

STAND COMPOSITION AND DISTRIBUTION OF CRITICALLY ENDANGERED MANGROVE *LUMNITZERA LITTOREA* (JACK) VOIGT IN SRI LANKA

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Lumnitzera littorea is a critically endangered true mangrove species recorded only from the Madu Ganga RAMSAR site until the recent past. A new population was recently recorded from the Bentota estuary, indicating an expansion of its population size and distribution range in Sri Lanka. The objective of this study was to discuss the stand structure and distribution of *L. littorea* in Sri Lanka. A transect, divided into 10 m × 10 m quadrats, was used to collect density data and to examine differences between *L. littorea* populations between the two sites. The Shannon Diversity index, together with the Hutcheson t-test, Shannon Evenness, and Simpson index, were used to calculate and compare the diversity in both sites. The diversity indices indicate that the two sites were not significantly different in terms of diversity. A total of 31 trees of *L. littorea* from the Madu Ganga and > 200 trees and saplings from the Bentota estuary were recorded. Moreover, the mean gbh (4.49±1.56 cm) and the mean height (4.74±1.29 m) of *L. littorea* in the Bentota estuary indicate that this population is represented by a young population. In contrast, the population in the Madu Ganga is a mature population with low regeneration potential (height - 13.56±2.4 m; gbh - 30.56±8.49 cm). Therefore, this new population could significantly contribute towards seed production; thus, future efforts are imperative to conserve this Critically Endangered mangrove in Sri Lanka. Since the *L. littorea* patch in the Bentota estuary is facing numerous anthropogenic threats, appropriate conservation strategies are recommended to protect this new population.

Keywords: Bentota estuary, Critically endangered, Distribution, *Lumnitzera littorea*, Madu Ganga