MINI GUIDE

Danger: Alien Invaders

Plants and animals in their native habitats have evolved alongside each other for very long periods. As a result, most species are in balance with each other and predators, pests and diseases keep individual species populations from expanding too rapidly.

When humans, deliberately or by accident, introduce a species into a new environment, the exotic or alien species can easily get out of control as it is now free of natural checks and balances.

Invasive species are a worldwide problem and are implicated in loss of biodiversity and habitat destruction in many countries.

Water Hyacinth *Eichhornia crassipes*
You can see this attractive plant in the tropical glasshouse pond. It is beautifully adapted to life in water with spongy air-filled swellings keeping its leaves erect towards the light. A native of Brazil, it is now a serious invader in more than 50 countries on all continents. It can double the area it occupies in only 12 days.

New Zealand Flatworm *Arthordendyus triangulata*
First spotted in Northern Ireland in 1963 and Scotland in 1965, this accidental introduction eats our native earthworms and so damages soil fertility as well as hitting species that feed on earthworms. Unfortunately, we have them here in the Botanic Garden!

Water Lettuce *Pistia stratiotes*
Another nicely adapted aquatic plant in the tropical glasshouse pond, water lettuce has spongy air-filled floating leaves covered in water-repellent hairs. Like water hyacinth, it spreads rapidly and is a serious problem in over 40 countries such as Sri Lanka, Ghana, Indonesia and Thailand.
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**Grey Squirrel** *Sciuris carolinensis*

The North American grey squirrel was deliberately introduced into Britain as an ornamental species in the late 19th century. Since then it has relentlessly driven out the native red squirrel from the south and reds are now increasingly confined to North England and Scotland. Greys are bigger and they feed more efficiently and so have an advantage. As well as threatening the native squirrels, they are very destructive of woodland and affect woodland bird populations. Dundee still has reds but the last red was seen in this Garden in 2002 and the many greys are now causing noticeable damage to our trees.

**Tropaeolum speciosum**

This climber from Chile is exceptionally attractive with its bright red petals and blue fruits. It’s a relative of our garden nasturtium and is considered a serious danger to forest ecosystems in New Zealand. It is also spreading rapidly in Scotland – you can see it in various positions in this Garden, most of them not deliberate plantings!

**Prickly Pear** *Opuntia ficus-indica*

This cactus, which you can see at the far corner of the temperate glasshouse, was introduced to Australia as a natural fence for agricultural land. It rapidly expanded its range and became a significant pest, now controlled by the South American *Cactoblastis* moth, whose larvae eat the plants.

**Rhododendron ponticum**

This plant was first cultivated in Britain in 1763 and became widely planted as game cover on sporting estates. It forms thick tangles of growth, blotting out the light for native ground cover plants and bridging streams. It attracts pollinating insects at the expense of other plants and it harbours fungal diseases which affect native trees – despite its beauty, *Rh. Ponticum* is an especially nasty invader!