

Implementation model for alternative-gear emerging commercial fishery

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7 October 2022



About me

- Originally from upstate New York
- Started at WDFW January 2022
- Previous positions have focused on salmon-pinniped interactions, salmon reintroductions, and habitat and hatchery management.
- Completed my PhD in August 2022

An “Implementation Model” is...

- Expected catch
 - Management unit
 - Mark
 - Gear
 - Day of year
 - Zone
- Post-release mortality rates
 - Species
 - Gear

Planning a fishery also depends on allocation!

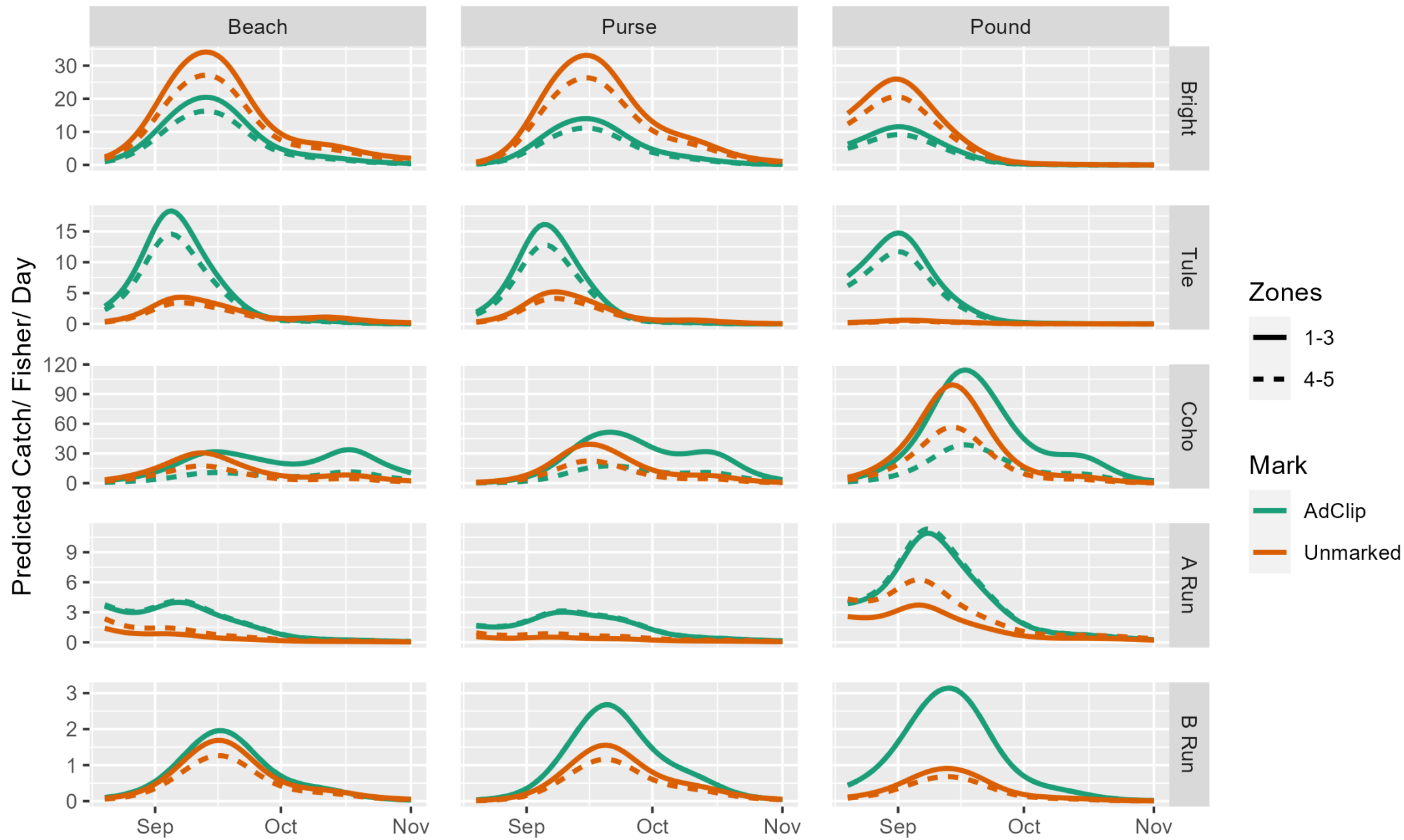
- The Emerging Commercial Fishery will be allocated 6.7 % of the commercial allocation of the constraining stock

We will use 2020 and 2021 as examples of allocation in two different kinds of years

- Upriver Bright (URB) constraining stock – 2020
 - Forecast – 227,600
 - Commercial allocation – 10,240
 - Alt-gear allocation – 690
- Lower River Hatchery (LRH) constraining stock – 2021
 - Forecast – 73,800
 - Commercial allocation – 8,100
 - Alt-gear allocation – 540

I modeled expected catch based on historical research and test fishing

- Purse and beach seine fishing in 2011 – 2016
- Pound net fishing in 2017 – 2021



The
implementation
model is still in
development



The implementation model will have two kinds of dials!

- States of nature
 - Run sizes
 - Release mortality rates
- Management Alternatives
 - Allocation
 - Gears
 - Dates
 - Locations



The model will have multiple outputs

- Kept fish
- Released fish
- Release mortality
- Proportion of allocation used
- Reduction in proportion of hatchery-origin fish
 - Requires information of mark rates of hatchery-origin fish

Let's discuss!

Questions and comments?
