

SOME OBSERVATIONS ON THE IMPORTANCE OF *Aponogeton rigidifolius* IN ENDEMIC FISH BREEDING HABITATS

A.S.L.E. Corea, M.S.S. Jayasekara and N.N.E. Cooray

National Aquatic Resources Research and Development agency (NARA),
Crow Island, Mattakkuliya, Colombo 15, Sri Lanka

Aponogeton rigidifolius is an endemic aquatic plant with thin long leaves extending to over 0.5m in length. This species is mainly found in streams in the wet zone.

Fish species associated with *A. rigidifolius* were sampled using a drag net made of mosquito netting material. The net was dragged 10 times and the mean number of fish caught per net was recorded. In areas with a dense population of *A. rigidifolius* (82 ± 6.33 plants / m²) with leaf size 46 ± 10.2 cm, the number of *R. vaterifloris* collected per net sample was 32 ± 5.6 . The size range of fish collected was 0.8 – 3.0 cm. In the areas with dense patches of *A. rigidifolius*, the dominant species was *R. vaterifloris*. The number of *R. vaterifloris* caught per net sample in areas where there were no *A. rigidifolius* was < 10 , and the size range of fish in these areas was 1.4 – 2.8 cm. The fry which were < 1.2 cm in total length were found only in association with *A. rigidifolius*. They were found in these habitats throughout the year.

A total of 600 plants of *A. rigidifolius* was introduced to a site of 10 m² in the same stream devoid of vegetation. At the point of introduction two endemic species, namely *Belontia signata* (size 1.5 – 6.0 cm, 14 ± 2.33 fish / net) and *Puntius titteya* (size 1.5 – 3.0 cm, 6 ± 1.1 fish / net) were observed at the site of introduction. In addition, four indigenous fish species were also found at this site. Their numbers were less than 5 fish / net. When the leaves of *A. rigidifolius* reached a length of 30.4 ± 4.21 cm, 0.3 fish / net of *R. vaterifloris* were recorded at this site together with *B. signata* and *P. tilloya*.

After 5 months of introduction, the leaves of *A. rigidifolius* has grown to a length of > 50 cm and the populations of *R. vaterifloris* has increased to 5 ± 1.66 individuals / net without a reduction in the population size of *B. signata* and *P. titteya*.

This indicates that *R. vaterifloris* appears to select habitats with *A. rigidifolius* for breeding. However, further studies are needed to understand the relationship between *A. rigidifolius* and *R. vaterifloris*.

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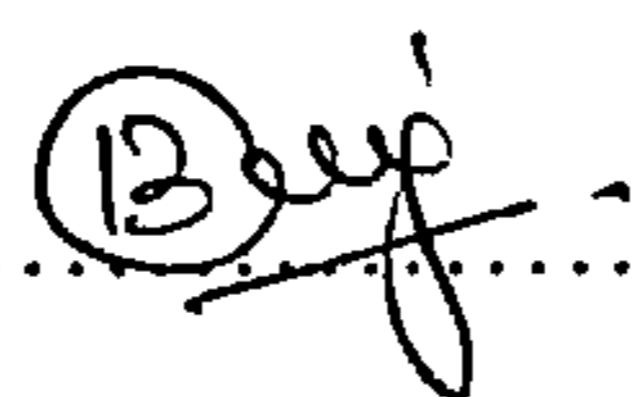
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