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THE PACIFIC SALMON COMMISSION
NORTHERN BOUNDARY TECHNICAL COMMITTEE REPORT

REPORT TCNB (86)-2

STEELHEAD REPORT

Steelhead

This brief report was prepared in response to a recommendation to the Northern Boundary Technical Committee issued by the Northern Panel following their meeting in Vancouver, February 17-18, 1986. The Panel requested:

"The joint technical committees to provide information on steelhead in the Northern/Transboundary areas. As a first step in the process both Canada and the U.S. will exchange information on commercial catches."

The response of the Northern Boundary Technical Committee is in the form of;

- i) an oral presentation to the Northern Panel November 16-21, 1986 in Vancouver.
- ii) a summary report of the available data.

The following report consists of tables presenting the commercial catch information for northern British Columbia while sport and commercial catch are presented for the southern Southeast Alaska fishing areas.

The British Columbia catch information is compiled from annual saleslip publications for the years 1963 to 1984, while 1985 and 1986 catch data is preliminary saleslip information. When interpreting this information caution should be taken as it is believed that a large percentage of the steelhead catch is either misreported as another species or not recorded on saleslips at all.

THE COMMERCIAL NET CATCH OF STEELHEAD IN NORTHERN BRITISH COLUMBIA

YEAR	AREA 1		AREA 2		AREA 4		AREA 5	
	GILLNET	SEINE	GILLNET	SEINE	GILLNET	SEINE	GILLNET	SEINE
1962	94	1	466	8	2840	3	553	47
1964	199	7	974	157	10168	17	456	59
1965	281	21	1105	189	2731	6	753	77
1966	26	29	2674	192	14798	8	976	69
1967	702	7	1612	448	10166	6	218	78
1968	675	27	2273	147	8175	1	386	51
1969	486	18	1618	167	5324	0	134	17
1970	423	3	625	26	4732	1	624	87
1971	492	18	1316	197	6378	21	273	66
1972	700	97	1778	300	7582	32	414	71
1973	175	50	992	45	4399	35	92	20
1974	203	88	868	76	4035	91	92	8
1975	216	39	572	58	3018	122	73	115
1976	27	18	584	135	2815	21	121	6
1977	15	12	1406	471	4644	87	236	26
1978	1	53	1359	748	3867	25	316	23
1979	72	163	667	257	5340	39	116	27
1980	89	84	1357	649	3994	12	298	74
1981	428	285	1177	705	8972	280	170	29
1982	8	62	2215	1157	11427	558	178	53
1983	17	122	2464	1594	4688	9	115	32
1984	21	173	4273	1819	15356	1077	371	472
1985	2	456	3712	2078	27818	1764	364	581
1986	11	194	2081	2051	11569	219	827	674

Note: From 1960-1984 catch figures are taken from B.C. saleslip annual publications.
 1985 & 1986 catch figures are preliminary saleslip information.

Southeast Alaska Steelhead

Sport Harvest

The sport harvest of Steelhead trout in Southeast Alaska since 1977 has fluctuated from a low of 1,088 in 1979 to a high of 3,464 in 1984, with the majority of this harvest occurring on Prince of Wales Island and in the Ketchikan area (Table). Limited information provided through spot surveys and angler mall interviews appears to indicate that the general increase in catch is more likely a function of increased effort than a dramatic improvement in wild stocks or the effects of the limited enhancement projects that have been conducted in Southeast Alaska.

Commercial Harvest

The commercial harvest of Steelhead trout in Southeast Alaska since 1977 has vacillated from a low of 898 in 1981 to a high of 9,509 in 1985. The majority of this catch occurred in Districts 101-105 (Table), with the District 104 seine and the District 101-11 gillnet fisheries reporting the majority of these fish (Table). Due to the fact that a relatively low price is paid for Steelhead trout and its popularity for homepack and smoking, commercial fishery catch statistics should be considered a minimum figure (John Valentine, personal communication). The increase in commercial harvest appears to be a function of longer fishing periods during recent years which has resulted in a larger number of sales. Additional information needs to be collected in-season to determine the cause of the increased commercial catch in Southeast Alaska.

Escapement Monitoring

Escapement data for Steelhead trout in Southeast Alaska is severely limited due to the diversity and large geographical distribution of this species natal streams. Only limited effort is spent towards conducting individual escapement surveys due to this fact. Area wide stock status is primarily monitored as a reflection of in-stream catch and its comparison with historical data on a limited number of index streams.

Table 2. Sport catch of Steelhead trout in Southeast Alaska, 1977 - 1985.

Area	1977	1978	1979	1980	1981	1982	1983	1984	1985	AVERAGE
Ketchikan Area (District 101)	708	496	290	748	480	773	634	791	907	647
Prince of Wales Island (Districts 102-105)	357	660	373	1,445	362	618	1,115	1,698	1,108	860
Petersburg/Wrangell (Districts 106-109)	412	236	281	198	262	313	475	826	305	368
Juneau (Districts 110-112)	67	45	99	85	11	62	209	33	111	80
Sitka (District 113)	70	36	36	35	65	83	176	109	156	85
Glacier Bay (Districts 114 & 116)	-	-	-	-	-	-	-	-	-	-
Haines/Skagway (District 115)	-	-	9	-	-	-	-	7	153	19
Total	1,614	1,473	1,088	2,511	1,180	1,849	2,609	3,464	2,740	2,059

Source. Alaska Department of Fish and Game Sportfish Division statewide harvest studies.

Table 3. Commercial catch of Steelhead trout by gear type in Southeast Alaska, 1977 - 1985.

	1977	1978	1979	1980	1981	1982	1983	1984	1985	MEAN
Ketchikan Area (District 101)										
Seine	21	35	6	41	-	31	197	1,963	428	302.00
Gillnet	178	550	206	272	130	754	1,828	1,763	6,008	1,299.00
Troll	-	-	3	1	-	1	1	-	5	1.30
Total	199	585	215	314	130	786	2,026	3,726	6,441	1,603.00
Prince of Wales Island (Districts 102-105)										
Seine	243	316	198	700	270	325	2,778	2,082	1,460	930.00
Gillnet	-	1	-	-	-	-	-	-	30	3.40
Troll	4	5	1	2	2	14	9	23	20	9.30
Total	247	322	199	702	272	339	2,787	2,105	1,510	943.00
Petersburg/Wrangell (Districts 106-109)										
Seine	4	9	4	2	-	-	5	29	2	6.10
Gillnet	89	263	323	99	196	314	350	505	1,009	349.00
Troll	1	4	-	1	-	1	-	1	-	1.00
Total	94	276	327	102	196	315	355	535	1,011	357.00
Juneau (Districts 110-112)										
Seine	-	1	1	-	10	12	24	28	14	10.00
Gillnet	340	396	245	359	262	457	183	366	499	345.00
Troll	2	-	-	1	-	-	1	1	-	0.63
Total	342	397	246	360	272	469	208	395	513	356.10
Sitka (District 113)										
Seine	-	-	1	-	12	-	15	21	17	7.30
Gillnet	-	-	-	-	-	-	-	-	-	-
Troll	-	-	-	-	3	3	3	15	11	3.90
Total	-	-	1	1	15	3	18	36	28	11.20
Glacier Bay (Districts 114 & 116)										
Seine	-	-	-	1	3	-	-	15	6	2.80
Gillnet	-	-	-	-	-	-	-	-	-	-
Troll	-	-	2	-	1	1	-	-	-	0.50
Total	-	-	2	1	4	1	-	15	6	3.20
Haines/Skagway (District 115)										
Seine	-	-	-	-	-	2	-	-	-	0.22
Gillnet	64	28	15	32	9	48	22	159	-	42.00
Troll	-	-	-	-	-	-	-	-	-	-
Total	64	28	15	32	9	50	22	159	-	42.22
Grand Total	946	1,608	1,005	1,513	898	1,963	5,394	6,971	9,509	3,312.00

Source. Alaska Department of Fish and Game Commercial Fisheries Division commercial catch statistics.

TABLE 4. Commercial catch of Steelhead trout by gear type in Southeast Alaska, 1970 to 1985.

Year	District 101			District 102			District 103		
	Seine	Gillnet	Troll	Seine	Gillnet	Troll	Seine	Gillnet	Troll
1970	20	489	3	2	-	1	22	-	2
1971	5	173	-	3	28	-	31	-	-
1972	-	91	-	-	16	-	-	-	-
1973	1	378	2	1	-	3	-	-	-
1974	6	364	7	2	-	-	1	-	4
1975	2	145	9	9	-	-	-	-	-
1976	6	147	2	16	-	1	5	-	3
1977	21	178	-	23	-	1	-	-	3
1978	35	550	-	6	1	-	-	-	-
1979	6	206	3	6	-	1	2	-	-
1980	41	272	1	100	-	1	-	-	1
1981	-	130	-	15	-	-	3	-	-
1982	31	754	1	8	-	-	1	-	-
1983	197	1,828	1	11	-	-	11	-	-
1984	1,963	1,763	-	91	2	-	7	-	-
1985	428	6,008	5	106	2	4	18	-	1
MEAN	173	842	2	25	3	0.8	6	0.1	0.9

Year	District 104			District 105			District 106		
	Seine	Gillnet	Troll	Seine	Gillnet	Troll	Seine	Gillnet	Troll
1970	309	-	13	-	-	-	3	462	5
1971	99	-	4	-	-	-	6	584	4
1972	7	-	-	-	-	1	2	682	2
1973	281	-	-	-	-	-	3	498	1
1974	606	-	43	-	-	-	-	339	-
1975	21	-	4	-	-	-	1	222	1
1976	120	-	5	-	-	-	1	128	1
1977	220	-	-	-	-	-	2	65	1
1978	311	-	5	-	-	-	1	203	-
1979	190	2	-	-	-	-	1	320	-
1980	600	-	-	-	-	-	-	91	-
1981	252	-	2	-	-	-	-	187	-
1982	316	-	14	-	-	-	-	282	-
1983	2,754	-	8	2	-	1	1	269	-
1984	1,984	-	23	-	-	-	7	501	-
1985	1,334	28	13	2	-	2	-	1,005	-
MEAN	587	2	8	0.3	-	0.3	2	365	0.0

Table 4. Continued

Year	District 107			District 108			District 109		
	Seine	Gillnet	Troll	Seine	Gillnet	Troll	Seine	Gillnet	Troll
1970	447	-	1	-	110	-	4	-	-
1971	-	-	-	-	60	-	-	-	-
1972	1	-	-	-	190	-	5	-	-
1973	-	-	-	-	68	-	3	-	-
1974	2	-	-	-	57	-	1	-	-
1975	1	-	-	-	5	1	-	-	-
1976	6	-	-	-	20	-	-	-	-
1977	2	-	-	-	24	-	-	-	-
1978	8	-	-	-	60	-	-	-	-
1979	3	-	-	-	3	-	-	-	-
1980	-	-	-	-	8	-	2	-	1
1981	-	-	-	-	9	-	-	-	-
1982	-	-	-	-	32	-	-	-	1
1983	4	-	-	-	81	-	-	-	-
1984	6	-	-	-	4	-	16	-	1
1985	-	-	-	-	4	-	2	-	-
MEAN	30	-	<0.1	-	46	<0.1	2	-	0.0

Year	District 110			District 111			District 112		
	Seine	Gillnet	Troll	Seine	Gillnet	Troll	Seine	Gillnet	Troll
1970	-	-	-	-	1,055	-	19	-	-
1971	-	-	-	-	610	2	-	-	-
1972	1	-	-	-	573	-	1	-	-
1973	-	-	3	-	558	-	-	-	-
1974	1	-	-	-	469	-	-	-	-
1975	-	-	-	-	89	-	-	-	-
1976	-	-	1	-	504	2	-	-	-
1977	-	-	-	-	340	2	-	-	-
1978	-	-	-	-	396	-	1	-	-
1979	-	-	-	-	245	-	1	-	-
1980	-	-	-	-	359	1	-	-	-
1981	2	-	-	-	262	-	8	-	-
1982	5	-	-	-	457	-	7	-	-
1983	2	-	-	-	183	-	22	-	1
1984	2	-	-	-	366	-	26	-	1
1985	2	-	-	-	499	-	12	-	-
MEAN	0.9	-	0.3	-	435	0.4	6	-	0.0

Table 4. Continued

Year	District 113			District 114			District 115		
	Seine	Gillnet	Troll	Seine	Gillnet	Troll	Seine	Gillnet	Troll
1970	-	-	-	12	-	-	-	29	-
1971	-	-	-	4	-	-	-	189	-
1972	-	-	-	1	-	-	-	92	-
1973	-	-	2	1	-	-	-	30	-
1974	-	-	-	6	-	-	-	30	-
1975	-	-	-	2	-	-	-	25	-
1976	-	-	-	-	-	-	-	365	-
1977	-	-	-	-	-	-	-	64	-
1978	-	-	-	-	-	-	-	28	-
1979	1	-	-	-	-	2	-	15	-
1980	-	-	-	1	-	-	-	32	-
1981	12	-	3	3	-	1	-	9	-
1982	-	-	3	-	-	1	2	48	-
1983	15	-	3	-	-	-	-	22	-
1984	21	-	15	15	-	-	-	159	-
1985	17	-	11	6	-	-	-	-	-
MEAN	4	-	2	3	-	0.3	0.1	71	-