

When uncertainty is for the better: a4a, the option for the southern megrims stocks.

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Both southern megrims stocks (*L. whiffiagonis* and *L. boscii*) are assessed in ICES Working Group for the Bay of Biscay and the Iberian Waters Ecoregion (WGBIE). The model used in the assessment is Extended Survivors Analysis (XSA) (Shepherd, 1992). The XSA is a deterministic model and do not consider the uncertainty in its operation. To this day, it is known that uncertainty is fundamental when establishing any reference point and management derived from a biological process. Megrims are caught in mixed fisheries of bottom trawlers generally targeting a heterogeneous group of valuable demersal white fish. As megrims have significant commercial value in the Spanish market and they are regulated species in the area by a TAC quota system, they must have the more appropriate tools to assess them. In order to improve this, a4a (assessment for all), a non-linear catch-at-age model implemented in R and FLR, and using ADMB, has been tested in these stocks. The results for both stocks are promising and show that the a4a model is a strong candidate to be chosen for the assessments.