



Invasive non-native plants and the law

There are laws surrounding invasive non-native plants. Dumping unwanted plants, for example in a local stream or woodland, is an offence. It is also an offence to plant or otherwise cause to grow in the wild invasive non-native plants listed on Schedule 9 of the Wildlife and Countryside Act. Government has powers to ban the sale of invasive plants, although at the moment no such bans are in place.

Below are listed plants:

- on Schedule 9 of the Wildlife and Countryside Act in England and Wales (last updated April 2010);
- on Schedule 9 in Scotland (last updated June 2005);
- Plantlife would like added to Schedule 9; and
- Plantlife would like banned from sale.

Plants listed on Schedule 9 of the Wildlife and Countryside Act in England and Wales:

All species of the genus *Elodea* (waterweeds) (including Canadian waterweed *Elodea canadensis* & Nuttall's waterweed *Elodea nuttallii*)

Californian red seaweed *Pikea californica*

Curly waterweed *Lagarosiphon major*

Duck potato *Sagittaria latifolia*

Entire-leaved cotoneaster *Cotoneaster integrifolius*

Fallopia japonica x *Fallopia sachalinensis* (a hybrid knotweed)

False Virginia creeper *Parthenocissus inserta*

Fanwort (Carolina water-shield) *Cabomba caroliniana*

Few-flowered leek *Allium paradoxum*

Floating pennywort *Hydrocotyle ranunculoides*

Floating water primrose *Ludwigia peploides*

Giant hogweed *Heracleum mantegazzianum*

Giant kelp *Macrocystis pyrifera*, *M. angustifolia*, *M. integrifolia*, *M. laevis*

Giant knotweed *Fallopia sachalinensis*

Giant rhubarb *Gunnera tinctoria*

Giant salvinia *Salvinia molesta*

Green seafingers *Codium fragile*

Himalayan cotoneaster *Cotoneaster simonsii*

Hollyberry cotoneaster *Cotoneaster bullatus*

Hooked asparagus seaweed *Asparagopsis armata*

Hottentot-fig *Carpobrotus edulis*

Indian balsam *Impatiens glandulifera*

Japanese kelp *Laminaria japonica*

Japanese knotweed *Fallopia japonica*

Japanese rose *Rosa rugosa*

Japanese seaweed *Sargassum muticum*

Laver seaweeds (except native species) *Porphyra* species

Montbretia *Crocsmia x crocosmiiflora*

New Zealand pigmyweed *Crassula helmsii*

Parrot's-feather *Myriophyllum aquaticum*

Perfoliate Alexanders *Smyrniium perfoliatum*
Purple dewplant *Disphyma crassifolium*
Red algae *Grateloupia luxurians*
Rhododendron *Rhododendron ponticum*
Rhododendron *Rhododendron ponticum x Rhododendron maximum*
Small-leaved cotoneaster *Cotoneaster microphyllus*
Three-cornered garlic *Allium triquetrum*
Variegated yellow archangel *Lamiastrum galeobdolon* subsp. *argentatum*
Virginia creeper *Parthenocissus quinquefolia*
Wall Cotoneaster *Cotoneaster horizontalis*
Water fern *Azolla filiculoides*
Water hyacinth *Eichhornia crassipes*
Water lettuce *Pistia stratiotes*
Water primrose *Ludwigia grandiflora* / *Ludwigia uruguayensis*
Yellow azalea *Rhododendron luteum*
Wakame *Undaria pinnatifida*

Plants listed on Schedule 9 of the Wildlife and Countryside Act in Scotland:

Californian red seaweed *Pikea californica*
Curly waterweed *Lagarosiphon major*
False-acacia *Robinia pseudoacacia*
Fanwort *Cabomba caroliniana*
Few-flowered leek *Allium paradoxum*
Floating pennywort *Hydrocotyle ranunculoides*
Giant hogweed *Heracleum mantegazzianum*
Giant kelp *Macrocystis pyrifera*, *M. angustifolia*, *M. integrifolia*, *M. laevis*
Giant salvinia *Salvinia molesta*
Green seafingers *Codium fragile tomentosoides*
Hooked asparagus seaweed *Asparagopsis armata*
Hottentot-fig *Carpobrotus edulis*
Japanese kelp *Laminaria japonica*
Japanese knotweed *Fallopia japonica* (*Polygonum cuspidatum*)
Japanese seaweed *Sargassum muticum*
Laver seaweeds (except native species) *Porphyra* species
New Zealand pigmyweed *Crassula helmsii*
Parrot's-feather *Myriophyllum aquaticum*
Shallon *Gaultheria shallon*
Water fern *Azolla filiculoides*
Water hyacinth *Eichhornia crassipes*
Water lettuce *Pistia stratiotes*
Wakame *Undaria pinnatifida*

Invasive non-native plants Plantlife believes should also be added to Schedule 9:

American skunk-cabbage *Lysichiton americanus*
Asian skunk-cabbage *Lysichiton camtschatcensis*
Evergreen (Holm) oak *Quercus ilex*
False-acacia *Robinia pseudoacacia* (currently only listed in Scotland)
Himalayan knotweed *Persicaria wallichii*
Large-flowered waterweed *Egeria densa*
Ludwigia x kentiana (*L. palustris x repens*)

Marine green algae (seaweed) *Caulerpa racemosa*
Marine green algae (seaweed) *Caulerpa taxifolia*
Pickeralweed *Pontederia cordata*
Pirri-pirri-bur *Acaena novae-zelandiae*
Shallon *Gaultheria shallon* (currently only listed in Scotland)
Tree of heaven *Ailanthus altissima*
Turkey oak *Quercus cerris*

American skunk-cabbage *Lysichiton americanus* & Asian skunk-cabbage *L. camtschaticensis*

These plants are very commonly grown as bog garden plants and are widely available from garden centres and nurseries. They are commonly mistaken for each other and have the same invasive behaviour in the wild, so are treated here together.

Most plants in the wild probably arise through the dumping of garden material, as colonies quickly outgrow their space in most gardens. It is likely that some wild populations have become established from seed dispersed from nearby gardens. Introductions are probably a combination of deliberate dumping of surplus garden material and unintentional movement of seed from gardens.

Given the popularity of these plants in gardens and their continued introduction into the wild, it is likely that these two plants will increase. They can out-compete native plants and cause extensive damage locally.

Evergreen (holm) oak *Quercus ilex*

An evergreen tree used in parks, churchyards and large gardens, Evergreen Oak is now regenerating freely in parts of south and east England. It has become established in a range of key botanical sites particularly on dry limestone and chalk sites in coastal Britain. It has also achieved more localised establishment within heathland areas. Key botanical sites known to be affected include Avon Gorge (Somerset/Gloucestershire), Torbay Limestones (Devon), The Great Orme (Caernarfonshire) and Rame Head and Whitsand Bay (Cornwall), where a number of rare plants are threatened.

False-acacia *Robinia pseudoacacia*

False-acacia is extensively planted in Britain and spreads mainly by suckering. Plantlife believes this species has an ability to be a major pest. Although it is still localised in the wild at present, it is showing alarming signs of spreading in disturbed, ruderal habitats (for example on railway lines in the London area). Its rapid spread, suckering nature, spiny, impenetrable habit when established, and its ability to coppice freely once cut down mean that it is a major cause for concern. False-acacia is showing major signs of spreading in many parts of the globe. It has been recorded as an invasive in Canada, Europe (Cyprus, Czech Republic, France, Italy, Poland), Korea, Reunion, Swaziland, Turkey and the United States (where it is native in part, yet considered an invasive alien in 27 states). In France and Italy, the species is freely establishing in woodlands, much as Sycamore has done in the UK. Wherever woodlands are disturbed, the species establishes filling the gap, and spreading rapidly by suckering. We have the ability to control it in the wild in Britain at the present time, but it is likely to become a major established pest species in the coming decades.

Himalayan knotweed *Persicaria wallichii*

This plant has been grown in cultivation but is less so today. It is still present in some gardens and is still available commercially from some nurseries. As with similar plants (like Japanese Knotweed), this large plant (up to 2m tall) becomes established on streamsides, hedge banks, woodland edges, roadsides, railway banks and waste ground, where it grows into extremely dense stands that out-compete all native vegetation.

Large-flowered waterweed *Egeria densa*

This submerged aquatic plant is very popular in the freshwater aquarium trade. Plants are often discarded into the wild once they out-grow their tanks. It seems introductions as a result of dumping in the wild are continuing, and there is great fear that if our climate warms even slightly, the plant will 'take off', outcompete native plants and clog up waterways and drainage systems. Large-flowered Waterweed flowers only in warm water conditions - it was seen in flower for the first time in Surrey in 2006, having been recorded in the wild since 1950.

***Ludwigia x kentiana* (*L. palustris* x *repens*)**

The plant is grown in the ornamental aquatic trade for use in both aquaria and water gardens. It has been recorded from six sites in Britain. It can quickly outgrow aquaria and as a result is discarded in the wild.

It is vigorous and mat-forming and out-competes native plants growing in the same habitat. One of its parents (Hampshire purslane *Ludwigia palustris*) is a rare native plant found in seasonal ponds and pools in the New Forest. The hybrid is sterile so it does not pose a threat to the genetic integrity of our native populations, but should the hybrid become established in the same habitat it is highly likely that it will out-complete our rare native.

Marine green algae (seaweeds) *Caulerpa taxifolia* & *Caulerpa racemosa*

Both these plants are very popular in the marine aquarium trade in Britain. In many countries the cause of introductions has been the discarding of surplus plant matter. They are two of the most rapidly increasing invasive marine algae known. According to the Invasive Species Specialist Group *Caulerpa taxifolia* is one of the top 100 invasive species on earth and it has successfully invaded four temperate regions worldwide, in spite of it being native to tropical regions.

Currently there are no reports of either species in the wild in Britain. They are a problem in the Mediterranean, however, and with predicted climatic changes we believe we should be wary of them. Alternative non-invasive marine aquarium algae are already widely available in the marine aquarium trade and we think these alternatives should be promoted.

Evidence suggests that *Caulerpa taxifolia* alters fish foraging behaviour, population structure and diversity, and has negative effects on other fauna and flora. *Caulerpa racemosa* has similar effects.

Pickerelweed *Pontederia cordata*

This plant is extremely popular in water gardens, where it is grown as a submerged or marginal plant in pools and ponds or as a bog plant. It is very widely available from garden centres and nurseries. These large, vigorous plants grow up to 1m tall and often out-grow their space in garden pools and ponds; they are then sometimes discarded into pools, ponds and gravel pits in the wild where they can outcompete native plants. It is likely that some populations also arise by deliberate planting in the wild by anglers wanting to 'improve' fishing ponds (no doubt without realising the problems the plants may cause).

Damaging effects on native vegetation have been observed at several sites in Britain, including in the New Forest.

Pirri-pirri-bur *Acaena novae-zelandiae*

Originating from Australia and New Zealand, this plant is spreading in Britain and has become established at many important wildlife sites. Introduction is mainly through the

dumping of garden material in the wild. From there it is easily spread by sheep and other animals. It becomes especially invasive when it establishes on cool, damp cliffs and upland habitats - often the very types of site where threatened native plants occur.

Shallon *Gaultheria shallon*

Planted as cover and food for game on shooting estates, Shallon has become a serious pest after colonising heathland and acidic woodland habitats. It can form dense evergreen stands which smother other vegetation and will regenerate rapidly even after an area has been cleared of it.

Tree of heaven *Ailanthus altissima*

This deciduous tree, originally from China, is very widely planted - in gardens, as a street-tree and in parks and public spaces. As well as getting into the wild by seed dispersal from gardens and parks, it is also spread by the dumping of excess material. Like Rhododendron, this plant prevents other vegetation from growing in the surrounding area by releasing toxic compounds. Attempts to control it by cutting result in more vigorous growth. It is not yet known to be causing problems at sites of botanical interest in the UK, but in some countries where it has already caused many problems, it is called the 'Tree of Hell'.

Turkey oak *Quercus cerris*

This deciduous tree has been planted in woodlands, estates, large gardens, in parks and along roads. It has now naturalised and is spreading into calcareous grassland and heathland. It has been recorded from a large number of SSSIs. Although many of these reports are of small numbers of the tree at the moment, Turkey Oak will undoubtedly continue to colonise open grassland and heathland areas, becoming a major nuisance in years to come.

Plants Plantlife would like to see banned from sale:

As even the most responsible gardener or fish-keeper cannot guarantee that invasive plants from their ponds or gardens won't get into the wild - as they can be easily carried out by the wind, birds, and other animals - Plantlife believes the most effective way to prevent invasive plants 'escaping' from gardens into the wild is to ban the sale of the most invasive species. There are over 70,000 plant varieties available to buy here. We are recommending a ban on sale of just a handful of the worst invaders:

Canadian waterweed *Elodea canadensis*

Carolina water-shield/fanwort *Cabomba caroliniana*

Caulerpa taxifolia and *Caulerpa racemosa* (marine algae/seaweed)

Creeping water-primrose *Ludwigia peploides*

Curly waterweed *Lagarosiphon major* (*Elodea crispata*)

Duck potato *Sagittaria latifolia*

Fallopia japonica x *Fallopia sachalinensis*

False Hampshire-purslane *Ludwigia x kentiana*

Few-flowered leek *Allium paradoxum*

Floating pennywort *Hydrocotyle ranunculoides*

Giant hogweed *Heracleum mantegazzianum*

Giant knotweed *Fallopia sachalinensis*

Hottentot fig *Carpobrotus edulis*

Indian (Himalayan) balsam *Impatiens glandulifera*
Japanese knotweed *Fallopia japonica*
Large-flowered waterweed *Egeria densa*
Large-flowered water-primrose *Ludwigia grandiflora* / *Ludwigia uruguayensis*
New Zealand pigmyweed (Australian swamp-stonecrop) *Crassula helmsii*
Nuttall's waterweed *Elodea nuttalli*
Parrot's-feather *Myriophyllum aquaticum*
Pirri-pirri bur *Acaena novae-zealandia*
Prickly heath *Gaultheria mucronata*
Purple dewplant *Disphyma crassifolium*
Rhododendron ponticum x *Rhododendron maximum*
Rhododendron *Rhododendron ponticum*
Shallon *Gaultheria shallon*
Three-cornered garlic *Allium triquetrum*
Variegated yellow archangel *Lamiastrum galeobdolon* ssp *argentatum*
Water fern *Azolla filiculoides*
Water lettuce *Pistia stratiotes*