

# ALIEN INVASIVE PLANTS IN HORTON PLAINS NATIONAL PARK, SRI LANKA: CURRENT STATUS AND THEIR MANAGEMENT

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## ABSTRACT:

Spreading of alien invasive plants (AIP) is one of the major environmental threats to Sri Lankan native biota. Horton Plains National Park (HPNP) belongs to the montane climatic zone of Sri Lanka and one of the threats posed by this national park is spreading of alien invasive plant species. *Ageratina riparia*, *Aristea ecklonii* and *Ulex europaeus* are the well-established AIP species which were known to be found in the park. Although the *Ulex europaeus* has undergone a successful management program, other two invasive plant populations remain intact. In order to implement management strategies to control these two major invasive varieties, it is necessary to investigate their distribution status and the ecology. The main objective of this study was to assist an alien invasive plant species management program by evaluating the extent to which invasive species are located and to recommend how the program can manage these species effectively. Relative coverages of *Ageratina riparia*, *Aristea ecklonii* and *Ulex europaeus* were estimated in 2m x 2m quadrats that were established at 50m intervals along access roads and the nature trails of HPNP. Stratified random sampling technique was incorporated for the estimation of relative coverages of particular AIP species in different habitats of the park. Seven hotspot regions were identified for *Ageratina riparia* with a total coverage of 8.361ha. Four hotspot regions were identified for *Aristea ecklonii* with a total coverage of 4.5ha. No hotspot regions were identified for *Ulex europaeus* from the hotspot analysis. 87.25ha coverage of *Ageratina riparia* and 26.724ha coverage of *Aristea ecklonii* was calculated for different habitat types in HPNP. Therefore, total area of 126.835ha was estimated to be affected by these two IAP species alone. Total area of particular IAP coverages are 4% of the total area of Horton Plains National Park and it's a very alarming figure. Peripheral regions of HPNP, especially the access roads, are severely invaded by both *Ageratina riparia* and *Aristea ecklonii*. For a successful IAP management program these peripheral regions also have to be given priority.

**KEYWORDS:** *Ageratina riparia*, Alien Invasive Plants, *Aristea ecklonii*, Horton Plains National Park, *Ulex europaeus*