

Progress in research on invasive alien species in Sri Lanka

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Invasive alien species (IAS) in Sri Lanka have been a popular topic in research conducted at various scales. However, several aspects of IAS in Sri Lanka have not been addressed. The existing information available is also found scattered among various locations. This has become a barrier for sharing information among interested parties. If data gaps are known, aspects that need to be addressed in the future could be easily identified. Collating of published information would overcome this obstacle. Towards this goal published research on IAS in various types of literature such as journals, newsletters, magazines, proceedings of conferences, symposia and technical sessions, were compiled into a bibliography. The IAS lists updated in 2015 were used to identify the IAS. Details of published research information were collected by visiting libraries of government and non-governmental institutions, browsing the related web sites, and through personal communications. The oldest publications on IAS flora and fauna date back to 1923 and 1948 respectively. Out of 470 records screened, 161 were published between years 2005-2010. Among the topics other than flora and fauna, 'IAS in Sri Lanka' was the most popular topic (33) followed by 'impacts of IAS' (30), while less than 5 publications covered communication & awareness, research needs, spatial mapping and economics of IAS. Only a few species have been subjected to in-depth investigations. Fish species have been paid more attention than other groups of fauna, and both *Oreochromis mosambicus*, and *O. niloticus*, Cichlids, *Poecilia reticulata* and *Cyprinus carpio* have been widely addressed compared to others. Among plant species many publications have been focused on genetics/germplasm studies, reproductive biology, germination and propagation, distribution and spread, potential uses, and allelopathy. However, no research information was available for plant species *Ulex europaeus*, *Parkinsonia aculeata*, *Pennisetum polystachyon*, *Mimosa invisa*, *Colocasia esculenta*, and *Aristeaec klonii*. Among the 15 potential invasive alien plant species identified, research publications were limited to 8 species and similarly, out of the 10 potential invasive animals only 5 species had published research information. The economics, distribution, biogeography, effect of climate change, restoration of degraded ecosystems, and social issues caused due to IAS also need urgent attention of researchers. Biotic interactions of IAS and their impacts on ecosystem services have been very poorly explored in Sri Lanka. Moreover, research on IAS in Sri Lanka lack publications on case studies of good IAS management practices, stories of success and failures in adaptive management and stakeholder involvement. The need for more governmental attention and financial assistance, to raise the research capacity of an island nation such as Sri Lanka, to minimize the spread and impact of IAS, cannot be overlooked any longer.

Key words: Invasive alien species, research, Sri Lanka.