



Heal the Bay



California's network of Marine Protected Areas (MPAS) was established by the Marine Life Protection Act (MLPA) of 1999 to safeguard our marine resources and ecosystems. To ensure success and to inform adaptive management, long-term monitoring of these protected areas must be conducted. Developed in 2011, MPA Watch was designed as a community science program to collect data on human use of MPAs. In Los Angeles County, the non-profit organization Heal the Bay manages MPA Watch shore-based data collection. Our volunteers monitor four MPAs: Abalone Cove State Marine Conservation Area, Point Vicente No-Take State Marine Conservation Area, Point Dume State Marine Conservation Area, and Point Dume State Marine Reserve.

# **Executive Summary**

- In January-June 2020, 27 MPA Watch volunteers conducted a total of 88 surveys across 52 total survey miles and recorded a total of 1,591 activities
- Rate of activities in LA County MPAs decreased in the reporting period as compared to the baseline average.
- Consumptive activity made up 2% of the total activity observed in the reporting period and two MPAs saw a 100% increase of onshore consumptive activity.
- COVID-19 restrictions caused a 3-month program closure and a 90% decrease in total recorded activity by MPA Watch volunteers and has resulted in major poaching concerns in the Abalone Cove State Marine Conservation Area.

#### Human Use of MPAs January - December 2019



#### 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



The above pie charts on pages 1 & 2 show raw number of activities observed by MPA Watch in Los Angeles County and do not correct for number of surveys collected.

## Activity Incidence by MPA



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

# Activity Incidence by MPA

	On-Shore			
	Non-Consumptive		Consumptive	
MPA	Jan 1 Jun 30     ♦ All Years	Jan 1, 2020 through \$ Jun 30, 2020	Jan 1 Jun 30 All Years	Jan 1, 2020 through \$ Jun 30, 2020
Control LEO	487.7	nan	5.4	nan
Control OW	7.6	nan	0.5	nan
Point Dume SMCA	128.1	49.9	0.3	0.1
Point Dume SMR	88.5	31.9	0.3	0.6
Control OE	77.6	27.0	0.4	1.0
Control PVON1	3.2	1.0	1.5	0.9
Point Vicente SMCA	19.7	8.4	0.3	0.2
Abalone Cove SMCA	68.5	42.5	0.8	0.2
Control PVOS1	39.4	nan	5.6	nan
Blue Cavern (Catalina Island) SMCA	0.0	nan	0.0	nan
Cat Harbor (Catalina Island) SMCA	inf	nan	inf	nan
All MPAs Combined	72.8	26.9	0.5	0.4

	Off-Shore			
	Non-Consumptive		Consumptive	
MPA 🔺	Jan 1 Jun 30 All Years	Jan 1, 2020 through \$ Jun 30, 2020	Jan 1 Jun 30 All Years	Jan 1, 2020 through \$ Jun 30, 2020
Control LEO	47.4	nan	0.3	nan
Control OW	0.8	nan	0.0	nan
Point Dume SMCA	23.8	2.2	0.1	0.0
Point Dume SMR	12.0	5.7	0.2	0.2
Control OE	6.5	0.0	0.2	0.0
Control PVON1	3.0	1.6	0.7	0.4
Point Vicente SMCA	5.2	3.0	0.5	0.2
Abalone Cove SMCA	7.8	3.0	0.7	1.4
Control PVOS1	8.4	nan	1.9	nan
Blue Cavern (Catalina Island) SMCA	3.4	nan	0.7	nan
Cat Harbor (Catalina Island) SMCA	inf	nan	inf	nan
All MPAs Combined	11.5	3.1	0.3	0.3

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	Combined				
MPA	Jan 1 Jun 30 🔶 All Years	Jan 1, 2020 through \$ Jun 30, 2020			
Control LEO	540.9				
Control OW	9.0	nan			
Point Dume SMCA	152.3	52.3			
Point Dume SMR	101.0	38.4			
Control OE	84.7	28.0			
Control PVON1	8.4	3.8			
Point Vicente SMCA	25.7	11.8			
Abalone Cove SMCA	77.7	47.0			
Control PVOS1	55.4	nan			
Blue Cavern (Catalina Island) SMCA	4.1	nan			
Cat Harbor (Catalina Island) SMCA	inf	nan			
All MPAs Combined	85.2	30.7			

Total

The above table shows incidence values for each MPA monitored by MPA Watch in Los Angeles 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 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 were summed together to get the total miles surveyed within that MPA. In the tables, "inf" references a rate too small to calculate and "nan" references a rate of 0.

# COVID-19

Heal the Bay's shore-based MPA Watch program in Los Angeles County was significantly impacted by COVID-19 related shutdowns and regulations. Below is a timeline of beach closures in LA County:

- March 17: California State Parks closed campgrounds beaches and trails remained open.
- March 19: Los Angeles County enacted "Safer at Home" measure.
- March 22: Beach parking lots in Los Angeles County were closed to due to COVID-19 risks.
- March 23: Beach parking lots in Malibu were closed due to COVID-19 risks.
- March 25: Heal the Bay MPA Watch program was officially closed.
- March 26: Beach parking lots in Palos Verdes were closed due to COVID-19 risks.
- March 27: All beaches and trails were closed due to COVID-19 risks in Los Angeles County,
- **May 8:** Beaches in Malibu, but not parking lots, were opened to locals with social distancing restrictions.
- **May 9:** Beaches and trails in Los Angeles County, but not parking lots, were opened with social distancing restrictions.
- **May 13:** Trails and beaches in Palos Verdes, including parking, were opened with social distancing and restrictions.
- June 11: Canopies, coolers, and chairs were now allowed on Los Angeles County Beaches. Los Angeles county parking lots were opened on a site-specific basis.
- **July 1:** Heal the Bay MPA Watch program officially reopened with increased safety restrictions.
- July 3-6: Trails and beaches, as well as Heal the Bay MPA Watch, were temporarily closed for the Independence Day holiday.

Of the coastal counties in California, Los Angeles had some of the longest and strictest beach closures and regulations due to COVID-19. As a result, Heal the Bay's MPA Watch program was suspended for a total of three months. This closure resulted in a massive loss of data for the first six months of the year. Last year, Heal the Bay's MPA Watch program collected 231 surveys during January through June, however in 2020 our volunteers only collected 88 surveys, a 62% decrease. In 2019, volunteers reported a total of 17,043 observed activities, however this year for the same time period of January-June, only 1,591 activities were observed, a 90% decrease. Heal the Bay's MPA Watch program reopened on July 1, however we are expecting a major decline in participation even once the program is open. We have enacted increased safety measures, including an additional safety agreement that must be signed by all active volunteers.

COVID-19 has also had an enormous impact on LA County's rocky intertidal zone, both inside and outside MPAs. While the MPA Watch data will miss a great deal of this take, both volunteers and MPA managers have noticed an enormous uptick in take from the tidepools of Abalone Cove SMCA and surrounding areas. This may be attributed to increased unemployment and lack of food security due to COVID-19, but we are still unsure of the cause.

# **Breakdown by MPA**

# Point Dume State Marine Reserve

Point Dume became a State Marine Reserve (SMR) in 2012 as part of the third phase of the California Marine Life Protection Act (MLPA). Point Dume SMR is located at Point Dume in Malibu, California and encompasses a total of 7.53 square miles. Classified as an SMR, all take is strictly prohibited in this MPA. With panoramic views and miles of visibility down the Malibu coast, Point Dume is known today as an ideal location for hiking, rock climbing and beach recreation.

Centuries before the settlement of Spanish missionaries in the area, the indigenous Chumash tribe inhabited Point Dume. Living closely in relation to their natural environment, the Chumash treated Point Dume as a sacred place and a sun shrine. Point Dume's significance relates directly to its position, as it juts out into the Pacific Ocean. Chumash people used the top of Point Dume as an outlook to observe seasonal migrations of marine mammals, schools of fish, and movements of people along the coastline.<sup>1</sup>

In January-June of 2020, non-consumptive activity incidence decreased in the Point Dume SMR, both onshore and offshore. Onshore consumptive activity, however, increased by 100% from the previous average, from 0.3 observations per survey mile to 0.6 observations per survey mile. This consumptive activity accounts for 2% of all recorded observations and can be attributed to an increase in the observation of hook and line fishing from sandy beaches and collection of tide pool species. The most common activities observed in this MPA are sandy beach recreation, tidepooling, leashed domestic animals, and surfing.

# Point Dume State Marine Conservation Area

Located adjacent to the Point Dume State Marine Reserve, Point Dume SMCA encompasses 15.92 square miles and runs along Zuma and El Matador beaches in Malibu, CA to the northwest of Point Dume. Adopted in 2012 along with Point Dume SMR during phase three of the MLPA adoption process, this MPA was chosen as the location for a SMCA due to diverse habitats, high species diversity and monitoring & research opportunities. Similar to the Point Dume SMR, this site plays a significant role in Chumash maritime culture and is well suited for tribal co-management, maritime cultural preservation, and education and outreach.

As a conservation area, Point Dume SMCA does allow some consumptive activity. The recreational take by spearfishing of white seabass and pelagic finfish is permitted, along

<sup>&</sup>lt;sup>1</sup> Robinson, T., Draft Initial Study and Mitigated Negative Declaration - Point Dume Natural Preserve (2003). Retrieved from https://www.parks.ca.gov/pages/980/files/Point Dume MND\_ Draft2.pdf

with the commercial take of swordfish by harpoon and coastal pelagic species by round haul net, brail gear, and light boat. There is an incidental take limit of no more than 5% by commercial fishing activity, and take pursuant to beach nourishment and sediment management practices is also permissible.

Point Dume SMCA had the most recorded activity of all survey sites in LA County with 46% of recorded activities. This MPA also had the highest activity incidence of all four MPAs and control sites. Onshore non-consumptive activity is by far the most common, making up 95% of the recorded activity observations. All activity in this MPA experienced a decrease in incidence from the previous average by 65%. Offshore non-consumptive activity saw the greatest decrease of all activity types, a total of 91% less. Onshore non-consumptive activity decreased from 128.1 observations per survey mile to 49.9 observations per survey mile, a 61% decrease. These decreases in activity incidence may be attributed to beaches closures and COVID-19 social distancing restrictions, but lack of data collection during this time limits the ability to correlate this decrease. The most common activities in this MPA are sandy beach recreation, unleashed domestic animals, and surfing.

# Point Vicente No-Take State Marine Conservation Area

Point Vicente State Marine Conservation Area (SMCA) is a no-take MPA established in 2012. This MPA protects key habitats and covers fifteen square miles. Home to the Point Vicente Lighthouse and 3.7 miles of scenic shoreline, Point Vicente attracts many tourists. Beach access in this MPA is limited which makes beach recreation and other activities less likely, however, tourists can still enjoy the views and occasional wildlife viewing from the bluff trails. As a no-take SMCA, no recreational or commercial take is permitted within its boundaries. Specially permitted incidental take for infrastructure maintenance is legally permissible.

Point Vicente SMCA had more offshore activity than any other MPA during January-June of 2020, making up for 28% of the total observed activity. Consumptive activity accounted for a total of 3% of the activities observed. All activity types saw a decrease from the previous average during this timeframe, from 25.7 observations per survey mile to 11.8 observations per survey mile, a 54% decrease. Volunteers recorded the most surveys in this MPA during this timeframe, a total of 37. The most common activities recorded were rocky beach recreation, wildlife viewing, and recreational boating. Work boats, power boats, and sailboats were seen most often. Most of the consumptive activity recorded in this MPA was boat-based.

# Abalone Cove State Marine Conservation Area

Located adjacent to Point Vicente SMCA, Abalone Cove SMCA spans just 1.2 miles of shoreline and encompasses only 4.7 square miles. The smallest of the MPAs in LA County, this protected area is located on the south of the Palos Verdes Peninsula. It was adopted in 2012 and along with Point Vicente SMCA, includes the only south-facing headland in the entire region. The shoreline of this MPA is known for its rocky intertidal habitat. As an SMCA, Abalone Cove SMCA does allow some take of marine organisms. Within the MPA boundaries, the recreational take by spearfishing of white seabass and pelagic finfish; and market squid by hand-held dip net is permitted. The commercial take of swordfish by harpoon; and coastal pelagic species and Pacific bonito by round haul net, brail gear, and light boat are also permitted. Additionally, like Point Vicente SMCA, this MPA partially contains a superfund site, and therefore take pursuant to the mitigation actions of the superfund site is permitted inside Abalone Cove SMCA.

In January-June of 2020, Abalone Cove SMCA saw the highest percentage of consumptive activity compared to any other Los Angeles County MPA, a total of 4%. Abalone Cove saw a large increase in off-shore consumptive activity compared to previous years, a 100% increase. All other activity types decreased from previous years, with total activity decreasing from 77.7 observations per survey mile to 47.0 observations per survey mile, a 40% decrease. The most common activities observed in this MPA were rocky beach recreation, sandy beach recreation, tidepooling, and boating. No violations were reported by volunteers in this MPA.

# **Potential Violations**

The rate of consumptive activities across all LA MPAs surveyed by MPA Watch remains low, and relatively unchanged during this timeframe. Consumptive activities accounted for about 2% of total activity from January-June 2020. If we focus on specific MPAs and specific activities, however, there were sharp increases in potential poaching in 3 of the 4 MPAs in LA County. MPA Watch volunteers only reported a total of 4 violations so far this year, all of which were recorded during one single survey. Evidence from the surveys themselves and anecdotal evidence from volunteers and managers, however, shows that these reported violations vastly underrepresent the true level of poaching occurring within these MPAs. As with previous years, our volunteers recorded the highest rates of offshore consumptive activity in the Point Vicente SMCA and the Point Dume SMR, however this most likely underrepresents violations occurring both inside these MPAs and inside other MPAs.

Based on observations and anecdotal evidence from Heal the Bay staff, park rangers, wardens, and other MPA managers and non-profit partners, there is a large number of

potential onshore consumptive violations taking place in the tide pools of the Abalone Cove SMCA that are not captured by MPA Watch surveys. This is due to the location and time of day where the poaching occurs. Heal the Bay highly recommends increased enforcement and outreach activity in this MPA in response to these potential violations.

## **Next Steps**

For the rest of 2020, Heal the Bay's MPA Watch team will be prioritizing protocol development and implementation of an alternative entirely virtual training program that will allow for the recruitment and training of new MPA Watch volunteers. This training protocol will consist of training videos, presentations, and virtual classrooms to fully prepare a new cohort of volunteers to begin conducting surveys. In addition to training new volunteers, we have and will continue to prioritize virtual refresher courses for our current volunteers to keep them informed of survey protocol. Our team is also prioritizing the update of our training and outreach materials. Thus far, we have completed and released an updated data sheet and plan to release an updated training manual this coming fall. We also continue to collaborate with PhD students in the Barber Lab at UCLA to carry out a 2-year eDNA study in the MPAs of Malibu. In lieu of in-person eDNA events, we will be conducting social media live streams of our data water sample collection to continue virtually engaging our volunteers and larger community. Heal the Bay's MPA Watch team is dedicated to furthering our program during these uncertain times while ensuring the safety of our staff and volunteers.

# **Additional Information**

LA County MPA Watch is part of a larger statewide MPA Watch effort. For more information about this program, please visit www.mpawatch.org. If you are interested in joining the Heal the Bay MPA Watch volunteer team, please attend one of our monthly volunteer orientations for more information. Volunteer orientations are held once a month, and are a necessary prerequisite to attend one of our 3 yearly MPA Watch 2-day trainings.

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

To learn more about Heal the Bay's MPA Watch Program and to register for an orientation or training, please visit <u>www.healthebay.org/take-part.</u> For information on California's network of marine protected areas, please visit <u>californiampas.org</u>. For details on the rules, regulations and management of California's MPAs, please visit <u>wildlife.ca.gov/MPAs</u>.

# **Contributing Authors/Editors:**

Emily Parker, Coastal and Marine Scientist at Heal the Bay (Lead Author) Heather Curtis, MPA Watch and Outreach Associate at Heal the Bay (Co-Author) Katherine Pease, Science and Policy Director at Heal the Bay (Editor)



Volunteers receive their field training at Pelican Cove inside the Point Vicente State Marine Conservation Area