

OUTREACH & EDUCATION

DUXBURY DOCENTS:

**Stewards of Duxbury Reef
State Marine Conservation Area**

A partnership of the Environmental Action Committee of West Marin
and Marin County Parks

west
marin





Environmental Action Committee of West Marin

Protecting and sustaining the unique lands, waters, and biodiversity of West Marin since 1971. We accomplish our work by bringing people, policy, and science together for change.

Presentation by: Leslie Adler-Ivanbrook, Program Director

www.eacmarin.org

Duxbury Reef: Local Treasure

- Largest shale reef in California and one of the largest in North America.
- The Monterey shale was formed during the Miocene Epoch (about 5 to 23 million years ago).
- **The shallow slope and soft shale supports great abundance and biodiversity of intertidal marine life.**



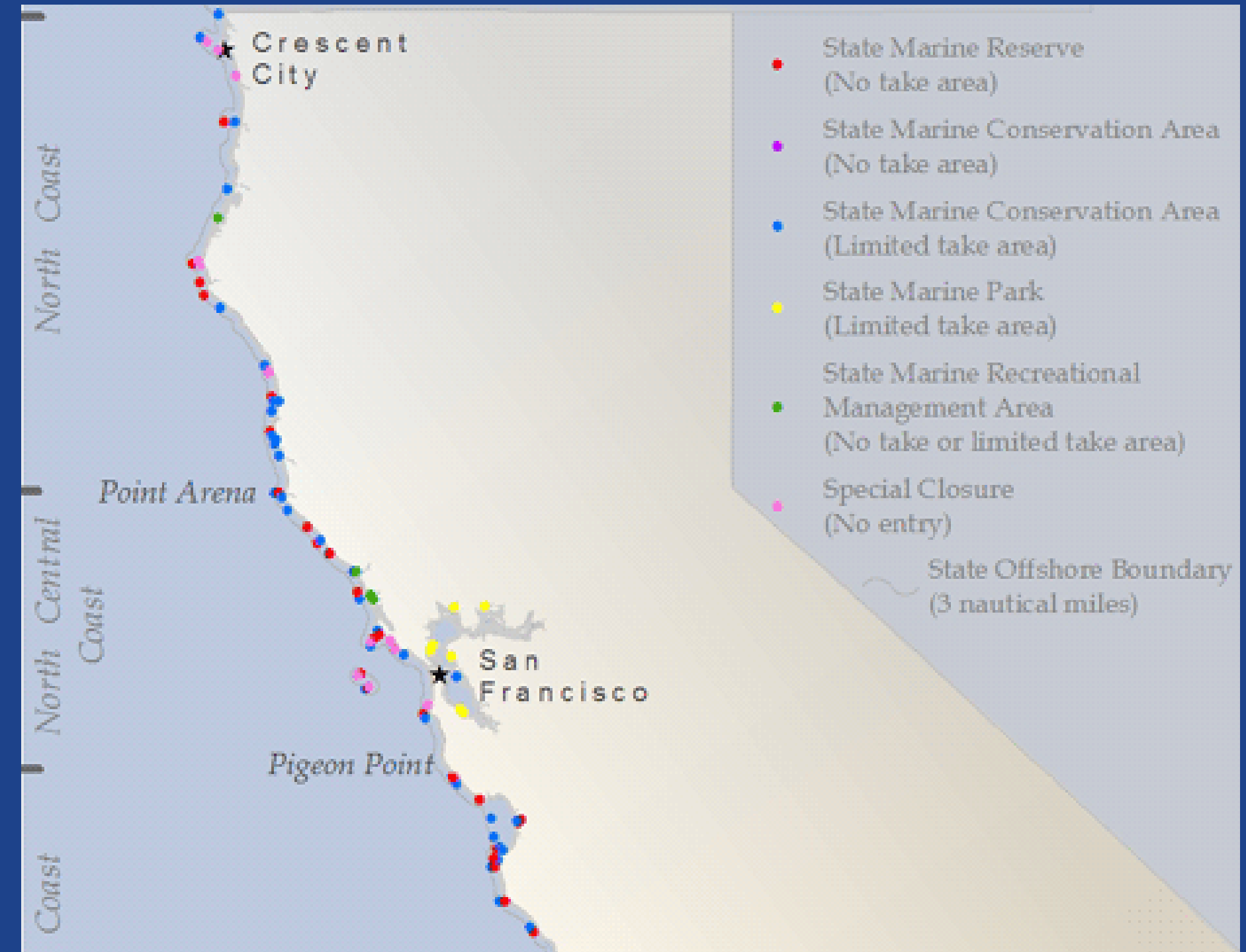
Duxbury Reef: Diverse Intertidal Ecology

More than 100 different species of invertebrates, seaweeds, and marine plants cling to the reef.



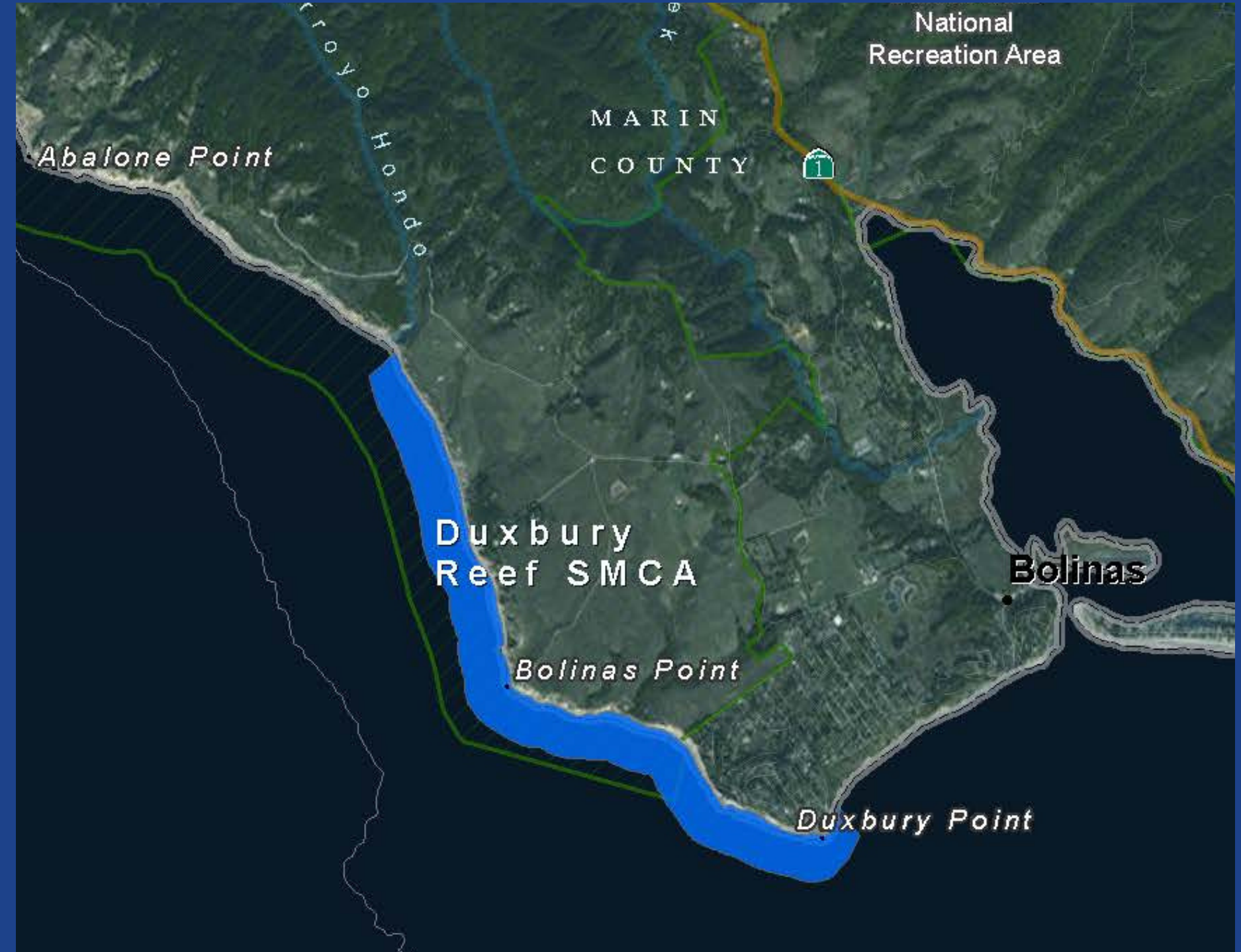
MPA: Marine Protected Area

- In 1999, California passed the Marine Life Protection Act (MLPA) establishing an integrated network of 124 MPAs or 16% of the coast.
- MPAs protect the diversity and abundance of marine life and the habitats they depend on.
- MPAs are places where people can visit, recreate and explore.
- MPAs limit consumptive (taking) activities like fishing.



Duxbury Reef: State Marine Conservation Area

- Duxbury Reef was designated in 2010 as a State Marine Conservation Area (SMCA).
- Only certain "take" is allowed: The recreational take of finfish from shore, and abalone when permitted (abalone fishery is closed until 2026).



MPA Watch: Community Science

- Trains volunteers to observe and collect data on human uses of coastal and marine resources both inside and outside of marine protected areas (MPAs).
- Volunteers use standardized protocols to collect relevant, scientifically rigorous, and broadly accessible data.
- The data is used by agencies and communities to inform management and programs.



Duxbury Reef: Increase in Visitation

- MPA Watch volunteers documented approximately 70% increased visitation since 2018.
- Duxbury has the highest overall visitation count of all MPA Watch transects in Marin, the smallest area, and is highly sensitive intertidal habitat.
- Increased visitation and disturbance has an impact on the marine life



All Recreational & Consumptive Activity

All Years = 2014 - 2020

Duxbury Reef: Need for Docent Program

- Duxbury also has the highest rate of potential poaching or consumptive activities compared to other MPAs being surveyed.
- The data helped us see how a docent program could benefit the reef and the community.



Consumptive Activity
All Years = 2014 - 2020

Duxbury Docents: Program Goals

- Encourage responsible visitation and educate visitors about marine ecology and MPAs.
- Partner with local community members, agencies, and intertidal docent program in California.
- Recruit local volunteers to support community engagement and stewardship.
- Provide comprehensive training.



DUXBURY DOCENT PROGRAM

TIMELINE

JANUARY 2020

Finalize Duxbury
Docent Report &
present to the
County of Marin

MARCH 2020

COVID
SHELTER-IN-
PLACE
(1 YEAR DELAY)

JULY 2020

Report high
visitation &
poaching to
CDFW

JUNE 2021

Training Marin
County Park
Rangers

OCTOBER -
DECEMBER 2021

Program Design:
Collaborate with
Friends of Fitzgerald
Marine Reserve and
Kent Khtikian

JANUARY 2022

Training 1st cohort
of 11 volunteers
from West Marin.

Duxbury Docents: Training Program

- 5-day training focused on marine species, intertidal zonation, reef ecology, tidepool etiquette, the art of docenting and program expectations, California MPAs and relevant regulations.
- Instructors included: Kathy Ann Miller, Joe Mueller, Rebecca Johnson, Leslie Adler-Ivanbrook, and Kent Khtikian.
- Thank You to Friends of Fitzgerald Marine Reserve for sharing your training manual!



Duxbury Docents: On-Going Support

Resources:

- Mentoring post-training
- Training manual, Quick ID Chart, Field Guides, Hat, MPA Brochures, Datasheets, and MPA Watch resources
- Online Shift Calendar
- Quarterly check-in meetings
- Duxbury Docents Advisory Group
- Additional training and enrichment

Data Collection:

- Complete Shift Reports
- Conduct MPA Watch surveys



Key Stats

Key metrics and information that highlights the impact of the docent program.



11

VOLUNTEERS

total number of volunteers enrolled and trained in the January 2022 program.

73

RETENTION RATE

Percent of volunteers still engaged with the program taking shifts on the reef.

56

SHIFT REPORTS

Completed shift reports including information on times, dates, interactions, and needs.

856

VISITOR ENGAGEMENT

Number of visitors the docents have interacted with January - August 2022.

28

VIOLATION INTERVENTIONS

Number of potential poaching activities that were stopped due to docent presence.

10

LARGE GROUPS

Interactions with school or large visiting groups on the reef during the shift. One 1 of these groups were pre-registered with the docent program.

Tales from the Reef

"A visitor was really excited to learn species with me with lots of good questions. We saw three crabs fighting. Taught him how to pronounce Muir Woods. The most common question over time is, are there octopuses here?" - Wendy, July 2022

"Folks thanked me for being a docent and for engaging them in learning. Lots of first-time visitors to Duxbury (from San Rafael, Concord, Fairfax)."

-Heather Clapp, May 2022

"Beautiful, sunny, clear water, lots of crabs, low tide to see anemones. Everyone there was friendly and excited and it was fulfilling to me." - Sandy, June 2022

More Tales from the Reef

"Local wants us to do neighborhood group. Appreciative first-time parents/kids. People are super appreciative of learning tide pool etiquette. A family was excited to show me large red crab and sea urchins.

... A couple indicated there are a lot less species since last here 10 years ago and had to ask them not to pick up species ."

- Wendy, February 2022

"Parents were super responsive to making sure their kids were not picking things up and watching their step after my sharing of good tidepooling practices!"

- Bridget, June 2022

"All interactions I had were very welcome and appreciated. Most people really wanted to know the "right" way to tread on the land in this environment."

-Courtney Barend, February, 2022

Engage with the Docent Program

- Volunteer to become a docent
- Visit the reef and talk to the docents!
- Donate to support the program

Visit

<https://www.eacmarin.org/duxbury-docents>

