Non native invasive plants

Western Skunk Cabbage - Lysichiton americanus

Objective

To provide an overview of non native invasive plants (INNP) in North Tyneside, in particular Japanese Knotweed. The presentation will include:

- Examples, identification and modes of spread
- legislation
- problems caused,
- the situation in North Tyneside
- methods of control.

Introduction

- INNPs cost the British economy £2 billion a year
- A plant is invasive if it has been introduced to a location and establishes a breeding population which thrives in its new environment and negatively influences the ecology and biodiversity of that ecosystem
- While the majority of plants introduced to Britain are harmless a small percentage do become ‘invasive’.
- Recent increased media attention has increased the publics awareness, this is assisting the reduction in the spread of invasive non-native plants
- There is an increasing list of approximately 50 plant species

Examples of invasive species

- Yellow Azalea - *Rhododendron luteum*
- Himalayan Balsam - *Impatiens glandulifera*
- Cotoneaster - *Cotoneaster horizontalis*
- Virginia Creeper - *Parthenocissus quinquefolia*
- Giant Hogweed - *Heracleum mantegazzianum*
- Water Hyacinth - *Eichhornia crassipes*
- Japanese Knotweed - *Fallopia japonica*
- Rhododendron - *Rhododendron ponticum*
- Giant Rhubarb - *Gunnera tinctoria*
- Japanese Rose - *Rosa rugosa*
- New Zealand Pigmyweed - *Crassula helmsii*

Giant Rhubarb - *Gunnera tinctoria*

Japanese Rose - *Rosa rugosa*

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Scale of the problem in North Tyneside

- In North Tyneside Japanese Knotweed is the most dominant NNIP that we have.
- Himalayan Balsam occurs in a few locations
- The scale is influenced by such factors as: climate, an urban borough and location at the end of a river system
- In North Tyneside we have approximately 80 recorded locations of Japanese Knotweed. This does not include dormant locations


Giant Hogweed - *Heracleum mantegazzianum*


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Himalayan Balsam - *Impatiens glandulifera*
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Japanese Knotweed - *Fallopia japonica*

Japanese Knotweed - *Fallopia japonica*

Applicable Legislation

- Wildlife and Countryside Act 1981
- Weeds Act 1959
- The Anti-social Behaviour, Crime and Policing Act 2014

In summary

- It is not illegal to have Japanese knotweed on your land
- It is illegal to introduce a non native invasive species into the wild
- Land owners, should aim to control invasive non-native plants to prevent them becoming a problem to the neighbourhood
- If there is a "detrimental effect of a persistent or continuing nature on the quality of life of those in the locality", the legislation could be used to enforce its control.

The Test

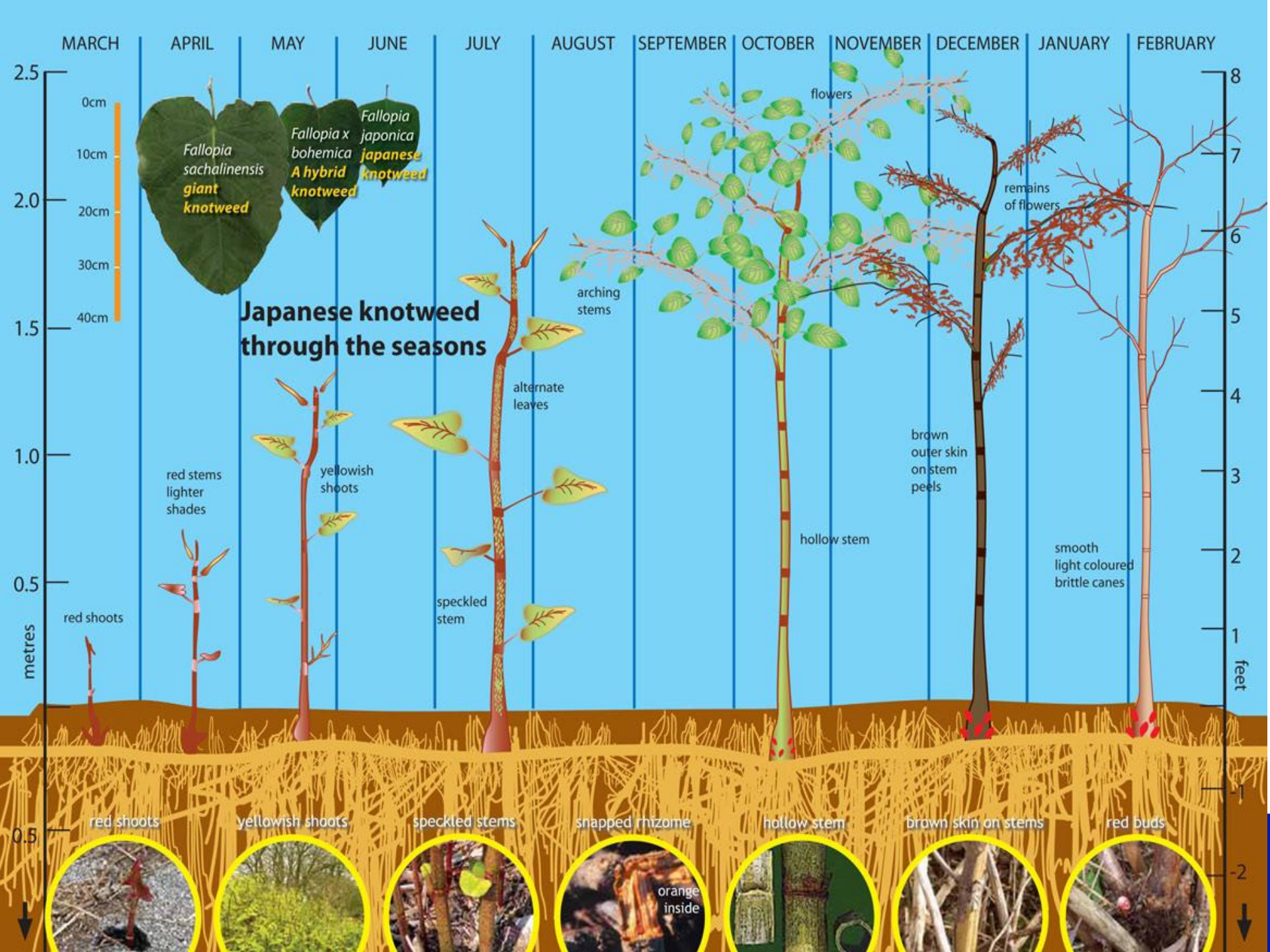
The test is that the conduct of the individual or body is having a detrimental effect of a persistent or continuing nature on the quality of life of those in the locality, and that the conduct is unreasonable. Under section 57 of the Anti Social Behaviour Act, “conduct” includes “a failure to act”.

Japanese knotweed

- One of the most damaging invasive species to arrive in the UK
- Capable of growing three metres in three months
- Introduced from Asia to Europe in the early to mid-19th century as an ornamental plant
- In Japan the plant generally grows in harmony with its natural environment and is not considered to be invasive
- In the UK due to a lack of controlling natural influences, it has an unfair advantage over native species

Problems caused by Japanese Knotweed

- Damages the infrastructure including paths, walls and foundations
- Reduces biodiversity through out-shading native vegetation and not providing support to any food webs
- Increases flood risk
- Restriction of access to riversides for inspection and amenity use
- Damages archaeological sites
- Reduces land values
- Delays and disrupts developments
- Causes mortgage issues for potential homebuyers


MARCH
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metres
8
7
6
5
4
3
2
1
-1
-2
feet
0cm
10cm
20cm
30cm
40cm
Fallopia sachalinensis giant knotweed
Fallopia x bohemica A hybrid knotweed
Fallopia japonica japanese knotweed
Japanese knotweed through the seasons
red shoots
red stems lighter shades
yellowish shoots
alternate leaves
speckled stem
arching stems
flowers
hollow stem
brown outer skin on stem peels
remains of flowers
smooth light coloured brittle canes
red shoots
yellowish shoots
speckled stems
snapped rhizome
orange inside
hollow stem
brown skin on stems
red buds

How is it spread

- **Stem** - new plants can grow from the nodes of pieces of green stem, in soil or water. Machinery such as strimmers or flails will spread it in this way
- **Crown** - this part is able to survive drying or composting & will rapidly produce new canes when it comes into contact with soil or water
- **Rhizome** (underground stem) – pieces smaller than a one pence coin, can grow into a new plant. Breaking up the rhizome stimulates the production of small red buds which each grow into a new stem
- **Flowers** - Japanese knotweed can produce seeds, but it is extremely unlikely that they would germinate in the wild.

Controlled waste

Japanese Knotweed is classed as "controlled waste" under the Environmental Protection Act 1990 and requires disposal at licensed landfill sites. It should never be included in normal household or green waste.

An information sheet and the website provides residents with advice to double bag the stems and notify the waste collection station on arrival. However, if possible, it is preferable to leave plants on site.

Control Measures

If left unchecked, Japanese Knotweed will continue to spread rapidly.

- **Cultural** – very limited success
  - Removal
  - Smothering
  - Metal netting.
- **Biological**
  - Sap sucking psyllid (*Aphalara itadori*) from Japan
  - Very specific, reduces vigour
  - introduction is being selectively trialled

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Chemical Control

It usually takes at least three to four seasons to eradicate

- Glyphosate is used, applied by:
  - Sprayer application
  - Stem injection / direct insertion

A control programme of one annual chemical application is in place within North Tyneside.

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