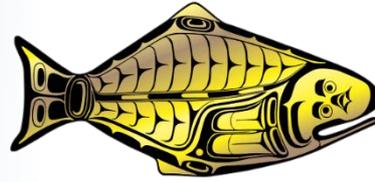


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Fishery-Independent Setline Survey (FISS) design and implementation in 2020

Agenda item 6

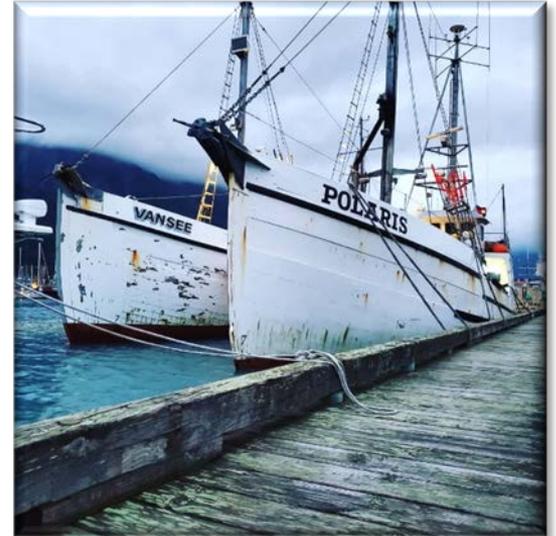
IPHC-2020-IM096-06 Rev_1



Objective - Primary

Standardised, fishery-independent data collection for the Pacific halibut stock assessment and stock distribution estimation

- Pacific halibut distribution and abundance trends – CPUE
- Collection of biological structures (determining sex, maturity, and age)
- Data from U32 Pacific halibut



Coastwide weights at-sea



- Weights taken at-sea along with lengths on all vessels



Standardisation

Gear

- Fixed gear

Each skate

- 548.64 metres (1800 feet) with 100 hooks spaced 5.49 metres (18 feet) apart
- No.3 (16/0) circle hooks threaded through the front on 61 to 122 centimetre (24 to 48 inch) gangions
- 3 to 5 kilogram (7-10 pound) weights on each non-anchored skate end

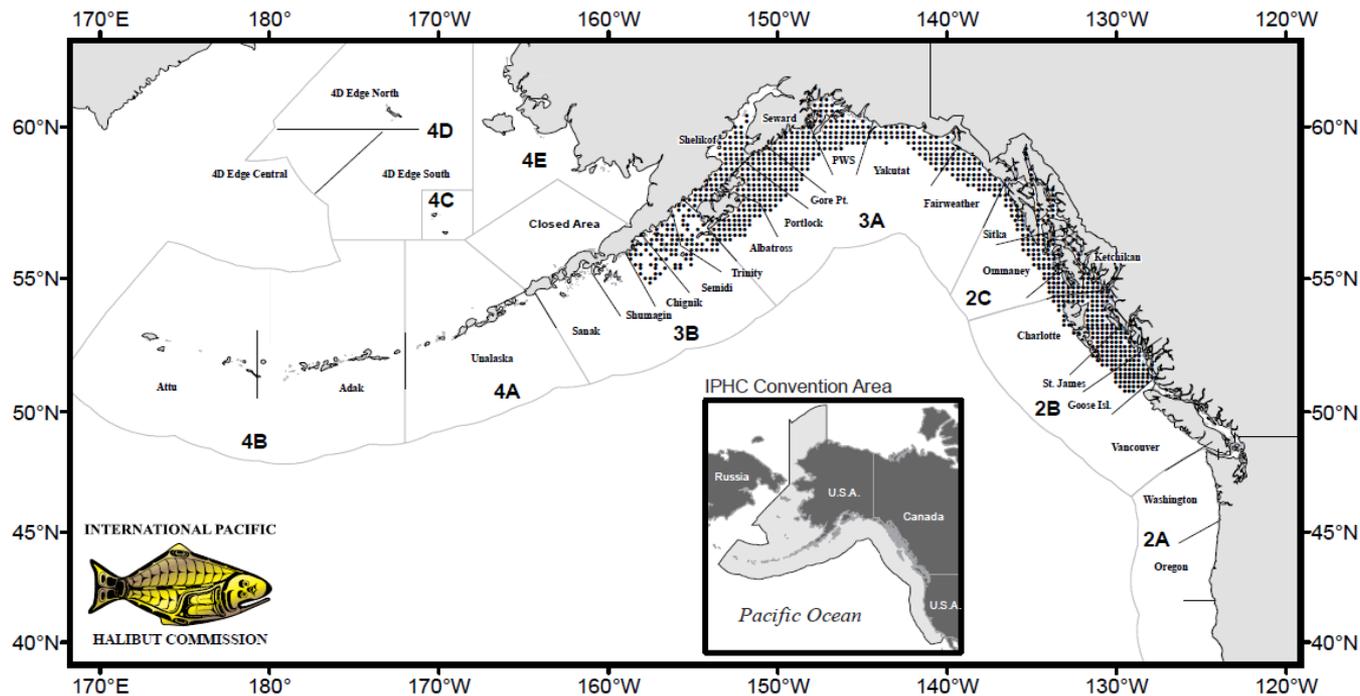


Bait

- Frozen chum salmon
- Number 2 semi-bright or better
- Cut 1/10 to 1/6 kilogram (1/4 to 1/3 pound)
- Captains sign off on bait quality



2020 Fishery-Independent Setline Survey (FISS)



26 June – 09 Sept (26 May to 22 Sept in 2019)

11 vessels (18 in 2019)

951 stations (record 1,531 in 2019)

St. James Charter Region (IPHC Regulatory Area 2B) gear comparison

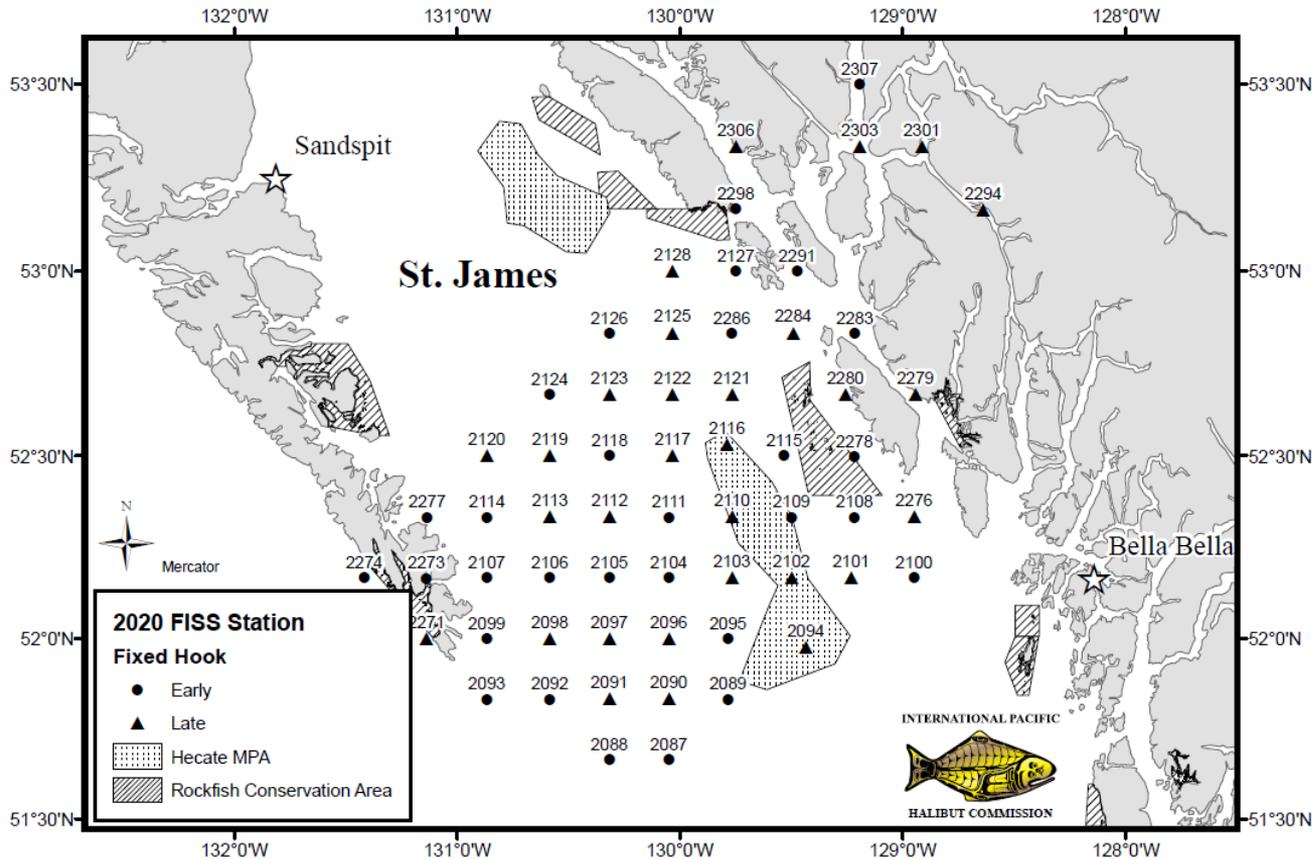


2020 FISS gear comparison - fixed and snap

- IPHC Regulatory Area 2B (St. James charter region)
- Each station fished twice in random order
 - once with fixed-gear
 - once with snap-gear
- More vessels and more comparable



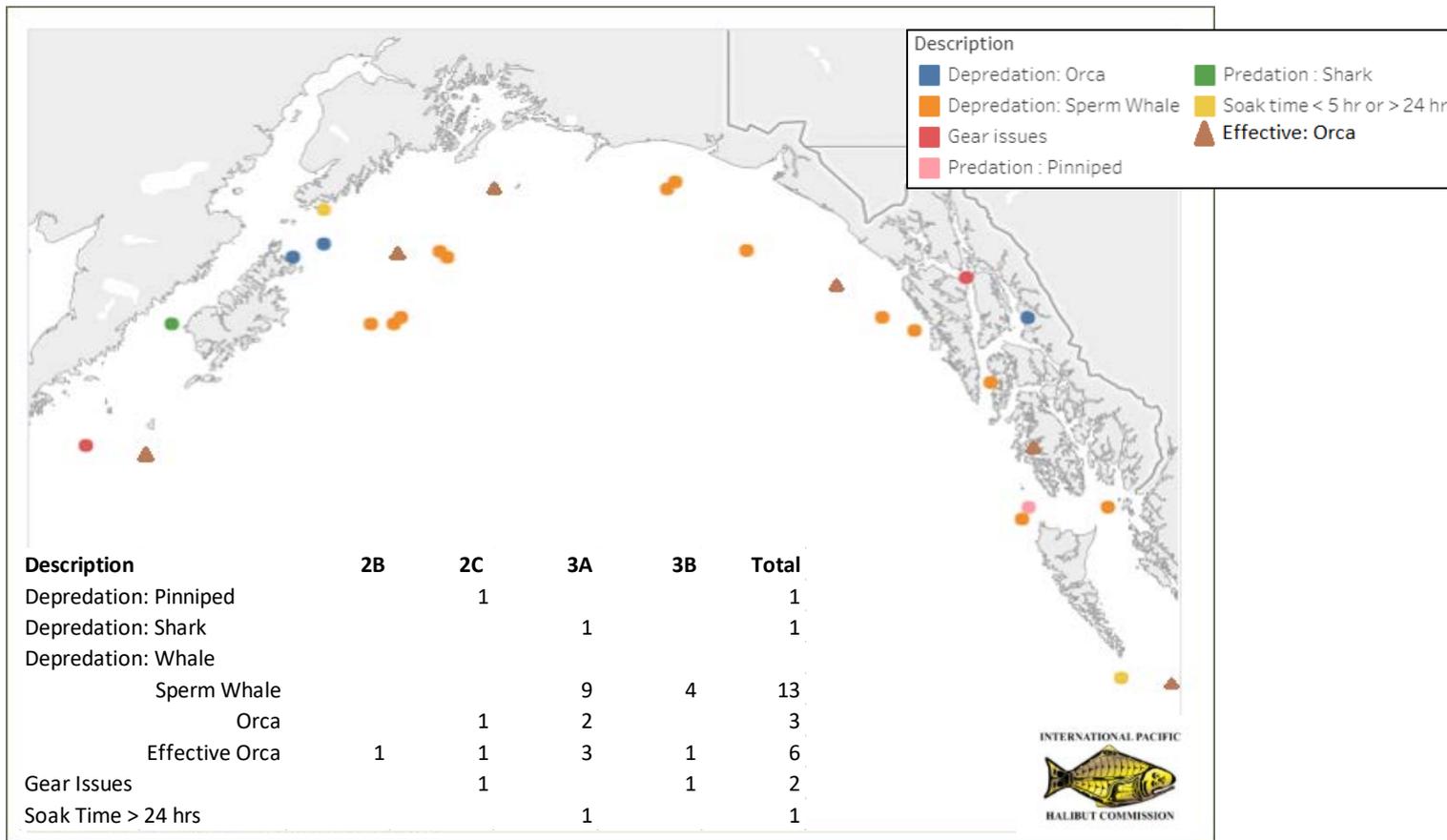
2020 FISS gear comparison



- St. James charter region
- Timing for Fixed gear



Ineffective stations and sightings in 2020



Objective - Secondary

- Long-term revenue neutrality
 - Improved fish sale process
 - RFT for each sale
 - Rated against specified criteria
 - Price
 - Established controls for review and approval for each sale
 - Buyers invoiced
 - Charter Agreements
 - RFTs
 - All submissions rated against specified criteria
 - Price



Objective - Secondary

- Sale of sampled U32 Pacific halibut
- Price slightly less



Tertiary objectives

Collaboration

- None conducted in 2020.
- Collaborative agreements in discussion for 2021.





2020 – FISS results

- Explore the website for;
 - [FISS Catch-Per-Unit-Effort \(CPUE\) data maps and plots](#)
 - [FISS Performance](#)
 - [FISS Biologicals](#)
 - [Data set downloads](#)





2021 – request for tender process

- Tender specifications
 - Simplified
 - Clear expectations – communication needs
 - Base costs – communications rolled in
 - Online in December.
- Due by 31 January 2021

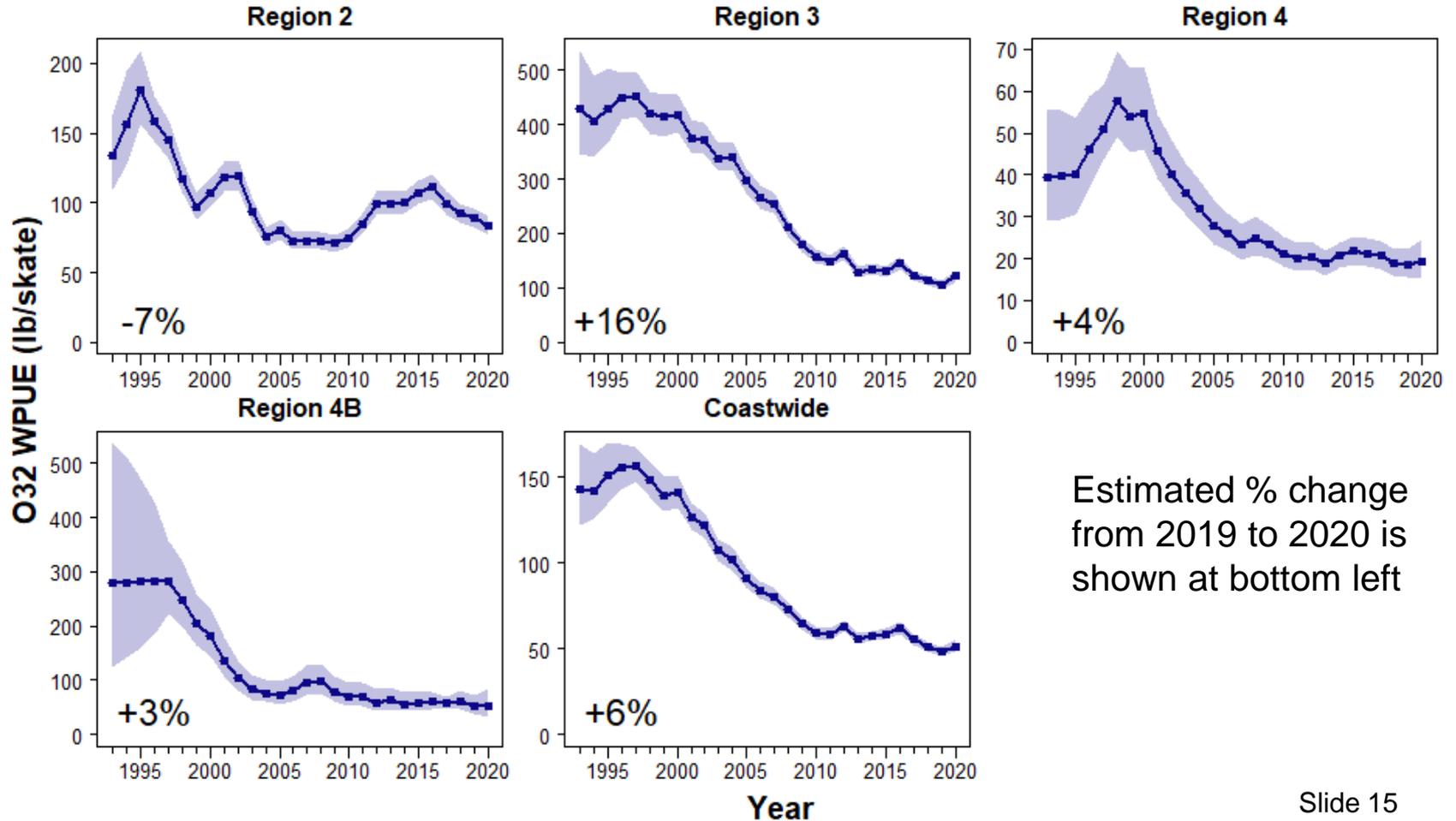


Space-time model estimates of WPUE and NPUE

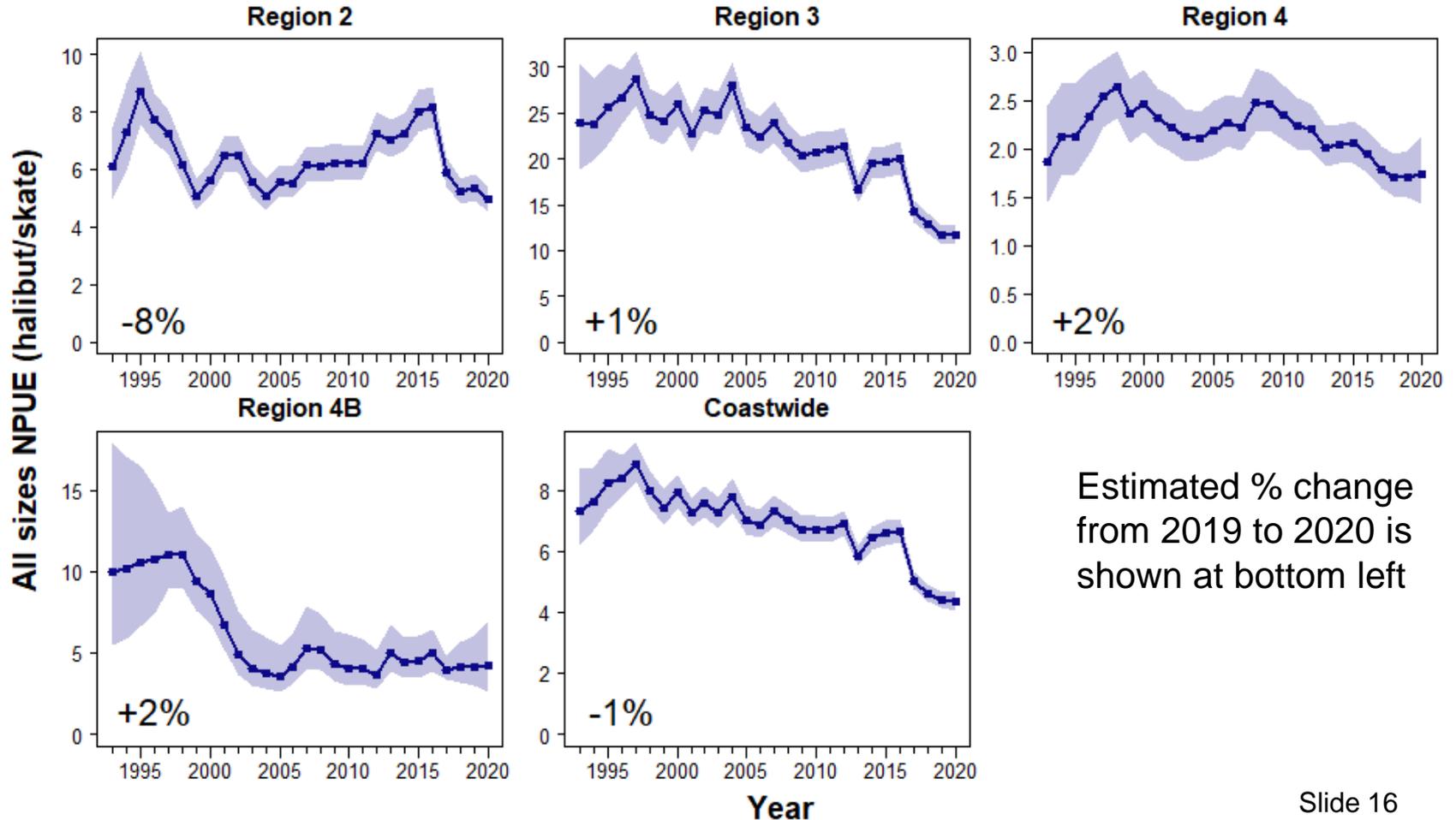
- As in 2016-19, space-time modelling was used to estimate O32 and all sizes WPUE and all sizes NPUE indices from 1993 onwards
- Estimates computed for:
 - Biological Regions
 - IPHC Regulatory Areas
 - Coastwide IPHC Convention waters, from San Francisco Bay to Bering Strait



O32 WPUE by biological region



All sizes NPUE by biological region

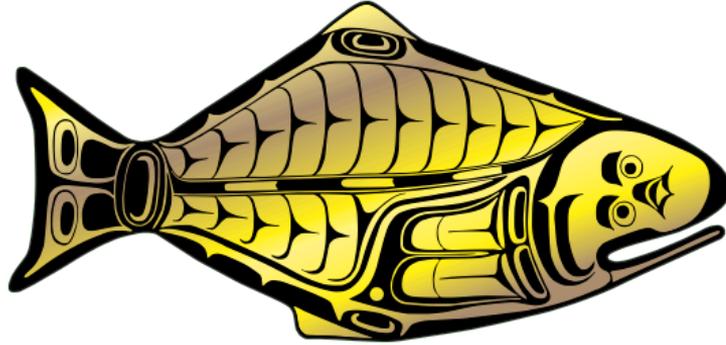


Gear comparison study in IPHC Regulatory Area 2B

- Space-time modelling included parameters allowing for gear differences in catch rates
- Results were generally consistent with the 2019 study in IPHC Regulatory Area 2C
 - Average WPUE and NPUE lower on snap gear (72-83% of fixed gear average; 86% in 2019)
 - Greater uncertainty in this smaller study: all 95% intervals included 100%, i.e. no gear difference in catch rate
- Further studies are being planned to collect additional data
 - to better understand the relative efficiency of the gears
 - to understand potential variability over time and space
- Future modelling will combine data across multiple Regulatory Areas



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