

**FEEDING BEHAVIOUR OF TANK CLEANER (*Hyostomus plecostomus*)  
AND ITS IMPACT ON FISHING IN HURULUWEWA TANK,  
ANURADHAPURA**

**G.G.N. Rathnayake<sup>1</sup>, R.H.G.R. Wathsala<sup>1</sup>, A.P.S. Fernando<sup>2</sup>,  
T.V. Sundarabarathy<sup>3</sup> and D.S.B. Dissanayake<sup>4</sup>**

<sup>1</sup>*Department of Animal and Food Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura, Sri Lanka*

<sup>2</sup>*Department of Agricultural System, Faculty of Agriculture, Rajarata, University of Sri Lanka, Puliyankulama, Anuradhapura, Sri Lanka*

<sup>3</sup>*Department of Biological Science, Faculty of Applied Sciences, Rajarata University of Sri Lanka, Mihintale, Sri Lanka*

<sup>4</sup>*Department of Veterinary Pathobiology, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, Peradeniya, Sri Lanka*

Tank cleaner (*H. plecostomus*) plays a supportive role in an aquarium as a purifying fish. However, tank cleaner has become one of the invasive species in freshwater bodies in Sri Lanka at present. According to the records, Huruluwewa tank is one of the inland water bodies heavily infested by tank cleaners. Their impacts on fishing and aquatic biota are not yet fully revealed. Therefore, this study was carried out to study the feeding behavior of tank cleaners and assess the impact of them on fishing. Feeding behavior of tank cleaners was determined by gut content analysis using 20 fish samples fortnightly, collected from areas with decaying logs, grasses, mud and boulders in the tank. Their gut content consisted of 41% animal matter (fish scales, rays, bones and eggs), 17% sand grains, 16% phytoplankton, 15% stones and 11% unidentified materials, which confirmed their omnivorous feeding behavior. It was further revealed that, tank cleaners prefer animal matter than phytoplankton. Among the animal matter, comparatively higher percentages of eggs (43%), scales (36%), bones (40%) and scales (38%) were found in the areas with decaying logs, boulders, mud and grasses, respectively. Study results confirmed that, the tank cleaners predate on eggs and young stages of exotic and indigenous fish species. A questionnaire survey was conducted to analyze the impact of tank cleaners on fishing, using sixty fishermen and ten extension officers. According to Pearson correlation analysis, significant correlations ( $p < 0.05$ ) were observed between fish revenue, cost of fishing and the total catch with tank cleaners. The results revealed that, tank cleaners have increased the cost of fishing by increasing the effort of fishing and decreasing the fishing revenue.

**Keywords:** Feeding behavior, Fishing, Huruluwewa tank, Tank cleaner