

**Beyond Fmsy in the Barents Sea and beyond**

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Fisheries management by Norway and Russia has developed within ICES, but along different lines to those followed by the EU, without a requirement for Fmsy fishing. Exploiting stocks to their theoretical maximum implies constant tuning of exploitation patterns and fishing intensity. Long term average Fmsy values represent an approximation to this ideal. We use a number of stocks in the Barents Sea to highlight where this constancy is a *poor approximation*. Capelin is short lived, and fished with an escapement strategy, rather than constant F. However, constant F also fits poorly a number of long lived species, where runs of poor recruitment imply that fishing pressure should be below a long term average Fmsy level. Multispecies management exists in the capelin fishery. Priority is given to predators (primarily cod) over the capelin fishery. Given ongoing recovery of overfished predatory fish in many ecoregions, it is likely that similar prioritization will be needed more widely. We also highlight newly evaluated HCRs for cod, where F increases at high SSB. Again this is likely to become relevant as more stocks recover from overfished levels – MSY implies a stock neither too high nor too low. We close with a short discussion of the range of technical measures which can matter more than the actual F level, focusing on the importance of selectivity. Norway has a long history of a discard ban, aimed explicitly at altering fishing selectivity to avoid catches of undersized fish, and such selectivity changes can matter more than target F.

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