



Sea Swells



Our 49th year serving the local and northeast dive community !

The Anchor Line



Hello TSSC and welcome to Spring!

I think most would agree those in the Northeast skated by on a quiet winter season. We do not have much to complain about in the way of snowstorms and problematic travels due to weather. Nevertheless, out with the cold and hopefully in with the warmer weather!

I know many of you are on top of your annual scuba gear maintenance and use the cold months to get regulators serviced, tanks inspected, batteries replaced, and the like accomplished. Perhaps you are more like me and it takes that first week of nice weather to get motivated. So, please allow me to provide that public service announcement...get out to see your scuba professionals and let's get that gear tuned up.

The club was hot out of the gate again this year. Clearly Jack was feeling coupé up in the home and a trip to Cozumel took shape. I unfortunately was unable to join this one, which really is a bummer as Cozumel is one of my favorite diving destinations. Fortunately, many members were able to join and kick our 2024 dive schedule off. If you were like me and missed this one, there are still several trips ahead this year. In the blink of an eye the club will be touring Dubai/UAE and diving in the Maldives. Now this sounds like a fantastic trip, and I am excited to hear about it. A trip to Cuba is planned this summer and I would not be surprised if a trip this Fall is to develop as well. If local diving is of interest to you, a sub-committee is currently pulling together details for one if not two mini-trips (think weekends) this Summer.

Aside from trips, there will be numerous opportunities for us to connect outside of our monthly membership meetings. We've recently held two deco stops for engagement purposes and another is fast approaching. The annual Beneath the Sea (BTS) scuba trade show is taking place March 23-24 and as we normally do, the club will have a booth to represent the "good" we do and introduce ourselves to potential new members. It is always great to see our members at the show and have a strong presence in attendance. I kindly ask that if you have the time, please come out and attend a portion of the show.

Well, enough from me at this point. I encourage you to click into the newsletter and get a deeper appreciation for all that the club has been working on over the last few months. Thank you to the board of directors for all you are focused on and the membership for helping us continue to grow and develop. I look forward to sharing more soon!

All the best,
Gene J. Miceli
President



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Editorial Meanderings

Vernal Equinox Notes



Orion Constellation



Vernal Equinox - Tuesday, Mar 19, 2024, 11:06 PM

Sunrise 7:00 AM , Sunset 7:07 PM

Say goodbye to the Winter Stars. This month, the Winter Triangle of stars slowly descend to the horizon till next October. Look for them just after sunset. But hurry they will be almost gone by the beginning of April.

The trio of stars (Betelgeuse, Procyon, Sirius) that mark the points of the Winter Triangle belong to three constellations: that of a hunter and his two faithful hunting dogs. The constellations are Orion (the "Hunter"), Canis Major ("Big Dog") and Canis Minor ("Little Dog"). The Winter Triangle contains a special attraction – the Milky Way! A portion of the Galaxy's band passes through the middle of the triangle.

How to Use Star Navigation in both Hemispheres

These stars are among several stars that are visible in both the Northern and Southern Hemispheres. For example, Sirius (the Big Dog Star) is the brightest star in both hemispheres. You can use this star to locate south by drawing an imaginary line from Sirius to the horizon and noting where it intersects with the horizon. This will be south! Orion's Belt is also visible in both hemispheres. In the Northern Hemisphere, you can use this constellation to locate the true north by drawing an imaginary line from Orion's Belt to the horizon. In the Southern Hemisphere, you can use this method to find the south by doing the same thing: draw an imaginary line from Orion's Belt to the horizon and note where it intersects with the horizon.

Finding East or West at the Celestial Equator

Locate the star Mintaka in Orion's belt. The torso of Orion resembles a bent hourglass, and Orion's belt consists of 3 stars: Alnitak, Alnilam, and Mintaka. Mintaka is the rightmost star in the belt and rises and sets within a degree of true east or west

Harbor Seals Celestially Navigating?

To investigate their potential for steering by the stars, in 2006, German and Danish scientists placed two captive harbor seals from the Marine Science Centre in Germany in a specially constructed floating planetarium.

The team trained the two pinnipeds, named Nick and Malte, to swim in the direction of specific lodestars, and then discovered the animals could identify a single star out of a realistic projection of the Northern Hemisphere night sky, according to a 2008 study.





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The 2024 New Board & Directors Slate



	Gene Micelli	◆ President	
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	Sheri Buchman *	◆ Treasurer	
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	Niels Ebbeson	◆ Program Director	
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We encourage Club members to join the Leadership



Sea Swells



Disturbed in Cozumel by Melissa Lonquich



A super fun group of 12 TSSC members ventured to Cozumel, Mexico, for an extended weekend in January. About half of us stayed an extra day; one member expanded it into a family trip when we left! For two of our newer members, this was their first time traveling with us! Our infamous members from Oklahoma were able to join us as well, and it's always a blast when Mike and Ron are around! Many of us came from different starting points, had different layovers or different airlines altogether. Still, after a few snafus, we all eventually arrived at our destination, ready to start our journey together!

Like many all-inclusive resorts, there were pros and cons to that style of vacationing. The resort was designed with bungalow-style rooms, which were incredible, especially compared to the more prominent, building-style resorts. Along the grounds were all sorts of animals roaming free, such as peacocks, lizards, flamingos, macaws, and the kudamundi aka the Mexican "raccoon". As cool as it was seeing beautiful peacocks in the wild, it was definitely NOT cool that they seemed to LOVE staying on the roofs of the bungalows at night, screaming their heads off! Somehow, I seemed to be the only one being woken up by them... such is my luck!

Just like every other all-inclusive, it's nice to be able to eat and drink whatever you want without worrying about the bill. However, the drinks left a lot to be desired (that is until we figured out that they make decent mojitos, so that became our go to drink of the week). The hotel offered a few themed restaurants with very limited reservations available. However, the buffet had a MUCH better selection/better tasting food. There were many things to eat, no matter your personal preference.

Now for the diving... although I had been to Mexico many times, this was my first time in Cozumel. I was very excited after many years hearing from fellow divers about all the amazing things there are to see while diving in Cozumel. Now that I finally went, I'll be honest: I'm not sure I agree! (Or at the very least my personal experience didn't live up to the hype.)

The first day of diving did not go as planned or expected at all! There were many things (some big, some little) that could have and should have gone better. Our boat did not arrive until midday. We sat and watched all the many other groups leave before us (some back before we had even left the dock). We had a few divers who weren't allowed to join us right away for various reasons. Once our boat came, we quickly realized it wasn't properly suited for the amount of people we had (which would have been an even bigger problem if everyone that was supposed to dive were also on the boat.)





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We were told in the morning that there would not be enough room for two tanks per diver on the boat, so we would have to go back to the shop and swap them out between dives. As inconvenient as that sounded, they said it was pretty standard for them. When the boat finally arrived, there was such a strong current that it took the captain many attempts to dock it, but we finally got on and were ready to dive... or so we thought!

Long before initially leaving the dock, the discussion of weights came up, and we had asked the dive guides if they would like to know how many weights we each needed. We were told it wasn't necessary since the boat would have more than enough weights. Well, there were not! A few of us (and one of the guides) did not have any weights at all! We had also discovered pretty quickly that they had not put enough tanks on the

boat for each diver to have one (and out what was there, some were significantly short on air as well.) So, instead of just coming back between dives, we had to come back before the first dive even started to get these things figured out.

A few of us choose not to go on the second dive that first day, after being completely wiped out by all the issues of the first, so we sat that one out. The late start also made it so whoever wished to do afternoon dives were not able to since they still had their second morning dive to finish. Those of us that only went on the first dive washed our gear, showered, ate a leisurely lunch before the dive two group returned.

While waiting for them to return, we had noticed that the dock had been roped off due to the increasingly bad water conditions, so we had assumed the boat had already returned. That is until we noticed one of our divers walking towards us, in full gear, from the direction of the lobby, NOT the water! It turned out that it had been so difficult for the boat to dock at our resort that it had to dock at the one next door! One of our divers even fell into the water trying to get onto the dock and were lucky they didn't get squashed between the boat and the solid dock! Everyone that went on that dive had to get a ride from the neighboring hotel to ours. I've never been so happy that I chose to sit out a dive than I was at that moment! It was the Perfect dive to skip!



All our dives were run by women, which was nice to see! Although they could have prevented some of the day one issues

themselves, were very friendly and personable, so it was hard to be upset with them. They guaranteed they would have a bigger boat for us the second day and ensure that all of these issues we experienced on day one would not happen again. For the most part, they stood by their promise (we still had some under-filled tanks we had to take care of, but at least they were checked/swapped before leaving the dock this time.)

With the debacle that was our first day of diving behind us, we were all very excited to start the next day fresh, with the few divers that were unable to dive the first day now with us. One thing I will say was the current was strong all week! Pros/ cons: Con: it's virtually impossible to take good underwater pictures when you're flying away from the very things you're trying to





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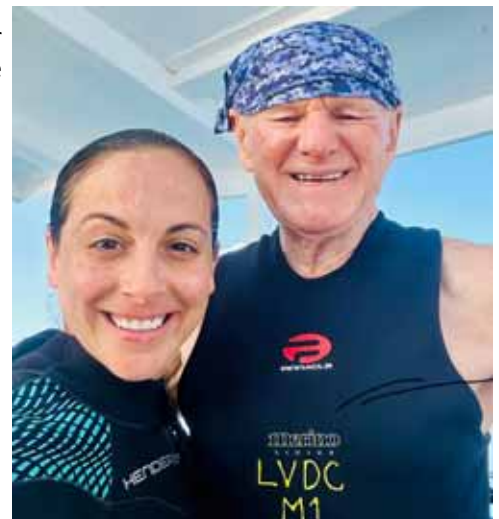


take pictures of! Pro, if you just relax and go with it, it's pretty fun to let the current take you for a ride! As I mentioned, I was not that impressed with the diving in Cozumel. However, that could be chucked up to the years of hype leading up to experiencing diving in Cozumel and what that made me expect in my mind. However, any day away and diving, beats a day home and at work! One thing that I was in awe of was the giant eagle ray we saw on two different dives! It was probably the biggest I had ever seen! (Pro: I saw the giant eagle ray, and it was gorgeous! Con: on top of the current that makes it hard to take pictures, the ray waved it's wings rapidly and turned the water into a giant cloud of sand! Try taking a decent picture like that!)

When we weren't diving, some of us would take a short taxi ride to the downtown area to give us something to do in the afternoons before we all met later on for dinner. There, I met a fantastic artist and purchased two of her really cool paintings. She was so nice that she finished a piece for me (when I saw it and fell in love with it, she told me it wasn't entirely completed) and hand-delivered it to me at a restaurant we all went to our last night together (knowing I would not have time to go back to town to get it before I left). On another note, this restaurant was home to probably one of the best/ somehow cheapest Mexican meals I had ever had! Jack had known about the place from the times he had gone there before, and I'm glad he told us about it! It was a gorgeously decorated family-owned house, with a large portion allocated as a restaurant. One thing I found strange/ cool was the two picture frames I noticed sitting on a ledge near our table. In the frames were pictures of two different groups that had appeared to be eating at the very same tables as us. The people in the pictures were none other than the US President, Jimmy Carter, with his entourage, and the Cuban President, Fidel Castro, with his.



With half the group gone and a few of us staying the additional day, Jack, Ron, and I decided to explore a little more and took the ferry out to the mainland, where we hung out in Playa Del Carmen for the afternoon. We felt pretty cool when we realized we were able to get the perks of the ferry's "first class tickets" for only \$2 more (seriously, it was shocking everyone didn't do that!) We





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Disturbed in Cozumel by Melissa Lonquich



walked around for a few hours, through street after street filled with massive amounts of stores and restaurants, with no end in sight. After dinner that night, those that were left, packed and got ready to go home the next day. Only the weather gods had something else planned for some of us!

We were tracking the weather since it was supposed to snow back home, hoping it would not affect us. Jack, John B, and I were taking the same flights home, and unbeknown to us at the time, we were going to be in for quite the journey! (Others also had delays, but theirs didn't seem as bad as our situation.) After our first plane from Cozumel to Cuba was delayed ...a lot... we finally got on the plane, and then there were mechanical issues

they had to fix. When we eventually arrived in Miami, with all the shuttles down for repairs and it being such a large airport, it seemed virtually impossible for us to get to the opposite end of the terminal, get through customs/ immigration, get our luggage, recheck our luggage, go through security again and run back to the opposite side of the airport in time for our flight to New York (and of course just our luck that flight was NOT delayed!). We could have made it... that is, if the bags came out of the shoot on time, but instead it took roughly an hour and 45 minutes to get our luggage! By the time we got to our gate, it has already taken off, and we weren't able to attain another flight home

until the next morning, arriving into a different airport than originally planned. Of course, to add to this mess I had purchased 3 bottles of tequila at the duty-free shop in Mexico that I had been lugging around, and if I had left the airport with it, I would not have been able to get it back through security the following day.



While Jack and I found a hotel to try to get a few hours of sleep, John stayed at the airport until the next flight. Luckily, I had some pillows and blankets for him to at least be slightly less uncomfortable, and he became my airport hero and watched my tequila overnight! (Thanks again, a million times over, John!) I ended up having to take an additional day off from work because of the flight delays. As a teacher, taking an additional unplanned day, on top of already extending

MLK Jr. day, was definitely frowned upon!

When arriving at the airport super early the next morning, we were tired and cranky but relieved that at least that flight wasn't delayed (although I was still paranoid that our bags would not be rerouted to the new airport we were arriving at!) Then, the most amazing thing happened that made all of the travel issues worth it!

As I was standing in the TSA line, I noticed someone very familiar looking right behind me... it was none other than the lead singer of one of my favorite bands, disturbed! I was visibly shaking! I didn't want to cause a scene, but had no clue how someone that sells out stadiums and was about to start his newest tour, did not already have a mob around him! I quietly told him I was a big fan, and wanted to say good luck on the tour. He was super friendly, thanked me, and shook my hand. I swear I was going to leave it at that, but as we were both collecting our things, I knew I'd kick myself in the A\$\$ if I didn't politely ask for a picture. I went back to him and asked if he minded, and of course, he didn't. It was all I could talk about as we were going back into the airport





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Disturbed in Cozumel by Melissa Lonquich

to meet John and go to the lounge. As we were walking through the terminal, I saw him a few more times, and no one seemed to realize. Then, to top it all off, when we went to the lounge, who was there but David Draiman from Disturbed yet again!

To sum up, these are my takeaways from the trip. It was great to get away. We had a friendly group of TSSC members on the trip; everyone got along very well and got to know each other better. Diving is always fun, even when there are some mishaps and the marine life isn't what you had expected or hoped for. Traveling during the winter months can be challenging, at the very least. My best part of the trip... you guessed it... I met David Draiman from Disturbed!!! It was a trip I'll never forget! I



Best part of the trip was meeting David Draiman of Disturbed at the Airport. One of my favorite singers.



Notice to all Members

TSSC Liability Release and Cancellation Policy

As there is no verbiage limiting the validity of the TSSC Affirmation, Indemnification and Liability Release and TSSC Cancellation Policy, the Board has deemed it unnecessary to request that these forms be signed annually. The signed forms will remain in effect and we will request signatures again in 2028.

Amanda Slattery, Membership Director



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Welcome Vinny Dalrymple— A New Member

Hello TSSC. My name is Vinny Dalrymple and I joined TSSC in the Fall of 2023 after the suggestion by my friend/coworker John. As a child, I was fascinated with watching Jacques Cousteau on television, as well as the book and movie 20,000 Leagues Under The Sea. In 1992 I received my Open Water certification. I did the classroom and training with The Diving Bell in Brookfield, Ct and my open water dives with Central Sales Scuba in Thomaston, CT. I enjoyed diving a lot and did many dives in Rhode Island during the warmer months, and Miami and Key Largo in the winter. I really enjoy diving because, once I'm underwater, I feel calm and peaceful and enjoy the beauty of the world below.



Floundering through life in 1994, I made the choice to become a commercial diver. I was certified as a Commercial Deep Sea Diver after completing training at The Divers Academy of the Eastern Seaboard in Camden, NJ. I spent a few years working as a diver working on dams, bridges and power plants in the Northeast and Midwest. During this time, I also pursued further scuba training via PADI at Pan Aquas Diving Bell in Brookfield eventually obtaining AOW, Rescue, Ice

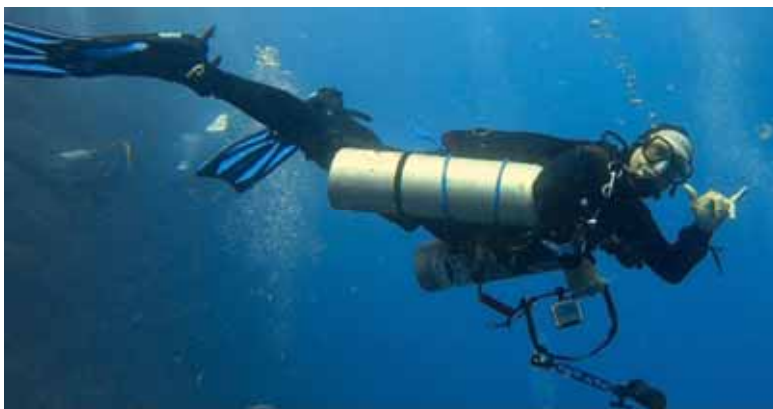
Diver and other assorted Specialties, eventually becoming a Dive Master with Pan Aqua.

After few years of only doing only one dive trip a year to the Abacos, Bahamas I took a couple of years off from diving to focus on my family. In 2022 I jumped back into diving with both feet after some persuasion from my family and a new neighbor who had just got certified in scuba. While spending two weeks of 2023 diving the Red Sea, I received my PADI Side Mount certification. My goal is to become



cave certified and dive the caves and blue holes of Bahamas and Mexico.

I would love to eventually dive in the South Pacific, Galapagos, Truk, the Mediterranean and Adriatic. However, I can be just as happy diving locally and I plan to do more of that this year. I like how TSSC has many members involved in its meetings, dive excursions and other topside activities and I can not wait to dive with fellow TSSC members.





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Your TSSC Social and Dive Calendar

22-24 Mar—Beneath the Sea

25-30 Mar — Dubai Land Tour

31Mar — 06 Apr — Maldives—Blue Force One

20 Apr –Earth Day Ossining Festival

May (TBD) - Orchard Beach Clean Up City Island

23-27 Jul —Havana Land Tour

Jul 25-28 - Lake George

27 Jul—03 Aug—Cuba– Jardines Aggressor II—Garden of the Queen

August (TBD) - Fort Wetherill Rhodes Island Dive Day

September (TBD) - Gloucester MA Seal Dive Trip

October (TBD) - Fall Dive Trip (Tulum?)

November (TBD) - Explorers Club—Sea Stories

Nov 19-22 DEMA Show—Las Vegas

December (Coming Soon) - Holiday Party

2025

Bali Land —Indonesia

11-18 Jul—Wakatobi—Indonesia

(; Post on your refrigerator ;)





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TSSC 50th ANNIVERSARY CLUB TRIP - July 11- July 18,2025 LIMITED TO 20



STAY AT Wakatobi Dive Resort (Ocean Bungalow)

7 night package includes all meals, drinks, airport-hotel transfer, private charter r.t. Wakatobi- Bali, park fees, and nitrox. Does not include flights to Bali. Flights to be announced.

DIVE with: Wakatobi Dive Resort (on site) Unlimited dives www.wakatobi.com

Brochure: <https://blog.wakatobi.com/wp-content/uploads/2023/10/Wakatobi-Brochure-1023.pdf>

TOTAL PRICE: \$5,387 DIVER/ \$4,395 NON-DIVER (BASED ON DOUBLE OCCUPANCY)

With comps (need 20 participants) \$4,890/diver- no comps for non-divers

DEPOSIT \$1,000 DEADLINE 4/1/24

(Venmo: TheScubaSportsClub@Sports-Club / Zelle: mysheribaby61@gmail.com or check)

Payment schedule:

\$1,000 by 7/1/24

\$1,000 by 12/1/24

Balance by 3/12/25

Bali Land Tour scheduled prior to Wakatobi. Stay tuned for details

NON MEMBER PRICE ADD 10%

NO REFUNDS OF DEPOSIT MONIES AFTER 4/1/24 DEADLINE

COMPS ON THIS TRIP TO BE DETERMINED

MUST SIGN TSSC TRAVEL AND CANCELLATION POLICY

MUST SUBMIT SEALED TSSC MEDICAL FORM AND WAIVER

DIVERS MUST HAVE DAN INSURANCE

NOTE:

- DO NOT BOOK FLIGHTS UNTIL YOU HAVE RECEIVED JACK'S CONFIRMATION
 - FIRST COME FIRST SERVED ON BOOKING
 - TSSC RESERVES RIGHT TO CANCEL FOR LOW PARTICIPATION (FULL REFUNDS)
- PLEASE EMAIL JACK WITH QUESTIONS jjarchitect1@gmail.com

SOLD OUT

WAITING LIST NOW OPEN FOR INTERESTED MEMBERS



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Featured Creature -- The Humpback Whale by Gary Lehman

This issue's Featured Creature will be the majestic humpback whale (*Megaptera novaeangliae*).

We'll avoid bio-technical data in this column today. I would like to highlight what I saw *just watching them*, comment on what I saw, and write about humpback behavior. In the last Sea Swells, we covered gray whales, which migrate from the fertile high Arctic where the whales feast on krill - to the waters off Baja California to mate and rear their young calves. The humpbacks we will discuss now have a wider distribution; many (hopefully, most) of us have seen humpbacks right here off NYC/Newark, or the Stellwagen Banks off the coast of Massachusetts/New Hampshire - or many other locations due to the health, reach and range of this species. During our seal-watching trips to Gloucester, Massachusetts, some of us even went up a day or two early to check out the humpback watching!

Gray Whales and Humpbacks

Comparing the gray whale and the humpback whale ranges: the gray whale formerly had a wide range of ocean habitats across the northern hemisphere. The North Atlantic population was unfortunately extinguished in the 1800's, probably by whaling. So, the current range for the gray whale is concentrated in the northeast and northwest Pacific. Interestingly though, there have been confirmed sightings in the Mediterranean and off the coast of Namibia on the southwest coast of Africa. This has marine biologists very excited, and for good reason. It would be wonderful if gray whales could be reintroduced back into their former range. Hopefully, this effort will yield a resilient census of gray whales in this new geographic area. A lot of excitement is currently generated around orcas and their ability to adapt to new environments, circumstances, and prey alternatives. With habitat destruction and loss of feeding due to overfishing, orcas are getting creative about their hunting tactics and predatory activity. The best example that comes to mind is orca predation against white sharks and the large seven-gilled sharks off the coast of South Africa. It is worthwhile to speculate that just as orcas have adapted, it seems that gray whales might also now be adapting and re-inhabiting parts of their former ranges. As for the humpback whale, there are really only three bodies of ocean where you will NOT see the humpback whale - the Mediterranean, the Baltic Sea, and the Red Sea. Everywhere else – that is their wide range!

Watching Humpbacks off Massachusetts

Last summer, my grandson, my son-in-law, and I took a whale-watching trip out of Newburyport, Massachusetts. It was breathtaking. At one point, a mother humpback with her calf was very close to the front of our boat. I was right up there with my five-year-old grandson. The mother exhaled loudly and deeply, and those of us in the bow of the boat were treated to a deluge of fine misty exhalation spray. The exhaled breathe had a truly fetid odor, reminding me of the streets of the Upper West Side of NYC on Sunday afternoons after the bodegas and restaurants discarded seafood/lobster shells on Saturday night and they had been simmering in the Sunday

summer sun before the Department of Sanitation trucks came through to collect same on Monday! Reacting to the smell, my five-year-old grandson exclaimed, "Who Tooted!!?" (while looking at ME, with a mixture of amusement and slight disdain I might add!). Our naturalist topside on the trip even mentioned the smell and instructed us that we were, in fact, exceptionally lucky to have experienced that (with which I wholeheartedly agree!)

We saw approximately 21 humpback individuals that day, some very close to our whale-watching boat. The humpbacks were moving around, slapping their pectoral fins (sometimes quite violently) into the water. (This behavior is not fully understood, it might be a form of territorial display -- or males making a play for female humpbacks -- and/or by females to attract males! We'll keep you posted on that.)

Humpback's Singing and other vocalizations

We know that humpback's 'sing'; their sing-song is haunting, beautiful and wonderfully expressive.

<https://sanctuaries.noaa.gov/news/sep22/mysteries-of-humpback-whale-song.html>

There are several hypotheses as to what this singing is all about: 1) echolocation: "pinging" to find suitable krill aggregations for



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feeding; 2) upon discovery of food source, then advertising the presence of the krill to other members of the pod ; 3) to attract females; 4) to accelerate females to go into estrus for mating; 5) just for pure joy (we always underestimate the emotional lives of animals; and 6) to locate and communicate other members of their family and pods. Who knows? Someday we might get definitive information. But I have little doubt that owing to the variety of sounds humpbacks make, any and all of these are likely reasons for humpback vocalizations!

Most of us on this whale watch knew that humpbacks had a variety of vocalization modes. *But did you also know that humpbacks TRUMPET?!* Perhaps it stands to reason because whales are most closely related to.... **hippos**, which can bellow at up to over 100 decibels when they are aggravated or feel threatened. In fact, there is an anatomical resemblance between these species – their nostrils extend upwards out of the water so that the entire animal can be submerged while they breathe through their nostrils up above the water. Both species can hear and communicate above and below the water and have special anatomical features in their skulls and vocal chords to produce the various grunting, squealing, bellowing, shrieking, and trumpeting!



I have watched humpbacks many times, but I have never actually *heard* humpbacks singing or trumpeting before. None of us aboard our ship had, either. It was astonishing to hear this shrieking and trumpeting. We were all shocked. At first, we all commented to each other that it sounded exactly like elephants – how incongruous at that geographic location! I hope that all of you also have the opportunity at some point to hear this -- You will never forget it.

My wife Linda and I were fortunate enough to be in Antarctica this January, from which many of these observations – including experiencing the shrieking/trumpeting - originate. The humpbacks were there *en masse*, sharing the environment with the many species of albatross, crabeater seals (which actually eat krill), leopard seals, penguins, and of course, HUMPBACKS galore. What are the humpbacks doing in Antarctica? They were FEASTING for the main part! They could not have cared less about our 435' 10,000-ton ship which was stopped with all the amazed and gawking tourists watching. All the humpbacks cared about was maximizing their feeding opportunity -- and in one case, a mother was teaching her calf how to feed off the dense clouds of krill!

Krill Alert !

If you have ever seen the surface of the water near the shoreline boiling – due to the voracious feeding of 'snappers' (juvenile bluefish) -- then you will be able to relate to the following... In our community of divers, we know that krill – a little shrimp-like crustacean with a worldwide distribution – is a keystone species. Krill (*euphausia superba*) is on the menu for so many larger marine life (and the biological food chain) that without a healthy krill population, our entire marine environment is in deep trouble – which ultimately means we are too.



Fortunately (so far), the effects of global climate change and habitat degradation are under check in Antarctic waters – but this is subject to change as time goes forward. Decreasing salinity from melting ice in the Antarctic can contribute to marine and terrestrial habitat degradation. For now though – due to the watchful eye of transnational regulatory organizations protecting marine areas in Antarctica – krill populations are healthy. The humpbacks, fish, penguins, seals, seabirds, and all predators up and down



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the food chain rely on krill.

Krill aggregations are easy to spot! A swath of water on the surface will appear suddenly smooth. This is due to krill swarms near the surface. Of course, when that happens, the seabirds go crazy and have a feast. Eventually, other marine life catches on to the krill swarm and joins in the feeding. So do the humpbacks, which also soon zero in on the fun! And humpbacks also use a technique called 'bubble feeding'...

Bubble-net Feeding

We all know a bit about bubble-net feeding... the humpbacks swim in circles, exhaling bursts of air. This creates a curtain of air bubbles... other humpbacks join in and you have a column of water contained by a "net" of air bubbles.

The fish and krill inside the water column feel trapped by the bubbles. They instinctively swim up and away from the marauding humpbacks. This action serves to concentrate the prey into a smaller and smaller area, ever closer to the surface. And then, with a sound by one of the humpbacks, the whales lunge here and there and surge up through the water column, trapping up to a ton of krill in their expansive mouths and using their tongue to sweep the fish and krill



off the baleen filter and down into their stomachs. They finish off the remaining krill and fish with surface lunges. Then, repeat. Hour after hour. These humpbacks were incredibly focused and intent on the mission to fatten up. It is one thing to write about it and another thing to actually SEE it! You won't see this behavior in NYC, unfortunately, though, because it is a learned feeding behavior, and I have never heard of this type of feeding on the East Coast of the USA. But I have seen it in the Pacific Northwest, and especially vigorous bubble net feeding in Antarctica. Until you see it for yourself, all I can offer is the following photo (other than the description above, that is!)

Happywhale.com

And for you photographers out there: please consider submitting your photos to the above website. Each whale has distinctive and unique patterns on their bodies and, in particular, on their pectoral fins and flukes (tail fins). When you get a photo of the water streaming off their flukes when they commence their dive, you will be capturing unique patterns that enable marine biologists to identify whale individuals. It is important citizen-scientist work. Many biologists are using this photography-identification technique – it is being used to protect whale sharks, polar bears, and snow leopards as well. So please keep that in mind on your next whale-watching trip! The whales will be grateful! [Happywhale](https://www.happywhale.com) [Happywhale: AI-Powered Whale Identification | WILDLABS](https://www.happywhale.com)

And so...

I hope that these thoughts have hit a chord with you, and I hope that you will consider taking friends and family out whale watching in the NYC area! We are lucky to have American Princess cruises, Gotham, and SeaStreak (in alphabetical order) -- all making local trips for whale watching. It is a good thing to support these companies and the whales will benefit. Lord knows, these whales have been through enough already and continue to be at risk from sonar blasting for offshore wind turbines, vessel strikes, toxins, plastics, entanglement in fishing gear, and any number of other threats – so whatever we can do to relieve some of the stresses and pressures on whales would be a good thing.





Sea Swells



LIDA with Nick Lappano



On **Saturday January 27, 2024**, The Long Island Divers Association hosted its 36th annual film festival at the Hofstra University Student Center in Hempstead, NY. This was the second consecutive year of the event being live and in person after the festival being in ZOOM format in 2021 and 2022 due to COVID.

TSSC was well represented with over a dozen current and former members in attendance. I relished the chance to catch up with former members who I haven't

seen in a while. Catching up with old friends is one of the compelling reasons to attend the event.

There are several other reasons that make attendance at the film festival a worthwhile endeavor.

One of these is viewing outstanding presentations by respected members of the dive community. This year there were eight video presentations which dealt with various locations and insights into diving.

The presenters this year were:

Michael Salvarezza and Christopher Weaver
Cristina Zenato & Kewin Lornzen
Larry Cohen and Olga Torrey
Nicole Zelek
Peter Venousos
Maureen and Steve Langevins

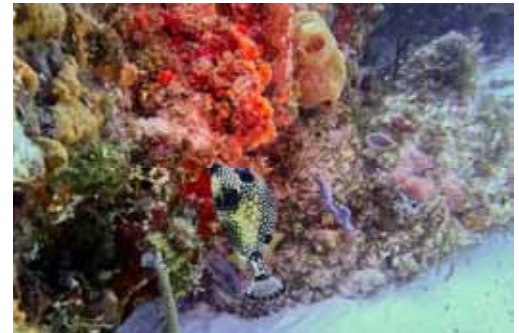
The presentations were enthralling and many of the videos and images were downright breathtaking.

Secondly, the party which followed the presentations afforded all an opportunity to enjoy a wide variety of sandwiches, salads etc. At the party we also had a chance to reestablish old friendships and make new ones.



Then, of course, there are the raffles. In addition to the purchase of tickets to the film festival, the money spent on raffle tickets is a main source of income for LIDA. There is a 50/50 raffle as well as a huge assortment of items which are raffled off. There were several live aboard trips as well as a wide assortment of dive gear items, courses and packages. Over the years several Club members have had success in winning great trips through the raffles. This year was no different with two TSSC members winning two of the top prizes. Judy D. will be going to the Red Sea on Heaven Saphir Charters (AGAIN!!) while Pat C. will be enjoying a week of diving in The Turks and Caicos with Aggressor Adventures.

Overall, ia fun night and I look forward to next year's festival.





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Eaglefest Deco Stop with Amanda

After two weeks of grey skies and rain, the morning of February 3 dawned bright and clear, cool and still. It was the perfect day for Eaglefest 2024 in Croton Point Park. A small group met at the entrance at 11am and toured the main pavilion before heading out to join the 11.30am bird walk. There was a crowd!



We headed up a steep incline on a gravel path over the grassland. We were walking over a huge garbage dump which had been grassed over several years ago. We learned that a membrane had been installed over the garbage in order to prevent methane gas emitted from the dump entering the atmosphere. Apparently the methane is pumped out regularly. Trees are not permitted to grow on the grassland as their roots would penetrate the membrane. The resulting huge area of grassland is unique in this part of Westchester County and provides an ideal habitat for American Kestrels. One or two members of the group spotted the birds popping up from the dead grasses. Turkey Vultures were seen circling in the distance. At the top of the hill a telescope was set up to show the



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Eaglefest Deco Stop with Amanda



eagle's nest near Croton Station but sadly we did not see any eagles. After returning to the central area and sustaining ourselves with empanadas from one of the food trucks, we entered the Eagle Theater to sit comfortably and enjoy the Birds of Prey show. Several different species of raptor were carried down the center aisle so the audience could get a good view. All birds

were perched on gloved hands, some were hooded to retain calm composure. Finally we were invited outside for a live demonstration of two Harris's Hawks from the southwestern



USA released together for the first time. Both birds immediately flew up to the surrounding trees, but on being called back, only one returned! The other hawk was nowhere to be seen! We eventually called it a day and some went to a local diner for conversation and nourishment. We later received a report from one of our members that the errant bird had been located and returned to its cage.

Birds of prey just cannot be tamed!

It was a very worthwhile and enjoyable day. Many thanks to Liza for arranging another successful Deco Stop.





Sea Swells



Cave Dive Propulsion Vehicle Training by Joe Rinaldi



A couple of years ago my cave diving instructor introduced me to operating a Dive Propulsion Vehicle (DPV). I had never operated a DPV before, nor did I ever have an interest in operating one. However, in that one day of working with a DPV, I became fascinated with DPV's. I have been making open circuit technical dives for over a decade and have become accustomed to diving with multiple scuba cylinders. In the water the buoyancy of the cylinders offsets their weight but diving with multiple cylinders still results in quite a bit of drag in the water, which makes my swimming somewhat slow and over long distances tiring. With a DPV, a diver can move effortlessly through the water despite carrying several scuba cylinders. To give an example, the day before my introduction to DPV's I made a dive that required swimming 2,000 feet underwater through a cave system in Wes Styles Peacock state park in north central Florida. That dive took me over two hours to complete, and even though it was not a very deep dive, I still incurred about fifteen minutes of decompression obligation. After a half day of instruction with a DPV from my instructor, I covered the same distance in the Ginnie Springs Devil's cave system at a deeper depth. That DPV dive in Ginnie Springs took me only twenty minutes to cover 2,000 feet in a cave, and I only incurred a couple of minutes of decompression obligation.



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Cave Dive Propulsion Vehicle Training by Joe Rinaldi

With results like I described above, it is easy to see why DPV's are the ultimate tool for scuba divers to extend the range that they can travel underwater. However, that advantage does come with some significant risks. One of those risks is that with a DPV, a scuba diver can cover more distance in ten minutes than the average scuba diver can reasonably swim in a half an hour. That greater distance means that scuba divers using DPV's need to carry enough breathing gas in the event the DPV fails, as the diver needs to be prepared for a long swim back (or in the case of a cave dive, out of the cave).



Determining just how much breathing gas will be “enough” for the dive is an important part of the DPV training. To arrive at a safe answer, a DPV scuba diver needs to know how much breathing gas he/she consumes at the depth that they intend to dive at. This gas consumption rate is referred to as the diver's Surface Air Consumption rate or “SAC rate”. Some modern dive computers have a function that automatically calculate your SAC rate during a dive. However, the computer is making that calculation based on the diver's breathing gas consumption averaged out over the entire dive. That calculation does not distinguish between the different breathing gas consumption rates when a diver is swimming hard (like against a current) or when the diver is at rest (like during a decompression or safety stop).

In addition, a SAC rate is only applicable to the size scuba cylinder that the diver was using at the time of the computer's measurement. If the diver is using different sized cylinders (and I usually do while making long or technical dives), a diver will either need to calculate a SAC rate for each cylinder used or calculate what their respiratory minute volume (RMV) is. While like a diver's SAC rate, a diver's RMV is the amount of breathing gas that travels in and out of a diver's lungs in a minute. To get a complete understanding, a diver



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Cave Dive Propulsion Vehicle Training by Joe Rinaldi



needs to measure their RMV while conducting activities like swimming against a current or while sitting at rest. If a diver knows their RMV rate they can easily apply that number to any sized scuba cylinder, and then adjust that number for the depth that they plan to dive.

To complicate matters even further, when a scuba diver uses a DPV, he/she needs to know approximately how fast they can swim under the conditions that they will be operating the DPV in. This information is essential as the DPV diver needs to know how long and how far they can safely swim if

the DPV they are using fails at the farthest point away from where they began their dive (while returning to your starting point in an open water dive is not always critical, it is a matter of life or death in a cave DPV dive). Another important aspect of planning for a DPV dive is to determine just how long/far the DPV you are using can travel.

DPV's run on battery power, and like today's plug in electric automobiles, they can only travel so far on a single charge. In addition, the greater the load placed on a DPV (like operating in a heavy current, or towing multiple divers), the faster the battery on the DPV will become depleted. In addition, cold temperatures can also negatively impact the battery in a DPV. The only way to be sure that the DPV the diver is using has a sufficient battery charge is to conduct what is known as a "burn test" where the DPV battery is run under a load to see how long it's charge will last.

Given all the information necessary to make a safe DPV dive, you begin to see how much more complicated planning a cave DPV dive can be. Once my instructor calculated all the above factors, we were ready to start working on DPV skills.

The initial DPV skills training was conducted in an open water environment and started with how to position myself so that the force of the water coming from the DPV propellers, passed under my body and not directly into me. Then we moved on to how to control the DPV's speed, making turns and how to adjust my buoyancy (inflating/deflating my BCD & dry suit) while operating a DPV. My instructor also taught me how to tow my dive buddy in the event a DPV broke down. He also covered how to share breathing gas with my-



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Cave Dive Propulsion Vehicle Training by Joe Rinaldi

dive buddy while towing him (naturally I was also taught how to be towed and. How to receive breathing gas from my buddy while being towed).

All those skills needed to be mastered before my instructor would let me operate a DPV inside of a cave, that is when my DPV training really became challenging! While I was operating a DPV in open water, there was plenty of light to see and room to maneuver. Once we entered the cave, I was now working with just the light from my cannister dive light and with the walls of the cave surrounding me. It was sort of like going from driving a car in an empty parking lot in broad daylight to driving a car at night on a crowded city street.



I have made over a hundred cave dives and a good number of those dives were in the cave where my instructor started my DPV training (over the course of my DPV class I had to operate a DPV in multiple caves), so I knew the layout of the cave and the depths that I would be diving in. However, just like the difference from walking on a familiar street to driving a car on that same familiar street, there are some very major differences. For example, it usually takes me about five to seven minutes reach the first restriction in the Ginnie Springs Devil's cave system known as the "Lips". There are a number



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Cave Dive Propulsion Vehicle Training by Joe Rinaldi



of depth changes that a diver has to make (both down and up) and you need to secure your deco gas bottle, all while working against a fairly strong current. With a DPV, I covered that same distance in less than two minutes, and I was moving at the slowest speed the DPV operated in.

My instructor knew that my initial cave DPV would be a challenge for me, so he led the dive. Nevertheless, there were still skills that I need to

demonstrate for this dive to count towards my cave DPV certification. The same skills that I had worked on while operating a DPV in open water needed to be demonstrated successfully while operating a DPV in a cave. In addition, while we were heading out of the cave, my instructor had me swim/push my DPV a few hundred feet simulating what it would be like if my DPV failed with only a short distance to be traveled.

Other skills that I needed to demonstrate proficiency in was how to swim out of a cave with a DPV if the cave became silted out (this was done with a cover on my mask so I could not see) and how to communicate with my buddy while operating a DPV. I also had to show that I could make a “jump” from one line in a cave to another while managing my DPV (a jump in a cave is a critical navigational maneuver as one of the important rules in cave diving is to always maintain a continuous line to your exit from the cave). While I have made countless “jumps” in a cave and have experienced a couple of cave silt out situations, doing these drills with a DPV posed some very unique challenges to me regarding my buoyancy.

Every scuba diver knows the importance of buoyancy while scuba diving. In an overhead environment like a wreck or a cave, buoyancy is even more important as you don’t want to be hitting the floor or the ceiling in environment you are diving in. With a DPV it is very easy for a diver to forget to adjust their BCD as the thrust provided when the DPV is running is usually strong enough to counteract if the diver has too little or too much gas in their BCD. However, once the DPV diver stops the DPV, any imperfection of the diver’s



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Cave Dive Propulsion Vehicle Training by Joe Rinaldi

buoyancy becomes instantly apparent. I was fortunate that I never neglected making buoyancy corrections completely. Nevertheless, several times I found myself rising or falling a couple of feet higher or lower when I stopped my DPV.

I am happy to say that despite all these challenges, and a few surprises that my instructor gave me, I was able to successfully complete the NSS-CDS cave DPV diver course. With those skills (and a DPV) I was able to see sections of the Ginnie Springs Devil's cave and Little River Spring cave systems that I would never have reached by swimming in an open circuit scuba configuration (like reaching the Hinkle restriction in Ginnie Springs or the end of the Florida room in Little River Springs). Just like the fact that not every scuba diver is interested in cave diving. Not every cave diver is interested in cave DPV diving. Nevertheless, I very much enjoyed the challenges in my cave DPV course, and I realized why a lot of divers think that operating a DPV in a cave is one of the biggest thrills in cave diving!

