

INTERNATIONAL PACIFIC



HALIBUT COMMISSION

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

Agenda item 4.2

IPHC-2023-AM099-08

(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 Jonathan Turnea



Photo By Rodolfo Currato



Photo By Monica Fezuk





# Standardisation

## Gear

- Fixed gear



## Each skate

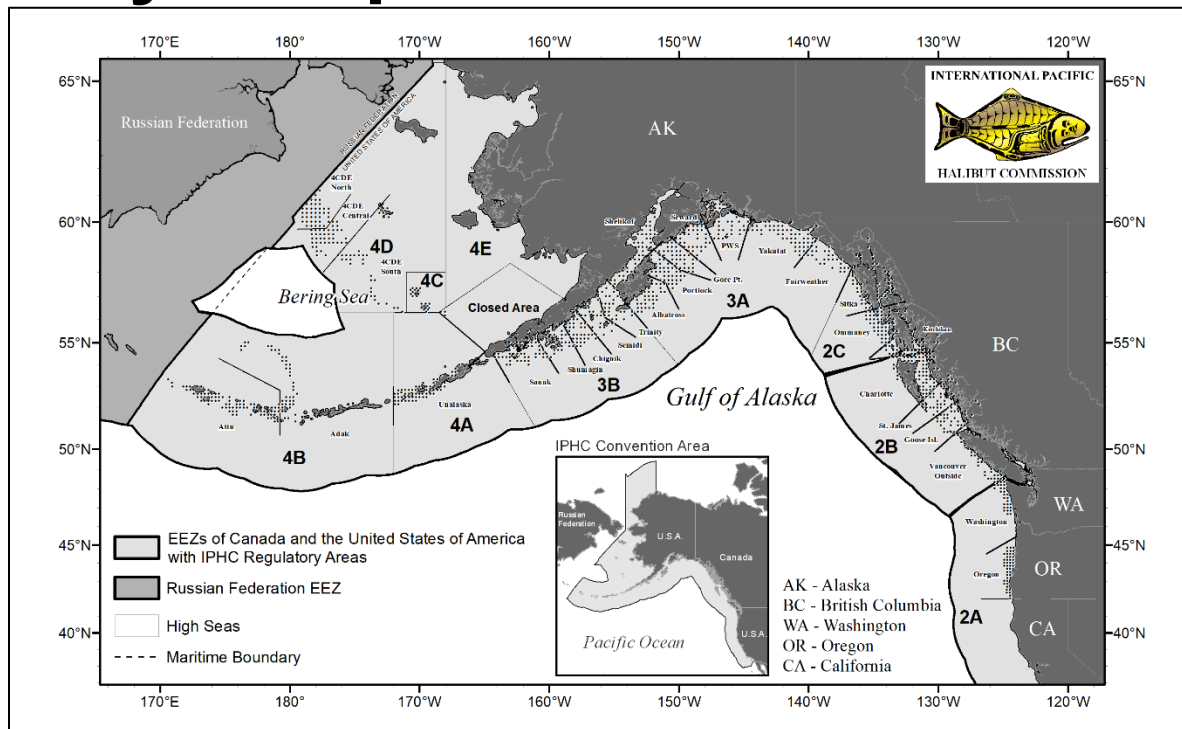
- 548.6 metres (1800 feet) with 100 hooks spaced 5.5 metres (18 feet) apart
- No.3 (16/0) circle hooks threaded through the front on 61 to 122 centimetre (24 to 48 inch) gangions
- 3 to 5 kilogram (7-10 pound) weights on each non-anchored skate end

## 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)



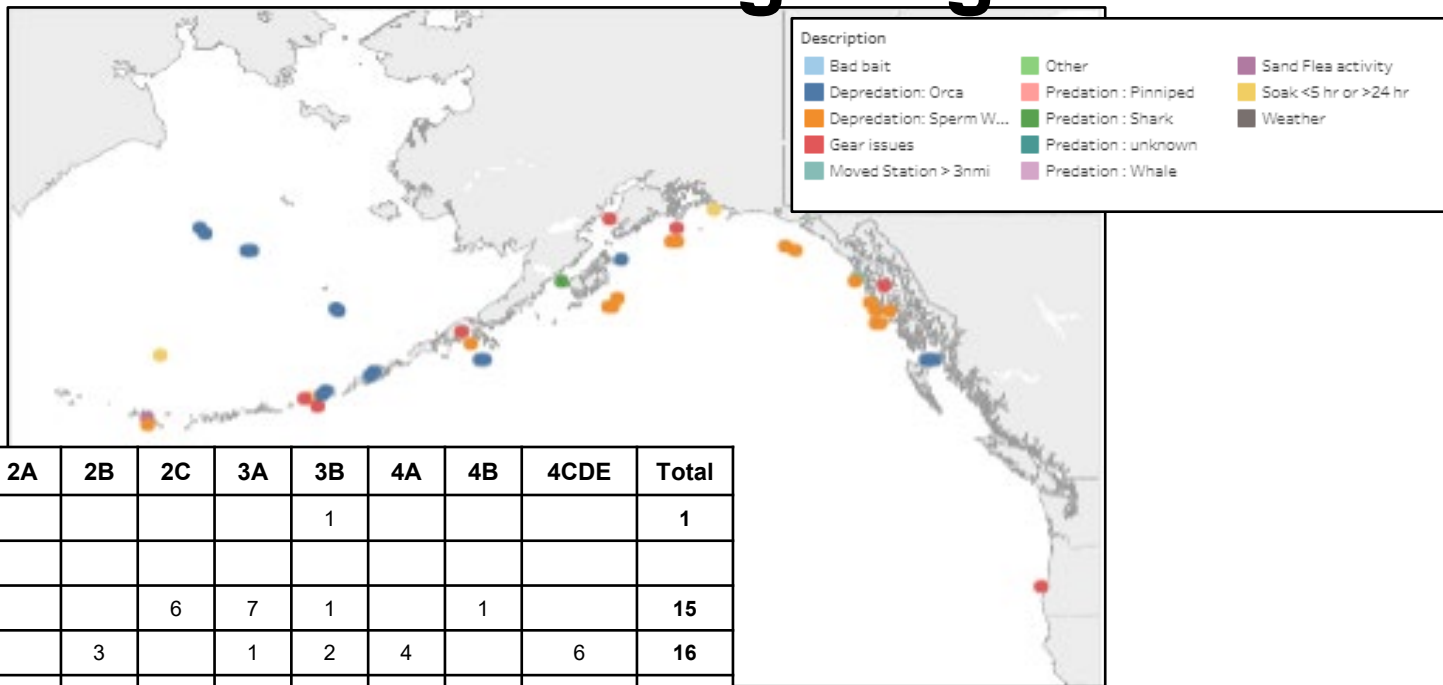
**27 May – 15 September** (28 May-14 September 2021, 26 June to 09 Sept 2020)

**8 vessels** (13 in 2021, 11 in 2020)

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



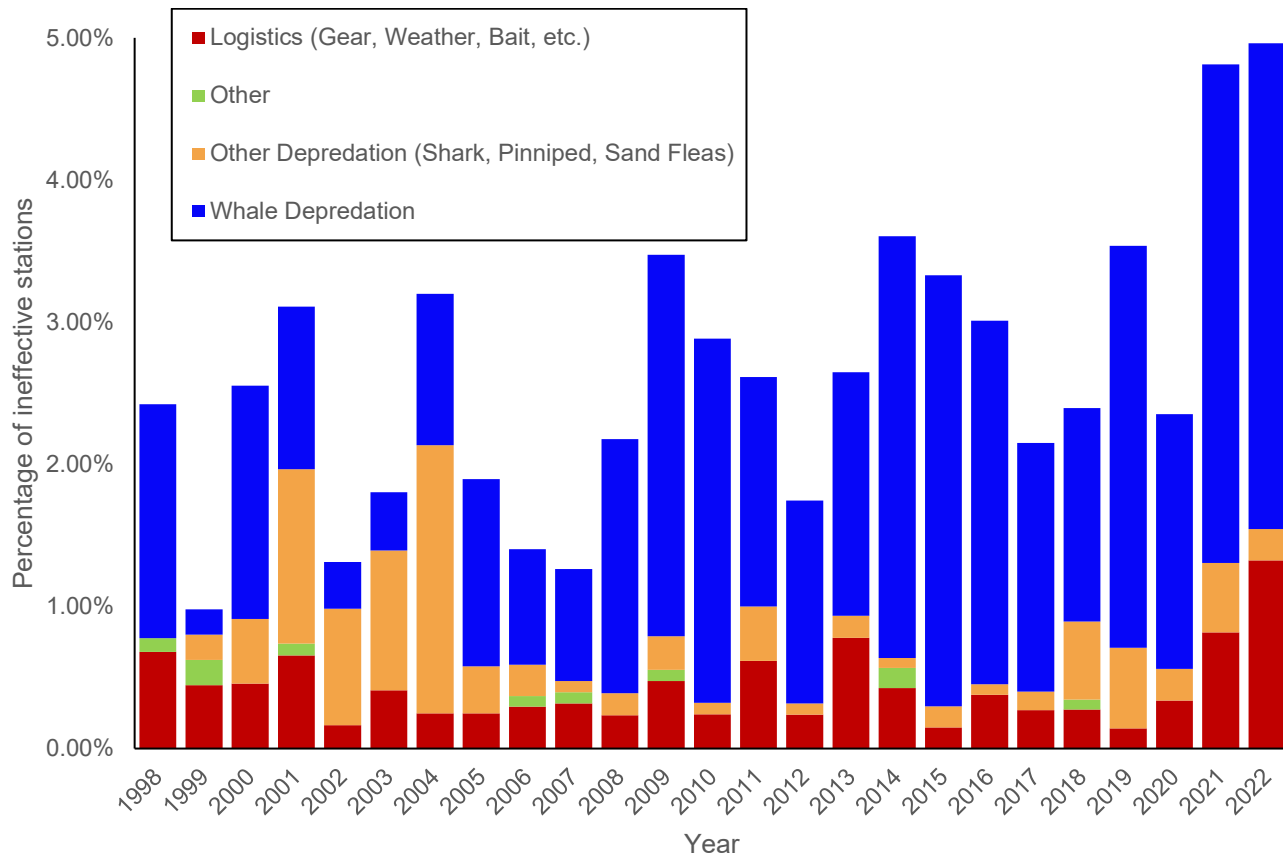
# Ineffective stations and sightings in 2022



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
<b>Total</b>		<b>1</b>	<b>3</b>	<b>8</b>	<b>11</b>	<b>5</b>	<b>8</b>	<b>3</b>	<b>6</b>	<b>45</b>



# Percentage of Ineffective Stations

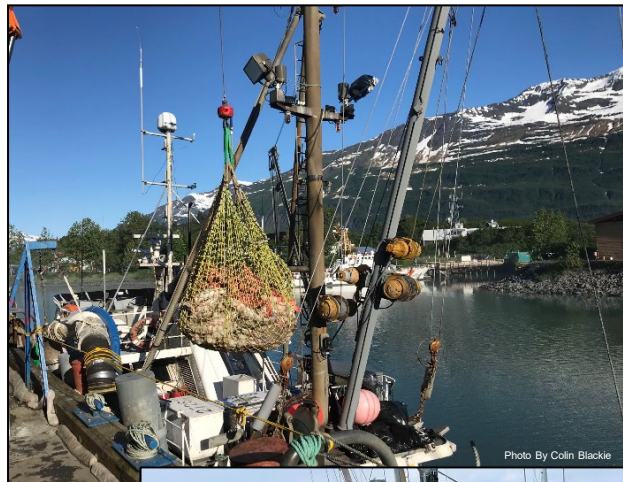


- Changes in the FISS design from year to year will influence the number of ineffective stations
- Area 4A has the highest percentage of ineffective stations and significantly impacts the whale depredation percentages in the years that area is included in the survey (not a part of 2020)



# 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

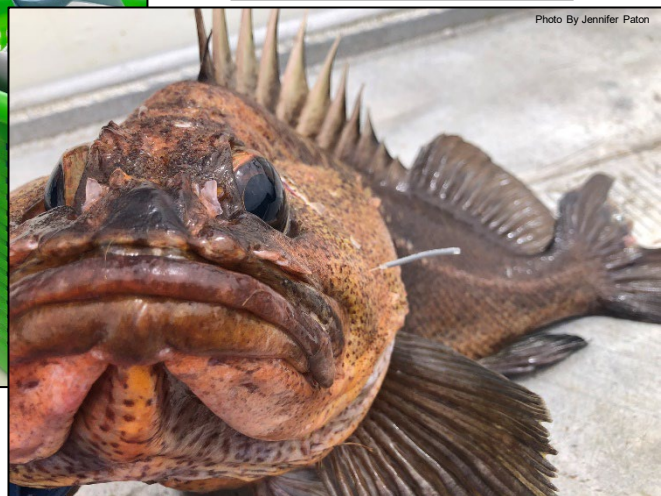
Photo By Jennifer Paton



Photo By Kevin Coll



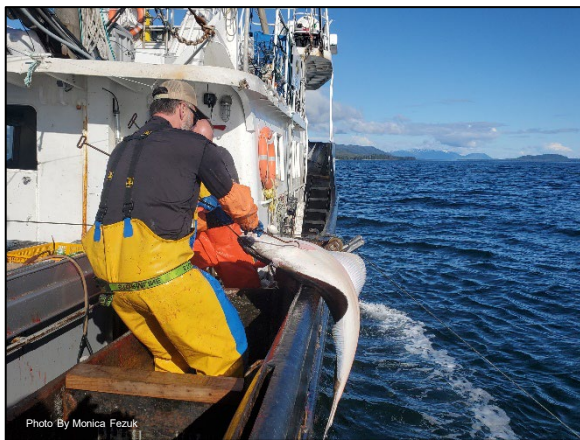
Photo By Jennifer Paton





# 2022 – FISS results

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



# 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

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
<b>TOTAL</b>	<b>\$3,194,874.77</b>	<b>\$5,498,404.72</b>



# 2022 FISS Challenges

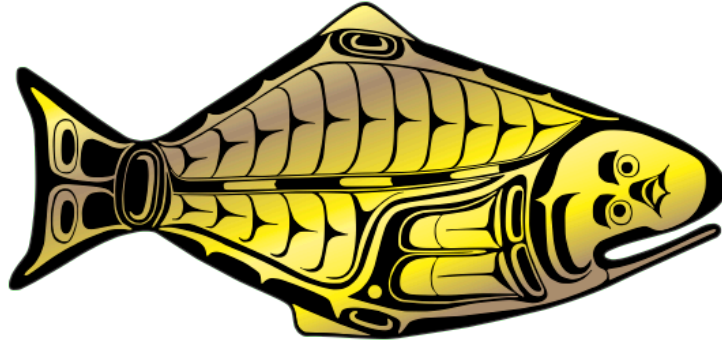
- Lack of vessel bids
  - Vessel Availability
    - Sablefish quota
    - Snap-Gear transition
    - Crew recruitment & retention
    - Vessel maintenance



Photo By Olivia Kohler



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