

## ***A Review on Captive Breeding and Sustainable Trade of Selected Native Freshwater Fish Species Used in the Ornamental Fish Industry in Sri Lanka***

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Sri Lanka, one of the 35 global biodiversity hotspots, boasts 139 total freshwater fish species, 61 being endemic. Among various conservation initiatives targeting freshwater ichthyofauna, under the Fisheries and Aquatic Resources Act No 02 of 1996, eight fish species are export-restricted and can only be traded under strict regulations. This review study compiles information from 12 peer-reviewed sources from 1991 to 2024, with a special focus on the captive breeding of six export-restricted fish species, namely, Barred danio (*Devario Pathirana*), Cuming's barb (*Pethia cumingii*), Black ruby barb (*Pethia nigrofasciata*), Cherry barb (*Rohanella titteya*), Vateria flower rasbora (*Rasboroides vaterifloris*), Combtail (*Belontia signata*). Additionally, it includes three non-restricted species for exportation, namely Day's killifish (*Aplocheilus dayi*), Stone sucker (*Garra ceylonensis*), and Tiger loach (*Paracanthocobitis urophthalma*). These species are currently exported as popular aquarium fish, mainly through fish caught in the wild, which is unsustainable. In captive breeding, due to the lower fecundity and increased spawning interval between two successive spawnings in some fish species, maintaining backup broodstock is important when scaling up for a commercial scale. All these species possess significant potential for sustainable aquaculture due to the ease of captive breeding, their coloration, and diverse feeding habits. This compilation provides insights into achieving conservation gains through awareness, implementation of recovery plans, habitat protection, and utilizing indigenous fishes for long-term socioeconomic advancement as a potential source of foreign revenue through selective and captive breeding. However, extensive studies on the distribution of colorful varieties and the implementation and amendment of relevant rules and regulations to control the direct trade of wild-caught fish and the collection of broodstock for breeding purposes are crucial for enhancing the sustainability of the ornamental fish trade involving indigenous species.

**Keywords:** Global Aquarium Trade, Export, Indigenous Fish, Sustainable Aquaculture, Ornamental Fish