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. The San Diego Marine Protected Area Watch Program, organized by WILDCOAST, engages community scientists in five MPAs in San Diego County.

Executive Summary

- In 2022, WILDCOAST added their boat based MPA Watch surveys to the database for a clearer understanding of off-shore activities within MPAs.
- Throughout San Diego County in 2022, 71 surveys were conducted and 2 potential violations were recorded.
- While over 99% of reported activities were non-consumptive, volunteers report potential poaching through hook and line fishing and hand collecting biota on-shore is still a problem.
- There have been recurring issues with beach closures at the Tijuana River Mouth SMCA due to poor water quality resulting from sewage contamination.

Human Use of MPAs January - Dec 2022
Overview

Top 4 MPAs by All Activity
January 1, 2022 – December 31, 2022
7,031 total activity events

- Swami’s SMCA
  - 5,810 (83%)
- San Diego-Scripps Coastal SMCA
  - 572 (8%)
- Matlahuayl SMR
  - 598 (9%)
- Tijuana River Mouth SMCA
  - 51 (1%)

All MPAs Combined
January 1, 2022 – December 31, 2022
7,031 activity events

- On-Shore Nonconsumptive
  - 3,907 (55%)
- On-Shore Consumptive
  - 33 (< 1%)
- Off-Shore Nonconsumptive
  - 3,090 (44%)
- Off-Shore Consumptive
  - 1 (< 1%)

Activity by MPA

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.
The chart for South La Jolla SMR has been excluded due to lack of surveys conducted in 2022.

Activity Incidence by MPA
The above charts show incidence values for some MPAs monitored by MPA Watch in San Diego County. Incidence is calculated as the number of activities recorded divided by total survey-miles.
### Activity Incidence by MPA

<table>
<thead>
<tr>
<th>MPA</th>
<th>On-Shore</th>
<th></th>
<th></th>
<th>Off-Shore</th>
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<tbody>
<tr>
<td></td>
<td><strong>Non-Consumptive</strong></td>
<td><strong>Jan 1 Dec 31</strong></td>
<td><strong>Jan 1, 2022 through Dec 31, 2022</strong></td>
<td><strong>Consumptive</strong></td>
<td><strong>Jan 1 Dec 31</strong></td>
<td><strong>Jan 1, 2022 through Dec 31, 2022</strong></td>
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<tr>
<td></td>
<td><strong>All Years</strong></td>
<td><strong>All Years</strong></td>
<td><strong>All Years</strong></td>
<td><strong>All Years</strong></td>
<td><strong>All Years</strong></td>
<td><strong>All Years</strong></td>
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<tr>
<td>Swami's SMCA</td>
<td>90.8</td>
<td>68.5</td>
<td>0.6</td>
<td>0.7</td>
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<tr>
<td>San Diego-Scripps Coastal SMCA</td>
<td>69.1</td>
<td>185.6</td>
<td>0.4</td>
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<td>Matlahuayl SMR</td>
<td>223.3</td>
<td>438.2</td>
<td>0.3</td>
<td>0.0</td>
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<tr>
<td>Tijuana River Mouth SMCA</td>
<td>17.0</td>
<td>60.0</td>
<td>1.2</td>
<td>2.5</td>
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<td>All MPAs Combined</td>
<td>73.7</td>
<td>81.2</td>
<td>0.7</td>
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<table>
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<tr>
<th>MPA</th>
<th><strong>Non-Consumptive</strong></th>
<th><strong>Jan 1 Dec 31</strong></th>
<th><strong>Jan 1, 2022 through Dec 31, 2022</strong></th>
<th><strong>Consumptive</strong></th>
<th><strong>Jan 1 Dec 31</strong></th>
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<td><strong>All Years</strong></td>
<td><strong>All Years</strong></td>
<td><strong>All Years</strong></td>
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<tr>
<td>Swami's SMCA</td>
<td>55.9</td>
<td>61.6</td>
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<tr>
<td>San Diego-Scripps Coastal SMCA</td>
<td>40.3</td>
<td>132.2</td>
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<td>Matlahuayl SMR</td>
<td>126.3</td>
<td>105.5</td>
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<tr>
<td>Tijuana River Mouth SMCA</td>
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<td>1.3</td>
<td>0.2</td>
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<tr>
<td>All MPAs Combined</td>
<td>42.4</td>
<td>64.2</td>
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<table>
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<th>MPA</th>
<th><strong>Combined</strong></th>
<th><strong>Jan 1 Dec 31</strong></th>
<th><strong>Jan 1, 2022 through Dec 31, 2022</strong></th>
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<td><strong>All Years</strong></td>
<td><strong>All Years</strong></td>
<td><strong>All Years</strong></td>
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<tr>
<td>Swami's SMCA</td>
<td>147.4</td>
<td>130.9</td>
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<tr>
<td>San Diego-Scripps Coastal SMCA</td>
<td>109.9</td>
<td>317.8</td>
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<tr>
<td>Matlahuayl SMR</td>
<td>350.1</td>
<td>543.6</td>
<td></td>
</tr>
<tr>
<td>Tijuana River Mouth SMCA</td>
<td>21.4</td>
<td>62.8</td>
<td></td>
</tr>
<tr>
<td>All MPAs Combined</td>
<td>117.0</td>
<td>146.2</td>
<td></td>
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</tbody>
</table>

The above charts show incidence values for some MPAs monitored by MPA Watch in San Diego 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.
COVID-19

Following the disruption to MPA Watch surveys and trainings throughout 2020-2021 due to the outbreak of COVID-19 and ensuing restrictions, in 2022 there has been a gradual return to normalcy. With beaches open and left without restrictions, volunteers are free to conduct surveys as they had in the past.

Breakdown by MPA

Swami’s State Marine Conservation Area
Between the months of January and December 2022, San Diego MPA Watch data shows a rate of 130.9 total use count per total miles surveyed in the Swami’s State Marine Conservation Area (SMCA). This is a 11.19% decrease compared to the rate calculated from the data collected by MPA Watch volunteers January - December in previous years.

People observed in the MPA were primarily taking part in non-consumptive activities both on and off-shore, like beach and ocean recreation. This accounted for 99% of the activities logged in MPA Watch surveys. The remaining 1% of human use consisted of on-shore consumptive activities. According to volunteers, there were recurring issues with potentially illegal hook and line fishing from shore.

San Diego-Scripps Coastal State Marine Conservation Area
Between the months of January and December 2022, San Diego MPA Watch data shows a rate of 317.8 total use count per total miles surveyed in the San Diego-Scripps Coastal SMCA. This is a 189.2% increase compared to the rate calculated from the data collected by MPA Watch volunteers January - December in previous years.

People observed in the MPA were only recorded taking part in non-consumptive activities both on and off-shore, like beach and ocean recreation. This accounted for 100% of the activities logged in MPA Watch surveys.

Matlahuayl State Marine Reserve
Between the months of January and December 2022, San Diego MPA Watch data shows a rate of 543.6 total use count per total miles surveyed in the Matlahuayl SMR. This is a 55.27% increase compared to the rate calculated from the data collected by MPA Watch volunteers January - December in previous years.

People observed in the MPA were only recorded taking part in non-consumptive activities both on and off-shore, like beach and ocean recreation. This accounted for 100% of the activities logged in MPA Watch surveys.

South La Jolla State Marine Reserve
Between the months of January and December 2022, there were no land-based surveys conducted by San Diego MPA Watch in the South La Jolla SMR.

South La Jolla State Marine Conservation Area
Between the months of January and December 2022, there were no land-based surveys conducted by San Diego MPA Watch in the South La Jolla SMCA.

Tijuana River Mouth State Marine Conservation Area
Between the months of January and December 2022, San Diego MPA Watch data shows a rate of 63.8 total use count per total miles surveyed in the Tijuana River Mouth SMCA. This is a 198% increase compared to the rate calculated from the data collected by MPA Watch volunteers January - December in previous years. While survey rates increased, there have been recurring issues with beach closures at the Tijuana River Mouth SMCA due to poor water quality resulting from sewage contamination.

People observed in the MPA were primarily taking part in non-consumptive activities both on and off-shore, like beach and ocean recreation. This accounted for 96% of the activities logged in MPA Watch surveys. The remaining 4% of human use consisted of on-shore consumptive activities. According to volunteers, there were recurring issues with potentially illegal hand collection of biota from shore.

Potential Violations
Rate of on and off-shore consumptive activities observed remains relatively low in all MPAs surveyed, accounting for 1% of all observations recorded. According to volunteers, potentially illegal hook and line fishing (on-shore) is occasionally observed in Swami’s SMCA. In addition, hand collection of biota was observed on the shore of the Tijuana River Mouth SMCA. Also, while current MPA Watch data does not show many potential violations in recent months, WILDCOAST staff has seen illegal fishing activity (aka poaching) in the South La Jolla SMR. It is important to note that even if the noncompliance rate is low, any illegal take from MPAs jeopardizes the success of the MPA and health of the ecosystems which they protect.

Next Steps
MPA Watch submitted reports for use in the 2022 decadal management review of MPAs. This review has been completed and a summary report has been shared broadly. The California Department of Fish and Wildlife (CDFW), in partnership with the California Ocean Protection Council and the California Fish and Game Commission, is
hosting a public gathering MPA Day Management Review Forum (Forum) to share the findings and recommendations, of the Decadal Management Review (Review). This Review Forum will provide space for partner agencies and organizations to highlight their collaborative work over the last 10 years that informed parts of the Review. It also provides an opportunity for two-way conversations about the Review and management of the Network. MPA Watch data was critical in displaying how MPAs are being used and where more enforcement may be needed to ensure MPAs are achieving their conservation goals.

WILDCOAST’s next steps are to conduct boat based surveys in the South La Jolla SMCA, as well as the various control sites throughout the county. In addition, WILDCOAST will encourage volunteers to conduct land-based surveys in the South La Jolla SMR, as they were limited in 2022.

In San Diego County, WILDCOAST is working to increase outreach for MPA Watch and increase the number of volunteers we have collecting human use data within our local MPAs, specifically through the help of interns.

WILDCOAST has been conducting public outreach to spread awareness surrounding tide pools that fall under MPA protections. These efforts are focused primarily on the tide pools located within MPA boundaries located at San Diego-Scripps SMCA and Swami’s SMCA.

MPA Watch intends to continue 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](http://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](http://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 about the work WILDCOAST does to conserve California’s MPAs and other conservation projects please visit [wildcoast.org](http://wildcoast.org).