



# NMFS report: Coastal Pelagic Species Research Updates

Presentation to the Pacific Fisheries Management Council  
April 9, 2021

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# CPS assessment schedule

- Northern subpopulation of sardine:  
Catch-only projection (April 2021)
- Pacific mackerel:  
Catch-only projection (June 2021)
- Central subpopulation of northern anchovy:  
New benchmark assessment  
STAR panel (Dec 7-10, 2021)  
Presentation to Council (TBD; spring 2022?)
- Northern subpopulation of sardine:  
Update assessment (April 2022)

*Survey update provided on day 1*

# Ageing of anchovy and sardine otoliths

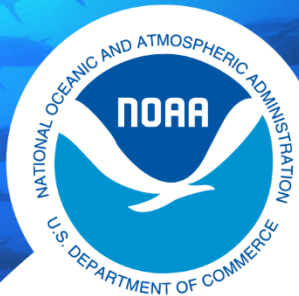
- SWFSC staff brought microscopes home and worked with CDFW partners to get trained on anchovy ageing
- 3,190 anchovy otoliths aged (double read) in preparation for the 2021 assessment
- 360 sardine otoliths aged from 2016 (a double read of previously aged otoliths)
- Note that there were no otoliths collected in 2020 due to impacted

surveys



Years Collected	Anchovy Aged
2015	496
2016	739
2017	692
2018	681
2019	582
<b>Total</b>	<b>3,190</b>

# Linking ocean projections and habitat change with future sardine landings



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The potential impact of a shifting Pacific sardine distribution on U.S. West Coast landings

James A. Smith , Barbara Muhling, Jonathan Sweeney, Desiree Tommasi, Mercedes Pozo Buil, Jerome Fiechter, Michael G. Jacox

First published: 07 February 2021 | <https://doi.org/10.1111/fog.12529>

<https://www.fisheries.noaa.gov/feature-story/pacific-sardine-landings-may-shift-north-ocean-warms-new-projections-show>

- This analysis links ocean projections, a sardine SDM (species distribution model), and a catch model
- Shifting northern subpopulation of sardine will benefit northern ports, but reduce catches at southern ports (southern subpopulation not studied in this paper)
- The impact on total catches depends on the rate of warming, with fastest warming (HadGEM2) leading to 20% fewer catches relative to the 2000-15 period

# Economic Survey of CPS Fleet



NMFS collects economic data to comply with a variety of laws and in support of fisheries management.

Current SWFSC objective is the collection of data for ~190 fishing vessel operations active during the 2014 or 2019 seasons.

Revenues, fixed costs, variable costs, # of employees, etc.

Data to facilitate use of IO-PAC, regional economic impact model (Leonard, 2011) to estimate the economic contribution and impacts of the fishery to regional economies.

Completed:

Survey protocol and questionnaire (OMB: 0648-0773).

Ongoing:

Compiling contact information. Initiating survey firm contract.

Next steps:

Field survey in Spring of 2021. Report on survey results.