

Mr Tom Cliffe

Oak Mead,
Golly,
Burton Green,
Rossett,
Wrexham,
LL12 0AL

Biosecurity Risk Assessment

March 2023

Produced by



www.wildbanksconservation.com

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1 INTRODUCTION

- 1.1 Wildbanks Conservation was commissioned by Mr Tom Cliffe to prepare a Biosecurity Risk Assessment for the construction of two small glamping pods on the land at the back of Oak Mead, Golly, Burton Green, Rossett, Wrexham, for which planning permission was received on 16/02/23 (REF: ROS P/2022/1061).
- 1.2 An Extended Phase 1 Ecological Assessment was undertaken by ourselves in June 2022 and updated in November 2022. A Method Statement (MS) has been prepared to inform contractors as to the precautions to be taken whilst working on site with respect to amphibians. This report is available and should be read in conjunction with this Biosecurity Risk Assessment.
- 1.3 This Biosecurity Risk Assessment will discharge condition 6 of the above planning permission.
- 1.4 The proposed development site (hereafter referred to as the Site) is located on the west of the village of Burton Green, approximately 2km due North of Llay town centre. The central OS grid reference is SJ 33885 58530. Habitat within the Site consists of heavily grazed horse pasture with a single small area of bramble (*Rubus fruticosus*) scrub. The site is located within a larger field used as horse pasture, of which the habitat is predominantly semi-improved grassland, outside of the site, to the north lies Pulford brook and associated broadleaved trees lining the banks. The site also includes a single booth of a stable complex on the eastern extent, this booth is to be converted into a bike store. Additionally, included within the site boundaries is an access track running north from Town Ditch Lane into the site.
- 1.5 Within the development parcel habitats are dominated by heavily grazed semi-improved grassland and stone track, with a small stand of bramble scrub., Proposals for the site are for the placement of two small glamping pods with associated minor foundations and landscaping, including hedge and shrub planting and meadow seeding. Pulford brook, outside the northern site boundary

will not have it watercourse or associated bankside vegetation affected by the works.

2. BACKGROUND INFORMATION

- 2.1 An extended Phase 1 survey was undertaken on the development site in June 2022 and followed up in November 2022 by Wildbanks Conservation to inform the planning application and identify any constraints to the development with regards to protected species and provide mitigation measures for the scheme.

Summary

- 2.2 The site is dominated by heavily grazed semi-improved grassland with a small stand of bramble scrub close to the south-western boundary. The site includes two tree saplings; a single hawthorn (*Crataegus monogyna*, approx. 1.2m tall) and a single guelder rose (*Viburnum opulus*, approx. 2m tall). Immediately outside the northern boundary lies Pulford brook, a fast flowing watercourse with steep, vegetated banks with associated bank-top tree line.

Great crested newts

- 2.3 A Great Crested Newt (*Triturus cristatus* - GCN) reasonable avoidance method statement (RAMS) has been prepared for this development. The site does not contain any ponds. Within 250m of the site boundaries exists 2 ponds, Pulford brook and another small fast flowing watercourse, which feeds into the brook and has a small, heavily vegetated flush area. The likelihood of GCN using the site or commuting through it has been deemed to be low, due to the lack of suitable foraging/refuge habitat, both watercourses acting as barriers to movement along with higher quality habitat being available within easy reach of the ponds.

Bats

- 2.4 A single building exists on the site, which consists of a single stable unit of a three unit stable building. This building has been assessed as having negligible potential to support roosting bats. The building will have the corrugated steel roof repaired and minor works internally to be converted into a bicycle storage space. No trees with bat potential exist within the site and no conditions regarding bats have been identified for this proposal.

Invasive Non Native Species (INNS)

- 2.5 Habitats present within the development site that are vulnerable to the spread of INNS are primarily limited to the watercourses that run along the northern boundary (Pulford brook) and approximately 60m south-west of the pod locations (Unnamed fast-flowing watercourse with associated flush). The flow of water enables seeds and stem fragments to disperse readily along watercourses. No evidence of invasive animals or plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 were observed at the time of survey within the development site. There was evidence of INNS noted within the immediate vicinity of the development site. However, it is known that some species listed on Sch. 9 of WCA 1981 are present within the wider area of Wrexham and flourish on waterbodies similar to those present on site. Namely Knotweed (JKW) (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).
- 2.6 This Risk Assessment is primarily produced for the control of these species due to their presence locally, existence of habitats that they would be found upon naturally within the site and their invasive nature. Appendix 2 provides ecological notes on these species as well as identification guides.
- 2.7 However, other invasive non-native species of plants and animals do exist and a precautionary approach should be taken when bringing materials onto site. Appendix 1 lists all species found within Schedule 9 of the WCA 1981 (as amended).

Disease

- 2.8 Amphibian disease has become a major cause of the decline in numbers of many amphibian species worldwide. Two main causes for concern are the fungal disease *Chytridiomycosis* and the viral disease *Ranavirus*. Both of these diseases are known to be present within the UK, in a rare but widespread fashion.

3. LEGISLATION

- 3.1 This section summarises the requirements of Invasive Non-Native Species (INNS) Legislation relevant to the site and is not to be regarded as a definitive legal opinion. When dealing with individual cases, the client is advised to consult the full texts of the relevant legislation and obtain further legal advice.

Legislation

- 3.2 Section 14(1) of the Wildlife and Countryside Act makes it illegal to release or allow to escape into the wild any animal which is not ordinarily resident in Great Britain and is not a regular visitor to Great Britain in a wild state, or is listed in Schedule 9 to the Act. It is also illegal to plant or otherwise cause to grow in the wild any plant listed in Schedule 9 to the Act. The Schedule 9 list of animal and plant species has been amended by the Wildlife and Countryside Act 1981 (Variation of Schedule 9) (England and Wales) Order 2010. Offences under section 14 carry a maximum penalty of a £5,000 fine and/or 6 months imprisonment on summary conviction (i.e. at Magistrates' Court) and an unlimited fine (i.e. whatever the court feels to be commensurate with the offence) and/or 2 years imprisonment on indictment (i.e. at Crown Court). Appendix 1 gives the full list of plant species in Schedule 9 of the WCA for England and Wales.

- 3.3 Relevant legislation

- **EU Regulation (1141/2014) on invasive alien (non-native) species**
- **Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)**
- **Natural Environment and Rural Communities (NERC) Act 2006**

4 SITE BIOSECURITY RISK ASSESSMENT - Methodology

4.1 The Site Biosecurity Risk Assessment has been produced following the Scottish Natural Heritage Pro Forma for Terrestrial Biosecurity Risk Assessment.

4.2 In summary. Activities that may spread Invasive Non-Native Species (INNS) and/or animal diseases are listed and each is assessed on the Severity (S) and Likelihood (L) of spreading INNS/disease according to the below tables and relevant scores. An overall Risk is calculated by multiplying S x L. A score of 4 or less is usually considered acceptable for a development to proceed and a score of 12 or above are clearly unacceptable.

4.3 Severity of impact (S)

Non-native species and diseases have the potential to cause harm to the environment, economy and the way that we live. The severity of the impact should be rated according to the following table:

1	Minimal very local and /or very short term
2	Minor changes at a local level
3	Moderate large change at local level
4	Major long term changes to local area with possible impact at wider level
5	Massive widespread and long term changes

4.4 Likelihood of spread (L)

This a consideration of how likely the activity is to cause the spread of a non-native species or disease, and should be rated according to the following table

1	Very unlikely- theoretically possible but not expected to occur	1 in 10,000 years
2	Unlikely– has not occurred anywhere in living memory	1 in 1,000 years
3	Possible –has occurred at least once somewhere but not locally	1 in 100 years
4	Likely– has happened on several occasions elsewhere, or at least once locally	1 in 10 years
5	Very likely– happens continually and expected to occur	Once a year

- 4.5 The aim is to reduce the risk rating to as low as is reasonably practicable – a score of 4 or less is usually considered acceptable and a score of 12 or above is unacceptable and the project/development should be postponed and altered to reduce the risk to acceptable levels.

Severity of impact	5	5	10	15	20	25
	4	5	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
	Likelihood of spread					

- 4.6 Identify and describe control measures which should be taken to reduce the likelihood of INNS / diseases being spread.
- 4.7 Assign a rating of 1-5 (low to high) for Residual Likelihood (RL) of INNS/disease being spread after control measures have been implemented.
- 4.8 Recalculate to find the Residual Risk (RR) by multiplying S x RI
- 4.9
- 0 –4: Risk are likely to be acceptable
 - 4 –12: Consider further options for reducing risk; if not available consider proceeding with caution
 - 12 +: Risk is too high; do not proceed until further consideration of control options has been taken into account

5.1 Activities that might spread INNS/disease through the development.

Activities that might spread INNS	Severity of Impact	Likelihood of Spread	Overall Risk
1. Transportation of seed/stem fragments or disease into site from external locations. Either on vehicles or feet	1	3	3
2. Transportation of seed/stem fragments or disease into site within materials	1	4	4
3. Spread of seed/stem fragments or disease in shrubs and hedge plants.	1	3	3
4. Natural spread of seed or stem fragments along the watercourses	2	4	8
5. Natural spread of seed/stem fragments through wind or air movement caused by passing vehicles.	2	4	8
6. Deliberate introduction of seed/stem fragment or disease.	1	3	3

5.2 Control measures and management tasks have been identified that will reduce the risk level. The Residual Risk is then calculated

	Control Measures	Severity of Impact	Residual Likelihood	Residual Risk
1. Transportation of seed or stem fragments into site from external locations. Either on vehicles or feet	Good site hygiene maintained at all times. No overly dirty vehicles or footwear allowed on site, vehicles, machinery and footwear to be free from mud or visible dirt previous to entering the site. If vehicles, machinery or footwear is used on another site then it is to be cleaned of visible dirt and disinfected using one of the approved methods listed below. All site workers made aware of the Biosecurity Risk Assessment.	1	2	3
2. Transportation of seed or stem fragments into site within materials	Where possible no soil or materials will be imported/exported to/from the site. When procuring quarried or recycled materials such as hardcore, topsoil etc. ensure reputable companies are used and ensure materials sourced from uncontaminated areas.	1	2	2

3. Spread of seed/stem fragments or disease in shrubs and hedge plants.	All plants to be acquired from reputable suppliers who confirm that they follow appropriate biosecurity measures.	1	2	2
4. Natural spread of seed or stem fragments along the watercourse	Be vigilant. Site manager and contractors to take the responsibility of knowing what the likely INNS look like and their eradication methods. Monitoring surveys undertaken annually. See appendix 2	2	2	4
5. Natural spread of seed or stem fragments through wind or air movement caused by passing vehicles.	Be vigilant. Site manager and contractors to take the responsibility of knowing what the likely INNS look like and their eradication methods. Monitoring surveys undertaken annually See appendix 2	2	2	4
6. Deliberate introduction of seed or stem fragment	Be vigilant. Site manager and contractors to take the responsibility of knowing what the likely INNS look like and their eradication methods. Monitoring surveys undertaken annually See appendix 2	1	2	3

5.3 The Residual Risk of any activity that could cause the spread of INNS during the development of the site has been calculated and with the implementation of Control Measures no risk exceeds 4 and is therefore considered acceptable and the development can proceed without further works with regards to Invasive Non-Native Species.

5.4 However, if the development alters and activities other than those listed above that could cause the spread of INNS are identified, the above process should be repeated for each additional activity and control methods put in place accordingly to maintain a Residual Risk of 4 or below.

**SPECIES LISTED UNDER SCHEDULE 9 OF THE WILDLIFE
AND COUNTRYSIDE ACT 1981 (AS AMENDED)**

<i>Common name</i>	<i>Scientific name</i>
False-acacia	<i>Robinia pseudoacacia</i>
Fanwort	<i>Cabomba caroliniana</i>
Fern, Water	<i>Azolla filiculoides</i>
Fig, Hottentot	<i>Carpobrotus edulis</i>
Hogweed, Giant	<i>Heracleum mantegazzianum</i>
Hyacinth, water	<i>Eichhornia crassipes</i>
Kelp, Giant	<i>Macrocystis angustifolia</i>
Kelp, Giant	<i>Macrocystis integrifolia</i>
Kelp, Giant	<i>Macrocystis laevis</i>
Kelp, Giant	<i>Macrocystis pyrifera</i>
Kelp, Japanese	<i>Laminaria japonica</i>
Knotweed, Japanese	<i>Polygonum cuspidatum</i> Name changed in 2010
Leek, Few-flowered	<i>Allium paradoxum</i>
Lettuce, water	<i>Pistia stratiotes</i>
Parrot's-feather	<i>Myriophyllum aquaticum</i>
Pennywort, Floating	<i>Hydrocotyle ranunculoides</i>
Salvinia, Giant	<i>Salvinia molesta</i>
Seafingers, Green	<i>Codium fragile tomentosoides</i> Name changed in 2010
Seaweed, Californian Red	<i>Pikea californica</i>
Seaweed, Hooked Asparagus	<i>Asparagopsis armata</i>
Seaweed, Japanese	<i>Sargassum muticum</i>
Seaweeds, Laver (except native species)	<i>Porphyra</i> spp except - <i>P. amethystea</i> <i>P. leucosticta</i> <i>P. linearis</i> <i>P. miniata</i> <i>P. purpurea</i> <i>P. umbilicalis</i>
Shallon	<i>Gaultheria shallon</i>
Stonecrop, Australian swamp	<i>Crassula helmsii</i>
Wakame	<i>Undaria pinnatifida</i>
Waterweed, Curly	<i>Lagarosiphon major</i>

The following plants were added to Schedule 9 by The Wildlife and Countryside Act 1981 (Variation of Schedule 9) (England and Wales) Order 2010:

<i>Common name</i>	<i>Scientific name</i>
Alexanders, Perfoliate	<i>Smyrnum perfoliatum</i>
Algae, Red	<i>Grateloupia luxurians</i>
Archangel, Variegated Yellow	<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>
Azalea, Yellow	<i>Rhododendron luteum</i>
Balsam, Himalayan	<i>Impatiens glandulifera</i>
Cotoneaster	<i>Cotoneaster horizontalis</i>
Cotoneaster, Entire-leaved	<i>Cotoneaster integrifolius</i>
Cotoneaster, Himalayan	<i>Cotoneaster simonsii</i>
Cotoneaster, Hollyberry	<i>Cotoneaster bullatus</i>
Cotoneaster, Small-leaved	<i>Cotoneaster microphyllus</i>
Creeper, False Virginia	<i>Parthenocissus inserta</i>
Creeper, Virginia	<i>Parthenocissus quinquefolia</i>
Dewplant, Purple	<i>Disphyma crassifolium</i>
Fanwort (otherwise known as Carolina Water-Shield)	<i>Cabomba caroliniana</i>
Fern, Water	<i>Azolla filiculoides</i>
Fig, Hottentot	<i>Carpobrotus edulis</i>
Garlic, Three-cornered	<i>Allium triquetrum</i>
Hyacinth, Water	<i>Eichhornia crassipes</i>
Knotweed, Giant	<i>Fallopia sachalinensis</i>
Knotweed, Hybrid	<i>Fallopia japonica</i> x <i>Fallopia sachalinensis</i>
Knotweed, Japanese	<i>Fallopia japonica</i>
Leek, Few-flowered	<i>Allium paradoxum</i>
Lettuce, Water	<i>Pistia stratiotes</i>
Montbretia	<i>Crocasmia</i> x <i>crocosmiiflora</i>
Parrot's Feather	<i>Myriophyllum aquaticum</i>
Pennywort, Floating	<i>Hydrocotyle ranunculoides</i>
Potato, Duck	<i>Sagittaria latifolia</i>
Primrose, Floating Water	<i>Ludwigia peploides</i>
Primrose, Water	<i>Ludwigia grandiflora</i>
Primrose, Water	<i>Ludwigia uruguayensis</i>
Rhododendron	<i>Rhododendron ponticum</i>
Rhododendron	<i>Rhododendron ponticum</i> x <i>Rhododendron maximum</i>

Rhubarb, Giant	<i>Gunnera tinctoria</i>
Rose, Japanese	<i>Rosa rugosa</i>
Salvinia, Giant	<i>Salvinia molesta</i>
Seafingers, Green	<i>Codium fragile</i>
Stonecrop, Australian Swamp (otherwise known as New Zealand Pygmyweed)	<i>Crassula helmsii</i>
Waterweed, Curly	<i>Lagarosiphon major</i>
Waterweeds	<i>All species of the genus Elodea.</i>

ECOLOGICAL NOTES AND IDENTIFICATION SHEETS FOR JAPANESE KNOTWEED, HIMALAYAN BALSAM AND GIANT HOGWEED.



www.nonnativespecies.org
 Produced by Claf Booy, Max Wade and Vicky White of RPS

Japanese Knotweed

Species Description

Scientific name: *Fallopia japonica*
AKA: Japanese Bamboo, Pysen saethwr (Welsh), *Polygonum cuspidatum*, *Reynoutria japonica*
Native to: Japan, Taiwan, northern China
Habitat: Common in urban areas, particularly on waste land, railways, road sides and river banks

Tall herbaceous perennial with bamboo like stems. Often grows into dense thickets. Characteristic leaves and stems, persistence of last year's dead canes and distinctive rhizome (underground root-like stems) enables year round identification.

Introduced in the early 19th century as an ornamental plant. Now common and widespread across the UK. Spreads rapidly in the wild by natural means and as a result of spread by humans. Spread is solely by vegetative means, either fragments of rhizome or stem. Does not produce seed in the UK. Negative impacts include outcompeting native flora, contributing to river bank erosion and increasing the likelihood of flooding. Can also cause significant delays and cost to development as well as structural damage (it can grow through asphalt and some other surfaces).

Japanese Knotweed is listed under Schedule 9 to the Wildlife and Countryside Act 1981 with respect to England, Wales and Scotland. As such it is an offence to plant or otherwise cause Japanese knotweed to grow in the wild. Under the Environmental Protection Act 1990, Japanese Knotweed is classified as controlled waste.

For details of legislation go to www.nonnativespecies.org/legislation.



Key ID Features



Lush green colour



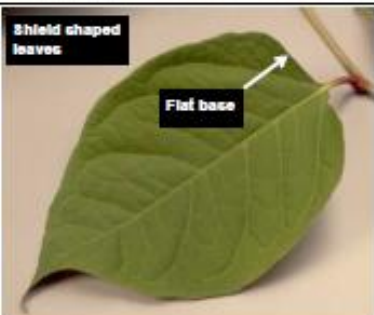
Zig-zag stems

Purple speckled stems



Regular nodes (like bamboo)

Rhizome crown at base of plant



Shield shaped leaves

Flat base



Rhizome

White shoots



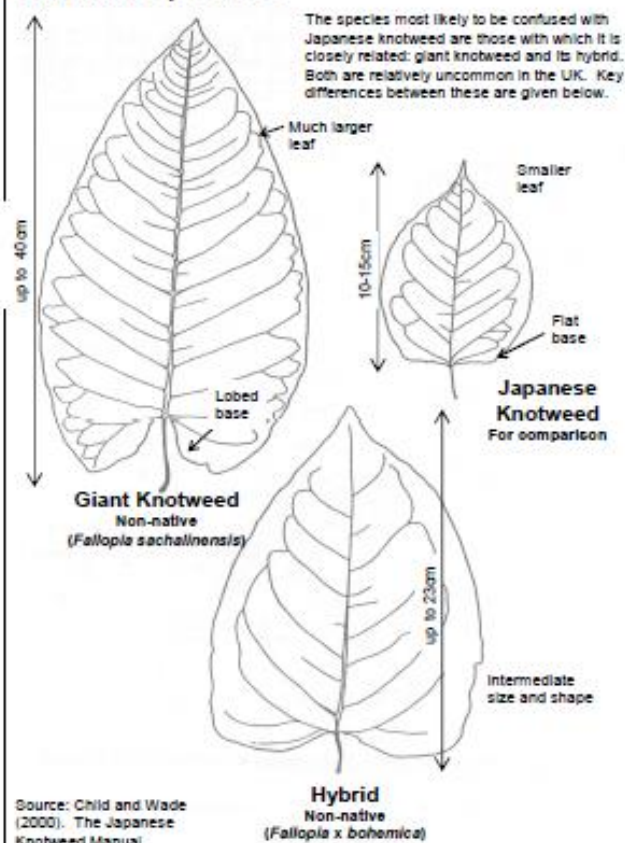
Cross-section

Bright orange inside

Identification throughout the year



Similar Species



Distribution

Widespread and common across the UK. Notably extensive infestations are found in the south-west of England, south Wales and Greater London, however similarly extensive populations can also be found elsewhere.

Source: NEN Gateway. Check website for current distribution



References and further reading:

- Blamey, M, Fitter, R and Fitter, A (2003) *The Wild Flowers of Britain and Ireland. The Complete Guide to the British and Irish Flora.* A & C Black
- Child, L E and Wade, P M (2000) *The Japanese Knotweed Manual.* Packard
- Environment Agency (2006) *The Japanese Knotweed Code of Practice.* Environment Agency
- Preston, C D, Pearman, D A and Dines, T A (editors) (2002) *New Atlas of the British and Irish Flora.* Oxford University Press
- Stace, C (1999) *Field Flora of the British Isles.* Cambridge University Press

Photos from: Olaf Booy, Helen Parish, Max Wade, Vicky White

Himalayan Balsam

Species Description

Scientific name: *Impatiens glandulifera*

AKA: Policeman's Helmet, Indian Balsam, Jac y Neidiwr (Welsh)

Native to: West and central Himalayas

Habitat: Found mostly on river banks and in damp woodland, can grow in other damp habitat

A tall, attractive, annual herb with explosive seed heads. Although easy to identify as a mature plant with its pink-purple flowers, fleshy stem and characteristic leaves, the seedlings and last year's dead stems of this annual are more difficult to spot.

Introduced as a garden plant in the early 19th century and first recorded in the wild in 1855. Often favoured by the general public for its aesthetic appeal and is still deliberately planted on occasion. Now widespread in the UK, especially along urban rivers. Spreads solely by seeds, which are small and easily carried by wind or water.

Out-competes native species in ecologically sensitive areas, particularly river banks. Where it grows in dense stands along river banks it can impede flow at times of high rainfall, increasing the likelihood of flooding. Die back of extensive stands over winter can leave river banks bare and exposed to erosion.

Himalayan balsam is listed under Schedule 9 to the Wildlife and Countryside Act 1981 with respect to England and Wales. As such, it is an offence to plant or otherwise allow this species to grow in the wild.

For details of legislation go to www.nonnativespecies.org/legislation.



Key ID Features



Identification throughout the year

Can be identified at most times of the year: March-June by its seedlings, stem and leaf shape, from July to September by its stem, leaf shape and flowers. More difficult to identify over winter (October to February), look for hay like remains and distinctive root structure.



Similar Species

Orange Balsam
Non-Native
(*Impatiens capensis*)



Orange balsam is much less aggressive than Himalayan balsam, forming smaller less dense stands

Flower is similar in shape but orange in colour

Smaller than Himalayan balsam, growing to a height of 1.2m



Distribution

Widespread and common across the whole of the UK. Primarily on riverbanks and in other damp areas.

Source: NBN Gateway. Check website for current distribution



References and further reading:

Blamey, M, Fitter, R and Fitter, A (2003) *The Wild Flowers of Britain and Ireland. The Complete Guide to the British and Irish Flora*. A & C Black

Preston, C D, Pearman, D A and Dines, T A (editors) (2002) *New Atlas of the British and Irish Flora*. Oxford University Press

Stace, C (1999) *Field Flora of the British Isles*. Cambridge University Press

Photos from: Olaf Booy, Mike Harris, Max Wade

Giant Hogweed

Species Description

Scientific name: *Heracleum mantegazzianum*

AKA: Efwr enfawr (Welsh)

Native to: Caucasus mountains in south west Russia and Georgia

Habitat: Widespread, most common on river banks

Easy to identify when fully grown by height, size of leaves and size of flowers. Can be confused with native hogweed when not fully grown or when growth is stunted (e.g. regrowth after cutting).

Introduced as an ornamental. First recorded wild in the UK in the late 19th century. Spreads solely by seeds, mainly through deliberate planting, wind dispersal and in water courses. Now common across much of the UK. Contact with any part of this plant must be avoided as even minute amounts of sap can cause blistering of the skin following exposure to sunlight. Other negative impacts include out-competing native flora, river bank erosion and increase in flood risk. Can cause delays/ additional costs on development sites where the plant must be removed as controlled waste in order to comply with legislation.

Giant hogweed is listed under Schedule 9 to the Wildlife and Countryside Act 1981 with respect to England, Wales and Scotland. As such it is an offence to plant or otherwise cause this species to grow in the wild. Under the Environmental Protection Act 1990, giant hogweed is also classified as controlled waste.

For details of legislation go to www.nonnativespecies.org/legislation.



Key ID Features



Identification throughout the year



Similar Species



Hogweed
Native
(*Heracleum sphondylium*)



When in full height it is difficult to confuse giant hogweed with any other plant. While still growing or stunted, possibly as a result of disturbance, it can be confused with some other native plants. The most likely species with which it might be confused is hogweed.

Key differences between hogweed and giant hogweed include the height, width of stem, size of leaf, size of flower head and size of seed.



Distribution

Widespread and common across much of the UK. Extensive infestations are found particularly in Scotland and the north of England. Less abundant in Cornwall. Often associated with large rivers.

Source: NBN Gateway. Check website for current distribution



References and further reading:

- Blamey, M, Fitter, R and Fitter, A (2003) *The Wild Flowers of Britain and Ireland. The Complete Guide to the British and Irish Flora.* A & C Black
- Booy, O and Wade, P M (2007) *Giant Hogweed Management in the United Kingdom.* RPS Group plc
- Pyšek P, Cock, M J W, Nentwig, W & Ravn, H P (2007) *Ecology and Management of Giant Hogweed (Heracleum mantegazzianum).* CAB International
- Stace, C (1999) *Field Flora of the British Isles.* Cambridge University Press

Photos from: Olaf Booy, Steve Smith, Vicky White