

Control and eradication of Invasive Non Native Plant Species in the UK

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Native Landscapes

- **Brief Introduction**
- **Invasive Weed Control**
- **Giant Hogweed**
- **Japanese Knotweed**
- **Himalayan Balsam**
- **Swamp Stonecrop**
- **Floating Pennywort**

Who Am I ?



- **Paul Sims N.D.H.**
- Studied horticulture at **Hadlow College**
- Worked as **Head Gardener** for 10 years
- Keen interest in **Native Plants** and ecology
- Moved from Essex to Suffolk in 2001
- Started **Native Landscapes** in 2005
- Specialise in **Invasive Weed Control**

Invasive Weed Control and The Law

- Invasive plant species are listed under Schedule 9 of the Wildlife and Countryside Act 1981
- As such it is an offence to plant or otherwise cause these plants to grow in the wild.
- It is not an offence to allow these plants to grow on privately owned land however landowners are responsible for preventing the further spread
- Manual and mechanical removal of these plants should be carried out in accordance with the relevant legislation (Health and Safety Act 1974)
- Chemical control of invasive weeds (next slide)

Chemical Control of Invasive Weeds



Chemical Control of Invasive Weeds

- Herbicide applications should be carried out by a suitably qualified person (N.P.T.C. PA1 and PA6)
- Only a suitably qualified person (N.P.T.C. PA6AW) can carry out herbicide applications in / near water
- Herbicide applications in or near water require approval in advance from the Environment Agency
- Application form AqHerb01 can be found on the Environment Agency website and should be sent at least 4 weeks in advance of the intended operation
- Contractors should be B.A.S.I.S registered to ensure compliance with current legislation and guidelines on herbicide storage and transportation

Regulations and Guidelines

The following regulations apply to private landowners and contractors who carry out control of invasive weeds

- The Health and Safety at Work Act etc 1974
- Wildlife and Countryside Act 1981
- The Food and Environment Protection Act 1985
- The Control of Pesticides Regulations (as amended) 1986
- The Plant Protection Products (Sustainable Use) Regulations 2012
- The Control of Substances Hazardous to Health Regulations 1994
- Environmental Protection Act 1990
- The Water Resources Act 1991
- ISO 14001 (Applies to Companies and Organizations)

Giant Hogweed



Giant Hogweed



Giant Hogweed

Description

- Each plant can grow up to 5m tall
- And can produce up to 5,000 seeds per year
- It forms dense colonies which shade out native vegetation
- Plants die back in the winter leaving bare ground which is susceptible to erosion especially along river banks.
- This species also poses a threat to public health. A toxic chemical in the sap sensitizes the skin which can lead to severe blistering when exposed to sunlight

Control Methods

- Best Method - Apply herbicide (Glyphosate) in late spring
- Dig up roots in winter with a spade (wear adequate P.P.E.)

Japanese Knotweed



Japanese Knotweed

Description

- **Introduced to Britain in the 19th century**
- **Spreads solely by vegetative means (no seed)**
- **New plants can grow from a tiny fragment of root or stem**
- **Forms dense colonies which outcompete native vegetation**
- **Causes negative impacts on local ecology and biodiversity**
- **The root rhizomes can cause serious damage to buildings and structures as they are able to penetrate concrete !**

Control Methods

- **Best Method - Stem Injection of herbicides in the autumn**
- **Mechanical removal and burial (on site or landfill £££ !)**

Himalayan Balsam



Himalayan Balsam

Description

- **Introduced to the UK in 1839 as an ornamental annual plant**
- **Attractive pink flowers from early summer to late autumn**
- **Each plant can produce up to 2000 exploding seed pods per year**
- **Can have significant negative impacts on ecology and biodiversity**
- **It forms dense stands 2-3m in height that outcompete native plants**
- **Himalayan balsam is a prolific nectar producer, meaning bees will preferentially visit these plants. This reduces seed production in native plant species and biodiversity as a whole.**
- **In winter, Himalayan balsam dies back, leaving land exposed and susceptible to erosion especially along river banks.**

Control Methods

- **Manual removal from late spring to mid autumn (pull and compost)**
- **Mechanical control from late spring to mid autumn (brush cutter)**
- **Herbicide applications from mid spring to mid autumn (glyphosate)**

Floating Pennywort

Key Identification Features

➤ Fleshy stalks

➤ Fine roots



Leaves can be floating or emergent



Shiny, kidney-shaped leaves with crinkled edge. Frequently broader than long up to 7cm

Floating Pennywort

Description

- Emergent or floating on the surface of still or slowly moving water
- First naturalised in 1990 from discarded private garden ponds
- Can grow up to 20cm per day and quickly dominate a water body
- Forms thick mats, impeding water flow and preventing amenity use
- Out-competes native aquatic plant species by blocking out light
- Causes water de-oxygenation and reduces water temperatures
- Obstructs amphibians and air breathing insects from reaching the water surface which reduces the biodiversity of the inhabited area

Control Methods

- Best Method - Manual removal carried out from May to October
- Herbicide applications carried out from late spring to early autumn
- Last Resort - Mechanical removal carried out mid to late summer

Australian Swamp Stonecrop



Australian Swamp Stonecrop

Description

- Grows around the margins of ponds and in water up to 3m deep
- First recorded natural occurrence was in Essex in 1956
- Spreads rapidly from small fragments to form a dense mat
- Out-competes all other native aquatic plant species
- Causes severe de-oxygenation by assimilating CO² for 20 hrs/day
- Creates a poorer ecosystem for invertebrates and fish

Control Methods

- Manual and mechanical removal are NOT recommended
- Herbicide applications carried out from late spring to early autumn
- Covering with plastic, aquatic dyes and burial are other options

How Can You Help ?

- **Keep an eye out for Invasive Plant Species !**
- **If you see an invasive plant record the location and take a photograph or use the PlantTracker app on your smartphone**
- **Send any information to Matt.Holden@suffolk.gov.uk**
- **Or send to: D.V.S.V.P. / Suffolk biological Record Centre**
- **Visit www.ceh.ac.uk for more information on control methods**
- **Carry out recommended control methods if necessary**
- **Be careful when removing plants next to water (2 people)**
- **Carry out follow up control methods if necessary**
- **Ensure contractors are fully qualified and BASIS registered**

Thank you for listening

ANY QUESTIONS ?

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