

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Reviewer Report 06 April 2022

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Fatimah Hashim

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I have evaluated this article and found the description of the approach taken for this study to be very appropriate, and each description is very detailed. Comparisons between previous studies are also fully informed in this article. I strongly support the following step of indexing of this article for the sharing of information on the reproductive characteristics of the giant gurami sago. I only found that a few corrections to the abstract need to be made, wherein the method section and the brand name need to be deleted from this section.

Is the work clearly and accurately presented and does it cite the current literature?

Yes

Is the study design appropriate and is the work technically sound?

Yes

Are sufficient details of methods and analysis provided to allow replication by others?

Yes

If applicable, is the statistical analysis and its interpretation appropriate?

Yes

Are all the source data underlying the results available to ensure full reproducibility?

Yes

Are the conclusions drawn adequately supported by the results?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Fish amoeba, protozoology, cell biology

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Revised for Fatimah Hashim

Methods: A total of 10 female and 10 male mature gourami sago strain broodfish were measured for body weight and length and were evaluated for their reproductive characteristics. Breeding fish were spawned naturally in a 2×1×0.6 m concrete pond with a male-female sex ratio of 1:1. Egg weight and diameter were measured in 25 eggs per female. Semen was collected using plastic syringes in 3 mL aliquots, then placed in an insulated ice-cooled container and analyzed within two hours of collection.

Revised for

The gourami sago strain was approved as a candidate for freshwater aquaculture in 2018 (Decree of the Ministry of Marine and Fisheries, Republic of Indonesia No.56/KEPMEN-KP/2018). The gourami sago strain is an endemic strain in Lima Puluh Kota District, West Sumatra Province. In this strain, the head, caudal and dorsal fins are yellowish red. The morphometric character between the sago gourami strain and the different palapa, tambago, krista, and jepun strains is the distance between the base of the dorsal fin to the tip of the anal fin and the lower part of the pelvic fin is higher¹⁹. However, they have not been able to contribute majorly to freshwater aquaculture production in Indonesia. Although the gourami sago strain has been approved as a candidate for aquaculture production, its distribution is limited in the West Sumatra Province of Indonesia.^{17,18}. Therefore the development of its hatchery is necessary to be able to contribute to the production of freshwater aquaculture. The gourami sago strain is considered to support food security along with many other freshwater fish species in Indonesia.