

## Review of: "Captive breeding and larval rearing of the endemic ornamental fish Moustached Danio, Danio dangila (Hamilton, 1822) – First report"

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Potential competing interests: No potential competing interests to declare.

At the beginning It seemed no nobel knowledge was generated in this work. There are thousands of articles describing different aspects of fish reproduction in captivity and Danio reiro is one of the most studied spieces (Santaka et al., 2022; Sumon et al., 2022; Zhong et al., 2022). However, controlled reproduction and larval rearing of Danio dangila is barely mentioned in literature.

Controlled reproduction in fish is a bottleneck in aquaculture. Several critical aspects turn this stage into one of the most difficult, generally ending with low values of survival (Nuetzel et al., 2022; Varga et al., 2022). Authors did a great job fine-tuning the technique of captive breeding. They have evaluated different doses of the synthetic hormone WOVA-FH, determining the best dose for females and males in order to get the highest egg production, fertilization, and hatching rate.

Another problem of aquaculture is the search of an adequate larvicultura system. Depending on the species cultivated, physicochemical parameters of the water and the system used varies greatly (Ekasari et al., 2022; Tansuka et al., 2022). Thus, in this work they have also evaluated two larval rearing systems, Nursery Raceways and FRP tanks, indicating which presented the best results.

The only critic for this work is not detailing the interest for this species. Are these results going to be applied for fish production aiming repopulation or commercialization?

Ekasari, J., Napitupulu, A. D., Djurstedt, M., Wiyoto, W., Baruah, K., & Kiessling, A. (2022). Production performance, fillet quality and cost effectiveness of red Tilapia (Oreochromis sp.) culture in different biofloc systems. Aquaculture, 738956. Nuetzel, H. M., Galbreath, P. F., Staton, B. A., Crump, C. A., Naylor, L. M., & Shippentower, G. E. (2022). Improved productivity of naturalized spring Chinook salmon following reintroduction from a hatchery stock in Lookingglass Creek, Oregon. Canadian Journal of Fisheries and Aquatic Sciences.

Santacà, M., Devigili, A., & Gasparini, C. (2022). Timing matters: female receptivity and mate choice in the zebrafish (Danio rerio). Behavioral Ecology and Sociobiology, 76(11), 1-10.

Sumon, M. A. A., Molla, M. H. R., Hakeem, I. J., Ahammad, F., Amran, R. H., Jamal, M. T., ... & Brown, C. L. (2022). Epigenetics and Probiotics Application toward the Modulation of Fish Reproductive Performance. Fishes 2022, 7, 189. Tansuka, M., Taqwa, F. H., & Mukti, R. C. (2022). The optimatization of kissing gourami (Helostoma temminckii) fry density in recirculation system culture. Jurnal Lahan Suboptimal: Journal of Suboptimal Lands, 11(2), 147-153.



Varga, Á., Kucska, B., Horváth, J., Szabó, T., Ljubobratović, U., Türker, B., ... & Müller, T. (2022). Observations on tank spawning of pikeperch females without male combined with ovarian lavage.

Zhong, L., Wu, L., Ru, H., Wei, N., Yao, F., Zhang, H., ... & Li, Y. (2022). Sex-specific thyroid disruption caused by phenanthrene in adult zebrafish (Danio rerio). Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology, 109484.