

Exotic and Invasive Alien Species of Plants in the Sabaragamuwa University Nature Reserve

D.H.M. Dangalla*, W.A. Ireshika, W.D.U. Premarathna, D.A.S.D.K. Wijewardena, H.M.A.A. Herath, S.J. Perera, and R.G.U. Jayalal

Department of Natural Resources, Faculty of Applied Sciences,
Sabaragamuwa University of Sri Lanka, Belihuloya, Sri Lanka.

*hasankadangalla@gamil.com

“Sabaragamuwa University Nature Reserve” (SaUNaR) is an institutionally managed protected area especially for watershed protection, which covers an extent of 13.2 Acres (about 10% of the total area of the university premises). This protected area provides different habitats for the rich native biodiversity it possesses. Exotic and invasive alien species (IAS) of plants marks a rapidly increasing threat to the native biodiversity around the world, in fact the second most serious threat to biodiversity according to the Millennium Ecosystem Assessment. Hence, we conducted an opportunistic survey covering the entire watershed area of the SaUNaR to explore exotic and IAS of plants in it. The survey recorded 15 exotic and 8 IAS of plants representing 17 families altogether. Shannon diversity index for exotic and invasive alien species are 1.68 and 2.24 respectively. Those IAS arranged according to their relative abundance in the study area can be given as; *Leucaena leucocephala* (0.33), *Acacia auriculiformis* (0.32), *Clidemia hirta* (0.11), *Panicum maximum* (0.08), *Austro eupatorium inulifolium* (0.07), *Alstonia macrophylla* (0.04), *Lantana camara* (0.03) and *Sphagneticola trilobata* (0.02). The study identifies the urgent need for implementation of a carefully designed IAS management plan that should include complete removal (eradication) by uprooting, hand pulling, or cutting of all above IAS, as all of them show high growth rates and higher level of impacts to native biota in the site. Exotic species found individually with least impact for native biota such as *Cupressus leylandii*, *Dracaena fragrans*, *Ficus benjamina*, *Citrus sp.*, *Salix sp.* and *Artocarpus altilis* are recommended to be remained under surveillance due to their food and shade value for the habitat and/or medicinal and ornamental values for the humanity.

Keywords: Exotic Plants, Invasive Alien Plants, Management Plan, SaUNaR