Jón Kristjánsson
Fisheries consultant
Reykjavík

May 2017

Salmon in Haffjardara 2016

1. Parr survey

Parr survey took place on July 30 and 31. The main river was fished with electricity at three sites. The tributary Flatna was fished at one site, below the first waterfall. Water level was moderate and conditions for electrofishing were good.

Density of parr was average, all year classes were well represented except 3 year old were not found. The reason is that growth of larger parr is very good and the 3+ have already migrated to the sea. 1+ parr are smaller than normal, probably a result of the cold spring 2015.

				Age classes									
Site No.	Location	Date	Areal	0+		1+		2+		3+		Sum	Density
			m²	no	ml	no	ml	no	ml	no	ml		Fish/100 m2
1	Below Falls Pool	27/7	50	7	3.3	13	5.8	5	8.8			25	50
2	Home Pool	26/7	50	25	3.5	9	5.5	4	9.5			38	76
3	Above Sea Pool	26/7	60	14	3.7	15	6.0	5	10.7			34	57
4	Flatna	27/7	25	14	3.5	10	5.4	5	7.6			29	116
Total 2016:			**185**	**60**	**3.5**	**47**	**5.7**	**19**	**9.2**			**126**	**68**
Fish/100m²				**32**		**25**		**9**				**68**	
Fish/100m² 2015				23		16		9		1			49

Table 1. Mean length at age and number of salmon parr caught at various sites in Haffjardara and Flatna July 26-27 2016.

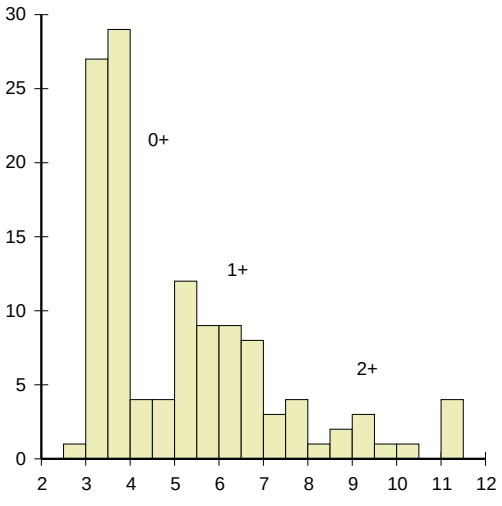

Fig. 1. Length distribution of salmon parr caught in Haffjardara and Flatna 2016. 1+ old fry of the year were numerous. The 2+ fish are growing fast. 3+ were not found. They have migrated to the sea.

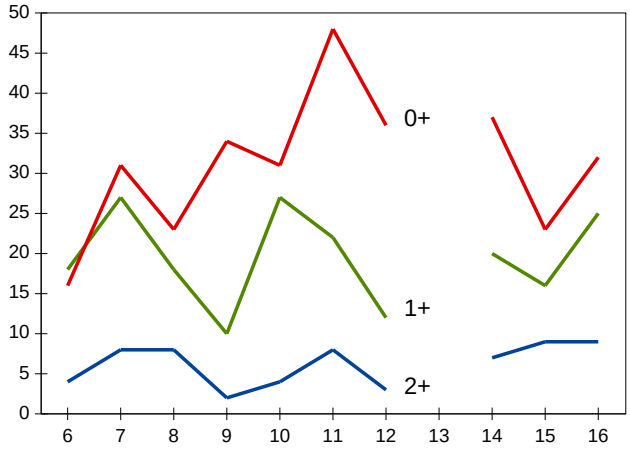

Fig 2. Density of 0+, 1+ and 2+ parr 2006-2016. No parr survey was performed in 2013.

The salmon catch in 2016

The total catch in 2016 was 1306 fish. The catch of grilse and salmon since 1990 is shown in table 2.

Out of the total caught in Haffjardara, 1026 (79%) were released.

The catch of grilse (I SW fish) was 931 fish and the catch of salmon (II SW fish) was 375 fish, 29% of the total catch (table 2, fig 5). This was obtained using the weight distribution; 50% of 3.5 kg fish and all larger fish were classified as II SW fish. Weight distribution of the catch is shown in fig. 3.

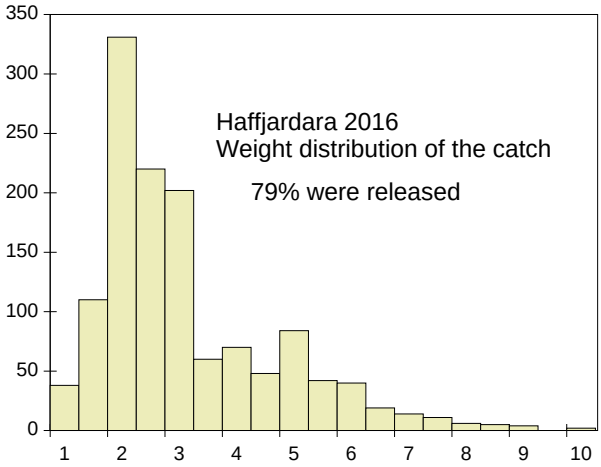

Fig. 3. Weight distribution of the salmon catch in Haffjardara in 2016. 17 fish 8 kg or more were caught, the two largest fish were 10 kg.

Year	I SW	II SW	Total	II SW%	Rel.	% Rel.
1990	475	148	623	24%		
1991	594	126	720	18%		
1992	703	122	825	15%		
1993	550	83	633	13%		
1994	567	103	670	15%	4	1%
1995	577	155	732	21%	0	
1996	533	69	602	11%	24	4%
1997	490	70	560	12%	0	
1998	678	74	752	10%	193	26%
1999	668	122	790	15%	302	38%
2000	612	60	672	9%	278	41%
2001	465	67	532	13%	246	46%
2002	847	96	943	10%	493	52%
2003	912	95	1007	9%	525	52%
2004	954	179	1133	16%	616	55%
2005	1075	215	1290	17%	929	72%
2006	874	203	1077	19%	749	70%
2007	899	141	1079	13%	767	71%
2008	1740	271	2011	13%	1599	80%
2009	1344	278	1622	17%	1227	76%
2010	1672	297	1969	15%	1509	77%
2011	1189	337	1526	22%	1274	83%
2012	921	225	1146	20%	854	75%
2013	1633	524	2157	24%	1821	84%
2014	601	220	821	27%	630	77%
2015	1422	229	1651	14%	1318	80%
2016	**931**	**375**	**1306**	**29%**	**1026**	**79%**
Avg 90-01:	**576**	**100**	**676**			
Avg 02-07:	**927**	**155**	**1088**			
Avg 08-13:	**1417**	**322**	**1739**			

Table 2. Catch of grilse (I SW), salmon (II SW) in Haffjardara 1990-2016, number and percentage of released fish. Averages 1990-2001, 2002-2007 and 2008-2013.

Catch of grilse has varied a lot between years the last 10 years but the salmon catch has increased. It is interesting to study the catch of grilse and salmon per week. Salmon (II SW fish) enter the river first and the catches are at its highest the first two weeks.
Grilse (I SW fish) enter later and their catches reach a peak in week 6 and then decline (fig. 4).
As all salmon and most of the grilse are released, this reflects how catchability decreases with time. The fish are more eager to bite when they are fresh.

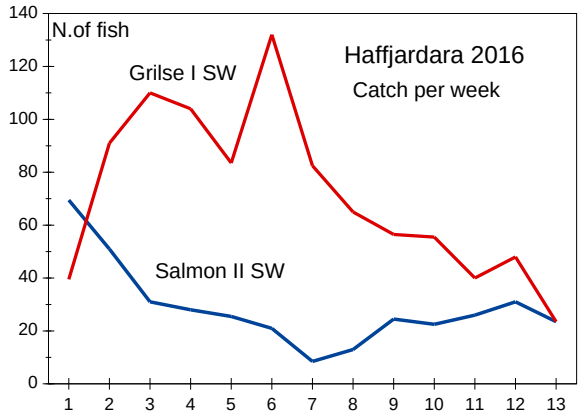

Fig. 4. Catch of grilse and salmon by weeks. First week starts 14/6, last week starts 13/9 and lasts 4 days.

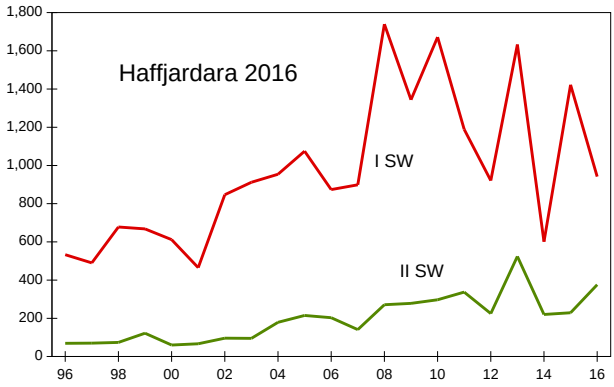

Fig. 5. N. of I and II SW fish caught in Haffjardara 1996 - 2016.

Temperature measurements

River temperature was recorded at three hours interval at the Old Bridge 7/4-27/7. The temperature in the spring of 2016 was favourable, much higher than in the cold spring of 2015 (fig. 6). As the temperature in the period from April to the middle of June is important for the smoltification process a normal or good grilse run in 2017 can be expected.

Low temperatures retard and prolong the smoltification. Fig. 7 shows the temperature from 7/4 to 27/7 2016

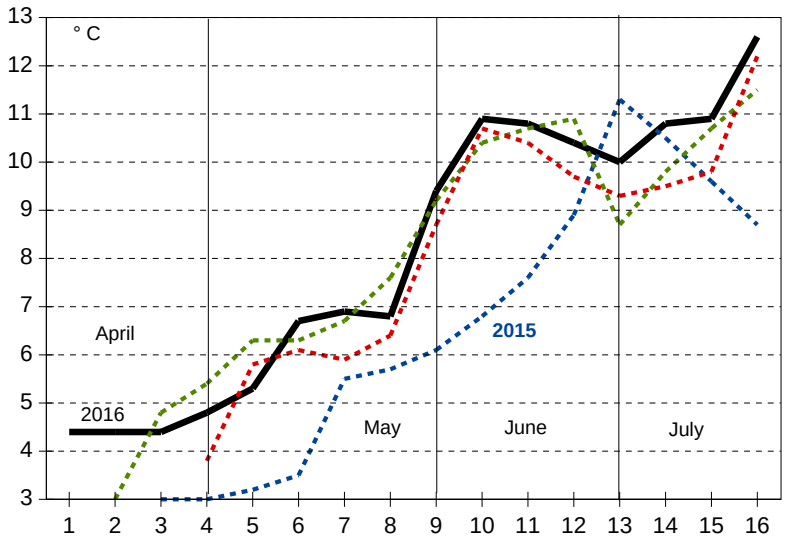

Fig 6. Mean weekly temperature at Old bridge 2016 (black), 2015 (blue), 2014 (green) and 2013 (red) 7/4-28/7.

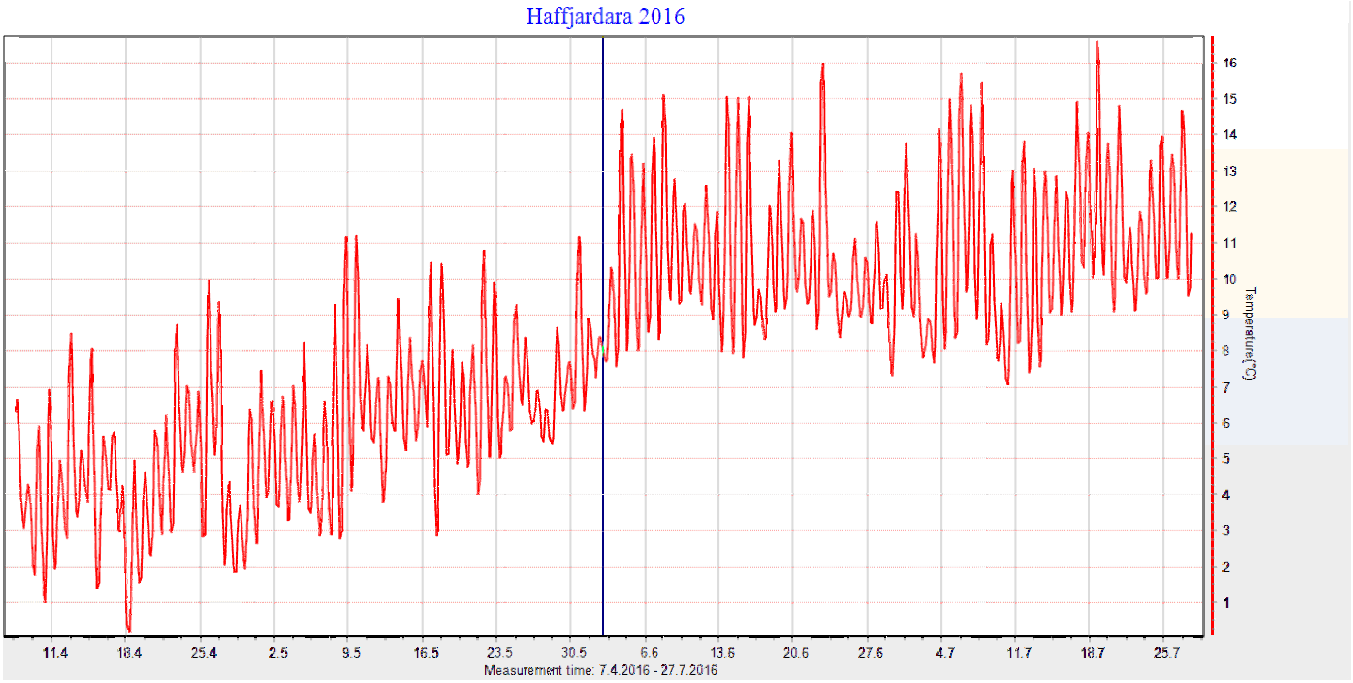

Fig 7. Temperature at Old Bridge 7/4 - 27/7 2016