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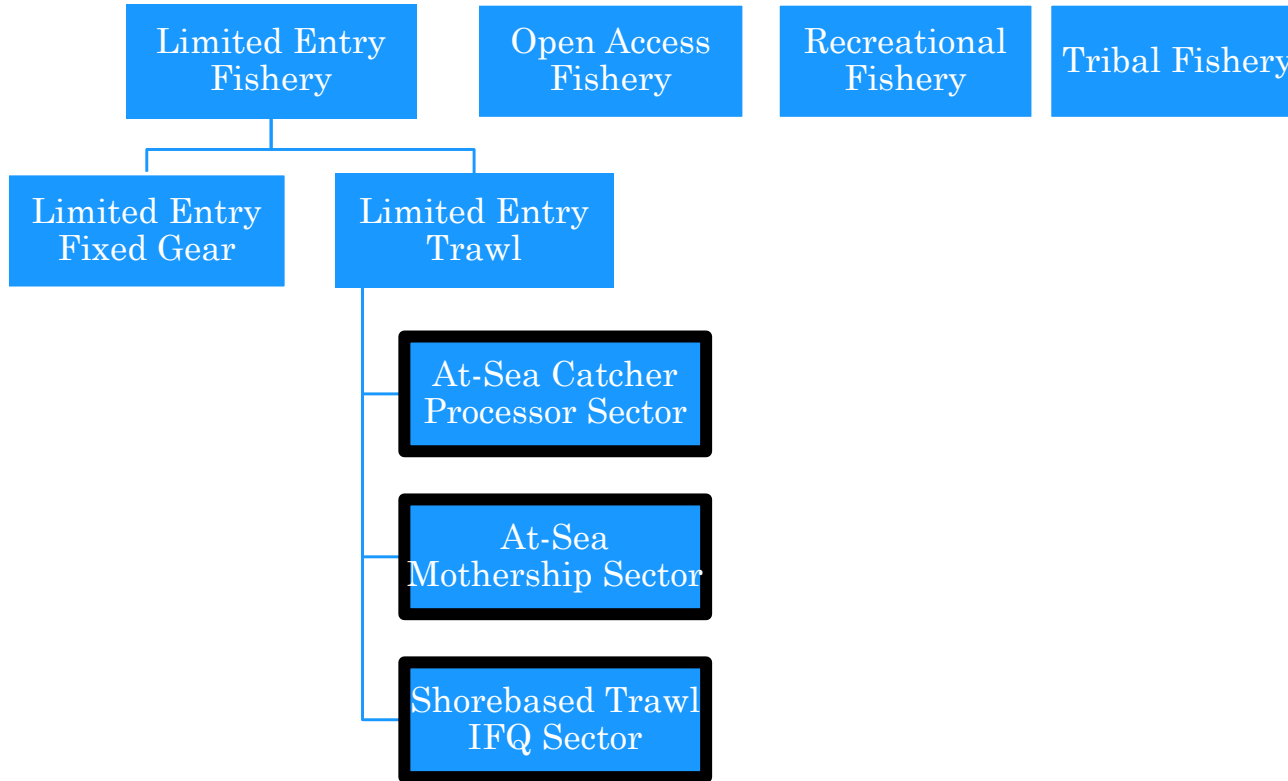
# Regional Experience: West Coast

Pacific Coast Groundfish EM Program

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February 12, 2020

# West Coast Groundfish Fishery: Overview



# West Coast Groundfish Trawl Fishery: Monitoring requirements

- 100% At-sea observer coverage for all sectors
  - MS & C/P (>125ft): **2 observers**
  - C/Vs (MS and shorebased): **1 observer**
- Shoreside processing plants: **Catch Monitors**
  - 100% monitoring of all IFQ landings



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# West Coast Groundfish Trawl Fishery: Monitoring Challenges Pre-EM

- **Cost transition** – NMFS to industry
- **Logistics** – deploy observers to remote ports, unpredictable fishing windows
- Pacific Fishery Management Council's desire to test less expensive and/or more flexible alternative to human observer coverage for catch shares



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## CATCHER VESSELS

### FISHERY PARTICIPATION

	Vessels	Avg Days at Sea	Total Landings (1000s mt)
<b>CATCH SHARE FISHERIES</b>			
At-sea Pacific whiting	17	74.8	65.5
Shoreside Pacific whiting	23	64.6	86.2
Non-whiting midwater	9	11.3	1.9
OTS trawl (with trawl endorsement)	50	33.1	11.2
Non-whiting, non-OTS trawl (with trawl endorsement)	47	25.1	5.6
Groundfish fixed gear (with trawl endorsement)	19	29.7	1.0
<b>Other Fisheries</b>			
Crab	46	35.1	2.1
Shrimp	27	53.2	6.4
Other fisheries	16	31.9	0.5
Alaska	23	105.8	93.8
Research	6	7.1	0.9

### ECONOMIC SUMMARY\*

#### Vessel Average

\$594.0K revenue  
\$343.7K variable costs  
\$250.3K variable cost net revenue  
\$100.7K fixed costs  
\$149.7K total cost net revenue

\$4.1K variable cost net revenue per day

#### Fleet-wide Totals

97 vessels  
\$57.6M revenue  
\$24.3M variable cost net revenue  
\$14.5M total cost net revenue

### ALASKA PARTICIPATION

Alaska: \$37.7M  
26 vessels

### SHORESIDE PARTICIPATION

Total value of catch share groundfish landings  
Vessel ports

South & central Washington, Puget Sound: \$6.0M  
17 vessels

### AT-SEA PARTICIPATION

At-sea: \$10.6M  
17 vessels

Astoria: \$23.5M  
35 vessels

Newport: \$11.3M  
24 vessels

Cosco Bay: \$4.7M  
19 vessels

Brookings: \$4.7M  
19 vessels

Crescent City: \$6.0M  
15 vessels

Eureka: \$6.0M  
15 vessels

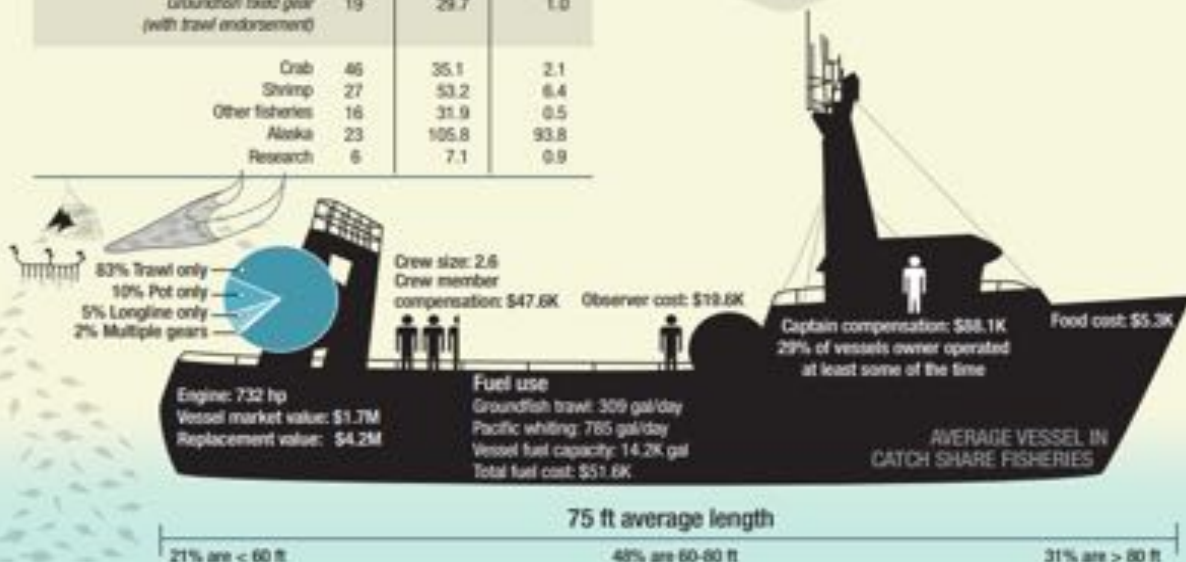
Fort Bragg: \$6.0M  
15 vessels

San Francisco: \$1.8M  
9 vessels

Monterey: \$1.8M  
9 vessels

Morro Bay: \$1.8M  
9 vessels

Santa Barbara: \$1.8M  
9 vessels



\*Note that some off-board costs are not collected. Therefore reported net revenue is an overestimate of actual net revenue.

[www.nwfsc.noaa.gov/edc/reports](http://www.nwfsc.noaa.gov/edc/reports)



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# EM EFPs: Exempted Fishing Permits

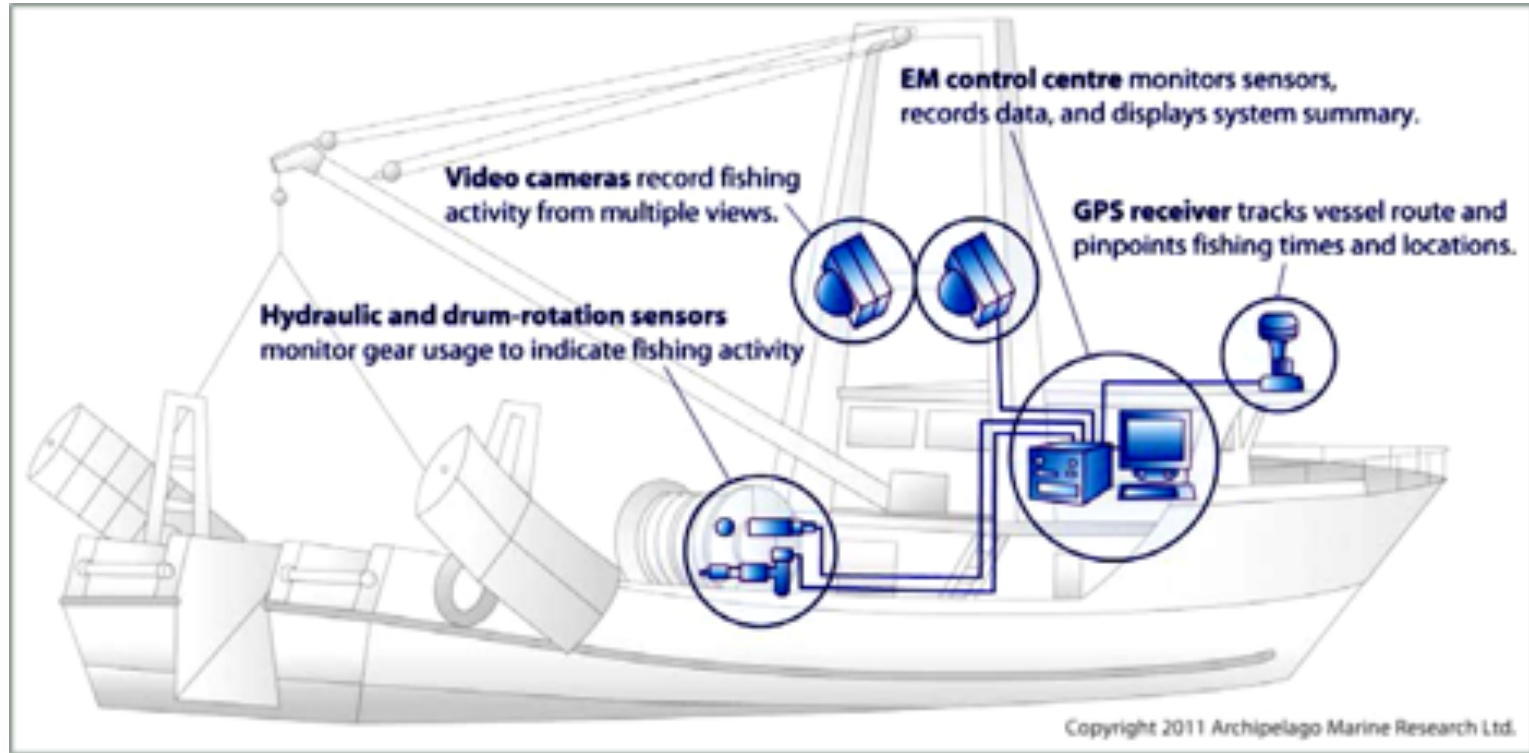
Question:

Can EM be used as a tool to effectively quantify at-sea discards on IFQ trips?



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# A Typical On-Board EM System



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# Exempted Fishing Permits

- Logbook audit model
- Vessel Monitoring Plans
- Scientific observer coverage



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# Exempted Fishing Permits

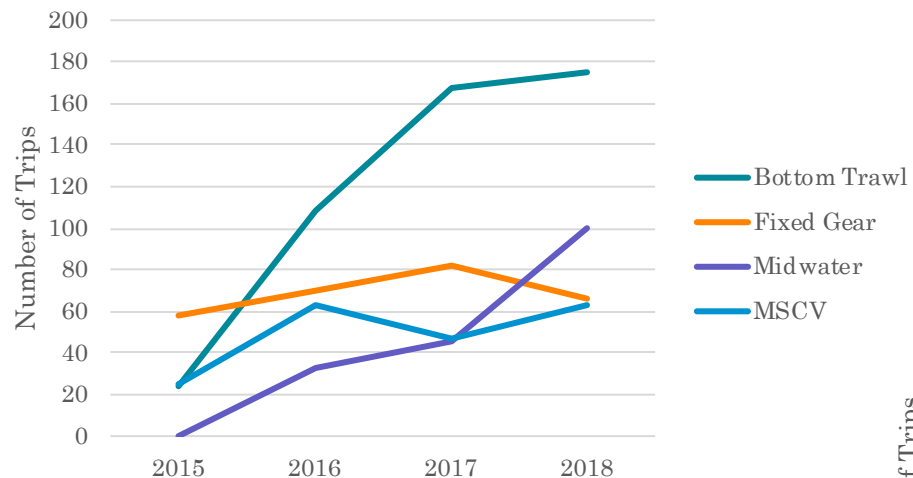
- 2019 Participation: 45 vessels
  - MSCV
  - Shorebased whiting
  - Bottom trawl
  - Non-whiting midwater
  - Fixed gear



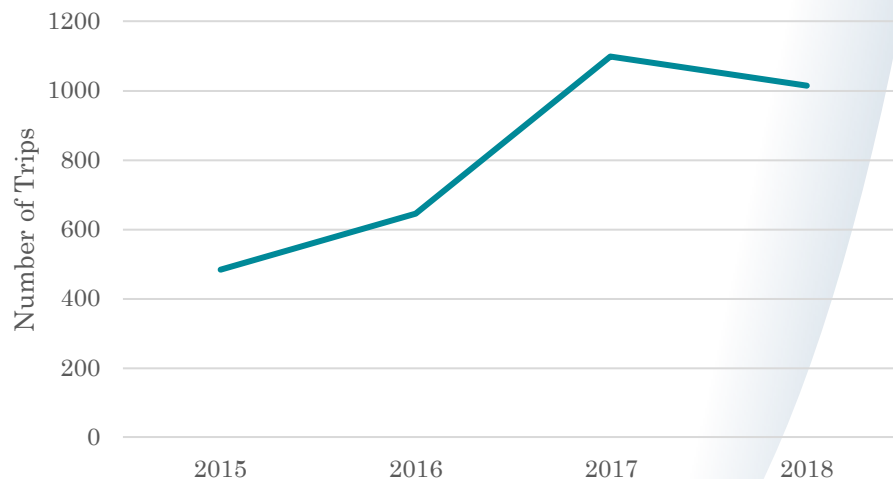
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# EM EFPs: Trips Fleetwide

## EM EFP Trips by Fishery



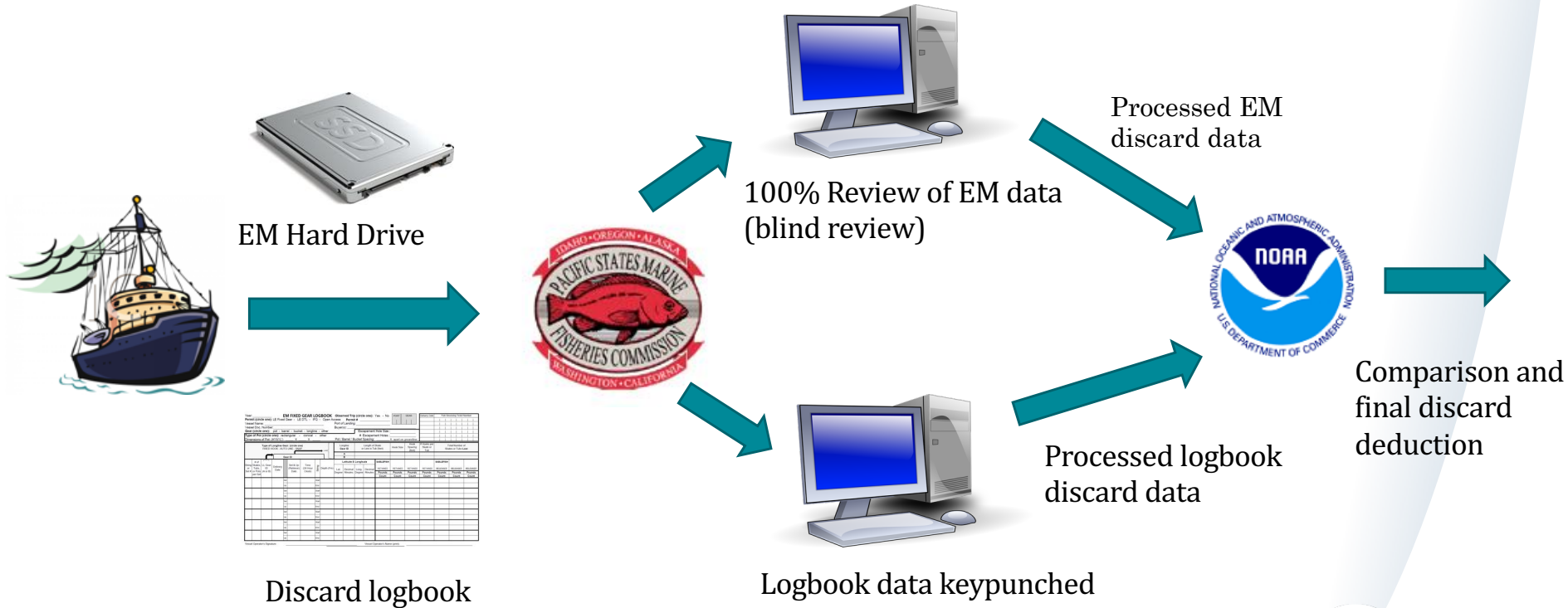
## EM EFP Trips: Shorebased Whiting



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# EM Review: Protocol Under EFP

Current practices for data submission and review for all gear types:



# Key Changes to EM Program: 2021 Implementation

- Third party model
  - Vessels contract directly with NMFS-approved EM service providers
    - Service providers: technical and data services
  - NMFS assesses service providers
    - Data debriefing
- Lower review rates
  - Audit logbook less than 100%
  - All EM trips recorded



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# "The biggest environmental story that no one knows about": The recovery of groundfish off the West Coast

DECEMBER 28, 2019 / 5:35 AM / AP



*Warrenton, Oregon* – A rare environmental success story is unfolding in waters off the U.S. West Coast.

After years of fear and uncertainty, bottom trawler fishermen – those who use nets to catch rockfish, bocaccio, sole, Pacific Ocean perch and other deep-dwelling fish – are making a comeback here, reinventing themselves as a sustainable industry less than two decades after authorities closed huge stretches of the Pacific Ocean because of the species' depletion.

