



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SERVICE  
**Greater Farallones and Cordell Bank**  
**National Marine Sanctuaries**

991 Marine Drive, The Presidio, San Francisco, CA 94129

California Fish and Game Commission  
P.O. Box 944209  
Sacramento, CA 94244-2090  
**Sent Via Email:** fgc@fgc.ca.gov

April 15, 2023

**RE: Adaptive Management of California's Marine Protected Area Network**

Dear President Sklar and Members of the Fish and Game Commission:

Greater Farallones National Marine Sanctuary (sanctuary) includes the state waters designated between Marin County and Point Arena. In addition, Greater Farallones National Marine Sanctuary staff (GFNMS) manage the northern portion of the Monterey Bay National Marine Sanctuary between Año Nuevo and Marin County. As such, GFNMS' management area aligns with the California Marine Life Protection Act (MLPA) North Central California Region providing an opportunity for shared management of the waters overlapping 25 state MPAs and 6 special closures. Since the designation of these protected areas, we have worked to support the statewide network through education, outreach, enforcement, and research. We look forward to continuing to work together to protect these nationally important marine areas, and appreciate the opportunity to provide comments to the Commission on adaptive management of the statewide MPA network.

This letter is intended to share information about the importance of Duxbury Reef, the need to consider additional conservation measures to effectively protect it, and to support a community-based process to recommend enhanced protections at Duxbury Reef State Marine Conservation Area.

**The Importance of Duxbury Reef**

Duxbury Reef is a place of special significance to California's coast. Its shale reef ecosystem is the largest in California, and supports over 100 species of invertebrates and marine plants. Accessible tidepools are frequently used to teach the next generation of marine scientists how to monitor ecosystem health and to engage the public in responsible wildlife watching. Since 2000, Duxbury has been a survey site of GFNMS and Greater Farallones Association's LIMPETS program, in which Bay Area students conduct intertidal monitoring of the reef. For many, Duxbury is their first experience visiting a marine protected area. In addition to its state and federal protections, Duxbury is part of the Golden Gate Biosphere Network, a United Nations' World Network of Biosphere Reserves established as sites of excellence. At less than three quarters of a square mile in area, it is one of the smallest MPAs in the statewide network.

## The Need to Consider Additional Conservation Measures at Duxbury Reef

With rising sea levels intertidal animals need the space and time to adapt and build resilience to climate change. Duxbury Reef, an easy-to-access, popular coastal location in the Bay Area, is highly impacted by increased visitation. The impacts of increased visitation since its designation as an SMCA in 2010 have been well documented by agencies and partner organizations. Preliminary findings from the GFNMS Condition Report, an assessment of the health of the sanctuary over the last 10 years, revealed that Duxbury is the most easily accessed reef within the sanctuary. Although visitor use occurs at multiple rocky reef locations throughout the sanctuary, documented trampling and collecting of intertidal species at Duxbury reef makes it the location of highest concern for intertidal impacts in the sanctuary. These activities can cause long-term negative impacts to sanctuary habitat and species and reduce the resilience of species to adapt to changing ocean conditions.

The 2020 MPA Community Compliance Forum Report<sup>1</sup> offers details about illegal collections at Duxbury. Community members observed visitors using buckets, small nets and tools to collect reef animals including purple urchins and turban snails. They also expressed concern about increased visitation and impacts to tidepools from trampling, moving rocks for viewing, and crushing animals.

Data from Marin MPA Watch supports observations about increased visitation and illegal take. Marin MPA Watch has conducted surveys at Duxbury Reef since 2013 documenting significant increases in visitation, as well as human impacts to the reef. In recent annual reports, they noted the following use patterns at Duxbury<sup>2</sup>:

- In spite of being the smallest MPA, Duxbury has the highest use count (visitation) of all MPAs surveyed in 2022, accounting for 49% of total human activities in Marin MPA Watch locations.
- 16 observations were made of illegal hand collection of biota in 2022, as well as 62 observations of hand collection of biota in 2021.
- 305 incidents of hand collection of biota in the intertidal were observed in the months of June, July, and August 2020.

Duxbury's SMCA designation allows for certain kinds of take, which may confuse visitors that are not familiar with the regulations. Current regulations allow for "recreational take of finfish from shore and abalone", which is an unusually broad definition for an SMCA. Most SMCA designations include specific gear types (e.g. hook and line, dip net), but at Duxbury, the lack of specificity implies all gear types used to target finfish from shore, including hook and line, poke poles, and other gear are permissible. Poke poles used to target eels on the reef are a common

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<sup>1</sup> Golden Gate Compliance Forum Report, 2020. see <https://www.mpacollaborative.org/goldengate/>

<sup>2</sup> MPA Watch Regional Report, Marin County, 2022 and 2020.

sight and are permitted under current regulations. Seeing legal take of finfish by various gear types occurring on a busy day may cause uninformed visitors to Duxbury to think that other forms of collection are legal. This confusion may be resulting in illegal take, which has been frequently observed on the reef by MPA Watch volunteers and docents.

Another potential source of confusion amongst coastal visitors may be from the allowed take at the southernmost extent of Duxbury Reef, which is unprotected by the current SMCA. This southern boundary area is accessible at low tide via the main parking lot, as well as a goat trail accessed at the end of Ocean Boulevard and Maple Road in Bolinas. Since collection is allowed at this part of the reef, unfamiliar visitors may see legal take occurring and assume that it is allowed on all areas of the reef.

### **Community Input on Adaptive Management of MPAs**

GFNMS supports a community-based approach to recommending additional conservation tools to ensure the Duxbury Reef ecosystem thrives and is offering to help support such an effort. GFNMS is offering to propose to our Sanctuary Advisory Council (SAC) a GFNMS-CDFW working group composed of community members and science experts to recommend conservation measures and tools to address concerns about the health of Duxbury Reef. A joint working group of GFNMS and CDFW could provide a meaningful forum for community members and scientists to discuss and propose adaptive management recommendations to ensure a healthy State and Federal MPA.

Community-led processes to manage and protect our ocean are a valuable way to achieve community support, which in turn can promote better compliance. GFNMS is committed to attending future meetings of the Fish and Game Commission and Marine Resources Committee for our shared areas in which adaptive management of MPAs will be discussed and will participate in community processes that the state chooses to undertake in our region.

Thank you in advance for considering a Duxbury Reef community process whether led through GFNMS, CDFW, or a NGO to ensure that our shared resources thrive.

Sincerely,

A handwritten signature in black ink that reads "Maria Brown". The signature is written in a cursive, flowing style.

Maria Brown, Superintendent  
Greater Farallones and Cordell Bank National Marine Sanctuaries