

## Himalayan balsam



Himalayan balsam (*Impatiens glandulifera*) is an invasive terrestrial plant species that was first introduced in 1839 as an ornamental garden plant. Since it was introduced, it has spread to most parts of Northern Ireland and Ireland. In its home range, the Himalayas, it has adapted to develop thousands of seeds due to the nutrient poor soil and cold temperatures. Unfortunately due to our warmer climate and nutrient rich soils it has thrived here and became highly invasive.

It is the tallest annual plant (completes its life cycle in one year) in Ireland and due to its rapid growth, it shades out most of our native species, leaving banks bare in the winter time.

The species is particularly frequent in damp soil areas such as along the banks of watercourses, where it often forms continuous stands. It can also establish in damp woodland, flushes and mires.

### Identification

You can download an identification sheet from the following link: [Himalayan Balsam \(\*Impatiens glandulifera\*\)](#)

Key features of this plant include:

- Grows up to 3 metres in height.
- Large purplish to pale pink flowers in June – October.
- Hanging explosive seed pods that can throw seeds over 6 metres away from the plant.
- Hexagonal hollow stems that are reddish in colour.
- Dark green leaves, lance-shaped leaves with serrated edges.

### Impacts and key issues

Himalayan balsam is known to reduce native plant diversity by approximately two thirds,

according to some figures. This effect can be detected at both small and riverbank scales. It is possible to successfully control or eradicate Himalayan balsam from infested sites. However, while removal of Himalayan balsam increases plant diversity, the species that respond most dramatically are commonly other non-native plants. It is recommended that efforts are made to enhance native species, as part of a control programme.

The risk assessment carried out by Invasive Species Ireland identified Himalayan balsam as one of the highest risk non-native invasive species in Ireland. This is largely due to its impact on native waterside vegetation within designated sites. Since the species is rapidly expanding its range, a major concern is that Himalayan balsam will dominate waterside vegetation and damp ground across Ireland, at the expense of native species.

There appears to be no direct detrimental impact on animal life. However, recent research suggests it competes for pollinators such as bumblebees with the native riverbank species, and so reduces pollination of other plants.

In the autumn, the plants die back, leaving the banks bare of vegetation and vulnerable to erosion, leading to knock on effects such as the increased siltation of fish spawning grounds as well as bank instability and therefore increased flood risk.

The following provides a summary of the key impacts of the species:

- Excludes native species.
- Leaves river banks exposed to erosion in winter.
- Subsequent potential sedimentation impact on fish spawning areas.
- Attracts pollinating insects away from native species.
- Increased risk of flooding due to siltation of water courses and bank instability.
- Main transmission route via water courses.

### **Management summary**

#### ***Non-chemical control***

- Cutting: Cut at ground level (the plant must be cut below the lowest node to stop regeneration) using a scythe, flail or strimmer before the flowering stage in June. Cutting earlier than this will promote greater seed production from plants that regrow. Cutting should be repeated annually until no more growth occurs.
- Pulling: Shallow-rooted plants can be pulled up very easily.
- Biological: Grazing by cattle and sheep is effective from April throughout the growing season in some situations. It should be continued until no new growth occurs. Grazing on riverbank habitats can however have negative impacts such as poaching of river banks and the removal of other native vegetation which may act as a buffer zone. There is encouraging evidence for the potential for biological control through research ongoing in GB.

#### ***Chemical control***

- Treatment by herbicide can be achieved with a weed wiper in mixed stands, or by foliar spray in dense stands.
- Repeat checks will be required on a monthly basis for any late germinating seeds. Repeat checks should be carried out each year throughout the growing season to prevent any new plants from setting seed until no further growth is found
- Plants should be sprayed in the spring before flowering but late enough to ensure that germinating seedlings have grown up sufficiently to be adequately covered by the spray.
- A long-lance sprayer may assist in the spraying of less accessible areas out of the reach of conventional knapsack sprayers.
- Glyphosate has been shown to be effective in controlling Himalayan balsam. It is sold under a number of brand names; some are not licensed for use near water. Always read the label. Other herbicides which contain the active ingredient 2,4-d amine can be used to control Himalayan balsam in some situations. However most products which contain the active ingredient 2, 4- d amine are however not approved for use near water where Himalayan balsam typically grows.

### ***In general***

- It is essential to establish vegetation quickly after control measures have been applied to prevent erosion of the river bank. It is important to be aware that Glyphosate based products will also kill other species, such as grass, where the Himalayan balsam occurs in mixed vegetation. A dense grass sward tends to discourage seed germination. Control should be undertaken on a catchment basis, working from the upstream end to prevent seed recolonisation.

### **Himalayan balsam treatment times**

To avoid additional spread do not disturb plants if seed pods are visible. Programmes should be undertaken initially in from April to Mid June prior to seed pods forming. Typically it is easier to identify Himalayan balsam, particularly in mixed vegetation, from May onwards. Following this initial early season treatment follow up checks should be undertaken on a monthly basis as seeds will continue to germinate throughout the growing season. If hand pulling isolated plants after this time, bag the plant tops to prevent seed spread.

### **Himalayan balsam on adjacent sites**

It is particularly important to consider Himalayan balsam in the wider environment around a particular site. If this species is growing in an adjacent site, or upstream of a site on a riverbank, then no matter how good on-site control is, re-colonisation is likely. An understanding of distribution in the wider area is necessary to determine if eradication or control efforts are likely to be successful. In some situations, eradication of all Himalayan balsam on site might not be possible due to the likelihood of re-colonisation. For example where Himalayan balsam occurs close to your property boundary it is very likely that seeds will be projected from plants on the adjacent land. In a riverbank situation seeds can also be washed down from further upstream. Work in partnership with neighbouring landowners and those further upstream to tackle Himalayan balsam.

### **Further details on control measures**

Small infestations (most common in gardens) can easily be controlled by hand-pulling as the species is shallow rooted. Padded gloves should be worn to avoid any risk of injury to the hands. Follow up checks will be required on a monthly basis throughout the growing season for any later germinating seeds followed by checks each year (during the growing season) until no new plants are observed.

Access to the sides of riverbanks can be difficult and inaccessible stands can quickly re-colonise accessible cleared areas, so vigilance is needed if an area is to be effectively cleared.