

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT ON
PACIFIC SARDINE LANDINGS 2015-2023

The California Department of Fish and Wildlife (CDFW) provides the following information for Pacific Fishery Management Council (PFMC) discussions regarding annual specifications for the Pacific sardine (sardine) fishery. On average, 2,189 mt of sardine have been landed each season since the closure of the directed sardine fishery (2015-2016 to 2021-2022, Table 1). Most of these landings were made by the live bait industry, followed by exempted fishing permittees, incidental take in other fisheries, and small amounts by the minor directed fishery since 2018. Sardine are landed incidentally in coastal pelagic species (CPS) fisheries, including northern anchovy, Pacific mackerel, and market squid in addition to a variety of non-CPS fisheries, such as Pacific whiting and prawn (Table 2). From 2015 to 2019, incidental sardine take was limited to not more than 40% by weight in CPS landings. With sardine declared overfished in June 2019, the incidental landing limit was reduced to not more than 20% by weight. Although the incidental sardine catch varies by year, season, and fishery, market squid continues to have the highest number of incidental sardine landings (Table 3).

Table 1: California landings (mt) of sardine in different sectors of the fishery.

Season	Incidental ¹	EFP ²	Live Bait ³	Minor Directed ⁴	Total
2015-2016	164	-	2,097	-	2,261
2016-2017	514	-	1,614	-	2,128
2017-2018	275	-	1,894	5	2,174
2018-2019	246	470	1,694	67	2,479
2019-2020	248	728	1,008	65	2,050
2020-2021	131	976	1,308	79	2,494
2021-2022	186	327	1,192	34	1,739
2022-2023⁵	161	146	848	39	1,195
Average⁶	252	626	1,544	50	2,189

¹Directed sardine fishery closed beginning with the 2015-2016 season. Incidental sardine take was limited to 40% in CPS fisheries and was reduced to 20% starting in the 2019-2020 season.

²Research take per [2018](#), [2019](#), [2020](#), [2021](#), and [2022](#) Exempted Fishing Permit requests.

³Reported catch from voluntary logbook submissions through December 2018 and from electronic fish tickets since January 2019.

⁴Minor directed fishery (<1 mt per landing) under CPS-FMP Amendment 16 beginning March 2018.

⁵2022-2023 data extracted from Marine Landings Data System on 2/28/2023. Data are preliminary and subject to change.

⁶Averages are for complete fishing seasons from 2015-2016 to 2021-2022.

Table 2: Amount and value associated with incidental sardine take in California fisheries. Tonnage values are for total non-sardine catch.

Fishing Season	Number of Landings (count) with Incidental Sardine	CPS landings (mt) with Incidental Sardine	Non-CPS landings (mt) with Incidental Sardine ¹	Value of Landings with Incidental Sardine (dollars)
2015-2016	67	1,535	0.4	\$ 527,711
2016-2017	178	3,806	0.9	\$ 2,622,084
2017-2018	93	2,302	9.7	\$ 1,945,469
2018-2019	140	2,562	5.1	\$ 2,163,842
2019-2020	387	5,148	2.7	\$ 4,747,100
2020-2021	251	2,714	25.3	\$ 3,337,907
2021-2022	271	4,748	0.1	\$ 5,999,764
2022-2023²	310	6,130	0.7	\$ 7,750,947
Average³	198	3,259	6	\$ 3,049,125

¹Incidental sardine caught outside of the CPS fishery.

²2022-2023 data extracted from Marine Landings Data System on 2/28/23. Data are preliminary and subject to change.

³Averages are for complete fishing seasons from 2015-2016 to 2021-2022.

Table 3: Number of California incidental sardine landings by primary CPS fishery (excluding live bait and EFP) and proportion of incidental sardine per landing for 2015-2016 to 2022-2023 (preliminary data) fishing seasons. Directed sardine fishery closed beginning with the 2015-2016 season. The 40% incidental sardine catch limit in CPS fisheries was reduced to 20% starting with the 2019-2020 season.

Target Species & Proportion of Incidental Sardine	Number of Landings per Sardine Fishing Season							
	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Northern Anchovy								
<10%	12	3	0	6	14	1	4	4
11-20%	1	3	1	4	13	4	3	4
21-30%	3	7	8	3	0	0	0	0
31-40%	0	9	2	6	0	0	0	0
Jack Mackerel								
<10%	1	0	1	0	0	0	2	1
11-20%	0	0	1	0	0	0	0	1
21-30%	0	0	0	0	0	0	0	0
31-40%	0	0	0	0	0	0	0	0
Pacific Mackerel								
<10%	10	14	1	3	3	3	3	0
11-20%	5	7	2	1	3	0	3	0
21-30%	4	4	1	0	0	0	0	0
31-40%	2	0	0	0	0	0	0	0
Market Squid								
<10%	26	101	61	88	320	198	213	247
11-20%	0	15	7	9	24	35	25	11
21-30%	1	8	0	5	0	0	0	0
31-40%	0	1	0	2	0	0	0	0
Other Fisheries								
<10%	0	4	5	10	10	10	18	42
11-20%	0	1	2	3	0	0	0	0
21-30%	0	1	1	0	0	0	0	0
31-40%	2	0	0	0	0	0	0	0