

# Abundance of sea trout spawners and parr

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## Description

The indicator evaluates the status of coastal sea areas of the Baltic Sea based on the abundance of sea trout parr in rivers where they breed.

- The determination of whether GES is reached is based on a comparison of the **observed parr densities** in rearing habitats with the reference **potential parr densities** in the specified habitats.
- Linkage to the **number of spawners** ascending the rivers and hence to the fishing pressure at sea and in river.
- The indicator also reflects the state of the ecosystem as smolt production is dependent on river connectivity (effect of dams) and the quality of spawning habitats.

# Data for assessing the stock status

- Parr density data
- Fisheries data (effort, catch, tag recoveries)
- Counting of out migrating smolts
- Counting of returning adult spawners
- 629 rivers with natural sea trout production
- Goal to establish one index river per assessment area



# Data collection and analysis

- Data is compiled annually by the ICES Working Group on Baltic Salmon and Sea Trout (WGBAST).
- Assessment on the stock status performed in about 3 year intervals (2015, 2012)
- Present assessment model applicable for the southern stocks, but still further development needed (distance to the sea and number of migration obstacles on the way)

# Criterion for GES

- 5 years moving average above 50% of the maximum observed parr density (river specific examination)
- In addition expert evaluation is needed to evaluate if the observed maximum densities compares to the expected potential densities from the habitat quality concerned.
- A rough classification into good vs. bad status. No boundary value where status changes e.g. from good to moderate.

# Summary

- Regular eventhough not frequent data collection in a sufficient amount of rivers
- Expert evaluation has an important role
- Assessment method to be further developed to make it work also for the northern stocks
- Rough GES boundaries

# References

- <http://www.helcom.fi/baltic-sea-trends/indicators/abundance-of-sea-trout-spawners-and-parr>
- <http://ices.dk/community/groups/Pages/WGBAST.aspx>

# Thank you!



Photo: Stig Pedersen, DTU Aqua