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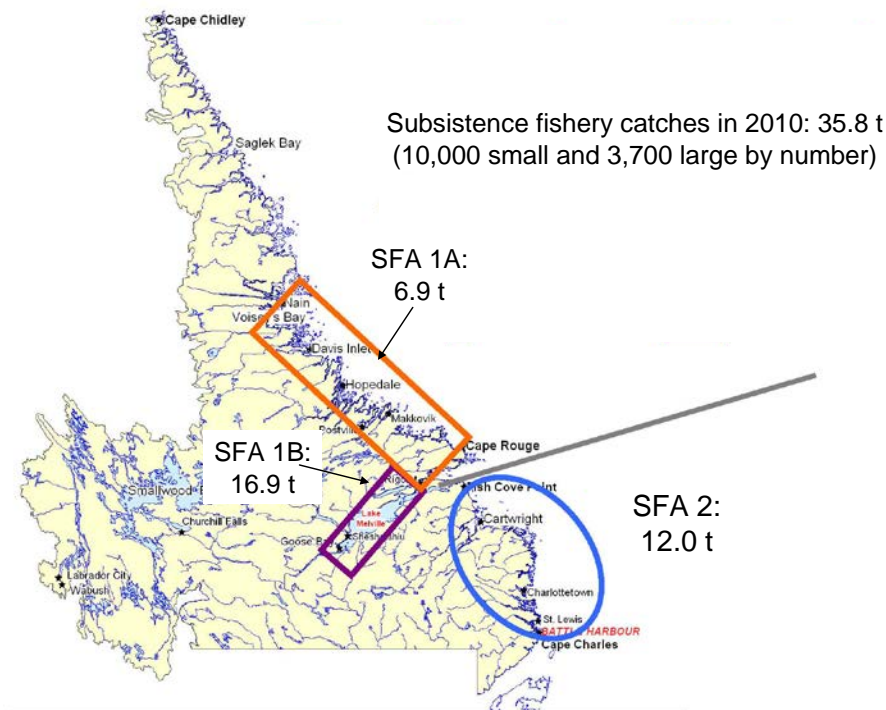
REPORT OF THE LABRADOR ATLANTIC SALMON FISHERIES AND SAMPLING PROGRAM

SALMON FISHERIES MANAGEMENT FOR LABRADOR

Three user groups in Labrador had access to Atlantic salmon in 2010.

Aboriginal fisheries

In Labrador (SFAs 1 and 2), Food, Social and Ceremonial (FSC) fishery arrangements with the Nunatsiavut Government, the Innu First Nation, and the NunatuKavut Community Council Inc. (formerly the Labrador Metis Nation), resulted in fisheries in estuaries and coastal areas. The permits generally stipulate gear (number of nets, length of nets, mesh sizes), season, and catch limits. All salmon must be tagged with carcass tags and logbooks are mandatory.



Location of Salmon Fishing Areas (SFA) in Labrador and reported harvests (t) by SFA in 2010.

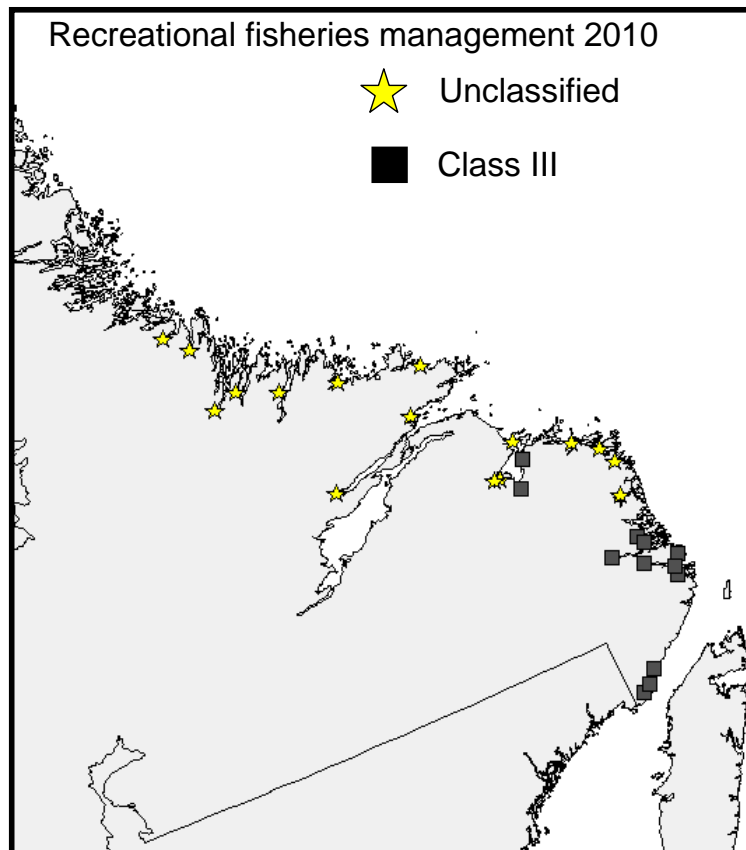
Resident food fishery

The Resident subsistence trout fishery, initiated in 2000, occurs in Lake Melville (SFA 1A) and southern Labrador (SFA 2) coastal communities from Cartwright to Cape St. Charles. A total of 320 licences were issued in 2010. The resident subsistence trout

fishery targets trout (*Salvelinus fontinalis*) and arctic charr (*Salvelinus alpinus*) using gillnets with restrictions on quantity (one per licence), length (15 fathoms), and mesh size (maximum mesh size of 4 inches). There is a possibility of a bycatch of Atlantic salmon and as a result a maximum of four salmon of any size can be retained by licence holders while fishing for trout and charr. Once the four salmon are captured, no more fishing is allowed. All salmon must be tagged and logbooks of catch and effort must be completed by the licence holders. Prior to 2004, a number of aboriginal peoples (NunatuKavut Community Council Inc. in particular) reported their harvests under the resident subsistence trout fishery management plan.

Recreational fishery

The recreational fishery in 2010 was managed by licence, season (June 15 to Sept. 15), and retention limits. Retention of small salmon and large salmon was allowed in “unclassified rivers” of SFA 1 and SFA 2 (Figure 2). Retention of small salmon only, class III, was allowed in nine scheduled rivers of SFA 2 and in three scheduled rivers in SFA 14B. In unclassified rivers where both small and large salmon retention was allowed, there was a season retention limit of 4 salmon of which only one could be a large salmon. In the class III rivers where only small salmon could be retained, a season limit of two small salmon was in place. In all rivers, there was a daily catch and release limit of four fish of any size.



Atlantic salmon recreational fisheries management in Labrador in 2010.

CATCHES AND HARVESTS

Total provisional harvests of Atlantic salmon in Labrador by all users in 2010 was 38.9 t of small salmon and large salmon combined, comprised of 22.98 t of small salmon and 15.88 t of large salmon. By number, the harvest represented 11,372 small salmon and 7,820 large salmon.

The aboriginal fisheries accounted for 86% (by weight) of the total harvest, followed by the recreational fishery at 8% and the resident food fishery at 6% (Table 1). In terms of number of fish harvested, the aboriginal fishery accounted for 89% of the large salmon harvest and 81% of the small salmon harvests (Table 1). Recreational fisheries accounted for 12% of the small salmon harvest and 5% of the large salmon harvest. The distribution of harvests among the user groups in 2010 is similar to those since 2004.

Harvest (weight and number) of small salmon, large salmon and combined in Labrador fisheries in 2010			
User group	Small salmon	Large salmon	Total
By weight (t)	22.98	15.88	38.86
Aboriginal FSC	19.28 (83.9%)	14.25 (89.8%)	33.53 (86.3%)
Resident food fisheries	1.42 (6.2%)	0.84 (5.3%)	2.27 (5.8%)
Recreational	2.28 (9.9%)	0.78 (4.9%)	3.07 (7.9%)
By number	11,372	7,820	19,192
Aboriginal FSC	9,258 (81.4%)	3,489 (88.6%)	12,747 (83.3%)
Resident food fisheries	739 (6.5%)	250 (6.3%)	990 (6.5%)
Recreational	1,375 (12.1%)	200 (5.1%)	1,575 (10.3%)

The harvests (by number) of large salmon and small salmon in the aboriginal fisheries and the resident food fisheries in 2010 are within the range of values reported since 2004. The harvests of small salmon and large salmon in the recreational fisheries in 2010 are the lowest or the second lowest of the reported harvests over the 2000 to 2010 time series.

Year	Small salmon harvest (by number)			Large salmon harvest (by number)		
	Aboriginal	Resident	Recreational	Aboriginal	Resident	Recreational
2000	3,993	1,330	2,561	1,054	298	262
2001	3,259	1,530	2,049	1,272	449	338
2002	3,457	2,349	2,071	990	399	207
2003	4,183	2,294	2,112	1,568	608	222
2004	7,733	652	1,808	3,472	224	259
2005	9,515	921	2,007	2,588	228	291
2006	9,608	769	1,656	2,807	283	227
2007	8,567	640	1,762	2,559	93	235
2008	9,215	619	1,688	3,699	210	231
2009	7,182	806	1,355	3,031	313	216
2010	9,258	739	1,375	3,489	250	200

Detailed harvests (and catches for the recreational fishery) by user group and SFA for the period 2000 to 2010 are provided in Annex 1 tables 1 to 4.

HARVESTS BY LOCATION

All the recreational fisheries occurred in rivers (freshwater).

For the purposes of reporting the location of the harvests, the following definition of an estuary is used:

“Partly enclosed coastal body of water in which river water is mixed with seawater. An estuary is thus defined by salinity rather than geography. Many coastal features designated by other names are in fact estuaries (e.g., Chesapeake Bay). Some of the oldest continuous civilizations have flourished in estuarine environments (e.g., the land between the Tigris and Euphrates rivers, the Nile delta, the Ganges delta, and the lower Huang He valley). Cities such as London (River Thames), New York (Hudson River), and Montreal (St. Lawrence River) developed on estuaries and became important commercial centres.

D.W. Pritchard (1967. What is an estuary: physical viewpoint. p. 3–5 in: G. H. Lauf (ed.) Estuaries, A.A.A.S. Publ. No. 83, Washington, D.C.) states that an estuary must (1) be partially enclosed, (2) have river(s) running into it, (3) have mix of fresh and sea water. As such Lake Melville is considered to be an estuary” (D. Reddin DFO, ICES working document).

Based on interviews with guardian and fishery officers in Labrador, the following breakdown has been used to categorize the harvests of the subsistence fisheries (aboriginal and resident food) into estuary and coastal harvests (from D. Reddin DFO Unpublished data).

	Percent estuary	Percent coastal
SFA 1		
Lake Melville	100%	0%
Rigolet	85%	15%
Makkovik	75%	25%
Postville	90%	10%
Hopedale	10%	90%
Nain	0%	100%
SFA 2		
Sandwich Bay	85%	15%
Black Tickle	1%	99%
Ch'town-Lodge Bay	70%	30%

The majority of the Labrador subsistence food fisheries occur in areas classified as estuaries. Almost half of the total harvest of salmon in 2010, 16.9 t of 35.8 t, was reported from the Lake Melville area (SFA 1B) which is classified as estuary (Fig. 1). Based on the above percentages, the subsistence fishery harvest from coastal areas was estimated at 6.2 t, representing 17.4% of the total subsistence fishery harvest. The coastal harvest in 2010 represented about 1,800 small salmon and 620 large salmon.

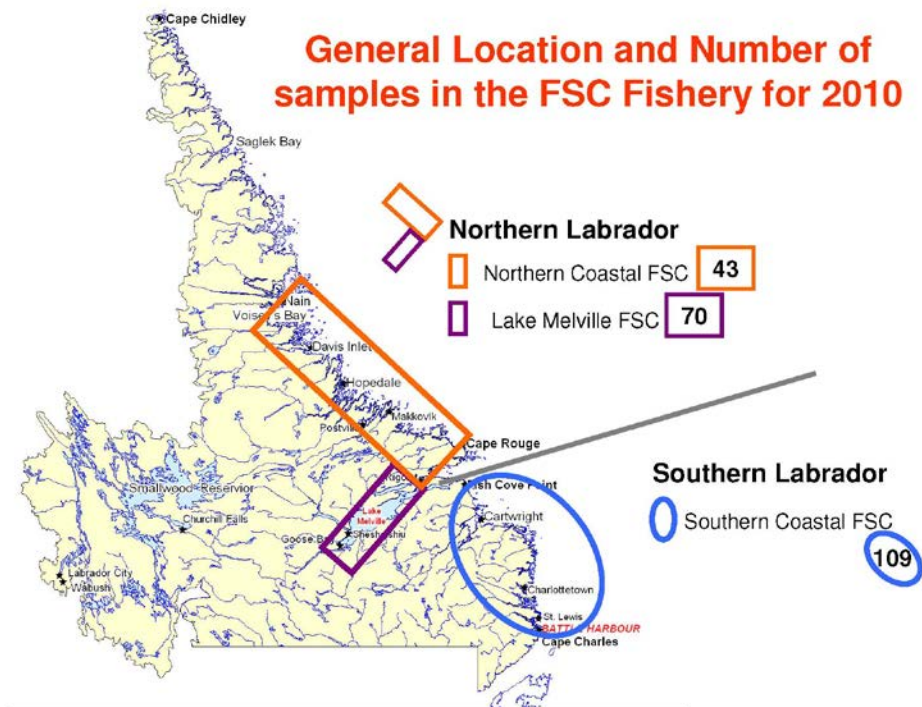
The percent of the total harvest coming from costal areas in 2010 is the lowest since 2001.

Labrador subsistence fisheries harvests (aboriginal and resident food) by geographic location					
Year	Harvest (kg)			Percentage of harvest	
	Estuarine	Coastal	Total	Estuarine	Coastal
2000	13,278	2,335	15,613	85.0	15.0
2001	13,497	2,792	16,288	82.9	17.1
2002	13,987	3,585	17,572	79.6	20.4
2003	17,485	4,622	22,108	79.1	20.9
2004	24,862	6,787	31,649	78.6	21.4
2005	24,718	7,197	31,914	77.5	22.5
2006	24,955	7,766	32,721	76.3	23.7
2007	20,451	6,005	26,456	77.3	22.7
2008	27,040	9,321	36,361	74.4	25.6
2009	22,619	7,191	29,810	75.9	24.1
2010	29,563	6,232	35,795	82.6	17.4

LABRADOR FISHERIES SAMPLING PROGRAM

A sampling program of the subsistence fisheries in Labrador continued in 2010, conducted by the NunatuKavut Community Council (formerly the Labrador Metis Nation), aboriginal guardians, and Conservation Officers of the Nunatsiavut Government.

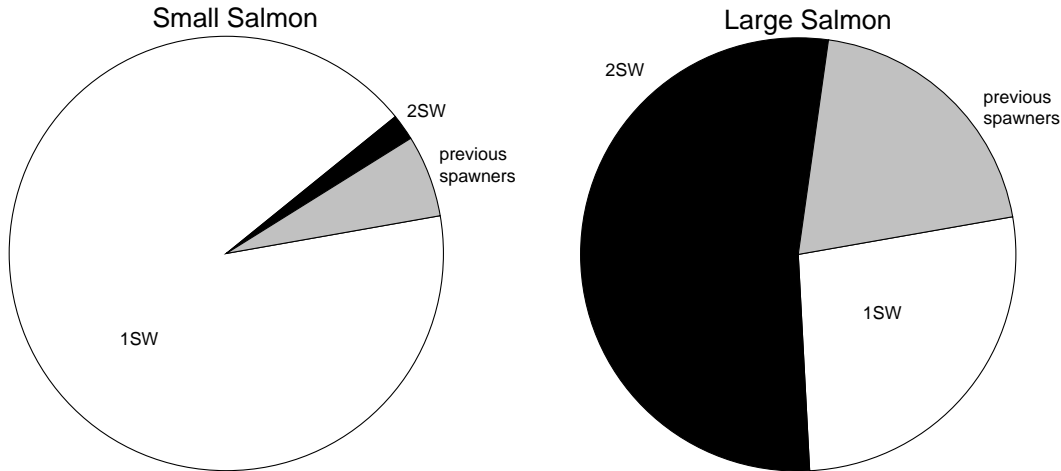
In 2010, a total of 237 samples were collected from the FSC fisheries, 123 from northern Labrador (SFA 1) and 114 samples from southern Labrador (SFA 2).



Location of samples collected from the Labrador Atlantic salmon subsistence fisheries in 2010.

Based on the interpretation of the scales from 232 samples, 73% of all the samples taken were 1SW salmon, 16% were 2SW, and 10% were previously spawned salmon.

By size group, small and large salmon based on a 2.7 kg cut off, small salmon were 92% 1SW, 2% 2SW and 6% previously spawned salmon and large salmon were 27% 1SW, 53% 2SW and 20% previously spawned salmon. These are similar to the age structure by size groups from previous years.



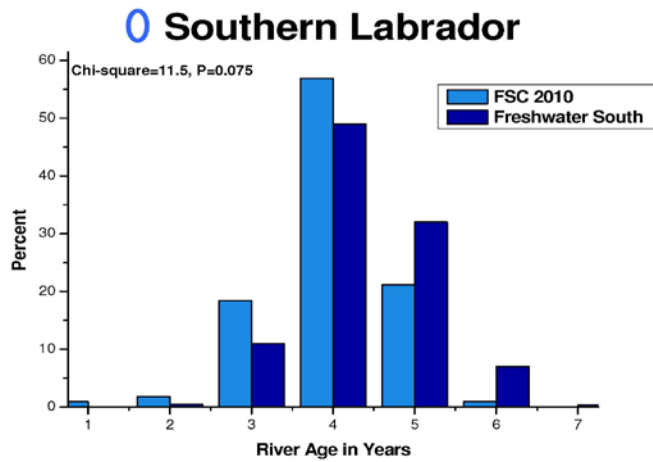
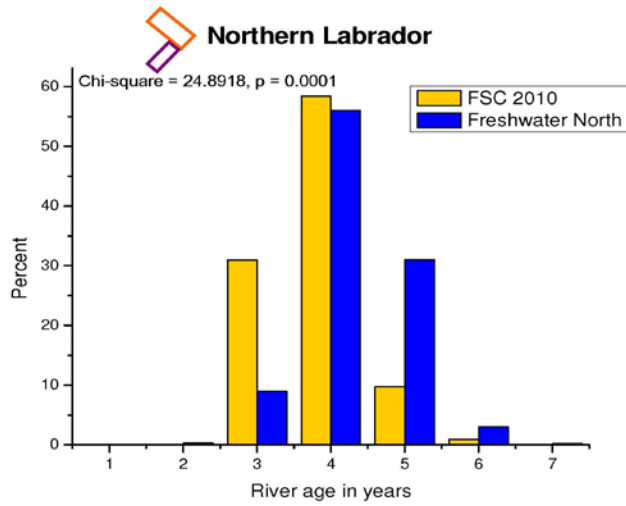
Proportions at sea age by small salmon and large salmon size groups.

Applying these proportions by sea age to the catches of salmon considered to have been taken in coastal waters, there were approximately 365 2SW salmon harvested in the subsistence fisheries in the coastal areas of Labrador (620 large * 53% plus 1800 small * 2%).

The river ages of samples (113 in the north, 109 in the south) collected from the subsistence fisheries were compared to ages from scales (1,946 samples from north Labrador and 975 in south Labrador) obtained from assessment facilities in 2000 to 2005. As noted in previous years, there was a difference in river age distribution of adults from the subsistence fisheries compared to the river age distributions of adults returning to rivers in northern Labrador, with higher proportions of river age 3 and lower proportions of river age 5 salmon in the subsistence fisheries compared to the assessment facilities. The same differences in relative proportions of river age 3 and river age 5 were also noted for southern Labrador in 2010. The higher proportion of river age 3 smolts was also noted for the Lake Melville samples, but no samples are available from inriver monitoring to assess whether salmon from these populations have similar smolt age distributions to those populations in the coastal rivers of northern Labrador.

There were no river age 1 or 2 fish in the samples from the northern Labrador fishery (SFA 1) and a low percentage of river age 1 and 2 salmon in the samples from southern Labrador in 2010. The very low percentages of river age 1 and age 2 salmon in the catches of 2010, as in previous years, suggest that very few salmon from the most southern stocks of North America (USA, Scotia-Fundy) are exploited in these fisheries. The majority of salmon in the fisheries are of river ages 4 to 7 and indicates that the fisheries are exploiting northern area stocks, predominantly Labrador as well as some stocks from Quebec and portions of Newfoundland.

No tagged salmon were recovered or reported from the Labrador fisheries in 2010.



River age distributions of Atlantic salmon sampled from the subsistence fisheries of Labrador in 2010 relative to the river age distributions of adult salmon at inriver monitoring facilities in Labrador.

Annex 1. Reported harvests by user group, size group of salmon and Salmon Fishing Area, 2000 to 2010.

Table Annex1-1.

Aboriginal food fisheries

Year / Année	Harvest / Prélèvement (kg)	Number of fish / Nombre de poissons	% large by number / % grand par nombre
2000	12,077	5,047	20.9%
2001	11,705	4,531	28.1%
2002	11,425	4,448	22.3%
2003	15,449	5,751	27.3%
2004	29,478	11,205	31.0%
2005	29,226	12,103	21.4%
2006	30,140	12,415	22.6%
2007	24,774	11,126	23.0%
2008	34,044	12,913	28.6%
2009	26,955	10,213	29.7%
2010	33,529	12,747	27.4%

Residents fishing for food in Labrador

Year / Année	Harvest / Prélèvement (kg)	Number of fish / Nombre de poissons	% large by number / % grand par nombre
2000	3,537	2,300	21%
2001	4,583	2,100	24%
2002	6,146	2,700	17%
2003	6,659	3,000	21%
2004	2,171	880	25%
2005	2,688	1,150	20%
2006	2,581	1,052	27%
2007	1,682	733	13%
2008	2,317	830	25%
2009	2,856	1,119	28%
2010	2,266	990	25%

Recreational fisheries

Year / Année	Small salmon retained (number)	Large salmon retained (number)	% large by number / % grand par nombre
2000	2,561	262	9.3%
2001	2,049	338	14.2%
2002	2,071	207	9.1%
2003	2,112	222	9.5%
2004	1,808	259	12.5%
2005	2,007	291	12.7%
2006	1,656	227	12.1%
2007	1,762	235	11.8%
2008	1,688	231	12.0%
2009	1,355	216	13.7%
2010	1,375	200	12.7%

Table Annex1-2. Harvests in aboriginal fisheries in Labrador and by Salmon Fishing Areas (SFA). There are no aboriginal fisheries in SFA 14B.

Year	By weight (kg)			By number			% Large	
	Small	Large	Total	Small	Large	Total	By weight	By number
Labrador								
2000	7,873	4,205	12,077	3,993	1,054	5,047	34.8%	20.9%
2001	6,707	4,998	11,705	3,259	1,272	4,531	42.7%	28.1%
2002	7,077	4,348	11,425	3,457	990	4,448	38.1%	22.3%
2003	8,695	6,754	15,449	4,183	1,568	5,751	43.7%	27.3%
2004	16,077	13,401	29,478	7,733	3,472	11,205	45.5%	31.0%
2005	19,221	10,005	29,226	9,515	2,588	12,103	34.2%	21.4%
2006	19,623	10,516	30,140	9,608	2,807	12,415	34.9%	22.6%
2007	15,775	8,999	24,774	8,567	2,559	11,126	36.3%	23.0%
2008	18,133	15,911	34,044	9,215	3,699	12,913	46.7%	28.6%
2009	14,485	12,469	26,955	7,182	3,031	10,213	46.3%	29.7%
2010	19,279	14,250	33,529	9,258	3,489	12,747	42.5%	27.4%

Table Annex1-2 (continued). Harvests in aboriginal fisheries in Labrador and by Salmon Fishing Areas (SFA). There are no aboriginal fisheries in SFA 14B.

Year	By weight (kg)			By number			% Large	
	Small	Large	Total	Small	Large	Total	By weight	By number
SFA 1A (coastal Labrador)								
2000	4,184	2,359	6,543	2,111	599	2,709	36.0%	22.1%
2001	4,446	3,449	7,895	2,178	890	3,068	43.7%	29.0%
2002	4,997	2,769	7,766	2,431	661	3,092	35.7%	21.4%
2003	6,672	5,051	11,723	3,217	1,169	4,386	43.1%	26.7%
2004	6,709	4,720	11,429	3,255	1,165	4,419	41.3%	26.4%
2005	5,031	3,508	8,539	2,462	857	3,319	41.1%	25.8%
2006	4,945	4,072	9,017	2,360	1,060	3,419	45.2%	31.0%
2007	3,263	2,460	5,723	1,874	751	2,624	43.0%	28.6%
2008	5,086	7,562	12,649	2,533	1,752	4,285	59.8%	40.9%
2009	4,045	4,355	8,400	1,880	1,038	2,917	51.8%	35.6%
2010	3,241	3,629	6,870	1,472	822	2,294	52.8%	35.8%
SFA 1B (Lake Melville)								
2000	3,689	1,846	5,535	1,883	455	2,337	33.4%	19.5%
2001	2,261	1,549	3,810	1,081	382	1,463	40.7%	26.1%
2002	2,080	1,579	3,659	1,027	329	1,356	43.2%	24.3%
2003	2,023	1,703	3,725	966	399	1,365	45.7%	29.2%
2004	2,876	3,424	6,301	1,351	922	2,272	54.4%	40.6%
2005	4,361	2,807	7,167	2,154	674	2,828	39.2%	23.8%
2006	6,008	2,174	8,182	2,946	556	3,502	26.6%	15.9%
2007	4,646	2,796	7,442	2,641	794	3,435	37.6%	23.1%
2008	5,064	5,695	10,760	2,529	1,150	3,679	52.9%	31.3%
2009	3,885	3,663	7,549	1,962	814	2,776	48.5%	29.3%
2010	8,812	7,046	15,858	4,186	1,703	5,888	44.4%	28.9%
SFA 2								
2000								
2001								
2002								
2003								
2004	6,492	5,256	11,748	3,128	1,386	4,514	44.7%	30.7%
2005	9,830	3,691	13,520	4,899	1,058	5,957	27.3%	17.8%
2006	8,670	4,270	12,941	4,303	1,191	5,494	33.0%	21.7%
2007	7,867	3,742	11,609	4,052	1,014	5,066	32.2%	20.0%
2008	7,982	2,654	10,636	4,153	797	4,949	24.9%	16.1%
2009	6,555	4,451	11,006	3,340	1,180	4,520	40.4%	26.1%
2010	7,225	3,576	10,801	3,600	964	4,564	33.1%	21.1%

Table Annex1-3. Harvests in the resident food fisheries in Labrador and by Salmon Fishing Areas (SFA). There are no resident food fisheries in SFA 14B.

Year	By weight (kg)			By number			% Large	
	Small	Large	Total	Small	Large	Total	By weight	By number
Labrador								
2000	2,480	1,057	3,537	1,330	298	1,628	29.9%	18.3%
2001	3,082	1,501	4,583	1,530	449	1,979	32.8%	22.7%
2002	4,504	1,642	6,146	2,349	399	2,747	26.7%	14.5%
2003	4,502	2,157	6,659	2,294	608	2,902	32.4%	20.9%
2004	1,302	869	2,171	652	224	876	40.0%	25.6%
2005	1,817	871	2,688	921	228	1,150	32.4%	19.9%
2006	1,574	1,007	2,581	769	283	1,052	39.0%	26.9%
2007	1,294	388	1,682	640	93	734	23.1%	12.7%
2008	1,253	1,064	2,317	619	210	830	45.9%	25.3%
2009	1,644	1,212	2,856	806	313	1,119	42.4%	28.0%
2010	1,423	843	2,266	739	250	990	37.2%	25.3%

Table Annex1-3 (continued). Harvests in the resident food fisheries in Labrador and by Salmon Fishing Areas (SFA). There are no resident food fisheries in SFA 14B.

Year	By weight (kg)			By number			% Large	
	Small	Large	Total	Small	Large	Total	By weight	By number
SFA 1A (coastal Labrador)								
2000			0			0		
2001			0			0		
2002			0			0		
2003			0			0		
2004	13	9	22	6	2	8	39.2%	25.0%
2005	13	9	22	6	2	8	39.2%	25.0%
2006	13	9	22	6	2	8	39.2%	25.0%
2007	0	0	0	0	0	0		
2008	20	247	267	4	24	28	92.5%	85.7%
2009	0	0	0	0	0	0		
2010	14	6	20	7	1	8	30.0%	13.0%
SFA 1B (Lake Melville)								
2000	238	160	398	118	38	156	40.2%	24.4%
2001	288	123	411	135	27	161	29.9%	16.5%
2002	309	93	402	152	24	176	23.1%	13.9%
2003	400	272	672	199	71	270	40.5%	26.4%
2004	453	511	964	216	124	340	53.0%	36.4%
2005	725	615	1,340	342	156	498	45.9%	31.3%
2006	236	84	320	117	23	140	26.3%	16.5%
2007	397	57	454	186	15	201	12.6%	7.7%
2008	191	369	560	92	53	145	65.9%	36.6%
2009	243	213	456	122	56	178	46.7%	31.5%
2010	616	467	1,082	299	145	444	43.1%	32.7%
SFA 2								
2000	2,242	897	3,139	1,212	260	1,472	28.6%	17.7%
2001	2,793	1,378	4,172	1,396	422	1,818	33.0%	23.2%
2002	4,196	1,549	5,745	2,197	374	2,571	27.0%	14.6%
2003	4,102	1,885	5,987	2,095	536	2,632	31.5%	20.4%
2004	849	358	1,207	436	100	536	29.6%	18.7%
2005	1092	255	1,347	579	72	652	18.9%	11.1%
2006	1338	922	2,260	652	260	912	40.8%	28.5%
2007	897	331	1,228	455	78	533	26.9%	14.6%
2008	1,062	695	1,757	528	157	685	39.6%	22.9%
2009	1,401	998	2,400	684	257	941	41.6%	27.3%
2010	808	376	1,184	441	105	546	31.8%	19.3%

Table Annex1-4. Recreational fisheries catches and harvests in Labrador and by Salmon Fishing Areas.

Year	Small salmon			Large salmon			% Large
	Retained	Released	Total	Retained	Released	Total	Retained
Labrador							
2000	2,561	7,095	9,656	262	1,446	1,708	9.3%
2001	2,049	4,640	6,689	338	1,468	1,806	14.2%
2002	2,071	5,052	7,123	207	978	1,185	9.1%
2003	2,112	4,924	7,036	222	1,326	1,548	9.5%
2004	1,808	5,968	7,776	259	1,519	1,778	12.5%
2005	2,007	7,120	9,127	291	1,290	1,581	12.7%
2006	1,656	5,815	7,471	227	1,133	1,360	12.1%
2007	1,762	4,641	6,393	235	1,222	1,457	11.8%
2008	1,688	4,650	6,338	231	1,145	1,376	12.0%
2009	1,355	3,396	4,751	216	1,219	1,435	13.7%
2010	1,375	4,081	5,456	200	1,020	1,220	12.7%

Table Annex1-4 (continued). Recreational fisheries catches and harvests in Labrador and by Salmon Fishing Areas.

Year	Small salmon			Large salmon			% Large
	Retained	Released	Total	Retained	Released	Total	Retained
SFA 1							
2000	363	801	1,164	79	232	311	17.9%
2001	352	681	1,033	75	130	205	17.6%
2002	129	482	611	28	140	168	17.8%
2003	174	777	951	36	633	669	17.1%
2004	116	1,152	1,268	24	582	606	17.1%
2005	192	1,044	1,236	36	192	228	15.8%
2006	170	1,156	1,326	28	357	385	14.1%
2007	185	1,286	1,461	36	240	276	16.3%
2008	153	890	1,043	34	438	472	18.2%
2009	207	877	1,084	48	347	395	18.8%
2010	205	1,010	1,215	50	261	311	19.6%

Year	Small salmon			Large salmon			% Large
	Retained	Released	Total	Retained	Released	Total	Retained
SFA 2							
2000	1,480	4,169	5,649	183	461	644	11.0%
2001	1,151	2,984	4,135	263	891	1,154	18.6%
2002	1,328	3,050	4,378	179	377	556	11.9%
2003	1,274	3,022	4,296	186	398	584	12.7%
2004	1,228	3,836	5,064	235	698	933	16.1%
2005	1,377	4,273	5,650	255	574	829	15.6%
2006	977	3,258	4,235	199	395	594	16.9%
2007	1,088	2,492	3,580	199	385	584	15.5%
2008	1,075	2,483	3,558	197	365	562	15.5%
2009	927	1,952	2,879	168	622	790	15.3%
2010	862	2,337	3,199	150	516	666	14.8%

Year	Small salmon			Large salmon			% Large
	Retained	Released	Total	Retained	Released	Total	Retained
SFA 14B							
2000	718	2,125	2,843	0	753	753	0.0%
2001	546	975	1,521	0	447	447	0.0%
2002	614	1,520	2,134	0	461	461	0.0%
2003	664	1,125	1,789	0	295	295	0.0%
2004	464	980	1,444	0	239	239	0.0%
2005	438	1,803	2,241	0	524	524	0.0%
2006	509	1,401	1,910	0	381	381	0.0%
2007	489	863	1,352	0	597	597	0.0%
2008	460	1,277	1,737	0	342	342	0.0%
2009	221	567	788	0	250	250	0.0%
2010	308	734	1,042	0	243	243	0.0%