

INVASION SUCCESS OF *CABOMBA FURCATA* IN THE WET ZONE OF SRI LANKA THROUGH VEGETATIVE REPRODUCTION STRATEGIES

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Cabomba furcata Schult. & Schult. f., is a submerged aquatic plant with an ornamental value. It occurs naturally in the Kalutara District and is identified as a potentially invasive plant. Recent studies have recorded the plant in parts of the Colombo and Galle districts, indicating its ability to extend territory. The knowledge of the mode of propagation of invasive plants is important in managing their further invasions. Therefore, the study aimed to evaluate vegetative propagation in the spread and establishment of *C. furcata*. Nodal stem parts at different maturity stages (terminal, middle and basal) were laid out in a Completely Randomized Design (n=144) and investigated their ability to propagate. The terminal parts recorded the best growth and survival. Hence, terminal fragments with single to six nodes were used to investigate the ability to propagate. Data were subjected to ANOVA and Tukey Multiple Comparison analysis using R software. The highest survival rate was recorded in terminal fragments (98%), followed by the middle fragments (85%). The mean number of roots produced by the terminal fragments was significantly high ($p>0.05$) compared to other maturity stages. Hence, the terminal fragments could be considered as having the highest capability of contributing to invasion. In the second experiment, all the fragmented terminal stem parts increased their length and produced new shoots and roots, while the fragments with four nodes had the highest survival and growth parameters. Hence, four nodal terminal fragments performed better than other nodal fragments. The capability of fragments to regenerate into new plants could be a reason for the invasion success of *C. furcata*. In addition, as even a single nodal fragment is capable of regenerating, thus any attempts at mechanical control/removal should be carried out with utmost care to minimize fragmentation.

Keywords: *Cabomba furcata*, Invasive aquatic plant, Mechanical control, Propagation, Stem fragmentation