

## ***Interactive comment on “Reconstructing three decades of total international trawling effort in the North Sea” by Elena Couce et al.***

### **Anonymous Referee #2**

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First of all, I would like to recognize the huge work done by the authors and the potential relevance of this contribution. However, I think that the present version of this dataset is characterized by some severe drawbacks. I identified three main problems in this paper:

1) the authors collated different blocks of data from different sources. Each of these datasets contains Nominal Effort (fishing effort in hours fishing) by area, for trawlers and beam trawlers. Unfortunately, it is largely acknowledged that all the impacts of these fishing gears are monotonically linked to the size / engine power of vessels. In the meantime, it is a fact that the structure of the EU fishing fleets changed a lot during the last decades. These two aspects, in combination, lead to the conclusion that the time series provided by the authors are not consistent. In other words, the values of

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effort at the beginning of the time series could not be compared with those at the end. A potential solution for this issues is represented by the combined usage of data about effort and data about fleet structure, assuming that the spatial distribution of fishing activities is the same for different fleet segments (a huge assumption, of course);

2) Moreover, the efficiency of fishing gears changed (increased) during the last decades, as a consequence of the effort creep;

3) about the estimation of missing data: I think that the authors should at least cross-validate the fitting methods applied. This is possible (and not very complicated) if some random years, for which data are not missing, are selected and used to evaluate the goodness of estimations. Cross-validation is a very common class of techniques that can be adapted to different case studies.

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