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Title

Updated diagnostics in squid and cuttlefish stocks exploited by Northeast Atlantic French fishing fleets

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Abstract

Stock assessment exercises were carried out in a number of Northeast Atlantic Cephalopod stocks in 2019-2020 within the Interreg project "Cephs&Chefs". Generalised surplus production models were fitted to time series of landings and biomass indices using the R package SPiCT.
We present here the update of such assessments in 4 stocks: Loliginid squid and cuttlefish from the English Channel and from the Bay of Biscay. New diagnostics of stock status are compared to previous trends. In some previous model outputs uncertainty was so high that conclusions had to be taken with caution. The updated assessments enable the result of exploitation that was continued without specific management measures to be examined. New diagnostics are discussed in light of recent changes to fishing effort and also in light of demersal communities' changes with octopus populations that are expanding northward.

Key-words: *Data-limited methods, Pella-Tomlinson model, SPiCT, biological reference points, cephalopods population dynamics, stock assessment.*

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