



UNDERCURRENTS

Newsletter of the Bluegrass Dive Club / www.bluegrassdiveclub.com

January 2014

Volume 44, Number 1

January's Club Meeting

Date: Tuesday, January 14th
Time: 7:30-PM (business)
 Social at 7
Location: The Racquet Club
 3900 Crosby Rd.
Program: Coral Reef Restoration

President's Message

By Tracey Combs



Happy Holidays! Hopefully everyone has survived the Christmas Holiday and it is time to celebrate a New Year. I hope everyone decided to add "DIVE MORE" to their New Year's Resolution. We have several dive trips scheduled this year, so check the Calendar and join us. Many of these were added recently, so be sure to double check the list so that you don't miss a great trip.

A group will be going to Truk and Yap later this month and we wish them safe travels and wonderful diving. Riding Rock is just around the corner, so sign up if you haven't already. If you have suggestions for future trip locations, please contact Doug Geddes or one of the Dive Trip Committee Members.

A special thanks to Mark and Stella Kidd for hosting the Christmas Party. It was a great event and the food was amazing, as always. 🚩

The Editor's Notes

By John Geddes



A big welcome to Mike Sullivan as our new Secretary, I'm sure he will be a great addition to the Board.

The pics for this month will be from the BGDC Christmas Party. 🚩



2014 BGDC Officer's

Tracey Combs, President	621-4066
Corrine Mulberry, Vice President	913-0892
Mike Sullivan, Secretary	266-4516
Dan Miller, Treasurer	948-5133
Doug Geddes, Trip Director	224-3197
Rick Stephan, Safety Info Dir.	223-3719
Mike McCann, Webmaster	255-3937
John Geddes, Newsletter Editor	223-7926

Vice President's Report

By Corrine Mulberry



The Program for the January BGDC meeting will feature coral reef restoration efforts in the Florida Keys. You will be amazed and inspired at the work being done!

If you have diving information or destinations (past or potential future trips) that you would like to present at a Club meeting, I would love to hear from you. Please contact me so that we can put you on the calendar. 913-0892 or mulberryc1@gmail.com



The Dale Hollow Dive Trip for July 12th & 13th is posted on the web. Mark your calendars and sign up today. This is a fun and relaxing weekend on the lake and an opportunity for local and inexpensive diving. \$20.00 per person/per day secures you a spot on the pontoon boat.

There is a maximum capacity of 12 people on the 10'x30' double-decker pontoon boat. The BGDC will reserve **ONE** pontoon boat in early January. If trip sign-ups exceed the boat capacity, another pontoon boat will be reserved IF IT IS AVAILABLE. We have 2 reservations, so only 10 spots remain. Sign up early to ensure you have a spot on the boat.



In terms of lodging, I have made reservations at the Dale Hollow State Park Campground for Friday July 11 and Saturday July 12th at site L0002 for me and my little tent. I would encourage you to make campground reservations (near the L Loop) or lodging reservations at the State Park NOW if you are interested in this trip. (Lodging reservation cancellations are quite liberal, so it doesn't hurt to sign up now while you can get a room. By March or April, all rooms will likely be booked.)



Rebecca Singer and I are putting together plans for a Costa Rica trip in June 2015. This trip is in the planning stages and has not yet be finalized nor approved by the Board. If you have interest or input on the specifics of this trip, don't hesitate to contact me. The trip will involve more land-based adventures than diving as diving conditions can be quite variable. We will definitely dive, but do not intend to dive every day. 🚩

Safety Corner

By Rick Stephan



Note: Happy New Year! I hope you are able to dive with us on one of the trips arranged by our ever-busy trip director – Doug. Upcoming shortly – Truk and Yap. This is an advanced level dive trip, certainly due to the conditions: depth, liveboard, wrecks, etc. But, even if you are just going to dive in the Florida springs, or off the beach in the Keys, make sure you take care of the basics.

This month's article is from alertdiver.com and addresses one of the things you should do on EVERY dive – clear your ears. Basic principles of physics say that the deeper you dive, the more the pressure on your outer ear, and the savvy diver must find a way to equalize the internal pressure to create a safe, pain-free diving experience. Normally, you can do this with the simple Valsalva maneuver (hold your nose and try to blow it), which forces air into your Eustachian tubes. However, if you experience problems with this, don't force it (or the dive), or you may end up having the problems the diver in the example had.



It is important that you equalizes right as you begin the descent (no reason to wait till you feel pain!!). This is because pressure changes more rapidly as a percentage in the shallow

part of your dive. Example: at the surface you are at 1 atmosphere of pressure. At 33 feet, you are at 2 atmospheres – a 100% increase! Continuing down, you get to 3 atmospheres at 66 feet, which is only a 50% change from your pressure at 33 feet. And so on... but you now realize that the biggest percentage pressure changes occur closer to the surface – 'nuff said!

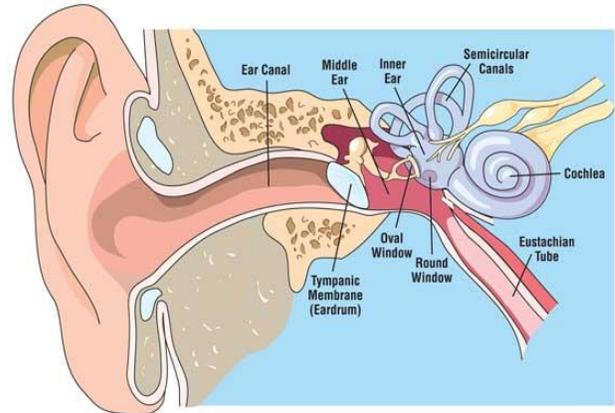
So, I hope to see you on a trip this year, and be able to hear about it afterwards! Keep the safety tips in mind, because as we all know,



safe diving is fun!

Go Easy on the Ears

By Marty McCafferty



A seemingly mild injury can lead to serious symptoms.

The diver was a 36-year-old female who had done four dives in the two months since her certification. She was physically fit and in good general health but reported having had intermittent difficulty equalizing during her certification dives.

The Dives

On a Saturday in June, the diver did a series of three dives to a maximum depth of 64 feet in a freshwater quarry. Her bottom times were

Safety Corner Cont.

within her computer's no-decompression limits, and she had a minimum surface interval time of an hour between each dive. Her last dive of the day was to 45 feet for 45 minutes. She reported trouble equalizing during her first descent and increasing difficulty on subsequent descents. She did not complain of pain or any other significant symptoms, but she did report a feeling of "fullness" in her left ear. She didn't dive for the next two days, and the sensation of fullness decreased but did not resolve completely.

After the two days the diver believed she would be able to equalize effectively despite the fullness, and she decided to dive again at the same location. Unfortunately, this time she found equalization difficult and uncomfortable as she descended. The discomfort persisted to her maximum depth of 55 feet. She continued to dive for about 20 minutes, but when she could no longer tolerate the discomfort she signaled her buddy, and they initiated their ascent. At approximately 20 feet, the discomfort had intensified to the point of pain. This distracting pain, combined with the diver's inexperience, caused her failure to vent her BCD, and she made an uncontrolled ascent to the surface, during which the pain increased dramatically.



She had not done a safety stop, so she and her buddy attempted to descend to 15 feet to perform the missed stop. As they descended she was unable to equalize, and she made a forceful attempt at approximately 10 feet. She

reported feeling and hearing a "pop," and the pain in her ears became very sharp. The diver aborted the descent and managed to return safely to the surface, but she required assistance getting back to shore. Once ashore she was observed staggering and unable to walk without aid. She also became very nauseated and vomited several times. She found she could not tolerate lying flat or any movement of her head, both of which provoked nausea and vomiting. The diver's buddy called emergency medical services (EMS), which arrived soon afterward and transported her to the local hospital.



The Diagnosis

Upon examining the diver, the doctor observed nystagmus (rapid involuntary eye movements) in addition to the acute nausea and vertigo she reported. Additionally, the diver complained of diminished hearing and a continued sensation of fullness in the left ear. Examination of the ears revealed slight redness of the right tympanic membrane (ear drum) with no other abnormalities. The left tympanic membrane, however, was markedly red and bulging, and an accumulation of fluid and blood was observed behind the membrane. These signs indicated an injury to the middle ear, but the diver's symptoms indicated something more serious. The evaluating physician contacted DAN® for consultation.

Based on the diver's difficulty equalizing, her relatively conservative dive profiles and her forceful equalization attempt, some type of ear barotrauma was the most likely explanation of her symptoms. The severity of the symptoms

Safety Corner Cont.

seemed to indicate inner-ear barotrauma in addition to that of the middle ear. Inner-ear barotrauma means a perforation of either the round or oval window, the two membranes of the inner ear. This injury is usually treated with bed rest with the head elevated, avoidance of lifting or straining, stool softeners (to further minimize straining) and medication to relieve the nausea. The purpose of these therapies is to give the perforated membrane a chance to heal, and most individuals recover without complications or other interventions, as this diver did.

Discussion

Middle-ear barotrauma is the most common injury resulting from diving. It is a consequence of inadequate pressure equilibration between the middle ear and the ambient pressure of the external environment. During descent the Eustachian tube, which is normally closed, may fail to open if the diver does not make effective attempts to equalize or if congestion is present. Failure of the Eustachian tube to open can create negative pressure within the middle ear, which further closes the Eustachian tube and may draw fluid and blood from the surrounding soft tissues into the middle ear space. All of these factors can make subsequent efforts to equalize more difficult. Symptoms of middle-ear barotrauma include sensations of fluid or fullness in the ears, muffled hearing, mild tinnitus, dizziness and mild to moderate vertigo.



Early in our dive training we are taught we should never dive with congestion, a head

cold or allergy symptoms, as these can interfere with equalization. Unresolved symptoms of middle-ear barotrauma — even mild ones — should also be considered reasons to suspend diving. The fluid, inflammation and closed Eustachian tubes will complicate equalization and place divers at increased risk for more serious injuries such as inner-ear barotrauma. Sudden pressure changes due to rapid ascents, rapid descents or forceful equalizations further elevate this risk.



Remember, if you encounter any equalization difficulty, stop descending, ascend a few feet and attempt to equalize again. If you cannot equalize, do not make a forceful attempt; abort the dive instead. Neither middle- nor inner-ear injuries are inherently life threatening, but nausea, vomiting and especially vertigo while submerged can place a diver at great risk and may even be fatal. Don't be complacent when it comes to equalization, and don't ignore ear discomfort while diving. Despite expenses paid or plans made, our hearing and lives are much more valuable. By discontinuing diving as soon as symptoms appear and staying out of the water until they resolve completely, divers can avoid increasingly serious injuries and prolonged recovery times. 🚩



From The Secretary 2013

By Kris Harn



BOARD MEETING 11/26/13

Meeting called to order at 7:46pm. Dan gave Treasurer's report. Corrine announced that program at January meeting will be on Indonesia and February meeting will be on Truk/Yap. Rick's article will be on Regulator maintenance. John needs newsletters by Thanksgiving. Mike will have new membership form on website this week. Doug went over trip reports. Revised trip proposal form was approved. Meeting ended at 10.00pm. 🚩



From The Secretary 2014

By Mike Sullivan



I have been diving for only 10 years but I do have about 350 dives. I am really looking forward to being the Club Secretary for 2014. I really get excited about planning dive destinations and watching everyone get just thrilled about new adventures. Looking forward to meeting all the members of the Dive Club. 🚩

From The Treasure

By Dan Miller



2014 Membership Dues

Student (High School or College ID) ..	\$10.00
Single & Family (1 diver)	30.00
Family (non divers).....	30.00
Family (2 or more divers)	40.00

Renewal: Please send payment to the address listed below, please make sure there is a correct indication of your mailing address, phone number and it is very important to indicate an email address.



Contact / Mail to: Bluegrass Dive Club c/o
Dan Miller
824 Gunpower Drive
Lexington, KY 40509

New Members: Visit the website to fill out an on-line form or to access a Microsoft Word printable form. [CLICK HERE](#). 🚩



Trip Director's Report

By Doug Geddes



TRUK/YAP 2014

While you are reading this newsletter, I bet someone going on this trip is packing for this trip. We will be leaving on Tuesday and will be missing the meeting. It has been 3 years since we first put this out for the lottery and we have lost and added many persons along the way. I know this will be an awesome trip. Please keep us in your thoughts and prayers as we head to this great destination.

RIDING ROCK INN, BAHAMAS

This trip is now on our website. Please go onto the web and check it out. This is going to be a great trip. We haven't been there for several years, but had a great trip when we were there last. The beaches and diving is some of the best in the Bahamas. Please get your reservation in as soon as you can.

EAST CAYMAN

Yes, we are heading back to the same resort we went to this past winter. We had such a good time and enjoyed the diving so much, we decided to forgo the mystery trip this year and make this our fall trip. All the info is on our website, so go sign up. 🚩



Bluegrass Dive Club 2014 Calendar

January

12, Thursday Yap-Truk Lagoon
14, Tuesday Dive Club Meeting
28, Tuesday Board Meeting

February

11, Tuesday Dive Club Meeting
25, Tuesday Board Meeting

March

11, Tuesday Dive Club Meeting
25, Tuesday Board Meeting

April

8, Tuesday Dive Club Meeting
29, Tuesday Board Meeting

May

3, Saturday Club's Derby Party
13, Tuesday Dive Club Meeting
27, Tuesday Board Meeting

June

7, Saturday Bahamas
10, Tuesday Dive Club Meeting
24, Tuesday Board Meeting

July

8, Tuesday Dive Club Meeting
12, Saturday Dale Hollow Diving
29, Tuesday Board Meeting

August

12, Tuesday Dive Club Meeting
16, Saturday Club Pig Roast
26, Tuesday Board Meeting

September

9, Tuesday Dive Club Meeting
13, Saturday Grand Cayman
30, Tuesday Board Meeting

October

14, Tuesday Dive Club Meeting
28, Tuesday Board Meeting