



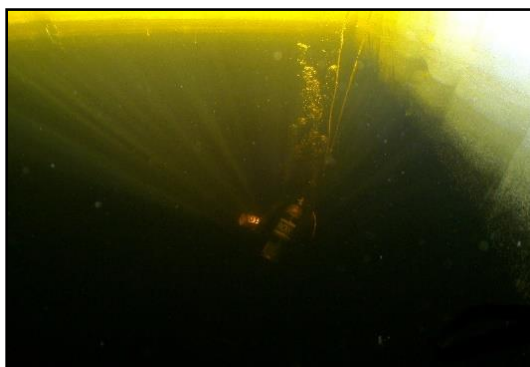
Introducing 2023

Wow! Only a month into the new year, and already so much to write about. Welcome to our first and very late quarterly! As promised, we have a lot more content than our shorter monthly editions. In fact, there is so much to read, let's cut the intro right here and start off with a list of what we laid down for January:

- [Hard Water](#) is not about calcium and magnesium. We open the newsletter with a little information about ice diving!
- [Scuba Pages](#) lists a few interesting and useful Facebook groups related to diving.
- Harbour diving is very popular this year, but it comes with some rules. [Rules for Harbour Diving](#) outlines what you need to do before plunging in at your favourite Halifax Harbour site.
- [Bits and Pieces](#) – PST tank news, gear service and a dive on the Halifax waterfront.
- It's getting closer to reality! Read the latest film festival news in [NSUC Ocean Film Fest in The Works](#).
- [Tales from the Idiot Box](#) presents three programs with SCUBA related content. Pirates, local wrecks and a documentary that will have you gripping your seat!
- [Vase Tunicates – Cionas intestinalis](#) - Greg Croft tells us about this common invasive species.
- [NSUC Website Update](#) introduces you to our new web page maintainer.

Hard Water

When the temperature drops, sea creatures slow down, ice cream headaches abound as we swap toques for hoodies and the lake surfaces freeze over. Get the skates! Snore. More like grab the saw and cut a triangle out of the ice! For those winters that get cold enough, the low temperatures bring us the short lived, but exciting opportunity of ice diving. It might sound boring - after all, what is there to see other



*A diver descends through the hole on Lake William.
Photo by Cliff Andrews*

than an ice ceiling and dark, tannic lake water (I hear quarries are much brighter, though!). But it is actually a remarkable experience when you think about it: you drop into a hole with your buddy and descend through the water until you are just under the ice. The first thing you notice is it is not as dark as you may have thought. Lake water is certainly dark, but lots of light does pass through the ice, even thick ice. Grasping the safety line and moving away from the opening, slide your hand along the underside of the ice and marvel at the smooth, almost frictionless sensation. Look around at the ice above you and watch for silvery, mercury-like puddles collecting

where ice meets water. It takes a few seconds to process what the eyes are telling you, but your mind eventually sorts it out and you realize they are just shimmery pockets of air. Of course, for some, ice diving has a bit of a fear factor – it is an overhead environment with no direct access to the surface and



that can be unnerving. However, be assured that while you are out there under the ice, a team is around the hole working to keep you safe. A fully geared safety diver situated at the entrance is ready to go in an instant and surface tenders are in constant communication with you via the safety line using a standardized sequence of line pulls called 'bells'. As with any other type of diving there are risks involved, but a number of safety protocols are employed to ensure divers have a fun and safe dive. Ice diving must never be attempted without the proper training and gear. Courses will teach you how to use rope as a safety line and communication device, how to create a "map" to the entrance hole using snow cover, search methods and other rescue procedures and much more. You will even learn why a triangle is used instead of a circle or square! If ice diving interests you, contact your local dive shop to learn more about it and the courses they offer. For those of you already certified and want to get one in under the ice, keep watching the local dive club pages – once the ice forms there is sure to be a dive planned. During courses, the last day is sometimes opened up to all divers who are trained in ice diving, but check with the shop first.



Divers approach the entrance in the clear water of Walton Quarry. Photo by Wayne T. Joy

Finally, here is a little video produced in Finland to whet your appetite for an icy adventure. <https://www.youtube.com/watch?v=VlsooQjiJZQ>. Hats off to anyone who can pull this off without falling up!



Ken DeBoer sizes up an ice block cut from Lake William, March 2015. Photo by Cliff Andrews



Dive team preparing to dive on Lake William: One diver and instructor in water ready to go. Seated diver almost ready and connected to safety line. Safety diver will be in full gear and seated next to the dive tender (red hat). Photo by Cliff Andrews



SCUBA Pages

There are countless websites, YouTube channels and social media groups out there devoted to underwater sports. Too many to list in a single newsletter, but occasionally we will put down a few links for you to check out, in case you have not already joined them. If you are not already familiar with them, take a moment and check out these Facebook groups.

[Scuba Accidents and Risk Management Techniques for Divers](#) – A group where divers can discuss actual accidents, ask questions, seek advice, discuss risk factors, etc. Respectful dialogue is strongly enforced in this group to ensure that it is a supportive environment. Read the 'About' section to learn more about this group and its rules.

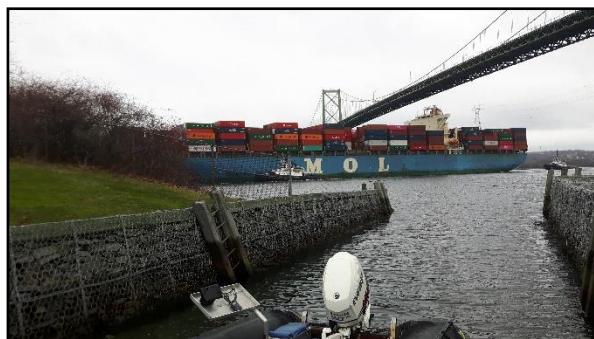
[Ontario Scuba Swap](#) – This page always has a lot of great used gear for sale. It is based in Ontario so sellers may not ship to Nova Scotia, but some do offer or are open to it if you cover shipping costs. If you are travelling to Ontario, be sure to check it out in case anything is available near your destination.

[Nova Scotia Scuba Gear - Buy & Sell, Trade, Free, Lost & Found](#) – Closer to home, NS Scuba Gear is not just for buying and selling SCUBA gear in Nova Scotia, but trades and give aways are also welcome. Lost or found items can also be posted in the group.

[Canadian Diver](#) – This is a "Group dedicated to exploring the wonders of diving in Canada.". You won't find any gear for sale here, but they have a lot of interesting posts about diving in Canada, along with some great pictures!

Rules for Harbour Diving

The cold, blustery days of winter do have a silver lining. While commercial and naval shipping continues all year round, pleasure craft traffic is greatly reduced, making it safer for divers. If you have been



A large container ship passes the entrance of the popular Africville dive site. Photo by Cliff Andrews

fortunate enough to dive from a boat in Halifax Harbour you are likely aware the dive must be approved by the Halifax Port Authority (HPA). But, did you know shore divers also need permission? The HPA is required by law to adhere to and implement the [Canada Marine Act](#) and its annex, the [Port Authorities Operations Regulations](#). The Act is intended to make Canadian ports competitive, efficient and commercially oriented. In short, commercial traffic, environmental protection and safety of **all** who use the harbour are priorities for HPA.



Divers must advise Marine Communication and Traffic Service (MCTS) upon commencement and completion of diving operations over VHF Channel 12. Most shore divers do not have access to VHF radios but the MCTS has accepted notifications via cell phone. For all types of recreational harbour diving, a request with all information regarding the dive must be submitted to the HPA well in advance of diving. The HPA will respond with their decision and instructions for required communications. Factors affecting approval include but are not limited to: impact to safety or health of those in the port, interference with navigation and other authorized activities, obstruction of any part of the port and adverse affects on port operations. The full list can be found in the Regulations.



Zodiac divers on their way to an early morning dive in The Narrows. Photo by Cliff Andrews

Here is a summary of the requirements for harbour diving, but for official guidance refer to page 63 of the [Port Information Guide](#).

- All diving operations within the jurisdiction of the HPA must be pre-approved by the HPA
- Authorization is to be sought from the HPA Operations Department via Port Control
- If you do not have access to Port Control, send a general inquiry to ops_pmis@portofhalifax.ca
- Requests should be sent within regular working hours Monday – Friday
- Minimum of 24 hours notice
- If MCTS receives a report from anyone, other than military sources, reporting diving operations that are not preapproved, they shall be informed to contact the HPA for approval ASAP
- It is the responsibility of the divers involved to ensure that MCTS and HPA are informed when diving operations commence and are completed

The HPA is transitioning away from email notification to a more efficient online system called PortControl for those who use the harbour frequently, including divers. Similar to email requests, if you are diving in a group, a single submission on behalf of the entire group will suffice. Those who use the harbour infrequently (once or twice) can continue to use email rather than getting set up on the system. The HPA is holding an online training session for the system on Wednesday, February 1 at 10:00am – 11:00am. If you **frequently** submit approval requests and would like to participate, please send an email to secretarynsuc@gmail.com (I am awaiting confirmation, but have been asked to forward names, rather than provide a contact name).

In the meantime, and for those who will continue to use email, here are a few examples that can be used as templates. The first is a request for a boat dive, provided by the HPA which can be used as a framework and adjusted to fit your dive plan:

"Requesting permission to dive the Harbour in the vicinity of the Narrows on Monday the 3rd of January 2022 from 0900-1300.

Each vessel will have a VHF radio and maintain constant communications.



We will phone in at the start to confirm nothing has changed with traffic.

We will radio in at the commencement and conclusion of diving.

We will display a dive flag in each boat.

Each diver will have a marker buoy and a tender in a boat."

This example is an actual request used recently for a shore dive at Africville boat launch:

To: *ops_pmis@portofalifax.ca*

Subject: *Notification of Recreational Night Dive at Africville Boat Launch*

This e-mail is to advise of a planned night recreational dive at the Africville Boat Launch tonight at approximately 1715 hrs.

The dive plan is to enter and head due east to 60 foot contour and then head into the basin at that depth for about 100 yards before returning to the boat launch at the 40 foot contour line.

Dive marker will be deployed on return leg or earlier if boat traffic is heard.

We do not have VHF radio but can be contacted at 902-123-4567 before and after the dive.

<Diver name>

902-111-1111

Note: In the event of a conflict between the information in this article and the Port Information Guide, the guide shall supercede this article.

Bits and Pieces

PST Steel Tanks and Equivalency Certificate

The Equivalency Certificate issued by Transport Canada allowing for PST tanks to be tested and filled expires June 30, 2025. Unfortunately, if the permit is not renewed, the tanks cannot be legally filled or hydrostatically tested. However, the certificate has been renewed in the past (current certificate was issued in 2020) and it is hoped it will be again. There's not really anything anyone can do other than wait and see, but it's something to keep in mind for those of us who own PST tanks.

Winter is the Perfect Time for Gear Service

We all face the prospect of missing a dive or two when it comes time for yearly regulator service. It's something that must be done. Your safety depends on it (along with maintaining the condition of your regs). However, rather than being left behind on the beach on that perfect day, consider beating the spring rush and drop them at the shop during the winter months. You might still miss a dive, but considering the crazy weather we get around here, there's a good chance it will be skunked by a storm anyway. And then, once it's done you can look forward to an uninterrupted spring to fall dive season!



Stairway to Water

It finally happened. The first thought that went through most every diver's mind upon seeing the Queen's Marque stairs on the Halifax waterfront was surely, "I must dive here!". With some planning and the acquisition of the necessary approvals, a group dive was organized not once, but twice! The first was a night dive on January 12, and the second was just this past Saturday, January 28. While the events caught the eye of many a passerby, the real action was under water where divers caught a glimpse of a diverse array of creatures that call the harbour 'home'. However, the stars of this underwater show were the countless nudibranchs making their way across the silty bottom, over rocks and climbing old wooden pylons.



Shag Rug (Maned) Nudibranch and eggs inside a mussel shell. Photo by Hunter Stevens



Red Gilled Nudibranch. Photo by Hunter Stevens



Tubularian Hydroids, food of nudibranchs. Photo by Hunter Stevens

NSUC Ocean Film Fest in the Works

(Alanna Canaran)

We are excited to announce that the NSUC will be hosting an Ocean Film Fest on September 15, 16, and 17, 2023. This will be the first of hopefully many NSUC Ocean Film Fests to come! We are designing a safe and accessible festival to help bring the community together to celebrate the underwater world of Nova Scotia and beyond. This 3-day festival will be the ultimate gathering of ocean lovers and storytellers to share their unique relationship to and knowledge of the ocean. The NSUC Ocean Film Fest will include ocean and diving documentaries, short films, and episodic content. We are planning to host film viewing mixers, discussions with filmmakers and scientists, fun activities, and ocean education. Stay tuned for more information. Please let us know if you would like to be involved. Send your interest to volunteer to our regional director Alanna at alannacanaran@gmail.com. We are looking for volunteers to help us plan, fundraise, and help with the logistics of the in-person event



Tales from the Idiot Box

Secrets of the Sea

Bell Aliant recently released Secrets of the Sea on TV1 and their Bell Fibe Tv App. Hosted by local diver and past Jane Biggs Award recipient, Tony Sampson, the four-episode docuseries explores various Nova Scotian shipwrecks. Each episode focuses on a different wreck: SS Atlantic, Clare Lilley, Young Teazer, and the Ghost Ship of Northumberland Strait. You can read a synopsis of each episode here on [Bell's website](#). There is a possibility for more episodes or seasons. It is unclear if it will be available on other platforms, but for those of you who subscribe to Bell it is sure to be an interesting watch.

Last Breath

In 2012, saturation diver Chris Lemons was working at a depth of about 100m in the North Sea when his support ship's Dynamic Positioning System failed during a storm, severing his umbilical cable. This 1.5-hour documentary includes commentary from Chris' friends and colleagues as it recounts the intense search for the lost diver. It's a gripping story that will even leave non-divers on the edge of their seat! Last Breath can be viewed on Netflix.

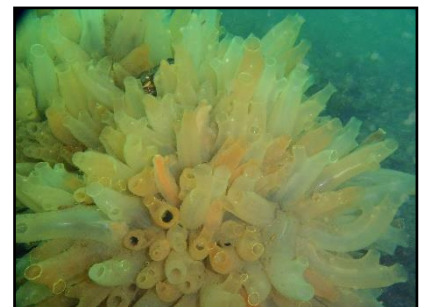
Beyond Oak Island

The brothers who brought us 'The Curse of Oak Island' continue their search for treasure in 'Beyond Oak Island'. Now in Season 3, the series follows the Lagenas as their crew explore treasure sites around North America. It airs on the History Channel and is available on various streaming services such as Prime Video and Apple+. Some short clips can be found on YouTube as well. Although the series is not entirely devoted to the underwater world there are several episodes involving sunken treasure. In Season 3 they join Mel Fisher's family in their hunt for emeralds and coins on The Atocha, a Spanish galleon discovered by Fisher in 1985 off Key West, Florida and loaded with millions in gold, silver and emeralds. In Cape Cod, the crew explores the remains of the Whydah Gally, a passenger/cargo ship captured by pirate Samuel Bellamy and then wrecked in 1717. Closer to home they visit Newfoundland's Oderin Island to search its waters for the hidden treasure of pirate Peter Easton. The dry episodes are very interesting too, but the ocean is where it's at!

Vase Tunicates – *Cionas intestinalis*

(Greg Croft)

These semi-translucent finger shaped tunicates with an excurrent and incurrent siphon rimmed in yellow are thought to have originated in the Northeast Atlantic. Their main body is smooth and slightly translucent so that you can see some of their internal organs. They are filter feeders filtering out plankton with a basket like mesh structure leading to their gut. They are actually solitary, and grow up to 15 cm long. They can form dense aggregations but always have to attach to some solid, hard structure be it natural or man-made. This clumping behaviour makes them a major fouling organism.



Vase Tunicate aggregate. Photo by Greg Croft



To reproduce, they produce eggs and sperm that are released into the water. The small free-swimming juveniles only stay mobile for one to 6 days before setting down on their head and attaching. This short time span restricts their speed of spreading. They have a rudimentary backbone, so are actually chordates - an animal with a spine.

Invasion

The earliest records of the Vase Tunicate are from the US in 1850, but it has been documented off and on in Canada for 100 years. The Vase Tunicate was first documented in Newfoundland on September 19, 2012 during a DFO wharf survey in Placentia Bay. Where they have moved into the Maritimes, they can impact mussel farms by stripping the water of plankton, and growing in such large aggregations that they sink mussel lines they adhere to. They also attach to boats - any solid thing left in the water!



Vase Tunicate close up showing siphons and some internal organs. Photo by Greg Croft

In warm, shallow waters they can live 12 to 18 months and reproduce twice a year. Colder and deeper water extends their life span, but reduces their reproductive rate to once a year.

Dispersal and colonization is mainly facilitated by adhering to barges and slow moving vessels rather than swimming as juveniles. We spread them from harbour to harbour as we carry new colonizers on hulls and buoys. The Vase Tunicate is considered the most problematic invasive tunicate species in the maritime provinces.

Where to Find Them

Diving locally near Halifax, we've seen concentrations of Vase Tunicates on buoys and buoy lines, wharves and floating docks in many dive sites: the wharf at Mill Cove/ DeWolfe Park in Bedford, Princes Lodge, Africville, Black Rock Beach, The Dingle, Prospect Community Wharf, Sambro Harbour, and Hubbards Yacht Club. At Armdale Yacht club they can be found clumped around and under the floating docks. They are the most common invasive tunicate in this area

This is just one of several invasive species in Nova Scotian waters. The DFO booklet, [Aquatic Invasive Species](#), provides more information about this and other invasive species.



The siphon's yellow rims stand out from the clear body of these tunicates. Photo by Wayne T. Joy

Divers can help track the spread by reporting the locations where you encounter these species to XMARinvasive@dfo-mpo.gc.ca



NSUC Website Update

Success! We found someone to help with the website. Denis Gallant accepted the challenge to address the issues uncovered during our testing and to make some improvements. We will be meeting with him to review the current issues along with our hopes and dreams for the website. Welcome aboard Denis!

What's Happening Out There?

Are there any events or activities taking place in the upcoming months you think might be of interest to the underwater community? If you would like get the news out there let us know and we can post it in our newsletter. Just send your idea to any of the email addresses below and we'll get in touch.

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