**Determination of The Most Suitable Spawning Substrate for Neon Tetra (*Paracheirodon innesi*, Myers 1936) in Captive Conditions**

**MKTW Jinadasa 1\*, CN Walpita1, AR Mudalige 2, KPNNS Jayarathne 2**

*1Department of Livestock Production, Faculty of Agricultural Sciences, Sabaragamuwa University of Sri Lanka*

*2 National Aquaculture Development Authority of Sri Lanka (NAQDA)*

\*[*kthathsarani96@gmail.com*](mailto:kthathsarani96@gmail.com)

Neon tetra (*Paracheirodon innesi*) is one of the most popular freshwater ornamental fish species, which highly demand in ornamental fish trade. However, these fish can be very difficult to spawn if environmental conditions are not ideal. The production of Neon tetra in Sri Lanka is inadequate to fulfil the demand in export market. Development of captive breeding and larval rearing techniques are found as an effective strategy to increase commercially available stocks, which will also lead to ensure the sustainable utilization as a valuable resource. Hence, the objective of this study was to determine the most suitable substrate for successful breeding of Neon tetra in captivity. Four types of substrate materials; pebbles, synthetic net, aquatic plant (*Cabomba* spp) and coconut fiber were provided with stilled water in 15 inches × 8 inches × 6 inches size indoor glass tanks and four replicates for each treatment were used. Selected individuals were introduced into each tank at 1:1 male to female ratio. Completely Randomized Design was used as the experimental design and produced fry number was counted. Data were analyzed using Microsoft excel. Better fry number was observed in the substrate of aquatic plant net (233±6) when compared to other three (synthetic net 220±18, pebbles 144±10, coconut fiber 108±18). Similar result was observed in the hatchability and the survival rate. Results of this study revealed that the most suitable breeding substrate for the Neon tetra in indoor glass tanks was the substrate of aquatic plants.

**Keywords:** *captive breeding, Neon tetra, Paracheirodon innesi, spawning substrate*