



The Pinniped Press

A Newsletter by and for Noyo Center for Marine Science Volunteers
December 2023 Vol. 2, Number 12

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Volunteer Opportunities

There are two pop-up events planned for December at the Noyo Center Field Station, and we plan to sell packaged holiday cookies in addition to other food and drink. If you are a cookie baker and would like to contribute your skills and cookies, please contact: wendi@noyocenter.org.

More volunteers are needed with food handlers and/or bartending certificates for upcoming pop-up events.

We have openings for the beach survey team. If interested, please contact: wendi@noyocenter.org

Who to call

If you find:

- A live marine mammal: The Marine Mammal Center at (415) 289-7925.
- A dead marine mammal: Noyo Center Stranding Coordinator at (707) 813-7925.
- An injured bird: The Bird Rescue Center at (707) 523-2473
- Most other wildlife: Wildlife Rescue at (707) 526-9453



Volgistics Tracking Software Instructions

Wendi Felson

The Noyo Center is using Volgistics/VicNet software to track and schedule volunteer hours. Current volunteers already have a profile set up in the database, which is associated with the email address that we have for you. There are a couple of ways to access the VicNet volunteer portal. We would suggest downloading and using the app on your phone. If you need to use a computer rather than the app, you can log in at <https://www.volgistics.com/vicnet/>.

There is also a VicNet link on the Volunteer Center page on the Noyo Center website. There are additional volunteer guidelines here: <https://www.volgistics.com/help/vicnet-portal/volunteer-guide-for-vicnet/> with links for the app.

Follow these steps to get access to your profile: Go to Volgistics web site and click on Volunteer log in for VicNet; go to the Noyo Center's Volunteer page and click on Volgistics Portal Log In or go to the VicNet app on your smart phone.

- Enter your email address.
- Click on "Password Reset".
- Check your email for the link to reset your password.
- Return to the app and log in using your email and password that you created.

For entering volunteer hours these are the basics:

- Go to the Service tab.
- Choose the date you wish to enter service hours.
- Enter the number of hours that you worked.
- Choose the Assignment (location, event, etc.) that you worked on.
- Click Post.

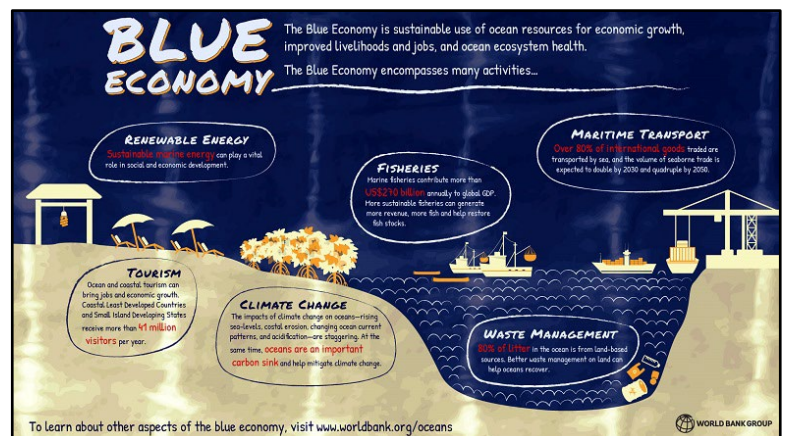
Visit the VicNet [VOLUNTEER GUIDE](#) for additional instructions. If you are having trouble accessing VicNet or have any questions, please contact wendi@noyocenter.org.

Blue Economy: Transforming Communities and the World

Toni Rizzo

Along ocean coasts everywhere, a new path is emerging. Blue Economy is a way of considering economic development and ocean health as compatible. A place where economic activity is in balance with the long-term capacity of ocean ecosystems. It's a fresh, exciting way of looking at everything from traditional marine sectors to new businesses focused on marine resiliency, and it touches on activities related to climate change, fisheries, aquaculture, renewable energy, tourism, and transportation.

Fort Bragg Blue Economy Symposium, May 2022



A decade ago, the United Nations (UN) promoted the idea of a “Blue Economy,” defined by the World Bank as “the sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health.” This definition of the blue economy focuses on goods and services that depend on ocean and coastal waters.



Blue Economy: Transforming Communities and the World – continued

The National Oceanic and Atmospheric Administration (NOAA) expanded the definition of the “New Blue Economy” to make strong connections between marine waters in the US, their economic benefits, and the coastal communities that rely on them. Implementing the New Blue Economy in our coastal communities “requires improved collection, analysis, and dissemination of ocean and coastal-derived data and information to support economic growth, protect the ocean’s health, and address societal challenges and inspire their solution, while protecting ocean health and ensuring social equity.” Achieving all these goals may seem unrealistic, but coastal communities nationwide and globally are diving in and making it happen.



Image: National Centers for Coastal Ocean Science (NCCOS), NOAA

Fort Bragg, CA is one of those communities. In May, 2022, the city hosted the Blue Economy Symposium & Learning Festival to consider the needs and potential for developing a vibrant ocean-based economy on the Mendocino Coast. As a result, Fort Bragg applied for and received a large grant from the California Coastal Commission to support the Noyo Harbor Blue Economy Visioning, Resiliency and Implementation Plan. A new regional blue economy coalition was also formed, including the City of Fort Bragg, Noyo Harbor District, Noyo Center for Marine Science, Sherwood Valley Band of Pomo Indians, Mendocino Coast College, and West Business Development Center.

According to Noyo Harbor Blue Economy Visioning, Resiliency and Implementation Plan, opportunities within the blue economy have the potential to improve livelihoods and quality of life for low to moderate income community members, while also nurturing healthy marine ecosystems affected by climate change. Components of a blue economy can include:

- Renewable energy, including offshore wind energy.
- Aquaculture
- Marine biotechnology
- Fisheries
- Tourism

The Noyo Center for Marine Science has always embraced the blue economy, as the City of FB launched the nonprofit as an economic development initiative, and the future Ocean Science Center will be the heart of a local blue economy. The Noyo Center has prioritized providing living wage jobs, promoting ocean conservation through research, and providing educational opportunities for schools and the public.



Blue Economy: Transforming Communities and the World – continued

Recently, with financial support from the U.S. Department of Commerce Economic Development Administration, the Noyo Center hired an architectural firm to design its planned Ocean Science Center. “We believe the Ocean Science Center is critical to addressing climate resilience on the Mendocino coast and as such, is fundamental to our local blue economy,” says Sheila Semans, the center’s executive director. In addition to displaying a blue whale skeleton and other exhibits, the Ocean Science Center will boost tourism, provide STEM jobs and educational opportunities for learners of all ages, and not only conduct critical research on climate impacts and resilience, but provide a home for other scientists and entrepreneurs to advance their own research in a variety of fields. A Blue Economy incubation center is currently being planned as part of the OSC.

The Noyo Center is also starting its abalone brood stock rearing program, purple urchin ranching, and seaweed tumble tanks. The goals of these aquaculture programs include abalone and kelp restoration, as well as creation of a restorative seafood product and elimination of the urchin barrens. See the articles by Wendi Felson (*From Café to Field Station*, October 2023 PP) and Jim Rolfe (*Kelp Restoration*, November 2023 PP) for more details on these projects.

Sources

1. Sunflower Sea Star. NOAA Fisheries. Updated 8/24/2023. <https://www.fisheries.noaa.gov/species/sunflower-sea-star>
2. What is the Blue Economy? The World Bank. June 6, 2017. <https://www.worldbank.org/en/news/infographic/2017/06/06/blue-economy>
3. Enabling sustainable, resilient and inclusive blue economies. UN environment program. <https://www.unep.org/explore-topics/oceans-seas/what-we-do/enabling-sustainable-resilient-and-inclusive-blue-economies>
4. New Blue Economy. NOAA. June 20, 2023. <https://www.noaa.gov/blue-economy>
5. What is the New Blue Economy. NCCOS. <https://coastalscience.noaa.gov/science-areas/coastal-and-marine-planning/blue-economy-support/>
6. Summary & Key Takeaways from the 2022 Blue Economy Symposium & Learning Festival. <https://visitfortbraggca.com/blue-economy/>
7. Noyo Center for Marine Science Awarded \$825,230 Grant from American Rescue Plan. September 8, 2022. <https://huffman.house.gov/media-center/in-the-news/noyo-center-for-marine-science-awarded-825230-grant-from-american-rescue-plan>
8. Upholt B. Fort Bragg has the Best Kind of Blues. NOAA California Sea Grant Program. <https://caseagrant.ucsd.edu/news/fort-bragg-has-best-kind-blues>.
9. Borcich Z. The Blue Economy is Green. Real Estate Magazine. October 2023.

Back to the Future with Sailing Ships

Dobie Dolphin

Sailing ships have been transporting cargo, weapons, and people since at least the fourth millennium BC. Steam propulsion became popular in the mid-1800’s, but sailing ships continued to be an economical way to transport bulk cargo on long voyages. *Flying Cloud*, a windjammer carrying cargo and passengers from the east coast during the gold rush, held the speed record for sailboats traveling from New York to San Francisco from 1854 until 1989.

Steam and later diesel-powered ships had the advantage of not being dependent on wind speed and direction so they could reach their destinations in a fraction of the time it took a sailing ship. Sailing ships, however, did not require fuel or complex engines. Ninety percent of what is in our homes has at some point been transported by ships relying entirely on fossil fuels and producing close to 3% of greenhouse emissions.

At the July meeting of the United Nation’s International Maritime Organization (IMO) in London, maritime nations agreed to cut emissions from the shipping industry to reach net zero by about 2050. The plan calls for shipping emissions to be slashed by at least 20% by 2030 and at least 70% by 2040 despite a push from Pacific nations—backed by Canada, the United States and the U.K.—for more ambitious targets. Experts and environmentalists say this falls short of what is needed to curb global warming, and that to keep in line with the Paris agreement the industry must cut its emissions by 45% by 2030 and reach net zero by 2050.

IMO Secretary-General Kitack Lim said that the deal is a starting point for the work that needs to intensify even more over the years ahead. “With the revised strategy that you have now agreed on, we have a clear direction, a common vision, and ambitious targets to guide us to deliver what the world expects from us,” Lim said to member states.



Back to the Future with Sailing Ships – continued

To reach these goals, some of the large shipping companies are looking towards sails and alternative fuels as a way of lowering fossil fuel consumption and greenhouse emissions. Cargill's Ocean Transportation is leading the way with innovative wind-assisted propulsion, green methanol fuel and sustainable biofuels.

The *Pyxis Ocean* embarked on its first wind-powered voyage from Singapore to Brazil after being retrofitted with two rigid 37-meter-tall sails called WindWings. The automated sails pivot to make use of the wind to move the ship so it doesn't rely solely on its engine. This can reduce fuel consumption by up to 30 percent, lowering fuel costs and reducing emissions.



Pyxis Ocean

Like wind turbines, the rigid sails are made from steel and fiberglass. They consist of three elements – a central 10-meter-wide element and two five-meter-wide wings on either side – each with a central pivot.

The whole wing can rotate to position itself according to the wind angle and speed and can fold down to the ship's deck for arrival in port and for passing under bridges.

This is a positive step, but is it enough?

Using smaller ships to transport local products can be a game changer. The *Apollonia*, a 20-meter sailboat has been transporting cargo along the Hudson River in New York since 2020, carrying more than fifty products, including grains enroute to breweries, coffee beans for roasters, shiitake-inoculated logs for urban farms, maple syrup, cider, pumpkins, salt, and crates of local goods. In three years, the ship has burned fewer than ten gallons of diesel fuel used only for maneuvering and docking purposes, using less each year. Presently, the *Apollonia* is the only working sail freighter in the country, but that may soon change. A global sail freight movement is growing, and there is a push to advance and scale up efforts in the United States.

EcoClipper, a Dutch company founded in 2018, aims to augment the existing sail cargo industry. The first retrofit vessel, the 40-meter sailing barge *De Tucker*, left Amsterdam last spring loaded with Dutch chocolate, destined for European distribution. The cacao used in the chocolate was shipped from the Dominican Republic by the sail cargo vessel *Tres Hombres*. *De Tucker* will go as far as Portugal where it will pick up wine and olive oil, returning with stops in Spain, France and England.

Sail freight has the advantage of maintaining a local supply chain, insulated from international disruptions. The price of grains, for instance, has been dramatically impacted by the war in Ukraine.

The *Ever Given*, one of the largest container ships in the world ran aground in the Suez Canal in March 2021, blocking the waterway for six days, wreaking havoc on supply chains. Losses were said to amount to \$400 million per hour, \$10 billion daily. Around the same time, one hundred ships were waiting to unload thousands of containers outside the ports of Los Angeles and Long Beach.

Reducing consumerism could go a long way toward meeting the goals of the Paris agreement.

Sources:

Cara Buckley, "In Shipping, a Push to Slash Emissions by Harnessing the Wind," *New York Times*, October 3, 2023

CNBC, "Countries agree to slash shipping emissions but not enough to stay within warming limits," *CNBC*, July 7, 2023

Doug Bierend, "The sail freight movement charts a course beyond the Hudson," May 8, 2023

Amy Peacock, "Pioneering wind-powered cargo ship charts course for greener shipping," August 22, 2023



Noyo Center and Monitoring Red Tides, Part 1

Linda Francis

It was one of those days, cold one minute, hot the next, as the fog ebbed and flowed, especially on the dock of the Field Station, where I met with Tony Boyd and Sarah Grimes to learn about the red tide/Phytoplankton monitoring project. Noyo Center for Marine Science is one of 161 locations and eighty-five active volunteers collecting samples for the California Department of Public Health's (CDPH) Marine Biotoxin Monitoring Program which coordinates this volunteer-based monitoring of toxic phytoplankton along the entire California coastline.

The CDPH Shellfish Program monitors paralytic shellfish poisoning and domoic acid biotoxins in bivalve shellfish. These naturally occurring marine biotoxins are a year-round public health threat. Biotoxins are produced by certain species of microscopic algae, also called phytoplankton. Biotoxins can concentrate in filter-feeding bivalve shellfish and those crustaceans that feed on shellfish. Human illness or death can occur from consuming the toxic bivalve shellfish (mussels, clams, scallops, oysters) or crustaceans (crabs, lobster) as the toxins bio-accumulate up the food chain. Thus, the CDPH's Marine Biotoxin Monitoring Program.

Back on the dock, Sarah was teaching Tony how to do the collection at the Noyo River site. Tony held a rope holding the phytoplankton net made of a very fine and fragile nylon mesh: the mesh size is 20 micrometers, which is small enough to capture the toxin-producers and most other species present as well. Tony gently lowered the net into the water via the attached rope and allowed it to sink to a depth of ten feet being careful not to lose the end of the rope. The net is slowly retrieved and, as it reached the surface, Tony allowed it to descend to the sampling depth four more times. Following the final time, Tony retrieved the net and detached the sampling bucket at the bottom of the net. He poured the contents of the sampling bucket into the sampling bottle provided by CDPH, which contained a small amount of formalin preservative. The sample is then placed in a mailing canister along with the completed laboratory sample submission form, which contains sampling information (date, time, location, depth, etc.). The canister is then mailed the CDPH laboratory in Richmond.



This work is done weekly at high tide by Tony and by Shari Goforth in Point Arena. Finally, there is an additional monthly collection at the offshore one-mile buoy. When all the samples arrive in Richmond they are examined with light microscopy for the presence of the toxin-producing species. Additional information is recorded on other common, non-toxic species to help evaluate long-term trends in species composition and shifts in dominant groups (diatoms versus current trends in the phytoplankton community).

This information is immediately used as needed to guide additional sample collections in areas of concern. Over the years there have been numerous occasions where these phytoplankton observations alerted program scientists to the early stages of a toxic bloom thus allowing the CDPH to alert the public via a health advisory press releases or to close a commercial shellfish growing area thus preventing toxic seafood from entering the marketplace. Finally, the laboratory identifications and the volunteers' field observations are recorded in the program database for future reporting and analysis. Each participant's contribution is essential to piece together a picture of toxic and nontoxic phytoplankton along the California coast. Check out the result of Tony's and other volunteers' efforts at these links:

[CDPH Toxic Phytoplankton Observations Map](#)

[Phytoplankton Monitoring Program](#)

The Phytoplankton Monitoring Program was officially launched in January 1993. The diversity of program participants includes local public health agencies, municipal utilities, K–12 school groups, university researchers and students, local environmental groups, educational nonprofit organizations, marine animal rescue centers, involved citizens, and the Noyo Center for Marine Science. Over the first 20 years of the program there have been over 29,000 samples collected!

This is another example of all the cool things happening at the Noyo Center. Next month I will be sharing the red tide monitoring project done with mussels. Bet you can hardly wait!



Volunteer Highlight: Monica Daniels

Linda Francis

Monika was born in Alexandria in the great state of Louisiana where she was raised with her twin sister along with another younger sister. She attended college at Tulane University, graduating with degrees in English and Anthropology hoping to use her anthropology degree in museums. Her first job was working in a children's museum where she discovered she enjoyed working with kids.

While Louisiana offers great outdoor adventures in parks and swamps, Monika didn't really discover the great outdoors until she moved to California. In 2019 she joined her partner in a program called Work-Away, matching people with organic farms where they work and learn in exchange for room and board. She felt this would be a great springboard for exploring all of California, and soon found her new home at Meadow Farm outside Fort Bragg.

After working on the farm for six months she decided to move into town and was hired as the librarian at Fort Bragg Middle School. While not the museum job she'd envisioned for herself, she found she loved the work. There was so much creativity beyond keeping up with books, and she loved the creativity in developing projects and activities with the students. She also works in the middle school afterschool program and with MATCH, a new non-profit organization offering afterschool programs for young adults with disabilities with a focus on independent living and social skills.

Her interest in Noyo Center for Marine Science came about because of her participation in a 40-hour, week-long naturalist certification program she attended near Truckee. One of the program's requirements upon graduation is to do a capstone project, and Monika looked to the Noyo Center for volunteer opportunities, becoming a docent at the Crow's Nest and joining the beach survey team, both of which she loves. Due to the constraints of her regular work schedule, she has had to put this on hold, but plans to return as time permits. Monika loves all the creative and educational opportunities the Noyo Center offers in its outreach and programs.

Leaving Louisiana was hard, especially leaving her twin sister, but the space between them has strengthened their relationship as they seek new opportunities. Her sister visited in October for a visit and Monika is heading home for the holidays where the whole family will be gathering. She'll be back after the holidays to her new home, her two cats, her two dogs, jobs, friends and of course to continue her contributions to Noyo Center for Marine Science. Safe travels Monika and we look forward to your return.



Noyo Center Halloween Festivities

Donna Worster

It's always difficult to relive an afternoon-evening of spontaneous combustion for those that only read about it, so read between the lines and remember what it was like for you in High School. This is from my viewpoint of utter foolishness and frivolity. I'll try not to repeat what I captured in the Crow's Nest/Poop Deck News of November 2, 2023.

When a costume party for the volunteers was announced I thought it would be one I could miss. Make-up, wigs, and costumes are not in my closet, but I just happened to get hold of a Block sweater from San Mateo High School graduating class of 1949. We were the "49'ers and had a gold miner pulling a donkey over the block of San Mateo. My sister kept it all these years and wondered if I wanted it. Bingo, a costume!



Noyo Center Halloween Festivities - continued

Funny how some memories remain forever. Father's white shirt, rolled up blue jeans, bobby sox, saddle shoes, binders, books—easy costume. I borrowed a wig and by using that I was prepared. I asked a friend to dress as my boyfriend, but she didn't share my enthusiasm. Sunglasses, pancake make-up, lipstick, yearbook for 1949, and I was ready, a foolish seventeen-year-old teenager about to wow the crowd.

First off, I was not recognized. I was greeted by Shakespeare and his little sidekick, then a tall cat masked bandit. I put my food offering down and headed outdoors. Wow there sat a black garbed butterfly waiting to engulf me with her wings. Black eyelashes and black wig perched on a stool just waiting to flutter. Then around the corner camthe tooth fairy! Tall and gliding ready to tap her wand and make my teeth appear. No names are mentioned, except my namesake and her husband were dolled up in black and red munching and greeting. What a couple!

One of my daughters told me years ago, "bring a prop" if you want to fit in with any gathering. In 1942, I was given an autograph book as a birthday present, and I brought it to pass around for signatures. It didn't get very far as the postings of ten-year-olds brought more laughter than signatures. As I stopped at one table I was asked, "You graduated from San Mateo High?". "My mother graduated from San Mateo High around 1947." (Later I found his mother's graduation picture in the 1946 copy of the yearbook, and I was able to share it with him).

By now the feasting was over, the crowd getting quiet, and someone asked Sarah to start the music. I was in a fog with all the latest tunes. That's not what I know or how even to dance to. Sarah asked me what my favorite song was and after a long hesitation, I remember the song that was voted as the best for the class of 1949. (Anybody remember, "I'd like to get you on a slow boat to China, all to myself alone, get you and keep you in my arms evermore" ... It was found on her boom box, but it fell flat with the crowd. Out of the blue, I remembered a conga line that used to get everyone one up and going. Sue told me that she taught dancing and away the party went with one, two, three, kick—one two three, kick.



Mysterious 49er



Sue Coulter leading the Conga Line



Donna Kimball and revelers in Conga Line



Noyo Center Halloween Festivities - continued



Alix Phillips, Linda Francis, and Sharen Parker



Mary Jackson and Wendi Felson



Toni Rizzo and Donna Worster



Sue Coulter



What Washed In

Nancy Lloyd

Our marine mammal response team led by Noyo Center's Stranding Coordinator Sarah Grimes, has been busy with responses to deceased sea lions that continue to wash ashore in our range. The count has been close to 50 sea lions since August. It has been a rough season overall for California Sea Lions along the north coast, with higher-than-normal numbers being "rescued" and given a second chance by the Marine Mammal Center's local rescue teams, many of whom are also Noyo Center Volunteers.

This month, Sarah's team had its tiniest marine mammal washup ever, which was a very small Northern Fur Seal pup, only about a third of a meter long, and perhaps 5 months old.

Remember the large California sea lion male, which was bitten by a shark, and had been resting since September on the Noyo Harbor docks tending his wounds? Recent sightings of this same male sea lion have him now swimming in Noyo Harbor, sporting his healed shark bite scar as he goes.



SAVE THE DATE: December 13th will be a Science Social, in person for the first time since 2019, along with Sarah Grimes presentation: Washed Ashore Year-End Review. [DETAILS HERE.](#)

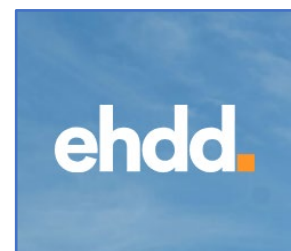
IMPORTANT REMINDER! Report DECEASED marine mammals to Noyo Center's Stranding Coordinator: 707-813-7925. Reports of LIVE marine mammals in distress: The Marine Mammal Center at 415-289-SEAL.

News and Notes

Wendi Felson

EHDD has been selected as the architectural firm to design the Ocean Science Center

The Noyo Center Board has engaged a top San Francisco based architecture firm, EHDD, to advance our designs of the future Ocean Science Center on the Noyo headlands. EHDD had many favorable aspects to their presentation which we were looking for: innovative and creative ideas for the building and landscape; experience in museums and aquariums projects; producing effective fundraising materials and support; a commitment to sustainable building design; and a top team to work with. In addition, their proposal included expertise in developing a plan for the Blue Economy Feasibility Study to help us better integrate Blue Economy opportunities into the design of the building, including potential commercial scale purple urchin aquaculture. The next steps will include research and investigation as to what our board, staff, and volunteers would like to see in the Ocean Science Center. This process will include input from the community through a series of public meetings at various steps along the way. Stay tuned for updates as we will want to hear from you.



Toy Drive

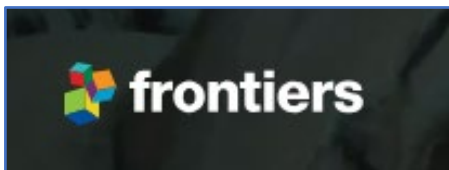
Noyo Center for Marine Science is collecting toys for the Mendocino Coast Children's Fund. Come down to the Discovery Center for your holiday gift shopping and while you're there, buy a toy for the toy drive, and drop it in the collection box at the Discovery Center. Toys will be collected until December 17th.



ABOVE BELOW

ABOVE/BELOW is a project created by Co-Directors Marianna Leuschel and Josie Iselin to raise awareness of kelp forests on the North Pacific Coast. This web-based book, *The Mysterious World of Bull Kelp*, is their signature project—celebrating the power of art and science to tell the bull kelp story.

Visit the [ABOVE/BELOW WEBSITE](#) to dive deeper into the fascinating world of kelp forests.



Frontiers in Marine Science

Noyo Center's Sarah Grimes is among the research contributors to a new publication in the prestigious science publication, *Frontiers in Marine Science*. The title of the paper is *Osteofluorosis in Free Ranging California Sea Lions* and you can read the full paper [HERE](#).

Congratulations to all the contributors to this important research:

Margaret Martinez, Jaclyn Isbell, Pádraig J. Duignan: The Marine Mammal Center

Michelle Rivard: SR3 Sealife Response, Rehabilitation, and Research

Chelsea Sykes, Robert Poppenga: California Animal Health and Food Safety Laboratory, School of Veterinary Medicine, University of California, Davis

Sarah W. Grimes: Noyo Center for Marine Science

December Calendar

- Saturday, December 2nd, 10 am. New volunteer orientation. Field Station.
- Sunday, December 3rd, 5:30 pm. Lit Boat parade viewing from the Field Station deck. There will be beer, wine, chowder and chili, holiday cookies and one of the best seats in the harbor! There will be a \$5 entry fee and children are free.
- Monday, December 4th, 6 pm, Pinniped Press monthly zoom meeting. <https://us02web.zoom.us/j/85648325119>
- December 11 – 27th is another Solstice Sea Star bioblitz. We encourage you to participate. For more information: <https://www.inaturalist.org/projects/winter-solstice-sea-star-search-2023>
- Wednesday, December 13th, 10 am. Docent's monthly meeting at the Field Station.
- Wednesday, December 13th. Our annual *What Washed In* presentation by Sarah Grimes. This will be an in-person Science Social event at the Noyo Center Marine Field Station, as well as live on Zoom. Beer, wine, and non-alcoholic beverages will be available for purchase. Doors open at 5:00 PM, presentation and Zoom program begins at 6:00 PM. Details and Zoom registration [HERE](#).
- Monday, December 11: Mussel collection. 2:30 pm. Meet at the Enchanted trail head (first pullout after the Montessori School on HW1).

The Pinniped Press team: Dobie Dolphin, Wendi Felson, Linda Francis, Nancy Lloyd, Donna Worster, and Toni Rizzo, with Trey Petrey.

If you have photo or writing skills or have a particular idea for an article, want to join a great group, or send a letter to the editor, write to Toni at: editor@noyocenter.org

