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FISHERIES

Reanalysis of winter and summer Gulf of Alaska walleye pollock acoustic-trawl surveys

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GOA Plan Team Sep 2025



Historical Gear & Analysis Approach for MACE Surveys

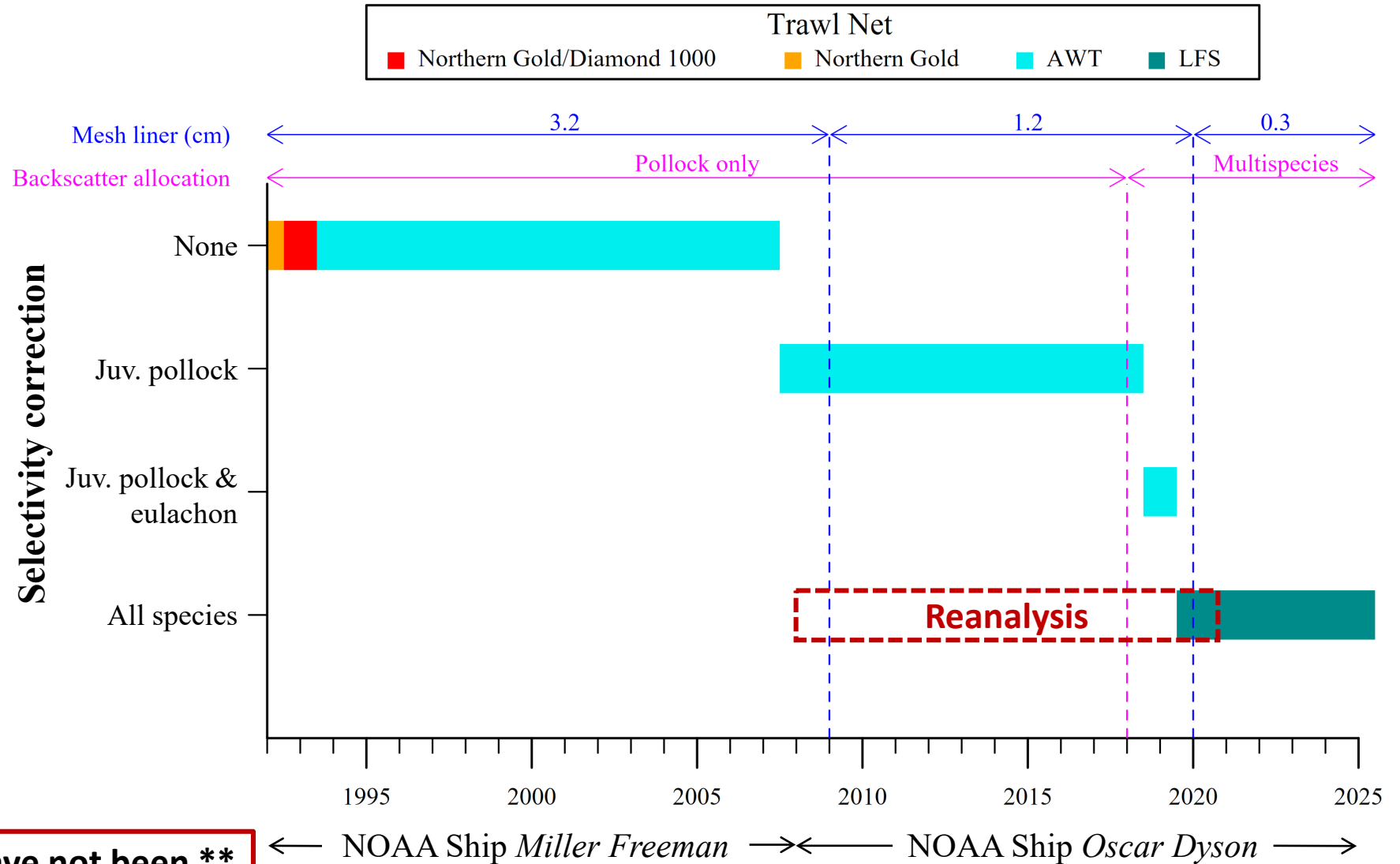
Major survey changes

- Replaced *Miller Freeman* w/ *Oscar Dyson* in 2008
- Switched trawl net and codend mesh liner

Data analysis improvements

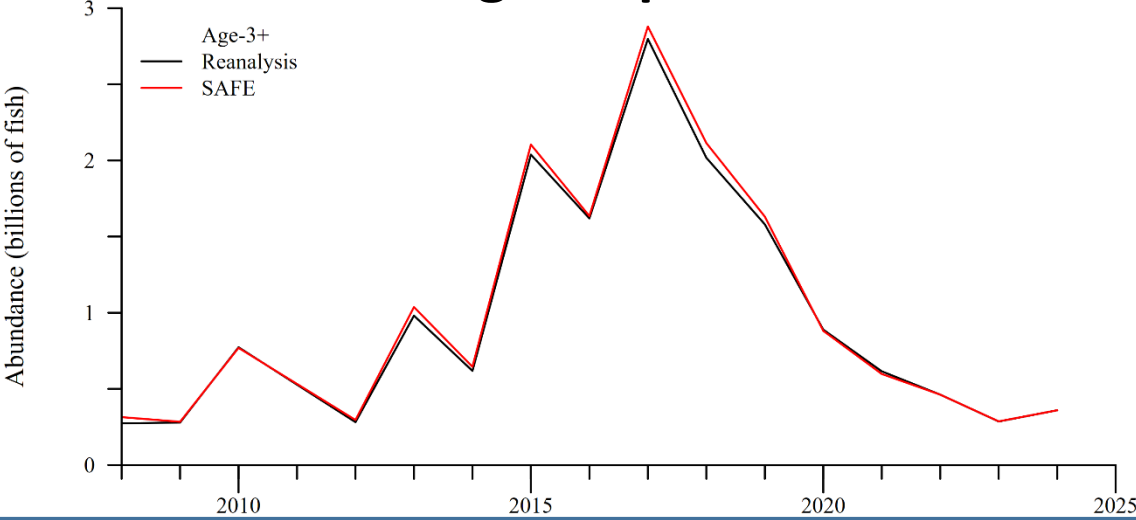
- Applied trawl selectivity corrections
- Use nearest haul catch data
- Backscatter allocated to multiple species
- Updated TS-length relationships
- Weighted maturity

**** Most changes to the survey have not been applied to historical data ****

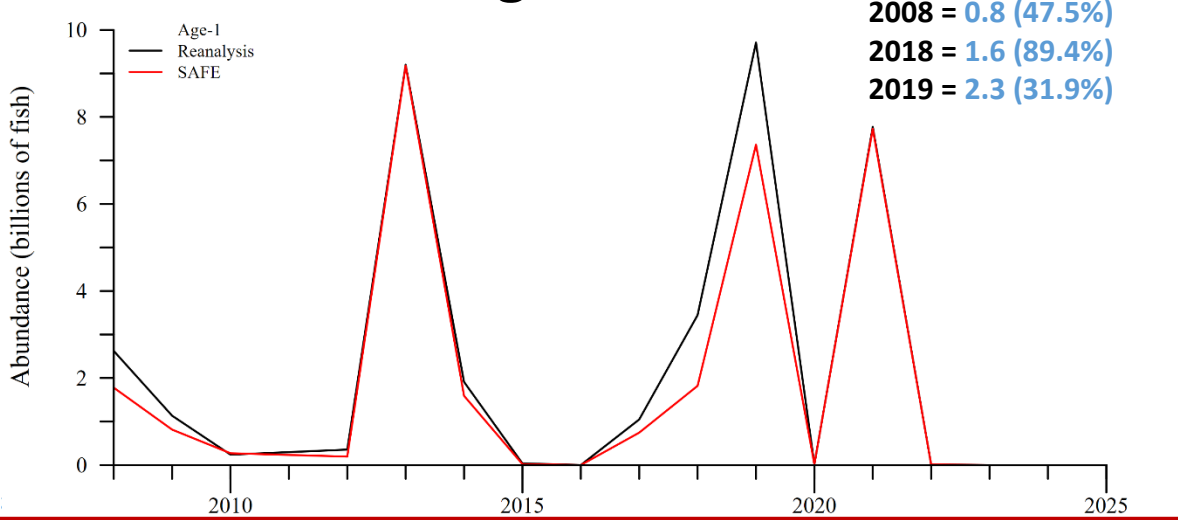


Results: Winter Shelikof Survey

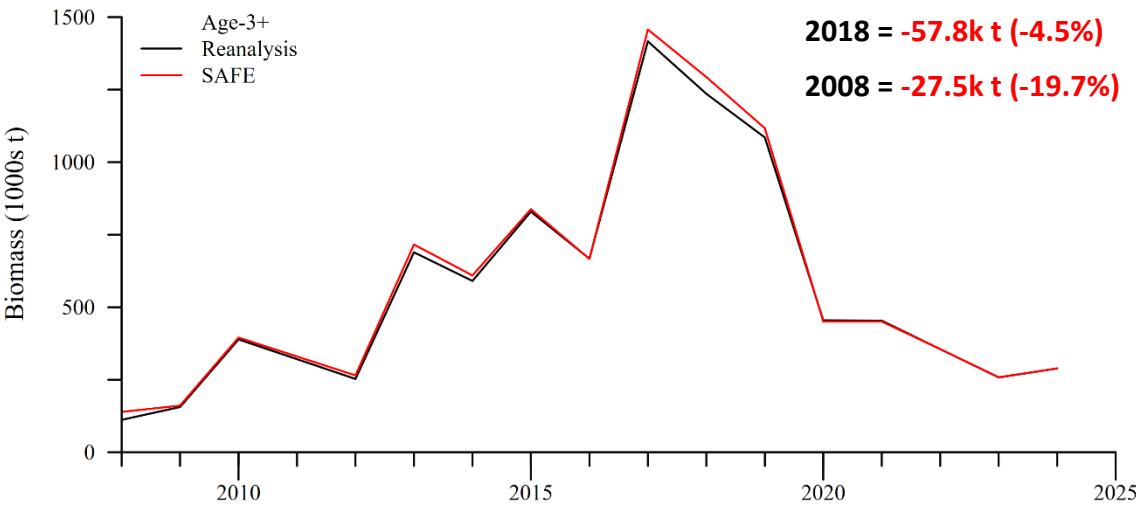
Age-3+ pollock



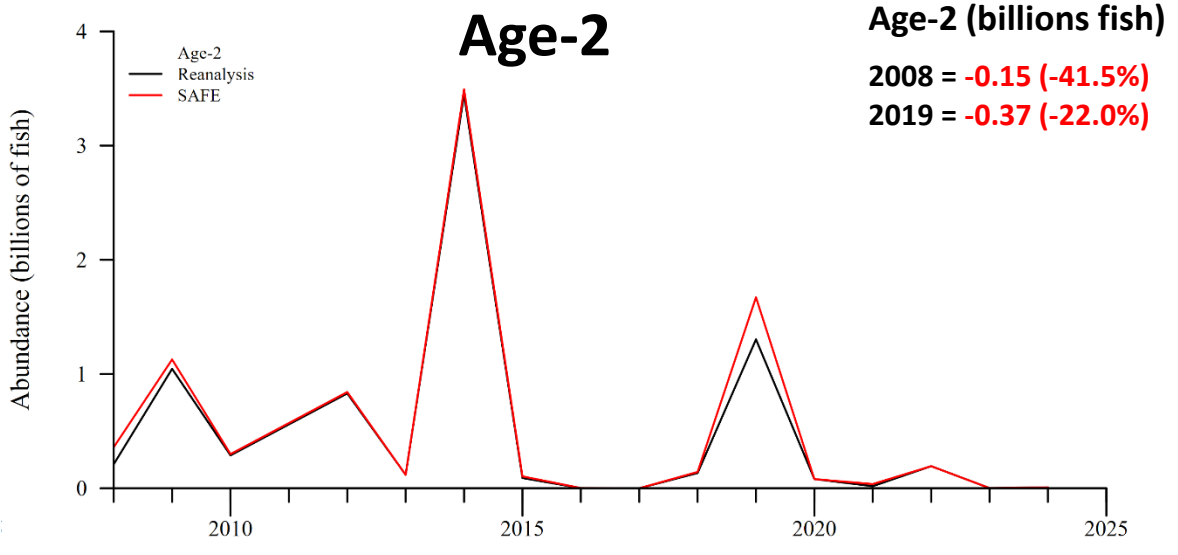
Age-1



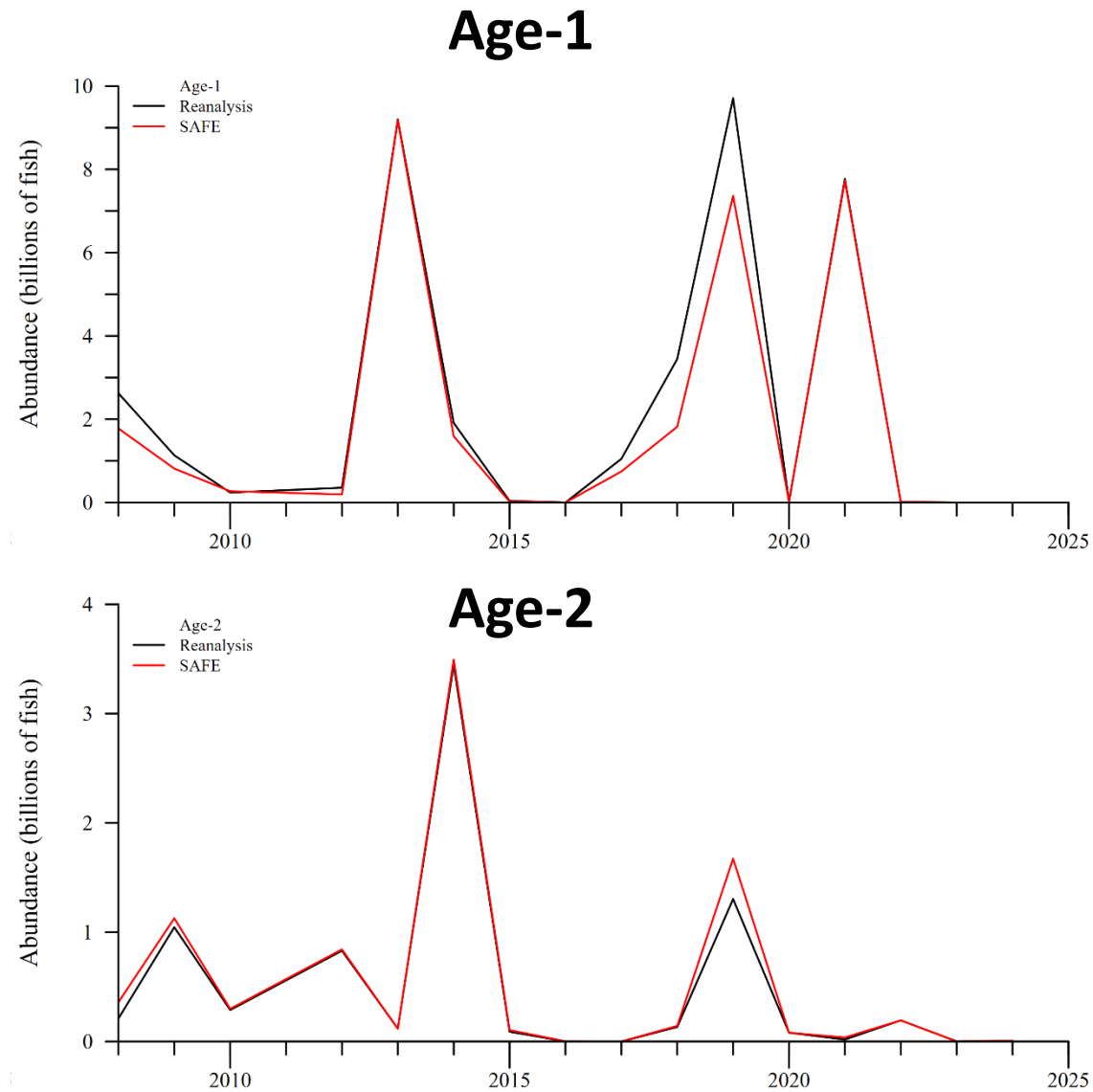
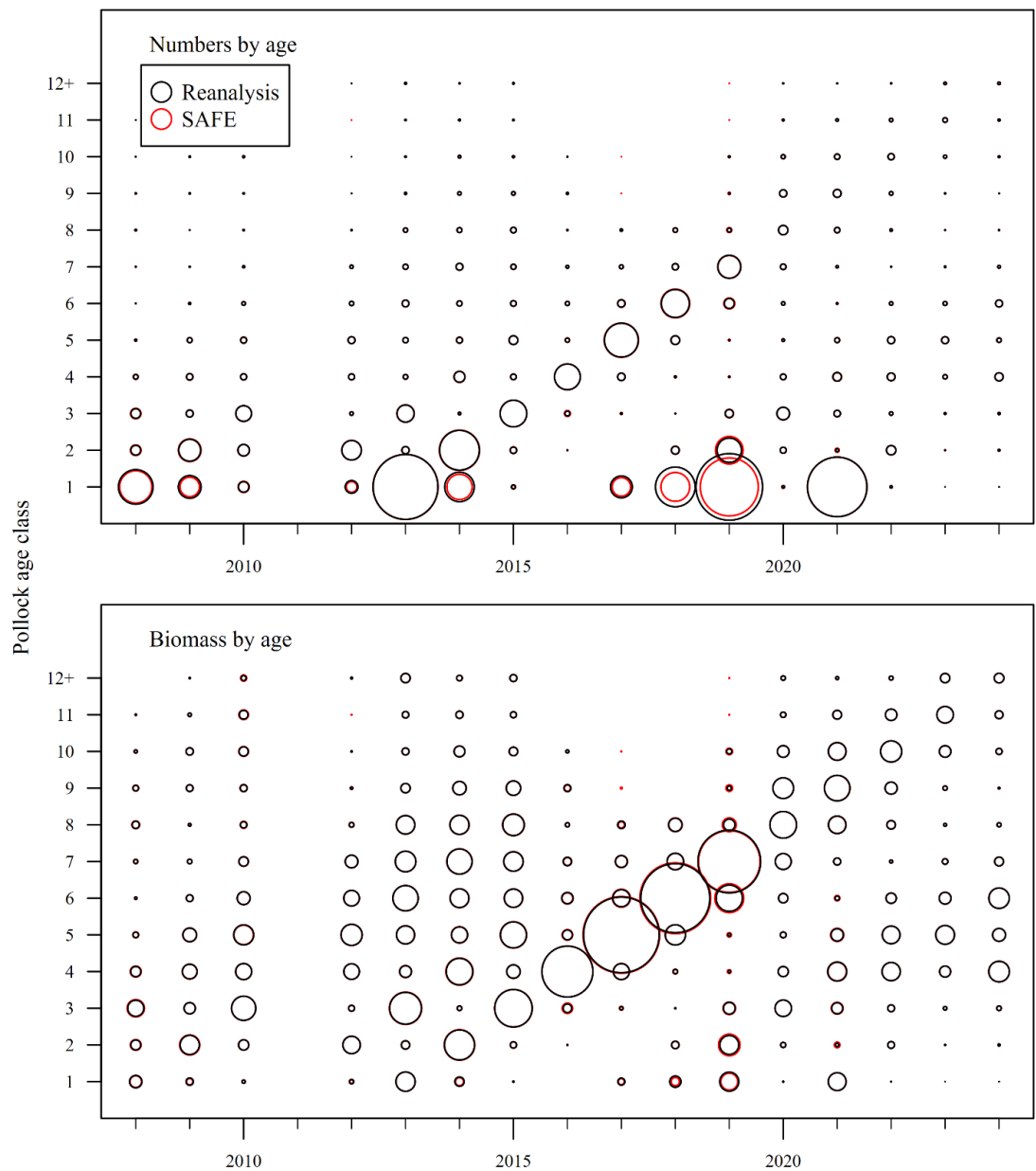
< 5% change except 2008



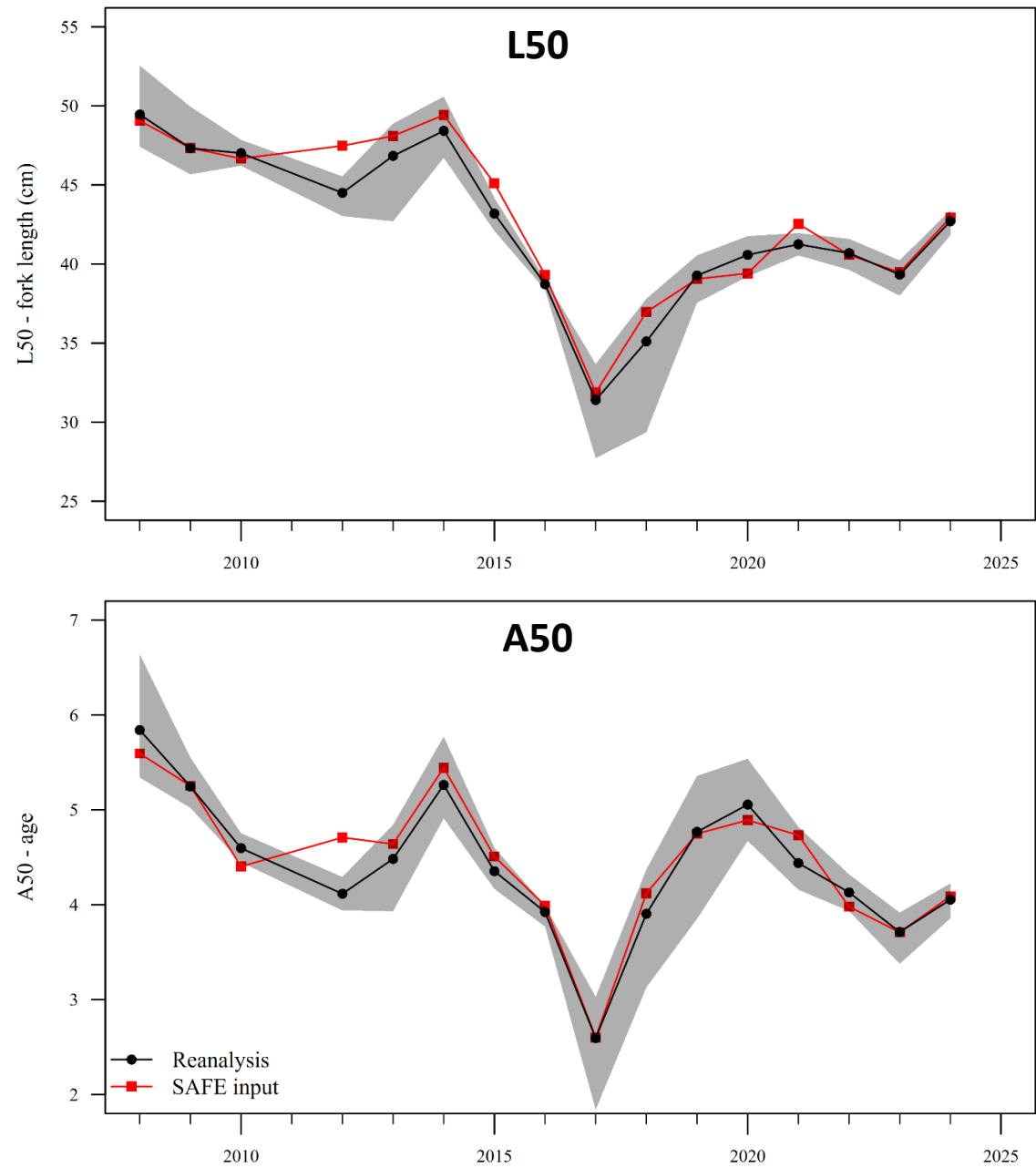
Age-2



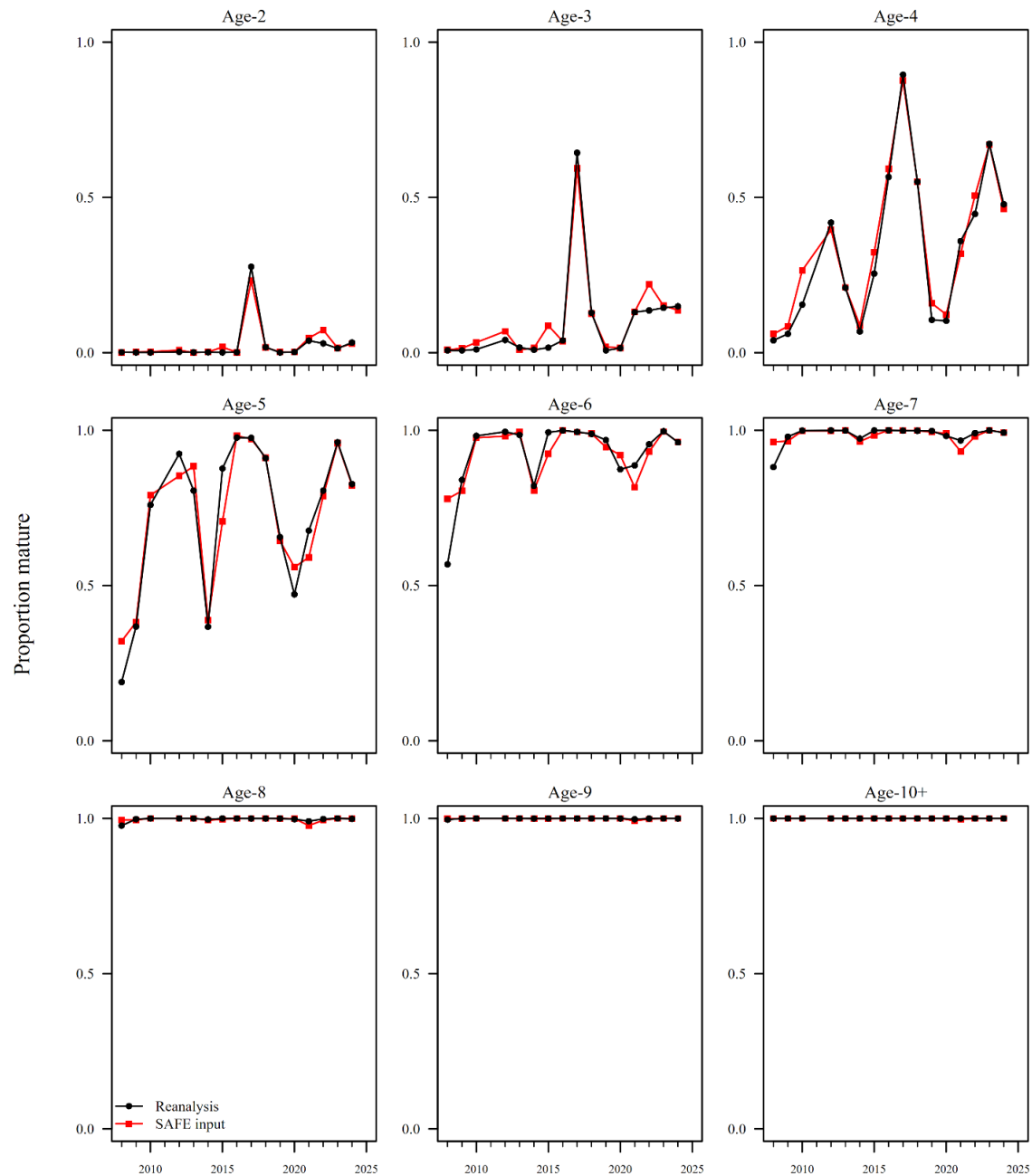
Results: Winter Shelikof Survey



Results: Winter Shelikof Survey



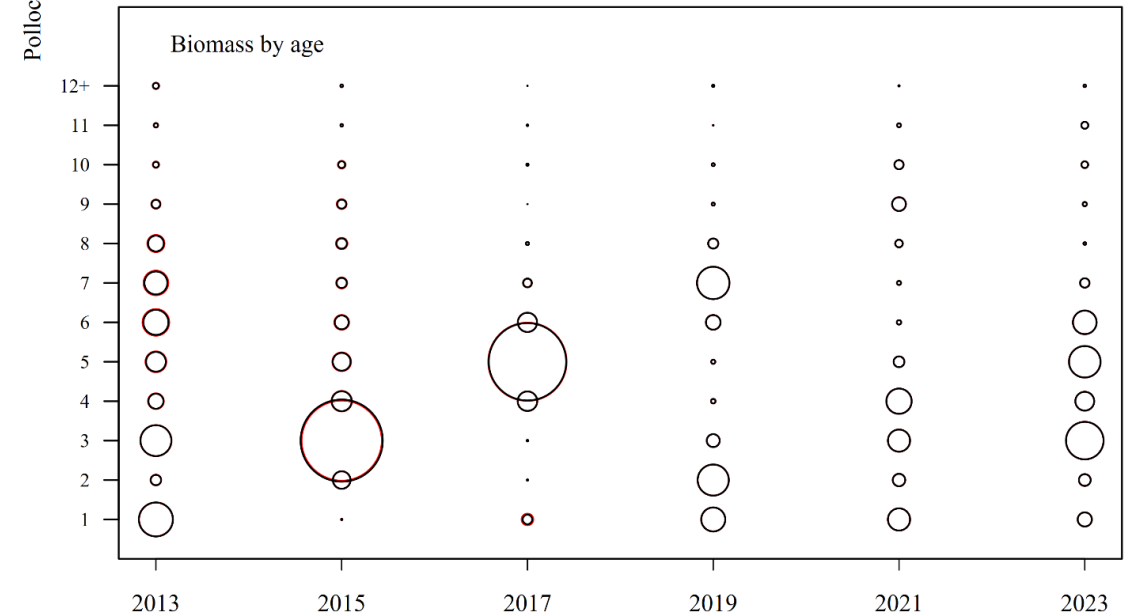
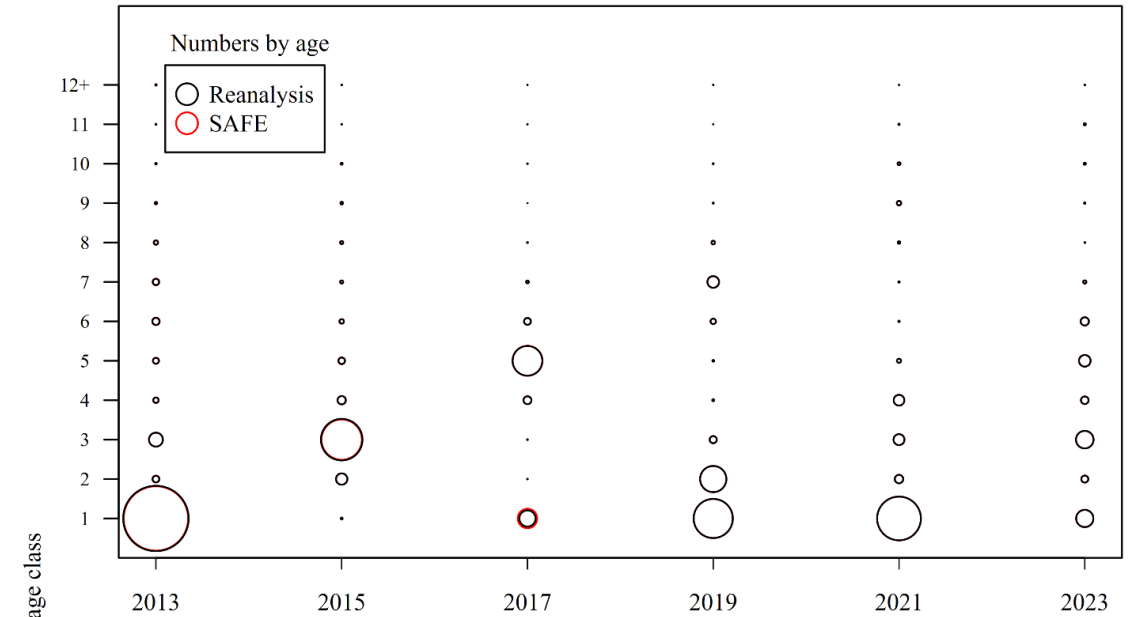
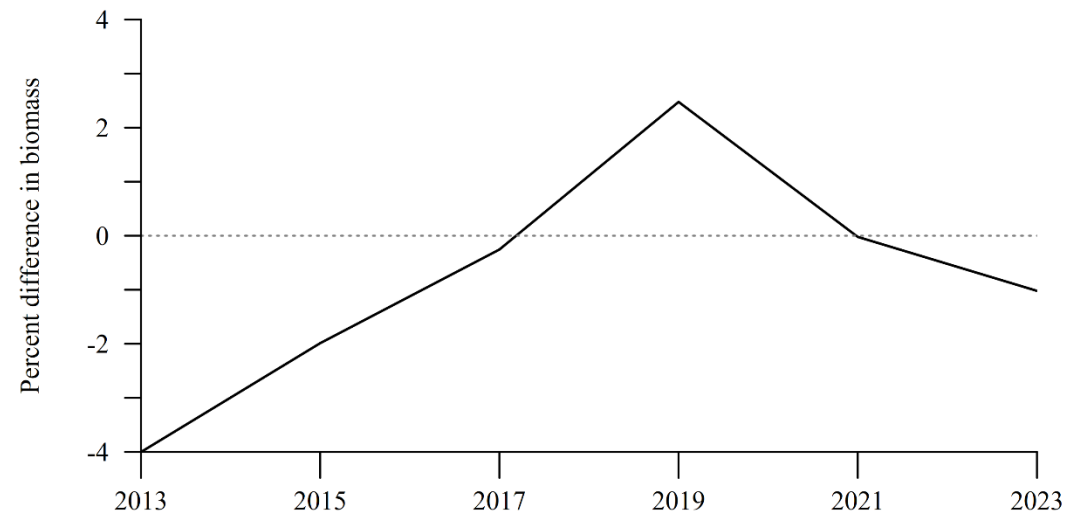
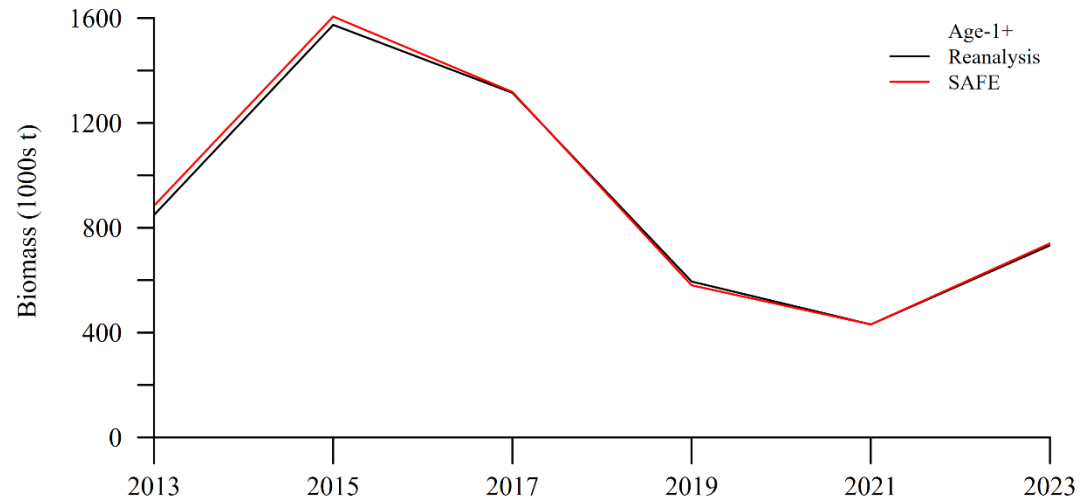
Proportion Mature by Age



Results: Summer GOA Survey

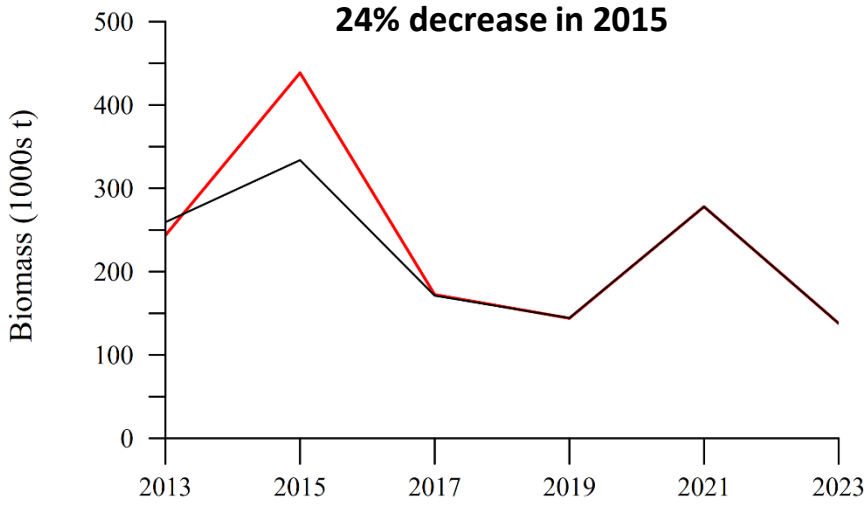
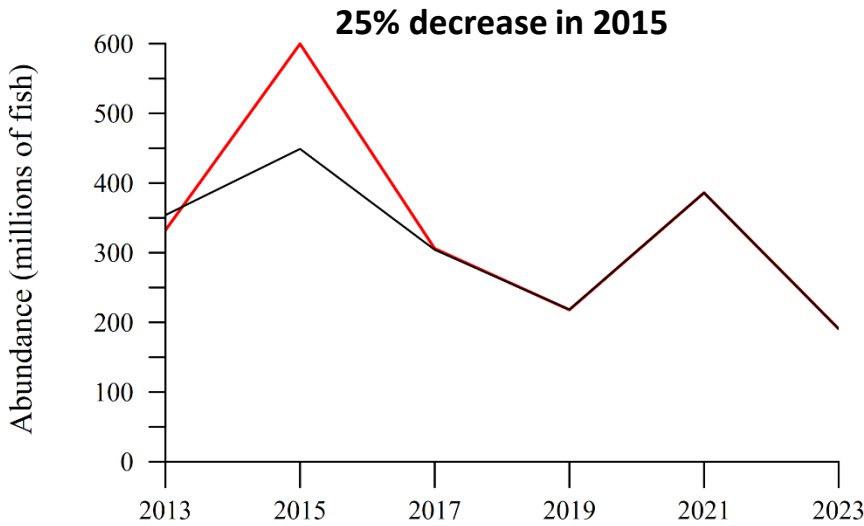
Age-1+ pollock

< ±4% change all years



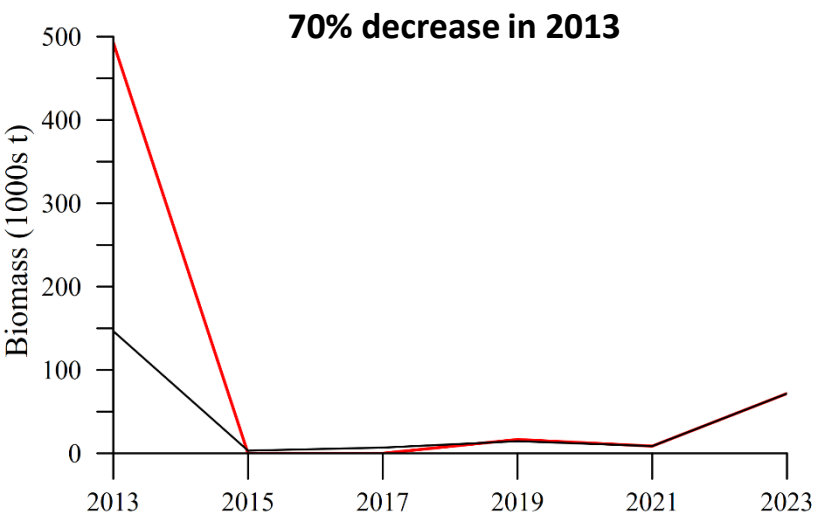
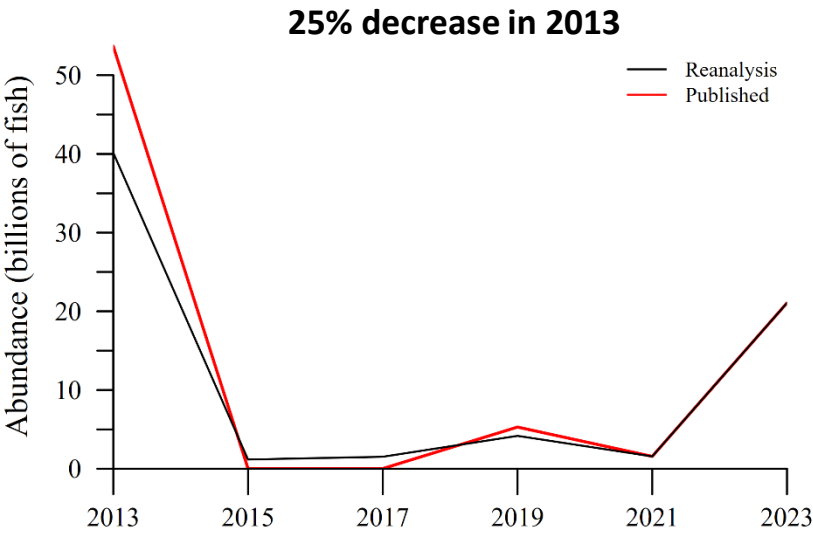
Results: Summer GOA Survey

POP



Capelin

Estimates now available in 2015 & 2017



Reanalysis Summary

Winter Shelikof

- Minor effects to age-3+ biomass (< 5% change in all years, except 2008)
- Expected increases in age-1 abundance along with smaller decreases in age-2 & age-3+ abundance
- Minimal effects to maturity estimates

Summer GOA

- Minimal effects to age-1+ biomass (selectivity correction less impact as age-1s are larger in summer)
- POP: 24% decrease in biomass in 2015, similar in all other years
- Capelin biomass estimates now available for 2015 & 2017, w/ corrections in all years pre-2021

Next Steps

- Tech memo documenting reanalysis in FY26
- Provide the assessment author a complete data set each year for full time series (not only current year)
 - Future changes will be applied to all years when possible & incorporated in current assessment
 - specimen data weighted by local biomass
 - updated TS-length relationships for POP, pollock or other species
 - All changes will be documented and summarized in metadata file submitted w/ data