



The Pinniped Press

A Newsletter by and for Volunteers of the Noyo Center for Marine Science

Articles in this newsletter do not necessarily represent the views or opinions of the Noyo Center for Marine Science.

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Volunteer Opportunities

All our volunteers are very busy this month helping the Noyo Center and the community celebrate Whale Festival. We could all use your help going forward with a full schedule of events throughout the year. Now is a great time to become a volunteer or to sign up for additional volunteering opportunities.

- Docents are needed at the Crow's Nest on the Noyo Headlands Trail. We have a variety of days and shifts available. We have a great training program and a fun group of people to work with.
- The Beach Survey Program (a beach and/or bluff monitoring program surveying the Mendocino coast) has a few available locations.
- This newsletter, the Pinniped Press needs writers for environmental, research, and community interest articles. No prior writing experience needed.
- With so many upcoming events from now through the fall, we need volunteers to help with event planning, promoting and participating. We are part of the North Coast Kelp Festival in May, a concert in June, parade floats in the summer, a fall fundraiser among the events and activities coming up this year.

Who to call? When you find:

- A live marine mammal, call The Marine Mammal Center at (415) 289-7325.
- A dead marine mammal, call Sarah Grimes, our Stranding Coordinator, at: (707) 813-7925.
- An injured bird call The Bird Rescue Center at: (707) 523-2473
- Most other wildlife, call Wild Life Rescue at: (707) 526-9453

For more information about any of the above volunteering openings, please contact: wendi@noyocenter.org

Noyo Center Vision and History

Donna Worster

At a meeting with a new member of the Noyo Center volunteer team, I was given some information about our history that I was aware of, but realized I didn't know where to guide folks to find this information for themselves. I questioned, "Where did you read that?" and their answer was "on the website." It was such an oversight on my part that I thought a refresher course for the readers might be helpful. When you visit the website homepage there is a tab at the top of the page called [ABOUT](#). There are a few choices when you click here and the first two are where you will find some of the basic history of the organization.

OUR VISION. Mission Statement: To advance ocean conservation through education exploration and experience.

There is a three-pronged approach:

Supporting an innovative research program. The field station is on its way to becoming a research station. Sarah Grimes has been moving equipment leftovers from Slack Tide and Carine's out the door and bringing in all the bones that have had the first stages of cleaning at the water treatment plant to the final prep area now in the garage and wine cellar area of the building. There are soaking tubs large and small, tables wide and narrow and two researchers glowing with enthusiasm. Richard was installing two large ceiling lights Thursday when I looked in. Give the "kids" a week and there may be an actual office like Ed Ricketts had on Cannery Row. (Read *Sea of Cortez* by Steinbeck)

Creating an integrated education program. Stored in another room of the Field Station is all the paraphernalia Sue Coulter uses for the after-school programs, which will continue this year. In the back of the Discovery Center Museum where the rotifers are cared for, are our microscopes and a small, but interesting library with many marine science reference books. Also, in the maker space waiting to be finished is a little river otter. During my watch at the Crow's Nest, I've seen busloads of kids come out for a tour, sometimes dividing into three smaller groups, one for the aquarium, one for the ocean viewing, and the other putting together the cast model of one of the flippers of the giant blue whale. To divert from the learning curve, please check the website for all the activities during Whale Week from Saturday March 2nd to Sunday March 17th. The famous Whale Walks will be happening on four weekends in March.

Building a world-class facility for research, education, and tourism. With the preliminary site work and building plans completed, the environmental review process is the next step toward applying for the necessary permits required to move into the groundbreaking and construction phase of the La-BONE-atory, to be located on the eastern border of our Noyo Headlands property, which we hope will begin later this year. The La-BONE-atory will be 80-feet long with plenty of room to articulate all the specimens we collect for preservation, exhibits, or to add to the Cal Academy collections. The location of the La-BONE-atory will be accessible in the same manner as the Crow's Nest with the addition of a gravel road to the new building. In the meantime, plans are being formulated to move exhibits from the Discovery Center to the Crow's Nest to accommodate the arrival of a male elephant seal from the California Academy of Sciences collection.

When you visit the "Our Vision" page, under the pictures of the original conceptual plan for the Ocean Science Center, the third bullet point down notes "an exhibition space featuring a 73 ft. articulated [blue whale skeleton](#) and other natural exhibits." Click on [blue whale skeleton](#) to read more about the history: "In 2009 a lethal strike from a ship's propeller off the Mendocino coast tragically killed a 73 ft female blue whale....." Scroll down to "The Story of Our Blue Whale," and click on [the amazing blue whales page](#) to learn about Size and Identification, Barnacles, Feeding, and Population. If that doesn't fill your notebook then check out the links at the bottom of the page and read about Seal or Sea Lion, Humpback Whales, and other marine mammal information.

OUR STORY

Here you will find more about the idea behind the creation of the Noyo Center for Marine Science, which originated as part of the City of Fort Bragg re-development plan for the Georgia Pacific mill site. From there, the Noyo Center has grown as part of the efforts to revitalize the economy of the area with the loss of the lumber mill and the decline of the fishing industry. Since those early days we have accomplished so much, and there is much more to come!

Whale Entanglement

Dobie Dolphin

Interaction with fishing gear represents one of the most significant threats to whales worldwide and entanglements have been identified by NOAA's National Marine Fisheries Service as the leading cause of mortality to large whales in the United States. Globally it is estimated that over 300,000 marine mammals, including whales, dolphins and porpoises are dying every year from fishing gear entanglement.

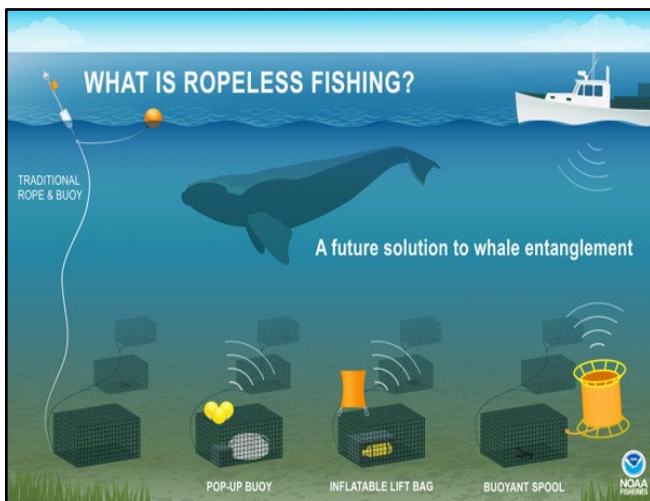
Active, lost, or discarded fishing gear poses a threat, and entanglements can result from a whale's curiosity, distraction or inability to avoid the threat. Lines can wrap around a whale's mouth, fluke, or pectoral fins and once entangled, whales may suffer for months, dragging heavy fishing gear behind them hindering their ability to breathe, swim, and feed. Severe entanglements may cause injuries that can result in death from infection, starvation, amputation (flippers or flukes), blood loss, strangulation, or drowning. Some may free themselves, but many wind up dying.



Photo: NOAA Fisheries

On both the East and West Coasts, crab and lobster fishers are seeing their fishing seasons shrink over concerns that whales are getting entangled in the long ropes attached to their pots or traps. Normally, crab and lobster traps sit on the bottom of the ocean and are tethered to a buoy on the surface by a rope that can stretch hundreds of feet. A commercial lobster boat can have several hundred traps in the water for up to a week. In Maine alone, there are 4,800 commercial lobster boats. Dungeness crab boats can have 300-500 pots and each pot has its own rope. That's a lot of potential for whale entanglement.

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Pop-up fishing gear, also known as on-demand or ropeless gear, keeps the rope and buoy stowed on the ocean floor, until the fisher comes to retrieve it, reducing the amount of line in the water. There are several types of ropeless gear, but they all work in the same way. Traps are released from the boat down to the ocean floor. When it's time to retrieve the traps, crews send an acoustic signal from a transducer on their boat to a release mechanism attached to the first trap or string of traps. Depending on the type of system, either a pop-up buoy, inflatable lift bag, or buoyant spool of rope floats to the surface. From here, the crew can haul traps onto their boats.

In May, 2023, Brad Little was the only one unloading Dungeness crabs at San Francisco's fisherman's wharf. State regulators had closed the crab season two months earlier, due to the arrival of humpback whales in the area. The season opening was also delayed several times in recent years. NOAA's Northwest Fisheries Science Center has created a library of ropeless gear, where fishermen can test the gear in the water and help provide feedback to manufacturers, and Little was trying out the inflatable bag traps.

After setting the traps, Little returns and locates the traps on an app. He hits a button, which sends an acoustic signal to release the rope, buoy, and trap, which rise to the surface. Little says he was skeptical at first, but has found the gear has potential. "For me, it's adapt or die," he says. "You gotta roll with the punches. This problem isn't going away without changing the way we do stuff." His willingness to test out the new fishing gear has not made him popular at the docks. "I get a lot of flak," Little says. "There's a lot of guys really upset with me for doing this."

Whale Entanglement – continued

There's a question of how much slower it is to use pop-up gear. Dick Ogg, a crab fisherman from Bodega Bay, says he's tested the gear. He points out that fishers work with hundreds of traps during already grueling workdays, and adding any extra time with new gear would be an economic hit.

"The process is very fast and it's important to understand if we alter any of this, it has to be comparable," Ogg says. "If I do one extra minute on my pot allocation, that's an extra 5.8 hours a day."

A major challenge to ropeless fishing is locating gear. To avoid gear conflicts ropeless tracking devices must allow all fishers to "see" the location of everyone's gear in real time. An acoustic-based system where the systems and passing boats "talk" to one another is the best long-term solution.

The North Atlantic right whale is one of the world's most endangered large whale species, with an estimated 356 individuals remaining. Entanglement in fishing gear, particularly in buoy lines, is one of the greatest threats to right whales and NOAA Fisheries estimate that more than 85 percent of right whales have been entangled in fishing gear at least once with some individuals becoming entangled as many as eight times during their lives.

The Northeast Fisheries Science Center Gear Library in Woods Hole, Massachusetts, has pop-up buoys, inflatable lift bag systems, and buoyant spools that can be borrowed by commercial fishermen and researchers after completing an in-field training day. In return, borrowers agree to provide information on how the gear works, problems encountered, and suggestions for improvements. This gear can be used in certain areas when there are closures because of whale migration.

Dave Casoni, a long-time lobster fisherman said he's tested pop-up gear, but there's a fair amount of peer pressure to steer clear over worries it will bring more regulation. "Maybe it would send a message that: see, the industry did it, therefore they were in favor of it," Casoni says. "I was accused of that, and I had not intended to do that. I intended to find the shortfalls."

Patrice Maccarron, policy director of the Maine Lobstermen's Association, says the fear among fishermen is that if regulators see them using pop-up gear, they'll mandate it year-round, even when whales are not present. As the fishery closures have mounted, hitting the more than \$500 million lobster industry, it's obvious that something must be done.

"I think we're now seeing a lot more willingness to try this, a lot more feedback, a lot more people who are understanding that we're simply trying to provide fishers a tool so they can access these closed areas," says Henry Milliken, who helps run the gear library at NOAA's Northeast Fisheries Science Center. Thanks to the input from fishermen who have tested the fishing gear, major improvements have been made over the past two years. Success rates have exceeded 90% with gear hauls increasing from 118 in 2020 to more than 4,000 in 2023.

Funding is needed to help test appropriate gear modifications for specific fisheries and to support purchasing new gear. The California Ocean Protection Council disbursed \$2.9 million for whale entanglement reduction projects, including testing gear innovations within the Dungeness crab fishery. Senators and Congressmen in Rhode Island announced almost \$3.5 million in grants to support the adoption of innovative fishing gear across New England to protect the right whale.

The price tag for pop-up systems can cost from hundreds to thousands of dollars per unit, which adds up for boats with hundreds of traps. To deploy the gear in a fishery equitably, boats would need grants or loans to defray the costs. One solution would be to have the government loan ropeless systems when the season is closed due to whale migrations. It will take some time for these systems to fully replace traditional crab and lobster pots.

Entanglement Reporting Hotline: 1-877-SOS-WHAL or 1-877-767-9425; The U.S. Coast Guard: VHF Ch. 16

Note: The Noyo Center science talk on April 11 with Smelts.org will focus on technology in new equipment to help prevent entanglement of marine mammals. Visit the [WEBSITE](#) for registration info and more details.

References

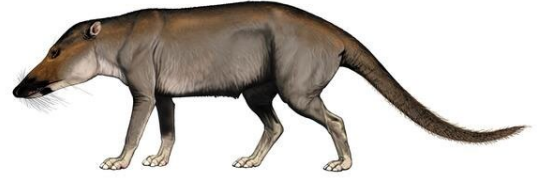
Developing Viable On-Demand Gear Systems. NOAA Fisheries. [Website](#)

Sommer, L. This fishing gear can help save whales. What will it take for fishermen to use it? OPB. February 2024. [Website](#)

Take a deep dive into right whale entanglements. WDC. [Website](#)

50 Million Years Ago... plus a few interesting facts about Gray Whales (*Eschrichtius robustus*)

It may seem odd to think about, but gray whales (and other whales) likely once had certain characteristics similar to many terrestrial animals. According to the American Museum of Natural History, a four-footed land mammal named Pakicetus, living some 50 million years ago in what we know as Pakistan today, bears the title of “first whale”, and is possibly an early relative of the gray whale. Straddling the two worlds of land and sea, the wolf-sized animal was a meat eater that sometimes ate fish, according to chemical evidence. Pakicetus also exhibited characteristics of its anatomy that link it to modern cetaceans, a group made up of whales, porpoises, and dolphins.



Artist's impression of *Pakicetus attockii*
© Carl Buell, 2006

Over millions of years, today's whale evolved to have its nose move to the top of its head because it was now spending all its time in the ocean.

Today, all whales are aquatic and are either baleen whales with two blow holes (noses), or toothed whales, with one blow hole.

The gray whale is a Baleen whale and spends its time in the Pacific Ocean, along the western coast of U.S., Canada, and Alaska.

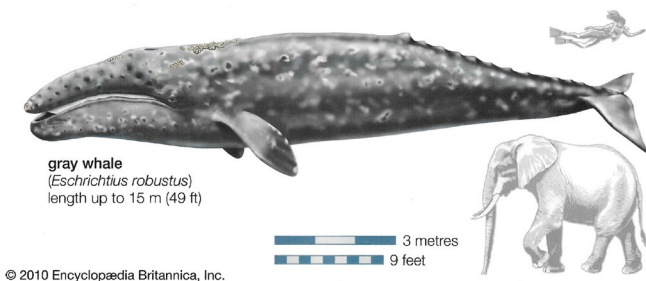
At one time, almost 27,000 gray whales migrated each year. Recently, the numbers have dropped and in 2023, 14,500 migrating gray whales were counted.

They migrate from their feeding grounds in Alaska to the Lagoons of Mexico every year.

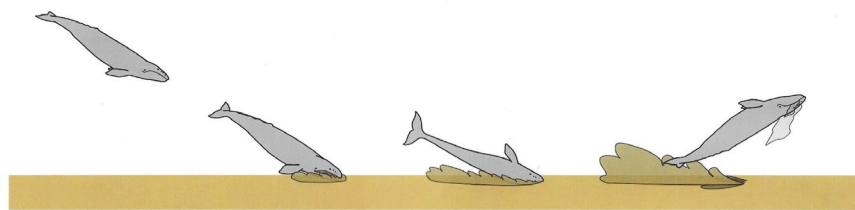
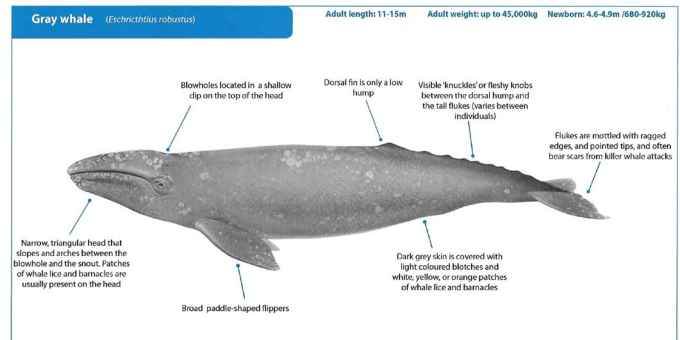
Most gray whales do not eat or eat very little during their 12,000-mile round trip migration. They swim 24/7 at about 5 MPH, covering 200 miles per day to reach the lagoons of Baja, Mexico.

What's in Baja? It's a Whale of a Party! Most pregnant females give birth and nurse their calves; the males try to impregnate as many females as possible, the adolescents watch and learn and play.

A gray whale can weigh up to 90,000 pounds! Newborn calves are approximately 14 to 16 feet long and weigh about 2,000 pounds.



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Gray whales are primarily bottom feeders that consume a wide range of benthic (sea floor) and epibenthic (above the sea floor) invertebrates, such as amphipods. Gray whales suck sediment and food from the sea floor by rolling on their sides and swimming slowly along, filtering their food through 130 to 180 coarse baleen plates on each side of their upper jaw. In doing so, they often leave long trails of mud behind them and "feeding pits" on the seafloor.

Volunteer Highlight: Teresa and Dave Skarr

Linda Francis

There was finally a break in the rain when I met Teresa and Dave for a cup of coffee. Both Dave and Teresa were born and raised in the Bay Area, she in Portola Valley and Mountain View and he in Sunnyvale. Teresa graduated from UC Davis and Dave from San Jose State.

After college they met in 1988 when they worked at a San Jose weekly news and business magazine called the *Insider*. Dave was a reporter and Teresa the Creative Service Director. They worked together for over a year, becoming best friends, not dating but enjoying each other's company. Due to competition in the weekly news magazine market the *Insider* went out of business in 1989, though sad for the magazine, good for Teresa and Dave. Once they were not work colleagues, they began dating and the rest is history.

Teresa got a job working with a medical device company, a career she would have over various companies for the next 35 years. Dave worked in Communications for the Youth Science Institute, which offered classes in natural science and woodland experiences to kids in the bay area. Wanting to buy a home and start a family, they decided in 1993 to move to Seattle. Teresa again got a job in the medical device field. Dave worked with the Greater Seattle Chamber of Commerce's Partners with Public Education program, connecting companies to schools to provide training and internships. They also offered a Resource Bank, taking "old" equipment, furniture, and other supplies companies no longer used, making it available to schools.

In 1997, their daughter Laura was born. After trying to juggle their work schedules, and then when daughter Anna was born in 1998, Dave became a stay-at-home Dad. Dave said while it had both its good and bad days, he loved doing it. Then Teresa's company was acquired by another, and the workplace changed. So, the family moved south in 2005 to Windsor where Teresa got a job with Medtronic. Her job was educating regulators about various medical device products to get them approved for use.

Dave worked for the American Red Cross in public relations, marketing and development until the Red Cross consolidated departments. He then went into real estate until they both retired. Meanwhile Laura, now 26, graduated from San Jose State and is a medical device engineer in Santa Rosa. Anna graduated from UC Davis with a MA in public health and works in DC for the Bureau of Humanitarian Assistance with the US AID agency, where she tracks humanitarian projects in foreign countries.

Teresa and Dave had both spent time on the Mendocino coast as young adults, and then camping with their kids. Teresa visited Crow's Nest on one of those trips and enjoyed seeing the aquarium and other exhibits. They bought a house in Fort Bragg in 2018, moving here full time in 2022. After retirement, Dave began his hobby of home repair. Teresa meanwhile took up watercolor after taking a great class at Mendocino College and began taking assorted free online classes, one of which was with Kiel University in Germany on the ocean. There she had an assignment to find local ocean conservancy organizations, which led her to taking a Noyo Center volunteer orientation class, where she realized the breadth of Noyo Center's programs.

She and Dave became beach surveyors, first at Belinda Point and now at Hare Creek. They docent together at the Crow's Nest twice a month and will be active during Whale Week doing two Saturday whale walks. They find the team approach works well as Teresa presents the information while Dave keeps an eye out for the whales.

Teresa and Dave like that Noyo Center offers the opportunity to be community scientists, while not only caring about the ocean but the community as well. They are excited about the Blue Economy, the desalinization project, the ocean science center, and more. Teresa and Dave are a lovely couple who beautifully complement each other. Lucky them and lucky for us as well.



Teresa and Dave

Whale Tail License Plates

Linda Francis

I've noticed whale tail license plates for years. I thought they were just another form of vanity plates. Turns out purchasing one is so much more. It is a program of the California Coastal Commission.

From the Coastal Commission's [WEBSITE](#): "Why a WHALE TAIL® plate? Your DMV WHALE TAIL® plate fees protect and restore the California coast and ocean. Your money goes towards things like curbing ocean plastic pollution, restoring habitat for animals, supporting beach access, and teaching kids to become coastal stewards. The WHALE TAIL® Plate funds non-profit groups doing important education and conservation work, provides free resources for educators, and empowers volunteers to take action to protect the coast....A small administrative fee (about \$22) goes to the DMV when the Plate is first purchased. The rest of the cost and all the annual renewal fee is a tax-deductible charitable contribution that supports environmental conservation programs."



These monies are distributed via grant programs. Noyo Center for Marine Science has received three such grants going back to 2013/14. The 2021/2022 grant funded the following: "Youth will learn about trash, recycling, and ocean health through classroom lessons, campus trash audits and beach cleanups, as well as an ocean plastics exhibit at the Discovery Center in downtown Fort Bragg involving the wider community." Noyo Center's education coordinator, Sue Coulter, teaches many of these programs through our local schools while other Noyo volunteers and staff work to carry out other aspects of the grant.

While I've heard people speak of the California Coastal Commission, I had no idea how they came to be nor all they do. Whale tail license plates is just one of the California Coastal Commission's many educational and environmental programs. Their primary and huge responsibility is jurisdiction over any development in the coastal zone, whether the developer is a private business, individual person, or a government agency—including the federal government. The zone reaches three miles into the ocean—the outer limit of state waters—and about 1,000 yards inland from the high tide line. A truly big job!

I ended up on a deep dive into a California Coastal Commission rabbit hole. Their web presence is excellent, so I won't try to recreate information here, but rather will share a few locations I liked about how the commission came to be.

For an interesting, compelling video, meet the people who did the hard work of protecting our access to the coast and creating the commission in "The Heroes of the Coast" by Earth Alert found [HERE](#). It's 50 minutes long but I was engaged from beginning to end. For me it was a walk through my past – PGE's effort to put a nuclear power plant on Bodega Head, Sea Ranch developers' plan to close off over 10 miles of coastal access, the 1968 oil spill in Santa Barbara. Following their efforts to create the commission, the three times it didn't make it through the legislative process, to its creation by a statewide Initiative, and finally their hard work of birthing and nurturing the commission into permanent existence. They are a diverse cast of characters who refused to give up access to the coast and to protect it from Mexico to Oregon. Thanks to their efforts the 850-mile CA coast has over 350 miles of accessible coastline.

For a shorter version of the events leading to the formation of the commission check out a [2023 article](#) in the Santa Clara County News. It was great to be reminded of what a group of dedicated people can do. Hope you'll enjoy watching and reading and then join me in getting a Whale Tail License Plate!

Getting a whale tail plate is easy. Just go to their [WEBSITE](#).

Visit the Discovery Center Store and check out the selection of new book titles and apparel.

Noyo Center Volunteers receive a 15% discount on all merchandise.

And pick up the latest issue of Word of Mouth magazine, featuring an article about our Urchin Ranch.

Whale Festival 2024



Noyo Center has a variety of activities planned for this year's festival season that are sure to inform, entertain and astonish visitors about the extraordinary lives and capacities of the gray whales and the many other cetaceans that visit our coast.

Each weekend in March we will have docent led educational Whale Walks along the Noyo Headlands Trail. These walks are scheduled for Saturday and Sunday at 10 am throughout the month of March. Sunday walks will feature docents providing information in both Spanish and English. Heavy rain cancels.

Among the many other events on the schedule is the screening of the new film [Right Over the Edge](#), about the rare Northern Pacific Right Whale. The filmmakers will join us after the film for Q & A.

For information about all upcoming activities and events visit the [Whale Festival 2024 Events Page](#).

Volunteer and Staff Appreciation Party

Toni Rizzo

In January, the Noyo Center Board of Directors threw a volunteer and staff appreciation party Chili Cookoff featuring their favorite chili recipes. From a vegan Satan's Chili to a Wicked Chili, Texas Chili, vegetarian chilis, and beef chili, there was something for everyone to enjoy. Awards were given to volunteers for years of service and everyone had a sizzling time.



Chili bar



Joe DuVivier and Sharen Parker



Sheila Semans, Wendi Felson



Mary Rodgers, Jim Havlena



Dave Turner, Linda Francis, Rick Cash, Dania Stoneham

Volunteer and Staff Appreciation Party Photos - continued



Will and Randi Roberts



Jim Kimball and Peggy Martin



Donna Worster



Donna and Jim Kimball

Calendar

- March 4, Monday, 6 pm: Pinniped Press Zoom meeting. All are invited. [ZOOM Link](#)
- March 6, Wednesday, 10 am: Docent's meeting at the Crow's Nest.
- March 8, Friday, 9 am: Board of Director's meeting, Field Station
- March 8, Friday, 2 pm: Mussel collection, meet at Enchanted trail head (just north of Montessori school).
- March 15, Friday, 6 pm: Science Social (Hands through Time with Jeff Jacobsen) and trivia night, Field Station.
- March 16, Saturday, 7 pm: "Right Over the Edge" documentary followed by filmmaker's panel, Field Station
- March 20, Wednesday, 6 pm: Science Talk by John Calambokidis on Gray Whale feeding strategies and population dynamics. Visit the [WEBSITE](#) for registration information.
- March 22, Friday, 6 pm: Whales Ashore Science Social and trivia night, at the Marine Field Station.

The Pinniped Press team: Dobie Dolphin, Wendi Felson, Linda Francis, 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