UNDERCURRENTS

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

May 2013 Volume 43, Number 5

May's Club Meeting

Date: Tuesday, May 14th
Time: 7:30-PM (business)
Social at 7
Location: The Racquet Club
3900 Crosby Rd.
Program: Whale sharks in Maldives.

President's Message

By Tracey Combs

By the time our May newsletter is available, we will have already met for the Derby Party. And we want to send a big Thank You to Mike and Sherry McCann for hosting the party this year.

The Dive Trip Committee will be meeting in early May to plan some future trips. If you have trip ideas or suggestions, please email Doug Geddes with the information. We value your desires to see new places and we want to hear from you. The Committee is also working on the Mystery Trip. Watch your inbox for details coming soon!

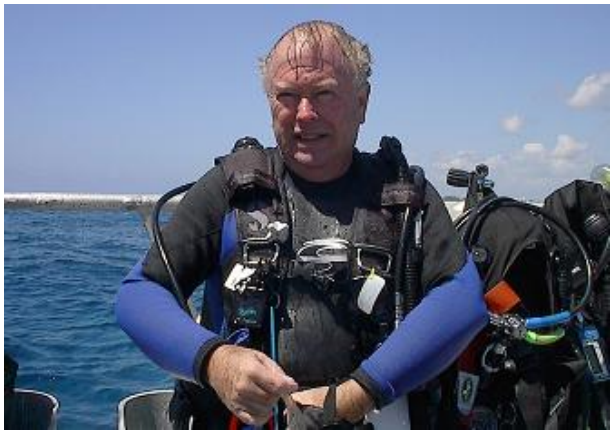
New Horizons has moved; have you seen the new location yet? They have some great weekly deals that are available in store only.

Our next meeting is Tuesday, May 14th. Everyone is welcome.

The Editor's Notes

By John Geddes

Here we have some more pics from Grand Cayman. This was a Great trip and I would go back in a minute, so enjoy the pics of what we had the pleasure to experience.



2013 BGDC Officer's

Tracey Combs, President	621-4066
Corrine Mulberry, Vice President	913-0892
Kris Harn, Secretary	278-4246
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

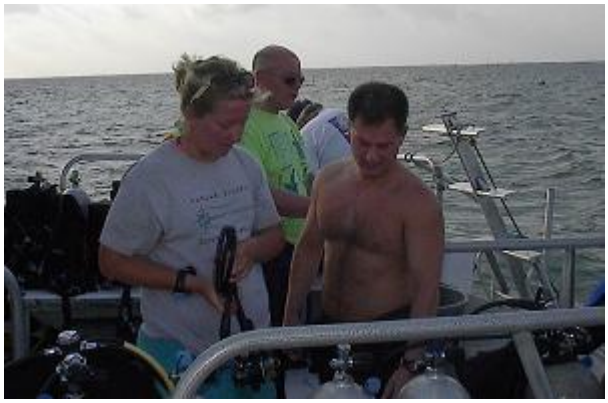
Vice President's Report

By Corrine Mulberry

Our May program is brought to us by members Steve and Tamara Williams and will feature their incredible whale shark encounter in the Maldives. Tamara gets up close and personal with a huge new friend.

If you have diving information that you would like to present at a Club meeting (past or potential dive trip, etc.), I would love to hear from you. Please contact me so that we can put you on the calendar. 913-0892 or scubagirl07@insightbb.com

New Members: **Brain Elkins** discovered the Bluegrass Dive Club online and came to his first meeting last month. Brain quickly joined the club and we are thrilled to have him as part of our diving family! Brian is in the process of obtaining is Open Water and Enriched Air (Nitrox) certifications. He and his wife reside in Lexington; Brian works in the field of corporate financing and accounting. He wants to meet people with common interests and learn more about diving. He hopes that a Bonaire or Caribbean dive trip is in the near future. In addition to diving, Brian is an active climber and has scaled Mt. Rainier and other summits. Welcome to the BGDC Brain.

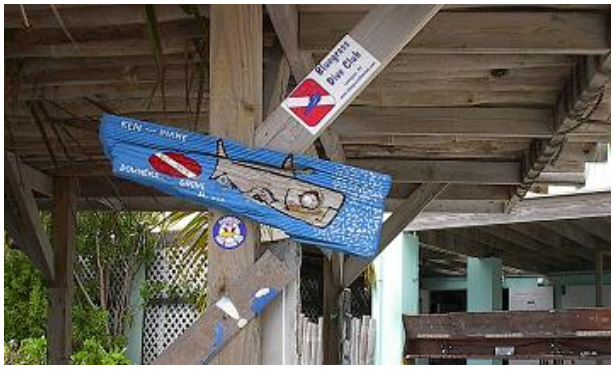


From The Secretary

By Kris Harn

BOARD MEETING
MARCH 26, 2013

Board meeting started at 7:41 pm. Tracey, Dan, Kris, Doug, Rick, & John were present. Dan gave Treasurer's report. Tracey gave report for Corrine on Membership. Rick's article will be on safety gadgets. John asked for newsletter articles on 03/28/13. Doug reviewed Cayman island trip and went over upcoming Trips. Meeting adjourned at 9:28pm.



REGULAR MEETING
APRIL 9, 2013

Tracey started meeting at 7:41pm. 23 people attended meeting. Dan gave Treasurer's report. Corrine announced new member Brian Elkins. Informed membership of Nitrox Training coming up. Date to be announced. Doug reviewed Cayman Island trip and upcoming trips. Steve gave update on his trip to the Maldives and Updated membership on Dive shop. Rick went over his article on safety devices. John announced newsletter is out. Mike went over compression, decompression facts. DVD on East Grand Cayman from Noel was shown to membership.

Trip Director's Report

By Doug Geddes

KEY WEST

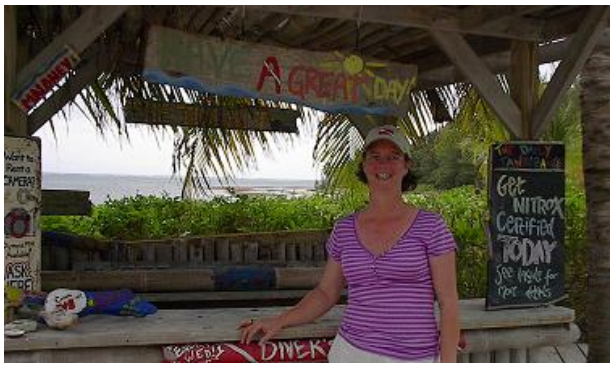
Since we didn't have the numbers we needed to make this trip work, the EC decided to cancel it as a club trip. Gordon Green is still going, so if you have an interest, you can hook up with him and do some diving. I know he would like to have a dive buddy.

DALE HOLLOW

We are looking for someone to take this trip over from John Geddes. His daughter is expecting around the same dates as the trip, so he can't commit on going until it gets closer. We just need someone to coordinate the boat, picnic and making it all work. If you planned on going on this trip and would like to take it over, please let John or myself know.

TRUK/YAP 2014

Boat is still full, but we only have one on the waiting list, so if you are still thinking about this one, it would be a good time to put your name on the list. No monies needed until you get an option to jump aboard. The next payment bill has been sent out, so please make sure and get it back to Dan by the due date.



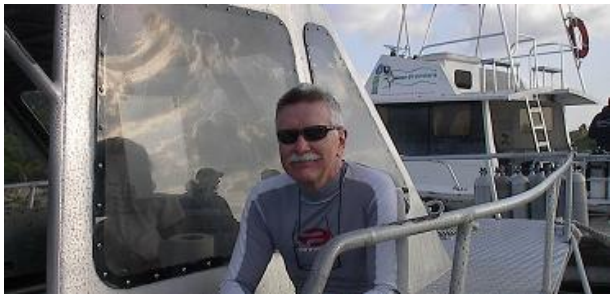
From the Treasurer

By Dan Miller

2013 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.

Safety Corner

By Rick Stephan

Note: *At last month's general meeting, there was some discussion about the benefits of Nitrox vs air in diving. Obviously to experienced divers, this discussion has been ongoing for many years. Truth be told, there are many reasons to dive with Nitrox, and some good reasons not to.*

This article came from About.com, and gives several points for each argument. When it comes down to it, it is each diver's decision on whether to dive with Nitrox. And the best, safest divers use all information available to help them make decisions. Read on then, to learn some of the pros and cons for going Nitrox. Remember,

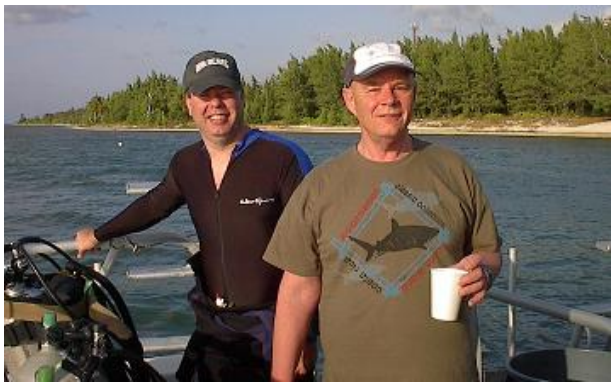
safe diving is fun!

Why Dive with Nitrox?
By Natalie Gibb

Question: Why Dive With Nitrox?

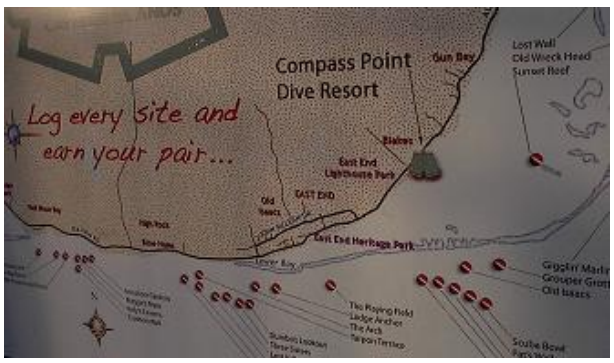
Answer: Here are five reasons to dive with enriched air nitrox:

1. Longer Bottom Times: Recreational nitrox (21 - 40% oxygen) contains a lower percentage of nitrogen than air. The reduced percentage of nitrogen in recreational nitrox allows divers to extend their no-decompression limits (or dive time) by reducing nitrogen absorption – the less nitrogen there is in a diver's breathing gas, the slower his nitrogen absorption will be at a given depth. For example, according to the NOAA (National Oceanographic and Atmospheric Association) no-decompression dive tables, a diver using Nitrox 36 (or NOAA Nitrox II) may stay up to 50 minutes at 90 feet of sea water, while a diver using air may only stay a maximum of 30 minutes at this depth.

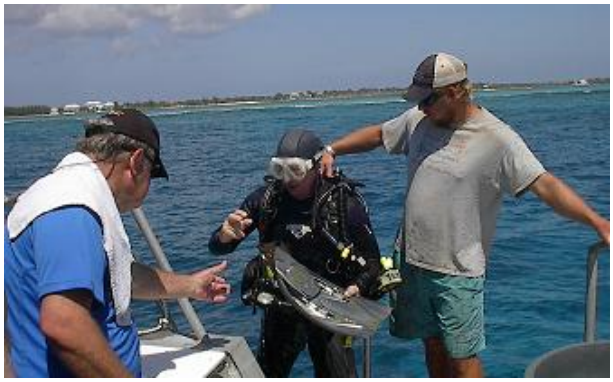


2. Shorter Surface Intervals: A diver using nitrox absorbs less nitrogen for a given depth and dive time than a diver using air. This means that the nitrox diver has less nitrogen to off-gas during a surface interval, which can shorten the required surface interval drastically. For example, a diver using Nitrox 32 (NOAA Nitrox I) can repeat a 50 minute dive to 60 feet after 41 minutes, while a diver using air must wait a minimum of 8 hours to repeat the same dive (using to NOAA's no decompression dive tables).

3. Longer Repetitive Dive Times: Nitrox becomes especially useful for divers who engage in more than one dive per a day. A diver using nitrox will have a longer allowable bottom time on a repetitive dive than a diver using air because the diver using nitrox has

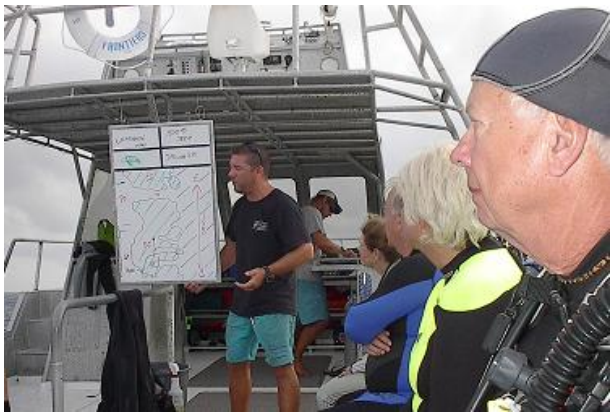


Safety Corner Cont.



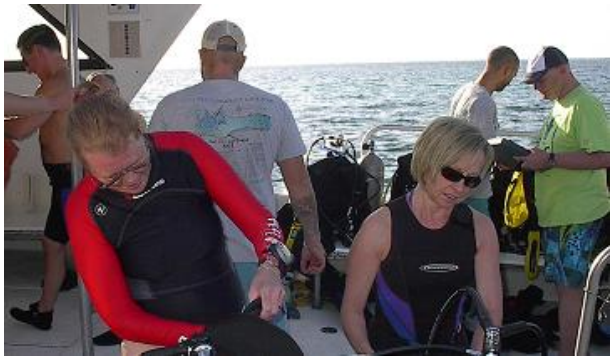
absorbed less nitrogen. For example, after a dive to 70 feet for 30 minutes, a diver using Nitrox 32 can stay at 70 feet for a maximum of 24 minutes if he immediately reenters the water. However, a diver performing the same series of dives on air may only stay at 70 feet for 19 minutes on his second dive (according to NOAA's no decompression dive tables).

4. Reduced Exhaustion: Many divers claim to feel less exhausted after a dive on nitrox than after a comparable dive on air. By reducing a diver's nitrogen absorption, nitrox may also reduce a diver's post-dive exhaustion.



5. Shorter Decompression: Technical divers use nitrox to reduce decompression requirements. If nitrox is used throughout the dive, the diver may require shorter or fewer decompression stops. If nitrox is used as a decompression gas (the diver only breathes nitrox during the decompression stops), the decompression stops will be shorter.

While there are many benefits to diving with enriched air nitrox, there are also limitations and risks. Consider the following seven limitations and risks of diving with enriched air nitrox.

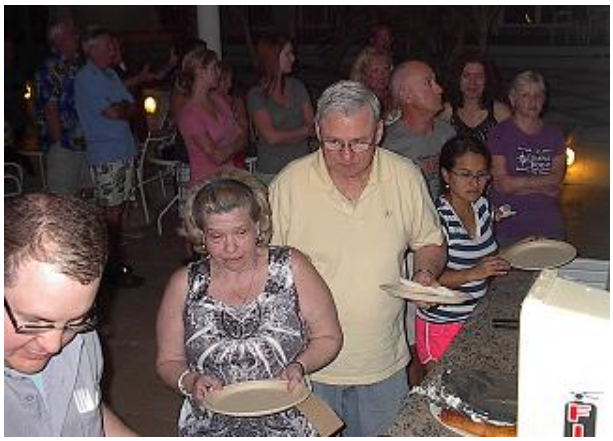


1. Enriched Air Nitrox Is Inappropriate for Deep Dives: The use of enriched air nitrox requires special training and procedures. Many divers immediately assume that this means that enriched air nitrox is used to dive deep, but nothing could be further from the truth. Because it contains a higher concentration of oxygen than normal air, enriched air nitrox becomes toxic at shallower depths than air does. Depending upon the percentage of oxygen, recreational divers will find that enriched air nitrox is most beneficial at intermediate depths, for example 110 – 60 feet.

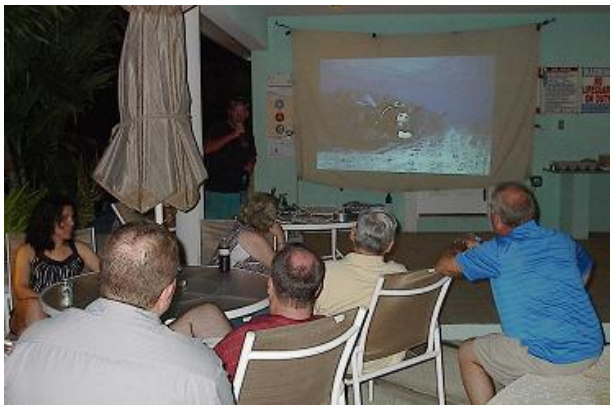
2. Enriched Air Nitrox Increases the Risk of Oxygen Toxicity: Oxygen toxicity occurs when divers are exposed to excessively high concentrations (or partial pressures) of oxygen. One dangerous symptom of oxygen toxicity is uncontrollable convulsions, which in diving usually leads to loss of the regulator and death by drowning. To reduce the risk of oxygen toxicity when using enriched air nitrox, scuba divers must monitor both their depth and total exposure to oxygen over a series of dives. Because an individual diver's tolerance to elevated concentrations of oxygen varies, training organizations set extremely conservative limitations for depth and oxygen exposure time when using enriched air nitrox. A diver who carefully follows these conservative rules has little reason to fear oxygen toxicity.

Safety Corner Cont.

3. Enriched Air Nitrox Requires the Use of Special Gear: A scuba diver who uses enriched air nitrox is responsible for personally analyzing the mixture of oxygen and nitrogen in his scuba tank using an oxygen analyzer. Many dive shops that offer enriched air nitrox allow divers to borrow the shop's analyzer, but serious enriched air divers will find it beneficial to own an oxygen analyzers. In addition, most areas of the world require dedicated enriched air nitrox scuba tanks, which must be decorated with proper decals. Dive computers that can be programmed for use with enriched air nitrox are also recommended. Recreational divers using enriched air nitrox mixtures of 40% oxygen or less can use their everyday regulators, but those engaging in technical diving with higher concentrations of oxygen must take special precautions.



4. The Risk of Explosion When Using Enriched Air Nitrox: In general, recreational divers who use enriched air nitrox containing 40% oxygen or less do not need to worry much about the risk of explosion. However, because the use of enriched air nitrox involves the manipulation of gasses containing higher percentages of oxygen (an extremely flammable and explosive gas) than normal air, some precautions are necessary. Pure oxygen is often used when mixing enriched air nitrox. Oxygen is either added directly to the scuba tank or mixed into normal air prior to filling the tank. Any equipment that comes in contact with pure oxygen must be “oxygen clean” – meaning that special lubricants and materials must be used to avoid an explosive reaction. Mixes of enriched air nitrox that contain more than 40% oxygen can only be used with regulators and tanks that are oxygen clean.



5. Enriched Air Nitrox Is More Expensive Than Air: To create enriched air nitrox, special procedures, analyzers, and other equipment must be purchased. Pure oxygen used for the creation of the gas can be quite expensive. For this reason, diving with enriched air nitrox usually carries an additional charge.

6. Enriched Air Nitrox Is Not Always Available: While enriched air nitrox is becoming increasing popular in recreational diving, not all dive shops and dive destinations offer it. Consider that even though a diver enrolls in a enriched air diver certification course, purchases his own analyzer, and is willing to pay for enriched air nitrox fills, enriched air nitrox is not always available.

7. Dive Planning With Enriched Air Nitrox Is Complicated: A diver who cannot be bothered with planning his no-decompression limit and maximum depth for a dive on air should think long and hard before pursuing a certification in enriched air nitrox. The safe use of enriched air nitrox requires more complicated dive planning than the use of air. After personally analyzing his tank, a diver must not only consider his nitrogen absorption, but the concentration (or partial pressure) of oxygen he will be exposed to and the length of that exposure. He must track the total oxygen exposure time over his entire series of dives (even if it stretches for multiple days).

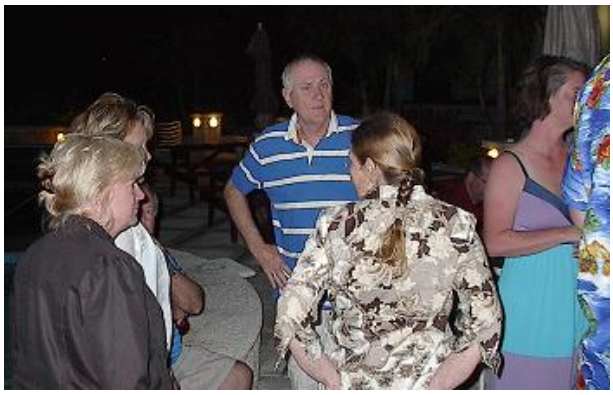
Bluegrass Dive Club 2013 Calendar

May

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

June

11, Tuesday Dive Club Meeting
25, Tuesday Board Meeting

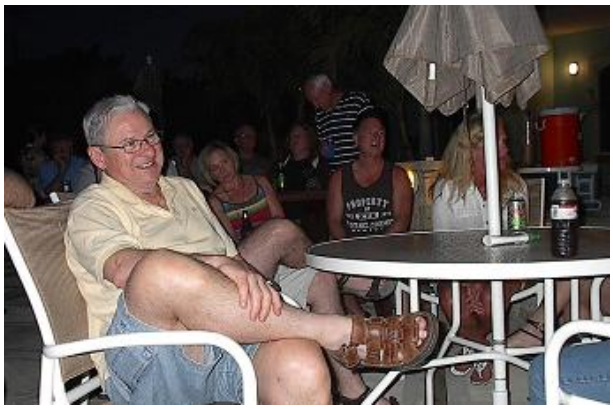


July

9, Tuesday Dive Club Meeting
13-14, Saturday Dale Hollow Diving
30, Tuesday Board Meeting

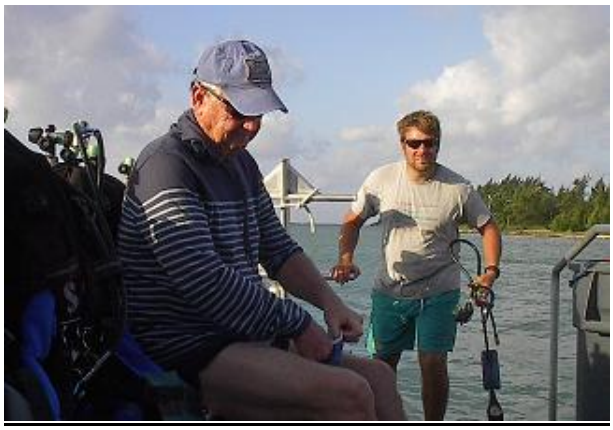
August

13, Tuesday Dive Club Meeting
17, Saturday Club Pig Roast
27, Tuesday Board Meeting



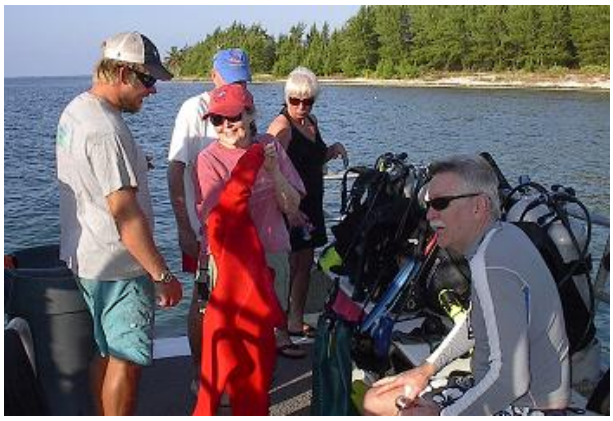
September

10, Tuesday Dive Club Meeting
24, Tuesday Board Meeting



October

8, Tuesday Dive Club Meeting
29, Tuesday Board Meeting



November

12, Tuesday Dive Club Meeting (Elections)
26, Tuesday Board Meeting