

Earth Syst. Sci. Data Discuss., referee comment RC2
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Comment on essd-2021-93

Anonymous Referee #2

Referee comment on "New historical data for long-term swordfish ecological studies in the Mediterranean Sea" by Brian R. MacKenzie et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2021-93-RC2>, 2021

In my opinion, the extracted numbers and weights of swordfish from the process of data recovery are very poor. Despite the authors declared an assembly of 1592 individually weighted swordfish, I do not see any length or weight frequency distributions neither by time nor by site. It should be interesting to see how the structure in size of the swordfish catches were distributed over time and space, especially considering potential swordfish migratory pattern and the exceptional case of the Capo Passero tuna trap, which was a return-trap.

Regarding the period considered, I think that it is not valuable since:

- a) time series from Milazzo is unreliable because from 1901 "no weight data at any level of aggregation was available" (line 192).
- b) data from F+F are only grouped data of weights and numbers. Despite the authors declare that a daily mean weight is available for those locations for 14 years (1931-2002), for 1 fish a day and for 743 days of captures, I see a frequency distribution of only of 20 specimens in Figure 4 and they were caught only in 1946 (line 223).
- c) regarding Milazzo, the authors reported only data from fishing season of 1906 (line 216) and the year cumulative catch percentage compared to that of 1963 (line 217). I do not see how these data can be used to help the improvement of the actual knowledge on the swordfish population in the Mediterranean Sea.

Therefore, I do not understand how the poor data presented can be a sufficient basis to improve the swordfish management decisions (line 33) regarding the recovery of the species. Time series used by the authors continue to be insufficient to allow any diagnosis and attribution of changes in swordfish population dynamics.

It should be very interesting to try to focalise the observation on the period that provide the best swordfish data set, in terms of amount of individual weights by trap and time to improve the knowledge on the structure of the historical swordfish catches.

Finally, there is an important lack of papers regarding the reproduction biology and population dynamics, migratory pattern and structure in the bibliography section.

Swordfish should be cited as Latin name *Xiphias gladius* (L. 1758), at least when it is cited for the first time (line 48).

For all the above-mentioned reasons, I feel that the manuscript is not suitable for publication, unless it is deeply improved in order to provide any improvement in the knowledge of this species and, overall, any new ecological knowledge regarding the swordfish population dynamics in the Mediterranean Sea.