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Nature of the invasive species *Prosopis juliflora* in Sri Lanka

Prosopis juliflora (Fabaceae), native to Central and Northern South America, was introduced to Hambantota in early 1950's to improve the salt affected soils and the cover in this area. It has now become invasive and a serious threat to the Bundala national Park, the only wetland in Sri Lanka listed under the Ramsar Convention.

The main objectives of this research study were to find the distribution, impacts on native flora and human, factors contributing towards invasiveness, and possible control methods. The distribution of *P. juliflora* is limited to the two arid areas in Sri Lanka: Hambantota and Puttalam districts. Within the Bundala National Park it affects all types of vegetation except in the sand dunes. Among the identified indigenous flora within Hambantota area the most affected native tree species is *Salvadora persica*, one of the few species which shows affinities of Sri Lankan flora with that of African flora. The aggressive growth of this invasive species along the road side has become a problem to humans. It is preferred as a fuel wood but at present it is used on a small scale.

The plant is capable of producing a large number of fruits (60-80 per tree) and seeds (920-25 per pod). It is spreading fast via the cattle and monkey populations feeding on these. Germination trials showed the ability of seeds to germinate even in wet zone soil, a fact that Sri Lanka has to be concerned about.

As for control methods, cut and burning was tested for plants with different cover. Uprooting of only very small plants (with a maximum height of about 30cm) was effective but more mature plants regenerated even from small pieces of roots left. Cutting during drought season and cut and burning showed some effectiveness.

In this investigation a naturally occurring fungus (an Ascomycetes) and a Coleopteran beetle both capable of destroying the seeds have been isolated. Further research on biological control may become useful in future.

Taking all the facts into consideration *P. juliflora* is at a stage where it should be controlled without any delay. A proper Risk Assessment considering all positive and negative factors is suggested for the future.