



**Ministry of Environment
and Food of Denmark**
Danish Veterinary and
Food Administration

Optimizing sustainable fishing on rebuilt fish stocks

Fish stocks in the North Atlantic are rebuilding and they compete for food and predate on each other. It is time to revisit what the optimal fishing pressure is. The technical basis are the so-called F_{MSY} reference points. Ways of including fish interactions (density dependence) in the current single species approach to management are considered. The so-called Surplus Production Models (SPM) will be a focus.

A scientific mini-symposium organized by the MSE-project group

23 November 2022, Axelborg, Axeltorv 3, Copenhagen V, Denmark

9:00 – Open for registration

1st half for stakeholders, managers and scientists

Chair: Dorothy Dankel, Chair of the Nordic Marine Think Tank.

9:30 – Opening of the mini-symposium. Chair.

9:35 – Setting the Scene – Management perspective. (the EU Commission (Fabrizio Donatella), TBC)

9:50 – A stakeholder perspective. (Esben Sverdrup TBC)

10:05 – The MSE project. (Henrik Sparholt)

10:25 – Density dependence in fish populations. (Anna Rindorf TBC)

10:40 – Climate changes in the Northeast Atlantic 2022-2032 (Katherine Richardson)

10:55 – Coffee

11:15 – ICES perspective on the use of surplus production models in ICES advice (an ICES ACOM representative)

11:30 – Discussions - Can the society afford waiting? What could be done to speed up the transition to an approach that includes density dependence? Facilitator Chair.

12:30 – 13:30 Lunch.

2nd half for scientists mainly

Chair: Nis Sand Jacobsen, Scientist at DTU AQUA,

13:30 – Best SPM - Case North Sea plaice (Henrik Sparholt)

13:55 – Best SPM - Case Northeast Atlantic blue whiting (Axelle Cordier)

14:20 – Best SPM - Case Baltic sprat (Jan Horbowy TBA)

14:55 – Coffee

15:15 – Climate changes and how to integrate it in MSEs (Nis Sand Jacobsen).

15:30 – Process errors and observation error – how best to estimate these? (Henrik Sparholt)

15:45 – Process errors and observation error - can SPiCT be used? (Casper Berg DTU AQUA)

16:00 – Process errors and observation error - Hindcast approach a way forward for testing alternative MSEs? (Laurie Kell)

16:15 – Conclusions – what is the best way forward on the use of SPMs in MSEs and how best to obtain estimates of process and observation errors of total stock biomass in Operating Models? Facilitator: Chair Nis Sand Jacobsen.

17:00 – Closing of the mini-symposium – Dorothy Dankel.