



FCEC Partners Meeting

Palos Verdes Shelf Superfund Site

December 12, 2024

11:00 AM – 1:00 PM

Hybrid Meeting



Agenda

- Welcome and introductions
- EPA and Program updates
- Angler Outreach updates / Q&A
- Enforcement Outreach updates / Q&A
- Community Outreach updates / Q&A
- Program proposals and FCEC action items
- Open forum



Introductions

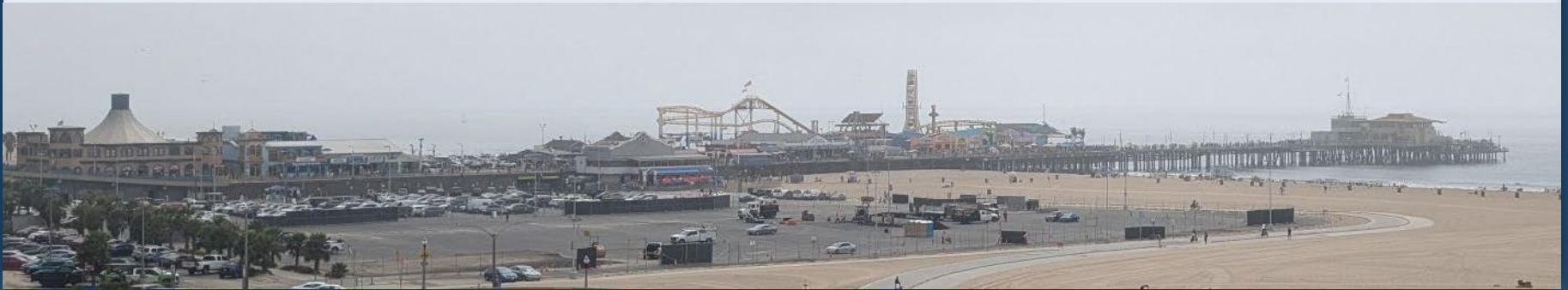
- Self-introductions





EPA Updates

- Welcome Evana and Chris (new EA Project Managers)!
- EPA awarded a new grant to Los Angeles County Department of Public Health (LACDPH) to fund outreach to local health professionals and pier sign installations
- EPA completed the Third Five-Year Review for PV Shelf
- EPA Community Involvement Plan is in progress!





DDT Advisory For You and Your Seafood

Caught a fish off the coast of Southern California? Fill in the required fields below to understand the DDT levels in your seafood and receive serving size recommendations based on DDT, Mercury, and PCB advisories.

Disclaimer: This research project was designed for educational purposes. The information provided here does not come from any public agency and we are not making health recommendations.

Step 1: Click the location on the map where your fish was caught within the study area (outlined in blue)

Step 2: Please select your catch species in the dropdown below the map

Click through map layers to gather more information



Privacy Statement: No data shared with us will be given to third parties or stored in any way. Your data will never be used by us for any purpose other than DDT concentration predictions.

Select Species:

Fantail Sole

Need help identifying your catch? Check out this [resource!](#)

Predict!

Image of Species



DDT Prediction Results *

The recommended number of servings per week for Fantail Sole at this location is 7.
The range of predicted DDT concentration is between 12.98 to 132.62 ng of per gram of fish.

Mercury/PCB Health Advisory **

No other advisories found for your species at your location.

Number of Servings Per Week



Unsafe

Safe



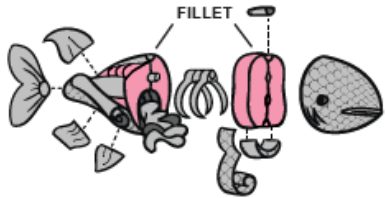
Program Updates

! Do not eat ANY parts of the five contaminated fish listed on this card

REDUCE YOUR RISK

Certain parts of the fish are more likely to contain harmful chemicals

- ✓ Eat only the skinless fillet
- ✓ Bake, steam, fry, or grill fish



EAT	DO NOT EAT
FILLET (MUSCLE)	HEAD SKIN FAT ORGANS



EATING CONTAMINATED FISH MAY HARM YOUR HEALTH!

Some fish caught from the Palos Verdes Shelf are contaminated with:

• PCBs

(polychlorinated biphenyls)

• DDT

(dichlorodiphenyltrichloroethane)



People that are exposed to PCBs and DDT may have a higher risk of developing serious health problems, including cancer.



Eating contaminated fish does not make people sick right away. PCBs and DDT can build up in your body over time and cause health problems later in life.



PCBs and DDT can be especially harmful to children and developing babies even before they are born (during pregnancy).

DO NOT EAT **!**



White Croaker
(Tomcod, Kingfish)



Barred Sand Bass



Black Croaker



Topsmelt



Barracuda

These fish are contaminated with chemicals that may cause serious health problems, including cancer. Learn more at www.pvsfish.org





Program Updates



✓ FISH THAT ARE SAFER TO EAT ✓

ALWAYS CHECK SIZE AND CATCH LIMITS

- Jacksmelt
- Sargo
- Pacific Mackerel
- Pacific Sardine
- Yellowfin Croaker
- California Corbina
- Surfperch
- California Halibut
- Kelp (Calico) Bass
- Shovelnose Guitarfish
- Pacific Bonito

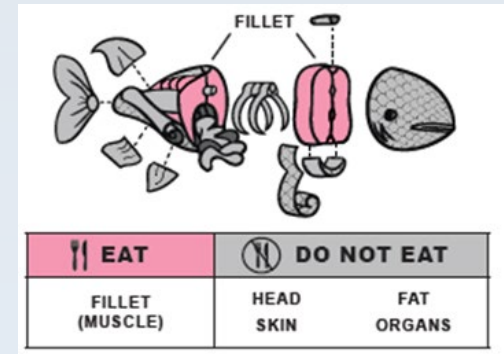
While these fish are safer to eat, it is important not to exceed weekly serving suggestions. For current serving suggestions visit pvsfish.org/fishing/what-fish-are-safe-eat



Program Updates

Angler feedback so far:

- Anglers appreciate the new information about DDT and PCBs
- Anglers like the new design and fish diagram
- Yellowfin croaker are commonly caught, and anglers appreciate them listed on the tip card
- Multiple tip cards were requested by anglers to share with friends & family





DO NOT EAT!

不要吃 iNO CONSUMA! KHÔNG ĂN

These fish are contaminated with chemicals known to cause serious health problems

FISH ADVISORY

SANTA MONICA PIER TO SEAL BEACH PIER



White Croaker

(Tomcod, Kingfish) *Corvina blanca*,
白姑魚, Cá Đù Trắng



Topsmelt

Pejerrey pescadillo, 擬銀漢魚, Cá Suốt



Barracuda

梭子魚, Cá Nhông



Barred Sand Bass

Cabrilla de arena, 墨墨副鱸, Cá Vược Cát cám



Black Croaker

Corvina negra, 黑姑魚, Cá Đù Đen



Learn more at
pvsfish.org





Program Updates

- We distributed the first semi-annual Newsletter to registered community members in June 2024!





Program Updates

- We distributed the first semi-annual Newsletter to registered community members in June 2024!
- We updated the FCEC Annual Reports
- Scripps request for FCEC data

PALOS VERDES SHELF
Annual Angler Outreach Report
August 2022 – July 2023





Program Updates

- New tablecloths and table runners for community events
- New Fishing Game equipment:
 - 11 new fishing poles
 - Stronger magnets





Program Updates

- New tablecloths and table runners for community events
- New Fishing Game equipment:
 - 11 new fishing poles
 - Stronger magnets
- New outreach staff lanyard
- New stuffed fish planned for 2025



**Fish Contamination
Education Collaborative**

OUTREACH EDUCATOR



pvsfish.org



Angler Outreach

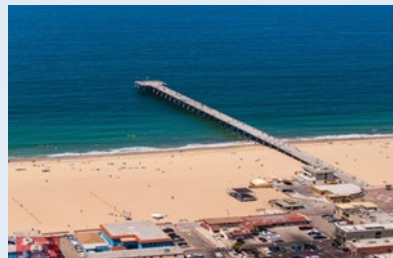




Pier Angler Outreach Summary

- Outreach on 9 piers
- Evening Outreach at Venice and Redondo Piers once per week
- Each pier visited 3 times per week

Change in day angler outreach schedule





Pier Angler Outreach Summary

- Gap in outreach at 8 piers from April 6th – May 31st 2024
8,702 anglers interviewed (9822 contacted)

**4,146 (48%)
new**

5,755 Tip-cards handed out

- 2698 – English
- 1032 – Spanish
- 950 – Chinese
- 1075 – Vietnamese

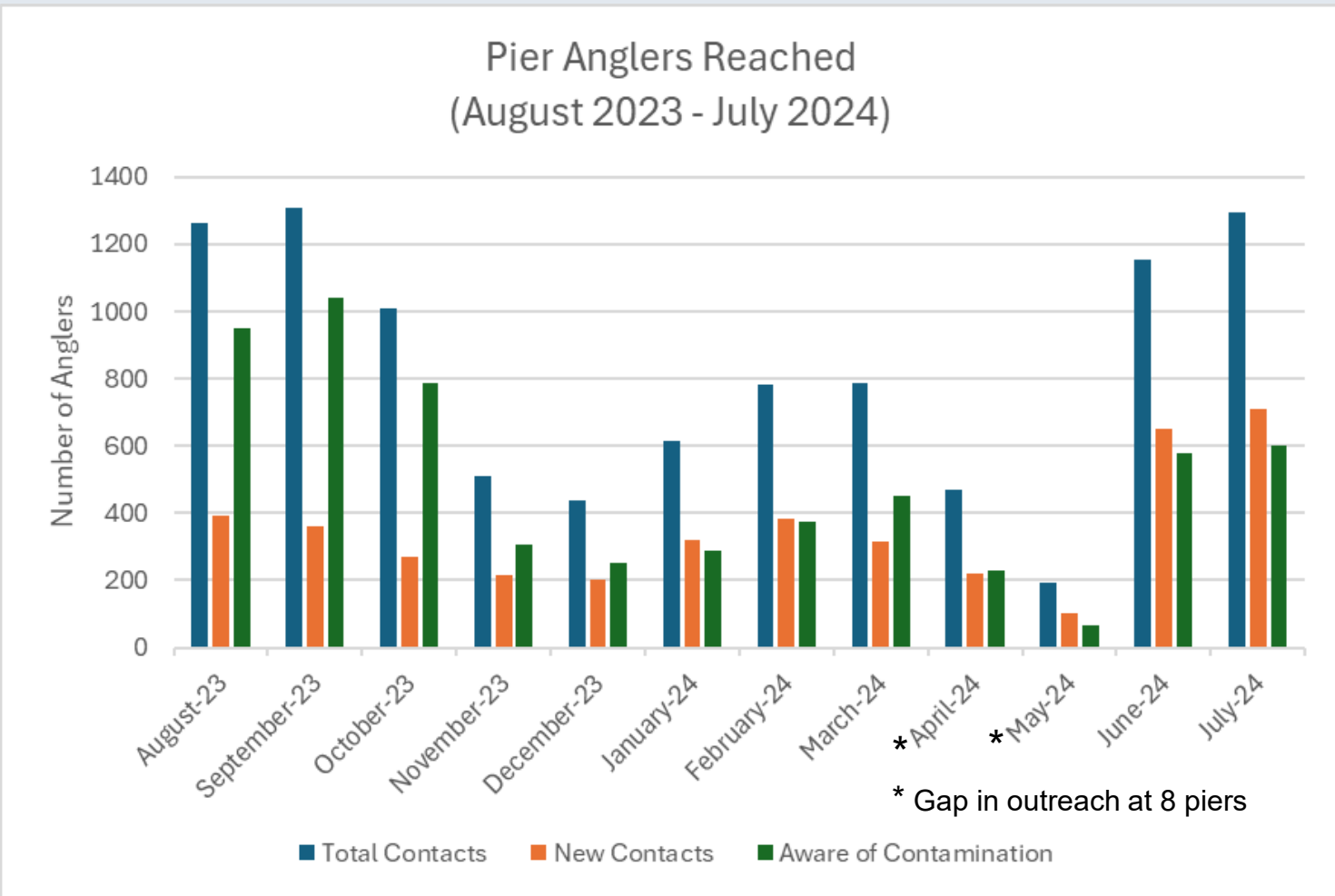
**5,919 (68%) *
aware of contamination**

Awareness sources

- DNC pier signage (48.5%)
- Pier angler outreach (31.3%)
- Tip-cards (15.7%)
- Internet, media, friend/family, and other (4.6%)
- Community events (0%)



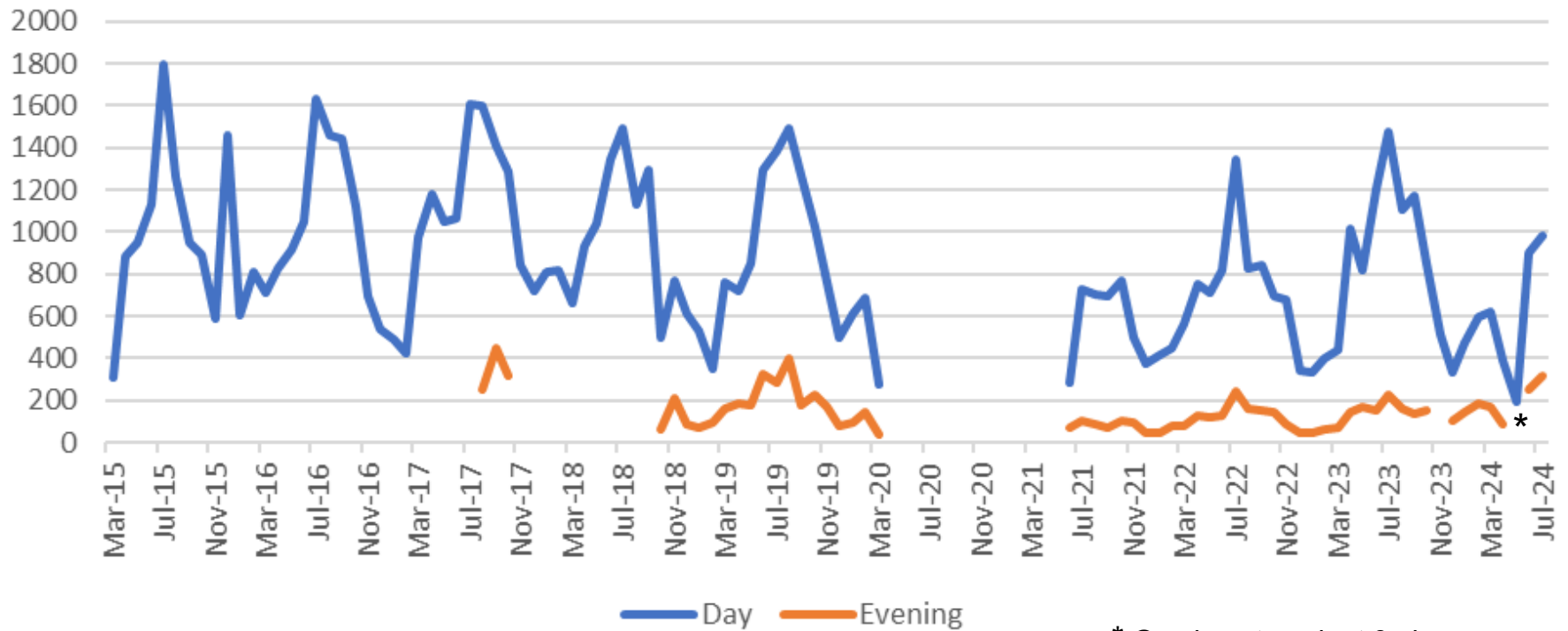
Pier Angler Outreach Summary





Pier Angler Outreach Summary

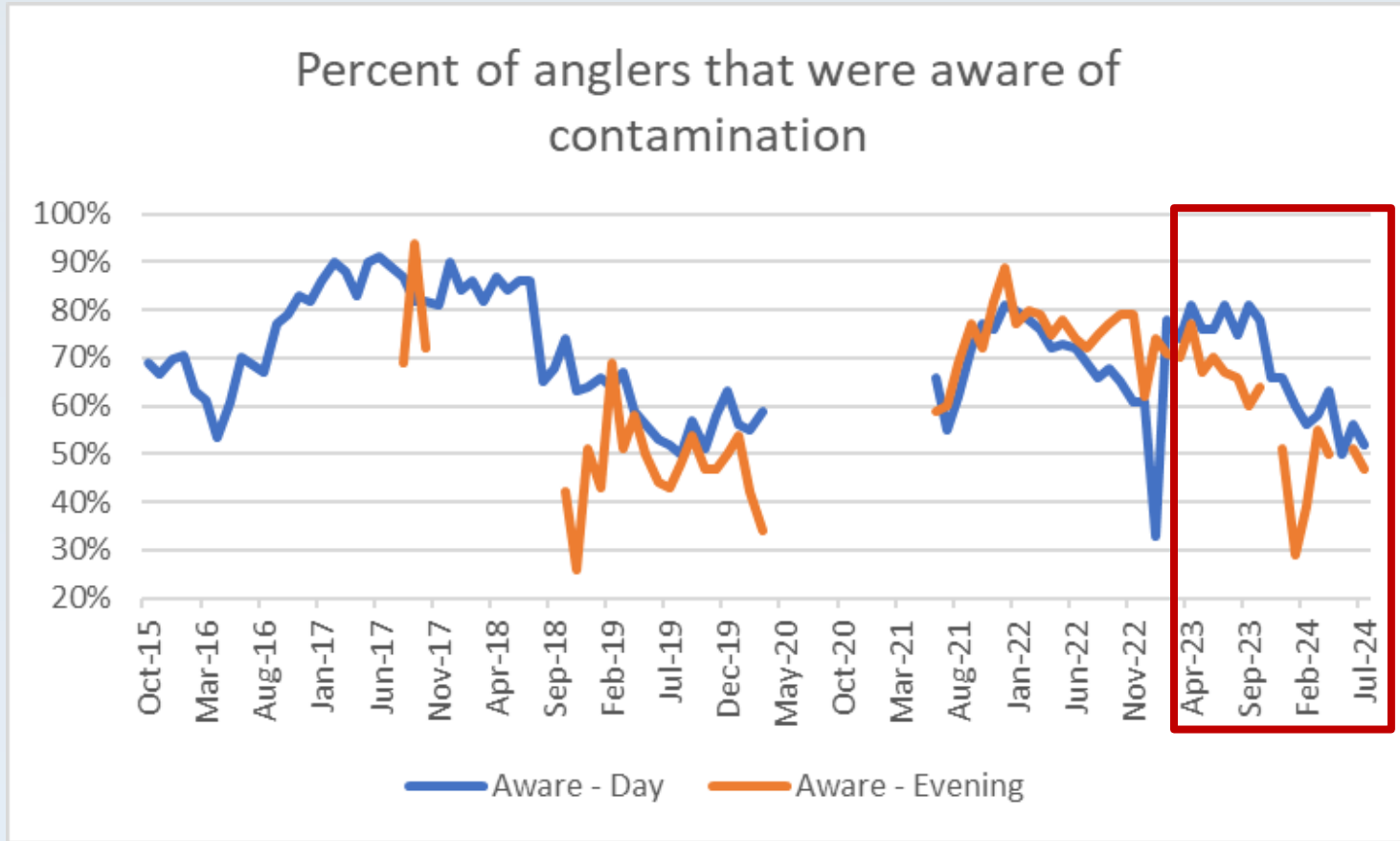
Number of Anglers Contacted per Month



* Gap in outreach at 8 piers



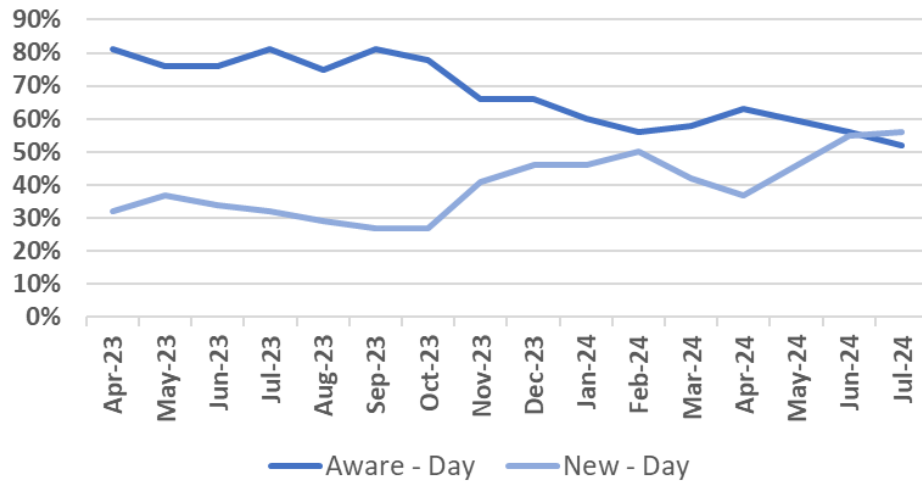
Pier Angler Outreach Summary



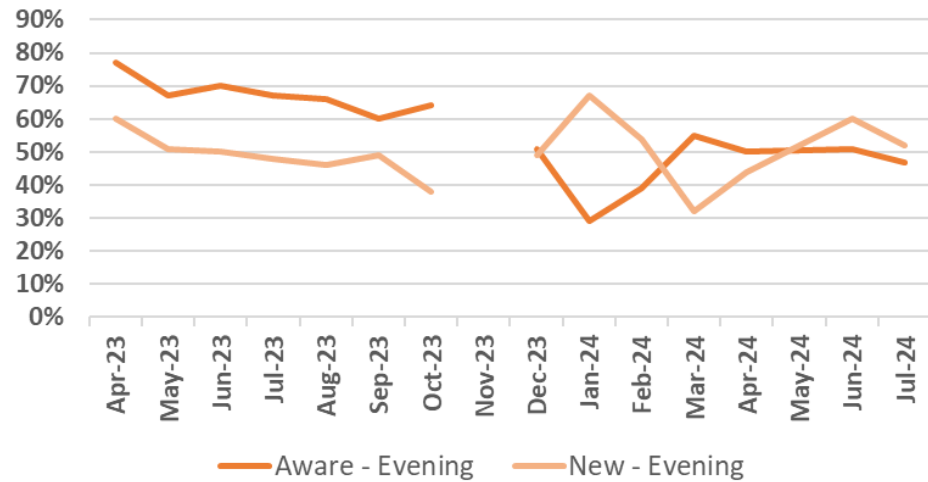


Pier Angler Outreach Summary

Percent awareness vs new contacts
(daytime outreach)

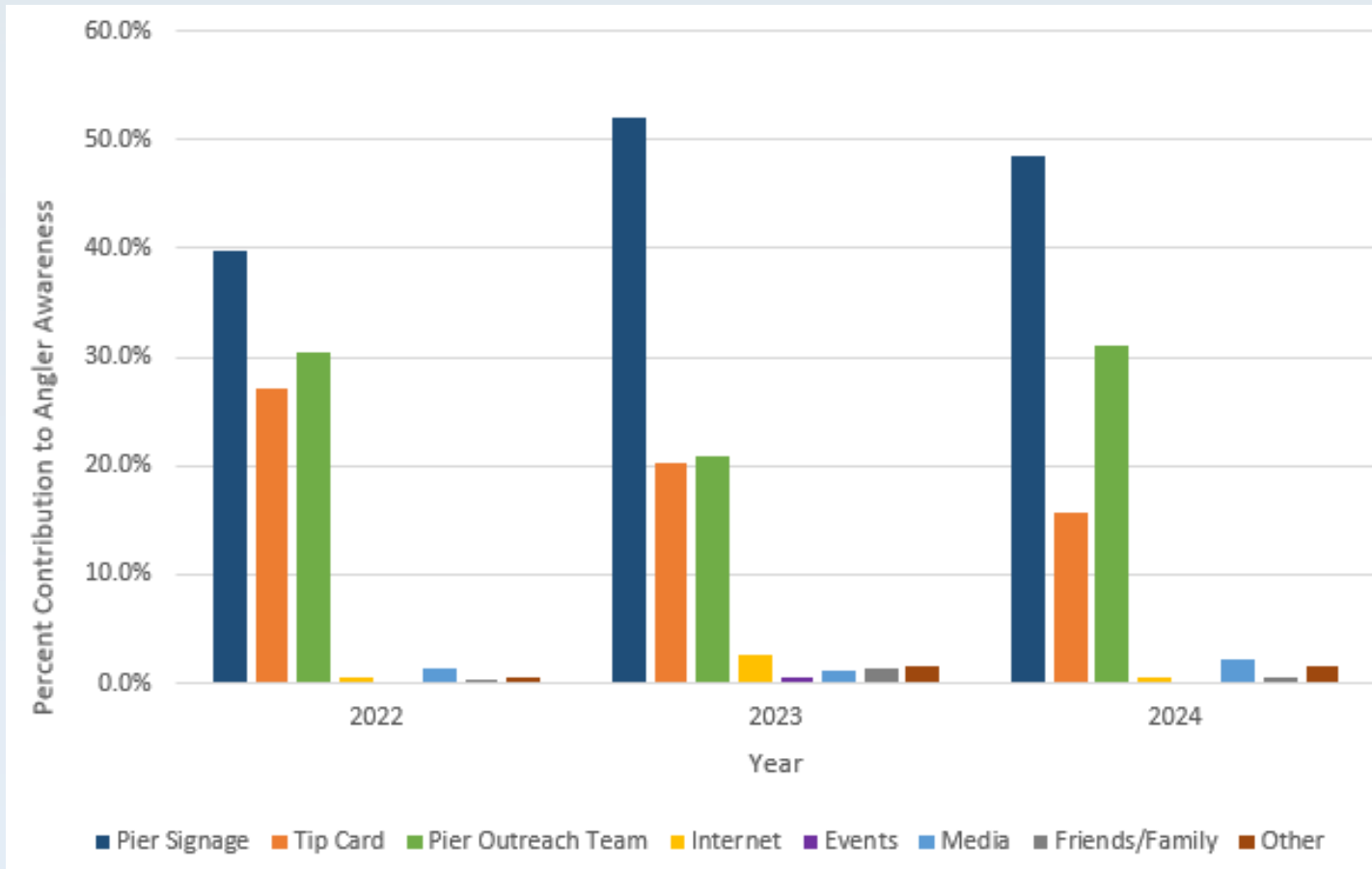


Percent awareness vs new contacts
(evening outreach)





Pier Angler Outreach Summary





Pier Angler Outreach Summary

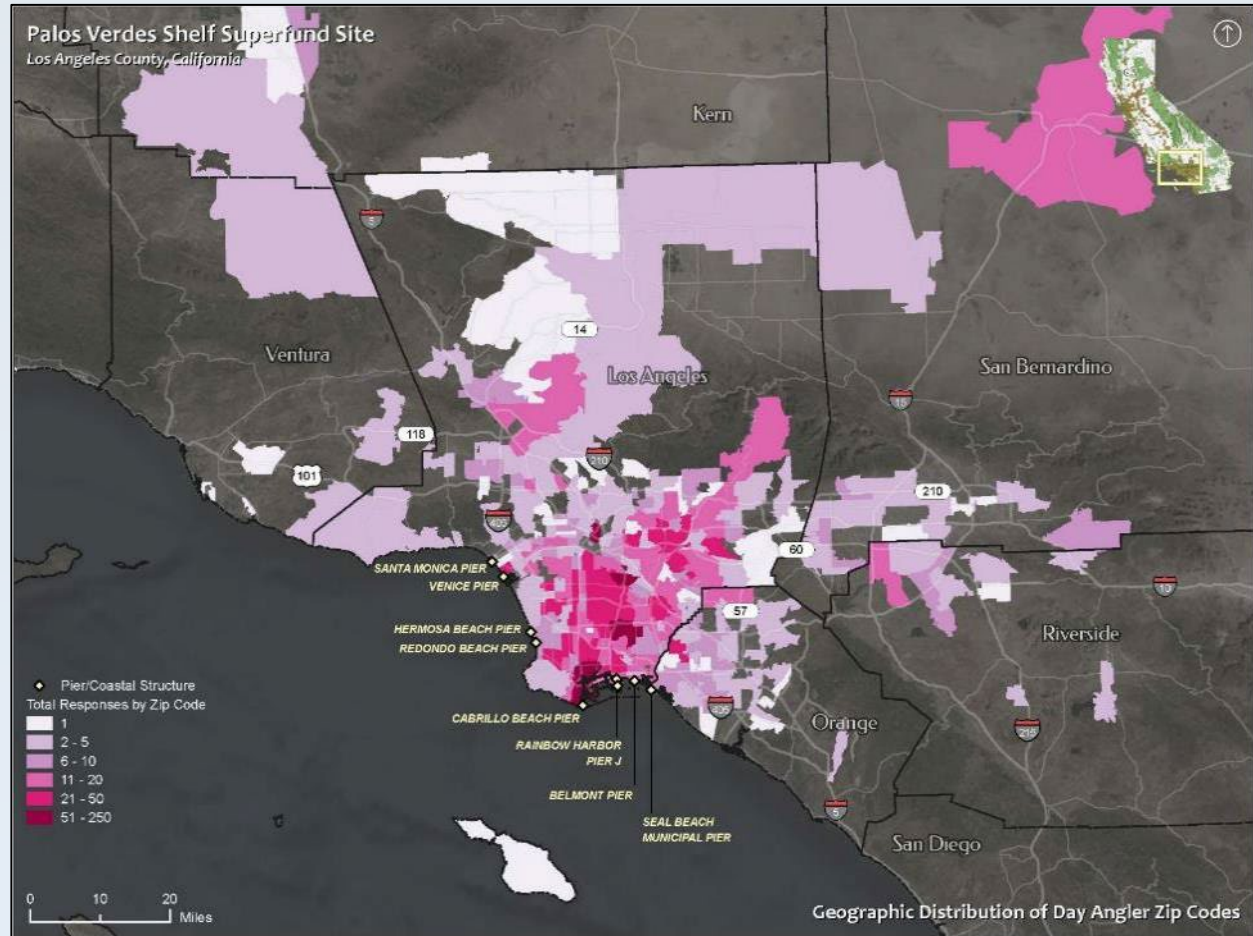
Fish Listed as "Do Not Consume"			
Topsmelt	240	Black Croaker	1
White Croaker	84	Barracuda	2
Barred Sand Bass	25		
Fish Identified as Safer to Eat			
Mackerel	645	Halibut	20
Sardine	154	Shovel Nose Guitarfish	17
Jacksmelt	89	Kelp/Calico Bass	12
Sargo	49	Rockfish	9
Yellowfin Croaker	27	Corbina	5
All Other Documented Fish Species			
Surf Perch	53	Scorpionfish	2
Crab	33	Leopard Shark	2
Herring	26	Thresher Shark	2
Smelt	26	Anchovy	1
Bonito	21	Butterfish	1
Ray	14	Bass	1
Queenfish	8	Black Perch	1
Lizard Fish	7	White Seabass	1
Perch	7	Garibaldi	1
Opaleye	4	Salema	1
Octopus	2	Yellowtail Tuna	1



Angler Zip Code (Daytime)

Analysis Period:
August 2023 –
July 2024

Total recorded
zip codes: 324

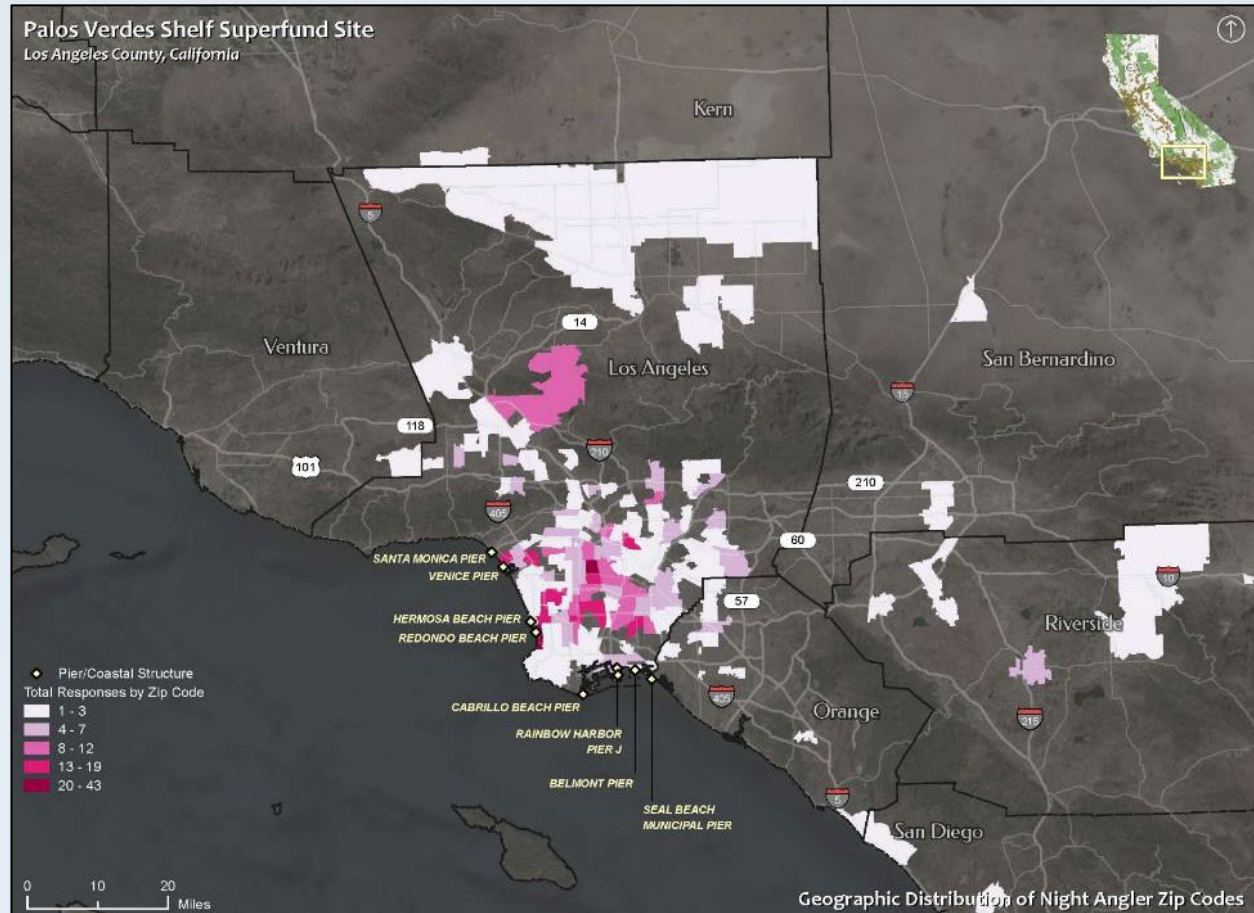




Angler Zip Code (Evening)

Analysis Period:
August 2023 –
July 2024

Total recorded
zip codes: 164





Angler Outreach - Cabrillo (August 2023-July 2024)





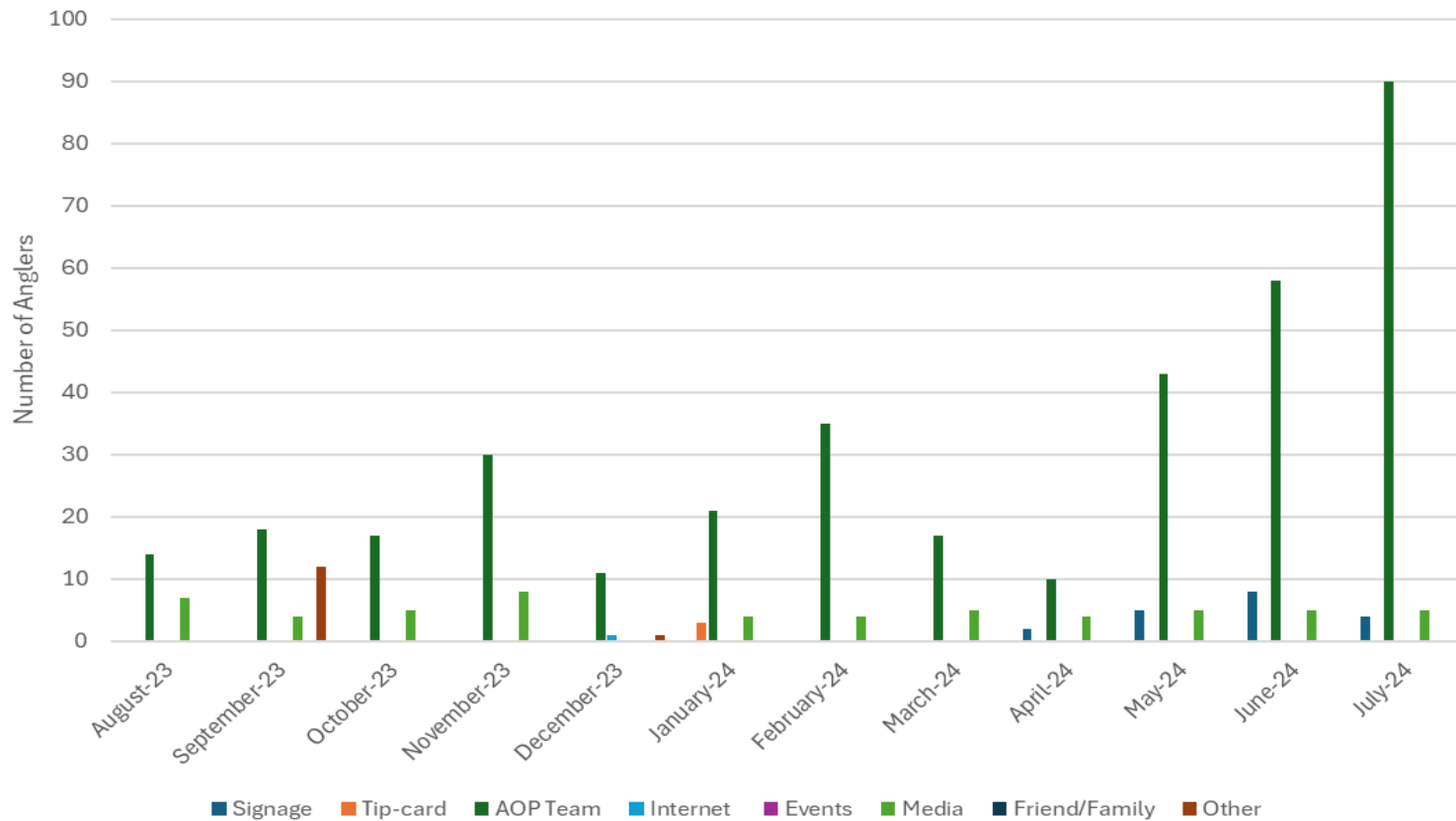
Angler Outreach - Cabrillo

- Pier Angler Outreach – Cabrillo
 - Total anglers contacted: 1,453 people
 - ▶ New: 709 (48.8%)
 - ▶ Aware: 468 (32.2%)
 - Awareness sources
 - Angler outreach (79.8%)
 - Media (12.3%)
 - Tip-cards (0.7%)
 - DNC pier signage (4.2%)
 - Internet (0.2%)
 - Community Events, Friend/Family, and Other (2.9%)



Angler Outreach - Cabrillo

Pier Angler Awareness Sources during Cabrillo Outreach
(August 2023-July 2024)





Angler Outreach - Heal the Bay (August 2023-April 2024)





Angler Outreach – Heal the Bay

August 2023 – April 2024

Angler Outreach Day/Evening Participant Breakdown

Daytime Outreach

- ▶ New: 1,762 (33%)
- ▶ Aware: 3,846 (73%)

- ▶ Total Daytime Anglers Interviewed: 5,291

Evening Outreach

- ▶ New: 553 (49%)
- ▶ Aware: 587 (52%)

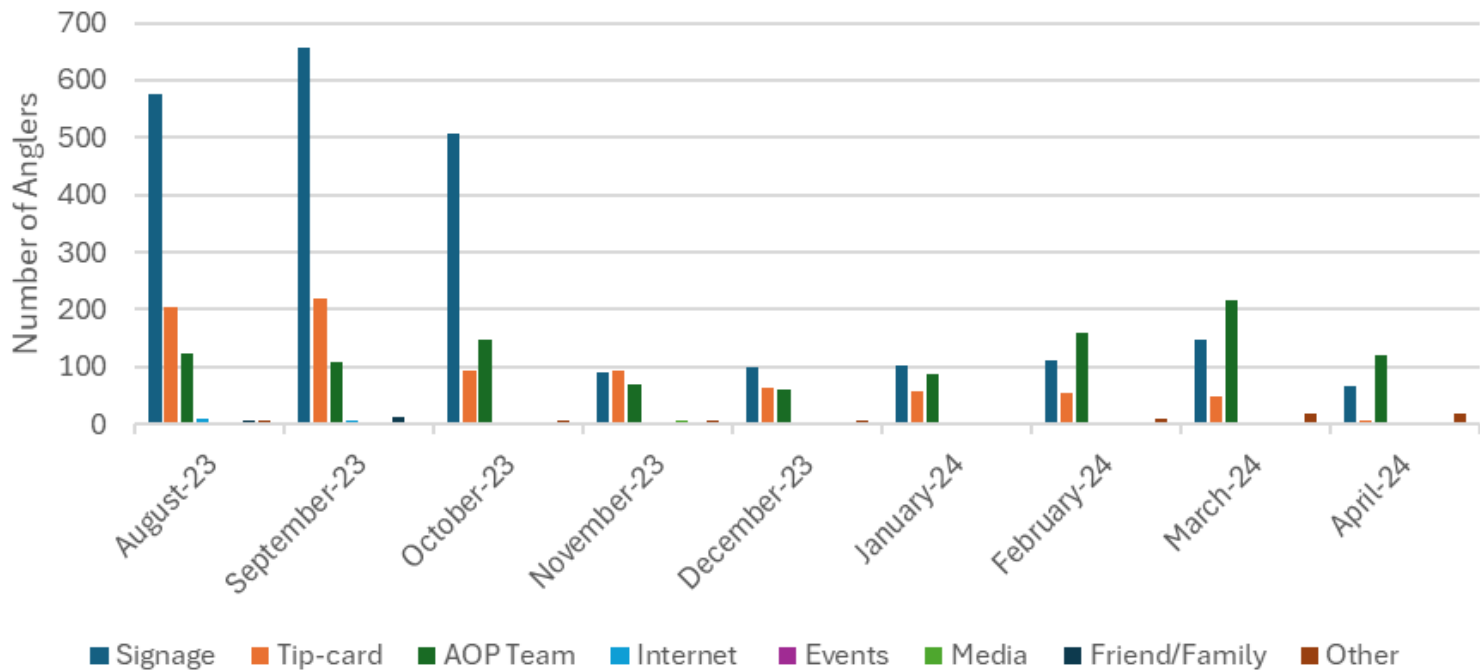
- ▶ Total Evening Anglers Interviewed: 1,135

Total Daytime and Evening Anglers Interviewed: 6,426



Angler Outreach - HTB

Pier Angler Awareness Sources during HTB Outreach
(August 2023-April 2024)





Angler Outreach – DBS&A (May 2024-July 2024)





Angler Outreach – DBS&A

May – July 2024

Angler Outreach Day/Evening Participant Breakdown

Daytime Outreach

- ▶ New: 811 (59%)
- ▶ Aware: 746 (54%)

- ▶ Total Daytime Anglers Interviewed: 1,376

Evening Outreach

- ▶ New: 311 (54%)
- ▶ Aware: 272 (47%)

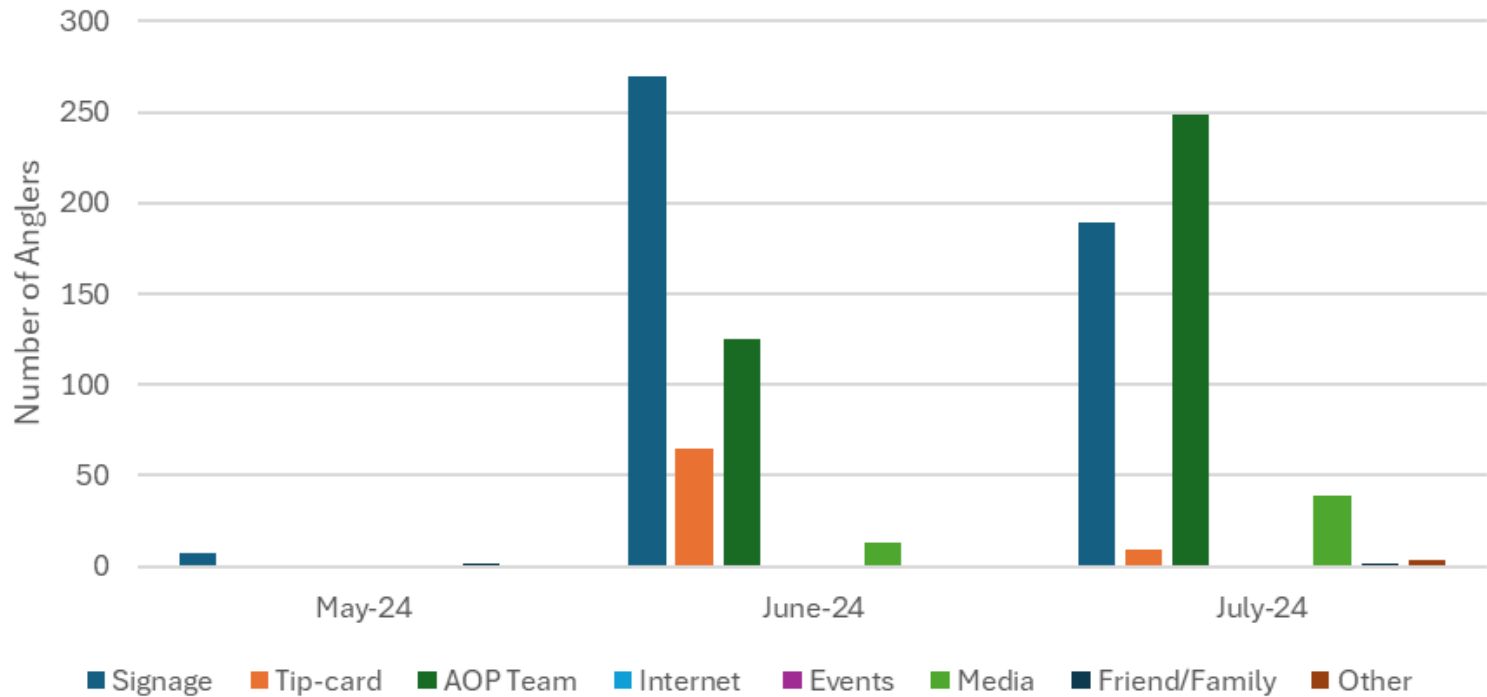
- ▶ Total Evening Anglers Interviewed: 576

Total Daytime and Evening Anglers Interviewed: 1,952



Angler Outreach – DBS&A

Pier Angler Awareness Sources during DBS&A Outreach
(May - July 2024)



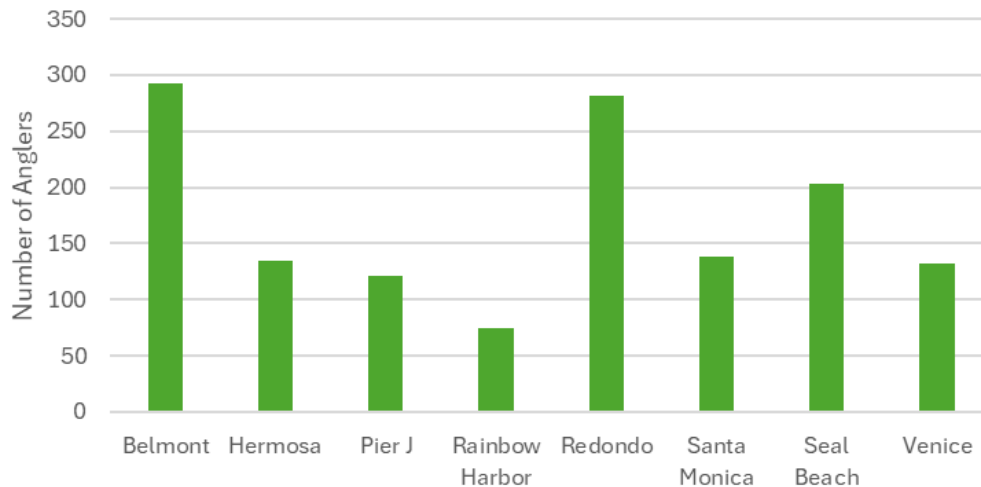


Angler Outreach – DBS&A

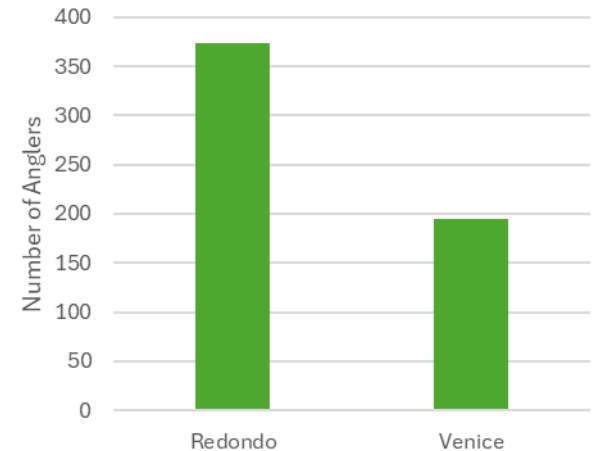
Belmont Pier was the busiest pier during daytime outreach

Redondo Pier was the busiest pier during evening outreach

Contacted Anglers by Pier during DBS&A Outreach (May - July 2024)



Contacted Anglers by Pier during DBS&A Night Outreach (May - July 2024)





Angler Outreach – DBS&A

Observations

- Pier signage and outreach efforts have been crucial in increasing angler awareness of fish contamination issues.
- Reevaluating the shifting angler use and demographics will be an important part of the effectiveness in the Outreach Program.
- Locations where pier angler outreach is performed is appropriate and continued outreach at these piers is recommended.



DNC Pier Sign Monitoring



Protect your health
Proteja su salud

Do Not Eat Contaminated Fish
¡No Coma Pescado Contaminado!

- White Croaker**
Corvineta blanca, Roncador blanco
白肚魚 | Cá Lú Du Tráng
- Barred Sand Bass**
Cabrilla de arena
紅斑崗鰈 | Cá hánh sọc
- Black Croaker**
Corvineta negra, Roncador negro
黑肚魚 | Cá Lú Du Đen
- Topsmelt**
Pejerrey
擬鰭鰈魚 | Cá suối
- Barracuda**
Barracuda
梭子魚 | Cá Nhông

Choose healthy fish; check your local advisory.
Coma pescados saludables; infórmese con su asesor local.

www.pvsfish.org





DNC Pier Sign Inspection

- Angler Outreach Partners perform routine DNC pier sign inspections at the designated pier locations with remaining signage; if no signs remain, the location is not inspected.
- Began using a standardized evaluation and recommendation criteria.
- E-forms recommended to ensure standardized consistency across inspectors.
- As of July 2024, 46 pier sign locations were inspected, with 9 signs missing since the previous period, leaving only 37 DNC signs present:
 - 6 in good condition
 - 6 in decent condition
 - 16 in fair condition
 - 9 in poor condition





Pier Angler Outreach



Questions or Comments?





Enforcement Outreach





Enforcement Outreach

- California Department of Fish and Wildlife Aug 2023 – July 2024
 - 86 Recreational Fishing Patrols
 - 1,712 total contacts
 - 57 White Croakers observed in 6 inspections
 - 0 White Croakers seized, 0 White Croaker violations
 - 29 warnings, 51 citations, and 2 bag limit violations issued; none related to DNC fish
 - 7 Commercial Business Inspections: 1 violation, not related to DNC fish
 - Public Outreach Materials Distributed: 831 tip-cards distributed in 79% of inspections, including English (77%), Spanish (30%), Chinese (7%), Vietnamese (4%)



Enforcement Outreach

Questions or Comments?





Community Outreach





Community Outreach Summary

- Outreach partners attended 15 community events (7 since last FCEC meeting)
- ~102,095 people attended these events
 - ~4,096 people interacted with the FCEC booth
- Public engagement and distributed materials included:
 - 1,814 Tip Cards
 - 1,439 Brochures
 - 1,011 Comic Books
 - 1,787 Fish ID Cards
 - 15 Curriculum Guides
 - 1,438 attendees provided contact information



Community Outreach Summary

Observations

- Majority of community members were not aware of fish contamination
- Not many event attendees fish themselves
- The new QR code was more successful than the newsletter signup sheet
- The comic book and fishing game are very popular
- Improvements to the fishing game this year have improved interactions with the public



Community Outreach – DBS&A

- Three events completed since April FCEC Meeting:
 - Aquarium of the Pacific – Earth Day Teen Climate Fest, April 27, 2024
 - LA County Parks and Recreation – A Day in Nature Festival, September 7, 2024
 - Aquarium of the Pacific – Baja Splash Cultural Festival, September 21-22, 2024





Community Outreach – DBS&A





Community Outreach – BPSOS

- Four events completed since April FCEC Meeting:
 - Garden Grove Police Department – National Night Out, August 6, 2024
 - Central-West County – Health Expo – September 7, 2024
 - Nhan Hoa Health Center – Health Fair – October 5, 2024
 - Clinton Corner Family Campus – Resources and Health Fair – October 9, 2024





Community Outreach – CCHC

- One event since April FCEC Meeting:
 - CCHC – Walkathon and Carnival – April 13, 2024
- Observations:
 - Most event attendees spoke Chinese and preferred Chinese outreach materials
 - Many attendees stated that they did not go fishing but were still interested in the source of contamination and how to protect themselves.
 - Although most Chinese people are accustomed to eating the entire fish with the skin, the suggested way of eating only the fillet was readily received by younger attendees.
 - Older event attendees are less familiar with QR codes and required assistance





Community Outreach – LACDPH

Task 1: Public Health Nurse (PHN) Orientation

- Presentation to newly hired nurses at orientation (9/25/2024)
- Provide educational resources for PHNs to distribute to patients and other interested community members



Community Outreach – LACDPH

Task 2: Public Information Clearinghouse

- Maintain and update LACDPH's Fish Contamination website

<http://www.publichealth.lacounty.gov/Eh/safety/fish-contamination.htm>

- Fill requests for outreach materials

County of Los Angeles Public Health

Home / Poisons & Health Hazards / Fish Contamination

Fish Contamination

Fish is an important part of a healthy diet. It's not only high in protein and low in fat, but it's also an excellent source of omega-3 fatty acids, which are important for brain and vision development and can reduce the risk of high blood pressure, cancer and other chronic diseases. Eating fish regularly can help prevent heart disease; that's why the American Heart Association recommends that people eat **2-3 meals** of fish every week.



Community Outreach – LACDPH

Task 3: Pier Signage

- Install and maintain pier signs in Los Angeles County
 - Ballona South
 - Cabrillo Pier
 - Dockweiler State Beach
 - El Segundo Beach (jetty)
 - Hermosa Beach Pier
 - Manhattan Beach Pier
 - Marina Del Rey Pier
 - Playa Del Rey Beach
 - Redondo Beach Pier
 - Rocky Point
 - Royal Palms/White's Point
 - Santa Monica Pier
 - Torrance Beach
 - Venice Pier



Community Outreach – LACDPH

Task 4: Outreach to Healthcare Providers

- Offer outreach to medical providers
 - Target Obstetric and Pediatric providers
 - Coordinate with nurses in the Child Health and Disability Program
- Provide educational materials to community health clinics
- Outreach to WIC centers
- Participate in community public health outreach events
- Distribute community toolkit to providers



Community Outreach

Questions or Comments?





Program Proposals

DNC Pier Sign Locations

- Prioritize installation of new signs at 9 outreach piers

DO NOT EAT!
不要吃 **¡NO CONSUMA!** **KHÔNG ĂN**
These fish are contaminated with chemicals known to cause serious health problems

FISH ADVISORY
SANTA MONICA PIER TO SEAL BEACH PIER

Learn more at pvsfish.org

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Cabrilla de arena, 墨雲刺魷, Cá Vược Cát cấm

Black Croaker
Corvina negra, 黑姑魚, Cá Đù Đen

LOGO PLACEHOLDER

EPA



Program Proposals

DNC Pier Sign Locations

- Prioritize installation of new signs at 9 outreach piers
- FCEC recommendations for other costal sign locations (based on annual report)
 - For example, removing signs at El Porto/El Segundo

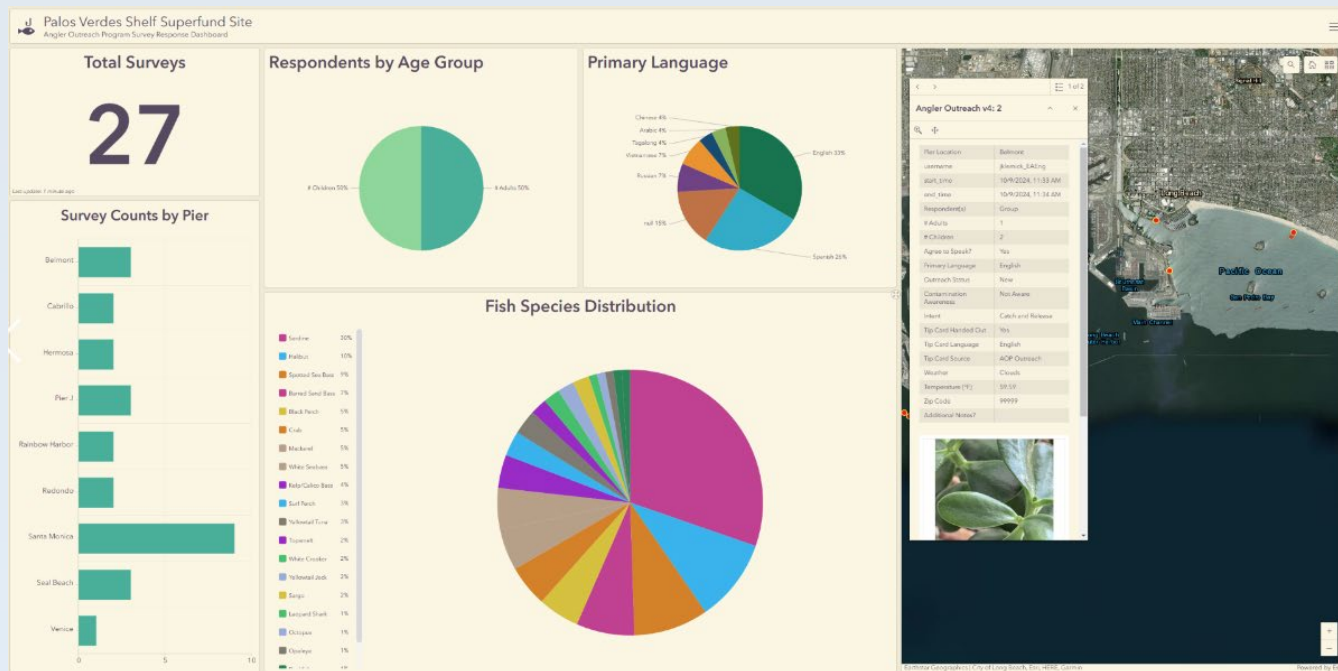




FCEC Proposals

Angler Outreach Tally Sheet

- Transition from paper tally sheets to electronic tablets





FCEC Proposals

Angler Outreach Tally Sheet

- Add question about catch and release?



Educational Outreach Tally Sheet

EA USE: Form # _____
Last Modified March 30, 2024

Date: _____ Pier Location: _____ Outreach worker: _____ Day Outreach Night Outreach
Total # anglers on pier at beginning/end of shift: _____ / _____ Start Time: _____ End Time: _____

***** FILL OUT ONE LINE PER PERSON*****

	Is the person an adult or a child	Did they agree to speak to you?	Is the person receiving outreach for the 1 st time ever, or is s/he a repeat?	Was person aware of DDT/PCB* fish contamination advisories before this?	Awareness source: Signage, Tip-card, AOP* Team, Internet, Events, Media, Friend/Family Other	Language spoken during outreach	Tipcards Distr. (English, Spanish, Chinese, Vietnamese)	Zip Code	Species and Number of Fish Caught (make a note if the number is an estimate)	NOTES
1	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
2	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
3	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						
4	<input type="checkbox"/> Adult <input type="checkbox"/> Child	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> New <input type="checkbox"/> Repeat	<input type="checkbox"/> No <input type="checkbox"/> Yes						



FCEC Action Items

1. Provide feedback on pier sign locations for new signage
2. Provide feedback on transitioning to electronic outreach forms and adding catch/release question
3. Provide feedback and recommendations on new angler outreach schedule (varying days and times to reach more anglers and determine when there is higher angler activity)
4. 2023-2024 Annual Reports will be posted to pvsfish.org by the end of the year!



Open Forum





THANK YOU!

- EPA appreciates your education, outreach, and enforcement efforts
- For additional suggestions or concerns, please contact:

Renee Jordan Ward

EPA Region 9

JordanWard.Renee@epa.gov