Review of: "Reef Fish in the Vitória-Trindade Seamount Chain of the Southwestern Atlantic: Biogeographical Corridors and Impact of Fishing"

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Introduction

This section seems more like a background paragraph on the studies that have covered some of the knowledge about the reef fishes of the study region, so it is not a well-structured introduction. I consider that in this section, the ecological and historical fishing importance of this area should be emphasized first, where information is provided to locate the context of ecological advance in the years in which this study was carried out, 26 years ago, so that it is clear how this knowledge is inserted with the current one, and about what the magnitudes of the commercial fleet's fish catches have been, especially because at the end of this section there is talk of an early conclusion of the depletion of resources without presenting precise information about such depletion, for example, catch amounts that were in the years of the last study (1996-1998) with respect to the current ones. Therefore, the suggestion is to order this introduction for greater clarity, since the objectives are to fill gaps with information from almost three decades ago. The first three objectives deal with the distribution of the species. Was this information analyzed in studies after this one? And regarding the impact of fishing, was it also addressed in more current studies? If this was not the case, these two aspects must be clarified more precisely to understand why the data from this past study serves to fill gaps.

Material and Methods

Study area

Correctly state the geographical location in latitude and longitude in the first paragraph. Figure 1 does not include the latitude 22 degrees South.

In the first paragraph of "Data collection," what seasons of the year were covered and in what months between 1996 and 1998? Does the last sentence of this paragraph seem like an advanced interpretation of results? I don't make sense of it.

Does the third paragraph of the section, "Data analysis," correspond to the results from the 1996-1998 study? If so, why is the reference from Martins et al., 2005a included? Isn't the data from 1996-1998 supposed to be unpublished? In any case, relocate this information to the corresponding section.

In the last methodology paragraph about the Mann-Whitney U test, what were the dependent and independent variables in

the data? It must be specified.

RESULTS

Distribution patterns on the central coast

The DCA analysis in Figure 2 is not well presented. Axis 1 is horizontal, and 2 is vertical. The scale of values was not included on the axes and quadrants of the run as such. Nor was the value of explanation of the variance in each axis, and the total of both added, which would give it the required statistical formality. The same happens with Figure 3, where the Cluster Analysis does not present the horizontal distance scale of the Sorensen coefficient. However, this second test can be assumed to be confirmatory of the DCA; it has the problem that on the vertical axis, it is not known what the order of stations that are grouped in each Cluster is, nor is it known whether the relative abundance of each species was used by sites of sampling, or in any case, a presence-absence matrix? The latter was not specified in the methodology. Therefore, I suggest that in this section reference be made to Table 1 related to Figure 3, where the occurrence of each species in the study region is noted. Thus, at least we have a more complete idea of the distribution of the species in the number of stations, but not in the precision of where each of them was recorded, which was desirable due to the biogeographic patterns of each species that were recorded relates to objective 3.

Evidence of the impact of commercial fishing - size structure

This last section of the results is incomplete and poorly analyzed. Presenting Figure 4 with the percentage distribution of total length of all species masks which species show an apparent decrease in length due to fishing; only general population structures are observed. In any case, reference must be made again to Table 1, which contains the length intervals by species, highlighting together with Figure 4 which of the 39 species in each geographical area are the shortest in length, and only then can it be compared between these for the supposed consequence of fishing. Furthermore, length is just one of the factors that can be used as an indicator of fishing; the total weight of the catch by species and the CPUE of each species could also be included for further analysis, among others. With the information presented, it is not possible to verify objective 4, in addition to the fact that the average weight, as proposed in the latter, was not included in it. Nowhere in the results is it clarified why the Mann-Whitney U test was used and what was possible to compare with it.

DISCUSSION

This section only argues general approaches to the results. I consider that they could have made a better discussion compared to information from other bibliographies of similar regions with similar problems, since the one used in this section is only from the coast of Brazil. Even so, comparisons were not made between the 1996-1998 data and the most current data for Brazil. The tables and figures presented contain information that could be compared and discussed more broadly, for example, on the composition of the species in the North, A.T.C., and South zones that is related to their regional geographic distribution. Likewise, about the changes that have been observed in subsequent publications from the study region on the lengths and average weight of the species as a more complete way to confirm the effects of fishing from 1996-1998 to date, which is not clear only with general approximations, especially due to the approach of the objectives of this study.

My opinion is that this manuscript cannot be published with the current structure; it must be reviewed in greater depth to achieve a more precise version, with greater statistical formality and with the better-compared information that was already included in this first essay. In this way, it will be more convincing and transcendent due to the age of the data.