

# SUPERINTENDENT'S QUARTERLY REPORT

JULY THROUGH SEPTEMBER, 2017

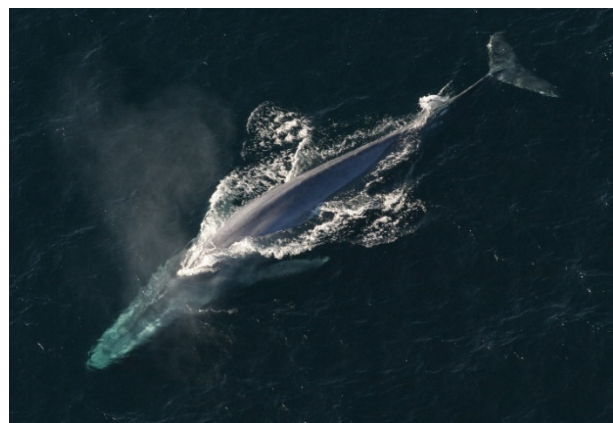
## Public Overwhelmingly Supports Continued Sanctuary Size, Protections

In April 2017, President Donald Trump signed Executive Order 13975 requiring review of 11 national marine sanctuaries and monuments created or expanded within the past decade. Eliminating or reducing protection of these areas could result in opening them up to offshore oil and gas prospecting, oil drilling, deep sea mining and other commercial activities.

Among the marine sanctuaries reviewed were Monterey Bay, and the Greater Farallones and Cordell Bank national marine sanctuaries off the Marin, Sonoma and Mendocino coasts. These sites reflect the conservation legacies left by presidents George H.W. Bush, William J. Clinton and Barack H. Obama. They are considered "biological hotspots" of global importance, and are habitat for numerous endangered species. Commercially valuable fisheries operate in these highly productive food-rich waters. Giant blue whales and commercially valuable Dungeness crabs, and other marine life share the benefits of marine sanctuary protection.

Over 100,000 public comments were received, with 99% in favor of retaining protected status. Fewer than 1% were in favor of reducing or eliminating them.

The report was submitted to the president October 25 by U.S. Commerce Secretary Wilbur Ross.



## MANAGEMENT

### **Joint Advisory Councils Hold Biennial Meeting**

On Wednesday August 16th, the Greater Farallones and Monterey Bay Sanctuary Advisory Councils held their biennial joint advisory council meeting in Half Moon Bay, CA. As Greater Farallones manages the northern portion of the Monterey Bay sanctuary, members received updates from the Greater Farallones Superintendent regarding sanctuary programs and activities in the northern management area including education, resource protection, citizen science, conservation science, and maritime heritage. The councils also received an update on the 2016 recommendations from the Greater Farallones Advisory Council to the Monterey Bay Advisory Council regarding actions pertaining to the northern management area. Sanctuary staff gave a presentation regarding beach nourishment related to the sanctuaries' sediment management projects and the Monterey Bay Advisory Council will take action in the fall to inform their Management Plan Review. Greater Farallones and Monterey Bay Sanctuary Advisory Councils partner on issues affecting the northern portion of Monterey Bay sanctuary and hold a joint meeting every two years.

## CONSERVATION SCIENCE /RESEARCH

### *Monitoring To Understand Long-Term Trends*

### **Farallones Research Coordinator Represents Federal Government on Science Council**

In September, Conservation Science staff participated in the semi-annual research and governing council meeting of the Central and Northern California Ocean Observing System (CeNCOOS). The Greater Farallones research coordinator serves as a federal representative on the council, providing input on how CeNCOOS can serve as a portal for data from the regional sanctuaries, as well as how sanctuaries use that data.

CeNCOOS is part of nationwide, integrated coastal ocean observing systems, conducting research and providing funding to sustain long term monitoring of ocean parameters, from Point Conception north to the California-Oregon border, out to 200 nautical miles, and includes bays and estuaries within this region. It provides a data portal for oceanographic and biological data, maps and observations, found at: <http://data.cencoos.org/>. Researchers investigating ocean currents, harmful algal blooms, and climate impacts presented their recent findings and strategic planning to sustain these monitoring efforts. Key partnerships enhance protection of sanctuary resources and provide crucial outreach, which engages the public and helps raise awareness of the sanctuaries.

### **Greater Farallones Sanctuary Hosts Statewide Marine Protected Areas Meeting**

Farallones Conservation Science staff co-hosted a statewide meeting this summer with fourteen organizations from MPA (Marine Protected Areas) Watch. MPA Watch is a statewide citizen scientist initiative designed to monitor human use, consumptive and non-consumptive activities, and their impacts within and outside the state's MPAs. California MPAs lie along the California Current Ecosystem, one of the top four biologically richest, most diverse marine ecosystems on the planet.

MPA Watch organizations train and support volunteers in the collection of relevant, scientifically rigorous, and broadly accessible data. Data from the Greater Farallones Beach Watch project contributes to this monitoring effort.

Participants representing these organizations discussed online data tools and accessibility, data uses by state and federal agencies, and funding efforts.

## ***Coastal Monitoring – Beach Watch***

### **Farallones Beach Watch Class of 2017 Volunteers Trained in Coastal Surveying**

This fall conservation science staff “fledged” the newest class of Beach Watch volunteers. Trainings of 21 new volunteers were held through the summer and fall. Volunteers received about 80 hours of training, long-term support and continuing education by the Greater Farallones Association. Formal in-class and field trainings were conducted. The volunteers received one-on-one training in the field while conducting their first few surveys.

Volunteers provide thousands of hours of data collection and data entry on live and dead shoreline birds and mammals, as well as human activities and pollution. For more information go to [www.beachwatch.farallones.org](http://www.beachwatch.farallones.org)

Beach Watch, a sentinel site monitoring project, provides valuable information to sanctuaries and partner agencies on a variety of management issues, including compliance with state and federal laws, climate change, wildlife disturbance, and status and trends of coastal wildlife.

## ***Sanctuary Ecosystem Assessment Surveys***

### **Sanctuary Ecosystem Monitoring Cruises**

In July and September Cordell Bank National Marine Sanctuary (CBNMS), Greater Farallones National Marine Sanctuary (GFNMS), and Point Blue Conservation scientists partnered on two of three cruises for 2017 to survey the pelagic and nearshore ecosystem as part of Applied California Current Ecosystem Studies (ACCESS). Scientists collected seabird and marine mammal data, oceanographic measurements, and sampled for prey availability along predetermined transect lines. Scientists collected data on the ecosystem conditions that supported these aggregations. Observations included moderate to high numbers of humpback

whales, some near the entrance and inside San Francisco Bay, abundant Common Murres with chicks, and Cassin's auklets. Net sampling recorded small and adult-sized krill, copepods, and large amounts of phytoplankton nearshore. The July cruise hosted a Teacher-at-Sea and several graduate students collecting data on ocean acidification as part of ACCESS. They posted daily about the eight-day research mission at [www.facebook.com/ACCESS.Partnership](http://www.facebook.com/ACCESS.Partnership).

ACCESS is a collaborative effort of CBNMS, GFNMS, and Point Blue Conservation Science for ongoing data collection to understand status and trends of sanctuary resources, ecosystem health, and response to climate change.

### **ACCESS Data Informs Whale Protection Study**

Data from the Applied California Current Ecosystem Studies (ACCESS) were used to inform researchers from Point Blue Conservation Science and Cascadia Research Collective about the abundance and distribution of humpback, blue and fin whales in the sanctuaries. Data were incorporated into a nationwide examination of ship strikes and recovery rates of three species of baleen whales prone to being killed by ship strikes. The new publication, “High mortality of blue, humpback and fin whales from modeled vessel strikes on the U.S. West Coast suggests population impacts and insufficient protection.” The report argues that current efforts to reduce whale ship strikes may be insufficient, and that mortality is much higher than once thought. Authors suggest establishing larger Areas to be Avoided, re-routing of shipping lanes, and seasonal reduction in vessel speeds to reduce lethality of ship strikes in areas where re-routing is not feasible. See (<https://doi.org/10.1371/journal.pone.0183052>).

As a sentinel site, the sanctuary recognizes the importance of sharing data to improve information flow and interpret science findings for management agencies.

## Farallon Islands Intertidal Monitoring Reviewed

Working to re-establish monitoring of the "living laboratory" intertidal zone at Southeast Farallon Island, in July Greater Farallones conservation science staff met with Point Blue Conservation Science to revise the long term monitoring of rocky intertidal habitat there. The island, which lies approximately 27 miles off San Francisco, is sometimes termed a "living laboratory" due to its highly restricted human access and the resultant minimal current human impacts. It is also the site of decades-long ecosystem restoration work. Only a handful of scientists have access to the island, where lack of vessel landing sites, prevailing rough sea conditions, and federal regulations ensure that wildlife and habitat remain undisturbed by humans. The sanctuary is also working with staff from the Partnership for the Interdisciplinary Studies of Coastal Oceans (PISCO) and other programs to re-establish monitoring on the island this coming winter. Data sharing agreements and graduate student efforts were also discussed.

## RESOURCE PROTECTION

### *Protecting White Sharks*

#### **Resource Protection Staff Issues White Shark Dive Permits**

Greater Farallones sanctuary regulations prohibit attracting a white shark in the Sanctuary. Under the sanctuary's White Shark Stewardship Project, and to protect and conserve the white shark population, GFNMS may issue a permit for certain activities. This quarter, resource protection staff issued education permits to tour operators. Annual participation in a special sanctuary/shark education training is a permit condition. See training details under *Education*.

## EDUCATION

### *Increasing Awareness of the Sanctuary*

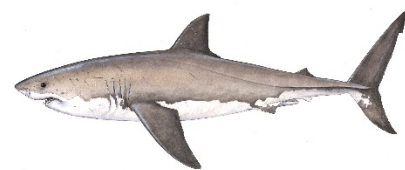
#### *Events - Public Programs*

#### **SharktoberFest 2017 Educates Over a Thousand Shark Enthusiasts**

The Farallones sanctuary's iconic white sharks were the stars of SharktoberFest 2017, as a record-breaking 1,000+ people descended on sanctuary headquarters and visitor center in the San Francisco Presidio Saturday, September 30 for the event. This annual celebration of the white shark's return to their fall feeding grounds, co-sponsored with the Greater Farallones Association, and Shark Stewards, featured shark experts, a science station, shark photography and films, and live sharks.

Hands-on activities like Sharkitecture 101 ("Build a Shark") and shark sculpture modeling demonstrated physiology and adaptations. "Tag the Shark" facilitated discussion of telemetric tracking to study and conserve this unique white shark breeding-age population. Tabling participants included NOAA Fisheries, California Academy of Sciences, California State University's Pacific Shark Research Center, and others who brought special focuses to the event.

SharktoberFest provides the community with an educational and entertaining way to learn about an ecologically important ocean predator. It responsibly presents information and provides opportunities for involvement in shark conservation, all in a fun and informative context. It also emphasizes the importance of place-based conservation. For details see <https://farallones.noaa.gov/eco/sharks/>





Shark modeling teaches physiology, adaptations. Credit: Monika Krach

### Hundreds of Sanctuary Enthusiasts Experience "Getting Into" Their Sanctuary

"I loved catching a real crab! I think the fresh squid really helped!" exclaimed an excited five-year-old during the Greater Farallones' Get Into Your Sanctuary (GIYS) crab workshop Saturday, August 12. Sanctuary staff led two workshops where families caught, examined and released live crabs. Visitors learned about the sanctuary in the Farallones Visitor Center through an interactive game of Bird Bingo. Despite high winds and "lively" sea conditions, five sanctuary partners offered special Get Into Your Sanctuary activities. The Oceanic Society and SF Whale Tours led whale watching trips; Watertreks EcoTours and Point Reyes Outdoors led kayak trips in the sanctuary. Friends of Fitzgerald Marine Reserve offered a ranger led Whale Walk & Talk, staffed a Seal Station, and offered educational games in their visitor center. Although rough seas forced the cancellation of a Sanctuary Explorations Whale Watch, 707 participants nonetheless 'got into' their local national marine sanctuary.

Get Into Your Sanctuary, now an annual event for all sites in the national marine sanctuary system, increases awareness that national marine sanctuaries are special places to enjoy and explore.

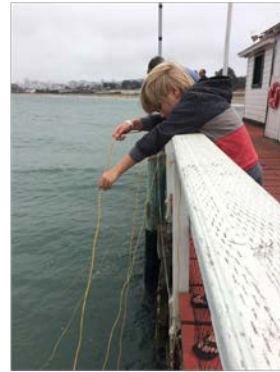


Photo: Budding marine biologists "get into" trapping crab specimens. Photo: Sara Heintzelman/NOAA.

### Miscellaneous Public Programs

#### Plankton Program for Action Network's "Coastal Connections" Summer Camp

On August 8, sanctuary staff provided a three-hour plankton program in Gualala, California for 15 first - fifth grade summer campers participating in Action Network's "Coastal Connections" summer camp. During a slide presentation at the Gualala Point Regional Park Visitor Center, participants learned that plankton are the drifters of the ocean and are the foundation of the diverse and abundant marine ecosystem that Greater Farallones National Marine Sanctuary protects. After this introduction, the group walked down to the beach to collect plankton samples from both the ocean as well as the Gualala River. The students returned from the field with plankton samples to analyze and compare and were able to identify crab, worm, and barnacle larvae as well as a variety of phytoplankton. Action Network is a key community partner on the northern border of the sanctuary with deep ties to the community as well as experience delivering quality environmental science programs.

#### Weekend Family Workshops

Farallones sanctuary Weekend Family Workshops give budding marine scientists an opportunity to share their enthusiasm and increase their ocean

literacy at the sanctuary Visitor Center and Pier Classroom. These workshops have a regular following and provide new participants recruited from school programs an exciting hands-on opportunity to stay connected to sanctuary education programs throughout the year. Weekend family workshops are held twice each month. These programs foster connections within the sanctuary community and provide ocean education to children of all ages. This quarter 189 people participated in them.

Topics included building a Remotely Operated Vehicle (ROV), "assembling" a white shark, plankton sampling and study, crab studies, and our new Octo Lab programs about octopuses. The programs engage ocean enthusiasts of all ages – including some who have never explored the shore, or who have never taken part in a dissection.

### Sanctuary Explorations Series

The Sanctuary Explorations Series provides monthly opportunities for the public to connect with and experience our national marine sanctuaries. Building a strong public sanctuary constituency as well as inspiring ocean literacy, conservation ethics and wildlife etiquette through experiential learning are the goals for the series.

#### Island Restoration 'Explorers' Battle Invasive Species, Reap Rare Bird Sighting "Reward"

In another Sanctuary Explorations program, Greater Farallones staff collaborated with Marin County Parks to provide an opportunity to help restore Bolinas Lagoon's Kent Island on September 9. This important dune-capped flood shoal island is overrun with non-native plants. Eighteen participants from the Sanctuary Explorations program took a short boat ride to the island, where they learned about the dynamic island and dune ecology. After that, they helped remove invasive European Beach Grass to strengthen lagoon function and help restore original dune habitat.

Sanctuary Explorations participants were also joined by renowned ornithologist, author and marine biologist, Peter Pyle, who led them on a bird walk of Kent Island and was a wealth of knowledge about Bolinas, the lagoon and island and, of course, the birds, including some rare sightings.



Piles of European beach grass.  
Credit: Sara Heintzelman, NOAA/GFNMS



Rare sighting of resting Pomarine Jaeger on Kent Island. Photo  
Credit: Peter Pyle

#### Kayakers Experience Tomales Bay Bioluminescent "Magic"

Greater Farallones National Marine Sanctuary education staff partnered with Point Reyes Outdoors to lead an evening bioluminescence kayak excursion. This July, twenty-two Sanctuary Explorers experienced the eerie phenomenon of bioluminescence in the sheltered waters of Tomales Bay. They launched their kayaks as the sun was setting, entered the deepening dark and watched as tiny plankton, called dinoflagellates, created their bioluminescent magic. The Explorers learned about the history, local animals, and the science behind bioluminescence while also

learning basic paddling skills, water safety skills and very important wildlife viewing etiquette.



Explorers salute a Tomales Bay sunset.  
Credit: Sara Heintzelman/NOAA

## WAVES Camps/Public Program

From June 26 through July 11, Greater Farallones staff taught a summer camp to nine urban high school students from the "7 Tepees" youth program. The "WAVES" program introduced the students to a variety of marine science subjects using hands on activities like building ROV's, crab fishing, and plankton studies. The camp culminated in the students developing educational programs, which they taught back to 25 middle school students in the final two days of the program.

## Marine Explorers Summer Camp

### Marine Explorers Camp Doubles Size, Engages 135 Students

The Greater Farallones Marine Explorers Summer Youth Program is a collaboration between the Greater Farallones sanctuary and association, and the City of San Francisco's Randall Museum to provide outdoor field trips and hands-on activities to immerse students in marine science exploration and experiential outdoor learning. The summer program expanded from four week-long sessions in 2016 to eight week-long sessions in 2017 and had a wait list of over 200 students. The 40-hour curriculum included sand crab monitoring, squid dissections, plankton investigations, building and operating

remotely operated vehicles (ROVs), kayaking in Half Moon Bay, and excursions to The Marine Mammal Center and Fitzgerald Marine Reserve. The field-based program provides children with direct experiences to increase their ocean literacy through exploration and discovery.

NOTE: Starting this fall the sanctuary will offer its new Farallones Fall Camp – a mini version of our summer Marine Explorers Camp, above. These three-day camps are scheduled around the holidays: November 20th, 21st and 22nd. Campers will engage in outdoor marine science learning adventures. Camps serve ages eight through 12. See details and registration information at [Farallones Fall Camp Registration](#).

## Visitor Center

The Farallones sanctuary Visitor Center serves ocean enthusiasts of all ages, from the San Francisco Bay Area and all over the world.

Visitor Center School programs include plankton netting for view under the microscope, searching for shore crabs and activities in the Visitor Center to learn about animal adaptations. Students take part in indoor as well as outdoor activities on Crissy Field Beach in the Golden Gate National Recreation Area. Visitor Center attendance for this quarter totaled 6,043.

**Visitor Center Field Trips:** These programs promote ocean literacy and provide standards-based interactive programs inside the center and in the field for kindergarten through high school. Visitor Center field trips served 89 students this quarter.

**Oceans After School:** Using the endless appeal of our local marine wildlife and habitats the sanctuary education team offers 18 hours of fun, hands-on, lively marine science programs for after-school programs on topics such as sharks, salmon, seabirds, whales, squid, and plankton. These

enrichment programs are dynamic, interactive, and integrated into state standards. Our marine science educators deliver the programs during an eight-week window and primarily serve low-income, under-served students. Seventy-five students completed the program this quarter.

**At-Your-School Programs:** The At Your School (AYS) programs served schools throughout the San Francisco Bay area and beyond, primarily during the school term. The AYS program has reached tens of thousands of students with programs such as the Crab Cab, Seabird Shuttle, Sharkmobile and Ocean Acidification. AYS is an outreach program of Greater Farallones National Marine Sanctuary designed to promote environmental literacy and increase students' awareness and knowledge of coastal and marine life. It includes standards-based interactive classroom programs for kindergarten through twelfth grade.

During the quarter, AYS staff traveled to bring ocean education to schools. In total, the programs served 121 students and teachers this quarter.

## Other Outreach

### Farallones Sanctuary Holds Training for White Shark Tour Operators, Naturalists

On Saturday, August 19, Farallones staff conducted its annual White Shark Naturalist Training for shark tour operators and their naturalists who conduct educational trips within the sanctuary. Annual participation in this training is a permit condition. Over 35 participants attended and were briefed on the sanctuary's White Shark Stewardship Project, the importance of white shark protection, other sanctuary wildlife resources, and interpretive techniques. White shark researcher Scot Anderson (from Tagging of Pelagic Predators) and shark necropsy expert Mark Okihiro from the California Department of Fish and Wildlife discussed new research, recent strandings, and emerging pathogenic threats to several shark

populations. See <https://farallones.noaa.gov/eco/sharks/>



Photo: White shark. Copyright: Scot Anderson

Preying mainly on abundant seals and sea lions, white sharks play a vital role in maintaining ecosystem balance. Awareness of this is one of the goals of the sanctuary's education and resource protection efforts. This training helps tour operators become more knowledgeable, effective stewards of white sharks and the sanctuary, and better educate and inspire the public.

### Plankton Workshop for Marine Reserve Docents

On September 23, Sanctuary staff partnered with the Friends of Fitzgerald Marine Reserve to provide a plankton workshop as a continuing education opportunity for 15 of the reserve's docents. Participants explored the weird and wonderful world of plankton in the waters just off Crissy Field by collecting their own samples using plankton nets and viewing live phytoplankton and zooplankton in microscopes as well as on projection screens. Fitzgerald Marine Reserve docents teach thousands of students each year about invertebrate life in the tide pools. The plankton workshop provided the docents more in-depth information about the planktonic stages of intertidal animals such as crabs, mussels, and barnacles.



## ***LiMPETS – Long-term Monitoring Program & Experiential Training for Students***

The Long-term Monitoring Program and Experiential Training for Students – LiMPETS – is a statewide national marine sanctuary program that trains teachers and students to become involved in real scientific investigations and become ocean stewards. Teacher workshops expand teacher knowledge and ultimately increase the number of student citizen scientists doing science along our shores. It also introduces new teachers from a diversity of communities to the national marine sanctuary program. This quarter 156 students and teachers took part in LiMPETS programs.

### **LiMPETS Teachers Workshop**

On August 31, 2017, LiMPETS staff hosted a LiMPETS Sandy Beach Monitoring refresher workshop to nine environmental education/naturalist staff from Point Bonita YMCA. Point Bonita YMCA is an implementing partner for the LiMPETS program and offers the sandy beach monitoring program to a subset of schools in Marin County.

### **Public Talks/Partner Events**

#### **Farallones Staff Discuss Local Whale, Dolphin Trends at “Whaletown” Event**

On August 11, at the Pacifica Community Center, Farallones education staff tabled at “Whale Town and Dolphin City” - a celebration of Pacifica's nearshore abundance of humpback whales and bottlenose dolphins. Naturalists from local whale watch groups spoke on the unusual distribution of humpbacks in the past few years, drawn by coastal-shoaling anchovies. This has caused multiple incidents of whale harassment, when boaters and other recreationists have close-approached the whales, sometimes striking them. The sanctuary staff had around 150 visitors at the GFNMS information table, and provided further information.

#### **Forging a LINC Between Sea, Salmon and Watersheds**

On July 12, GFNMS education staff did a presentation in Bolinas, California to a group from LINC (Linking Individuals to their Natural Community). There were 14 high school students in the group, who learned from the presentation on the relationships between salmon and watersheds. It included the dissection of a hatchery salmon. The sanctuary educators discussed sustainable fishing by displaying salmon fishing tackle and a slideshow on watersheds and the salmon life cycle.

#### **Demonstrating the Power of Partnerships at Sea**

On September 23, GFNMS education staff delivered a presentation to 20 volunteers and staff at The Marine Mammal Center in the Marin Headlands. The subject was GFNMS partnerships in the ACCESS (Applied California Current Ecosystem Studies) research cruises in sanctuary waters, and involved slideshow and video explanation of the long-term research. ACCESS partners include the Farallones and Cordell Bank sanctuaries, and Point Blue Conservation Science.

#### **Presidio Teachers Night**

Every fall hundreds of teachers gather at Presidio Teachers' Night to get inspired, learn what's new, and connect with the broader community to kick-start the school year. The event offers a new theme every year and hosts exhibitors from educational and cultural institutions. Presidio Teachers' Night is produced by the [Presidio Trust](#), the [Golden Gate National Parks Conservancy](#), and the [National Park Service](#).

On September 19, 2017, education staff from GFNMS hosted a table at the event to share Sanctuary k-12 education program opportunities to local teachers. This year sanctuary staff communicated directly with 65 educators at the event.

Teachers' events effect an exponential transfer of information from sanctuary educators, to teachers, who then convey new information to their classes.

## Media Outreach

### NBC News Covers Sanctuary Research Cruise

On September 24, NBC News joined sanctuary and other scientists to survey marine mammals and seabirds in Greater Farallones National Marine Sanctuary. Applied California Current Ecosystem Studies (ACCESS) cruises, a partnership with the Cordell Bank and Greater Farallones national marine sanctuaries and Point Blue Conservation Research, gather long-term data on wildlife and ocean conditions. The coverage showed researchers documenting and photo-identifying the abundant feeding humpbacks, blue whales, and seabirds. Due to the previous day's sighting of an entangled blue whale, media interest was high on the topic of human impact issues and solutions. The reporter filmed several plankton tows which yielded adult krill (prey for seabirds and whales), and sampling for ocean acidification indicators. See the story at <http://www.nbcbayarea.com/news/local/Scientists-Studying-Bay-Area-Ocean-Conditions-Hit-Milestone-449505893.html>. Media reportage of research activities enables the public to witness the sanctuaries at work, protecting and preserving marine wildlife and habitats. It helps to educate the public about issues, and encourages the public to become involved in the sanctuaries' work.

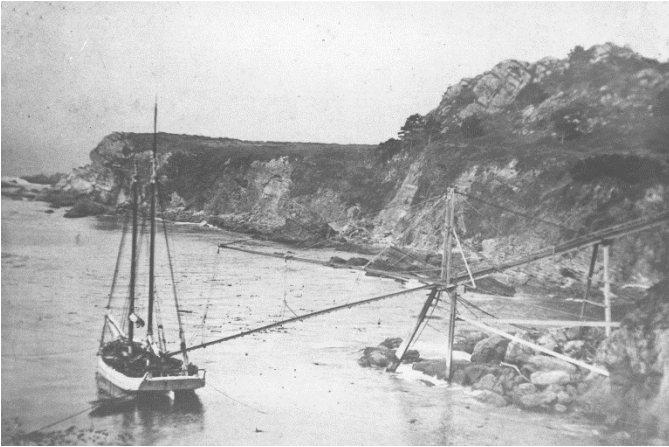


NBC News reporter interviews ACCESS scientist Danielle Lipski/Cordell Bank NMS. Credit: MojosCoast/JThompson

## MARITIME HERITAGE

**Sonoma Doghole Ports Maritime Heritage Project**  
Researchers from NOAA's Office of National Marine Sanctuaries, California State Parks, Sonoma State University, UC Davis' Bodega Marine Lab, and San Francisco Maritime National Historical Park spent a week in August 2017 conducting surveys along California's Sonoma Coast and in Greater Farallones National Marine Sanctuary to record sites associated with lumbering and ranching during the mid-19<sup>th</sup> to early 20<sup>th</sup> century. This effort is a continuation of work started in 2016 to document trans-shipment locations along the Redwood Coast, known as doghole ports, to illuminate the area's maritime cultural landscape and engage with constituents. The story of human interaction with the environment during the heyday of the lumber industry in Northern California can be viewed through the archaeological resources present today. While only a few archaeological indicators remain, these terrestrial and submerged elements act as touchstones revealing a once vital maritime enterprise.

This collaborative project between federal, state, and private partners is helping NOAA meet its National Historic Preservation Act mandates and promote stewardship to better connect present day communities to their maritime heritage.



Doghole port chute structure at Ross Cove, Sonoma Co.  
Courtesy: Ft. Ross Conservancy

### Life-Saving Station Historians, Enthusiasts Gather at Historic Farallones Campus

The US Life-Saving Service Heritage Association (USLSSHA) held its annual meeting at the historic Fort Point Lifesaving Station in San Francisco, CA (aka Greater Farallones Sanctuary Headquarters). The USLSS is the predecessor to today's US Coast Guard (USCG). Several GFNMS staff took part. Presentations covered the history of the sanctuary campus, and noted that it is the world's only surviving architectural design example of its kind. The USCG Commander for the 11th District acknowledged the importance of USLSSHA in preserving the USCG's history. The sanctuary was recognized for its leadership in protecting the sanctuary, as curator for the campus, and for the excellent relationship it has maintained with the USCG.



## Calendar Updates

### November 2017

- 4 & 5 Weekend Family Workshop, Octo Lab.  
Contact [courtney.buel@noaa.gov](mailto:courtney.buel@noaa.gov)
- 11 Tomales Bay Bioluminescence Kayaking.  
Contact [sara.heintzelman@noaa.gov](mailto:sara.heintzelman@noaa.gov)
- 15 Sanctuary Advisory Council meeting, San Francisco Zoo.
- 18 Extreme Sea Life Soiree, Bay Model/Sausalito. Reservations needed:  
[sara.heintzelman@noaa.gov](mailto:sara.heintzelman@noaa.gov)

### December

- 2 Tide Pooling Exploration, Half Moon Bay.  
Reservations: [sara.heintzelman@noaa.gov](mailto:sara.heintzelman@noaa.gov)

### January 2018

- 10 Sanctuary Advisory Council meeting, Bodega Bay Firehouse. Details at <https://farallones.noaa.gov/manage/sac.html>
- 21 Sanctuary Explorations Whale Watch From Half Moon Bay. Contact [sara.heintzelman@noaa.gov](mailto:sara.heintzelman@noaa.gov)

**Ongoing:** Each month the Visitor Center offers special Weekend Family Workshops with themes such as sharks, squid, salmon, plankton and now octopuses and ROVs! Book a program with an ocean focus for your exclusive birthday parties or other special events. *Dates vary*; to schedule individual programs, or special event arrangements, contact [Justin.Holl@noaa.gov](mailto:Justin.Holl@noaa.gov).

Also, every Saturday at noon our Visitor Center naturalists feed the aquarium critters. Just drop in!

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## CONTACT INFORMATION

### Greater Farallones National Marine Sanctuary

991 Marine Drive, Presidio of San Francisco  
San Francisco, CA 94129 -  
<http://Farallones.noaa.gov>  
Phone 415/ 561-6622; fax 415/ 561-6616

### Greater Farallones Association (non-profit)

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San Francisco, CA 94129  
[www.Farallones.org](http://www.Farallones.org)  
Phone 415/ 561-6625; fax 415/ 561-6616

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## GET INVOLVED, AND STAY INFORMED!

Visit the Greater Farallones Association website for updates, details and registration for sanctuary explorations: [www.farallones.org](http://www.farallones.org), as well as the Association Facebook page.

To learn how you can become involved in the sanctuary visit: <http://Farallones.noaa.gov>; or to subscribe to Upwelling, the Farallones Marine Sanctuary Association newsletter: visit <http://www.Farallones.org>.

Follow Greater Farallones National Marine Sanctuary on Facebook and Twitter. Click on



Learn more about the Sanctuary Advisory Council: <http://farallones.noaa.gov/manage/sac.html>

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