



NATIONAL MARINE  
SANCTUARIES

Monterey Bay National Marine Sanctuary  
TeamOCEAN Program Report  
2006

U.S. Department of Commerce  
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National Ocean Service  
National Marine Sanctuary Program



## Inspiring and educating one kayaker at a time



For more information about the TeamOCEAN Kayaker Outreach Program of the Monterey Bay National Marine Sanctuary, contact Lisa Emanuelson at (831) 647-4201 or [Lisa.Emanuelson@noaa.gov](mailto:Lisa.Emanuelson@noaa.gov)

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## **Introduction**

TeamOCEAN (Team Ocean Conservation Education Action Network) Programs are currently run in two of the 13 National Marine Sanctuaries: Florida Keys and Monterey Bay National Marine Sanctuaries. Many sanctuaries have volunteer programs, however these are the only two developed to intercept ocean users on the water. For both sanctuaries the focus of the program is to protect local natural resources while allowing a rich and meaningful sanctuary experience for the visitor.

In the Monterey Bay National Marine Sanctuary (MBNMS) TeamOCEAN focuses its' efforts on protection of the marine mammal populations that find refuge in kelp forests, rocky outcrops, beaches and estuaries of the MBNMS. This seasonal interpretive naturalist program was designed to provide ocean users with information about the MBNMS, its' programs, natural history of inhabitants and guidelines on how to view these inhabitants respectfully without disturbing them, or changing their natural behavior.

MBNMS TeamOCEAN staff and docents do not write tickets or hand out citations for violations, instead the program encourages proper viewing etiquette through interpretive enforcement. The members of TeamOCEAN Kayaker Outreach Program interact in a friendly, positive, non-confrontational manner to prevent harassment situations while interpreting the sanctuary's resources and answering questions about its' ecology and wildlife.

# **The MBNMS TeamOCEAN Kayaker Outreach Program 2006**

## **Background**

The TeamOCEAN Kayaker Outreach program is a program designed to give one-on-one information to sanctuary users on proper wildlife viewing etiquette and general sanctuary information. Four paid staff lead a group of volunteers during each 6 hour shift, three times a week in two locations, Elkhorn Slough in Moss Landing and Cannery Row in Monterey, CA. During shifts both volunteers and staff collect information about interactions with sanctuary users, what type of disturbance if any, is seen, and how many and what type of animals were involved in any disturbances. Dedicated staff and volunteers provide a critical link between sanctuary regulations and users in a personal and caring manner without the need for tickets or law enforcement intervention. The program has been in operation since 2000 and continues to grow each year with more volunteers and more sanctuary users contacted.

## **Training**

Recruitment for the 2006 season begins with an informational presentation and sign up for training classes. Improvements in volunteer training sessions made last year were successfully continued this year. The volunteer training period is 8 weeks, 2 hours per week of in-class lectures and training. Training lecture topics include:

- Overview of the Monterey Bay National Marine Sanctuary
- Birds of the Monterey area by Hannah Nevins from California State Universities, Moss Landing Marine Lab
- Marine mammals of the Monterey area by Michele Roest from the MBNMS
- Oceanography by Kevin Raskoff of California State University Monterey Bay
- Kelp forest ecology.
- Regulations and the enforcement role of volunteers by NOAA Law Enforcement Officer Bob Yerena
- Radio and safety procedures, how to fill out the data sheets
- Introduction to Elkhorn Slough by Jacquie Kourassis of ESNERR
- Interpretation techniques by Stacia Fletcher of MBNMS

During training two field trips are scheduled:

- Bird watching and identification with Hannah Nevins of MLML
- Elkhorn Slough Explorations by foot and car with Jacquie Kourassis of ESNERR and Linda Jordan volunteer with ESNERR and TeamOCEAN

Training lectures are open to all TeamOCEAN volunteers, as in previous years, 2006 had a few returning volunteers attending lectures.

## Volunteers

New volunteers received a kayak safety/training class donated by long time program partner, Monterey Bay Kayaks. The class covered topics such as proper paddling techniques, proper orientation to waves, self bail-outs, and partner assists. The safety class was an all-day on-the-water class after which the students received a certification card, certifying their participation and acceptable performance of the required skills.

In May 2006, 22 new volunteers joined the TeamOCEAN Kayak Outreach Program roster. In informal discussions with new volunteers, overall satisfaction with all aspects of training was communicated. TeamOCEAN hosted 56 total volunteers for the 2006 season. Volunteers in 2006 contributed 1,224 hours with a value of \$12,240.

## 2006 On The Water Results

TeamOCEAN staff and volunteers approached 3,384 people in Monterey and 3,185 in Elkhorn Slough bringing the seven-year contact totals to 29,665.

While TeamOCEAN's primary goal is to educate sanctuary users, team members have been able to collect useful data over years, (see Tables 1 and 2). For the past four years (2003-2006) volunteers and staff collected data using data sheets developed for the program. These allow easy recording of animal species, observed behavior, number of individuals exhibiting a specific behavior, user types, and interaction types.

Interaction types for Sanctuary users are classified as:

- Informational- users are unaware of the Sanctuary as well as the local wildlife they might encounter.
- Pre-disturbance- user is on a direct course to come close enough to wildlife to disturb, a TeamOCEAN member will head off and explain the situation.
- Saw disturbance- user disturbed wildlife and may not know their actions either caused the disturbance or they may be unaware of the implications of the disturbance. A TeamOCEAN member will talk with the user and help them to understand the situation.
- Safety warning- user is doing something that may endanger them selves while on the water. A TeamOCEAN member will explain the implications of their actions in order to have them discontinue it.
- No approach- on rare occasions when a disturbance has been noted it is impossible to catch up to the sanctuary user that has caused the disturbance; or perhaps the user is known to be volatile or argumentative. In either case the TeamOCEAN member does not approach but does make note of the disturbance and the non-approach.

The highest numbers of interaction types were for informational purposes with 1092 (88%) in Monterey and 1030 (92%) in Elkhorn Slough (Tables 1 & 2).

Animal behaviors noted in the data sheets are:

- Head raise- where animal(s) raises only the head when alerted. This is considered a mild reaction to a disturbance.
- Flees with out diving- where animal(s) swims away, may or may not keep an eye on the reason for swimming away.
- Flees with diving- for animal(s) already in the water, dives to get away from cause of disturbance.
- Flush- for animal(s) out of water that rush into water to get away from cause of disturbance. This is considered a severe reaction to a disturbance.

In 2006, 84 (6.8%) interactions in Monterey and 48 (4.3%) in Elkhorn Slough were to prevent an imminent disturbance. Elkhorn Slough had 40 (3.6%) separate disturbances observed and Cannery Row had 55 (4.5%) from head raises to total flushings.

## Summary

The TeamOCEAN Kayaker Outreach Program has proven to be an effective outreach tool for the Monterey Bay National Marine Sanctuary (MBNMS). For the past 7 years TeamOCEAN volunteers have contacted over 29,000 people and helped these residents and visitors understand what the Monterey Bay National Marine Sanctuary is, what wildlife are locally abundant and how to view this wildlife safely and respectfully. There is currently not another outreach program reaching this many people for the MBNMS in a one-on-one manner. There is undeniable resource protection benefit of the program by preventing numerous wildlife disturbances and educating those who might potentially disturb wildlife needlessly. By being the face of the sanctuary on the water and interacting with sanctuary users directly, TeamOCEAN kayakers provide a necessary educational link between sanctuary regulations to the actual users of the Sanctuary. The 2006 season continues to highlight the effectiveness of the TeamOCEAN Program. With increasing numbers of people reached and increasing numbers of disturbances prevented, the TeamOCEAN Program highlights the effectiveness of a one-to-one approach to wildlife disturbance and Sanctuary education.

This year a Hollings Intern, Claire Feldman, was of indispensable help. Claire was put in charge of observing kayakers before and after TeamOCEAN staff or volunteers had interacted with them. Claire followed the kayakers for up to 20 minutes and observed whether they avoided wildlife, post TeamOCEAN contact. In Elkhorn Slough, 55% of the kayakers observed post TeamOCEAN contact visibly avoided wildlife, and in Cannery Row 53% of the kayakers avoided wildlife post TeamOCEAN. Claire was only able to observe during a two week period and as such the data are not very conclusive. Plans for more observing are set for the 2007 season utilizing current volunteers.

The Hollings Intern was also able to go to Santa Cruz and observe the wildlife off the Municipal wharf near the boardwalk. Two kayak companies have equipment stationed at the wharf or are close enough for renters to paddle to the wharf and possibly Steamers Lane, where a kelp bed and off shore rock provide habitat for Harbor Seals, Sea Otters and Sea Lions. Claire observed on two occasions in the Santa Cruz wharf area and concluded that while there is some wildlife and some kayak rentals, the amount of traffic from these rentals is not sufficient enough at this time to warrant a TeamOCEAN

program in Santa Cruz. Claire also interviewed shop managers and owners in the area which further supported the conclusion that there is too little traffic in the Santa Cruz area for a TeamOCEAN program. This can however change and more information will need to be gathered every few years.

In an attempt to coordinate and offer TeamOCEAN volunteers more opportunities in the off-season, a dialog was begun with Milos Radacovich of Bay Net, a shoreline based interpretive volunteer group. The director of this program is leaving and the MBNMS is exploring incorporating BayNet into sanctuary programming, which will enhance TeamOCEAN efforts. Additionally the Monterey Bay Aquarium offers volunteer credit to any of their volunteers that work hours for TeamOCEAN, of which only 3 people qualify. Next year, a more formal agreement will be in place.

This year, Moss Landing saw a remarkable increase in their resident otter population when a large number of Sea Otters moved into the harbor mouth, as many as 50 otters in a single raft. These otters moved into the area between the jetty on the landward side a few weeks before the beginning of salmon season (typically a time of very high traffic and speed in the harbor area). In the past number of years a local group of representatives from various state, federal and local agencies and NGO's have collaborated to work out solutions to speeding by boaters on salmon season opener day. With the increased number of otters in a potentially hazardous area, more effort was undertaken to ensure their safety. Volunteers from various groups including 3 from TeamOCEAN, arrived in the early morning in order to chat with and remind boaters to keep their speed down and avoid wildlife. Overall, volunteers helped to remind boaters of the sensitive wildlife in the area and to keep their speed down.

The MBNMS's TeamOCEAN Program continues to grow with new volunteers, more people contacted on the water and more wildlife observed at a respectable distance. The TeamOCEAN Program serves an important function in the near shore community, as an ambassador for the Monterey Bay National Marine Sanctuary, as a water-borne information booth for visitors and locals alike, and lastly as protection for the numerous marine mammals found along the central California coastline.



Table 1: 2001-2006 Data for Cannery Row in Monterey, CA

	2000	2001	2002	2003	2004	2005	2006	Total
Number of days on the water	22 b/t M &ES	16.5	31	42	48	51	57	245.5
Number of hours on the water		180.4	269	612	583	972	1062	3678.4
Number of volunteer hours			83	383	320	534	588	1908
Number of approaches	9	679	695	1301	1160	1115	1235	6185
Number of people approached		1018	1671	3226	2901	3373	3384	15573
Interaction reason types		*						
Informational			617	1139	1031	1076	1092	4955
Prevent disturbance	4		45	96	75	88	84	388
Saw disturbance	5		25	50	51	46	55	227
Saw disturbance but no approach				10	12	3	3	28
Number of disturbances noted	5	*	30	68	77	42	55	242
Enforcement calls		7 other agencies	1	1	0	0	0	0
Types of ocean users		*						
Rental Kayaks	7 incidents		589	1065	960	1027	983	4624
Private Kayaks	2 incidents		59	163	147	173	271	813
Pedestrians				35	26	33	43	137
Boaters			6	14	12	18	8	58
Canoe			0	0	0	0	0	0
Divers			3	14	6	16	17	56
Kayak Divers			9	5	1	3	2	20
Jetskis			1	1	0	0	1	3

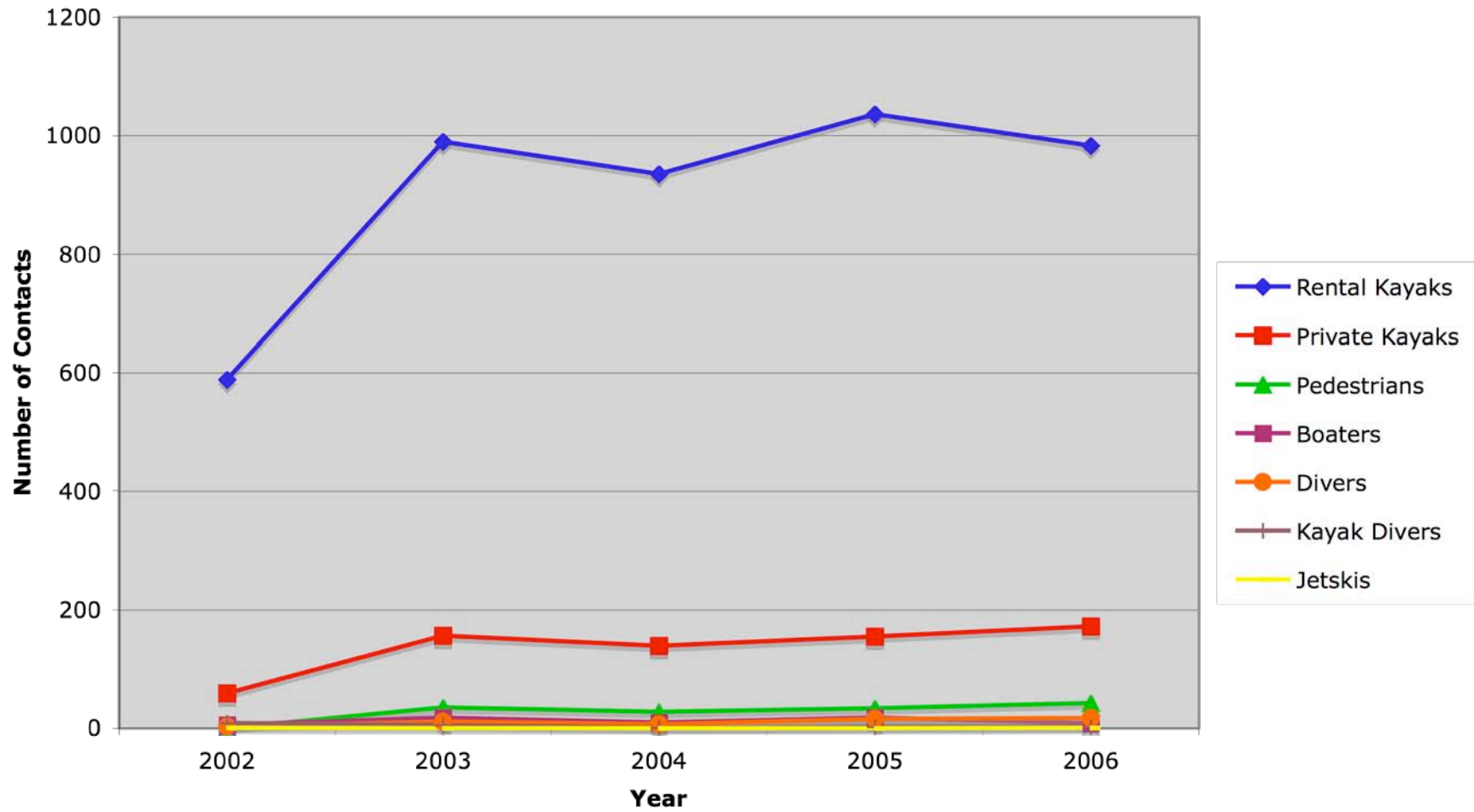
\* data not collected

Table 2: 2001-2006 Data for Elkhorn Slough in Moss Landing, CA

	2000	2001	2002	2003	2004	2005	2006	Totals
Number of days on the water	22 b/t M&ES	13.5	30	51	49	53	55	251.5
Number of hours on the water		147.6	280	454	436	1020	1140	3477.6
Number of volunteer hours			80	166	200	558	636	1640
Number of approaches	3	556	714	1241	910	1051	1121	5596
Number of people approached	*	833	1858	3360	2272	2584	3185	14092
Interaction reason types		*						
Informational			648	1130	860	911	1030	4579
Prevent disturbance			27	57	28	84	48	244
Saw disturbance	3		35	11	21	30	40	137
Saw disturbance but no approach				13	17	4	2	36
Number of disturbances noted	3	*	37	59	39	53	40	2288
Enforcement calls		3 other agencies	1	1	1	0	0	6
Types of ocean users		*						
Rental Kayaks	1 incident		519	959	631	667	777	3553
Private Kayaks	2 incidents		169	318	270	218	231	1206
Pedestrians				12	6	31	57	106
Boaters			9	21	37	37	56	160
Canoe			0	14	0	0	3	17
Divers			1	0	0	0	0	1
Kayak Divers			1	0	0	0	0	1
Jetskis			0	1	0	0	0	1

\* data not collected

**TeamOCEAN Contacts per Ocean User Type  
Cannery Row, Monterey, CA  
2002-2006**



**TeamOCEAN Contacts per Ocean User Type  
Elkhorn Slough, Moss Landing, CA  
2002-2006**

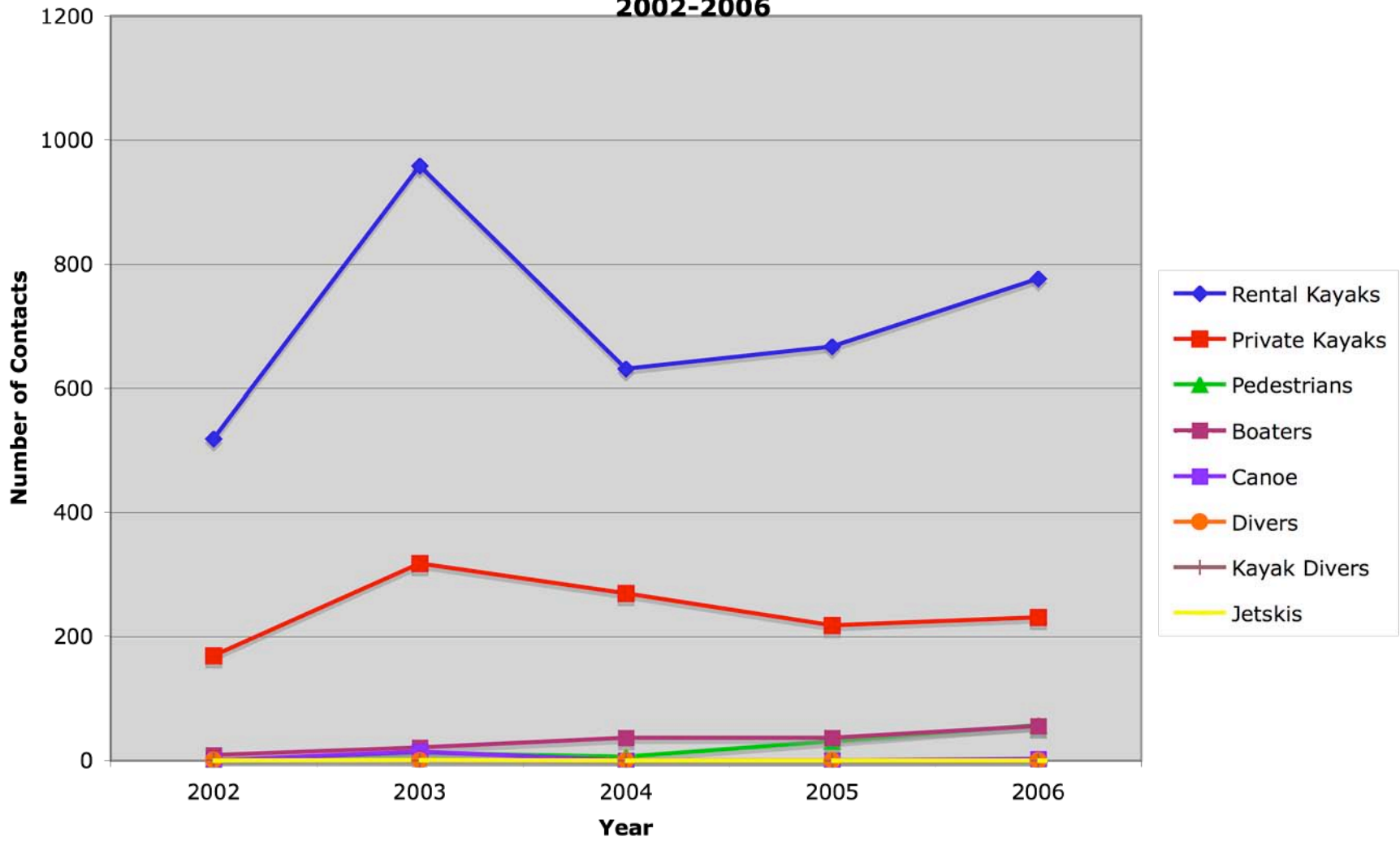


Table 3: Disturbances of Sea Otters (*Enhydra lutris*) for Cannery Row in Monterey, CA

Sea Otters	2002	2003	2004	2005	2006
Total # of head raises	12	32	28	13	26
Total # of animals showing head raises	57	70	42	38	73
Total # of flees w/o diving	4	2	4	4	4
Total # of animals showing fleeing w/o diving	11	5	4	14	20
Total # of flees with diving	7	5	6	3	5
Total # of animals showing fleeing with diving	29	10	9	5	19
Total # of flushes	1	3	2	1	1
Total # of animals showing flushes	10	15	2	5	4
Total # of animals disturbed	107	100	57	62	116
Total # of disturbances of all types	24	42	40	21	36

Table 4: Disturbances of Sea Lions (*Zalophus californianus*) for Cannery Row in Monterey, CA

Sea Lions	2002	2003	2004	2005	2006
Total # of head raises	0	2	2	7	7
Total # of animals showing head raises	0	3	6	46	54
Total # of flees w/o diving	0	0	1	1	1
Total # of animals fleeing w/o diving	0	0	1	5	6
Total # of flees with diving	1	1	2	2	7
Total # of animals fleeing with diving	5	2	10	13	63
Total # of flushes	7	3	4	3	1
Total # of animals showing flushes	175	29	19	21	4
Total # of animals disturbed	180	34	36	85	127
Total # of disturbances of all types	8	6	9	13	16

Table 5: Disturbances of Harbor Seals (*Phoca vitulina*) for Cannery Row in Monterey, CA

<b>Harbor Seals</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Total # of head raises	1	15	16	5	11
Total # of animals showing head raises	1	24	36	18	27
Total # of flees w/o diving	0	0	0	1	0
Total # of animals fleeing w/o diving	0	0	0	2	0
Total # of flees with diving	0	0	0	0	0
Total # of animals fleeing with diving	0	0	0	0	0
Total # of flushes	0	1	0	2	2
Total # of animals showing flushes	0	1	0	3	7
Total # of animals disturbed	1	25	36	23	34
Total # of disturbances of all types	1	16	16	8	13

Table 6: Disturbances of Sea Otters (*Enhydra lutris*) for Elkhorn Slough in Moss Landing, CA

<b>Sea Otters</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Total # of head raises	1	0	1	7	3
Total # of animals showing head raises	2	0	1	20	11
Total # of flees w/o diving	0	3	0	7	4
Total # of animals showing fleeing w/o diving	0	3	0	20	19
Total # of flees with diving	7	3	3	7	8
Total # of animals showing fleeing with diving	11	3	3	16	15
Total # of flushes	0	0	0	3	0
Total # of animals showing flushes	0	0	0	12	0
Total # of animals disturbed	13	6	4	68	45
Total # of disturbances	8	6	4	24	15

Table 7: Disturbances of California Sea Lions (*Zalophus californianus*) for Elkhorn Slough in Moss Landing, CA

Sea Lions	2002	2003	2004	2005	2006
Total # of head raises	0	3	0	0	0
Total # of animals showing head raises	0	13	0	0	0
Total # of flees w/o diving	0	0	0	0	0
Total # of animals showing fleeing w/o diving	0	0	0	0	0
Total # of flees with diving	0	0	0	0	0
Total # of animals showing fleeing with diving	0	0	0	0	0
Total # of flushes	0	2	0	0	0
Total # of animals showing flushes	0	12	0	0	0
Total # of animals disturbed	0	15	0	0	0

Table 8: Disturbances of Harbor Seals (*Phoca vitulina*) for Elkhorn Slough in Moss Landing, CA

Harbor Seals	2002	2003	2004	2005	2006
Total # of head raises	11	29	16	15	19
Total # of animals showing head raises	112	157	158	221	132
Total # of flees w/o diving	1	0	2	1	1
Total # of animals showing fleeing w/o diving	1	0	4	5	2
Total # of flees with diving	1	0	1	1	2
Total # of animals showing flees with diving	1	0	1	40	8
Total # of flushes	4	8	8	5	10
Total # of animals showing flushes	66	59	234	217	147
Total # of animals disturbed	180	216	397	483	289
Total # of disturbances	17	37	27	22	32