



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

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

ISSUE 53

What's New

Welcome to the **June 2015** edition of The COJO Diving **Safety Stop Newsletter**.

Spring is here and it is getting awesome for diving!!

May has been an **absolutely crazy month!!** COJO has been busy with Discover SCUBA Diving classes, Expeditions, Dive Masters and all kinds of courses!! COJO Instructor **Juanita** has been busy with Open Water classes and **Joe** with everything else!!



COJO's **DAN** Instructor **Matt Towns** has been busy teaching DAN Oxygen Provider courses as well!! Great Job to all and thanks to all Dive Masters for the support!!

Also during May, COJO held their **2nd annual Gear Sale and Swap Meet!!** There were tons of divers out for it and tons of savings!! Thanks to all who came out!!

COJO is still busy with the **Nature Trust of New Brunswick** planning and carrying out events!! This month COJO had an awesome Expedition Brief on the New River Island Expedition!! Special Thanks to **Michelle Richards** of **AKONA Adventure Gear** and **Emotion Kayaks** for the support for this expedition!! You are helping make it possible!!

Doc Octo is back with an amazing article on **Safety Stops and Deep Stops** when diving. This is a **MUST READ** for all divers!! Absolutely awesome John!!

Thanks and Safe Diving!!

Connie and Joe
COJO Diving



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Courses During May

What a crazy busy month!! During May, we ran all of the following courses:

- **PADI** – Enriched Air Nitrox
- **DAN** – Oxygen Provider
- **PADI** – Discover SCUBA Course
- **PADI** – Open Water Diver
- **PADI** – Advanced Open Water
- **PADI** – Dive Master Course



Courses To Come

During June COJO will be crazy busy running the following courses!!

- Continuing – **PADI** Dive Master Course
- 5 to 7 June – **PADI** – Rescue Diver Course
- 20 June – **PADI** – Discover SCUBA Diving
- 21 June – **PADI** – Discover SCUBA Diving (**TARA Manor**)
- 27 to 29 June – **TDI** – Normoxic Trimix Diver
- 21 June – **PADI** – Open Water (pool), **PADI** Discover Scuba
- 19 June – **REEF** – ID Course (NE Fish)
- 26 June – **REEF** – ID Course (NE Invertebrate and Algae)

All the way through to September will be absolutely **CRAZY** with courses. If you would like information on a course you don't see here or on our Training Calendar, contact us at cojodiving@gmail.com for more details!!



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EVENTS DURING MAY

COJO 2nd Annual Gear Sale and Swap

On May 10th COJO hosted their **2nd Annual Gear Sale and Swap!!** This event is quickly becoming a favorite for COJO Customers!! There were approximately 20 buyers and sellers throughout the event that came out and bought and sold their used gear!! **Thanks to all who made the event a total success!!**



EVENTS TO COME!!

Cleanup Dives in June

COJO is pleased to again partner with the **Fredericton Anglers Club** for a river cleanup dive! This year it will be held at the **Oromocto Marina** on June 18 @ 6pm. We have also been invited to Yoho Lake on June 7 to do a cleanup dive.. this one also comes with a BBQ!! Divers of all levels are welcome at these events. Gear rentals are 50% off the normal daily rate, and divers using their own tanks can come in for **free air top-ups afterwards!!**



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REEF - Great Annual Fish Count (GAFC)



Brought to you by the **REEF** Environmental Education Foundation, the **GAFC** is an annual event in July to introduce divers (and snorkelers!) to the need for marine life surveying, and education on marine identification and resources.

This year COJO is pleased to offer **REEF Fish** and **Invertebrate/Algae** identification classes in June!! These courses are **free** so a great education opportunity!! Check our calendar for upcoming course dates!!

This year there are **4 GAFC** events scheduled in July covering New River Beach, Beaver Harbour, Deer Island and Eastport ME. Check our calendar and watch for Facebook events for more details!!

PADI Women's Dive Day Event



July 18, 2015 is the **1st annual PADI Women's Dive Day!!** To all the gal divers out there, save the date!! We are planning a dive event to celebrate!!



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New River Island Exploration

This is going to be an awesome event!! Coming up in August 2015, **Akona / Emotion Kayaks** will be teaming up with **COJO** to support this awesome expedition!! COJO will make daily trips to New River Island to carry out **REEF** Surveys to determine the health of the island's marine life. This promises to be one of the most exciting expeditions of the year!! Send us a note for more information!!





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And Now, Doc Octo!!

**Stop in the name of love, before you
break my heart...**
(or fill it with nitrogen bubbles)



This month's column focusses on two common practices in recreational diving; the safety stop and the deep stop. As we will discover, the safety stop is always a good idea while the deep stop, well not so much.

As recreational divers we plan most of our dives to stay within the no-decompression limits set by our computers. We either limit our bottom time or our depth so that we don't have to make formal decompression stops on ascent. This is a wise practice, as decompression diving requires special training, equipment and carries an increased risk of injury. What you do need to know however, is that **your dive computer is a damn liar**. That's right, a dirty stinking liar. "Stupid lying computer, and you compass right next to him, you should know better." Your computer is a liar because even dives done within the "no-decompression limits" still require decompression. The reason for this is simple; when we breathe gas at depth we accumulate potentially hazardous nitrogen in our tissues. For a diver at 100 feet to take a normal breath, he must inhale four times as much gas. The consequence of breathing air under higher pressures is the increased uptake and accumulation of nitrogen in our tissues. Normally, we give up that nitrogen during ascent when the higher concentration of nitrogen moves out of the tissues, into the blood and finally is exhaled through our lungs. That's decompression, even though you weren't all dressed-up in fancy black tech-gear with extra tanks and spiffy trim. Every dive is a decompression dive; remember a great many recreational divers get bent diving well within the no-decompression limits.

So except for that time you put on your scuba gear to clean the dead leaves out of the kid's pool, we should agree that all dives are really decompression dives. In the mid-70s, scientists found that you could get a lot of information studying decompression practices by looking for bubbles found in blood vessels when divers ascend. Work done by Donna Uguccioni specifically looked at gas bubble formation when divers incorporated a *safety stop*. For clarity, a *safety stop* is defined (depending upon the computer decompression model or specific dive agency) as a stop during ascent at anywhere from 10-30 feet for 3-5 minutes. Uguccioni found a very significant reduction in bubble formation when divers ascended from a 100 foot dive if they stopped at 20 feet for 3 minutes prior to



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surfacing. Now all recreational dive agencies endorse the safety stop, so it's a bit of a no-brainer.

However, a common flaw in human thinking is that if something is helpful, doing more of it must somehow be better. This is where the deep stop story starts. Back in the mid 90s a biologist Richard Pyle noticed if he stopped after a deep dive at an intermediate depth, he felt better at the surface. From this observation and Doppler studies, some divers have adopted the practice of adding a deep stop of several minutes during no-decompression limit dives. The problem is that while you are hanging out at 50 feet being all tech for doing a stop that your computer didn't ask for, you continue accumulating nitrogen into the slower tissues. Unlike the safety stop where everyone agrees on its usefulness, the deep stop story is less clear. In some cases deep stops seem to decrease the risk of getting bent, while in other cases they actually increase the risk. The current thinking is that deep stops are probably only of benefit on certain dive profiles. This means that deep stops are really only justified if your computer is using one of the bubble decompression algorithms (like VPM or RGBM) and you are doing an actual decompression dive. However, the experts at DAN are in agreement that there is insufficient evidence to recommend a deep stop if your computer didn't ask for it. The expert consensus is to keep the ascent rate below 30 feet/minute, use a safety stop and don't get all fancy on us. So do what your computer tells you; because even though it's a liar, it's still smarter than you are.

The good thing about science is that it's true whether or not you believe in it."

— Neil deGrasse Tyson



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Featured Certification

PADI Master Scuba Diver



Join the best of the best in recreational scuba diving and live the dive life as a **PADI Master Scuba Diver**. The **Master Scuba Diver** rating places you in an elite group of respected divers who have earned this rating through both significant experience and scuba training. [Fewer than two percent](#) of divers ever achieve this rating. When you flash your Master Scuba Diver card, people know that you've spent time underwater in a variety of environments and had your share of dive adventures.

Every diver, who is at least 12 years old, should aim for Master Scuba Diver!

The path starts with earning a [PADI Open Water Diver](#) certification, followed by [PADI Advanced Open Water Diver](#) and [PADI Rescue Diver](#) (or qualifying certifications). You also need to earn five [PADI Specialty Diver](#) certifications and have logged a minimum of 50 dives.

Contact us for more information on how to start your journey to **PADI Master Scuba Diver!!**



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April to June 2015

FEATURED PRODUCT

REUSABLE UNDERWATER SPORTS CAMERA!!

Sign up for ANY course with COJO scheduled in April through June and get an INTOVA SS01 Sports Utility Camera with Flash for just \$13+HST!!

This film camera is **pre-loaded** and with a **100+ foot depth rating** and **built-in flash** it is great above and below water!!





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Other News

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

Our book "Sidemounting for the Recreational Diver" is available either In Store or by e-mail. For information about the most awesome way to dive send a note to info@cojodiving.com !!



Our new book, "The Technical Tao of Joe" will be out this summer!! Don't miss out!! This book gives you insights on Joe's ways of teaching. Awesome for anyone taking a course through COJO or from anywhere!!

19 & 26 June will be a REEF Surveyor course – this is a free course to teach divers how to identify and record marine life surveys for REEF.org. We will sponsor a GAFC (Great Annual Fish Count) dive in **July** at a **super secret** (OK, just yet to be determined!!) **New Brunswick Dive Site!**

Also starting in **June** we will be at the **Tara Manor Inn in St. Andrews** running monthly **Discover Scuba** courses!! Contact the **Tara Manor Inn** for more information and to Register!

Other Events coming up

June 3 – COJO Pro Review

June 7 – YOHO Lake Cleanup Dive

June 18 – River Cleanup Dive with the Fredericton Anglers Club

Thanks and we are looking forward to diving with you soon!!

Connie and Joe!!



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Parting Shot...



Our **Spring Open Water Class** graduated with flying colours!! Checkout dives for this course were held at New River Beach with instructor **Juanita Power**. Conditions worked out great for it!! Congratulations again to **Brittany, Wyatt and Tim** on a job well done!!

Our Summer Open Water Class is busy with their e-learning, pool dives are scheduled July in St. Andrews. Can't wait!!