



CALIFORNIA WETFISH PRODUCERS ASSOCIATION  
1621 W. 25th Street, #191, San Pedro, CA 90732 \* [www.Californiawetfish.org](http://www.Californiawetfish.org) \* (907) 317-9127

Mr. Brad Pettinger, Chair  
And Members of the Pacific Fishery Management Council

RENEWAL OF EXEMPTED FISHERY PERMIT (EFP)  
TO ALLOW FISHING OF PACIFIC SARDINE FOR BIOLOGICAL SAMPLES IN 2025-26 NEARSHORE  
RESEARCH PROGRAM

Dear Chair Pettinger and Council Members,

On behalf of CWPA, I am submitting this request for renewal of the EFP authorizing sardine fishing to collect fishery-dependent biological samples, continuing the field work begun in May 2020.

**Date of Application (4a):** March 15, 2025

**Applicant Name and Mailing Address (4b):**

California Wetfish Producers Association  
1621 W. 25th Street #191  
San Pedro, CA 90732  
(907) 317-9127

**Purpose and Goals/Justification/Disposition of Catch (4c and d)**

The proposed EFP will serve the primary objective of continuing a time series of fishery-dependent biological data for use in sardine biomass models and stock assessments. This EFP also collects biological data from two primary fishing areas during periods of the year not included in NOAA biomass surveys, to study the stock structure and dynamics of Pacific sardine, currently comprising northern and southern stocks (similar to the work done under the Saltonstall-Kennedy (SK) grant investigating seasonal nearshore dynamics of Pacific sardine). Since 2020, the Council has recommended and NMFS has approved EFPs allowing up to 520 mt of Pacific sardine to be harvested, based on the first of these objectives. To maintain a continuing time series of fishery-dependent biological data (and conduct research under the SK grant) we again request 520 mt of Pacific sardine. The amount requested would come from the 2025-26 ACL for use during the fishing year from July 1, 2025 to June 30, 2026. Based on recent catches, we believe that the 2025-26 ACL would sufficiently cover this, as well as all other uses approved.

Our initial 2020 EFP was motivated by the need to maintain a consistent time series of fishery-dependent age and growth data for Pacific sardine stock assessments. The 2020 Pacific sardine STAR Panel review noted that the model used to estimate abundance had lacked fishery-dependent biological and age data from 2015 forward due to the closure of the directed Pacific sardine fishery. Establishing a data collection protocol that mimics a small directed sardine fishery fills this void by providing fishery-dependent data for use by the Stock Assessment Team (STAT) in its assessment models. The EFP's structure and protocols were developed in coordination with the Southwest Fisheries Science Center's lead Pacific sardine stock assessment scientist and

the California Department Fish and Wildlife CDFW) to use a systematic framework for carefully controlled collection of sardines that mirror directed fishery landings for biological information, including age, in both Southern California and the Monterey-Central Coast throughout the usual fishing year.

Responding to a question from the CPS Management Team regarding the value of these data, senior assessment scientist Dr. Kevin Hill affirmed the continuing importance of maintaining a time series of fishery-dependent age data, while the Pacific sardine fishery remains closed stating, “Biological samples from EFP fishing permits (directed loads), as well as the live bait fishery, are essential to assessing the sardine population. It is important to correctly characterize fishery removals with this sampling, because samples collected from incidental catches do not necessarily reflect local population demographics accurately due to size-selective schooling with other species (e.g. anchovy, mackerels).” (Personal Communication, September 2, 2022). The most recent sardine assessment (Allen Akselrud, et al. 2025) included sample data from the EFP through June 30, 2024 and used the model from the 2024 benchmark assessment. The absence of biological sampling to obtain fishery-dependent data after the anchovy fishery declined in the early 1980s caused a 25-year gap in fishery-dependent data, which limited stock assessment scientists’ ability to develop a new model-based anchovy stock assessment. This EFP is intended to prevent that problem from occurring in Pacific sardine management by filling the data void arising from the directed fishery closure.

The EFP would allow harvesters to collect biological and age data representative of fishery-dependent samples unavailable because of the directed fishery closure. To provide data that are most reflective of typical fishery-dependent data streams, we collect EFP sets from two areas: Southern California and the Monterey-Central Coast. Harvests under the EFP would be limited to 520 mt of sardines (approximately 26 sets of 20 tons on average). In some of the earlier EFPs we used grant monies to help offset operating costs incurred by EFP fishermen. With no grant monies currently available, we propose to maintain the projected EFP catches at an average of 20 mt per trip, the revenues from which are intended to offset costs of fishing.

#### **Broader Significance (4e)**

As noted above, this EFP maintains a biological sampling program that mimics a small directed fishery, which is essential to assess sardine life-history traits, and is particularly valuable as the directed fishery has been closed since 2015. Sardine from these EFP’s are sampled, processed, and curated by CDFW and are available to government and independent researchers upon request. These EFP biological samples were used for analysis in CWPA’s Saltonstall-Kennedy grant “Investigating Seasonal Nearshore Dynamics of Pacific Sardine (*Sardinops sagax*) in California.” The purpose of the study was to investigate the fine-scale spatial and temporal patterns of habitat used by sardine in the Southern California Bight (SCB). The study found that, from 2022-2024, the nearshore waters of the SCB were likely a year-round nursery for juvenile sardine. Specifically, small sardine were present monthly, and sampled by the majority of live bait operators, across an 18-month period spanning a wide range of sea surface temperatures (SSTs) and habitat. There were no temporal gaps in the presence of sardine in the SCB but periodic additions of potential new cohorts, as evidenced by the appearance of small sardine in monthly bimodal length distributions. While the overwhelming majority of sardine captured during the study were small and likely juvenile, the largest sardines were associated with warm sea surface temperatures. The EFP data collected in the study were used in two reports: “Nearshore waters of the Southern California Bight as a year-round habitat for small sardine (*Sardinops sagax*) from 2022 – 2024,” (VanNoord et al.); and, “Sardine Dynamics, Stock Structure and Implications for Management of the Northern and Southern Sardine Fishery Stocks,” (R.H. Parrish et al.). These studies, partially based on our EFP biological data, are important contributions to the scientific understanding of sardine stock structure used to inform the fishery’s management.

Opposing theories of sardine stock structure (see Zwolinski & Demer, 2023; Erismann et al., 2025; Craig et al. 2025) underlie the need for continued, fishery-dependent sampling of sardine proposed by this EFP. The current management paradigm is based on a hypothesis of two subpopulations (northern/southern) along the west coast of North America distinguishable by spawning and distributional patterns as well as differential life-history traits, with a habitat model used to classify catches as part of either the northern or southern subpopulation

(Zwolinski & Demer, 2024). In recent years, while the abundance of sardine off the Pacific Northwest has declined, sardine from Southern California have been increasing, most of which were classified as belonging to the southern stock, which is not subject to U.S. management. Erisman et al. (2025) and Craig et al (2025) challenge the biological underpinnings of the two-stock theory and assumptions used to divide the two stocks, instead suggesting that the length, age, and maturity of the regional distributions are representative of a single, panmictic population of sardine along the Pacific coast. Erisman et al. (2025) noted a “need to re-evaluate the biological criteria used to design research surveys, shape our biomass estimates and stock assessments, and define management units (i.e., stocks) of Pacific sardine in the U.S.” (Erisman et al., 2025). This EFP will continue the time series of fishery-dependent biological samples available to federal biologists, started in 2020, with the intention of supporting additional work to better understand sardine stock structure.

**Continuation of the EFP (4f)**

The EFP is proposed to be continued as long as the ongoing need for fishery-dependent biological samples for the stock assessment exists. Continuation also depends on the economic feasibility of the EFP, as determined by funding to support this fishing (including through the marketability of catches from the EFP).

**Vessels, Processors and Captains in the EFP (4g)**

CWPA has identified 8 vessels that meet the criteria for this research project: 5 in Central California and 3 in Southern California. Five of these vessels also participated in our 2021-22, 2022-23, and 2023-24 EFP work and the remaining 4 are participants in the current (2024-25) EFP. The owners and captains have reviewed this application and the procedures for the EFP and fully understand the process for collection of samples.

<b>VESSEL NAME</b>	<b>SKIPPER</b>	<b>OWNER</b>	<b>USCG /REG</b>	<b>CPS PERMIT</b>
<b><i>Southern CA</i></b>				
Triton	Pete Ciaramitaro	Triton Fishing Inc.	CF7218UH	14
Provider	Jamie Ashley	Provider LLC	D572344	1
Eileen	Corbin Hanson	Hanson Fisheries Corp.	D252749	38
<b><i>Monterey</i></b>				
King Philip	Pence MacKimmie	Mack Squid, LLC	D1061827	9
Trionfo	Aniello Guglielmo	Neil Guglielmo	D625449	45
Ocean Angel III	Phillip John Cunha	Ocean Angel III, LLC	OR108ADL	13
Ocean Angel	Frank Lombardo/Joseph Olmo	Ocean Angel IV, LLC	OR868ADK	22
Natalie Rose	Dominic Aliotti	Natalie Rose LLC	D685870	48

Five processors have been identified to participate in the EFP, 2 in Southern California and 3 in Central California:

Cal-Marine Fish Co., 220 Cannery Street, San Pedro, CA 90731  
(offloads FV Eileen, FV Provider, Contact; Vince Torre)

J. DeLuca Fish Company, 2194 Signal Place, San Pedro, CA 90731  
(offloads FV Triton; Contact: John DeLuca)

Cal-Marine Fish Co., 960 South Sanborn Road, Salinas, CA 93901, offloading in Moss Landing, CA  
(offloads FV King Philip; Contact Ken Towsley)

Southern Cal Seafood, Monterey, CA; Contact Pete Guglielmo  
(offloads FV Trionfo)

Del Mar Seafoods, 331 Ford Street, Watsonville, CA; Contact Carter Goetz or Joseph Roggio  
(offloads FV Ocean Angel III, FV Ocean Angel, and FV Natalie Rose)

#### **Species to be harvested (4h)**

Under this project, purse seine vessels will be directed to capture approximately 20 mt (on average) of sardines each month in each area, with total catch of at most 520 mt. An EFP is necessary because the directed Pacific sardine fishery is closed and is anticipated to remain closed in 2025-26. No measurable impacts to non-target species are anticipated.

#### **Justification of the amount of harvest (4i)**

The request for 520 mt of sardines to support this EFP will allow for approximately 26 sets of approximately 20 mt each spread throughout the year. The quantity of fish requested creates a reasonable incentive for fishermen to participate in the EFP, given fuel and crew costs and the potential for some trips to yield no or few sardines. The sale of fish also helps to offset costs for processors who support the EFP through fish handling and bucket sampling the sets. This request amount acknowledges the current stock status of the northern subpopulation of Pacific sardine, and the need for allocation of available tonnage to other fishery sectors.

#### **Monitoring of catch (4j)**

Fishermen will maintain a log to identify the location and time of each set (see Appendix 3). Upon landing, biologists will take a subset of each set at the dock for processing to obtain biological characteristics and age of individual fish. Processors will maintain bucket sample records of the weight of Pacific sardine and other species groups, to validate species composition.

CWPA will notify NMFS and CDFW Enforcement at least 12 hours before a vessel goes out to inform them of vessel's name and locations to be targeted for sampling, and the processor who will be receiving research fish that day. CWPA will also report the landing, lat/long position of the catch and the total catch in relation to the total EFP amount at the conclusion of every EFP trip.

In addition, CWPA will maintain a record of the volume/total weight of sardines captured on each trip and will monitor progress toward the EFP limit. These weights and species composition per set will also be included in a final report.

#### **Data collection methods (4k)**

All trip catches will be subsampled by CDFW biologists dockside upon landing. CDFW biologists will obtain a 5-gallon subsample of fish at quarterly intervals of pumping each set, using a quantitative bucket sampling method. Up to 50 fish per species (if set consists of mixed fish) per set will be collected by a CDFW biologist/sampler upon landing of the daily catch. The four collected fish subsamples will be stored in plastic bags and preserved on ice. At

the CDFW laboratories these samples will be measured for biological characteristics (length, weight, sex, maturity, and age).

Scientific data collection and analysis will be supervised by CDFW and NOAA scientific staff, who will collaborate on procedures to ensure and evaluate data quality during the survey, and on data analysis methodology through completion of the project.

**Vessel selection (4l)**

Vessels were identified for participation in the research based on vessel size, equipment, skippers' experience, and commitment to the research. The eight vessels identified have committed to participate voluntarily in this research, notwithstanding any other fishing opportunities during the project period. All vessels were qualified for the EFP in prior years and have the ability and expertise to carry out the required protocols.

**Fishing time, place, and gear (4m)**

This project will take place in nearshore waters of the Central Coast of California (Monterey – Half Moon Bay) and the Southern California Bight. We plan to follow the same protocols as currently employed (including attempting to schedule at least one set per month in both Monterey-Central Coast and Southern California to have samples distributed throughout the year) following the protocol recommended by sardine stock assessment scientists and federal and state scientists working on Pacific sardine research. Fishing gear used is purse seine net of suitable mesh size and length for capturing CPS schools.

We look forward to the opportunity to continue to provide support for sardine stock assessments and furthering the understanding of sardine stock structure through this EFP. Thank you very much for your consideration.

Sincerely,



Mark Fina  
Executive Director

References

Erisman, Brad, Matthew Craig, Kelsey James, Brittany Schwarzkopf, and Emmanis Dorval, “Systematic Review of Somatic Growth Patterns in Relation to Population Structure for Pacific Sardine (*Sardinops sagax*) along the Pacific Coast of North America, NOAA Technical Memorandum NMFS, January 2025.

Zwolinski, Juan P. and David A. Demer, An updated model of potential habitat for northern stock Pacific Sardine (*Sardinops sagax*) and its use for attributing survey observations and fishery landings, Fisheries Oceanography, 33:3, May 2024.

Allen Akselrud, Caitlin I., Alexander Jensen, Peter T. Kuriyama, Kevin T. Hill, Juan P. Zwolinski, Update Assessment of the Pacific Sardine Resource in 2025 for U.S. Management in 2025-2026, NOAA / NMFS, Southwest Fisheries Science Center.

VanNoord, Joel, “Nearshore waters of the Southern California Bight as a year-round habitat for small sardine (*Sardinops sagax*) from 2022 – 2024,” Unpublished Report on Saltonstall Kennedy Grant.

Parrish Richard H. and Diane Pleschner-Steele, “Sardine Dynamics, Stock Structure and Implications for Management of the Northern and Southern Sardine Fishery Stocks,” Unpublished Report.

CWPA EFP Application – Sardine Biological Sampling - submitted for 2025

Craig, Matthew, Brad E. Erisman, Ella S. Adams-Herrmann, Kelsey C. James, and Andrew R. Thompson, “The Subpopulation Problem in Pacific Sardine, Revisted”, NOAA Technical Memorandum NMFS, February 2025.

**Appendix 1A** – Summary of data collected in the 2024-25 EFP to date.

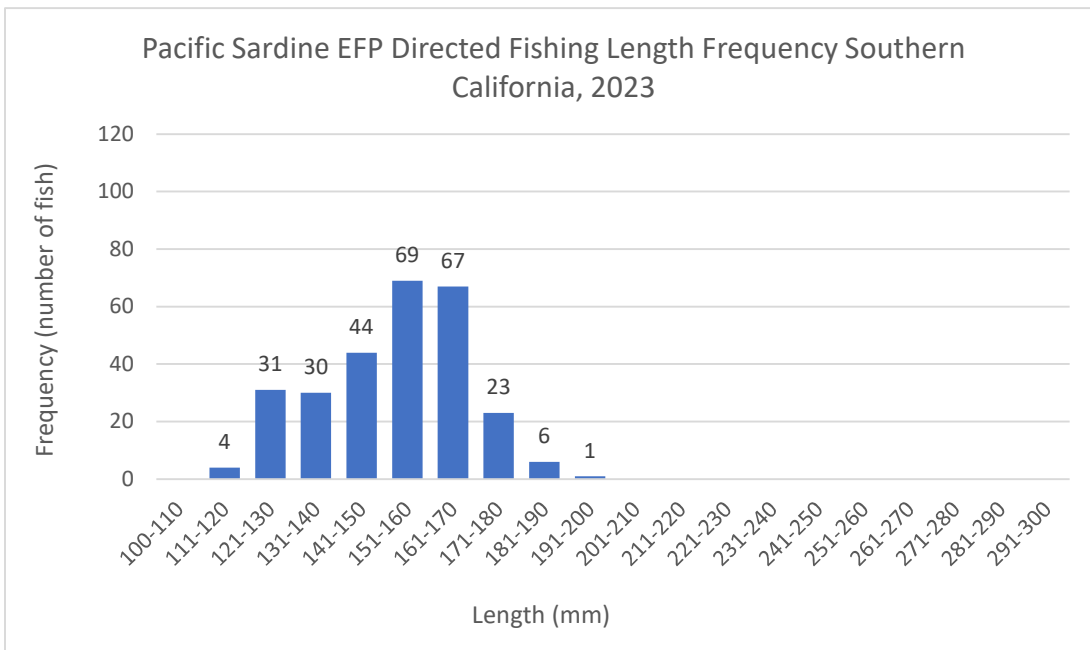
Dec 15, 2024- June 30 '2025 – 520 metric tons											
	S.CA		260 mt				Capture	Capture		Total Sardine	Sardine
	Set #		Landing Date	Vessel	Port	Processor	Latitude	Longitude	SST - F	Lbs	MT
Semester											
1	(EFP Permits received in December 2024)										
Jul-Dec '24	(EFP rec'd Dec 15 '24)										
Semester	1		1/21/2025	Eileen	San Pedro	Cal Marine	N 33.27.77	W 118.36.23	59	5,020	2.28
2	2		2/6/2025	Eileen	San Pedro	Cal Marine	N 33.43.32	W 118.06.16	57	73,036	33.13
Jan-Jun '25											
SubTotal										78,056	35.41
S.CA.											
Balance SCA (260 mt)											224.59
	MONTEREY		260 mt				Capture	Capture		Total Sardine	Sardine
	Set #		Landing Date	Vessel	Port	Processor	Latitude	Longitude	SST - F	Lbs	MT
Semester											
1	(EFP Permits received in December 2024)										
Jul-Dec '24	(EFP rec'd Dec 15 '24)										
Semester											
2											
Jan-Jun '25											
SubTotal										0	0.00
Monterey											
Balance Monterey											260.00
<b>TOTAL</b>											<b>484.59</b>
<b>BALANCE</b>											

**Appendix 1B** – Catches under EFPs 2019-20 through 2024-25, in metric tons.

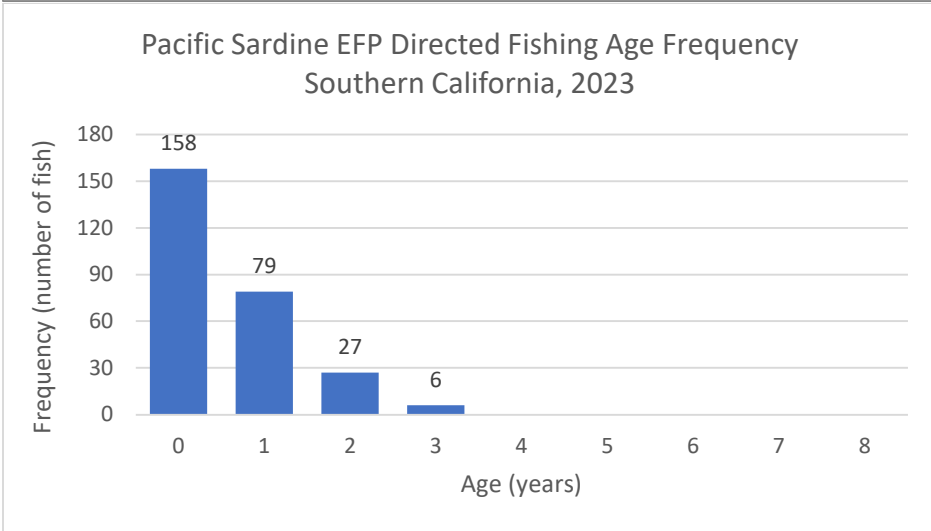
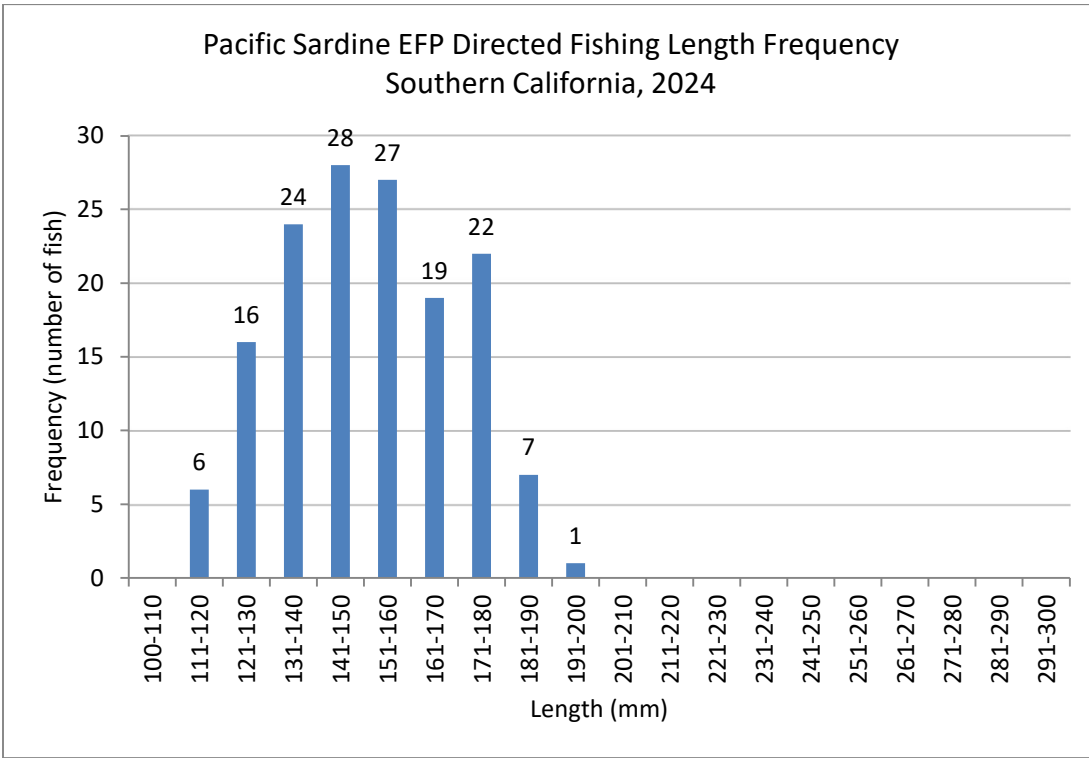
	Catch			Available	Unused
	Southern California	Central California	Total		
2019 - 2020	345.1	241.1	586.2	640	53.80
2020 - 2021	373.4	245.1	618.4	740	121.58
2021 - 2022	340.0	0.0	340.0	520	180.01
2022 - 2023	102.3	95.8	198.1	520	321.88
2023 - 2024	190.9	168.3	359.2	520	160.80
2024 - 2025	35.4	0	35.4	520	484.59

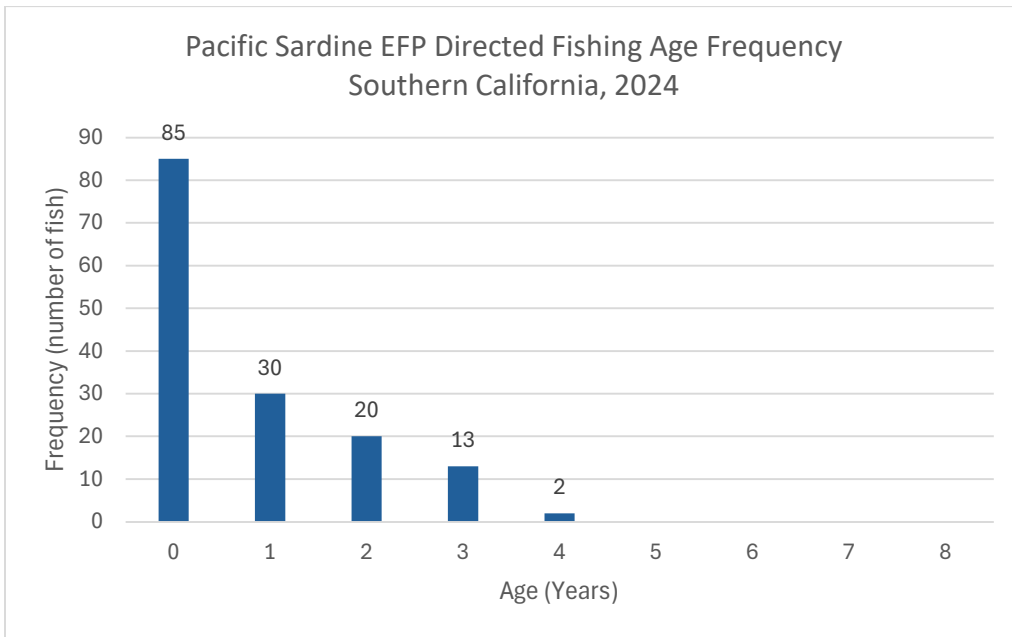
Note: Catches under the 2024-25 EFP have been limited by a delay in issuance of the permits related to ongoing litigation concerning the fishery. Those permits were issued on December 5, 2024.

**Appendix 2** – Data collected under EFPs (2020 – 2024).





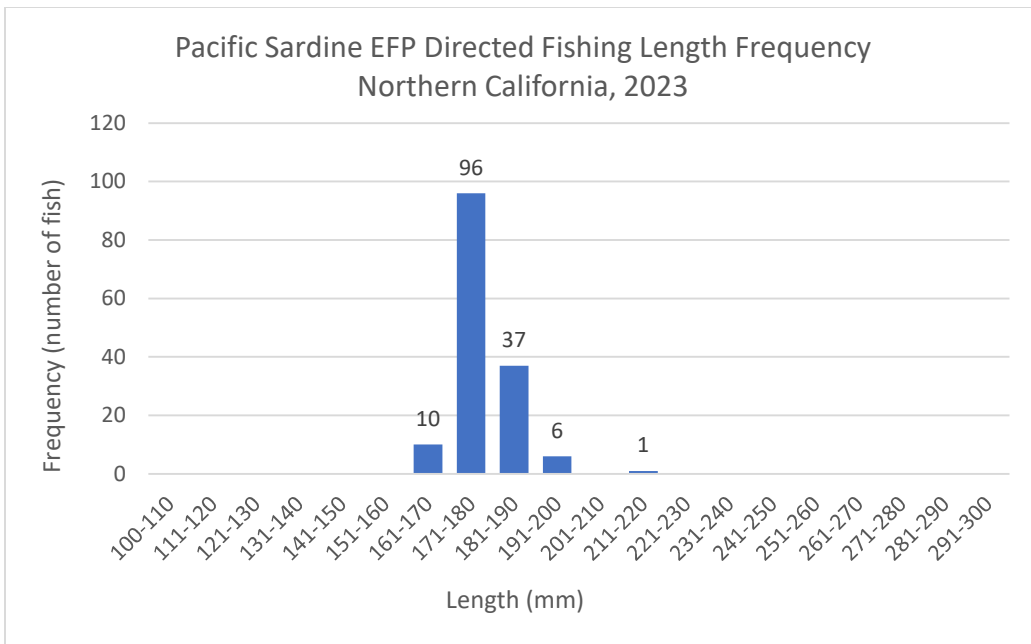




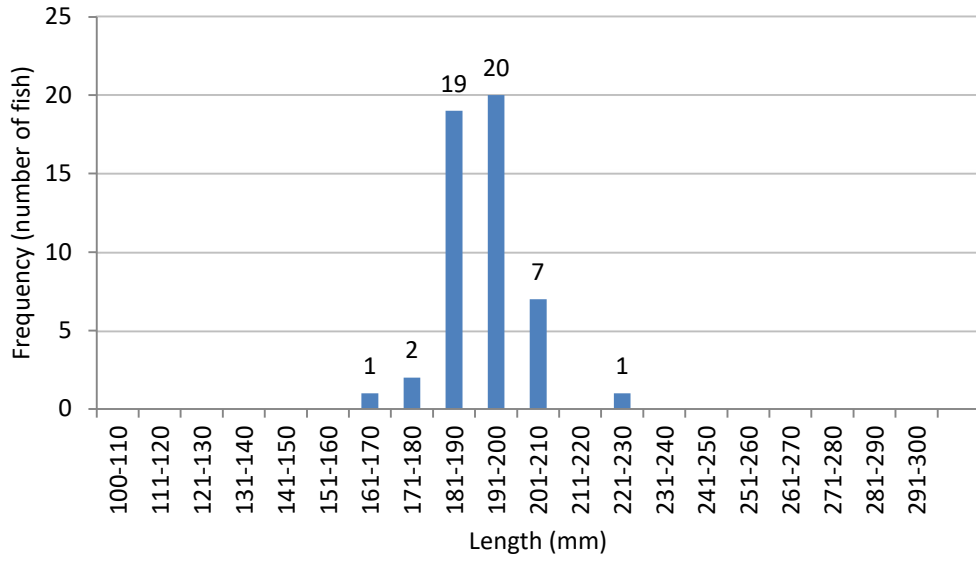
**South 2023**

Month	# of samples taken	# of fish
January	1	25
February	1	25
March	0	0
April	1	25
May	1	25
June	2	50
July	1	25
August	1	25
September	1	25
October	1	25
November	0	0
December	1	25
<b>Totals</b>	<b>11</b>	<b>275</b>

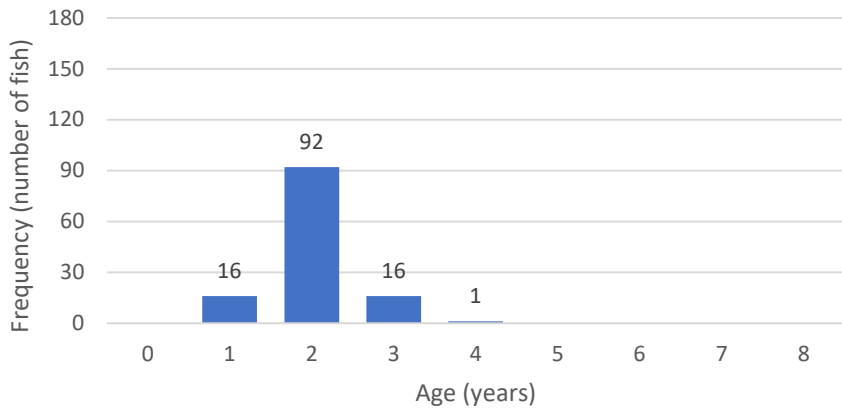
<b>South 2024 Month</b>	<b># of samples taken</b>	<b># of fish</b>
January	0	0
February	1	25
March	1	25
April	1	25
May	2	50
June	1	25
July	0	0
August	0	0
September	0	0
October	0	0
November	0	0
December	0	0
<b>Totals</b>	<b>6</b>	<b>150</b>

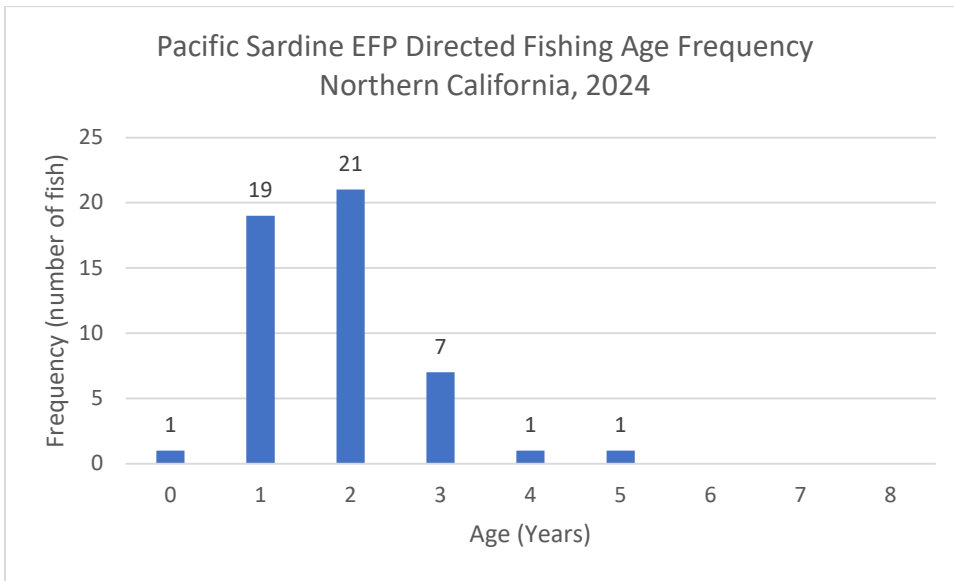


Pacific Sardine EFP Directed Fishing Length Frequency  
Northern California, 2024



Pacific Sardine EFP Directed Fishing Age Frequency  
Northern California, 2023



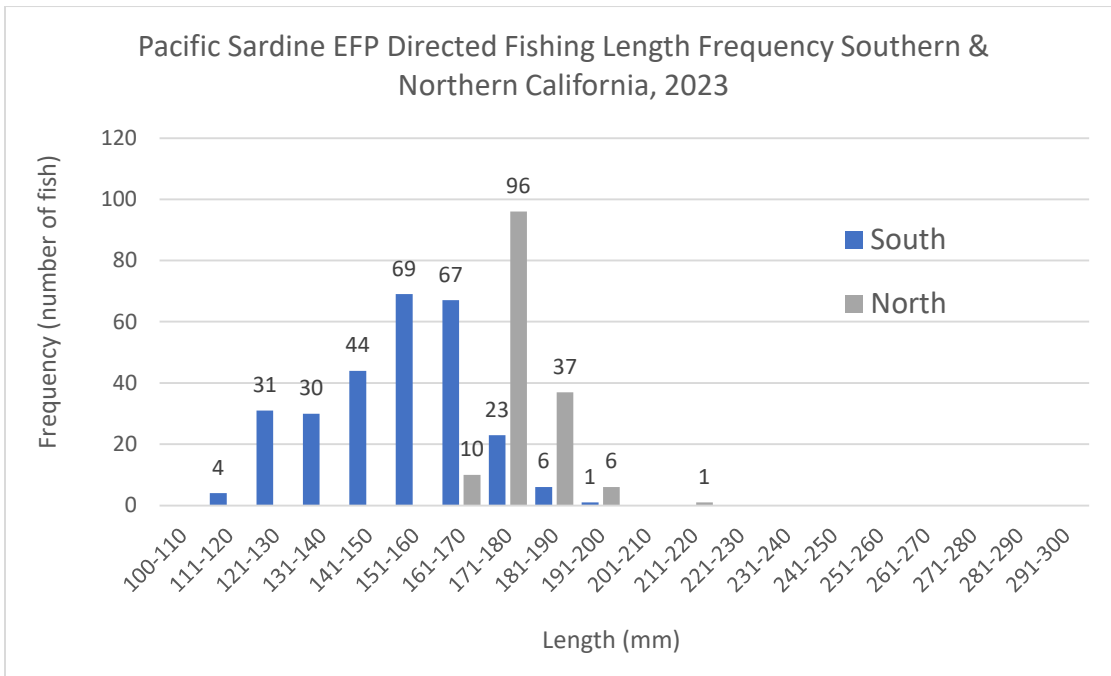


**North 2023**

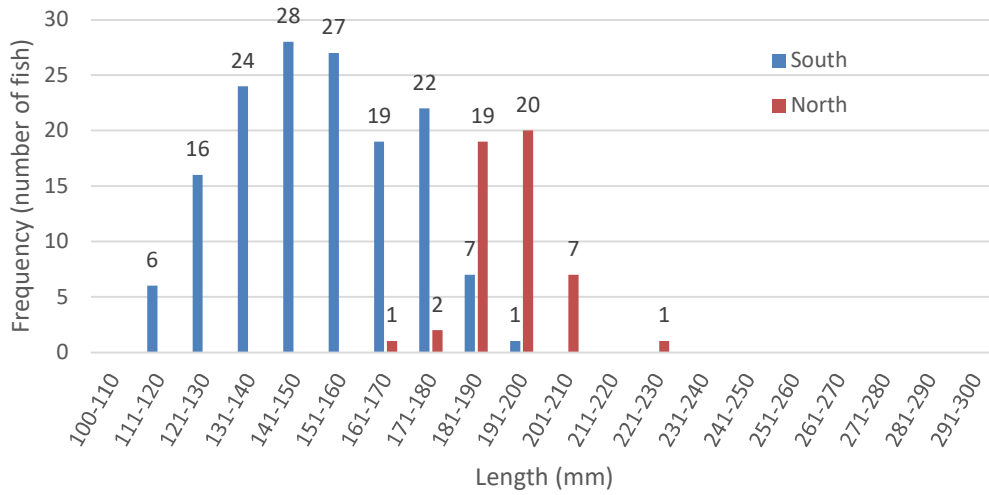
Month	# of samples taken	# of fish
January	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	1	25
August	0	0
September	2	50
October	2	50
November	1	25
December	0	0
<b>Totals</b>	<b>6</b>	<b>150</b>

**North 2024**

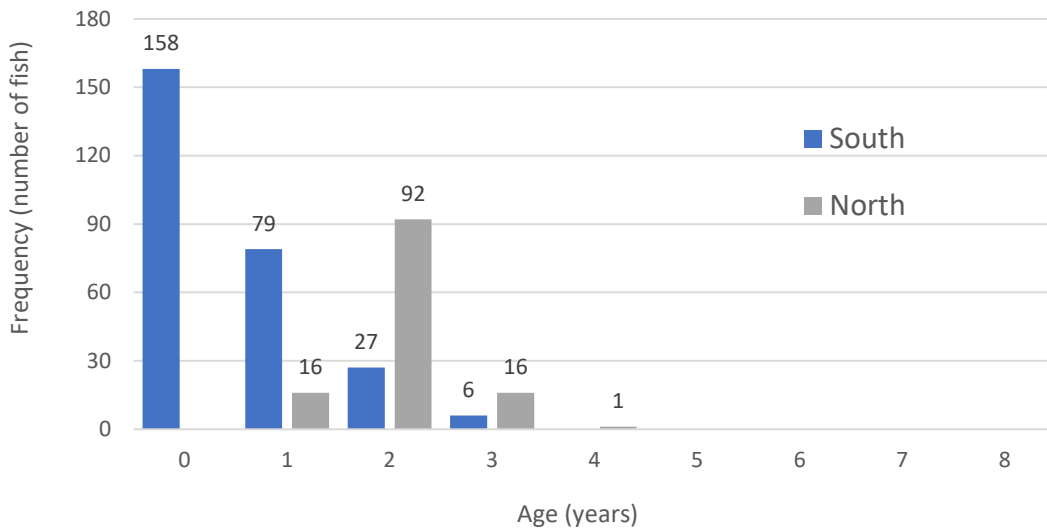
Month	# of samples taken	# of fish
January	0	0
February	0	0
March	0	0
April	0	0
May	2	50
June	0	0
July	0	0
August	0	0
September	0	0
October	0	0
November	0	0
December	0	0
<b>Totals</b>	<b>2</b>	<b>50</b>

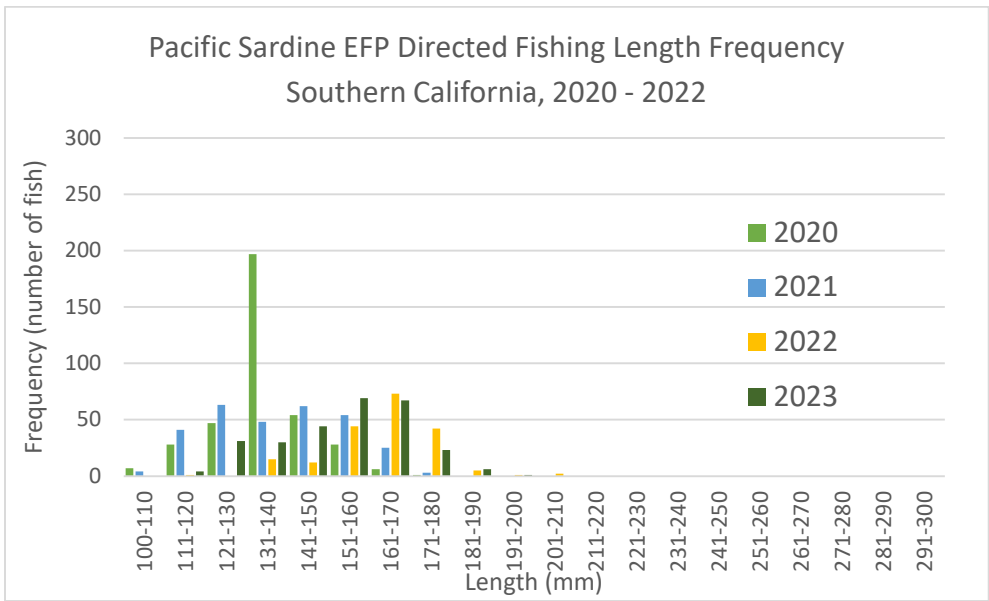
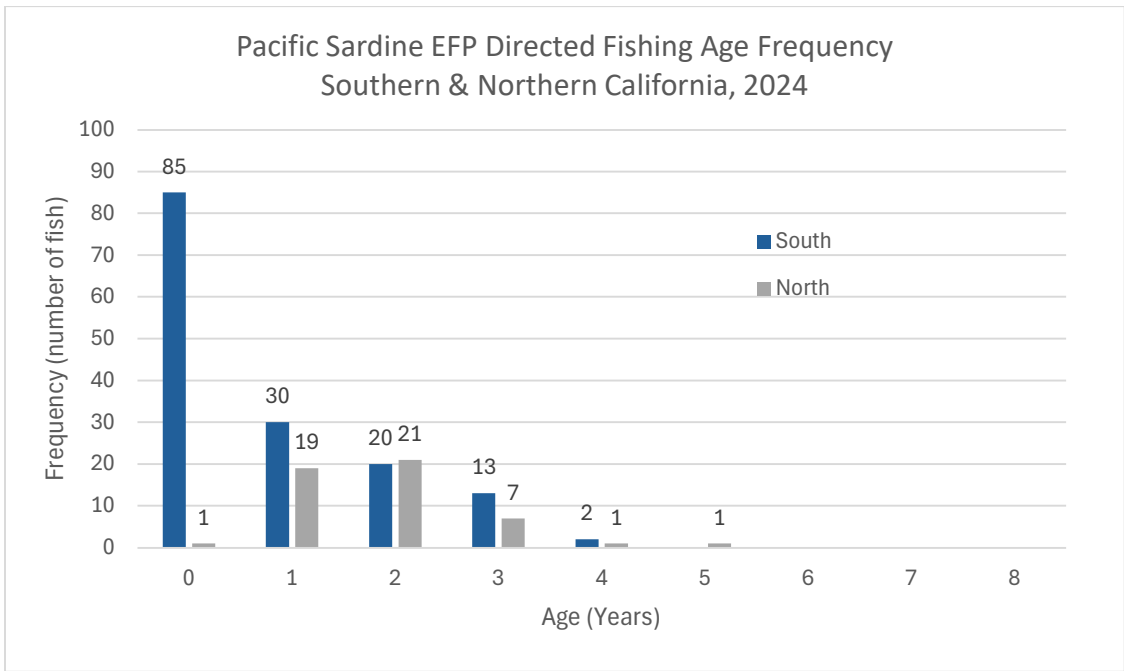


Pacific Sardine EFP Directed Fishing Length Frequency  
Southern and Northern California, 2024



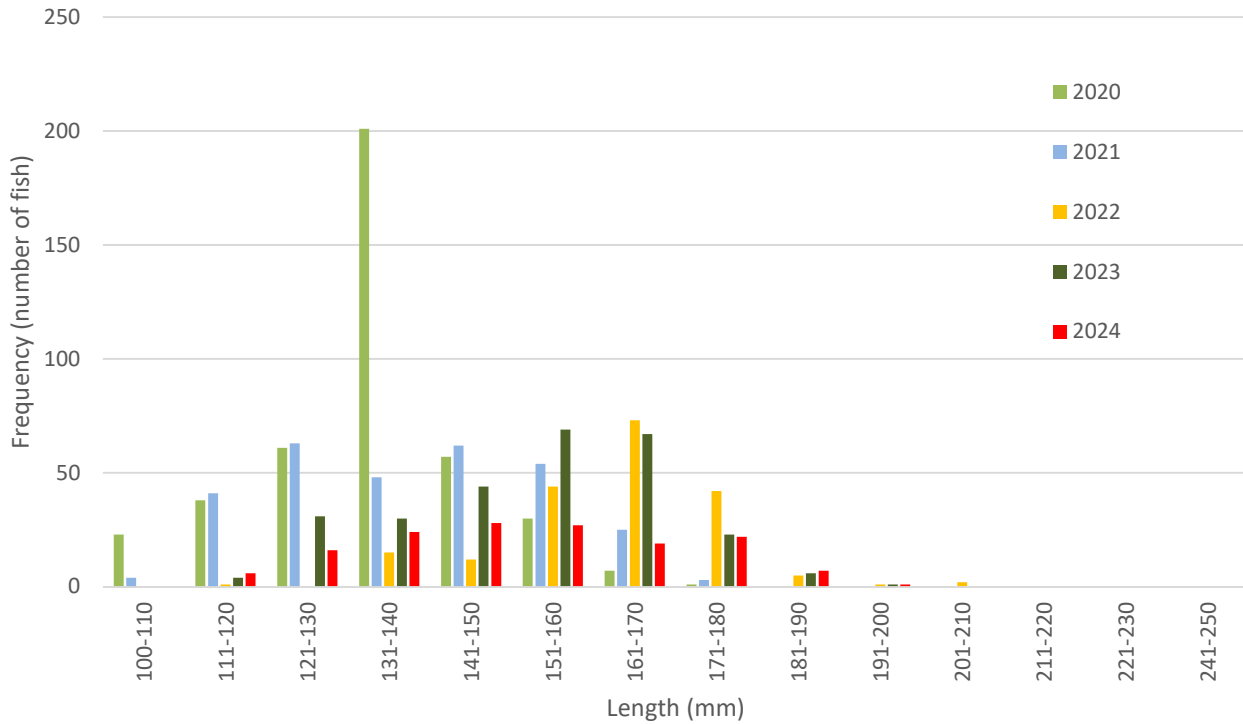
Pacific Sardine EFP Directed Fishing Age Frequency Southern & Northern California, 2023



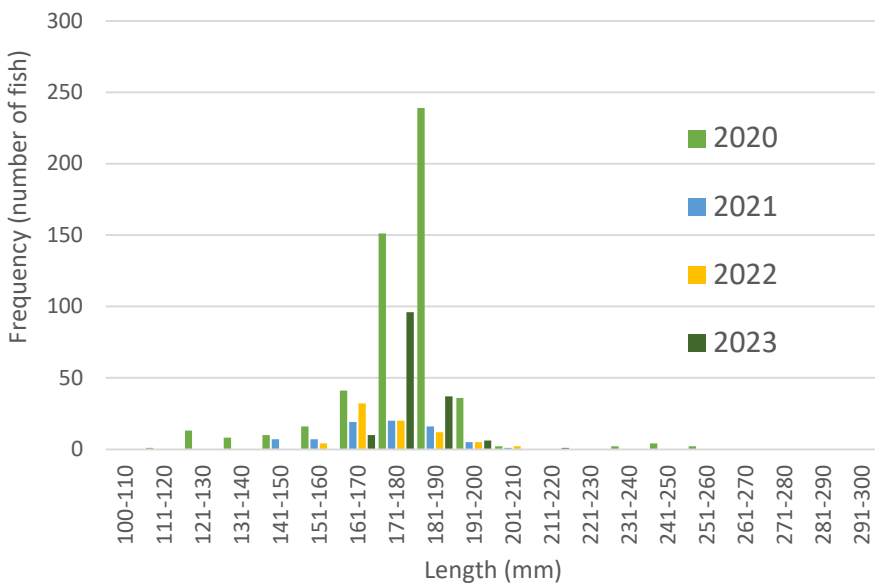




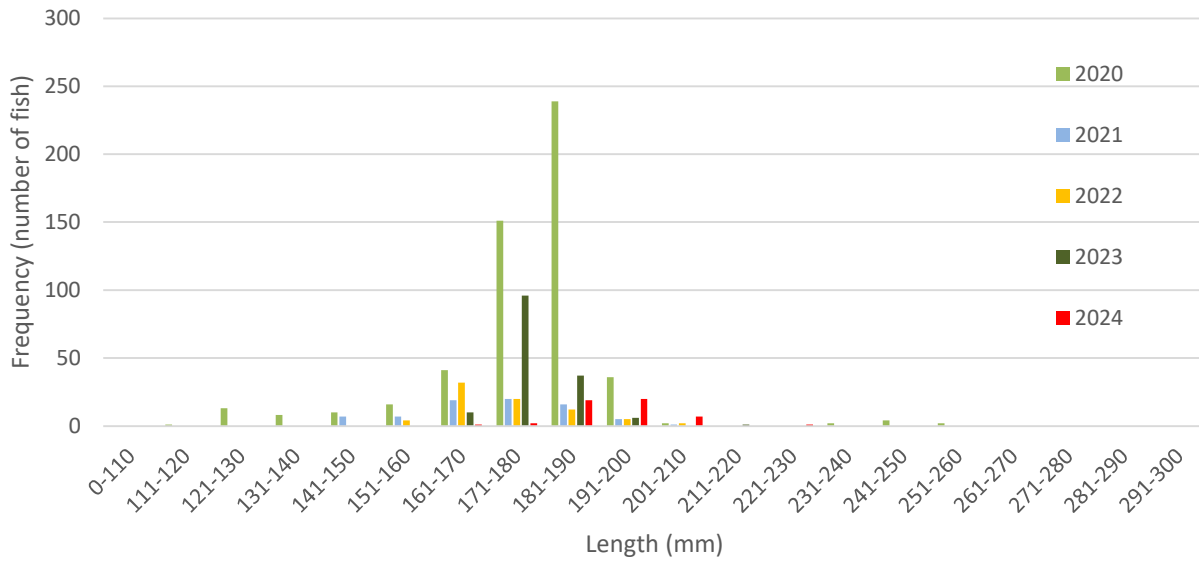
Pacific Sardine EFP Directed Fishing Length Frequency  
Southern California, 2020-2024



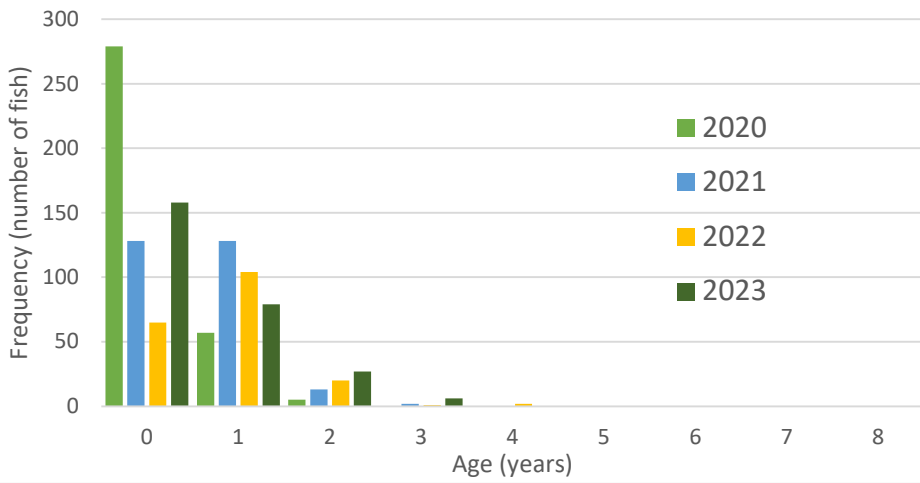
Pacific Sardine EFP Directed Fishing Length Frequency  
Northern California, 2020 - 2022

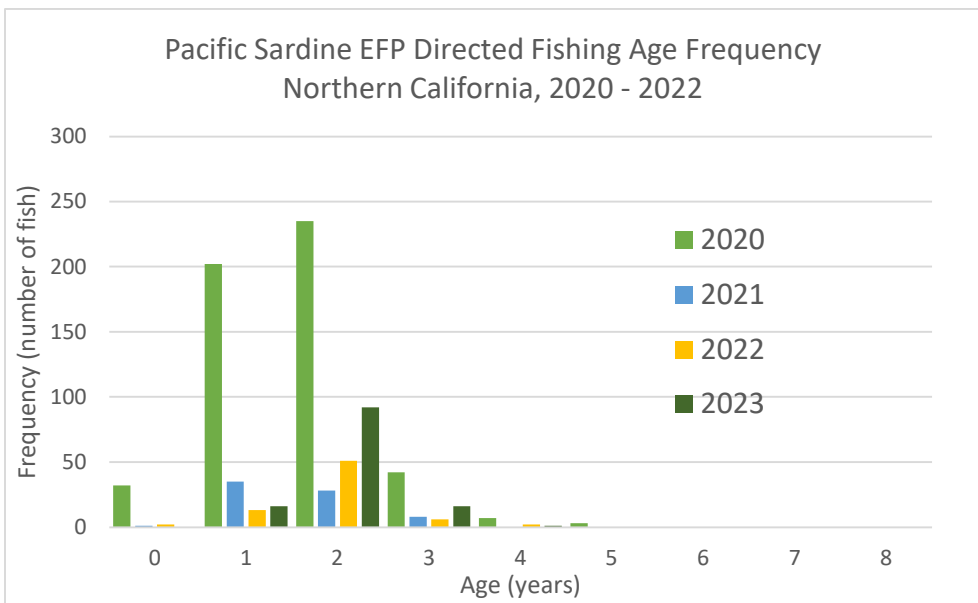
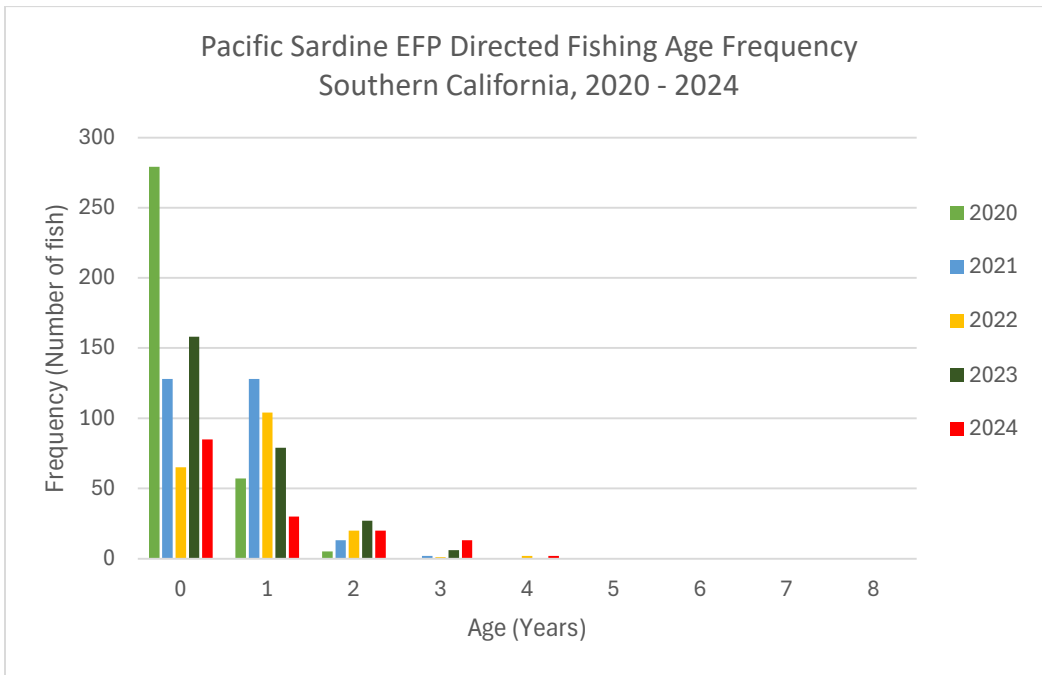


Pacific Sardine EFP Directed Fishing Length Frequency  
Northern California, 2020-2024

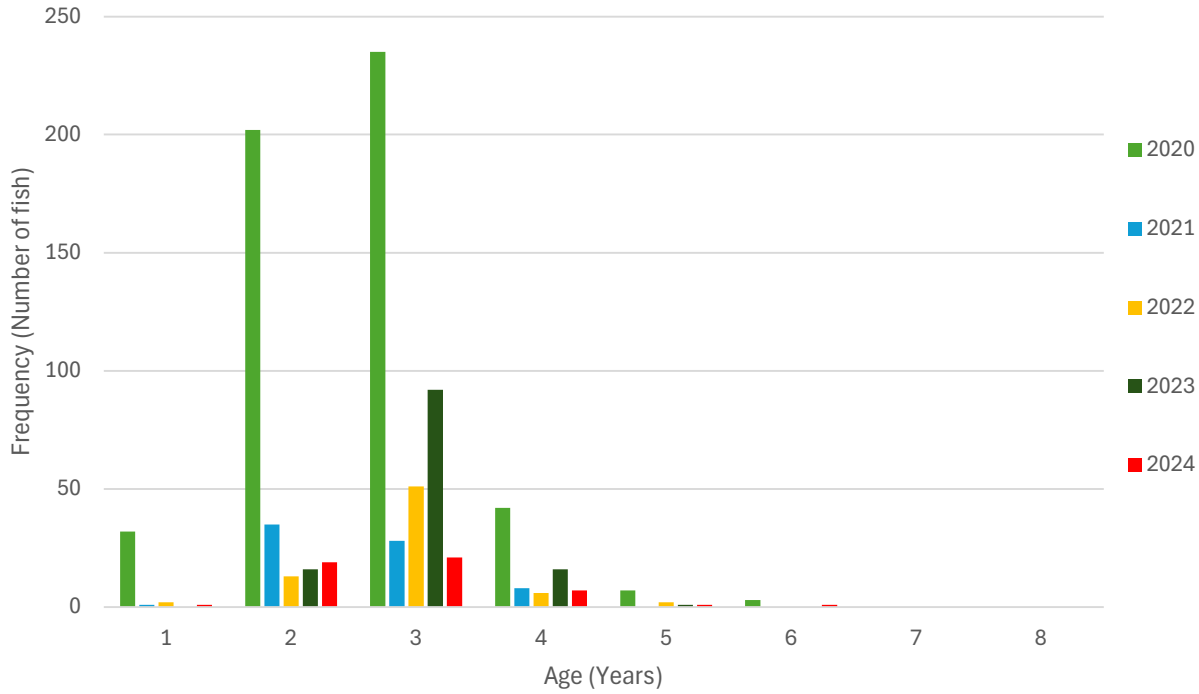


Pacific Sardine EFP Directed Fishing Age Frequency  
Southern California, 2020 - 2022

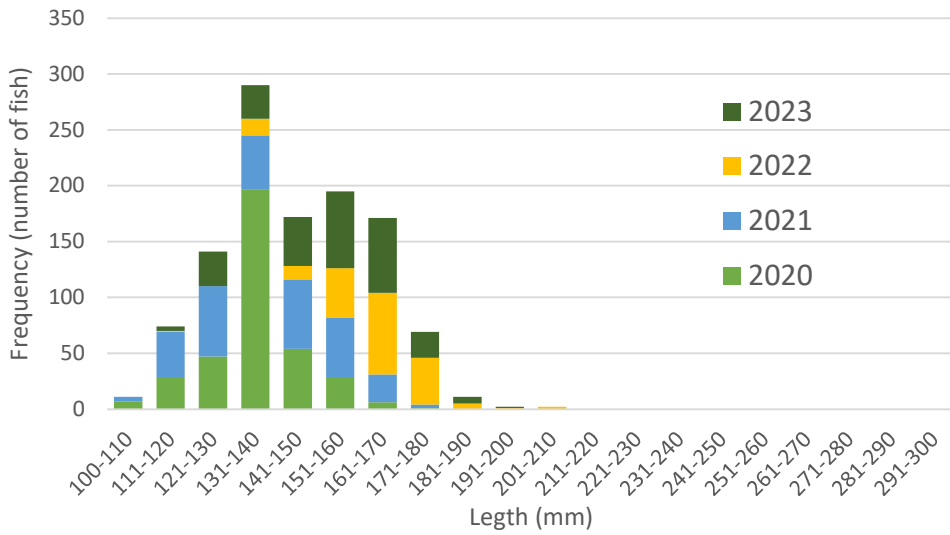




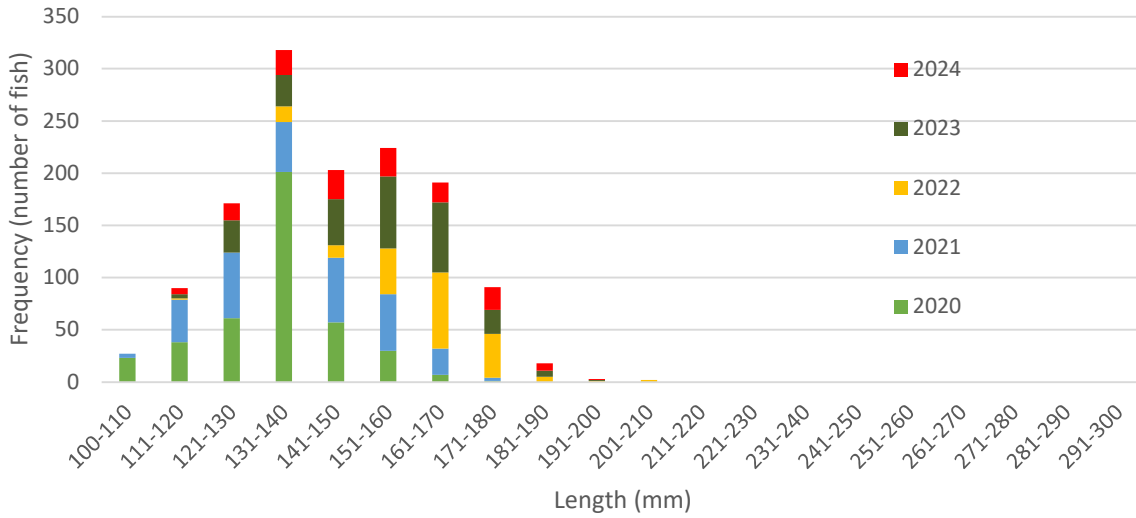
Pacific Sardine EFP Directed Fishing Age Frequency  
Northern California, 2020 - 2024



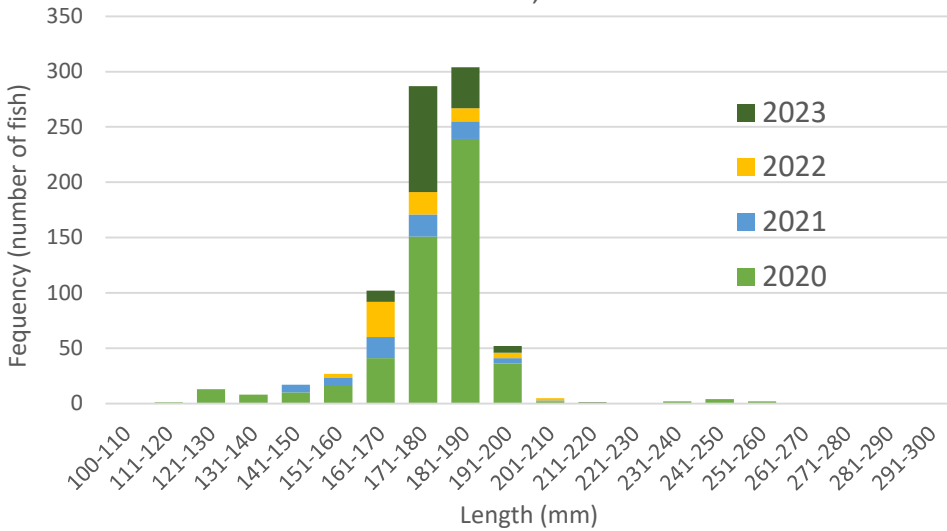
Pacific Sardine EFP Directed Fishing Length Frequency  
Southern California, 2020 - 2022



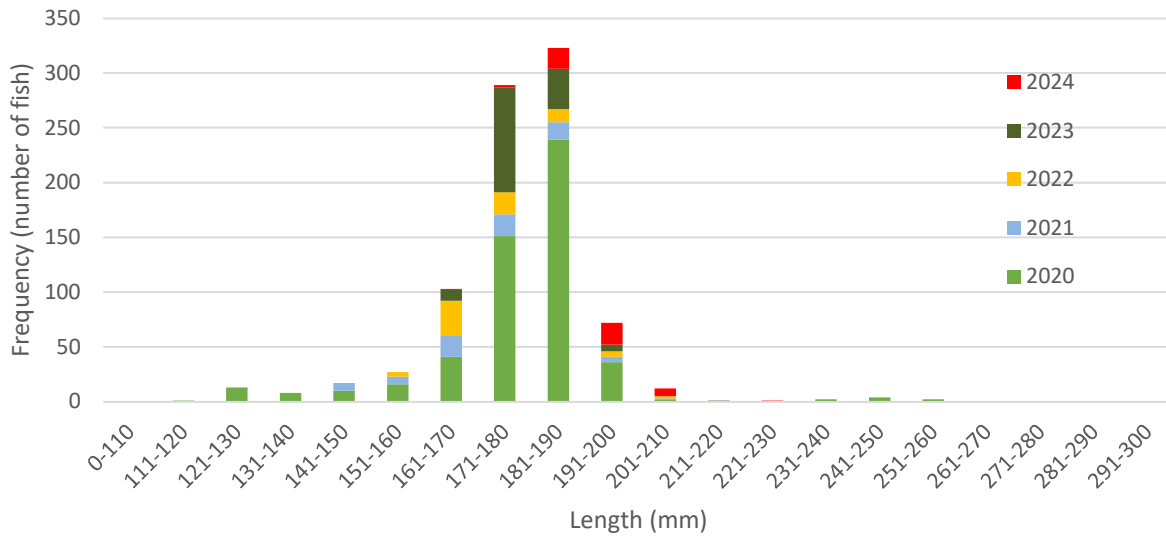
Pacific Sardine EFP Directed Fishing Length Frequency  
Southern California 2020-2024



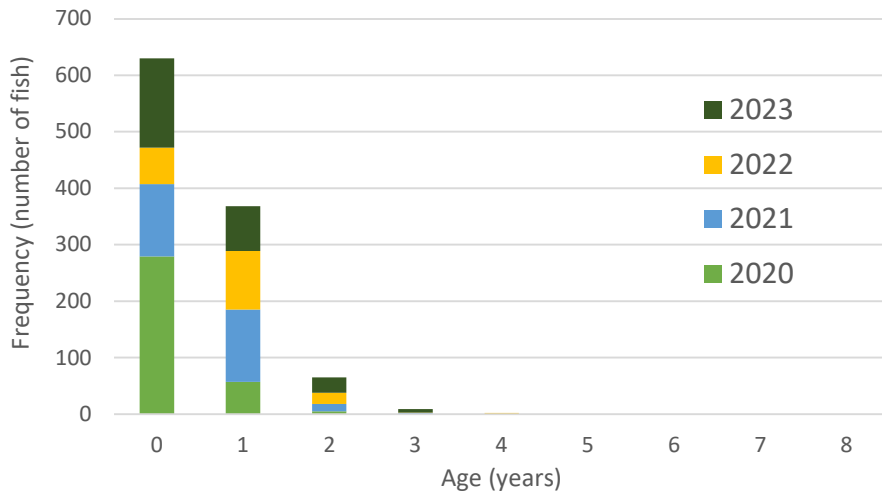
Pacific Sardine EFP Directed Fishing Length Frequency  
Northern California, 2020 - 2022



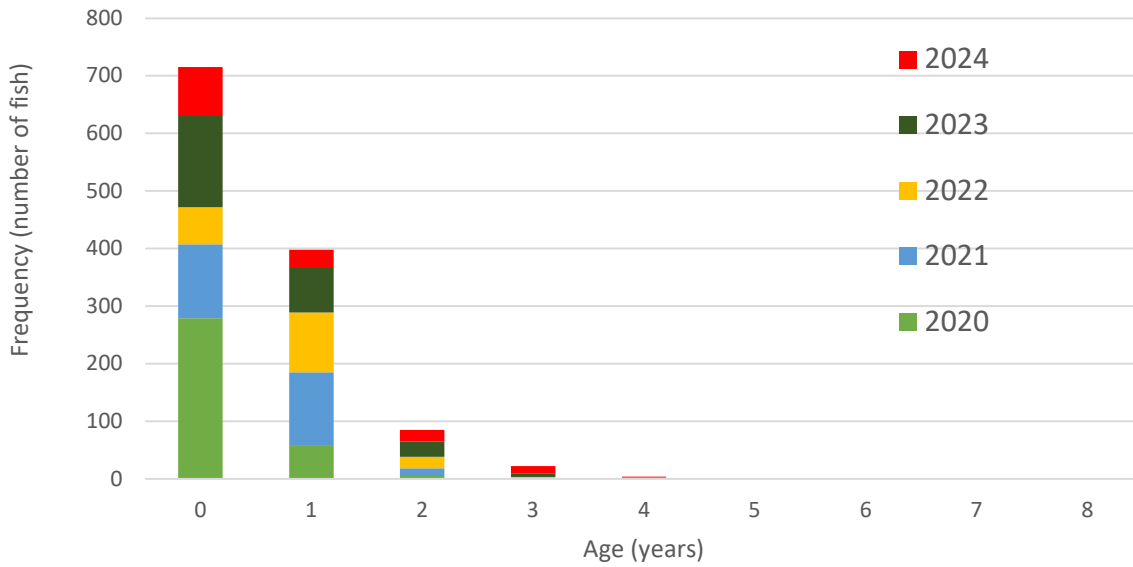
Pacific Sardine EFP Directed Fishing Length Frequency  
Northern California 2020-2024



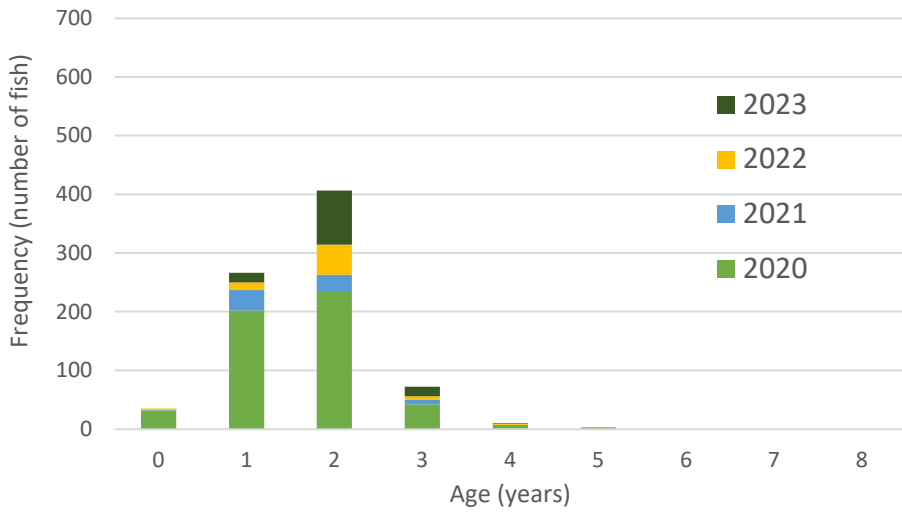
Pacific Sardine EFP Directed Fishing Age Frequency  
Southern California, 2020 - 2023



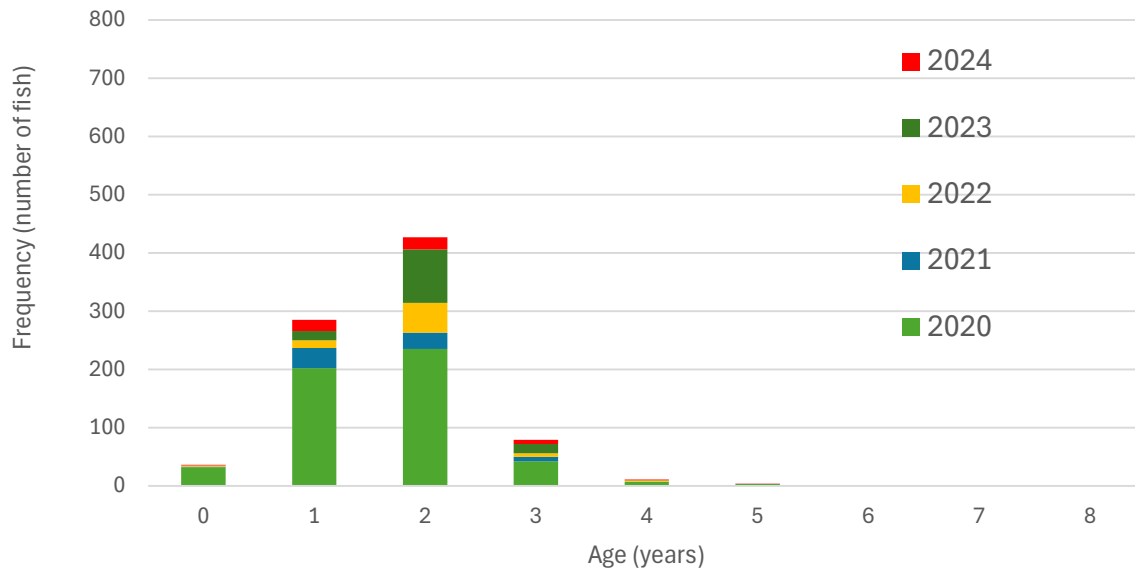
Pacific Sardine EFP Directed Fishing Age Frequency  
Southern California, 2020 - 2024



Pacific Sardine EFP Directed Fishing Age Frequency  
Northern California, 2020 - 2023



Pacific Sardine EFP Directed Fishing Age Frequency  
Northern California, 2020 - 2024



South Month	# of samples taken					# of fish				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
January	0	0	0	1	0	0	0	0	25	0
February	0	2	0	1	1	0	50	0	25	25
March	0	1	2	0	1	0	25	50	0	25
April	0	1	1	1	1	0	25	25	25	25
May	4	1	0	1	2	100	25	0	25	50
June	6	1	4	2	1	150	25	95	50	25
July	0	1	0	1	0	0	25	0	25	0
August	0	0	0	1	0	0	0	0	25	0
September	0	2	0	1	0	0	50	0	25	0
October	1	1	0	1	0	25	25	0	25	0
November	3	1	1	0	0	75	25	25	0	0
December	1	1	0	1	0	25	25	0	25	0
<b>Totals</b>	<b>15</b>	<b>12</b>	<b>8</b>	<b>11</b>	<b>6</b>	<b>375</b>	<b>300</b>	<b>195</b>	<b>275</b>	<b>150</b>



<b>North Month</b>	<b># of samples taken</b>					<b># of fish</b>				
	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
January	0	0	0	0	0	0	0	0	0	0
February	0	3	0	0	0	0	75	0	0	0
March	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0
May	3	0	0	0	2	75	0	0	0	50
June	11	0	0	0	0	275	0	0	0	0
July	0	0	0	1	0	0	0	0	25	0
August	0	0	0	0	0	0	0	0	0	0
September	5	0	2	2	0	125	0	50	50	0
October	1	0	1	2	0	25	0	25	50	0
November	1	0	0	1	0	25	0	0	25	0
December	0	0	0	0	0	0	0	0	0	0
<b>Totals</b>	<b>21</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>525</b>	<b>75</b>	<b>75</b>	<b>150</b>	<b>50</b>

**Appendix 3. Fisherman’s log form**

**CPS Biological Sample Sardine EFP  
Fisherman's Log Form**

Date: \_\_\_\_\_ Captain: \_\_\_\_\_

Vessel: \_\_\_\_\_ Processor: \_\_\_\_\_

Estimated Catch \_\_\_\_\_(st) Delivered Weight \_\_\_\_\_(lbs) Fish Ticket No. \_\_\_\_\_

Species Observed \_\_\_\_\_

**Hydroacoustic Gear**

Type	Make	Model	Frequency
Sounder			
Sonar			

**Net Dimensions**

Net Length (fm)	Net Depth (fm)	Mesh Size (in)

**School and Ocean Data**

Set Start Time	Latitude	Longitude	Top Depth of School (fm)	Bottom Depth of School (fm)	Ocean Depth (fm)	SST (F)	Weather Condition	Picture of Sonar (Y/N)

Weather Codes: 1= calm, clear; 2= light wind, good visibility; 3= moderate wind, fair visibility; 4= poor fishing conditions

**Comments and sonar interpretations:**

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