

APPENDIX C

Burbot winter catch data and
age, length, and sex data.

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Appendix Table C-1. Burbot catch per unit effort (CPUE) at selected fish habitat (SFH) sites in the Susitna River and tributaries between Cook Inlet and Devil Canyon, December, 1982 to March, 1983.

<u>Location</u>	<u>RM/TRM</u>	<u>Date(s) Sampled</u>	<u>Method of Capture</u>	<u>Numbers of Fish Captured</u>	<u>(CPUE)</u>
Deshka River	40.6/0.0	12/2 - 12/3	Trotline	22	1.69
Deshka River	40.6/0.0	12/2 - 12/3	Burbot Set	1	0.50
Deshka River	40.6/2.0	12/2 - 12/3	Trotline	13	2.17
Deshka River	40.6/2.0	12/2 - 12/3	Burbot Set	1	0.50
Deshka River	40.6/0.0	11/11 - 1/12	Trotline	10	1.25
Deshka River	40.6/2.0	1/10 - 1/12	Trotline	8	0.80
Deshka River	40.6/0.0	2/16 - 2/17	Trotline	19	2.70
Deshka River	40.6/0.0	2/16 - 2/17	Burbot Set	1	1.00
Indian River	138.6/0.0	1/27 - 1/29	Trotline	1	0.17
Susitna River	136.7	12/19 - 12/24	Trotline	2	0.08
Susitna River	76.1	3/10 - 3/11	Trotline	5	1.00
Susitna River	72.0	3/11 - 3/12	Trotline	6	1.50

Appendix Table C-2 Burbot age-length^{1/} relationships on the Susitna River between Cook Inlet and Devil Canyon, December 1982 to March 1983.

Age (Years)	Cook Inlet to Chulitna Confluence			Chulitna Confluence to Devil Canyon			Cook Inlet to Devil Canyon			
	Total No. of fish Sampled	Mean length (mm)	Range of lengths (mm)	Total No. of fish Sampled	Mean length (mm)	Range of lengths (mm)	Total No. of fish Sampled	Percent Frequency	Mean length (mm)	Range of lengths (mm)
0	-	-	-	-	-	-	-	-	-	-
I	-	-	-	-	-	-	-	-	-	-
II	-	-	-	-	-	-	-	-	-	-
III	-	-	-	-	-	-	-	-	-	-
IV	3	417	395-430	-	-	-	3	4.4	417	395-430
V	15	472	440-545	-	-	-	15	21.7	472	440-545
VI	19	503	430-580	1	470	-	20	29.0	502	430-580
VII	7	525	420-600	1	585	-	8	11.6	532	420-600
VIII	7	554	490-660	-	-	-	7	10.1	554	490-660
IX	6	625	598-710	1	660	-	7	10.1	630	598-710
X	5	703	604-795	-	-	-	5	7.3	703	604-795
XI	2	725	670-780	-	-	-	2	2.9	725	670-780
XII	2	730	695-765	-	-	-	2	2.9	730	695-765
TOTAL	66	584	395-795	3	572	470-660	69	100.0	585	395-795

^{1/} Total length in millimeters.

Appendix Table C-3. Relative spawning maturity of burbot captured in the Susitna River between Cook Inlet and Devil Canyon, December, 1982 to March, 1983.

<u>Condition of Gonads</u>	<u>Length¹</u>	<u>Age</u>	<u>Date Captured</u>	<u>Area of Capture</u>	<u>River/Tributary Mile/River Mile</u>
<u>Sex - Male</u>					
ripe	424	5	12/3	Deshka R.	40.6/0.0
ripe	425	5	12/3	Deshka R.	40.6/0.0
immature	425	4	3/12	Mainstem	72.0
ripe	427	5	1/12	Deshka R.	40.6/0.0
ripe	430	4	12/3	Deshka R.	40.6/0.0
ripe	445	5	1/12	Deshka R.	40.6/0.0
ripe	465	5	12/3	Deshka R.	40.6/0.0
ripe	492	7	12/3	Deshka R.	40.6/0.0
ripe	498	6	1/12	Deshka R.	40.6/0.0
ripe	535	5	1/12	Deshka R.	40.6/0.0
ripe	540	7	1/12	Deshka R.	40.6/0.0
immature	545	5	3/12	Mainstem	72.0
ripe	580	8	12/3	Deshka R.	40.6/0.0
immature	585	7	1/29	Indian R.	138.6/0.0
ripe	725	10	1/11	Deshka R.	40.6/0.0
spent	420	7	2/17	Deshka R.	40.6/0.0
spent	435	5	2/17	Deshka R.	40.6/0.0
spent	440	5	2/17	Deshka R.	40.6/0.0
spent	500	6	2/17	Deshka R.	40.6/0.0
spent	515	6	2/17	Deshka R.	40.6/0.0
spent	630	9	3/11	Mainstem	76.1
spent	660	9	3/11	Mainstem	76.1
spent	780	11	3/11	Mainstem	76.1

Total number males, 23.

¹ Total length in millimeters.

Appendix Table C-3 (Continued).

<u>Condition of Gonads</u>	<u>Length¹</u>	<u>Age</u>	<u>Date Captured</u>	<u>Area of Capture</u>	<u>River/Tributary Mile/River Mile</u>
<u>Sex - Female</u>					
immature	395	4	1/11	Deshka R.	40.6/2.0
ripe	430	6	12/3	Deshka R.	40.6/2.0
ripe	440	6	12/3	Deshka R.	40.6/2.0
ripe	440	5	12/3	Deshka R.	40.6/2.0
immature	440	6	12/3	Deshka R.	40.6/2.0
ripe	460	6	12/3	Deshka R.	40.6/2.0
ripe	461	6	1/12	Deshka R.	40.6/0.0
ripe	465	5	12/3	Deshka R.	40.6/0.0
ripe	470	6	12/20	Mainstem	136.7
ripe	471	6	12/3	Deshka R.	40.6/0.0
ripe	474	6	12/3	Deshka R.	40.6/2.0
ripe	488	5	12/3	Deshka R.	40.6/2.0
ripe	490	7	12/3	Deshka R.	40.6/2.0
immature	495	5	1/12	Deshka R.	40.6/2.0
ripe	510	5	12/3	Deshka R.	40.6/2.0
immature	525	6	1/12	Deshka R.	40.6/0.0
immature	535	5	3/12	Mainstem	72.0
ripe	543	6	12/3	Deshka R.	40.6/0.0
ripe	550	8	12/3	Deshka R.	40.6/2.0
ripe	550	6	1/12	Deshka R.	40.6/0.0
ripe	550	6	1/12	Deshka R.	40.6/2.0
ripe	552	7	12/3	Deshka R.	40.6/2.0
ripe	555	8	12/3	Deshka R.	40.6/0.0
ripe	568	6	1/11	Deshka R.	40.6/2.0
ripe	570	6	12/3	Deshka R.	40.6/0.0
ripe	578	7	12/3	Deshka R.	40.6/0.0
ripe	580	6	12/3	Deshka R.	40.6/0.0
ripe	598	9	12/3	Deshka R.	40.6/0.0

¹ Total length in millimeters.

Appendix Table C-3 (Continued).

<u>Condition of Gonads</u>	<u>Length¹</u>	<u>Age</u>	<u>Date Captured</u>	<u>Area of Capture</u>	<u>River/Tributary Mile/River Mile</u>
<u>Sex - Female</u>					
ripe	600	7	1/11	Deshka R.	40.6/2.0
ripe	600	8	1/12	Deshka R.	40.6/0.0
ripe	604	10	12/3	Deshka R.	40.6/0.0
ripe	610	9	12/3	Deshka R.	40.6/0.0
ripe	615	9	12/3	Deshka R.	40.6/2.0
ripe	626	10	12/3	Deshka R.	40.6/0.0
immature	695	12	3/12	Mainstem	72.0
immature	710	9	3/12	Mainstem	72.0
ripe	765	12	12/3	Deshka R.	40.6/2.0
spent	470	6	2/17	Deshka R.	40.6/0.0
spent	490	8	2/17	Deshka R.	40.6/0.0
spent	490	8	2/17	Deshka R.	40.6/0.0
spent	515	6	2/17	Deshka R.	40.6/0.0
spent	590	9	2/17	Deshka R.	40.6/0.0
spent	660	8	3/11	Mainstem	76.1
spent	670	11	2/17	Deshka R.	40.6/0.0
spent	765	10	3/11	Mainstem	76.1
spent	795	10	3/12	Mainstem	72.0

Total number of females, 46

¹ Total length in millimeters.

Appendix Table C-4 Burbot age-length^{1/} relationships by sex on the Susitna River between Cook Inlet and Devil Canyon, February 1981 to March 1983.

		Cook Inlet to Chulitna Confluence			Chulitna Confluence to Devil Canyon			Cook Inlet to Devil Canyon			Both Sexes: Cook Inlet to Devil Canyon			
Age (Years)	Sex	Total No. of fish Sampled	Mean length (mm)	Range of length (mm)	Total No. of fish Sampled	Mean length (mm)	Range of length (mm)	Total No. of fish Sampled	Mean length (mm)	Range of length (mm)	Total No. of fish Sampled	Percent Frequency	Mean length (mm)	Range of length (mm)
0	I	5	99	85-115	2	108	102-114	7	102	85-115	-	-	-	-
I	I	5	189	168-205	1	110	-	6	175	168-205	-	-	-	-
II	I	1	180	-	-	-	-	1	180	-	-	-	-	-
III	M	4	355	295-400	3	334	322-353	7	346	295-400	13	5.0	339	238-400
	F	2	289	238-340	4	351	330-398	6	331	238-398				
IV	M	10	404	303-450	1	415	-	11	405	303-450	30	11.6	418	303-490
	F	16	422	355-490	3	441	430-460	19	425	355-490				
V	M	26	448	370-550	7	457	390-530	33	450	370-550	62	24.0	453	365-550
	F	21	466	365-535	8	432	378-482	29	457	365-535				
VI	M	12	497	430-555	6	490	440-575	18	495	430-575	47	18.2	492	394-580
	F	23	496	430-580	6	471	394-525	29	491	394-580				
VII	M	6	534	420-614	6	546	468-600	12	540	420-614	28	10.9	523	418-614
	F	12	517	418-600	4	489	469-510	16	510	418-600				
VIII	M	9	585	513-672	2	581	515-647	11	585	513-672	33	12.8	568	456-672
	F	17	563	456-660	5	546	480-600	22	559	456-660				
IX	M	4	638	572-680	2	615	570-660	6	631	570-680	17	6.6	615	500-710
	F	8	615	556-710	3	585	500-675	11	607	500-710				
X	M	3	658	600-725	-	-	-	3	658	600-725	11	4.3	662	555-795
	F	7	659	555-795	1	690	-	8	663	555-795				
XI	M	3	670	609-780	1	780	-	4	697	609-780	8	3.1	697	609-780
	F	2	690	670-710	2	703	665-740	4	696	665-740				
XII	M	2	697	654-740	-	-	-	2	697	654-740	6	2.3	725	654-790
	F	3	721	695-765	1	790	-	4	739	695-790				
XIII	F	1	900	-	-	-	-	1	900	-	1	0.4	900	-
XIV	F	1	815	-	-	-	-	1	815	-	1	0.4	815	-
XV	F	1	804	-	-	-	-	1	804	-	1	0.4	804	-
TOTAL		204	535	85-900	68	497	102-790	272	537	85-900	258	100.0	616	238-900

I = Immature, sex not identified

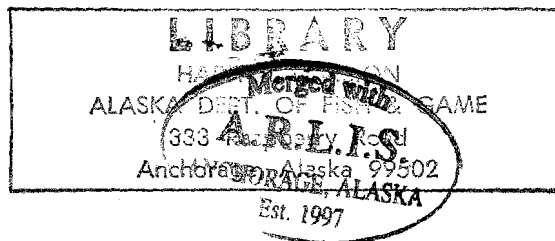
M = Male

F = Female

^{1/} Total length in millimeters.

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**SUSITNA HYDRO AQUATIC STUDIES
PHASE II DATA REPORT**

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