

Marine Protected Area (MPA) Watch Regional Report

Marin County
January 1, 2025 – December 31, 2025

Map of Region's MPAs



MPA Watch is a statewide collaborative effort to collect critical human use data to enhance the management and conservation of marine protected areas (MPAs). MPA Watch data informs the management, enforcement, and science of California's MPAs and allows us insight on how human uses are changing as a result of MPA implementation. By involving local communities in this important work, MPA Watch programs inspire and empower stewardship, and educate California communities about ocean ecosystems. MPA Watch trains volunteers to observe and collect unbiased data on coastal and marine resources use. The Marin County Marine Protected Area Watch Program, organized by Environmental Action Committee of West Marin, engages community scientists in four MPAs in Marin County¹ and one adjacent site.

- Point Reyes State Marine Reserve (Point Reyes SMR), Estero de Limantour State Marine Reserve (Estero de Limantour SMR), and Limantour Beach Control (Control PRSouth) are accessed through the Point Reyes National Seashore.
- Duxbury Reef State Marine Conservation Area (Duxbury SMCA) is accessed through Marin County Open Space.
- Cortes Madera Marsh State Marine Park (Cortes Madera Marsh SMP) is accessed through the city of Cortes Madera.

¹ Marin County, included in this report, also has additional MPA Watch data that can be found in the 2025 North Central California Report by the Greater Farallones Association, Beach Watch, and NOAA. Please visit mpawatch.org/reports for all reports.



Executive Summary

Data was compiled for the period January 1 – December 31, 2025. Highlights include:

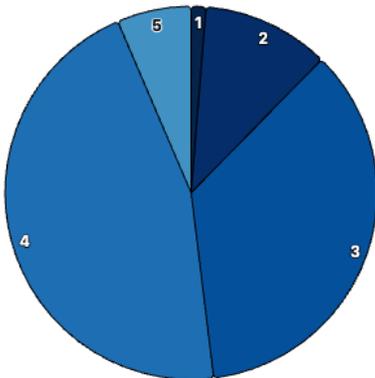
- 30 volunteers (including 2 interns) plus 12 high school student volunteers conducted surveys.
- 276 surveys were conducted (315 in 2024). Volunteers recorded 4,376 activities over 452 survey miles. This is less than 2024 (which recorded 4,959 activities and 570 survey miles).
- Non-consumptive activities account for 97% of all activities.
- Duxbury Reef has the highest percentage of activities (45%) in Marin MPA Watch data.
- Potential violations were observed at two sites: Duxbury had 58 counts of hand collection and 4 counts of offshore boat fishing in the MPA. Point Reyes SMR had 1 count of hand collection, 1 count of active passenger fishing, and 2 counts of active recreational boat fishing.

HUMAN USE OF MPAS (January 1 - December 31, 2024)

OVERVIEW

Top 5 MPAs by All Activity

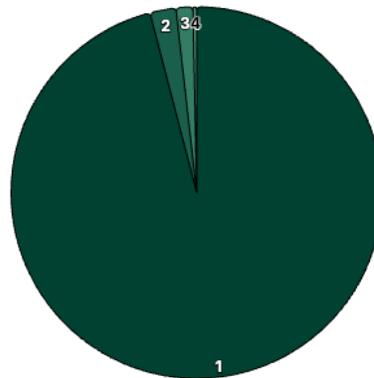
January 1, 2025 - December 31, 2025
4,376 total activity events



- 1. Estero de Limantour SMR
56 (1%)
- 2. Point Reyes SMR
484 (11%)
- 3. Control PRSOUTH
1,563 (36%)
- 4. Duxbury Reef SMCA
1,991 (45%)
- 5. Corte Madera Marsh SMP
282 (6%)

All MPAs Combined

January 1, 2025 - December 31, 2025
4,376 activity events



- 1. On-Shore Nonconsumptive
4,199 (96%)
- 2. On-Shore Consumptive
99 (2%)
- 3. Off-Shore Nonconsumptive
64 (1%)
- 4. Off-Shore Consumptive
14 (< 1%)

ACTIVITY CLASSIFICATIONS

On-Shore - Activities that take place on a sandy or rocky beach. Excludes bluffs, trails, sea walls, parking lots, or other man-made structures. Includes recreation, tidepooling, shore-based fishing, etc.

Off-Shore - Activities that take place offshore, typically in knee-deep water or deeper. Includes surfing, SCUBA diving, kayaking, boat fishing, etc.

Consumptive - An activity in which a natural resource (i.e. fish, kelp, shells) is being collected.

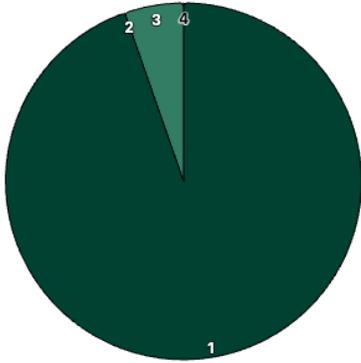
Non-Consumptive - An activity in which a natural resource is not collected.



ACTIVITY BY MPA

Estero de Limantour SMR

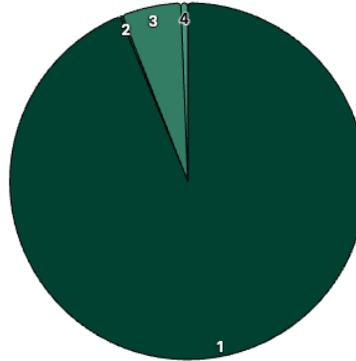
January 1, 2025 - December 31, 2025
56 activity events



- 1. On-Shore Nonconsumptive
53 (95%)
- 2. On-Shore Consumptive
0 (< 1%)
- 3. Off-Shore Nonconsumptive
3 (5%)
- 4. Off-Shore Consumptive
0 (< 1%)

Point Reyes SMR

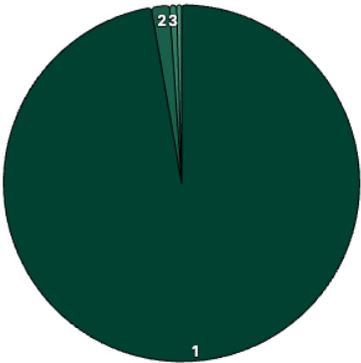
January 1, 2025 - December 31, 2025
484 activity events



- 1. On-Shore Nonconsumptive
454 (94%)
- 2. On-Shore Consumptive
1 (< 1%)
- 3. Off-Shore Nonconsumptive
26 (5%)
- 4. Off-Shore Consumptive
3 (1%)

Control PRSOUTH

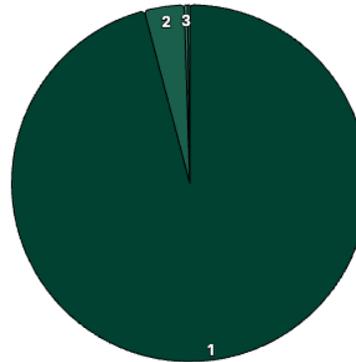
January 1, 2025 - December 31, 2025
1,563 activity events



- 1. On-Shore Nonconsumptive
1,520 (97%)
- 2. On-Shore Consumptive
26 (2%)
- 3. Off-Shore Nonconsumptive
10 (1%)
- 4. Off-Shore Consumptive
7 (< 1%)

Duxbury Reef SMCA

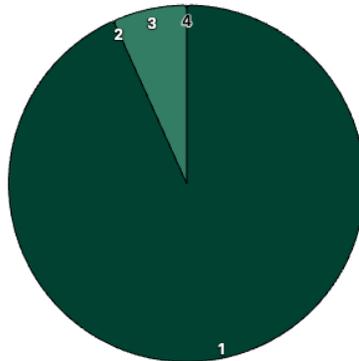
January 1, 2025 - December 31, 2025
1,991 activity events



- 1. On-Shore Nonconsumptive
1,909 (96%)
- 2. On-Shore Consumptive
72 (4%)
- 3. Off-Shore Nonconsumptive
6 (< 1%)
- 4. Off-Shore Consumptive
4 (< 1%)

Corte Madera Marsh SMP

January 1, 2025 - December 31, 2025
282 activity events



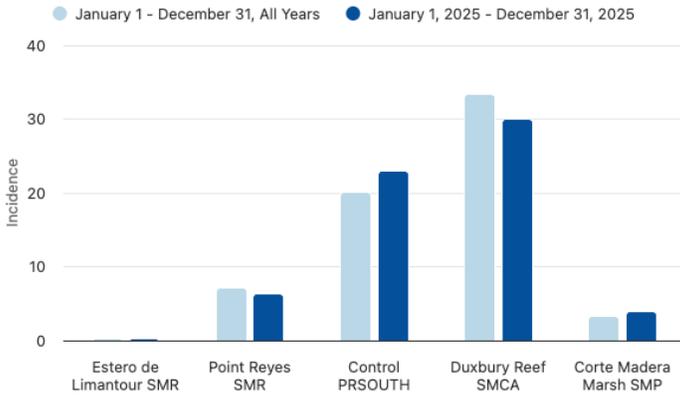
- 1. On-Shore Nonconsumptive
263 (93%)
- 2. On-Shore Consumptive
0 (< 1%)
- 3. Off-Shore Nonconsumptive
19 (7%)
- 4. Off-Shore Consumptive
0 (< 1%)



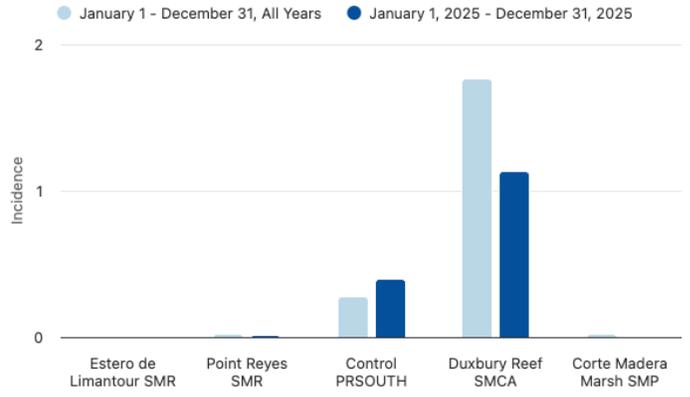
ACTIVITY INCIDENCE BY MPA

Incidence Bar Charts

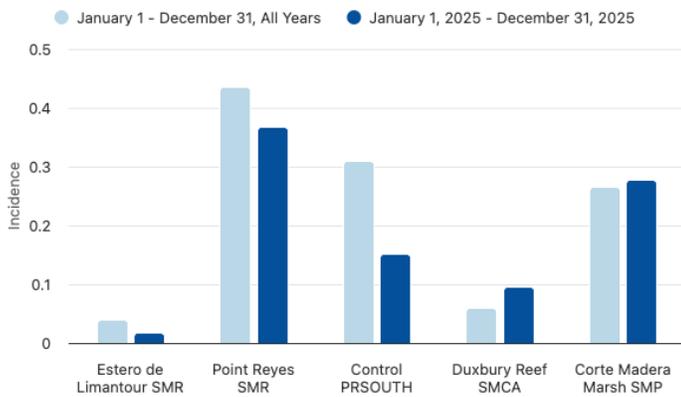
On-Shore, Non-Consumptive



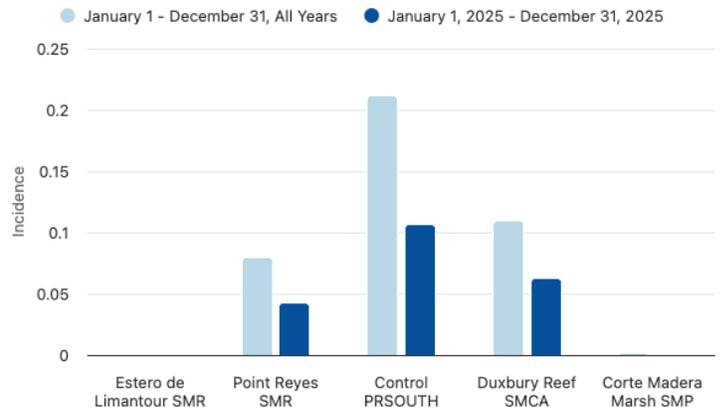
On-Shore, Consumptive



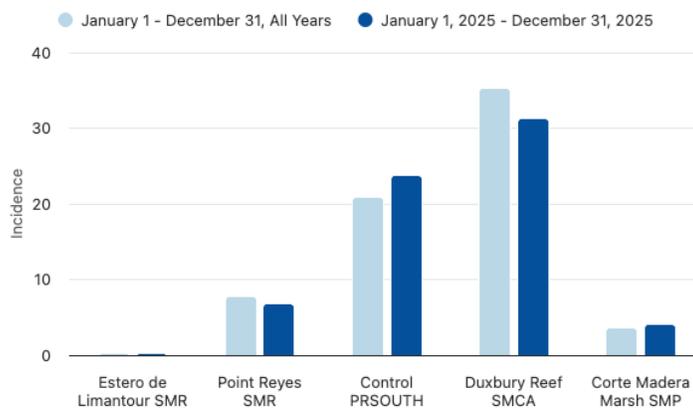
Off-Shore, Non-Consumptive



Off-Shore, Consumptive



All Activity



The above charts show incidence values for each MPA monitored by MPA Watch in Marin County. Incidence is calculated as the number of activities recorded divided by total survey-miles.



Incidence Tables

On-Shore				
MPA	Non-Consumptive		Consumptive	
	January 1 December 31 All Years	January 1, 2025 through December 31, 2025	January 1 December 31 All Years	January 1, 2025 through December 31, 2025
	Estero de Limantour SMR	0.3	0.3	0.0
Point Reyes SMR	7.2	6.4	0.0	0.0
Control PRSOUTH	20.1	23.0	0.3	0.4
Duxbury Reef SMCA	33.4	29.9	1.8	1.1
Corte Madera Marsh SMP	3.2	3.8	0.0	0.0
All MPAs Combined	8.4	9.3	0.2	0.2

Off-Shore				
MPA	Non-Consumptive		Consumptive	
	January 1 December 31 All Years	January 1, 2025 through December 31, 2025	January 1 December 31 All Years	January 1, 2025 through December 31, 2025
	Estero de Limantour SMR	0.0	0.0	0.0
Point Reyes SMR	0.4	0.4	0.1	0.0
Control PRSOUTH	0.3	0.2	0.2	0.1
Duxbury Reef SMCA	0.1	0.1	0.1	0.1
Corte Madera Marsh SMP	0.3	0.3	0.0	0.0
All MPAs Combined	0.2	0.1	0.1	0.0

Total Combined		
MPA	January 1 December 31 All Years	January 1, 2025 through December 31, 2025
Estero de Limantour SMR	0.3	0.3
Point Reyes SMR	7.7	6.8
Control PRSOUTH	20.9	23.7
Duxbury Reef SMCA	35.4	31.2
Corte Madera Marsh SMP	3.5	4.1
All MPAs Combined	8.9	9.7

NOTES ON CALCULATING INCIDENCE

The baseline rate for the reporting period was calculated by summing the total use count for each category during the same period from each previous year and dividing this value by the transect miles surveyed at each site. The miles surveyed were calculated by first identifying the length of each transect for all the MPAs in question and multiplying the length of the transect by the number of surveys that had been taken along that transect during the same time period. For MPAs with multiple transects, the total distance traveled for each transect within the MPA was summed together to get the total miles surveyed within that MPA.



BREAKDOWN BY MPA

This report includes MPA Watch data from January 1 – December 31, 2025. The data is collected by trained on-shore observers and is organized into categories that highlight on-shore and off-shore consumptive and non-consumptive uses at MPAs located in Marin County.

ESTERO DE LIMANTOUR STATE MARINE RESERVE (SMR)

This MPA is observed from two survey transects within Point Reyes National Seashore and accessed from either 1) Limantour Beach and walking north-west, or 2) Drakes Beach and walking east. This MPA does not allow any on-shore or offshore consumptive uses.

Volunteers conducted 46 surveys in this MPA and recorded an incidence (use rate) of 0.3 activity per mile. The incidence use rate is greater than 2024 (0.1), but the same as the All Years incidence rate.

Similar to previous years, 100% of the observations were non-consumptive. 95% of the activities were on-shore non-consumptive uses. Non-consumptive observations in this MPA included sandy beach recreation (50 observations), wildlife viewing (3) and offshore kayaking (2) and sailing (1).

Dogs are restricted from this MPA as it is critical habitat for the Western Snowy Plover and the seasonal presence of marine mammals. There were no potential violations recorded.

POINT REYES STATE MARINE RESERVE

Data collection for Point Reyes SMR in the first half of 2025 was limited due to beach closure and access restrictions at Drakes Beach, where volunteers survey Point Reyes SMR and part of Estero de Limantour. In 2025, Drakes Beach was closed because of elephant seal pupping from January 08 to April 20.

This MPA is observed from two survey transects within the Point Reyes National Seashore and accessed from either 1) Limantour Beach and walking north-west, or 2) Drakes Beach. This MPA does not allow any on-shore or offshore consumptive uses.

In 2025, volunteers conducted 64 surveys of this MPA (compared to 87 in 2024 and 209 in 2023). Surveys at this MPA recorded an incidence of 6.8 activities per mile surveyed, which is greater than in 2024 (5.3) activities and less than 7.7 in All Years.

94% of the observations were on-shore, non-consumptive activities, including sandy beach recreation (85%) and wildlife viewing (8%). Offshore non-consumptive uses included recreation (3%), inactive boat fishing (2%), and surfing (less than 1%). Offshore consumptive uses included active recreational boat fishing and passenger fishing (each less than 1%).

Dogs are restricted from beach access at Drakes Beach by the National Park Service and at the north-west portion of Limantour Beach as it is critical habitat for the Western Snowy Plover and the seasonal presence of marine mammals. There was 1 observation of a dog off-leash. In total, there were 4 reported observations of potential violations in 2025 (1 count of hand collection, 1 active passenger fishing, and 2 active recreational boat fishing).

Volunteers accessing this MPA from Drakes Beach typically find significant quantities of plastic marine debris that is a mix of small plastic particles, nurdles, fishing gear, single-use foodware and plastic packaging, ropes, tires, shotgun shells, and occasionally, hazardous medical waste (i.e. needles). Beach cleanups occur occasionally at Drakes Beach, and annually on Coastal Cleanup Day.

LIMANTOUR BEACH (CONTROL PRSOUTH)

This area is observed within the Point Reyes National Seashore and accessed at Limantour Beach. This area borders an MPA, therefore consumptive uses, like fishing from shore and off-shore is allowable within the appropriate season and with licenses.

Volunteers conducted 30 surveys in this non-MPA site (compared to 42 in 2024) with an incidence of 23.7 activities per mile surveyed (26.3 in 2024). This is a slight decrease from last year, but higher than previously (20.9 All Years). In 2025, 97% of the observations in Control PRSouth were on-shore, non-consumptive uses (89% sandy beach recreation), and the remaining top non-consumptive activities include animals on-(4%) and off-leash (3%), and 1% offshore recreation. Consumptive hook fishing from shore comprised 2% of observations.

Leashed dogs are allowed to access the southern portion of Limantour Beach. Dogs are restricted from the north-west portion of the beach as it is critical habitat for the Western Snowy Plover and the seasonal presence of marine mammals. Volunteers recorded 122 animal observations (71 on-leash -58%- and 51 animals off-leash). This ratio is similar to 2024. It is not an MPA, so no potential violations were recorded in this control area. However, dogs off-leash are not in compliance with NPS regulations.

DUXBURY REEF STATE MARINE CONSERVATION AREA (DUXBURY SMCA)

This MPA is observed from Marin County Parks and Open Space and Point Reyes National Seashore and accessed at Agate Beach, managed by Marin County Parks and Open Space. This MPA allows hook and line fishing from shore and abalone harvest when the fishery is open and with a fishing license. Currently, the abalone fishery is closed in this area for 10 more years.

In 2025, 64 surveys were conducted (compared to 61 in 2024). This is only slightly larger than last year. Volunteers recorded 1,991 activities with a use rate of 31.2 activities per mile (26.5 in 2024). In 2025, Duxbury Reef / Agate Beach has the highest use rate of all the MPAs monitored

by Marin MPA Watch. However, PR Control South's use rate has been similar in some past years.

In 2025, 96% of observations were onshore, non-consumptive uses, which is greater than in 2024 (92%). Non-consumptive tidepooling represented 62% of observations, compared to 2024 data, 59% of observations. Sandy beach recreation represented 24% of observations, and rocky beach recreation was 3%.

Onshore consumptive activities during 2025 have decreased to 4%, which is less than 2024 (8%). Onshore consumptive activities included 58 observations of hand collection of biota (65 in 2024) and 14 observations of hook fishing (compared to 72 in 2024 and 25 observations in 2023).

The number of potential violations counted by volunteers was 58 counts of hand collection of biota and 4 counts of offshore boat fishing in the MPA. 1 potential MPA Watch violation was reported to CDFW and two violations were reported from observations made during a docent shift, outside of the MPA Watch survey time. Duxbury Reef sustains a much greater number of violations, mostly of hand collection than any other Marin MPA survey site. In 2025, the average is almost one violation per survey. Additional violations of MPA regulations are observed outside of MPA Watch survey time by Duxbury Docents and other community members.

Leashed dogs are allowed on Agate Beach and Duxbury Reef. Volunteers recorded 123 dog observations. There were 51 on-leash dogs and 72 off-leash dogs. Dogs are required to be on leash in Agate Beach County Park, which technically does not extend into the intertidal zone.

Duxbury Reef SMCA continues to have a high use compared to other MPAs surveyed by Marin MPA Watch, accounting for 45% of all activities in Marin MPA Watch locations in one of the smallest survey areas. Duxbury Reef is a sensitive intertidal habitat where cumulative human impacts (trampling, collecting, and harmful handling) have long-term negative impacts on the habitat and species. The Duxbury Docent program was launched in January 2022 in response to MPA Watch data showing high use and potential violations. Docents are trained to conduct MPA Watch surveys on their shifts to contribute toward this valuable community science monitoring effort.

Volunteer docents note that when they engaged with individuals who were collecting biota, they observed that most collecting was for observation and not for consumption, and most people appreciated learning about the impact and replacing the organisms. However, others arrive at Duxbury with the intent to collect organisms and shells, which are also protected by the MPA no take regulations.

CORTE MADERA MARSH STATE MARINE PARK (CORTE MADERA MARSH SMP)

This MPA is observed within the city limits of Corte Madera and accessed by the network of public trails at Corte Madera Ecological Reserve. This area is a State Marine Park and

consumptive uses, like recreational hook and line fishing, is allowable within the appropriate season and licenses.

Volunteers conducted 72 surveys (59 in 2024) and recorded a use rate of 4.1 (down from 2024 of 4.5). 93% of the activities were on-shore, non-consumptive uses mostly including recreation (64%), animals on-leash (13%), driving (bicycles and 1 PGE vehicle, 9%), and wildlife viewing (5%). There were no consumptive uses observed. Offshore, other boating accounted for 6% of activities (Golden Gate Commuter Ferry Boat).

Leashed dogs are allowed on the walking paths, but not in the wetland or marsh. Of the 72 surveys conducted, volunteers recorded 45 dog observations. There were 37 on-leash and 8 off-leash. No observations of dogs in the wetland were reported.

POTENTIAL VIOLATIONS

The rate of consumptive activities observed in all Marin MPA Watch sites remains relatively low at 113 observations (2.6% of 4,376 total activities). In 2024, it was 3.7%; in 2023, the rate was under 4%; in 2022 – 2%; in 2021 and 2020 - 6% & 7% during pandemic years; and in 2019 and prior, it was 2-4%.

The vast majority of consumptive activities come from Duxbury Reef, including hand collection and on-shore hook and line fishing. Hand collection of biota or geologic features is considered a violation of SMCA regulations at Duxbury Reef and SMR regulations at Point Reyes SMR and Estero de Limantour.

Recurring issues with the illegal take and disturbance of tidepool organisms in the Duxbury Reef SMCA is an ongoing problem during low tides; in 2025 there were 58 survey observations of hand collection, while in 2024 there were 60 recorded observations. Evidence suggests consumptive activity rates are higher than reflected in the MPA Watch data (which is a snapshot estimate). Data from Duxbury Docent shift reports, which include both an MPA Watch survey, and the entire docent shift of 2-4 hours show additional violations that are not captured within the 10-minute binocular snapshot MPA Watch survey. Additionally, in 2025 there were 4 recorded observations of active boat fishing in the SMCA.

In addition to collecting biota, the handling of organisms by numerous visitors can have a cumulative and detrimental impact on biota, even if the visitors return the organisms to the reef. Docents' engagement with visitors who collect or pick up organisms for the most part is successful; with knowledge of the regulations and sensitivity of marine life, visitors often return the marine life to the tidepool. However, the combination of lack of clarity in signage, the partial take regulatory status, and limited enforcement presence contributes to erroneous assumptions and confusion among visitors about whether take and handling, which can kill or damage organisms, is acceptable at Duxbury Reef.

With continuing outreach to educate the community online and through social media, direct docent engagement as well as tabling at the trailhead and the deployment of clear, graphic

temporary signs during docent shifts, we are working to inform visitors about the fascinating marine life, MPA regulations, and tidepool stewardship practices before and during their visit. We continue to communicate with Marin County Parks and Open Space, Point Reyes National Seashore, California Department of Fish and Wildlife, and the California Fish and Game Commission to inform these agencies about poaching activities and harmful practices, and the need for increased protections at Duxbury Reef.

NEXT STEPS

Marin MPA Watch continues to collect data in MPAs that are accessed from Marin County with a goal of two surveys per month, per MPA. In 2025, Marin MPA Watch trained slightly fewer volunteers than in prior years and some normal attrition occurred, which resulted in the collection of fewer surveys than in 2024. Additionally, rainy weather in December resulted in fewer surveys being conducted, especially in Duxbury Reef.

In 2026 we anticipate holding refresher trainings for all current MPA Watch volunteers to ensure alignment and consistency with the MPA Watch network as a whole, including any relevant updated protocols. Our Marin MPA Watch Volunteer Manual will also be updated with recommended clarifications on protocols and transects.

EAC's Marin MPA Watch participated in the second stage of the Intercept pilot project. This project uses a survey instrument that aims to understand some visitor demographics and what people understand about MPAs through brief interviews on site. The data gathered by this survey tool is intended to be complementary to the data gathered by standard MPA Watch survey protocol on the same day. We aim to continue participation in summer 2026 in this Intercept pilot.

Marin MPA Watch intends to collaborate with the California Department of Fish and Wildlife to distribute MPA Watch reports to regional managers in order to provide information to help with management and enforcement of MPAs. Each year, MPA Watch makes our human use data available on their website to make it accessible to partners, resource agencies, municipalities, and other interested parties. One of the hopes of MPA Watch is that volunteers and community members help spread knowledge and awareness of MPAs to the communities that surround them, inspiring marine stewardship in our communities.

ADDITIONAL INFORMATION

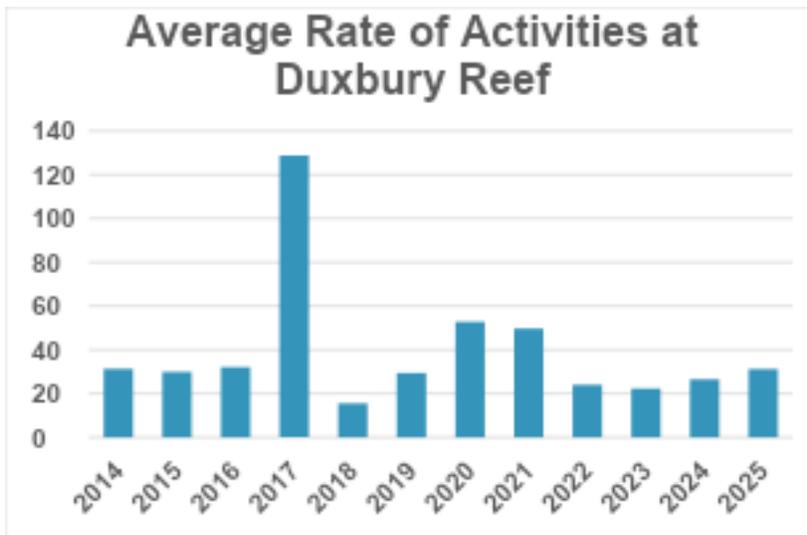
For additional information on MPA Watch, including survey sites, participating organizations, protocols and datasheets, media kit, and how to get involved, please visit mpawatch.org. Connect with MPA Watch on social media @MPAWatchOrg.

For additional information regarding MPAs and regulations specific to the various classifications of MPAs please visit wildlife.ca.gov/MPAs. If you see an activity that violates MPA regulations, please call CalTip to report the violation at (888) 334-2258.

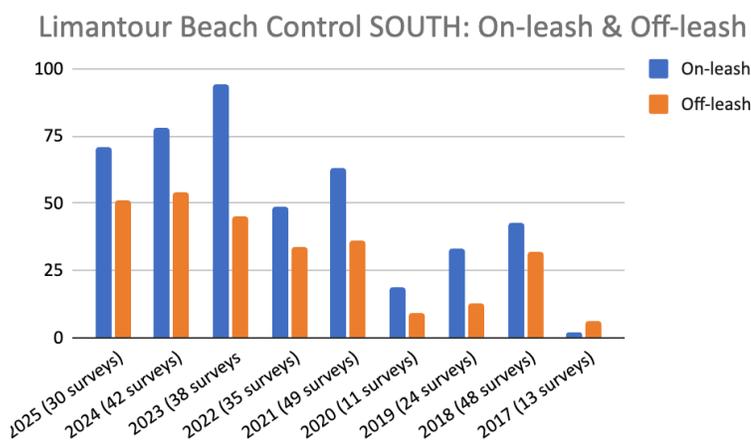
The Marin MPA Watch program is a partnership of the Environmental Action Committee of West Marin (EAC), California Academy of Science, and Point Reyes National Seashore. The program is managed by EAC. For more information / to become involved with the program, please visit eacmarin.org/mpa-watch.

GRAPHS

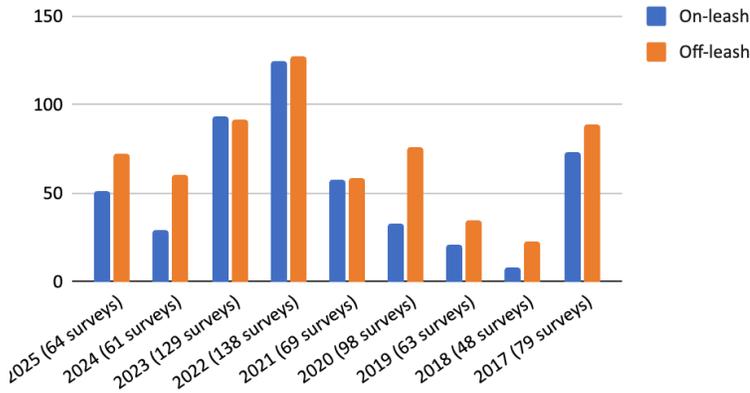
Average Activity Rate at Duxbury Reef



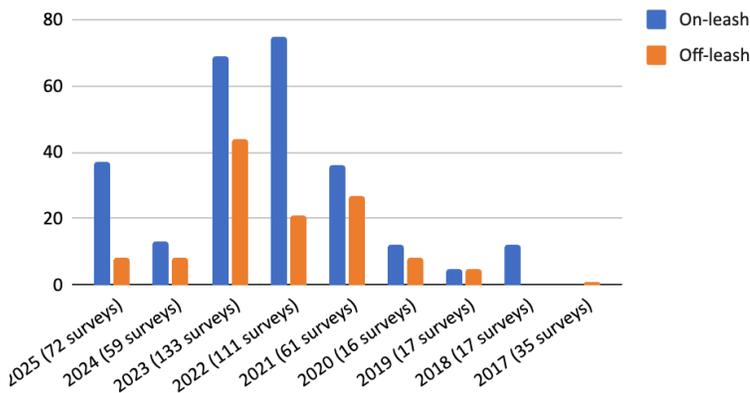
Animal on- and off- leash trends (mostly dogs) at Limantour Beach, and Agate Beach/Duxbury Reef, Corte Madera Marsh



Agate Beach/Duxbury Reef: On-leash and Off-leash



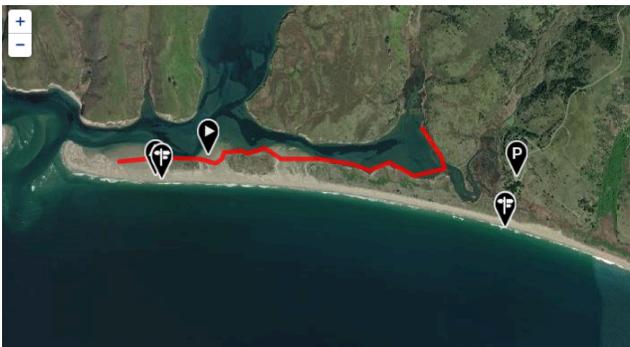
Corte Madera Marsh: On-leash and Off-leash



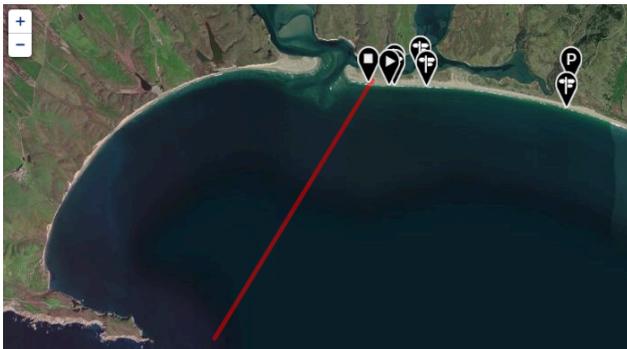
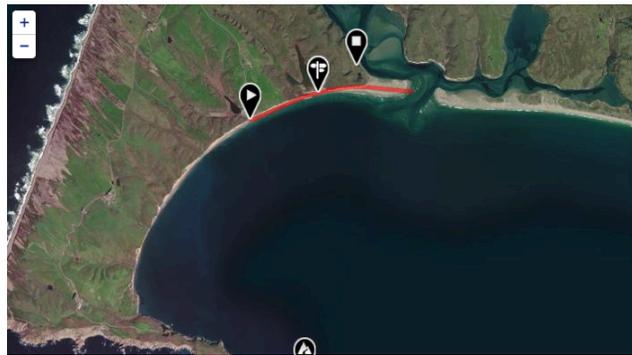
MAPS

*Note: Red lines imply the observation edges (Estero de Limantour, Point Reyes SMR and Corte Madera Marsh) and for others, walking pathways for the transects (Point Reyes SMR, Limantour Beach, Duxbury Reef) and Corte Madera Marsh.

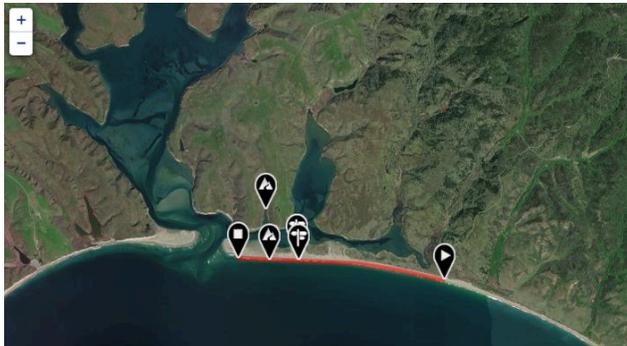
Estero de Limantour State Marine Reserve (Estero de Limantour SMR):



Point Reyes State Marine Reserve (Point Reyes SMR)



Limantour Beach (Control PRSOUTH)



Duxbury Reef State Marine Conservation Area (Duxbury SMCA)



Corte Madera Marsh State Marine Park (Corte Madera Marsh SMP)

