



Marine
Resources

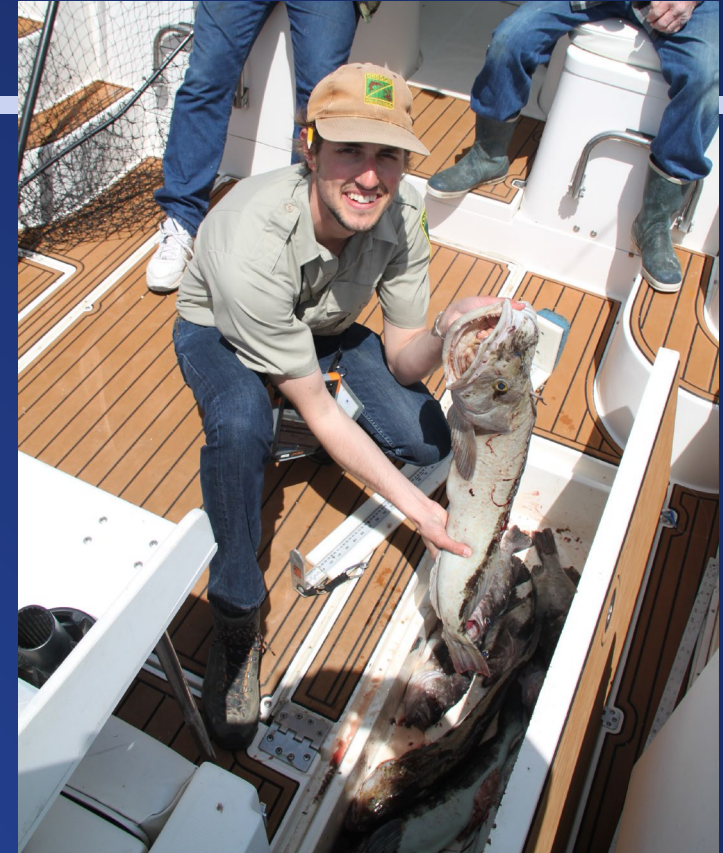
Ocean Recreational Boat Survey (ORBS)

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ORBS Overview

- Began in 1979 focused on the dark side
- Dockside sampling program
- **GOAL: develop unbiased and complete estimates of recreational catch and effort**
- Combination of
 - Interviews
 - Boat counts (effort)
- Stratified by boat type (charter vs private)
- Expansions to account for unsampled ports and times

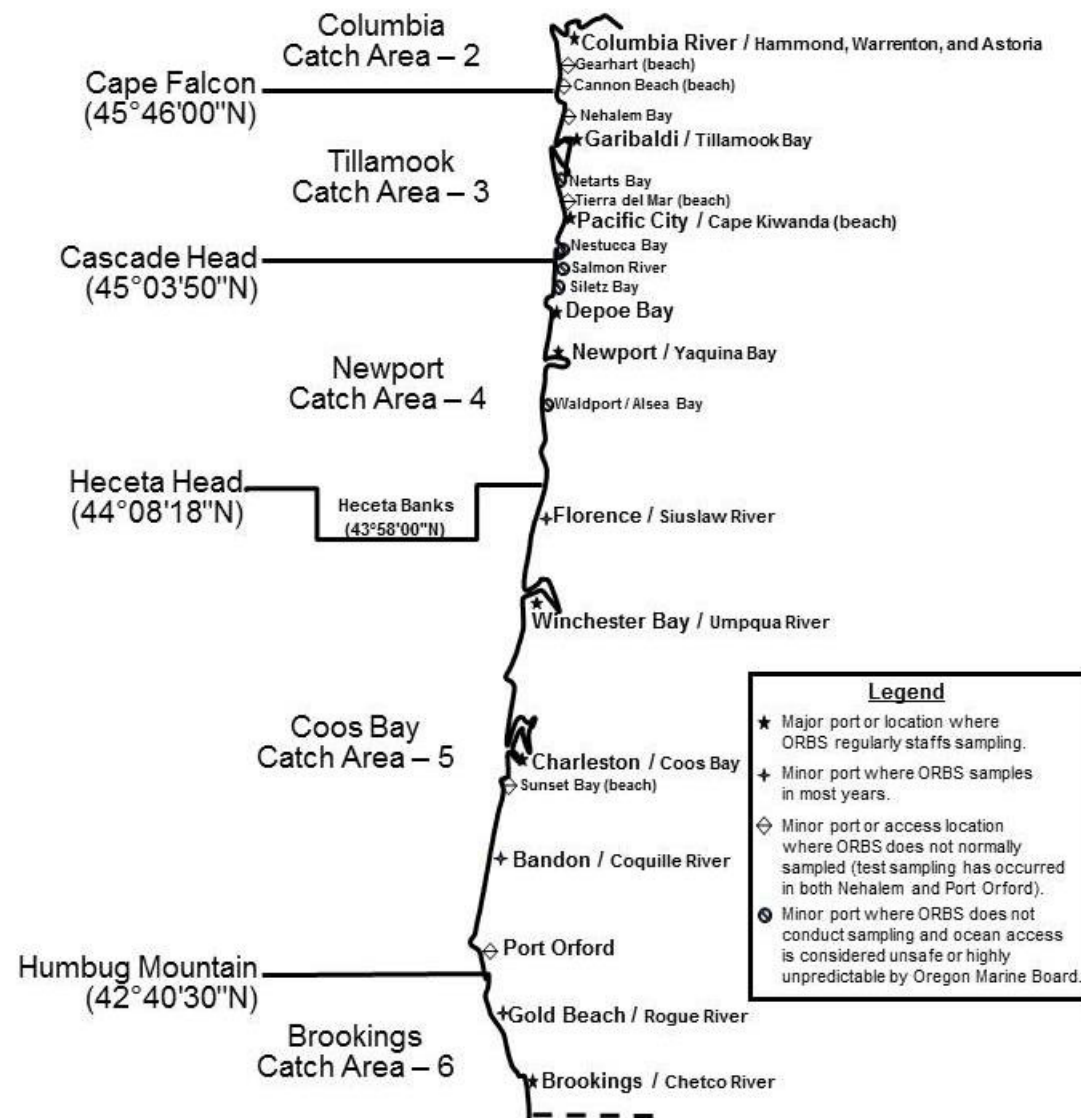


Figure 1. Oregon catch areas, ocean access points, and ORBS sampling locations for the recreational ocean boat fishery. Those sites with a "beach" listing are sites where launching is only via beach access through the surf.



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ORBS Overview



- Interviews -> Trip-level data used to develop CPUE index
 - Charter vessels – census
 - Private vessels – randomly selected (instructed to be without bias)
- Starting in 2001, started focusing on marine species
 - Species specific counts, lengths, weights, subset of collections for maturity and otoliths
 - Trip information (# anglers, start time, interview time, rough location, approx. depth)
 - Discarded fish (species/count/use of descender device)



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ORBS Trip-Level Data

- Obtained from ODFW directly (future @ RecFIN!)
- ORBS interview and catch details aggregated to the trip-level
 - Essentially vessel ~ day
 - Most bottomfish vessel trips < 6 hours
 - Very few vessels do more than one trip per day
 - (exception = charter vessel half-day groundfish trips)





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ORBS Trip-Level Data

- **Standard filter application**
 - **Bottomfish trips only**
 - **Exceedingly long/short trips**
 - **Interviews within a minute of each other (skews effort estimation)**
 - **No information on location/inaccurate distance traveled**
 - **Trips when groundfish/target species are closed**
 - **Trips above bag limit for target species**
 - **Ports/years with extreme small sample sizes**
 - **A few more additional data cleaning**

CPUE = number of fish/adjusted angler hour





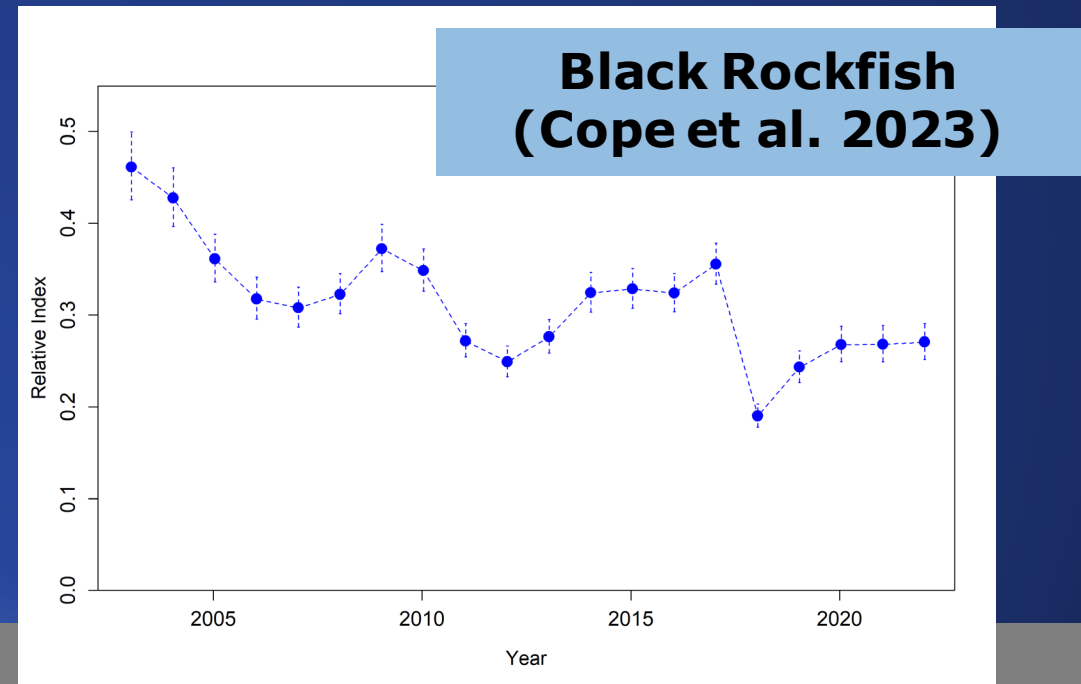
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ORBS Indices of Abundance

- Previous model-based indices were implemented in a delta-GLM framework
- Previous yelloweye index – released fish only
- Previously used Stevens-McCall filter
 - Uses associated species to target species to filter out trips unlikely to encounter target species
- Starting in 2023, implemented sdmTMB (as with other FI indices)

- Example factors evaluated in sdmTMB models:

- Target species bag limit, port, month, open depths of recreational fishery, boat type (charter/private)





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Questions?

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Contact us!

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Fish quiz:
What species are these?
Kudos if you can ID them