**The Influence of Stocking Density on Growth Performances of Neon Tetra (*Paracheirodon innesi*, Myers,1936) Under the Aquarium Conditions**

**MS Artharpaul 1\*, CN Walpita 1, AR Mudalige 2, KPNNS Jayarathne 2**

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

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

*madushasurangi95@gmail.com*

Neon tetra (*Paracheirodon innesi*) is one of the most valuable fish species in the ornamental fish trade and they have a high demand in local and foreign market. Also, Neon tetra is an expensive community fish whose stocking densities are not yet optimized for commercial rearing under controlled conditions. Therefore, this study was carried out to determine the best stocking density for Neon tetra under controlled conditions. Four different stocking densities, namely 2 fry/L, 3 fry/L, 4 fry/L and 5 fry/L were tested for a period of six weeks for growth parameters. Depending on the stocking densities, fish were stocked into glass tanks (2 feet × 1 feet × 1 feet). Four tanks were used as replicates. Each experimental tank was filled with the equal amount of water (45 Liter) and height of the water level was 10 inches. Proper aeration was given to each tank and one leaf of *Terminalia catappa* is placed in each tank for minimize the ammonia level in the water. A total of 2520 of *P. innesi* fry (TBL = 1± 0.00046 cm) were collected, weighed, measured their total length and stocked in glass tanks. Fish fry were fed with formulated powdered feed at a rate of 10% of the body weight. Further, the feeding amount was increased weekly at a rate of 25%. Every day in the morning and evening after the feeding the glass tanks were cleaned and 25% of water was replaced with fresh water. Uniform management practices were done to all treatments and replicates throughout the experimental period. Also, body weight, total body length and water quality parameters (pH, dissolved oxygen level, temperature and ammonia level) were measured throughout the experimental period. No mortality was recorded during whole experimental period within treatments and replicates. At the end of the experiment, 2 fry/L and 3 fry/L were showed a significantly higher value in body weight, total body length, weight gain (WG), length gain (LG), specific growth rate (SGR) and condition factor (K-factor). Best growth performances resulted in 2 fry/L and 3 fry/L stocking densities in Neon tetra under the culture conditions given in the study. However, according to this study, for aquaculture purposes, 3 fry/L is the best stocking density for Neon tetra fry.

**Keywords:** *controlled conditions, growth performances, Neon tetra, Paracheirodon innesi, stocking density*