Ymddiriedolaeth Natur
Gogledd Cymru
North Wales
Wildlife Trust

Invasive Non-Native Species Pocket ID Guide

Protecting **WILDLIFE** for the Future

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Mae'r llyfryn hwn ar gael yn Gymraeg hefyd. Ewch i'n gwefan ni neu cysylltwch â ni i ofyn am gopi.

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Europe Investing in Rural Areas

Llywodraeth Cymru
Welsh Government

Contents

This guide covers the following Invasive Non-Native Species

Who We Are

www.northwaleswildlifetrust.org.uk/inns

The North Wales Wildlife trust are the only local organisation dedicated to conserving all habitats and species across North Wales for the enjoyment of people and the benefit of wildlife. We work with 45 other Wildlife Trusts, and are part of the largest UK voluntary organisation dedicated to conserving all of the UK's habitats and species, whether in the countryside, towns or at sea.

We are an independent, local charity, reliant on the support of our members and other donations. **Please help us if you can.**

You can help protect wildlife by ...

- **Becoming a member** for just a few pounds per month
- **Volunteering to help,** work on our reserves or as part of specific projects
- **Considering a Living Legacy,** a gift in your will, whether small or large, would leave your footprint in our landscape forever

Our Work

www.northwaleswildlifetrust.org.uk/inns

The North Wales Wildlife Trust work to save wildlife and wild places, developing people's understanding of the natural world. We have many projects to focus our efforts to ensure we can rejuvenate native habitats and create an inclusive society where nature matters.

We aim to create a living landscape, where nature is allowed to thrive, not only in our reserves and protected places, but also has a home within our towns and cities. This allows communities to come closer to wildlife, benefitting from the fundamental services that healthy ecosystems provide.

To find out more about our work, our many great projects and how you can get involved please visit our website.

What are Invasive Non-Native Species?

www.northwaleswildlifetrust.org.uk/inns

Invasive non-native species (INNS) are animals and plants that are transported outside their natural ranges through human activity that have negative impacts on our environment.

These species are one of the top five impacts that reduce biodiversity and have contributed to 40% of animal extinctions across the globe over the last 400 years.

INNS have many negative effects on biodiversity, human health and the economy. These include direct competition, predation and spread of disease leading to a decrease in native species abundance. They can also be harmful to human health and damage infrastructure such as roads and buildings.

Managing established INNS is extremely costly with the UK spending over £1.7 Billion annually to tackle invasive non-native species.

Biosecurity

www.northwaleswildlifetrust.org.uk/inns

Biosecurity is the most effective way of removing the threat INNS pose to our environment. Preventing the spread of INNS is the quickest and most cost effective way to manage them.

Effective biosecurity can be as simple as ensuring our clothing, tools and equipment are kept clean and dry.

In the UK, we have two national campaigns, the 'Check-Clean-Dry' and 'Be Plant Wise', both set out three simple steps to effectively carry out biosecurity.

Clean Check Dry focuses on those who use water ways recreationally including paddlers and anglers. However, this advice also applies to any outdoor activity such as walking or cycling.

Be Plant Wise encourages gardeners and pond or aquaria owners to be mindful with the species they use and how biosecurity applies at home.

CHECK CLEAN DRY

Stop the spread of INNS using these simple steps:

CHECK your equipment and clothing for live organisms, plant matter or eggs, particularly in areas that are damp and hard to inspect

CLEAN and wash all equipment, footwear and clothes thoroughly with tap water. If you do come across any organisms, leave them where you found them.

DRY all equipment and clothing for at least 48 hours, preferably in the sun, some species can live for many days in moist conditions. Make

BE PLANT WISE

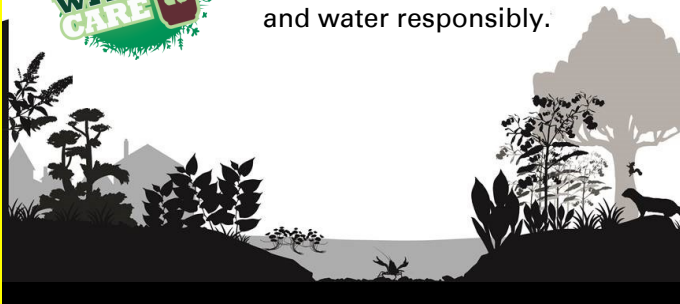
Protecting wildlife and the environment from invasive plants

Be Plant Wise and follow these tips:

Choose the right plants for your pond, aquarium and other water features.

Keep your plants in your pond or aquarium, don't plant them, or allow them to grow, in the wild.

Dispose of your unwanted plants, roots, weeds, seeds and water responsibly.



Recording INNS

www.northwaleswildlifetrusts.org.uk/inns

It is very important to record any INNS you may come across. The more records we have, the more effectively we can manage the threat.

Below are some of the recording apps and websites for INNS recording. They are simple to use and make recording easy.

- iRecord—The iRecord website is the best place to submit records of INNS in the UK
- LERC Wales Website or App
- Asian Hornet Watch App

iRecord website

LERC Wales website

Alert Species

These are species requiring urgent action. A list of alert species can be found at:

www.nonnativespecies.org/non-native-species/species-alerts/

When submitting a record they need to know:

- **What** the species is; a photo helps!
- **Where** you found it
- **When** you first spotted it
- **Who** you are

Records will be sent straight to the GB Non-Native Species Secretariat via irecord or you can submit your records to:

alertnonnative@ceh.ac.uk

Local Action Groups

A Local Action Group (LAG) is a group or project focussed on reducing the risks and impacts of INNS in a specific area.

LAGs can be big or small; covering counties, regions or just single rivers or their local patch. LAGs are very important when it comes to tackling INNS as they undertake a huge amount of work on the ground; often bridging the gap between organisations and communities.

In the UK, the GB Non-Native Species Secretariat supports LAGs in a number of ways. It organises an annual workshop and provides a toolkit of resources and information on its website.

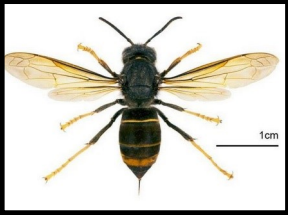
Invasive Non-Native Species

Identification guide


Asian hornet
ALERT SPECIES

Species Name

Vespa velutina

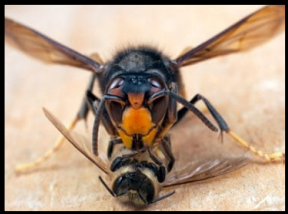


Habitat

Nests in trees and man-made structures. Frequently found in urban areas

Key Features

- Large hornet with distinctive yellow legs
- Abdomen only has one yellow segment. Thorax entirely black. Head black when viewed from above
- Very large nests often found in trees and buildings
- Very aggressive. Do not approach or interfere with a nest. Hunts native insects and honey bees



Report sightings of this species Via:

- Asian Hornet Watch app
- This QR code


Chinese mitten
crab

Species name

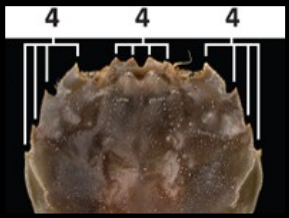
Eriocheir sinensis

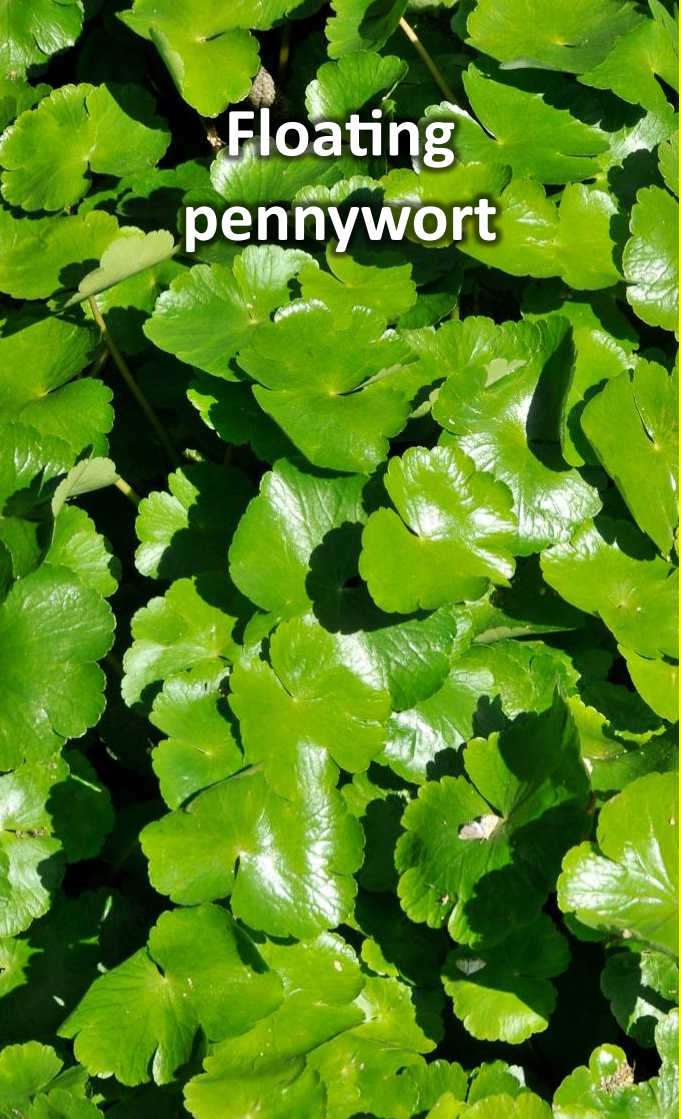
Habitat

Found in tidal streams, rivers and estuaries. Only freshwater crab in UK

Key features

- Claws covered in downy fur
- White pincers (claw tips)
- Legs have bristly hairs
- Olive-brown body with four spines of either side of shell and four spines at the front
- Characteristic D-shaped burrows in river banks
- Adults migrate to estuaries in late summer to breed, and die once breeding is complete




Floating
pennywort

Species name

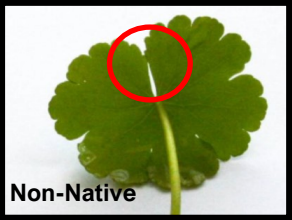
Hydrocotyle ranunculoides

Habitat

Still or slowing moving freshwater e.g. rivers, lakes and canals

Key features

- Shiny, kidney-shaped leaves with ‘frilly’ edge
- Fleshy, brittle stalks and fine roots
- Native pennywort has more circular leaf shape and leaf is complete
- Floating pennywort has and split in leaf
- Forms dense mats on water surface, making navigation impossible
- Spreads easily from small fragments




Giant hogweed
Hazardous
Do not touch!

Species name

Heracleum mantegazzianum

Habitat

Commonly found on riverbanks but can grow in many habitats

Key features

- Stiff bristles and purple blotches on stem
- Large, serrated leaves
- Large white umbrella like flower-head
- Contact with sap can cause recurrent burns to skin, sunlight makes this worse
- Grows up to 5 metres tall
- Up to 20,000 seeds per flower head
- Takes up to 4 years to flower

Himalayan balsam

Species name

Impatiens glandulifera

Habitat

Found mostly in damp areas such as riverbanks and woodland, although it can be found away from water

Key features

- Leaves arranged in whorls
- Shallow roots
- Flowers range from pink to white
- Explosive seed pods
- Fleshy hollow stems
- Grows to approximately 2 metres tall
- Up to 7,000 seeds per plant


Japanese
knotweed

Species Name

Reynoutria japonica or
Fallopia japonica

Habitat

Common in urban areas, riverbanks, railways and roadsides

Key Features

- Bamboo-like stems with purple blotches
- Palm-sized, shield-shaped leaves
- Small, white flowers
- Young shoots spear-shaped, much like asparagus
- Forms dense stands up to 3 metres tall
- Does not set seed in the UK; spreads by root and plant fragments only

Killer shrimp

Species name

Dikerogammarus villosus

Habitat

Still or flowing fresh or brackish water; prefers hard, rocky substrates

Key features

- Tail has distinctive cones. Back is usually striped
- Can grow up to 3 cm in length and is able to breed once 5-6 mm long
- Commonly found with Zebra mussel
- Readily attaches to clothing and equipment
- Only free swimming freshwater shrimp in the UK.
- Very effective predator, actively hunts prey

New Zealand pygmyweed

Species name

Crassula helmsii

Habitat

Can be aquatic or terrestrial. Found in still or slow-moving freshwater habitats up to 3m deep

Key features

- Fragile succulent with small white flowers
- Fleshy leaves grow in alternate pairs
- Stem fleshy and round but brittle
- Terrestrial form is dense and mossy in appearance. Stems tend to be pink/red
- Aquatic form is stringy with large spaces between leaf pairs and pale green stem
- Regenerates from tiny fragments

Parrot's feather

Species name

Myriophyllum aquaticum

Habitat

Still or slowing moving freshwater e.g. ponds, rivers, lakes and canals

Key features

- Leaves bright blue-green
- Finely divided, feather-like leaves on emergent growth
- Leaves arranged in whorls of 4-6
- Brown roots present at nodes all along the brittle stem
- Submerged leaves are brittle; most leafy growth is above water
- Tiny white flowers can be seen at the base of the leaves from May to August


Signal crayfish

Species name

Pacifastacus leniusculus

Habitat

Found in most freshwater habitats in the UK.

Key features

- Underside of claws bright red
- White spot or ‘signal’ on hinge of claw
- Native crayfish is smaller, without white spot and red under-claw
- Burrows into banks, leading to erosion
- Very aggressive and effective predator
- Carries crayfish plague which is deadly to native crayfish

Water primrose

ALERT SPECIES

Species name

Ludwigia grandiflora

Habitat

Still or slowing moving freshwater e.g. rivers, lakes and canals

Key features

- Bright yellow flowers with 5 petals
- Leaves are dark green with a light green midrib
- Emergent leaves are long and thin
- Submerged leaves are round
- It has a fleshy stem and can grow in water up to 3m deep

Report sightings of this species via the QR code:

Zebra mussel

Species name

Dreissena polymorpha

Habitat

Slow rivers, canals, docks, lakes, reservoirs and water pipes.

Key features

- Small, striped mussel
- Can grow up to 3cm in length
- Distinctive D-shaped shell
- Attaches to solid surfaces, usually forming large colonies
- Known to block water pipes, foul hulls and damage underwater machinery
- Minute larval stage is easily transported on damp equipment

For more information about the species mentioned and others found in the UK please visit the Great British Non-Native Species Secretariat (GBNNSS).

The GBNNSS can provide resources for those interested in invasive species including ID sheets and management toolkits as well as advice on recording sightings, LAG groups and biosecurity.

ID Sheets

INNS Management

Find out more ....

For more information about invasive non-native species, biosecurity and Local Action Groups please visit:

www.nonnativespecies.org

Photo credits

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