



UNDERCURRENTS

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

April 2019

Volume 50, Number 4

March Club Meeting

Date: **Tuesday, April 23rd**
Time: 7:30-PM (business)
Social at 7

Location: **Bronte Bistro**
Lexington Green

Program: Africa by Mark Kidd

President's Message

By Mark Kidd



With March Madness over and the weather warming up now is the time to dust off the gear and make plans for a summer dive trip.

We still have room for Little Cayman and PNG this year but act ASAP.

We are working on a trip to Somerset to use the pool at Divers Den to checkout our equipment and our personal dive skills more on this at the meeting.

Speaking of meetings we miss you! Our venue at Joseph Beth Book Store is the best by far we have ever had. Great food comfortable surroundings, parking and things to do so where are you?

Look forward to seeing more of you at the next meeting. 🚩

The Editor's Notes

By John Geddes



Check out Bart's article.

This month we have some more pics from Doug and his wonderful homeland of Roatan Honduras. 🚩



2019 BGDC Officer's

Mark Kidd, President	221-7104
Kris Harn, Vice President	333-6911
Kathryn Bowers, Secretary	619-0166
Dan Miller, Treasurer	948-5133
Trip Director - Open Position	
Bart Bertello, Safety Info Dir.	502-299-3656
Alex Fassas, Webmaster	582-1600
John Geddes, Newsletter Editor	608-0682

Vice President's Report

By Kris Harn



I look forward to seeing you all at our April meeting at Bronte Bistro. We will have appetizers/snacks at the meeting; April's program will be about Africa. Thank you Mark Kidd.

If you have information on a potential dive trip. We would love to hear from you. Please contact us or come to a meeting and let us know what kind of trip you would like to go on. 🚩

From The Secretary

By Kathryn Bowers



Minutes are on file for your viewing. 🚩



Webmaster

By Alex Fassas



No updates at this time. 🚩

From the Treasurer

By Dan Miller



2019 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 Report

Little Cayman

This should be a great trip with valet diving at your service. If you have never been to Little Cayman now is your chance to go. The dates are May 25th – June 1st.

You can find out more about this trip on the web site at [Little Cayman 2019](#). If you have any questions please email me.



Papua New Guinea

This trip will be one that people will be taking about for a long time.

We start out at the [Rapopo Plantation Resort](#) September 4th-12th 2019. This part of the trip includes 5 days of 2 tank dives.



On the last day, while letting our equipment get good and dry, we have arranged for a full day tour consisting of some of the local World War II sites. Some of the sites include Mt. Tarvurur Volcano, Admiral Yamamoto's Bunker, and the Japanese Barge Tunnel. These are just three of the several sites we will visit.

The second part of the trip is optional and starts at the end of the dive portion of the trip. It is a 5 day/4 night tour September 12th – 16th that includes two full days with VIP Passes to the [Goroka Festival](#).

We will also travel to the village of the [Asaro Mudmen](#) to spend the day with them.



The trip page is up on the web site and waiting for people to sign up. We already have four people confirmed with at least two more seriously considering it. We only have 10 confirmed spots. If you are thinking about this trip now is the time to sign.

I would like to thank everyone for all your support and help the past two years I have been on the board. Because of some things that have changed over the past year I am not able to continue on the Board.

The Trip Director spot is still open and really needs to be filled so the club has a person actively looking for new trips. If you would like more information about it please feel free to contact me or another board member.

Again, thanks to everyone for your support and encouragement of the past couple of years.

We are always looking for new places to go so if you have any suggestions, let me know. 🚩

Safety Information Director

By Bart Bertello



I Learned About Diving Safety from That

My mission is to provide you relevant safety information for your use. Each article will focus on a specific safety risk. I will draw from my experience, hopefully yours, and the dive community to highlight real risks that we must be aware of. So, if you see or hear of something that we could all learn from, please pass it to me. There is nothing like first-hand experience to drive a point home. This month's lesson is:



You don't want to visit!

DCS, it can happen with your computer GREEN

Most divers know about the dangers of Decompression Sickness. We invest in dive computers and rely on them to keep use safe. But the reality is a modern dive computer and the diver using it is a system full of variables and it is not foolproof. DCS events still happen and with some regularity; the annual DAN report is full of them. There are hyperbaric chambers at practically every dive location in the Caribbean. But you don't want to see one! Besides seriously endangering your health, a DCS hit will set you back \$5000 minimum just for the chamber. An air ambulance will run you \$20000 minimum. What follows is the recent DCS experience of one of our club members, who is sharing it in the spirit that it may keep you from having one.

It was a typical 5 day, 10 boat dives week in the Caribbean. Conditions, depths, dive times, and dive frequency were not unusual. Safety stops were always made. The only issue our diver had was her new thick booties kept floating her feet up, requiring her to constantly exert to keep them down. On Tuesday day three, after the second dive and sixth of the trip, our diver felt a pressure sensation and slight pain across her chest that came and went. Thinking she was just out of shape she shook it off. Several hours later that evening the sensation returned then abated. Wednesday day four, she felt fine and made both dives. But after the second dive, eighth of the trip, the chest sensation came back. She declined the night dive. On Thursday day five, she passed on the first dive but felt fine and made the final dive, her ninth of the trip. When she got on the boat after the dive, she knew something was wrong. She had a tingling in her extremities and her limbs felt very weird, like they were floating. A leg was twitching a bit.

Back on shore, our diver and her partner talked with the dive shop manager. He thought she had a DCS hit, albeit mild symptoms, and advised immediate chamber treatment. It was understood that DCS is truly a **better safe than sorry situation** and the risk of permanent neurological damage is real.

Safety Info Director Cont.

Needless to say, that was very distressing and more than a little scary for everyone. So they hopped on the golf cart and were rushed to the chamber which fortunately was nearby.

Our diver received the standard Navy Table 6 recompression treatment. It was not at all fun, sitting inside the chamber for 5 hours with a stranger and putting the oxygen mask on and off for extended periods. The chamber technicians, one inside and one outside, commented that it was a slow week, but the week before they had 3-4 people! Most of those divers probably had green computers too. Our diver made a full recovery with no long-term effects.

So how does this happen? Our diver's computer No Decompression Limit (NDL) scale stayed in the green for all her dives. Apparently, her computer was wrong FOR HER. In all likelihood, it would have been right for somebody else. But a better way of looking at computers, as their manuals emphasize, is that they are neither right or wrong, Functional computers provide data, or information, that is neither right or wrong. Is up to the diver to apply that information to their own particular situation and make the call. As mentioned earlier, there are many variables. Let's touch on the main ones that are associated with DCS in the recreational diver.



Physical condition. All the physical conditioning factors, such as respiration rate, heart rate, body mass index, etc. play a role in nitrogen absorption at depth. Recall that air is 79% nitrogen. If you are breathing in more

nitrogen into your blood, and your heart is pumping more nitrogen throughout your body, and you have more tissue cells loading up on nitrogen, then you have more nitrogen accumulation. Your computer won't know this is happening. Many computers though, have one or more personal Conservative No Decompression Limit Profiles. These optional profiles can be selected for divers who are not in ideal physical condition or just need to dive more conservatively for other reasons. Selecting a more conservative profile may keep you out of trouble.



Consider that the standard resort dive week was designed to accommodate and satisfy ALL divers, from the experienced athletic diver to the inexperienced out of shape diver. The DCS incident reports are full of people getting hit while their dive buddies making identical dives had no issues. If you are just getting into resort week diving, be cautious of your individual situation and adjust accordingly.

Exertion and exhaustion. For the same reasons given above, exertion and exhaustion can increase your nitrogen loading. If you're experiencing any exertion at depth during your dives for any reason, be cautious of this and consider diving more conservative and perhaps give yourself a rest by skipping a dive or two. You should never get exhausted at any time while diving for many safety reasons. If you find yourself getting run down, then you must reevaluate the total diving situation and not dive if prudent.

Safety Info Director Cont.

Alcohol, caffeine, dehydration. These factors are known DCS contributors and are usually in the mix during a vacation resort week. First, alcohol and caffeine are diuretics. Throw in high temperatures, sunshine, hot wetsuits, and drying wind and you have a recipe for dehydration. A dehydrated body is a body under stress and nitrogen loading will again increase for the same physical reasons. A dehydrated body may also not unload nitrogen as well as it should. Secondly, these substances, or any drug in your system for that matter, may also result in an elevated heart and respiration rates and increased nitrogen loading. If you are consuming these things during your trip, consider diving more conservatively.

Ascent rates. It seems that there is more attention being given to the criticality of slower ascent rates to prevent DCS. Nitrogen bubbles come out of solution only when there is a pressure change while ascending. If that change is slowed or made in small steps, the body can handle and gas it out easier. Try to start your ascents earlier and in a slow staircase fashion, step by step. Do not bounce up and down, even just a little. Stay constant and smooth. Watch and listen to your computer ascent rate scale repeatedly. Don't ever rush up, even for a short distance, to see something or to take a picture.

Finally, let's talk good buoyancy control. You're probably tired of hearing about it, but its importance cannot be overstated. Poor buoyancy control, meaning bouncing up and down, will greatly increase your chances of DCS after a week of diving. You should hit your BCD button and dump valve only slightly during a dive. If you are bouncing at all then it's time to practice off the dock or beach. Practice buoyancy control by breath only, which will give you slight and smooth ups and downs. (If you have never done this, start in the swimming pool.) Take your buoyancy control to an art form. And be sure you are properly weighted. Most people are over-

weighted as I've heard many a dive master exclaim.

How to Dive More Conservatively

Nitrogen loading comes from depth and time at depth; it's that simple. Either don't go so deep or go so long when you are deep. Watch your No Decompression Limit (NDL) on your computer. Most computers will have a green, yellow, red scale and a countdown clock. To dive more conservatively is to give yourself a greater safety margin. Keep the scale further in the green and more time on the clock. You'll notice that when you ascend, you will move further into the green and add time to your clock. This is especially important for the final dives of the trip where your computer is accounting for all the residual loading from your previous dives. If you have a more conservative profile selected you will notice the difference. This may just mean cruising above the group at 40 while they are at 50. And then staying above them all the way back to the boat. You'll also have more air left in your tank as a result of your shallower dive. Typically, you can find some great diving and plenty to see on a shallower part of the reef while the deep guys are heading for the boat. And stay on your safety stop longer than three minutes. Hang there and enjoy it till you take your tank down to your reserve.



That's about it. DCS should be in the back of everyone's mind while enjoying your diving and the week at the resort. Acknowledge your personal physical condition and listen to your body. Be very familiar with your computer and utilize its full potential. Dive more conservatively if you should. And lastly, master your buoyancy control.

See ya down there. 🚩

Bluegrass Dive Club 2019 Calendar

April

9, Tuesday Board Meeting
23, Tuesday Dive Club Meeting

May

4, Saturday Club's Derby Party
14, Tuesday Board Meeting
28, Tuesday Dive Club Meeting



June

11, Tuesday Board Meeting
25, Tuesday Dive Club Meeting



July

9, Tuesday Board Meeting
23, Tuesday Dive Club Meeting

August

13, Tuesday Board Meeting
27, Tuesday Dive Club Meeting
First person to tell me, gets a drink...



September

10, Tuesday Board Meeting
24, Tuesday Dive Club Meeting

October

8, Tuesday Board Meeting
22, Tuesday Dive Club Meeting



November

12, Tuesday Board Meeting
26, Tuesday Dive Club Meeting

December

TBA, Saturday Club Christmas Party