

Marine Protected Area (MPA) Watch Regional Report from Beach Watch

Mendocino, Sonoma, Marin, San Francisco, and San Mateo Counties
January 1, 2022 – December 31, 2022



Background

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 North-central Coast Marine Protected Area (MPA) Watch Program, organized by Greater Farallones Association's Beach Watch program, engages 150 community scientists in 10 MPAs, spanning 5 counties.

January 1, 2022 – December 31, 2022 Highlights

- The human activity surge observed at all sites during the pandemic seems to have leveled off in 2022.
- Shore-based recreational activities account for 94% of observed activities. Shore-based consumptive activities account for 1% of observed activities. Offshore consumptive activities account for 2% of observed activities.
- Tidepooling is notably decreased due to access closures at Fitzgerald Marine Reserve due to the pandemic in early 2022
- Potential MPA violations have increased in several MPAs: Del Mar Landing, Stewarts Point, and Bodega Head primarily driven by boat based activities.

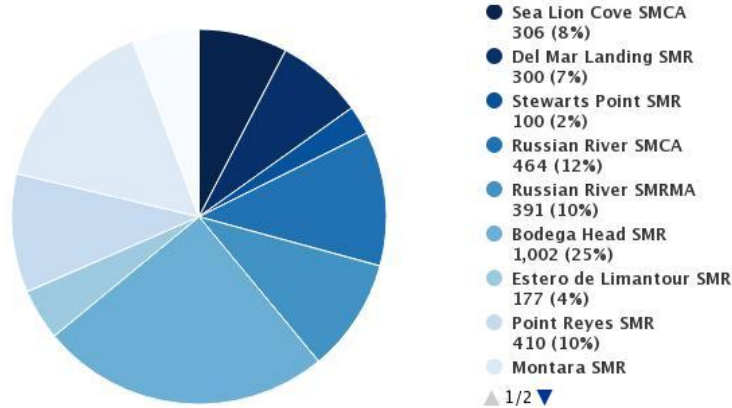


Human Use of MPAs January - December 2022

Overview

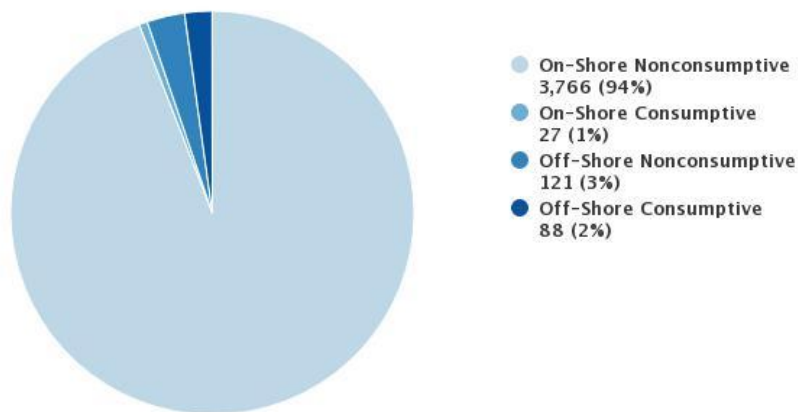
Top 10 MPAs by All Activity

January 1, 2022 – December 31, 2022
4,002 total activity events



All MPAs Combined

January 1, 2022 – December 31, 2022
4,002 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.

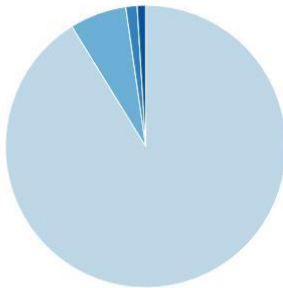
Consumptive - An activity in which a natural resource (i.e. fish, kelp, shells) is being collected.

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

Activity by MPA

Sea Lion Cove SMCA

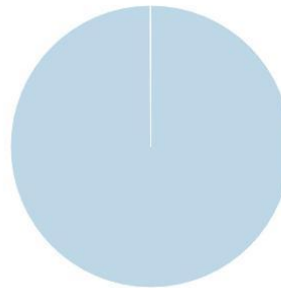
January 1, 2022 – December 31, 2022
306 activity events



- On-Shore Nonconsumptive 279 (91%)
- On-Shore Consumptive 20 (7%)
- Off-Shore Nonconsumptive 4 (1%)
- Off-Shore Consumptive 3 (1%)

Del Mar Landing SMR

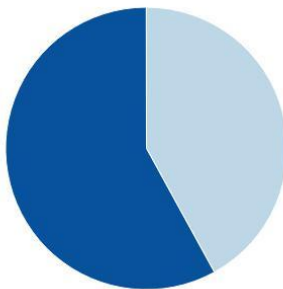
January 1, 2022 – December 31, 2022
300 activity events



- On-Shore Nonconsumptive 300 (100%)
- On-Shore Consumptive 0 (< 1%)
- Off-Shore Nonconsumptive 0 (< 1%)
- Off-Shore Consumptive 0 (< 1%)

Stewarts Point SMR

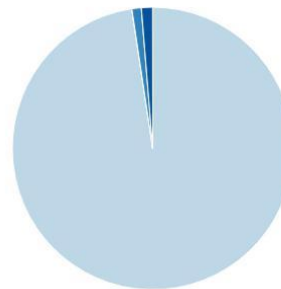
January 1, 2022 – December 31, 2022
100 activity events



- On-Shore Nonconsumptive 42 (42%)
- On-Shore Consumptive 0 (< 1%)
- Off-Shore Nonconsumptive 0 (< 1%)
- Off-Shore Consumptive 58 (58%)

Russian River SMCA

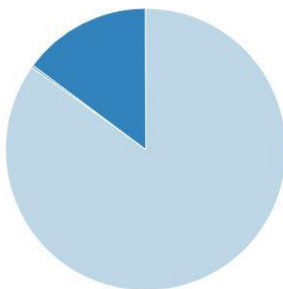
January 1, 2022 – December 31, 2022
464 activity events



- On-Shore Nonconsumptive 453 (98%)
- On-Shore Consumptive 0 (< 1%)
- Off-Shore Nonconsumptive 5 (1%)
- Off-Shore Consumptive 6 (1%)

Russian River SMRMA

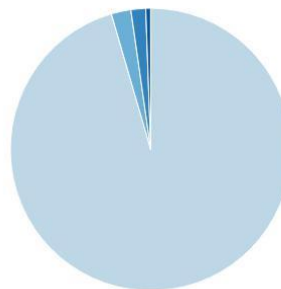
January 1, 2022 – December 31, 2022
391 activity events



- On-Shore Nonconsumptive 332 (85%)
- On-Shore Consumptive 1 (< 1%)
- Off-Shore Nonconsumptive 58 (15%)
- Off-Shore Consumptive 0 (< 1%)

Estero de Limantour SMR

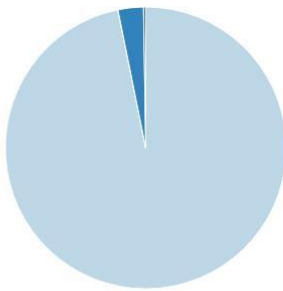
January 1, 2022 – December 31, 2022
177 activity events



- On-Shore Nonconsumptive 169 (95%)
- On-Shore Consumptive 4 (2%)
- Off-Shore Nonconsumptive 3 (2%)
- Off-Shore Consumptive 1 (1%)

Point Reyes SMR

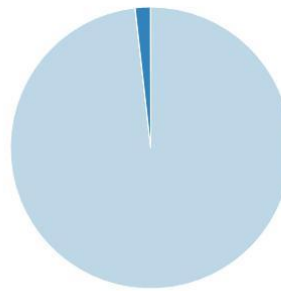
January 1, 2022 – December 31, 2022
410 activity events



- On-Shore Nonconsumptive
397 (97%)
- On-Shore Consumptive
0 (< 1%)
- Off-Shore Nonconsumptive
12 (3%)
- Off-Shore Consumptive
1 (< 1%)

Montara SMR

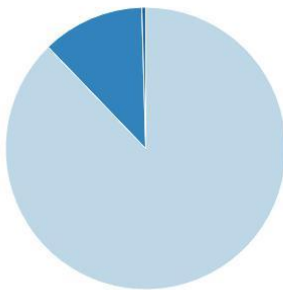
January 1, 2022 – December 31, 2022
623 activity events



- On-Shore Nonconsumptive
612 (98%)
- On-Shore Consumptive
0 (< 1%)
- Off-Shore Nonconsumptive
11 (2%)
- Off-Shore Consumptive
0 (< 1%)

Año Nuevo SMCA

January 1, 2022 – December 31, 2022
229 activity events



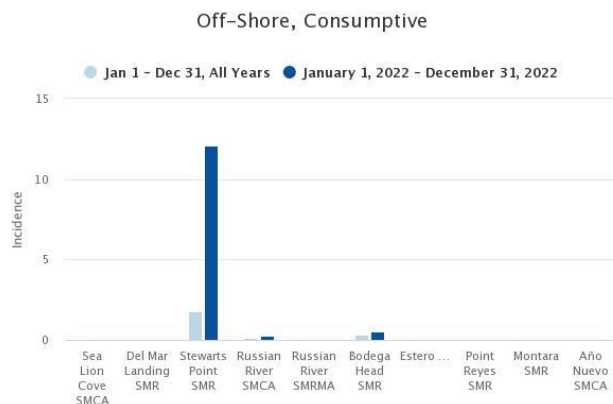
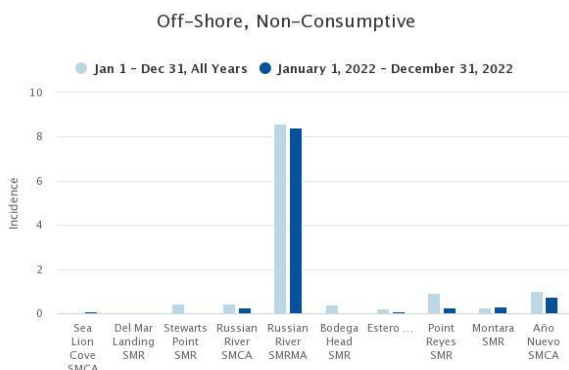
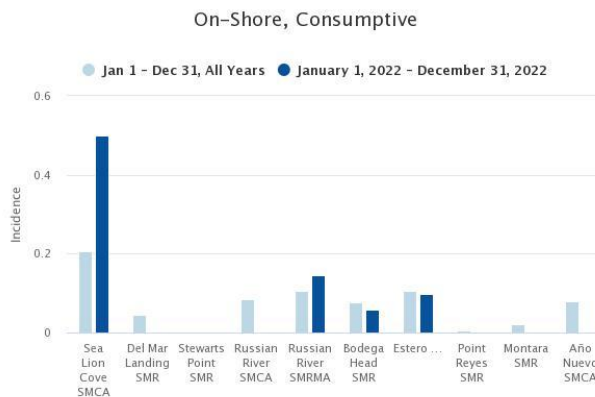
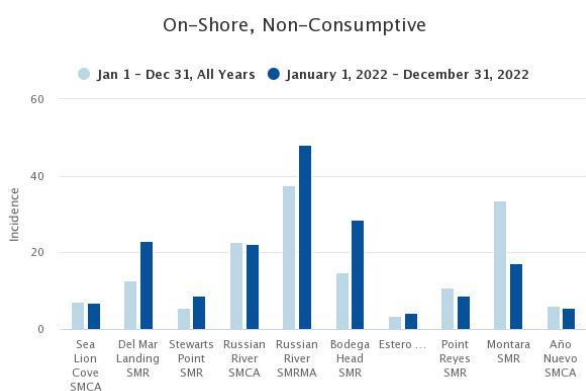
- On-Shore Nonconsumptive
201 (88%)
- On-Shore Consumptive
0 (< 1%)
- Off-Shore Nonconsumptive
27 (12%)
- Off-Shore Consumptive
1 (< 1%)

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 Incidence by MPA

The charts below show incidence values for each MPA monitored by Greater Farallones Association Beach Watch program. **Incidence is calculated as number of activities recorded divided by total survey-miles.**



Activity Incidence by MPA

MPA	On-Shore				
	Non-Consumptive			Consumptive	
	Jan 1 Dec 31 All Years	Jan 1, 2022 through Dec 31, 2022		Jan 1 Dec 31 All Years	Jan 1, 2022 through Dec 31, 2022
	▲	◆	◆	◆	◆
Sea Lion Cove SMCA		7.2	7.0	0.2	0.5
Del Mar Landing SMR		12.6	23.1	0.0	0.0
Stewarts Point SMR		5.5	8.8	0.0	0.0
Russian River SMCA		22.7	22.2	0.1	0.0
Russian River SMRMA		37.4	48.1	0.1	0.1
Bodega Head SMR		14.8	28.5	0.1	0.1
Estero de Limantour SMR		3.4	4.1	0.1	0.1
Point Reyes SMR		10.8	8.7	0.0	0.0
Montara SMR		33.6	17.2	0.0	0.0
Año Nuevo SMCA		6.1	5.5	0.1	0.0
All MPAs Combined		13.7	13.6	0.1	0.1

MPA	Off-Shore				
	Non-Consumptive			Consumptive	
	Jan 1 Dec 31 All Years	Jan 1, 2022 through Dec 31, 2022		Jan 1 Dec 31 All Years	Jan 1, 2022 through Dec 31, 2022
	▲	◆	◆	◆	◆
Sea Lion Cove SMCA		0.0	0.1	0.1	0.1
Del Mar Landing SMR		0.0	0.0	0.1	0.0
Stewarts Point SMR		0.5	0.0	1.8	12.1
Russian River SMCA		0.4	0.2	0.1	0.3
Russian River SMRMA		8.6	8.4	0.0	0.0
Bodega Head SMR		0.4	0.0	0.4	0.5
Estero de Limantour SMR		0.2	0.1	0.0	0.0
Point Reyes SMR		0.9	0.3	0.0	0.0
Montara SMR		0.3	0.3	0.0	0.0
Año Nuevo SMCA		1.0	0.7	0.0	0.0
All MPAs Combined		0.6	0.4	0.1	0.3

MPA	Total Combined		
	Jan 1 Dec 31 All Years	Jan 1, 2022 through Dec 31, 2022	
	▲	◆	◆
Sea Lion Cove SMCA		7.5	7.7
Del Mar Landing SMR		12.7	23.1
Stewarts Point SMR		7.7	20.8
Russian River SMCA		23.4	22.7
Russian River SMRMA		46.1	56.7
Bodega Head SMR		15.6	29.1
Estero de Limantour SMR		3.7	4.3
Point Reyes SMR		11.7	9.0
Montara SMR		33.9	17.5
Año Nuevo SMCA		7.2	6.3
All MPAs Combined		14.5	14.4

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

Sea Lion Cove State Marine Conservation Area

Between the months of January and December 2022, GFA's MPA Watch data suggests a rate of 7.7 total uses per mile surveyed in this MPA. This is an 10.5% decrease compared to the January-December 2021 data rate. People observed in the MPA were primarily taking part in non-consumptive activities on-shore, such as beach recreation and wildlife viewing. This accounted for 88% of the activities logged in the MPA Watch surveys. 7% of human use was comprised of onshore consumptive activities and 1% offshore consumptive activities, a 14% increase.

Del Mar Landing State Marine Reserve

Between the months of January and December 2022, GFA's MPA Watch data suggests a rate of 23.1 total uses per mile surveyed in this MPA. This is an 5% increase compared to the January-December 2021 data rate. People observed in the MPA were taking part in non-consumptive activities onshore, such as beach recreation which accounted for 84% of activities and dogs on leash (16%). No consumptive activities were observed.

Stewarts Point State Marine Reserve

Between the months of January and December 2022, GFA's MPA Watch data suggests a rate of 20.8 total uses per mile surveyed in this MPA. No comparison is available with 2021 as no data was available. 42% of people observed in the MPA were taking part in non-consumptive activities on-shore, such as beach recreation rocky and wildlife viewing. 58% of human use was comprised of commercial and recreational boat-based line fishing consumptive activities.

Russian River State Marine Conservation Area

Between the months of January and December 2022, GFA's MPA Watch data suggests a rate of 22.7 total uses per mile surveyed in this MPA. This is an 19.5% decrease compared to the January-December 2021 data rate. 98% of people observed in the MPA were taking part in non-consumptive activities on-shore, such as beach recreation and wildlife viewing. Consumptive activities accounted for 1% of activities observed including boat-based commercial and recreational line fishing.

Russian River State Marine Recreational Management Area

Between the months of January and December 2022, GFA's MPA Watch data suggests a rate of 56.7 total uses per mile surveyed in this MPA. This is a -15% decrease compared to the January-December 2021 data rate. 99% of people observed in the MPA were taking part in land-based and water-based non-consumptive activities such as beach recreation, wildlife watching, kayaking and standup paddleboarding.

Consumptive activities such as land-based hook and line fishing accounted for less than 1% of activities observed.

Bodega Head State Marine Reserve

Between the months of January and December 2022, GFA's MPA Watch data suggests a rate of 29.1 total uses per mile surveyed in this MPA. This is a 67.2% increase compared to the January-December 2021 data rate. People observed in the MPA were primarily taking part in non-consumptive activities onshore recreation, such as beach recreation and wildlife watching. This accounted for almost 98% of the activities logged in the MPA Watch surveys. Consumptive activities such as shore based hook and line fishing and recreational and commercial boat based line fishing accounted for 2% of activities observed.

Estero de Limantour State Marine Reserve

Between the months of January and December 2022, GFA's MPA Watch data suggests a rate of 4.3 total uses per mile surveyed in this MPA. This is a 4.9% increase compared to the January-December 2021 data rate. People observed in the MPA were primarily taking part in non-consumptive activities such as beach recreation, wildlife watching, for a combined 95%. 3% of human use was comprised of hook and line fishing and boat based recreational line fishing.

Point Reyes State Marine Reserve

Between the months of January and December 2022, GFA's MPA Watch data suggests a rate of 9% total uses per mile surveyed in this MPA. This is a 50% increase compared to the January-December 2021 data rate. People observed in the MPA were primarily taking part in non-consumptive shore-based activities such as beach recreation and wildlife watching. Consumptive activities accounted for less than 1% of activities observed. No potential violations were observed.

Montara State Marine Reserve

Between the months of January and December 2022, GFA's MPA Watch data suggests a rate of 17.5 total uses per mile surveyed in this MPA. This is a 33.7% decrease compared to the January-December 2021 data rate. People observed in the MPA were primarily taking part in non-consumptive shore-based activities such as tide pooling (34%), beach recreation and wildlife watching. This accounted for 98% of the activities logged in the MPA Watch surveys. No consumptive activities were observed.

Año Nuevo State Marine Conservation Area

Between the months of January and December 2022, GFA's MPA Watch data suggests a rate of 6.3 total uses per mile surveyed in this MPA. This is a 17.1% decrease

compared to the January-December 2021 data rate. People observed in the MPA were taking part in non-consumptive activities on and off shore such as wildlife watching and beach recreation, off leash dogs, and surfing. Less than 1% of activities were consumptive, either shore based or offshore.

Potential Violations by MPA

MPA	Jan 1 Dec 31 All Years	Jan 1, 2022 through Dec 31, 2022
Sea Lion Cove SMCA	9	3
Del Mar Landing SMR	169	48
Stewarts Point SMR	71	58
Russian River SMCA	133	10
Russian River SMRMA	31	5
Bodega Head SMR	904	328
Estero de Limantour SMR	78	8
Point Reyes SMR	17	0
Montara SMR	377	0
Año Nuevo SMCA	122	9
All MPAs Combined	1,911	469

Next Steps

Greater Farallones Association continues to maintain its roughly 150 volunteers through training new volunteers and continuing education for experienced volunteers. 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.

For more information about the work the Greater Farallones Association does to conserve California's Federal and California MPAs and other conservation projects please visit farallones.org.