

Council

CNL(11)25

*Annual Report
on Actions Taken Under Implementation Plans*

EU – Sweden

Sweden Annual Report on actions taken under Implementation Plans for the Calendar Year 2010

Section 1: Details of any significant changes to the management outlined in the introduction to the Implementation Plan.

There have not been any significant changes to the management outlined in the introduction to the implementation plan in 2009.

Section 2: A description of any significant changes in the status of stocks and information on catches. The Council has asked that the following information on catches be provided:

- (a) the provisional catch of salmon in tonnes for 2010;**
- (b) the confirmed catch of salmon in tonnes for 2009;**
- (c) an estimate of unreported catch in tonnes for 2010;**
- (d) the number of salmon caught and released in recreational fisheries in 2010.**

a) 22,1 tonnes and 5175 individuals (average weight 4,25 kg) in 2010. The catch in the rivers (rod and line) in 2010 was approximately 20 tonnes.

b) 16,98 ton. Released salmon in recreational fisheries is not included. Fishing in rivers (rod and line) dominates the catch and has averaged 15.2 tonnes the period 2000-2009. Since 2004 the average was 15 tonnes, i.e. 90% of the total catch that period. The catch in 2009 was 14 tonnes corresponding to 3859 salmon.

c) In three rivers a kind of traditional privately owned fishery with traps or net fishery for salmon is operating. No catch data are available from these small scale fisheries so they represent an unreported catch. The unreported and reported catch in these trap net fisheries in year 2010 was guesstimated to be 2 tonnes or about 10 % of the national catch.

d). In some rivers catch and release is more frequently practised (up to 42,6% released of the total catch) in recreational fisheries. For the combined fishery on wild salmon it was estimated that 16.7% was released. In rivers with hydropower plant and a comprehensive stocking program catch and release is nearly not practised at all. For the total fishery, wild and ranched salmon, catch and release would amount to only 5%.

Table 1. Number of 1 SW and MSW salmon caught in 2000-2010. Since a few years it has been decided to define fish with a weight of less than 3.6 kg as 1 SW fish. It is possible that this limit will have to be changed if the growth of salmon continue to be impaired compared to earlier.

Year	1 SW		MSW		MSW in per cent of total	
	Weight (kg)	Numbers	Weight (kg)	Numbers	Weight (%)	Numbers (%)
2000	17979,8	7103	15210,3	3196	45,4	64,1
2001	11700	4634	20918,6	3853	45,4	64,1
2002	11539	4733	16363,0	2826	37,4	58,6
2003	6938,7	2891	17779,0	3214	52,6	71,9
2004	5766,6	2494	13134,6	2330	48,3	69,5
2005	4828,1	2122	10197,0	1770	45,5	67,9
2006	4195,3	2211	9590,5	1772	44,5	69,6
2007	2948,6	1228	13482,1	2442	66,5	82,1
2008	2890,3	1197	15509,8	2752	69,7	84,3
2009	3101	1269	13885,0	2495	66,3	81,7
2010	5126	2109	16889,0	3066	76,7	59,2

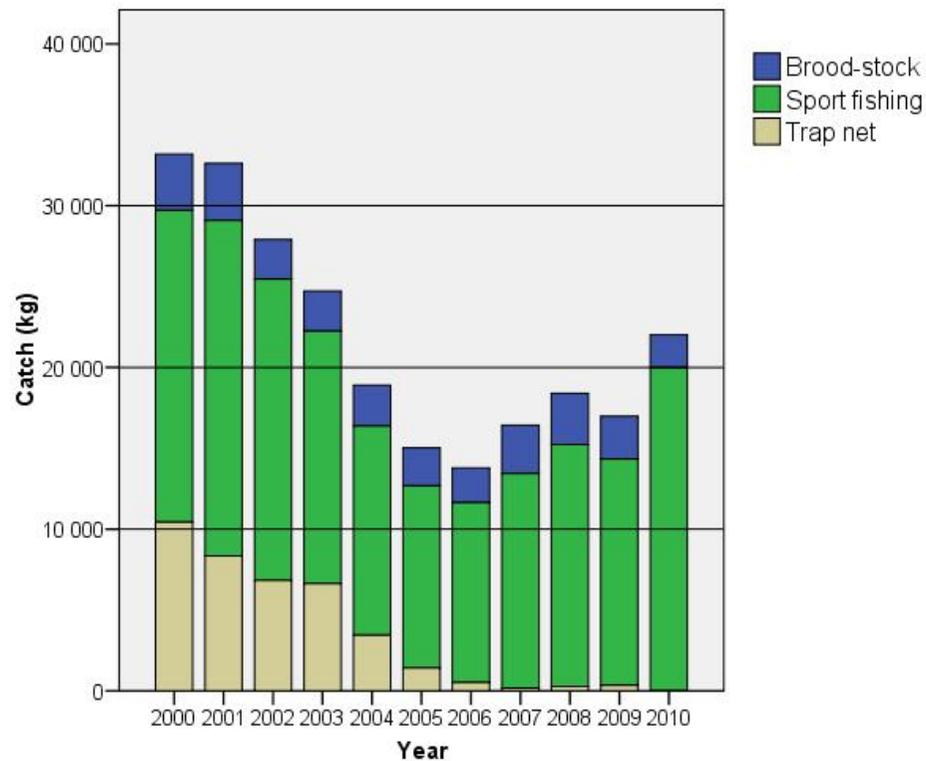


Figure 1. Total reported catch of Atlantic salmon (kg) in Sweden 2000-2010 divided into different kind of fisheries.

Angling in rivers has gradually increased its proportion of the total catch. Unfortunately no effort data is available, e.g. number of fishing permits, number of fishermen, fishing hours.

No salmon trap nets were operated during 2010 in Swedish coastal waters. This is the first time in over hundred years without commercial coastal fishing of salmon. The whole catch of salmon is today from non-commercial fishing in rivers. The number of trap nets used has decreased almost continually for a long period. Three commercial fishermen still have permits to use one trap net each, but permits will not renewed to avoid mixed-stock fisheries.

Section 3: A description of any new factors which may significantly affect the abundance of salmon stocks.

Salmon parr densities in salmon rivers in western Sweden are still on a historical low level (period 1985 – 2009). Se Sweden Focus Area Report on Protection, restoration and enhancement of salmon habitat.

There was a drop in the number of salmon smolt released in the comprehensive stocking program 2002 – 2008 probably affecting the number of returning spawners and the catches. During the period 2000 – 2010 the average number of released smolt annually has been approximately 170 000. Fish that originated from ranched salmon smolts, released as a part of programmes to compensate for hydropower development, made up as much as 76% of total catches in the year 2009, but only 70% in 2010 due to increased catches of wild salmon.

Table 2. Catch (tonnes) of salmon by category of origin in 2002-2010.

Year	Wild	Farmed	Ranched	Total	Prop. (%) ranched
2002	11	0	17	28	61
2003	6	0	19	25	76
2004	7	0	13	19	68
2005	7	0	8	15	53
2006	6	0	8	14	57
2007	5	0	11	16	69
2008	4	0	14	18	78
2009	4	0	13	17	76
2010	6,67	0	15,34	22,01	69,7

Table 3. Number of released reared Atlantic salmon smolts in 2010 in Sweden.

River	1 year old	2 year old	Grand total
Lagan	77066	18958	
Nissan	23399	5444	
Göta älv	28110	24040	
Total	128575	48442	177017

Section 4: An account of all actions taken under the Implementation Plan with regard to the management of salmon fisheries; habitat protection and restoration; aquaculture and related activities; and other influences affecting salmon abundance or diversity (including the marine environment).

Management Action	Reporting Update	Achieved Management Action (Yes, No, Ongoing, Completed)
Fisheries Management		
No new regulations of the fishery have been implemented in 2010.		Completed
A work has started to determine which data is needed to implement Conservation Limits		Ongoing
A work has started to implement new regulation in the river fisheries to strengthen the stocks. New regulation in the rivers can be decided in the end of 2011.		Ongoing
To protect salmon and sea trout a proposal has been laid 2011 on restrictive regulation of net fisheries in shallow waters near the shore.		Ongoing
New regulation of the fishery in river Enningdalsälven, in the tributary and in the firth of Enningdal has in 2010 been agreed between Norway and Sweden. Protection of salmon and sea trout populations has increased.		Completed
The Swedish Board of Fisheries has 2010 started a working group in order to		Ongoing

evaluate NASCOs Guidelines in salmon management and the possibilities to implement the Guidelines in the management. A conference about salmon management is planned in 2011.		
In the index river Ätran work has continued to establish the catch efficiency of the smolt trap that has been operating since the middle of 1950s. Tagging of migrating wild salmon smolt has been carried out and an extensive electro fishing programme. Monitoring of returning spawners continues in the tributary Högvadsån.		Ongoing
Reporting of catches in the salmon fisheries has been carried out.		Ongoing
Monitoring of parr population is undertaken annually in 22 rivers.		Ongoing
Habitat Protection and Restoration		
A conference about salmon management, habitat protection and restoration is planned in 2011		Ongoing
Liming operation has been continued in all rivers 2010. The liming project in river Ätran has been increased in 2011.		Completed/Ongoing
Habitat restoration has 2010 been carried out in several rivers and is planned to continue in 2011.		Completed/ongoing

River Rolfsån 2009- 2010. Three fish passages have been built at the hydropower plants Apelnäs, Bosgården and Forsa.		Completed
River Enningdalsälven. A fish counter has been installed 2010.		Ongoing
River Nissan. A fish counter is planned to be installed 2011.		Ongoing
River Ätran. In 2011 it is planned to eliminate one hydropower plant. Returning salmon can pass the plant using a fishway (Denil type) since 1945, but elimination will further enhance the spawning run and also the smolt migration. Habitat restoration will be carried out as well. The estimated cost is 1.8 million Euro		Ongoing
Aquaculture and related activities <i>(only required if a jurisdiction wishes to supplement its FAR or has not submitted a FAR)</i>		
A genetic study is planned during 2011 on the origin of some of the more important salmon stocks and the origin of farmed salmon of unknown origin entering these rivers		Ongoing
Monitoring on <i>Gyrodactylus salaricus</i> has been carried out in all salmon rivers since 1995. No new infection has been observed since 2005.		Ongoing



Figure 2. Map showing the position of Swedish salmon rivers on the west coast. Further, the distribution of the ectoparasite *Gyrodactylus salaris* is shown.

Other influences affecting salmon abundance or diversity (including marine environment)

Section 5: Details of any proposed revisions to the Implementation Plan.

Revision of the Implementation plan will be ongoing 2011.

References

Degerman, E., Persson, J., Palm, S., & Sers, B. 2011. Salmon fisheries and status of salmon stocks in Sweden: National report for 2010. ICES Working Group on North Atlantic Salmon. Working paper 2011/6.