Capture and Distribution of Atlantic Salmon and Other Species at Mactaquac Dam and Hatchery, Saint John River, N. B., 1972–76

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This report gives summary and detailed counts from 1972 to 1976 on the collection and distribution of anadromous Atlantic salmon ascending Mactaquac Power Dam fish collection facilities and the Mactaquac Hatchery migration channel on the Saint John River, New Brunswick. The collection tables show a breakdown of wild and hatchery origin along with grilse and older salmon, while the distributions have a further breakdown as to sex. The distributions show the number of fish retained as broodstock and those distributed to particular places in the river system. The report also includes summary tables of other species of fish ascending Mactaquac Dam fish collection facilities.

Key words: Saint John River, Mactaquac Dam, fish collection facilities, Mactaquac hatchery, migration channel, Atlantic salmon, broodstock, other species, fish distribution, trucking.

RÉSUMÉ

Ingram, J.H. 1980. Capture and distribution of Atlantic salmon and other species at Mactaquac Dam and Hatchery, Saint John River, N.B., 1972-76. Can. Data Rep. Fish. Aquat. Sci. No. 181. 74 p.

Voici, pour les années 1972 à 1976, le résumé et les données détaillées de la récolte et de la distribution du saumon atlantique anadrome remontant les installations du barrage Mactaquac servant à recueillir le poisson et le canal migratoire de la station de pisciculture Mactaquac, sur la rivière Saint-Jean au Nouveau-Brunswick. Les données des tableaux sont réparties selon qu'il s'agit du saumon natif de la rivière ou du saumon originaire de la station de pisciculture, du madeleineau ou du saumon plus âgé et elles sont réparties également par sexe. De plus, les données sur la distribution indiquent le nombre de poissons gardés pour la reproduction et le nombre de saumons libérés en des endroits précis du réseau fluvial. Le rapport présente également des tableaux récapitulatifs pour d'autres espèces de poissons remontant les installations du barrage Mactaquac.

Mots cles: Rivière Saint-Jean, barrage Mactaquac, installations servant à recueillir le poisson, station de pisciculture Mactaquac, canal migratoire, saumon atlantique, reproducteurs, autres espèces, distribution du poisson.

INTRODUCTION

The Saint John River system is located primarily in the Province of New Brunswick, with fairly extensive headwater areas arising in the Province of Quebec and the State of Maine.

Five major hydroelectric power dams (Penney 1976, Ruggles and Watt 1975, and Smith 1979) have been constructed on the system (Fig. 1). The most recent, Mactaquac Dam, spans the main stem of the river about 10 miles (16 km) upstream from Fredericton, the capital city of New Brunswick.

The Mactaquac Dam blocks all upstream fish migration. For this reason, fish collection facilities were built on the downstream face of the powerhouse, adjacent to and above the water outflow from the turbines. These facilities became operational in the spring of 1968.

To compensate for expected losses in natural production of Atlantic salmon *(Salmo salar)*, a hatchery was built in 1968 about 1¼ miles (2 km) below Mactaquac Dam.

Most fish ascend the Mactaquac Dam fish collection facilities. However, returns of some of the hatchery-origin salmon and a relatively small number of wild-origin salmon ascend the smolt migration channel or water outflow of the hatchery (Fig. 2). Adults of hatchery origin can be identified by fin clips or tags, applied to the smolt prior to release.

To enable easier sorting of the salmon and to obtain accurate biological data on each, secondary sorting facilities (Fig. 3) were built at the hatchery and became operational in July, 1971.

The primary purpose of this report is to make available in detail and summary table form the basic data obtained from anadromous Atlantic salmon captured at Mactaquac from 1972 to 1976 inclusive. Also included are summary tables of other species of fish ascending Mactaquac Dam fish collection facilities.

FISH COLLECTION AND HANDLING FACILITIES

Although Mactaquac Dam has no fishway as such, upstream migrants are taken in the previously noted fish collection facilities (Gunter and Gloin 1968 and Riley 1969). The attraction-water supply for the fish facilities is provided by pumps taking water from the discharge area of Turbine No. 1. There are two large pumps capable of providing 260 cfs each and two smaller pumps of 55 cfs each. The large pumps discharge water through diffusers into the main water-supply pool. The two smaller pumps discharge water into the crowder, brail and hopper pools.

The fish collection gallery (Fig. 4) is cantilevered from the powerhouse wall and located over the water discharge from Turbines No. 1, 2 and 3. Fish enter the collection gallery through three 6-foot and three 2-foot-wide submerged weirs, spaced along the gallery. The entrance weirs adjust automatically with the elevation of the tailrace, which has a fluctuation range of up to 18 feet (5.5 m). Once the migrating fish are in the collection gallery, they follow the current of water into the main water-supply pool and then into the crowder pool. A mechanical fish crowder, with a mobile screen, as wide and deep as the pool, travels the length of the crowder pool when required, forcing the fish into the sorting facilities. The sorting facilities consist of four smaller pools – two "brail" pools, which each contain a brail floor; and behind each of these, a "hopper" pool, in which the hopper is placed. Fish enter one of the brail pools through a V-shaped gate, and enter the other by ascending a low weir. This weir prevents the entrance of most species except salmon, thus isolating the salmon from most other migrating species. Connecting the two brail pools is a second weir but, because of a high sorting efficiency at the first weir, operation of the second is seldom required. The brail floor is raised mechanically, dumping the fish through a gate and into the hopper in the adjacent pool. The hopper is lifted and placed on a specially designed tank truck into which the fish are transferred. The tank truck takes the salmon to a secondary sorting facility located at the hatchery, where they can be examined for marks or tags and where broodstock are selected. The remaining salmon are then distributed to various upriver release areas.

Each year the fish collection facilities have started operating after the spring freshet has begun to subside and the river level is a few feet below the top of the gallery wall; this is normally during the third week in May (Table 1.1). The facilities have continued operating until the second or third week in November, except for 1976, when they closed on October 29.

Daily operating hours of the fish facilities have been 0800-1200 and 1300-1700, plus additional evening hours from June to September inclusive. The congestion of alewives in the fishway facilities during June required an additional eight hours and, at times, 12 hours of fishway operation until 1974. Starting in 1974, a portion of the alewife run was removed for commercial use and the operating hours were reduced. In 1974 and 1975, beside the regular daily operating hours, the fishway operated from 1800 or 1830 to 2200 during June and July and from 1830 to 2030 during August and September.

There are more than a dozen species of fish other than salmon ascending the fish facilities annually (Smith 1979). The most notable changes in the numbers of fish ascending have been the increase in the alewife run and the decrease in the shad run.

The significant increase in the alewife run brought about an annual commercial harvest of this species at the fishway, beginning in 1974. Since 1973, the

estimated numbers of alewives have been periodically checked with an accurate count. This provided more accurate estimates of both alewives and blueback herring. Earlier counts made no distinction between these two species.

The drastic reduction in the shad run during the first few years of fishing operations was due to the nature of the fish and the facilities. The shad thrash around, losing scales and injuring themselves when they are in the hopper and while being moved from the facilities to the tank truck; together with the stresses suffered during transportation, this caused a heavy mortality on release into the headpond. During the first four years of fishway operation, a two-man team with a boat was required at the release site to remove and bury the dead shad.

Fish collection facilities at the Mactaquac Hatchery consist of the smolt migration channel or water outflow of the hatchery (Fig. 2). This is simply a channel consisting of a series of pools and weirs, which directs fish from the river to a trap at the upper end near the hatchery. In the fall of 1973, modifications were made to the channel to facilitate handling of the increasing number of returning mature salmon and grilse.

Once they are captured, the salmon and grilse from the Mactaquac Dam fish collection facilities and those from the hatchery migration channel (Table 1.2) are released into one of two dumping pools of the secondary sorting facilities; a mechanical brail forces the fish into an inspection area, where they are sorted into one of three holding pools for distribution or retention as broodstock (Table 1.3). This arrangement, plus trucking the fish to designated areas of the river, allows a practical biological utilization of the salmon.

FISH RELEASE SITES

Almost all the salmon in excess of broodstock requirements (Table 1.5) have been trucked to various locations of the Saint John River above Mactaquac Dam (Table 1.3). There are two major salmon release locations (Fig. 1), one just above Woodstock in the upper area of the Mactaquac reservoir and the other in the Tobique Narrows reservoir. The Tobique release site was located in the lower section of the reservoir until July, 1975, when a new site was constructed in the upper section of the reservoir.

Beginning in 1974 (Tables 4.4, 5.4 and 6.4), some salmon were released during the fall in various tributaries of the Saint John River above Mactaquac (Fig. 5 and Table 1.4).

Most of the fish other than salmon ascending the Mactaquac fish collection facilities have been released a short distance above the dam, in a cove on the true right bank. Fish which have not been released at this site include landlocked salmon, which are transported upriver with the sea-run salmon; a portion of the lamprey run, which was removed during the first few years of fishway operation; and, since 1974, the portion of the alewife run removed commercially.

PRESENTATION OF DATA

The tables and appendices of this report present detailed data on the counts of all fish taken at both the Mactaquac Dam and Mactaquac Hatchery release channel, locations and numbers of releases and information on Atlantic salmon retained for hatchery broodstock.

Of the fish released above Mactaquac Dam, small percentages sometimes fall back below the dam, again enter the collection facilities and are counted a second time. Counts presented in this report are not adjusted for this fallback (Marshall 1975).

Dates in the salmon and grilse tables and appendices indicate when the fish were passed through the secondary sorting facilities. Fish from the collection facilities sometimes remain in the holding pool a day or more before being sorted. Fish from the migration-channel trap are normally removed just before or during the sorting operation. When there are only a few fish, such as during the early part of the season, they are sometimes accumulated for a lengthy period of time before sorting, e.g., in 1972, the first salmon ascended the fishway on May 26 but was held with others and sorted after mid-June.

The numbers of fish for species other than salmon (Tables 7.1-7.6) are estimates, made when the fish are being transferred from the brail pool to the hopper (Fig. 4). When there are many fish moving through the facilities, it is difficult to obtain an accurate estimate. For example, when alewives are ascending in large schools, they are counted by the tens passing from the brail to the hopper; and to further confuse the counting, some fish return to the brail pool during the transfer operation. The smaller the fish, the more difficult it becomes to estimate the numbers; and if the fish are small enough to pass through the wire mesh (rectangular opening (1½"x2") of the hopper and barrier gates, it is impossible to determine the number that end up in the fish tank truck.

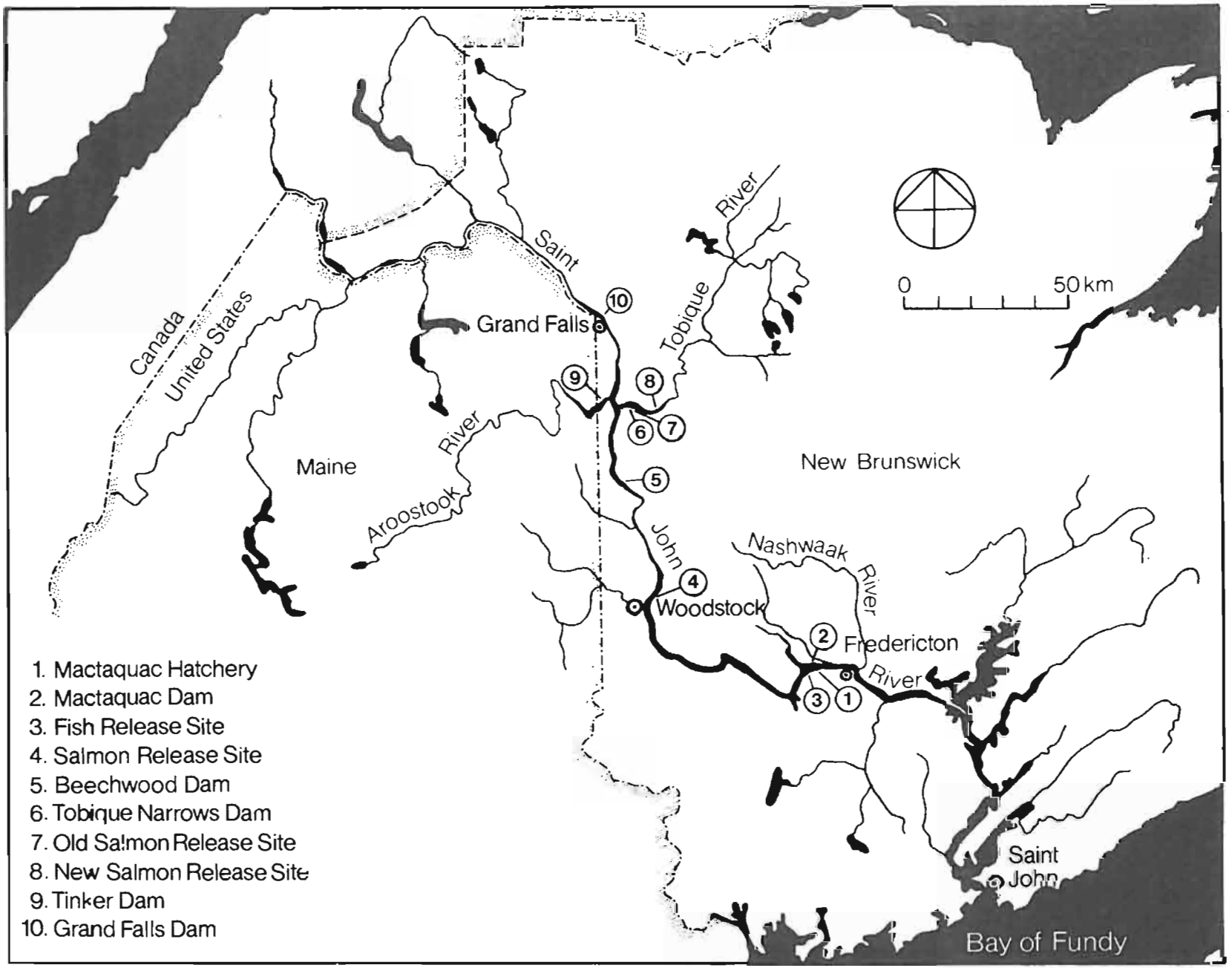
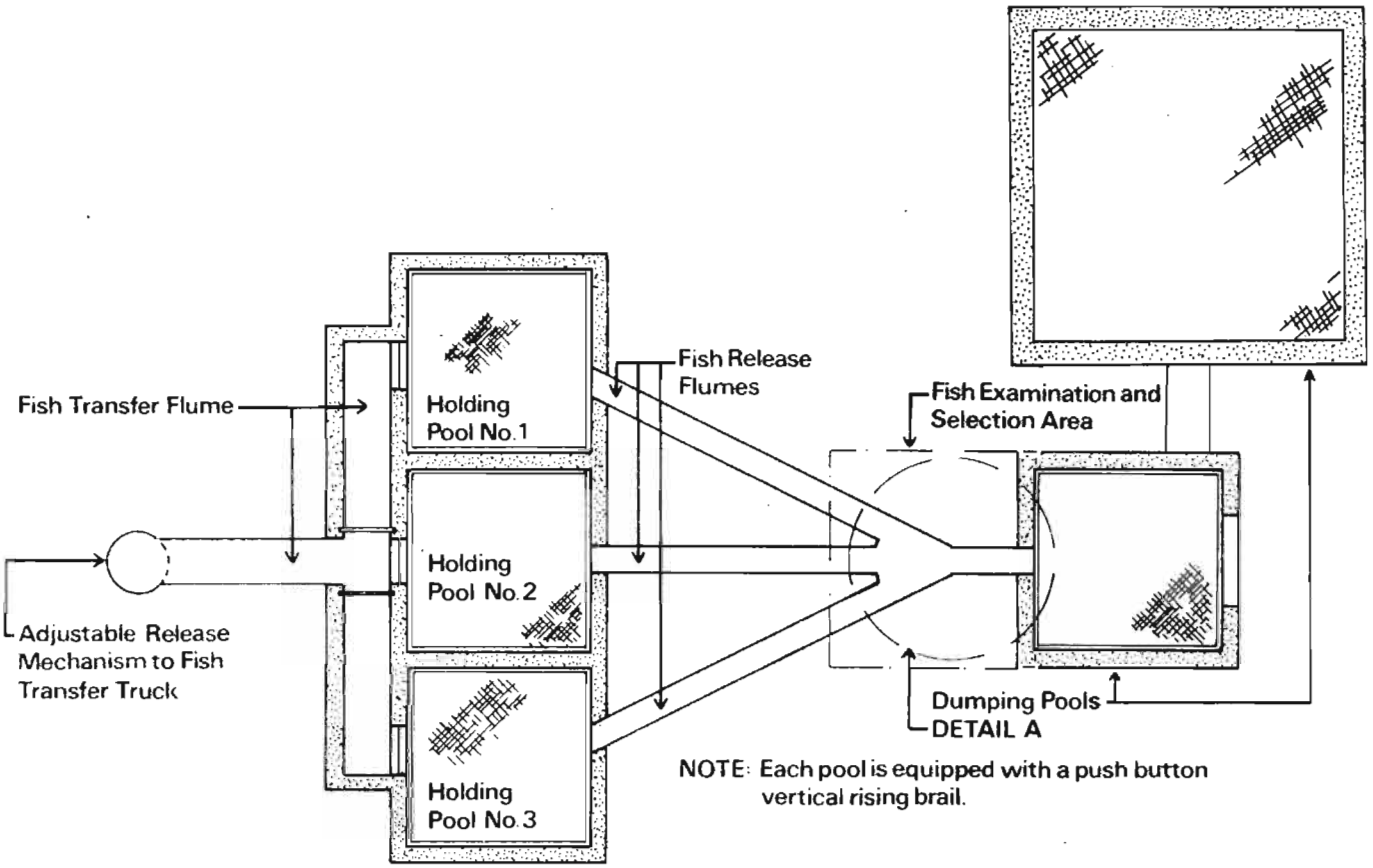
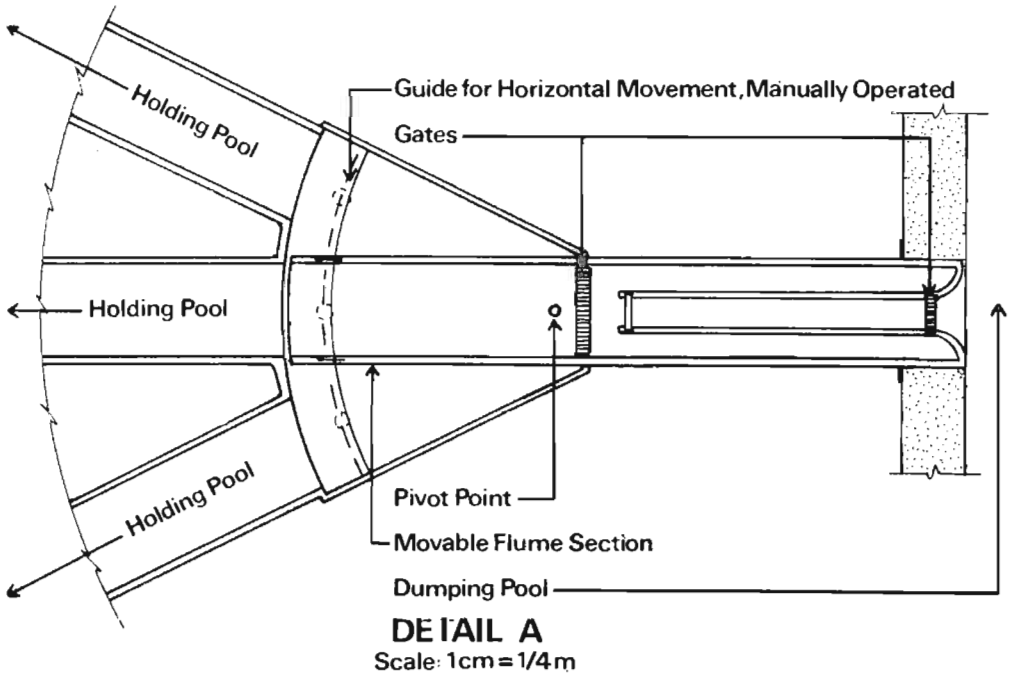


FIG. 1. Major power dams and salmon release sites, Saint John River system, New Brunswick.



PLAN OF SECONDARY SORTING FACILITIES

Scale: 1cm = 1m



DETAIL A

Scale: 1cm = 1/4m

FIG. 2. Diagramatic view of the secondary sorting facilities at Mactaquac Hatchery.

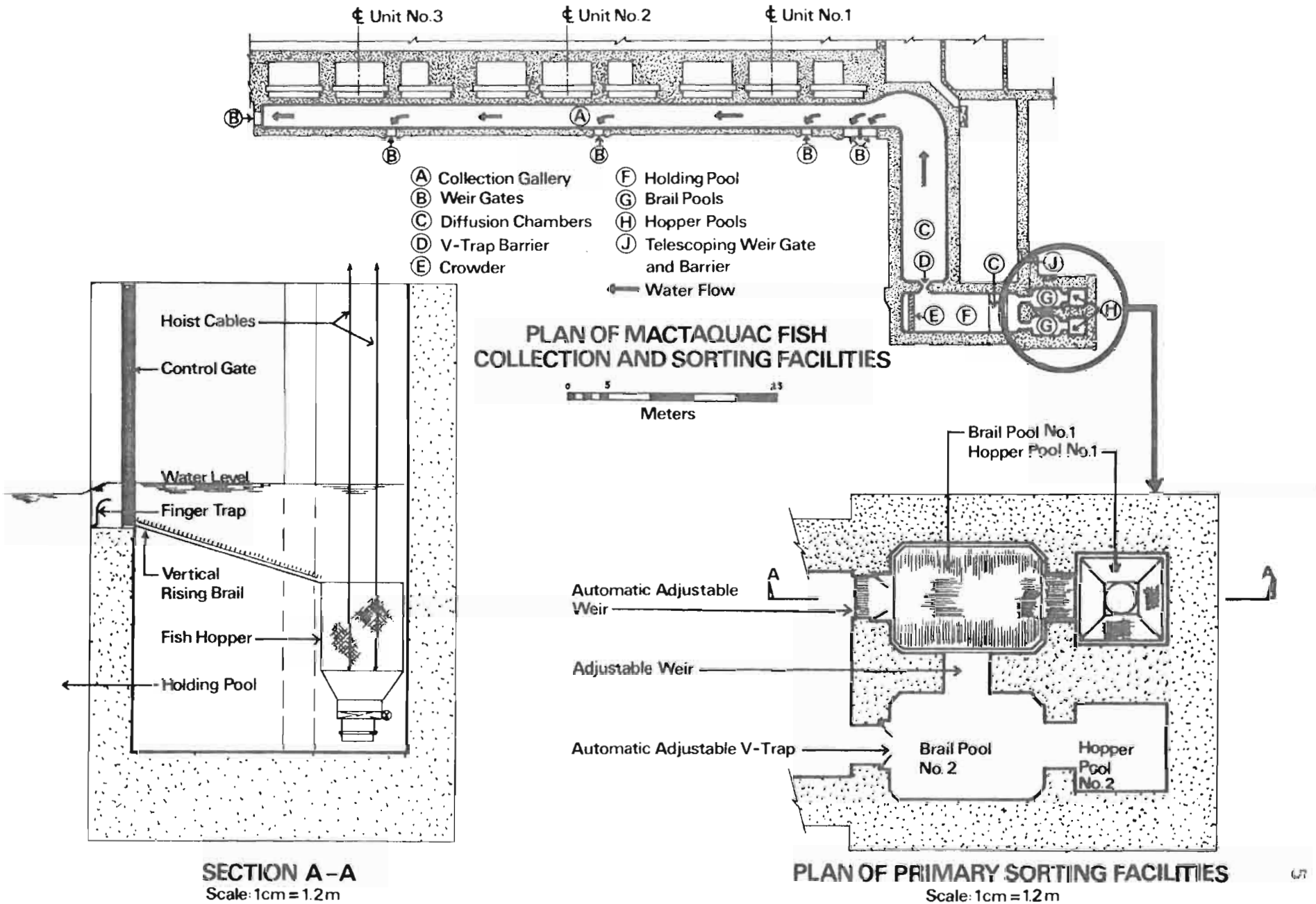


FIG. 3. Mactaquac Dam fish collection facilities.

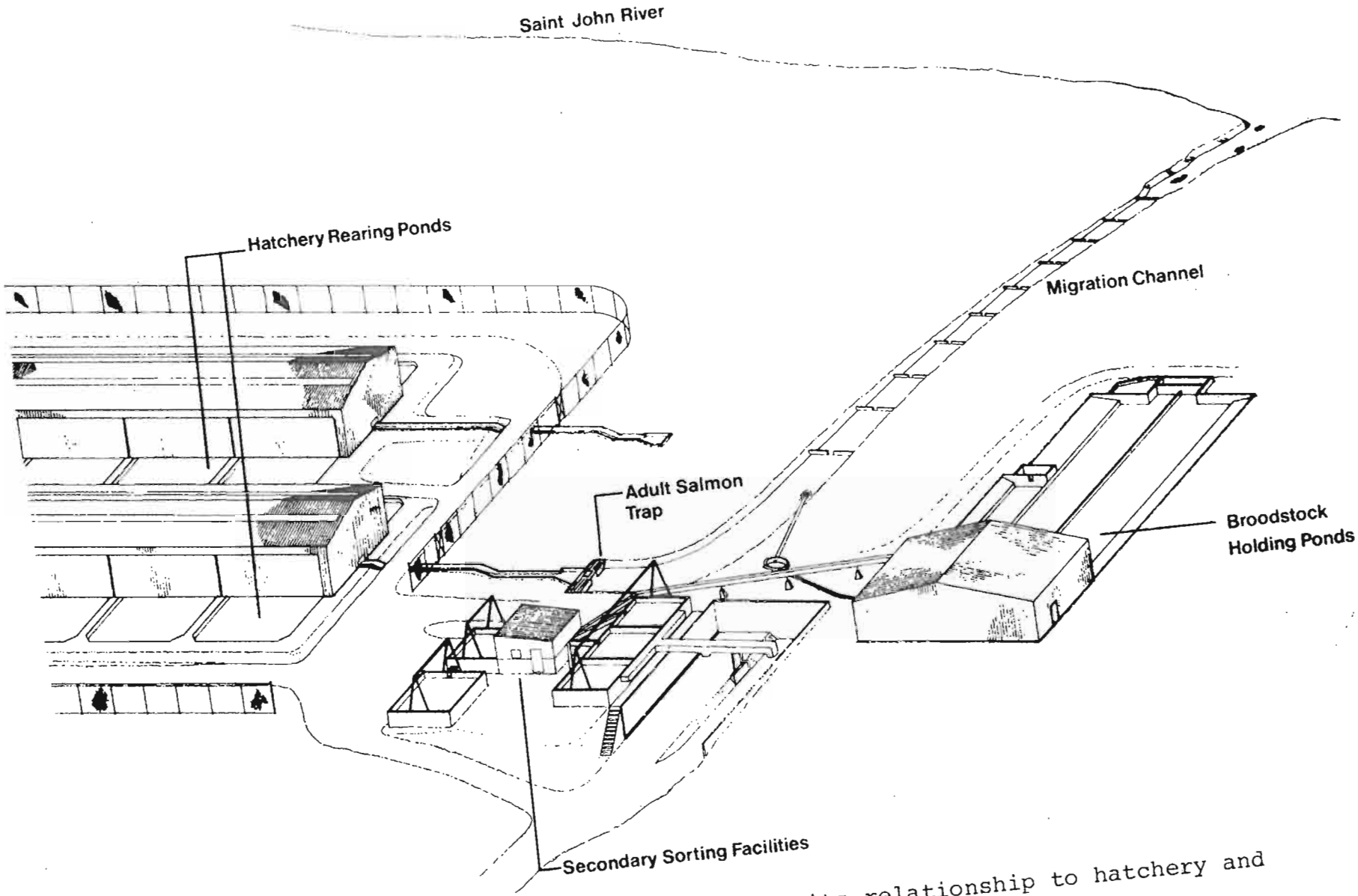


FIG. 4. Mactaquac Hatchery migration channel, showing its relationship to hatchery and secondary salmon sorting facilities.

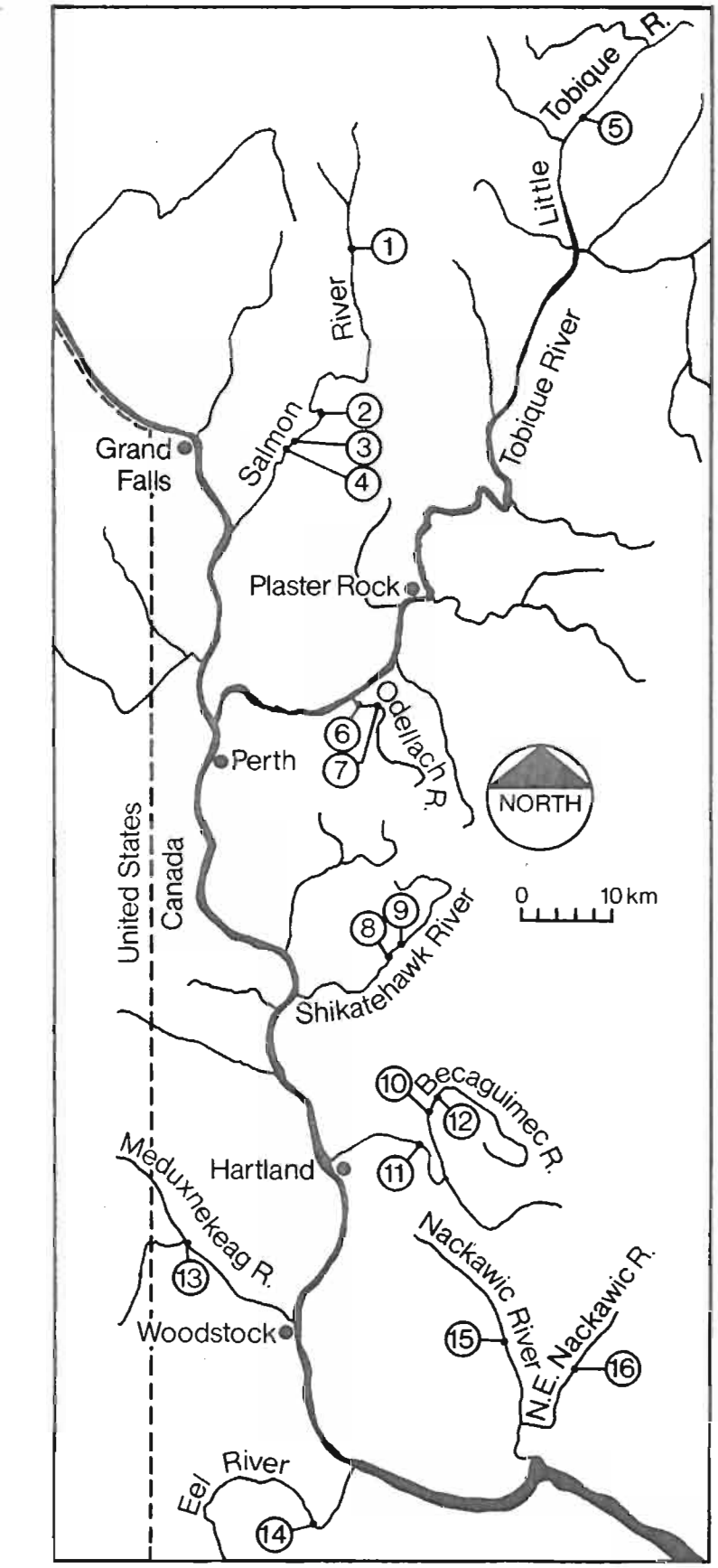


FIG. 5. Release sites for fall distribution of adult salmon, Saint John River tributaries.

TABLE 1.1. Operational periods and dates of first and last salmon taken, Mactaquac fish collection facilities, 1972-76. (Dates were taken from fish collection facility records.)

Year	Collection facilities opened	First fish		Last fish		Collection facilities closed
		Salmon	Grilse	Salmon	Grilse	
1972	21 May	26 May	1 Jul	14 Nov	27 Oct	17 Nov
1973	17 May	9 Jun	23 Jun	9 Nov	30 Oct	15 Nov
1974	21 May	31 May	18 Jun	13 Nov	8 Nov	13 Nov
1975	20 May	23 May	23 Jun	13 Nov	28 Oct	14 Nov
1976	13 May	7 Jun	18 Jun	25 Oct	22 Oct	29 Oct

TABLE 1.2. Monthly and annual totals of salmon and grilse ascending Mactaquac fish collection facilities, at both the dam and the hatchery migration channel, 1972-76. (Totals are broken down to indicate whether of wild or hatchery origin.)

Year	Stage	Origin	Jun	Jul	Aug	Sep	Oct	Nov	Totals
1972		Wild	72	2,519	885	816	524	15	4,831
	Salmon	Hatchery	5	337	69	89	82	1	583
		Combined	77	2,856	954	905	606	16	5,414
		Wild	0	380	234	91	79	0	784
	Grilse	Hatchery	0	79	86	46	35	0	246
		Combined	0	459	320	137	114	0	1,030
		Wild	72	2,899	1,119	907	603	15	5,615
	Totals	Hatchery	5	416	155	135	117	1	829
		Combined	77	3,315	1,274	1,042	720	16	6,444
1973		Wild	146	1,201	70	632	308	10	2,367
	Salmon	Hatchery	14	247	23	127	60	4	475
		Combined	160	1,448	93	759	368	14	2,842
		Wild	28	1,297	223	193	111	2	1,854
	Grilse	Hatchery	18	1,043	298	235	157	9	1,760
		Combined	46	2,340	521	428	268	11	3,614
		Wild	174	2,498	293	825	419	12	4,221
	Totals	Hatchery	32	1,290	321	362	217	13	2,235
		Combined	206	3,788	614	1,187	636	25	6,456
1974		Wild	507	3,482	151	499	131	5	4,775
	Salmon	Hatchery	116	1,296	130	258	104	3	1,907
		Combined	623	4,778	281	757	235	8	6,682
		Wild	2	2,409	495	289	191	3	3,389
	Grilse	Hatchery	2	1,800	903	618	371	6	3,700
		Combined	4	4,209	1,398	907	562	9	7,089
		Wild	509	5,891	646	788	322	8	8,164
	Totals	Hatchery	118	3,096	1,033	876	475	9	5,607
		Combined	627	8,987	1,679	1,664	797	17	13,771
1975		Wild	774	3,491	396	1,203	325	11	6,200
	Salmon	Hatchery	243	1,039	153	324	92	7	1,858
		Combined	1,017	4,530	549	1,527	417	18	8,058
		Wild	115	4,061	820	575	154	0	5,725
	Grilse	Hatchery	98	3,020	991	819	392	15	5,335
		Combined	213	7,081	1,811	1,394	546	15	11,060
		Wild	889	7,552	1,216	1,778	479	11	11,925
	Totals	Hatchery	341	4,059	1,144	1,143	484	22	7,193
		Combined	1,230	11,611	2,360	2,921	963	33	19,118
1976		Wild	1,511	3,375	342	216	67	-	5,511
	Salmon	Hatchery	337	878	172	142	94	-	1,623
		Combined	1,848	4,253	514	358	161	-	7,134
		Wild	67	4,366	1,542	649	173	-	6,797
	Grilse	Hatchery	73	3,859	2,028	1,156	578	-	7,694
		Combined	140	8,225	3,570	1,805	751	-	14,491
		Wild	1,578	7,741	1,884	865	240	-	12,308
	Totals	Hatchery	410	4,737	2,200	1,298	672	-	9,317
		Combined	1,988	12,478	4,084	2,163	912	-	21,625

TABLE 1.3. Distribution summary of salmon and grilse taken at Mactaquac fish collection facilities, 1972-76. (The separation of salmon and grilse into male and female was made by observation of external characteristics only.)

	Salmon				Grilse				Total	
	Wild		Hatchery		Wild		Hatchery			
Distribution	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
1972										
Released at:										
- Woodstock	338	1,888	90	146	421	72	85	29	2,462	607
- Tobique River	584	1,649	60	133	235	10	69	3	2,426	317
- just above Mactaquac Dam	49	209	1	5	27	5	3	2	264	37
Retained for broodstock	44	60	58	90	4	3	39	16	252	62
Mortalities, experimental and others	5	5	0	0	7	0	0	0	10	7
Totals	1,020	3,811	209	374	694	90	196	50	5,414	1,030
Percent females		78.9		64.2		11.5		20.3	77.3	13.6
1973										
Released at:										
- Woodstock	153	855	45	138	766	134	685	200	1,191	1,785
- Tobique River	175	1,029	17	117	752	113	566	142	1,338	1,573
- just above Mactaquac Dam	14	100	1	11	75	10	97	25	126	207
Retained for broodstock	9	2	45	93	0	0	8	3	149	11
Mortalities, experimental and others	11	19	4	4	4	0	30	4	38	38
Totals	362	2,005	112	363	1,597	257	1,386	374	2,842	3,614
Percent females		84.7		76.4		13.9		21.3	83.3	17.5
1974										
Released at:										
- Woodstock	99	1,013	80	376	1,244	130	923	281	1,568	2,578
- Tobique River	402	2,949	166	912	1,645	165	1,739	326	4,429	3,875
- fall tributary releases	13	247	54	112	166	26	325	102	426	619
Retained for broodstock	8	7	81	126	0	0	0	0	222	0
Mortalities, experimental and others	36	1	0	0	13	0	4	0	37	17
Totals	558	4,217	381	1,526	3,068	321	2,991	709	6,682	7,089
Percent females		88.3		80.0		9.5		19.2	85.9	14.5
1975										
Released at:										
- Woodstock	155	1,577	64	366	1,293	121	1,444	177	2,162	3,035
- Tobique River	474	3,563	225	922	4,052	83	3,045	184	5,184	7,364
- fall tributary releases	32	369	18	112	144	23	408	68	531	643
Retained for broodstock	9	10	41	109	0	0	0	0	169	0
Mortalities, experimental and others	6	5	0	1	9	0	8	1	12	18
Totals	676	5,524	348	1,510	5,498	227	4,905	430	8,058	11,060
Percent females		89.1		81.3		4.0		8.1	87.3	5.9
1976										
Released at:										
- Woodstock	531	1,539	111	414	3,001	28	3,222	111	2,595	6,362
- Tobique River	802	2,500	121	696	3,647	30	4,056	98	4,119	7,831
- fall tributary releases	24	100	31	82	73	12	133	68	237	286
Retained for broodstock	4	7	83	81	0	0	0	0	175	0
Mortalities, experimental and others	2	2	0	4	5	1	5	1	8	12
Totals	1,363	4,148	346	1,277	6,726	71	7,416	278	7,134	14,491
Percent females		75.3		78.7		1.0		3.6	76.0	2.4

TABLE 1.4. Site locations for fall tributary releases of salmon and grilse in Saint John River tributaries, 1974-76. (Release sites are illustrated in Fig. 5.)

Site No.	Release location	Area	Topographic coordinates	Map[1]
1	Salmon River (Grand Falls)	Above Simpson Brook	47°15'N; 67°30'W	21 0/4 E
2	Salmon River (Grand Falls)	Sutherland Brook	47°05'N; 67°33'W	21 0/4 E
3	Salmon River (Grand Falls)	Foley Brook	47°03'N; 67°34'W	21 0/4 E
4	Salmon River (Grand Falls)	Bailey Bridge	47°02'N; 67°35'W	21 0/4 E
5	Little Tobique River	O'Dare Brook	47°23'N; 67°10'W	21 0/6 E
6	Odellach River	Licford Dam	46°47'N; 67°30'W	21 J/14 W
7	Odellach River	Hollin's field	46°47'N; 67°28'W	21 J/14 W
8	Shikatehawk River	Center Glassville	46°31'N; 67°26'W	21 J/11 W
9	Shikatehawk River	Kenneth (ford)	46°32'N; 67°25'W	21 J/11 W
10	Becaguimec River	Stormdale	46°20'N; 67°24'W	21 J/6 W
11	Becaguimec River	Carlisle	46°21'N; 67°23'W	21 J/6 W
12	Becaguimec River	Howard Brook	46°23'N; 67°23'W	21 J/6 W
13	Meduxnekeag River	Belleville	46°12'N; 67°42'W	21 J/4 E
14	Eel River	Scott Siding	45°56'N; 67°33'W	21 G/13 E
15	Nackawic River (main stem)	Norton Dale	46°07'N; 67°16'W	21 J/3 W
16	Northeast Nackawic River	Clark's Bridge	46°06'N; 67°10'W	21 J/3 E

[1]National Topographic Series, Scale 1:50,000.

TABLE 1.5. Hatchery broodstock collections from Mactaquac fish collection facilities, 1972-76. (Figures do not include fish originally selected but eventually not used as broodstock and released upriver. Figures do include 12 male and 12 female hatchery-origin salmon collected each spring from 1974 to 1976 for the Atlantic Salmon Research Centre, St. Andrews.)

	Wild				Hatchery				Total	
	Salmon		Grilse		Salmon		Grilse			
Collection period	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
1972										
Spring (26 May-16 Jul)	24	39	1	0	26	47	7	1	136	9
Summer (18 Jul- 5 Sep)	19	19	3	2	20	24	32	15	82	52
Fall (8 Sep-30 Oct)	1	2	0	1	12	19	0	0	34	1
Totals	44	60	4	3	58	90	39	16	252	62
1973										
Spring (25 Jun-19 Jul)	4	0	0	0	29	53	0	0	86	0
Summer (20 Jul-7 Sep)	5	2	0	0	7	28	8	3	42	11
Fall (7 Sep-17 Sep)	0	0	0	0	9	12	0	0	21	0
Totals	9	2	0	0	45	93	8	3	149	11
1974										
Spring (26 Jun-22 Jul)	4	3	0	0	49	73	0	0	129	0
Summer (24 Jul-19 Aug)	3	3	0	0	25	42	0	0	73	0
Fall (16 Sep-28 Oct)	1	1	0	0	7	11	0	0	20	0
Totals	8	7	0	0	81	126	0	0	222	0
1975										
Spring (5 Jun-12 Jul)	5	5	0	0	25	57	0	0	95	0
Summer (24 Jul-8 Sep)	4	5	0	0	5	37	0	0	51	0
Fall (19 Sep-30 Sep)	0	0	0	0	8	15	0	0	23	0
Totals	9	10	0	0	41	109	0	0	169	0
1976										
Spring (18 Jun-7 Jul)	1	5	0	0	50	45	0	0	101	0
Summer (19 Jul-23 Aug)	3	2	0	0	24	26	0	0	55	0
Fall (20 Sep-12 Oct)	0	0	0	0	9	10	0	0	19	0
Totals	4	7	0	0	83	81	0	0	175	0

TABLE 2.1. Semimonthly totals of salmon and grilse taken in the Mactaquac area during 1972.

Period	Origin of fish	Salmon			Grilse			Totals		
		Wild	Hatchery	Totals	Wild	Hatchery	Totals	Wild	Hatchery	Totals
16-30 Jun	Dam	72	3	75	0	0	0	72	3	75
	Hatchery	0	2	2	0	0	0	0	2	2
	Totals	72	5	77	0	0	0	72	5	77
1-15 Jul	Dam	1,752	162	1,914	163	21	184	1,915	183	2,098
	Hatchery	6	25	31	1	0	1	7	25	32
	Totals	1,758	187	1,945	164	21	185	1,922	208	3,130
16-31 Jul	Dam	761	139	900	213	46	259	974	185	1,159
	Hatchery	0	11	11	3	12	15	3	23	26
	Totals	761	150	911	216	58	274	977	208	1,185
1-15 Aug	Dam	408	22	430	129	37	166	537	59	596
	Hatchery	0	12	12	5	3	8	5	15	20
	Totals	408	34	442	134	40	174	542	74	616
16-31 Aug	Dam	474	24	498	93	29	122	567	53	620
	Hatchery	3	11	14	7	17	24	10	28	38
	Totals	477	35	512	100	46	146	577	81	658
1-15 Sep	Dam	237	19	256	26	7	33	263	26	289
	Hatchery	1	32	33	0	6	6	1	38	39
	Totals	238	51	289	26	13	39	264	64	328
16-30 Sep	Dam	574	17	591	62	16	78	636	33	669
	Hatchery	4	21	25	3	17	20	7	38	45
	Totals	578	38	616	65	33	98	643	71	714
1-15 Oct	Dam	219	7	226	36	8	44	255	15	270
	Hatchery	2	36	38	4	14	18	6	50	56
	Totals	221	43	264	40	22	62	261	65	326
16-31 Oct	Dam	298	11	309	31	5	36	329	16	345
	Hatchery	5	28	33	8	8	16	13	36	49
	Totals	303	39	342	39	13	52	342	52	394
1-15 Nov	Dam	12	0	12	0	0	0	12	0	12
	Hatchery	0	0	0	0	0	0	0	0	0
	Totals	12	0	12	0	0	0	12	0	12
16-17 Nov	Dam	3	1	4	0	0	0	3	1	4
	Hatchery	0	0	0	0	0	0	0	0	0
	Totals	3	1	4	0	0	0	3	1	4
Season totals, 1972	Dam	4,810	405	5,215	753	169	922	5,563	574	6,137
	Hatchery	21	178	199	31	77	108	52	255	307
	Totals	4,831	583	5,414	784	246	1,030	5,615	829	6,444

TABLE 2.2. Distribution of salmon and grilse from secondary sorting facilities, 1972.

	Wild		Hatchery		Totals	
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
Source of fish						
Mactaquac Dam collection facilities	4,810	753	405	169	5,215	922
Hatchery migration channel	21	31	178	77	199	108
Totals	4,831	784	583	246	5,414	1,030
Distribution of fish						
Released at:						
- Woodstock	2,226	493	236	114	2,462	607
- Tobique River	2,223	245	193	72	2,426	317
- just above Mactaquac Dam	258	32	6	5	264	37
Retained for broodstock	104	7	148	55	252	62
Mortalities, experimental and others	10	7	0	0	10	7

TABLE 2.3. Semimonthly totals of salmon and grilse from Mactaquac released in the Saint John River system, 1972.

Release period/area	Salmon					Grilse				
	Wild		Hatchery			Wild		Hatchery		
	Male	Female	Male	Female	Totals	Male	Female	Male	Female	Totals
Woodstock area										
16-31 Jul	33	222	6	15	276	124	3	21	1	149
1-15 Aug	9	314	0	30	353	110	17	3	1	131
16-31 Aug	51	373	10	24	458	74	22	9	3	108
1-15 Sep	33	157	21	22	233	14	7	9	2	32
16-30 Sep	91	426	8	20	545	44	17	22	9	92
1-15 Oct	43	157	21	21	242	28	6	12	9	55
16-31 Oct	74	228	24	13	339	27	0	9	4	40
1-15 Nov	0	0	0	0	0	0	0	0	0	0
16-30 Nov	4	11	0	1	16	0	0	0	0	0
Totals	338	1,888	90	146	2,462	421	72	85	29	607
Tobique River										
1-15 Jul	406	1,258	31	81	1,776	153	3	12	1	169
16-31 Jul	97	318	12	40	467	75	1	8	0	84
Broodstock[1]	81	73	17	12	183	7	6	49	2	64
Totals	584	1,649	60	133	2,426	235	10	69	3	317
Just above Mactaquac Dam										
1-15 Jul	9	34	0	2	45	5	0	0	0	5
16-31 Jul	12	31	0	0	43	7	0	0	0	7
1-15 Aug	2	19	0	1	22	2	1	0	0	3
16-31 Aug	3	43	0	1	47	2	2	1	0	5
1-15 Sep	7	35	1	0	43	3	2	1	0	6
16-30 Sep	14	31	0	0	45	3	0	1	1	5
1-15 Oct	2	16	0	1	19	5	0	0	1	6
Totals	49	209	1	5	264	27	5	3	2	37

[1]These 183 salmon and 64 grilse were originally collected for broodstock use, but eventually found to be in excess of hatchery requirements (Appendix C, Table C-1).

TABLE 3.1. Semimonthly totals of salmon and grilse taken in the Mactaquac area during 1973.

Period	Origin of fish	Salmon			Grilse			Totals		
		Wild	Hatchery	Totals	Wild	Hatchery	Totals	Wild	Hatchery	Totals
1-15 Jun	Dam	2	0	2	0	0	0	2	0	2
	Hatchery	0	0	0	0	0	0	0	0	0
	Totals	2	0	2	0	0	0	2	0	2
16-30 Jun	Dam	143	14	157	28	16	44	171	30	201
	Hatchery	1	0	1	0	2	2	1	2	3
	Totals	144	14	158	28	18	46	172	32	204
1-15 Jul	Dam	667	116	783	482	326	808	1,149	442	1,591
	Hatchery	6	2	8	1	31	32	7	33	40
	Totals	673	118	791	483	357	840	1,156	475	1,631
16-31 Jul	Dam	528	124	652	807	640	1,447	1,335	764	2,099
	Hatchery	0	5	5	7	46	53	7	51	58
	Totals	528	129	657	814	686	1,500	1,342	815	2,157
1-15 Aug	Dam	30	10	40	152	138	290	182	148	330
	Hatchery	0	1	1	1	53	54	1	54	55
	Totals	30	11	41	153	191	344	183	202	385
16-31 Aug	Dam	40	10	50	70	75	145	110	85	195
	Hatchery	0	2	2	0	32	32	0	34	34
	Totals	40	12	52	70	107	177	110	119	229
1-15 Sep	Dam	166	42	208	57	82	139	223	124	347
	Hatchery	0	1	1	0	0	0	0	1	1
	Totals	166	43	209	57	82	139	223	125	348
16-30 Sep	Dam	466	84	550	136	153	289	602	237	839
	Hatchery	0	0	0	0	0	0	0	0	0
	Totals	466	84	550	136	153	289	602	237	839
1-15 Oct	Dam	265	41	306	97	110	207	362	151	513
	Hatchery	1	2	3	0	6	6	1	8	9
	Totals	266	43	309	97	116	213	363	159	522
16-31 Oct	Dam	40	7	47	10	15	25	50	22	72
	Hatchery	2	10	12	4	26	30	6	36	42
	Totals	42	17	59	14	41	55	56	58	114
1-15 Nov	Dam	10	4	14	2	2	4	12	6	18
	Hatchery	0	0	0	0	7	7	0	7	7
	Total	10	4	14	2	9	11	12	13	25
Season totals, 1973	Dam	2,357	452	2,809	1,841	1,557	3,398	4,198	2,009	6,207
	Hatchery	10	23	33	13	203	216	23	226	249
	Totals	2,367	475	2,842	1,854	1,760	3,614	4,221	2,235	6,456

TABLE 3.2. Distribution of salmon and grilse from secondary sorting facilities, 1973.

	Wild		Hatchery		Totals	
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
Source of fish						
Mactaquac Dam collection facilities	2,357	1,841	452	1,557	2,809	3,398
Hatchery migration channel	10	13	23	203	33	216
Totals	2,367	1,854	475	1,760	2,842	3,614
Distribution of fish						
Released at:						
- Woodstock	1,008	900	183	885	1,191	1,785
- Tobique River	1,204	865	134	708	1,338	1,573
- just above Mactaquac Dam	114	85	12	122	126	207
Retained for broodstock	11	0	138	11	149	11
Mortalities, experimental and others	30	4	8	34	38	38

TABLE 3.3 Semimonthly totals of salmon and grilse from Mactaquac released in the Saint John River system, 1973.

Release period/area	Salmon					Grilse				
	Wild		Hatchery			Wild		Hatchery		
	Male	Female	Male	Female	Totals	Male	Female	Male	Female	Totals
Woodstock area										
1-15 Jul	0	21	0	1	22	15	0	9	3	27
16-31 Jul	37	214	8	55	314	415	109	312	141	977
1-15 Aug	3	19	2	3	27	68	10	71	28	177
16-31 Aug	0	12	0	0	12	34	3	49	6	92
1-15 Sep	2	22	1	4	29	16	0	17	4	37
16-30 Sep	74	340	17	44	475	119	6	118	8	251
1-15 Oct	37	193	13	25	268	89	3	88	8	188
16-31 Oct	0	34	4	6	44	10	3	21	2	36
Totals	153	855	45	138	1,191	766	134	685	200	1,785
Tobique River										
16-30 Jun	23	76	1	3	103	21	1	6	1	29
1-15 Jul	82	487	3	9	581	331	48	214	45	638
16-31 Jul	51	304	5	54	414	321	49	213	75	658
1-15 Aug	0	5	0	0	5	34	11	42	8	95
16-31 Aug	0	5	1	0	6	11	2	9	3	25
1-15 Sep	7	63	0	7	77	22	0	34	5	61
16-30 Sep	10	66	1	16	93	12	1	23	2	38
1-31 Oct	0	0	0	0	0	0	0	0	0	0
1-15 Nov	2	23	6	28	59	0	1	25	3	29
Totals	175	1,029	17	117	1,338	752	113	566	142	1,573
Just above Mactaquac Dam										
1-15 Jul	3	25	0	0	28	8	1	10	3	22
16-31 Jul	0	4	0	2	6	5	1	9	4	19
1-15 Aug	0	2	0	0	2	25	3	16	10	54
16-31 Aug	0	7	0	0	7	18	0	23	3	44
1-15 Sep	3	27	0	0	30	7	1	9	3	20
16-30 Sep	5	18	1	4	28	7	3	11	1	22
1-15 Oct	3	17	0	5	25	5	1	19	1	26
Totals	14	100	1	11	126	75	10	97	25	207

TABLE 4.1 Semimonthly totals of salmon and grilse taken in the Mactaquac area during 1974.

Period	Origin of fish	Salmon			Grilse			Totals		
		Wild	Hatchery	Totals	Wild	Hatchery	Totals	Wild	Hatchery	Totals
1-15 Jun	Dam	5	1	6	0	0	0	5	1	6
	Hatchery	0	0	0	0	0	0	0	0	0
	Totals	5	1	6	0	0	0	5	1	6
16-30 Jun	Dam	502	115	617	2	2	4	504	117	621
	Hatchery	0	0	0	0	0	0	0	0	0
	Totals	502	115	617	2	2	4	504	117	621
1-15 Jul	Dam	2,059	664	2,723	520	270	790	2,579	934	3,513
	Hatchery	0	1	1	0	3	3	0	4	4
	Totals	2,059	665	2,724	520	273	793	2,579	938	3,517
16-31 Jul	Dam	1,422	627	2,049	1,889	1,329	3,218	3,311	1,956	5,267
	Hatchery	1	4	5	0	198	198	1	202	203
	Totals	1,423	631	2,054	1,889	1,527	3,416	3,312	2,158	5,470
1-15 Aug	Dam	113	105	218	399	353	752	512	458	970
	Hatchery	0	6	6	2	340	342	2	346	348
	Totals	113	111	224	401	693	1,094	514	804	1,318
16-31 Aug	Dam	38	13	51	94	75	169	132	88	220
	Hatchery	0	6	6	0	135	135	0	141	141
	Totals	38	19	57	94	210	304	132	229	361
1-15 Sep	Dam	219	92	311	94	122	216	313	214	527
	Hatchery	0	2	2	1	90	91	1	92	93
	Totals	219	94	313	95	212	307	314	306	620
16-30 Sep	Dam	279	148	427	193	188	381	472	336	808
	Hatchery	1	16	17	1	218	219	2	234	236
	Totals	280	164	444	194	406	600	474	570	1,044
1-15 Oct	Dam	103	67	170	167	96	263	270	163	433
	Hatchery	1	10	11	1	178	179	2	188	190
	Totals	104	77	181	168	274	442	272	351	623
16-31 Oct	Dam	26	9	35	20	18	38	46	27	73
	Hatchery	1	18	19	3	79	82	4	97	101
	Totals	27	27	54	23	97	120	50	124	174
1-15 Nov	Dam	5	3	8	1	0	1	6	3	9
	Hatchery	0	0	0	2	6	8	2	6	8
	Totals	5	3	8	3	6	9	8	9	17
Season totals, 1974	Dam	4,771	1,844	6,615	3,379	2,453	5,832	8,150	4,297	12,447
	Hatchery	4	63	67	10	1,247	1,257	14	1,310	1,324
	Totals	4,775	1,907	6,682	3,389	3,700	7,089	8,164	5,607	13,771

TABLE 4.2. Distribution of salmon and grilse from secondary sorting facilities, 1974.

	Wild		Hatchery		Totals	
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
Source of fish						
Mactaquac Dam collection facilities	4,771	3,379	1,844	2,453	6,615	5,832
Hatchery migration channel	4	10	63	1,247	67	1,257
Totals	4,775	3,389	1,907	3,700	6,682	7,089
Distribution of fish						
Released at:						
- Woodstock	1,112	1,374	456	1,204	1,568	2,578
- Tobique River	3,351	1,810	1,078	2,065	4,429	3,875
- fall tributary	260	192	166	427	426	619
Retained for broodstock	15	0	207	0	222	0
Mortalities, experimental and others	37	13	0	4	37	17

TABLE 4.3. Semimonthly totals of salmon and grilse from Mactaquac released in the Saint John River system, 1974. (Not including fall distributions into Saint John River tributaries.)

Release period/area	Salmon					Grilse				
	Wild		Hatchery			Wild		Hatchery		
	Male	Female	Male	Female	Totals	Male	Female	Male	Female	Totals
Woodstock area										
16-30 Jun	5	82	2	15	104	1	0	0	0	1
1-15 Jul	22	154	4	38	218	179	17	72	9	277
16-31 Jul	61	675	38	269	1,043	953	87	641	186	1,867
1 Aug-15 Sep	0	0	0	0	0	0	0	0	0	0
16-30 Sep	0	0	0	0	0	2	1	41	26	70
1-15 Oct	4	73	14	27	118	91	17	87	39	234
16-31 Oct	2	23	13	13	51	15	8	77	20	120
1-15 Nov	5	6	9	14	34	3	0	5	1	9
Totals	99	1,013	80	376	1,568	1,244	130	923	281	2,578
Tobique River										
16-30 Jun	94	207	9	22	332	1	0	2	0	3
1-15 Jul	208	1,754	67	487	2,516	255	20	125	30	430
16-31 Jul	66	629	35	239	969	786	60	584	126	1,556
1-15 Aug	10	113	21	80	224	414	40	653	65	1,172
16-31 Aug	5	32	7	8	52	80	13	183	25	301
1-15 Sep	19	191	21	67	298	75	14	148	58	295
16-30 Sep	0	0	0	0	0	0	0	0	0	0
1-15 Oct	0	23	6	9	38	34	18	44	22	118
Totals	402	2,949	166	912	4,429	1,645	165	1,739	326	3,875

TABLE 4.4. Fall distribution of salmon and grilse from Mactaquac into Saint John River tributaries, 1974.

River	Site nos.	Salmon					Grilse				
		Wild		Hatchery			Wild		Hatchery		
		Male	Female	Male	Female	Totals	Male	Female	Male	Female	Totals
Becaguimec	12	1	23	4	20	48	38	10	82	33	163
Salmon (Grand Falls)	3&4	9	161	10	32	212	86	9	169	50	314
Shikatehawk	8	0	0	24	44	68	0	0	30	3	33
Nackawic (main stem)	15	2	32	11	11	56	21	5	29	12	67
Northeast Nackawic	16	1	31	5	5	42	21	2	15	4	42
Totals		13	247	54	112	426	166	26	325	102	619

TABLE 5.1. Semimonthly totals of salmon and grilse taken in the Mactaquac area during 1975.

Period	Origin of fish	Salmon			Grilse			Totals		
		Wild	Hatchery	Totals	Wild	Hatchery	Totals	Wild	Hatchery	Totals
1-15 Jun	Dam	16	4	20	0	0	0	16	4	20
	Hatchery	1	4	5	0	0	0	1	4	5
	Totals	17	8	25	0	0	0	17	8	25
16-30 Jun	Dam	755	192	947	115	93	208	870	285	1,155
	Hatchery	2	43	45	0	5	5	2	48	50
	Totals	757	235	992	115	98	213	872	333	1,205
1-15 Jul	Dam	2,353	680	3,033	1,980	984	2,964	4,333	1,664	5,997
	Hatchery	1	18	19	2	298	300	3	316	319
	Totals	2,354	698	3,052	1,982	1,282	3,264	4,336	1,980	6,316
16-31 Jul	Dam	1,136	329	1,465	2,077	1,331	3,408	3,213	1,660	4,873
	Hatchery	1	12	13	2	407	409	3	419	422
	Totals	1,137	341	1,478	2,079	1,738	3,817	3,216	2,079	5,295
1-15 Aug	Dam	299	108	407	679	451	1,130	978	559	1,537
	Hatchery	0	16	16	0	316	316	0	332	332
	Totals	299	124	423	679	767	1,446	978	891	1,869
16-31 Aug	Dam	97	25	122	141	146	287	238	171	409
	Hatchery	0	4	4	0	78	78	0	82	82
	Totals	97	29	126	141	224	365	238	253	491
1-15 Sep	Dam	638	132	770	211	189	400	849	321	1,170
	Hatchery	1	22	23	0	183	183	1	205	206
	Totals	639	154	793	211	372	583	850	526	1,376
16-30 Sep	Dam	563	148	711	363	253	616	926	401	1,327
	Hatchery	1	22	23	1	194	195	2	216	218
	Totals	564	170	734	364	447	811	928	617	1,545
1-15 Oct	Dam	218	27	245	118	87	205	336	114	450
	Hatchery	0	27	27	1	160	161	1	187	188
	Totals	218	54	272	119	247	366	337	301	638
16-31 Oct	Dam	107	7	114	34	30	64	141	37	178
	Hatchery	0	31	31	1	115	116	1	146	147
	Totals	107	38	145	35	145	180	142	183	325
1-15 Nov	Dam	11	3	14	0	0	0	11	3	14
	Hatchery	0	4	4	0	15	15	0	19	19
	Totals	11	7	18	0	15	15	11	22	33
Season totals, 1975	Dam	6,193	1,655	7,848	5,718	3,564	9,282	11,911	5,219	17,130
	Hatchery	7	203	210	7	1,771	1,778	14	1,974	1,988
	Totals	6,200	1,858	8,058	5,725	5,335	11,060	11,925	7,193	19,118

TABLE 5.2. Distribution of salmon and grilse from secondary sorting facilities, 1975.

	Wild		Hatchery		Totals	
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
Source of fish						
Mactaquac Dam collection facilities	6,193	5,718	1,655	3,564	7,848	9,282
Hatchery migration channel	7	7	203	1,771	210	1,778
Totals	6,200	5,725	1,858	5,335	8,058	11,060
Distribution of fish						
Released at:						
- Woodstock	1,732	1,414	430	1,621	2,162	3,035
- Tobique River	4,037	4,135	1,147	3,229	5,184	7,364
- fall tributary	401	167	130	476	531	643
Retained for broodstock	19	0	150	0	169	0
Mortalities, experimental and others	11	9	1	9	12	18

TABLE 5.3. Semimonthly totals of salmon and grilse from Mactaquac released in the Saint John River system, 1975. (Not including fall distributions into Saint John River tributaries, which are listed separately in Table 5.4.)

Release period/area	Salmon					Grilse				
	Wild		Hatchery			Wild		Hatchery		
	Male	Female	Male	Female	Totals	Male	Female	Male	Female	Totals
Woodstock area										
16-30 Jun	25	55	2	13	95	17	1	10	6	34
1-15 Jul	22	273	8	77	380	282	14	199	31	526
16-31 Jul	0	35	1	14	50	133	1	86	5	225
1-15 Aug	8	149	4	56	217	327	8	391	8	734
16-31 Aug	0	72	0	8	80	71	8	141	14	234
1-15 Sep	38	448	14	70	570	119	38	266	36	459
16-30 Sep	61	505	34	128	728	310	48	341	66	765
1-15 Oct	1	40	1	0	42	34	3	10	11	58
Totals	155	1,577	64	366	2,162	1,293	121	1,444	177	3,035
Tobique River										
15-30 Jun	154	320	35	107	616	75	3	53	16	147
1-15 Jul	199	1,810	83	449	2,541	1,473	50	828	93	2,444
16-31 Jul	107	1,240	52	303	1,702	2,093	18	1,720	60	3,891
1-15 Aug	7	136	7	43	193	347	5	367	9	728
16-31 Aug	4	19	2	6	31	56	4	65	4	129
1 Sep-31 Oct	0	0	0	0	0	0	0	0	0	0
1-15 Nov	3	38	46	14	101	8	3	12	2	25
Totals	474	3,563	225	922	5,184	4,052	83	3,045	184	7,364

TABLE 5.4. Fall distribution of salmon and grilse from Mactaquac into Saint John River tributaries, 1975.

River	Site nos.	Salmon					Grilse				
		Wild		Hatchery			Wild		Hatchery		
		Male	Female	Male	Female	Totals	Male	Female	Male	Female	Totals
Becaguimec	10&11	0	68	0	5	73	13	5	87	22	127
Eel	14	0	22	1	3	26	4	4	26	1	35
Salmon (Grand Falls)	1&3	3	145	6	20	174	69	7	122	28	226
Shikatehawk	9	0	0	6	40	46	0	0	34	0	34
Meduxnekeag	13	2	30	2	24	58	9	2	68	5	84
Nackawic (main stem)	15	0	30	1	5	36	25	1	14	4	44
Northeast Nackawic	16	20	39	0	1	60	11	0	1	0	12
Odellach	7	0	0	2	14	16	0	0	36	7	43
Little Tobique	5	7	35	0	0	42	13	4	20	1	38
Totals		32	369	18	112	531	144	23	408	68	643

TABLE 6.1. Semimonthly totals of salmon and grilse taken in the Mactaquac area during 1976.

Period	Origin of fish	Salmon			Grilse			Totals		
		Wild	Hatchery	Totals	Wild	Hatchery	Totals	Wild	Hatchery	Totals
16-30 Jun	Dam	1,509	295	1,804	67	58	125	1,576	353	1,929
	Hatchery	2	42	44	0	15	15	2	57	59
	Totals	1,511	337	1,848	67	73	140	1,578	410	1,988
1-15 Jul	Dam	2,218	465	2,683	1,410	877	2,287	3,628	1,342	4,970
	Hatchery	1	42	43	0	151	151	1	193	194
	Totals	2,219	507	2,726	1,410	1,028	2,438	3,629	1,535	5,164
16-31 Jul	Dam	1,156	302	1,458	2,954	2,159	5,113	4,110	2,461	6,571
	Hatchery	0	69	69	2	672	674	2	741	743
	Totals	1,156	371	1,527	2,956	2,831	5,787	4,112	3,202	7,314
1-15 Aug	Dam	211	89	300	1,063	718	1,781	1,274	807	2,081
	Hatchery	1	22	23	2	460	462	3	482	485
	Totals	212	111	323	1,065	1,178	2,243	1,277	1,289	2,566
16-31 Aug	Dam	129	38	167	476	392	868	605	430	1,035
	Hatchery	1	23	24	1	458	459	2	481	483
	Totals	130	61	191	477	850	1,327	607	911	1,518
1-15 Sep	Dam	155	66	221	453	383	836	608	449	1,057
	Hatchery	0	31	31	0	393	393	0	424	424
	Totals	155	97	252	453	776	1,229	608	873	1,481
16-30 Sep	Dam	61	23	84	196	112	308	257	135	392
	Hatchery	0	22	22	0	268	268	0	290	290
	Totals	61	45	106	196	380	576	257	425	682
1-15 Oct	Dam	61	33	94	168	119	287	229	152	381
	Hatchery	0	41	41	0	307	307	0	348	348
	Totals	61	74	135	168	426	594	229	500	729
16-31 Oct	Dam	6	2	8	4	13	17	10	15	25
	Hatchery	0	18	18	1	139	140	1	157	158
	Totals	6	20	26	5	152	157	11	172	183
Season totals, 1976	Dam	5,506	1,313	6,819	6,791	4,831	11,622	12,297	6,144	18,441
	Hatchery	5	310	315	6	2,863	2,869	11	3,173	3,184
	Totals	5,511	1,623	7,134	6,797	7,694	14,491	12,308	9,317	21,625

TABLE 6.2. Distribution of salmon and grilse from secondary sorting facilities, 1976.

	Wild		Hatchery		Totals	
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
Source of fish						
Mactaquac Dam collection facilities	5,506	6,791	1,313	4,831	6,819	11,622
Hatchery migration channel	5	6	310	2,863	315	2,869
Totals	5,511	6,797	1,623	7,694	7,134	14,491
Distribution of fish						
Released at:						
- Woodstock	2,070	3,029	525	3,333	2,595	6,362
- Tobique River	3,302	3,677	817	4,154	4,119	7,831
- fall tributary	124	85	113	201	237	286
Retained for broodstock	11	0	164	0	175	0
Mortalities, experimental and others	4	6	4	6	8	12

TABLE 6.3. Semimonthly totals of salmon and grilse from Mactaquac released in the Saint John River system, 1976. (Not including fall distributions into Saint John River tributaries, which are listed separately in Table 6.4.)

Release period/area	Salmon					Grilse				
	Wild		Hatchery			Wild		Hatchery		
	Male	Female	Male	Female	Totals	Male	Female	Male	Female	Totals
Woodstock area										
16-30 Jun	166	347	19	62	594	25	2	23	1	51
1-15 Jul	268	632	37	153	1,090	716	1	386	1	1,104
16-31 Jul	70	319	16	70	475	850	1	780	11	1,642
1-15 Aug	14	149	10	76	249	818	0	750	8	1,576
16-31 Aug	0	0	0	0	0	0	0	0	0	0
1-15 Sep	13	88	24	52	177	312	13	541	46	912
16-30 Sep	0	0	0	0	0	155	9	297	37	498
1-15 Oct	0	0	4	1	5	121	2	288	7	418
16-31 Oct	0	4	1	0	5	4	0	157	0	161
Totals	531	1,539	111	414	2,595	3,001	28	3,222	111	6,362
Tobique River										
16-30 Jun	262	643	35	112	1,052	30	0	37	1	68
1-15 Jul	367	1,009	27	248	1,651	653	0	564	5	1,222
16-31 Jul	136	626	36	196	994	2,074	5	2,018	25	4,122
1-15 Aug	1	65	1	31	98	319	0	489	8	816
16-31 Aug	18	99	6	37	160	389	9	672	25	1,095
1-15 Sep	14	53	9	25	101	182	16	276	34	508
16 Sep-31 Oct	0	0	0	0	0	0	0	0	0	0
1-15 Nov[1]	4	5	7	47	63	0	0	0	0	0
Totals	802	2,500	121	696	4,119	3,647	30	4,056	98	7,831

[1]Excess broodstock released.

TABLE 6.4. Fall distribution of salmon and grilse from Mactaquac into Saint John River tributaries, 1976.

River	Site nos.	Salmon					Grilse				
		Wild		Hatchery			Wild		Hatchery		
		Male	Female	Male	Female	Totals	Male	Female	Male	Female	Totals
Becaguimec	11	9	36	13	25	83	30	8	54	37	129
Nackawic (main stem)	15	2	16	4	9	31	13	4	14	5	36
Odellach	6	0	0	9	22	31	0	0	31	18	49
Salmon (Grand Falls)	1&2	13	48	5	26	92	30	0	34	8	72
Totals		24	100	31	82	237	73	12	133	68	286

TABLE 7.1. Annual totals of species other than Atlantic salmon, Mactaquac fish collection facilities, 1972-76. (Smaller fish cannot be estimated properly, due to the size of the wire mesh throughout the facilities. Eels and elvers are not counted, and estimates of fish such as perch and chub include only those too large to pass through the mesh.)

Species	Numbers of fish				
	1972	1973	1974	1975	1976
Alewife & blueback herring[1]	1,204,900	1,444,626	1,343,901	2,400,743	3,440,590
Smallmouth black bass	49	93	21	28	7
Striped bass	5	49	0	17	0
Lamprey	85	517	31	35	21
Perch[2]	519	1,218	2,150	300	775
Chain pickerel	20	22	5	8	6
Landlocked salmon	16	13	16	17	6
Shad	1,497	7,363	432	549	458
Suckers	3,003	2,123	845	340	570
Brook (speckled) trout	57	17	8	5	4
Whitefish	17	3	70	113	5
Other fish (not eels)	0	0	1	1	0

[1]See Table 7.7 for division of alewife and blueback herring, 1973-76; no breakdown available for 1972.

[2]Totals include yellow and white perch.

TABLE 7.2. Semimonthly totals of species other than Atlantic salmon, Mactaquac fish collection facilities, 1972.

Species	May	Jun		Jul		Aug		Sep		Oct		Nov		Total
	21-31	1-15	16-30	1-15	16-31	1-15	16-31	1-15	16-30	1-15	16-31	1-15	16&17	
Alewife & blueback herring	84,950	432,925	389,225	276,550	21,250	0	0	0	0	0	0	0	0	1,204,900
Smallmouth black bass	0	9	14	15	8	0	2	0	1	0	0	0	0	49
Striped bass	0	0	4	1	0	0	0	0	0	0	0	0	0	5
Lamprey	0	13	72	0	0	0	0	0	0	0	0	0	0	85
White perch	0	0	0	0	0	0	0	0	0	0	125	0	0	125
Yellow perch	55	4	260	75	0	0	0	0	0	0	0	0	0	394
Chain pickerel	7	0	9	4	0	0	0	0	0	0	0	0	0	20
Landlocked salmon	0	1	6	9	0	0	0	0	0	0	0	0	0	16
Shad	0	65	975	450	7	0	0	0	0	0	0	0	0	1,497
Suckers	840	1,537	418	208	0	0	0	0	0	0	0	0	0	3,003
Brook (speckled) trout	0	16	20	21	0	0	0	0	0	0	0	0	0	57
Whitefish	0	0	0	0	0	0	0	0	0	0	15	2	0	17

TABLE 7.3. Semimonthly totals of species other than Atlantic salmon, Mactaquac fish collection facilities, 1973.

Species	May	Jun		Jul		Aug		Sep		Oct		Nov	Total
	17-31	1-15	16-30	1-15	16-31	1-15	16-31	1-15	16-30	1-15	16-31	1-15	
Alewife & blueback herring	254,975	555,975	496,901	136,225	550	0	0	0	0	0	0	0	1,444,626
Smallmouth black bass	0	3	64	15	1	2	4	3	1	0	0	0	93
Striped bass	0	0	0	0	12	10	10	17	0	0	0	0	49
Lamprey	0	54	408	55	0	0	0	0	0	0	0	0	517
White perch	0	0	0	20	200	0	0	0	0	0	40	0	260
Yellow perch	10	0	923	25	0	0	0	0	0	0	0	0	958
Chain pickerel	1	0	14	5	2	0	0	0	0	0	0	0	22
Landlocked salmon	0	0	3	8	0	1	0	0	1	0	0	0	13
Shad	0	79	6,418	866	0	0	0	0	0	0	0	0	7,363
Suckers	438	1,096	202	172	0	0	0	0	0	125	90	0	2,123
Brook (speckled) trout	1	6	10	0	0	0	0	0	0	0	0	0	17
Whitefish	0	0	0	0	0	0	0	0	0	0	3	0	3

TABLE 7.4. Semimonthly totals of species other than Atlantic salmon, Mactaquac fish collection facilities, 1974.

Species	May	Jun		Jul		Aug		Sep		Oct		Nov	Total
	21-31	1-15	16-30	1-15	16-31	1-15	16-31	1-15	16-30	1-15	16-31	1-13	
Alewife & blueback herring - taken commercially	0	210,100	400,400	0	0	0	0	0	0	0	0	0	610,500
- released into headpond	34,225	360,375	210,950	126,851	1,000	0	0	0	0	0	0	0	733,401
Smallmouth black bass	0	0	8	3	2	1	6	1	0	0	0	0	21
Lamprey	0	3	22	6	0	0	0	0	0	0	0	0	31
White perch	0	0	0	400	0	0	0	200	0	0	0	0	600
Yellow perch	0	0	25	1,525	0	0	0	0	0	0	0	0	1,550
Chain pickerel	1	0	4	0	0	0	0	0	0	0	0	0	5
Landlocked salmon	0	0	3	9	1	2	0	0	1	0	0	0	16
Shad	1	9	386	36	0	0	0	0	0	0	0	0	432
Suckers	95	360	390	0	0	0	0	0	0	0	0	0	845
Brown trout	0	0	0	0	0	0	0	0	0	0	1	0	1
Brook (speckled) trout	0	5	2	1	0	0	0	0	0	0	0	0	8
Whitefish	0	0	0	0	0	0	0	0	1	5	39	25	70

TABLE 7.5. Semimonthly totals of species other than Atlantic salmon, Mactaquac fish collection facilities, 1975.

Species	May	Jun		Jul		Aug		Sep		Oct		Nov	Total
	20-31	1-15	16-30	1-15	16-31	1-15	16-31	1-15	16-30	1-15	16-31	1-14	
Alewife & blueback herring - taken commercially	0	444,614	843,879	154,141	0	0	0	0	0	0	0	0	1,442,634
- released into headpond	131,849	398,710	264,850	155,750	6,950	0	0	0	0	0	0	0	958,109
Smallmouth black bass	0	1	7	2	11	1	3	2	1	0	0	0	28
Striped bass	0	0	1	0	1	1	1	3	0	5	5	0	17
Lamprey	3	4	13	15	0	0	0	0	0	0	0	0	35
White perch	0	0	0	0	0	0	0	0	0	0	300	0	300
Chain pickerel	5	1	0	0	1	1	0	0	0	0	0	0	8
Landlocked salmon	0	1	2	8	2	1	0	1	2	0	0	0	17
Salmon smolt	0	0	0	0	0	1	0	0	0	0	0	0	1
Shad	6	412	125	3	0	3	0	0	0	0	0	0	549
Suckers	172	160	8	0	0	0	0	0	0	0	0	0	340
Brook (speckled) trout	0	2	3	0	0	0	0	0	0	0	0	0	5
Whitefish	0	0	0	0	0	0	0	0	0	0	74	39	113

TABLE 7.6. Semimonthly totals of species other than Atlantic salmon, Mactaquac fish collection facilities, 1976.

Species	May	Jun		Jul		Aug		Sep		Oct		Total
	13-31	1-15	16-30	1-15	16-31	1-15	16-31	1-15	16-30	1-15	16-29	
Alewife & blueback herring												
- taken commercially	0	1,320,382	1,340,909	0	0	0	0	0	0	0	0	2,661,291
- released into headpond	240,999	342,900	126,050	69,350	0	0	0	0	0	0	0	779,299
Smallmouth black bass	0	0	0	2	3	0	0	1	1	0	0	7
Lamprey	2	8	11	0	0	0	0	0	0	0	0	21
White perch	0	0	0	125	0	0	0	0	0	0	0	125
Yellow perch	125	0	50	475	0	0	0	0	0	0	0	650
Chain pickerel	3	0	0	1	0	0	0	1	1	0	0	6
Landlocked salmon	0	0	5	1	0	0	0	0	0	0	0	6
Shad[1]	12	248	191	5	0	0	2	0	0	0	0	458
Suckers	555	15	0	0	0	0	0	0	0	0	0	570
Brook (speckled) trout	1	0	1	2	0	0	0	0	0	0	0	4
Whitefish	0	0	0	0	0	0	3	0	0	1	1	5

[1]Totals include 233 shad (1-15 Jun) and 187 shad (16-30 Jun) — total 420 — taken with commercial harvest of alewife/blueback herring.

TABLE 7.7. Semimonthly totals of alewife and blueback herring released into the headpond and taken commercially from the Mactaquac Dam fish collection facilities, 1973-76.[1]

Time period	Released in headpond[2]		Taken commercially[2]	
	Alewife	Blueback	Alewife	Blueback
1973				
May 16-31	254,975	0	0	0
Jun 1-15	505,937	50,038	0	0
Jun 16-30	340,116	156,785	0	0
Jul 1-15	56,800	79,425	0	0
Jul 16-31	337	213	0	0
Total	1,158,165	286,461	0	0
1974				
May 16-31	33,996	229	0	0
Jun 1-15	351,019	9,356	204,414	5,686
Jun 16-30	185,909	25,041	373,807	26,593
Jul 1-15	26,424	100,427	0	0
Jul 16-31	0	1,000	0	0
Total	597,348	136,053	578,221	32,279
1975				
May 16-31	130,060	1,789	0	0
Jun 1-15	384,843	13,867	428,201	16,413
Jun 16-30	231,980	32,870	753,983	89,896
Jul 1-15	36,461	119,289	71,392	82,749
Jul 16-31	0	6,950	0	0
Total	783,344	174,765	1,253,576	189,058
1976				
May 13-15	6,700	0	0	0
May 16-31	230,848	3,451	0	0
Jun 1-15	320,386	22,514	1,555,287	165,095
Jun 16-30	55,898	70,152	587,987	752,922
Jul 1-15	1,985	67,365	0	0
Jul 16-31	0	0	0	0
Total	615,817	163,482	1,743,274	918,017

[1]The above table was compiled by B.M. Jessop, Biologist (Freshwater and Anadromous Division, Resource Branch, Halifax), who has been conducting studies on these species in the Mactaquac area.

[2]Figures consist of estimated subtotals and should be rounded to the nearest hundred.

APPENDIX A

DAILY COUNTS OF SALMON AND GRILSE TAKEN FROM MACTAQUAC HATCHERY SECONDARY SORTING FACILITIES, 1972-76

The figures in this appendix include the salmon and grilse taken at both the Mactaquac Dam collection facilities and the Mactaquac Hatchery migration channel. The dates shown are those during which the fish were processed through the secondary sorting facilities at Mactaquac Hatchery, not necessarily the dates on which they were first recovered.

Daily totals are presented for salmon and for grilse. Each of these totals is subdivided as to recovery location (dam or hatchery) and as to whether of wild or hatchery origin.

TABLE A-1. Salmon and grilse totals, Mactaquac secondary sorting facilities, 1972.

Date	From Mactaquac Dam collection facilities				From Mactaquac Hatchery migration channel				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
June 1-30[1]	72	0	3	0	0	0	2	0	77	0
July										
1	38	0	4	0	0	0	0	0	42	0
2	112	2	4	0	0	0	0	0	116	2
3	57	2	15	0	0	0	1	0	73	2
4	57	0	7	0	0	0	0	0	64	0
5	70	0	10	0	2	0	7	0	89	0
6	19	1	1	0	1	0	0	0	21	1
8	16	0	3	0	0	0	9	0	28	0
9	149	4	14	1	1	0	0	0	164	5
10	59	2	1	0	0	0	0	0	60	2
11	130	6	12	0	0	0	0	0	142	6
12	46	2	2	0	0	0	5	0	53	2
13	44	5	4	0	0	0	3	0	51	5
14	283	46	29	9	2	1	0	0	314	56
15	672	93	56	11	0	0	0	0	728	104
16	276	60	40	2	0	0	0	0	316	62
17	116	11	6	4	0	0	0	0	122	15
19	9	1	4	3	0	0	0	0	13	4
20	9	0	2	3	0	0	5	1	16	4
21	15	8	3	0	0	0	0	0	18	8
22	55	29	14	10	0	2	3	4	72	45
24	16	6	0	3	0	0	0	0	16	9
25	103	43	17	6	0	0	0	5	120	54
26	4	3	1	0	0	0	0	0	5	3
27	15	7	6	3	0	1	1	1	22	12
28	16	5	14	0	0	0	0	0	30	5
31	127	40	32	12	0	0	2	1	161	53
August										
1	102	26	8	11	0	0	2	1	112	38
2	11	2	0	2	0	0	2	0	13	4
4	10	9	3	3	0	0	3	0	16	12
8	131	50	7	8	0	0	1	2	139	60
9	35	13	0	2	0	1	1	0	36	16
10	25	4	0	2	0	1	0	0	25	7
11	12	4	1	4	0	1	0	0	13	9
14	68	18	3	3	0	1	2	0	73	22
15	14	3	0	2	0	1	1	0	15	6
16	60	12	3	1	0	1	0	0	63	14
17	59	13	5	2	0	0	0	0	64	15
18	59	14	2	1	0	0	0	0	61	15
21	125	24	7	12	0	0	0	1	132	37
23	52	7	1	7	0	0	4	2	57	16
24	42	13	5	5	2	3	2	2	51	23
25	0	0	0	0	0	1	2	5	2	6
28	44	8	1	1	1	1	2	0	48	10
31	33	2	0	0	0	1	1	7	34	10
September										
1	16	2	2	0	0	0	2	0	20	2
3	0	0	0	0	0	0	3	0	3	0
4	0	0	0	0	1	0	1	1	2	1
5	44	7	9	4	0	0	3	0	56	11
7	0	0	0	0	0	0	7	4	7	4
8	6	0	3	0	0	0	0	0	9	0
12	46	5	4	2	0	0	1	1	51	8
13	20	3	0	0	0	0	2	0	22	3
14	31	4	1	1	0	0	6	0	38	5
15	74	5	0	0	0	0	7	0	81	5
18	159	20	8	2	1	0	3	2	171	24
19	85	8	2	3	0	0	2	1	89	12
20	36	2	2	0	0	0	0	5	38	7
21	22	3	0	0	1	0	1	2	24	5
22	36	1	0	1	0	3	5	0	41	5

TABLE A-1. Continued

Date	From Mactaquac Dam collection facilities				From Mactaquac Hatchery migration channel				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
September										
25	195	21	4	8	1	0	3	2	203	31
26	5	0	1	0	1	0	3	0	10	0
28	28	3	0	2	0	0	1	3	29	8
29	8	4	0	0	0	0	3	2	11	6
October										
2	75	9	3	3	0	1	5	5	83	18
4	17	3	0	2	1	0	3	1	21	6
6	18	5	2	0	1	0	5	2	26	7
10	55	14	1	0	0	2	17	3	73	19
11	22	2	1	2	0	1	2	0	25	5
12	21	3	0	1	0	0	2	2	23	6
13	11	0	0	0	0	0	2	1	13	1
16	56	10	0	0	2	0	11	4	69	14
17	15	1	2	0	0	0	0	1	17	2
18	6	0	0	0	1	0	2	0	9	0
19	23	4	1	0	0	0	4	1	28	5
20	36	3	1	2	1	0	2	1	40	6
23	27	0	1	2	1	4	1	0	30	6
25	35	7	4	0	0	2	3	1	42	10
26	49	3	1	0	0	1	1	0	51	4
27	16	2	0	0	0	0	2	0	18	2
30	35	1	1	1	0	1	2	0	38	3
November										
10	12	0	0	0	0	0	0	0	12	0
24	3	0	1	0	0	0	0	0	4	0
Totals	4,810	753	405	169	21	31	178	77	5,414	1,030

[1]Daily breakdown of fish sorted is not available.

TABLE A-2. Salmon and grilse totals, Mactaquac secondary sorting facilities, 1973.

Date	From Mactaquac Dam collection facilities				From Mactaquac Hatchery migration channel				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
June										
15	2	0	0	0	0	0	0	0	2	0
21	4	0	0	0	0	0	0	0	4	0
25	78	2	11	3	0	0	0	0	89	5
27	1	2	0	0	0	0	0	1	1	3
28	1	2	1	0	0	0	0	0	2	2
29	3	5	0	1	0	0	0	1	3	7
30	56	17	2	12	1	0	0	0	59	29
July										
1	131	25	18	7	0	0	0	0	149	32
2	116	13	19	7	0	0	0	0	135	20
3	44	7	7	9	0	0	0	0	51	16
4	38	14	5	3	0	0	0	0	43	17
5	8	2	2	3	0	0	0	0	10	5
6	59	21	4	12	0	0	0	1	63	34
7	21	11	0	10	0	0	0	0	21	21
8	26	23	5	17	0	0	0	2	31	42
9	9	6	1	4	0	0	0	0	10	10
10	8	17	1	9	0	0	0	0	9	26
11	9	32	2	19	1	0	0	5	12	56
12	20	50	7	22	0	1	0	8	27	81
13	42	95	11	65	0	0	0	4	53	164
14	46	80	10	60	3	0	2	5	61	145
15	90	86	24	79	2	0	0	6	116	171
16	67	90	15	52	0	0	0	1	82	143
17	59	75	15	61	0	0	0	1	74	137
18	93	66	14	49	0	0	0	3	107	118
19	42	50	13	37	0	0	0	0	55	87
20	54	42	15	31	0	0	2	4	71	77
21	28	63	8	61	0	1	0	3	36	128
22	46	110	9	76	0	0	0	1	55	187
23	40	34	8	45	0	0	0	1	48	80
24	14	28	4	27	0	0	0	1	18	56
25	12	39	6	34	0	0	2	7	20	80
26	20	72	8	56	0	0	0	3	28	131
27	32	49	5	30	0	0	0	4	37	83
28	0	0	0	0	0	2	1	9	1	11
29	11	39	2	39	0	1	0	2	13	81
31	10	50	2	42	0	3	0	6	12	101
August										
1	2	3	0	3	0	0	0	9	2	15
2	0	0	0	5	0	0	0	6	0	11
3	1	9	1	5	0	0	0	8	2	22
4	0	0	0	0	0	0	0	7	0	7
7	10	23	0	12	0	1	0	3	10	39
8	2	12	0	10	0	0	0	2	2	24
9	2	21	3	19	0	0	1	2	6	42
10	1	15	2	15	0	0	0	3	3	33
13	2	15	0	11	0	0	0	7	2	33
14	9	52	3	56	0	0	0	5	12	113
15	1	2	1	2	0	0	0	1	2	5
16	1	13	1	4	0	0	0	2	2	19
17	2	4	0	9	0	0	0	3	2	16
20	1	10	3	19	0	0	0	5	4	34
22	1	7	0	2	0	0	0	3	1	12
23	2	3	3	5	0	0	1	8	6	16
24	0	3	1	1	0	0	1	2	2	6
27	12	10	2	20	0	0	0	5	14	35
28	5	5	0	5	0	0	0	3	5	13
29	2	2	0	5	0	0	0	1	2	8
31	14	13	0	5	0	0	0	0	14	18
September										
4	16	6	4	16	0	0	1	0	21	22
5	9	10	2	6	0	0	0	0	11	16

TABLE A-2. Continued

Date	From Mactaquac Dam collection facilities				From Mactaquac Hatchery migration channel				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
September										
7	14	3	5	5	0	0	0	0	19	8
10	13	5	4	12	0	0	0	0	17	17
11	6	1	4	5	0	0	0	0	10	6
13	15	7	5	8	0	0	0	0	20	15
14	35	10	5	16	0	0	0	0	40	26
15	58	15	13	14	0	0	0	0	71	29
17	46	5	7	11	0	0	0	0	53	16
18	51	14	12	19	0	0	0	0	63	33
19	40	14	4	12	0	0	0	0	44	26
20	49	8	3	10	0	0	0	0	52	18
21	53	12	10	8	0	0	0	0	63	20
22	27	9	3	10	0	0	0	0	30	19
24	40	18	13	14	0	0	0	0	53	32
25	75	25	18	22	0	0	0	0	93	47
26	24	13	4	9	0	0	0	0	28	22
27	41	16	9	29	0	0	0	0	50	45
28	20	2	1	9	0	0	0	0	21	11
October										
1	78	30	12	36	0	0	0	0	90	66
2	25	8	2	9	0	0	0	0	27	17
3	11	5	1	11	0	0	0	0	12	16
4	17	3	2	5	0	0	0	0	19	8
5	20	11	6	8	0	0	0	0	26	19
9	69	28	11	17	0	0	0	0	80	45
10	6	5	4	12	0	0	0	0	10	17
12	12	3	1	6	0	0	0	0	13	9
15	27	4	2	6	1	0	2	6	32	16
16	2	0	0	0	0	1	4	5	6	6
17	9	2	0	6	0	1	0	4	9	13
18	3	0	1	3	0	1	0	1	4	5
22	9	1	5	3	1	0	0	5	15	9
23	4	1	1	0	0	0	2	1	7	2
24	1	1	0	0	0	0	0	2	1	3
26	4	3	0	2	0	0	1	4	5	9
29	8	2	0	1	1	1	3	4	12	8
November										
5	7	1	3	1	0	0	0	1	10	3
14	3	1	1	1	0	0	0	3	4	5
15	0	0	0	0	0	0	0	3	0	3
Totals	2,357	1,841	452	1,557	10	13	23	203	2,842	3,614

TABLE A-3. Salmon and grilse totals, Mactaquac secondary sorting facilities, 1974.

Date	From Mactaquac Dam collection facilities				From Mactaquac Hatchery migration channel				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
June										
3	0	0	1	0	0	0	0	0	1	0
5	1	0	0	0	0	0	0	0	1	0
12	2	0	0	0	0	0	0	0	2	0
13	1	0	0	0	0	0	0	0	1	0
14	1	0	0	0	0	0	0	0	1	0
17	8	0	1	0	0	0	0	0	9	0
18	6	0	0	0	0	0	0	0	6	0
19	12	1	1	0	0	0	0	0	13	1
20	10	0	2	0	0	0	0	0	12	0
21	12	0	1	0	0	0	0	0	13	0
24	53	0	7	0	0	0	0	0	60	0
26	46	0	6	0	0	0	0	0	52	0
27	39	0	6	0	0	0	0	0	45	0
28	25	0	4	0	0	0	0	0	29	0
29	86	0	15	1	0	0	0	0	101	1
30	205	1	72	1	0	0	0	0	277	2
July										
1	317	18	80	9	0	0	0	0	397	27
2	99	2	35	1	0	0	0	0	134	3
3	106	5	37	1	0	0	1	0	144	6
4	308	28	89	17	0	0	0	0	397	45
5	164	16	62	11	0	0	0	1	226	28
6	142	42	53	15	0	0	0	0	195	57
7	290	70	90	18	0	0	0	0	380	88
8	177	16	48	11	0	0	0	0	225	27
9	51	19	14	10	0	0	0	0	65	29
10	29	14	3	8	0	0	0	0	32	22
11	85	48	26	25	0	0	0	0	111	73
12	35	30	17	16	0	0	0	0	52	46
14	198	134	89	68	0	0	0	2	287	204
15	58	78	21	60	0	0	0	0	79	139
16	168	151	60	73	0	0	0	0	228	224
17	63	87	36	70	0	0	0	19	99	176
18	176	201	47	124	0	0	1	9	224	334
19	120	140	50	121	0	0	0	19	170	280
20	108	140	58	99	1	0	0	6	167	245
21	151	205	62	144	0	0	0	14	213	363
22	102	109	46	74	0	0	1	11	149	194
23	45	33	14	27	0	0	0	7	59	67
24	92	85	45	48	0	0	0	13	137	146
25	44	87	22	76	0	0	0	14	66	177
26	16	86	17	77	0	0	0	22	33	185
27	15	56	16	45	0	0	0	15	31	116
28	102	214	58	135	0	0	0	6	160	355
29	57	92	28	55	0	0	0	5	85	152
30	72	99	35	73	0	0	2	38	109	210
31	91	104	33	88	0	0	0	0	124	192
August										
1	10	18	7	23	0	1	2	50	19	92
2	10	29	14	43	0	0	2	59	26	131
4	16	72	16	53	0	1	1	43	33	169
5	18	59	21	41	0	0	0	5	39	105
6	28	82	23	57	0	0	1	87	52	226
7	2	7	3	14	0	0	0	22	5	43
8	7	25	3	23	0	0	0	16	10	64
9	3	14	4	14	0	0	0	1	7	29
12	14	60	6	44	0	0	0	19	20	123
13	0	10	3	10	0	0	0	13	3	33
14	4	13	3	13	0	0	0	6	7	32
15	1	10	2	18	0	0	0	19	3	47
16	4	9	3	8	0	0	0	1	7	18
19	16	48	4	29	0	0	0	16	20	93
20	1	8	1	4	0	0	0	9	2	21
21	3	8	2	6	0	0	0	4	5	18

TABLE A-3. Continued

Date	From Mactaquac Dam collection facilities				From Mactaquac Hatchery migration channel				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
August										
22	0	2	0	1	0	0	0	8	0	11
26	3	11	2	14	0	0	1	21	6	46
27	4	1	1	3	0	0	3	26	8	30
28	2	3	0	4	0	0	2	33	4	40
30	5	4	0	6	0	0	0	17	5	27
September										
3	21	16	8	15	0	0	0	11	29	42
4	5	4	3	8	0	0	0	16	8	28
5	13	4	2	6	0	0	0	10	15	20
6	14	6	7	18	0	1	2	11	23	36
9	67	31	38	50	0	0	0	12	105	93
10	3	5	1	0	0	0	0	5	4	10
11	50	17	16	13	0	0	0	11	66	41
12	22	3	9	2	0	0	0	8	31	13
13	24	8	8	10	0	0	0	6	32	24
16	47	17	23	28	0	0	3	39	73	84
17	6	1	2	0	0	0	1	23	9	24
18	23	6	14	8	0	0	2	12	39	26
19	17	6	9	5	0	0	3	11	29	22
20	14	5	9	1	0	0	0	9	23	15
23	88	45	37	52	0	0	0	12	125	109
24	7	22	6	10	0	0	1	9	14	41
25	8	9	6	12	0	0	0	3	14	24
26	10	10	8	8	0	0	0	10	18	28
27	9	11	7	14	1	0	0	25	17	50
30	50	61	27	50	0	1	6	65	83	177
October										
1	3	5	3	6	1	0	2	50	9	61
2	16	32	15	17	0	0	2	21	33	70
3	1	4	0	2	0	0	0	14	1	20
4	8	8	1	4	0	0	0	2	9	14
7	28	60	14	34	0	0	2	30	44	124
8	6	11	6	7	0	0	3	23	15	41
9	4	2	3	5	0	0	0	7	7	14
10	5	12	3	5	0	0	0	7	8	24
11	13	14	7	4	0	1	0	10	20	29
15	19	19	15	12	0	0	1	14	35	45
16	0	2	0	1	1	0	3	12	4	15
17	1	5	3	4	0	0	2	5	6	14
18	8	3	3	4	0	0	2	16	13	23
21	3	4	0	5	0	0	5	22	8	31
22	5	1	0	2	0	0	1	4	6	7
23	0	0	0	0	0	0	0	3	0	3
24	2	1	0	1	0	2	1	3	3	7
25	3	2	0	1	0	0	0	4	3	7
28	3	2	2	0	0	0	2	5	7	7
29	0	0	0	0	0	1	2	2	2	3
31	1	0	1	0	0	0	0	3	2	3
November										
1	2	1	1	0	0	0	0	3	3	4
4	3	0	2	0	0	1	0	2	5	3
6	0	0	0	0	0	1	0	1	0	2
Totals	4,771	3,379	1,844	2,453	4	10	63	1,247	6,682	7,089

TABLE A-4. Salmon and grilse totals, Mactaquac secondary sorting facilities, 1975.

Date	From Mactaquac Dam collection facilities				From Mactaquac Hatchery migration channel				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
June										
5	3	0	2	0	0	0	3	0	8	0
10	13	0	2	0	1	0	1	0	17	0
16	10	0	1	0	0	0	0	0	11	0
17	19	0	1	0	0	0	3	0	23	0
18	1	0	0	0	0	0	4	0	5	0
19	0	0	0	0	0	0	1	0	1	0
23	12	0	1	0	1	0	15	1	29	1
24	3	1	0	0	0	0	5	1	8	2
25	12	0	2	0	0	0	3	0	17	0
26	10	0	1	1	0	0	3	1	14	2
27	43	6	13	8	1	0	5	2	62	16
28	117	17	33	18	0	0	2	0	152	35
29	142	25	41	23	0	0	2	0	185	48
30	386	66	99	43	0	0	0	0	485	109
July										
1	164	67	38	40	0	0	0	0	202	107
2	199	64	43	43	0	0	5	5	247	112
3	106	53	31	41	0	0	0	1	137	95
4	35	18	13	19	0	0	2	5	50	42
5	117	125	61	53	0	1	0	10	178	189
6	128	84	51	62	0	0	0	10	179	156
7	11	31	8	28	1	0	1	18	21	77
8	33	49	9	25	0	0	2	34	44	108
9	94	116	17	63	0	0	0	38	111	217
10	128	167	50	89	0	1	1	22	179	279
11	275	253	108	122	0	0	2	25	385	400
12	202	184	74	67	0	0	0	24	276	275
13	317	356	72	154	0	0	2	24	391	534
14	286	213	63	95	0	0	0	18	349	326
15	258	200	42	83	0	0	3	64	303	347
16	201	166	40	105	0	0	2	61	243	332
17	181	216	35	109	1	0	4	29	221	354
18	68	208	22	153	0	0	0	24	90	385
19	104	180	21	145	0	0	0	0	125	325
20	119	218	24	139	0	0	0	0	143	357
21	92	135	46	142	0	0	0	35	138	312
22	136	144	36	101	0	0	1	32	173	277
23	30	90	21	63	0	1	1	19	52	173
24	34	79	9	40	0	0	0	15	43	134
25	37	89	10	56	0	0	0	36	47	181
26	12	79	7	37	0	1	2	40	21	157
28	42	173	19	84	0	0	1	33	62	290
29	41	130	17	80	0	0	0	12	58	222
30	6	48	6	27	0	0	1	38	13	113
31	33	122	16	50	0	0	0	33	49	205
August										
1	24	60	11	36	0	0	1	28	36	124
5	112	239	39	163	0	0	0	30	151	432
6	95	162	29	111	0	0	2	31	126	304
7	15	38	7	36	0	0	0	29	22	103
8	8	28	4	13	0	0	5	53	17	94
11	34	84	14	40	0	0	2	38	50	162
12	2	28	1	17	0	0	0	7	3	52
13	3	9	0	10	0	0	3	47	6	66
14	4	25	3	17	0	0	3	43	10	85
15	2	6	0	8	0	0	0	10	2	24
18	21	51	7	51	0	0	1	6	29	108
19	2	9	0	6	0	0	0	6	2	21
25	30	43	9	54	0	0	0	15	39	112
26	13	14	4	10	0	0	0	1	17	25
28	18	17	3	16	0	0	3	42	24	75
29	13	7	2	9	0	0	0	8	15	24

TABLE A-4. Continued

Date	From Mactaquac Dam collection facilities				From Mactaquac Hatchery migration channel				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
September										
2	83	26	18	27	0	0	4	51	105	104
3	49	13	5	24	1	0	0	9	55	46
4	55	25	12	8	0	0	0	3	67	36
5	36	6	3	10	0	0	1	0	40	16
8	111	36	26	25	0	0	0	7	137	68
9	35	11	7	8	0	0	0	6	42	25
10	53	12	6	23	0	0	1	5	60	40
11	26	17	6	20	0	0	11	52	43	89
12	37	11	5	9	0	0	0	16	42	36
15	153	54	44	35	0	0	5	34	202	123
16	78	23	18	14	1	0	2	14	99	51
17	69	49	18	31	0	1	2	30	89	111
18	30	24	12	18	0	0	3	38	45	80
19	76	64	22	45	0	0	4	18	102	127
22	108	98	27	66	0	0	0	8	135	172
24	40	36	12	26	0	0	1	6	53	68
25	40	14	15	14	0	0	4	20	59	48
26	23	6	5	4	0	0	0	13	28	23
29	65	31	16	28	0	0	0	21	81	80
30	34	18	3	7	0	0	6	26	43	51
October										
1	15	9	0	5	0	0	1	14	16	28
2	17	21	5	13	0	0	12	32	34	66
3	11	7	3	10	0	0	4	15	18	32
6	43	12	2	16	0	0	0	19	45	47
7	15	8	0	8	0	0	4	15	19	31
8	3	2	0	1	0	0	0	19	3	22
9	0	0	0	0	0	0	5	20	5	20
10	16	5	2	6	0	0	1	11	19	22
14	95	52	14	27	0	1	0	11	109	91
15	3	2	1	1	0	0	0	4	4	7
16	8	4	2	2	0	0	0	2	10	8
17	14	12	1	4	0	0	0	4	15	20
20	24	7	1	10	0	0	3	23	28	40
21	9	2	0	3	0	0	5	12	14	17
22	8	1	0	2	0	0	5	9	13	12
23	3	1	0	2	0	0	5	14	8	17
24	6	2	1	3	0	0	6	14	13	19
27	20	3	2	4	0	0	4	17	26	24
28	6	1	0	0	0	0	2	9	8	10
31	9	1	0	0	0	1	1	11	10	13
November										
4	5	0	3	0	0	0	0	0	8	0
7	0	0	0	0	0	0	4	15	4	15
13	4	0	0	0	0	0	0	0	4	0
14	2	0	0	0	0	0	0	0	2	0
Totals	6,193	5,718	1,655	3,564	7	7	203	1,771	8,058	11,060

TABLE A-5. Salmon and grilse totals, Mactaquac secondary sorting facilities, 1976.

Date	From Mactaquac Dam collection facilities				From Mactaquac Hatchery migration channel				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
June										
18	24	0	2	0	2	0	15	0	43	0
21	69	1	19	1	0	0	8	2	96	4
22	41	0	9	3	0	0	4	0	54	3
23	16	2	5	1	0	0	6	1	27	4
24	19	0	5	3	0	0	2	1	26	4
25	125	1	17	3	0	0	2	1	144	5
27	558	17	92	10	0	0	0	0	650	27
28	339	10	78	9	0	0	1	3	418	22
29	234	25	39	19	0	0	2	4	275	48
30	84	11	29	9	0	0	2	3	115	23
July										
1	188	16	35	12	1	0	3	1	227	29
2	202	17	32	21	0	0	1	0	235	38
3	31	1	6	2	0	0	2	0	39	3
5	266	80	54	69	0	0	1	6	321	155
6	440	89	83	70	0	0	1	6	524	165
7	104	32	33	46	0	0	1	14	138	92
8	95	111	32	81	0	0	9	14	136	206
9	254	368	51	176	0	0	4	22	309	566
10	201	189	39	120	0	0	9	19	249	328
11	330	363	72	169	0	0	2	28	404	560
12	100	130	27	93	0	0	1	12	128	235
13	4	8	1	9	0	0	3	14	8	31
15	3	6	0	9	0	0	5	15	8	30
16	0	4	0	8	0	0	1	6	1	18
19	110	398	33	248	0	2	11	73	154	721
20	133	403	36	294	0	0	5	69	174	766
21	197	330	55	234	0	0	5	75	257	639
22	146	359	28	232	0	0	9	62	183	653
23	146	272	28	186	0	0	11	68	185	526
24	64	233	18	156	0	0	0	0	82	389
26	163	393	36	306	0	0	0	6	199	705
27	16	25	5	41	0	0	13	113	34	179
28	33	89	17	80	0	0	6	75	56	244
29	80	201	24	160	0	0	4	67	108	428
30	48	147	7	103	0	0	4	58	59	308
31	20	100	15	111	0	0	0	0	35	211
August										
3	105	440	62	326	1	0	4	63	172	829
4	19	60	4	27	0	0	1	59	24	146
5	25	121	5	77	0	0	1	39	31	237
6	16	110	2	58	0	0	4	51	22	219
9	37	230	10	144	0	1	8	91	55	466
10	3	40	2	27	0	0	2	48	7	115
11	3	11	2	12	0	1	0	39	5	63
12	3	32	1	40	0	0	2	57	6	129
13	0	19	1	7	0	0	0	13	1	39
16	5	9	1	3	0	0	4	57	10	69
18	0	0	0	0	0	0	3	42	3	42
20	4	12	0	3	0	0	1	25	5	40
23	36	99	14	93	0	1	1	62	51	255
24	4	35	4	38	0	0	2	39	10	112
25	5	35	2	30	0	0	0	46	7	111
26	13	64	5	52	1	0	3	30	22	146
27	10	28	0	32	0	0	2	55	12	115
30	52	194	12	141	0	0	7	102	71	437
September										
1	10	50	8	47	0	0	3	45	21	142
2	11	33	8	33	0	0	2	16	21	82
3	17	27	6	26	0	0	0	26	23	79
7	50	138	27	140	0	0	8	102	85	380
8	21	43	3	38	0	0	5	36	29	117
9	6	26	2	32	0	0	4	28	12	86

TABLE A-5. Continued

Date	From Mactaquac Dam collection facilities				From Mactaquac Hatchery migration channel				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse	Salmon	Grilse
September										
10	1	18	1	13	0	0	0	15	2	46
13	31	91	8	36	0	0	3	57	42	184
14	8	20	3	10	0	0	5	45	16	75
15	0	7	0	8	0	0	1	23	1	38
16	1	10	0	4	0	0	2	21	3	35
17	2	13	1	3	0	0	2	18	5	34
20	18	51	13	36	0	0	2	40	33	127
21	8	12	2	7	0	0	3	28	13	47
22	0	5	0	6	0	0	2	21	2	32
23	5	13	3	2	0	0	0	10	8	25
24	0	7	0	8	0	0	1	8	1	23
27	10	43	1	25	0	0	5	44	16	112
28	10	19	3	15	0	0	1	18	14	52
29	3	12	0	6	0	0	2	22	5	40
30	4	11	0	0	0	0	2	38	6	49
October										
1	0	13	1	6	0	0	1	14	2	33
4	20	48	6	30	0	0	5	63	31	141
6	2	23	9	7	0	0	8	30	19	60
8	22	50	11	45	0	0	11	82	44	177
12	17	34	6	31	0	0	10	64	33	129
15	0	0	0	0	0	0	6	54	6	54
19	2	4	1	8	0	0	4	61	7	73
25	4	0	1	5	0	1	14	78	19	84
Totals	5,506	6,791	1,313	4,831	5	6	310	2,863	7,134	14,491

APPENDIX B

DAILY DISTRIBUTION OF SALMON AND GRILSE AT THE WOODSTOCK RELEASE SITE, 1972-76

This appendix presents on a daily basis the numbers of salmon and grilse released in the Woodstock area of the main Saint John River. Daily totals are subdivided to indicate those of wild and hatchery origin and further subdivided according to sex. These fish were taken at both the Mactaquac Dam collection facilities and the Mactaquac Hatchery migration channel. They consist mainly of a portion of the fish not selected for broodstock, and were trucked directly from the sorting facilities at Mactaquac Hatchery to the release site. The one exception was a small number of fish in 1974, originally held for broodstock and later found to be in excess of hatchery requirements. The release site was located on the east bank of the river a short distance above the town of Woodstock and near the upper end of the Mactaquac headpond.

TABLE B-1. Daily distribution of salmon and grilse at the Woodstock release site, 1972.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
July										
22	6	13	3	5	31	0	4	0	27	35
24	1	3	0	0	4	0	1	0	4	5
25	23	78	2	5	39	0	10	1	108	50
28	0	21	0	2	15	1	1	0	23	17
31	3	107	1	3	35	2	5	0	114	42
August										
1	2	85	0	7	24	2	1	1	94	28
2	0	9	0	2	2	0	0	0	11	2
4	1	10	0	3	8	0	0	0	14	8
8	1	115	0	8	50	0	2	0	124	52
9	0	27	0	1	13	1	0	0	28	14
10	1	19	0	0	4	1	0	0	20	5
11	0	9	0	1	1	4	0	0	10	5
14	2	35	0	4	6	6	0	0	41	12
15	2	5	0	4	2	3	0	0	11	5
16	6	53	0	3	7	6	0	0	62	13
17	8	48	0	5	10	3	0	0	61	13
18	7	30	0	1	4	7	0	0	38	11
21	16	109	2	5	23	1	0	0	132	24
23	7	44	2	3	5	2	2	2	56	11
24	3	41	4	3	14	2	3	0	51	19
28	2	42	2	3	7	1	4	1	49	13
31	2	6	0	1	4	0	0	0	9	4
September										
1	1	15	1	3	2	0	0	0	20	2
5	8	18	5	10	3	1	3	0	41	7
8	1	4	6	3	0	0	4	0	14	4
12	5	37	3	2	2	3	2	1	47	8
13	1	19	0	1	2	1	0	0	21	3
14	1	7	2	0	2	0	0	1	10	3
15	16	57	4	3	3	2	0	0	80	5
18	24	109	4	4	14	5	3	1	141	23
19	14	70	0	2	4	4	3	1	86	12
20	2	34	1	1	1	1	3	2	38	7
21	7	16	0	0	2	1	2	0	23	5
22	7	29	0	1	1	3	1	0	37	5
25	30	155	2	5	20	1	7	3	192	31
28	6	7	0	5	1	0	2	1	18	4
29	1	6	1	2	1	2	1	1	10	5
October										
2	10	65	7	1	7	3	4	4	83	18
4	3	13	0	3	3	0	1	2	19	6
10	16	40	12	12	13	3	3	1	80	20
11	5	17	1	2	3	0	2	0	25	5
12	7	13	1	1	2	0	1	2	22	5
13	2	9	0	2	0	0	1	0	13	1
16	14	43	8	1	10	0	3	1	66	14
17	5	10	0	2	1	0	1	0	17	2
19	7	23	5	2	4	0	1	0	37	5
20	10	27	3	0	0	0	2	1	40	3
23	9	19	1	1	3	0	2	0	30	5
25	3	32	4	3	5	0	0	1	42	6
26	17	32	1	1	2	0	0	0	51	2
27	3	13	1	1	2	0	0	0	18	2
30	6	29	1	2	0	0	0	1	38	1
November										
24	4	11	0	1	0	0	0	0	16	0
Totals	338	1,888	90	146	421	72	85	29	2,462	607

TABLE B-2. Daily distribution of salmon and grilse at the Woodstock release site, 1973.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
July										
1	0	16	0	1	6	0	2	0	17	8
10	0	5	0	0	9	0	7	3	5	19
19	0	3	0	6	7	0	8	1	9	16
20	10	40	1	13	38	4	27	8	64	77
21	4	24	0	4	51	13	38	18	32	120
22	2	41	1	7	87	23	47	29	51	186
23	6	25	0	4	14	4	14	11	35	43
24	3	10	0	3	20	8	16	8	16	52
25	2	10	2	5	28	11	33	7	19	79
26	2	17	1	7	56	16	36	23	27	131
27	7	24	1	3	38	11	25	8	35	82
29	0	11	1	2	37	5	38	11	14	91
31	1	9	1	1	39	14	30	17	12	100
August										
1	0	2	0	0	2	1	7	5	2	15
5	0	1	0	0	8	1	17	13	1	39
9	0	1	0	1	10	2	7	4	2	23
10	1	11	1	1	19	5	14	2	14	40
15	2	4	1	1	29	1	26	4	8	60
17	0	3	0	0	17	2	15	3	3	37
21	0	0	0	0	9	0	16	3	0	28
28	0	9	0	0	8	1	18	0	9	27
September										
5	1	8	0	1	11	0	11	1	10	23
13	1	14	1	3	5	0	6	3	19	14
17	7	27	0	2	8	0	5	0	36	13
19	6	37	3	7	11	1	20	2	53	34
20	10	30	0	4	14	0	11	1	44	26
21	9	64	3	4	15	0	14	3	80	32
22	10	45	3	6	15	0	10	1	64	26
25	9	30	5	6	15	2	8	0	50	25
26	4	17	0	4	6	0	1	0	25	7
27	13	62	3	8	25	2	27	0	86	54
28	6	28	0	3	10	1	22	1	37	34
October										
1	6	11	1	2	9	1	12	0	20	22
2	12	65	5	4	25	0	20	2	86	47
3	3	8	0	1	5	0	8	3	12	16
4	3	14	0	2	3	0	4	1	19	8
5	1	19	2	4	10	1	6	2	26	19
9	12	46	3	5	25	1	10	0	66	36
11	0	2	1	3	5	0	10	0	6	15
15	0	28	1	4	7	0	18	0	33	25
22	0	19	3	3	5	1	11	1	25	18
29	0	15	1	3	5	2	10	1	19	18
Totals	153	855	45	138	766	134	685	200	1,191	1,785

TABLE B-3. Daily distribution of salmon and grilse at the Woodstock release site, 1974.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
June										
30	5	82	2	15	1	0	0	0	104	1
July										
1	5	25	1	1	7	1	2	0	32	10
2	11	37	2	8	2	0	2	0	58	4
7	0	0	0	0	90	9	22	6	0	127
10	1	16	0	3	17	2	9	0	20	28
14	4	40	0	13	35	3	20	1	57	59
15	1	36	1	13	28	2	17	2	51	49
16	11	75	4	25	66	2	20	4	115	92
17	3	1	0	3	18	0	38	6	7	62
18	1	40	1	10	43	2	19	12	52	76
19	4	91	2	23	112	12	72	14	120	210
21	11	184	12	75	220	22	161	35	282	438
22	4	57	3	24	76	7	51	12	88	146
23	10	112	7	48	126	17	91	18	177	252
24	2	20	1	5	24	0	6	1	28	31
25	3	14	0	6	24	1	9	3	23	37
26	1	6	2	6	31	1	47	14	15	93
28	4	31	3	23	108	18	78	41	61	245
29	4	23	1	11	63	3	18	21	39	105
30	3	21	2	10	42	2	31	5	36	80
September										
30	0	0	0	0	2	1	41	26	0	70
October										
1	0	20	0	0	25	8	4	5	20	42
2	1	10	0	4	15	1	13	10	15	39
9	0	5	4	4	9	2	20	10	13	41
11	1	21	2	11	28	1	29	9	35	67
15	2	17	8	8	14	5	21	5	35	45
18	1	9	6	7	6	4	33	9	23	52
22	0	8	5	1	3	2	25	8	14	38
31	1	6	2	5	6	2	19	3	14	30
November										
5	3	2	1	2	2	0	4	1	8	7
5[1]	1	3	2	9	0	0	0	0	15	0
8[1]	1	1	6	3	0	0	0	0	11	0
8	0	0	0	0	1	0	1	0	0	2
Totals	99	1,013	80	376	1,244	130	923	281	1,568	2,578

[1]These fish were collected at various times earlier in the year for broodstock purposes, but were found to be in excess of actual requirements.

TABLE B-4. Daily distribution of salmon and grilse at the Woodstock release site, 1975.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
June										
30	25	55	2	13	17	1	10	6	95	34
July										
3	11	47	3	13	33	4	33	6	74	76
7	1	25	1	7	39	1	42	9	34	91
11	10	201	4	57	210	9	124	16	272	359
31	0	35	1	14	133	1	86	5	50	225
August										
1	0	21	0	8	52	3	69	3	29	127
8	7	95	2	35	192	4	245	4	139	445
11	1	33	2	13	83	1	77	1	49	162
26	0	43	0	6	52	5	72	8	49	137
29	0	29	0	2	19	3	69	6	31	97
September										
3	6	117	1	16	24	13	94	10	140	141
5	5	96	3	9	32	1	23	4	113	60
9	18	128	3	23	35	12	39	7	172	93
12	9	107	7	22	28	12	110	15	145	165
16	15	157	13	47	51	16	76	12	232	155
18	20	117	9	29	67	8	103	18	175	196
19	6	62	4	14	53	6	39	12	86	110
22	15	111	6	21	78	14	75	10	153	177
25	5	58	2	17	61	4	48	14	82	127
October										
1	1	40	1	0	34	3	10	11	42	58
Totals	155	1,577	64	366	1,293	121	1,441	177	2,162	3,035

TABLE B-5. Daily distribution of salmon and grilse at the Woodstock release site, 1976.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
June										
23	28	29	7	13	1	1	5	0	77	7
25	27	53	4	5	0	0	1	0	89	1
27	25	58	3	10	1	1	0	0	96	2
28	21	73	2	12	2	0	2	0	108	4
30	65	134	3	22	21	0	15	1	224	37
July										
1	62	121	10	29	23	0	21	1	222	45
3	39	59	3	8	7	0	8	0	109	15
6	21	58	0	18	15	0	13	0	97	28
10	72	183	13	37	397	0	197	0	305	594
11	46	111	9	31	155	0	91	0	197	246
12	28	100	2	30	119	1	56	0	160	176
20	7	47	1	7	177	1	109	1	62	288
21	33	110	3	22	245	0	252	10	168	507
23	14	92	10	21	200	0	204	0	137	404
26	16	70	2	20	228	0	215	0	108	443
August										
3	5	52	5	25	232	0	228	3	87	463
4	5	58	4	35	271	0	174	3	102	448
9	4	36	1	12	264	0	231	2	53	497
13	0	3	0	4	51	0	117	0	7	168
September										
2	3	31	13	22	155	5	265	29	69	454
7	10	57	11	30	157	8	276	17	108	458
21	0	0	0	0	87	6	165	22	0	280
28	0	0	0	0	68	3	132	15	0	218
October										
6	0	0	4	1	71	1	143	7	5	222
13	0	0	0	0	50	1	145	0	0	196
20	0	0	1	0	3	0	104	0	1	107
26	0	4	0	0	1	0	53	0	4	54
Totals	531	1,539	111	414	3,001	28	3,222	111	2,595	6,362

APPENDIX C

DAILY DISTRIBUTION OF SALMON AND GRILSE AT TOBIQUE RIVER RELEASE SITES, 1972-76

Daily releases of salmon and grilse into the Tobique River system are tabulated in this appendix. These fish were a portion of those not required as broodstock by the Mactaquac Hatchery. Except for a few fish originally intended as broodstock, they were trucked directly from the hatchery secondary sorting facilities to the release sites. From the beginning of 1972 until July, 1975, the release site was located on the lower section of the Tobique Narrows headpond, about 3.5 miles (5.7 km) above the dam and on the south side of the river. After this time, a new release site was constructed further upriver, near the upper end of the headpond. This site was located on the north side of the river, about 3.5 miles (5.7 km) below the highway bridge at Arthurette.

The daily totals of salmon and grilse presented are subdivided as to whether of wild or hatchery origin and according to sex.

TABLE C-1. Daily distribution of salmon and grilse at Tobique River release site, 1972.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
July										
1	3	28	0	2	0	0	0	0	33	0
2	40	67	2	2	2	0	0	0	111	2
3	9	21	1	0	0	0	0	0	31	0
4	20	37	0	0	0	0	0	0	57	0
5	21	44	1	6	0	0	0	0	72	0
8	3	15	2	0	1	0	0	0	20	1
9	39	111	5	7	4	0	1	0	162	5
10	20	39	0	1	2	0	0	0	60	2
11	30	101	1	11	5	1	0	0	143	6
12	7	36	1	6	2	0	0	0	50	2
13	7	37	3	2	5	0	0	0	49	5
14	45	219	6	7	42	0	2	0	277	44
15	162	503	9	37	90	2	9	1	711	102
16	57	219	10	30	57	1	4	0	316	62
17	27	88	2	4	11	0	4	0	121	15
19	2	5	0	1	1	0	0	0	8	1
20	2	3	0	4	0	0	0	0	9	0
21	9	3	0	1	6	0	0	0	13	6
Broodstock[1]										
Spring run	25	35	2	3	2	0	0	0	65	2
Summer run	53	35	11	7	2	1	49	2	106	54
Fall run	3	3	4	2	3	5	0	0	12	8
Totals	584	1,649	60	133	235	10	69	3	2,426	317

[1]Fish originally collected for broodstock were in excess of hatchery requirements.

TABLE C-2. Daily distribution of salmon and grilse at Tobique River release site, 1973.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
June										
26	13	54	1	3	2	0	3	0	71	5
27	2	7	0	0	2	0	1	0	9	3
30	8	15	0	0	17	1	2	1	23	21
July										
1	6	31	0	1	6	0	9	2	38	17
2	7	90	0	1	14	1	1	1	98	17
3	23	137	2	3	18	2	15	1	165	36
4	5	33	1	0	14	0	3	0	39	17
6	16	51	0	1	20	3	15	1	68	39
9	4	28	0	0	19	1	13	3	32	36
11	1	16	0	1	23	0	5	1	18	29
12	2	18	0	0	55	3	32	5	20	95
13	3	7	0	0	23	2	15	3	10	43
14	5	37	0	0	84	11	58	11	42	164
15	10	39	0	2	55	25	48	17	51	145
16	4	88	1	10	79	7	64	21	103	171
17	7	60	1	11	76	14	37	16	79	143
18	13	46	1	13	67	8	52	10	73	137
19	19	74	2	11	55	11	34	18	106	118
20	6	29	0	5	31	6	11	4	40	52
24	2	7	0	4	13	3	15	6	13	37
August										
9	0	2	0	0	15	8	17	8	2	48
15	0	3	0	0	19	3	25	0	3	47
28	0	5	1	0	11	2	9	3	6	25
September										
4	2	17	0	0	6	0	6	3	19	15
11	0	15	0	2	6	0	12	0	17	18
14	4	15	0	2	8	0	5	2	21	15
15	1	16	0	3	2	0	11	0	20	13
18	8	46	0	6	6	1	7	1	60	15
26	2	20	1	10	6	0	16	1	33	23
November										
7[1]	2	15	5	25	0	0	20	3	47	23
9	0	8	1	3	0	1	5	0	12	6
Totals	175	1,029	17	117	752	113	566	142	1,338	1,573

[1]Fish originally collected for broodstock.

TABLE C-3. Daily distribution of salmon and grilse at Tobique River release site, 1974.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
June										
20	19	10	1	1	1	0	0	0	31	1
25	15	32	1	2	0	0	0	0	50	0
26	13	28	2	7	0	0	0	0	50	0
28	13	43	2	2	0	0	0	0	60	0
29	18	46	1	5	0	0	0	0	70	0
30	16	48	2	5	0	0	2	0	71	2
July										
1	40	118	6	25	1	0	0	0	189	1
2	25	147	2	26	4	1	3	1	200	9
3	8	110	7	24	4	0	2	0	149	6
4	25	206	5	69	15	0	5	2	305	22
5	27	318	11	86	31	3	20	3	442	57
6	12	98	8	35	0	0	0	0	153	0
7	9	105	5	30	0	0	0	0	149	0
8	15	193	9	56	11	2	4	1	273	18
9	12	165	6	42	16	0	6	5	225	27
10	4	30	2	5	0	0	1	0	41	1
11	14	100	3	22	59	3	31	2	139	95
12	2	34	1	8	29	1	11	5	45	46
14	8	44	1	27	8	3	1	3	80	15
15	7	86	1	32	77	7	41	8	126	133
16	6	81	3	33	91	5	53	12	123	161
17	5	64	2	25	72	7	46	6	96	131
18	8	79	8	24	90	6	59	15	119	170
19	2	45	3	12	42	6	26	19	62	93
20	3	37	6	18	50	4	42	9	64	105
24	5	56	2	21	44	2	40	10	84	96
25	4	30	1	21	37	1	38	6	56	82
26	3	17	1	8	56	2	44	7	29	109
29	3	61	2	27	118	14	51	30	93	213
30	19	86	5	32	137	10	127	8	142	282
31	8	73	2	18	49	3	58	4	101	114
August										
1	2	18	2	9	63	8	95	4	31	170
2	2	8	5	8	29	0	99	3	23	131
6	1	33	7	27	125	7	135	7	68	274
7	3	28	5	22	86	3	171	9	58	269
9	0	10	0	5	38	1	52	1	15	92
12	1	12	1	5	47	14	37	26	19	124
15	1	4	1	4	26	7	64	15	10	112
19	2	18	1	2	48	9	44	10	23	111
23	0	4	1	2	15	3	27	3	7	48
27	2	5	4	3	12	0	60	4	14	76
30	1	5	1	1	5	1	52	8	8	66
September										
3	3	18	3	5	15	1	23	3	29	42
6	1	22	3	7	7	4	39	20	33	70
9	3	26	3	14	16	1	40	14	46	71
10	4	43	6	19	15	3	12	6	72	36
12	4	42	2	14	15	3	20	7	62	45
13	4	40	4	8	7	2	14	8	56	31
October										
8	0	8	3	5	5	9	25	17	16	56
9	0	15	3	4	29	9	19	5	22	22
Totals	402	2,949	166	912	1,645	165	1,739	326	4,429	3,875

TABLE C-4. Daily distribution of salmon and grilse at Tobique River release site, 1975.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
June										
19	27	15	2	8	0	0	0	0	52	0
26	17	16	7	20	1	0	2	2	60	5
27	14	29	2	12	5	1	8	2	57	16
28	10	41	3	15	11	0	11	4	69	26
29	31	96	7	26	12	1	8	4	160	25
30	55	123	14	26	46	1	24	4	218	75
July										
1-4	88	564	24	107	181	3	118	9	783	311
5	3	39	0	10	36	4	22	7	52	69
6	2	49	1	22	72	6	22	8	74	108
7	7	79	6	22	38	1	15	3	114	57
8	6	71	3	30	80	2	91	16	110	189
9	5	82	0	14	107	11	80	11	101	209
10	3	59	0	25	92	2	53	11	87	158
11	2	40	5	22	82	2	34	7	69	125
12	24	194	15	50	135	12	74	4	283	225
13	17	170	10	51	163	1	70	5	248	239
14	22	256	11	55	309	3	174	10	344	496
15	20	207	8	41	178	3	75	2	276	258
16	14	211	11	29	172	0	207	8	265	387
17	17	211	7	37	205	2	103	5	272	315
18	14	136	6	24	193	1	122	3	180	319
19	13	83	2	29	199	0	156	5	127	360
20	7	122	2	20	182	3	136	8	151	329
21	16	120	5	29	246	5	212	11	170	474
22	7	52	9	31	117	0	143	3	99	263
23	13	123	5	34	180	2	144	0	175	326
24	3	58	1	23	101	2	92	1	85	196
25	0	42	1	12	145	0	145	5	55	295
29	1	41	2	20	181	1	126	3	64	311
30	2	41	1	15	172	2	134	8	59	316
August										
5	3	50	1	15	158	3	93	4	69	258
6	3	76	3	21	122	1	118	4	103	245
15	1	10	3	7	67	1	156	1	21	225
20	4	19	2	6	56	4	65	4	31	129
November										
4	3	38	46[1]	14[1]	8	3	12	2	101	25
Totals	474	3,563	225	922	4,052	83	3,045	184	5,184	7,364

[1]Fish originally collected for broodstock.

TABLE C-5. Daily distribution of salmon and grilse at Tobique River release site, 1976.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
June										
18	18	7	6	11	0	0	0	0	42	0
22	17	41	6	17	1	0	3	0	81	4
25	23	41	1	7	1	0	7	0	72	8
27	87	226	5	24	10	0	5	1	342	16
28	65	179	11	31	7	0	7	0	286	14
29	52	149	6	22	11	0	15	0	229	26
July										
2	91	123	5	18	14	0	14	3	237	31
5	41	147	2	23	68	0	54	0	213	122
6	73	163	1	33	56	0	50	1	270	107
7	57	175	2	54	38	0	65	0	288	103
8	24	100	2	38	63	0	83	0	164	146
9	14	97	4	36	140	0	108	1	151	249
11	40	115	5	16	135	0	89	0	176	224
12	27	89	6	30	139	0	101	0	152	240
16	5	16	4	11	51	0	90	4	36	145
19	6	30	4	21	182	1	203	9	61	395
20	16	65	1	10	246	1	132	4	92	383
21	9	54	1	15	195	0	222	4	79	421
22	15	76	1	18	229	0	161	0	110	390
23	25	79	5	19	210	0	162	0	128	372
24	14	68	3	15	234	2	163	1	100	400
27	19	81	4	19	230	0	145	1	123	376
28	7	37	8	32	111	0	309	1	84	421
30	13	64	3	21	171	0	228	0	101	399
31	7	56	2	15	215	1	203	1	80	420
August										
6	0	47	0	16	190	0	241	6	63	437
11	1	18	1	15	129	0	248	2	35	379
20	1	8	2	6	20	1	129	1	17	151
25	6	39	3	17	165	4	296	12	65	477
30	11	52	1	14	204	4	247	12	78	467
September										
10	5	21	4	11	81	4	147	15	41	247
14	9	32	5	14	101	12	129	19	60	261
November										
3[1]	4	5	7	47	0	0	0	0	63	0
Totals	802	2,500	121	696	3,647	30	4,056	98	4,119	7,831

[1]Fish originally collected for broodstock.

APPENDIX D

DAILY DISTRIBUTION OF SALMON AND GRILSE JUST ABOVE MACTAQUAC DAM, 1972-73

In 1972 and 1973, a number of salmon and grilse were released in the headpond, just above Mactaquac Dam. These fish were trucked to the release site directly from the hatchery secondary sorting facilities.

This appendix tabulates those releases on a daily basis. Salmon and grilse totals are each subdivided according to wild or hatchery origin and according to sex. Release of salmon and grilse at this site was discontinued in subsequent years.

TABLE D-1. Daily distribution of salmon and grilse just above Mactaquac Dam, 1972.

	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
Date	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
July										
6	5	20	0	0	0	0	0	0	25	0
14	4	14	0	2	5	0	0	0	20	5
24	12	31	0	0	7	0	0	0	43	7
August										
14	2	19	0	1	2	1	0	0	22	3
18	1	20	0	1	2	1	0	0	22	3
31	2	23	0	0	0	1	1	0	25	2
September										
5	3	16	1	0	1	2	1	0	20	4
14	4	19	0	0	2	0	0	0	23	2
18	7	17	0	0	1	0	0	0	24	1
28	7	14	0	0	2	0	1	1	21	4
October										
6	2	16	0	1	5	0	0	1	19	6
Totals	49	209	1	5	27	5	3	2	264	37

TABLE D-2. Daily distribution of salmon and grilse just above Mactaquac Dam, 1973.

	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
Date	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
July										
1	2	16	0	0	3	1	1	2	18	7
10	1	9	0	0	5	0	9	1	10	15
19	0	4	0	2	5	1	9	4	6	19
August										
10	0	0	0	0	12	1	10	2	0	25
15	0	2	0	0	13	2	6	8	2	29
23	0	0	0	0	8	0	14	3	0	25
31	0	7	0	0	10	0	9	0	7	19
September										
7	1	14	0	0	3	1	4	2	15	10
14	2	13	0	0	4	0	5	1	15	10
17	2	12	0	0	3	3	4	1	14	11
24	3	6	1	4	4	0	7	0	14	11
October										
1	2	7	0	2	3	1	11	0	11	15
10	1	10	0	3	2	0	8	1	14	11
Totals	14	100	1	11	75	10	97	25	126	207

APPENDIX E

DAILY FALL DISTRIBUTION OF SALMON AND GRILSE IN SAINT JOHN RIVER TRIBUTARIES, 1974-76

Beginning in 1974, an effort was made to better utilize the spawning and rearing potential of several of the smaller Saint John River tributaries. Consequently, a number of salmon and grilse were released in the fall in selected streams. These smaller tributaries were stocked in the fall period because of more suitable water conditions and the reduced chance of loss to poachers. The daily release totals of salmon and grilse presented in this appendix are subdivided into wild- and hatchery-origin fish and further subdivided according to sex.

Most of these fish were transferred directly from the secondary sorting facilities at Mactaquac Hatchery to the various release sites. A small number, however, released in the Odellach River in 1966, were originally collected throughout the season for broodstock but were found to be in excess of hatchery requirements.

TABLE E-1. Daily fall distribution of salmon and grilse in Saint John River tributaries, 1974.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
BECAGUIMEC RIVER										
September										
27	1	9	1	6	11	0	27	11	17	49
October										
2	0	4	1	4	4	1	39	17	9	61
3	0	10	2	10	23	9	16	5	22	53
Totals	1	23	4	20	38	10	82	33	48	163
SALMON RIVER (Grand Falls)										
September										
17	1	9	2	4	4	1	23	6	16	34
18	0	18	1	0	8	1	21	6	19	36
20	5	65	3	8	21	0	60	17	81	98
23	1	23	2	5	13	1	13	5	31	32
24	0	19	0	4	15	2	17	8	23	42
25	1	8	0	6	14	3	27	8	15	52
26	1	19	2	5	11	1	8	0	27	20
Totals	9	161	10	32	86	9	169	50	212	314
SHIKATEHAWK RIVER										
September										
19	0	0	6	27	0	0	0	0	33	0
October										
1	0	0	18	17	0	0	30	3	35	33
Totals	0	0	24	44	0	0	30	3	68	33
NACKAWIC RIVER (Main stem)										
September										
24	2	17	9	7	9	0	1	0	35	10
26	0	8	2	3	10	2	18	6	13	36
October										
4	0	7	0	1	2	3	10	6	8	21
Totals	2	32	11	11	21	5	29	12	56	67
NORTHEAST NACKAWIC RIVER										
September										
25	0	12	5	5	8	1	8	3	22	20
30	1	19	0	0	13	1	7	1	20	22
Totals	1	31	5	5	21	2	15	4	42	42

TABLE E-2. Daily fall distribution of salmon and grilse in Saint John River tributaries, 1975.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
BECAGUIMEC RIVER										
October										
1	0	46	0	5	11	2	74	12	51	99
3	0	22	0	0	2	3	13	10	22	28
Totals	0	68	0	5	13	5	87	22	73	127
EEL RIVER										
October										
21	0	22	1	3	4	4	26	1	26	35
SALMON RIVER (Grand Falls)										
October										
7	0	45	0	4	22	1	41	6	49	70
10	0	29	2	9	9	3	53	16	40	81
15	3	71	4	7	38	3	28	6	85	75
Totals	3	145	6	20	69	7	122	28	174	226
SHIKATEHAWK RIVER										
October										
6	0	0	6	40	0	0	34	0	46	34
MEDUXNEKEAG RIVER										
October										
23	1	26	2	13	6	2	46	3	42	57
November										
13	1	4	0	11	3	0	22	2	16	27
Totals	2	30	2	24	9	2	68	5	58	84
NACKAWIC RIVER (Main stem)										
October										
17	0	30	1	5	25	1	14	4	36	44
NORTHEAST NACKAWIC RIVER										
October										
3	9	30	0	0	10	0	0	0	39	10
20	11	9	0	1	1	0	1	0	21	2
Totals	20	39	0	1	11	0	1	0	60	12
ODELLACH RIVER										
October										
31	0	0	2	14	0	0	36	7	16	43
LITTLE TOBIQUE RIVER										
September										
30	7	35	0	0	13	4	20	1	42	38

TABLE E-3. Daily fall distribution of salmon and grilse in Saint John River tributaries, 1976.

Date	Salmon				Grilse				Totals	
	Wild		Hatchery		Wild		Hatchery			
	Male	Female	Male	Female	Male	Female	Male	Female	Salmon	Grilse
BECAGUIMEC RIVER										
October										
12	5	17	8	12	18	7	19	14	42	58
13	4	19	5	13	12	1	35	23	41	71
Totals	9	36	13	25	30	8	54	37	83	129
SALMON RIVER (Grand Falls)										
September										
24	8	22	4	16	16	0	10	0	50	26
October										
1	5	26	1	10	14	0	24	8	42	46
Totals	13	48	5	26	30	0	34	8	92	72
NACKAWIC RIVER (Main stem)										
October										
20	2	16	4	9	13	4	14	5	31	36
ODELLACH RIVER[1]										
November										
2	0	0	5	18	0	0	31	18	23	49
2	0	0	4	4	0	0	0	0	8	0
Totals	0	0	9	22	0	0	31	18	31	49

[1]These releases were all excess broodstock collected in the Mactaquac area.

APPENDIX F

DISPOSITION OF OTHER SALMON AND GRILSE COLLECTED IN THE MACTAQUAC AREA, 1972-76

In addition to those salmon and grilse retained for hatchery broodstock and those distributed to various parts of the Saint John River system, a small number of fish remain unaccounted for. Most of these were mortalities, occurring either at Mactaquac Dam during handling and loading operations or at Mactaquac Hatchery during subsequent holding and sorting.

A few other salmon and grilse were taken most years for biological purposes, such as examination for disease, injury, deformity, etc. These are identified in the following annual summary tables as "experimental".

Finally, a small number of salmon and grilse were used each year for public exhibition purposes. Except for the occasional mortality, these fish were later released back into the Saint John River system.

The following tables list these fish on a daily basis for each year. Daily totals are subdivided where possible according to origin (wild or hatchery parentage) and according to sex (M - male or F - female).

TABLE F-1. Salmon and grilse mortalities, experimental and others, Mactaquac area, 1972.

Date	Remarks	Wild				Hatchery				Totals	
		Salmon		Grilse		Salmon		Grilse			
		M	F	M	F	M	F	M	F	Salmon	Grilse
AFTER SORTING											
July											
17	Died at hatchery	2								2	0
18	Died at hatchery		3							3	0
August											
2	Died at hatchery	2	1	4						3	4
9	Died at hatchery		1							1	0
September											
20	Died at hatchery			1						0	1
28	Died at hatchery	1								1	0
30	Died at hatchery			1						0	1
October											
2	Died at hatchery			1						0	1
Totals		5	5	7	0	0	0	0	0	10	7
BEFORE SORTING											
June											
27	Released in headpond[1]									1	0
July											
11	Died at fishway[2]									1	0
15	Died at hatchery	3	2							5	0
21	Died at hatchery	5	2	2						7	2
21	Exhibition (Woodstock)		1	3						1	3
21	Died at fishway[2]									0	1
23	Died at hatchery	1								1	0
27	Died at fishway[2]									1	0
28	Died at fishway[2]									1	0
30	Died at fishway[2]									1	0
30	Died at hatchery	5	2	1						7	1
August											
4	Died at fishway[2]									1	0
5	Died at fishway[2]									1	0
17	Died at hatchery	1								1	0
18	Died at fishway[2]									1	0
September											
10	Died at hatchery	5	4	3						9	3
14	Died at hatchery		1							1	0
Totals		20	12	9	0	0	0	0	0	40	10

[1]Incidental release with load of gaspereau and other species. Origin and sex not identified.

[2]Origin and sex not identified.

TABLE F-2. Salmon and grilse mortalities, experimental and others, Mactaquac area, 1973.

Date	Remarks	Wild				Hatchery				Totals	
		Salmon		Grilse		Salmon		Grilse			
		M	F	M	F	M	F	M	F	Salmon	Grilse
AFTER SORTING											
July											
20	Died at hatchery						1			1	0
29	Died at hatchery						1			1	0
August											
28	Released (migration channel)						1	6	3	1	9
31	Exhibition (Fredericton)		1		2					1	2
September											
1	Died at hatchery		1							1	0
October											
24	Experimental (Halifax)	11	13		1		1			25	1
24	Experimental (St. Andrews)		3				3		17	1	6	18
November											
6	Released (migration channel)		1		1			1	7		2	8
Totals		11	19		4	0	4	4	30	4	38	38
BEFORE SORTING											
July											
6	Released in headpond[1]										0	1
29	Exhibition (Woodstock)		1		2						1	2
September											
9	Died at fishway		3		4						3	4
23	Died at fishway	1									1	0
26	Died at fishway	1									1	0
27	Died at fishway				1						0	1
October											
15	Died at fishway				1						0	1
18	Died at fishway				1						0	1
Totals		2	4	9	0	0	0	0	0	6	10	

[1]Incidental release with load of gaspereau and other species. Origin and sex not identified.

TABLE F-3. Salmon and grilse mortalities, experimental and others, Mactaquac area, 1974.

Date	Remarks	Wild				Hatchery				Totals	
		Salmon		Grilse		Salmon		Grilse			
		M	F	M	F	M	F	M	F	Salmon	Grilse
AFTER SORTING											
July											
4	Experimental	1	1							2	0
15	Experimental (hatchery)	1								1	0
24	Died at hatchery							1		0	1
August											
20	Died at hatchery							2		0	2
30	Exhibition	1		1						1	1
September											
20	Died at hatchery			1				1		0	2
25	Live transfer (Miramichi hatchery)	17								17	0
October											
10	Live transfer (Miramichi hatchery)	16		11						16	11
Totals		36	1	13	0	0	0	4	0	37	17
BEFORE SORTING											
July											
11	Died at fishway									0	1
17	Died at fishway									1	0
23	Died at fishway									0	1
24	Died at fishway									0	2
26	Died at hatchery									1	0
27	Died at hatchery									0	2
31	Died at hatchery									9	57
October											
17	Died at fishway									0	2
Totals[1]		-	-	-	-	-	-	-	-	11	65

[1]Origin and sex not identified. Only salmon and grilse breakdown available.

TABLE F-4. Salmon and grilse mortalities, experimental and others, Mactaquac area, 1975.

Date	Remarks	Wild				Hatchery				Totals	
		Salmon		Grilse		Salmon		Grilse			
		M	F	M	F	M	F	M	F	Salmon	Grilse
AFTER SORTING											
June											
14	Experimental (UNB)	1								1	0
24	Experimental (St. Andrews)	1	1							2	0
July											
3	Died at hatchery							1		0	1
4	Died at hatchery	1								1	0
7	Experimental (St. Andrews)		1					1		1	1
20	Exhibition (Woodstock)		2	1						2	1
23	Died at hatchery			3						0	3
30	Experimental (hatchery)			1				1		0	2
August											
8	Died at hatchery			3						0	3
29	Exhibition (Fredericton)	1	1	1					1	2	2
September											
29	Died at hatchery						1			1	0
October											
15	Died at hatchery							4		0	4
November											
7	Died at hatchery							1		0	1
?	Experimental[1]	2								2	0
Totals		6	5	9	0	0	1	8	1	12	18
BEFORE SORTING											
June											
26	Died at fishway						1			1	0
29	Died at fishway		1							1	0
July											
3	Died at hatchery							1		0	1
4	Died at hatchery		2				1	2		3	2
5	Died at fishway[2]									0	1
6	Died at hatchery							3		0	3
10	Died at hatchery		1							1	0
10	Died at fishway[2]									1	1
12	Died at hatchery							1		0	1
14	Died at fishway[2]									0	1
15	Died at hatchery							1		0	1
17	Died at hatchery			5				4		0	9
22	Died at hatchery		1							1	0
23	Died at fishway[2]									0	1
24	Died at hatchery		1							1	0
August											
13	Died at hatchery			1						0	1
September											
8	Died at hatchery		1							1	0
Totals		0	7	6	0	0	2	12	0	10	22

[1]Late-run, immature salmon.
[2]Origin and sex not identified.

TABLE F-5. Daily salmon and grilse mortalities, experimental and others, Mactaquac area, 1976.

Date	Remarks	Wild				Hatchery				Totals	
		Salmon		Grilse		Salmon		Grilse			
		M	F	M	F	M	F	M	F	Salmon	Grilse
AFTER SORTING											
June											
21	Died at hatchery		1							1	0
29	Died at hatchery	1								1	0
July											
5	Experimental	1	1	3			2	3		4	6
26	Experimental			1						0	1
August											
25	Died at hatchery				1					0	1
September											
2	Experimental (disease)							1		0	1
7	Experimental (disease)								1	0	1
16	Experimental (hatchery)							1		0	1
October											
7	Died at hatchery			1						0	1
November											
2	Died at hatchery						2			2	0
Totals		2	2	5	1	0	4	5	1	8	12
BEFORE SORTING											
July											
5	Died at fishway			1						0	1
8	Died at fishway		1							1	0
9	Died at hatchery			1						0	1
10	Died at fishway		1	1						1	1
16	Exhibition (Woodstock)		2	1						2	1
22	Died at hatchery			1						0	1
25	Died at fishway		1							1	0
August											
17	Died at fishway		2	2						2	2
September											
17	Died at hatchery							2		0	2
October											
7	Died at hatchery							1		0	1
Totals		0	7	7	0	0	0	3	0	7	10

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