

INTERNATIONAL PACIFIC



HALIBUT COMMISSION

IPHC Fishery-Independent Setline Survey (FISS) design and implementation in 2022

Agenda item 5.2.1

IPHC-2022-RAB023-06

(K. Ualesi)



FISS HQ TEAM



Setline Survey Coordinator,
Kayla Ualesi, B.Sc.



Setline Survey Specialist,
Kevin Coll, B.Sc.



Setline Survey Specialist,
Rachel Rillera, B.Sc.



Setline Survey Specialist
Tyler Jack, M.Sc.



Objective - Primary

Standardised, fishery-independent data collection for the Pacific halibut stock (*Hippoglossus stenolepis*) assessment and stock distribution estimation

- Pacific halibut distribution and abundance trends
- Collection of biological data (sex, maturity, and age)



Photo By Jonathán Turnea



Photo By Rodolfo Currato



Photo By Monica Fezuk



Standardisation

Gear

- Fixed gear



Each skate

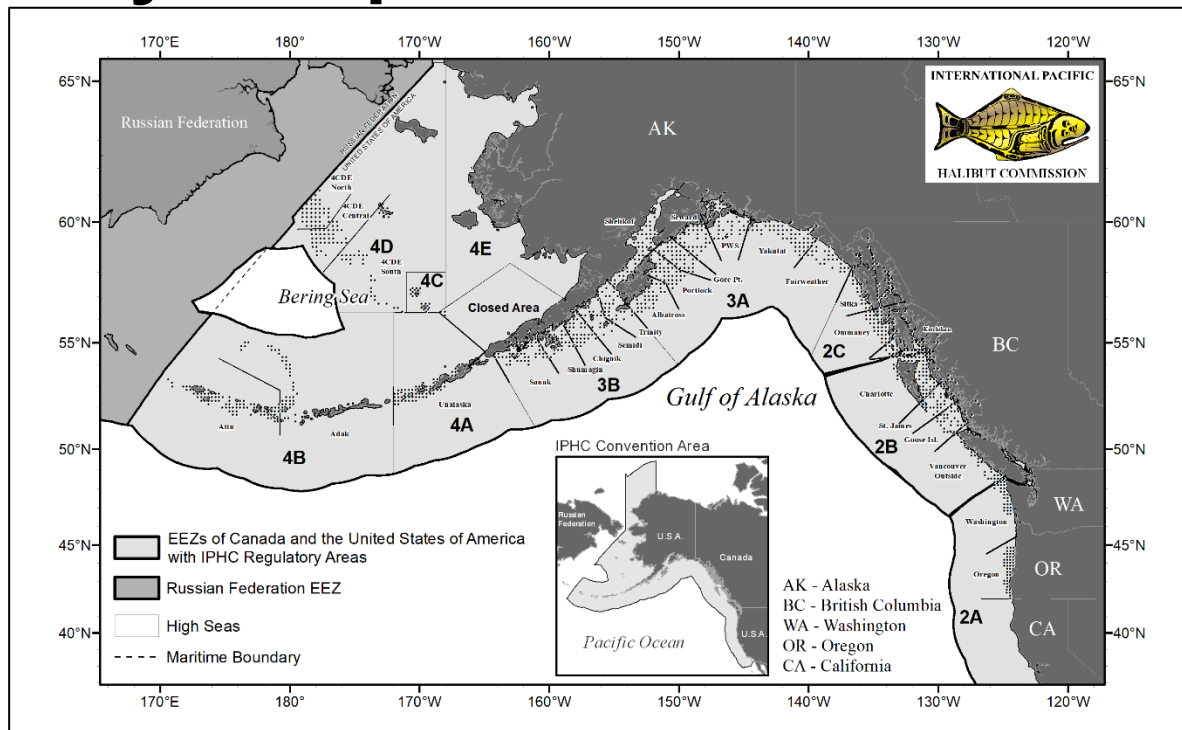
- 548.6 metres (1800 feet) with 100 hooks spaced 5.5 metres (18 feet) apart
- No.3 (16/0) circle hooks threaded through the front on 61 to 122 centimetre (24 to 48 inch) gangions
- 3 to 5 kilogram (7-10 pound) weights on each non-anchored skate end

Bait

- Frozen chum salmon (*Oncorhynchus keta*)
- 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



2022 Fishery-Independent Setline Survey (FISS)



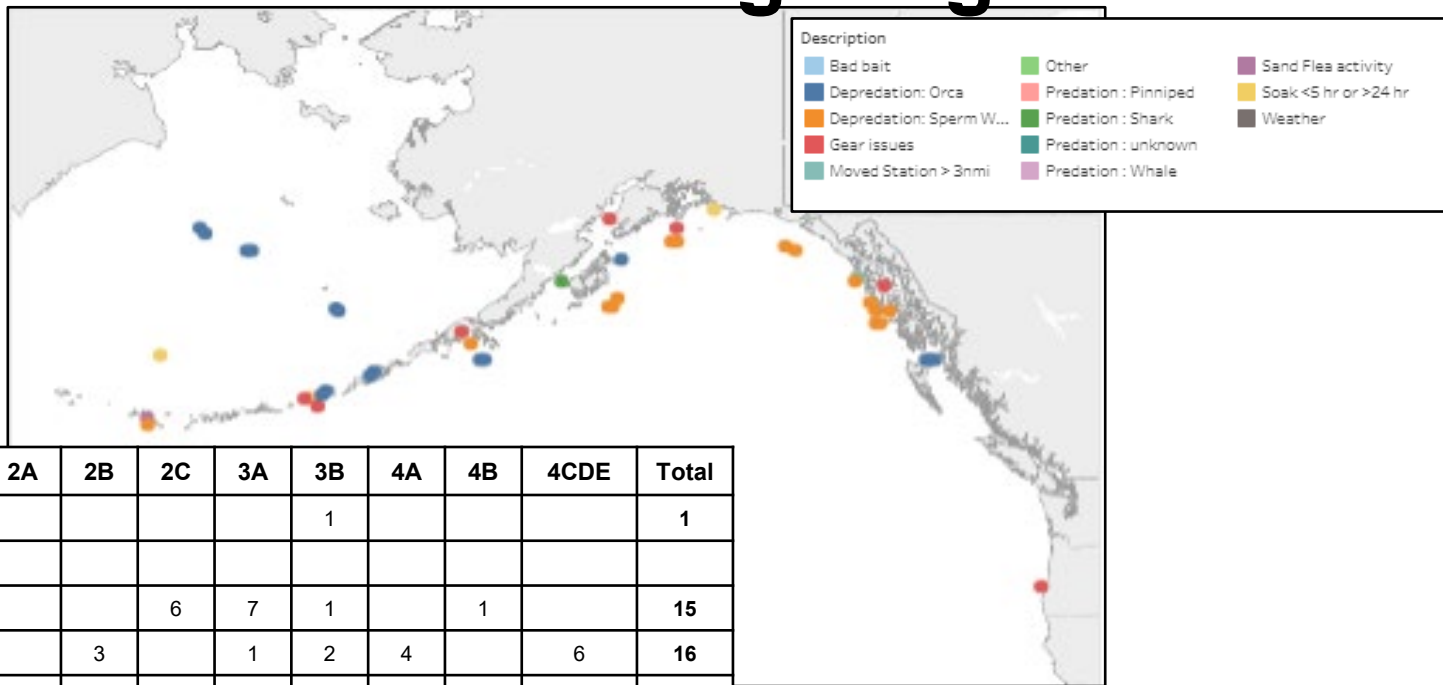
27 May – 15 September (28 May-14 September 2021, 26 June to 09 Sept 2020)

8 vessels (13 in 2021, 11 in 2020)

1,188 stations (1,346 in 2021, 951 in 2020)



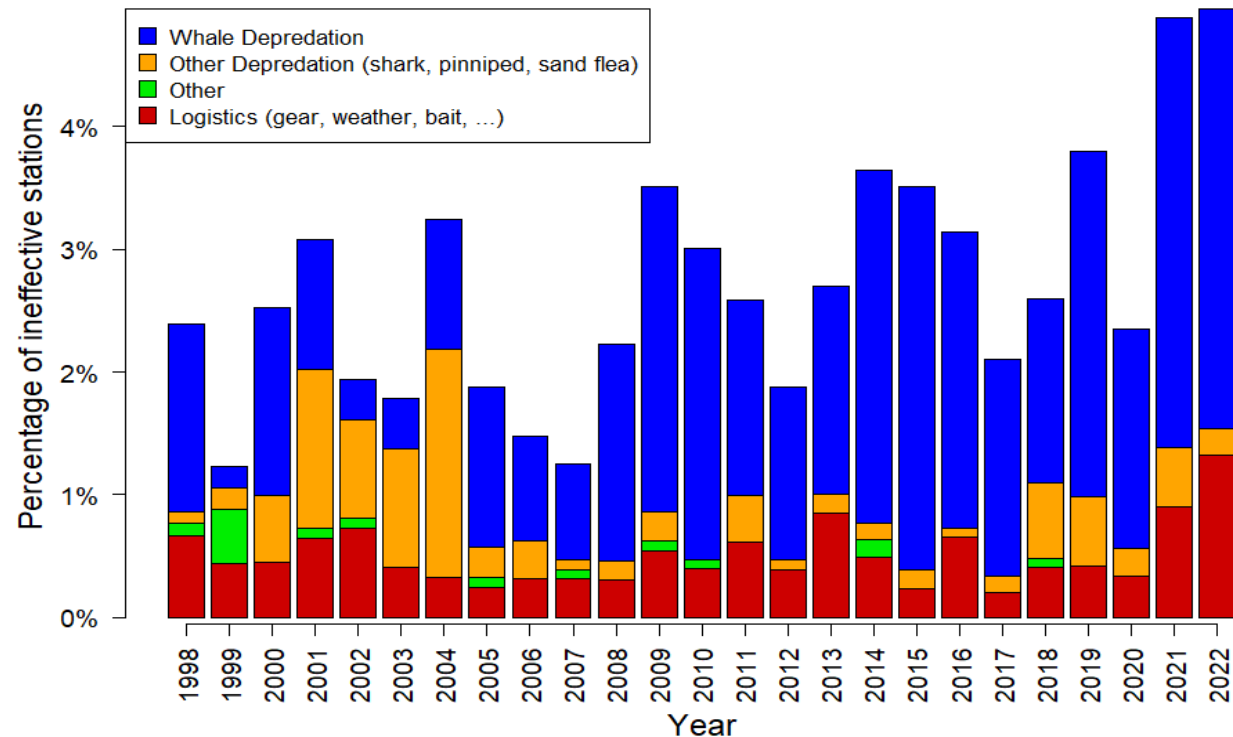
Ineffective stations and sightings in 2022



Description		2A	2B	2C	3A	3B	4A	4B	4CDE	Total
Depredation: Shark						1				1
Depredation: Whale										
	Sperm Whale			6	7	1		1		15
	Orca		3		1	2	4		6	16
Moved Station > 3nm				1						1
Gear Issues		1		1	2	1	2			7
Soak Time > 24 hrs					1		2	1		4
Sand Fleas								1		1
Total		1	3	8	11	5	8	3	6	45



Percentage of Ineffective Stations

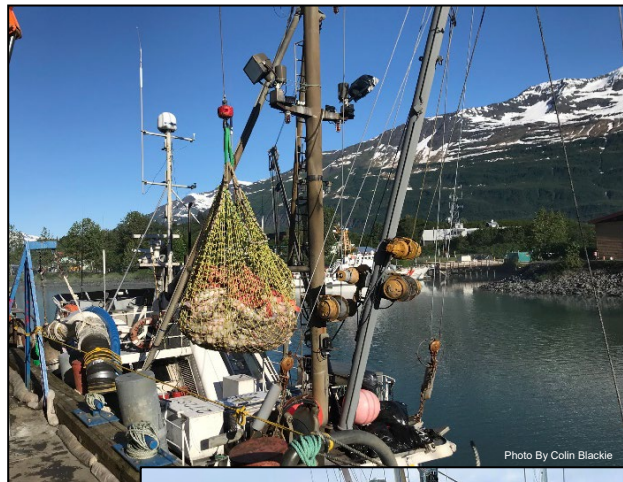


- Changes in the FISS design from year to year will influence the number of ineffective stations
- Area 4A has the highest percentage of ineffective stations and significantly impacts the whale depredation percentages in the years that area is included in the survey (not a part of 2020)



Objective - Secondary

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



Objective - Secondary

- Sale of sampled U32 Pacific halibut
- Price slightly less (12% less than O32 Pacific halibut average price)



Collaboration

- WDFW: Rockfish (8 stations)
- ODFW: Dockside Rockfish Sampling
- AK: Pacific cod, dogfish sampling
- 2B: Dockside Rockfish Sampling
- Agreements being discussed for 2023+

Tertiary objectives

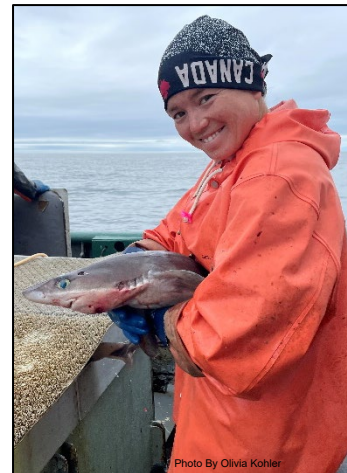


Photo By Olivia Kohler

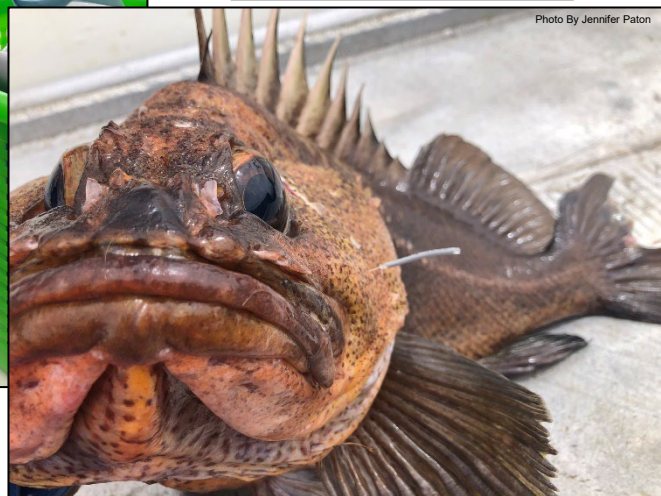
Photo By Jennifer Paton



Photo By Kevin Coll



Photo By Jennifer Paton

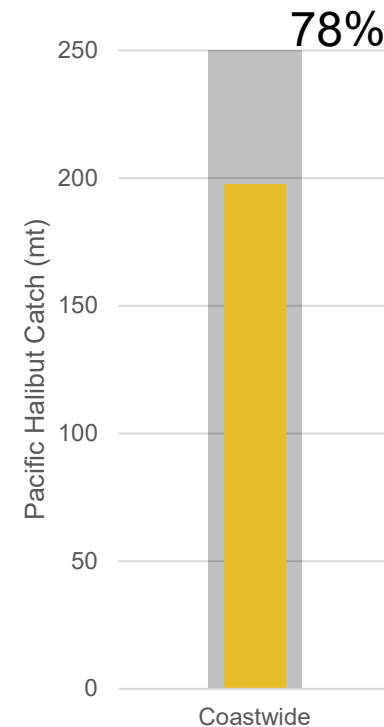
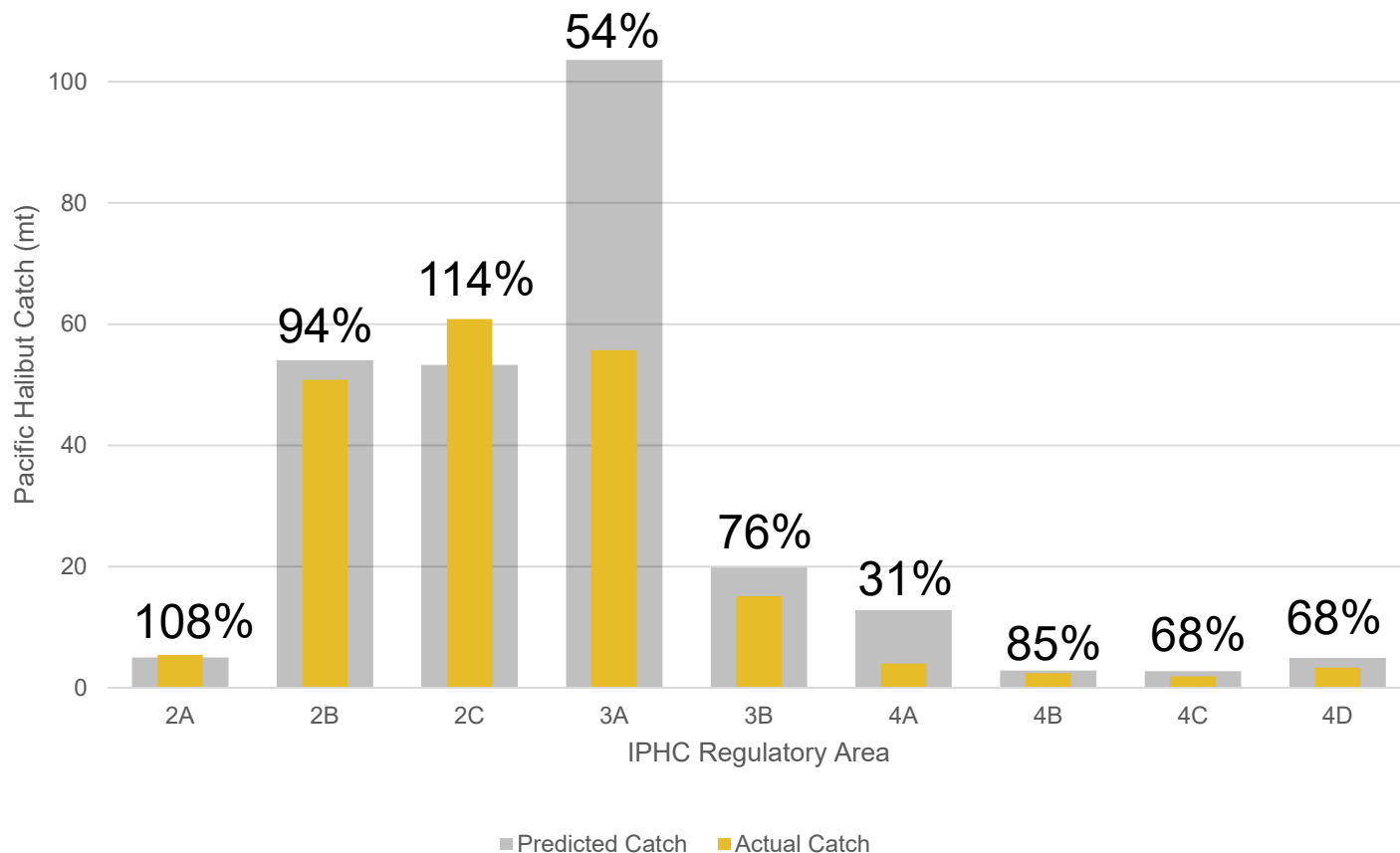


2022 – FISS results

- *FISS Catch-Per-Unit-Effort (CPUE) data maps and plots*
- *FISS Performance*
- *FISS Biologicals*
- *Data set downloads*



Predicted versus Actual Catch by IPHC Reg. Area



Average Price/lb (USD) by IPHC Reg. Area

IPHC Regulatory Area	FISS 2022 Average price/lb (USD)	FISS 2021 Average price/lb (USD)
2A	\$5.61	\$5.18
2B	\$9.01	\$8.09
2C	\$7.34	\$6.69
3A	\$7.44	\$6.95
3B	\$7.27	\$6.05
4A	\$6.81	\$5.32
4B	\$6.90	\$5.58
4C	\$6.84	\$5.37
4D	\$6.82	\$5.26
Coastwide	\$7.72	\$6.87



Average Price/lb (USD) Over Time (2000-2022)

FISS YEAR



Pacific halibut sales (USD) by IPHC Reg. Area

(invoiced as of 6 September 2022)

IPHC Regulatory Area	FISS 2022 Pacific halibut sales Value (USD)	FISS 2021 Pacific halibut sales Value (USD)
2A	\$68,696.45	\$63,775.05
2B	\$974,464.84	\$1,161,310.83
2C	\$908,164.01	\$945,696.68
3A	\$847,326.09	\$2,465,869.19
3B	\$230,386.15	\$561,387.18
4A	\$57,181.51	\$160,918.61
4B	\$33,924.00	\$101,041.43
4C	\$27,032.16	\$29,478.45
4D	\$47,699.56	\$8,325.70
Closed Area	--	\$601.60
TOTAL	\$3,194,874.77	\$5,498,404.72

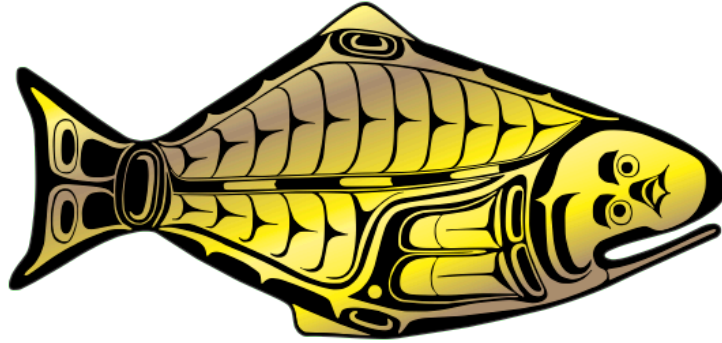


2022 FISS Challenges

- Lack of vessel bids
 - Vessel Availability
 - Sablefish quota
 - Snap-Gear transition
 - Crew recruitment & retention
 - Vessel maintenance



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