

# Salmon in Haffjardara 2013

## 1. Parr survey

The annual parr survey could not be carried out in 2013 due to very high water from August 14, just before the survey was scheduled. The water remained very high to the end of the fishing season. Fig 1 below shows the water flow in m<sup>3</sup>/s in the period May 5 to October 25.

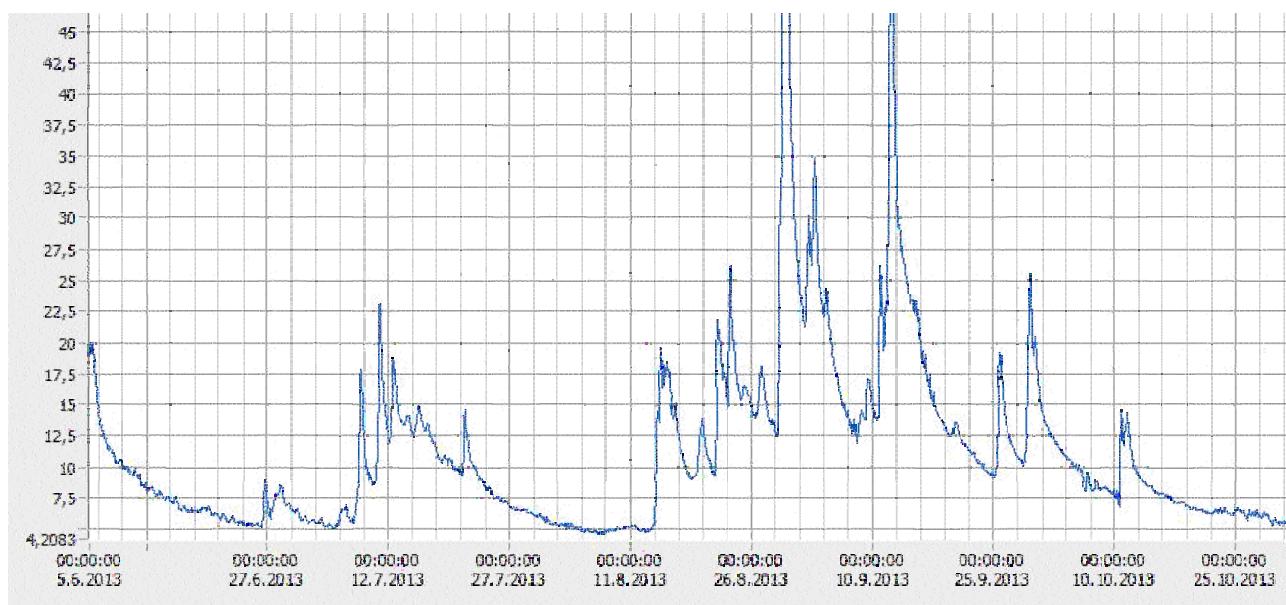


Fig 1. Water flow in Haffjardara May 5- October 25, 2013. The graph only goes to 45 m<sup>3</sup>, the flow on August 30 was 87 m<sup>3</sup> and 60 m<sup>3</sup> September 12.

## The salmon catch in 2013

The total catch in 2013 was 2157 fish. The catch of grilse and salmon since 1990 is shown in table 1. Out of the total caught in Haffjardara, 1821 (84%) were released.

The catch of grilse (I SW fish) was 1548 fish and the catch of salmon (II SW fish) was 609 fish, 28% of the total catch (fig 3). This was obtained using the weight distribution, 50% of 3.5 kg fish and all larger fish were classified as II SW fish.

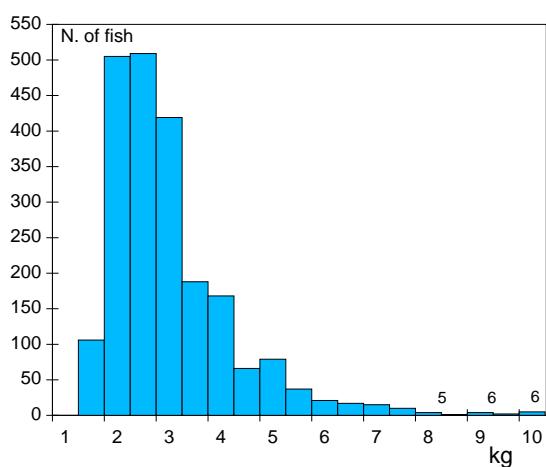


Fig. 2. Weight distribution of the salmon catch in Haffjardara in 2013. Six 10 kg kilo fish were caught. 11 fish 8-10 kg were caught.

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	1548	609	2157	28%	1821	84%
<b>Avg 90-01:</b>	<b>576</b>	<b>100</b>	<b>676</b>			
<b>Avg 02-07:</b>	<b>927</b>	<b>155</b>	<b>1088</b>	+61%		
<b>Avg 08-13:</b>	<b>1434</b>	<b>304</b>	<b>1738</b>	+60%		

Table 1. Catch of grilse (I SW), salmon (II SW) in Haffjardara 1990-2013, number and percentage of released fish. Averages 1990-2001, 2002-2007 and 2008-2013.

## Tagging from 1999

Since 1999, 1115 fish have been tagged in Haffjardara. 166 (14.9 %) have been recaptured within the same season (table 2).

Year	No. tagged	No. recaptured	% rec.
1999	45	1	2
2000	0	0	0
2001	14	4	29
2002	91	17	19
2003	73	22	30
2004	96	18	19
2005	131	18	14
2006	76	13	17
2007	68	5	7
2008	156	21	13
2009	88	9	10
2010	144	12	8
2011	13	3	23
2012	62	13	21
2013	58	10	17
<b>Total:</b>	<b>1115</b>	<b>166</b>	<b>14.9</b>

Table 2. Tagging results 1999-2013. Fish tagged and recovered within the same fishing season.

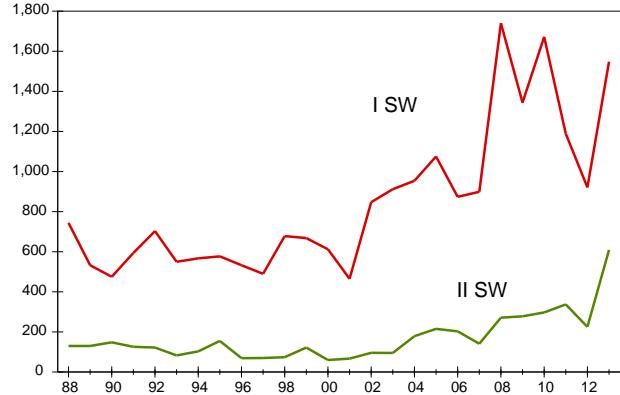


Fig. 3. Number of I and II SW fish in Haffjardara 1988- 2013.

## Tagging 2013

58 fish were tagged and released from 2/7 to 11/7 2013. 9 fish (16%) were recaptured within the fishing season. One fish was recaptured twice so total recaptures are 10 (17%).

One 2 kg female fish that was tagged in Sheep 2012 was recaptured at the same place in June 2013, then also 2 kg. Results from the 2013 recoveries are shown in table 3.

Tagged			Recaptured		Time out
Date	Tag No.	Pool	Date	Pool	Days
10.7.2012	103672	2	2.6.2013	2	327
2.7.2013	103463	2	30.8.2013	32	59
3.7.2013	103470	2	10.7.2013	23	7
4.7.2013	103727	2	4.9.2013	10	62
4.7.2013	103618	2	15.7.2013	7	11
4.7.2013	103612	2	22.7.2013	1	18
7.7.2013	103701	10	19.7.2013	24	12
7.7.2013	103700	7	21.8.2013	7	45
9.7.2013	103711	17	10.8.2013	33	32
11.7.2013	103720	2	26.7.2013	2	15

Table 3. Tagged and recaptured salmon in Haffjardara 2013. 'Time out' is the time between tagging and recapture. One 2 kg fish was tagged in 2012 in pool no. 2 and recaptured one year later at the same site. One fish was recaptured twice.

## Scale samples

Scale samples were collected from 26 fish. 4% spent 2 years in fresh water before they left the river as smolts, 69% spent 3 years and 27% 4 years.

77% were grilse, I SW fish, 23% were II SW fish (salmon).

River age	N.of fish	Sea age	Males	Females	N.of fish
2	1	I	8	12	20
3	18	II	2	4	6
4	7				
Total:	26	Total:	10	16	26

Table 4. Analysis of scale samples.

## Temperature measurements

Temperature recorders were placed at Old Bridge in the main river and in Hofdaa, just above the Flatna tributary. Temperature was recorded at one hour interval from the start of May until September.

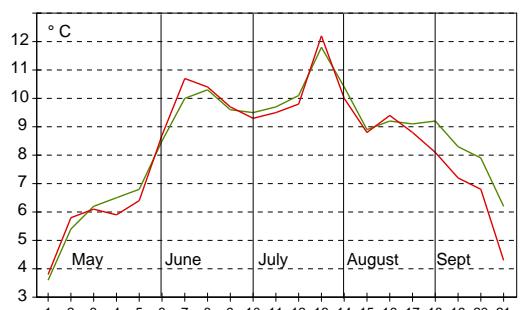
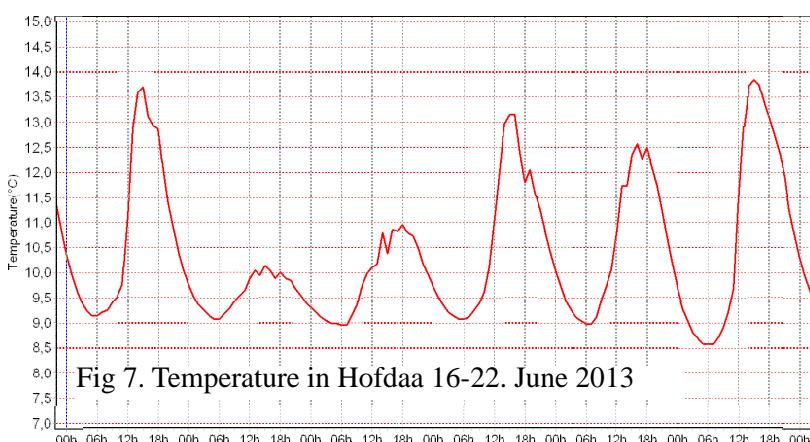
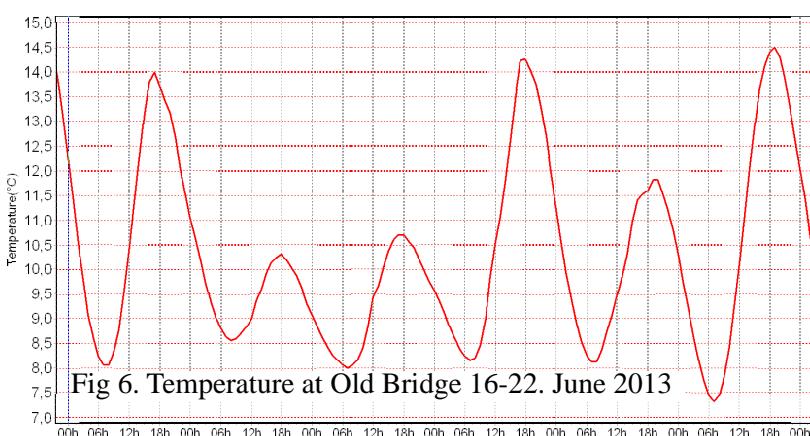
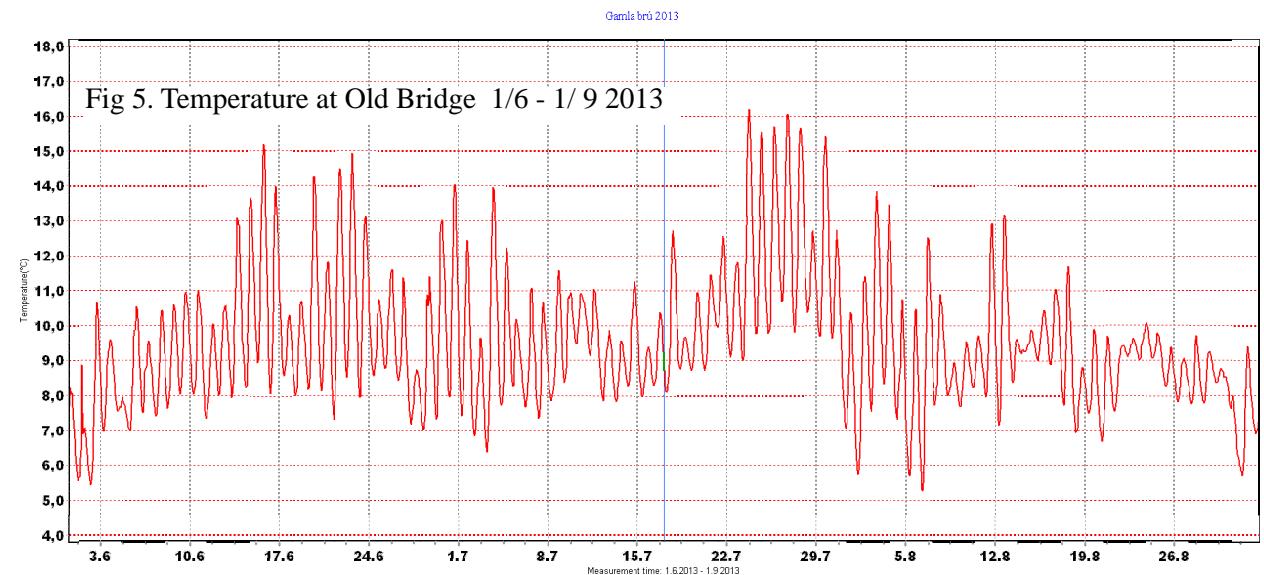


Fig 8. Mean weekly temperature at Old bridge (red) and Hofdaa (green) 2/5-16/9. Temperatures are very similar until September when Hofdaa is warmer which is an effect from the lake.