

2024-28 FISS Design Evaluation

Additional Slides
IPHC-2024-AM100-13

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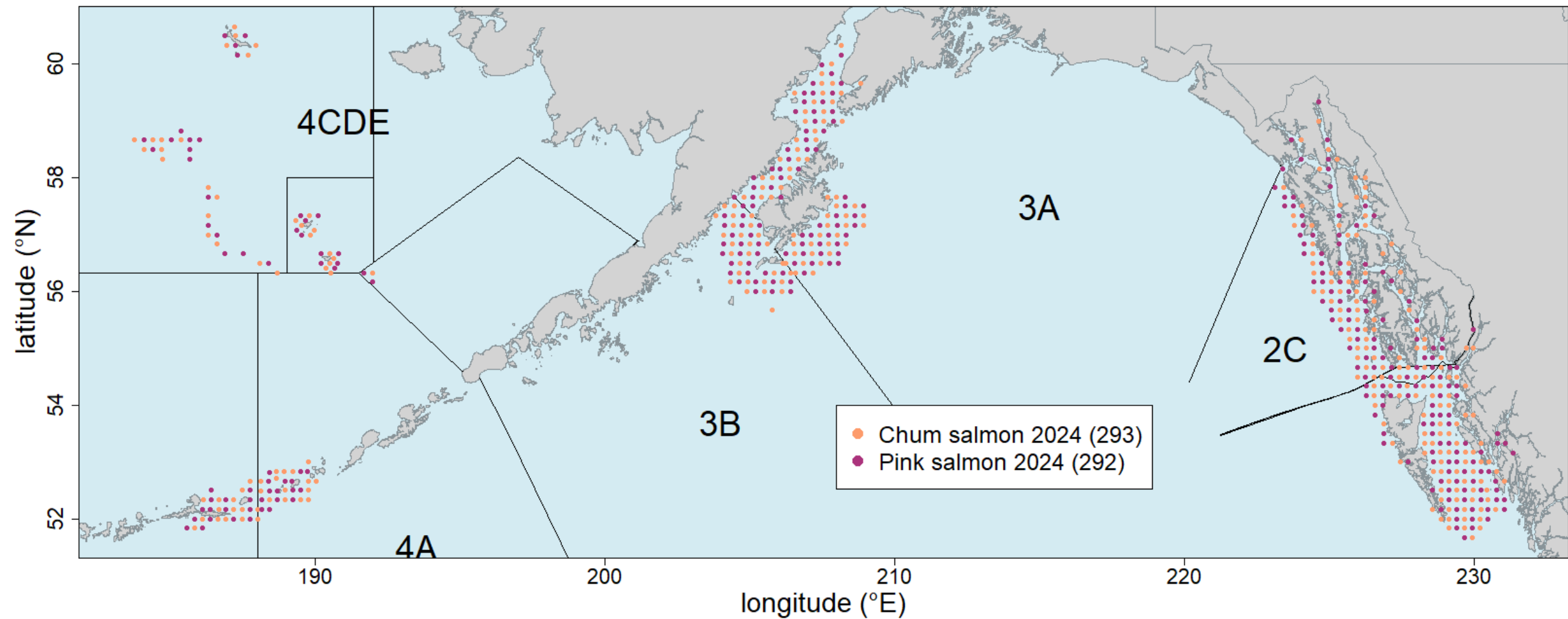


2024 FISS baits

- 50% of FISS sets will use chum salmon and 50% will use pink salmon as baits during 2024.
- Using pink salmon on half of the 2024 stations will provide some savings on bait costs compared to using 100% chum salmon baits.
- Based on past bait comparison work, the revenue implications of using pink salmon are not clear.

2024 FISS baits

- Each station will be assigned a bait type in advance.
- Baits are assigned based on station number to ensure that both baits are spread throughout each charter region.
- This allows us to estimate a within-model bait calibration that is not confounded by factors such as vessel, depth, habitat type, weather and environmental variables.



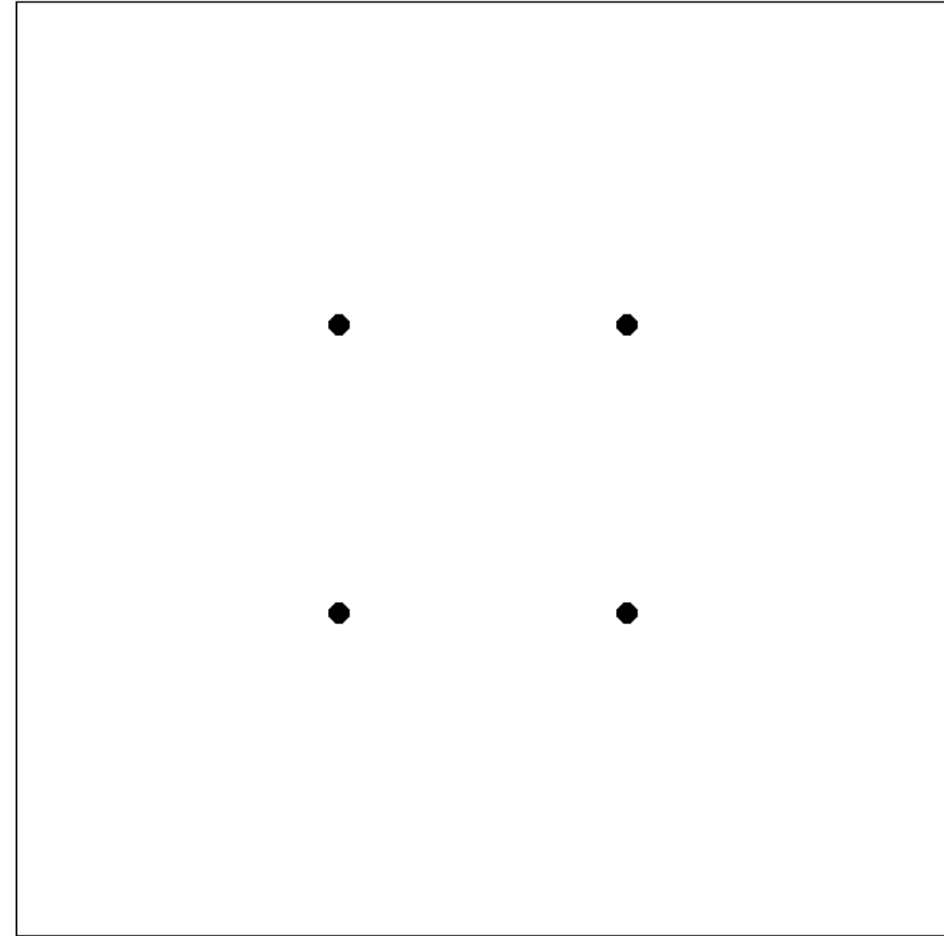
Vessel captain stations in 2024

- IPHC Regulatory Areas 2B and 2C only: When fishing three (3) or more stations a day, vessel captains can choose to switch out a FISS station for one set located off the grid that has a higher expected catch rate.
 - As well as potentially increasing revenue, running time between sets may be reduced.
- This replacement set cannot be an assigned FISS station but should fall in a location nearby FISS stations but not within 3nm of another station.
- Vessel captains must get approval as to which FISS stations can be “replaced” and only one off the grid set can be fished each day.
- Vessel captains must submit planned “replaced stations” in their cruise plans, prior to the 2024 FISS.

Vessel captain stations in 2024

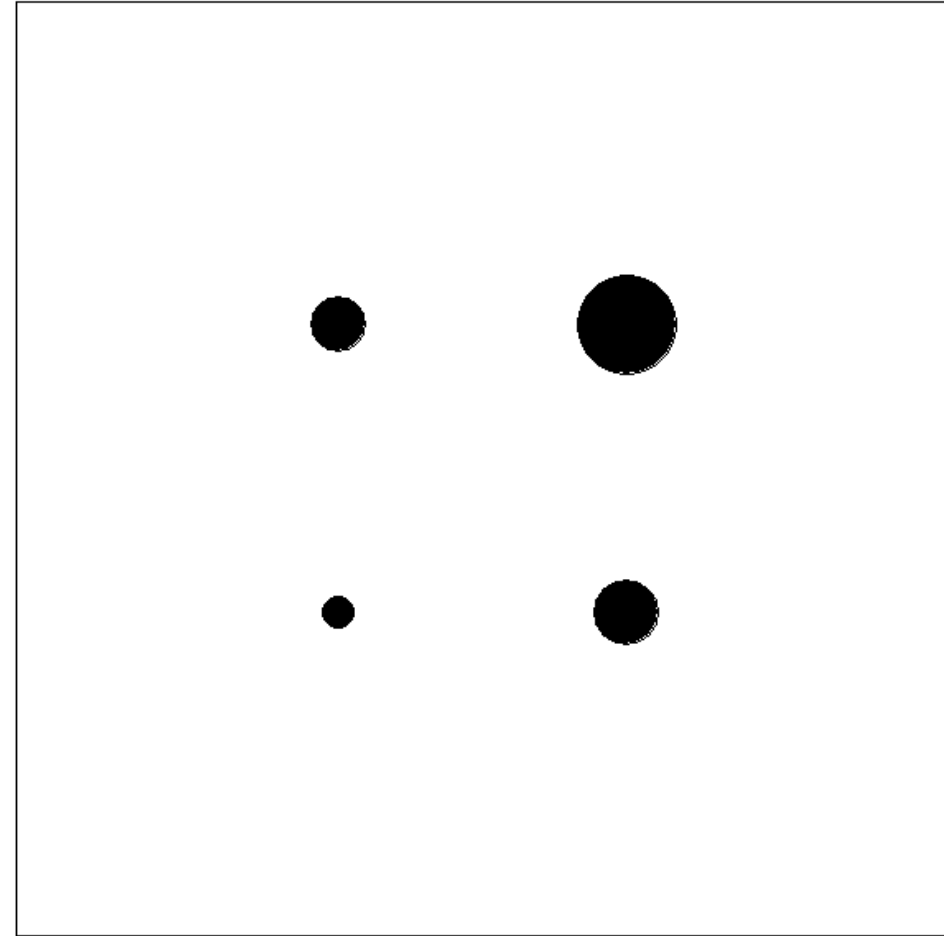
- WPUE and NPUE indices will still be calculated based on predictions at all FISS station locations, whether stations were fished or not in 2024.
- As a one-year measure, this is not expected to introduce bias in the estimates as unfished station values are most highly correlated with values obtained the previous year.
 - As a check, models will be fitted with and without data from vessel captain stations.
- The risk of bias increases with time, and this efficiency is not recommended beyond 2024.

Fishing day with four assigned FISS grid stations



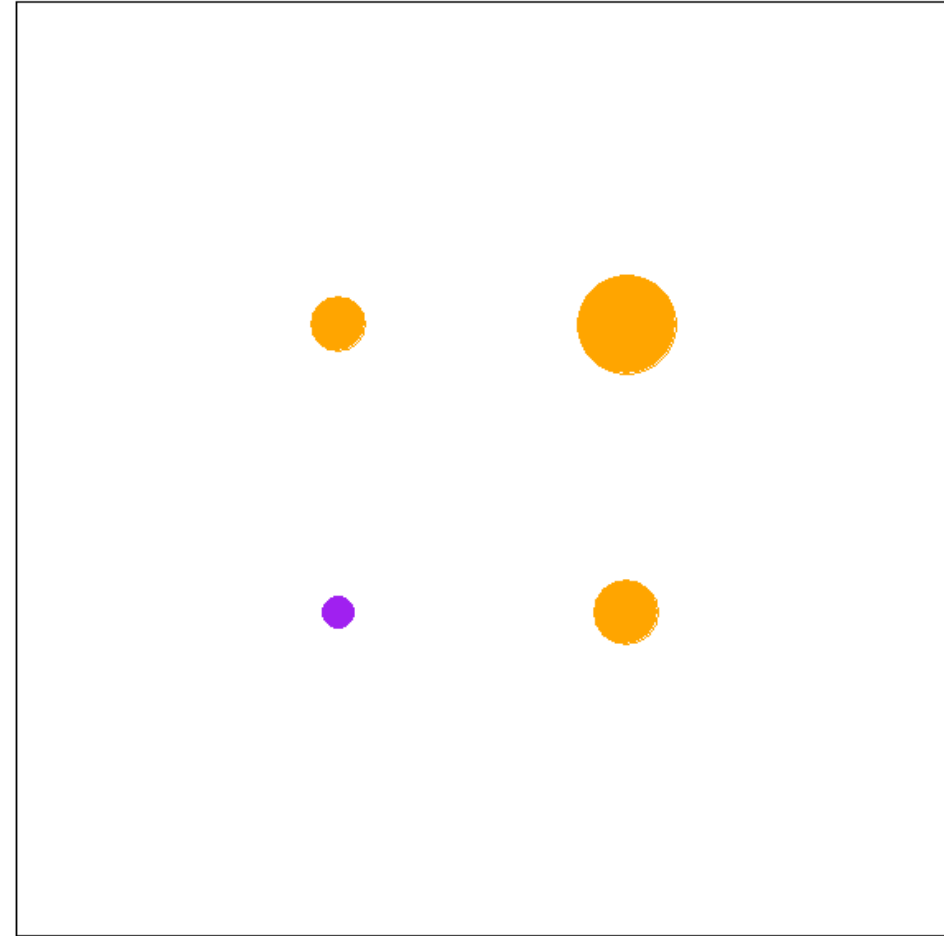
Fishing day with four assigned FISS grid stations

Density varies across stations
(circle area proportional to density)



Fishing day with four assigned FISS grid stations

Vessel captain plans to fish the three stations with highest expected catch rates (orange)



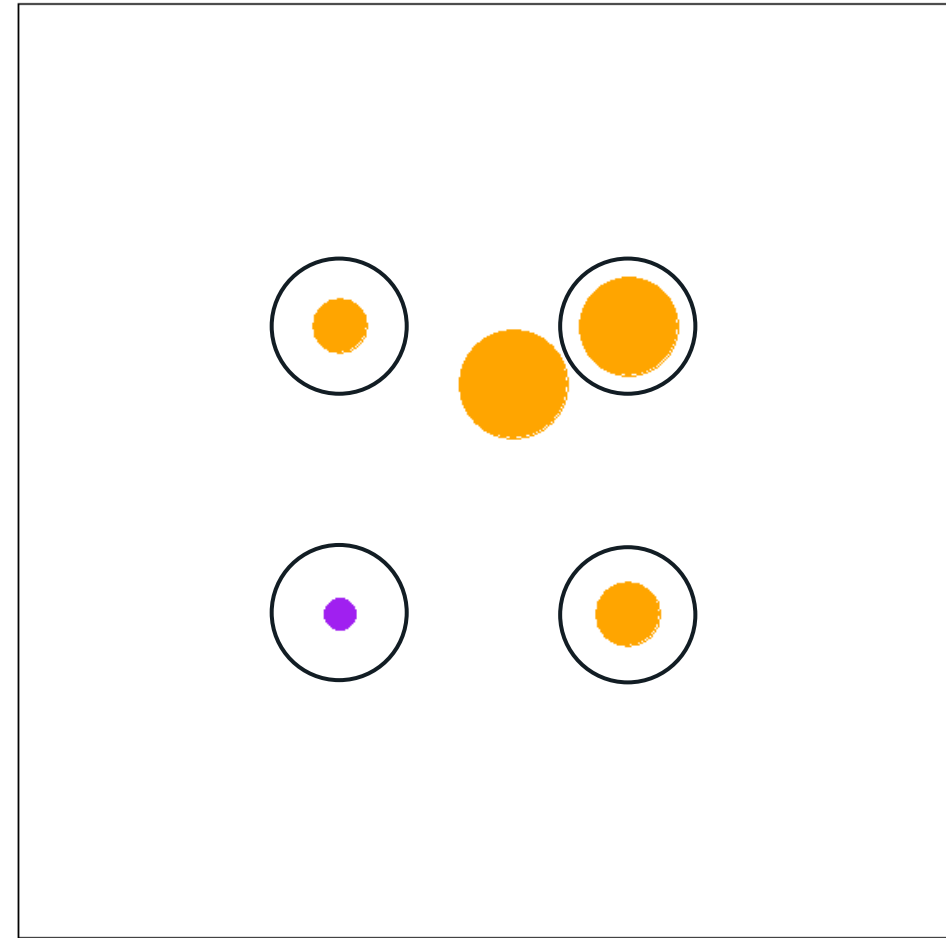
Fishing day with four assigned FISS grid stations

The fourth set – the vessel captain set – is made at a location that has a high expected catch rate.



Fishing day with four assigned FISS grid stations

The modelling will use all the data, but make predictions at the FISS grid stations only, both fished and unfished in 2024.



○ = prediction location

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