SCIENTIFIC RESEARCH AND **COLLECTING PERMIT**

Grants permission in accordance with the attached

general and special conditions

United States Department of the Interior National Park Service

Glacier Bay

Study#: GLBA-00366 Permit#: GLBA-2023-SCI-0011 Start Date: May 27, 2023 Expiration Date: Dec 31, 2023 Coop Agreement#: **Optional Park Code:**

Name of principal investigator: Name:Ms Kayla Ualesi	Phone: 206-634-1838	Email:FISS@IPHC.INT
Name of institution represented: International Pacific Halibut Comr	nission	
Additional investigators or key fie	ld assistants:	
Name: Sean Burns	Phone: 206-634-1838	Email: FISS@iphc.int
Name: Lyle Pierce	Phone: 206-634-1838	Email: FISS@iphc.int
Study Title: International Pacific Halibut Comm	nission Fishery-Independent Setline	Survey - 2023
the Glacier Bay National Park duri		e four stations (two inside bay, and two in outer waters) within ependent Setline Survey (FISS). These selected stations are a fornia to Bering Sea.
weight, size, age, and sex composite the adult population. FISS data are resource. In addition to Pacific hali Pacific halibut. These data provide halibut fishery. All cases of suspec- help assess whether marine mamma assessment. IPHC has aligned its p	tion of the Pacific halibut catch are u used to determine Pacific halibut ran ibut data, field staff record catch of o insight into bait competition, rate of ted depredation by marine mammals al depredation affects that haul's dat	assessment. Catch per unit effort (CPUE) in numbers and sed to monitor changes in abundance, growth, and mortality in nge, local depletion, and fleet distribution effects on the ther organisms captured incidentally to the gear targeting bait attacks, and bycatch quantity for the commercial Pacific on fishing gear are recorded to monitor occurrences, and to a to the extent that it cannot be used in the Pacific halibut stock on, and reporting rules with those adopted by NOAA Fisheries search.
age composition -Examine Pacific halibut distribution over time -Provide stock dynamics data that the	on and abundance, including how the might not be available through the co , Pacific halibut maturity data, preser ctions with fishing activity	ng catch per unit effort (CPUE), sex-specific length at age, and e sex, length, weight, maturity, and age composition change ommercial fishery. Examples include the incidence of bycatch ace of prior hooking injuries, and data from juvenile (sublegal)
Subject/Discipline: Fish / Ichthyology		
Locations authorized: IPHC FISS Station NumberLatitud 3116 (outer waters) 58.10 N 4021 (outer waters)58.30 N137.28	136.36 W	
	the F/V Bold Pursuit (VRN: 20875)	b. The F/V Bold Pursuit is a 70 ft, house forward, unpainted vessel directing the research. No shore landings are required as
pair of and projecta		

Name of repository for specimens or sample materials if applicable:

Repository type: Temporarily captured or handled (may include marking) and then released undamaged in place Objects collected:

Based on capture records at IPHC FISS stations in the vicinity, we predict that the species in the following list will be captured and released in place. We retain Sebastes spp and Pacific cod for sale because it is presumed that the barotrauma from the capture event is fatal to these species. IPHC does not retain those proceeds, which are divided between the management agency and the vessel.

Alaska Skate Aleutian Skate Arrowtooth Flounder **Big Skate** Dover Sole Fish-eating Star Giant Wrymouth Lingcod Longnose Skate Octopus Red Irish Lord Sablefish (Blackcod) Sea Anemone Sea Urchin Shortspine Thornyhead Spiny Dogfish Sunflower Sea Star Walleve Pollock Yellow Irish Lord

Repository type: Will be destroyed through analysis or discarded after analysis

Objects collected:

Age structures (otoliths) from Pacific halibut are a key component of IPHC's FISS data set. Otoliths will be collected from a subset of all Pacific halibut captured. These otoliths are returned to the IPHC Headquarters office in Seattle, WA where IPHC age readers determine the age of Pacific halibut. After being aged, the otoliths are destroyed via a break and bake method.

NPS General Conditions for Scientific Research and Collecting Permit (available at the RPRS HELP page) apply to this permit. The following specific conditions or restrictions, and any attached conditions, also apply to this permit:

Conditions Specific to this Permit

• Glacier Bay National Park and Preserve (GLBA) is an important feeding area for humpback whales in the spring, summer, and fall, where they are known to frequent both mid-channel and nearshore areas (Baker et al. 1986, 2013, Straley et al. 2009, Neilson et al. 2018). Annual population monitoring by the National Park Service has documented as many as 161 individual humpback whales using GLBA as feeding habitat in a single summer (Neilson et al. 2018). The vertical buoy lines at each end of a longline pose a known entanglement risk to humpback whales; as an example, in June 2015 a humpback whale became entangled in commercial longline gear set near Willoughby Island in GLBA (Neilson and Gabriele 2016). Therefore, to reduce the risk of a humpback whale becoming entangled in the IPHC's longline gear in GLBA, the following mitigations are required:

• GLBA expects the IPHC to follow all whale avoidance procedures identified in the PEA and use the "move-on" protocol if necessary.

• Prior to setting gear at any station in Glacier Bay, the IPHC must contact a GLBA Whale Biologist for the best available information (including Whale Alert) regarding current humpback whale "hotspots" to avoid setting gear in high whale-use areas.

Primary contact: Chris Gabriele, Lead GLBA Whale Biologist Chris_Gabriele@nps.gov 907-697-2664 (M-F 8:00am-4:30pm) After hours: 907-723-2142 cell Secondary contact (if Chris cannot be reached): Janet Neilson, GLBA Whale Biologist Janet_Neilson@nps.gov

907-697-2658 (M-F 8:00am-4:30pm)

After hours: 907-697-2140 landline, 907-957-3326 cell (text only)

If neither whale biologist can be reached, contact GLBA's Visitor Information Station (VIS) for assistance in contacting them. • If a whale is observed entangled in the IPHC's fishing gear at any station in park waters (including the outer coast), the crew of the IPHC research vessel must report the entangled whale to GLBA's Visitor Information Station (VHF Ch. 12 or 16) immediately. The vessel should not attempt to remove the gear but must document the entanglement to the best of their ability with photographs and/or video. If the entanglement occurs in GLBA, the vessel must make every effort to standby the whale and keep it in sight until park staff arrive on site.

• If any of the IPHC's longline surface buoys/lines at any station in GLBA go missing, the crew of the IPHC research vessel must report the missing buoy(s) to GLBA's Visitor Information Station (VHF Ch. 12 or 16) immediately. GLBA whale biologists would initiate a search of the area for a potentially entangled whale.

- Share all GLBA FISS data and information with the NPS (including marine mammal and seabird interactions).
- IPHC is strongly encouraged to report all hook bycatch data to GLBA (not just first 20).
- GLBA must be consulted if approved research is modified or new research projects are added to the survey.

General Conditions

• Field crews must attend a park orientation (via phone if needed) and carry a copy of the research permit while conducting studies within the park.

• Field personnel should make every effort to avoid or minimize disruption of visitors, particularly in the wilderness. Best practices include:

• Providing the Visitor Information Station (VIS) with educational materials for display prior to arrival.

• Providing a general itinerary to the VIS and make an effort to touch base with the VIS for any known camping parties in the research area before any disruptive activities.

· Explaining your research to any visitors encountered in a friendly manner.

• Field personnel should make every effort to avoid or minimize disturbance to wildlife during field work.

• Logistical arrangements (transportation, housing) are the responsibility of the Permittee/Principal Investigator (PI), except where explicit arrangements have been agreed to by Park staff.

• The issuance of a research permit does not provide the PI with preferential rights, nor does it assure future approval of similar research projects. Permits may be revoked or not renewed if any conditions are violated.

Deliverables - Reports/Data/Outreach

Your research is extremely valuable to us! Research conducted on NPS lands helps guide management decisions, inform the public through interpretive and educational opportunities, and fulfill records management and curatorial requirements.

As a condition of the permit, the PI will:

1) Annually complete an Investigator's Annual Report (IAR) by March 31 in the Research Permit and Reporting System (RPRS) website (https://irma.nps.gov/rprs/). An email reminder will be sent at the end of each year. The IAR should include when and where field work occurred; what, where, and how many specimens/artifacts were taken; and summary of the research results to date, even if preliminary.

2) In addition to the Investigator's Annual Report the project leader will annually submit to the park (Research Coordinator) a formal Progress Report (same due date). For multi-year projects, this additional report may not be necessary (except for the final year) *if* the Findings section of the IAR is exhaustively documented and provides the substance and detail that would otherwise be contained in a Progress Report. For single-year projects or for the final year of multi-year projects, within one year of completion of field work the project leader will additionally submit a formal Final Report. The detailed Progress and Final Reports will include analyzed data and findings, as well as synthesis with past/other data, a summary interpretation in historical and subject-area context, and any appropriate recommendations to management. The intent here is for the park to receive timely and substantive reporting of project activities and findings. Please communicate to the Research Coordinator any concerns regarding the sharing of report contents with audiences outside the park. Expected future out-year prospective theses/dissertations and peer-reviewed publications are not a substitute for this annual reporting requirement. Upon their completion/publication, copies of such academic products and formal publications deriving from research in the park are additionally to be delivered to the park in a timely fashion.

3) The NPS has an obligation to the public to ensure that findings generated by permitted research activities occurring within their national parks are made available. As such, all records generated from research conducted on NPS lands including, but not limited to, plans, field notes, field maps, drawings, raw data sheets, tape recordings, photos, photo logs, instrument charts, map overlays, negatives, and remote sensing data (records) are, and remain the property of the NPS. The investigator will contact the Park Collections Manager Tracy Laqua (907-747-0141; tracy_laqua@nps.gov) to ensure that these records are properly accessioned.
4) Provide logs of all installations and/or helicopter activity to the Research Permit Coordinator within 30 days of activity.
5) Complete all obligations associated with the curation of collections within a year of obtaining the specimens, unless other specific terms are authorized by the Museum Curator.

Wilderness

Most lands within GLBA are designated wilderness. All studies and research activities in designated and recommended wilderness are subject to "minimum requirements" analysis as described in the Wilderness Act. For areas managed as wilderness, specific restrictions may affect the approval of transportation means, field work timing and frequency, group size, base camp locations, installations or structures, and the use of motorized tools. Activities should be limited to the minimum necessary to meet the objectives of your approved proposal.

All project personnel must attend Backcountry Orientation for overnight camping or extended periods ashore. These will be conducted through the Visitor Information Station (VIS). Advance arrangements can be made by contacting the VIS directly (phone 907-697-2627). Camping is not permitted in areas closed by park regulations, compendium, or temporarily for special concerns, such as rare plants, cultural resources, or wildlife issues unless a waiver to these regulations are approved. In addition, vessel activities must follow all park regulations unless a waiver to these regulations is approved.

Bear safety: Prior to entering the field, project personnel will avail themselves of a special training focused on the minimization of bear-human conflicts, in order to ensure human and bear safety. Please contact the park's terrestrial Wildlife Biologist directly (Tania Lewis; phone 907-697-2668; email tania_lewis@nps.gov). Additional information may be found: https://www.nps.gov/glba/learn/nature/bear-safety.htm and https://www.nps.gov/subjects/bears/safety.htm

Invasive Species: Whenever moving between locations in the park, project personnel will carefully clean clothing and equipment in order to prevent the introduction/spread of the seeds/propagules of non-native invasive organisms (principally and invertebrate animals) – both terrestrial and aquatic.

Field crew should practice "Leave No Trace" principles during field activities. Additional information may be found on the Leave No Trace website (http://www.lnt.org/).

Motor Vessels

For your safety and to protect park resources and values, all operators of project vessels must attend a Boater Orientation at the Visitor Information Station (VIS) prior to the start of field operations in Glacier Bay in each calendar year. Advance arrangements can be made by contacting the VIS directly (phone 907-697-2627).

In order for the visiting public and park staff to identify you and your activities, all project motorized vessels will prominently display a "RESEARCH" flag, obtainable from the VIS. The flag(s) must be returned upon the vessel's departure from Glacier Bay. If supported by a NPS vessel, that vessel will be clearly marked as such.

All motorized vessel use will be carefully planned and implemented for optimal efficiency and sensitivity in order to minimize impacts to park resources and values including fuel consumption, air and water pollution, above- and below-water noise pollution, and visual impact.

At the initiation of the project, the project leader/vessel captain(s) is required to file a trip/season float plan with the VIS that includes where and when the vessel will be conducting research activities for all boating operations within Glacier Bay proper. Project leaders/vessel captain(s) will communicate general changes to float plan locations with the VIS to help the park keep track of research activities/locations and respond to visitor inquiries. Within 60 days of the end of a project's field season, a comprehensive summary of the total number of vessel days in park waters, dates and locations of the project, and a vessel ID/description must be provided to the VIS.

Operation of all watercraft within Park boundaries will be in accordance with United States Coast Guard (USCG) regulations. Vessels used in the study will meet or exceed the minimum safety standards for vessels and associated equipment, including PFD's, lights, flares, and fire extinguishers.

Air Transportation

The project leader is required to provide (to the Research Coordinator and the VIS) locations and dates/times of all aircraft operations including landings within the park at least 24 (but no more than 72) hours in advance so that park managers are kept apprised of operations and can inform park visitors or respond to concerns as appropriate.

Helicopter - Helicopter use requires advance approval from the Superintendent. Helicopter flights will be kept to the minimum number required to accomplish field activities. All helicopter activity will be logged (day, time, coordinates of landing site(s)) with data sent to the research permit coordinator within 30 days of activity. The PI is required to give advance notice to the park dispatch center and provide exact dates, times, and locations of helicopter activities as well as helicopter identification information (tail number and description).

Fuel Caching - No fuel caching will occur on park lands, except when authorized by the superintendent through the research permit.

Installations and Field Equipment

All equipment left in the field must be specifically authorized in advance. Authorized installations need to be reported with dates installed and GPS coordinates to the research permit coordinator by March 31 of the following year. A legible label including the researcher's name and contact information is required on installations. Labeling the actual installation with a paint pen or engraving is preferred over any form of removable label. Installations should be as unobtrusive as possible and should not interfere with visitor enjoyment of the park. Park staff have the authority to remove unlabeled/unreported installations as abandoned property.

Cultural Resource Protection

Unless specifically authorized within this permit there will be no disturbance of historic or cultural features; no artifacts will be collected; no camping will be done on cultural sites; if archeological or historic resources are discovered, work will stop at the discovery site, the discovery will be protected as required and the park Superintendent or Chief of Cultural Resources or Park Archeologist will be notified as soon as possible. Information and photographs regarding the location (including GPS coordinates), size, and nature of the discovery should be provided, if possible. In general, proposed camping sites and any proposed ground disturbing activities will be reviewed for possible effects to cultural resources.

Specimens/Artifacts Collected

If this project authorizes limited collections: collections are limited to the type and number described in the Collection section of the permit. Please collect in a manner that will not impair the resource and only as many specimens as are necessary to perform the research permitted. Many collected objects are not completely consumed or destroyed in analysis, and these remainders, along with all other collected objects, are typically expected to be retained unless explicitly approved for disposal by the NPS. Moreover, such collections are and remain the property of the National Park Service. Please contact (in advance) NPS Museum Curator Tracy Laqua (907-747-0141; tracy_laqua@nps.gov) for guidance re. specimen collection, preparation/curation, labeling, and recordkeeping. NPS catalog numbers and a recordkeeping template will be provided, options for returning specimens to the NPS or retaining them in another approved repository (See Appendix A: Proposed Repository for Collected Specimens) can be discussed.

Hazardous Materials

The proper use, care, and disposal of hazardous materials, such as chemicals, preservatives, batteries, and refrigerants, brought into the park remain the responsibility of the PI. Specific authorization must be obtained before using hazardous materials in the park. Material Safety Data Sheets (MSDS) for the hazardous materials may be requested by the Research Permit Coordinator prior to entering the Park. The PI will properly contain, dispose of, and remove all hazardous materials from the Park and local community by the end of the permitted period. Any hazardous material spill must be reported to Park personnel. Spills will be cleaned up in accordance with all applicable state and federal environmental quality laws regarding disposal and cleanup of hazardous materials and wastes.

Regulations

PI will comply with all Federal regulations: https://www.nps.gov/glba/learn/management/lawsandpolicies.htm

Other Permits, Approvals, and Authorizations

PI is responsible for ensuring that all resource agency regulatory permits, approvals, and authorizations are obtained prior to initiation of fieldwork with copies provided to Research Coordinator. Examples include ADF&G scientific permits, Army Corps of Engineer permits, US Fish and Wildlife permits, Archeological Resource Protection Act, National Marine Fisheries permits, and Institutional Animal Care and Use Committee (IACUC) review.

PI is responsible for obtaining permission to access all non-NPS lands, including Alaska Native, private, state, and other federal agency areas.

Safety

PIs should ensure field operations are conducted safely. PIs should brief their team regarding potential hazards, mitigations (such as personal protective equipment), and communications. If the PI needs additional information about park hazards, please contact the Research Permit Coordinator.

Summary of permitted field methods and activities:

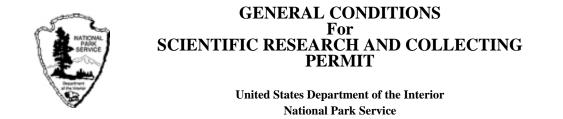
At each of the stations, a set of standardized longline fishing gear, consisting of 8 skates, each with 100 16/0 circle hooks on 24-48 inch gangions spaced 18 feet apart. Each hook is baited with 0.25 to 0.33 lb of chum salmon. After a minimum five-hour soak, the vessel will return and haul the gear. Pacific halibut are separated by skate and sampled for length, weight, sex, and otoliths. Data are collected on any recovered tagged Pacific halibut. Prior hooking injuries are assessed and documented. In addition to the Pacific halibut sampling, we will also be collecting hook information on the first 20 hooks of every skate fished.

Seabird counts are conducted after every haul, and any interactions are recorded. Marine mammal and short-tailed albatross sightings, and interactions are documented. A water column profiler will be launched on each station as well.

More detailed descriptions of each of the sampling procedures can be found in the 2022 IPHC FISS Sampling Manual, and the 2022

IPHC FISS Bid Specifications, which can be obtained from our website iph	c.int.
Recommended by park staff(name and title):	Reviewed by Collections Manager:
	Yes No
Approved by park official:	Date Approved:
Title:	
Superintendent	
I Agree To All Conditions And Restrictions (Not valid unless signed and dated by the	
(Principal investigator's signature)	(Date)

THIS PERMIT AND ATTACHED CONDITIONS AND RESTRICTIONS MUST BE CARRIED AT ALL TIMES WHILE CONDUCTING RESEARCH ACTIVITIES IN THE DESIGNATED PARK(S)



1. **Authority** - The permittee is granted privileges covered under this permit subject to the supervision of the superintendent or a designee, and shall comply with all applicable laws and regulations of the National Park System area and other federal and state laws. A National Park Service (NPS) representative may accompany the permittee in the field to ensure compliance with regulations.

2. **Responsibility** - The permittee is responsible for ensuring that all persons working on the project adhere to permit conditions and applicable NPS regulations.

3. **False information** - The permittee is prohibited from giving false information that is used to issue this permit. To do so will be considered a breach of conditions and be grounds for revocation of this permit and other applicable penalties.

4. **Assignment** - This permit may not be transferred or assigned. Additional investigators and field assistants are to be coordinated by the person(s) named in the permit and should carry a copy of the permit while they are working in the park. The principal investigator shall notify the park's Research and Collecting Permit Office when there are desired changes in the approved study protocols or methods, changes in the affiliation or status of the principal investigator, or modification of the name of any project member.

5. **Revocation** - This permit may be terminated for breach of any condition. The permittee may consult with the appropriate NPS Regional Science Advisor to clarify issues resulting in a revoked permit and the potential for reinstatement by the park superintendent or a designee.

6. **Collection of specimens (including materials)** - No specimens (including materials) may be collected unless authorized on the Scientific Research and Collecting permit.

The general conditions for specimen collections are:

- Collection of archeological materials without a valid Federal Archeology Permit is prohibited.
- Collection of federally listed threatened or endangered species without a valid U.S. Fish and Wildlife Service endangered species permit is prohibited.
- Collection methods shall not attract undue attention or cause unapproved damage, depletion, or disturbance to the environment and other park resources, such as historic sites.
- New specimens must be reported to the NPS annually or more frequently if required by the park issuing the permit. Minimum information for annual reporting includes specimen classification, number of specimens collected, location collected, specimen status(e.g., herbarium sheet, preserved in alcohol / formalin, tanned and mounted, dried and boxed, etc.), and current location.
- Collected specimens that are not consumed in analysis or discarded after scientific analysis remain federal property. The NPS reserves the right to designate the repositories of all specimens removed from the park and to approve or restrict reassignment of specimens from one repository to another. Because specimens are Federal property, they shall not be destroyed or discarded without prior NPS authorization.
- Each specimen (or groups of specimens labeled as a group) that is retained permanently must bear NPS labels and must be accessioned and cataloged in the NPS National Catalog.Unless exempted by additional park specific stipulations, the permittee will complete the labels and catalog records and will provide accession information. It is the permittee's responsibility to contact the park for cataloging instructions and specimen labels as well as instructions on repository designation for the specimens.
- Collected specimens may be used for scientific or educational purposes only, and shall be dedicated to public benefit and be accessible to the public in accordance with NPS policies and procedures.
- Any specimens collected under this permit, any components of any specimens (including but not limited to natural organisms, enzymes or other bioactive molecules, genetic materials, or seeds), and research results derived from collected specimens are to be used for

scientific or educational purposes only, and may not be used for commercial or other revenue - generating purposes unless the permittee has entered into a Cooperative Research And Development Agreement(CRADA) or other approved benefit - sharing agreement with the NPS. The sale of collected research specimens or other unauthorized transfers to third parties is prohibited. Furthermore, if the permittee sells or otherwise transfers collected specimens, any components thereof, or any products or research results developed from such specimens or their components without a CRADA or other approved benefit-sharing agreement with NPS, permittee will pay the NPS a royalty rate of twenty percent(20 %) of gross revenue from such sales or other revenues. In addition to such royalty, the NPS may seek other damages to which the NPS may be entitled including but not limited to injunctive relief against the permittee.

7. **Reports** - - The permittee is required to submit an Investigator's Annual Report and copies of final reports, publications, and other materials resulting from the study. Instructions for how and when to submit an annual report will be provided by NPS staff.Park research coordinators will analyze study proposals to determine whether copies of field notes, databases, maps, photos, and / or other materials may also be requested.The permittee is responsible for the content of reports and data provided to the National Park Service

8. **Confidentiality** - The permittee agrees to keep the specific location of sensitive park resources confidential. Sensitive resources include threatened species, endangered species, and rare species, archeological sites, caves, fossil sites, minerals, commercially valuable resources, and sacred ceremonial sites.

9. **Methods of travel** - Travel within the park is restricted to only those methods that are available to the general public unless otherwise specified in additional stipulations associated with this permit.

10. Other permits - The permittee must obtain all other required permit(s) to conduct the specified project.

11. **Insurance** - If liability insurance is required by the NPS for this project, then documentation must be provided that it has been obtained and is current in all respects before this permit is considered valid.

12. **Mechanized equipment** - No use of mechanized equipment in designated, proposed, or potential wilderness areas is allowed unless authorized by the superintendent or a designee in additional specific conditions associated with this permit.

13. **NPS participation** - The permittee should not anticipate assistance from the NPS unless specific arrangements are made and documented in either an additional stipulation attached to this permit or in other separate written agreements.

14. **Permanent markers and field equipment** - The permittee is required to remove all markers or equipment from the field after the completion of the study or prior to the expiration date of this permit. The superintendent or a designee may modify this requirement through additional park specific conditions that may be attached to this permit. Additional conditions regarding the positioning and identification of markers and field equipment may be issued by staff at individual parks.

15. Access to park and restricted areas - Approval for any activity is contingent on the park being open and staffed for required operations. No entry into restricted areas is allowed unless authorized in additional park specific stipulations attached to this permit.

16. **Notification** - The permittee is required to contact the park's Research and Collecting Permit Office (or other offices if indicated in the stipulations associated with this permit) prior to initiating any fieldwork authorized by this permit. Ideally this contact should occur at least one week prior to the initial visit to the park.

17. **Expiration date** - Permits expire on the date listed. Nothing in this permit shall be construed as granting any exclusive research privileges or automatic right to continue, extend, or renew this or any other line of research under new permit(s).

18. **Other stipulations** - This permit includes by reference all stipulations listed in the application materials or in additional attachments to this permit provided by the superintendent or a designee. Breach of any of the terms of this permit will be grounds for revocation of this permit and denial of future permits.