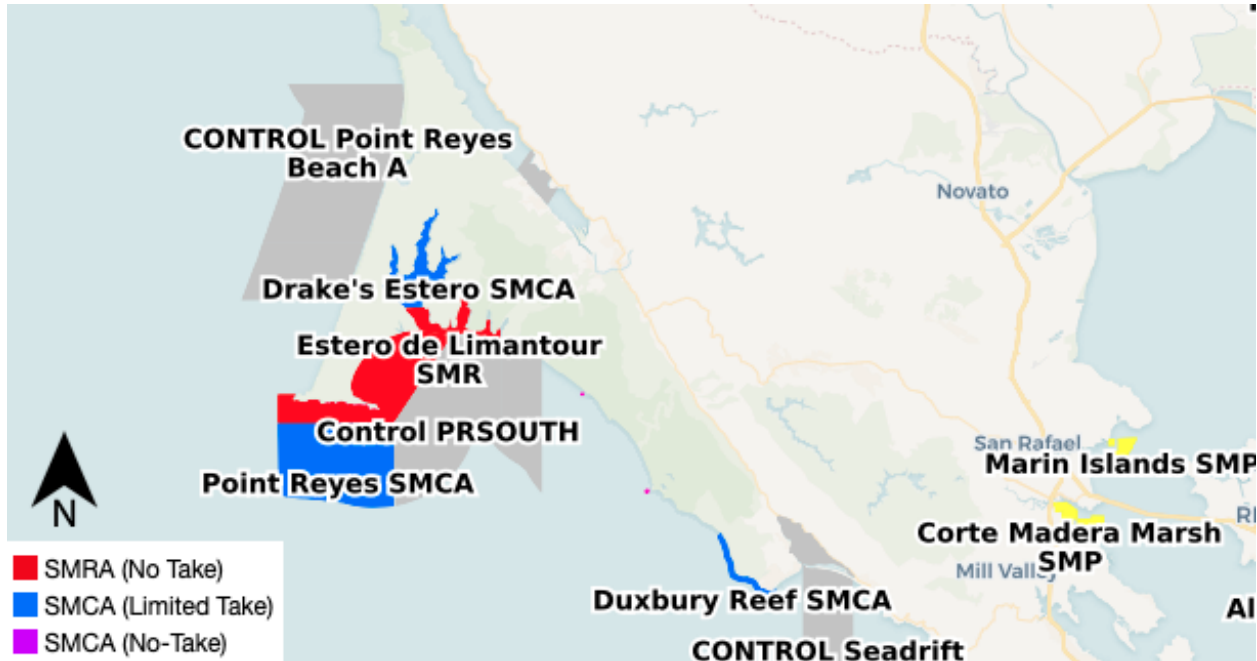




Marine Protected Area (MPA) Watch
Regional Report
Marin County
January 1, 2020 - June 30th, 2020



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.

The Marin MPA Watch program is a collaboration between the Environmental Action Committee of West Marin, Point Reyes National Seashore, and the California Academy of Science established in 2013. The Marin MPA Watch program monitors human activities near the Point Reyes State Marine Reserve, Point Reyes State Marine Conservation Area, Point Reyes Special Closure, Estero de Limantour State Marine Reserve, Drakes Estero State Marine Conservation Area, Duxbury Reef State Marine Conservation Area (Duxbury MPA), and the Corte Madera Marsh.



marinmpawatch@eacmarin.org



Executive Summary

This report includes MPA Watch data from January 1 – June 30, 2020. The report comparisons are to January 1 – June 30, 2019.

The 2020 data includes survey disruptions due to COVID-19 beach access closures from the County of Marin and Point Reyes National Seashore. In general, surveys were disrupted or ceased from March 22 – June 4, 2020. Duxbury Reef and Corte Madera Marsh were the only survey sites where some monitoring occurred during this time due to volunteers living near the location and their ability to walk to the beach.

Timeline of Beach Access Closures:

- March 22, 2020: Marin County closed County parks and beaches.
- March 31, 2020: Point Reyes National Seashore closed (including beaches) until further notice.
- April 29, 2020: Marin County Parks and Open Space allows Individuals who are able to walk into parks and beaches to access.
- May 4, 2020: Marin County allows some parking lots to open, but continues to limit access to beaches still only available to local residents who can walk to the beach.
- June 4, 2020: Point Reyes National Seashore reopens beaches and parking lots.

Monitoring Sites:

- **Estero de Limantour State Marine Reserve** continues to have a low rate of total less than 1 use count per mile surveyed. In the first half of 2020, the only activity recorded was sandy recreation at a higher rate than the prior year. No hand collection of biota or dogs were recorded. This MPA was closed due to COVID-19 from March 22 – June 4, 2020.
- **Point Reyes State Marine Reserve** between the months of January 1 – June 30, 2020 recorded a rate of 7.3 total use count per miles surveyed. This is a decrease of 37% compared to the prior year rate of January 1 – June 30, 2019. This MPA was closed due to COVID-19 from March 22 – June 4, 2020.
- **Limantour Beach (PR Control)** data recorded between the months of January 1 – June 2020, recorded a rate of 20.6 total use count per miles surveyed. This is an increase of 76% compared to the prior year rate of January 1 – June 30, 2019. Dogs off leash continue to be an issue on this beach where Western Snowy Plovers overwinter and nest. This MPA was closed due to COVID-19 from March 22 – June 4, 2020.

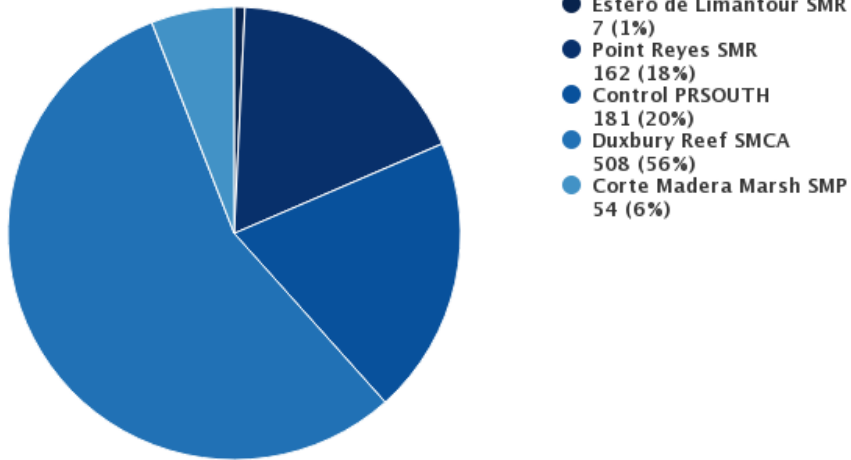
- **Duxbury Reef State Marine Conservation Area** between the months of January 1 – June 30, 2020 recorded a rate of 27.5 total use count per miles surveyed. This is an increase of 16% compared to the prior year rate of January 1 – June 30, 2019. On-shore non-consumptive activities account for 98% of the observations. The remaining 2% of activities included 9 observations of hook and line fishing in the rocky area (permitted use) and 1 observation of hand collecting biota (not permitted). Leashed dogs are allowed on Agate Beach and Duxbury Reef. From January 1 – June 30, 2020, volunteers conducted 24 surveys and recorded 41 dog observations (6 on leash and 35 off leash). This is an increase of 78% compared to the prior year count of January 1 – June 30, 2019 that recorded 23 dog observations (10 on leash and 13 off leash). The high number of animals off leash continues to be a problem and is trending in the wrong direction. This MPA was closed due to COVID-19 from March 22 – May 4, 2020. Volunteers were able to conduct surveys during the closure as they were able to walk to the beach.
- **Corte Madera State Marine Park** Between the months of January 1 – June 30, 2020 recorded a rate of 2.7 total use count per miles surveyed. This is an increase of 8% compared to the prior year rate of January 1 – June 30, 2019. On-shore non-consumptive activities account for 94% of the observations. The remaining 6% of activities were offshore and non-consumptive (windsurfing). This MPA was closed due to COVID-19 from March 22 – May 4, 2020. Volunteers were able to conduct surveys during the closure as they were able to walk to the beach.

Human Use of MPAs January 1 – June 30th, 2020

Overview

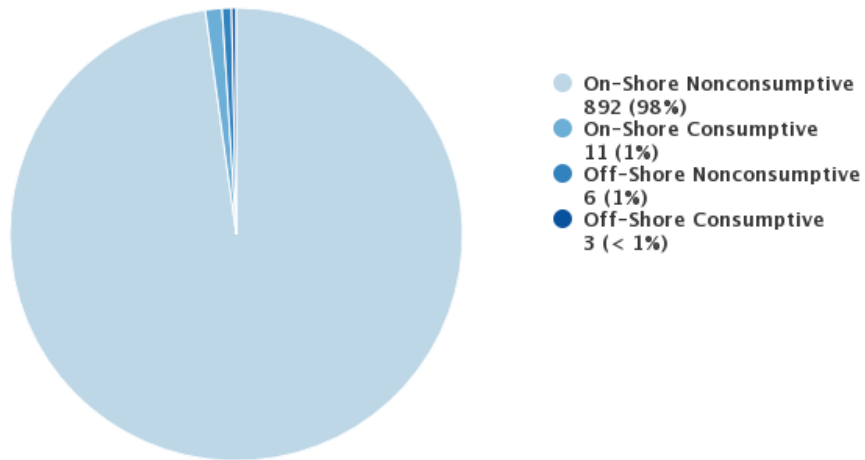
Top 5 MPAs by All Activity

January 1, 2020 – June 30, 2020
912 total activity events



All MPAs Combined

January 1, 2020 – June 30, 2020
912 activity events



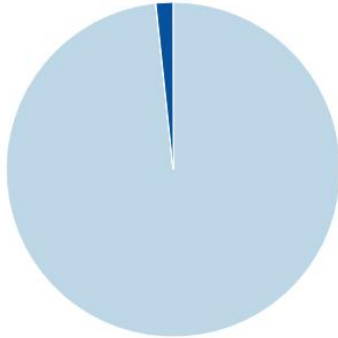
Activity Classifications

- 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

Control PRSOUTH

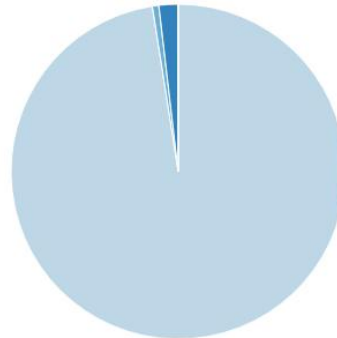
January 1, 2020 - June 30, 2020
181 activity events



- On-Shore Nonconsumptive
178 (98%)
- On-Shore Consumptive
0 (< 1%)
- Off-Shore Nonconsumptive
0 (< 1%)
- Off-Shore Consumptive
3 (2%)

Point Reyes SMR

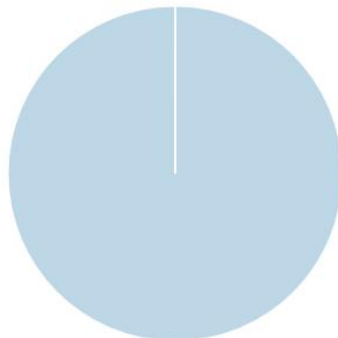
January 1, 2020 - June 30, 2020
162 activity events



- On-Shore Nonconsumptive
158 (98%)
- On-Shore Consumptive
1 (1%)
- Off-Shore Nonconsumptive
3 (2%)
- Off-Shore Consumptive
0 (< 1%)

Estero de Limantour SMR

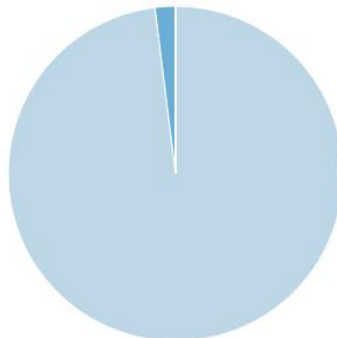
January 1, 2020 - June 30, 2020
7 activity events



- On-Shore Nonconsumptive
7 (100%)
- On-Shore Consumptive
0 (< 1%)
- Off-Shore Nonconsumptive
0 (< 1%)
- Off-Shore Consumptive
0 (< 1%)

Duxbury Reef SMCA

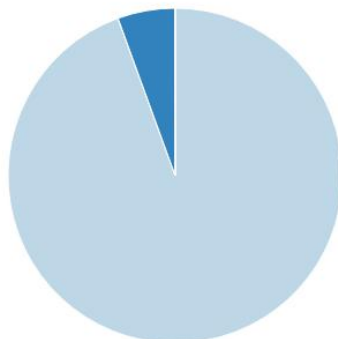
January 1, 2020 - June 30, 2020
508 activity events



- On-Shore Nonconsumptive
498 (98%)
- On-Shore Consumptive
10 (2%)
- Off-Shore Nonconsumptive
0 (< 1%)
- Off-Shore Consumptive
0 (< 1%)

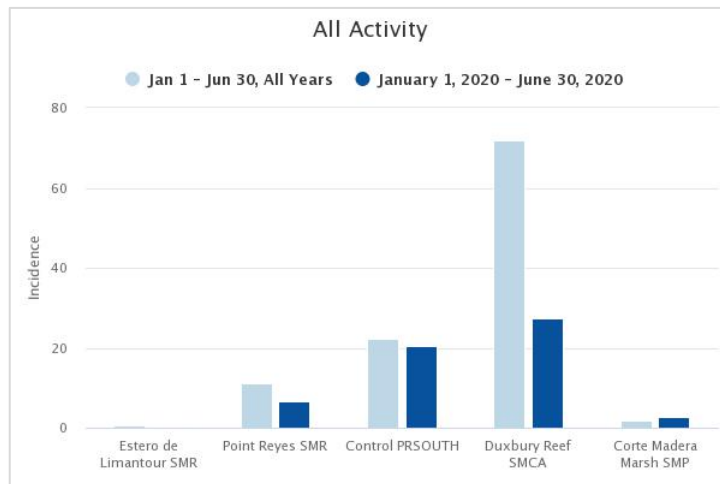
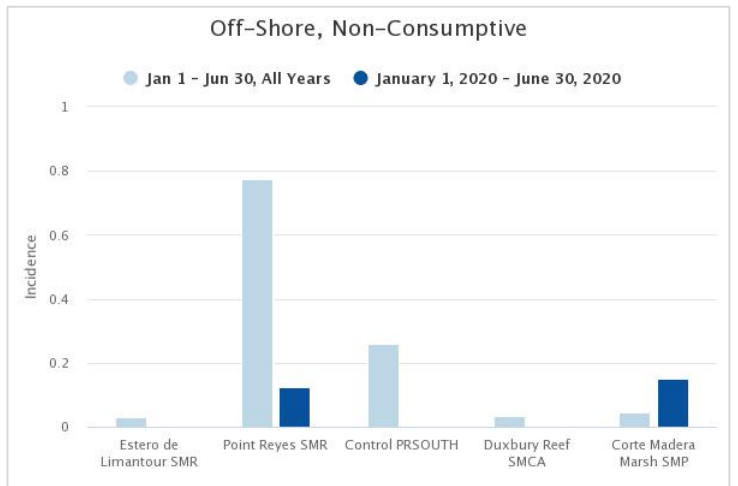
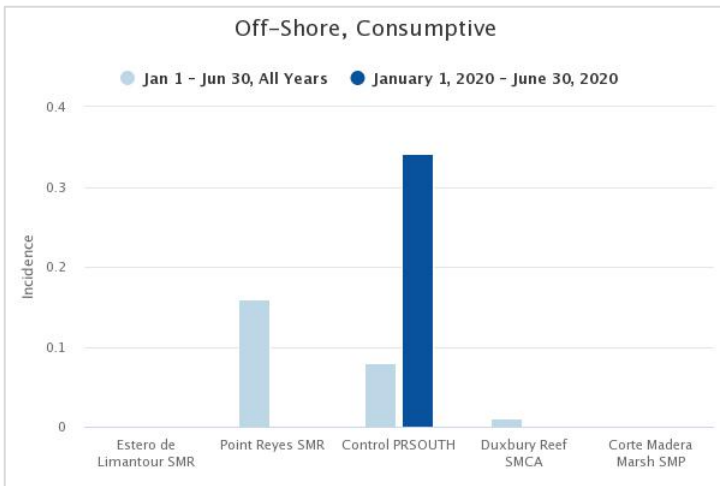
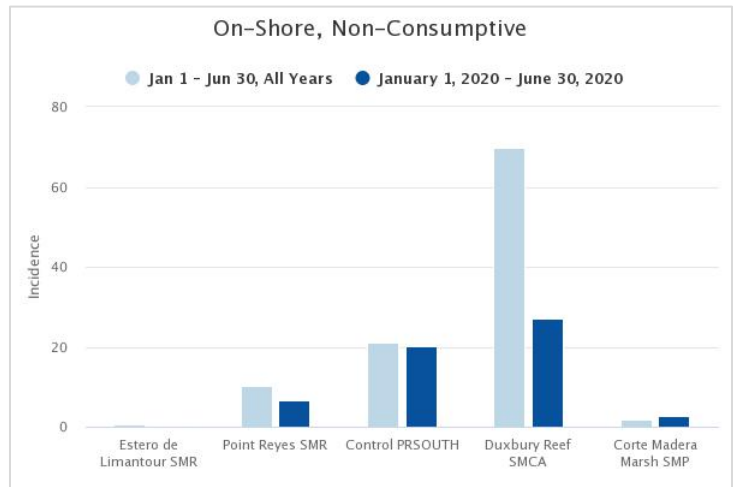
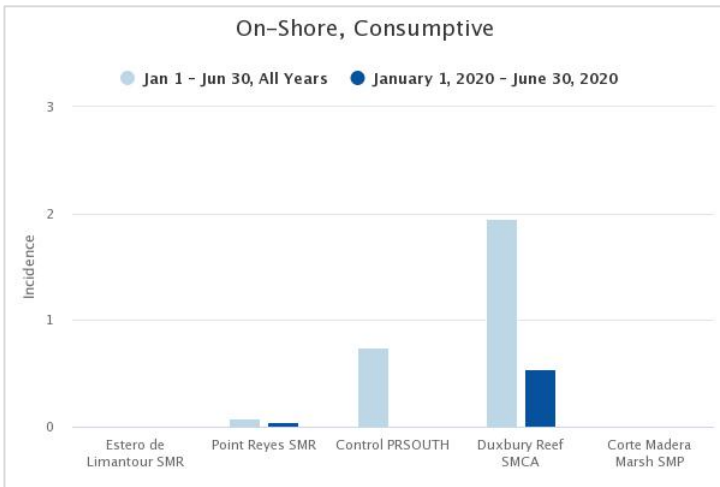
Corte Madera Marsh SMP

January 1, 2020 - June 30, 2020
54 activity events



- On-Shore Nonconsumptive
51 (94%)
- On-Shore Consumptive
0 (< 1%)
- Off-Shore Nonconsumptive
3 (6%)
- Off-Shore Consumptive
0 (< 1%)

Activity Incidence by MPA



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

Activity Incidence by MPA, Tables

MPA	On-Shore			
	Non-Consumptive		Consumptive	
	Jan 1 Jun 30	Jan 1, 2020 through Jun 30, 2020	Jan 1 Jun 30	Jan 1, 2020 through Jun 30, 2020
	All Years		All Years	
Estero de Limantour SMR	0.5	0.3	0.0	0.0
Point Reyes SMR	10.1	6.6	0.1	0.0
Control PRSOUTH	21.1	20.2	0.7	0.0
Duxbury Reef SMCA	69.9	26.9	1.9	0.5
Corte Madera Marsh SMP	1.8	2.6	0.0	0.0
All MPAs Combined	14.5	9.2	0.4	0.1

MPA	Off-Shore			
	Non-Consumptive		Consumptive	
	Jan 1 Jun 30	Jan 1, 2020 through Jun 30, 2020	Jan 1 Jun 30	Jan 1, 2020 through Jun 30, 2020
	All Years		All Years	
Estero de Limantour SMR	0.0	0.0	0.0	0.0
Point Reyes SMR	0.8	0.1	0.2	0.0
Control PRSOUTH	0.3	0.0	0.1	0.3
Duxbury Reef SMCA	0.0	0.0	0.0	0.0
Corte Madera Marsh SMP	0.0	0.2	0.0	0.0
All MPAs Combined	0.2	0.1	0.0	0.0

MPA	Total	
	Combined	
	Jan 1 Jun 30	Jan 1, 2020 through Jun 30, 2020
	All Years	
Estero de Limantour SMR	0.5	0.3
Point Reyes SMR	11.1	6.8
Control PRSOUTH	22.2	20.6
Duxbury Reef SMCA	71.9	27.5
Corte Madera Marsh SMP	1.8	2.7
All MPAs Combined	15.1	9.4

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

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 MPA's 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 MPA's with multiple transects, the total distance traveled for each transect within the MPA were summed together to get the total miles surveyed within that MPA.

Breakdown by MPA

The 2020 data includes survey disruptions due to COVID-19 beach access closures from the County of Marin and Point Reyes National Seashore. In general, surveys were disrupted or ceased from March 22 – June 4, 2020. Duxbury Reef and Corte Madera Marsh were the only survey sites where some monitoring occurred during this time due to volunteers living near the location and their ability to walk to the beach.

Estero de Limantour State Marine Reserve

This transect is located along Limantour Beach and Drakes Beach within Point Reyes National Seashore. Between the months of January 1 – June 30, 2020 recorded a rate of 0.3 total use count per miles surveyed. This is a 200% increase compared to prior year rate of January 1 – June 30, 2019 (*Note: 2020 observations = 7 individuals*).

Observations in this MPA were 100% non-consumptive beach recreation. The beach was closed to public access from March 22 – June 4, 2020. Surveys were recorded in January, February, March, and June 2020.

Dogs are restricted from this MPA due to the presence of marine mammals and its role as a critical habitat for Western Snowy Plovers. From January 1 – June 30, 2020, volunteers conducted 9 surveys and recorded zero (0) dog observations.

Point Reyes State Marine Reserve

This transect is located along Drakes Beach and the western end of Limantour Beach within Point Reyes National Seashore. Between the months of January 1 – June 30, 2020 recorded a rate of 7.3 total use count per miles surveyed. This is a decrease of 37% compared to the prior year rate of January 1 – June 30, 2019.

Observations in the MPA were mostly onshore and offshore non-consumptive activities including surfing, wildlife viewing, and beach recreation. One large group of children and adults were observed taking part in non-consumptive activities. These activities accounted for 99% of the observed data. The single consumptive observation during the first half of 2020 was hand-collection of biota (collecting sand dollars). The beach was closed to public access from March 22 – June 4, 2020.

Aside from the MPA closures due to COVID-19, this transect was occasionally closed due to elephant seal presence in the beginning of the year. One access violation was reported on the western side of the beach that was closed for elephant seals.

Volunteers for this transect are used to finding large amounts of plastic marine debris that is a mix of small plastics, fishing gear, ropes, tires, and shotgun shells. During the

winter months when the elephant seals arrive, there are concerns that beach visitors create disturbance issues and create public safety concerns as they venture too close to the large animals.

Dogs are restricted from MPA beach access on Drakes Beach and the north-west portion of Limantour Beach due to the presence of marine mammals and critical habitat for Western Snowy Plovers. From January 1 – June 30, 2020, volunteers conducted 17 surveys and did not record any dog observations, though one volunteer directed some beach-goers with a dog in the parking lot to other dog-friendly beaches before they had entered the MPA. This is a decrease January – June 30, 2019 surveys where 2 dog observations (1 on leash and 1 off leash) were recorded.

South of Point Reyes State Marine Reserve (CONTROL)

This transect is located along Limantour Beach within Point Reyes National Seashore and borders the Point Reyes State Marine Reserve. Between the months of January 1 – June 2020 recorded a rate of 20.6 total use count per miles surveyed. This is an increase of 76% compared to the prior year rate of January 1 – June 30, 2019.

Observations in the control include onshore non-consumptive activities, such as beach recreation and pets, and consumptive boat activity. Non-consumptive activities in this tract accounted for 98% of the total observed activities. The remaining 2% of activities were offshore (1 trap fishing boat observation and 2 unknown boat observations) consumptive activities. This area borders an MPA, therefore consumptive uses, like fishing from shore or offshore is allowable within the appropriate season and licenses.

Leashed dogs are allowed access to the southern portion of Limantour Beach and restricted from the northern portion of Limantour Beach due to the presence of marine mammals and critical habitat for Western Snowy Plovers. From January 1 – June 30, 2020, volunteers conducted 4 surveys and recorded 1 off leash dog observation. This is a decrease from the 6 surveys recorded in January – June 2019, where 12 dog observations (7 on leash and 5 off leash) were recorded. Beach closures due to COVID-19 limited the activity incidences in this area during 2020, which may have contributed to the decrease in dog observations.

Duxbury Reef State Marine Conservation Area

This transect is located along Agate Beach and Duxbury Reef located within Marin County Parks and Open Space and Point Reyes National Seashore. Between the months of January 1 – June 30, 2020 recorded a rate of 27.5 total use count per miles surveyed. This is an increase of 16% compared to the prior year rate of January 1 – June 30, 2019.

MPA Watch data has a high outlier count in the year of 2017 due to a Blue Whale that washed up on shore and resulted in thousands of visitors the Agate Beach to view the animal over a series of weeks. On average, the total use count per mile surveyed for the years 2014 – 2020 71.9 use count per mile surveyed. Duxbury State Marine Conservation Area has the highest rate of use and arguably the most sensitive habitat in the tidepools than the other MPAs observed by Marin MPA Watch.

Observations include a blend of onshore consumptive and non-consumptive activities including activities like recreation, tidepooling, wildlife watching, hook and line fishing and minimal offshore recreation like kayaking. On-shore non-consumptive activities account for 98% of the observations. The remaining 2% of activities included 9 observations of hook and line fishing in the rocky area (permitted use) and 1 observation of hand collecting biota (not permitted).

Leashed dogs are allowed on Agate Beach and Duxbury Reef. From January 1 – June 30, 2020, volunteers conducted 24 surveys and recorded 41 dog observations (6 on leash and 35 off leash). This is an increase of 78% compared to the prior year count of January 1 – June 30, 2019 that recorded 23 dog observations (10 on leash and 13 off leash). The high number of animals off leash continues to be a problem and is trending in the wrong direction.

Corte Madera Marsh State Marine Park

This transect is located at Corte Madera Marsh. Between the months of January 1 – June 30, 2020 recorded a rate of 2.7 total use count per miles surveyed. This is an increase of 8% compared to the prior year rate of January 1 – June 30, 2019.

Observations of this location included non-consumptive onshore activities like recreation and wildlife watching, and the offshore activity of windsurfing. On-shore non-consumptive activities account for 94% of the observations. The remaining 6% of activities were offshore and non-consumptive (windsurfing). This area is a State Marine Park and consumptive uses, like hook and line fishing is allowable within the appropriate season and licenses.

Leashed dogs are allowed on the walking paths within the Corte Madera Marsh. The Marsh is home to listed species of birds and leashes are required for their protection from disturbance. From January 1 – June 30, 2020, volunteers conducted 9 surveys and recorded 12 dog observations (7 on leash and 5 off leash). This is a increase of 33% compared to the prior year rate of January 1 – June 30, 2019 that recorded 9 dog observations (5 on leash and 4 off leash).

Potential Violations

Rate of consumptive activities observed remains relatively low in all MPAs surveyed, accounting for less than 1% of all observations recorded.

Anecdotal evidence suggests rates may be higher than reflected in the data, but this was not observed during the surveys. According to volunteers, recurring issues with the illegal take and disturbance of tide pool organisms in Duxbury Reef State Marine Conservation Area is an ongoing problem during low tides. Even if the noncompliance rate is low, it is important to note that any illegal take from MPAs jeopardizes the success of the MPA and health of the ecosystems which they protect.

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.

Marin MPA Watch is working with California Academy of Science Rocky Shore Naturalists, community members in the village of Bolinas, and Marin County Parks and Open Space to implement a community docent program to address the high rate of usage at Duxbury Reef and the lack of resources to provide visitor education. A report of the Marin MPA Watch findings was drafted in the summer of 2019 and presented to Marin County Parks in January 2020. A formal partnership is in the process of being created to implement the docent program with training in the fall of 2020 and implementation of the program in the spring of 2021. This program will improve community partnerships and ensure compliance with MPA regulations.

MPA Watch intends to collaborate with the California Department of Fish and Wildlife (CDFW) to distribute MPA Watch reports to regional managers in order to improve the management and enforcement of MPAs. MPA Watch is also looking to expand its network of partner organizations to enhance the scale and scope of MPA monitoring across California. MPA Watch will be making our human use data available on our 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 populations.

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.