

Statement

London's Exotic Flora



opium poppy © David Bevan

“The wild flowers of our towns and cities would be a drab lot if it weren’t for these immigrants. For they’re not only fascinating echoes of the human life in urban areas, but a vastly colourful collection.”
(Richard Mabey, 1973)

“Our flora has gone through a revolution as great as the colonization of these islands after the Ice Age. The change has been very sudden; the majority of these naturalized species have been introduced in the past 200 or 300 years. This is tremendously exciting.” (Martin Ingrouille, 1995)

Introduction

Origins

London plane, London rocket and Londonpride are London plants that are all, perhaps surprisingly, introductions from overseas. Together with a remarkable array of other introduced plants, these floral Londoners form a significant element of London’s vegetation. Twenty of the best known are listed at the end.

More than 40% of plants occurring in the wild that are described in the latest flora of the British Isles (Stace, 1997) have originated from overseas. In London that proportion is considerably exceeded and such introductions are more varied and

more significant here than anywhere else in Britain. Coming from many different parts of the world, they provide a truly international dimension to the Capital's flora and paint a vivid picture of the mixed cultural heritage of our city.

London's exotic flora has arrived here by many varied routes. A significant number have 'escaped' from gardens to become naturalized. Seeds of other plants were inadvertently brought in with imported materials such as birdseed, foodstuffs, timber, minerals and wool waste. As the country's largest trading and commercial centre, London has been historically rich in such seed sources but today, modern developments such as seed cleaning and containerization, as well as changes in world trade, have reduced this supply.

The 'heat island effect'

Many introductions come from warmer parts of the world and flourish in London as a consequence of the 'heat island effect'. In common with other large cities, the central, built-up part of London experiences higher temperatures than the periphery and surrounding countryside as the result of the urban environment's reflective surfaces and abundance of domestic and industrial heat sources. As a result, the centre of London has a reduced number of frosty nights, longer growing season and higher maximum temperatures in the summer. This brings the urban climate closer to that of the Mediterranean, allowing plants such as London rocket, Chinese mugwort, Guernsey fleabane, hoary mustard, and many other warmth-demanding species to thrive. Many such exotic plants are currently scarce outside London, but with global warming predicted to continue, they may spread to more of London in the future – some are already doing so of their own accord.

Gardens, hybrids and the botanical melting pot

The British are often characterized as a 'nation of gardeners' and nowhere is this more apparent than in London, where the number and variety of gardens is a striking feature. Many naturalized exotic London plants derive from such gardens, either as a result of seed dispersal (butterfly bush, michaelmas daisy, cotoneaster, antirrhinum etc.) or as 'cast-outs' of more vegetatively vigorous species (Japanese knotweed, ground-elder, Canadian golden-rod, snowberry etc.).

Occasionally such garden-derived species form spontaneous hybrids with their native relatives, and London supports a number of these unusual plants, some of which can be fully fertile. One example is the Highclere holly, now a feature of many London woods, which has arisen through hybridization between our native holly and a species from the Canary Islands. The most widespread bluebell in London, that provides us with such a welcome spring display, is a hybrid derived from the native species and the Spanish bluebell.

Concerns have been raised that this interbreeding might result in the eventual decline of the native parent. Intervention, however, may not always be appropriate or practical in urban London where the woodland flora is simply adapting to its surroundings, and the native and hybrid plants are difficult to tell apart. However, should this process spread to our internationally important native bluebell woods in the wider countryside, for example, prompt action would be needed.

There are other examples of hybridization, such as the sterile hybrid of the probably native sticky groundsel and the introduced Oxford ragwort, originally named after London (*Senecio x londinensis*). These events show evolution in action and may

sometimes lead to the appearance of new species in our Capital's botanical 'melting pot'.

Conservation Considerations

The biodiversity value of exotic flora

It is argued that because native plants in general support a greater variety of animal life than introductions, conservation management should favour the former. This is undoubtedly true as a generality in semi-natural habitats. However, it should also be remembered that there are many introduced plants that provide nectar for insects at times when native sources are in short supply, fruit for birds and mammals and, in the case of many coniferous trees, valuable nesting sites for birds. It is also the case that introductions can sometimes support a considerable biomass of the relatively few invertebrate species that have adapted to them. Sycamore is one well-known example, but there are many others as gardeners often discover to their dismay! Such large invertebrate populations can be an important source of food for insectivorous birds.

Encroaching 'problem' species

A small minority of introduced plants continue to cause significant problems in London through their vigorous growth and tendency to encroach on other vegetation. Such species will often need to be controlled where they threaten rare or declining species or their habitats.

Ponds and canals are particularly susceptible to encroaching flora. A notorious trio of aquatic introductions have had a particularly serious impact in recent years: New Zealand pigmyweed, parrot's-feather and, most recently, floating pennywort. All three are grown by aquarists and get discarded into ponds and other watercourses where they can spread at a remarkable rate. The tropical American water fern can also cause problems, but is rarely as persistent as the above three.

The control of these plants will be addressed as a priority in the relevant Habitat Action Plans. Plantlife is calling on the Government to introduce legislation to prohibit their sale and these proposals should be supported (Harper 2000).

A few terrestrial introductions also need to be controlled in some circumstances. Japanese knotweed and giant hogweed, whose deliberate introduction is outlawed by the Wildlife and Countryside Act (Schedule 9), are particularly well known examples. However, such plants make up only a small minority of London's introduced flora and it should be remembered that invasiveness is not a characteristic limited to exotics. In certain circumstances bracken, purple moor-grass, holly and sea buckthorn can be encroaching.

We need to balance the undoubted problems that some exotic species can create against the rich diversity, historical and cultural interest and the considerable local distinctiveness that the vast majority bring to the Capital. Most introductions are benign, and in urban areas the natural colonization of brownfield land by native and exotic species has formed communities that are distinctive and unique to cities. London would certainly be a drabber place without them.

Future Action

There are three major actions that need to be undertaken on behalf of London's exotic flora.

- There is an urgent need to increase understanding and recognition of the ecological and cultural values of exotic plants which add so much richness to our city's environment.
- Research into the history of London's more significant exotic plants would be of great assistance to conservationists in communicating these values.
- Conservationists need to recognize key problem species, some of which may be exotic, as a distinct group. Their distribution and spread need to be monitored and action taken where necessary. It is important that we do away with unhelpful native/non-native distinctions and promote management solutions to problem species on a case-by-case basis, whatever their origin.

In addition to these three major actions for the flora, the value of London's exotic fauna should be explored.

Further Reading

Gilbert, OL (1989). *The ecology of urban habitats*. Chapman and Hall.

Harper, M (2000). *At war with aliens*. Plantlife, London.

Ingrouille, M (1995). *Historical ecology of the British flora*. Chapman and Hall.

Mabey, R (1973). *The unofficial countryside*. Collins.

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Stace, C (1997). *New flora of the British Isles*. Ed.2. Cambridge University Press.

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