Baltic Marine Environment Protection Commission

Group on Ecosystem-based Sustainable Fisheries

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Background

Referring to Sweden's contribution to the updated report on the implementation of *HELCOM Recommendation 32-33/1 on conservation of Baltic salmon and sea trout populations* (c.f. document 4-1-Rev.1), this document contains general remarks concerning the assessments of trout and salmon in Sweden.

Action requested

The Meeting is invited to take note the information.

Salmon

Status of salmon stocks has been revised by the work of WGBAST (Baltic salmon) and WGNAS (Atlantic salmon). Two of the former rivers in the Baltic with a status below 50% in previous years were above 50% in 2016, Rickleån and Öreälven (see Table 4_2_3-4 in WGBAST report 2017). This is mainly due to the recovery of the Baltic salmon complex as a whole due to fishing restrictions. However, two new smaller rivers have now been included in the surveyed rivers and both these, Rivers Kågeälven and Testeboån, fell below 50%.

River Emån still is below 50% and River Mörrumsån (new to the list) is at risk of falling below, making the total of Swedish salmon rivers in the Baltic below 50% to four. It should be noticed that the three southernmost rivers have low status, whereas northern stocks have good status.

As for stocks of Atlantic salmon (Kattegatt area) an improvement has been observed in Göta älv tributaries and Kungsbackaån, which are now both just above the 50% status. Also Tvåkersån and Löftaån have improved above 50%. The Nissan tributary Sennan and Rönneån remains with poor status.

Sea trout

There is no coordinated sampling programme at the national level to assess status of sea trout populations. Status is normally assessed using electrofishing data, i.e. recruitment status, as suggested by ICES SGBALANST 2011 (also in press Pedersen et al. 2017). Sea trout streams are defined as having a catchment less than 1000 km^2 and the salmonid abundance not being dominated by salmon as recommended by SGBALANST. The data included are mainly from regional monitoring programmes of varying duration. All data are quality controlled and stored in the national Swedish Electrofishing RegiSter (SERS).

Data was available from 64 (21%) out of 305 streams when the criterion was that updated data should be available from the period 2014-2016. 20% of streams had a status below 50%.

Status	Frequency	Proportion (%)
0-20	8	12,5
20-50	5	7,8
50-80	13	20,3
80-100	38	59,4
Sum	64	

Comparing the status 2005-2010 (n=305 streams) with the status for rivers sampled 2014-2016 (n=64), 47% had increased status (+1), 42% remained unchanged (0) and only 11% had lowered status (-1).

Status	Change	Frequency	Proportion (%)
Decreased	-1	7	11
Unchanged	0	27	42
Increased	1	30	47
Sum		64	

This outcome significantly deviates from no change (one-sample t-test, $p<0,001$). Thus there was a significant improvement of status in monitored sea trout streams. It is suggested that the relatively large sample (n=64) reflects the situation in all 305 streams included in the initial reporting to Helcom in 2011. However, there is a probable bias due to that local and regional monitoring may be focussed to running waters where restoration measures are undertaken.