

# ANNUAL REPORT

2025

INTERNATIONAL PACIFIC



HALIBUT COMMISSION



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HALIBUT COMMISSION

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### BIBLIOGRAPHY ENTRY

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# PREFACE

The International Pacific Halibut Commission (IPHC) was established in 1924 by a Convention between Canada and the United States of America. The Convention was the first international agreement providing for the joint management of a marine fishery resource. The Commission's authority was expanded by several subsequent conventions, the most recent being signed in 1953 and amended by the Protocol of 1979.

The IPHC mission is "... to develop the stocks of [Pacific] halibut in the Convention waters to those levels which will permit the optimum yield from the fishery and to maintain the stocks at those levels. ...." IPHC Convention, Article I, sub-article I, para. 2).

Three (3) IPHC Commissioners are appointed by the Governor General of Canada and three (3) by the President of the United States of America. The Commissioners appoint the Executive Director, who supervises the scientific, technical, field, and administrative personnel at the Secretariat. The Secretariat collects and analyzes the statistical and biological data needed to inform the management of the Pacific halibut stock within Convention waters. The IPHC Secretariat headquarters is located in Seattle, Washington, U.S.A.

The Commission meets annually to review all regulatory proposals, including those made by the IPHC Secretariat, Contracting Parties, and stakeholders. The measures adopted by the Commission are recommended to the two governments for approval and implementation. Upon approval, the regulations are published in the Canada Gazette and U.S. Federal Register and are enforced by the appropriate domestic agencies of both governments.

Our shared vision is to deliver positive economic, environmental, and social outcomes for the Pacific halibut resource for Canada and the U.S.A. through the application of rigorous science, innovation, and the implementation of international best practice.

Data in this report have been updated using all information received by the IPHC through 31 December 2025 and reported at the 102nd Session of the IPHC Annual Meeting (AM102) held in January 2026. Some data may have been subsequently updated, and readers are encouraged to access the IPHC website for the latest information: <https://www.iphc.int/>. Unless otherwise indicated, all weights in this report are net weight (eviscerated, head-off, no ice and slime). Round (whole) weight may be calculated by dividing the net weight by 0.75.

## ABOUT THE COVER

The photograph on the cover of this report was taken by a member of the IPHC field staff during the 2025 fishery-independent setline survey.

## COMMONLY USED ACRONYMS

**ADEC** - Alaska Department of Environmental Conservation  
**ADF&G** - Alaska Department of Fish and Game  
**BBEDC** - Bristol Bay Economic Development Corporation  
**BSAI** - Bering Sea and Aleutian Islands  
**CDFW** - California Department of Fish and Wildlife  
**CDQ** - Community Development Quota  
**CGOARP** - Central Gulf of Alaska Rockfish Program  
**COAC** - Clean Otolith Archive Collection  
**C&S** - Ceremonial and Subsistence  
**CSP** - Catch Sharing Plan  
**CVRF** - Coastal Villages Regional Fund  
**DFO** - Fisheries and Oceans Canada  
**DMR** - Discard Mortality Rate  
**DO** - Dissolved Oxygen  
**EBS** - Eastern Bering Sea  
**EC** - Electronic Monitoring  
**FISS** - Fishery-Independent Setline Survey  
**GAF** - Guided Angler Fish  
**GOA** - Gulf of Alaska  
**HCR** - Harvest Control Rule  
**HARM** - Halibut Angler Release Mortality  
**IFMP** - Integrated Fisheries Management Plan  
**IFQ** - United States Individual Fishing Quota  
**IPHC** - International Pacific Halibut Commission  
**IQ** - Individual Quota  
**IVQ** - Canadian Individual Vessel Quota  
**MP** - Management Procedure  
**MPR** - Mortality Per Recruit  
**MSAB** - Management Strategy Advisory Board  
**MSE** - Management Strategy Evaluation  
**NBS** - Northern Bering Sea  
**NMFS** - National Marine Fisheries Service  
**NOAA** - National Oceanic and Atmospheric Administration  
**NPFMC** - North Pacific Fishery Management Council  
**NPUE** - Numbers-Per-Unit-Effort  
**NSEDC** - Norton Sound Economic Development Corporation  
**ODFW** - Oregon Department of Fish and Wildlife  
**PAT** - Pop-up Archival Transmitting  
**PDO** - Pacific Decadal Oscillation  
**PFMC** - Pacific Fishery Management Council  
**PHI** - Prior Hook Injury  
**PSC** - Prohibited Species Catch  
**PSMFC** - Pacific States Marine Fisheries Commission  
**QS** - Quota Share  
**RDE** - Remote Data Entry  
**RI** - Rockfish Index  
**RSL** - Reverse Slot Limit  
**SRB** - Scientific Review Board  
**SPR** - Spawning Potential Ratio  
**WDFW** - Washington Department of Fish and Wildlife  
**WPUE** - Weight-Per-Unit-Effort  
**XRQ** - Experimental Recreational [Pacific] Halibut

# EXECUTIVE DIRECTOR'S MESSAGE

As the oldest Regional Fisheries Management Organisation (RFMO) in existence, the IPHC continues to set the gold standard for others to follow. The IPHC Secretariat, guided by world-class scientists, is committed to developing and communicating scientific advice based on the best information available to ensure that the Commission has the information needed to make informed, timely, and scientifically based decisions. The overall aim is to take a precautionary approach to fishery management, ensuring a sustainable resource for associated fisheries.

The IPHC Secretariat team works tirelessly to operate as efficiently and cost-effectively as possible, while providing the Commission with advice based on the highest-quality data available. By the end of CY2025, the Secretariat held assets totaling US\$12,171,893, with liabilities of US\$4,183,654, resulting in a total equity of US\$7,988,239. While this provides the necessary financial security for our general operations, the IPHC's Fishery-Independent Setline Survey (FISS) still faces many challenges, with declines in catch rates and increasing operating costs each year. Aided by generous voluntary contributions from both Canada and the USA in recent years, we aim to move the FISS back to its full base-block design over the next year. This is expected to provide robust data for the annual stock assessment process.

From a fishery perspective, the Commission reduced the 2025 mortality limit (TCEY; 29.72 million pounds; 13,481 t) by 15.8% from 2024. This decrease was projected to result in a fishing intensity of F51%, below the IPHC's 'reference' level. The 2025 adopted yield was projected to maintain a low probability of further stock decline (14%).

Observed trends in stock abundance indices were relatively flat at the coastwide level with the FISS numbers-per-unit-effort down 2%, the legal-sized weight-per-unit-effort (WPUE) unchanged, and the directed commercial longline fishery WPUE down by 1% from 2024. IPHC Regulatory Areas were variable, with decreases observed mainly across Areas 2A-2C. Both the FISS and fishery caught a high percentage of young fish born in 2016 and 2017.

The 2025 stock assessment estimated that the spawning biomass was 28% below 2016 levels but had increased 8% since 2024. Female spawning biomass was estimated to be at 38% (21-57%) of the level expected in the absence of fishing at the end of 2025. For Pacific halibut, simulations have indicated that SB30% represents a level that produces the maximum fishery yield across a range of biological conditions; however, stock productivity and available yields continue to be low due to poor recruitment since 2006 and low weight at age relative to historical levels.

I look forward to engaging with all of you in 2026, either through the Commission's subsidiary bodies, or in person at our landing ports and communities that rely on Pacific halibut as a source of income, food, and cultural identity. Wishing you all a safe and healthy 2026.



A handwritten signature in black ink, appearing to read "D. Wilson".

David T. Wilson, Ph.D.  
IPHC Executive Director

# ACTIVITIES OF THE COMMISSION

The Commission is composed of six (6) members (Commissioners) who are appointed by the Contracting Parties. They meet several times a year, in both formal and informal capacities, to consider matters relevant to the Pacific halibut stock, the fisheries, and governance. All meeting documents, presentations, and reports as well as more information on the structure of the Commission can be found on the IPHC website (<https://www.iphc.int>).

## **101<sup>st</sup> Session of the IPHC Annual Meeting (AM101; 2025)**

The 101<sup>st</sup> Session of the International Pacific Halibut Commission (IPHC) Annual Meeting (AM101) was held in Vancouver, British Columbia, Canada, from 27 to 31 January 2025. A total of 21 participants (6 Commissioners: Members; 15 advisors/experts) attended the Session from the two (2) Contracting Parties, as well as 165 members of the public (104 in-person and 61 remote). The meeting was opened by the Vice-Chairperson, Mr. Jon Kurland (U.S.A.), who welcomed participants.

The Commission heard reports from the IPHC Secretariat about the status of the Pacific halibut (*Hippoglossus stenolepis*) population, reviewed financial and administrative matters, discussed stakeholder concerns, considered the suggestions of its subsidiary bodies, and solicited public comment before adopting fishery regulations and making other decisions.

## **MORTALITY AND FISHERY LIMITS, AND FISHING PERIODS FOR 2025**

The Commission recommended to the governments of Canada and the United States of America a total mortality limit for 2025 of 13,481 metric tonnes (29.72 million pounds) net weight<sup>1</sup>, and adopted the mortality limits for each IPHC Regulatory Area as described in [Table 1](#). The adopted mortality limits for each Contracting Party represent a 15.8% decrease from 2024.

The area and sector fishery limits resulting from the IPHC-adopted total mortality limits and the application of the existing Contracting Party catch sharing arrangements were as described in [Table 2](#).

The Commission recommended an overall fishing period from 06:00 local time on 20 March 2025 to 23:59 local time on 7 December 2025 for all directed commercial Pacific halibut fisheries in Canada and the USA.

## **101<sup>st</sup> SESSION OF THE IPHC INTERIM MEETING (IM101; 2025)**

The 101<sup>st</sup> Session of the IPHC Interim Meeting (IM101), held electronically on 2 December 2025 was an occasion to prepare for the 102<sup>nd</sup> Session of the IPHC Annual Meeting (AM102) scheduled for 19-22 January 2026 (with 23 January 2026 if needed). The Commission and the public heard presentations from the IPHC Secretariat on a range of topics, including a preliminary overview of the 2025 fisheries data, preliminary stock assessment results, and the preliminary 2026 harvest decision table.

<sup>1</sup> Note that all weight values in this section are expressed in terms of net weight, meaning without gills and entrails, head-off, washed, and without ice and slime.

**Table 1.** 2025 adopted mortality limits (net weight).

IPHC Regulatory Area	Distributed Mortality Limits (TCEY) (net weight)	
	Tonnes (t)	Million Pounds (Mlb)
Area 2A (California, Oregon, Washington)	748	1.65
Area 2B (British Columbia)	2,472	5.45
Area 2C (Southeastern Alaska)	2,368	5.22
Area 3A (Central Gulf of Alaska)	4,119	9.08
Area 3B (Western Gulf of Alaska)	1,297	2.86
Area 4A (Eastern Aleutians)	608	1.34
Area 4B (Central/Western Aleutians)	472	1.04
Areas 4CDE (Bering Sea)	1,397	3.08
<b>TOTAL</b>	<b>13,481</b>	<b>29.72</b>

**Table 2.** (Continued on page 9). 2025 fishery limits resulting from the IPHC-adopted distributed mortality limits and the existing Contracting Party catch sharing arrangements.

IPHC Regulatory Area	Fishery Limits (net weight)	
	Tonnes (t)	Million Pounds (Mlb)*
Area 2A (California, Oregon, Washington)	694	1.53
Non-treaty directed commercial (South of Pt. Chehalis)	118	259,515*
Non-treaty incidental catch in salmon troll fishery	21	45,797*
Non-treaty incidental catch in sablefish fishery (North of Pt. Chehalis)	32	70,000*
Treaty Indian commercial	236	520,700*
Treaty Indian ceremonial and subsistence (year- round)	7	14,800*
Recreational - Washington**	129	284,042*
Recreational - Oregon**	134	295,367*
Recreational - California**	18	39,780*

\* Allocations resulting from the IPHC Regulatory Area 2A catch sharing arrangement are listed in pounds.

\*\* In IPHC Regulatory Area 2A, the USA (NOAA Fisheries) may take in-season action to reallocate the recreational fishery limits between Washington, Oregon, and California after determining that such action will not result in exceeding the overall IPHC Regulatory Area 2A recreational fishery limit and that such action is consistent with any domestic catch sharing plan. Any such reallocation will be announced by the USA (NOAA Fisheries) and published in the Federal Register.

**Table 2 (continued).** 2025 fishery limits resulting from the IPHC-adopted distributed mortality limits and the existing Contracting Party catch sharing arrangements.

IPHC Regulatory Area	Fishery Limits (net weight)	
	Tonnes (t)	Million Pounds (Mlb)*
Area 2B (British Columbia)	2,064	4.55
Commercial fishery	1,755	3.87
Recreational fishery	308	0.68
Area 2C (Southeastern Alaska)	1,774	3.91
Commercial fishery (includes 3.5 Mlb landings and 0.11 Mlb discard mortality)	1,447	3.19
Guided recreational fishery (includes landings and discard mortality)	327	0.72
Area 3A (Central Gulf of Alaska)	3,547	7.82
Commercial fishery (includes 7.56 Mlb landings and 0.54 Mlb discard mortality)	2,876	6.34
Guided recreational fishery (includes landings and discard mortality)	671	1.48
Area 3B (Western Gulf of Alaska)	1,120	2.47
Area 4A (Eastern Aleutians)	454	1.00
Area 4B (Central and Western Aleutians)	408	0.90
Areas 4CDE	730	1.61
Area 4C (Pribilof Islands)	340	0.75
Area 4D (Northwestern Bering Sea)	340	0.75
Area 4E (Bering Sea flats)	54	0.12
<b>TOTAL</b>	<b>10,791</b>	<b>23.79</b>



# PACIFIC HALIBUT COMMERCIAL FISHERY

The Pacific halibut directed commercial fisheries, as managed by the IPHC, span from northern California to northern and western Alaska in U.S.A. and Canadian waters of the northeastern Pacific Ocean. The Pacific halibut commercial fishery remains a vital component of the maritime economy, engaging in harvest of fish for commercial profit. The commercial Pacific halibut mortality in 2025 totaled 7,879 tonnes or 17.37 million pounds (Table 3). All values in this section are provided as net weight unless otherwise noted. Net weight is defined as the weight of Pacific halibut without gills, entrails, head, ice, and slime. This chapter reflects data as of 5 February 2026. For updates on landings data, please refer to the IPHC website, [see time series TSD-018](#).

## LANDINGS

The directed commercial Pacific halibut fisheries in IPHC Regulatory Area 2A consisted of the directed commercial fishery with fishing period limits, the incidental Pacific halibut catch during the salmon troll and limited-entry sablefish fisheries, and the treaty Indian fisheries. Farther north, the directed commercial fisheries consisted of the Individual Vessel Quota (IVQ) fishery in IPHC Regulatory Area 2B in British Columbia, Canada; the Metlakatla fishery in IPHC Regulatory Area 2C; the Individual Fishing Quota (IFQ) system in Alaska, U.S.A.; and the CDQ fisheries in IPHC Regulatory Areas 4B and 4CDE.

The summaries in the following sections are compiled using data from the IPHC, Fisheries and Oceans Canada (DFO), NOAA Fisheries, Metlakatla Indian Community, Washington Indian tribal fisheries management departments, and state agencies including Alaska Department of Fish and Game (ADF&G), Washington Department of Fish and Wildlife (WDFW), Oregon Department of Fish and Wildlife (ODFW), and California Department of Fish and Wildlife (CDFW).

## LANDING PATTERNS

In Canada (IPHC Regulatory Area 2B), Port Hardy (including Coal Harbour and Port McNeill) and Prince Rupert/Port Edward received the highest volume of the commercial halibut catch, accounting for 91% of the landings. The total landed catch was 1,799 tonnes (3.97 million pounds).

In the U.S.A., the estimates of the commercial landings amounted to 5,663 tonnes (12.49 million pounds). IPHC Regulatory Area 3A accounted for the largest share of the commercial landings, representing 44% of the U.S.A. total. Homer received the largest portion of the U.S.A. commercial catch (23%), followed by Kodiak (14%). IPHC Regulatory Area 2A accounted for 7% of U.S.A. commercial landings by weight.

**Table 3.** Summary of 2025 Pacific halibut directed commercial fishery limits (FCEY), fishery landings, discard mortality, and percent of fishery limit attained by IPHC Regulatory Area.

	Directed Commercial Fishery Limits (FCEY)		Directed Commercial Fishery Landings		Directed Commercial Discard Mortality		Directed Commercial Total Mortality		Percent Attained
	Tonnes	Pounds	Tonnes	Pounds	Tonnes	Pounds	Tonnes	Pounds	%
2A	406	896,012	374	824,788	27	59,135	401	883,923	92
2B	1,755	3,870,000	1,799	3,965,855	82	180,054	1,881	4,145,909	102
2C <sup>1,2</sup>	1,447	3,190,000	1,211	2,669,150	44	98,015	1,255	2,767,165	87
3A <sup>1</sup>	2,876	6,340,000	2,464	5,431,656	152	335,488	2,616	5,767,144	91
3B	1,120	2,470,000	986	2,173,126	86	190,021	1,072	2,363,147	88
4A	454	1,000,000	303	667,268	16	36,023	319	703,291	67
4B	408	900,000	83	182,876	<1	928	83	183,804	20
4CDE	730	1,610,000	244	537,006	9	19,311	252	556,317	33
<b>TOTAL</b>	<b>9,197</b>	<b>20,276,012</b>	<b>7,462</b>	<b>16,451,725</b>	<b>417</b>	<b>918,975</b>	<b>7,879</b>	<b>17,370,700</b>	<b>83</b>

<sup>1</sup> Directed commercial limit includes discard mortality.

<sup>2</sup> IPHC Regulatory Area 2C includes the Metlakatla fishery landed catch.



## SAMPLING OF COMMERCIAL LANDINGS

The collection of Pacific halibut commercial landing samples is crucial to the IPHC's annual stock assessment. This process involves the collection of otoliths for age determination, tissue samples for sex determination, measurements of individual fish lengths and weights, logbook information, final landing weights, and information on recovered IPHC tags. The data collection protocol facilitates the computation of seasonal length-weight ratios by area, determination of size-at-age, and estimation of the sex composition of the commercial landings. Logbook information provides weight-per-unit-effort data, fishing location for the landed weight, and data for research projects. Recovered tags along with corresponding biological data provide information on migration, growth, exploitation rates, and natural and discard mortality. More information on the annual stock assessment and research activities can be found later in this report.

Sampling protocols are designed to ensure that the sampled Pacific halibut are representative of the population of landed Pacific halibut throughout the Convention Area; sampling days, locations, and percentage of fish sampled are based on the previous year's landing patterns and are reviewed annually. The protocols vary from port to port to achieve the appropriate sampling representation.

Given the Pacific halibut commercial fishery's operations across multiple IPHC Regulatory Areas, the IPHC Secretariat maintained a presence in ports coastwide in 2025. In Canada, the IPHC Secretariat was stationed in Port Hardy and Prince Rupert. In IPHC Regulatory Area 2A, IPHC Secretariat collected samples from Newport, Oregon, and Bellingham, Washington. In addition, samples were taken in several ports in Washington by staff from the treaty Indian fishery management offices. In Alaska, the IPHC Secretariat was stationed in the ports of Dutch Harbor, Homer, Juneau, Kodiak, Petersburg, Seward, Sitka, St. Paul, and Yakutat.



## OTOLITHS

The annual coastwide otolith collection target included 1,500 from each of IPHC Regulatory Areas 2B-4B and 4CD (combined) and 1,000 from Area 2A. The target for IPHC Regulatory Area 2A is subdivided into a target of 650 otoliths from the treaty Indian fisheries and 350 otoliths from the IPHC Regulatory Area 2A non-tribal commercial fisheries. The 2025 coastwide collection resulted in 9,722 otoliths. Otolith collections were below target in IPHC Regulatory Areas 2A, 2C, 3B, and 4A-D due to changes in landing patterns and budget constraints.

## LOGBOOKS

Alongside otolith samples, the IPHC Secretariat in the ports collected logbook information from harvesters. In total, 1,916 logbooks were collected in 2025. A total of 370 were collected from Canadian landings, and 1,546 were collected from U.S.A. landings.

In 2025, the IPHC initiated a collaboration with Fisheries and Oceans Canada and Archipelago Marine Research to obtain Canadian logbook data not previously included in IPHC standard data collection. Through this collaboration, IPHC gained access to the complete set of Regulatory Area 2B logbooks, ensuring comprehensive coverage of fishing activity for incorporation into the Pacific halibut stock assessment. Missing 2024 logbooks have now been incorporated, achieving 100% Canadian coverage for that year, and efforts to secure historical logbooks are ongoing.

## RECOVERED TAGS

In 2025, a total of 61 tags were recovered from tagged Pacific halibut. Fifty-eight of these recoveries were from U32 wire tagging releases conducted between 2015 and 2024 in waters off Washington, British Columbia, the Gulf of Alaska, and the Bering Sea, and included recoveries from a subset of U32 releases that were part of a tail pattern project. The remaining three recoveries were part of the recreational discard mortality study conducted out of Sitka and Seward, Alaska in 2021. Tag data collected dockside included fork lengths, individual fish weights, otoliths, fin clips, and capture location of the recovered tagged fish.

## ELECTRONIC DATA COLLECTION

The IPHC has digitized data collection to reduce the need for post-collection data entry and enhance the efficiency of data editing. In Alaska, the IPHC Secretariat uses tablets to directly input data from paper logbooks into a remote data entry application. This initiative prioritizes the digitalization of as much log data as possible, within the constraints of time and operational duties at the ports. Ongoing updates and improvements to this application are part of the IPHC's commitment to technological advancement.

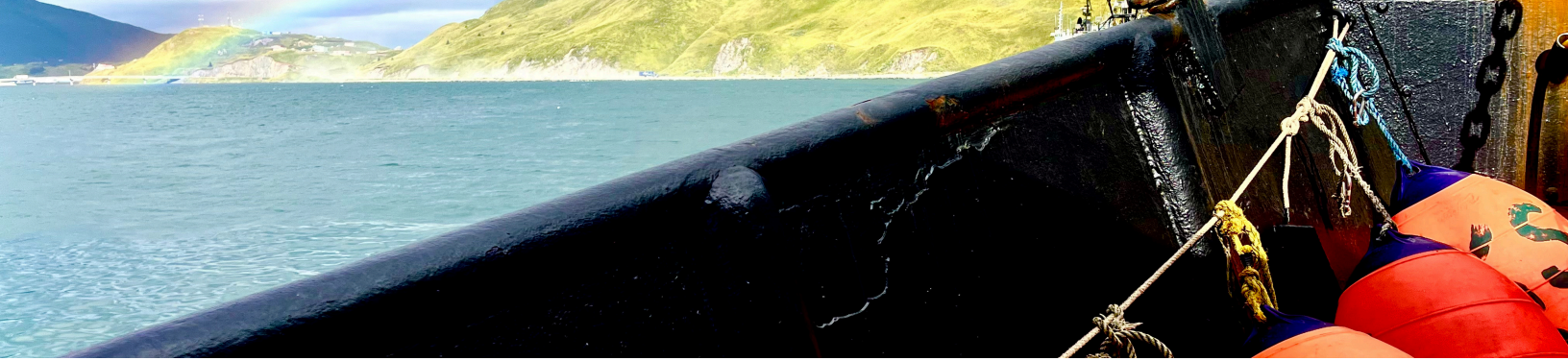
In British Columbia, Canada, the IPHC Secretariat utilizes a field version of the log entry program used at the IPHC Headquarters to enter as many Canadian logs as time permits. However, the priority is given to tasks such as biological sampling. In addition, Bluetooth-enabled tablets are provided for collection of electronic logs from vessels using Archipelago Marine Research's FLOAT - Fishing Log On A Tablet.

### *Electronic logbooks in Alaska*

Since 2024, the IPHC has allowed electronic equivalents of [IPHC logbooks in Alaska](#). These logbooks, based on a system previously approved by NOAA Fisheries as an electronic replacement for the Catcher Vessel Longline and Pot Gear Daily Fishing Logbook (DFL), provide vessels with the option to record fishing activity in electronic format.

The tablets with logbook software are part of a fully operational system that enables direct tablet-to-tablet data transmission, eliminating the need for paper records. Data collected through the tablets are verified by IPHC field staff in ports using custom log verification software. This software is fully compatible with existing DFL logbooks, allowing seamless electronic verification of both IPHC and DFL data.





# PACIFIC HALIBUT DIRECTED COMMERCIAL DISCARD MORTALITY

In the directed commercial Pacific halibut fishery, not all captured Pacific halibut are retained; some are released back into the ocean. While a portion of these released fish survive, others do not, resulting in mortality. This form of unintended loss is referred to as directed commercial discard mortality.

In 2025, estimates of directed commercial discard mortality amounted to 417 tonnes or 918,975 pounds (Table 3). The IPHC monitors three primary sources of directed commercial discard mortality: (1) Pacific halibut caught but never retrieved due to lost or abandoned fishing gear; (2) undersized Pacific halibut, below the minimum legal size limit of 32 inches (U32; 81.3 cm), that are discarded; and (3) Pacific halibut that meet or exceed the legal size limit (O32; over 32 inches or 81.3 cm) but are discarded to comply with regulatory requirements, such trip limits, or quota share restrictions.

## DIRECTED COMMERCIAL DISCARD MORTALITY DUE TO LOST OR ABANDONED GEAR

During the 1980s and early 1990s in Alaska and British Columbia, 'derby' fisheries characterized by short fishing periods led harvesters to compete for Pacific halibut within a limited timeframe. This resulted in a considerable quantity of lost fishing gear, which continued to capture Pacific halibut and other species. The introduction of quota-share fishery management in these areas has greatly reduced mortality due to lost or abandoned gear.

Information on lost gear is collected through logbook interviews and fishing logs received by mail. Pacific halibut mortality from lost or abandoned gear is assumed to be 100%.

## DIRECTED COMMERCIAL DISCARD MORTALITY FROM DISCARDED U32 PACIFIC HALIBUT

Discarding Pacific halibut smaller than 32 inches (U32) represents an ongoing source of fishing mortality because these fish cannot legally be retained and must be released at sea. Under IPHC Fishery Regulations, any Pacific halibut measuring less than 32 inches (head on) must be promptly returned to the water using careful release methods such as straightening the hook, cutting the line near the hook, or gently removing the hook to minimize injury.

Although these measures are intended to improve survival, a portion of undersized Pacific halibut do not survive capture and handling, contributing to discard mortality that is incorporated into stock assessment.



The ratio of U32 to O32 Pacific halibut ( $\geq 81.3$  cm or 32 inches in length) is determined from the IPHC FISS in most areas and by direct observation in the IPHC Regulatory Area 2B fishery, where undersized discards are validated through onboard video monitoring. In IPHC Regulatory Area 2A, discard estimates for both legal and sublegal Pacific halibut in the non-tribal fishery from 2017 to the present are provided by the West Coast Observer Program. Tribal fishery estimates are based on survey data because observer coverage is not available in that fishery.

Released Pacific halibut are assumed to experience a post-release mortality rate of 16%, with a higher rate of 25% applied for derby fisheries in IPHC Regulatory Area 2A.

#### **DIRECTED COMMERCIAL DISCARD MORTALITY FOR REGULATORY COMPLIANCE**

In IPHC Regulatory Area 2A, the directed commercial fishery operates under 'derby' fishing periods, where the amount of Pacific halibut that may be caught by each vessel is limited by a fishing period limit based on the vessel's size. This results in O32 Pacific halibut being discarded when catches exceed the vessel or trip limits. In quota share fisheries, regulatory discards occur when catch may exceed remaining quota. Regulatory discards are based on the logbook-reported discards of legal (O32) Pacific halibut.

The amount of Pacific halibut retained by the IPHC Regulatory Area 2A non-treaty incidental to salmon and sablefish directed commercial fisheries is not included in these calculations. These removals are accounted for under directed commercial estimates.

# PACIFIC HALIBUT RECREATIONAL FISHERY

The Pacific halibut recreational fishery encompasses guided (charter) and unguided (non-charter) sectors. In 2025, the coastwide recreational harvest of Pacific halibut, including discard mortality, was estimated at approximately 2,582 tonnes (5.69 million pounds), using data provided by state and federal agencies from each of the Contracting Parties ([Table 4](#)). Changes in harvests vary across areas, often in response to changes in bag limits, size restrictions, and season opening dates. Updates on the recreational mortality can be found on the IPHC website, [see time series TSD-019](#).

## **IPHC REGULATORY AREA 2A: CALIFORNIA, OREGON, & WASHINGTON (U.S.A.)**

IPHC Regulatory Area 2A's recreational allocation was based on the Pacific Fishery Management Council's Catch Sharing Plan formula, which divides the overall fishery limit among all sectors. The recreational allocation was further subdivided to seven subareas, after 32 tonnes or 70,000 pounds were allocated to the incidental Pacific halibut catch in the commercial sablefish fishery in Washington. This subdivision resulted in 129 tonnes or 284,042 pounds allocated to Washington subareas and 134 tonnes or 295,367 pounds to Oregon subareas. In addition, California received an allocation of 18 tonnes or 39,780 pounds.

Recreational fishery harvest seasons varied by subarea and were managed in-season in coordination with the Contracting Party agencies. The IPHC Regulatory Area 2A recreational harvest totaled 218 tonnes or 479,693 pounds, 23% under the recreational allocation.

## **IPHC REGULATORY AREA 2B: BRITISH COLUMBIA (CANADA)**

The IPHC Regulatory Area 2B recreational fishery operated under a 126 cm (49.6 inch) maximum size limit. Anglers had a retention limit choice of one Pacific halibut between 90 and 126 cm (35.4 - 49.6 inches) or two under 90 cm (35.4 inch), with an annual limit of ten per licence holder. Effective 1 April, the daily retention limit was changed to one fish no greater than 102 cm (40.2 inches). The IPHC Regulatory Area 2B recreational harvest was at 75% of the recreational fishery limit of 308 tonnes or 680,000 lbs.

British Columbia, Canada has a program that allows recreational harvesters to land fish under quota leased from the directed commercial fishery. However, the Pacific Region Experimental Recreational Halibut Program (XRQ), was deferred in 2025.

## **IPHC REGULATORY AREAS 2C TO 4: ALASKA (U.S.A.)**

In IPHC Regulatory Area 2C, charter anglers were permitted to retain one Pacific halibut per day. From 1 February to 31 December, retained Pacific halibut must be less than or equal to 37 inches (94.0 cm) or greater than or equal to 80 inches (203.2 cm). Pacific halibut retention was not allowed on Tuesdays from 13 May to 9 September. In IPHC Regulatory Area 3A, charter anglers were allowed to retain two Pacific halibut/day, with only one fish exceeding 27 inches (68.6 cm). If only one Pacific halibut was retained, it could be any size. Charter vessels were limited to one fishing trip per day when retaining Pacific halibut, and Pacific halibut retention was prohibited on Tuesdays and Wednesdays.

The non-guided recreational fishery season was open from 1 February to 31 December and the fishery operated under the daily bag limit of two Pacific halibut of any size per day per person. In addition, a Guided Angler Fish (GAF) program allows recreational harvesters to land fish that is leased from the commercial fishery quota shareholders for the current season. A total of 105 tonnes (230,541 pounds) in IPHC Regulatory Area 2C and 21 tonnes (45,799 pounds) in IPHC Regulatory Area 3A landed as recreational harvest.

**Table 4.** Summary of 2025 recreational Pacific halibut allocations and landed catch by IPHC Regulatory Area.

	Recreational Fishery Limits (FCEY) <sup>1</sup>		Recreational Retained		Recreational Discard Mortality		Recreational Total Mortality		Percent FCEY Attained
	Tonnes	Pounds	Tonnes	Pounds	Tonnes	Pounds	Tonnes	Pounds	%
<b>2A</b>	281	619,189	218	479,693	2	4,771	220	484,464	77
2B: XRQ leased	-	-	0	0	-	-	0	0	-
2B: non-XRQ	308	680,000	230	507,894	9	20,399	240	528,293	75
<b>2B</b>	-	-	230	507,894	9	20,399	240	528,293	-
2C: GAF leased	-	-	105	230,541	-	-	105	230,541	-
2C: Charter <sup>2</sup>	327	720,000	320	705,484	13	28,336	333	733,820	102
2C: non-charter	-	-	607	1,339,283	11	23,940	618	1,363,223	-
<b>2C</b>	-	-	1,032	2,275,308	24	52,276	1,056	2,327,584	-
3A: GAF leased	-	-	21	45,799	-	-	21	45,799	-
3A: Charter <sup>2</sup>	671	1,480,000	627	1,381,803	7	15,302	634	1,397,105	94
3A: non-charter	-	-	397	875,351	10	21,724	407	897,075	-
<b>3A</b>	-	-	1,045	2,302,953	17	37,026	1,061	2,339,979	-
<b>3B</b>	-	-	1	2,765	0	256	1	3,021	-
<b>4A</b>	-	-	4	9,483	0	16	4	9,499	-
<b>TOTAL</b>	<b>1,587</b>	<b>3,499,189</b>	<b>2,530</b>	<b>5,578,096</b>	<b>52</b>	<b>114,744</b>	<b>2,582</b>	<b>5,692,840</b>	<b>89</b>

<sup>1</sup> Set through existing Contracting Party catch sharing arrangements.

<sup>2</sup> Limit includes discard mortality.

# PACIFIC HALIBUT SUBSISTENCE HARVEST

Pacific halibut is taken throughout its range as subsistence harvest by several fisheries. Subsistence fisheries are non-commercial, customary, and traditional use of Pacific halibut for direct personal, family, or community consumption or sharing as food, or customary trade.

The primary subsistence fisheries are the treaty Indian Ceremonial and Subsistence (C&S) fishery in IPHC Regulatory Area 2A off northwest Washington State; the First Nations Food, Social, and Ceremonial (FSC) fishery in British Columbia; and the subsistence fishery by rural residents and federally recognized native tribes in Alaska documented via Subsistence [Pacific] Halibut Registration Certificates (SHARC).

Subsistence harvest also includes U32 fish retained for personal consumption in the Community Development Quota (CDQ) fishery (excluded from commercial CDQ landings statistics), reported directly to the IPHC. The IPHC allows the retention of U32 Pacific halibut under the CDQ program due to its history of customary use in the area. The remote location makes it unlikely that these fish will be commercially traded.

Table 5 provides a summary of subsistence removals by IPHC Regulatory Area. The coastwide subsistence estimate for 2025 was 371 tonnes or 818,866 pounds. Time series of the estimates is available on the IPHC [website](#) ([see time series TSD-020](#)).

## ESTIMATED HARVESTS BY IPHC REGULATORY AREA

### *U.S.A. (IPHC Regulatory Area 2A: California, Oregon, and Washington)*

The Pacific Fishery Management Council's Catch Sharing Plan allocates the Pacific halibut fishery limit to commercial, recreational, and treaty Indian users in IPHC Regulatory Area 2A. The treaty tribal fishery limit is further sub-divided into commercial and C&S fisheries. It is estimated that five tonnes or 10,800 pounds were retained as C&S in IPHC Regulatory Area 2A.

### *Canada (IPHC Regulatory Area 2B: British Columbia)*

The subsistence harvest in British Columbia is represented by the FSC fishery. Fisheries and Oceans Canada (DFO) has maintained a consistent annual estimate of 184 tonnes or 405,000 pounds for this fishery since 2007.

### *U.S.A. (IPHC Regulatory Areas 2C, 3, 4A, 4B, 4CDE: Alaska)*

The Alaska Pacific halibut subsistence fishery was formally recognized in 2003. The fishery allows the customary and traditional use of Pacific halibut by rural residents and members of federally recognized native tribes who can retain Pacific halibut for non-commercial use, food, or customary trade.

The NOAA Fisheries regulations define legal gear, number of hooks, and daily bag limits, and IPHC regulations set the fishing season.

Estimates for Alaska's subsistence Pacific halibut harvest rely on a biennial survey, with the most recent survey results available for 2022. Consequently, the estimates for 2025 were extrapolated from 2022 data.

## RETENTION OF U32 PACIFIC HALIBUT IN THE CDQ FISHERY

The IPHC permits commercial Pacific halibut vessels fishing for certain Community Development Quota (CDQ) organizations in IPHC Regulatory Areas 4D and 4E (Bering Sea) to retain Pacific halibut less than 32 inches (81.3 cm; U32) in fork length under an exemption requested by the North Pacific Fishery Management Council. The CDQ harvest supplements the Alaskan subsistence catch. Unlike the subsistence fishery in other areas of Alaska, which depends on a biennial survey for estimates, this removal is reported directly to the IPHC, facilitating annual estimates. In 2025, retention of U32 Pacific halibut in the CDQ fishery was less than 1 tonnes or 1,462 pounds. Reports were received from three CDQ management organizations: Bristol Bay Economic Development Corporation (BBEDC), Norton Sound Economic Development Corporation (NSEDC), and Coastal Villages Regional Fund (CVRF). The harvest in this fishery tends to reflect the effort by local fishing fleets and the availability of fish in their nearshore fisheries.

**Table 5.** Summary of 2025 subsistence Pacific halibut mortality by IPHC Regulatory Area.

IPHC Regulatory Area	Tonnes	Pounds
2A	5	10,800
2B <sup>1</sup>	184	405,000
2C <sup>2</sup>	115	252,492
3A <sup>2</sup>	55	121,642
3B <sup>2</sup>	5	10,475
4A <sup>2</sup>	2	4,164
4B <sup>2</sup>	0	218
4CDE <sup>2,3</sup>	6	14,075
<b>TOTAL</b>	<b>371</b>	<b>818,866</b>

<sup>1</sup> British Columbia, Canada estimates from Fisheries and Oceans Canada have remained constant from 2007-2025.

<sup>2</sup> Alaska, USA estimates for 2025 were carried over from 2022, with the exception that 4D/4E subsistence harvest in the CDQ fishery is updated annually.

<sup>3</sup> Includes U32 CDQ landings retained for personal consumption and not accounted as commercial CDQ landings in IPHC Regulatory Areas 4D and 4E.





# PACIFIC HALIBUT DISCARD MORTALITY IN NON-DIRECTED COMMERCIAL FISHERIES

Non-directed commercial discard mortality (ND-CDM), often called bycatch, refers to Pacific halibut that are accidentally caught in commercial fisheries targeting other species, where keeping Pacific halibut is not allowed. Government agencies from participating countries estimate how many Pacific halibut are affected. These numbers are estimates because not every fishing trip is fully monitored, and some released Pacific halibut survive. Most bycatch estimates come from onboard observer programs run by these agencies. In cases where observers are not available, data from scientific research surveys are used instead.

In 2025, the estimated ND-CDM of Pacific halibut was 1,890 tonnes or 4.17 million pounds ([Table 6](#)), representing a 5% decrease from the 2024 estimates. Estimates for 2025 are preliminary and subject to change as new information becomes available. Updated values are available on the IPHC website, [see time series TSD-025](#).

## SOURCES OF INFORMATION FOR DISCARD MORTALITY IN NON-DIRECTED FISHERIES

Groundfish fisheries off Washington, Oregon, and California are managed by NOAA Fisheries, following advice and recommendations developed by the Pacific Fishery Management Council.

Non-directed commercial discard mortality projected estimates are provided by NOAA Fisheries, which operates observer programs off the USA West Coast.

In Canada, Fisheries and Oceans Canada (DFO) monitors fisheries off British Columbia (IPHC Regulatory Area 2B) where there is reportedly 100 percent fishery monitoring for the groundfish trawl and hook-and-line fisheries.

Groundfish fisheries in Alaska are managed by NOAA Fisheries, following advice and recommendations developed by the North Pacific Fishery Management Council. Additionally, some estimates are provided by the Alaska Department of Fish and Game (ADF&G). Pacific halibut bycatch in groundfish fisheries is managed with prohibited species catch (PSC) limits. The final rule to implement regulations that link the Pacific halibut PSC allowance of the Amendment 80 commercial groundfish trawl fleet (A80 fleet) to indices of Pacific halibut abundance became effective on 1 January 2024.

There are varying levels of monitoring in non-trawl fisheries. The Annual Deployment Plan (ADP) describes how NOAA Fisheries intends to assign at-sea and shoreside fishery observers and electronic monitoring to vessels and processing plants engaged in Pacific halibut and groundfish fishing operations in the North Pacific.

## DISCARD MORTALITY RATES

The discard mortality rate (DMR) for Pacific halibut represents the percentage of discarded Pacific halibut that do not survive after being caught. This rate varies across fisheries and geographic areas.

In fisheries with observer coverage, DMRs are determined based on direct assessment of Pacific halibut survival likelihood, using standardized criteria. In fisheries without observer coverage, DMRs are inferred from similar fisheries in other areas where data are available. This method ensures that estimates of discard mortality in non-directed commercial fisheries are informed by the best available data, even in the absence of direct observation.

## U.S.A. (IPHC REGULATORY AREA 2A; CALIFORNIA, OREGON, AND WASHINGTON)

Pacific halibut are caught incidentally in several U.S.A. West Coast fisheries and must be discarded, with the exception of the salmon troll fishery and the sablefish fishery north of Pt. Chehalis, WA. As in prior years, the bottom trawl fishery and hook-and-line fishery for sablefish were responsible for the bulk of the non-directed commercial discard mortality in IPHC Regulatory Area 2A.

NOAA Fisheries uses observer data to account for the mandatory discarding of Pacific halibut in the West Coast Groundfish Trawl Catch Share Program.

## CANADA (IPHC REGULATORY AREA 2B; BRITISH COLUMBIA)

In Canada, Pacific halibut non-directed commercial discard mortality in trawl fisheries are monitored and capped by DFO. Non-directed commercial discard mortality in non-trawl groundfish fisheries is handled under the quota system within the directed Pacific halibut fishery cap.

In 2025, DFO provided additional data on discard mortality from hook-and-line and pot fisheries targeting groundfish, which counts toward quota deductions. The submission included data from 2022 through 2025. Because full-year figures for 2025 were not yet available, the 2025 data were carried over from 2024.

## U.S.A. (IPHC REGULATORY AREA 2C; SOUTHEAST ALASKA)

NOAA Fisheries reported non-directed commercial discard mortality by hook-and-line vessels fishing in the outside (federal) waters of IPHC Regulatory Area 2C. The vessels in this area are primarily targeting Pacific cod and rockfish in open access fisheries, and sablefish in the quota fishery. In 1998, a no trawl zone was established in the Gulf of Alaska eliminating trawl fishing in this area. Fisheries occurring within state waters resulting in Pacific halibut ND-CDM include pot fisheries for red and golden king crab, and tanner crab. Information is provided periodically by ADF&G, and the estimate was again rolled forward from 2022 to 2025.



## U.S.A. (IPHC REGULATORY AREAS 3A AND 3B; EASTERN, CENTRAL, AND WESTERN GULF OF ALASKA)

Trawl vessels in the Gulf of Alaska non-pelagic trawl fisheries have a high likelihood of encountering Pacific halibut and are responsible for the majority of the Pacific halibut bycatch in IPHC Regulatory Areas 3A and 3B.

There are three general categories for these trawl vessels, which receive varying rates of catch monitoring. In 2024 in the Gulf of Alaska, the non-pelagic catcher/processor catch was reported as being monitored at 100%; the non-pelagic catcher vessels in the Central Gulf Rockfish Program at 100%; and the remaining catch of non-pelagic catcher vessels at 18%.

In total, 74% of the non-pelagic trawl catch in the Gulf of Alaska was reportedly monitored for bycatch in 2024.

In July 2024, NMFS adopted rules to implement an electronic monitoring (EM) program for pelagic trawl pollock catcher vessels and tender vessels delivering to processors in the Gulf of Alaska ([Amendment 114](#)), improving non-directed discards accounting in the Western Gulf of Alaska pollock fishery.

Hook-and-line fisheries, as well as state-managed crab and scallop fisheries, also contribute to Pacific halibut non-directed commercial discard mortality.

## U.S.A. (IPHC REGULATORY AREAS 4A, 4B, 4CDE; BERING SEA/ALEUTIAN ISLANDS)

IPHC Regulatory Areas 4CDE non-directed commercial discard mortality estimates have typically been the highest due to groundfish fisheries which target flatfish in the Bering Sea.



**Table 6.** Summary of 2025 non-directed commercial fisheries discard mortality estimates of Pacific halibut by IPHC Regulatory Area and fishery.<sup>1</sup>

POUNDS	2A	2B	2C	3A	3B	4A	4B	4CDE+ Closed Area
Dredge (Scallop, Sea Cucumber)	-	-	-	24,000	13,000	NA	-	NA
Hook & Line	30,000	13,000	39,000	108,000	24,000	43,000	21,000	280,000
Pot (Groundfish)	1,000	7,000	3,000	21,000	13,000	13,000	0	5,000
Pot (Shellfish)	-	NA	0	-	50,000	26,000	2,000	37,000
Trawl (Groundfish)	24,000	192,000	0	241,000	177,000	372,000	94,000	2,294,000
Trawl (Shrimp)	0	NA	-	-	-	-	-	-
Troll (Salmon)	NA	NA	0	NA	NA	-	-	-
<b>TOTAL</b>	<b>55,000</b>	<b>212,000</b>	<b>42,000</b>	<b>394,000</b>	<b>277,000</b>	<b>454,000</b>	<b>117,000</b>	<b>2,616,000</b>

TONNES	2A	2B	2C	3A	3B	4A	4B	4CDE+ Closed Area
Dredge (Scallop, Sea Cucumber)	-	-	-	11	6	NA	-	NA
Hook & Line	14	6	18	49	11	20	10	127
Pot (Groundfish)	<1	3	1	5	6	6	0	2
Pot (Shellfish)	-	NA	0	-	23	12	1	17
Trawl (Groundfish)	11	87	0	109	80	169	43	1,041
Trawl (Shrimp)	0	NA	-	-	-	-	-	-
Troll (Salmon)	NA	NA	0	NA	NA	-	-	-
<b>TOTAL</b>	<b>25</b>	<b>96</b>	<b>19</b>	<b>179</b>	<b>126</b>	<b>206</b>	<b>53</b>	<b>1,187</b>

<sup>1</sup> In the table, NA indicates value is not available, whereas - indicates non-applicability.





## FISHERY-INDEPENDENT SURVEYS

Each year, the International Pacific Halibut Commission (IPHC) conducts the Fishery-Independent Setline Survey (FISS) and receives survey data from other organisations. These surveys collect biological and oceanographic data, facilitate fish tagging and release, and support other research projects.

### IPHC FISHERY-INDEPENDENT SETLINE SURVEY (FISS)

The IPHC FISS collects catch-rate data to monitor changes in the biomass of the Pacific halibut population. The FISS uses standardised methods, including bait, gear, fishing locations, and time of year, to gain a balanced picture that can be compared over a large area and from year to year.

When other species are caught on the FISS, their presence provides data about bait competition, commonly known as 'hook competition'. Other species catch data also provide an indication of their abundance over time, making them valuable for population assessments, management, and potential avoidance strategies.

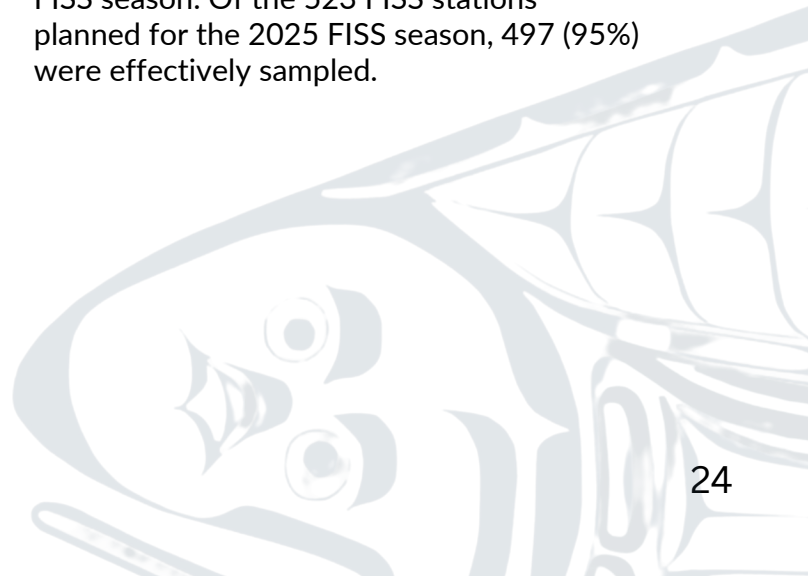
### DESIGN AND PROCEDURES

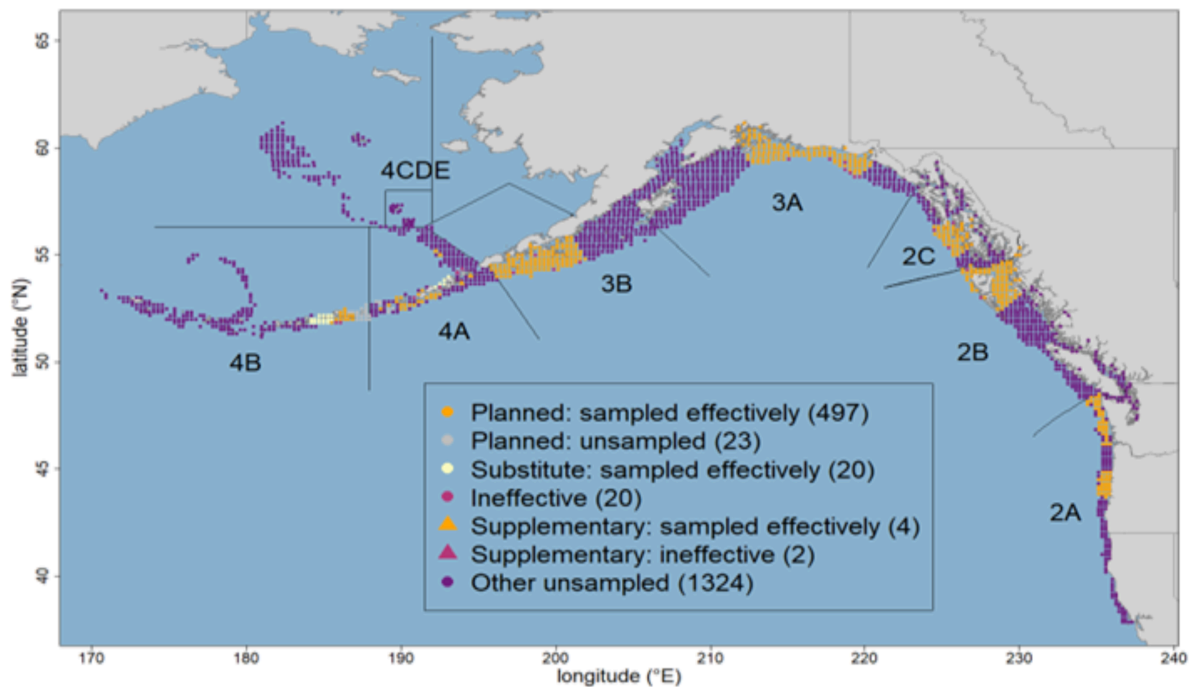
The 2025 FISS covered both nearshore and offshore waters of Washington, Oregon, British Columbia, Canada, and Alaska, U.S.A. ([Figure 1](#)).

Six commercial longline vessels were chartered for FISS operations, completing a combined 33 trips over 271 charter days across ten charter regions. Each region required between 14 and 49 days to survey.

The FISS was conducted via stations arranged in a grid of 10x10 nautical miles with a depth range of 18 to 732 metres (10 to 400 fathoms). The 2025 FISS design consisted of a subset of 515 stations from the full 1,890-station design, following decisions made at [14th Special Session of the IPHC \(SS014\)](#). The design comprised sampling of subareas within IPHC Regulatory Areas 2A, 2B, 2C, 3A, 3B, 4A, and 4B, intended to balance the Commission's primary and secondary objectives for the FISS.

There were six (6) stations completed during the 2025 Catch Protection Study in 4A Edge that met FISS tender specifications and were added to the total 2025 FISS, making a total of 523 FISS stations planned for the 2025 FISS season. Of the 523 FISS stations planned for the 2025 FISS season, 497 (95%) were effectively sampled.





**Figure 1.** Map of 2025 sampled survey stations, along with planned but unsampled stations, substituted stations, ineffective FISS stations, and other unsampled FISS stations.

**Not Sampled:**

A total of four (4) stations initially planned for sampling in 2025 were not completed. One station in the Yakutat charter region was not sampled due to the presence of ice. In the Charlotte charter region, one station was excluded because it was located within the Hecate Marine Protected Area. Additionally, two stations in the Unalaska charter region were originally scheduled for sampling but were ultimately removed during the planning phase, following negotiations with the vessel operator.

**Ineffective Stations:**

Coastwide, twenty-two (22) stations were deemed ineffective due to orca depredation (n=6), sperm whale depredation (n=10), pinniped depredation (n=1), unknown depredation (n=2), sand fleas (n=1), soak time (n=1), and setting and gear issues (n=1).

Eight standard skates of gear were set at each station in IPHC Regulatory Areas 2A, 2B, 2C, 3A and 3B, and four standard skates in IPHC Regulatory Areas 4A & 4B. Each vessel conducting FISS work set from one to four stations every day, with boats setting gear as early as 0500 hours and allowing it to soak for at least five hours (but not overnight, if possible) before hauling. Data from gear soaked longer than 24 hours were discarded from the results, as were sets for which predetermined limits for lost gear, snarls, depredation, or displacement were exceeded.

FISS gear consisted of fixed-hook gear, with skates measuring 549 metre (1,800-foot) skates with 100 size 16/0 circle hooks spaced 5.5 metres (18 feet) apart. The length of the gangions ranged from 61 to 122 centimetres (24 to 48 inches). Each hook contained 0.11 to 0.15 kilograms (1/4 to 1/3 pounds) of chum salmon bait.

## SAMPLING PROTOCOLS

Following protocols set out in the [FISS Sampling Manual \(2025\)](#), Setline Survey Specialists (Field) (SSS(F)) on contracted vessels assessed and recorded the number of hooks set and baits lost per skate. During gear retrieval, hook status (hook occupancy data to species or whether the hook was pulled up empty) for the first 20 consecutive hooks of each skate was recorded.

SSS(F) recorded lengths and weights of all Pacific halibut caught along with the corresponding skate numbers, and assessed the sex and maturity, prior hooking injury (PHI) incidence and severity, and evidence of depredation for each fish captured. Also collected was a randomized subsample of otoliths from every captured Pacific halibut for later age determination.

The male fish were assessed as either mature or immature, and the females were categorized as immature, ripening, spawning, or spent/resting. The sex and maturity level of U32 (fork length < 81.3 cm or 32 inches) Pacific halibut was recorded only if that fish was randomly selected for otolith removal or was already dead upon hauling. All U32 Pacific halibut not selected for otolith collection were measured and released alive.

## BAIT PURCHASES

To maintain consistency across years, the FISS has always used No. 2 semi-bright or better chum salmon (*Oncorhynchus keta*), graded A through E by the Alaska Seafood Marketing Institute, headed and gutted, and individually quick-frozen. In October 2024, the IPHC Secretariat began arranging bait purchases for the 2025 FISS. Approximately 66 tonnes (145, 000 lbs.) of chum salmon were utilized from two suppliers.

Bait usage was calculated at 0.17 kilograms (0.37 lbs.) per hook, averaging 136 kilograms (300 lbs.) per eight-skate station. Bait quality was monitored and documented throughout the season, consistently meeting the established standards.

## FISH SALES

O32 (fork length > 81.3 cm or 32 in.) Pacific halibut caught during the FISS have historically been kept and sold to offset the cost of the FISS work with a goal of revenue neutrality. In 2025, U32 (fork length < 81.3 cm or 32 in.) Pacific halibut that were randomly selected for otolith sampling were also kept and sold. All vessel contracts contained a lump sum payment along with a 10% share of all Pacific halibut proceeds. During the 2025 FISS, IPHC's chartered vessels delivered a total of 110 tonnes (263,310 lbs.) of Pacific halibut to ten different ports. The coastwide average price per kilogram was \$18.04 USD or \$8.18 USD per pound, amounting to sales totaling \$2,154,484.59 USD.

## FIELD PERSONNEL

The 2025 FISS was fielded by a team of 10 (SSS(F)), with two specialists assigned to each vessel. These highly trained personnel played a critical role in data collection and sample processing. One SSS(F) worked on deck, handling fish, recording measurements, and collecting biological samples, while the other operated from a portable shelter, logging data, making observations, and managing sample storage. In addition to their technical expertise, field staff navigated the demanding conditions of at-sea research, adapting to dynamic weather, long working hours, and the physical challenges of conducting scientific operations aboard chartered commercial longline vessels.

## OCEANOGRAPHIC MONITORING

This was the sixteenth year of the IPHC oceanographic data collection program, whereby water column profiles were collected during the FISS.

Oceanographic data were collected using instruments that collected pressure (depth), conductivity (salinity), temperature, dissolved oxygen, pH, and fluorescence (chlorophyll a concentration) throughout the water column. Profiles were attempted at each FISS station, conditions permitting, resulting in 442 successful deployments.

## IPHC FISHERY-INDEPENDENT SETLINE SURVEY (FISS) RESULTS

As is typical, the IPHC targeted the summer months—May, June, July, and August—for FISS work. In 2025, FISS activities took place from 30 May through 5 September. Coastwide, FISS vessel activity peaked in mid-to-late July and gradually declined through August as boats completed their assigned charter regions ([Figure 1](#)). All FISS operations concluded by early September.

## WEIGHT AND NUMBER PER UNIT EFFORT (WPUE)

The inclusion of both commercial and non-commercial fishing grounds in the FISS design resulted in a coastwide average raw weight per unit effort (WPUE) that was lower than that of the directed commercial Pacific halibut fleet ([Table 8](#)). However, in Regulatory Area 2C, raw WPUE exceeded that of the directed commercial fleet, likely reflecting the survey's spatial coverage in the Ommaney Charter Region, where larger Pacific halibut are more prevalent.

## NON-PACIFIC HALIBUT CATCH

In 2025, approximately 84 species of fish and invertebrates were captured as bycatch during the IPHC FISS (for more details on bycatch, visit <https://www.iphc.int/data/fiss-bycatch>).

Coastwide, the predominant incidental catch was spiny dogfish (*Squalus suckleyi*). However, there were regional variations: in IPHC Regulatory Area 2A, sablefish (*Anoplopoma fimbria*) was the most frequent catch, while in Area 3B, 4A and 4B, Pacific cod (*Gadus microcephalus*) was caught most often.

## SIZE AND AGE OBSERVATIONS

Approximately 62% of Pacific halibut caught during the IPHC FISS were smaller than the current commercial legal-size limit (U32; < 81.3 cm or 32 inches) with a median fork length of 77 cm (30 inches). In 2025, median length increased slightly in IPHC Regulatory Areas 2B and 2C, stayed the same in 3A, and decreased in 3B when compared to 2024. IPHC Regulatory Areas 2A, 2B, 3A, 3B, 4A and 4B had a median length below the legal-size limit. The largest median length was in IPHC Regulatory Area 2C (84 cm or 33 in).

Sex composition of FISS-caught O32 (>81.3 cm or 32 in) Pacific halibut varied among IPHC Regulatory Areas. Females comprised the largest proportion of the catch in Area 3A (89%) and the smallest proportion in Area 4B (49%), where they accounted for just under half of the O32 catch. Overall, females accounted for 79% of the O32 catch across all IPHC Regulatory Areas. Among all size classes, most female Pacific halibut caught during the FISS period (summer months) were in the mature stage (53%) and expected to spawn in the upcoming season.

## NOAA FISHERIES TRAWL SURVEYS

The IPHC routinely collaborates with NOAA Fisheries to collect biological data from Pacific halibut caught during the groundfish trawl surveys conducted in Alaska. In 2025, survey personnel encountered and measured 2,754 Pacific halibut in the Bering Sea survey and 4,870 in the Gulf of Alaska survey. Weights and otoliths for aging were collected from 2,379 of the Pacific halibut encountered.

**Table 7.** The average raw all sizes WPUE for each of the IPHC Regulatory Areas during the 2025 FISS.

IPHC Regulatory Area	kg/skate	lbs/skate	Station Count
2A	7	16	68
2B	28	61	86
2C	75	166	49
3A	28	62	123
3B	21	46	121
4A	36	79	31
4B	27	59	28





# POPULATION ASSESSMENT

Since 1924, one of the IPHC's primary tasks has been to assess the population (or stock) of Pacific halibut in the Convention waters. In 2025, the IPHC conducted its annual coastwide stock assessment of Pacific halibut updating all data sources and using new information from the 2025 fishing period. This section covers three main topics that have bearing on the population assessment process: **(1)** the data sources available for the Pacific halibut stock assessment and related analyses, **(2)** the results of the stock assessment, and **(3)** the outlook for the stock, scientific advice, and future research directions.

## DATA SOURCES

The data for the stock assessment is based on both fishery-dependent and fishery-independent data, as well as auxiliary data from research studies and other sources. The rich historical data sources include information going as far back as the late 1800s, which allow scientists to better identify trends over time that may be of import to the understanding of the current population. However, historical data was often collected differently and may be incomplete, limiting the conclusions that can be drawn for years past.

### 2025 FISHERY-DEPENDENT AND FISHERY-INDEPENDENT SURVEY DATA

Fishery-dependent data includes mortality estimates from directed commercial, recreational, subsistence, and non-directed commercial fisheries. Pacific halibut landings data from the commercial fishery are reported to IPHC by way of commercial fish tickets.

Discards in the directed fishery are estimated by the IPHC using a combination of logbook, observer, and fishery-independent data. Annual recreational mortality estimates are provided to the IPHC by state agencies (U.S.A. waters) and Fisheries and Oceans Canada (DFO).

Since 1991, DFO and National Oceanic and Atmospheric Administration (NOAA) Fisheries have provided estimates of subsistence (or personal use) harvests. Non-directed fishery discard mortality estimates are based on observer programs in both the U.S.A. and Canada; annual estimates are reported to the IPHC by fishery.

Known Pacific halibut mortality consists of target/directed commercial fishery landings and discard mortality (including research), recreational fisheries, subsistence, and non-targeted/directed discard mortality ("bycatch") in fisheries targeting other species where Pacific halibut retention is prohibited.

Over the period 1888-2025, mortality from all sources has totaled 7.4 billion pounds (~3.4 million metric tons, t). Since 1926, the fishery has ranged annually from 29 to 100 million pounds (13,000-45,000 t) with an annual average of 62 million pounds (~28,000 t). Annual mortality was above this 100-year average from 1985 through 2010 and has averaged 34.6 million pounds (~15,700 t) from 2021-25.

Fishery-dependent and fishery-independent data also include: 1) weight-per-unit-effort (WPUE), numbers-per-unit-effort (NPUE), 2) age distributions, and 3) weight-at-age. The primary source of trend information is the IPHC Fishery-Independent Setline Survey (FISS); however, IPHC considers the commercial fishery WPUE to be another indicator for the stock, and so its estimates are also treated as an index of abundance, while accounting for possible changes in fishery practices and locations from year to year.

The 2025 modelled FISS results detailed an estimated coastwide aggregate Numbers-Per-Unit-Effort (NPUE) which decreased by 2% from 2024 to 2025, slightly below levels observed over the last three years but similar to those observed in 2018-2020 (Figure 2). The modelled coastwide Weight-Per-Unit-Effort (WPUE) of legal (O32) Pacific halibut, the most comparable metric to observed commercial fishery catch rates, was unchanged from 2024 to 2025.

Individual IPHC Regulatory Areas varied from an estimated 7% increase (Regulatory Area 3B) to an 11% decrease (Regulatory Areas 2B and 2C) in O32 WPUE. Although the survey design was larger than in 2024, there was limited sampling in IPHC Regulatory Areas 3A, 3B, and 4B which resulted in broader credible intervals and therefore greater uncertainty about the actual trends at both the coastwide level and especially for those areas with reduced surveys.

Preliminary commercial fishery WPUE estimates from 2025 logbooks decreased by 1% at the coastwide level. Trends varied among IPHC Regulatory Areas and gears; however, all Areas from 2A to 3B showed decreased CPUE in one or more index, with increases observed in Regions 4 and 4B.

Most information used in the 2025 stock assessment was finalized on 1 November 2025 in order to provide adequate time for analysis and modeling. As has been the case in all years, some data are incomplete, or include projections for the remainder of the year. These include commercial fishery WPUE, commercial fishery age composition data, and 2025 mortality estimates for all fisheries still operating. All preliminary data series in this analysis will be fully updated as part of the 2026 stock assessment.

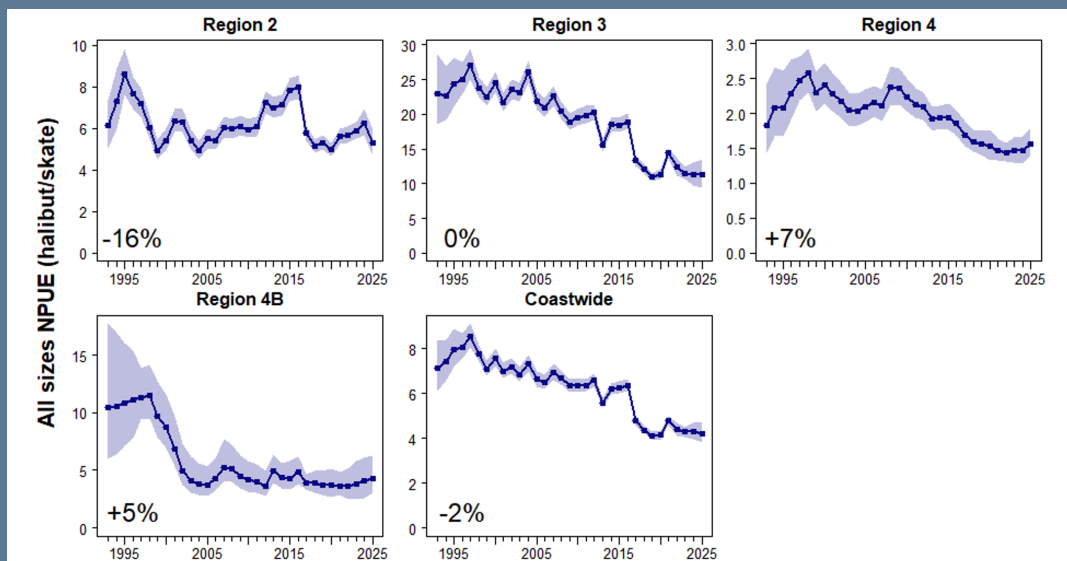


Figure 2. Trends in modelled FISS NPUE by Biological Region, 1993-2025. Percentages indicate the estimated change from 2024 to 2025. Shaded zones indicate 95% credible intervals.

## AUXILIARY INPUTS

The population assessment includes a number of additional information sources that are treated as data, even though they represent the products of analyses themselves. These are: 1) the weight-length relationships, 2) the maturity schedule, 3) estimates of ageing bias and imprecision, and 4) the regimes of the Pacific Decadal Oscillation (PDO). Details of these data sources are as follows:

- The headed and gutted weight (net pounds) of a Pacific halibut is estimated via a simple equation of weight based on fork length. As length increases, weight corresponds at a rate slightly greater than cubic increase. Because individual Pacific halibut weights are collected in the port sampling program and the FISS, weight-length relationships are used only for sources that do not directly sample individual fish weights (e.g., non-directed commercial discard mortality, recreational mortality). Specific weight-length relationships based on recent sampling are available for each IPHC Regulatory Area.
- A new maturity schedule for female Pacific halibut was produced in 2025 and included in the stock assessment, updating the historical curve that had not been revisited for 20 years. Across all Regulatory Areas, half of all female Pacific halibut become sexually mature by 11.0 years, and nearly all fish are mature by age 20.
- The estimated ages of Pacific halibut are based on the counting of rings on their otoliths (ear bones), a method that is by nature subject to both bias and imprecision. However, it is relatively easy to estimate the age of Pacific halibut (compared to other groundfish), and analysis shows that the current aging method—referred to as “break-and-bake”—is remarkably precise. The assessment accounts for the small amount of variability in ring counts based on comparison of multiple readers and repeated counts.
- The PDO is a general index of productivity and climate variability in the Gulf of Alaska that has historically changed ‘regime’ about every 10-30 years. Research has shown that these environmental conditions are correlated with the average level of recruitment (young fish entering the population each year) of Pacific halibut. An updated PDO time-series was included in the 2025 stock assessment. In “positive” phases of the PDO (1926-1943, and 1977-1997), the stock saw a higher average recruitment of younger fish. The PDO has remained in a “negative” phase since 1998; however, it is unclear if this represents a change of phase similar to historical patterns or a different set of environmental conditions altogether. Further, the correspondence between the PDO and other environmental observations seems to be weakening as previously rare extreme conditions become more common.



## STOCK DISTRIBUTION

Estimates of the biological distribution of the stock are achieved using the modelled FISS WPUE index of Pacific halibut density, weighted by the geographical extent of each IPHC Regulatory Area. To account for factors that are known to affect FISS catch rates, two adjustments to the raw WPUE prior to modelling are made: 1) accounting for FISS timing relative to the fishery and 2) 'hook competition'. The hook competition adjustment uses the number of baits returned at the end of a survey set to account for the level of competition from all species including other Pacific halibut for each hook – if a high proportion of hooks were recovered without bait, there was little power to detect additional fish present by the end of the set. Adjusting for the presence of such competition reduces potential bias in the observed WPUE index of density due to the finite number of hooks deployed and the observed catch rates at each station.

The recent trend in estimated population distribution showed a decrease in Biological Region 2 and an increase in other regions in 2025 (Table 8). However, values for Biological Regions 2 and 3 remain within the range observed over the last decade. Due to the small number of FISS stations in Biological Region 4B the credible intervals for stock distribution are wide (spanning 5 to 10%) relative to its proportion of the stock. It is unknown to what degree current stock distribution corresponds to historical distributions prior to 1993 or to the average distribution likely to occur in the absence of fishing mortality.

Table 8. Recent stock distribution estimates by Biological Region based on modelling of all Pacific halibut captured by the FISS.

Year	Region 2 (2A, 2B, 2C)	Region 3 (3A, 3B)	Region 4 (4A, 4CDE)	Region 4B
2021	22.7%	53.7%	18.8%	4.8%
2022	25.6%	47.1%	21.3%	6.0%
2023	26.3%	45.1%	22.1%	6.5%
2024	27.1%	43.3%	22.5%	7.1%
2025	24.1%	44.4%	24.2%	7.3%

## POPULATION ASSESSMENT AT THE END OF 2025

### *Stock Assessment*

The methods for undertaking the population assessment for Pacific halibut have constantly improved over the last 30 years with the collection of more comprehensive and informative data, the development of better models and more sophisticated analytical approaches. The stock assessment uses a method called the “ensemble approach”, drawing inference from multiple models to describe the stock, as a way to make the process both stronger and more flexible to future model changes. Originating from the field of weather and hurricane forecasting, it recognizes that all assessment models are approximations, and that risk assessment based on multiple models provides a stronger basis for the estimation of management quantities (and the uncertainty about these quantities) than any single model alone.

The 2025 stock assessment represents a full assessment following updates in 2023 and 2024. Beginning with the final 2024 assessment, a series of improvements and updates to data were added for 2025. These included routine updating of software and model parameters as well as adding a revised PDO time-series and newly available maturity schedule. Supporting analyses were reviewed by the IPHC’s Scientific Review Board (SRB) through the IPHC’s standard two-meeting (June and September) process.

**Table 9.** Harvest decision table for 2026-2028 mortality limits. Columns correspond to yield alternatives and rows to risk metrics. Values in the table represent the probability, in “times out of 100” (or percent chance) of a particular risk.

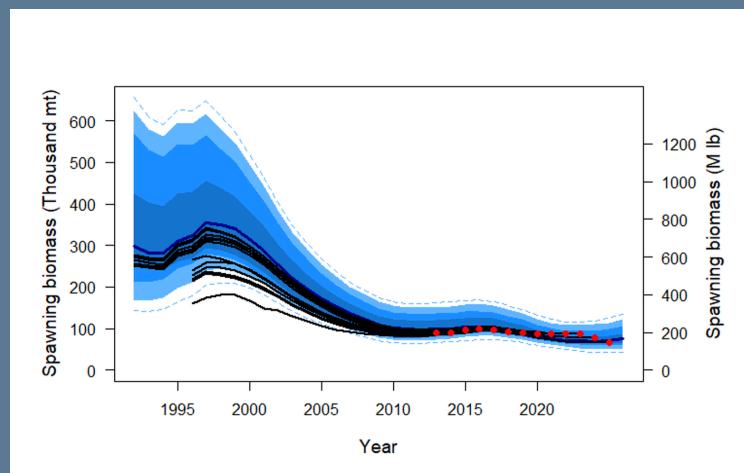
		<b>2026 Alternative</b>										Overfishing limit
		Status quo -10%	Status quo -5%	Status quo	Status quo +5%	Status quo +10%	F <sub>46%</sub>	3-Year Surplus / F <sub>43%</sub>	MEY proxy			
<b>Total mortality (M lb)</b>		<b>0.0</b>	<b>21.9</b>									<b>53.7</b>
<b>TCEY (M lb)</b>		<b>0.0</b>	<b>20.0</b>									<b>51.9</b>
<b>2026 fishing intensity</b>		<b>F<sub>100%</sub></b>	<b>F<sub>62%</sub></b>									<b>F<sub>35%</sub></b>
<b>Fishing intensity interval</b>		<b>-</b>	<b>47-77%</b>									<b>22-54%</b>
<b>Stock Trend</b> (spawning biomass)	in 2027	is less than 2026	<1	10	12	15	18	22	28	40	54	80
	in 2028	is 5% less than 2026	<1	1	2	2	3	3	4	8	14	32
		is less than 2026	<1	8	10	13	16	19	26	38	54	82
		is 5% less than 2026	<1	2	3	4	5	7	10	17	28	55
	in 2029	is less than 2026	<1	11	14	18	22	27	35	50	68	91
		is 5% less than 2026	<1	5	6	8	11	13	19	30	46	77
<b>Stock Status</b> (Spawning biomass)	in 2027	is less than 30%	24	26	26	26	26	26	26	26	26	27
	in 2028	is less than 20%	<1	1	1	1	1	1	1	1	1	2
		is less than 30%	14	23	24	24	24	24	25	25	26	27
		is less than 20%	<1	<1	<1	1	1	1	1	1	2	3
	in 2029	is less than 30%	5	20	21	22	22	23	23	24	25	27
		is less than 20%	<1	<1	1	1	1	1	1	2	3	6
<b>Fishery Trend</b> (TCEY)	in 2027	is less than 2026	0	11	16	20	25	30	37	49	60	75
	in 2028	is 10% less than 2026	0	4	9	10	14	18	25	35	47	65
		is less than 2026	0	11	15	20	24	29	37	50	61	78
		is 10% less than 2026	0	4	10	10	14	18	25	36	49	68
	in 2029	is less than 2026	0	11	15	10	25	30	39	53	65	82
		is 10% less than 2026	0	5	10	11	15	19	26	39	53	73
<b>Fishery Status</b> (Fishing intensity)	in 2026	is above F <sub>43%</sub>	0	13	18	23	27	32	39	50	60	73

The 2025 assessment continues to make use of the extensive historical time series of data, as well as integrating both structural and estimation uncertainty via an ensemble of four equally weighted individual models. Within-model uncertainty from each model was propagated through to the risk analysis and decision table (Table 9). Therefore, key quantities such as reference points and stock size are reported as distributions, such that the entire plausible range can be evaluated. Point estimates reported in this stock assessment correspond to median values from the ensemble. Despite being a full stock assessment with revisions to both the models and the data included in them, the results of the 2025 stock assessment were very similar to those from the 2024 stock assessment in terms of stock size and recent trend.

## SPAWNING BIOMASS & RECRUITMENT TRENDS

The results of the 2025 stock assessment indicate that the Pacific halibut stock declined continuously from the late 1990s to around 2012. That trend is estimated to have been largely a result of decreasing size-at-age, as well as lower recruitment than observed during the 1980s. The spawning biomass (SB) is estimated to have increased gradually to 2016 and then decreased to an estimated 153 million pounds (~69,500 t) at the beginning of 2024. At the beginning of 2026 the spawning biomass is estimated to have increased slightly due to the continued maturation of the 2012 year-class and the onset of maturity of the 2016 and 2017 year-classes. The current spawning biomass estimate is 166 million pounds (75,300 t), with an approximate 95% credible interval ranging from 113 to 272 million pounds (~51,300-123,600 t; Figure 3). The recent spawning biomass estimates from the 2025 stock assessment are very consistent with those from the 2024 stock assessment and below terminal estimates for 2021 through 2024.

Average Pacific halibut recruitment is estimated to be higher (60 and 54% for the coastwide and AAF models respectively) during favorable Pacific Decadal Oscillation (PDO) regimes. Pacific halibut recruitment estimates show the large cohorts in 1999 and 2005. Cohorts from 2006 through 2011 are estimated to be much smaller than those from 1999-2005 (Figure 4), which has resulted in a decline in both the stock and fishery yield as these low recruitments moved through the spawning biomass.



**Figure 3.** Retrospective comparison of female spawning biomass among recent IPHC stock assessments. Black lines indicate estimates from assessments conducted in 2012-2024 with the terminal estimate of the beginning of the year spawning biomass (2013-2025) shown as a red point. The shaded distribution denotes the 2025 ensemble including the terminal spawning biomass in 2026: the dark blue line indicates the median (or “50:50 line”) with an equal probability of the estimate falling above or below that level; and colored bands moving away from the median indicate the intervals containing 50/100, 75/100, and 95/100 estimates; dashed lines indicating the 99/100 interval.

Based on age data through 2025, individual models in this assessment produced estimates of the 2012, 2016 and 2017 year-classes that were similar to the average level observed over 1994-2005. Of the fish comprising the 2016 year-class, 22% are estimated to be mature in 2025 based on the revised maturity schedule. The continued maturation of the 2016 and 2017 cohorts has a strong effect on the short-term projections. There is little information on recruitments after 2017 in the data currently available.

### Reference Points

The IPHC's interim management procedure uses a relative spawning biomass of 30% as a trigger, below which the target fishing intensity is reduced. At a relative spawning biomass limit of 20%, directed fishing is halted due to the critically low biomass condition. This calculation is based on recent biological conditions currently influencing the stock and therefore measures only the effect of fishing on the spawning biomass, and not natural fluctuations due to recruitment variability and weight-at-age.

The relative spawning biomass at the beginning of 2026 was estimated to be 38% (credible interval: 21-57%) slightly higher than the estimate for 2025 (36%). The probability that the stock is below the SB30% level is estimated to be 28% at the beginning of 2026, with a 1% chance that the stock is below SB20%.

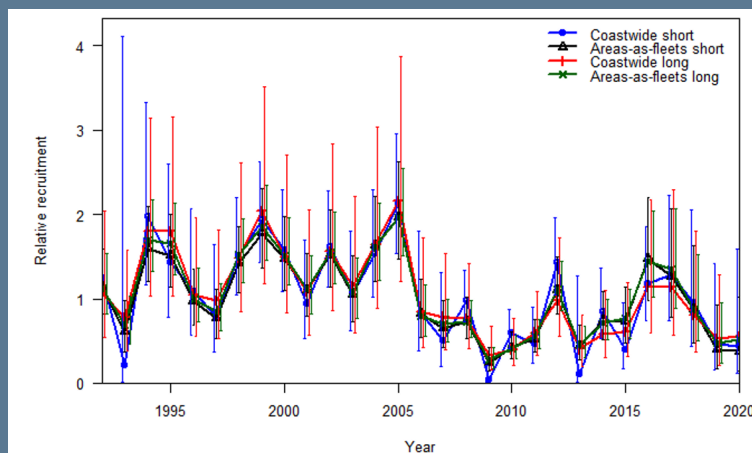
The IPHC's 'reference' level of fishing intensity is a Spawning Potential Ratio (SPR) of F43%; this equates to the level of fishing that would reduce the lifetime spawning output per recruit to 43% of the unfished level given current biology, fishery characteristics and demographics.

The 2025 fishing intensity is estimated to be F52% (credible interval: 38-70%), below both the current reference level and below the values estimated for both 2023 and 2024. Recent lower fishing intensity corresponds both to reduced mortality limits and actual mortality consistently below those limits since 2020.

### Sources of uncertainty

This stock assessment includes uncertainty associated with estimation of model parameters, treatment of the data sources (e.g. short and long time-series), natural mortality (fixed vs. estimated), approach to spatial structure in the data, and other differences among the models included in the ensemble.

Although this is an improvement over the use of a single assessment model, there are important sources of uncertainty that are not included. The assessment utilized eight years (2017-24) of sex-ratio information from the directed commercial fishery landings.



**Figure 4.** Estimated trends in relative age-0 recruitment (standardized to the mean for each model over this time-period) 1992-2020, based on the four individual models included in the 2025 stock assessment ensemble. Series indicate the maximum likelihood estimates; vertical lines indicate approximate 95% credible intervals.

However, uncertainty in historical ratios remains unknown. Additional years of data are likely to further inform selectivity parameters and cumulatively reduce uncertainty in future stock size estimates. The treatment of spatial dynamics and movement rates among Biological Regions, which are represented via the coastwide and AAF approaches, has large implications for the current stock trend, as evidenced by the different results among the four models comprising the stock assessment ensemble. This assessment also does not include mortality, trends, or explicit demographic linkages in Russian waters, although such linkages may be increasingly important as warming waters in the Bering Sea allow for potentially important exchange across the international border.

Additional important contributors to assessment uncertainty (and potential bias) include the lag in estimation of incoming recruitment between birth year and direct observation in the fishery and survey data (6- 10 years).

Like most stock assessments, there is no direct information on natural mortality, and increased uncertainty for some estimated components of the fishery mortality. Fishery mortality estimates are assumed to be accurate; therefore, uncertainty due to discard mortality estimation (observer sampling and representativeness), discard mortality rates, and any other documented mortality in either directed or non-directed fisheries (e.g., whale depredation) could create bias in this assessment. Although the maturity schedule was updated for this assessment, relative fecundity per unit body mass is currently under renewed investigation by the IPHC.

The assessment uses the simple assumption that fecundity is proportional to spawning biomass and that Pacific halibut do not experience appreciable skip-spawning (physiologically mature fish which do not actually spawn due to environmental or other conditions).

To the degree that maturity, fecundity or skip spawning may be temporally variable, the current approach could result in bias in the stock assessment trends and reference points. New information will be incorporated as it becomes available; however, it may take years to better understand trends in these biological processes at the scale of the entire population.

Projections beyond three years are avoided due to the lack of mechanistic understanding of the factors influencing size-at-age and relative recruitment strength, the two most important factors in historical population trends along with fishing mortality.

The reduction in estimated commercial fishery catch rates from the time the data sets for the stock assessment are closed until the data are relatively complete (sometime the following year) is a previously identified bias that produced strong effects on the 2023 and 2024 stock assessments.

Concern over the potential for incomplete fishery CPUE to bias the assessment results led to the recommendation to 'down-weight' the terminal year via doubling the estimated variance in the index. The precision of the fishery trend information interacts with the FISS information such that when the FISS design is sufficient to provide relatively precise trend estimates with little risk of bias (e.g. the target 'base block' design) the assessment models rely more heavily on the survey. During periods when the two sources of information differ this can create an additional source of uncertainty not captured in the annual results.

Due to the many remaining uncertainties in Pacific halibut biology and population dynamics, a high degree of uncertainty in both stock scale and trend will continue to be an integral part of an annual management process.

Results of the IPHC's ongoing Management Strategy Evaluation (MSE) process can inform the development of management procedures that are robust to estimation uncertainty via the stock assessment, and to a wide range of hypotheses describing population dynamics.

## OUTLOOK

Three-year tactical stock projections were conducted using the integrated results from the stock assessment ensemble in tandem with summaries of the 2025 directed and non-directed fisheries. The harvest decision table (Table 9) provides a comparison of the relative risk (in times out of 100), using stock and fishery metrics (rows), against a range of alternative harvest levels for 2026 (columns).

In addition to the status quo (last year's coastwide TCEY), a range of higher and lower coastwide TCEYs is presented, including TCEYs bracketing the status quo, mortality levels consistent with the 3-year surplus production (less than or equal to a 50% chance that the spawning biomass will be smaller in 2026 and 2028 than it is in 2025), TCEYs consistent with the reference SPR of 43%, the value identified by the MSE process as a proxy for Maximum Economic Yield (MEY; F40%) and the IPHC's overfishing limit (and Maximum Sustainable Yield proxy; F35%) as well as other levels to provide for continuous evaluation of the change in risk across alternative yields.

For each column of the decision table, the projected fishing mortality (including all sizes and sources), the coastwide TCEY and the associated level of fishing intensity projected for 2026 (median value with the 95% credible interval below) are reported.

Spawning biomass estimates in 2025 (last year) from the 2025 stock assessment are similar to those from last year's stock assessment (7% higher), and increasing slowly. The 2012, 2016 and 2017 year-classes (all larger than those occurring from 2006-2011) are highly important in the three-year stock projections as they will be continuing to mature over the next several years.

Projections indicate that the spawning biomass would increase in the absence of any fishing mortality, with risks of stock decline over one and three years both less than 1/100. At the status quo coastwide TCEY (29.72 million pounds), risks of stock decrease over one and three years are 15/100 and 18/100.

For all harvest levels that exceed the three-year surplus (38.95 million pounds) risks of stock decline are larger than 50/100 and reaching 91/100 for the coastwide TCEY that is projected to correspond to the F35% overfishing level in 2026.

Alternative harvest levels around the status quo (+/- 5 and 10%) are projected to result in levels of fishing intensity ranging from F54% to F48%, at or lower than those estimated in recent years. The reference level of fishing mortality (F43%) corresponds to a TCEY equal to the three-year surplus, which is approximately 30% greater than the status quo.

The probability of a reduction in the coastwide TCEY in order to maintain a fishing intensity no greater than F43% over the next three years is projected to be 53/100.

All projections result in a probability of the relative spawning biomass dropping below the SB30% threshold over the next three years of 5-27/100. The probability of dropping below the SB20% limit is estimated to be <1-6/100.



## SCIENTIFIC ADVICE

### *Sources of Mortality*

In 2025, total Pacific mortality due to fishing decreased to 28.80 million pounds (13,063 t), below the 5-year average of 34.58 million pounds (15,687 t), largely due to a 16% TCEY reduction from 2024 to 2025. Of that total mortality, 81% was retained and utilized across all fishery sectors; this was lower than the percent utilized in 2021-2024 which ranged from 83-87%.

### *Stock Status (spawning biomass)*

Current (beginning of 2026) female spawning biomass is estimated to be 166 million pounds (73,300 t), which corresponds to a 28% chance of being below the IPHC trigger reference point of SB30%, and a 1% chance of being below the IPHC limit reference point of SB20%.

The stock is estimated to have declined 34% from 2016 to 2024, then increased by 8% to the beginning of 2026. The relative spawning biomass (compared to the biomass projected to be present at the beginning of 2026 in the absence of any fishing) is currently estimated to be 38%, after reaching the lowest point in the recent time series (30%) in 2011. Therefore, the stock is considered to be 'not overfished'.

### *Fishing Intensity*

The 2025 fishing mortality corresponded to a point estimate of SPR = 52%; there is a 19% chance that fishing intensity exceeded the IPHC's current reference level of F43%. The Commission's Harvest Strategy Policy defines the overfishing limit equal to the MSY-proxy of SPR=35%. There is a 1% chance that the 2025 fishing intensity exceeded F35%.

### *Stock Distribution*

After increases in 2020-2021, the proportion of the coastwide stock represented by Biological Region 3 has increased in 2025, but remains near the lowest level observed in the time-series. This trend occurs in tandem with a decrease in Biological Region 2. The proportion of the stock in both Biological Regions 4 and 4B has been increasing; however, little FISS sampling in Biological Region 4B in 2023-25 has resulted in increased uncertainty in both the trend and scale of the stock distribution in this Region.

### *Additional Risks Not Included in the Stock Assessment*

Directed commercial fishery catch rates coastwide, and in nearly all IPHC Regulatory Areas, were at or near the lowest observed in the last 40 years. The absolute level of spawning biomass is also estimated to be near the lowest observed since the 1970s. The directed commercial fishery transitioned from the 2005 year-class to the 2012 year-class in 2022, and to the 2026 year-class in 2025. This shift from older to younger (and smaller fish) has contributed to observed reduced catch rates. The current spawning stock is heavily reliant on the 2012, 2016, and 2017 year-classes. Environmental conditions continue to be unpredictable, with important deviations from historical patterns in both oceanographic and biological processes observed across the stock range in the last decade.

### *Future Research in Support of the Stock Assessment*

Research priorities for the stock assessment and related analyses have been consolidated with those for the IPHC's MSE and the Biological Research program and are included in the IPHC's 5-year research plan.

# HARVEST STRATEGY POLICY

The Harvest Strategy Policy at the International Pacific Halibut Commission (IPHC) was adopted in 2025 (IPHC-2025-HSP). This document defines a strategic and transparent approach to managing Pacific halibut fisheries that is informed by many analyses and simulation studies. It provides a framework for applying a consistent and science-based approach to setting mortality limits for Pacific halibut fisheries throughout the IPHC Convention Area while ensuring sustainability of the Pacific halibut population.

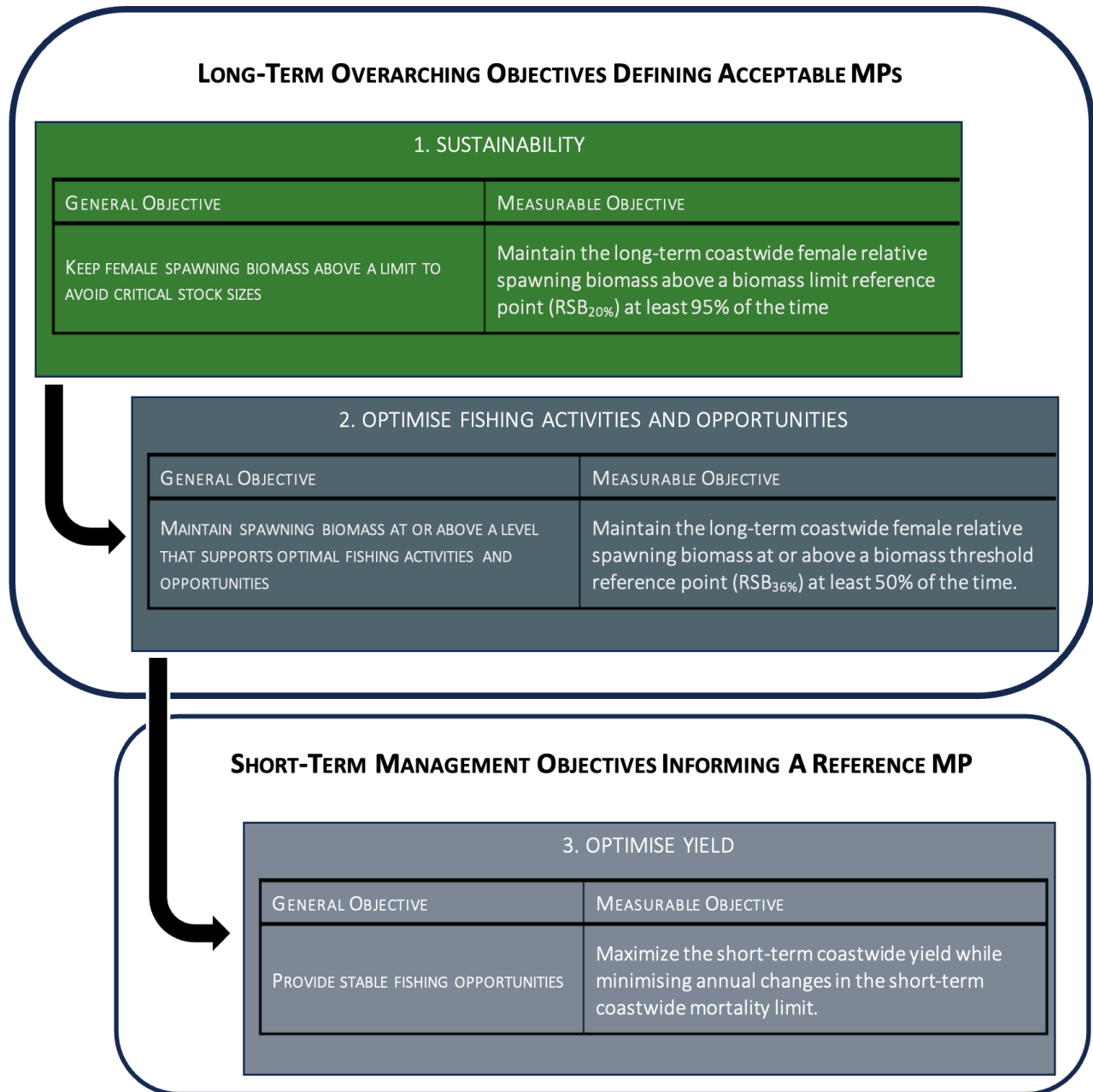
The framework uses a management procedure that incorporates science and policy to determine the coastwide Total Constant Exploitation Yield (TCEY) and then distribute it across all IPHC Regulatory Areas. Being a framework, the harvest strategy policy encompasses the entire process including monitoring principles, a reference management procedure, and the decision-making process to determine mortality limits as well as other important considerations such as objectives, key principles, and responses to specific events.

The Harvest Strategy Policy describes three priority objectives of the Commission (Figure 5). These objectives are hierarchical with a conservation objective having the highest priority to ensure the sustainability of the Pacific halibut stock. The second objective is to support optimal fishing activities and opportunities. The final objective is to balance the trade-off between maximising yield and minimising the change in mortality limits from one year to the next. The management procedure defined in the Harvest Strategy Policy was evaluated against these objectives using the Management Strategy Evaluation (MSE) framework.

In 2017 the Commission agreed to a policy that separates the coastwide scale of harvest and the distribution of fishing mortality. The first step defined in the harvest strategy policy is to determine the reference coastwide TCEY using the reference coastwide fishing intensity based on Spawning Potential Ratio (SPR). The final step is the decision-making process by the Commission, which determines the TCEY in each IPHC Regulatory Area and may adjust the coastwide TCEY to account for socio-economic and other concerns. The Harvest Strategy Policy accounts for all mortality from all sources and uses various sources of management supporting information to inform the Commission when making the decision of mortality limits in each IPHC Regulatory Area.

In 2018 and 2020, the MSE process provided recommendations on the reference coastwide scale portion of the harvest strategy policy, resulting in a fishing mortality rate that corresponds to an SPR of 43% (a 57% reduction in the spawning potential). The SPR can be thought of as the percentage of spawning potential for a fish over its lifetime given a constant level of fishing compared to that without fishing. For example, a fish may have many chances to spawn without fishing, but that potential will be reduced with fishing.

The distribution of the coastwide TCEY is a decision made by the Commission using various sources of management supporting information. This includes estimates from the Fishery-Independent Setline Survey (FISS), relative harvest rates between IPHC Regulatory Areas, fishery performance, and possible agreements for IPHC Regulatory Areas. Estimates of biomass from the FISS is a science-based method to distribute the mortality similar to how the stock is distributed. Relative harvest rates, based on science and policy, are used to reduce the fishing mortality in western areas, which are typically less productive and from where Pacific halibut typically migrate towards eastern areas. Socio-economic factors are also considered when determining the final TCEY for each IPHC Regulatory Area, often presented by stakeholders.



**Figure 5.** Three priority, hierarchical objectives described in the Harvest Strategy Policy.

# MANAGEMENT STRATEGY EVALUATION

Management Strategy Evaluation (MSE) is a formal process which evaluates the performance of alternative management procedures for the Pacific halibut fishery against defined goals and objectives. Incorporating uncertainty about stock dynamics into the MSE can identify robust management procedures. At the IPHC, the MSE process has been interactive, incorporating recommendations from a Management Strategy Advisory Board (MSAB) made up of stakeholders and managers involved with the resource. This includes defining objectives relevant to all parties involved and suggesting management procedures to evaluate against those objectives.

The MSE analysis was first completed in 2020 with an evaluation and comparison of many candidate management procedures that were presented to the Commission for potential adoption and implementation. These management procedures were made up of many different elements to determine the coastwide Total Constant Exploitation Yield (TCEY) and distribute it to IPHC Regulatory Areas. In 2023, alternative size limits (none, 26 inches, and the status quo 32 inches) and assessment frequency (annual, biennial, or triennial) were evaluated. Conservation and fishery objectives were used for the evaluations and the identification of trade-offs. Even though total yield would likely increase by reducing the size limit, this yield would be composed of more small fish which may have less value than large fish. The Commission has decided not to change the size limit for the directed commercial fisheries and to retain an annual stock assessment.

Current MSE work consists of updating the MSE models and framework in accordance with the triennial schedule in the Harvest Strategy Policy, and conducting analyses to support further developments in the Harvest Strategy Policy. This includes confirming that the current management procedure and reference points meet the Commission's objectives given the updated MSE models. The MSE work will continue to support future updates to the Harvest Strategy Policy.

Overall, the clear communication of MSE results is important so that stakeholders and Commissioners can make informed decisions and ensure that the Harvest Strategy Policy continues to meet the Commission's priority objectives.





## RESEARCH

The International Pacific Halibut Commission (IPHC) has a long history of research activities devoted to describing and understanding the biology and ecology of the Pacific halibut. The main objectives of the Biological and Ecosystem Sciences Research activities at the IPHC are to:

- 1) Identify and assess critical knowledge gaps in the biology of the Pacific halibut;
- 2) Understand the influence of environmental conditions; and
- 3) Apply the resulting knowledge to reduce uncertainty in current stock assessment models.

The IPHC Secretariat develops new projects that are designed to address key biological and ecological topics as well as the continuation of certain projects initiated in previous years. Projects are based on input from the Commissioners, stakeholders, and specific subsidiary bodies to the IPHC such as the Scientific Review Board (SRB) and the Research Advisory Board (RAB). Importantly, biological and ecological research activities at IPHC are guided by a [5-Year Program of Integrated Research and Monitoring \(2022-2026\)](#) that identifies key research areas that follow Commission objectives.

The IPHC conducts data collection activities from fishery-independent and fishery-dependent sources such as the IPHC Fishery-independent setline survey (FISS) and commercial fishery landings, respectively, which are described in other chapters of this report.

### MIGRATION AND POPULATION DYNAMICS

#### *Estimation of Pacific Halibut Juvenile Habitat*

The IPHC Secretariat investigated the connectivity between spawning grounds and possible settlement areas based on a biophysical larval transport model ([Sadorus et al., 2021](#)). Although it is known that Pacific halibut, following the pelagic larval phase, begin their demersal stage as roughly 6-month-old juveniles, settling in shallow nursery (settlement) areas, near or outside the mouths of bays ([Carpi et al., 2021](#)), very little information is available on the geographic location and physical characteristics of these areas.

In order to fill this knowledge gap, the IPHC Secretariat conducted studies to identify potential settlement areas for juvenile Pacific halibut throughout IPHC Convention Waters.

A first objective of this study was to create a map of suitable settlement habitat by combining available bathymetry information (e.g. benthic sediment composition and shoreline morphological data) and information on recorded presence of age-0, age-1 and age-2 Pacific halibut juveniles, as well as absence of young Pacific halibut noted by various nursery habitat projects focused on other flatfish species.

By analyzing available beam trawl tow data from the Gulf of Alaska (i.e. Kachemak Bay and various locations near Kodiak Island), IPHC Secretariat staff found that juvenile Pacific halibut showed a preference for a wide range of depths, sand-dominant and mud-dominant sediment, and frequently co-occurred with Northern rock sole.

Future studies will consider incorporating additional habitat parameters such as temperature and salinity, and the use of quantitative ecological models to assess parameters or habitat strength.

#### ***Wire Tagging to Study Migration of Young Pacific Halibut***

The patterns of movement of Pacific halibut among IPHC Regulatory Areas have important implications for management of the Pacific halibut fishery. The IPHC Secretariat has undertaken a long-term study of the migratory behavior of Pacific halibut through the use of externally visible tags (wire tags) on captured and released fish that must be retrieved and returned by workers in the fishing industry.

In 2015, with the goal of gaining additional insight into movement and growth of young Pacific halibut (less than 32 inches [82 cm]; U32), the IPHC began wire-tagging small Pacific halibut encountered on the National Marine Fisheries Service (NMFS) groundfish trawl survey and, beginning in 2016, on the IPHC FISS.

A total of 455 Pacific halibut were tagged and released on the 2025 IPHC FISS. Therefore, a total of 12,096 U32 Pacific halibut have been wire tagged and released on the IPHC FISS and 385 of those have been recovered to date (these totals include a subset of U32 releases that were part of a tail pattern project). In the NMFS groundfish trawl surveys through 2019, a total of 6,421 tags have been released and, to date, 101 tags have been recovered.

#### ***Fine-Scale Analysis of the Genetic Structure of the Pacific Halibut Population in the Convention Area***

Understanding population structure is imperative for sound management and conservation of natural resources. Pacific halibut in U.S.A. and Canadian waters are managed as a single, panmictic population.

To provide support for this management approach, the IPHC Secretariat is conducting an analysis of Pacific halibut population structure in IPHC Convention waters using modern high-resolution genomic techniques (i.e. low-coverage whole genome resequencing, lcWGR) that allow for the examination of genetic structure of Pacific halibut in IPHC Convention Waters with unprecedented resolution.

Genetic samples collected during the winter spawning season in known spawning sites (i.e., Bering Sea, Central Gulf of Alaska, Haida Gwaii, and central and western Aleutian Islands) from 1999 until 2020 have been used to investigate stock structure of Pacific halibut in IPHC Convention waters. The temporal replicates at many of these spawning locations will enable the IPHC Secretariat to evaluate the stability of genetic structure over time, ensuring confidence in the results. The IPHC Secretariat has recently produced a high-quality reference genome (Jasonowicz et al., 2022) and has generated genomic sequences from 731 individual Pacific halibut collected from five geographic areas.

Using the lcWGR approach and by leveraging the Pacific halibut reference genome, we have identified approximately 8.5 million single nucleotide polymorphisms (SNPs), with 3.7 million SNPs with a global minor allele frequency  $\geq 0.05$  that are currently being used to evaluate population structure at the highest resolution possible.

Despite the very high-resolution genomic data, no distinct genetic groups were not apparent in the dataset, indicating that there may be very little spatial structure among the spawning groups sampled in IPHC convention waters.

Furthermore, assignment testing showed a limited ability (< 33%) to accurately assign samples back to the geographic location in which they were collected from. We hypothesize that the absence of distinct genetic groups among our sample collections is due to a considerable degree of geneflow among the geographic areas sampled in this study and, consequently, to the genetically panmictic nature of the Pacific halibut population sampled for this study.

From a management perspective, these results support IPHC's current stock assessment practices that model the Pacific halibut stock as a single coastwide unit.

#### ***Sex Ratio of the Commercial Landings***

Throughout the fishery's history, the sex ratio of commercially-caught Pacific halibut has remained unknown as landed individuals are eviscerated at sea and otherwise sexually indistinguishable. Historically, the sex ratio from the IPHC's FISS has been the only direct source of sex-ratio information, but differences in size between individuals landed commercially and on the FISS suggested a greater proportion of females in the fishery.

The IPHC has generated sex information of the entire set of aged commercial fishery samples collected from 2017 until 2024 (>10,000 fin clips per year) using genetic techniques based on the identification of sex-specific SNPs (Drinan et al., 2018) using TaqMan qPCR assays conducted at the IPHC's Biological Laboratory.

The IPHC Secretariat is currently processing genetic samples from the 2025 commercial landings, as additional years of sex-ratio information of the commercial catch are likely to further inform selectivity parameters and cumulatively reduce uncertainty in future estimates of stock size, in addition to improving simulation of spawning biomass in the MSE Operating Model.

#### **MATURITY ASSESSMENT OF FEMALE PACIFIC HALIBUT**

Each year, the FISS collects biological data on the maturity of female Pacific halibut that are used in the stock assessment. In particular, a female maturity schedule based on characteristics that can be identified through direct examination (i.e. visual in the field) is used to estimate spawning stock biomass. Previously used estimates of maturity-at-age in stock assessment indicated that the age at which 50 percent of female Pacific halibut are sexually mature (i.e., the A50 value) was 11.6 years on average (Clark and Hare, 2006).

However, female maturity schedules have not been revised in recent years and may be outdated. In addition, the currently used macroscopic visual criteria used to score female maturity in the field have an undetermined level of uncertainty and need to be contrasted with more accurate microscopic (i.e. histological) criteria.



In order to address these issues, the IPHC Secretariat conducted a thorough histological investigation of the temporal progression of female developmental stages and reproductive phases throughout an entire reproductive cycle (Fish et al. 2020; 2022).

Results from these studies indicate that female Pacific halibut follow an annual reproductive cycle involving a clear progression of female developmental stages towards spawning within a single year. These results have provided foundational information for ongoing studies aimed at updating maturity ogives by histological assessment in Pacific halibut. One of the most important results obtained show that the period of time when gonad samples can be collected in the FISS (June-August) is an appropriate temporal window during which we can identify Pacific halibut females that are developing towards the spawning capable reproductive phase and, therefore, considered mature for stock assessment purposes.

The IPHC Secretariat is currently conducting studies to revise maturity schedules in all four biological regions through histological (i.e. microscopic) characterization of maturity. For this purpose, the IPHC Secretariat initially collected ovarian samples for histology during the 2022, 2023 and 2024 FISS seasons. The 2022 FISS sampling resulted in a total of 1,023 ovarian samples collected. Due to a reduced FISS design in 2023, sampling only occurred in Biological Regions 2 and 3 and resulted in a total of 1,111 ovarian samples collected. In 2024, 411, 336 and 371 ovarian samples were collected in Biological Regions 2, 3 and 4, respectively. In total, 3,252 ovarian samples have been collected for histology coastwide between 2022 and 2024.

Ovarian samples from 2022 to 2024 were processed for histology and scored for maturity using histological maturity criteria previously defined (Fish et al., 2020, 2022), leading to immature or mature classification.

Maturity ogives (i.e. the relationships between the probability of maturity determined by histological assessments and variables including IPHC Biological Region, age, and year) were estimated by fitting generalized additive models (GAM) with logit link (i.e., logistic regression) to the 2022-2024 data using year as a factor to compare spatial trends among Biological Regions ([Figure 6](#)).

When comparing Biological Regions 2 and 3 (the only two Biological Regions with three consecutive years of data) spatial and temporal differences in maturity ogives become apparent.

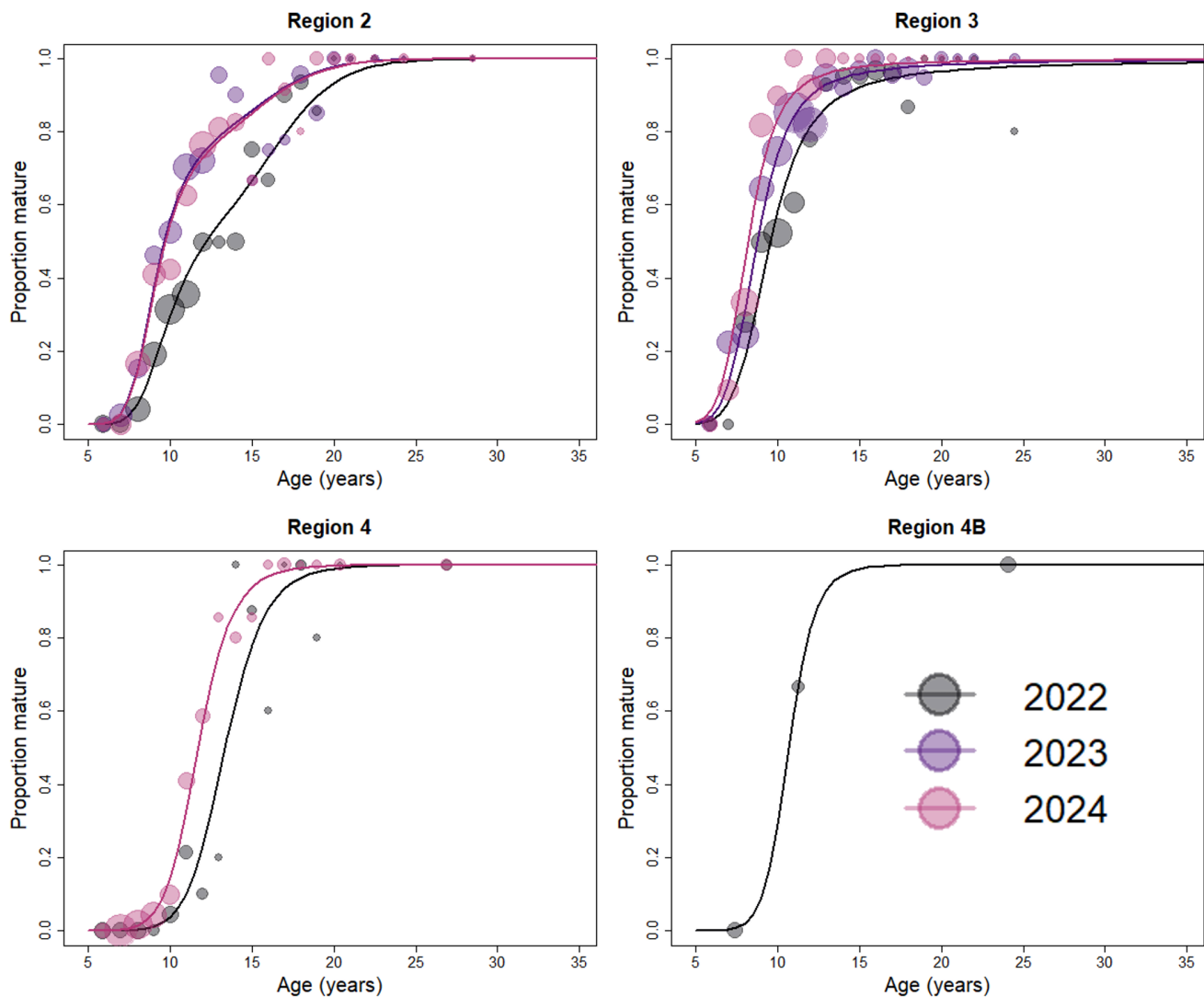
First, the maturity ogive for Biological Region 2 showed lower steepness than that for Biological Region 3 in both years, indicating that Biological Region 2 has a lower proportion of younger mature females than Biological Region 3 during the period of ovarian sample collection.

Second, age-at-maturity curves shifted to the left from 2022 to 2024 in the three Biological Regions (2, 3, and 4) with multiple years of data, indicating younger maturing females in 2024 than in 2022 and 2023. This could potentially be indicative of a particular year class maturing through the population; however, this is difficult to discern with only three years of data.

Therefore, it will be important to continue to monitor temporal trends in histological-based maturity ogives.

To generate a coastwide maturity ogive, the estimated regional abundance proportions from IPHC's most recent FISS space-time model were used as weights given that sample size was not proportional to population size for each Biological Region. The value of the coastwide ogive at each age was calculated as the abundance proportion at age multiplied by the proportion of mature females at age summed across the Biological Regions. Using the coastwide maturity ogive, the revised histology-based A50 value was calculated to be at 9.8 years of age.

These results strongly suggest that a higher proportion of female Pacific halibut are maturing at a younger age than previously indicated, with potential implications for overall spawning stock biomass (SSB) estimates.



**Figure 6.** Female Pacific halibut age at maturity by IPHC Biological Region using best-fit logistic GAM. Vertical dashed lines represent the A5, A50, and A95 values.

## GROWTH

Current studies in this research area are aimed at understanding the possible role of body growth variation in the observed changes in size-at-age (SAA), and at developing tools for measuring growth and physiological condition in Pacific halibut.

In view of our limited knowledge on the underlying physiological basis of body growth and, importantly, on the possible contribution of growth alterations in driving changes in SAA, the IPHC is conducting studies to develop and apply tools to evaluate age-specific growth patterns and their response to environmental influences in Pacific halibut over space and time.

The specific objectives of these studies are to investigate the effects of temperature, population density, social structure, and stress on biochemical and molecular indicators of body growth.

In addition to significantly improving our understanding of the physiological mechanisms regulating growth, these studies aim at identifying key molecular and biochemical growth signatures that could be used to monitor growth patterns in the Pacific halibut population.

By conducting integrated transcriptomic, proteomic and stable isotope analyses, we have demonstrated that temperature promotes growth plasticity in juvenile Pacific halibut, and identified growth biomarkers that could be instrumental in characterizing somatic growth variation in the Pacific halibut population.

The results of these studies have been recently published in a leading peer-reviewed journal (Planas et al., 2025).

## MORTALITY AND SURVIVAL ASSESSMENT

Information on all Pacific halibut removals is integrated by the IPHC Secretariat, providing annual estimates of total mortality from all sources for the stock assessment. Discarding of Pacific halibut via the incidental catch of fish in non-target fisheries and the mortality that occurs in the directed fishery (i.e. fish discarded for sublegal size or for regulatory reasons), respectively, represent important sources of mortality that can result in significant reductions in exploitable yield in the directed fishery.

Given that the incidental mortality from the commercial Pacific halibut fisheries and bycatch fisheries is included as part of the total removals that are accounted for in stock assessment, changes in the estimates of incidental mortality will influence the output of the stock assessment and, consequently, the catch levels of the directed fishery.

For this reason, the IPHC Secretariat is conducting investigations on the effects of capture and release on survival, and on providing experimentally-derived estimates of DMRs in the directed longline and guided recreational Pacific halibut fisheries that will improve trends in unobserved mortality in stock assessment and that will be important for fishery parameterisation.



### ***Discard Mortality Rates of Pacific Halibut in the Recreational Fishery***

The IPHC Secretariat recently completed a study aimed at evaluating the effects of capture and handling conditions on viability and survival of Pacific halibut in the charter recreational fishery, with funding from the National Fish and Wildlife Foundation (Project No. 61484) and the North Pacific Research Board (Project No. 2009).

Investigations on the discard mortality rate (DMR) of Pacific halibut captured using circle hooks and released in Excellent viability category using electronic accelerometer tags yielded DMR estimates of 1.35% (95% CI 0.00-3.95%) for fish that were captured and released. These results represent the first report of experimentally derived estimates of mortality of Pacific halibut captured and discarded in the recreational fishery.

IPHC Secretariat staff have finalized the analyses of the generated data to investigate the relationship of injury types, viability categories and survival of discarded fish with capture (e.g. environmental parameters, time on deck, hooking time, etc.) and physiological (e.g. stress) conditions. The results from this study are currently being prepared for publication in a peer-reviewed journal.

## **FISHING TECHNOLOGY**

The IPHC Secretariat has conducted studies aimed at developing methods that involve modifications of fishing gear with the purpose of reducing Pacific halibut depredation and bycatch.

Specific objectives in this area include 1) investigating new methods for whale avoidance and/or deterrence for the reduction of Pacific halibut depredation by whales (e.g. catch protection methods), and 2) investigating behavioral and physiological responses of Pacific halibut to fishing gear in order to reduce bycatch.

### ***Gear-Based Approaches to Catch Protection to Minimize Whale Depredation in the Pacific Halibut Longline Fishery***

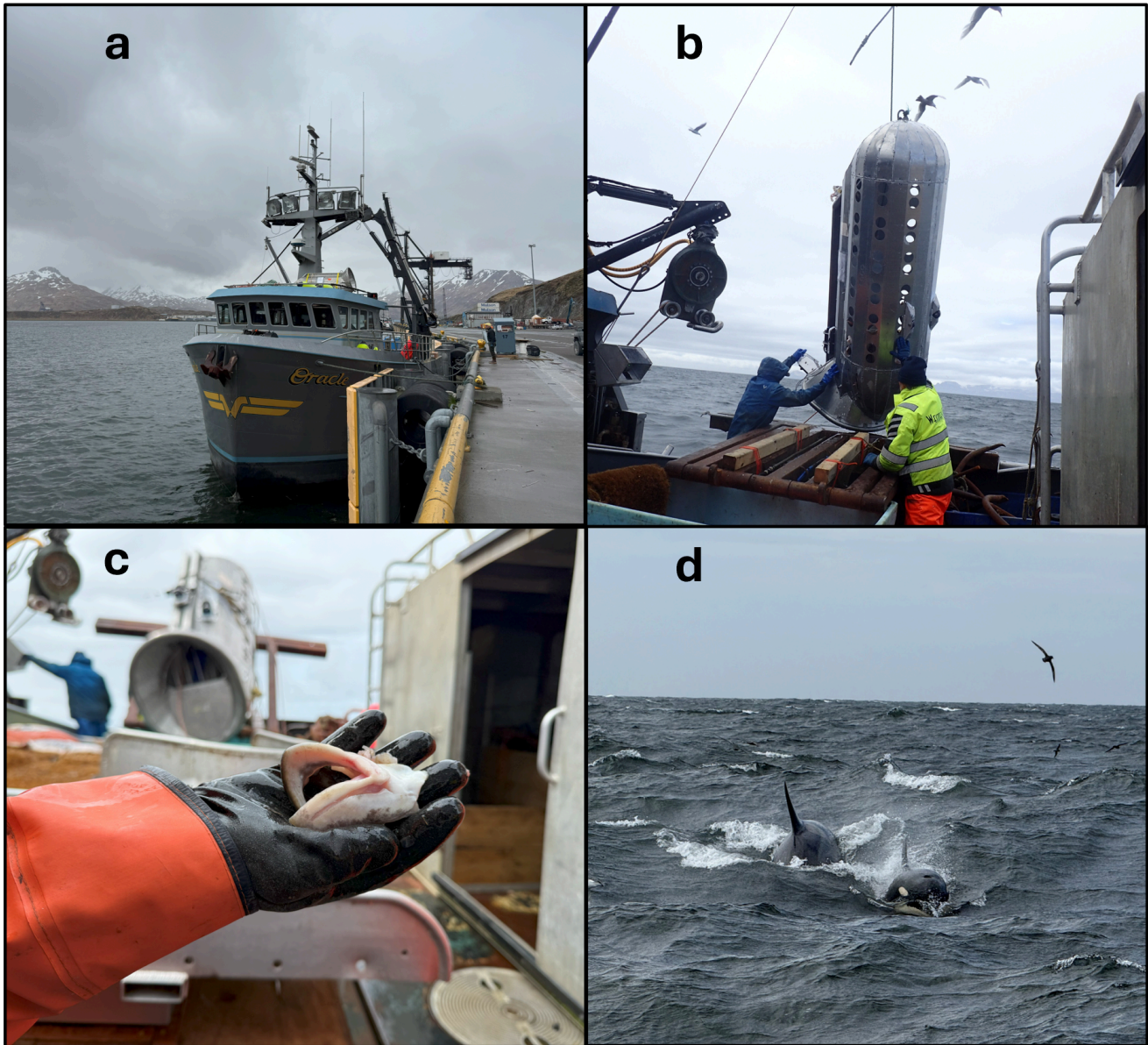
The IPHC secretariat has been investigating gear-based approaches to catch protection as a means for minimizing whale depredation in the Pacific halibut and other longline fisheries with funding from NOAA's Bycatch Research and Engineering Program (BREP) (NOAA Awards NA21NMF4720534 and NA23NMF4720414).

The results and outcomes of the initial pilot phase of this project indicated that the underwater shuttle was a safe and effective catch protection device which entrained comparable quantities, sizes, and species of fish as the control gear. The second phase of this project took place in May 2025 in IPHC Regulatory Area 4A aboard a chartered commercial fishing vessel ([Figure 7](#)). This involved refining effective methods related to the deployment and use of the underwater shuttle and conducting tests in the presence of orcas to demonstrate the efficacy and safety of the gear.

Eighteen sets were successfully completed, generating 15 sets of shuttle and control catch comparison data along with close to 80 hours of underwater footage combined (control, shuttle exterior, shuttle interior). Depredating orcas were present at 6 of the paired sets.

Preliminary comparisons of data from 10 sets with completed video review show good entrainment for Pacific halibut, but high escapement for sablefish. Catch rate comparisons between the control gear and the shuttle (deployed across two skates of gear or 200 hooks) demonstrated capacity for good entrainment by the shuttle, but with variable rates overall between sets. The IPHC Secretariat is currently reviewing the remainder of the video data and conducting the final catch data analyses.

The shuttle device was tested again during two commercial quota trips conducted from 6 October 2025 – 23 October 2025 in the same commercial fishing vessel with an IPHC field specialist aboard. No cameras were used during this phase. While the shuttle was only deployed for a total of 4 sets over this effort due to weather challenges and lack of whales present on many fishing days, these sets will be included in the overall catch data analysis.



**Figure 7.** a) Chartered commercial fishing vessel used in the study docked in Dutch Harbor. b) Shuttle device during hauling. c) Typical evidence (lips only) of depredation. d) Killer whales rapidly approaching the hauling site.

### *Investigations on Behavioral and Physiological Responses to Fishing Gear to Reduce Bycatch*

The IPHC Secretariat has participated in studies led by the Pacific States Fisheries Management Commission and in collaboration with NOAA Fisheries and fishing industry partners on bycatch reduction measures through the use of fishing gear modifications. Studies conducted focused on efforts to reduce yelloweye rockfish and Pacific spiny dogfish bycatch in the Pacific halibut longline fishery (Heppell et al., in preparation), including through the introduction of modifications to circle hooks (e.g. hook appendages) previously shown to significantly reduce yelloweye rockfish bycatch without affecting Pacific halibut catch rates (Lomeli et al. 2023).

### **AGE COMPOSITION DATA**

The IPHC Secretariat is exploring an artificial intelligence (AI)-based approach to supplement the current Pacific halibut ageing protocol, reducing the need for extensive otolith reader training. The project focuses on developing a deep learning model, specifically a convolutional neural network (CNN), trained on a large dataset of otolith images labeled by expert otolith readers. This automated ageing method aims to enhance efficiency and consistency in age determination. Model testing is currently underway, with ongoing refinements to improve accuracy and reliability.

The most recent model run utilized 2,682 otolith images from the 2019 FISS, which provided a robust dataset capturing regional variations in otolith structures. Preliminary results are promising, with a root mean squared error (RMSE) of 1.90 and 30.3% of ages predicted correctly, and additional 40.7% within one year of error.

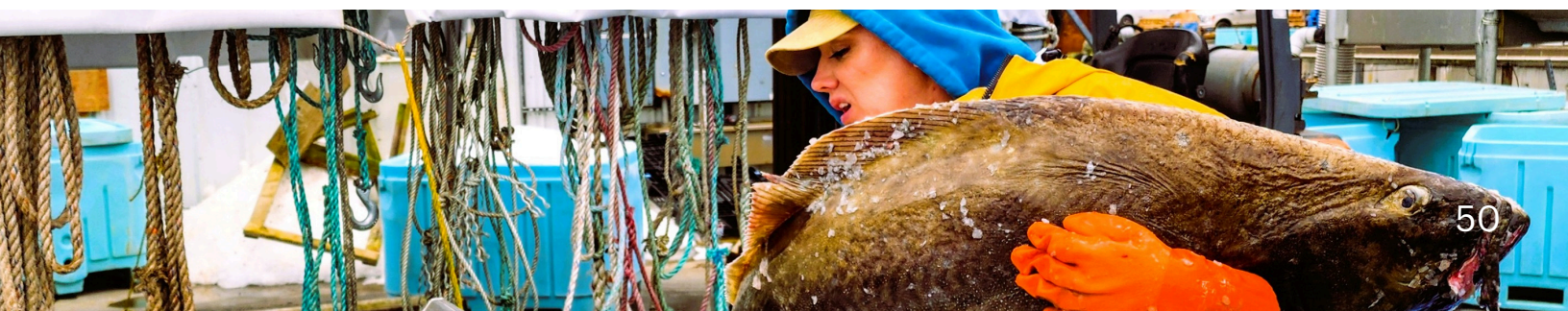
Future enhancements may include incorporating auxiliary data such as collection date or geospatial characteristics to refine predictions further. By integrating AI-based age determination with traditional methods, the project aims to improve consistency, provide time and cost savings to the organization, and support reliable data input to stock assessments and management advice.

In addition to the AI-based approach to ageing, the IPHC Secretariat is also conducting work to develop a genetic method for aging Pacific halibut using fin tissue, a sample that can be easily collected from either live or dead individuals. This project has received funding from Alaska Sea Grant (Project R/2024-05).

This method is based on the identification of DNA methylation patterns in fin tissue that are associated with age through the development of an age estimation model (i.e., an epigenetic clock) for Pacific halibut.

Fin clips from 250 individuals collected in the FISS seasons from 2021 to 2024 were selected for the generation of an epigenetic clock for Pacific halibut. These genetic samples correspond to fish with known ages (i.e. read twice by the traditional break and bake aging method) between 6 to 30 years and include 10 individual samples (5 males and 5 females) per year of age.

All 250 genetic samples have been processed and submitted for sequencing and, once available, the sequencing data will be analyzed using a bioinformatic platform specifically developed in-house for this project.





# MANAGEMENT-SUPPORTING INFORMATION

Successful fisheries management requires rigorous application of the scientific method of problem solving in the development of strategic alternatives and their evaluation on the basis of objectives that integrate ecosystem and human dynamics across space and time into management decision-making.

This underscores the importance of a holistic understanding of a broad range of factors to deliver on the Commission's objective to develop the stocks of Pacific halibut to the levels that permit the optimum yield from the fishery over time. Management-supporting information beyond IPHC's current core research and monitoring programs relate to, among others, socio-economic considerations, community development, political constraints, and operational limitations.



# LOOKING FORWARD

This section summarizes the major decisions made at the 102<sup>nd</sup> Session of the IPHC Annual Meeting (AM102) held in Bellevue, WA, USA from 19 to 22 January 2026. A total of 22 participants (5 Commissioners: Members; 17 advisors/experts) attended the Session from the two (2) Contracting Parties, as well as 191 members of the public (113 in-person and 78 remote). The meeting was opened by the Chairperson, Mr. Jon Kurland (U.S.A.), who welcomed participants.

For a full accounting of documents and presentations provided to the Commission for the meeting, and the final report of the meeting, visit the AM102 webpage: <https://www.iphc.int/meetings/102nd-session-of-the-iphc-annual-meeting-am102/>.

## MORTALITY LIMITS

The Commission adopted mortality limits (described as Total Constant Exploitation Yield, TCEY limits) for 2026 as provided in Table 10. These mortality limits include a variety of estimated sources of mortality which are detailed in Tables 11a and 11b.

**Table 10.** Adopted mortality limits (TCEY) for 2026.

Contracting Party IPHC Regulatory Area	Distributed Mortality Limits (TCEY) (net weight)		Percent Change from 2025
	Tonnes (t)	Million Pounds (Mlb)	
Canada: Area 2B (British Columbia)	2,295	5.06	-7.2%
USA: Area 2A (California, Oregon, Washington)	748	1.65	0.0%
USA: Area 2C (Southeastern Alaska)	2,368	5.22	0.0%
USA: Area 3A (Central Gulf of Alaska)	4,119	9.08	0.0%
USA: Area 3B (Western Gulf of Alaska)	1,297	2.86	0.0%
USA: Area 4A (Eastern Aleutians)	608	1.34	0.0%
USA: Area 4B (Central and Western Aleutians)	472	1.04	0.0%
USA: Areas 4CDE (Bering Sea)	1,397	3.08	0.0%
<b>TOTAL</b>	<b>13,304</b>	<b>29.33</b>	<b>-1.3%</b>

**Table 11a.** Mortality table projected for the 2026 mortality limits (tonnes) by IPHC Regulatory Area.

		IPHC Regulatory Area									
	Sector	2A	2B	2C	3A	3B	4A	4B	4CDE	Total	
1	Non-FCEY commercial discards	27	73	NA	NA	95	23	0	23	249	
2	Non-FCEY O26 non-directed discards	23	104	18	122	73	118	54	626	1,134	
3	Non-FCEY recreational	NA	14	617	408	0	5	0	0	1,043	
4	Non-FCEY subsistence	NA	186	113	54	5	0	0	5	367	
5	<b>Total non-FCEY</b>	<b>54</b>	<b>372</b>	<b>753</b>	<b>581</b>	<b>172</b>	<b>150</b>	<b>54</b>	<b>658</b>	<b>2,790</b>	
6	Commercial discards	NA	NA	45	163	NA	NA	NA	NA	209	
7	Recreational	281	290	295	667	NA	NA	NA	NA	1,533	
8	Subsistence	5	NA	NA	NA	NA	NA	NA	NA	5	
9	Commercial landings	408	1,637	1,275	2,703	1,125	458	417	739	8,763	
10	<b>Total FCEY</b>	<b>699</b>	<b>1,923</b>	<b>1,615</b>	<b>3,538</b>	<b>1,125</b>	<b>458</b>	<b>417</b>	<b>739</b>	<b>10,514</b>	
									<i>4C FCEY</i>	345	
									<i>4D FCEY</i>	345	
									<i>4E FCEY</i>	54	
<b>TCEY</b>		<b>748</b>	<b>2,295</b>	<b>2,368</b>	<b>4,119</b>	<b>1,297</b>	<b>608</b>	<b>472</b>	<b>1,397</b>	<b>13,304</b>	
U26 non-directed discards		5	45	0	100	54	68	9	535	816	
<b>Total</b>		<b>753</b>	<b>2,341</b>	<b>2,368</b>	<b>4,218</b>	<b>1,352</b>	<b>676</b>	<b>481</b>	<b>1,932</b>	<b>14,120</b>	

**Table 11b.** Mortality table projected for the 2026 mortality limits (millions of net pounds) by IPHC Regulatory Area.

		IPHC Regulatory Area									
	Sector	2A	2B	2C	3A	3B	4A	4B	4CDE	Total	
1	Non-FCEY commercial discards	0.06	0.16	NA	NA	0.21	0.05	0.00	0.05	0.55	
2	Non-FCEY O26 non-directed discards	0.05	0.23	0.04	0.27	0.16	0.26	0.12	1.38	2.50	
3	Non-FCEY recreational	NA	0.03	1.36	0.90	0.00	0.01	0.00	0.00	2.30	
4	Non-FCEY subsistence	NA	0.41	0.25	0.12	0.01	0.00	0.00	0.01	0.81	
5	<b>Total non-FCEY</b>	<b>0.12</b>	<b>0.82</b>	<b>1.66</b>	<b>1.28</b>	<b>0.38</b>	<b>0.33</b>	<b>0.12</b>	<b>1.45</b>	<b>6.15</b>	
6	Commercial discards	NA	NA	0.10	0.36	NA	NA	NA	NA	0.46	
7	Recreational	0.62	0.64	0.65	1.47	NA	NA	NA	NA	3.38	
8	Subsistence	0.01	NA	NA	NA	NA	NA	NA	NA	0.01	
9	Commercial landings	0.90	3.61	2.81	5.96	2.48	1.01	0.92	1.63	19.32	
10	<b>Total FCEY</b>	<b>1.54</b>	<b>4.24</b>	<b>3.56</b>	<b>7.80</b>	<b>2.48</b>	<b>1.01</b>	<b>0.92</b>	<b>1.63</b>	<b>23.18</b>	
									<i>4C FCEY</i>	0.76	
									<i>4D FCEY</i>	0.76	
									<i>4E FCEY</i>	0.12	
<b>TCEY</b>		<b>1.65</b>	<b>5.06</b>	<b>5.22</b>	<b>9.08</b>	<b>2.86</b>	<b>1.34</b>	<b>1.04</b>	<b>3.08</b>	<b>29.33</b>	
U26 non-directed discards		0.01	0.10	0.00	0.22	0.12	0.15	0.02	1.18	1.80	
<b>Total</b>		<b>1.66</b>	<b>5.16</b>	<b>5.22</b>	<b>9.30</b>	<b>2.98</b>	<b>1.49</b>	<b>1.06</b>	<b>4.26</b>	<b>31.13</b>	

(Legend for Tables 11a and 11b)

**1st row:** Commercial discards include all discard mortality estimated due to the 32" minimum size limit, lost gear, and legal-sized discards associated with quota attainment. Estimates not included in the FCEY due to the IPHC Regulatory Area Catch Sharing Plans/Agreements

**2nd row:** Non-directed commercial discards ('bycatch') not included in any IPHC Regulatory Area Catch Sharing Plans/Agreements

**3rd row:** Recreational mortality not included in IPHC Regulatory Area Catch Sharing Plans/Agreements, 2B: discards only, 2C and 3A: unguided landings and discard mortality, 3B-4CDE: Recreational landings and discard mortality

**4th row:** 2B-4CDE: Includes personal use and subsistence

**5th row:** total of rows 1-4

**6th row:** 2C and 3A: Commercial discard mortality is included in the Catch Sharing Plans for these areas

**7th row:** 2A: All recreational landings and discard mortality, 2B: Recreational landings, 2C and 3A: Guided recreational landings and discard mortality

**8th row:** 2A only: Ceremonial and subsistence mortality

**10th row:** All mortality included in IPHC Regulatory Area Catch Sharing Plans/Agreements

## FISHING PERIODS

The Commission recommended that directed commercial fishing for Pacific halibut in all IPHC Regulatory Areas be authorized from 06:00 local time on 26 March 2026 through 23:59 local time on 7 December 2026.

## LIMITED WINTER RETENTION IN IPHC REGULATORY AREA 2B

The Commission authorized a pilot program to allow limited retention of legal-sized Pacific halibut caught incidentally as bycatch outside the directed commercial fishing period in year-round hook-and-line and trap groundfish fisheries in IPHC Regulatory Area 2B. Under this measure, retained Pacific halibut will count against the Area 2B commercial fishery limit and would be capped at 2% of that allocation. The program is intended to reduce discard mortality and wastage of legal-sized Pacific halibut while maintaining incentives to minimize bycatch, supported by existing mandatory logbooks and 100% at-sea monitoring. The measure will remain in effect for one winter closed period spanning 2026/2027, unless extended by a subsequent vote of the Commission.

## DAILY BAG LIMIT IN IPHC REGULATORY AREA 2B

The Commission extended the provision allowing a maximum daily bag limit of 3 fish per day, per person, beginning on or after 1 August, in IPHC Regulatory Area 2B.

## CHARTER MANAGEMENT MEASURES IN IPHC REGULATORY AREAS 2C AND 3A

The Commission adopted changes for charter recreational Pacific halibut fisheries in IPHC Regulatory Areas 2C and 3A to achieve the charter Pacific halibut allocation under the North Pacific Fisheries Management Council's (NPFMC) Pacific halibut Catch Sharing Plan:

- In IPHC Regulatory Area 2C, the regulations include a one-fish daily bag limit, with retention restricted to Pacific halibut measuring either no more than 34 inches (86.4 cm) or at least 80 inches (203.2 cm) in fork length, and a weekly closure to retention on Thursdays from 18 June through 10 September 2026.
- In IPHC Regulatory Area 3A, the measures establish a two-fish daily bag limit consisting of one Pacific halibut of any size and one Pacific halibut not exceeding 27 inches (68.6 cm) in fork length, along with limits of one retention trip per charter vessel per day and one trip per charter halibut permit per day. Retention is prohibited on all Wednesdays, and on Tuesdays from 2 June through 25 August 2026.

## COMMISSION OFFICERS

Mr. Jon Kurland (U.S.A.) presided over the Commission as Chairperson of the IPHC, with Mr. Mark Waddell (Canada) as Vice-Chairperson, for the period commencing after AM101 through the completion of AM102. Mr. Andrew Lawler (USA) was appointed as Head of Delegation for the USA on 8 January 2026. As the Vice-Chairperson, Mr. Mark Waddell (Canada), was unable to attend the AM102, in accordance with Rule 9 of the Rules of Procedure (2025), the Commission elected Mr. Neil Davis (Canada) to serve as Vice-Chairperson through the close of AM102. The Commission elected Mr. Mark Waddell (Canada) as Chairperson of the IPHC and Mr. Jon Kurland (U.S.A.) as Vice-Chairperson of the IPHC for the period commencing after AM102 through the completion of AM103.





# IPHC SECRETARIAT UPDATE

The activities highlighted in this report account for the majority of the IPHC Secretariat time. However, there is also considerable effort put into public outreach, attending conferences and meetings that enhance knowledge, and contributing expertise to the broader scientific community through participation on boards and committees. This section highlights some of those activities.

## COMMITTEES AND ORGANIZATION APPOINTMENTS

### *North America:*

- Canada – U.S. Groundfish Technical Committee - Dr. Josep Planas
- International Fisheries Commissions Pension Society – Dr. David T. Wilson

### *Canada:*

- Halibut Advisory Board (Canada) - Dr. David Wilson (Dr. Basia Hutniczak – Alternate)

### *United States of America:*

- Bering Sea/Aleutian Islands Plan Team - Dr. Allan Hicks
- Bering Sea Fishery Ecosystem Plan Team - Dr. Ian Stewart
- NPFMC Scientific and Statistical Committee - Dr. Ian Stewart
- North Pacific Research Board Science Panel - Dr. Josep Planas
- Fisheries Monitoring Science Committee (NOAA-Alaska) – Dr. Ray Webster
- Interagency electronic reporting system for commercial fishery landings in Alaska (eLandings) Steering Committee – Dr. Basia Hutniczak

## CONFERENCES, MEETINGS, AND WORKSHOPS (CHRONOLOGICAL ORDER)

- Marine Resource Education Program (MREP), GMRI 28 April-2 May, Kodiak, AK, U.S.A. – Dr. Ian Stewart
- 155th Annual Meeting of the American Fisheries Society, 10-14 August, San Antonio, TX, U.S.A. – Andy Jasonowicz and Colin Jones
- PICES-2025 Annual Meeting, 8-14 November, Yokohama, Japan- Dr. Josep Planas
- The North American Association of Fisheries Economists (NAAFE) Forum, 24-27 March, La Jolla, CA – Dr. Barbara Hutniczak
- Halibut Advisory Board meeting, 9 December, Vancouver, BC – Dr. Barbara Hutniczak
- The Assessment Meeting for the ICES Benchmark Workshop WKBMACNSSH, 24-28 March, Copenhagen, Denmark – Dr. Allan Hicks
- Stock Assessment Review (STAR) Panel meeting to review 2025 stock assessments for chilipepper rockfish and quillback rockfish off California, 23-27 June, Santa Cruz, CA, U.S.A. – Dr. Allan Hicks
- Developing the Next Generation Tuna Stock Assessment Model – CAPAM, 9-11 December, Online – Dr. Allan Hicks

## ACADEMIC AFFILIATIONS

### *Affiliate Faculty:*

- Dr. Allan Hicks - University of Washington School of Aquatic and Fishery Sciences, Seattle, WA, USA
- Dr. Ian Stewart - University of Washington School of Aquatic and Fishery Sciences, Seattle, WA, USA
- Dr. Josep Planas - Alaska Pacific University, Anchorage, AK, USA

### *Graduate Student Committee Member:*

- Dr. Allan Hicks - University of Massachusetts School for Marine Science & Technology, Dartmouth, MA, USA
- Dr. Allan Hicks - University of Washington School of Aquatic & Fishery Sciences, Seattle, WA, USA
- Dr. Ian Stewart - University of Washington School of Aquatic & Fishery Sciences, Seattle, WA, USA
- Dr. Josep Planas - Alaska Pacific University, Anchorage, AK, USA





# FINANCIAL PERFORMANCE REPORT & STATEMENTS

The IPHC is funded jointly by the governments of Canada and the United States of America (U.S.A.). For fiscal year 2025, contributions for general operating expenses were as follows:

- **Canada:** US\$970,606.71;
- **U.S.A.:** US\$4,421,652.32

The U.S.A. is responsible for the IPHC Headquarters lease and maintenance which resulted in an ad-hoc contribution of US\$458,608.60.

## INDEPENDENT AUDITOR

The Commission's financial accounts for FY2025 were audited by the accounting firm of Clark Number PS. The auditors provided the following unmodified opinion:

*"In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Commission as of September 30, 2025, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America."*

The full report of the Independent Auditors is publicly available on the IPHC website: [IPHC-2025-FAC101-05](#).

The financial statements of the Commission have been prepared in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP) as applied to special-purpose governments.

GASB is the accepted standard setting body for establishing governmental accounting and financial reporting principles. The Commission is a government enterprise. Enterprise funds are accounted for on the economic resources measurement focus using the accrual basis of accounting.

Under this method, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

## STATEMENT OF FINANCIAL POSITION

The total Assets at year-end closing totaled US\$9,166,375.

The total equity or combined net position at year-end closing totaled US\$3,853,817.

## INDEPENDENT AUDITOR REPORT

The following pages (p. 59 - 63) include key pages from the independent auditor's report:

At year end September 30, 2025 program balances were comprised of:

	10 - General	20 - Research	30 - Statistics	35 - AK Cost Recovery	40 - FISS	50 - Reserve	Total
Cash and cash equivalents	\$ 1,409,727	\$ 179,973	\$ 27,847	\$ (309,180)	\$ 900,839	\$ 3,428,799	\$ 5,638,005
Accounts receivable	79,401	990		1,100	440,860		522,351
Grants receivable		10,326		210,849			221,175
Prepaid expenses and other assets	39,100	4,773	1,500		4,230		49,603
Capital assets, net	2,648,250	27,074	14,200	29,819	15,898		2,735,241
Accounts payable	(104,347)	(8,024)	(5,658)	(111)	(22,788)		(140,928)
Accrued liabilities	(7,500)		(519)				(8,019)
Payroll liabilities	(154,697)	(52,796)	(53,441)	(33,692)	(24,011)		(318,637)
Compensated balances, current portion	(163,219)	(148,833)	(150,190)	(27,002)	(44,413)		(533,657)
Lease liabilities	(2,739,233)			(31,590)	(8,357)		(2,779,180)
Unearned revenue	(1,019,137)				(513,000)		(1,532,137)
<b>Net Position</b>	<b>(11,655)</b>	<b>13,483</b>	<b>(166,261)</b>	<b>(159,807)</b>	<b>749,258</b>	<b>3,428,799</b>	<b>3,853,817</b>

## Independent Auditor's Report

To the Commissioners  
International Pacific Halibut Commission  
Seattle, Washington

### REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

#### Opinion

We have audited the financial statements of International Pacific Halibut Commission (the Commission), which comprise the statement of net position as of September 30, 2025, and the related statements of revenues, expenses, and changes in net position, and cash flows for the year then ended, and the related notes to the financial statements, which collectively comprise the Commission's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Commission as of September 30, 2025, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Commission and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Commission's ability to continue as a going concern for one year after the date that the financial statements are available to be issued.



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## **Auditor's Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Commission's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

## Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 4 through 6 be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

## Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The statement of revenues, expenses, and changes in net position by fund is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.



Certified Public Accountants  
December 11, 2025

## INTERNATIONAL PACIFIC HALIBUT COMMISSION

### Statement of Revenues, Expenses and Changes in Net Position by Fund For the Year Ended September 30, 2025

	10 - General	20 - Research	30 - Statistics	35 - AK Cost Recovery	40 - FISS	50 - Reserve	Total
<b>Operating Revenue:</b>							
Fish sales	\$ -	\$ -	\$ -	\$ -	\$ 2,873,267	\$ -	\$ 2,873,267
Contracting party contributions	3,598,357	1,170,458	1,082,053	-	687,000	-	6,537,868
Grants, contracts, and agreements	-	209,166	-	783,204	36,791	-	1,029,161
Interest income	89,098	-	-	-	-	-	89,098
Other income	17,782	600	-	7,600	20	-	26,002
Realized gains (loss) on foreign transaction fees	-	-	(427)	-	(231)	-	(658)
Fund transfer	(909,852)	(444,709)	(96,534)	(22,134)	242,794	1,230,435	-
<b>Total Operating Revenue</b>	<b>2,795,385</b>	<b>935,515</b>	<b>985,092</b>	<b>768,670</b>	<b>3,839,641</b>	<b>1,230,435</b>	<b>10,554,738</b>
<b>Expenses:</b>							
<b>General expenses-</b>							
Personnel	1,478,722	666,351	827,678	477,631	742,713	-	4,193,095
Benefits	701,266	202,720	229,485	154,790	142,256	-	1,430,517
Training and education	32,619	-	3,327	20,625	21,107	-	77,678
Personnel related expenses	1,977	1,730	2,251	2,349	6,707	-	15,014
<b>Total general expenses</b>	<b>2,214,584</b>	<b>870,801</b>	<b>1,062,741</b>	<b>655,395</b>	<b>912,783</b>	<b>-</b>	<b>5,716,304</b>
<b>Operating expenses-</b>							
Publications	3,130	12,088	-	-	-	-	15,218
Mailing and shipping	4,333	12,223	595	2,164	77,340	-	96,655
Travel	43,946	24,016	14,000	16,957	79,392	-	178,311
Meetings	231,077	-	-	-	-	-	231,077
Technology	102,980	3,115	36,441	-	570	-	143,106
<b>Total operating expenses</b>	<b>385,466</b>	<b>51,442</b>	<b>51,036</b>	<b>19,121</b>	<b>157,302</b>	<b>-</b>	<b>664,367</b>
<b>Fees and contract expenses-</b>							
Professional fees	244,038	2,012	-	-	1,309	-	247,359
Vessel expenses	-	-	-	-	347,197	-	347,197
Other fees and charges	49,682	220	-	7,689	21,312	-	78,903
Leases and contracts	10,165	128,500	-	15,012	1,108,618	-	1,262,295
Communications	28,203	-	1,361	-	1,281	-	30,845
<b>Total fees and contract expenses</b>	<b>332,088</b>	<b>130,732</b>	<b>1,361</b>	<b>22,701</b>	<b>1,479,717</b>	<b>-</b>	<b>1,966,599</b>
<b>Facilities and equipment expenses-</b>							
Equipment	897	12,970	-	-	6,615	-	20,482
Supplies	31,659	119,533	1,641	3,743	282,220	-	438,796
Maintenance and utilities	36,331	517	1,124	-	27,915	-	65,887
Facilities rentals	506,619	-	-	24,014	15,630	-	546,263
<b>Total facilities and equipment expenses</b>	<b>575,506</b>	<b>133,020</b>	<b>2,765</b>	<b>27,757</b>	<b>332,380</b>	<b>-</b>	<b>1,071,428</b>
Other expenses	(49,700)	24,176	-	69,512	2,321	-	46,309
<b>Total Expenses</b>	<b>3,457,944</b>	<b>1,210,171</b>	<b>1,117,903</b>	<b>794,486</b>	<b>2,884,503</b>	<b>-</b>	<b>9,465,007</b>
<b>Change in Net Position</b>	<b>(662,559)</b>	<b>(274,656)</b>	<b>(132,811)</b>	<b>(25,816)</b>	<b>955,138</b>	<b>1,230,435</b>	<b>1,089,731</b>
Net position, beginning of the year	650,904	288,139	(33,450)	(133,991)	(205,880)	2,198,364	2,764,086
<b>Net Position, End of Year</b>	<b>\$ (11,655)</b>	<b>\$ 13,483</b>	<b>\$ (166,261)</b>	<b>\$ (159,807)</b>	<b>749,258</b>	<b>\$ 3,428,799</b>	<b>\$ 3,853,817</b>

See independent auditor's report.

# THANK YOU

The IPHC wishes to thank all of the agencies, industry, and individuals who helped us in our investigations during 2025 in support of the Commission's mandate.

A special thank you goes to the following:

- Personnel in the many processing plants who assist the IPHC Secretariat's Fishery-Independent Setline Survey (FISS) by storing and staging equipment and supplies, as well as our Fisheries Data Specialists operating in the field.
- Icy Straight, OBI Seafoods, 60 North Seafoods, and Pacific Seafoods for working closely with the IPHC Secretariat throughout the FISS to provide quality chum salmon to be used as bait, and to the captains, crews, and buyers who help to make the FISS successful.
- IPHC Regulatory Area 2A tribal biologists and domestic agency staff for sampling IPHC Regulatory Area 2A tribal and non-tribal commercial fishery landings.
- CDQ managers for providing the total number and weight of undersized Pacific halibut retained by authorized persons and the methodology used to collect these data.
- The Observer Programs coastwide for deploying observers on vessels fishing in the directed commercial fishery, and for collecting, documenting, and forwarding tags recovered.
- Fisheries and Oceans Canada for their ongoing coordination with the IPHC, in particular with electronic logbooks, Pacific halibut removal estimates, and with IPHC FISS operations given protected habitats and species.
- The North Pacific Fishery Management Council and Pacific Fishery Management Council for their ongoing coordination with the IPHC.
- Provincial, state and federal agency staff from both Canada and the U.S.A., as well as government contractors, for their assistance in the provision of data for the various fisheries impacting Pacific halibut mortality, landing notifications, and for their assistance in conducting the IPHC FISS.
- Members of IPHC's Subsidiary bodies that dedicated their time and expertise to improve research, science, and management products.
- Grant funding agencies (North Pacific Research Board, Alaska Sea Grant, Bycatch Reduction Engineering Program) for their financial support of IPHC research activities.
- Nicole Schroeter of Wild Directions LLC for her central role in the design and assembly of this report.



## 2025 PUBLICATIONS

The IPHC publishes an Annual Report, meeting documents, circulars, media releases, and peer reviewed journal articles. The IPHC website ([www.iphc.int](http://www.iphc.int)) includes a document library of all publications from 1931-2025. Articles and reports published during 2025 and authored by the IPHC Secretariat are cited below.

Adams, G.D., Holsman, K., Rovellini, A., Stewart, I.J., Privitera-Johnson, K., Wassermann, S.N., and Punt, A.E. 2025. Implications of predator-prey dynamics for single species management. *Canadian Journal of Fisheries and Aquatic Sciences* 82: 1-19. doi:10.1139/cjfas-2024-0225.

Planas JV, Jasonowicz AJ, Simeon A, Simchick C, Timmins-Schiffman E, Nunn BL, Kroska AC, Wolf N, Hurst TP. Molecular mechanisms underlying thermally induced growth plasticity in juvenile Pacific halibut. *Journal of Experimental Biology*. 2025. 228 (19): jeb-251013. <https://doi.org/10.1242/jeb.251013>

Ritchie, BA, Smeltz, TS, Stewart, IJ, Harris, BP, and Wolf N. 2025. Exploring Spatial and Temporal Patterns in the Size-At-Age of Pacific Halibut in the Gulf of Alaska. *Fisheries Management and Ecology*. doi:10.1111/fme.12814.

Stewart, I.J., and Monnahan, C.C. 2025. Diagnosing common sources of lack of fit to composition data in fisheries stock assessment models using One-Step-Ahead (OSA) residuals. *Canadian Journal of Fisheries and Aquatic Sciences*. <http://dx.doi.org/10.1139/cjfas-2025-0158>.

### IN REVIEW

Heppell, D.S., Lomeli, M.J.M., Wakefield, W.W., Hermann, B., Dykstra, C.L, and Stewart, I.J. Efforts to reduce rockfish and Pacific spiny dogfish bycatch in the U.S. West Coast Pacific halibut longline fishery. *Reviews in Fish Biology and Fisheries*.

Larson, S., Lowry, D., Andrews, K., Dykstra, C.L., Juanes, F., Timmer, B., and May, S. Molecular relatedness-based analyses reveal breeding site philopatry in female bluntnose sixgill sharks (*Hexanchus griseus*). *Frontiers of Marine Science*.

McGilliard, C.R., Ianelli, J., Cunningham, C., Hicks, A., Hanselman, D., Stram, D., Henry, A. Evaluating Bering Sea Pacific halibut bycatch management options using closed-loop simulations in a dynamic, multi-agency setting. *Canadian Journal of Fisheries and Aquatic Sciences*.

# IPHC SECRETARIAT (31 DECEMBER 2025)

## Seattle Headquarters

NAME	OFFICIAL POSITION TITLE	BRANCH
David T. Wilson, Ph.D.	Executive Director	
Allan Hicks, Ph.D. Ian Stewart, Ph.D. Raymond Webster, Ph.D.	Quantitative Scientist (MSE) Quantitative Scientist (Stock Assessment) Quantitative Scientist (Biometrician)	Quantitative Sciences
Josep Planas, Ph.D. Claude Dykstra, M.Sc. Andy Jasonwicz, M.Sc. Colin Jones, M.Sc. Darren May, M.A. Justin Kim Liam Naylor-Komyatte	Branch Manager Research Biologist (Mortality and Survivorship) Research Biologist (Genetics) Research Biologist (Life History) Biological Science Laboratory Technician Undergraduate Intern Undergraduate Intern	Biological & Ecosystem Sciences
Barbara Hutniczak, Ph.D. Huyen Tran, A.A. Tom Kong, B.Sc. Kimberly Sawyer Van Vleck, B.Sc. Kelsey Magrane, B.Sc. Joan Forsberg, B.Sc. Andrew Chin, B.Sc.	Branch Manager Fisheries Data Coordinator Fisheries Data Specialist (HQ-GIS) Fisheries Data Specialist (HQ) Fisheries Data Specialist (HQ) Otolith Laboratory Technician (Snr) Otolith Laboratory Technician	Fisheries Regulations & Data Services
Monica Thom, B.Sc. Kayla Ualesi, B.Sc. Tyler Jack, M.Sc. Kevin Coll, B.Sc.	Port Operations Coordinator Setline Survey Coordinator Setline Survey Specialist (Snr) Setline Survey Specialist	Fisheries Monitoring
Brad White, Ph.D. Kelly Chapman, B.A. Ola Wietecha, B.A. Mohammad Arian, B.B.A Kenneth Wickham, B.A. Sydney Sherk, B.A. Robert Tynes Afshin Taheri, B.Sc.	Branch Manager Administrative Coordinator Administrative Specialist (Snr) Administrative Specialist (Accounting) Administrative Specialist Administrative Specialist Lead IT Specialist (INFOSEC/SysAdmin) IT Specialist (Application Developer)	Administrative Services

**Fisheries Data Specialists (Field)**  
Port Operations Services

**Setline Survey Specialists (Field)**  
Fisheries-Independent Setline Survey

NAME	LOCATION
Anastasia Lanter	Kodiak, AK
Lisa Crawford	Port Hardy, B.C.
Carly Nienabar	Homer, AK
Binget Nilsson	Seward, AK
Zephan Ozturgut	Prince Rupert, B.C.
Bailey Fedors	Dutch Harbor, AK
Natachan (Tachi) Sopow	Sitka, AK
Jared Sanchez	Petersburg, AK
Phoenix Keane	Juneau, AK
Kaitlyn Allison	St. Paul, AK

NAME
Nancy Franco
Monica Fezuk
Allen Dean Gaidica
Gregory Jay
Taylan Tolga Koken
Francis Maddox
Rodolfo Curralo Moreira
Silvestre Natario
Jeffrey Scott
Jessica Smith

**INTERNATIONAL PACIFIC**



**HALIBUT COMMISSION**