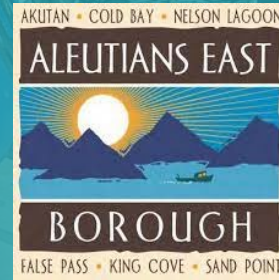




# Improving and Enhancing Data in WGOA EM

---





# WGOA Pollock Trawl

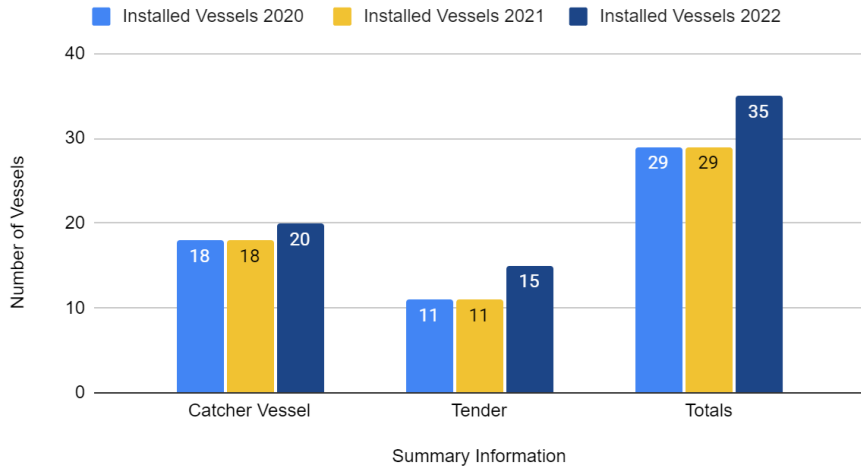
---

The goal of the WGOA Pollock Trawl program is to catalyze a regional -scale ET program and increase the quality, timeliness, and usability of the data.

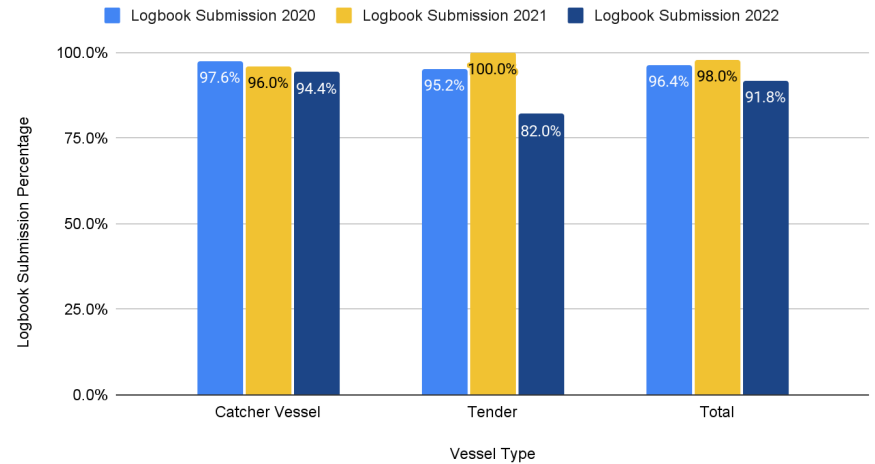


# WGOA Fleet EFP Participation

## EM Installed Vessels



## Logbook Submission Rates



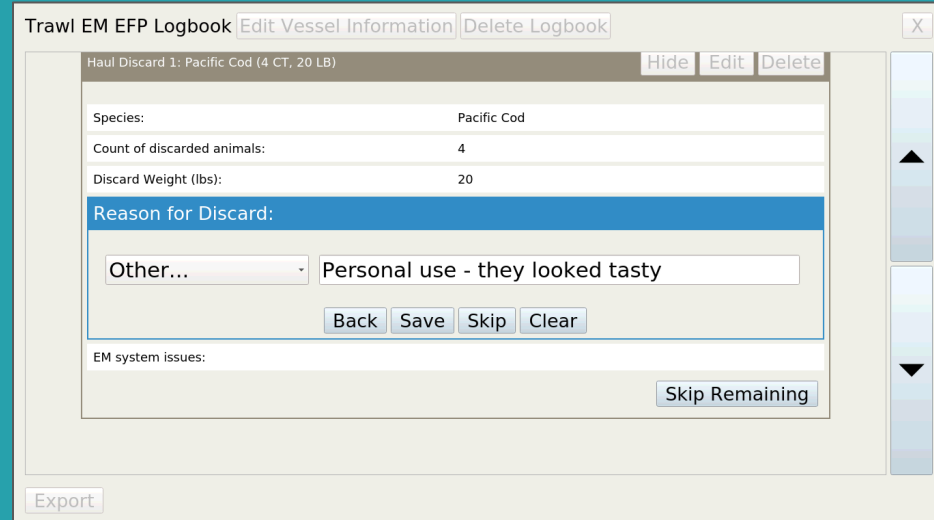
## 2022 Lessons Learned

- Refinement of logbook feedback worked well
- Apply eLog refinements based on skipper input
- Implement a system for granular tracking of hard drives
- Increase communication with individual vessels

# Current and Upcoming EM - Related Projects 2023

# Increase the quality, speed, and reporting of data:

- eLogs
  - Fully implemented in 2022 with 93% of vessels opting in
  - Next Steps
    - update interface based on skipper feedback
    - Test wifi submission at offload



The screenshot displays a web-based logbook interface for a trawl vessel. The main window is titled "Trawl EM EFP Logbook" and contains several tabs: "Edit Vessel Information" and "Delete Logbook". The current view shows a record for "Haul Discard 1: Pacific Cod (4 CT, 20 LB)".

Species:	Pacific Cod
Count of discarded animals:	4
Discard Weight (lbs):	20

Below the table, there is a section for "Reason for Discard:" with a dropdown menu set to "Other..." and a text input field containing "Personal use - they looked tasty".

At the bottom of the form, there are buttons for "Back", "Save", "Skip", and "Clear".

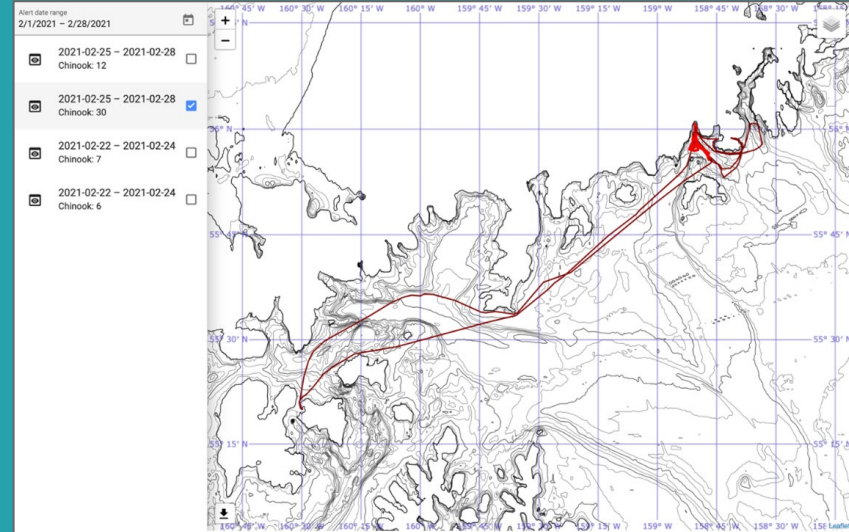
Below the form, there is a section for "EM system issues:" with a "Skip Remaining" button.

At the very bottom of the interface, there is an "Export" button.

# Increase the quality, speed, and reporting of data:

- **Data Portal**

- Developed in 2021 and expanded in 2022
- Next Steps
  - use eLog and EM sensor data to provide near real time mapping of areas with high salmon bycatch
  - automated transfer of data to NMFS



## Increase the efficiency of observer data collection:

- EM in the Plants
  - Tested in 2022
  - Next Steps
    - Implement at additional plants
    - Assess protocols and compare costs





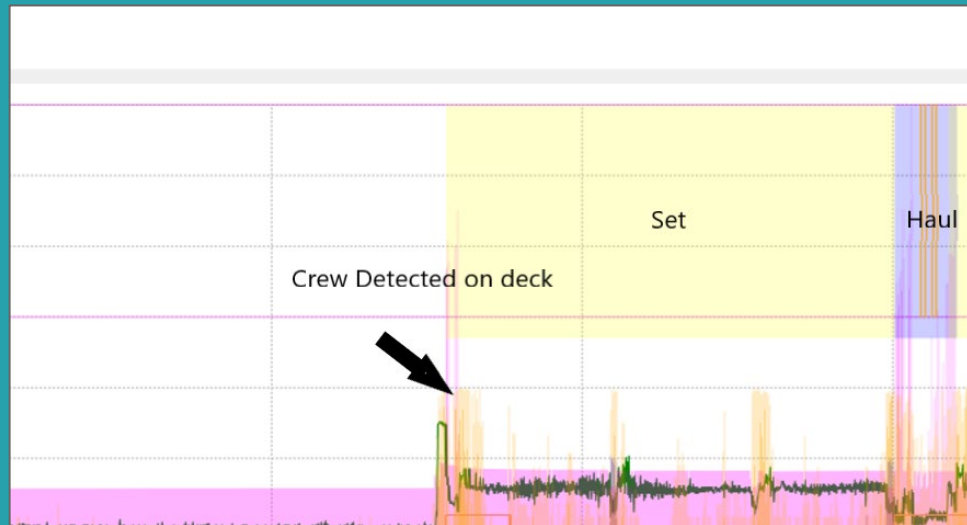
# Increase the efficiency of observer data collection:

- **Salmon Chute**
  - Collected over a thousand images of Pacific salmon species
  - Next Steps
    - Begin algorithm development using images
    - Collect more images to refine and test algorithm



# Streamline data review and storage:

- **Human Detector**
  - Utilized in WGOA trawl in 2022
  - Next Steps
    - Continue testing for possible savings in review and storage costs

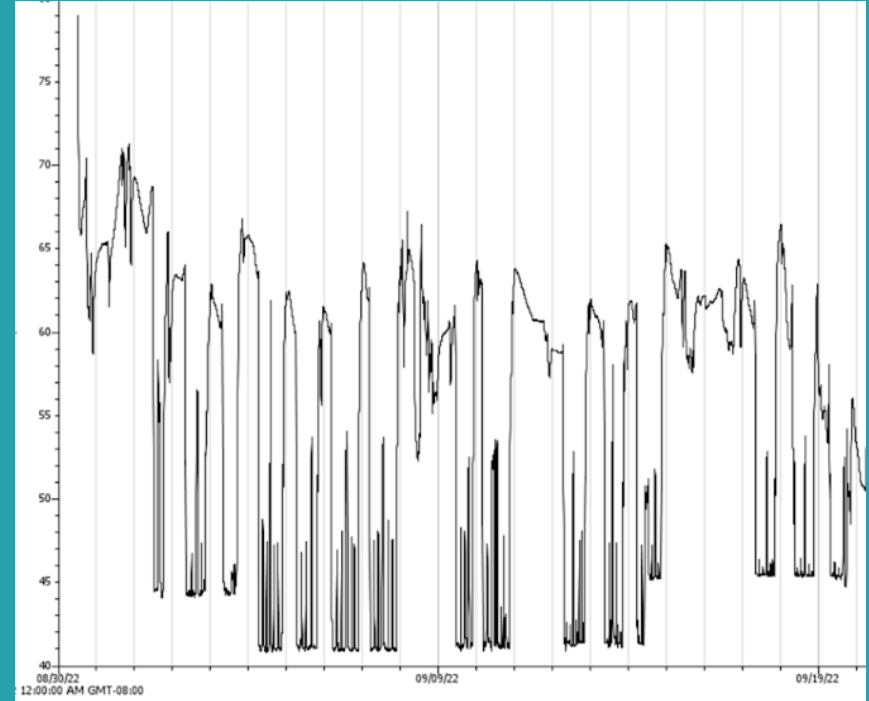


## Switch Gear Vessels

- Many EFP WGOA vessels switch from trawl to fixed gear and have to take an observer for fixed gear trips
- Next Steps
  - Work with NMFS to develop VMPs and system configurations to be used for trawl and fixed gear EM
  - Test modified catch handling and review protocols for fixed gear data
  - Compare data to observer data for a proof of concept

# Collect further information related to salmon bycatch:

- **Temperature Loggers**
  - Tested temperature loggers on 3 WGOA trawl vessels in 2022
  - Next Steps
    - Integrate temperature data with EM data
    - Expand the number of vessels participating



*“We want a program in which we are actively involved in the data collection process and in which we have timely access to the data to support both sustainable fisheries management as well as our fishing operations.” - Kiley Thompson, Peninsula Fishermen's Coalition*



We are getting there.