

What is being done in terms of bycatch monitoring? Pilot studies, research, monitoring programmes etc., and are there any results to present?

2017-2019 Pilot project, observerprogram in South baltic, the sound and Kattegatt, around 97 observer days

2020-2021 Pilot project MEM Mobile Electronic Monitoring, min 476 monitored days

- Development of a Camera system
- 10-15 fishermen collecting data

2022- MEM and Observers in gillnet fisheries in Skagerakk, Kattegatt, the sound and baltic

- Development of an machine learning program for analysing bycatch (AI Sweden, Chalmers, DTU and SLU)
- Commitment in ICES WKRARE, WK Petsamp
- Development of ICES RDBES
- Paper submitted to Marine Mammal Science (Nui et al. in review) showing net soak time, string length, and water depth had the strongest impact on bycatch, and that between 1995 and 1997 bycatch rate was estimated to be 4.6% of the population size
- Mandatory for fishermen to report bycatch in log books since Feb 2021

Have any bycatch estimates been calculated for either population, nationally or in ICES or any other forums?

- Helcom Action 2021
- A mortality limit for the Belt Sea population has been estimate by NRM using the mPBR method (Genu et al. 2021). Report to be submitted to HELCOM S&C (Kylie Owen presentation- Agenda item 3.4)
- New estimation in “belt Sea population DTU with Slu involvment

What measures are in place to reduce bycatch?

- Voluntarily use of pingers
- EFF funding available for pingers made available for fisheries
- Eff funding available for selective gears
- Fisheries banned in protected areas in the Baltic Sea - new EU regulations already in Swedish legislation
- Significant reduce in gillnet effort due to EU cod fishery ban

Any ongoing projects and trials of alternative gear? Any results on alternative gear effectiveness etc. to present?

- Evaluating Future Ocean Pingers and Banana Pingers in a commercial fishery
- Evaluating harbour porpoise presence around a pinger developed by Maritime Technology
- Evaluating harbour porpoise presence around bouys
- Evaluating the potential impact of reduced effort on harbour porpoise population
- Participating in CIBBRINA
- Developing alternative gears for catching flatfish (plaice and turbot)
- Ongoing gear development.....
- Life project developing new acoustic technique recording harbour porpoise clicks
- NRM: Participation in a project investigating the effectiveness and possible long-term impact (e.g. habituation, expulsion or avoidance of areas) of the use of porpoise alerting devices (PAL project, lead by DMM in DE)
- CCB: Study showing that seal-safe pingers do not increase seal depredation on static nets in the Baltic Sea (in review)