INTERNATIONAL PACIFIC HALIBUT COMMISSION

Fisheries data collection design and implementation in 2025 - Port Operations

Agenda item: 4.1.1
IPHC-2025-IM101-06
(M. Thom)

Primary Objectives

Collect representative samples from Pacific halibut offloads across the geographical range of the commercial fishery and throughout the commercial fishing period

- To provide data for the annual IPHC stock assessment and in support of IPHC research goals

Provide a direct line of communication with the fishery

- Collect accurate logbook data directly from Captains
- Observe changes in the commercial Pacific halibut fishery (i.e., variations in hook spacing, hook sizes, and swivels)
- Effectively assist the fishery in using new technologies to improve efficiency, such as electronic logbooks
- Facilitate fishery stakeholders in addressing any concerns

Sampling Design Background

- Pacific halibut biological data are collected from
  - IPHC's Fishery-Independent Setline Survey (FISS)
  - Commercial fishery landings in 10-12 major ports (out of around 90 total landing ports since 1995)
  - NOAA trawl surveys (IPHC/NOAA)
  - Recreational fishery (ADFG)
  - Fisheries Observer programs – lengths only (NOAA/DFO)

Annual sampling targets

- FISS: 10,000–12,000 fish – reduced in small footprint years
- Commercial fishery: 11,500 fish
- Recreational fishery: 1,500–2,000 fish
- NOAA surveys: 1,500–3,000 fish

Sampling Design Background

Targets are set to maximise our effective sample size. Effective sample size measures how much unique information our samples contain

We used bootstrapping to determine our effective sample sizes if we reduced our sampling and/or ageing efforts for samples collected

Unlike raw sample counts, effective sample size accounts for the fact that fish caught on the same trip tend to be more similar in age than fish from different trips

Why This Matters:

- More trips sampled = more statistical power
- Fewer ports staffed = fewer trips = lower effective sample size

Sampling Design 2025

Sampled 11 ports in 2025 (43 active ports in 2024)

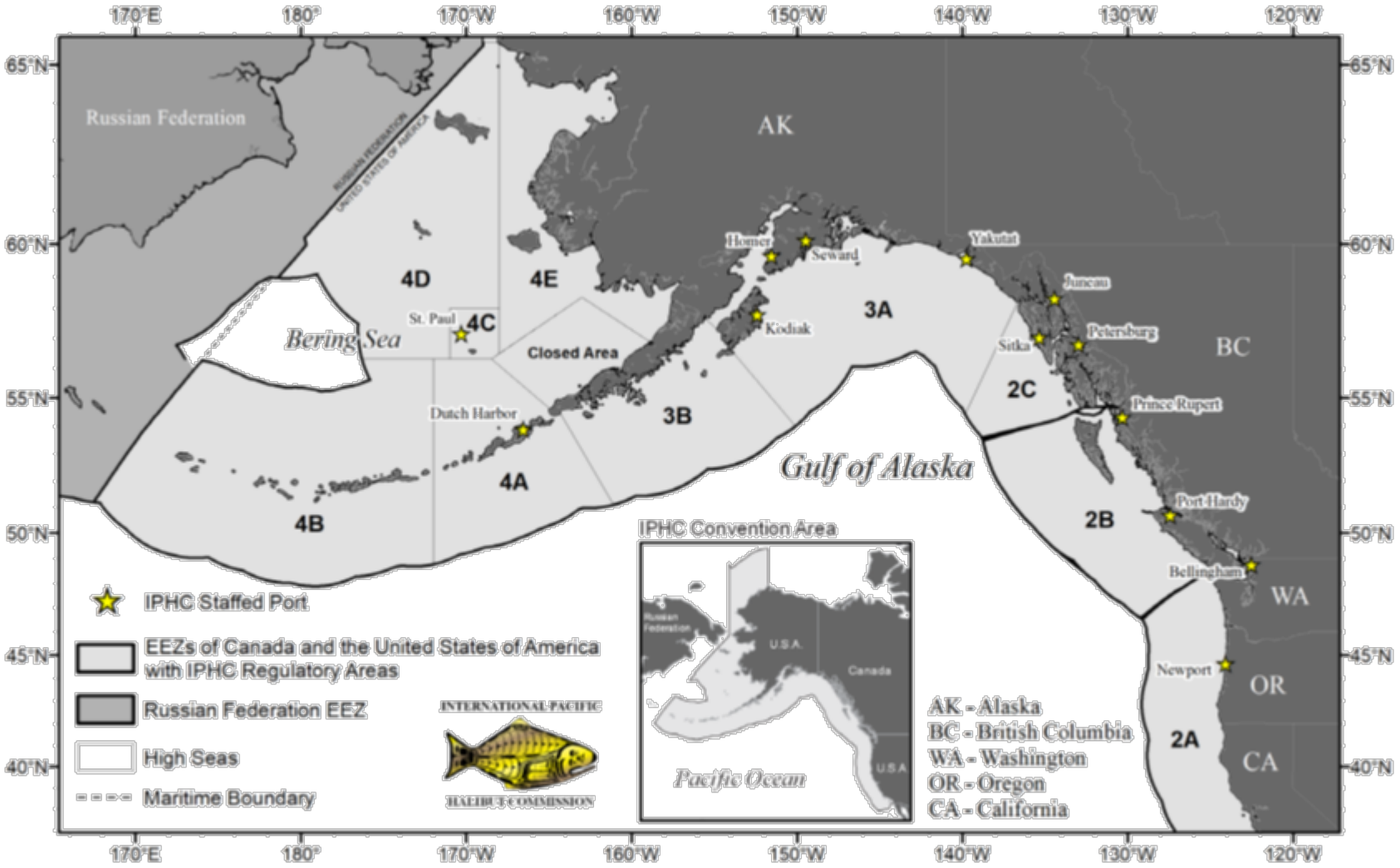
Sampling prioritizes high-volume ports, with special attention to Dutch Harbor and St. Paul, which are essential for IPHC Regulatory Areas 4A, 4B, and 4CDE

Sampling rates are calculated;

- To ensure that samples are evenly distributed over the landings from ports where sampling occurs;
- To reach our targets;
- To manage the workload for IPHC Secretariat

IPHC Regulatory Area	Target	Sampling Rate (%)
2A	1000	5-10
2B	1500	2
2C	1500	3.5-4
3A	1500	1-2
3B	1500	2-2.5
4A	1500	7.5
4B	1500	7.5
4CDE	1500	10

IPHC Fishery-Dependent Data Collection Ports in 2025



Spatial and Seasonal Patterns

Landings vary by season and port, shaping the demographics of the samples (sex, age, weight at age)

Seasonal Patterns:

- Fewer males in the summer fishery (4CDE)
- Older fish appear later in the season (2C)

Spatial Trends:

- Southeast Alaska ports show fewer males (3A)
- 2002 year-class strong in Sitka (2017), absent in Petersburg/Juneau
- Kodiak typically, has more younger fish than other ports
- Seward typically has older females compared to Homer and Kodiak (3B)

Data Collection Entities in 2025

- Fisheries Data Specialist (Field) in 2 Canadian Ports and 9 Alaskan Ports
- IPHC Secretariat
  - Newport, Oregon - IPHC Regulatory Area 2A directed commercial openers 1 and 2
  - Bellingham, Washington - IPHC Regulatory Area 2A commercial landings
- IPHC Regulatory Area 2A Tribal Directed Commercial Data collected by Treaty Tribes of Washington State
  - 9 Washington Treaty Tribes participated
  - IPHC Secretariat also assisted in Neah Bay, WA
- Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife, California Department of Fish and Wildlife,
  - Collected and mailed-in logbook data

Biological Data Collected in 2025

IPHC Regulatory Area	Fish Sampled	Percent of Target	Percent Landed
2A	731	73%	94%
2B	1,444	96%	87%
2C	1,357	90%	81%
3A	1,426	95%	85%
3B	1,352	90%	80%
4A	1,165	78%	58%
4B	326	22%	*%
4CDE	1,238	83%	33%
TOTAL	9,039		-

Note: 2025 data collections as of 29 October 2025, does not include all data collected by Treaty Tribes of Washington.

*Data not yet available, or confidential in accordance with IPHC policies

Data collected from randomly selected fish: Left (blind side) sagittal otolith for aging, fork length, weight and fin clip for sex determination

Reaching targets:

The purpose of the sampling targets and rates is to maximize the number of valuable samples we collect

Variability in reaching these targets is considered normal

Data Collected and Projected Costs in 2025

Port	2025 Logbooks	Biological samples	Total Estimated Cost (USD)	Total Estimated Cost/Month (USD)
Dutch Harbor	67	1,718	$93,500	$13,169
Homer	254	1,450	$64,500	$7,062
Juneau**	63	247	$63,500	$6,953
Yakutat**	64	98	$5,000	N/A
Kodiak	258	1,115	$74,000	$8,102
Petersburg	216	801	$62,000	$6,788
Seward	163	339	$81,000	$8,869
Sitka	167	507	$69,000	$7,555
St. Paul	111	589	$32,000	$11,163
Prince Rupert	129	811	$55,000	$6,022
Port Hardy	186	633	$49,000	$5,365
2A Tribal*	N/A	550	$1,488***	N/A
Bellingham*	N/A	52	$400	N/A
Newport*	N/A	129	$3,616***	N/A
TOTAL	**1,678**	**9,039**	**$654,004**	

Note: Indirect costs as well as headquarters staffing costs are not included

*Salaries and benefits are not included for these ports. **Same staff member for Juneau and Yakutat. ***Indicates actual costs.

Results

- Data processed prior to 30 October of 2025 will be used in 2025 the Pacific halibut stock assessment
  - Logbooks verified as of 29 Oct: 1,678 (1,714 in 2024)
  - Otoliths aged as of 29 Oct: 5,806 (6,044 in 2024)
- Data processed after 30 October of 2025 will be used in the following year's stock assessment
- Commercial biological and catch data interactives can be found at this link https://www.iphc.int/data/

Recommendations

That the Commission:

- **NOTE** paper IPHC-2025-IM101-06 that provides the Commission with a summary of the IPHC fishery-dependent data collection design and implementation in 2025.

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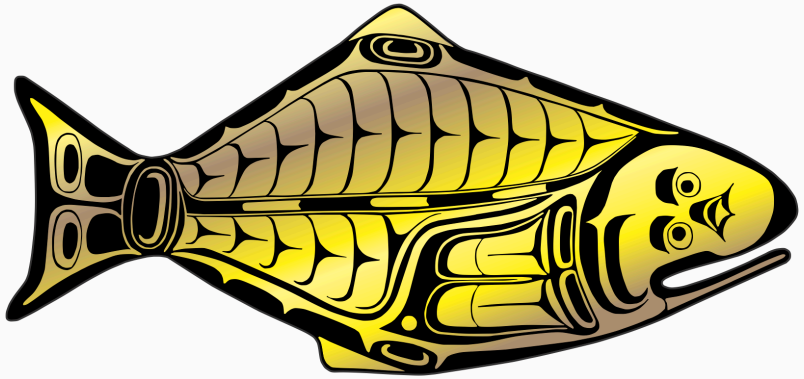

HALIBUT COMMISSION

https://www.iphc.int/