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**IMPACT OF AN INVASIVE SPECIES *Myroxylon balsamum* (L.) HARMS ON
NATURAL VEGETATION OF DUNUMADALAWA RESERVE IN KANDY
DISTRICT**

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ABSTRACT

Invasive species are rare or inconspicuous in their native natural environment can become highly aggressive and dominant elsewhere. In Sri Lanka, invasiveness is common in the natural forest reserves. However, lack of information available about the invasiveness of most of the species in Sri Lanka. Therefore, a study was carried out at Dunumadalawa reserve in Kandy district to assess the impact of an invasive species, *Myroxylon balsamum* (L.) Harms on natural vegetations of the study area. Sampling was done randomly at 15 locations of the Dunumadalawa forest reserve with a square plot design at a dimension of 20m × 20m. The plots were categorized into three blocks namely block A: consisted only with *Myroxylon* species, block B: *Myroxylon* with ‘other species’ and block C: only with ‘other species’. Plant height and diameter at breast height (≥ 5 cm) were measured by using clinometer and diameter tape, respectively. The Shannon – Wiener Index (SWI) and important value index (IVI) and biomass of trees were estimated. From the analysis, a total of 28 tree species, 19 saplings species and 17 seedlings species were identified. A total number of seedlings (971,375/ha) were substantially high next to saplings (7,150/ha) and trees (690/ha) and this result revealed that regeneration status of *Myroxylon* was very high compare to other species. In the block where *Myroxylon* with ‘other species’, there was a low diversity recorded for seedling (1.5) and sapling (1.1) and this result indicate that areas were highly invaded by *Myroxylon* species. Based on the IVI, dominant species was *Ginisapu* (72%) and *Myroxylon* showed next (51%) in the block of *Myroxylon* and ‘other species’. The *Myroxylon* became more dominance due to high density (225 stems/ha), relative density (41%) and basal area (33 m²ha⁻¹). Total biomass was significantly high (597.25 tons/ha) in the areas where *Myroxylon* with ‘other species’, and the next is in the areas where only *Myroxylon* is available (461.4 tons/ha).

Keywords: Invasive plant, Impact, *Myroxylon balsamum*, Dunumadalawa, Kandy District