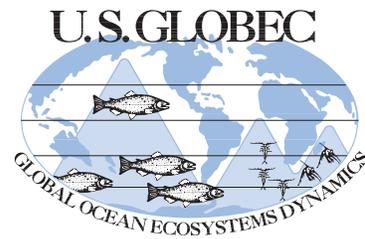


# GLOBEC Northeast Pacific, Coastal Gulf of Alaska

Cruise Report, R/V *Pandalus* (G01-4)  
(Alternate Cruise ID, PA0104)

17 – 25 October, 2001



**GLOBEC Northeast Pacific, Gulf of Alaska  
Cruise Report, R/V *Pandalus* (G01-4)  
(Alternate Cruise ID, PA0104)  
17 - 25 October, 2001**

**Chief Scientist:**

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**Port of Departure:** Homer, Alaska  
**Port of Return:** Seward, Alaska

**Cruise Objectives**

1. Determine distribution and abundance of surface fishes on the Seward Hydrographic line and in Prince William Sound (surface trawl (Trawl)).
2. Sample surface zooplankton at all fish-sampled stations (NIO net/tucker trawl (Tucker)).
3. Conduct CTD (CTD) casts at fish collection stations.
4. Collect surface fishes and zooplankton over 24-hour periods.

Summaries of each of the GLOBEC projects may be found at the web site: <http://globec.coas.oregonstate.edu/groups/nep/projs.html>.

**Table 1. GLOBEC Cruise Participants**

|                     |  |
|---------------------|--|
| Jennifer Boldt      | Juneau Center, School of Fishery Ocean Sciences                  |
| Mikhail Blikshcheyn | Juneau Center, School of Fishery Ocean Sciences                  |
| Nancy Davis         | School of Aquatic and Fishery Sciences, University of Washington |

**Summary of Cruise**

See Appendix 1 (Event Log).

**Daily Cruise Summary (Narrative)**

**17 October.** Scientists arrived in Homer. Sorted gear and prepared for cruise.

**18 - 19 October.** Delayed due to weather.

**20 October.** Left Homer for the Seward Line.

**21 - 24 October.** Sampled fish, surface plankton, and measured temperature during the day along the Seward transect and in PWS using the surface trawl, the NIO net, a CTD, and a thermometer.

**25 October.** Offloaded gear at the Seward Marine Station.

**26 October.** Scientists left Seward.

## Summary of Sampling Operations

A surface trawl (Trawl) was used to sample fish at GAK stations 1 - 5, most stations were sampled twice. Three stations in PWS were also sampled with a surface trawl. Fish caught included juvenile pink, chum, and sockeye salmon. There were not many salmon caught along the Seward Line, and most salmon were caught at GAK 4 and 5. Only 2 pink and 1 chum salmon were sampled in PWS. Since, there were not many fish sampled, a 24-hour study was not conducted. Fish were identified, sorted to species, and counted. Fish were measured and frozen in seawater.

Surface plankton was sampled at each station using an NIO net (Tucker) (1m<sup>2</sup> mouth, 0.505-mm mesh) equipped with a flowmeter. The NIO net was towed for 5 minutes parallel to the surface trawl track. Three replicate samples were collected at each station. Plankton samples were preserved in 5% buffered formalin.

A Seabird Seacat SBE-19 CTD (CTD) was used to measure temperature, salinity, and fluorescence to 100 m depth at each station where surface trawls and NIO trawls were conducted. A thermometer was used to measure the sea surface water temperature, and water samples were collected for turbidity measurements. Light intensity was measured with two Hobo light meters placed at 0.5 and 10 m depth at all stations where fish and plankton were sampled.

## **APPENDIX I**

### **PA0104 EVENT LOG**

## EVENT LOG CONTENTS

### Column Label

Event#

Instrument (Instr)

Cast

Station (Sta)

Station Standard (Sta std)

Day

Month (Mos)

Time

Start/End (S/E) flag

Latitude (Lat)

Longitude (Long)

Water Depth

Cast Depth

Haul

Comments

### Description

Unique identifier for each line of event log.

Trawl: Surface Rope Trawl; 198-m long; 25-m wide; 35-m deep, 1.2 cm mesh liner in cod end; usually towed 30 minutes at surface.

Tucker: NIO/Tucker Trawl; 1-m<sup>2</sup> mouth opening; 0.505-mm mesh; equipped with flowmeter; towed 5 minutes at surface.

CTD: Seabird Seacat SBE-19, with pump and Wetlabs fluorometer; lowered to 100-m depth at all fish stations.

Sequence # for gear deployed at current station

Sequence # for station occupied

Local time basis

Local time basis

Local time

S=Start of event; E=End of event

Decimal degrees; north is positive

Decimal degrees; east is positive

Depth of bottom

Maximum depth of deployment

Cruise sequence number for a particular gear deployment

## Appendix I: Event Log

| Event#     | Instr  | Cast | Sta | Sta<br>std | Day | Mos | Time | S/E<br>flag | Lat     | Long      | Water<br>Depth | Cast<br>Depth | Haul | Comments   |
|------------|--------|------|-----|------------|-----|-----|------|-------------|---------|-----------|----------------|---------------|------|--|
| PA01294.01 | Trawl  | 1    | 1   | GAK2       | 21  | 10  | 1130 | S           | 59.6741 | -149.3232 | 222            | nd            | 1    | 125Fa of wire out; heading 010 deg.  |
| PA01294.02 | Trawl  | 1    | 1   | GAK2       | 21  | 10  | 1200 | E           | 59.6869 | -149.3187 | nd             | nd            | 1    |  |
| PA01294.03 | Trawl  | 2    | 1   | GAK2       | 21  | 10  | 1236 | S           | 59.6876 | -149.3219 | 222            | nd            | 2    | Heading 023 deg.; 150 Fa wire out; let more wire out to dampen effects of swell. |
| PA01294.04 | Trawl  | 2    | 1   | GAK2       | 21  | 10  | 1306 | E           | 59.7002 | -149.3109 | nd             | nd            | 2    |  |
| PA01294.05 | Trawl  | 1    | 2   | GAK1       | 21  | 10  | 1505 | S           | 59.8449 | -149.4598 | 271            | nd            | 3    | 125 Fa wire out; 330 deg. heading.   |
| PA01294.06 | Trawl  | 1    | 2   | GAK1       | 21  | 10  | 1335 | E           | 59.8661 | -149.4846 | nd             | nd            | 3    |  |
| PA01294.07 | Trawl  | 2    | 2   | GAK1       | 21  | 10  | 1603 | S           | 59.8561 | -149.4864 | 266            | nd            | 4    | Aborted; lost port bags.   |
| PA01294.08 | Trawl  | 3    | 2   | GAK1       | 21  | 10  | 1644 | S           | 59.8455 | -149.4807 | 271            | nd            | 5    | Heading 149 deg.   |
| PA01294.09 | Trawl  | 3    | 2   | GAK1       | 21  | 10  | 1714 | E           | 59.8268 | -149.4581 | nd             | nd            | 5    |  |
| PA01294.10 | Tucker | 4    | 2   | GAK1       | 21  | 10  | 1731 | S           | 59.8293 | -149.4595 | 277            | nd            | 1    |  |
| PA01294.11 | Tucker | 4    | 2   | GAK1       | 21  | 10  | 1736 | E           | 59.8318 | -149.4540 | nd             | nd            | 1    |  |
| PA01294.12 | Tucker | 5    | 2   | GAK1       | 21  | 10  | 1739 | S           | 59.8332 | -149.4513 | 273            | nd            | 2    |  |
| PA01294.13 | Tucker | 5    | 2   | GAK1       | 21  | 10  | 1744 | E           | 59.8353 | -149.4455 | nd             | nd            | 2    |  |
| PA01294.14 | Tucker | 6    | 2   | GAK1       | 21  | 10  | 1746 | S           | 59.8365 | -149.4422 | 272            | nd            | 3    |  |
| PA01294.15 | Tucker | 6    | 2   | GAK1       | 21  | 10  | 1751 | E           | 59.8383 | -149.4378 | nd             | nd            | 3    |  |
| PA01294.16 | CTD    | 7    | 2   | GAK1       | 21  | 10  | 1759 | S           | 59.8373 | -149.4377 | 271            | 100           | 1    | Cast 00  |
| PA01295.01 | Trawl  | 1    | 3   | GAK3       | 22  | 10  | 0951 | S           | 59.5435 | -149.1717 | 211            | nd            | 6    | 150 Fa wire out.   |
| PA01295.02 | Trawl  | 1    | 3   | GAK3       | 22  | 10  | 1021 | E           | 59.5572 | -149.1410 | nd             | nd            | 6    |  |
| PA01295.03 | Trawl  | 2    | 3   | GAK3       | 22  | 10  | 1109 | S           | 59.5461 | -149.1780 | 211            | nd            | 7    | 150 Fa wire out; snow.   |
| PA01295.04 | Trawl  | 2    | 3   | GAK3       | 22  | 10  | 1139 | E           | 59.5594 | -149.1480 | nd             | nd            | 7    |  |
| PA01295.05 | Tucker | 3    | 3   | GAK3       | 22  | 10  | 1203 | S           | 59.5497 | -149.1682 | 208            | nd            | 4    |  |
| PA01295.06 | Tucker | 3    | 3   | GAK3       | 22  | 10  | 1208 | E           | 59.5513 | -149.1630 | nd             | nd            | 4    |  |
| PA01295.07 | Tucker | 4    | 3   | GAK3       | 22  | 10  | 1210 | S           | 59.5522 | -149.1603 | 205            | nd            | 5    |  |
| PA01295.08 | Tucker | 4    | 3   | GAK3       | 22  | 10  | 1215 | E           | 59.5537 | -149.1547 | nd             | nd            | 5    |  |
| PA01295.09 | Tucker | 5    | 3   | GAK3       | 22  | 10  | 1217 | S           | 59.5543 | -149.1525 | 203            | nd            | 6    |  |
| PA01295.10 | Tucker | 5    | 3   | GAK3       | 22  | 10  | 1222 | E           | 59.5558 | -149.1467 | nd             | nd            | 6    |  |
| PA01295.11 | CTD    | 6    | 3   | GAK3       | 22  | 10  | 1228 | S           | 59.5560 | -149.1455 | 201            | 100           | 2    | Cast 00  |
| PA01295.12 | Trawl  | 1    | 4   | GAK4       | 22  | 10  | 1406 | S           | 59.3970 | -149.0763 | 205            | nd            | 8    | 150 Fa wire out.   |
| PA01295.13 | Trawl  | 1    | 4   | GAK4       | 22  | 10  | 1436 | E           | 59.4057 | -149.0467 | nd             | nd            | 8    |  |
| PA01295.14 | Trawl  | 2    | 4   | GAK4       | 22  | 10  | 1509 | S           | 59.4138 | -149.0263 | 195            | nd            | 9    | 150 Fa wire out; sunny.  |
| PA01295.15 | Trawl  | 2    | 4   | GAK4       | 22  | 10  | 1539 | E           | 59.4228 | -148.9981 | nd             | nd            | 9    |  |
| PA01295.16 | Tucker | 3    | 4   | GAK4       | 22  | 10  | 1612 | S           | 59.4195 | -149.0193 | 195            | nd            | 7    |  |
| PA01295.17 | Tucker | 3    | 4   | GAK4       | 22  | 10  | 1617 | E           | 59.4217 | -149.0130 | nd             | nd            | 7    |  |
| PA01295.18 | Tucker | 4    | 4   | GAK4       | 22  | 10  | 1619 | S           | 59.4232 | -149.0100 | 194            | nd            | 8    |  |
| PA01295.19 | Tucker | 4    | 4   | GAK4       | 22  | 10  | 1624 | E           | 59.4253 | -149.0037 | nd             | nd            | 8    |  |
| PA01295.20 | Tucker | 5    | 4   | GAK4       | 22  | 10  | 1627 | S           | 59.4265 | -149.0100 | 190            | nd            | 9    |  |
| PA01295.21 | Tucker | 5    | 4   | GAK4       | 22  | 10  | 1632 | E           | 59.4288 | -148.9945 | nd             | nd            | 9    |  |
| PA01295.22 | CTD    | 6    | 4   | GAK4       | 22  | 10  | 1637 | S           | 59.4305 | -148.9918 | 189            | 100           | 3    | Cast 01  |
| PA01296.01 | Trawl  | 1    | 5   | PWS2       | 23  | 10  | 1424 | S           | 60.1106 | -147.8175 | 286            | nd            | 10   | 125 Fa wire out.   |
| PA01296.02 | Trawl  | 1    | 5   | PWS2       | 23  | 10  | 1454 | E           | 60.1261 | -147.8407 | nd             | nd            | 10   |  |
| PA01296.03 | Trawl  | 1    | 6   | PWS1       | 23  | 10  | 1610 | S           | 60.1947 | -147.9608 | 443            | nd            | 11   | 125 Fa wire out.   |
| PA01296.04 | Trawl  | 1    | 6   | PWS1       | 23  | 10  | 1640 | E           | 60.2113 | -147.9714 | nd             | nd            | 11   |  |
| PA01296.05 | Trawl  | 2    | 6   | PWS1       | 23  | 10  | 1719 | S           | 60.1762 | -147.9630 | 360            | nd            | 12   | 125 Fa wire out.   |
| PA01296.06 | Trawl  | 2    | 6   | PWS1       | 23  | 10  | 1749 | E           | 60.1909 | -147.9716 | nd             | nd            | 12   |  |
| PA01296.07 | Tucker | 3    | 6   | PWS1       | 23  | 10  | 1805 | S           | 60.1862 | -147.9703 | 413            | nd            | 10   |  |
| PA01296.08 | Tucker | 3    | 6   | PWS1       | 23  | 10  | 1810 | E           | 60.1890 | -147.9672 | nd             | nd            | 10   |  |
| PA01296.09 | Tucker | 4    | 6   | PWS1       | 23  | 10  | 1812 | S           | 60.1902 | -147.9668 | 427            | nd            | 11   |  |

**Appendix I: Event Log**

| Event#     | Instr  | Cast | Sta | Sta<br>std | Day | Mos | Time | S/E<br>flag | Lat     | Long      | Water<br>Depth | Cast<br>Depth | Haul | Comments                           |
|------------|--------|------|-----|------------|-----|-----|------|-------------|---------|-----------|----------------|---------------|------|------------------------------------|
| PA01296.10 | Tucker | 4    | 6   | PWS1       | 23  | 10  | 1817 | E           | 60.1927 | -147.9652 | nd             | nd            | 11   |                                    |
| PA01296.11 | Tucker | 5    | 6   | PWS1       | 23  | 10  | 1821 | S           | 60.1950 | -147.9645 | 445            | nd            | 12   |                                    |
| PA01296.12 | Tucker | 5    | 6   | PWS1       | 23  | 10  | 1826 | E           | 60.1980 | -147.9635 | nd             | nd            | 12   |                                    |
| PA01296.13 | CTD    | 6    | 6   | PWS1       | 23  | 10  | 1831 | S           | 60.1980 | -147.9648 | 449            | 100           | 4    | cast 00                            |
| PA01297.01 | Trawl  | 1    | 7   | PWS3       | 24  | 10  | 0907 | S           | 60.0452 | -147.6907 | 113            | nd            | 13   | 125 Fa wire out; humpback whales.  |
| PA01297.02 | Trawl  | 1    | 7   | PWS3       | 24  | 10  | 0937 | E           | 60.0632 | -147.6800 | nd             | nd            | 13   |                                    |
| PA01297.03 | Trawl  | 1    | 8   | GAK5       | 24  | 10  | 1642 | S           | 59.2737 | -148.9303 | 176            | nd            | 14   | 150 Fa wire out; whales and birds. |
| PA01297.04 | Trawl  | 1    | 8   | GAK5       | 24  | 10  | 1712 | E           | 59.2870 | -148.9732 | nd             | nd            | 14   |                                    |