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FISHERIES**

Agenda Item H.1.b
Supplemental NWFSC Presentation 1
November 2022

Science Center Activities

November 4, 2022

Craig Russell
Northwest Fisheries Science Center



Overview

- Surveys Update
- Salmon Bycatch Report

Surveys Update



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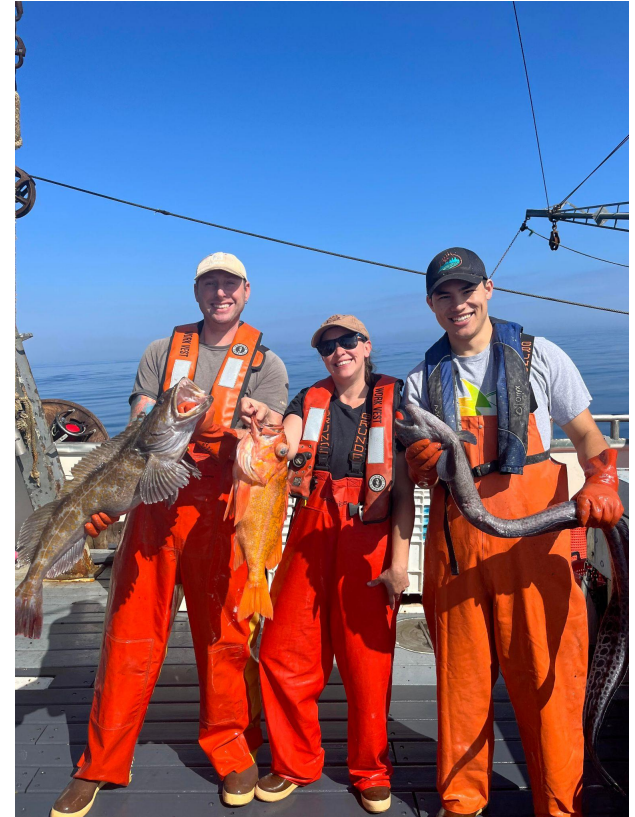
2022 Groundfish Survey Completed On Schedule

- Sampling ended Oct. 21 in Long Beach, CA
- COVID recurrence did not occur during Pass 2
- F/V Excalibur and F/V Noah's Ark returned to Newport, OR following departure of survey scientists



2022 West Coast Groundfish Bottom Trawl Survey

- Demobilization of the F/V Excalibur and F/V Noah's Ark in Newport, OR
- Nets delivered to Bainbridge Island, WA and gear offloaded Nov. 3 at Sand Pt. in Seattle

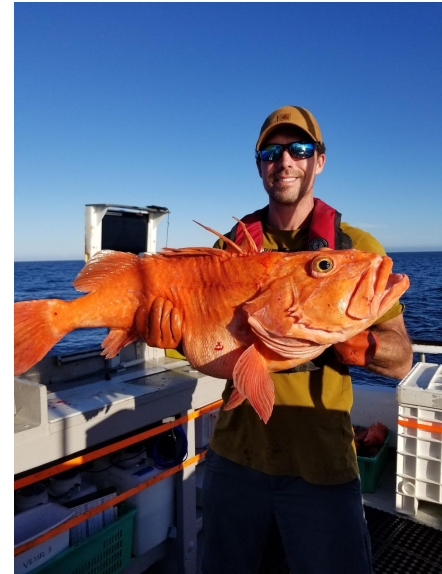


2022 Southern California Rockfish Hook and Line Survey Completed



Departure Sept. 18 Oxnard, CA

- Two 7-day legs (Sept. 19 - Oct. 6)
- Demobilization Oct. 7 in Long Beach, CA
- 3 chartered vessels: Mirage, Toronado, Aggressor
- Successfully sampled 200 of 201 fixed sites



Phillip Bizzell - Cowcod 2022

Planned 2023 Surveys

- 2023 West Coast Groundfish Bottom Trawl Survey (May-Oct.)
- 2023 Southern California Rockfish Hook and Line Survey (Sept.-Oct.)
- 2023 Joint US-Canada Integrated Ecosystem and Pacific Hake Survey



Salmon bycatch in groundfish fisheries

Kate Richerson

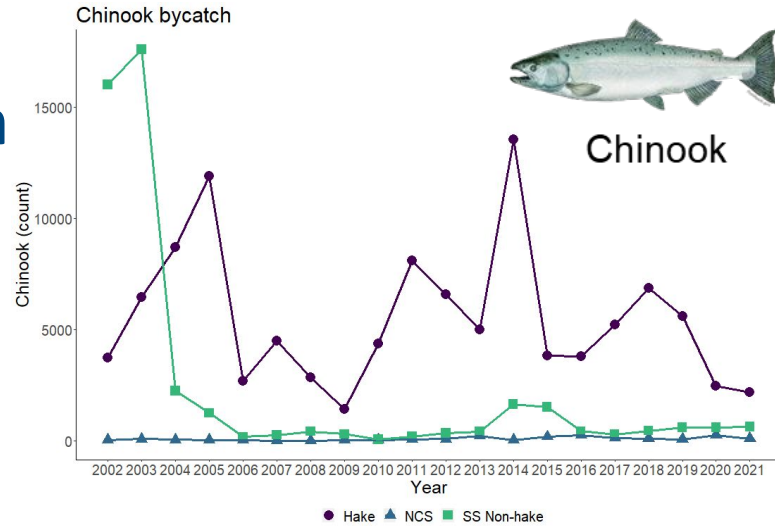
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Chinook and coho bycatch

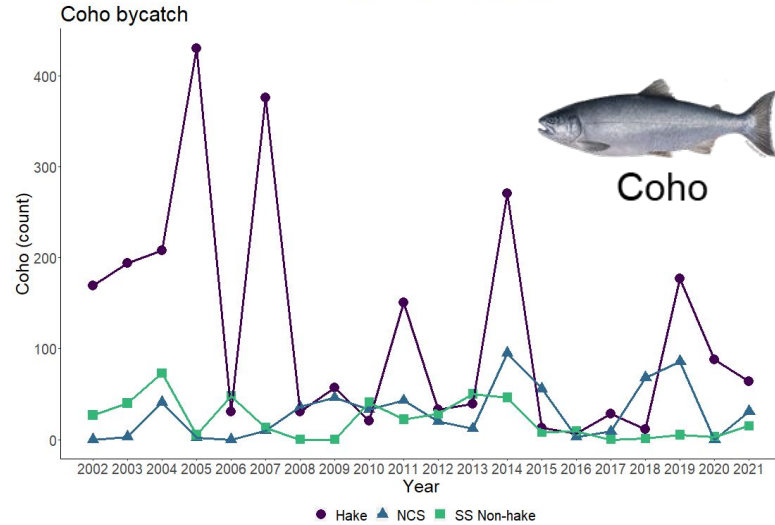
- For both species, bycatch is within range of previous years
- Chinook bycatch in hake sectors is the lowest since 2009



Hake = At-sea catcher processors, at-sea mothership catcher-vessels, shoreside processors

NCS = Non-catch shares exempted fishing permits, sablefish primary, nearshore, OA CA halibut, pink shrimp, OA hook & line

SS Non-hake = Shoreside LE & CS bottom trawl, CS fixed gear, CS midwater rockfish, LE CA halibut



Questions?



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Supplemental Detailed Survey Slides



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2022 West Coast Groundfish Bottom Trawl Survey

Cornerstone, long-term time series for 90+ species and California Current Ecosystem.

- 23rd year in time series

Full-four vessel Survey:

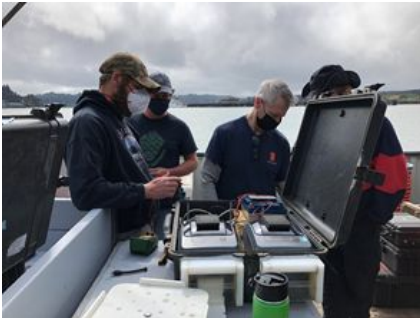
- Two passes, two chartered vessels each, from Cape Flattery to US-Mexico border.



2022 West Coast Groundfish Bottom Trawl Survey



Leg 1 2021



Mobilization 2021

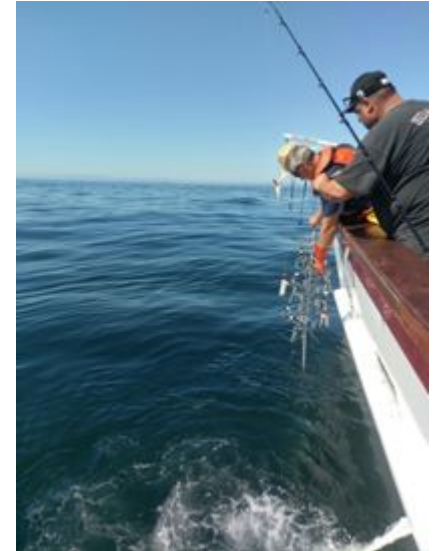
- **Pass 1: May 16 – July 26, 2022**
 - *F/V Ms. Julie, F/V Last Straw* (Pass 1)
- **Pass 2; Aug. 22 – Oct 28, 2022**
 - *F/V Excalibur, F/V Noah's Ark* (Pass 2)
- 4 Legs (11-12 days each) per Pass
- 752 stations (376 per Pass)
- 188 sea-days

2022 Southern California Rockfish Hook and Line Survey



Cowcod 2021

- Southern CA Bight
- 18th year in time series
- Ongoing partnership: NWFSC, PSMFC, and sportfishing industry
- 3 chartered sportfishing vessels



Rockfish Descender

2022 CCE Hake Ecology and Survey Methods Research cruise in support of the Hake/Whiting Treaty

- **2022 is a non-survey year for hake**
 - Research focus
 - NWFSC - 30 days on *Shimada*; DFO - 21 days on *Franklin*, mid-late Summer 2022
- **Main objectives:**
 - Complete an Inter-Vessel Calibration (IVC) between *Shimada* and *Franklin*
 - EK80 research (use new system to understand fish acoustic properties) (*Shimada* and *Franklin*)
 - Hake-mesopelagic interactions (*Franklin*)
 - Hake mix & rockfish/habitat characterization (*Shimada*)



2022 CCE Hake Ecology and Survey Methods Research project in support of the Hake/Whiting Treaty

- Completed Inter-Vessel Comparison of *Shimada* and *Franklin* acoustics data
- Fully implemented SASSI stereo camera into trawling operations
- Surveyed 3 small research areas of hake and rockfish aggregations off OR and WA (acoustics, trawling, eDNA)
- Conducted full suite of sampling along Newport Hydrographic Line
- Net comparison test trawls on krill aggregations



CCGS *Sir John Franklin*