

Uninvited Company



Target 10: Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded

Invasive Alien Species (IAS) are plants, animals or microorganisms not native to an ecosystem, whose introduction threatens biodiversity, food security, health or economic development. While only a small percentage of organisms transported to new environments become invasive, the negative impacts can be extensive. Globally, the cost of damage caused by invasive species has been estimated to be US\$1.5 trillion per year – close to 5 per cent of global GDP. Estimates of costs within Europe alone are €12 billion.

Many ecosystems are affected by invasive species and they pose one of the biggest threats to biodiversity worldwide. Globalization through increased trade, transport, travel and tourism will inevitably increase the intentional or accidental introduction of organisms to new environments. Current predictions are that climate change will enhance the spread and

Emerald Ash Borer in the USA

In 2002, the beetle Emerald Ash Borer (native to Asia) was discovered in Michigan, USA. The infestation was not discovered in time to eradicate it and prevent its spread. In only five years, over 53 million native ash trees (*Fraxinus* spp.) were killed by the beetle, and over the following ten years the infestation is predicted to cost an estimated \$10.7 billion to treat, remove and replace the more than 17 million trees likely to be killed in urban areas alone.



Andrew Gapinski

impact of many existing invasive species, as well as potentially creating suitable conditions for presently non-invasive species to become so.

Prevention, through thwarting the international movement of IAS and rapid detection at borders, offers less costly measures than control and eradication. Deterring entry of IAS is carried out through inspections of international shipments, customs checks and proper quarantine regulations. Prevention requires collaboration among governments, economic sectors and non-governmental and international organizations.



Joachim Gratzfeld



RBG Melbourne



Claudia Balder



One successful example of countering a biological invasion is in Mauritius in the Western Indian Ocean. After ten years of weeding at sites infested with *Psidium cattleianum*, juveniles of rare native plant species (two presumed extinct, three critically endangered) were recorded, and vigorous regeneration of many other native species was noted. Interestingly, the same positive trend was also found for butterfly species at the sites.

Expat plants

The New Zealand Expat Plant project aims to identify New Zealand plants growing in collections overseas that could be used as international sentinels of emerging pests that might threaten New Zealand flora, should they be introduced into the country. Working together, botanic gardens could develop an international sentinel plant network, using the predictive power of their collections as an early warning system.



Roger Day

“A weed is a plant that has mastered every survival skill except for learning how to grow in rows.”
Doug Larson



Ivan Hoste

Infamous examples of IAS

Water hyacinth is a water weed that has clogged African lakes, is now widespread in Southeast Asia and has reached southern Europe. Its removal from 75 km of the Guadiana river in Spain has cost nearly 15 million euros.

Japanese knotweed, an ornamental plant introduced to Europe in the mid-nineteenth century, is one of the few terrestrial plants to be the subject of legislation – it is designated ‘controlled waste’ under UK law.

Find out more:

www.cbd.int/invasive
www.issg.org
www.cabi.org/isc