







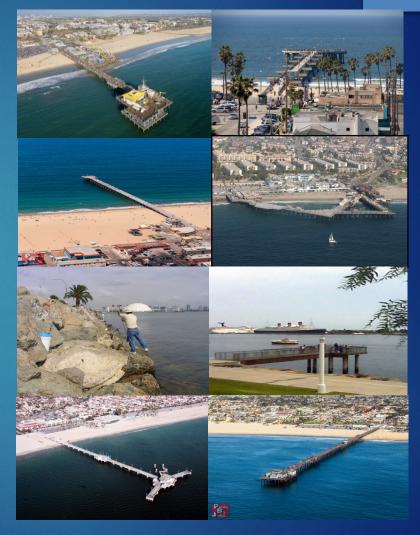
- ► The program's primary aim continues to be the education of pier and shoreline anglers on the risks of consuming DDT and PCBs contaminated white croaker.
- Secondary goals are to educate anglers on other locally caught fish with regards to catch limits and consumption guidelines concerning DDT, PCBs, and mercury.



Program Overview

- Outreach on 8 piers: Santa Monica, Venice, Hermosa, Redondo, Pier J, Rainbow Harbor, Belmont & Seal Beach
- Educational Outreach
- Angler Outreach
 Program visited piers
 3x/week
- March 19 Sept. 30, 2015





Heal the Bay

Angler Outreach Team

- Benmin Sun Chinese
- Yiwei Shen Chinese
- Yelena Yermakova- Russian
- Vanessa Alcantar Spanish
- Sandy Shimooka Spanish
- Chantal Castellanos Spanish

Educational Materials





- Focus on fish consumption related issues
- Relevant fishing regulations





Pier Survey



Educational Outreach Tally Sheet

EA USE: Form #_____ Last Modified Oct 6, 2015

Date:

Location:

24 Adult Child New Repeat No Yes

Outreach worker:

Use a new form each day at each pier.

		Use a ne	w form each day at ea	ch pier.		
	Is the person an adult or a child?	Is the person receiving outreach for the 1" time ever, or is s/he a repeat?	Was person aware of fish contamination advisories before this?	Language spoken during outreach	Zip Code and/or NOTES	
1	□ Adult □ Child	☐ New ☐ Repeat	□ No			
2	□ Adult □ Child	☐ New ☐ Repeat	□ No			
S.	Adult Child	☐ New ☐ Repeat	□ No			100
4	□ Adult □ Child	☐ New ☐ Repeat	□ No		the second	
5	☐ Adult ☐ Child	☐ New ☐ Repeat	□ No III	a gule sinines	Arrest fact of	and all bearing
6	☐ Adult ☐ Child	☐ New ☐ Repeat	□ No	To the last of	0	
7	Adult Child	☐ New ☐ Repeat	□ No			
8	☐ Adult ☐ Child	☐ New ☐ Repeat	□ No No	Colton		/
9	☐Adult ☐Child	☐ New ☐ Repeat	□ No	2 900		
10	Adult Ochild	□ New □ Repeat	□ No	A.		
11	Adult Child	□ New □ Repeat	□ No		SALES AND	
12	□Adult □Child	□ New □ Repeat	□ No			
13	Adult Ochild	□ New □ Repeat	□ No			The second
14	□Adult □Child	☐ New ☐ Repeat	□ No			
15	Adult Ochild	□ New □ Repeat	□ No			
16	□ Adult □ Child	☐ New ☐ Repeat	□ No	-		11
17	□ Adult □ Child	☐ New ☐ Repeat	□ No		The second second	A Top .
18	Adult Child	□ New □ Repeat	□ No			
19	Adult Child	☐ New ☐ Repeat	□ No	* 5	1 4 1	
20	□Adult □Child	□ New □ Repeat	□ No □ Yes			*
21	Adult Ochild	□ New □ Repeat	□ No □ Yes	3		
22	□Adult □Child	□ New □ Repeat	□ No □ Yes			
23	Adult Ochild	□ New □ Repeat	□ No □ Yes			
_			2.2	£ 23		1



- Surveys include anglers receiving outreach (new/repeat)
- Surveys conducted in the daytime 3 days/week
- 6,833 total anglers

 interviewed across 8
 piers from March October 2015



Database Numbers March 2015 - September 2015

- Represents:
 - ► March September 2015
 - Preliminary Analysis
 - Currently does not include Cabrillo Pier data





Participant Breakdown

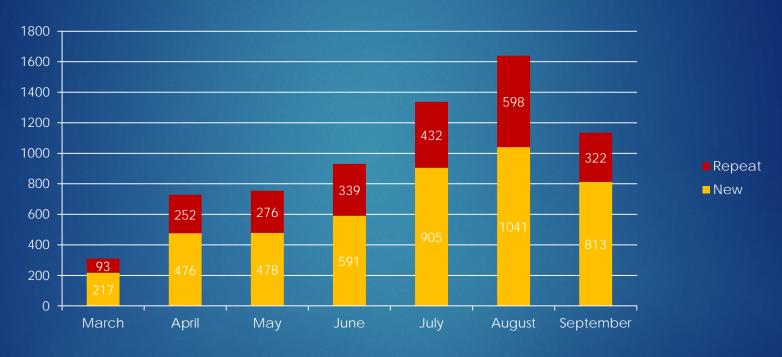
New: 4,521 (66%)

▶ Repeat: 2,312 (34%)

► Total:6,833



Total Anglers surveyed from Santa Monica through Seal Beach

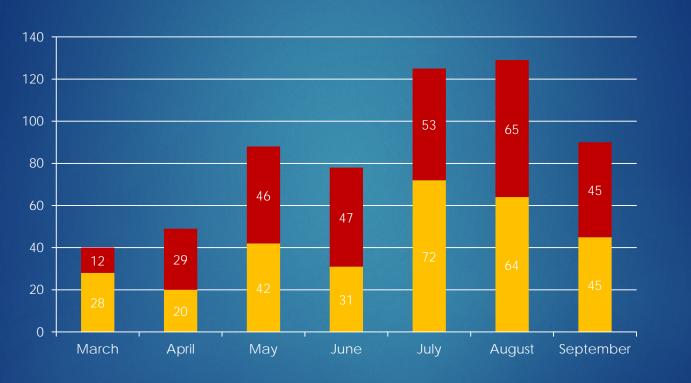


n= 6,833



■Repeat ■New

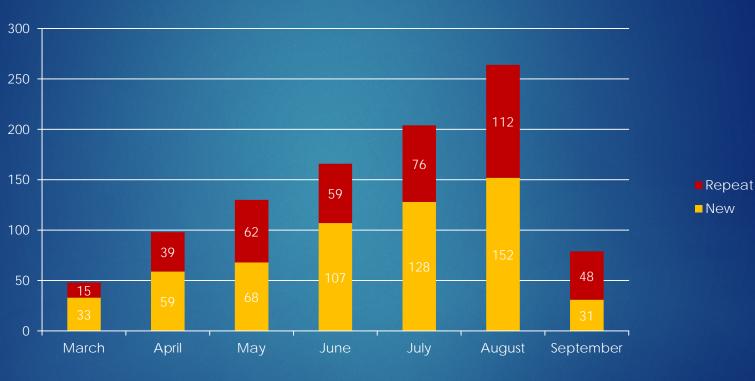
SANTA MONICA PIER



n= 599



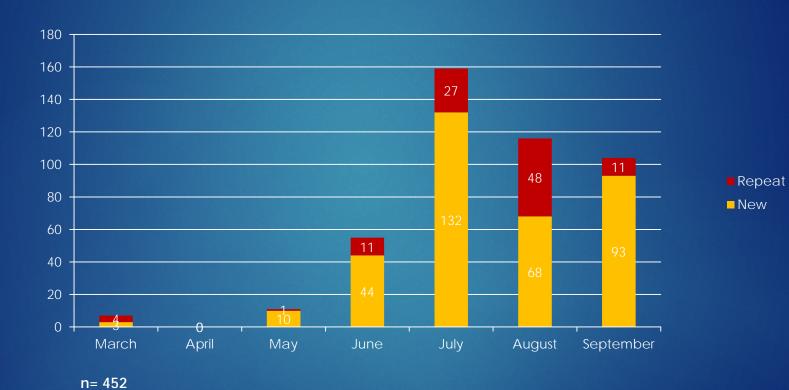
VENICE PIER



n= 989

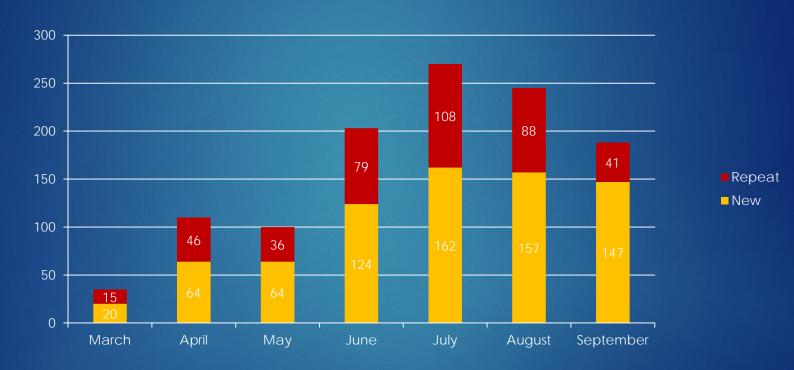


HERMOSA PIER



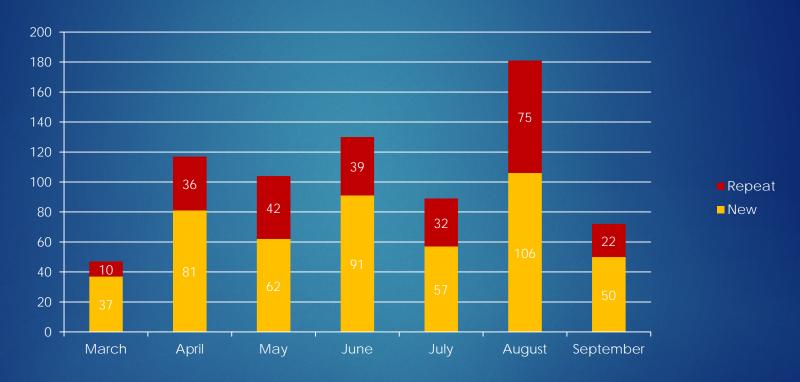


REDONDO BEACH PIER



n= 1,151

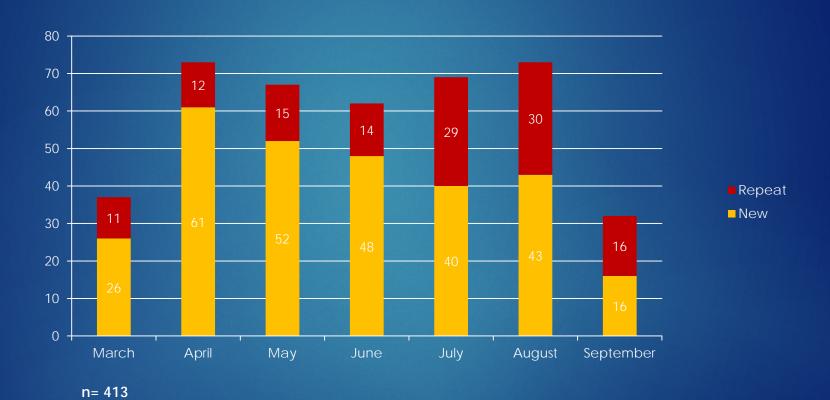
PIER J



n= 740



RAINBOW HARBOR

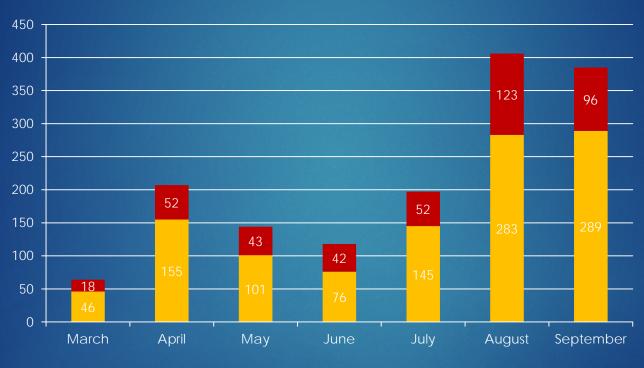




Repeat

New

BELMONT PIER



n= 1,521



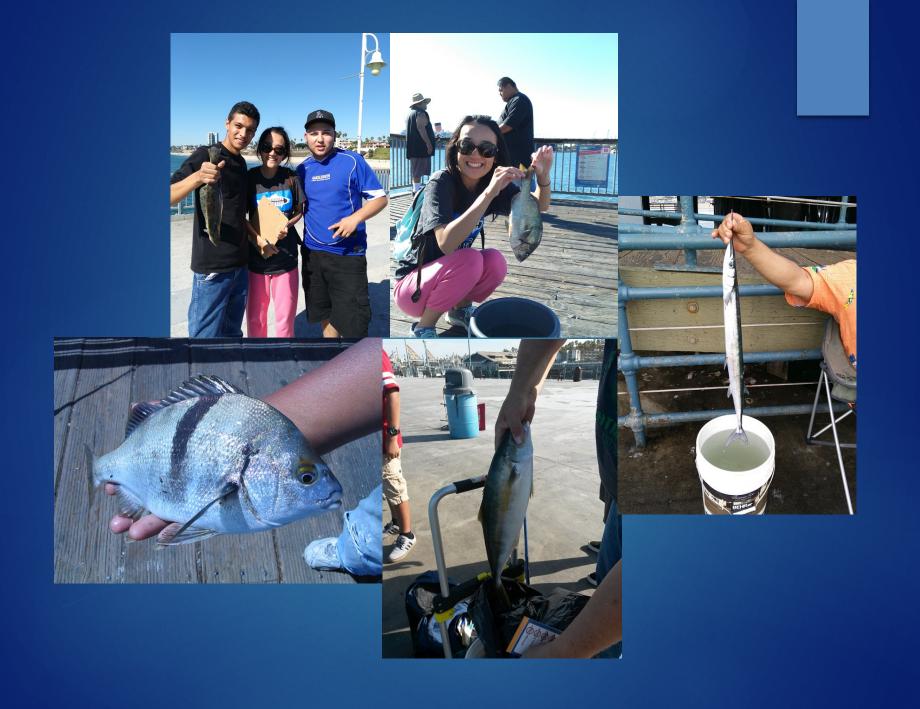
SEAL BEACH PIER





Angler Outreach Workers in Action









FRANKIE ORRALA: forrala@healthebay.org







History/Need

- Shark bite incident Manhattan Beach Pier July 5, 2014
- Santa Monica Bay cities and residents concerned about potential conflicts between:
 - Pier Anglers
 - Swimmers
 - Surfers
 - Ocean wildlife (sharks, sea lions)
- ► Heal the Bay & local municipalities partnered to create Shark Ambassador Program to:
 - Educate pier anglers about how to avoid catching sensitive species like white sharks and how to act responsibly if one is caught
 - Collect survey data on ocean recreation and pier fishing















- Juvenile white sharks seasonal residents Southern CA
 - likely congregate in Santa Monica Bay due abundant prey and warm water.
- Manhattan Beach epicenter for white shark sightings over the past few years.
 - frequently spotted by boaters, pier-goers, surfers and paddlers--especially between the surf spot El Porto and the Hermosa Beach Pier.
- 13 fatal white shark attacks in CA over 100 years.
- L.A.County lifeguards have safety protocol of warning ocean-goers to exit the water when there has been a verifiable shark sighting.
- Lifeguards also discretion to close beaches temporarily to ocean-goers if public safety risk.
- Closing piers to fishing is not consistent with CA's laws.
- CA Department of Fish and Wildlife's regulations state that "white sharks (Carcharodon carcharias) may not be taken or possessed at any time."

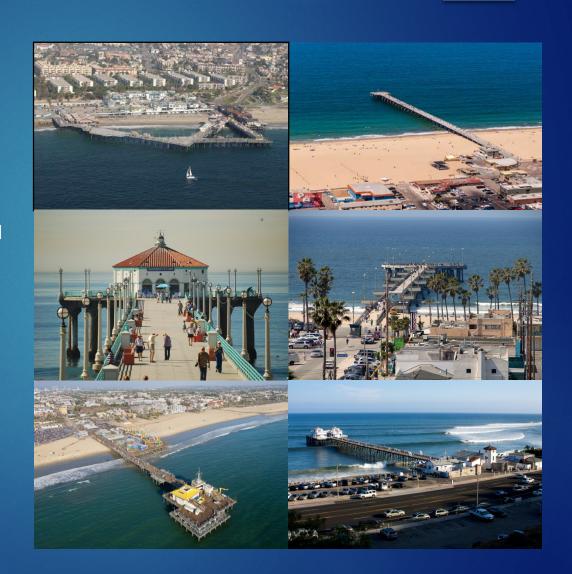




Program Overview



- Outreach on 6 piers: Redondo, Hermosa, Manhattan, Venice, Santa Monica & Malibu
- Educational Outreach& Pier Use Surveys
- Shark ambassadors visited piers 3x/week
- Aug. 30 Nov. 30, 2014



Education Materials





- Local shark identification tools
- Relevant fishing regulations

Pier Fishing Regulations in Santa Monica Bay



No Overhead Casting



No littering on the Pier or in the water



No Chumming (Applies only to Manhattan Beach Pie



No fish cleaning or gutting of marine life on the Pier (Applies only to Manhattan Beach P



Only one fishing line
(Applies only to Manhattan Beach Pies

If a white shark is accidentally hooked, release the sha as soon as it is safe to do so, by cutting the line.



WHITE SHARKS FACTS:

- They are giant fish that can grow to 20 feet long and 4000 pounds. White sharks seen in Santa Monica Bay are typically juvenily

Juvenile white sharks are seasonal residents of Santa Monica Bay, because of abundant prey and warm water.

- Juveniles measure up to 10 feet but are often smaller in the Bay, and typically feed on fish, small sharks, and rays. Adults have a
wider menu which includes fish, seals, sea lions, dolphins, sea birds, marine turtles, rays, and other sharks.

They keep populations of other fish healthy and ecosystems in balance.

- Population estimates for white sharks in the Northeastern Pacific range from the hundreds to thousands

There have been only 13 fatal white sharks attacks in California since the 1920'.

White sharks became protected in California on January 1, 1994, and it is prohibited to take or possess white sharks, which
includes fishing from piers.

- If you enjoy fishing, it is best to avoid areas where there are lots of swimmers and surfers in the water.

HEAL THE BAY SHARK AMBASSADOR PROGRAM Pier Outreach



www.healthebay.org

SHARK AND RAY FACTS

- Sharks and rays are some of the sea's top predators.
- They evolved about 400 million years ago.
- They possess a cartilaginous skeleton, unlike bony fish.
- They are generally long-lived, are slow to mature, and bear few young.
- An estimated 70-100 million sharks are killed each year by humans worldwide.
- Santa Monica Bay is home to dozens of sharks and rays species.

SANTA MONICA BAY'S MOST COMMON SHARKS AND RAYS



Pier Surveys

Location:



Shark Ambassador Program

Total # of anglers ______
Total # swimmers present _____
Total # surfers present _____
Last Modified Aug 28, 2014

Date: Start Time: End Time:

□Sport

■Sport

☐ Sport

□Sport

□Sport

□Sport

□Sport

Notes:

Subsistence Child present

Subsistence
Child present_

☐ Subsistence

Subsistence Child present

Subsistence Child present

Subsistence
Child present_

Subsistence
Child present

Child present

Outreach worker:

	Type of angler	Target species	Species caught	Fishing location	Type of Gear	Ethnicity/ Language	Zip Code
1	Sport Subsistence Child present			□End of pier □Side of pier	Rods and Reels Hook Size Line Test Other		
2	Sport Subsistence Child present			☐End of pier☐Side of pier	Rods and Reels Hook Size Line Test Other		
3	Sport Subsistence Child present			☐End of pier☐Side of pier	Rods and Reels Hook Size Line Test		

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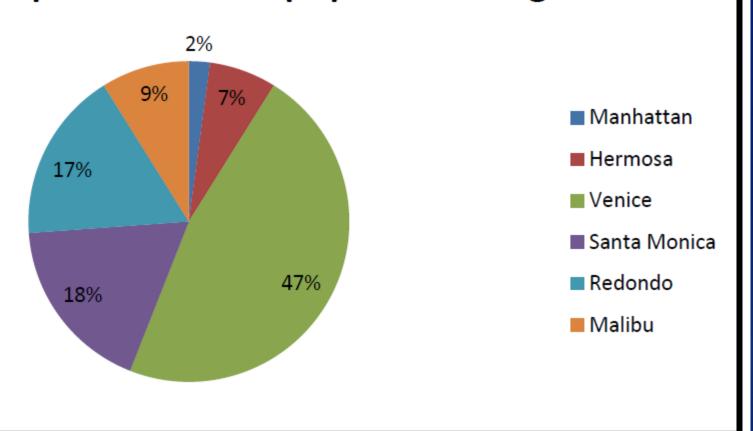




- Survey recreational use along piers, including angler demographics & behavior
- Surveys conducted in the daytime 3 days/week
- 736 total anglers interviewed across 6 piers



What piers are most popular for anglers?



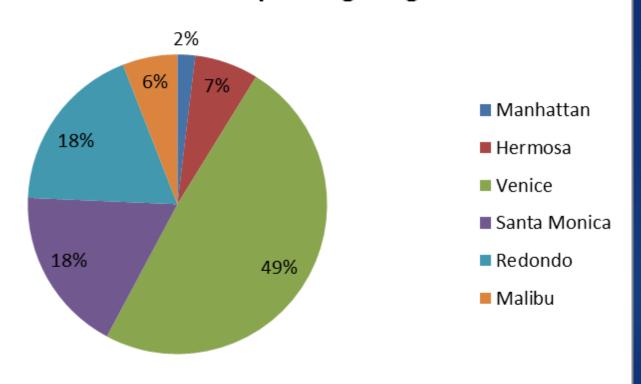


Location	FROM 8-30/11-30	SUBSISTENCE ANGLERS	%	SPORT ANGLERS	%
Manhattan	38	30	77	8	23
Hermosa	101	90	88	11	12
Venice	281	256	91	25	9
Santa Monica	160	140	87	20	13
Redondo	103	96	92	7	8
Malibu	53	31	56	22	44
TOTAL	736	643	86	93	14

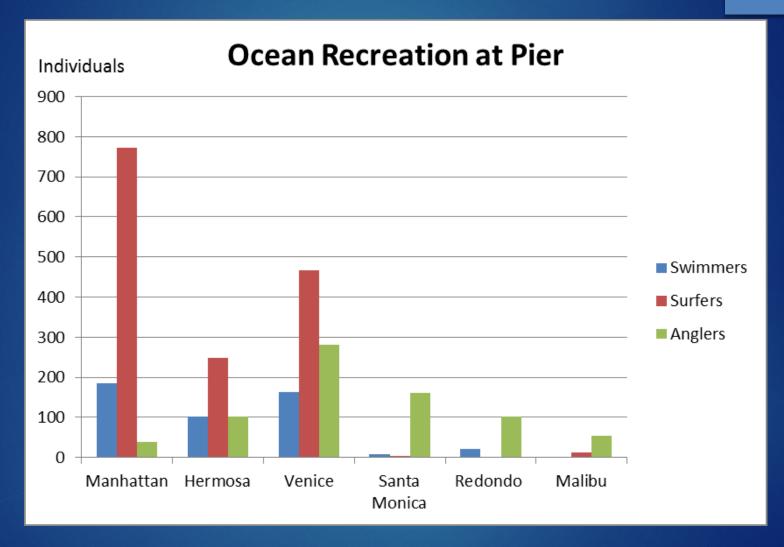
Many anglers who fish on municipal piers do it for subsistence--to put food on the table- and piers are one of the only places in the state where individuals do not need a fishing license, which reduces expenses and provides public access to fishing for everyone.



Where do subsistence pier anglers go to fish?

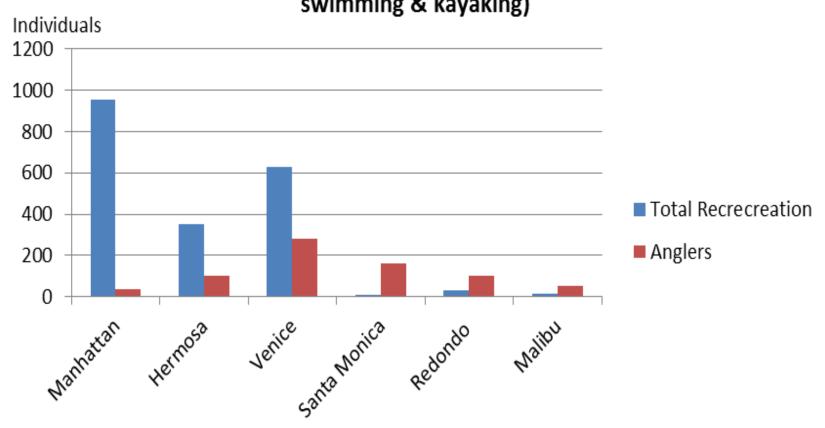






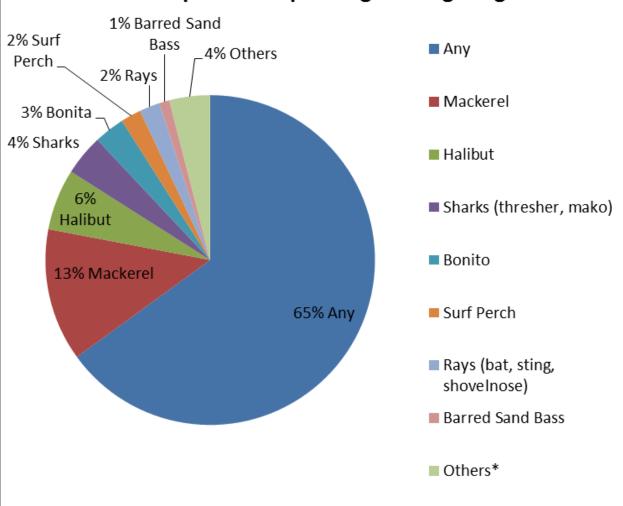


Ocean Recreation vs. Anglers (total recreation = surfing, swimming & kayaking)

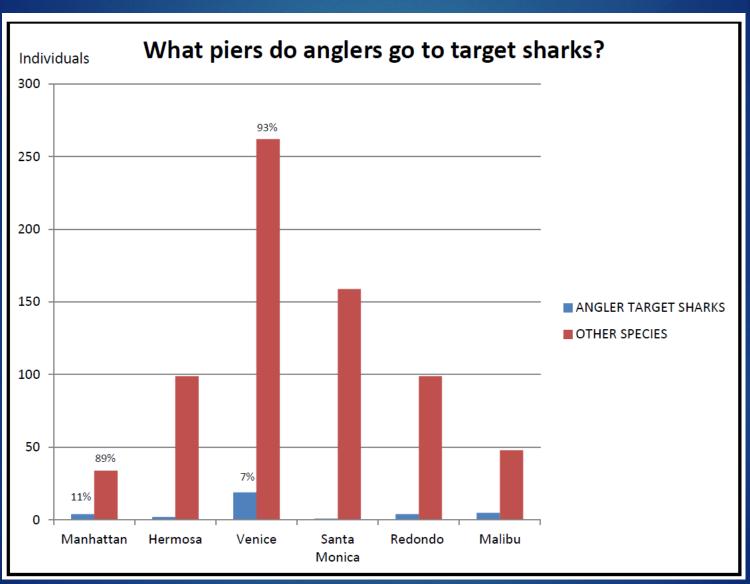






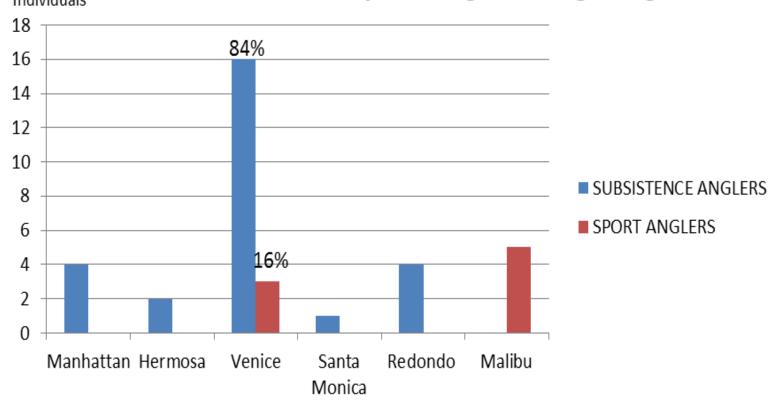






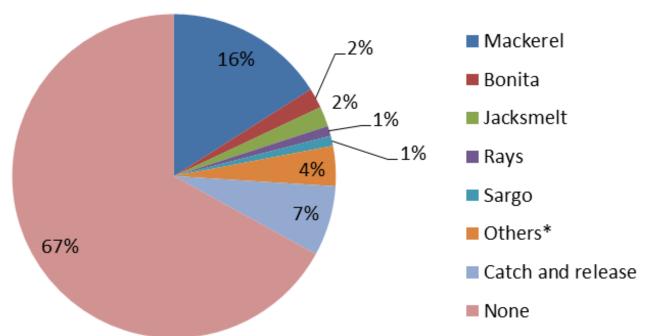


Individuals Are subsistence or sport anglers targeting sharks?





Species Caught by Anglers at All Piers



Others: Perch, lizard fish, sardine, halibut, sharks, corbina, barred sand bass, topsmelt, opaleye, wrasse, kelp bass and barracuda. They represent less than 1% each.



Ethnicities at Santa Monica Bay Piers

Location	ETHNICITY			Total		
	LATINO	WHITE	ASIAN	BLACK	OTHER	by Pier
Manhattan	17	П	8	I	I	38
	45%	29%	21%	2.50%	2.50%	
Hermosa	50	8	38	I	4	101
	49%	8%	38%	1%	4%	
Venice	125	22	47	32	40	266
	47%	8%	18%	12%	15%	
Santa Monica	57	36	16	13	37	159
	36%	23%	10%	8%	23%	
Redondo	40	10	51	3	0	104
	38%	10%	49%	3%	0	
Malibu	17	П	14	I	12	55
	31%	20%	25%	2%	22%	
TOTAL	306	98	174	51	94	723
	42%	14%	24%	7%	13%	

Other : Russian, Hawaiian, Indian, Egyptian, Lithuanian, Armenian, Ethiopian, Dutch, Bulgarian, Jewish



Languages used during pier outreach

	Language used during outreach				
Location	English	Spanish	Others		
Manhattan	33	I	0		
Hermosa	82	13	2		
Venice	191	21	17		
Santa Monica	86	21	19		
Redondo	99	I	3		
Malibu	43	2	0		
TOTAL	534	59	41		
	84%	9%	7%		

Others: Russian, Chinese

Additional Findings

- Anglers come from all over greater Los Angeles area: City of Los Angeles, Manhattan Beach, San Fernando Valley, Mission Hills, Venice, Hermosa, South Gate, and Pasadena
- ▶ Gear type usually lightweight hook & line: rods & reels used with line test under 30 lbs. Also common to see 10 and 15 lbs test. The hook size typically small (2 to 5).
- Aside from Manhattan Beach, anglers use both end of pier and side of pier to fish



Next Steps



- Stakeholder approach needed. Pier Stakeholders Summit held May 7, 2015.
- Develop recommended pier management strategy to prevent conflicts among pier users, swimmers/surfers, and sensitive wildlife.
- Any potential management measures will be best derived from stakeholder discussions, and involve education.
- ► Long-term solutions to reduce conflict among sensitive species and users at piers along the Santa Monica Bay.

