

**RESEARCH PERMIT**  
**Glacier Bay National Park and Preserve**  
**Division of Resource Management**  
**1998**

**A copy of this permit must be in the possession of the researcher or their designee**  
**while conducting research in the Park or Preserve**

1. Principal Investigator:

**Philip Hooge**

2. Institutional affiliation, address, and emergency contact telephone:

**USGS-Biological Resources Division**  
**Glacier Bay National Park**  
**Post Office Box 140**  
**Gustavus AK 99826**  
**907-697-2230**  
**[philip\\_hooge@usgs.gov](mailto:philip_hooge@usgs.gov)**

3. Co-investigators::

**James Taggart**  
**USGS-Biological Resources Division**  
**Glacier Bay National Park**  
**Post Office Box 140**  
**Gustavus AK 99826**  
**907-697-2230**  
**[Jim\\_Taggart@usgs.gov](mailto:Jim_Taggart@usgs.gov)**

4. Field Assistants:

**Jim de la Bruere**  
**Liz Solomon**  
**Caroline Dezan**  
**Elizabeth Hooge**

5. Title of research:

**Fjord-Estuarine Oceanographic Survey and Monitoring**

6. Project Objective:

**The purpose of this project is to establish protocols for monitoring, modeling, and documenting fjord-estuarine oceanographic data within and between years along the glacial chronosequence in Glacier Bay. Twenty-one stations are profiled once per month to acquire measurements on temperature, salinity, productivity (phytoplankton biomass), and sediment load at 1-meter depth intervals from the surface to the sea floor.**

7. Date(s) of research:

**October 1998 through April 1999**

8. Location(s) where research will take place:

**Glacier Bay National Park**

9. Conditions and Restrictions for all researchers:

- Entry into non-motorized waters with a motorized craft is prohibited unless the Park Superintendent grants written authorization. A closure map is included with this permit.
- Checking with staff at the Park's Visitor Information Station (VIS) is required of all researchers prior to beginning their work.
- Researchers are asked to commit to at least a Summer Science presentation geared to a non-scientific audience or to an informal discussion with Park staff. The objective of this request is to facilitate public education efforts on behalf of Park resources and the scientific studies associated with them.
- Investigator agrees to furnish the Park with the Investigator's Annual Report, and with copies of all publications resulting from permitted work in the Park.
- **Disposal of hazardous materials is not permitted within Park boundaries. All preservatives will be removed from the park at the close of study. No storage of hazardous materials will be permitted after completion of the study.**
- Operation of all watercraft within Park or Preserve boundaries will be in -accordance with US Coast Guard regulations. Operators will meet or exceed the minimum safety standards for vessels and associated equipment, including PFD's, lights, flares, and fire extinguishers. See Federal Requirements and Safety Tips for Recreational Boats (available from any Coast Guard office).
- Logistical arrangements (transportation, housing) will be the responsibility of Principal Investigators, except where explicit arrangements have been made and agreed to by Park staff.
- A Park staff member may visit researcher field camps to assist in compliance with Park guidelines and regulations.

10. Additional Conditions and Restrictions applicable to this permit:

- **This permit is valid from October 1, 1998 through April 30, 1999. Researchers will apply for a separate permit to continue work beyond April 30, 1999.**
- **The R/V Tamnik will be used to conduct each oceanographic survey.**
- **Researchers will provide the park with a final report and any publications that result from the research in Glacier Bay.**
- **Researchers will complete an administrative vessel survey after the completion of their each survey.**

*Violation of the above Conditions and Restrictions may result in the suspension or revocation of the permit. In addition, failure on the part of the researcher(s) to adhere to policies outlined by the Park and those policies stipulated in the Code of Federal Regulations (CFR), Title 36, Section 2.5, and National Park Service (NPS) Management Policies may result in the withdrawal of this research permit.*

Principal Investigator: \_\_\_\_\_

Date: \_\_\_\_\_

Approval recommended by:

(Chief, Resource Management): \_\_\_\_\_

Date: \_\_\_\_\_

Approved by (Superintendent): \_\_\_\_\_

Date: \_\_\_\_\_