

Review of: "Sex Ratio, Spawning Cycle, and Size at Maturity of Bluespotted Seabream (*Pagrus Caeruleostictus*, Val 1987) From the Coast of Ghana"

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Potential competing interests: No potential competing interests to declare.

The present study aimed at investigating the reproductive biology parameters of wild *Pagrus caeruleostictus* from the Ghana coast. Although such a study is an important tool for defining more sustainable public policies for fisheries, the present study has some limitations that should be taken into account before being considered for publication.

The introduction lacks the objectives of the study. There is also a lack of depth in what is known to date about the reproductive biology of this species, as well as in the exploration of the problem. The authors could also provide data on the natural population such as: Is there an overfishing problem? Have natural stocks declined over the years? What is the current minimum catch size according to current legislation? Is there a closed season for this species?

The sex ratio does not seem to be calculated correctly. According to the number of males and females mentioned in the manuscript (391 males and 167 females), the correct ratio would be 1:2.3 (female:male). Furthermore, the authors state in the results that the sex ratio was 1:1.29 "in favor of females," but in fact, it was in favor of males. However, considering Table 1, the sum of males and females would actually be 351 and 209, respectively. Another gap left by the paper was the exact time period of the collections, because in the Materials and Methods, the authors say that the collections were between January and December 2019, but in the Results, they report results from August and November 2018 and July 2019. These errors confuse the reader and detract from the study.

The stage of maturity of the gonads was evaluated based on macroscopic observations. These observations were not described in sufficient detail. The authors could provide more detail about the macroscopic observations and include a visual scale using photographs of each stage. In addition, the maturity scale for males was not described. Other points were that the reference used for this method (Holden and Raitt, 1975) is not in the reference list, as many others quoted references. Authors should be aware of this and cite references properly. In addition, a better way to describe the maturity stage and spawning cycle would be to use gonadal histology, which provides more accurate and reliable results. The authors mentioned in the conclusion that they used histology for the first time to describe the maturity stage of this species, but this is not what the paper shows.

The description of Figures 5 and 6 is changed in the text. Graphs of GSI should have at least the standard deviation beyond the mean. GSI data should be statistically analyzed before describing which month was higher than others. How can GSI be zero on the graph when the authors describe the minimum GSI values for females and males as 0.57 and

0.25, respectively?

Finally, although the study has an important appeal, there is a lack of scientific rigor in the methodology, in the presentation and analysis of the results, and also in the discussion of the findings.