

## Inventory of Invasive alien Plants in India

*Invasive alien plant species (IAPS) are serious threat to biodiversity, ecosystems and economies. In India, various publications and databases including those of BSI, NBA, ENVIS Centres, MoEF & CC and few state level inventories etc. give variable and very less number of IAPS Invasive Alien Plants in India. In present paper inventory of IAPS of India is prepared based on present available information for various parts of country. Total 1059 IAPS belonging to 587 genera and 142 families have been documented from various parts of India till now. The scientific names, their synonyms as appeared in various publications and native range is also being given. In terms of number of species, Asteraceae (131 species), Poaceae (103 species) and Fabaceae (76 species) are most dominant families and Solanum (21 species), Cyperus (20 species) and Ipomoea (19 species) are most dominant genera. The species of North and South America nativity are most dominant (184 species), followed by Afro-Eurasian (164 species), Asian (160 species) and Afro-Asian (84 species) nativity.*

**Key words:** Invasive alien plant species, Inventory, Database, Native range.

### Introduction

Invasive Alien Species (IAS) constitutes the second most serious threat to biodiversity after habitat destruction (Pimentel, 2000). The threat also includes environment, economies and humans (Perrings *et al.*, 2010; Hulme, 2012). They cause loss of native biodiversity (Dogra *et al.*, 2010), alteration in community structure (Sanders *et al.*, 2003) and alteration in ecosystem processes (Devine and Fei, 2011). The biological invasions are a classic example of a negative externality arising from economic decisions (Kathuria and Singh, 2012). IAS cause an estimated worldwide annual economic loss of US\$ 314 billion in agriculture and forestry, and India's share is about US\$ 116 billion (Pimentel, 2001). The economic damages and control costs of invasive species in five countries - the USA, South Africa, UK, Brazil and India - is US\$ 336 billion per year (Pimentel, 2000). The biological invasion has become a major ecological and environmental policy issue (Kannan *et al.*, 2013). However, in many countries including India, even standard inventories of invasive species are uncommon (Khuroo *et al.*, 2007; Pysek *et al.*, 2008). A comprehensive inventory of alien species of India is need of the hour (Reshi and Khuroo, 2012).

Various aspects of invasive alien plant species (IAPS) in India have been worked out by several researchers like Kohli *et al.*, 2004; Khuroo *et al.*, 2007; Dogra *et al.*, 2010; Bhatt *et al.*, 2012; Rao and Sagar, 2012; Shah and Reshi, 2015 etc. However, no recent data regarding number and magnitude of infestation of IAPS is available in India. The website of ENVIS centre on floral diversity (Botanical Survey of India) shows a list of same 173 IAPS which has been worked out by Reddy, 2008. India's fourth national report to the convention on biological diversity also mentions presence of 173 IAPS in India (MoEF, 2009). National Biodiversity Authority gives list of 62 IAPS in India as compiled

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India, belonging to 587  
genera and 142  
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parts of India.*

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