



# Monterey Bay National Marine Sanctuary

## Sanctuary Office Report



Volume 17, Number 1

A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS

REPORTING PERIOD: NOVEMBER 16, 2019 – JANUARY 24, 2020

### 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.

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

#### **Tony shells reveal waters off California acidifying twice as fast as the global ocean**

In first-of-its-kind research, NOAA scientists and academic partners used 100 years of microscopic shells to show that the coastal waters off California are acidifying twice as fast as the global ocean average — with the seafood supply in the crosshairs. California coastal waters contain some of our nation's more economically valuable fisheries, including salmon, crabs and shellfish. Yet, these fisheries are also some of the most vulnerable to the potential harmful effects of ocean acidification on marine life. That increase in acidity is caused by the ocean absorbing excess carbon dioxide from the atmosphere. For more information:

<https://www.noaa.gov/stories/tiny-shells-reveal-waters-off-california-acidifying-twice-as-fast-as-global-ocean>

#### **NOAA in the Great Lakes supports inter-agency search for WWII aircraft**

Did you know that there are about 120 World War II era aircraft lying at the bottom of Lake Michigan? The Navy used these aircraft to train and certify pilots to take off and land from aircraft carriers during World War II. U.S. Naval operations along Lake Michigan, one of the Great Lakes, began in 1923. Between 1923 and 1942, operations expanded as the Navy built hangars, airfields, and landing strips across the village of Glenview, Illinois. By 1942, the Navy had a robust presence on the shores of Lake Michigan. With the U.S. entrance into World War II, the Navy needed a location to train carrier pilots. The growing threat of enemy vessels and mines along the Pacific and Atlantic coastlines and an already strong Naval presence in the area made Lake Michigan the safest location for carrier training. All existing carriers were needed on the front, so the Navy bought two sidewheel paddle steamers, the SS Seaandbee and SS Greater Buffalo, which they stripped and fitted with flight decks. Commissioned as the USS Wolverine and USS Sable these ships helped to train and qualify 17,820 pilots, including former President George H.W. Bush. For more information:

<https://www.nauticalcharts.noaa.gov/updates/noaa-in-the-great-lakes-supports-inter-agency-search-for-wwii-aircraft/>

#### **NOAA meteorologists helping Australia battle wildfires**

With more than a hundred wildfires burning across Australia, the Aussie government reached out to the United States for assistance, and NOAA jumped into action. A team of NOAA National Weather Service Incident Meteorologists (IMETs) have deployed Down Under to help with the firefighting effort. Weather plays a significant role in how easily a wildfire may start, how fast it spreads, where the fire and smoke will move, and how dangerous it can become. Once a fire has ignited, weather, terrain and fuels will determine its course. Accurate weather forecasts provide critical information needed to contain wildfires and to keep firefighters on the front lines safe. For more information: <https://www.weather.gov/news/200110-wildfires>

## NATIONAL MARINE SANCTUARY NEWS

### **ONMS releases new Chumash tomol crossing short film “*Homecoming: Journey to Limuw*”**

A new 14-minute short film entitled *Homecoming: Journey to Limuw*, created and produced by NOAA’s Office of National Marine Sanctuaries (ONMS), was released on November 22, 2019 during Native American Heritage Month. The film documents a long distance canoe voyage to Channel Islands National Marine Sanctuary (CINMS) undertaken in September of 2018 by paddlers from the local indigenous Chumash community. Paddlers interviewed for the film describe the cultural significance of paddling the tomol (a traditional Chumash canoe) 20 miles across the Santa Barbara Channel to the island of Limuw (Santa Cruz Island), where they are greeted by hundreds of family and friends that gather each September to receive the tomol and spend time together in their sacred island homeland. The production team from ONMS, working with staff from CINMS, secured the blessing of tomol crossing leadership before filming the event, and invited reviews and incorporated editorial suggestions from the Chumash paddlers featured in the film. CINMS staff have been supporting the annual tomol crossing event since its inception in 2001, proudly serving as a safety escort vessel and providing photography services for memory keeping purposes. The newly released video is available online as an ONMS Stories From The Blue feature, here:

<https://sanctuaries.noaa.gov/stories/>. National marine sanctuaries and CINMS staff place a high value on giving voice to the indigenous communities that have a deep relationship with the waters we are entrusted to manage. By working alongside Chumash people, staff has learned to be better and wiser stewards of the marine sanctuary, humbled in the knowledge that Chumash ocean stewardship practices around the Channel Islands go back more than 520 generations.

### **NOAA launches Mission: Iconic Reefs in Florida Keys sanctuary**

On December 9, 2019, NOAA and partners announced “Restoring Seven Iconic Reefs: A Mission to Recover the Coral Reefs of the Florida Keys,” one of the largest investments in reef restoration anywhere in the world. By restoring corals at seven iconic sites in Florida Keys National Marine Sanctuary, Mission: Iconic Reefs aims to change the trajectory of an entire ecosystem. Collaboration among federal and state agencies, leading coral reef experts, local restoration practitioners, and the Florida Keys community will be key to the success of this ambitious effort. Partners include the State of Florida, Coral Restoration Foundation, Mote Marine Laboratory and Aquarium, The Florida Aquarium, The Nature Conservancy, Reef Renewal and the National Marine Sanctuary Foundation. The announcement was broadcast live on online and local television. FKNMS also worked closely with the Monroe County Tourism Development Council’s public relations firm to distribute the announcement to media throughout the country. NOAA is fundamentally changing its approach to coral reef restoration by proactively intervening to restore reef health and improve ecological function. Website: <https://www.fisheries.noaa.gov/southeast/habitat-conservation/restoring-seven-iconic-reefs-mission-recover-coral-reefs-florida-keys>

### **National Marine Sanctuaries Partner Highlights Underwater Park System**

The National Marine Manufacturers Association (NMMA) in collaboration with the Office of National Marine Sanctuaries released its first short documentary in a series exploring the National Marine Sanctuary System. In 2020, NMMA will release several videos highlighting our national marine sanctuaries as recreation destinations, while instilling the need for environmental protection. The NMMA film team has already travelled to Stellwagen Bank, Thunder Bay, and Florida Keys national marine sanctuaries to capture footage and interview sanctuary staff and community members. The joint documentary initiative was made possible through the Memorandum of Agreement (MOA) signed by NOAA and the recreational boating and fishing community in February 2018. The MOA allows for developing a framework of cooperation for mutually beneficial projects and activities to promote sustainable recreational fishing and boating conducted within federal marine waters, including national marine sanctuaries. This first segment features Stellwagen Bank National Marine Sanctuary:

<https://www.youtube.com/watch?v=dd37hbJQ3uU&feature=youtu.be> Public support through partnerships is critical to effective protection, sustainable use, and enjoyment of the nation’s marine environment. Outreach through the National Marine Manufacturers Association helps increase support of a new, diverse audience. In addition, the

National Marine Manufacturers Association estimates that the recreational boating industry contributed \$170.3 billion in economic activity to the U.S. economy in 2018.



## **MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES**



### **MANAGEMENT**

#### **Monterey Bay National Marine Sanctuary Holds Advisory Council Meeting**

On December 13, MBNMS' Advisory Council met and received a series of presentations and updates on the California Dungeness Crab Fishing Gear Working Group efforts to reduce whale entanglement risk, microplastics, the Monterey Bay National Marine Sanctuary Foundation and the MBNMS Advisory Council 2020 work plan. The Advisory Council passed a resolution on balloon marine debris in MBNMS, a resolution on needles/syringes in MBNMS and a resolution thanking Carolyn Skinder, former MBNMS Southern Region Program Coordinator, for her service to MBNMS. The next meeting will be held on February 21 in Santa Cruz at the USGS Pacific Coastal and Marine Science Center. Sanctuary Advisory Councils are community-based advisory bodies consisting of representatives from various user groups, government agencies and the public at large. The role of the council is to provide advice to the sanctuary superintendent on the designation and/or operation of a national marine sanctuary.

### **RESEARCH AND MONITORING**

#### **Annotated Checklist of Fishes from Monterey Bay National Marine Sanctuary published**

Scientists from Monterey Bay National Marine Sanctuary (MBNMS) and California Academy of Sciences published an inventory of fishes known to occur in MBNMS. The sanctuary is host to a diverse fish fauna occupying a variety of habitats. The rich history of ichthyological research and surveys off central California provide a wealth of information to construct the first inventory of fishes occurring within MBNMS. Critical analyses of material from ichthyological collections at natural history museums, the literature, and visual records were essential in creating an annotated checklist of fishes occurring within MBNMS. The checklist provides sources of basis, occurrence of fishes during cold- or warm-water events, records of historically occurring fishes, special places of occurrence (i.e., Davidson Seamount, Elkhorn Slough), introduced species, and reference to original species descriptions from within MBNMS. This inventory provides evidence of occurrence for 507 fishes within MBNMS and an additional 18 species considered to be extralimital. This annotated checklist of fishes can be used by those interested in zoogeography, marine protected areas, ichthyology, regional natural history, and sanctuary management. The publication is available as a Special Issue from the peer-reviewed open-access journal ZooKeys (<https://zookeys.pensoft.net/article/38024/>). Sanctuary managers are interested in species inventories for measures of diversity and sanctuary management. A comprehensive inventory of fish species occurring within MBNMS was unavailable. Establishing an inventory is a crucial first step to further identify species that are endemic, threatened, introduced, or socio-economically important; information which may be useful for sanctuary managers. It is our hope that this checklist will be useful for many readers and serve as a model for species inventories for the National Marine Sanctuary System.

### **RESOURCE PROTECTION**

#### **First Flush 2019 is Flushed!**

On Tuesday, November 26 at 9:30 PM, over 40 volunteers mobilized to collect water samples at 14 storm drain outfalls throughout Monterey County during the 20<sup>th</sup> Annual First Flush event. A large storm hit the Central Coast beginning about 9:00 PM and dropped almost an inch of rain in one hour. Volunteers collected samples for laboratory analysis of nutrients, heavy metals, fecal indicator bacteria, and microcystin. This event is funded by the Monterey Regional Storm Water Management Program. Twenty years of water quality data informs

sanctuary management as well as local municipalities' storm water managers about the quality of water flowing into MBNMS which helps to inform and prioritize pollution prevention efforts.

### **Healthy Soils Demonstration Workshop on 12/06/19**

A workshop lead by MBNMS Agricultural Water Quality Coordinator at Triple M Ranch in Watsonville attracted 37 agricultural professionals including growers, researchers and technical service providers to learn about how to improve soil health in vegetable production through conservation practices. Theme practices proven to improve soil health were highlighted by Israel Morales, awarded Grower of the Year by the National Organic Association. He showed photos of equipment and described how these practices (compost addition, flower borders, reduced tillage and cover crops) improved soil health and vegetable growth on farms he managed. Healthy soils practices sequester carbon dioxide from the air and put carbon into long-term storage in the soil, which can slow the pace of ocean warming and acidification.

### **Sailboat Goes Aground on Capitola Beach**

MBNMS received a call from USCG Station Monterey at 8:45 PM on 12/29/19 reporting a grounded 27' sailboat on the beach near the wharf in Capitola. The two people and dog on board were rescued by local fire department and law enforcement officials. There was no engine or fuel tanks so no threat of additional pollution besides the grounded vessel. The owner had no money or insurance so the demolition and removal was funded by settlement money. This incident occurred because the owner of the vessel made a lot of bad decisions. He did not know how to sail, he did not plan ahead to find a harbor to moor, and he did not have sufficient food and water on board. He was also unaware of MBNMS prohibitions. It was critical to move quickly as very high surf was forecasted for the New Year's holiday. A contract was awarded on December 31 and the vessel and keel were completely removed from the beach late in the day on January 1. It is necessary that ONMS/MBNMS has resources to remove abandoned vessels when they go aground. If this vessel hadn't been removed when it was, the extremely high surf would've created a large debris field spreading across a very popular surfing beach and contained many pieces of wood, metal, fiberglass and Styrofoam.

## **EDUCATION, VOLUNTEER AND OUTREACH PROGRAMS**

### **Sanctuary Exploration Center Report for November 9-November 15**

During the week of November 9-November 15 the Sanctuary Exploration Center had 770 visitors. The Center ran one Toddler Storytime program with six children, one Science Saturday family program with 20 participants and three field separate trips with 110 students. Additionally, the National Marine Sanctuary Foundation conducted three facility rentals, which generated revenue for Exploration Center exhibits and programming.

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 Launches Science Saturday Family Programs**

In October and November 2019, the Sanctuary Exploration Center launched bi-weekly Science Saturday family programs. Staff ran two "Deep Sea Discovery" and two "Wharf Oceanography and Plankton Discovery" programs with an average of 10 families per course. The SEC has partnered with the City of Santa Cruz Parks and Rec for advertising and program registration for this program. Most of the courses were filled to capacity, and will thus be repeated in the Winter 2020 session. In Spring 2020 we hope to add at least one new Science Saturday program offering. 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.

### **Coastal Discovery Center Report for November 15-17**

The Coastal Discovery Center hosted over 200 visitors this past weekend and 691 visitors to date for the month of November. Special guests from the Cayucos Land Conservancy took part in the pier oceanography and harmful algal bloom activity offered as part of the Center's Discovery Saturday series. From the Conservancy, "We learned a lot today and had a really good time doing it!" *Connecting with local partners in conservation helps to spread MBNMS messaging and strengthens sanctuary partnerships.*

### **Cabrillo College, UCSC and Plankton Monitoring Network held an event - all about plankton.**

An interactive and engaging plankton evening was held at Cabrillo College in Santa Cruz. Students in the Plankton Monitoring Course at Cabrillo College who sample from 3 piers in the sanctuary held an immersive evening of presentations, interactive tables, plankton art and food. Almost 200 students and public members were treated to presentations from Cabrillo students --- plankton 101 overview, their efforts in phytoplankton, zooplankton and microplastics monitoring from 3 piers in Santa Cruz, their scientific results from the data they collected, Harmful Algal Blooms (HABs) and microplastics. Students also talked about why we should care about plankton and the importance of monitoring both temporally and spatially. Dr. Raphe Kudela, UC Santa Cruz, a phytoplankton ecologist gave an engaging presentation on phytoplankton, global and west coast water color using satellites and other technology. He also talked about water color in Pinto Lake in Watsonville and what they have done to mitigate for harmful algal blooms (HABS). Monterey Bay National Marine Sanctuary developed and created the protocols and database for monitoring both phyto and zooplankton along the west coast in partnership with NOAA NCCOS, California State Biotxin Monitoring Program, UC Santa Cruz Kudela's lab and Cabrillo College. As a result of this collaboration, 7 plankton monitoring sites and UCSC use the same scientific methodologies to monitor plankton and are inputting their data into the NOAA's NCCOS database. <https://coastalscience.noaa.gov/research/stressor-impacts-mitigation/pmn/>

### **Sanctuary Exploration Center Report for November 30- December 6**

During the week of November 30 - December 6 the Sanctuary Exploration Center had 1382 visitors. The Center ran one Toddler Storytime program with seven children, one Marine Debris field trip with 67 students and one Wharf Oceanography field trip with 20 students. Additionally, the National Marine Sanctuary Foundation hosted one facility rental, generating funds for Exploration Center programming. 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.

### **Coastal Discovery Center Report for November 30-December 8**

There were 1,015 visitors to the Coastal Discovery Center during the month of November. December is a time of low visitorship and is a good time to prepare for upcoming events and for volunteer enrichments. The first week of December was therefore used to meet with local agencies and NGOs to prepare for elephant seal pupping and mating season in San Simeon. Topics covered were interpretation, enforcement, trail maintenance, signage and messaging during one of the busiest times of the year at the Piedras Blancas elephant seal colony. In addition, MBNMS hosted an enrichment on the history of San Simeon Village and Shore Whaling in San Simeon for interpreters from CA State Parks and volunteers from MBNMS. Funded by a Preserve America Grant and implemented by MBNMS and CA State Parks, the shore whaling exhibit next to the Coastal Discovery Center is an important part of local and sanctuary history. Partnering with local agencies and

NGOs is key to meeting education and resource protection goals of MBNMS while ensuring consistent messaging across agencies.

**Sanctuary Exploration Center Hosts Impromptu Kelp Holdfast Dissection, Drawing in Dozens of Visitors**

On December 14, 2019, the MBNMS Exploration Center staff collected kelp holdfasts, the base of the kelp which keeps it attached to the rocks, opportunistically following big storms that hit the coasts. Holdfasts, which look like dried ramen, can be home to numerous invertebrates and are great to showcase the diversity of life hiding just off the coast. People walking the Santa Cruz sidewalks stopped to watch the dissection and see animals such as brittle stars, baby sea cucumbers, and worms. Many visitors, even locals, had no idea how important kelp is as an ecosystem and that it harbors such a diversity of life. Sanctuary Exploration Center staff hope to do this pop-up exhibit more regularly when there are fresh holdfasts on the beach. Kelp holdfast dissections are a hands-on way for visitors to see animals they've never seen before and help highlight the importance of kelp forests as a habitat off our coast.

## NEWS COVERAGE

### [Cal Am desal project starts Coastal Commission public review](https://www.montereyherald.com/2019/11/14/cal-am-desal-project-starts-coastal-commission-public-review/)

<https://www.montereyherald.com/2019/11/14/cal-am-desal-project-starts-coastal-commission-public-review/>  
Monterey Herald – November 14, 2019

### [San Simeon CSD has banned new water hookups for 31 years. This study could change that](https://www.sanluisobispo.com/news/local/community/cambrian/article237832174.html)

<https://www.sanluisobispo.com/news/local/community/cambrian/article237832174.html>  
The Tribune – December 3, 2019

### [Students assist with cleanup of Cowell Beach](https://www.santacruzsentinel.com/2019/12/08/students-assist-with-cleanup-of-cowell-beach-name-dropping/)

<https://www.santacruzsentinel.com/2019/12/08/students-assist-with-cleanup-of-cowell-beach-name-dropping/>  
Santa Cruz Sentinel – December 8, 2019

### [5<sup>th</sup> graders are marine scientists for a day at Santa Cruz Wharf](https://patch.com/california/watsonville/5th-graders-are-marine-scientists-day-santa-cruz-wharf)

<https://patch.com/california/watsonville/5th-graders-are-marine-scientists-day-santa-cruz-wharf>  
Patch.com – December 9, 2019

### [Letter – Rep. Panetta’s experience is invaluable](https://www.santacruzsentinel.com/2019/12/11/letter-rep-panettas-experience-is-invaluable/)

<https://www.santacruzsentinel.com/2019/12/11/letter-rep-panettas-experience-is-invaluable/>  
Santa Cruz Sentinel – December 11, 2019

### [Entangled whale freed as commercial crab fishing season gets underway](https://www.kazu.org/post/entangled-whale-freed-commercial-crab-fishing-season-gets-underway#stream/0)

<https://www.kazu.org/post/entangled-whale-freed-commercial-crab-fishing-season-gets-underway#stream/0>  
KAZU – December 17, 2019

### [VIDEO: Entangled humpback whale set free in Monterey Bay](https://sanfrancisco.cbslocal.com/2019/12/17/entangled-humpback-whale-set-free-in-monterey-bay/)

<https://sanfrancisco.cbslocal.com/2019/12/17/entangled-humpback-whale-set-free-in-monterey-bay/>  
KPIX – December 17, 2019

### [8 youths making a real difference in the fight for our planet](https://www.scarymommy.com/8-youths-making-real-difference-environment/)

<https://www.scarymommy.com/8-youths-making-real-difference-environment/>  
ScaryMommy.com

### [Surfcasters scoring big wintertime perch](https://www.santacruzsentinel.com/2019/12/26/surfcasters-scoring-big-wintertime-perch-fish-rap/)

<https://www.santacruzsentinel.com/2019/12/26/surfcasters-scoring-big-wintertime-perch-fish-rap/>  
Santa Cruz Sentinel – December 26, 2019

### [The missing 99%: why can’t we find the vast majority of ocean plastic?](https://www.theguardian.com/us-news/2019/dec/31/ocean-plastic-we-cant-see)

<https://www.theguardian.com/us-news/2019/dec/31/ocean-plastic-we-cant-see>  
The Guardian – December 31, 2019

### [A bigger, science-rich Whalefest set for Monterey](https://www.montereyherald.com/2020/01/07/a-bigger-science-rich-whalefest-set-for-monterey/)

<https://www.montereyherald.com/2020/01/07/a-bigger-science-rich-whalefest-set-for-monterey/>  
Monterey Herald – January 7, 2020

**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 Actions and Results**

<https://montereybay.noaa.gov/sac/sacact.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](mailto:andrew.white@noaa.gov).*

**Follow MBNMS on [Facebook](https://www.facebook.com/MBNMS)** (<https://www.facebook.com/MBNMS>) and **[Twitter](https://twitter.com/mbnms)** (<https://twitter.com/mbnms>)

## **FUN, OCEAN RELATED WEB SITES**

**NOS Ocean Facts: Ocean Life**

<https://oceanservice.noaa.gov/factspage.php?siteName=oceanfacts&cat=Ocean%20Life>

**Caitlin Seaview Survey**

<http://www.caitlinseaviewsurvey.com>

**SIMON**

<https://www.sanctuariesimon.org>

**Seasons in the Sea**

<http://www.seasonsintthesea.com>

**Thank You Ocean**

<http://www.thankyouocean.org/>

**Oceans Live**

<http://oceanslive.gso.uri.edu/>

**NOAA Ocean Explorer**

<http://oceanexplorer.noaa.gov/>

**Encyclopedia of the Sanctuaries**

<http://www.ocean.com/Library/Encyclopedia/>



## **MBNMS STAFF**

**Paul Michel** – Superintendent  
**Dawn Hayes** – Deputy Superintendent

### Research

**Andrew DeVogelaere** – Research Coordinator  
**Jennifer Brown** – SIMoN Ecosystem Scientist  
**Erica Burton** – Research Specialist  
**Chad King** – SIMoN Data Analyst  
**Steve Lonhart** – SIMoN Senior Scientist

### Education

**Amity Wood** – Education and Outreach Coordinator  
**Nick Ingram** – Exhibits/Facility Specialist (SEC)  
**Emily Pierce** – Program Assistant (SEC)  
**Chelsea Prindle** – SEC Manager  
**Lisa Uttal** – Education Specialist  
**Acy Wood** – Volunteer Coordinator (SEC)  
**Ali Woolman** – Program Specialist (CDC)

### Resource Protection

**Karen Grimmer** – Resource Protection Coordinator  
**Sophie De Beukelaer** – GIS Analyst & Research Permit Coordinator  
**Lisa Emanuelson** – Citizen Watershed Monitoring Network Coordinator  
**Bridget Hoover** – Water Quality Protection Program Director  
**Scott Kathey** – Regulatory/Emergency Response Coordinator (on detail to GRNMS)  
**Pamela Krone** – Agriculture Water Quality Coordinator

### Program Operations

**Raymond Chisolm** – Program Specialist  
**Nichole Rodriguez** – Advisory Council Coordinator  
**Andrew White** – Network Manager and Webmaster



## **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 Papahānaumokuākea Marine National Monument. Visit the ONMS web site at:  
<https://www.sanctuaries.nos.noaa.gov/>

## **Get involved and stay informed!**

To learn how to get involved in the Sanctuary visit:  
<https://montereybay.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>

## **- Contact Information -**

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