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 resource use. MPA Watch in Monterey County is implemented through a joint effort among WILDCOAST, The Pacific Grove Museum of Natural History, and California State Parks.

**Executive Summary**

- In the wake of COVID-19 guidelines and restrictions impacting MPA Watch in 2020, there has been a return to regular operations in 2021.
- 100% of activities monitored by Monterey County MPA Watch were nonconsumptive indicating that no take violations were observed by surveyors. Further monitoring is needed to ensure that illegal take is not occurring when surveyors are not there.
- Use rates of MPAs monitored in Monterey county are in line with rates of previous years.
**Human Use of MPAs January - December 2021**

**Overview**

*Top 3 MPAs by All Activity*

- **Lovers Point SMR**: 102 (27%)
- **Asilomar SMR**: 242 (65%)
- **Point Lobos SMR**: 28 (8%)

*All MPAs Combined*  
January 1, 2021 - December 31, 2021  
372 total activity events

- **On-Shore Nonconsumptive**: 353 (95%)
- **On-Shore Consumptive**: 0 (< 1%)
- **Off-Shore Nonconsumptive**: 19 (5%)
- **Off-Shore Consumptive**: 0 (< 1%)

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**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

Lovers Point SMR
January 1, 2021 – December 31, 2021
102 activity events
- On-Shore Nonconsumptive: 85 (83%)
- On-Shore Consumptive: 0 (< 1%)
- Off-Shore Nonconsumptive: 17 (17%)
- Off-Shore Consumptive: 0 (< 1%)

Asilomar SMR
January 1, 2021 – December 31, 2021
242 activity events
- On-Shore Nonconsumptive: 240 (99%)
- On-Shore Consumptive: 0 (< 1%)
- Off-Shore Nonconsumptive: 2 (1%)
- Off-Shore Consumptive: 0 (< 1%)

Point Lobos SMR
January 1, 2021 – December 31, 2021
26 activity events
- On-Shore Nonconsumptive: 26 (100%)
- On-Shore Consumptive: 0 (< 1%)
- Off-Shore Nonconsumptive: 0 (< 1%)
- Off-Shore Consumptive: 0 (< 1%)

*Charts for Año Nuevo SMCA, Natural Bridges SMR, Cambria SMCA, and Point Buchon SMR have been excluded due to lack of surveys conducted at those locations.
The above charts show incidence values for each MPA monitored by MPA Watch in San Diego County. **Incidence is calculated as number of activities recorded divided by total survey-miles.**
### Activity Incidence by MPA

<table>
<thead>
<tr>
<th>MPA</th>
<th>Non-Consumptive</th>
<th></th>
<th>Consumptive</th>
<th></th>
<th>MPA</th>
<th>Non-Consumptive</th>
<th></th>
<th>Consumptive</th>
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<tr>
<td></td>
<td>Jan 1 Dec 31</td>
<td>Jan 1, 2021 through Dec 31</td>
<td>Jan 1 Dec 31</td>
<td>Jan 1, 2021 through Dec 31</td>
<td>Jan 1 Dec 31</td>
<td>Jan 1, 2021 through Dec 31</td>
<td>Jan 1 Dec 31</td>
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<td>26.6</td>
<td>0.1</td>
<td>0.0</td>
<td>Lovers Point SMR</td>
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<td>5.3</td>
<td>0.1</td>
<td>0.0</td>
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<tr>
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<td>26.1</td>
<td>0.2</td>
<td>0.0</td>
<td>All MPAs Combined</td>
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<td>1.4</td>
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**Total Combined**

<table>
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<tr>
<th>MPA</th>
<th>Jan 1 Dec 31 All Years</th>
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</tr>
<tr>
<td>All MPAs Combined</td>
<td>26.8</td>
<td>27.6</td>
</tr>
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</table>

The above tables show incidence values for each MPA monitored by MPA Watch in Monterey 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 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

**Lovers Point State Marine Reserve**
Between the months of January and December 2021, Monterey MPA Watch data shows a use rate of 31.9 total use count per miles surveyed in the Lovers Point State Marine Reserve (SMR). This is a 16% increase compared to the rate calculated from the data collected by MPA Watch volunteers January - December in previous years.

Between the months of January and December 2021, Monterey County MPA Watch data shows that 100% of the activities tracked within MPA boundaries were on and off-shore non-consumptive activities.

**Asilomar State Marine Reserve**
Between the months of January and December 2021, Monterey MPA Watch data shows a use rate of 71.2 total use count per miles surveyed in the Asilomar SMR. This is a 17% decrease compared to the rate calculated from the data collected by MPA Watch volunteers January - December in previous years.

Between the months of January and December 2021, Monterey County MPA Watch data shows that 100% of the activities tracked within MPA boundaries were on and off-shore non-consumptive activities.

**Point Lobos State Marine Reserve**
Between the months of January and December 2021, Monterey MPA Watch data shows a use rate of 4.1 total use count per miles surveyed in the Point Lobos SMR. This is a 54% decrease compared to the rate calculated from the data collected by MPA Watch volunteers January - December in previous years.

Between the months of January and December 2021, Monterey County MPA Watch data shows that 100% of the activities tracked within MPA boundaries were on-shore non-consumptive activities.

Next Steps
The Pacific Grove Museum of Natural History aims to increase the number of volunteers conducting human use data collection in Monterey County’s Marine Protected Areas. While much of our training had been disrupted due to Covid-19, we have conducted virtual MPA Watch trainings on Zoom for our new volunteers and pre-existing volunteers were able to continue data collection.
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.

For more information regarding the MPA Watch program at the Pacific Grove Museum of Natural History, visit pgmuseum.org or email Julia Madden-Fulk at maddenfulk@pgmuseum.org. Connect with PGMNH on social media @pgmuseum!