

Monterey Bay National Marine Sanctuary

Sanctuary Office Report



Volume 19, Number 4

ABOUT THE SANCTUARY

Designated in 1992, Monterey Bay National Marine Sanctuary (MBNMS or Sanctuary) is a federally protected marine area offshore of California's central coast. Stretching from Marin to Cambria, MBNMS encompasses a shoreline of 276 miles and 6,094 square statute miles of ocean.

Supporting one of the world's most diverse marine ecosystems, it is home to numerous mammals, seabirds, fishes, invertebrates and plants in a remarkably productive coastal environment. MBNMS was established for the purpose of resource protection, research, education and public use of this national treasure.

A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS REPORTING PERIOD: JUNE 4 – AUGUST 4, 2022

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) AND OFFICE OF NATIONAL MARINE SANCTUARIES (ONMS) NEWS

NOAA Adds Sanctuary Nomination To Inventory Of Successful Nominations

In December of 2021, the Aleut Community of St. Paul Island Tribal Government, a federally recognized tribe, submitted the Alaĝum Kanuux (Heart Of The Ocean; Pribilof Islands Marine Ecosystem) nomination for consideration as a national marine sanctuary. NOAA's Office of National Marine Sanctuaries reviewed the nomination and has determined to accept it for the inventory of areas for possible national marine sanctuary designation on June 8, 2022. The nominated area supports globally significant populations of marine mammals, seabirds, and fish, as well as ecological and cultural keystone species such as northern fur seals and Steller sea lions which are vital for the subsistence of the Unangan (Aleut) people of St. Paul and St. George Islands and are integral to their belief systems and identities. Details can be found here.

Department of Commerce Announces National Travel and Tourism Strategy

The Department of Commerce recently announced a new National Travel and Tourism Strategy that focuses federal government efforts to support the U.S. travel and tourism industry and sets an ambitious five-year goal of attracting 90 million international visitors to the United States each year. It is estimated these visitors would spend \$279 billion annually, expenditures that will support job creation in communities across the United States, its territories, and the District of Columbia. NOAA's National Marine Sanctuaries were highlighted as places to showcase diversity, richness, and value of our nation's waters. Through leveraging the recreation, aesthetic, and other sustainable tourism opportunities, national marine sanctuaries draw visitors from across the globe and build strong local economies and highly engaged communities, while establishing a model for destination stewardship to sustainably manage natural and cultural resources

2022 Sea Level Rise Report: Guide Now Available

Community planners and decision makers now have an application guide to help them plan for the significant sea level rise the United States is expected to see in the next 30 years. The guide is a response to the Interagency Sea Level Rise report, which projected about a foot of higher waters, on average, along U.S. coastlines by 2050. That is as much sea level rise in 30 years as the country witnessed in the previous century.



NATIONAL MARINE SANCTUARY NEWS

Our Blue Legacy: Fifty Years of Impact of the National Marine Sanctuary System

The nation's marine legacy from the last half century contains both victories: a global moratorium on commercial whaling, recovery of fisheries, creation of some of the largest underwater parks on the planet; and challenges: climate change, species on the brink of extinction, continuing habitat and biodiversity losses, and a growing problem with plastic pollution. As an integral part of that marine legacy, the National Marine Sanctuary System has a story to tell of change, growth, and impact. This report tells the story of our blue legacy.

Sanctuary staff engage K-6 students on Vessel Speed Reduction efforts inspiring action from global shipping lines

In April 2022, Sanctuary staff conducted a whole-school assembly with K-6 students at Orchard School in Aptos, CA on nature-based solutions to climate change. Education efforts such as these not only increase awareness in local communities of Sanctuaries and what they do, but can also result in positive behavior change among sanctuary partners. The presentation highlighted the role that whales play in the carbon cycle and shared information on sanctuary efforts to reduce ship strikes on endangered whales via voluntary Vessel Speed Reduction efforts. After learning about shipping companies reducing their cargo vessels' speeds to protect whales in the Protecting Blue Whales and Blue Skies Program (Program), the Orchard School students created and mailed whale postcards to the top performing companies in the program to say "thank you for slowing down". All of the company representatives were grateful for the messages from the students, and the top performing shipping line (and the biggest global shipping fleet), Mediterranean Shipping Company (MSC), followed up to say that the students' messages were shared front and center on their global internal newsletter and that they "captured the imaginations of everyone at MSC, all the way to Geneva headquarters." MSC was so inspired by the students' postcards of gratitude that they decided to donate back a \$50,000 financial award that they had qualified for and



received from the Program for reduced speeds in the 2021 season. MSC, alongside 23 other global shipping lines, has re-enrolled in the Program in 2022. The 2022 program season runs from May 1 - December 15 in the San Francisco and southern California regions.

Climate Vulnerability Assessment Workshop

Flower Garden Banks National Marine Sanctuary (FGBNMS) hosted a Climate Vulnerability Assessment virtual Workshop on July 27 and 28, 2022. During the workshop, over 30 participants from academia, partner agencies, and NGOs, were provided with information about current and projected priority climate conditions of FGBNMS and then applied this knowledge to key habitats and species to determine their vulnerability to changing conditions. Participants used a modified version of the Commission for Environmental Cooperation's North American Marine Protected Area Rapid Vulnerability Assessment tool to generate a vulnerability score for key habitats and species. An adaptation planning exercise was held at the end of the workshop to come up with management actions that could be used to help reduce ecosystem stress with projected changing climate conditions in the future. FGBNMS greatly appreciates the assistance from Zac Canizzo, Sara Hutto, and National Marine Sanctuary Foundation for their help with the workshop. The workshop material will be used to draft a FGBNMS Climate Vulnerability Assessment, which will be an important resource to accompany our Condition Report and help guide the next FGBNMS Management Plan.

MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES

SANCTUARY MANAGEMENT

GF and MB Advisory Council Sub Committees hold joint meeting on Vessel Incidents

On June 10, 2022, members of the Greater Farallones and Monterey Bay Advisory Council sub committees held a joint meeting. The agenda included a presentation by MBNMS staff on vessel incidents and a discussion on mutual issues of interest to both sites. The presentation included the regulations pertaining to vessel grounding, sinking and abandonment, and the data from the 2021 WCR Vessel Incident Report as well as some discussion points regarding recommendations in the report. The two sub committees had a productive discussion on some of the key challenges that the sites face with vessel incidents in general as well as some specific ideas on how to improve agency coordination and response times. Vessel groundings, sinking and abandonment (termed "vessel incidents") cause environmental damage to sanctuary resources, are a violation of a number of sanctuary regulations, and a drain on sanctuary resources in terms of staff time required to respond to vessel incidents and salvage costs. The Sub Committees are exploring how sanctuaries can strengthen cross-agency cooperation on responses, as well as provide outreach and education to boaters in order to reduce the number of vessel incidents in sanctuaries.

RESEARCH AND MONITORING

Davidson Seamount Expedition Completed

From June 28 - July 8, 2022, MBNMS staff successfully completed a research expedition to the Davidson Seamount aboard NOAA's FSV Bell M. Shimada as part of ongoing research into the complex relationship between predators and their prey above the extinct volcano. This is the third time MBNMS has collected data at Davidson Seamount as part of a long-term study to understand not only the temporal and geographic relationship between predators and their prey, but also any part that Davidson Seamount itself may have on influencing deep-sea currents to deflect off the 7,500 foot-tall underwater mountain, potentially upwelling nutrient-rich water to the surface, fueling the base of the food web. In all, 2,869 marine mammals and 513 seabirds were counted on 350 linear nautical miles of survey effort. They deployed a CTD 39 times to depths of up to 2,000 meters, collecting water that will be analyzed for environmental DNA, nutrients, and microplastics. Twenty-three tucker trawls and 18 hoop net casts provide a sampling of the available prey over the seamount. Additional work included plankton nets and manta trawls for surface microplastics. This is the third time MBNMS has collected data at Davidson Seamount as part of a long-term study to understand not only the temporal and geographic relationship between predators and their prey, but also any part that Davidson Seamount itself may have on influencing deep-sea currents to deflect off the 7,500 foot-tall underwater mountain, potentially upwelling nutrient-rich water to the surface, fueling the base of the food web.

RESOURCE PROTECTION

\$10 Million Awarded to CA Marine Sanctuary Foundation (CMSF) to Reduce Groundwater Reliance and Support Environmental Conservation in the Salinas Valley

A \$10M grant was awarded to CMSF and will support the Greater Monterey County Integrated Regional Water Management Program (of which MBNMS is a participant) in working with local land trusts to purchase under-performing agricultural land for multi-benefit conservation projects improving water quality, habitat enhancement, recreational opportunities, flood protection and improving groundwater recharge. This was a team effort that required trust and many long-time partnerships to secure this funding and will ultimately fairly compensate landowners for taking their land out of production and provide opportunity to create more sustainable water resources and environmental protection. The projects

constructed on these properties will improve poor water quality flowing to the sanctuary by reducing nutrient and pesticide loads through natural infiltration and/or the use of treatment wetlands and bioreactors. The award was one of five announced for this statewide program from the CA Department of Conservation as part of a multi-faceted response to the ongoing drought. This was a team effort that required trust and many long-time partnerships to secure this funding and will ultimately fairly compensate landowners for taking their land out of production and provide opportunity to create more sustainable water resources and environmental protection.

MBNMS responds to vessel fire incident in Stillwater Cove

On June 27, a fire broke out on a 24' power vessel in Stillwater Cove. Cause of the fire is unknown yet likely an electrical fire. The following day, USCG, CDFW, and MBNMS responded to ensure the remaining wreck was removed from the seafloor and sanctuary. The vessel owner had insurance and contracted with Monterey Bay Diving and Salvage. The salvors floated the remaining hull and towed the wreck over to the pier where it was hauled out. MBNMS requested they conduct a dive survey under the vessel mooring ball to look for any additional debris. A few large and small pieces of the vessel were recovered, and luckily no hazmat items were found. The fuel (approx. 50 gallons) was consumed during the fire and the engine and fuel tank were mostly incinerated to the hull.



S/V Makana Kai Grounds on Capitola Beach During High Surf Conditions

On July 19th at approximately 7:00 PM, the 33' S/V Makana Kai broke free from a mooring ball near Capitola Wharf and grounded on the sandy beach during very high swell conditions. MBNMS,

US Coast Guard, CA Dept of Fish and Wildlife, Capitola Public Works and Capitola Police Department all responded on July 20th. The owner did not have insurance and was not able to finance the removal so the Santa Cruz County Sheriff Department took responsibility and hired Tow Boat US to tow the boat off the beach at high tide that evening. The boat was towed to Santa Cruz yacht harbor and there were no signs of debris or hydrocarbons being released into the environment. This is the second time this summer that the Santa Cruz County Sheriff Department took over financial responsibility for a grounded vessel when the owner wouldn't. They do this under CA State Law Harbors and Navigation Code 510-527. This is a valuable resource and one that should be explored in other counties and sanctuaries in CA. This is the second time this summer that



the Santa Cruz County Sheriff Department took over financial responsibility for a grounded vessel when the owner wouldn't. They do this under CA State Law Harbors and Navigation Code 510-527. This is a valuable resource and one that should be explored in other counties and sanctuaries in CA.

Marine Debris on Monterey Bay National Marine Sanctuary Beaches

MBNMS is assessing beach debris along the shoreline using 4 data sets (TIDES, Surfrider, NOAA MD Map, SOS) from coastal cleanup activities over a five-year period between 2017 through 2021. By understanding the types and prevalence of debris found on MBNMS beaches, we can inform cleanup, prevention and correction efforts. Cities, counties and interested organizations will be able to know the most problematic debris for focused legislative or prevention efforts. This understanding will provide the basis for organizations to strategize how to reduce or eliminate specific types of debris. Three representatives from MBNMS met with 3 NOAA personnel involved in the Marine Debris Program and the developer of the Trash Taxonomy Tool, a researcher from UC Riverside on 7/7/22 to discuss how to harmonize the data sets for analysis of debris categories. We discussed the challenges of using data collected in different ways and reported in different formats as we try to answer the fundamental question: What types of debris are most commonly found on

MBNMS beaches? By understanding the types and prevalence of debris found on MBNMS beaches, we can inform cleanup, prevention and correction efforts. Cities, counties and interested organizations will be able to know the most problematic debris for focused legislative or prevention efforts. This understanding will provide the basis for organizations to strategize how to reduce or eliminate specific types of debris.

Carbon Sequestration in Monterey County's Croplands

Land practices can improve ocean health by reducing atmospheric carbon and reducing the rate of ocean acidification and warming. Thus, the California Marine Sanctuary Foundation (CMSF) in collaboration with the Monterey Bay National Marine Sanctuary, is conducting a healthy soils project at a local rangeland. As part of this project local agriculture stakeholders and CMSF will be hosting a workshop on Carbon Sequestration in Monterey County's Croplands. The intent of this workshop is to discuss current and potential carbon sequestration practices in use within Monterey County's agricultural industry. Hear from a panel of local growers what practices are the most feasible and cost effective. This meeting will provide a space for cropland stakeholders to directly connect with Monterey County leaders and brainstorm for the Monterey County Climate Action Plan. This meeting will also help contribute to the Monterey County Climate Action Plan. The event is scheduled for July 27, from 9:30 am to 12:30 pm, you can attend in person or virtually. Carbon sequestration is a key strategy to help reduce atmospheric greenhouse gasses and mitigate climate change. Through grants such as California Department of Food an Agriculture's Healthy Soil Program and workshops like this one, the sanctuary is able to promote and work directly with agricultural stakeholders to implement multi-beneficial agricultural practices that benefit the sanctuary. This event was held as part of the on-going healthy soils project at Mark's Ranch.

For more information or to register for the event visit -

https://www.eventbrite.com/e/carbon-sequestration-in-monterev-countvs-croplands-tickets-377620522147

EDUCATION, VOLUNTEER AND OUTREACH PROGRAMS

MBNMS and NMSF Secure a Four-Year Outdoor Equity Grant through California State Parks

In partnership with the National Marine Sanctuary Foundation, MBNMS staff have secured a four-year, \$310,000 educational grant to serve students and families from Watsonville, CA. Reaching traditionally underserved inland communities, specifically those who are primarily spanish-speaking has been an MBNMS education goal for the past 30 years. This grant program will enable us to connect with the local Watsonville community by offering programs both within their community, in schools, and through field trips to the Exploration Center. The four-year timeline of the grant will enable us to build stronger partnerships with teachers, schools, and the City of Watsonville. Additionally, offering opportunities for participants to engage in programs through multigenerational learning will strengthen the impact to this community. This grant will support four primary program goals: 1) Offer in-class programs and field trips to the Sanctuary Exploration Center for ten 4th and 5th grade classes annually; 2) Partner with the City of Watsonville to offer community programs through the Watsonville Nature Center; 3) offer an annual "Dia de Comunidad" at the Sanctuary Exploration Center and Santa Cruz Wharf featuring bilingual community programming; 4) Offer paid internships to six community college students per year to support the program. Overall, this program will include approximately 242 activity days both in the community and at the Sanctuary Exploration Center for approximately 7,600 participants during four years of programming. Reaching traditionally underserved inland communities, specifically those who are primarily spanish-speaking has been an MBNMS education goal for the past 30 years. This grant program will enable us to connect with the local Watsonville community by offering programs both within their community, in schools, and through field trips to the Exploration Center. The four-year timeline of the grant will enable us to build stronger partnerships with teachers, schools, and the City of Watsonville. Additionally, offering opportunities for participants to engage in programs through multigenerational learning will strengthen the impact to this community.

MBNMS Staff Wrap-Up the 2021/2022 School Year Distance Learning Program

During the 2021/2022 school year, Monterey Bay National Marine Sanctuary focused on Distance Learning programs while in-person operations, such as the Exploration Center, remained closed to the public. These dynamic presentations included

in-depth interaction, group discussion, and live demonstrations with a sanctuary educator. Since schools were mostly closed, live virtual environmental education was in demand. Distance learning programs such as these were the only sort of "field trip" students had this year. Additionally, MBNMS was able to reach a wider audience and from broader demographics than with traditional in-person programs Available topics included Introduction to Sanctuaries, Protect the Watershed, Plankton Exploration, Dive into Kelp Forests, Deep Sea Discovery, and Sounds in the Sanctuary. In total, MBNMS delivered 75 programs to 19 schools, reaching 1,088 students. 74% of classes reached were Title 1 (low income) schools. Nine teachers completed the entire Five-Part Sanctuary series, and received stipends for completing program evaluations. While the Exploration Center is closed to the general public, it is important to still engage our regular audiences including school groups, volunteers, and the public. Since schools are mostly closed, live virtual environmental education is in demand. Distance learning programs such as these are the only sort of "field trip" students will have this year. Additionally, MBNMS is able to reach a wider audience and from broader demographics than with traditional in-person programs.

The MBNMS Exploration Center Reopens to the Public!

On June 16th, the Sanctuary Exploration Center reopened to the public after shutting its doors in March 2020. The first day of reopening was attended by 240 excited visitors who welcomed the chance to visit again. The Sanctuary Exploration Center's goals are: to educate visitors about the sanctuary's unique and fascinating coastal and marine environment, to foster a more personal connection with the sanctuary and the ocean's relevance in people's daily lives and to encourage stewardship of the sanctuary and a better understanding of how to responsibly enjoy and protect the ocean. The Exploration Center will be open for limited hours on Thursday-Saturday 10am-4pm, with hopes of returning to a regular five day per week schedule this fall. In total, 28 veteran volunteers returned to work at the Exploration Center following refresher training held in May. The Sanctuary Exploration Center's goals are: to educate visitors about the sanctuary's unique and fascinating coastal and marine environment, to foster a more personal connection with the sanctuary and the ocean's relevance in people's daily lives and to encourage stewardship of the sanctuary and a better understanding of how to responsibly enjoy and protect the ocean.

Monterey Bay National Marine Sanctuary (MBNMS) staff give a tour of the Salmonscape exhibit to US Forest Service at the Sanctuary Exploration Center

Sanctuary west coast region and Monterey Bay National Marine Sanctuary staff gave a tour of the Salmonscape exhibit to the US Forest Service in preparation for the exhibit to travel from the Sanctuary Exploration Center to one of the national forest's visitor centers. The Salmonscape was designed, developed and fabricated in partnership with NOAA Fisheries and US Forest Service to travel to visitor centers across California. Over the next few years, this exhibit and its accompanying education and outreach materials will move to our partner's visitor centers to educate about salmon and their journey from the mountains to our sanctuaries. Accompanying education materials (poster, playing cards) were provided and possible partner programs brainstormed over the next few years. The Salmonscape was designed, developed and fabricated in partnership with NOAA Fisheries and US Forest Service to travel to visitor centers across California. Over the next few years, this exhibit and its accompanying education and outreach materials will move to our partner's visitor centers to educate about salmon and their journey from the mountains to our sanctuaries.



Monterey Bay National Marine Sanctuary (MBNMS) partners with Shared Adventures and their "Day on the Beach" Annual event

As part of Enjoy Spectacular/Get Into Your Sanctuary activities this year, MBNMS partnered with Santa Cruz-based Shared Adventures for their annual Day on the Beach (DotB). DotB is an inclusive community based event that hosts more than 300 individuals with diverse developmental, physical and cognitive disabilities, engaging them in various therapeutic recreational/leisure opportunities in the community such as fishing, kayaking, outrigger canoeing, SCUBA, and beach wheelchair rides/floats. This event and its activities brought together public and private partners and community members, as well as recreation businesses to educate the public about MBNMS resource protection goals, while



at the same time meeting the goal for NOAA's diversity and inclusion values making the sanctuary accessible to people with disabilities. Advisory Council members Jose Montes and Adam Helm and volunteers fished with 40 participants from the Santa Cruz Wharf with fishing gear from Santa Cruz Boat Rentals. On hand to educate the public was California's Department of Fish and Wildlife (CDFW) to discuss fishing regulations and fish identification with the public. Anchovies, barred surf perch and a tiny sculpin were the catches of the day. Small baby crabs were caught and released in hoop nets. At the Sanctuary Exploration Center, NOAA Southwest Fisheries Science Center staff hosted a Gyotaku (fish printing) activity with 70 visitors and Day on the Beach participants. Partners Sea Otter Savvy, California's MPA Collaborative Network, Santa Cruz Climate Action

Network and County Park Friends educated Day on the Beach participants by tabling on the beach around responsible wildlife themes. Preceding Day on the Beach, MBNMS hosted a webinar for participants and their families and volunteers on responsible wildlife viewing and responsible fishing. This webinar was recorded and will be used by Shared Adventures for educating participants for their future events. This event and its activities brought together public and private partners and community members, as well as recreation businesses to educate the public about MBNMS resource protection goals, while at the same time meeting the goal for NOAA's diversity and inclusion values making the sanctuary accessible to people with disabilities.

Monterey Bay National Marine Sanctuary engages COSMOS, The California State Summer School for Mathematics and Science program in plankton monitoring

For the 5th time, MBNMS presented a plankton monitoring program to the University of California Santa Cruz annual <u>COSMOS program</u>. Twenty-five high school students from across the state of California and 4 UCSC faculty/staff were

given a webinar on MBNMS and plankton monitoring in the sanctuary. Other topics included biodiversity, plankton, carbon sequestration, ocean acidification, Harmful Algal Blooms (HABs) and microplastics. The following day, students met on the Santa Cruz wharf (the furthest one can go from shore into MBNMS) to sample phyto and zooplankton using research protocols developed by MBNMS with partners UCSC's Dr. Raphe Kudela's laboratory and NOAA's Phytoplankton Monitoring Network. During lunch, students and UCSC faculty went to the San Lorenzo River and collected water samples for later analysis. Students then returned to tour the Sanctuary Exploration Center and look at plankton under compound and dissecting microscopes in the classroom. Plankton is the basis to the incredible biodiversity we see in MBNMS and



phytoplankton creates more than 50% of the oxygen on earth. Long term monitoring efforts like these are a great way to keep eyes on MBNMS and engage with our partners, while at the same time conduct meaningful research in an impactful science education program.

Sanctuary Exploration Center Staff Host Local Jr Guard Summer Campers

The Sanctuary Exploration Center partnered with the City of Santa Cruz Parks and Rec to host 720 local Jr Guards (ages 6-15) for guided visits over the summer. During a special week in June and July, Jr. Guards from Cowells beach came to the Exploration Center to learn about the sanctuary and local marine ecosystems that they swim and paddle in everyday! The Sanctuary Exploration Center's goals are: to educate visitors about the sanctuary's unique and fascinating coastal and marine environment, to foster a more personal connection with the



sanctuary and the ocean's relevance in people's daily lives and to encourage stewardship of the sanctuary and a better understanding of how to responsibly enjoy and protect the ocean.

Sanctuary Exploration Center Report for July 16th-29th 2022

During the period of July 16th-29th, the Sanctuary Exploration Center had 1,769 visitors. The Center is still open with reduced-hours, Thursday-Saturday. During the week, the Center ran 12 self-guided visits with local camp groups. Additionally, the National Marine Sanctuary Foundation hosted one facility rental with ten attendees, generating funds for Exploration Center programming. We also welcomed a new volunteer using our Docent-In-Training program.

Coastal Discovery Center Report for July 23-31

During the weekend of July 23-24, the Coastal Discovery Center had 549 visitors. For the month of July, the Coastal Discovery Center 1487 visitors in total, which is almost double the visitation for June. The Coastal Discovery Center's goals are to: encourage protection of the Sanctuary's resources through education and outreach, to increase public awareness and appreciation of our coastal environment, to allow visitors to learn about and understand the unique characteristics of the Monterey Bay National Marine Sanctuary, to create a sense of personal stewardship for California's coastal ecosystems, and to contribute knowledge and information shared among regional marine education research and resource protection agencies. This was the second weekend of masks being required to enter the Center due to SLO county having high Covid community rates. It is believed that this may have an impact on visitation, with slightly lower rates

during mask mandated weekends in comparison to no mask mandate. Additionally, three different docents helped volunteer for shifts at the Center, and a potential docent was given a tour of the Center and she has begun the online training with hopes to onboard her following labor day. The Coastal Discovery Center's goals are to: encourage protection of the Sanctuary's resources through education and outreach, to increase public awareness and appreciation of our coastal environment, to allow visitors to learn about and understand the unique characteristics of the Monterey Bay National Marine Sanctuary, to create a sense of personal stewardship for California's coastal ecosystems, and to contribute knowledge and information shared among regional marine education research and resource protection

KSQD 90.7FM Interview

Dr. Andrew DeVogelaere and Dawn Hayes were featured on community radio KSQD's Talk of the Bay, hosted by Rachel Ann Goodman. Media opportunities to discuss feel-good topics is a gift. Community radio is one of many ways to reach a diverse audience who may not be able to visit the sanctuary or come to a visitor center. Topics included ONMS and MBNMS anniversaries, protection from oil, gas, and mineral exploration/extraction, the role of the sanctuary on the central coast and our accomplishments to date. The 30-minute interview went by quickly and everyone acknowledged we could have many such shows and still have much more to cover. The interview can be found here.



Monterey Bay National Marine Sanctuary engages COSMOS, The California State Summer School for Mathematics and Science program in plankton monitoring

For the 5th time, MBNMS presented a plankton monitoring program to the University of California Santa Cruz annual COSMOS program (https://cosmos.ucsc.edu/). Twenty-five high school students from across the state of California and 4 UCSC faculty/staff were given a webinar on MBNMS and plankton monitoring in the sanctuary. Other topics included biodiversity, plankton, carbon sequestration, ocean acidification, Harmful Algal Blooms (HABs) and microplastics. The following day, students met on the Santa Cruz wharf (the furthest one can go from shore into MBNMS) to sample phyto and zooplankton using research protocols developed by MBNMS with partners UCSC's Dr. Raphe Kudela's laboratory and NOAA's Phytoplankton Monitoring Network





(https://coastalscience.noaa.gov/research/stressor-impacts-mitigation/pmn/) . During lunch, students and UCSC faculty went to the San Lorenzo River and collected water samples for later analysis. Students then returned to tour the Sanctuary Exploration Center and look at plankton under compound and dissecting microscopes in the classroom. Plankton is the basis to the incredible biodiversity we see in MBNMS and phytoplankton creates more than 50% of the oxygen on earth. Long term monitoring efforts like these are a great way to keep eyes on MBNMS and engage with our partners, while at the same time conduct meaningful research in an impactful science education program.

News Coverage

Rachel Kippen, Our Ocean Backyard | NOAA's Sanctuary Exploration Centerannounces ...

Santa Cruz Sentinel-The Sanctuary Exploration Center entrance at Pacific Avenue and Beach Street in Santa Cruz. (Expressive Photography/Contributed).

https://www.montereyherald.com/2022/06/12/energy-storage-in-moss-landing-a-smoky-challenge-to-a-new-chapter/ Energy storage in Moss Landing

<u>Illegal dumps choke watersheds and open space – Monterey Herald - My Droll</u>

My Droll

In neighboring Monterey County, edging a national marine sanctuary, illegal dump sites also increased during the pandemic, said Ted Terassas, ...

Coastal Commission signs off on Morro Bay offshore wind farms - Cal Coast News

Cal Coast News The proposed wind farm site was carved out of the original National Marine Sanctuary map, but to my understanding the infrastructure will still ...

Postal Service Says Explore the Beauty of Marine Sanctuaries Through Forever Stamps

Sierra Sun Times-For 50 years, U.S. national marine sanctuaries and marine national monuments have protected areas with special ecological, cultural and historical ...

Monterey Bay | Finding sanctuary: An idea comes to fruition - Santa Cruz Sentinel

Santa Cruz Sentinel-It joined the west coast's Olympic Coast National Marine Sanctuary off Washington, and Greater Farallones, Cordell Bank and Channel Islands National ...

Opinion: The Past, Present and Future of Protecting Our Coast | Good Times

Good Times Santa Cruz-Before 1992, few believed we could bring National Marine Sanctuary status to the Monterey Bay—now there's more to do.

Monterey Bay | Finding sanctuary: Many hands helped to stop drilling threat - Santa Cruz Sentinel -Santa Cruz Sent

Monterey Bay | Finding sanctuary: Many hands helped to stop drilling threat - Santa Cruz Sentinel

Santa Cruz Sentinel-Dan Haifley currently serves on the Monterey Bay National Marine Sanctuary Foundation board. He was director of Save Our Shores 1986-1993, ...

Finding sanctuary: An idea comes to fruition for Monterey Bay and beyond

Monterey Herald-All of these contributors serve on the board of Monterey Bay National Marine Sanctuary Foundation and were involved with the Sanctuary's .

An idea comes to fruition for Monterey Bay and beyond – Monterey Herald - My Droll

My Droll... Sanctuary off Washington, and Greater Farallones, Cordell Bank and Channel Islands National Marine Sanctuaries off California, and hopefully, ...

Barack Obama Receives His First-Ever Emmy Nomination For A Netflix Docuseries

Clout News-episode 4 – Monterey Bay National Marine Sanctuary, USA. episode 5 – Gunung Leuser, Indonesia. The other nominees for the narrator category along ...

First Christian Church THRIVE youth group visits California | News | shelbynews.com

Shelbyville News-The group also visited the beaches of Santa Cruz for another beach clean up and toured the NOAA's Monterey Bay National Marine Sanctuary.

What the Monterey Bay National Marine Sanctuary's 30th Anniversary Really Means

Good Times Santa Cruz-This deep-sea habitat lies within the Monterey Bay National Marine Sanctuary (MBNMS), which stretches from Marin to Cambria along the California ...

Swim the Bay - Visit Monterey

Visit Monterey... Monterey Bay Coastal Recreation Trail · Monterey Bay National Marine Sanctuary · Pfeiffer Big Sur State Park · Pinnacles National Park ...

Web Site (https://montereybay.noaa.gov)

* Check out these MBNMS Advisory Council webpage links! * *

Advisory Council Meeting Agendas & Minutes

https://montereybay.noaa.gov/sac/sacma.html

Advisory Council User Group Newsletters (seats and working groups/sub-committees) https://montereybay.noaa.gov/sac/advisory-nwsltr.html

Please take a few moments to peruse the site. Your feedback is greatly appreciated. Comments and suggestions can be sent to andrew.white@noaa.gov.

Follow MBNMS on <u>Facebook (https://www.facebook.com/MBNMS)</u>, <u>Instagram</u> (@mbnms) and <u>Twitter</u> (https://twitter.com/mbnms)

FUN, OCEAN RELATED WEB SITES

SIMoN

https://sanctuarysimon.org/

MBNMS STAFF

Lisa Wooninck – Superintendent Dawn Hayes – Deputy Superintendent

Research

Andrew DeVogelaere – Research Coordinator Jennifer Brown – SIMoN Ecosystem Scientist Erica Burton – Research Ecologist Chad King – Research Ecologist Steve Lonhart – Research Ecologist

Education

Amity Wood – Education & Outreach Coordinator
Ariana Acosta – Bilingual Education Specialist
Chelsea Prindle – SEC Manager
Lisa Uttal – Education Specialist
Michele Roest – Program Coordinator & Community
Liaison
Rebecca Gustafson – Volunteer Coordinator (SEC)

Rebecca Gustafson – Volunteer Coordinator (SEC) Sophia Barwegen – Program Specialist (CDC)

Resource Protection

Karen Grimmer – Resource Protection Coordinator Sophie De Beukelaer – GIS Analyst & Permit Coordinator Bridget Hoover – Water Quality Protection Program Director

Jenny Pensky – Agriculture Water Quality Coordinator Jazmine Mejia-Muños – Resource Protection Specialist Pamela Krone – Water Quality Monitoring Coordinator

Program Operations

Andrew White – Network Manager and Webmaster Haven Parker – Program Support Specialist Raymond Chisolm – Program Specialist

Get involved and stay informed!

To learn how to get involved in the Sanctuary visit: https://montercybay.noaa.gov/getinvolved/welcome.html

Sign up for the MBNMS listserv to receive email notices about upcoming Sanctuary events, and public meetings of the Sanctuary Advisory Council and Working Groups: https://montereybay.noaa.gov/intro/elists.html

Learn More About Your Sanctuary

The Sanctuary Office Report is produced bi-monthly by Monterey Bay National Marine Sanctuary staff in conjunction with Sanctuary Advisory Council meetings. To learn more about the Sanctuary please visit our web site at: https://www.montereybay.noaa.gov.

To learn more about the Sanctuary Advisory Council please visit:

https://montereybay.noaa.gov/sac/advisory.html

The Office of National Marine Sanctuaries

Monterey Bay National Marine Sanctuary is one of 14 marine protected areas in the National Marine Sanctuary System encompassing more than 150,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys, and from Lake Huron to American Samoa. The system includes 13 national marine sanctuaries and the Papahänaumokuäkea Marine National Monument. Visit the ONMS web site at:

https://www.sanctuaries.nos.noaa.gov/

- Contact Information -

Monterey Bay National Marine Sanctuary

99 Pacific Street, 455A Monterey, CA 93940 Phone (831) 647-4201 Fax (831) 647-4250