

ICES WGBAST Report 2007

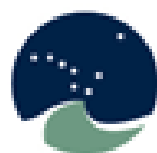
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Report of the Baltic Salmon and Trout Working Group (WGBAST)

11 – 20 April 2007

Vilnius, Lithuania



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Executive Summary

Data series were updated and salmon stocks in the Main Basin and Gulf of Bothnia were assessed using Bayesian methodology. A stock projection model based on the Fisheries Library in R (FLR) framework and conditioned on the Bayesian stock assessment was used for the first time for the computation of the impacts of different future scenarios on the stocks. Status for salmon in Gulf of Finland and Baltic sea trout populations were evaluated but no analytic assessment was carried out for these stocks.

- Post smolt survival has decreased to a very low level in 2004-05 and possibly also in 2006. The reduced survival is predicted to further decrease catches in near future. Despite a ban of drift net fisheries starting from 2008 which is likely to cause a considerable decrease in exploitation, the smolt production among wild salmon stocks may therefore decline during the first years of the 2010s.
- Salmon catches continue to decline and they are now at their lowest level since a joint catch statistics started in 1972.
- The natural smolt production of salmon populations has improved slightly in recent years and the improvement may continue at a slow pace until 2010.
- The former IBSFC established as a management objective (Salmon Action Plan 1997-2010) for wild salmon rivers reaching at least 50% of the potential smolt production by 2010. Most of the northernmost stocks (assessment units 1-2) are either likely or very likely to reach this objective, while the stocks in the more southern areas (assessment units 3-5) have slightly more varying and on average poorer status.
- Post smolt survival of sea trout has probably also declined. Nevertheless, the status of many of the stocks in the Main Basin is fair or good. In the northern Baltic Sea (Gulf of Bothnia, Gulf of Finland) sea trout stocks are very depleted, partly due to the high exploitation by the fishery.

The point a) in the ToRs was fulfilled for the salmon of the Baltic Main Basin and the Gulf of Bothnia (Section 5). The current assessment methodology has not yet been expanded to cover the Gulf of Finland salmon (Section 6); the working group suggests that Gulf of Finland salmon be assessed together with the other Baltic salmon stocks in the future, because all Baltic salmon are harvested to great extent by the same mixed stock fisheries. Possible implementation of MSY based reference points (ToR b) is explored under the sub-section 5.6.2. Additional background information about some of the salmon stocks with poorest status are provided in Sections 4 and 6 in order to fulfil the point c) of the ToRs. The point d) in the ToRs was fulfilled through a separate analysis of the survival of spawners through the coastal migration (sub-section 4.2.4). There are also special sections dealing with the sea trout stocks (Section 7, ToR e) and sampling protocols and data needs (Section 9, ToR f).

The latest assessment highlights the estimated current low level of post smolt survival, as this parameter is predicted to have major implications both for the fisheries and for the stock development in near future. Revealing the underlying reasons for the downward trend in the post smolt survival would need novel studies and stronger collaboration across different disciplines when studying the Baltic Sea ecosystem.