

## STAFF SUMMARY FOR DECEMBER 14-15, 2022

**9A. MARINE RESOURCES COMMITTEE (MRC)****Today's Item**Information ☐Action ☒

Receive summary and consider approving recommendations from the November 17, 2022 committee meeting. Discuss referred topics and consider revisions to topics and timing.

**Summary of Previous/Future Actions**

- |   |  |
|---|--|
| • Previous MRC meeting                      | Nov 17, 2022; MRC, San Diego           |
| • <b>Today consider MRC recommendations</b> | <b>Dec 14-15, 2022; San Diego</b>      |
| • Next MRC meeting                          | Mar 16, 2023; Monterey/Santa Cruz area |

**Background**

MRC works under FGC direction to set and accomplish its work plan (Exhibit 1). Today, FGC will receive a report on the previous MRC meeting and recommendations, as well as provide direction for any referred topics and revisions to MRC topics and timing.

***Previous Committee Meeting***

MRC met on Nov 17 in San Diego, and via webinar/teleconference, and discussed four primary topics related to aquaculture lease public interest determination, red abalone fishery management plan (FMP), bycatch in California fisheries, and a coastal fishing communities policy.

*Aquaculture leasing in California – public interest determination:* Update on draft public interest criteria development process and public input, including outcomes from a Sep 30, 2022 public workshop.

- Outcomes: MRC directed FGC staff to work with DFW to revise the draft public interest criteria; further engage with government agencies, interested stakeholders, and non-governmental organizations; and bring a final proposal to the Mar 2023 MRC meeting for a potential recommendation. MRC also requested that FGC's tribal advisor review the draft criteria for potential tribal considerations.

*Red abalone FMP:* Update on 2022 survey results, harvest control rule development, and *de minimis* fishery concepts.

- Outcome: MRC developed a recommendation (see Recommendation 1 below) based on continued red abalone population declines and guidance for near-term DFW focus.

*Assessing and evaluating bycatch in California fisheries:* Review of the four-step process for limiting bycatch as outlined in the 2018 Marine Life Management Act (MLMA) master plan for fisheries, update on analysis of bycatch data for the California halibut fishery, and discussion of potential approaches to completing inquiries for determining what bycatch is "acceptable" within a specific fishery.

- Outcome: MRC developed a recommendation (see Recommendation 2 below) based on the bycatch analysis report provided by DFW and input received during the meeting.

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*Coastal fishing communities policy:* Update on progress in developing a draft policy on coastal fishing communities and discussion of next steps.

- Outcome: MRC supported staff's proposal to move forward with the revised draft policy outline presented at the meeting, host a public policy-drafting workshop on Dec 1, and bring a final proposed policy to the Mar 2023 MRC meeting for discussion and potential MRC recommendation.

In addition to the four primary topics, standing staff and agency updates were provided:

- California Ocean Protection Council, with a written update
- DFW Law Enforcement Division, with a verbal update on some exceptional marine protected area (MPA) citations and cases
- DFW Marine Region
  - DFW presented an update on the MPA decadal management review (DMR), DFW's DMR report to FGC, and plans for engaging with FGC in early 2023, including FGC consideration of adaptive management recommendations in DFW's DMR report. MRC discussed options for providing adequate time at the Mar 2023 MRC meeting to discuss DMR and symposium outcomes (to be held the day prior to MRC), while still allowing for regular MRC agenda topics; MRC developed a recommendation under the Future Meetings agenda item .
- Future Meetings
  - Outcomes: MRC developed a recommendation to modify the schedule for the Mar 2023 MRC meeting (see Recommendation 3 below). There was some discussion about the format of future MRC meetings – hybrid versus in-person; those that provided public comment were in support of keeping the hybrid model.

In lieu of a written meeting summary, a link to the official minutes (the meeting video) is now posted online at [fgc.ca.gov/Meetings/2022](https://fgc.ca.gov/Meetings/2022); a meeting outcomes document will be posted soon.

### ***MRC Recommendations***

MRC has three recommendations for FGC consideration.

#### ***1. Red Abalone FMP***

Support DFW to (1) pause development of the red abalone FMP, except to memorialize the harvest control rule options evaluated; (2) pause development of a *de minimis* fishery approach while retaining the concept in the future fishery management plan; and (3) focus current efforts on recovery planning.

#### ***2. Assessing and Addressing Bycatch in California Fisheries***

- (1) Support DFW moving forward with evaluation of bycatch acceptability in the California halibut commercial fishery based on the analysis report submitted by DFW at the Nov 2022 MRC meeting, beginning with the gillnet gear type; and
- (2) request that DFW pursue completing the inquiries within Step 3 of the bycatch evaluation framework by:

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- Starting the evaluation with the top ten bycatch species for halibut gill nets;
- engaging stakeholders in the process by reaching out to gillnet fishermen for dialogue and conferring with various stakeholder groups on the evaluation outcomes; and
- bringing results back to the Mar 2023 MRC meeting for discussion and potential committee recommendation.

### 3. *Future Meetings*

Divide the Mar 2023 MRC meeting into two days (Mar 14 and Mar 16, 2023) to accommodate the MPA DMR symposium on Mar 15, 2023; schedule regular agenda topics for Mar 14, and focus Mar 16 on a single agenda item – the MPA DMR – to hear results, receive public input, and develop a potential committee recommendation.

### **Committee Work Plan**

The MRC work plan (Exhibit 1) includes topics and timelines for items referred by FGC to MRC and has been updated to reflect proposed changes in potential topic timing based on MRC guidance (reflected in blue text). No new topics are proposed for referral to MRC.

### **Significant Public Comments**

Two comment letters were received regarding the “bycatch in California fisheries” topic:

1. Two environmental non-governmental organizations (NGOs) submit a joint letter with two bycatch “factsheet” summary reports they have prepared for set gillnet and trawl gear types targeting California halibut and white seabass (combined) at a statewide scale. The two reports are offered to augment DFW's information for evaluating bycatch acceptability (Exhibit 2).
2. A joint letter from fourteen environmental NGOs expresses support for addressing with urgency the high levels of bycatch in set gillnet and bottom trawl fishing gears targeting California halibut. Commenters urge FGC to undertake the process to formally determine that bycatch is unacceptable and develop solutions towards minimizing bycatch to support both local seafood and healthy ecosystems (Exhibit 3).

### **Recommendation**

**FGC staff:** Approve the Nov 17, 2022 MRC recommendations and approve the MRC work plan as reflected in Exhibit 2, including any changes identified during this meeting.

### **Exhibits**

1. [MRC work plan, updated Dec 5, 2022](#)
2. [Letter and three attachments from Geoff Shester, Oceana, and Scott Webb, Turtle Island Restoration Network, received Dec 1, 2022](#)
3. [Joint letter from 14 NGOs, received Dec 1, 2022](#)

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**Motion**

Moved by \_\_\_\_\_ and seconded by \_\_\_\_\_ that the Commission approves the recommendations from the November 17, 2022 Marine Resources Committee meeting and approves changes to the work plan as discussed today.

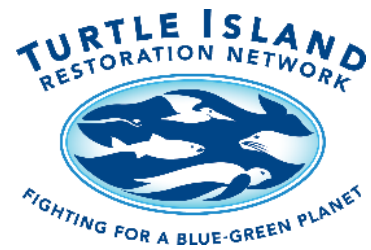
# California Fish and Game Commission Marine Resources Committee (MRC) Work Plan

*Updated Dec 5, 2022*

Note: Proposed changes to topics/timing are shown in blue underscore or strike-out font.

TOPICS	CATEGORY	Jul 2022	Nov 2022	Mar 2023
<b>Planning Documents &amp; Fishery Management Plans (FMPs)</b>				
MLMA Master Plan for Fisheries – Implementation Updates	Plan Implementation		X*	
Red Abalone FMP / Abalone Recovery Management Plan Update	FMP	X/R	X/R	
California Halibut Fishery Management Review	Management Review			
California Halibut Bycatch Evaluation for Fishery Management Review	Management Review	X*	X	X
Market Squid Fishery Management and FMP Review	Management/ FMP Review	X*		
Kelp Recovery and Management Plan development	Management Plan			
Marine Protected Area Network 2022 Decadal Management Review	Management Review		X*	X/R
<b>Regulations</b>				
California Halibut Trawl Grounds Review	Commercial Take	X*		
Kelp and Algae Commercial Harvest – Sea Palm ( <i>Postelsia</i> )	Commercial Take			
California Spiny Lobster FMP Implementing Regulations Review	Implementing Regulations	X/R		
Implementation of 365-Day Sport Fishing License	Recreational Take	X		
<b>Marine Aquaculture</b>				
Aquaculture Program Planning (State Aquaculture Action Plan)	Planning Document			X
Aquaculture State Water Bottom Leases: Existing & Future Lease Considerations	Current Leases / Planning			
<i>Public Interest Determination Criteria</i> for New State Water Bottom Aquaculture Lease Applications	FGC Policy – New Leases	X	X/R	<u>X/R</u>
Aquaculture Lease Best Management Practices Plans (Hold, TBD)	Regulatory			
<b>Emerging Management Issues</b>				
Kelp Restoration and Recovery Tracking	Kelp			X
Invasive Non-native Kelp and Algae Species	Kelp / Invasive Species			
<b>Special Projects</b>				
California's Coastal Fishing Communities Project	MRC Special Project			
Coastal Fishing Communities Policy	FGC Policy	X*	X	X/R
Box Crab Experimental Fishing Permit (EFP) Research Project	EFP			

**Key:** X = Discussion scheduled X/R = Recommendation may be developed and may move to Commission  
\* = Written agency update



December 1, 2022

Ms. Samantha Murray, President  
California Fish and Game Commission  
P.O. Box 944209  
Sacramento, CA 94244-2090

**RE: Agenda Item 9A: Marine Resources Committee – Bycatch in Set Gillnets & Halibut Trawls**

Dear President Murray,

We appreciated the attention and discussion at the November 17, 2022 Marine Resources Committee (MRC) regarding bycatch in set gillnet and bottom trawl fisheries targeting California halibut. Bycatch with these gear types rose to the top of the list in the Marine Life Management Act (MLMA) Master Plan prioritization process and is a top concern for a wide suite of stakeholders. We hope to find solutions to minimize bycatch and ensure sustainable fishing communities.

Over the last year, Oceana and Turtle Island Restoration Network thoroughly analyzed publicly available data from federal observer programs and other sources to better understand the complex issues associated with bycatch in California set gillnets and bottom trawls. We are grateful to members of the California Department of Fish & Wildlife (CDFW) and Fish and Game Commission staff for their guidance in navigating the myriad of data constraints associated with this fishery.

To this end, attached are initial overview summaries for each of the two gear types containing some of our high-level findings at the statewide scale. The federal set gillnet observer data combines sets targeting California halibut and white seabass, and reports catch, discards, and observed discard mortality by numbers of individual fish and other animals. The federal West Coast Groundfish Observer Program provides annual statewide summaries of total weights of each species caught and discarded in the California halibut trawl fishery. Trawl discard mortality is not assessed by observers and is assumed by NMFS to be 100% as the default unless other estimates are available for certain species. We are also attaching NMFS' official public write-up on a gray whale disentanglement event in June 2022 off Southern California involving 8-inch mesh pink monofilament gillnet. It is our hope that these summaries provide an initial glance at the bycatch issues with these gear types to inform the MRC and relevant stakeholders of rate and magnitude of bycatch caused by set gillnets and halibut trawls.

We are supportive of the MRC's guidance for CDFW to complete the MLMA Master Plan Bycatch Inquiry for the set gillnet component of the California halibut fishery to inform a March 2023 MRC recommendation to the full Commission on bycatch acceptability. It is our intention that the attached information augments the Department's bycatch analysis and helps provide focus toward a robust and timely basis for decision-making. Thank you and we look forward to further discussions with CDFW, the MRC, and the Commission.

Sincerely,

Geoff Shester, Ph.D.  
Oceana

Scott Webb  
Turtle Island Restoration Network

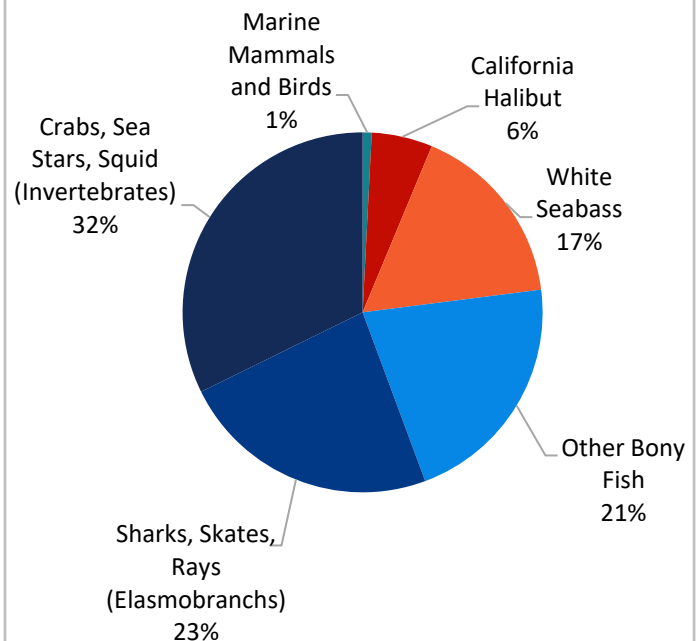
## Bycatch in California Halibut and White Seabass Set Gillnets – December 2022 Summary

California's set gillnets have among the highest discard rates - by number of animals - of any fishery in the country. These nearly invisible monofilament net panels extend for hundreds of yards weighted to the seafloor, entangling many species of fish and wildlife in their path. California voters passed Proposition 132 in 1990 banning set gillnets in state waters, and the Fish and Game Commission banned the nets off Central California in 2002. Vulnerable fish, sharks, and porpoises have rebounded in areas where set gillnets are banned.<sup>1</sup> However, set gillnets continue to harm fish, wildlife, and ecosystems where this gear is still allowed further offshore in federal waters off Southern California. Data presented in this factsheet represents the combined California halibut and white seabass multi-species set gillnet fishery recorded by the National Marine Fisheries Service (NMFS) federal observer program.

### By the numbers:

- Set gillnets catch over 125 species including fish, sharks, rays, seabirds, sea lions, seals, and dolphins.<sup>2,3,4</sup> 17 of these species are retained more often than they are discarded.
- This fishery has historically been documented to catch endangered leatherback sea turtles.<sup>5</sup> The fishery is likely involved in large whale entanglements, but the gear is not uniquely marked so cannot be distinguished from other gillnets.<sup>6,7</sup>
- 64% of individual fish and animals caught in set gillnets are discarded overboard, more than half of them already dead.<sup>2</sup> The population status of most discarded species is unknown.
- In halibut-targeting set gillnet trips using 8-inch mesh, California halibut accounts for 10.6% of all animals caught.<sup>8</sup>
- Set gillnets discard 12% of the individual California halibut caught.<sup>2</sup> Observers documented that approximately 40% of these discarded California halibut are already dead before being discarded at sea.<sup>2</sup>
- Set gillnets were not observed in 9 of the last 15 years. In the 6 years the fishery was observed, NMFS estimates they observed 12.5% of total fishing effort.<sup>9</sup>
- The California Department of Fish and Wildlife tracks set gillnet fishing effort differently than the federal observer program, which creates uncertainty in estimates of total bycatch and potential population impacts. By conservative estimates, 230,000 animals were discarded from 2007-2021;<sup>2,10</sup> however, commercial fish landings data indicate the number could be as high as 2 million.<sup>11</sup>

**Composition of Catch in California Set Gillnets  
2007 - 2021**



*Figure 1. Composition of catch in California set gillnets; separated by target species (California halibut and white seabass), other bony fish (not including target species or elasmobranch species), elasmobranchs (sharks, rays, and skates), invertebrates, and birds/mammals. Catch includes protected species but does not include confirmed large whale entanglements. Percentages are calculated as proportion of individuals in the total number of individuals caught, as reported in the NMFS observer data and protected species data for birds and mammals.<sup>2,3,4</sup>*



- Set gillnets catch 25 species of sharks, skates, and rays, many of which have unassessed populations.<sup>2</sup> Most shark and ray species mature slowly and have few young, which makes them especially vulnerable to rapid population declines due to fishing pressure.<sup>12,13,14,15</sup>
- NOAA Fisheries estimates from 2001 to 2011 California set gillnets caught an average of 25 juvenile great white sharks per year which is more than 90% of all the juvenile great white sharks captured in all California fisheries (NOAA Fisheries estimates roughly 50% mortality in the nets).<sup>16</sup>
- Set gillnets kill seabirds such as cormorants and common murrelets that are entangled in the nets as the birds dive and forage for food.<sup>3</sup>
- Annually set gillnets kill an estimated 178 marine mammals — mostly sea lions, but also harbor seals and dolphins.<sup>4</sup> This fishery kills more California sea lions than all other West Coast fisheries combined.<sup>17</sup> These numbers do not include animals that escape injured or entangled, and only includes estimates based on marine mammals observed dead by infrequent federal observers.
- From 2000 to 2019, NOAA Fisheries confirmed 32 reports of whales entangled in unidentified gillnets (excluding documented large-mesh drift gillnet entanglements) off the U.S. West Coast.<sup>6</sup> This includes 7 humpback whales, 24 gray whales, and 1 unidentified whale. In summer of 2022, NOAA Fisheries confirmed an 8-inch pink monofilament gillnet - typical of the set gillnet fishery targeting California halibut - entangling a gray whale off the coast of Redondo Beach, CA.<sup>18</sup> Set gillnets do not have unique gear marking requirements and are also used in Mexico, so NOAA Fisheries is unable to attribute the fishery involved in most gillnet entanglements. An unknown number of whale entanglements are not reported.

The California Fish and Game Commission is responsible for set gillnet management and is required under state law to reduce bycatch to acceptable levels.

<sup>1</sup> Forney et al. 2020. A multidecadal Bayesian trend analysis of harbor porpoise (*Phocoena phocoena*) populations off California relative to past fishery bycatch. *Mar Mam Sci*. 2021; 37: 546–560. <https://doi.org/10.1111/mms.12764>

<sup>2</sup> NMFS. 2022. California Set Gillnet Observer Program, Observed Catch 2007-01-01 to 2017-12-31. NOAA. <https://media.fisheries.noaa.gov/2022-01/setnet-catch-summaries-2007-2010-2013-2017.pdf> \* **this program only provides number of individuals caught in the set gillnet fishery, therefore catch weights are unavailable**

<sup>3</sup> NMFS. National Bycatch Report Database, Seabird Bycatch by Fishery 2011, 2012, Update 2. <https://apps.fisheries.noaa.gov/stapex/f?p=243:101:29602220642274:::> Accessed August 2022

<sup>4</sup> NMFS. 2021. Marine Mammal Stock Assessment Reports by Species/Stock. NOAA Fisheries. <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports-species-stock>. Accessed July 2022.

<sup>5</sup> Julian, F., Beeson, M., (1998). "Estimates of marine mammal, turtle, and seabird mortality for two California gillnet fisheries: 1990 -1995". Fishery Bulletin US Department of Commerce National Ocean and Atmospheric Association, 96 (2), Pg. 273. Available: <https://spo.nmfs.noaa.gov/sites/default/files/pdf-content/fish-bull/julian.pdf>

<sup>6</sup> NMFS. 2021. Large whale entanglements off the U.S. West Coast, from 1982-2017. Saez, L., D. Lawson, and M. DeAngelis. NOAA Tech. Memo. NMFS-OPR-63A, 50 p. Available: [https://fisheries.legislature.ca.gov/sites/legislature.ca.gov/files/Large%20whale%20entanglements%20off%20the%20U.S.%20West%20Coast%201982-2017\\_Final%20031921.pdf](https://fisheries.legislature.ca.gov/sites/legislature.ca.gov/files/Large%20whale%20entanglements%20off%20the%20U.S.%20West%20Coast%201982-2017_Final%20031921.pdf)

<sup>7</sup> NMFS. 2020. Master data of large whale entanglement records off the U.S. West Coast. L. Saez, Personal communication. \* whale entanglement data used excludes gillnet entanglements positively identified as large-mesh drift gillnets, and is an updated dataset through 2019 of the original Master data of large whale entanglement records off the U.S. West Coast up to 2017.

<sup>8</sup> CDFW. 2022. Percent California halibut caught by number of animals in halibut targeting set gillnet trips. K. Ramey, Personal communication. November 2022.

<sup>9</sup> NMFS. 2022. CA Halibut, White Seabass and Other Species Set Gillnet (>3.5 in mesh) - MMPA List of Fisheries. <https://www.fisheries.noaa.gov/national/marine-mammal-protection/ca-halibut-white-seabass-and-other-species-set-gillnet-35-mesh> Accessed: October 2022

<sup>10</sup> CDFW. 2022. Number of Trips by Gear/Year 2007 – 2021 from the Marine Landings Data System (MLDS) for Gillnet Fisheries in California. CDFW Personal Communication. 2022

<sup>11</sup> Pacific States Marine Fisheries Commission. Pacific Fisheries Information Network (PacFIN) In: Landings and revenue by gear type for years 2007- 2021. <http://www.psmfc.org/program/pacific-fisheries-information-network-pacfin>. Accessed: October 2022

<sup>12</sup> Froese, R. and D. Pauly. Editors. 2022. FishBase. World Wide Web electronic publication. [www.fishbase.org](http://www.fishbase.org), (06/2022)

<sup>13</sup> Oliver S, Braccini M, Newman SJ, Harvey ES (2015) Global patterns in the bycatch of sharks and rays. *Mar Policy* 54:86–97

<sup>14</sup> James KC, Lewison RL, Dillingham PW, Curtis KA, Moore JE (2016) Drivers of retention and discards of elasmobranch non-target catch. *Environ Conserv* 43: 3–12

<sup>15</sup> Dulvy NK, Fowler SL, Musick JA, Cavanagh RD and others (2014) Extinction risk and conservation of the world's sharks and rays. *eLife* 3: e00590

<sup>16</sup> Dewar et al. 2013, Status Review of the Northeastern Pacific Population of White Sharks (*Carcharodon Carcharias*) under the Endangered Species Act, 2013. <https://repository.library.noaa.gov/view/noaa/17705>. Table 4.3 Average estimated catches from U.S. west coast set nets 2001-2011.

<sup>17</sup> NMFS. 2019. Marine Mammal Stock Assessment Reports by Species/Stock: CALIFORNIA SEA LION (*Zalophus californianus*): U.S. Stock. NOAA Fisheries. [https://media.fisheries.noaa.gov/dam-migration/ca\\_sea\\_lion\\_final\\_2018\\_sar.pdf](https://media.fisheries.noaa.gov/dam-migration/ca_sea_lion_final_2018_sar.pdf). Accessed November 2022. \*estimates by fishery located in Table 1.

<sup>18</sup> NMFS. 2022. NOAA Fisheries Whale Entanglement Response Program. Official Report. L. Saez, Personal communication. June 2022.

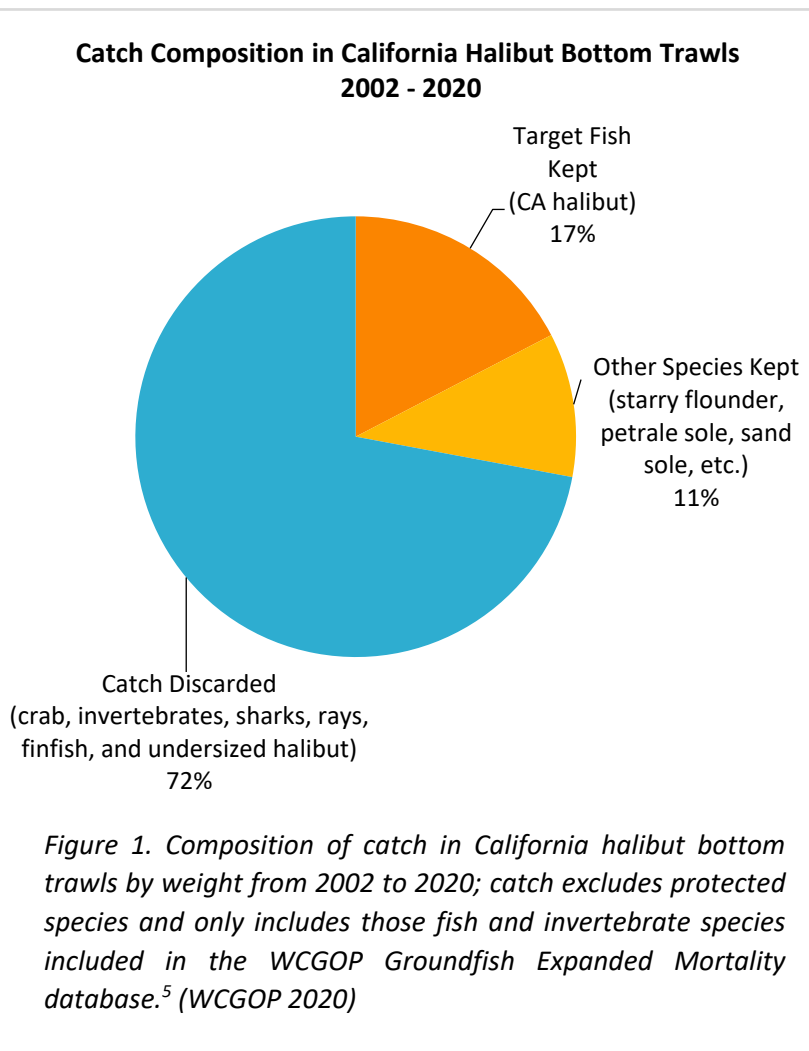


## Bycatch in California Halibut Bottom Trawls – December 2022 Summary

The state-managed California halibut bottom trawl fishery has the highest rate of discarded catch of any observed fishery in the United States.<sup>1</sup> Bottom trawling is a fishing practice that involves dragging nets with metal doors and footropes over the seafloor to catch fish. The California state legislature recognized the damaging effects of the California halibut trawl fishery by enacting Senate Bill 1459 in 2004, which implemented a ban on bottom trawling in all state waters, with the exception of specific California halibut trawl grounds off Santa Barbara and Ventura.<sup>2</sup> This fishery currently operates in the remaining open California halibut trawl grounds in state waters using restricted gear, and in federal waters along the continental shelf off Southern and Central California. The California Fish and Game Commission is required to re-evaluate the state trawl grounds every three years to ensure the fishery minimizes bycatch, seafloor damage, and impacts to ecosystem health. The California Department of Fish and Wildlife is currently in the process of assessing these California halibut trawl grounds for Commission review for the first time since 2008. Some of the trawl grounds remain open based on a 2008 study of experimental 15-minute tows where most of the bycatch was released alive.<sup>3</sup> However, tow length in the state-wide fishery is documented to be much longer. Between 2002 and 2021, over the course of 5,304 observed tows statewide, federal observers documented tow times averaging 2.5 hours at a time.<sup>4</sup> Halibut trawl tow durations, bycatch composition, and gear configurations may vary across different parts of the state. NOAA Fisheries observers track the catch and discards in halibut bottom trawls but do not assess their mortality rates. In their public reports, NOAA Fisheries assumes a default of 100% mortality for all discarded species unless species-specific mortality rates are assessed.<sup>5</sup> While the fishery may differ depending on the regions fished, the data presented in this summary includes aggregated statewide data as reported by the West Coast Groundfish Observer Program (WCGOP).

### By the numbers:

- California halibut trawls have been observed to catch over 248 distinct species, including finfish, sharks, rays, seabirds, invertebrates, sea lions, seals, and a population of green sturgeon listed as threatened with extinction under the U.S. Endangered Species Act (ESA).<sup>5,6,7,8</sup>
- 55 of these species are primarily retained for sale – 193 species are primarily discarded at sea.<sup>5</sup> However, 94% of the trawl fishery revenue comes from California halibut, meaning the other 54 landed species account for 6% of the total landings value.<sup>9</sup>
- 72% of the total observed halibut trawl catch by weight was discarded overboard from 2002 to 2020.<sup>5</sup> The population status of most discarded species is unknown.
- Over 1 million pounds of marine life is discarded annually in the California halibut trawl fishery, more than double the amount of catch that is kept and sold each year.<sup>5</sup>



- California halibut trawls are the biggest fishery threat to the ESA-listed population of green sturgeon. These trawls are responsible for 99% of the West Coast fishery bycatch of this green sturgeon population.<sup>8,10</sup> Annually this fishery catches an average of 328 threatened green sturgeon, and mortality is estimated to be approximately 20%.<sup>8,11</sup> A recent federal review of the threatened green sturgeon population states that any take of adult and subadult SDPS green sturgeon due to fishing activity may limit population productivity.<sup>10</sup>
- NOAA Fisheries estimates approximately 200,000 pounds of dead sharks, skates, and rays comprised of 29 different species are thrown back to sea every year in the California halibut trawl fishery.<sup>5</sup>
- An average of 45 marine mammals are caught and killed each year in the California halibut trawl fishery, mostly comprised of California sea lions and occasionally Steller sea lions. The fishery has rare encounters with harbor seals and elephant seals.<sup>7</sup> An average of 44 seabirds die in these nets each year, including Brandt's cormorants, common murrelets, and western gulls.<sup>6</sup>
- Every year California halibut trawls discards an average of 360,000 pounds of Dungeness crab, which is more by weight and value than the catch of California halibut.<sup>5,9</sup>

The California Fish and Game Commission is responsible for California halibut trawl management and is required under state law to reduce bycatch to acceptable levels in all areas where the fishery occurs. The Commission is also required to close any state waters trawl grounds where bycatch is not minimal.

Of the 28 issued halibut trawl fishing permits in 2021, 18 participants actively fished.<sup>12</sup> On average, trawl-caught California halibut accounts for approximately 1% of total annual commercial fishing revenue in California, and its relative importance varies by port.<sup>13</sup> California halibut landings by all gear types are highest in the ports of San Francisco and Santa Barbara, representing 8.6% and 2.5% of total fishing revenue respectively in 2021.<sup>13</sup>

<sup>1</sup> NMFS. 2019. U.S. National Bycatch Report First Edition Update 2 and 3. U.S. Department of Commerce, 90 p. Available: <http://www.st.nmfs.noaa.gov/observer-home/first-edition-update-2>

<sup>2</sup> California Legislative Information (2003-2004) SB-1459 Fishing: trawl nets. In: Section 1-6. Available: [http://leginfo.ca.gov/faces/billCompareClient.xhtml?bill\\_id=2003200405B1459](http://leginfo.ca.gov/faces/billCompareClient.xhtml?bill_id=2003200405B1459) Accessed: October 2022.

<sup>3</sup> Frimodig A, Horeczko M, Mason T, et al. 2008. Review of California Halibut Trawl Fishery in the California Halibut Trawl Grounds, Report to the California Fish and Game Commission. California Department of Fish and Game. 44p. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=36120>

<sup>4</sup> West Coast Groundfish Observer Program. 2022. Observed California Halibut Trawl Haul Durations 2002-2021. WCGOP Personal Communication July 2022. Data Request from NOAA by Oceana.

<sup>5</sup> West Coast Groundfish Observer Program. 2020. Groundfish Expanded Mortality Multiyear (GEMM), 2002-20. U.S. Department of Commerce, NOAA Data Report NMFS-NWFSC-DR-2020-01. Available: <https://doi.org/10.25923/zfxe-9m37> \* **data presented in this report is aggregated statewide, and assumes 100% mortality for all species that were not evaluated for individual species mortality rates** \*

<sup>6</sup> Jannot, J. E., K. A. Somers, V. Tuttle, J. McVeigh, and T. P. Good. 2021. Seabird Mortality in U.S. West Coast Groundfish Fisheries, 2002-18. U.S. Department of Commerce, NOAA technical memorandum NMFS NWFS-165. DOI : <https://doi.org/10.25923/78vk-v149>

<sup>7</sup> Jannot, J. E., K. A. Somers, V. J. Tuttle, J. Eibner, K. E. Richerson, J. T. McVeigh, J. V. Carretta, N. C. Young, and J. Freed. 2022. Marine Mammal Bycatch in U.S. West Coast Groundfish Fisheries, 2002-19. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-NWFSC-176. <https://doi.org/10.25923/h6gg-c316>

<sup>8</sup> Richerson, K. E., J. E. Jannot, J. T. McVeigh, K. A. Somers, V. J. Tuttle, and S. Wang. 2022. Observed and Estimated Bycatch of Green Sturgeon in 2002-19 U.S. West Coast Groundfish Fisheries. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-NWFSC-178. <https://doi.org/10.25923/tpk7-mj29>

<sup>9</sup> Pacific States Marine Fisheries Commission. Pacific fisheries information network (PacFIN) In: Landings and revenue by gear type for years 2002-2021. Available: <http://www.psmfc.org/program/pacific-fisheries-information-network-pacfin> Accessed: August 2022

<sup>10</sup> NMFS. 2015. Southern Distinct Population Segment of the North American Green Sturgeon (*Acipenser medirostris*) 5-Year Review: Summary and Evaluation. Available: <https://repository.library.noaa.gov/view/noaa/17034>

<sup>11</sup> Doukakos, Phaedra. 2020. Post release survival of green sturgeon (*Acipenser medirostris*) encountered as bycatch in the trawl fishery that targets California halibut (*Paralichthys californicus*), estimated by using pop-up satellite archival tags: suppl. table 1. Fishery Bulletin. 118. 10.7755/FB.118.1.6s1.

<sup>12</sup> T. Tanaka, CDFW. 2022. Personal Communication. November, 2022.

<sup>13</sup> Pacific States Marine Fisheries Commission. Pacific fisheries information network (PacFIN) In: Landings and revenue by port for 2021. Available: <http://www.psmfc.org/program/pacific-fisheries-information-network-pacfin> Accessed: August 2022



## NOAA Fisheries West Coast

June 17, 2022 Official Post on Facebook

Entanglement response teams successfully freed a gray whale entangled in a gillnet off Dana Point, California this week!

The sub-adult gray whale was originally reported on Monday morning off Redondo Beach, CA and seen again on Wednesday morning off Aliso Canyon by a [Dana Wharf Whale Watch](#) boat. Multiple groups including [Sea Tow](#), [Newport Coastal Adventure](#), [Captain Dave's Dolphin Safari](#), and private boaters reported the whale's condition and movement and stayed with the whale as NOAA's Large Whale Entanglement Response Team coordinated response. Once on site, rescue teams from [SeaWorld San Diego](#) Rescue Team and [Pacific Marine Mammal Center](#) led by Keith Yip began the response by documenting the nature and type of entanglement. A mass of pink mesh gillnetting and floats were deeply embedded in the tailstock and the whale was swimming very slowly. The responders used multiple tactics to remove the netting in a way that would be safe for both the whale and the rescue team. The team was able to cut through the gear, making over 100 cuts to loosen the net. The response took nearly 3 hours until finally all the heavy gear was removed and collected late Wednesday afternoon. **The gillnet was pink monofilament with an 8-inch mesh size throughout the net.** The gray whale was completely freed and swam away.

The freed gray whale is one of thousands of gray whales that migrate along the West Coast and together represent an important conservation success. Thanks to protection from the Marine Mammal Protection Act, they rebounded from near extinction and were removed from the list of endangered species in 1994.

Entanglements are a concern for whales along the US West Coast. Read the 2021 West Coast Whale Entanglement Summary: <https://bit.ly/3y0XoZY>

Due to the dangerous nature of responding to entangled large whales, responders go through extensive training and many years of apprenticeship to learn the proper techniques and protocols to ensure their safety and that of the animals. Untrained members of the public should never attempt to disentangle marine life themselves. Critical to the success of this effort was the quick report from [Dana Wharf Whale Watch](#) and their willingness, along with multiple other whale watch and private vessels to stand by with the whale. The response was further helped by the excellent weather condition, the location of the whale, the whale being relatively cooperative, and the nature of the entanglement.

To report entangled marine mammals:

Entanglement Reporting Hotline: 1-877-SOS-WHALE or 1-877-767-9425

The U.S. Coast Guard: VHF Ch. 16

Learn more about NOAA's Large Whale Entanglement Response Program: <https://bit.ly/3O4RDjE>

Thank you to these reporting parties and standby vessels:

Alisa Schulman-Janiger, [American Cetacean Society - Los Angeles Chapter \(ACS/LA\)](#) Gray Whale Census and Behavior Project

[Dana Wharf Sportfishing](#) & [Dana Wharf Whale Watch](#)

[Newport Coastal Adventure](#)

[Captain Dave's Dolphin Safari](#)

[Sea Tow](#)

Thank you to the rescue team:

[SeaWorld San Diego](#): Keith Yip, Mike Hopkins, Jeni Fain

[Pacific Marine Mammal Center](#): Lindsey VanShoick, Mia Giunta, Malena Berndt, Alissa Deming, Bill Lackey



**MMHSRP Permit #18786-06**



MMHSRP Permit # 18766-06





MMHSRP Permit #18786-06



MMHSRP Permit #18786-06

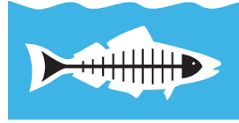




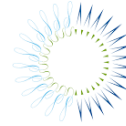
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Resource Renewal Institute  
40 Years. Innovation for a Sustainable Future.



December 1, 2022

Ms. Samantha Murray, President  
California Fish and Game Commission  
P.O. Box 944209  
Sacramento, CA 94244-2090

**RE: Agenda Item 9: Marine Resource Committee: Bycatch in California Halibut Fisheries**

Dear President Murray and Members of the Commission,

We, the undersigned organizations, are concerned about the high levels of bycatch in set gillnet and bottom trawl fishing gears targeting California halibut, which was addressed at the November 2022 Marine Resources Committee (MRC) meeting. The unintended catch and discarding of dead or injured marine life is widely considered among the top ecological impacts of fisheries – contributing to population impacts and a reduction in marine biodiversity.

While several gear types target California halibut, the primary bycatch concerns are associated with bottom trawls and set gillnets.<sup>1</sup> These two fisheries collectively catch 278 distinct species – including many sensitive, vulnerable, and threatened species unique and critical to the California current ecosystem.<sup>2,3</sup> Set gillnets consist of nearly invisible monofilament net panels extending for hundreds of yards along the seafloor, entangling fish and wildlife in their path. Due to the bycatch concerns, this gear type was banned within state waters by a 1990 California ballot proposition and was banned off Central California by the California Fish and Game Commission in 2002. However, set gillnets still operate relatively unchecked in Southern California federal waters. Vulnerable fish and porpoises have rebounded in areas where set gillnets were previously banned.<sup>4</sup> Halibut bottom trawls pose similar problems. The National Marine Fisheries Services' National Bycatch Report identifies the California halibut bottom trawl fishery as having the highest discard rate of any observed fishery in the U.S.<sup>5</sup>, despite previous efforts by the Commission to regulate the fishery through SB 1459. These two California fisheries targeting halibut continue to harm fish, wildlife, and ecosystems where they are still allowed, and the chronic bycatch issues urgently need to be addressed.

We are all interested in supporting and enjoying seafood sourced from local California anglers. We rely upon fishery managers and policymakers to ensure this seafood is responsibly harvested in a way that supports recreation, other fisheries, and the unique marine biodiversity along California's coastline. The Marine Life

Management Act (MLMA) includes bycatch acceptability criteria and associated processes for determining acceptability via the MLMA Master Plan for Fisheries, giving resource managers the tools needed to both identify bycatch concerns and implement measures to minimize bycatch. In the context of these criteria and based on publicly accessible federal observer data and other bycatch information, we believe the ongoing rates and impacts of bycatch in California halibut bottom trawls and set gillnets are unacceptable. We urge the commission to undertake its process and make formal determinations that bycatch is unacceptable in these two gear types and develop solutions towards minimal bycatch fisheries that support both local seafood and healthy ecosystems.

Thank you for your consideration and for your work to ensure sustainable California fisheries.

Sincerely,

Geoff Shester  
California Campaign Director  
Oceana

Scott Webb  
Advocacy & Policy Director  
Turtle Island Restoration Network

Ashley Eagle-Gibbs  
Legal & Policy Director  
EAC West Marin

Cary Strand  
Community Outreach Coordinator  
American Cetacean Society San Diego Chapter

Evelina Marchetti  
Chief Operating Officer  
Project O

Emily Parker  
Coastal and Marine Scientist  
Heal the Bay

Greg Helms  
Manager Fishery Conservation  
Ocean Conservatory

Laura Walsh  
California Policy Manager  
Surfrider Foundation

Gilly Lyons  
Officer, Conserving Marine Life in the U.S.  
The Pew Charitable Trusts

Jason Schratwieser  
President  
International Game Fish Association

Michael Bear  
Board Member  
Shark Stewards

Erin Politz  
Vice President  
The Sea Change Agency

Kimberly Ray  
Founder & CEO  
Marine Conservation Network

Chance Cutrano  
Director of Programs  
Resource Renewal Institute

<sup>1</sup> CDFW. MLMA Master Plan Fishery Prioritization. 2018. <https://wildlife.ca.gov/Conservation/Marine/MLMA/Master-Plan/Prioritizing-Management-Efforts/results-of-fisheries-prioritization#gsc.tab=0> and Samhouri et al. 2019. An ecosystem-based risk assessment for California fisheries co-developed by scientists, managers, and stakeholders, Biological Conservation 231 (103-121) <https://www.sciencedirect.com/science/article/pii/S0006320718302696>

<sup>2</sup> NMFS. 2022. California Set gillnet Observer Program, Observed Catch 2007-01-01 to 2017-12-31. NOAA. <https://media.fisheries.noaa.gov/2022-01/setnet-catch-summaries-2007-2010-2013-2017.pdf>

<sup>3</sup> NMFS. 2019. U.S. National Bycatch Report First Edition Update 2 and 3. U.S. Department of Commerce, 90 p. Available: <http://www.st.nmfs.noaa.gov/observer-home/first-edition-update-2>

<sup>4</sup> Forney et al. 2020. A multidecadal Bayesian trend analysis of harbor porpoise (*Phocoena phocoena*) populations off California relative to past fishery bycatch. *Mar Mam Sci.* 2021; 37: 546–560. <https://doi.org/10.1111/mms.12764>

<sup>5</sup> NOAA National Bycatch Report (2011), Update 1 (2014), Update 2 (2016), and 3 (2019). <https://www.fisheries.noaa.gov/resource/document/national-bycatch-report>