Review of: "The Growth Performance of Nile Tilapia (Oreochromis Niloticus) Fed Low-Cost Fish Feeds Formulated From Fish By-Products, Fishery By-Catch and Pig Blood-Meal"

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Potential competing interests: No potential competing interests to declare.

The study is justifiable because it explores an alternative approach to reducing aquaculture feed costs, aspects that are well outlined in the introduction section of the article.

I make some recommendations:

1. The paper must be enhanced for clarity of expression in the English language.
2. The *Abstract* should be revised; it should be more concise and specific in terms of objectives, obtained results, and main conclusions.
3. Also, there is a tricky statement related to the experimental design:

"… seven fish diets … Twenty fingerlings, average weight 0.6 ± 0.02g, were stocked per aquarium and replicated three times….

So: 7 diets x 20 fish x 3 replicas = 420 fish (fingerlings) minimum

1. In *Materials and Methods/Experimental setup and design*, it is written:

"*A total of 160 O. niloticus fingerlings were used in this study with a stocking rate of 20 fish per aquarium. The average initial body weight of the fingerlings used in this study was 0.6 ± 0.02g*."

So: 160 fish/20 fish per aquarium = 8 aquariums.

In my opinion, these 8 aquariums correspond to those 7 diets stated in the abstract + 1 commercial diet = 8 experimental diets. Therefore, a rational doubt is raised - the experiment was carried out without replicas.

1. In Materials and Methods/ Microbiological sample collection and analysis – I have not seen further results that support and justify the presence of this methodology.
2. In my opinion, the subsections *Collection of fishery by-products, fishery by-catch and blood meal* & *Feed ingredients* & *Diet Formulation, Preparation and Composition* could be unified under one subsection.
3. Also, the subsections *Proximate Analysis* & *Determination of Energy Value* could be unified under one subsection.

4. In the subsection *Measurement of Biological Parameters* - the growth parameters are repeated...I would rephrase the paragraph ... „*The growth performance parameters calculated include total weight gain (TWG), specific growth rate (SGR) (%/day), feed conversion ratio (FCR), protein efficiency ratio (PER), Feed Intake (FI), and percentage survival rate (%SR)* by sorting the enumeration and leave only the part of the formulas, like this:

The growth performance parameters were calculated using the following formulae: ….

5. In the section of *Results*/subsection *Growth performance of fish* , it is table 6 where presented the initial mean weights ranging between diets from 0.9 to 1.08 g/fish.

I will take as an example the commercial diet where the initial mean weight was 1.08 ± 0.10 and after 11 weeks reached 2.87 ± 0.30. So, in **one week** (7 days) of adaptation in aquariums, the fish grew from 0.6 g to 1.08 g, and after **11 weeks** (77 days), only to 2.87 g? Consequently, please check if SGR was correctly determined!? I have limited experience with tilapia, but I know that after the hatchling period, the tilapia fry is fast-growing with a commercial diet. Maybe it was the influence of the lower temperature (16 ^{o}C) … here, the authors must explain the obtained values.

Due to the inconsistencies in reporting the data that are raising technical concerns to me as a reviewer, I consider this a critical flaw - an aspect which led, unfortunately, to recommending the paper's rejection to the editor.