is its scientific name?
3.) What does its diet consist of?

All correct answers will be placed in a box and the winner will be drawn June 30, 2003 at the Scuba Shack 12 noon sharp.

To submit your answer:

Email me at:
dean@scubashack.on.ca

or write down your answer and drop it off at the Scuba Shack, or mail your answer to:

Scuba Shack
141 Hotchkiss Street
Gravenhurst. ON.

# from . . . Dean's Desk continued

Jeff Rabjohn, will be joining us for the Underwater Photography course in August and September. His accomplishments include an underwater tour of most of Asia as well as the Andaman Sea, Gulf of Thailand, South China Sea, Indonesia, New Guinea, Australia and New Zealand, to mention a few. Some of Jeff's work can be viewed at the Scuba Shack, where we proudly exhibit a small portion of his work. He will lead you from basic photography to Advanced Digital photography, equipment and developing.

In training are new Dive Masters and Rescue divers that will complement our backbone instructors Johl Anderson, Jeff Gleadhill, Gary and Doug. James Dalkner is ready to start the pool sessions and Open Water Classes, with James Cook, Rob Brown and Shawn Doyle working hard to be ready for the new season.

Bottom Times (our dive boat) has been refurbished and is ready to accept charters for the 2003 charter season. We have been booking charters during the winter and there are spaces left to fill in your own charter, or to join others as we dive the Waome, Eleanor Island, Lake Muskoka 'Platform', and a few interesting locations in Lake Joseph.

I hope that you picked up on our new dive site. We are currently booking a two tank dive out to Eleanor Island. **This is an advanced dive to 120'**. Please contact us for dive details. I'm sure that the Muskoka Seals dive club will enjoy the new sites. We will be finalizing the Wednesday night dive schedule soon. Stay tuned to our web site for the destinations. Have you got your membership for this year?

In order to ease the postal system, please send us your email address and we will email the newsletter to you. Those of you that do not respond will receive it the old fashion way. Via Mail. Please send your request to dean@scubashack.on.ca



# A Cold Day in the Ice Room

## Prologue

The story '*A Cold Day in the Ice Room',* is about a dive considered to be a "pleasant mix of the known and unknown". The dive takes place in one of Florida 's many underground water systems called the Ginnie Springs. The particular entrance to Ginnie Springs tunnels the dive team used, is known as the Devil's Eye and the Devil's Ear. The following paragraphs give some detail to the passageways, and the particular names given to specific landmarks. It is hoped that having read this introduction, the logbook account of our three intrepid divers will be both enjoyable and inspiring.

The Devil Spring system is home to three separate springs: Devil's Eye, Devil's Ear and Devil Spring ("Little Devil"), which together produce nearly 80 million gallons of water daily. Devils Ear and Devils Eye Springs connect to one another providing access to roughly 30,000' of subterranean conduits. The restrictive tunnel leaving the Devil's Eye joins with the main conduit in Devil's Ear, opening into a large series of branching tunnels with a maximum penetration of 4,300'. Devils Ear Spring is the more common diving entrance complete with a cavern area. However, this large spring emits a strong flow of 30 million gallons per day, making diver access somewhat challenging.

The main passage in Devil's Ear cave is often the size of a semi-tractor trailer as it winds a course through thousands of feet of crystal clear water, finally becoming too small for diver access at nearly 4,500' from the entrance. Numerous passages of interesting variety branch from the main conduit, providing divers of all cave experience levels with a challenging environment. While there are literally hundreds of different areas to visit within the Devil's Ear cave system, five primary paths contain the most popular diving destinations. These destinations include the Main Line, the Right Line, Hill 400, the Double Lines and Mainland.

The Main Line in Devil's Ear begins approximately 100' from the entrance, just beyond the sunlit cavern zone. Near the entrance, the main conduit is roughly 20' tall by 20' wide and will vary in size during its long upstream migration. Within approximately 100', divers will reach a popular bedding plane formation known as the Lips. The cave narrows to only a few feet tall and several feet wide at this location, but almost immediately opens into a more formidable cave.

Following the passage another 50', divers will encounter the keyhole restriction leading to another briefly confining area known as the Cornflakes. The Short Pass through the Cornflakes leaves divers in a somewhat larger area known as the Junction Room. From here the diver may continue on the Main Line, or divert to the Right Line.

The Right Line path requires that divers leave the Main Line using a jump spool. This main conduit continues for a total of 3,200' before narrowing at the Hinkel restriction, continuing in smaller (no scooter) passage for another 1,000'.

The Right Line branches from the Main Line at the Junction Room some 300' into the cave. The upstream swim on the Right Line brings divers through the Bone Room into the Big Room finally reuniting with the Main Line some 500' later. While only about 150'