



Monterey Bay National Marine Sanctuary Advisory Council Diver Newsletter

Diver
October 2017

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Dear MBNMS,

Fellow divers,

Happy fall diving! The ocean conditions continue to vary over short periods as cold water upwells, then warms up and turns green and even red. In September we continue to encounter sea nettle swarms. They have been mostly small jellies this year compared to previous years. There have been schools of bait fish in the Monterey Harbor and at Monterey Bay dive sites, which is a lot of fun to swim through with all the sea lions darting around feeding.

The typical kelp forest with giant kelp floating on the surface attached to rocky substrate is in sharp decline. The only places in the Monterey Bay to find brown algae is in shallow water or between Hopkins and San Carlos Beach. Areas deeper than 25 FSW between Hopkins and Pt. Pinos are now urchin dominant systems or are too deep to support brown algae. Even beautiful Butterfly House is an urchin barren. These urchin dominant areas are a real bummer and lack the species diversity that we enjoyed.

There is some hope that the sunflower sea-star that we last saw in abundance in 2013 is making a comeback in places where we still find the occasional victim of sea-star

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Pro SCUBA - Scotts Valley



In September we were invited to speak at Pro SCUBA in Scotts Valley. Owners Cheryl and David Babineau hosted the meeting with Food, Fun, Education, Pictures, Dive Boat Operations and a MBNMS presentation.

What a wonderful group, great questions and a gorgeous Dive Center. The shop is a family-owned and operated Pro Platinum NAUI training facility that offers a professional level of dive training from fully certified and qualified instructors and dive masters.

U.S. had 15th warmest summer and 3rd warmest year to date on record



From record heat, fires and floods to hurricanes, tropical storms and even an eclipse, August brought a dramatic and - for those along the Gulf Coast - devastating end to summer as Mother Nature demonstrated her power and ability to awe. Here's how the

wasting disease. Confirmed sightings have been posted of two 20cm stars and one 30cm star. Good luck to them; get big. I also saw short-spined sea-stars in Sonoma County.

We would like to propose to all dive clubs and dive centers that both of us are committed to outreach and education of sanctuary information. Please drop us an email and we would be honored to attend and provide a 30 minute presentation along with a QA session regarding Monterey Bay National Marine Sanctuary.

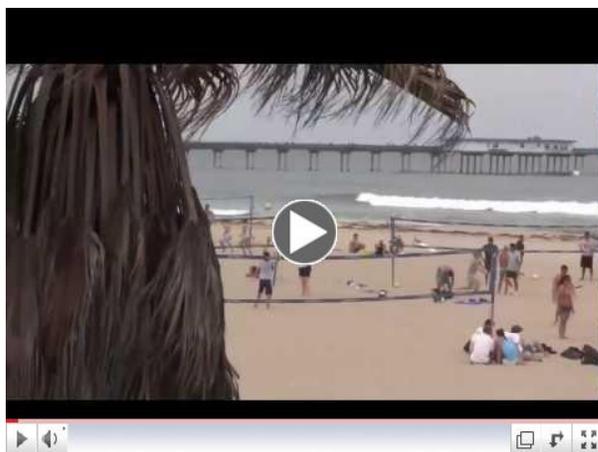
Please keep up with the current Sanctuary Advisory Council agendas and if you see something of interest that you would like us to comment on, please send us an email.

Warm Regards & Dive Safe,

Brian and Keith

Prepared by Brian and Keith
Sanctuary Advisory Council Diving Representatives
brian@pcscuba.com
keith.rootsaert@salasobrien.com

The Golden Shore- California's Love Affair with the Sea



From the first human settlements to the latest marine explorations, The Golden Shore tells the tale of the history, culture and changing nature of California's coasts and ocean. David Helvarg takes the reader on both a geographic and literary journey along the 1,100 mile Pacific coastline, from the Oregon border to the San Diego/Tijuana international border fence and out into its whale, seal and shark rich offshore seamounts, rock isles and kelp forests. Part history, part travelogue, part love letter, The Golden Shore tells the story of California's majestic coastline and ocean. Helvarg captures the spirit of the Californian coasts, its mythic place in American culture, and its role in a state whose ongoing natural disasters and unremitting sense of renewal and intimately linked to its deep connection with an ever changing sea.

[More Information](#)

Sanctuary Research Team Continues Study of Deep-sea Corals at Sur Ridge

summer, last month and the year to date fared in terms of the climate record:

Summer 2017 - The average summer U.S. temperature was 72.7 degrees F, 1.3 degrees above average, according to scientists from NOAA's National Centers for Environmental Information. Above-average temperatures spanned the western third of the country, while nine states in the South and Midwest observed a cooler-than-average summer.

Precipitation totaled 0.87 of an inch above average, making it the 16th wettest summer on record. [For the full story:](#)

NOAA announces \$2.2 million in marine debris grants



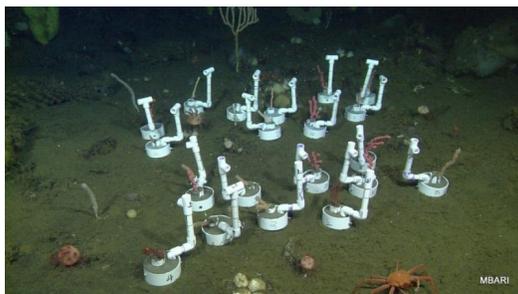
On Aug. 29, NOAA announced 15 marine debris projects that will support marine debris removal and research received nearly \$2.2 million in fiscal year 2017 funding through the NOAA Marine Debris Program.

These projects support efforts to address the pervasive global problem of marine debris that can impact wildlife, navigation safety, human health, and the economy. Eleven groups received a total of \$1,238,358 to support marine debris removal projects to benefit coastal habitats, waterways and wildlife, including migratory fish.

Projects awarded through this grant competition will implement locally effective activities to remove marine debris, including derelict fishing gear and abandoned and derelict vessels. Projects will provide benefits to coastal communities, and create long-term ecological habitat improvements for NOAA trust resources.

In addition, four groups received a total of \$935,156 for research to advance understanding of how microplastics interact with seafood species. Projects awarded through this grant competition will improve our understanding of the ecological risks associated with marine debris as well as the fate and transport of marine debris in nearshore, coastal environments. [For full story:](#)

Reef Check California - Big Sur Expedition Report



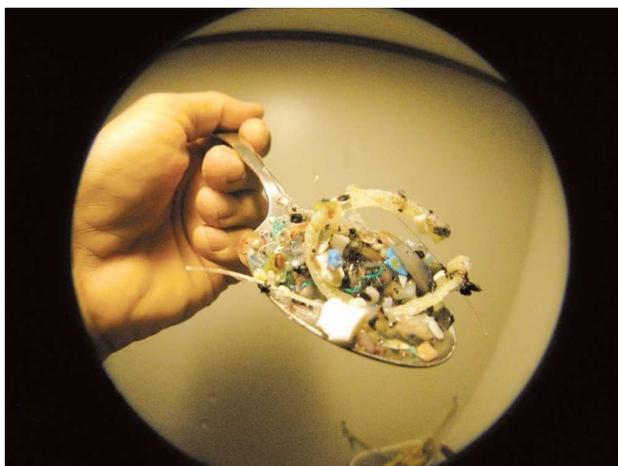
Research staff from MBNMS and Monterey Bay Aquarium Research Institute (MBARI) scientists completed

on a 5-day research expedition at Sur Ridge aboard the R/V Western Flyer. Sur Ridge is a Manhattan-sized hill on the seafloor about 20 miles off the central California coast.

Using a remotely operated vehicle (ROV), they are discovering new populations of deep-sea corals, transplanting corals, revisiting transplanted corals from a year ago, collecting animals for bioluminescence studies, sampling water for environmental DNA analyses, sampling surface water for microplastics and several other ongoing projects.

For information on the last cruise (Aug 2016) to Sur Ridge, [MORE INFO](#)

Taking Trash to the Cleaners in Carmel by the Sea



MBNMS Contractor Lisa Emanuelson, volunteers from MBNMS' First Flush, Team OCEAN and Bay Net and volunteers with Lovers of Carmel Beach teamed up to monitor trash at Carmel's main beach for eleven scheduled trash assessments conducted every Friday from August 4th to October 13th.

Each week volunteers collect, categorize and weigh trash from across the beach. Trash types and weights are reported to the City of Carmel in order to determine where trash is being left on the beach and what types. While walking the beach members of the trash teams talked with the public and informed them of the city's desire to understand and clean up the beach. In the first two Fridays of the trash assessment half of the weight of all trash was dog poops both in and outside of poop bags.

Through a new trash amendment to the NPDES permit, cities are required to decrease the trash being transported through storm drain systems and reaching receiving waters such as MBNMS. Trash left on beaches can directly impact sanctuary resources and affect the aesthetic qualities of beaches. By working with local cities to assess trash sources and types, MBNMS accomplishes a goal of keeping pollutants



We support citizen science and Reef Check California continues to provide a path for concerned divers to help monitor the health of California's rocky reefs and Marine Protected Areas. This data informs CDFW in management of the fisheries and required adaptive management of the MPAs.

September, 2017 and all the Reef Check sites in Monterey Bay are completed, but only 6 out of 10 are completed in Carmel Bay. There is one more charter on the schedule to complete the surveys for this year. Hopefully weather conditions will allow us to get around Point Pinos.



Reef Check Pt. Lobos Crew

I went north this September to Sonoma County to do surveys at the usual 4 sites and we came away completing 6 sites, including a new one outside of the Gerstle Cove MPA. I have been going there yearly since 2010 and have seen many changes to these sites in this short amount of time.

The abundance of abalone and a healthy fishery with brown fleshy algae at Ft. Ross, Stillwater Cove, Ocean Cove, and Gerstle cove have now become urchin dominant systems. Pterogophora stalks that were deforested last year like a fire had swept through the underwater world were even hard to find. The last thing the urchins eat is the crustose coralline algae on the rocks and even that was absent in places. I found the hungry urchins trying to eat my tape measure when I briefly deployed it near them.

This doesn't bode well for the abalone that munch on algae. Their numbers were very low at all the sites we surveyed. 50% of the abalone landings last year showed some sign of shrinking of the ab meat as it tries to cope with the lack of food. At Ocean Cove my dive buddy, Dan Schwartz, did his best to find little pieces of brown algae and feed it to the abs he could find, who readily devoured it.

The algae on the north coast is nereocystis dominant and it remains to be seen if the annual will recover. We are seeing similar urchin dominant conditions in the Monterey area with patchy areas where urchins live in balance with a kelp forest ecology.

out of the sanctuary.

REEF.ORG



Divers Divers Everywhere, If you like diving and helping as a citizen scientist here is an opportunity that may fit your time budget. Everyone can organize, learn, share and provide data that helps us all. Click on the REEF logo

and learn more about the Volunteer Fish Survey Project. Add your observations during your normal recreational dives to the worlds largest marine life database with 221,000+ surveys

REEF (Reef Environmental Education Foundation) conserves marine environments worldwide. Our mission is to protect biodiversity and ocean life by actively engaging and inspiring the public through citizen science, education, and partnerships with the scientific community.

2017 SAC Meeting Schedule

October 20, 2017 - Salinas
December 15, 2017 - Monterey

For more information:
[2017 Sanctuary Advisory Council Meeting dates and Information](#)

Sea to Shining Sea - The National Marine Sanctuary System's Newsletter



Past, Present, Future

If you are interested, you can sign up and receive the National Sanctuary Newsletter. So much interesting information to review...

From the western Pacific waters of American Samoa, east to the Atlantic Ocean, NOAA's Office of National Marine Sanctuaries manages a national network of special places,

Fortunately, the reefs in MBNMS are macrocystis dominant, which is a perennial, so it might have a better chance of rebounding should the urchins encounter a perturbation to push them out of this alternative stable state.

Keith Rootsaert,
Diving Alternate

Pacific Grove Hyperbaric Chamber

Monterey Bay National Marine Sanctuary has become a premier diving destination, offering some of the most beautiful and pristine diving areas in the country. The City of Pacific Grove, on the Monterey Peninsula, has provided medical treatment to injured divers with its hyperbaric chamber since 1963.

While the City of Pacific Grove provides for many of the chamber's operation needs, diver donations support operations and offset needed repairs that occur from time to time. Please consider a donation to help this much needed, important resource for the dive community that enjoy the sanctuary.

[Donate to the Pacific Grove Hyperbaric Chamber Fund](#)



[Donate Now!](#)

Donations for the chamber can be made online using a credit card or a PayPal account. The credit card transaction will be securely handled by PayPal and you do not need a PayPal account to make a credit card donation. At the end of the credit card transaction you will be presented with an option to print out a receipt for your donation.

Your tax-deductible donation to the Pacific Grove Hyperbaric Chamber Fund will go directly towards the facility and its operations.

Payment can also be made by check mailed to:

Monterey Bay Sanctuary
Foundation
99 Pacific Street, Suite
455 E
Monterey, CA 93940

If you have any questions, please email info@mbnmsf.org

encompassing more than 600,000 square miles of U.S. ocean and Great Lakes waters.

Prepared by Brian and Keith, Sanctuary Advisory Council Diving Representatives

The Office of National Marine Sanctuaries publishes a national newsletter in electronic format and distributed via email to keep our colleagues, collaborators and you informed about the many activities and accomplishments that take place within our 13 national marine sanctuaries and Papahānaumokuākea and Rose Atoll marine national monuments.

[ONMS Newsletter](#)

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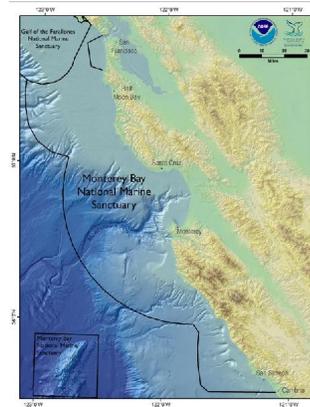
[Council Meeting Minutes](#)

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Know your Sanctuary

Monterey Bay National Marine Sanctuary



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

It is home to one of the world's most diverse marine ecosystems, including numerous mammals, seabirds, fishes, invertebrates and plants in a remarkably productive coastal environment.

MBNMS was designated in 1992 for the purpose of resource protection, research, education, and public use of this national treasure. MBNMS is part of a system of 13 National Marine Sanctuaries and two marine national monuments, administered by the National Oceanic and Atmospheric Administration

Monterey Bay NMS Advisory Council, 99 Pacific Street, Suite 455a, Monterey, CA 93940

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