

Testing EM on Trawl Catcher Vessels Participating in the CGOA Rockfish Program (RP)

Project Team:

Alaska Groundfish Data Bank

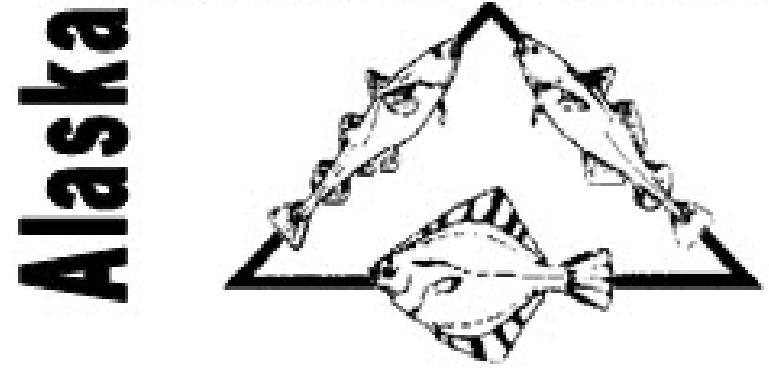
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CGOA CV Rockfish Program Fishery



Limited Access Privilege Program with 46 LLPs that are allocated:

- Primary Species: Pacific Ocean Perch, Northern Rockfish, Dusky Rockfish
- Secondary Species: Sablefish, Pacific Cod, and Thornyhead Rockfish

Prohibited Species Catch Caps:

- Halibut Mortality Cap (117 mt), allocated to individual LLPs
- Sector-wide Hard Bycatch Cap for Chinook Salmon (1,200 fish)



CGOA CV Rockfish Program Fishery

38 individual vessels

- ~ 26 vessels are generally active.

22 Rockfish vessels have EM

- ~ 16 of those with EM systems regularly participate in the Rockfish Program



CGOA CV Rockfish Program Fishery

Rockfish trips often consist of:

- multiple targets (rockfish, cod, and sablefish)
- pelagic and non-pelagic hauls on a single trip

Pelagic hauls (primarily POP) are like pelagic pollock :

- little bycatch
- suited to full-retention compliance monitoring

Non-Pelagic hauls may require some at-sea discards

- Halibut PSC in all non-pelagic targets, especially cod and sablefish
- Grenadier bycatch in sablefish target



Current Monitoring & Future Improvements

- 100% at-sea coverage for catcher vessels
- Catch Monitoring Control Plan (CMCP) requirement for shoreside processing plants
- Industry Motivation:
 - Better Salmon Accounting: not currently based on census counts.
 - Observer Availability
 - Costs: daily costs continuing to escalate.



Phase One: Three Main Activities in 2023

Pre-Project Start – Opportunistic data collection in 2022

Activity # 1: Review 2022 data to evaluate present fish handling practices across a variety of vessels, both gear types, and all targets.

Activity #2: Literature review/stakeholder consults to understand discard handling and retention protocols for EM in other trawl fisheries for potential application to the rockfish CV fishery.

Activity #3: Develop and test pilot fish handling protocols on 3 catcher vessels during the 2023 rockfish fishery.



Opportunistic Data Collection in 2022

2022 Rockfish EM Test Data Summary

# of Unique Vessels	5
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# of Hard Drives	7
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# of Trips	25
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# of Hauls	91
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Activity #1: Opportunistic Data Collection

Data Collected By Gear and Targets		
Gear or Target	# of Trips	# of Hauls
Pelagic Trawl	14	45
Non-Pelagic Trawl	6	12
Split Gear (Pelagic & Non-Pelagic)	5	34
POP Only	10	26
Rockfish Mix	3	9
Sablefish Only	1	2
Pacific Cod Only	1	1
Rockfish & Sablefish Mix	7	44
Rockfish & Cod Mix	2	5
Rockfish, Sablefish, and Cod Mix	1	4

Activity #1 - Initial Data Review

Trips and hauls annotated using FishVue Interpret

- PT or NPT and target species verified for each haul

Characterization and Annotation of Catch

- Species “mix” and relative quantities
- Discard species identified/weight estimated
- Piece counts for halibut
- Any salmon noted/seen?

Discard Handling Methods Identified

- How/where/when are discards being made for individual species
- Marine mammal and seabird capture handling

Camera View/Location Review

- Recommendations for any changes to meet #2 and #3 above



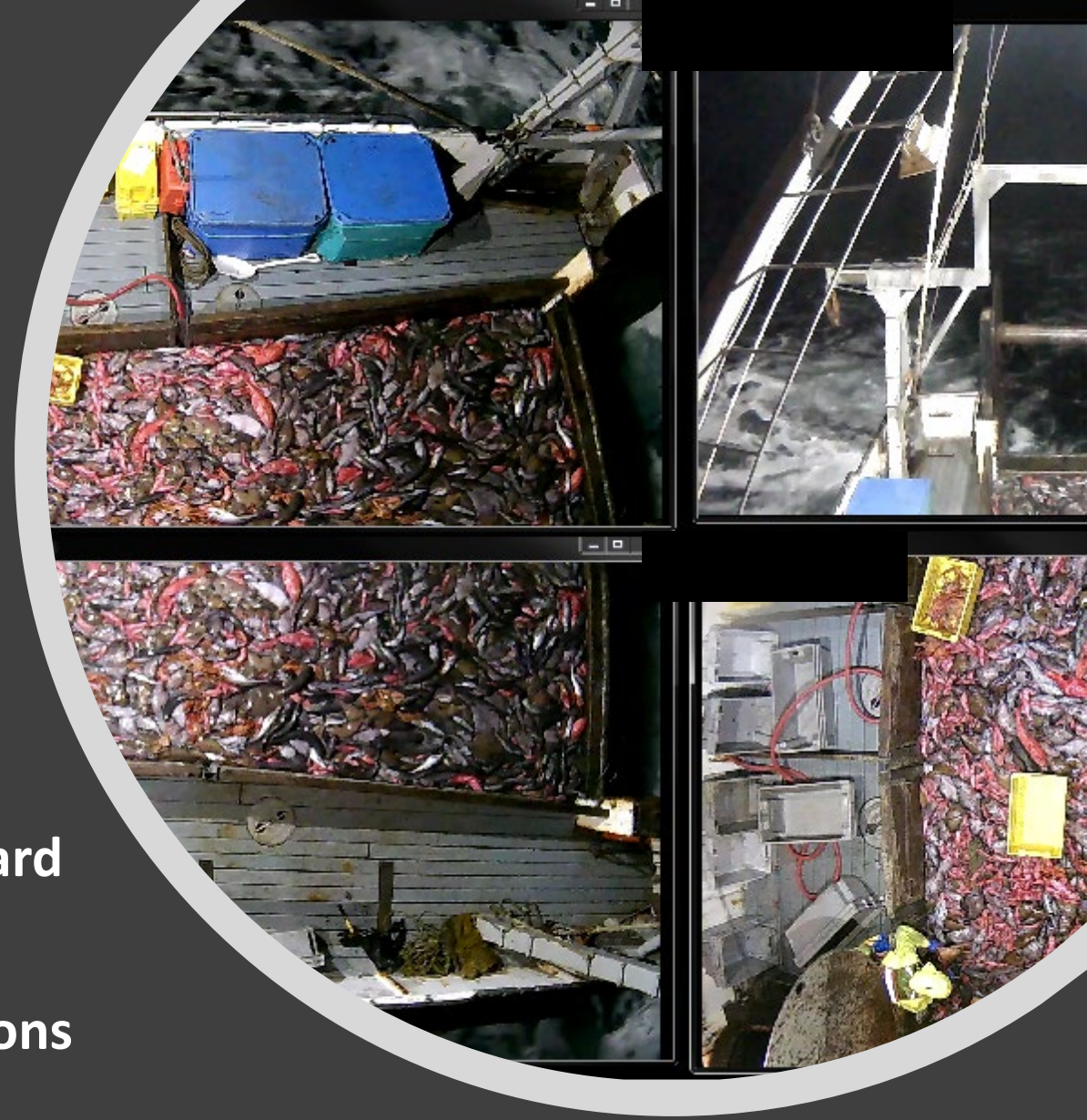
Activity #2- Review Existing Trawl EM Programs

How are others doing it?

- lessons learned and recommendations!
 - WC EFP mid-water/bottom trawl (PSMFC)
 - British Columbia trawl EM program (Archipelago)
 - Greater Atlantic NE Multi-species (NEMM/GARFO)
 - Other programs (AUS, EU, NZ ...)?

Gain efficiency with data review & onboard discard handling

Report/presentation for sharing with other regions



Activity # 3 – Develop/ Test Protocols

Camera View Optimizations

- Optimal locations and additional camera views as necessary
- Optimized settings (resolution and image quality settings)

On-deck handling protocols

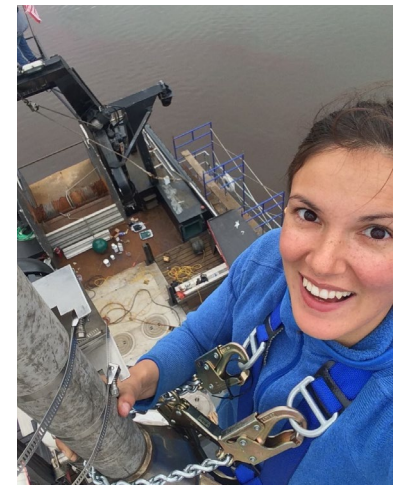
- Halibut PSC discards
- Other species discards
- for different targets/catch mixes

Video Review Protocols Refined/Optimized

- a “strong lens” focused on automation of review (FishVue AI platform)
- Define the overall FishVue Interpret configuration

Selected vessels execute 2023 fishery using new protocols

- Near real-time data review (feedback as quick as possible during fishery)
- Adapt protocols as necessary in-season



Next Steps in 2024

- **Seek funding to expand footprint beyond 3 vessels and/or operationalize EM for at-sea monitoring and shoreside observers within the processing plants**
- **Apply for an EFP to provide operational framework for the project and exempt vessels from certain regulations:**
 - For Example: Maximum Retainable Amounts (MRAs), Increased Retention/Increased Utilization (IR/IU), at-sea observer coverage, halibut discard requirements, etc.
- **Program design to mimic Pollock Trawl EM Program**
 - Vessel Monitoring Plans (VMPs), Performance Standards, etc.
- **Automation of Data Review within the FishVue AI platform**
 - Review and adapt existing algorithms to meet our needs
 - Identify paths forward for automated discard event detection and halibut length

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