

Orange County Coastkeeper (Coastkeeper) is a nonprofit clean water organization that serves as a proactive steward of our fresh- and saltwater ecosystems. We work collaboratively with diverse groups in the public and private sectors to achieve healthy, accessible, and sustainable water resources for the region. We implement innovative, effective programs in education, advocacy, restoration, research, enforcement, and conservation.

The Orange County Marine Protected Area (OCMPA) Watch Program enlists volunteers, community groups and local government to monitor human activity in the Laguna Beach State Marine Reserve and Conservation Areas (SMRs & SMCAs), Crystal Cove, Dana Point, and Upper Newport Bay State Marine Conservation Areas (SMCAs). MPA Watch is a statewide program with the Orange County component run by Orange County Coastkeeper (OCCK). The goal of MPA watch is to provide information to enhance management and performance of Marine Protected Areas.

## Executive Summary

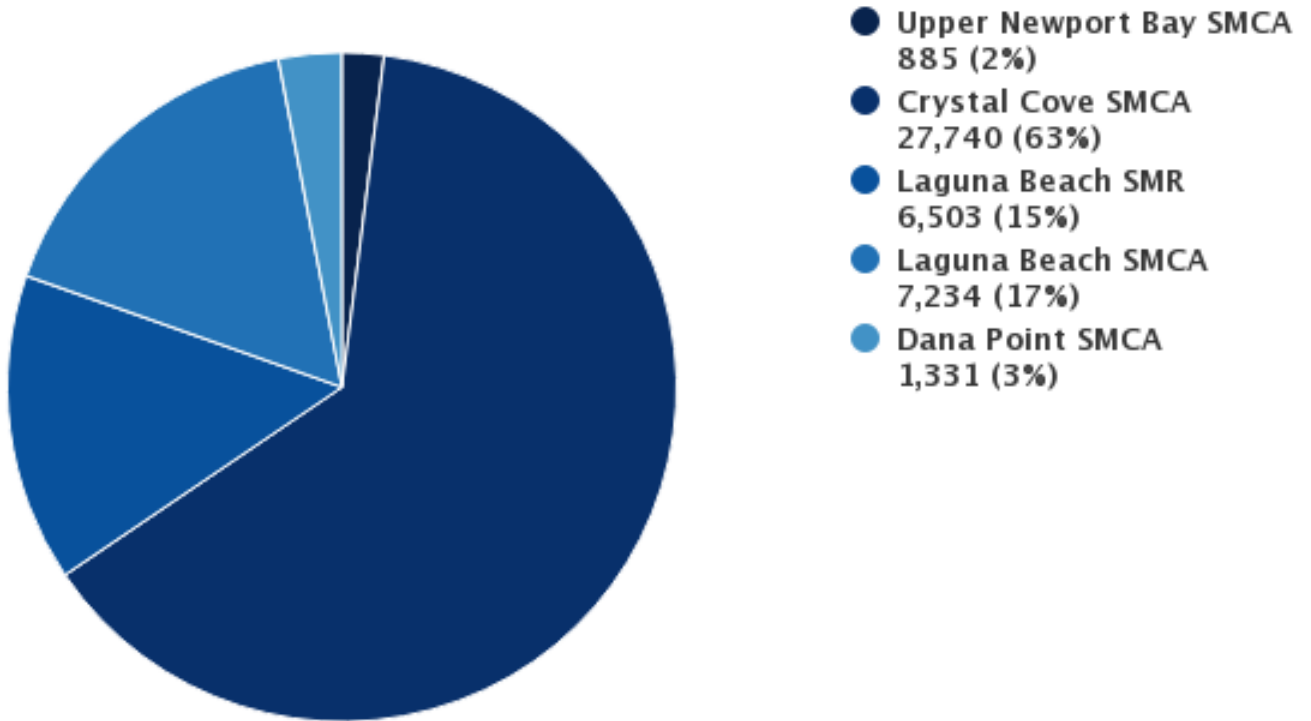
- We continue to follow local, state, and federal health guidelines regarding COVID-19.
- During this period 701 surveys were completed at 30 MPA survey sites by 25 volunteers. There were 31 potential violations observed out of 43,693 total activities documented.
- An Oil Spill in October 2021 had a significant impact on our monitoring effort.

# Human Use of MPAs January – December 31

## Overview

### Top 5 MPAs by All Activity

January 1, 2021 – December 31, 2021  
43,693 total 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.

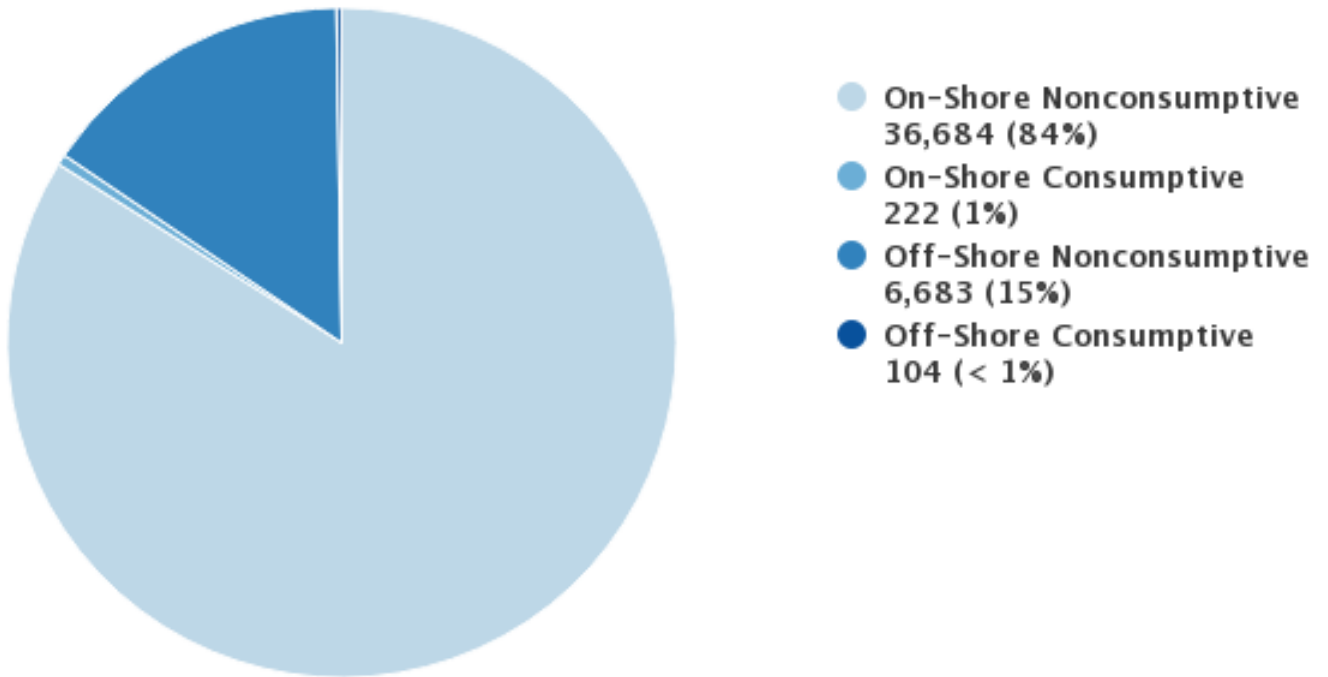
**Consumptive** - An activity in which a natural resource (i.e. fish, kelp, shells) is being collected.

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

### Activity Events by MPA

## All MPAs Combined

January 1, 2021 – December 31, 2021  
43,693 activity events



## Activity Events 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.

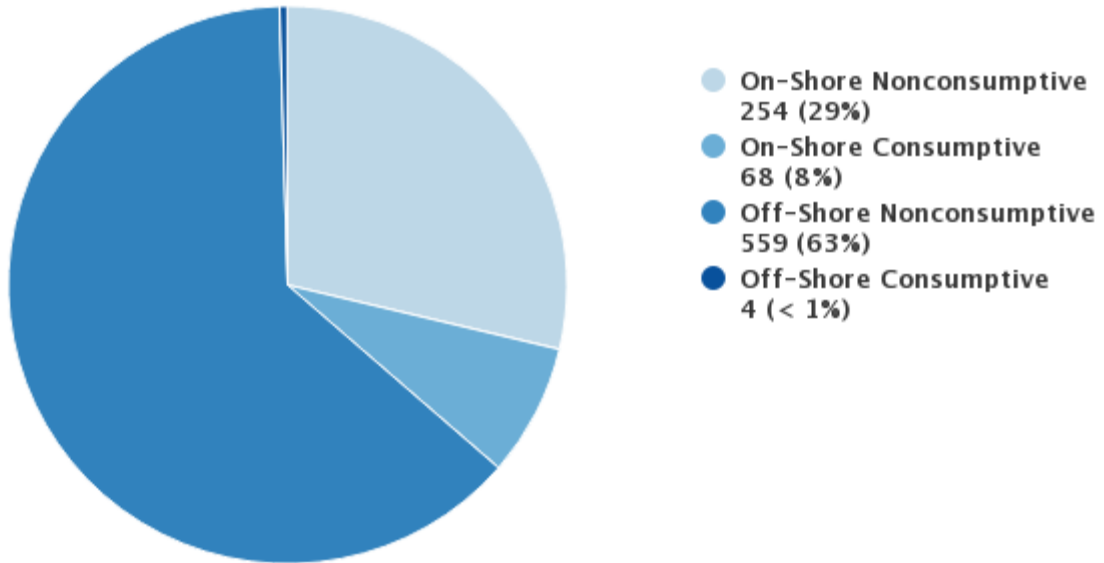
**Off-Shore** - Activities that take place offshore, typically in knee-deep water or deeper. Includes surfing, SCUBA diving, kayaking, boat fishing, etc.

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

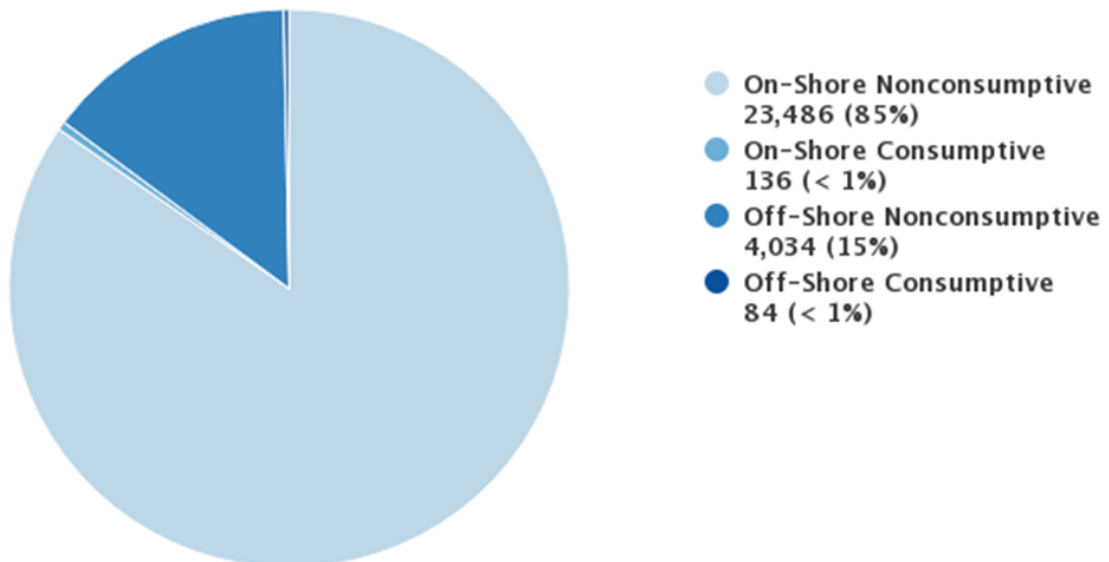
## Upper Newport Bay SMCA

January 1, 2021 – December 31, 2021  
885 activity events



## Crystal Cove SMCA

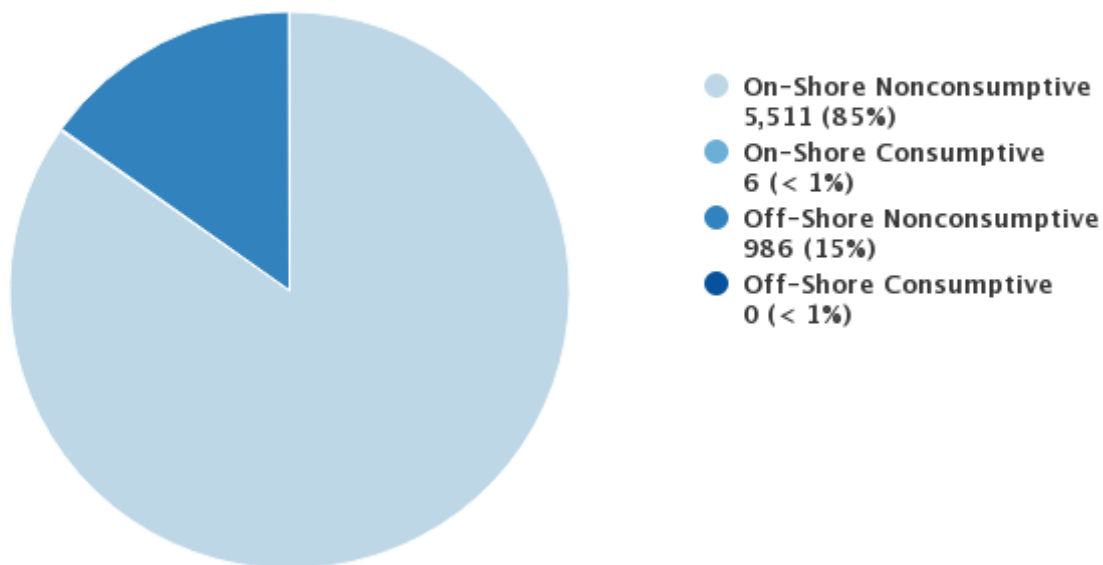
January 1, 2021 – December 31, 2021  
27,740 activity events



## Activity Events by MPA

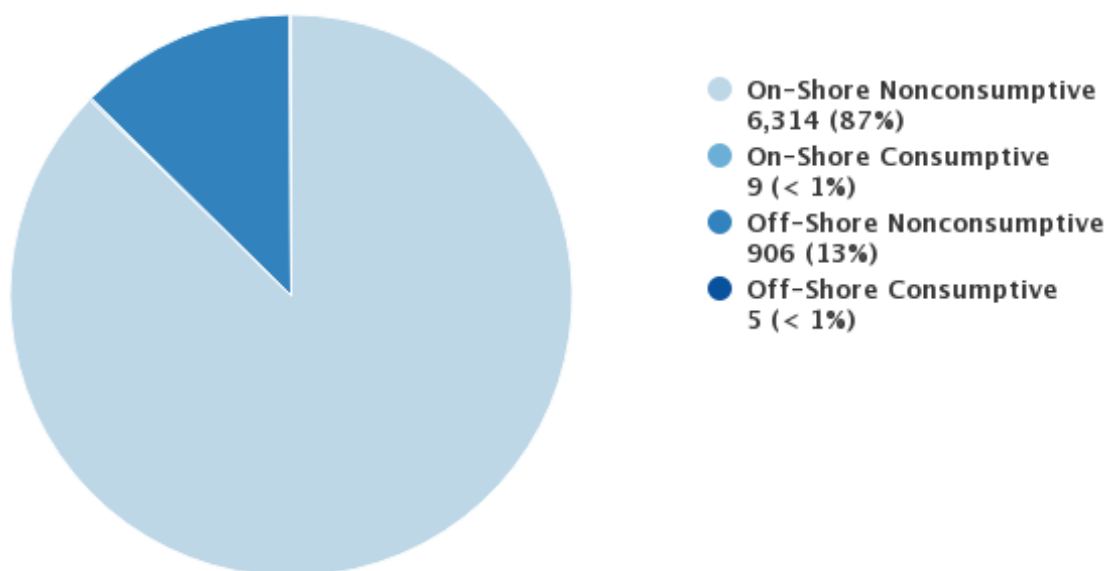
### Laguna Beach SMR

January 1, 2021 – December 31, 2021  
6,503 activity events



### Laguna Beach SMCA

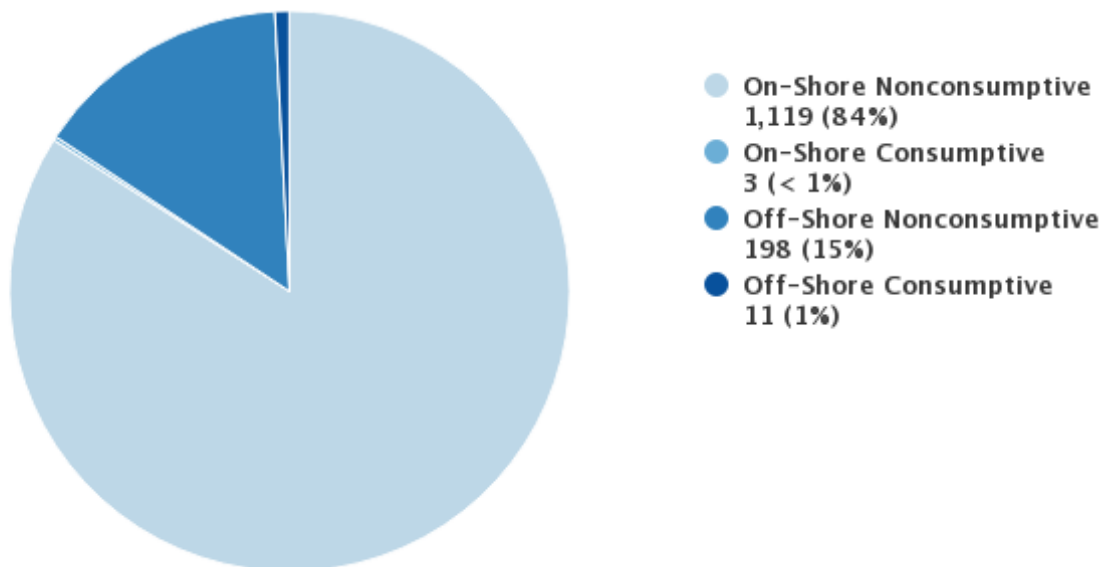
January 1, 2021 – December 31, 2021  
7,234 activity events



## Activity Events by MPA

### Dana Point SMCA

January 1, 2021 – December 31, 2021  
1,331 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.

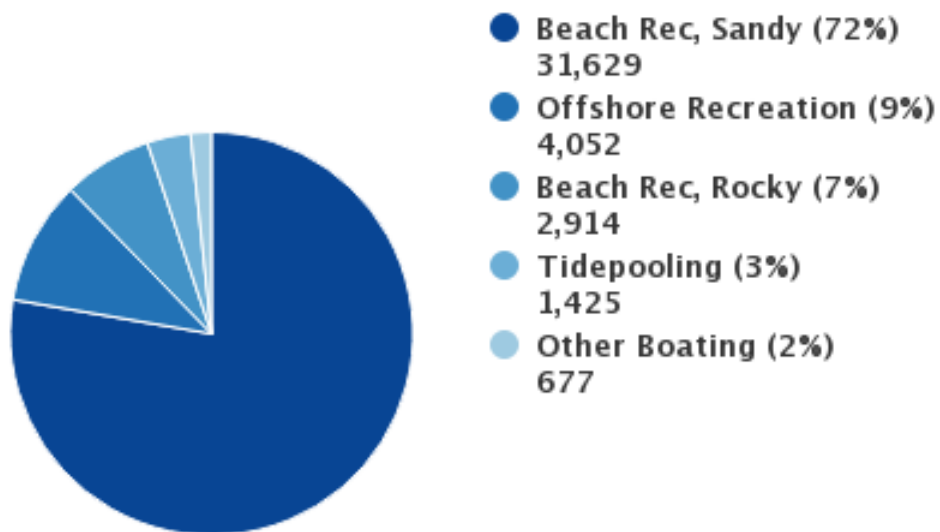
**Consumptive** - An activity in which a natural resource (i.e., fish, kelp, shells) is being collected.

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

## Top Activity Observations

### All MPAs Combined

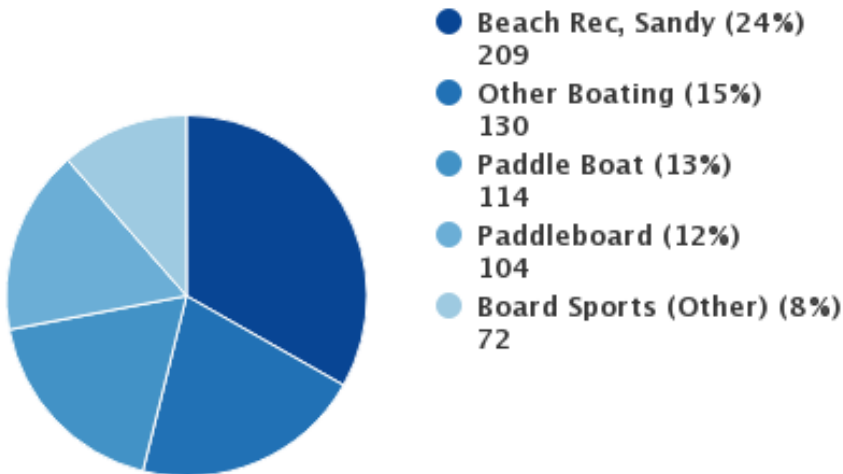
January 1, 2021 – December 31, 2021  
Top activity, 40,697 (93%) of all 43,693 observations



## Top Activity Observations

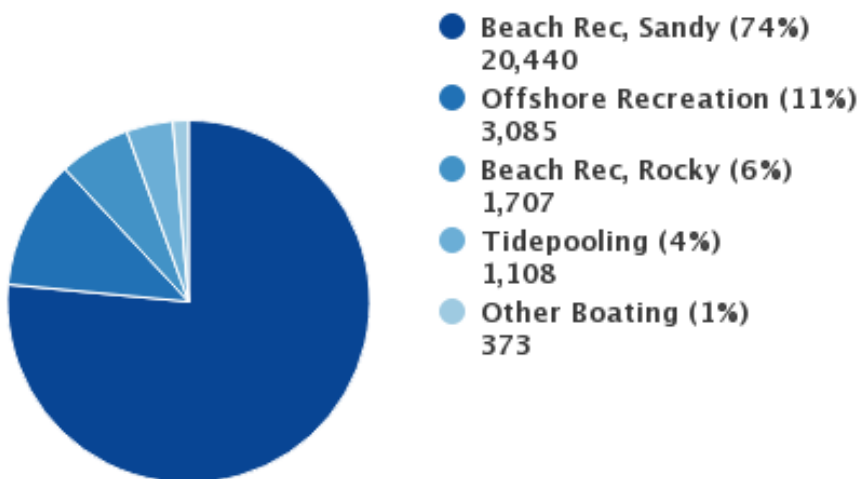
### Upper Newport Bay SMCA

January 1, 2021 - December 31, 2021  
Top activity, 629 (71%) of all 885 observations



### Crystal Cove SMCA

January 1, 2021 - December 31, 2021  
Top activity, 26,713 (96%) of all 27,740 observations

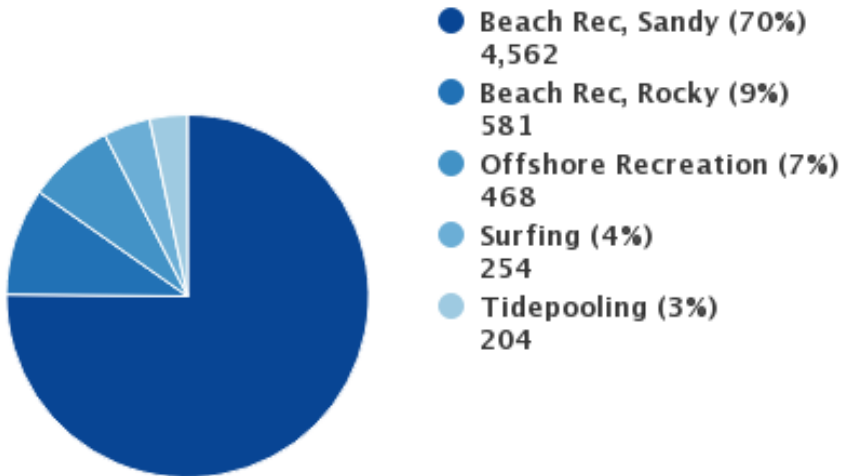




## Top Activity Observations

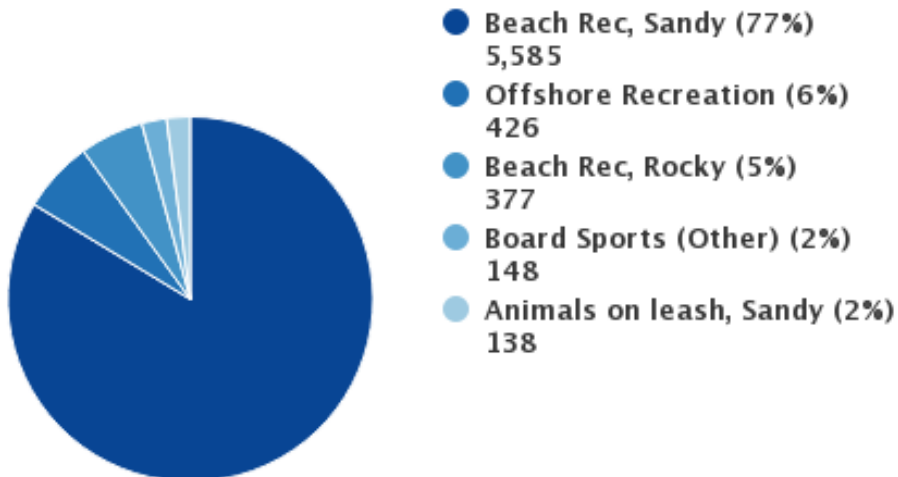
### Laguna Beach SMR

January 1, 2021 – December 31, 2021  
Top activity, 6,069 (93%) of all 6,503 observations



### Laguna Beach SMCA

January 1, 2021 – December 31, 2021  
Top activity, 6,674 (92%) of all 7,234 observations

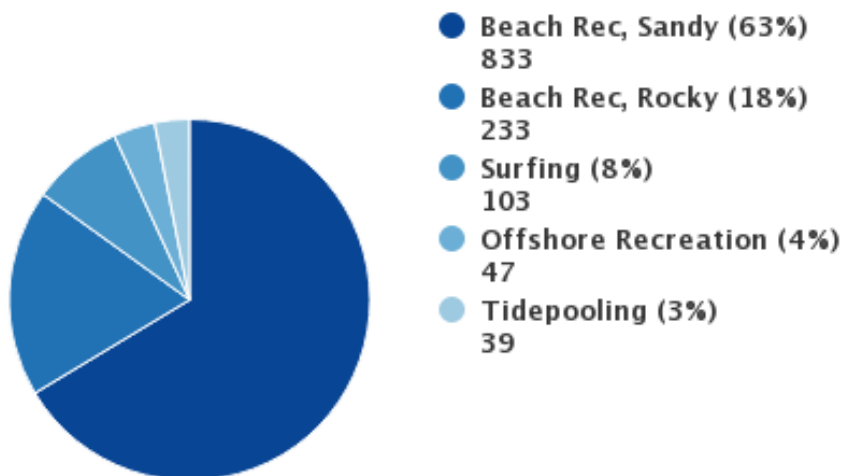


## Top Activity Observations

### Dana Point SMCA

January 1, 2021 – December 31, 2021

Top activity, 1,255 (94%) of all 1,331 observations

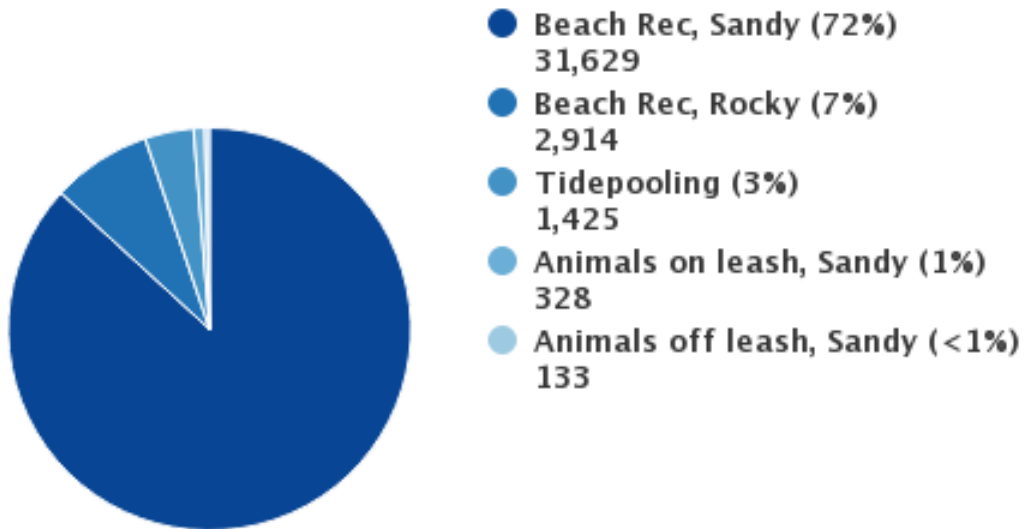


## Top Onshore Activity Observations

### All MPAs Combined

January 1, 2021 – December 31, 2021

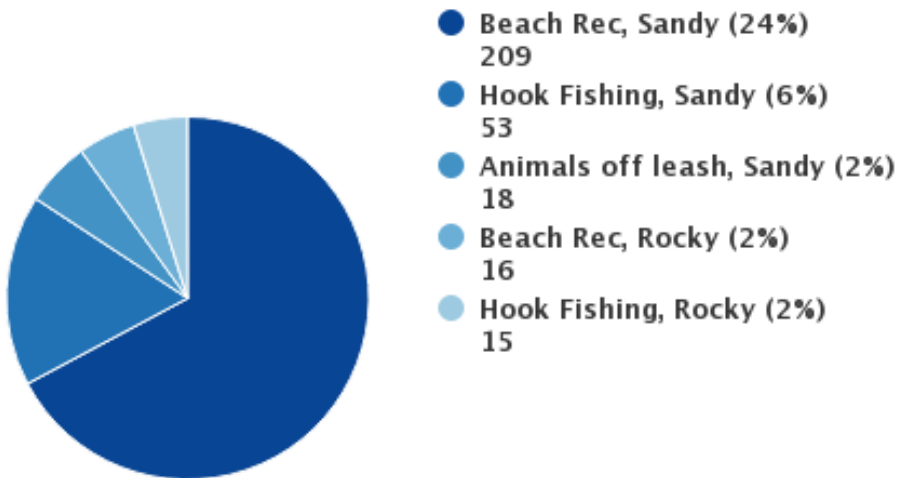
Top onshore activity, 36,429 (83%) of all 43,693 observations



## Top Onshore Activity Observations

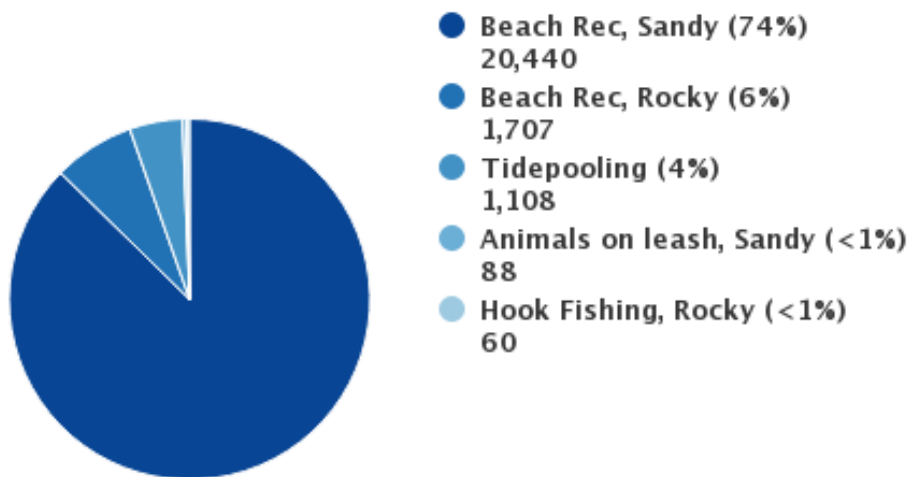
### Upper Newport Bay SMCA

January 1, 2021 - December 31, 2021  
Top onshore activity, 311 (35%) of all 885 observations



### Crystal Cove SMCA

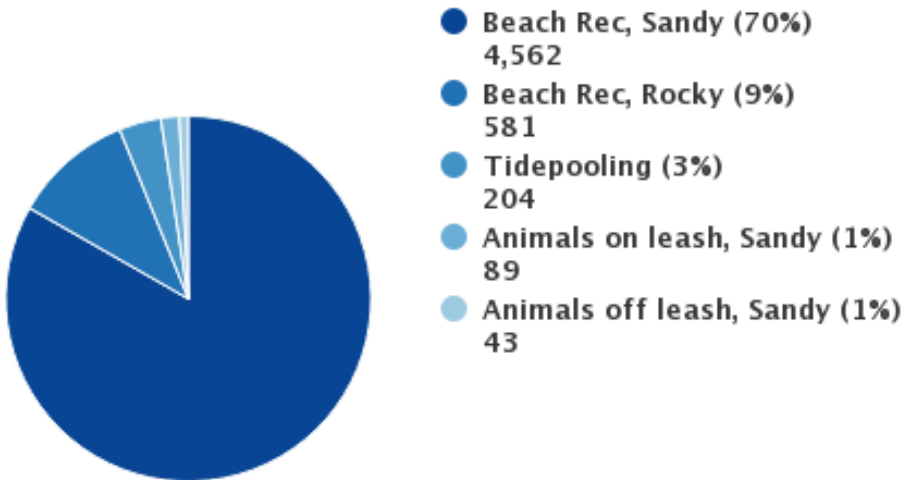
January 1, 2021 - December 31, 2021  
Top onshore activity, 23,403 (84%) of all 27,740 observations



## Top Onshore Activity Observations

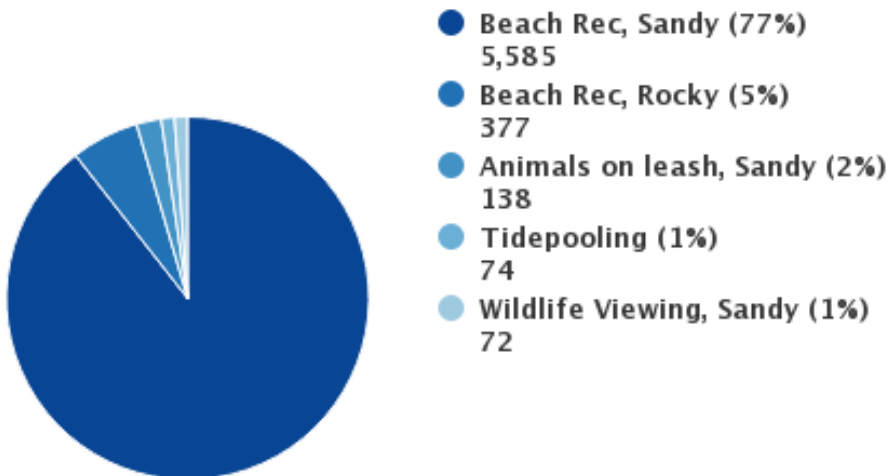
### Laguna Beach SMR

January 1, 2021 – December 31, 2021  
Top onshore activity, 5,479 (84%) of all 6,503 observations



### Laguna Beach SMCA

January 1, 2021 – December 31, 2021  
Top onshore activity, 6,246 (86%) of all 7,234 observations

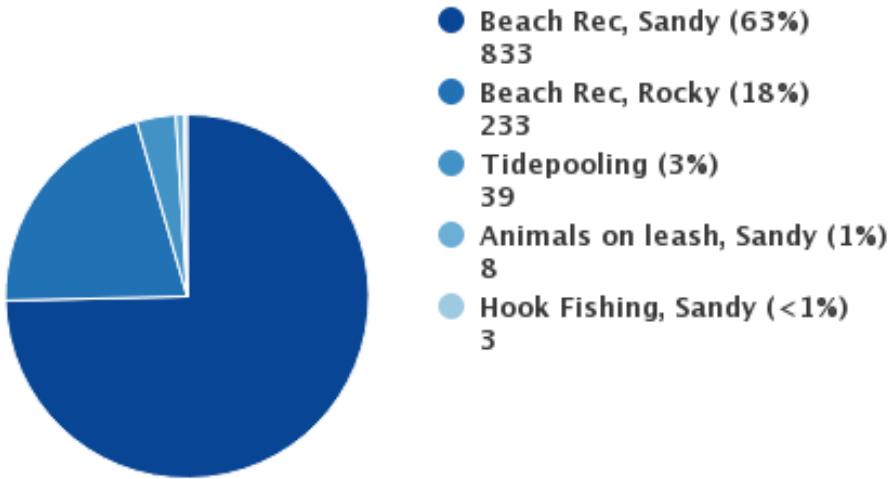


## Top Onshore Activity Observations

### Dana Point SMCA

January 1, 2021 - December 31, 2021

Top onshore activity, 1,116 (84%) of all 1,331 observations

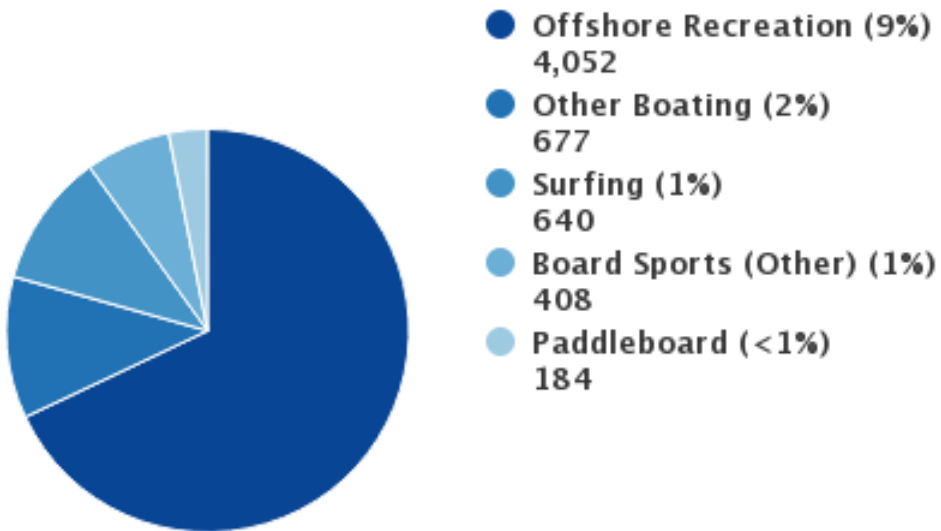


## Top Offshore Activity Observations

### All MPAs Combined

January 1, 2021 – December 31, 2021

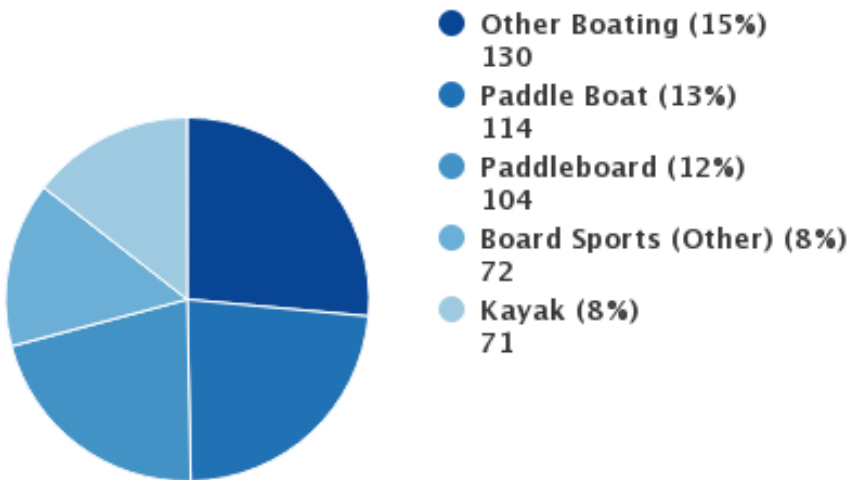
Top offshore activity, 5,961 (14%) of all 43,693 observations



## Top Offshore Activity Observations

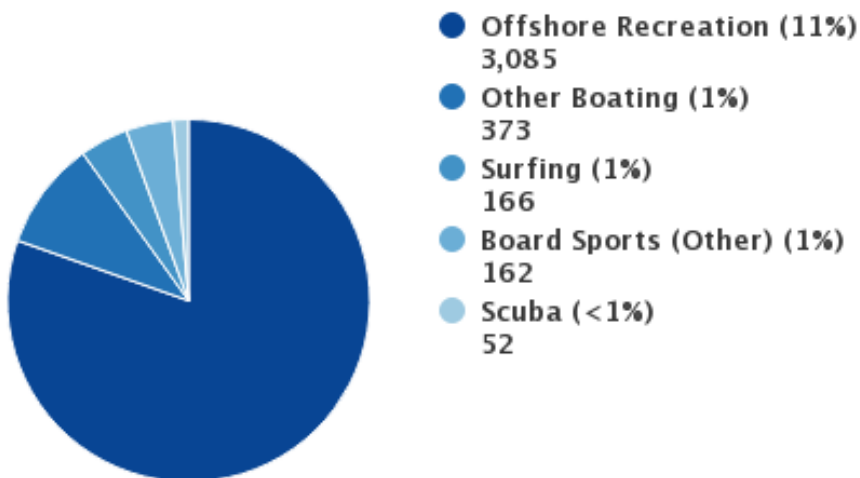
### Upper Newport Bay SMCA

January 1, 2021 - December 31, 2021  
Top offshore activity, 491 (55%) of all 885 observations



### Crystal Cove SMCA

January 1, 2021 - December 31, 2021  
Top offshore activity, 3,838 (14%) of all 27,740 observations

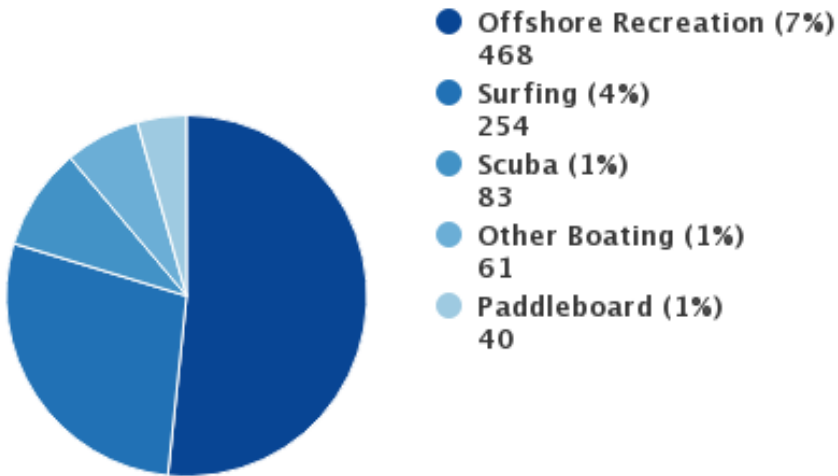




## Top Offshore Activity Observations

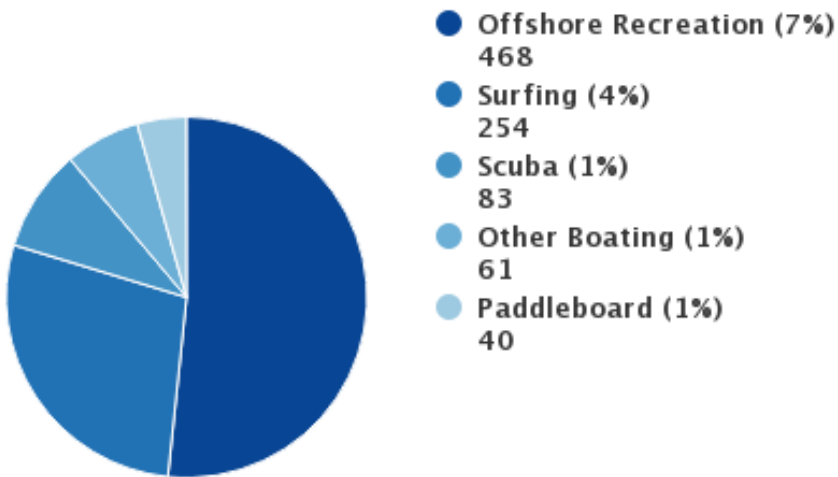
### Laguna Beach SMR

January 1, 2021 – December 31, 2021  
Top offshore activity, 906 (14%) of all 6,503 observations



### Laguna Beach SMR

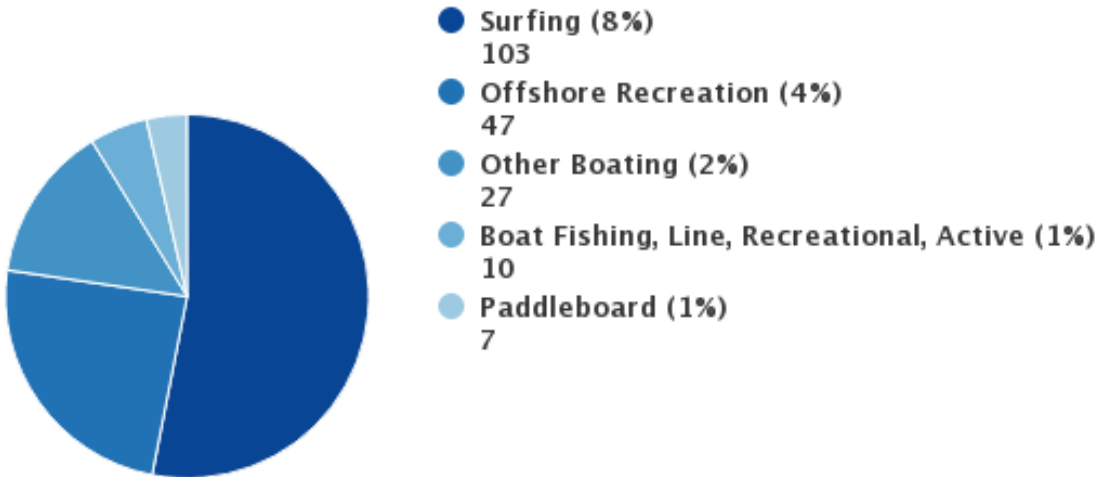
January 1, 2021 – December 31, 2021  
Top offshore activity, 906 (14%) of all 6,503 observations



## Top Offshore Activity Observations

### Dana Point SMCA

January 1, 2021 - December 31, 2021  
Top offshore activity, 194 (15%) of all 1,331 observations

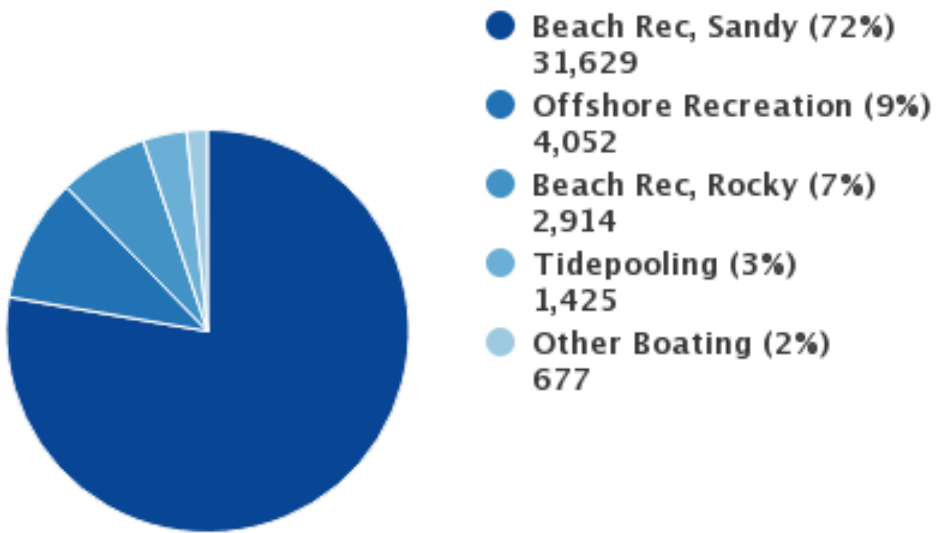


## Top Nonconsumptive Activity Observations

### All MPAs Combined

January 1, 2021 – December 31, 2021

Top nonconsumptive activity, 40,697 (93%) of all 43,693 observations

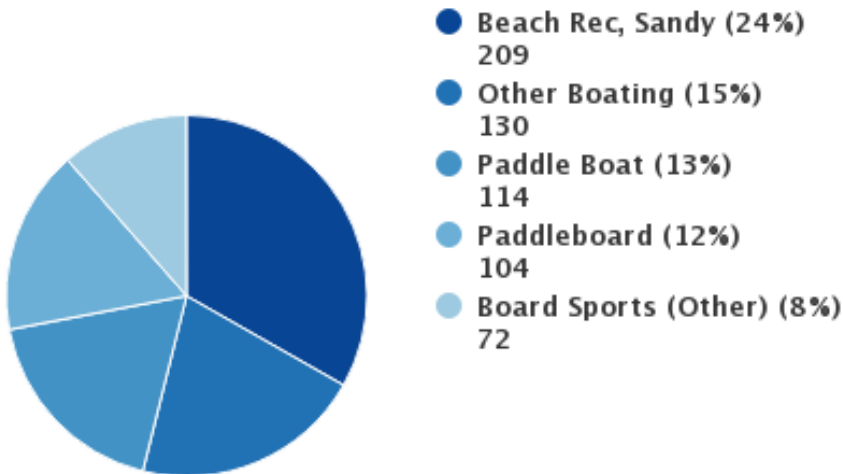


## Top Nonconsumptive Activity Observations

### Upper Newport Bay SMCA

January 1, 2021 - December 31, 2021

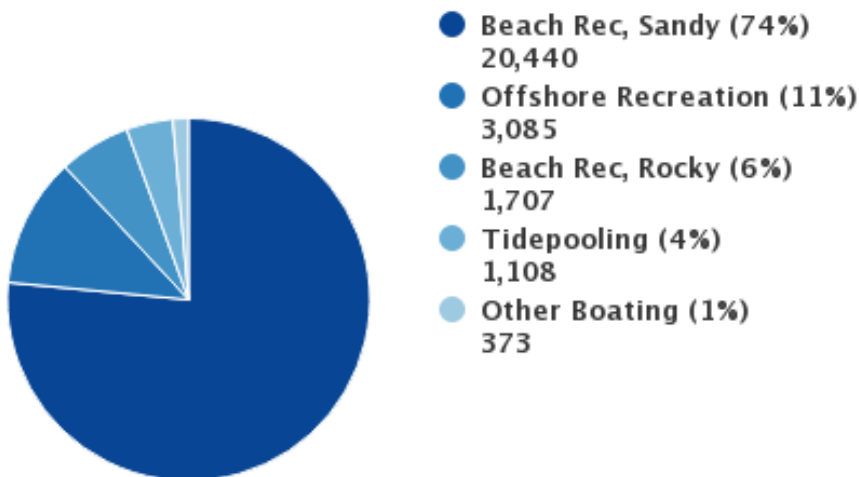
Top nonconsumptive activity, 629 (71%) of all 885 observations



### Crystal Cove SMCA

January 1, 2021 - December 31, 2021

Top nonconsumptive activity, 26,713 (96%) of all 27,740 observations

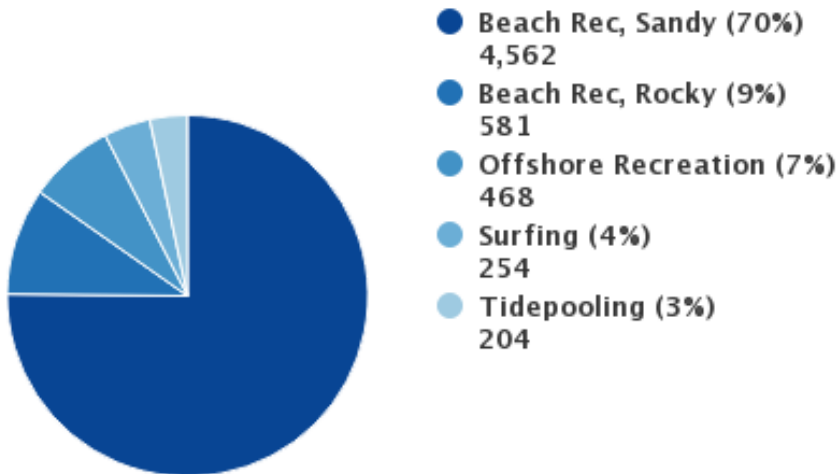


## Top Nonconsumptive Activity Observations

### Laguna Beach SMR

January 1, 2021 – December 31, 2021

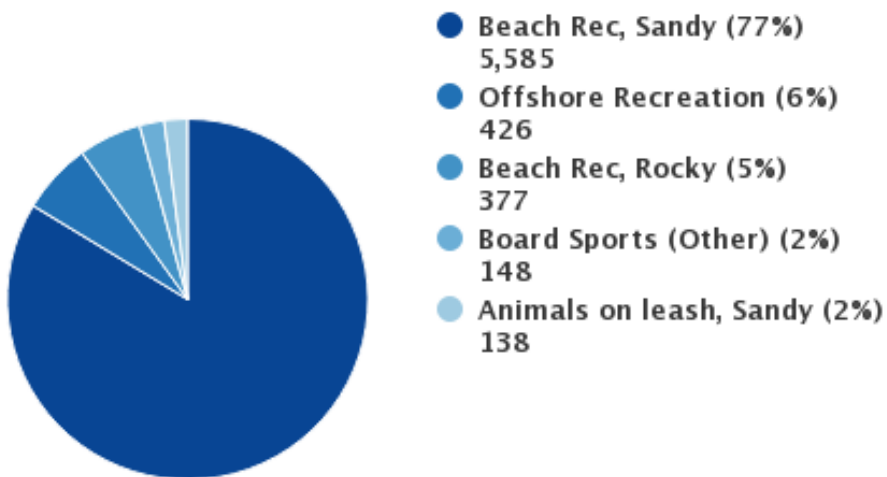
Top nonconsumptive activity, 6,069 (93%) of all 6,503 observations



### Laguna Beach SMCA

January 1, 2021 – December 31, 2021

Top nonconsumptive activity, 6,674 (92%) of all 7,234 observations

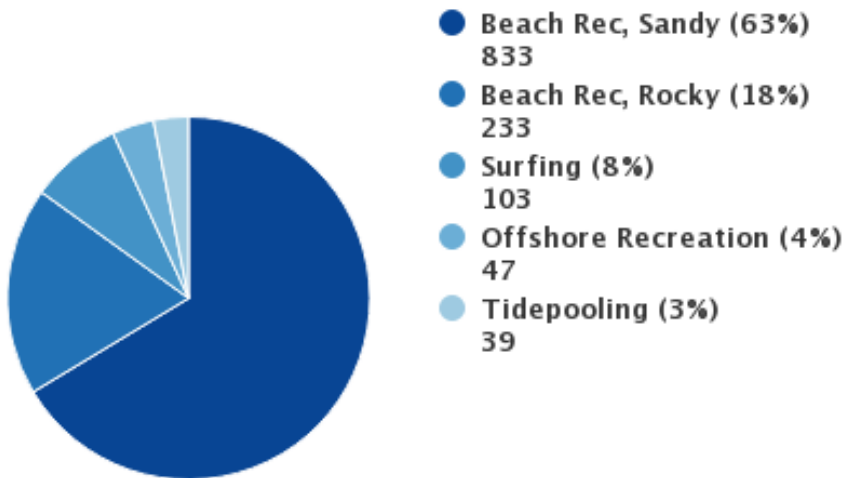


## Top Nonconsumptive Activity Observations

### Dana Point SMCA

January 1, 2021 – December 31, 2021

Top nonconsumptive activity, 1,255 (94%) of all 1,331 observations

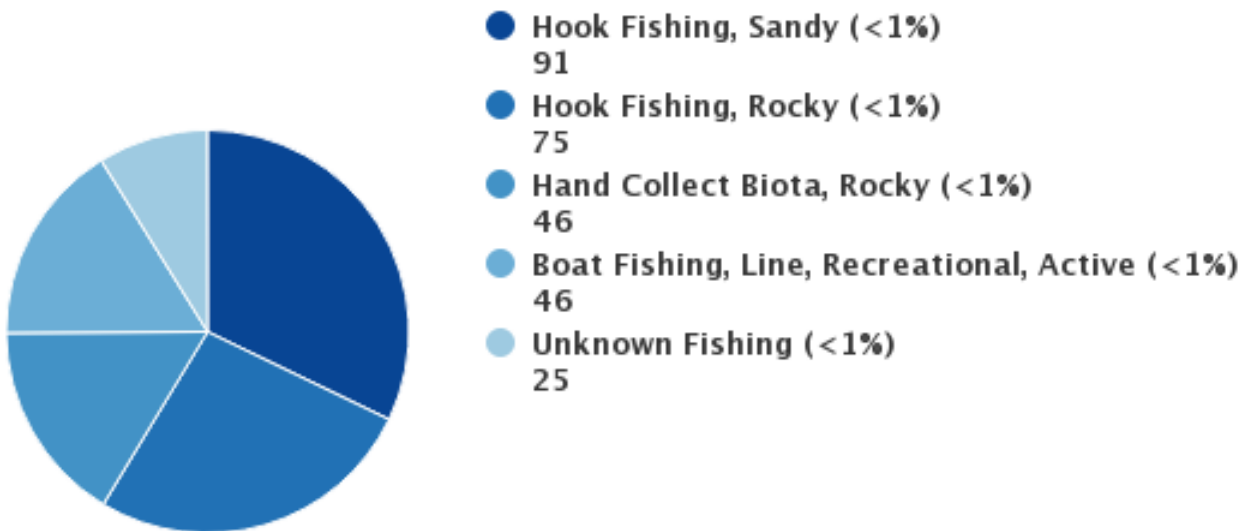


## Top Consumptive Activity Observations

### All MPAs Combined

January 1, 2021 – December 31, 2021

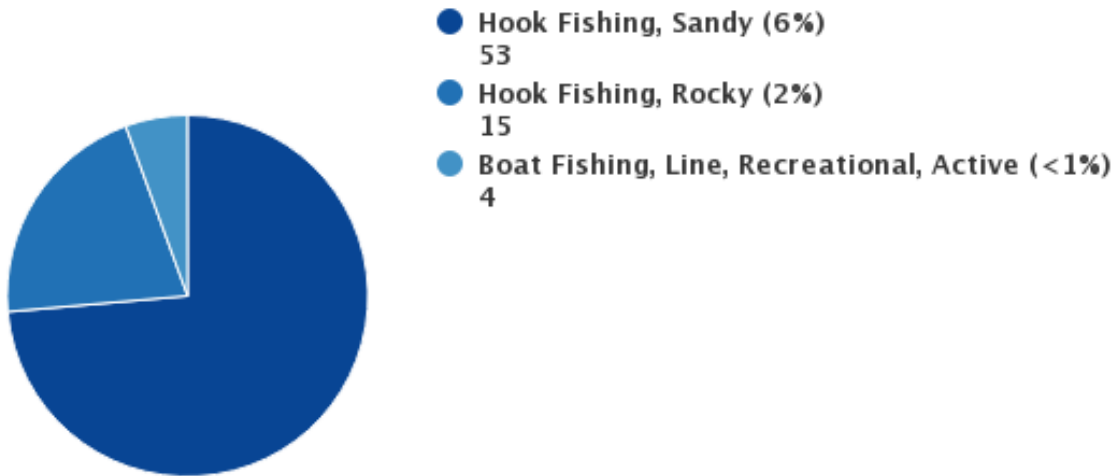
Top consumptive activity, 283 (1%) of all 43,693 observations



## Top Consumptive Activity Observations

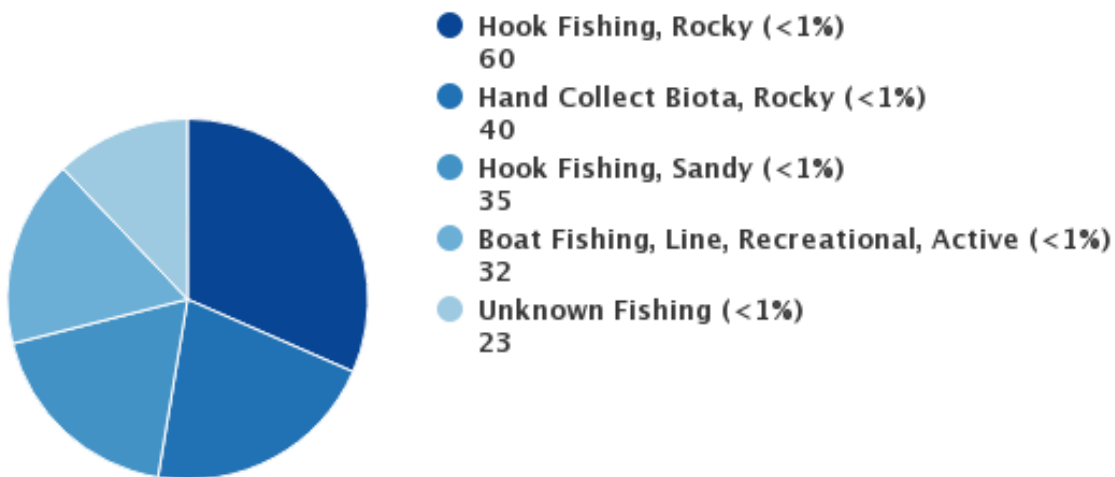
### Upper Newport Bay SMCA

January 1, 2021 – December 31, 2021  
Top consumptive activity, 72 (8%) of all 885 observations



### Crystal Cove SMCA

January 1, 2021 – December 31, 2021  
Top consumptive activity, 190 (1%) of all 27,740 observations





## Top Consumptive Activity Observations

### Laguna Beach SMR

January 1, 2021 - December 31, 2021  
Top consumptive activity, 6 (<1%) of all 6,503 observations

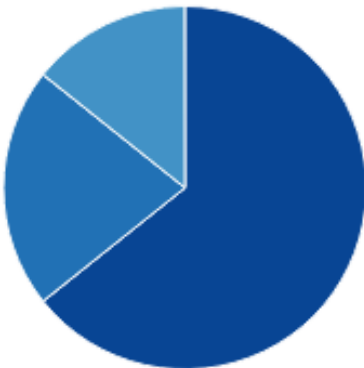
- Hand Collect Biota, Rocky (<1%)  
6



### Laguna Beach SMCA

January 1, 2021 - December 31, 2021  
Top consumptive activity, 14 (<1%) of all 7,234 observations

- Hand Collect Biota, Sandy (<1%)  
9
- Boat Fishing, Trap, Commercial, Active (<1%)  
3
- Unknown Fishing (<1%)  
2

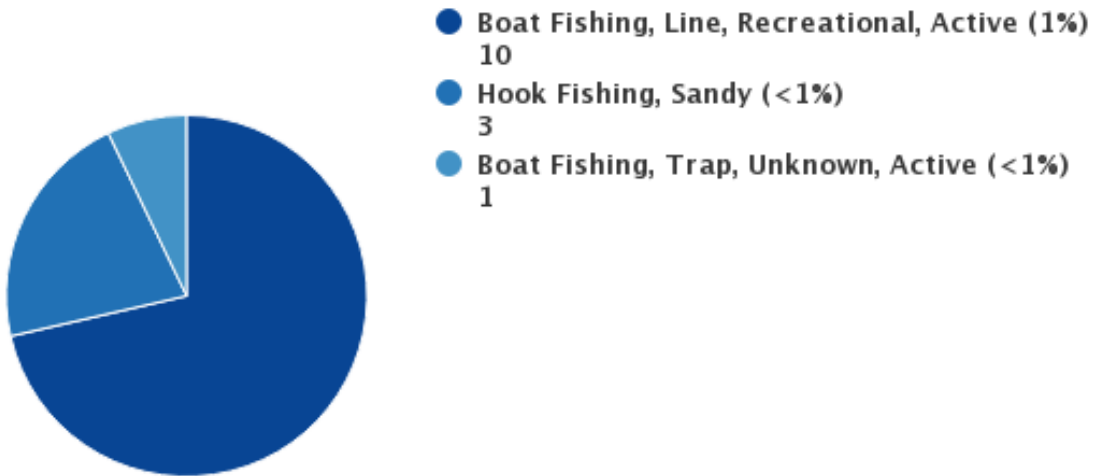


## Top Consumptive Activity Observations

### Dana Point SMCA

January 1, 2021 – December 31, 2021

Top consumptive activity, 14 (1%) of all 1,331 observations



## Survey Count by MPA

MPA	Jan 1 Dec 31 ♦ All Years	Jan 1, 2021 through ♦ Dec 31, 2021
Dana Point SMCA	441	33
Laguna Beach SMCA	467	126
Laguna Beach SMR	1,612	201
Crystal Cove SMCA	1,084	257
Upper Newport Bay SMCA	792	84
All MPAs Combined	4,396	701

## Activity Incidence by MPA, Tables

MPA	Total	
	Combined	
	Jan 1 Dec 31 ♦ All Years	Jan 1, 2021 through ♦ Dec 31, 2021
Upper Newport Bay SMCA	24.4	28.2
Crystal Cove SMCA	193.0	226.6
Laguna Beach SMR	180.2	101.8
Laguna Beach SMCA	246.1	213.4
Dana Point SMCA	120.8	57.1
All MPAs Combined	152.5	158.9

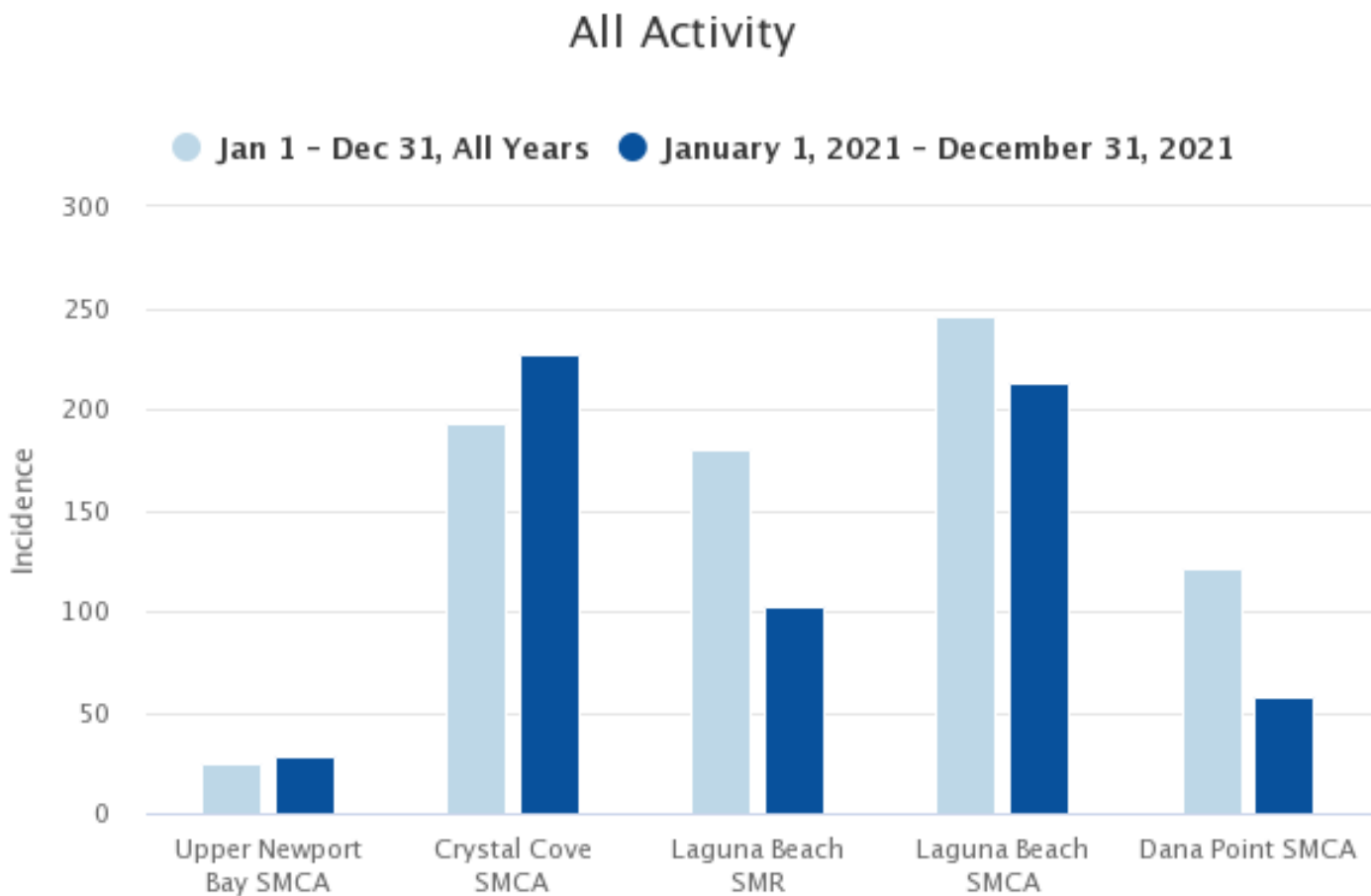
## Activity Incidence by MPA, Tables

MPA	On-Shore					
	Non-Consumptive			Consumptive		
	▲	Jan 1	Jan 1, 2021	◆	Jan 1	Jan 1, 2021
		Jun 30 All Years	through Jun 30, 2021		Jun 30 All Years	through Jun 30, 2021
Upper Newport Bay SMCA		5.5	7.1		1.7	1.8
Crystal Cove SMCA		162.2	211.7		1.1	0.8
Laguna Beach SMR		133.7	75.2		0.2	0.1
Laguna Beach SMCA		191.1	156.9		0.2	0.2
Dana Point SMCA		102.9	31.1		1.6	0.5
All MPAs Combined		121.1	139.6		1.0	0.7

MPA	Off-Shore					
	Non-Consumptive			Consumptive		
	▲	Jan 1	Jan 1, 2021	◆	Jan 1	Jan 1, 2021
		Jun 30 All Years	through Jun 30, 2021		Jun 30 All Years	through Jun 30, 2021
Upper Newport Bay SMCA		10.9	11.2		0.1	0.0
Crystal Cove SMCA		22.5	35.8		0.8	0.6
Laguna Beach SMR		20.0	12.9		0.0	0.0
Laguna Beach SMCA		16.8	14.8		0.2	0.3
Dana Point SMCA		23.7	3.8		2.5	0.5
All MPAs Combined		19.7	24.1		0.7	0.4

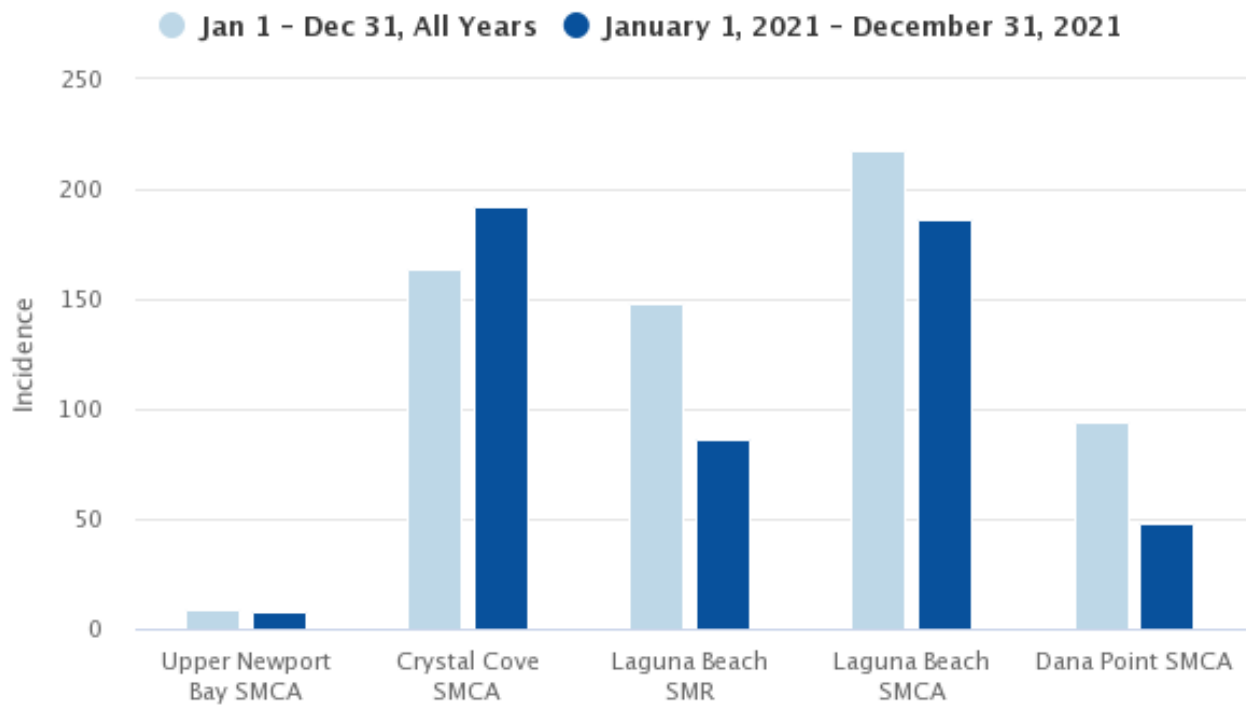
The above table shows incidence values for each MPA monitored by MPA Watch in Orange County. **Incidence is calculated as number of activities recorded divided by total survey-miles.**

Activity Incidence by MPA, Comparison Charts

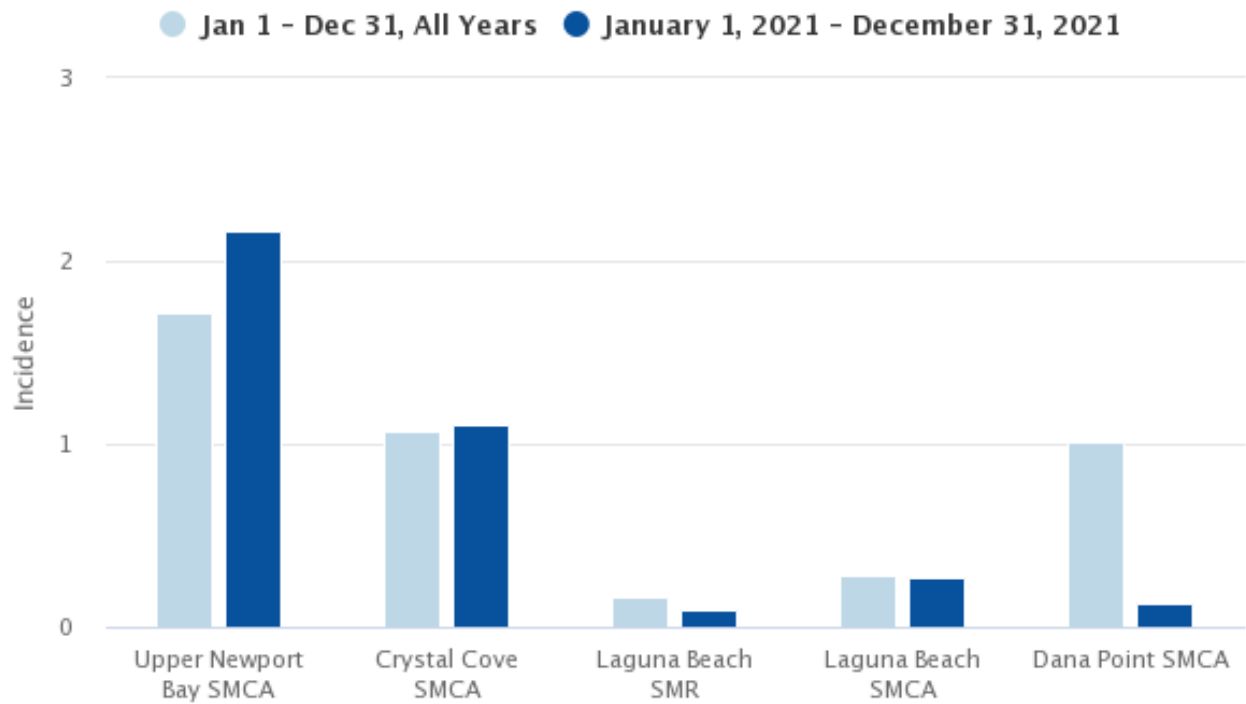


Activity Incidence by MPA, Comparison Charts

On-Shore, Non-Consumptive

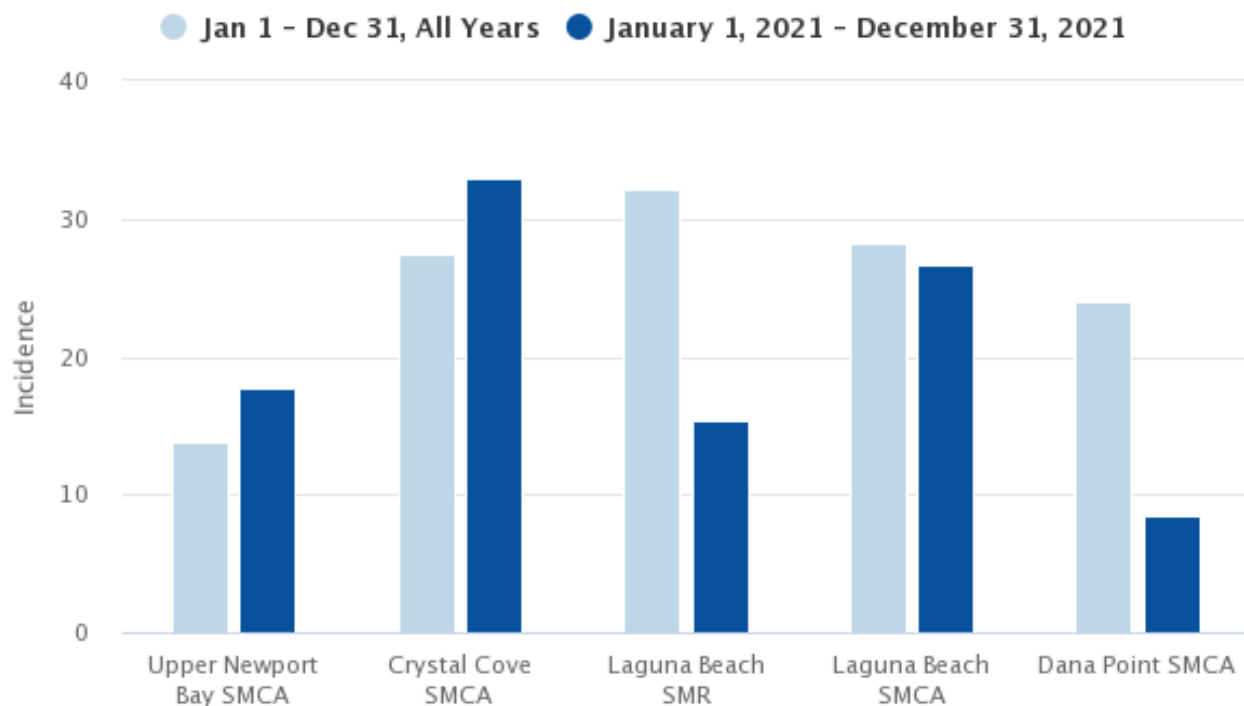


On-Shore, Consumptive

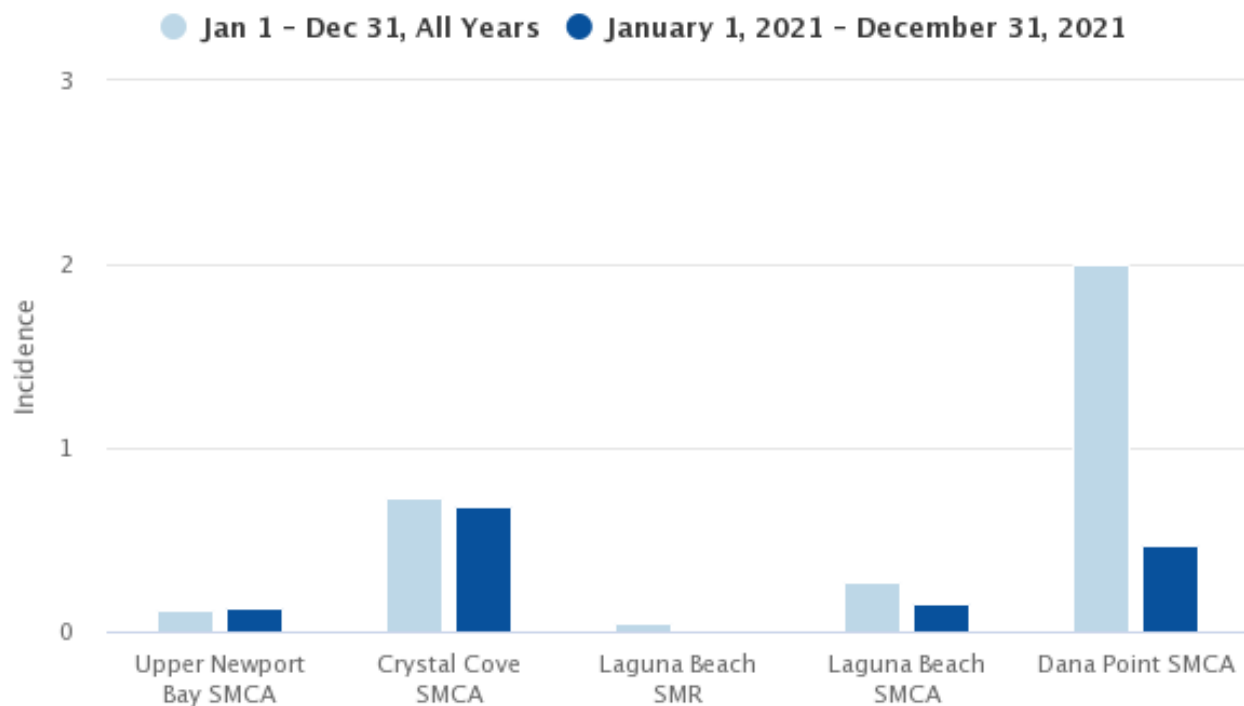


## Activity Incidence by MPA, Comparison Charts

### Off-Shore, Non-Consumptive



### Off-Shore, Consumptive



## COVID-19

In 2021 we continued to run the program while recognizing and adapting to the pandemic. We continued our practice of live online classroom trainings followed by individual or small group field trainings for new volunteers. The first quarter of the year was very productive for us as we had a lot of college interns volunteer their time as other internship programs had shut down. The ability of the interns to work on their own outdoors after training filled a need that many of them had for intern hours. As the year went on and COVID-19 vaccinations led to a greater return to normal and our intern numbers reduced back to typical levels. We continued to follow all local, state and federal guidance on working with COVID and when the new Omicron variant showed up we were able to continue our operations with little disruption. For 2022 we will continue to recruit volunteers and adapt to the changing pandemic while putting the health and safety of our volunteers and the public first.

## 2021 Oil Spill

A disturbing challenge we had with Orange County MPA Watch this year was the October 2021 oil spill off the coast of Huntington Beach. This large spill oiled the coast from Huntington Beach to San Diego and had a significant impact on Orange County beaches and MPA Watch. Due to the spill beaches were closed for six days onshore and 22 days offshore to allow for oil spill cleanup operations and dispersal. Fishing was closed for 57 days beginning on October 3<sup>rd</sup>. This had multiple impacts on the MPA Watch program. Surveys were suspended when the beaches were closed and our observations for offshore activities and fishing were impacted longer. This event will need to be noted when using data from this approximately two month period. In response to the oil spill we trained our volunteers to look for and report oiled wildlife and tar balls while doing their MPA Watch surveys. This was in addition to doing their surveys in the standard method and had no impact on the accuracy of their surveys.



## **Breakdown by MPA**

### **Upper Newport Bay State Marine Conservation Area**

For the months January through December 2021 there were 48 surveys submitted to the MPA Watch website. Orange County MPA Watch data showed a rate of 6.13 total use count per total miles (59.04) surveyed in the Upper Newport Bay's State Marine Conservation Area (SMCA).

People observed in the MPA were primarily taking part in Beach Recreation activities (34%). Onshore hook fishing comprised 9% of the total activities in the MPA. Surfing, Paddle Boarding, and kayaking accounted for 18.0% of total activities.

During this period (January through December 2021) we observed no potential MPA violations in the MPA areas. The recreational take of finfish by hook and line is allowed from shore only.

### **Crystal Cove State Marine Conservation Area**

For the months of January through December 2021 there were 172 surveys submitted to the MPA Watch website. Orange County MPA Watch data showed a rate of 27.59 total use count per total miles (696.60) surveyed.

People in the MPA were primarily taking part in both onshore (85.0%) and offshore (15.0%) activities. Tidepooling accounted for 4.0% of total activities.

During this period (January through December 2021) we observed twenty-one (21) potential MPA potential violations in the Little Corona MPA Watch survey area.

According to volunteers, illegal hand collection from tidepools is commonly observed. Regulations do not allow any take from tidepools in the Crystal Cove State Marine Conservation Area.

## **Laguna Beach State Marine Reserve**

Between the months of January through December of 2021, there were 134 surveys submitted to the MPA Watch website. Orange County MPA Watch data shows a rate of total use 7.81 count per total miles (459.62) surveyed.

People in the MPA were taking part in onshore (85.0%) and offshore (15.0%) activities. Animals on leash or off leash comprised 3.25% of the total activities in the MPA area.

During this period (January through December 2021) we observed five (5) potential MPA violations (Taking from tidepools) in Heisler (3) and Crescent (2) MPA Watch areas.

According to volunteers, illegal hand collection activities are commonly observed. Regulations does not allow any take in the Laguna Beach SMR.

## **Laguna Beach State Marine Conservation Area**

For the months of January through December 2021 there were 35 surveys submitted to the MPA Watch website. Orange County MPA Watch data shows a rate of 35.71 total use count per total miles (43.4) surveyed.

People observed in the MPA were primarily taking part in non-consumptive activities (99.7%). Consumptive activities only comprised 0.3% of the total activities in the MPA. Onshore activities accounted for 91.0% and offshore 9.0% of total activities.

During this period (January through December 2021) we observed five (5) potential violations in Aliso Creek (1) West Beach (4) within the Laguna Beach State Marine Conservation Area

No take is allowed from Laguna Beach No-Take SMCA.

## **Dana Point State Marine Conservation Area**

For the months of January through December 2021 there were 10 surveys submitted to the MPA Watch website. Orange County MPA Watch data shows a rate of 7.81 total use count per total miles (30.2) surveyed.

97.5.0% of the Dana Point coastal uses surveyed since MPA implementation are non-consumptive. The most popular coastal activities in Dana Point are general beach recreation (84.0%). Other common activities are boat fishing (2.6%) and offshore activities such as surfing and paddle boarding (8.5%).

During this period (January through December 2021) we observed no potential MPA violations in the Dana Point MPA Watch area.

Regulations do not allow any take from tidepools in the Dana Point SMCA.

## Potential Violations

Rate of consumptive activities observed remains relatively low in all MPAs surveyed, accounting for less than 1% (0.12) of all observations recorded.

According to volunteers there were no MPA potential violations observed during surveys in the Upper Newport Bay and Dana Point Marine Conservation Area. In the Upper Newport Bay, the recreational take of finfish by hook and line is allowed from shore only. Regulations do not allow any take from tidepools in the Dana Point SMCA.

However, during this period (Jan- Dec 2021) we observed twenty-one (21) potential MPA violations in the Little Corona MPA Watch area. The recreational take of finfish by hook and line or by spearfishing is allowed; but no take allowed from tidepools. According to volunteers, recurring issues with the illegal take and disturbance of tide pool organisms continues to be a problem during low tides.

Also, during this period (January through December 2021) we observed five (5) potential MPA violations (Taking from tidepools) in Heisler and Crescent (2) MPA Watch areas. No take is allowed in the Laguna Beach SMR. According to volunteers there are occasional take violations in the reserve including the collection of biota and illegal fishing offshore.

Volunteers observed five (5) potential violations in the Laguna Beach State Marine Conservation Area (one in Aliso Creek and 4 in West Beach). No take is allowed from the Laguna Beach No-Take SMCA. According to volunteers illegal fishing occurs occasionally on and offshore.

## Next Steps

MPA Watch collaborates 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. For 2022 we will also submit our MPA Watch data to the CDFW for use in their decadal review of MPAs. We will also work to inform the public of the upcoming review and how they can participate in it. MPA Watch is also looking to expand its network of partner organizations to enhance the scale and scope of MPA monitoring. MPA Watch makes 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](https://mpawatch.org). Connect with MPA Watch on social media [@MPAWatchOrg](https://twitter.com/MPAWatchOrg).

For additional information regarding MPAs and regulations specific to the various classifications of MPAs please visit [wildlife.ca.gov/MPAs](https://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 OC Coastkeeper does to conserve California's MPAs and other conservation projects please visit [coastkeeper.org](https://coastkeeper.org).