



# THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

On Location from: COJO Diving World Headquarters,  
158 Garden Grove Road, Lincoln, NB, Canada

ISSUE 35

## What's New

Merry Christmas and welcome to the December 2013 edition of The COJO Diving Safety Stop Newsletter.

November was a slow month as far as courses because COJO was away on some crazy excursions. Connie was in Florida diving Blue Heron Bridge again with Claire and Monica Schandel. The reason for the trip was also to hit DEMA 2013. COJO will be featuring some of the gear they added to the line up later in the newsletter but HOLY MAN was that a jack pot!!



November was slow because Joe was away with work for most of it and Connie was gone. COJO still managed to run a DAN DEMP course as well as an Information night for the Newfoundland Bell Island Wreck Excursion coming up this summer!! There are still spots so don't miss out!!

Doc Octo is back again with another awesome column on Diving in the Winter. It promises to Raise a Little Hell for sure!! Don't miss it!!

COJO encourages you to send in your pictures for the Photo Of The Month. If your picture gets chosen, your picture and name will be published in the Safety Stop and you could win a coupon redeemable for merchandise or services at COJO Diving.

If you would like to stop receiving this newsletter please reply to this e mail with "Unsubscribe Me" in the Subject Line

Thanks and Safe Diving!!  
Connie and Joe  
COJO Diving



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### Courses Completed During November

During **November**, COJO was working on the following courses:

- **PADI** Dive Master Course
- **DAN** DEMP Course



### Courses To Come

So far for **December** we have the following courses on the go:

- **9 Dec 13** – **PADI** Enriched Air Nitrox Course
- **12 to 15 Dec** – **PADI** Self Reliant Diver Course
- **16 to 22 Dec** – **TDI** Advanced Nitrox / Decompression Course





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## Excursions During November

During **November** Joe was away with work, but **Connie and Claire** were able to sneak away for another incredible week at **Blue Heron Bridge** in West Palm Beach, Florida as well as an awesome Trip to **DEMA**.

### FLORIDA REPORT – by Connie

This is the first year for COJO to participate in the DEMA conference in Florida! I decided to make a two-fold goal of it.. first, to spend a few days diving Blue Heron Bridge and become more familiar with that site and nearby facilities, and then to spend two days at the DEMA conference visiting our top suppliers and scouting out new ones.

#### Blue Heron Bridge

We chose Sunshine Shores (<http://sunshineshores.com/>) for lodging and rented a large 2-bedroom apartment. This was an excellent choice! Located on Singer Island (near Riveria Beach) it was a short walk to the beach, to the dive shop, and to several local restaurants. Our apartment was spacious, clean and decorated beach-style. Rates are reasonable, it was out-of-season so \$150/night minus a 10% diver discount. A one-bedroom apartment is \$100/night off season.

Pura Vida Divers (<http://www.puravidadivers.com/>) is the island dive shop and was extremely helpful. We reserved our tanks & weights well in advance. We wanted a night dive which is normally a sponsored event by the local dive shops, and none planned such an event while we were there. Pura Vida gave us a permit however to dive the park at night, so we were all set!

Blue Heron Bridge diving is accessed from the Phil Foster Park on Singer Island. This is all shore diving, and quite shallow.. maximum depth we reached was 20ft. Diving is done at either end of the bridge, with the parking/gear up area right in the middle. There are hazards.. divers must tow a dive flag and must be careful to stay out of the boat channel and away from the boat mooring areas. Diving is tidal, and preferably on the high tide for visibility.. and depending on your comfort for current you can start an hour prior to slack and stay for 2hrs or longer. Our longest dive was 2hrs 15min..! We found pipefish, frog fish, seahorses, a rather large electric ray, colourful nudibranch, moray eels (quite a few), and numerous other creatures and tropical fish. I still have yet to identify everything we found on those dives! .

I'm thinking to make an excursion every November to Florida for Blue Heron Bridge diving, so let us know if interested and stay tuned to our Facebook page for information!





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### DEMA 2013

DEMA is the Diving Equipment & Manufacturers Association conference where suppliers get a chance to present their product to buyers. It is not a consumer show. It is held in Orlando FL, and in alternate years in Las Vegas NV.

We were sponsored by Bare/Huish Outdoors so the fee for our passes (a \$300+ value!) was waived. I had meetings with our key suppliers including Aqualung, Whites and Bare, and visited several more such as Dive Rite, Spyderco, XS Scuba, Trident/Akona, Light & Motion, Suunto and more. I had a few more on my list that I wanted to line up as suppliers, and we have already started to bring some of those lines in including Fourth Element, Intova and Chammyz. I also visited with Equinox dive housings and love their design, expect to see me using one of those soon! I'm a long-time Ikelite favourite and we are still a supplier for those housings, but Equinox provides a very competitively priced option for SLR and video systems.



DEMA is not just about the exhibits and meeting with manufacturers, there are also numerous seminars (many "free" to attendees) which range from informational to product training. There were safety seminars put on by DAN (Divers Alert Network), product seminars from Bare, Aqualung, Suunto and more, and inspirational seminars such as the "We Are Water" presentation by Jill Heinerth. There is more to do than time at this show, and it can be quite exhausting!

DEMA will be in Las Vegas, NV in 2014. We may not attend that one, but instead try to go every other year when it is in Orlando.

If any questions on either DEMA or Blue Heron Bridge, just send us a note to [cojodiving@gmail.com](mailto:cojodiving@gmail.com).



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### EXCURSIONS TO COME

### COJO Christmas Party

Don't miss out on the **COJO Customer Appreciation Christmas Party!!** This year it will be on **13 December** at the shop. We will have refreshments and snacks as well as Christmas presents for all who show up!! It will be awesome!!





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### Christmas Tree Dive

**December** has typically been our month to enjoy all kinds of Christmas festivities and **this year is no exception!!** This year we will be hosting an **Underwater Christmas Tree Decorating** on 14 December.



### Cave Diving Excursion

**That's right!! COJO is headed back to Cave Country** to do some awesome cavern and cave training!! This year we will be completing a few **Cavern** certifications as well as some **Intro To Cave** with a few students!!! Our awesome Southern Connection, **Jim Wyatt** will be heading up the training and Joe will be there to carry his gear and get his picture taken!! After that, Connie is going to bring Joe for a couple dives at **Blue Heron Bridge!!** It promises to be an awesome **March Break Trip!!!!**





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### NEWFOUNDLAND 2014!!!

That's right, we are planning another trip to **Newfoundland** for July 20 to 27, 2014!!! If you have never been to Newfoundland and haven't been on these wrecks **now is the time!!** If you have been there, nothing more needs to be said!! It is **World Class Diving** and will be a **World Class Trip**.

We are still in the planning stages and we will need deposits quickly to get our spots but this will be the trip of a lifetime!! We will be offering several courses such as **Advanced Nitrox and Decompression Procedures**. Don't miss out!!

We have an information night scheduled for 19 November and as always if you are interested, send a note to [info@cojodiving.com](mailto:info@cojodiving.com) for details!!





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# Ask Doc Octo...

## Diving in the Heat of the Moment

Dear Doc Octo,

I'm not very happy with the thought of the warmer months behind us and diving in the winter wonderland. I love warm weather, cause I'm hot blooded (check it and see). What are some concerns for diving in the cold?

Signed,

A Foreigner



Dear Foreigner,

While it is no longer "hot, hot, hot" there is still a lot of great diving to be done during the winter. Interestingly, body temperature before, during and after a dive not only influences the pleasure of diving but also your risks of decompression sickness. However, while the news I'm going to give you will not make you "hot for teacher" it will shed some light on how temperature influences nitrogen on and off-gassing.

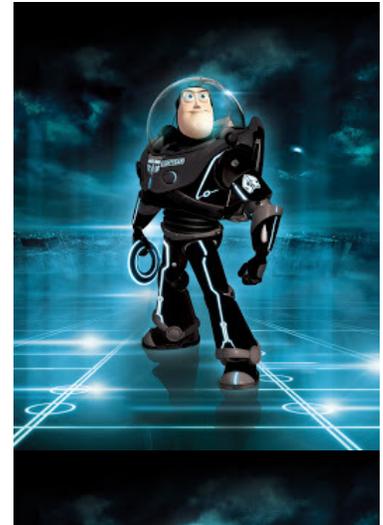


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Lets start with a review. As you recall, at depth the ambient pressure is much higher than at the surface. Since larger volumes of gas (relative to the surface) must be inhaled to fill your lungs you end up with nitrogen gas going into solution and into tissues. You may also recall that some tissues will pick up nitrogen gas quickly, while others take much longer. In fact, the mathematical models used in our dive computer use theoretical tissue compartments that simulate our real tissues. When you think about it, it's like there is a mini-me inside my computer. I encourage you to name your computer mini-me, mine is named John-Tron.

So what decides if a particular tissue will pick up nitrogen quickly or slowly? Well, one important factor is the amount of blood flowing to that tissue. For example, muscle and skin have a great blood supply and consequently take up nitrogen quickly. As you also remember, temperature has a tremendous effect on blood flow, particularly to skin and limbs. Remember that time you nearly froze your ass off waiting for a bus after the bars closed? Boys can be such jerks. So here is the good news; if you are cold and miserable before a dive blood flow is reduced to the skin and periphery, but so is nitrogen



uptake. Happily, less gas uptake means less gas to get rid of at the end of the dive. Less gas at the end of the dive means a decreased chance of decompression sickness. Misery, like virtue is its own reward. Lets look at the other side of this issue. If you vigorously warm before a dive you increase gas uptake at the beginning of the dive. Then as the temperature drops during your dive your ability to off-gas is diminished (because blood flow to the tissue is decreased as a result of lower temperatures). This is the double-whammy, more on-gassing early in the dive and then impaired off-gassing at the end. Here is another problem. Your dive computer (John-Tron to me) does not know (or care) that you just drank a hot coffee, poured warm water in your dive wet-gloves and drove to the dive site with the car heater on full. Nor does it care that near the end of the dive you were freezing. Remember, dive computers measure water temperature, but they don't use this information to determine deco-limits, nor do they know your body temperature. So your computer may greatly underestimate the amount of nitrogen you have taken on, and therefore greatly overestimate your no-deco time. How about another situation? Lets say the dive is done and you're freezing. Now you decide to jump into the COJO mobile hot tub (Connie doesn't know about this yet, so lets keep this one quiet). This turns out to be a really bad idea (and the



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cause of skin bends in field trials) and here's why. While increasing temperature does increase blood flow (which we all know is good to encourage off-gassing) it also decreases gas solubility. Remember opening a warm beer? "What a mess, I'm telling Mom". In this case, you induced bubble formation before the increased tissue blood flow could get rid of the nitrogen in solution. Another interesting part of this issue is the influence of exercise on the risk of decompression sickness. Turns out that pre-dive exercise (for reasons no one seems to know) is protective against decompression sickness. Increased exercise during descent however, increases blood flow and consequently the uptake of nitrogen. On the other hand, mild exercise during ascent encourages blood flow and therefore more effective off-gassing. Basically anything that increases blood flow at the beginning of the dive is bad and anything that increases blood flow on ascent is good. However, again for unclear reasons, vigorous exercise after diving increases DCS risk. Hydration is also an important factor. Theoretically, and in a perfect world you would be cold and dehydrated at the beginning of the dive (to prevent on-gassing) and warm and well hydrated at the end (to encourage off-gassing). The problem is you can't really take your camel-back and hydrate at depth. So being well hydrated before a dive is a great idea. Lets summarize:



**Pre-dive**; go ahead and exercise several hours before, but don't passively pre-warm. Do stay hydrated and plan to dive a conservative computer profile; leaving the bottom well before your no-decompression time runs out.

**Diving**; go slow on descent but it's ok to exert yourself at a safety stop or ascent.

**Post-dive** use only normal rewarming, no hot tubs or hot showers. Also, avoid strenuous exercise for hours after the dive. Finally, as Joe always says, "I love winter not only for its beauty but also for its positive effect on COJO dry suit sales". Most of this information was obtained by personal communication or in articles written by DAN research physiologist Dr. Neal Pollock.



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### December's Featured Course

## PADI Self Reliant Diver Course

The purpose of the **Self-Reliant Diver** specialty course is to recognize and accept the role of the buddy system and its contributions to diver safety while identifying and developing self-reliance and independence while diving. There are two reasons for an experienced diver to take the Self-Reliant diver course:

- To develop the skills of planning and carrying out dives without a partner when preferred or necessary.
- To sharpen skills of diving self-reliance, making the diver a stronger partner in a dive pair or team.

Course includes an evening of theory, and 3 open-water dives over 2 days. To enroll in the Self-Reliant course, students must be at least 18yrs old, have a minimum of 100 dives, and Advanced Open Water (or equivalent).



**ONLY \$300.00!!!!**



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### DECEMBER'S FEATURED PRODUCTS

#### COJO GIFT CERTIFICATES!!

Our **BLACK FRIDAY/WEEKEND** Special is 15% off COJO Gift Certificates until December 2 at 9PM!!

Our **GIFT CERTIFICATES** will continue on **SALE** for 10% until **CHRISTMAS**.

**CERTIFICATES** are purchased in \$50 increments and are good for any regularly priced store items. These make **GREAT** stocking stuffers!!





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### Photo of the Month

This photo was taken at Blue Heron Bridge, Florida, in early November by Dive Master Extraordinaire Claire Leblanc!!

She Wrote "I was on my last dive of the trip.. I was so excited to find my first sea horse ever that I took over 30 pictures! It was hiding on the underside of a sunken boat, not very far from shore. There was a second sea horse later into the dive but by that time my memory card was already full!".

For her awesome Sea Horse picture Claire has won 2 free air fills!!! Great Job Claire!!



Keep sending in those pictures!!



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### Other News

Our book "**Sidemounting for the Recreational Diver**" is available online or in our store. We kept the costs low and there are some fantastic lessons in it for all divers, not just Sidemounters.



We would love for you to follow us on Facebook. Become a friend of COJO Diving at <http://www.facebook.com/COJODiving>

Come in and visit us at the **COJO Diving World Headquarters!!** We have a beautiful facility with a nice fireplace to sit and warm up at after a cold day of diving. There is always lots of coffee and hot chocolate and Joe usually has fresh popcorn on!!

Thanks, **Merry Christmas, Happy New Year!!**  
Looking forward to diving with you soon!!

Connie and Joe!!