COMBTAIL (*Belontia signata*) AND ITS POTENTIAL FOR THE CONTROL OF TILAPIA (*Oreochromis spp*) RECRUITMENT

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Combtail (*Belontia signata*) is an endemic and endangered fresh water fish of Sri Lanka. The endangered status of this fish is due to exploitation as an ornamental fish, natural habitat degradation and introduction of exotic fish species such as tilapia (*Oreochromis mossambicus* and *O. niloticus*) and guppy (*Poecilia reticulata*). Since, combtail is a predatory, aggressive and territorial fish, the potentials of this fish as an effective biological control agent for exotics was examined.

A feeding trial was conducted for 6 weeks to find out a suitable feed for combtail fry. A formulated feed, mosquito larvae and guppy (1-7 day old) were used as treatments. Three - month old ten combtail fry were used in three replicates. The initiation of predatory behavior of the fish was found out by using different ages of combtail young and tilapia post larvae. In order to find out the predatory efficiency of comptail, different age combinations of combtail and tilapia (1: 10 ratio) were used and results were compared with control experiment after 24 h.

There was no significant difference of between three types of feeds on the growth of combtail. The initiation of predatory behaviuor of combtail could be observed when they were 70 – 80 day old. The predation of tilapia by combtail was observed, significantly in combtail and tilapia combinations, whereas in all the control groups the mortality of tilapia was 0%. This infers that the presence of combtail has a significant effect on the survival rate of tilapia. The age difference between combtail and tilapia is crucial for predation. Young tilapias were highly susceptible to predation. This study infers that there is a possibility to use combtail as a biological control agent on exotic fish species, if properly managed.