

Assertion: The California swordfish fishery is a champion of bycatch reduction.

Clarification: The California swordfish fishery has opposed nearly every effort to reduce the wasteful catch of non-target and protected species over the last several decades, including the implementation of the Pacific Leatherback Conservation Area, hard caps that would further protect sea turtles and marine mammals, and increased monitoring to better account for bycatch.

The fishery strongly opposed the implementation of hard caps and increased observer coverage when proposed by the Pacific Council, despite the Council amending the hard cap regime to account for potential economic hardship. When outside groups received a federal grant to test electronic monitoring in the DGN fishery, the fishermen refused to participate, resulting in return of the grant money. It is unclear why the fishermen opposed increased monitoring that could validate the actual catch in the fishery.

Assertion: Management measures have “reduced marine mammal bycatch in the CA DGN fishery by between 65-95%.”

Clarification: Management measures, including using acoustic pingers and deploying driftnets lower in the water column, have been implemented to reduce interactions with some non-target species, particularly beaked whales. Yet, reduced participation in the swordfish fishery remains the greatest cause of the fishery’s absolute reduction of bycatch. Since 1990, the fleet has contracted by nearly 86%, the same period during which the above referenced bycatch reductions occurred. In relative terms, however, the remaining fishery participants continue to discard more than what they keep, making it one of the least selective U.S. fisheries.

Assertion: “Historically, whale interactions have been very rare...with only 10 observed whale [sic] whale interactions (4 of which were released alive) over the last 17 years,” and “[s]ea turtle interactions are very rare in the CA DGN fishery.”

Clarification: Regression tree analyses,¹ which NOAA Fisheries considers the best available science, indicates that from 2001-2016, the DGN fishery had 42 large whale interactions, 38 sea turtle interactions, 877 dolphin interactions, 532 pinniped interactions, and 111 seabird interactions. According to NOAA Fisheries scientists, the California drift gillnet fishery continues to kill² endangered leatherback sea turtles at a rate that delays the species’ recovery.³

The ten observed whale interactions occurred in a fishery the trips of which have, on average, included an onboard observer only 17% of the time. With the vast majority of fishing trips not having an onboard observer, the amount of interactions with protected whales is presumed to be much higher. Moreover, even observed interactions have often had significant adverse impacts on protected species. For example, in 2011, two critically endangered sperm whales were observed caught in a single driftnet set. One was dead and one was observed to be seriously injured at release meaning it was likely going to die of its injuries. At that time, under the Marine Mammal Protection Act, 1.6 sperm whale mortalities would jeopardize the biological integrity of the species, meaning that a single driftnet set triggered the need for emergency management measures including 100% observer coverage in certain areas and a hard cap on sperm whale interactions.

¹NOAA Technical Memorandum NMFS, Regression Tree and Ratio Estimates of Marine Mammal, Sea Turtle, and Seabird Bycatch in The California Drift Gillnet Fishery: 1990-2015, January 2017, see Table 32, p. 75 available at <https://swfsc.noaa.gov/publications/TM/SWFSC/NOAA-TM-NMFS-SWFSC-568.pdf>.

² Id.

³Curtis KA, Moore JE, Benson SR (2015), Estimating Limit Reference Points for Western Pacific Leatherback Turtles (*Dermochelys coriacea*) in the U.S. West Coast EEZ. PLoS ONE 10(9):e0136452.doi:10.1371/journal.pone.0136452.

Assertion: “94% of catch is released alive or sold to local markets.”

Clarification: This is a misleading statement, representing data from a single fishing season (2015-16), during which less than 10% of all fishing trips had an onboard observer to ensure accurate catch documentation. Below is a chart from the Pacific Council showing the performance of the fishery in relation to its finfish bycatch over a 10 year period. As the chart indicates, the decadal estimate of finfish bycatch from 2004-2014 is 64% (36% retained catch), far greater than what some have proffered when cherry picking information from a significantly shorter timeframe. The data provided in the chart is from a period when all bycatch minimization measures were in effect including pingers, net extenders, the Pacific Leatherback Conservation Area, and emergency measures to protect sperm whales. This also does not include the catch of protected species. This brings into question whether a mile-long net can be made more selective or sustainable, or whether high bycatch rates are fundamental to the gear.

Table 9. Performance objectives for finfish bycatch (no. of individuals) in the DGN fishery, Alternative 1 and Alternative 2. Based on expanded average annual catch rates (2004-2014) from NMFS observer data.

Species	Estimated average annual caught	Estimated average annual retained	Estimated average annual discarded	Estimated average annual discarded dead	Estimated average annual discarded alive	Estimated average annual unknown	Alternative 1: Estimated Percentage retained/caught	Alternative 2: Estimated Percentage retained/retained+dead+unkn
Albacore	590	563	27	27	0	0	95.4%	95.4%
Bigeye Thresher Shark	116	59	57	55	1	1	51.0%	51.4%
Blue Marlin	1	0	1	1	0	0	0.0%	0.0%
Blue Shark	962	1	961	593	343	25	0.1%	0.1%
Bluefin Tuna	384	365	19	19	0	0	94.9%	94.9%
Bullet Mackerel	101	41	60	59	0	1	40.9%	40.9%
Common Mola	8,910	7	8,919	331	8,520	69	0.1%	1.8%
Common Thresher Shark	846	813	33	22	11	0	96.1%	97.3%
Opah	1,066	1,035	31	28	3	0	97.1%	97.3%
Pacific Bonito	352	111	241	228	13	0	31.5%	32.7%
Pacific Mackerel	632	95	537	501	36	0	15.1%	16.0%
Shortfin Mako Shark	998	932	66	40	26	1	93.4%	95.8%
Skipjack Tuna	1,142	417	725	710	12	3	36.5%	36.9%
Striped Marlin	36	0	36	36	0	0	0.0%	0.0%
Swordfish	2,131	2,070	62	58	4	0	97.1%	97.3%
Yellowfin Tuna	28	21	6	6	0	0	76.7%	76.7%
Other Finfish (40 species)*	327	179	150	91	55	5	54.6%	65.1%
Total Billfish (including swordfish)	2,168	2,070	99	95	4	0	95.4%	95.6%
Total Billfish (excluding swordfish)	37	0	37	37	0	0	0.0%	0.0%
Total Sharks (including blue)	2,953	1,813	1,140	730	383	27	61.4%	70.5%
Total Sharks (excluding blue)	1,991	1,812	179	137	40	2	91.0%	92.9%
Total Finfish Catch	18,622	6,708	11,933	2,806	9,022	105	36.0%	69.7%

Data source: NMFS Observer Data for CA DGN Fishery, 5/1/2003 - 1/31/2013. Estimated annual averages projected based on % observer coverage.

*Other finfish include species which had an annual average of less than 100 individuals caught, except for management unit species and blue marlin.

Assertion: S. 2773 and H.R. 5638 “[e]liminate a responsibly managed, sustainable U.S. fishery” and “[e]nd livelihoods, disrupt families, eliminate jobs[,] and hurt U.S. coastal economies;”

Clarification: These assertions are not accurate. S. 2773/H.R. 5638 provide a solution-based approach allowing DGN fishing to continue five years after its enactment while alternative gears become fully authorized, including deep-set buoy gear (DSBG), an innovative and selective new gear. According to recent analysis done by the Pacific Fishery Management Council’s Highly Migratory Species Management Team, a 200-vessel deep-set buoy gear fishery has the potential to land over 1,000 metric tons of swordfish.⁴ For context, that is more swordfish than the drift gillnet fishery has landed since the 1990s when there were few restrictions in place to

⁴Pacific Fishery Management Council, Highly Migratory Species Management Team Report on Deep-Set Buoy Gear Authorization – Range of Alternatives and Limited Entry Criteria, see tables 1 and 2, pp. 7-8, available at https://www.pcouncil.org/wp-content/uploads/2018/11/J4a_Supp_HMSMT_Rpt2_NOV2018BB.pdf.

protect vulnerable and endangered species.⁵ In 2017, the fleet caught 178 metric tons of swordfish.⁶ The bills also provide grant opportunities to help fishermen transition to new gears to keep them fishing swordfish, to switch to different fisheries, or to leave the fishery, if they so choose. This is in addition to the recently-enacted California law that will provide over \$100,000 to each active fisherman as part of a transition away from DGN gear.

Assertion: S. 2773/H.R. 5638 will “increase foreign imports from less responsible fisheries.”

Clarification: There is an ongoing debate over the “market transfer effect” (also known as conservation leakage). The market transfer theory suggests that when we decrease domestic catch of swordfish, foreign catch increases and causes more environmental damage than would have occurred had the domestic fishery remained open. Opponents point to a paper from 2016 concluding that when the U.S. closed the Hawaiian longline fishery due to bycatch of turtles, this caused foreign fisheries to increase production resulting in the death of more turtles. A follow up paper in 2017 rebutted these findings, concluding that “correlation does not imply causation” and that there were many other factors that influenced the swordfish markets.

Regardless, the expected outcome of this legislation is to transfer harvest from DGN to DSBG, resulting in no net loss of domestic swordfish harvest. Once fully authorized, a DSBG fishery has the potential to produce a significant amount of swordfish, which could lessen reliance on imported swordfish, provide more opportunity for West Coast fishermen, and increase domestic production.

Assertion: “Marine mammal and shark populations are healthy,” citing increases in abundance of elephant seal and sea lion pups.

Clarification: Providing graphs of elephant seal and sea lion abundance is misleading, because interaction and bycatch of pinnipeds historically have not been one of the major management concerns in the DGN fishery. According to the National Bycatch Report,⁷ the drift gillnet fishery in California kills more dolphins, porpoises and whales than all other West Coast and Alaska fisheries combined.

COMMON NAME	SCIENTIFIC NAME	YEAR	BYCATCH	UNIT
Bottlenose dolphin - California / Oregon / Washington Offshore	Tursiops truncatus	2007-2011	1.6	INDIVIDUAL
Long-beaked common dolphin - California / Oregon / Washington	Delphinus capensis	2006-2010	4	INDIVIDUAL
Northern right whale dolphin - California / Oregon / Washington	Lissodelphis borealis	2004-2008	3.6	INDIVIDUAL
Pacific white-sided dolphin - California / Oregon / Washington, Northern and Southern	Lagenorhynchus obliquidens	2007-2011	11.6	INDIVIDUAL
Risso's dolphin - California / Oregon / Washington	Grampus griseus	2004-2008	1.4	INDIVIDUAL
Short-beaked common dolphin - California / Oregon / Washington	Delphinus delphis	2004-2008	47	INDIVIDUAL
Sperm whale - California / Oregon / Washington	Physeter macrocephalus	2006-2010	3.2	INDIVIDUAL
Fishery Total			72.4	

⁵Pacific Fishery Management Council, Highly Migratory Species Stock Assessment and Fishery Evaluation Report, Number of vessels and commercial landings (round mt) in the West Coast drift gillnet fishery, 1990-2017, available at <http://www.pcouncil.org/wp-content/uploads/HMS-SAFE-Table-12.htm>.

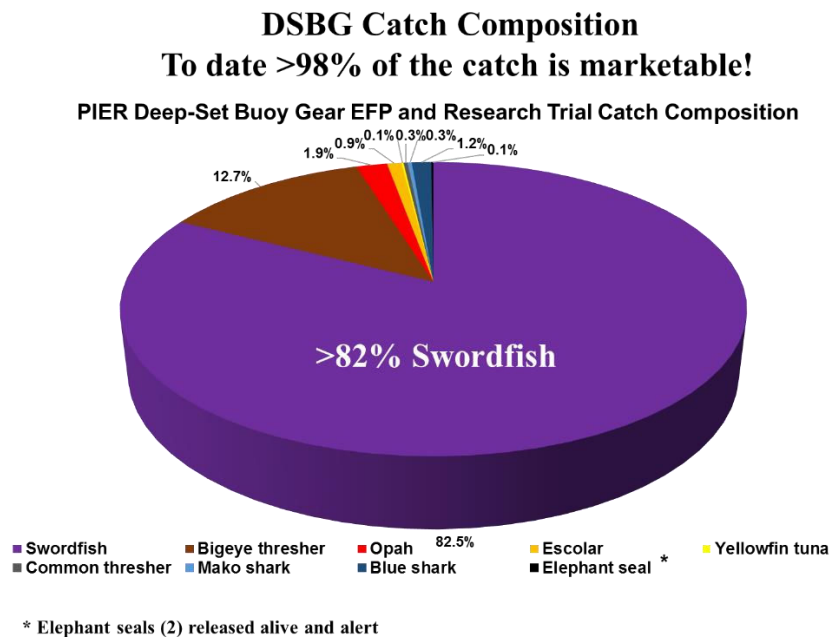
⁶Id.

⁷Available at <https://www.st.nmfs.noaa.gov/observer-home/first-edition-update-2>.

Assertion: Deep-set buoy gear only catches 1.7 swordfish per day, while driftnets catch 10.4 in the same amount of time.

Clarification: This data set is misleading and limited, only coming from the 2015 fishing season, early on in the experimental fishing permit testing. Over the last 10 years, on average, the DGN fishery caught 2.1 swordfish per set,⁸ not 10. During that same time period, swordfish accounted for less than 17% of the total catch in the fishery compared to deep-set buoy gear, which boasts a swordfish catch rate of over 80%.

Deep-set buoy gear has been proven to catch swordfish at commercial rates with minimal bycatch. This data has been collected over seven years, equating to over 8,000 hours of on the water trials, under variable ocean conditions with consistent catch composition and over 98 % marketable catch.⁹ DSBG caught swordfish can earn nearly double the price of DGN caught swordfish due to its higher quality, meaning fishermen make more profit per fish. According to the Pacific Council, in 2017, five vessels fishing DSBG landed swordfish valued at \$408,874 (\$81,774 per vessel) while seventeen DGN vessels landed swordfish valued at \$890,443 (\$52,379 per vessel).¹⁰ The gear is proving so successful that three times as many fishermen applied for exempted fishing permits to fish DSBG than are actively fishing DGN gear off the West Coast. Some of the DGN fishermen who participate in the DSBG fishery haven't put their driftnets in the water for several years due to their success with buoy gear.



⁸ NOAA Fisheries, National Observer Program, California/Oregon Drift Gillnet Fishery Catch Summaries, available at https://www.westcoast.fisheries.noaa.gov/fisheries/wc_observer_programs/sw_observer_program_info/data_summ_report_sw_observer_fish.html.

⁹ Pflieger Institute of Environmental Research. 2015-2016 PIER deep-set buoy gear EFP. Pacific Fishery Management Council Summary Report, March 2017, available at http://www.pcouncil.org/wp-content/uploads/2017/02/J2_Att2_PIER_2015-16_DSBG_EFP_SummaryRpt_Mar2017BB.pdf.

¹⁰ Pacific Fishery Management Council, Swordfish Landings Report, May 2018, available at https://www.pcouncil.org/wp-content/uploads/2018/05/G7_Att2_Landings_of_swordfish_2008-2017_Jun2018BB.pdf.