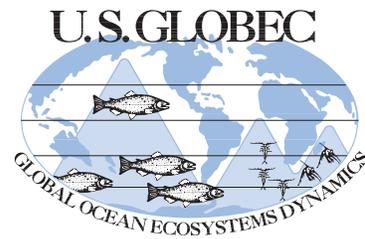


GLOBEC Northeast Pacific, Coastal Gulf of Alaska

Cruise Report, R/V *Pandalus* (G01-3)
(Alternate Cruise ID, PA0103)

18 – 22 September, 2001



**GLOBEC Northeast Pacific, Gulf of Alaska
Cruise Report, R/V *Pandalus* (G01-3)
(Alternate Cruise ID, PA0103)
18 - 22 September, 2001**

Chief Scientist:

Lew Haldorson
Juneau Center School of Fishery Ocean Sciences
University of Alaska, Fairbanks
Juneau, AK 99801
907-465-6441
lew.haldorson@uaf.edu

Port of Departure: Seward, 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

Lew Haldorson	Juneau Center, School of Fishery Ocean Sciences
Mikhail Blikshteyn	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 September. Scientists arrived in Seward. Sorted gear and prepared for cruise.

18 September. Loaded gear on R/V *Pandalus* at Seward Marine Station.

18 - 20 September. Sampled stations on the Seward hydrographic line.

20 - 21 September. Sampled stations in Prince William Sound.

21 - 22 September. Completed a diel survey, with 4 samples in a 24-hour period at PWS 1.

22 September. Offloaded gear at the Seward Marine Station.

23 September. Scientists left Seward.

Summary of Sampling Operations

A surface trawl (Trawl) was used to sample fish at GAK stations 1 - 6. Three stations in PWS were also sampled with a surface trawl. Fish caught included juvenile pink, chum, sockeye, coho, and chinook salmon. Fish were identified, sorted to species, and counted. Fish were measured and frozen in seawater.

A diel sample was taken at PWS 1 using the surface trawl. Samples were taken at 14:00, 20:00, 02:00, and 08:00.

Surface plankton was sampled at each station, for both daytime and diel sampling, using an NIO net (Tucker) (1m² 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

PA0103 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-m² 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 std	Day	Mos	Time	S/E flag	Lat	Long	Water Depth	Cast Depth	Haul	Comments
PA01261.01	Trawl	1	1	GAK1	18	9	1527	S	59.8350	-149.4663	274	nd	1	
PA01261.02	Trawl	1	1	GAK1	18	9	1559	E	59.8153	-149.4590	nd	nd	1	
PA01261.03	Tucker	2	1	GAK1	18	9	1618	S	59.8118	-149.4527	278	nd	1	
PA01261.04	Tucker	2	1	GAK1	18	9	1623	E	59.8162	-149.4530	nd	nd	1	
PA01261.05	Tucker	3	1	GAK1	18	9	1625	S	59.8185	-149.4533	277	nd	2	
PA01261.06	Tucker	3	1	GAK1	18	9	1630	E	59.8232	-149.4533	nd	nd	2	
PA01261.07	Tucker	4	1	GAK2	18	9	1632	S	59.8250	-149.4535	277	nd	3	
PA01261.08	Tucker	4	1	GAK2	18	9	1637	E	59.8298	-149.4535	nd	nd	3	
PA01261.09	CTD	5	1	GAK3	18	9	1644	S	59.8312	-149.4488	275	100	1	Cast 00
PA01262.01	Trawl	1	2	GAK6	19	9	0952	S	59.1107	-148.7626	150	nd	2	
PA01262.02	Trawl	1	2	GAK6	19	9	1022	E	59.0940	-148.8002	nd	nd	2	
PA01262.03	Tucker	2	2	GAK6	19	9	1043	S	59.0995	-148.7962	153	nd	4	
PA01262.04	Tucker	2	2	GAK6	19	9	1048	E	59.1013	-148.7893	nd	nd	4	
PA01262.05	Tucker	3	2	GAK6	19	9	1050	S	59.1020	-148.7865	152	nd	5	
PA01262.06	Tucker	3	2	GAK6	19	9	1055	E	59.1035	-148.7800	nd	nd	5	
PA01262.07	Tucker	4	2	GAK6	19	9	1057	S	59.1043	-148.7772	153	nd	6	
PA01262.08	Tucker	4	2	GAK6	19	9	1102	E	59.1060	-148.7708	nd	nd	6	
PA01262.09	CTD	5	2	GAK6	19	9	1107	S	59.1055	-148.7660	152	100	2	Cast 01
PA01262.10	Trawl	1	3	GAK5	19	9	1233	S	59.2537	-148.9173	170	nd	3	
PA01262.11	Trawl	1	3	GAK5	19	9	1306	E	59.2800	-148.8980	nd	nd	3	
PA01262.12	Tucker	2	3	GAK5	19	9	1322	S	59.2820	-148.9885	168	nd	7	
PA01262.13	Tucker	2	3	GAK5	19	9	1327	E	59.2698	-148.9888	nd	nd	7	
PA01262.14	Tucker	3	3	GAK5	19	9	1333	S	59.2645	-148.9045	167	nd	8	
PA01262.15	Tucker	3	3	GAK5	19	9	1338	E	59.2603	-148.9045	nd	nd	8	
PA01262.16	Tucker	4	3	GAK5	19	9	1342	S	59.2562	-148.9037	166	nd	9	
PA01262.17	Tucker	4	3	GAK5	19	9	1347	E	59.2520	-148.9038	nd	nd	9	
PA01262.18	CTD	5	3	GAK5	19	9	1351	S	59.2520	-148.9082	169	100	3	Cast 02
PA01262.19	Trawl	1	4	GAK4	19	9	1526	S	59.4081	-149.0547	203	nd	4	
PA01262.20	Trawl	1	4	GAK4	19	9	1556	E	59.3938	-149.0357	nd	nd	4	
PA01262.21	Tucker	2	4	GAK4	19	9	1620	S	59.4007	-149.0350	201	nd	10	
PA01262.22	Tucker	2	4	GAK4	19	9	1625	E	59.4048	-149.0395	nd	nd	10	
PA01262.23	Tucker	3	4	GAK4	19	9	1630	S	59.4088	-149.0445	201	nd	11	
PA01262.24	Tucker	3	4	GAK4	19	9	1633	E	59.4100	-149.0488	nd	nd	11	
PA01262.25	Tucker	4	4	GAK4	19	9	1636	S	59.4063	-149.0517	201	nd	12	
PA01262.26	Tucker	4	4	GAK4	19	9	1639	E	59.4172	-149.0543	nd	nd	12	
PA01262.27	CTD	5	4	GAK4	19	9	1645	S	59.4192	-149.0545	200	100	4	Cast 03
PA01262.28	Trawl	1	5	GAK3	19	9	1758	S	59.5458	-149.1880	214	nd	5	
PA01262.29	Trawl	1	5	GAK3	19	9	1828	E	59.5663	-149.2087	nd	nd	5	
PA01262.30	Tucker	2	5	GAK3	19	9	1849	S	59.5642	-149.2132	216	nd	13	
PA01262.31	Tucker	2	5	GAK3	19	9	1854	E	59.5605	-149.2105	nd	nd	13	
PA01262.32	Tucker	3	5	GAK3	19	9	1856	S	59.5587	-149.2085	216	nd	14	
PA01262.33	Tucker	3	5	GAK3	19	9	1901	E	59.5550	-149.2050	nd	nd	14	
PA01262.34	Tucker	4	5	GAK3	19	9	1903	S	59.5533	-149.2030	216	nd	15	
PA01262.35	Tucker	4	5	GAK3	19	9	1908	E	59.5497	-149.1998	nd	nd	15	
PA01262.36	CTD	5	5	GAK3	19	9	1913	S	59.5503	-149.1965	214	100	5	Cast 04
PA01263.01	Trawl	1	6	GAK2	20	9	0818	S	59.6722	-149.3142	220	nd	6	
PA01263.02	Trawl	1	6	GAK2	20	9	0847	E	59.6908	-149.3282	nd	nd	6	
PA01263.03	Tucker	2	6	GAK2	20	9	0909	S	59.6890	-149.3368	230	nd	16	

Appendix I: Event Log

Event#	Instr	Cast	Sta	Sta std	Day	Mos	Time	S/E flag	Lat	Long	Water Depth	Cast Depth	Haul	Comments
PA01263.04	Tucker	2	6	GAK2	20	9	0914	E	59.6842	-149.3340	nd	nd	16	
PA01263.05	Tucker	3	6	GAK2	20	9	0916	S	59.6822	-149.3323	230	nd	17	
PA01263.06	Tucker	3	6	GAK2	20	9	0921	E	59.6767	-149.3290	nd	nd	17	
PA01263.07	Tucker	4	6	GAK2	20	9	0923	S	59.6745	-149.3273	223	nd	18	
PA01263.08	Tucker	4	6	GAK2	20	9	0928	E	59.6692	-149.3242	nd	nd	18	
PA01263.09	CTD	5	6	GAK2	20	9	0936	S	59.6643	-149.3218	221	100	6	Cast 00
PA01263.10	Trawl	1	7	PWS3	20	9	1707	S	60.0475	-147.6797	138	nd	7	
PA01263.11	Trawl	1	7	PWS3	20	9	1737	E	60.0622	-147.6515	nd	nd	7	
PA01263.12	Tucker	2	7	PWS3	20	9	1802	S	60.0613	-147.6557	143	nd	19	
PA01263.13	Tucker	2	7	PWS3	20	9	1807	E	60.0590	-147.6640	nd	nd	19	
PA01263.14	Tucker	3	7	PWS3	20	9	1814	S	60.0545	-147.6765	107	nd	20	
PA01263.15	Tucker	3	7	PWS3	20	9	1819	E	60.0513	-147.6850	nd	nd	20	
PA01263.16	Tucker	4	7	PWS3	20	9	1821	S	60.0503	-147.6885	122	nd	21	
PA01263.17	Tucker	4	7	PWS3	20	9	1826	E	60.0470	-147.6952	nd	nd	21	
PA01263.18	CTD	5	7	PWS3	20	9	1835	S	60.0442	-147.6998	186	100	7	Cast 01
PA01263.19	Trawl	6	7	PWS3	20	9	1856	S	60.0425	-147.6905	130	nd	8	
PA01263.20	Trawl	6	7	PWS3	20	9	1929	E	60.0600	-147.6873	nd	nd	8	
PA01264.01	Trawl	1	8	PWS2	21	9	0847	S	60.0960	-147.8254	261	nd	9	
PA01264.02	Trawl	1	8	PWS2	21	9	0918	E	60.1142	-147.8567	nd	nd	9	
PA01264.03	Tucker	2	8	PWS2	21	9	0938	S	60.1123	-147.8657	244	nd	22	
PA01264.04	Tucker	2	8	PWS2	21	9	0943	E	60.1120	-147.8592	nd	nd	22	
PA01264.05	Tucker	3	8	PWS2	21	9	0945	S	60.1115	-147.8565	243	nd	23	
PA01264.06	Tucker	3	8	PWS2	21	9	0950	E	60.1090	-147.8510	nd	nd	23	
PA01264.07	Tucker	4	8	PWS2	21	9	0952	S	60.1082	-147.8487	243	nd	24	
PA01264.08	Tucker	4	8	PWS2	21	9	0957	E	60.1057	-147.8432	nd	nd	24	
PA01264.09	CTD	5	8	PWS2	21	9	1006	S	60.1135	-147.8462	261	100	8	Cast 02
PA01264.10	Trawl	6	8	PWS2	21	9	1039	S	60.1002	-147.8441	232	nd	10	
PA01264.11	Trawl	6	8	PWS2	21	9	1109	E	60.1227	-147.8595	nd	nd	10	
PA01264.12	Trawl	1	9	PWS1	21	9	1218	S	60.1882	-147.9760	417	nd	11	
PA01264.13	Trawl	1	9	PWS1	21	9	1248	E	60.2030	-148.0098	nd	nd	11	
PA01264.14	Tucker	2	9	PWS1	21	9	1307	S	60.2010	-148.0148	241	nd	25	
PA01264.15	Tucker	2	9	PWS1	21	9	1312	E	60.1982	-148.0090	nd	nd	25	
PA01264.16	Tucker	3	9	PWS1	21	9	1313	S	60.1973	-148.0062	213	nd	26	
PA01264.17	Tucker	3	9	PWS1	21	9	1318	E	60.1947	-147.9997	nd	nd	26	
PA01264.18	Tucker	4	9	PWS1	21	9	1320	S	60.1938	-147.9973	135	nd	27	
PA01264.19	Tucker	4	9	PWS1	21	9	1325	E	60.1910	-147.9910	nd	nd	27	
PA01264.20	CTD	5	9	PWS1	21	9	1331	S	60.1905	-147.9892	252	100	9	Cast 03
PA01264.21	Trawl	6	9	PWS1	21	9	1400	S	60.1913	-147.9648	426	nd	12	
PA01264.22	Trawl	6	9	PWS1	21	9	1430	E	60.2090	-147.9967	nd	nd	12	
PA01264.23	Trawl	1	10	PWS1	21	9	1858	S	60.1873	-147.9453	393	nd	13	
PA01264.24	Trawl	1	10	PWS1	21	9	1938	E	60.1873	-147.9453	nd	nd	13	
PA01264.25	Trawl	2	10	PWS1	21	9	2015	S	60.1899	-147.9695	425	nd	14	
PA01264.26	Trawl	2	10	PWS1	21	9	2045	E	60.2023	-147.9987	nd	nd	14	
PA01264.27	Tucker	3	10	PWS1	21	9	2108	S	60.2025	-147.9945	215	nd	28	
PA01264.28	Tucker	3	10	PWS1	21	9	2113	E	60.1992	-147.9868	nd	nd	28	
PA01264.29	Tucker	4	10	PWS1	21	9	2115	S	60.1843	-147.9815	444	nd	29	
PA01264.30	Tucker	4	10	PWS1	21	9	2120	E	60.1945	-147.9735	nd	nd	29	
PA01264.31	Tucker	5	10	PWS1	21	9	2123	S	60.1928	-147.9703	434	nd	30	

Appendix I: Event Log

Event#	Instr	Cast	Sta	Sta std	Day	Mos	Time	S/E flag	Lat	Long	Water Depth	Cast Depth	Haul	Comments
PA01264.32	Tucker	5	10	PWS1	21	9	2125	E	60.1907	-147.9675	nd	nd	30	
PA01264.33	CTD	6	10	PWS1	21	9	2132	S	60.1883	-147.9652	421	100	10	Cast 04
PA01265.01	Trawl	1	11	PWS1	22	9	0152	S	60.1900	-147.9438	405	nd	15	
PA01265.02	Trawl	1	11	PWS1	22	9	0232	E	60.2158	-147.9760	nd	nd	15	
PA01265.03	Trawl	2	11	PWS1	22	9	0323	S	60.1890	-147.9715	426	nd	16	
PA01265.04	Trawl	2	11	PWS1	22	9	0353	E	60.2060	-148.0037	nd	nd	16	
PA01265.05	Tucker	3	11	PWS1	22	9	0414	S	60.2077	-148.0000	216	nd	31	
PA01265.06	Tucker	3	11	PWS1	22	9	0417	E	60.2068	-147.9947	nd	nd	31	
PA01265.07	Tucker	4	11	PWS1	22	9	0419	S	60.2062	-147.9907	423	nd	32	
PA01265.08	Tucker	4	11	PWS1	22	9	0422	E	60.2048	-147.9860	nd	nd	32	
PA01265.09	Tucker	5	11	PWS1	22	9	0427	S	60.2013	-147.9762	452	nd	33	
PA01265.10	Tucker	5	11	PWS1	22	9	0430	E	60.1997	-147.9717	nd	nd	33	
PA01265.11	CTD	6	11	PWS1	22	9	0436	S	60.1975	-147.9692	436	100	11	Cast 05
PA01265.12	Trawl	1	12	PWS1	22	9	0818	S	60.1822	-147.9583	399	nd	17	
PA01265.13	Trawl	1	12	PWS1	22	9	0838	E	60.1858	-147.9838	nd	nd	17	
PA01265.14	Tucker	2	12	PWS1	22	9	0902	S	60.1762	-147.9622	364	nd	34	
PA01265.15	Tucker	2	12	PWS1	22	9	0907	E	60.1788	-147.9653	nd	nd	34	
PA01265.16	Tucker	3	12	PWS1	22	9	0909	S	60.1798	-147.9668	381	nd	35	
PA01265.17	Tucker	3	12	PWS1	22	9	0914	E	60.1823	-147.9693	nd	nd	35	
PA01265.18	Tucker	4	12	PWS1	22	9	0916	S	60.1832	-147.9707	389	nd	36	
PA01265.19	Tucker	4	12	PWS1	22	9	0921	E	60.1857	-147.9730	nd	nd	36	
PA01265.20	CTD	5	12	PWS1	22	9	0928	S	60.1845	-147.9753	387	100	12	Cast 06?