

A SIMPLE GUIDE TO INVASIVE PLANT MANAGEMENT

by Love Springwater Park

Love Springwater Park is a community group which was founded in September 2017.

We are a group made up of people from Whitefield in Greater Manchester who are dedicated to maintaining and improving Springwater Park for the benefit of local communities and the environment. The park is around 120 acres of green space located at the convergence of the River Irwell and River Roch in Bury. It was formerly an industrial site housing three factories, but now belongs to Bury Council and comprises of riverside meadow / floodplain surrounded by lodges and woodland. Part of the site was also historically a municipal tip.

One of the big challenges for the group has been tackling invasive plants on the site. There are large areas covered in Giant Hogweed, Himalayan Balsam and Japanese Knotweed on site which have a huge impact upon native species and biodiversity as a whole.

Over the last four years we have approached invasive plants in a range of different ways in the park. This guide aims to share our learning with other groups who may be starting to tackle invasive plants in a public greenspace.



HIMALAYAN BALSAM

Impatiens glandulifera

Himalayan Balsam was introduced to the UK in 1839; it is an annual plant which can grow to a height of two metres with very pale purple to bright purple, sweet smelling flowers. In the late summer its seed pods explode spreading seeds up to 7 metres away from the adult plant. Each adult plant is capable of producing 800 seeds. It is illegal to plant or allow Himalayan Balsam to grow in the wild.

It is very successful out-performing many of our indigenous plants. Bees like Himalayan Balsam. The only animal which will eat the Himalayan Balsam is the goat!

It can be eradicated by pulling it up from its roots, slashing it, or collecting its flowers to make gin, jams, jellies and decorate salads and

desserts. Its seeds can also be collected, roasted and ground up to make a substitute for ground almonds.

Appearance

Himalayan balsam (*Impatiens glandulifera*) is an upright, annual plant.

It has long, pointed leaves which have serrated edges and grow in pairs or whorls of three along the stems.

The stems may be green or a striking red, often a mixture of the two.

The flowers can vary between white, pink and purple with five petals giving a hooded appearance.

The fruit capsules have an explosive





opening action, firing seeds in all directions away from the plant.

Habits

Himalayan balsam grows in stands (meaning groups of individual plants) which can be very large in the area they take up.

Individual plants grow from seedlings each year, rapidly gaining height and blocking out the light and available space for other, usually native, plants to grow.

Himalayan balsam is a prolific nectar producer – our bees and other insects will often neglect native plants when Himalayan balsam is available, leading

to a reduction in pollination for those plants affected. It also has a LONG flowering season – this is why bees and wasps favour it as they can still find pollen and nectar on it in October in some environmental conditions.

As the plant dies back in the autumn, masses of leaves and stems begin to drop; if this is next to a waterway, flooding problems can then ensue.

In the winter after die-back, Himalayan balsam stands leave bare earth where the plants had been growing, leading to potential problems with erosion, especially problematic along rivers.

GIANT HOGWEED

Heracleum mantegazzianum

The most dangerous invasive plant in Springwater Park is Giant Hogweed which was introduced to England in the 19th Century as an ornamental plant from the Caucasus Mountains and Central Asia. It thrives on river banks and the seeds are transported along the rivers.



The sap from Giant Hogweed burns the skin and stays in the skin for seven years. It is photo reactive so that affected skin burns whenever it is in the sunshine.

It thrives in Springwater Park outgrowing many of our indigenous plants.

It is illegal to plant Giant Hogweed in the wild.

Giant Hogweed looks much like the indigenous species of Common Hogweed (*Heracleum sphondylium* also known as Cow Parsnip) except of course it grows much taller; between 1.5 metres and 5 metres. Unlike Common Hogweed it has red or purplish blotches, hairs on its stem and spikier leaves.





Appearance

White flowers with 50-150 flower rays clustered into an umbrella shaped flower cluster up to 2.5 feet across.

Between 7 and 14 feet tall (depending upon growth stage).

Huge leaves, incised and deeply lobed up to 5 feet across.

Stems are green with extensive red or purple splotches and prominent coarse white hairs. Stems are also hollow, ridged, 2-4 inches in diameter, and have a thick circle of hairs at base of leaf stalk.

Seeds are dry, flattened, and oval. Approximately $\frac{3}{8}$ inch long and tan with brown lines (oil tubes) extending $\frac{3}{4}$ of the seed length that widen at ends.

Many plants are often misidentified as giant hogweed - the most common plant being cow parsnip, angelica and wild parsnip.

JAPANESE KNOTWEED

Reynoutria japonica

In the late 1840s Japanese Knotweed was brought to the UK by a German botanist called Philipp Franz Balthasar von Siebold. He found a steady clientele of customers from both botanical gardens and the high society who thought this plant with its lovely bloom and odd shaped leaves was the height of fashion. It is noted that all Japanese knotweed in the UK derive from a single female plant collected by Philipp.

By 1869 it was widely available for sale to the public in the UK and was even used by farmers as animal feed.

Japanese Knotweed flourishes in England and it thrives in Springwater Park, taking space and light from indigenous plants. It is illegal to spread Japanese Knotweed in the wild.

Although not dangerous to humans its creeping roots (deeply-penetrating rhizomes) can damage roads and the foundations of buildings. People with properties which have Japanese Knotweed within a hundred metres beware! It is a perennial plant, annually producing canes which grow to 2 metres tall.





Appearance

New leaves are dark red and 1 to 4cm long - the mature leaves are green and heart-shaped but flattened at the base (a bit like a shield) and are usually around 12cm long

Mature growth forms dense thickets 2m to 3m tall

Stems are 'bamboo-like', with obvious nodes/rings and purple speckles

Leaves shoot from the stem nodes alternately, which creates a 'zig-zag' pattern at the top

Mature stems are hollow and not at all woody (they can be snapped with

relative ease to show their hollowness)

Flowers bloom in late summer (late August/September)

The flowers' appearance is creamy white in colour and 0.5cm wide

Knotweed flowers form clustered 'spikes' of flowers amongst the foliage.

Spike lengths are approximately 10cm

WHAT DID WE DO?

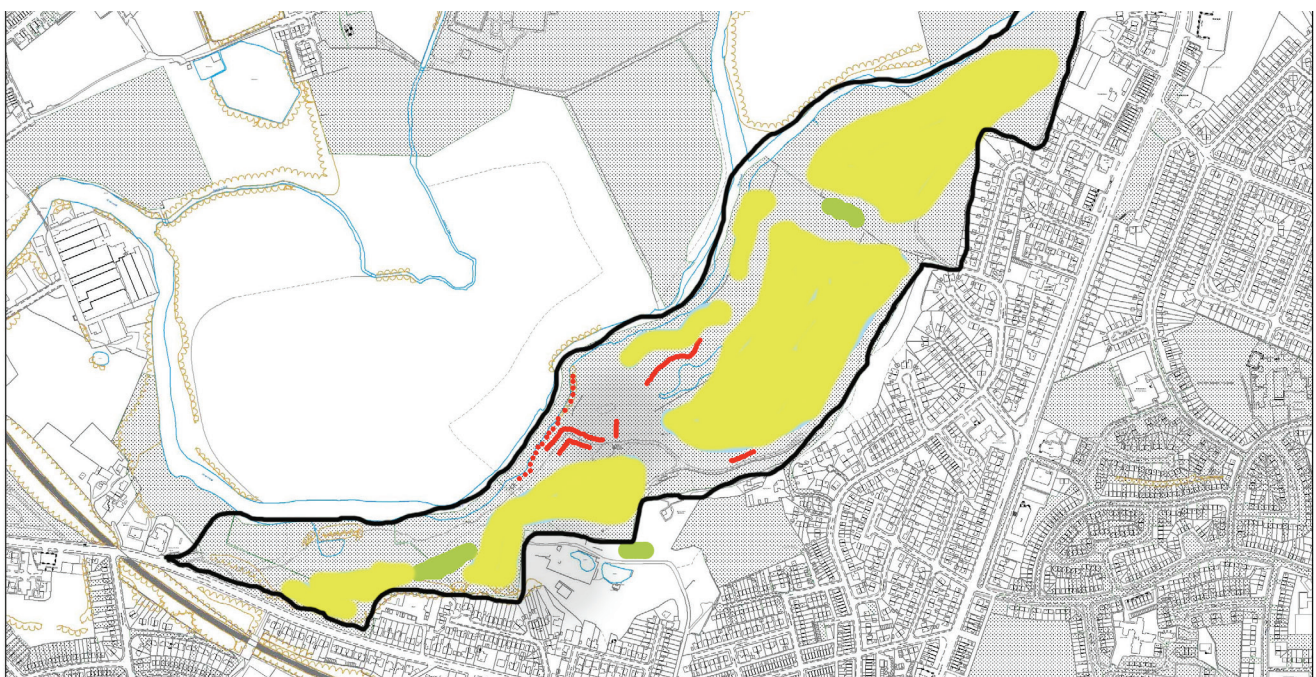
Map your site

We began by creating a map to identify where the invasives were on our site. We did this as a group but also invited park users to help with this task via our Facebook group. This gave a good idea of the scale of the challenge that we faced and also helped us decide upon the best strategy to begin tackling these plants in the park. Below is the first map that we created!

Balsam is marked in yellow.
Japanese Knotweed is marked in green.
Giant Hogweed is marked in red.

Agree on an approach

We agreed upon the approach that we were going to take to the different invasive plants on our site. Was one more of a problem than others? What technique were we going to use to remove the different plants? Who was going to be involved? This general overview was really useful especially on a big site like ours where there were large areas to be tackled.



PLAN _____
SCALE _____
DRAWN BY _____
OS No. _____
DATE _____

3 Knowsley Place,
Duke Street,
Bury
BL9 0EJ
Resources & Regulation
Property & Asset Management Division
Telephone 0161-253-5995

Bury
COUNCIL



Which partners did we need to work with?

On most public sites you will need to work with partners to tackle invasive plants. For example, we have got two rivers on our site so we can only remove plants manually near the rivers - if we want to take any other approach near the water it needs to be done by the local rivers trust or the Environment Agency. Or if you need to use glyphosates they can only be applied by people who have undertaken appropriate training - in the first instance it would be advisable to liaise with the landowner before using any chemical weedkillers. In our case that is the local council via their greenspaces officer.

Come up with an action plan

For each year we come up with a plan of what we are going to do. It can help to make a month by month plan of what you are going to do when. This is especially useful when working on a site with a variety of invasive weeds as they all need to be tackled at different times of year.

WHAT DID WE DO? - Himalayan Balsam

Choose one area and work outwards

We chose one area in the park and worked out from there. This was a defined area which we were able to clear and have now kept clear for a couple of years. We then move out from this area each year. This approach makes successes more visible, helps keep volunteers motivated and makes the task seem more manageable!

Balsam seed is viable in the soil for two years so if it is removed and not allowed to seed you will begin to see progress relatively quickly.

Pull or slash?

When we started removing balsam we would always tackle it with slashers but we have found that often slashed balsam will bounce back and still have time to flower and seed before the end of the season. Now we tend to remove balsam by hand which is easy to do by pulling it from the roots. This takes more time but removes the plant more successfully.

Pile it up

Try to remove stalks that you pull or slash and pile them together. This clears the ground for other plants to





grow and means that the ground does not get slippery with decaying balsam stalks.

Start early

It is good to start removing balsam as early in the season as you can. The small plants are easy to remove by hand from the roots and will leave space for other plants to grow and flourish in their place. Generally the plants start appearing in late March / early April and can be pulled until they start to go to seed which is generally around August.

Little and often

During balsam season we meet at least once a week in the park to remove the

plant. We generally work for about an hour - a reasonably sized group can get a lot done in that length of time without it being too arduous. Volunteers frequently return to the park between these formal sessions to tackle smaller patches. In this way large areas can be cleared each year.

Get everybody involved

We put up signs in the park each year showing what balsam looks like and explaining how best to remove it. Many park users now get involved as they play in the park or walk their dogs and altogether this makes a big difference! And big balsam bashing get togethers can be a fun way to get people involved.

WHAT DID WE DO? - Giant Hogweed

Map where it is

We try to map where Giant Hogweed pops up in the park. Each time the river floods it spreads further also seeds can move around the site so it can pop up in unexpected nooks and crannies. Knowing where it is makes it easier to tackle! It is worth noting that frequently when it is spotted the plant that has been seen is actually native hogweed!

Spray early in the season

Unfortunately the only viable approach we have found to remove this plant at the scale that we have got it is to spray the leaves with glyphosate as soon as they emerge early in the season. We are not trained to spray so this is done by the countryside officer from the local council. Glyphosate is sprayed at appropriate concentration to kill the plant and is targeted directly at the crown. Generally each plant only needs to be sprayed once or twice to remove it. If the plant is to be sprayed anywhere near a watercourse it would need to be sprayed by the local rivers trust.

Cut back flower and stop seeding

If you do not spray the plants it is important to try and stop them

seeding. The best way to do this is by cutting back the flower stalk before the flower goes to seed. This should be undertaken with extreme caution as it is the sap of the broken stalk that causes burns. Tools also need to be thoroughly cleaned if you have cut Giant Hogweed with them. This is not something that we would undertake without support from somebody with experience of the approach. It would only be advised to tackle a small number of plants in this way.

Awareness

Giant Hogweed is a beautiful plant but it is also very dangerous, especially for children who are unaware of the risks and who may pick it. We make clear signs each year to warn people that we have got Giant Hogweed in the park and to help them to identify it so that we can minimise the risk of injury.

WHAT DID WE DO? - Japanese Knotweed

Map where it is

We try to map where Japanese Knotweed pops up in the park. Knowing where it is makes it easier to tackle!

Excluding light can work but not viable on our site

For small areas of knotweed it can work to cover it with a heavy material such as tarp to keep out the light. Over a couple of years this can kill the plant.

Cut back during winter and pile

We cut back the dry stalks during winter and pile them up. You need

to be very careful if you are moving knotweed waste around as there is very specific legislation. Even a small amount of waste can spread the plant further.

Spray the crown

When the plant starts growing back in spring the crown is sprayed using glyphosate at a suitable concentration. Our group are not able to do this ourselves so the work has been undertaken by Bury Council, or by the local rivers trust if anywhere near the river.



TOP TIPS FROM OUR VOLUNTEERS

“Initially identify and target a manageable small area to clear. Completely clear. Start as early as possible in the season.”

“I think that making a plan, working as a team, going over the areas regularly, getting an area cleared to give encouragement, are all ways to success.”

“Work in a big team, tackle a feasible area and be successful to encourage the next bashing event.”

“Pick an area that you are going to

work on and only move on when you think you have removed the invasive weeds but keep revisiting that area to monitor the weeds”

“Communicate, share information, and ask for help from people who have experience”

“Co-ordinate your efforts to be most effective and target an area with defined boundaries, like footpaths or roadsides that presents an achievable goal in removal by a small group of volunteers”





Created by Liz Postlethwaite

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www.lovespringwaterpark.wordpress.com

