

What are invasive non-native species?

Plants and animals from all over the world have been introduced to British waters by people, often accidentally. These are known as **non-native species**. Most are harmless, but some become **invasive** and harm the environment, economy, or our health and the way we live.

Why are they a problem?

For the environment

Invasive non-native species harm the environment in a number of ways, including:

- competing with native wildlife for food and habitat
- killing fish by spreading diseases and reducing oxygen in the water
- damaging the ecosystem

For water users

They can interfere with activities you enjoy:

- blocking waterways making it hard to fish or paddle
- killing fish
- damaging boats and clogging propellers

For everyone

Invasive non-native species cost the GB economy over £2 billion

a year. Some harm our health, for example as irritants of the skin or respiratory system.

Stop the Spread

Over fifty invasive non-native species have already been found in our freshwaters and the numbers are rising rapidly.

Once established they can be difficult and expensive to control so it's important to prevent their spread in the first place.

This leaflet contains examples of invasive non-native species and how you can help.

Water primrose

Ludwigia grandiflora



Creeping water plant that can grow on, or out of, the water's surface.

Leaves can be long and slender, up to 9 cm long, or round / egg shaped. Flowers are up to 3 cm wide, bright yellow, and resemble a primrose.

Found in only a few sites in GB, could cost millions of pounds to manage each year if it were to establish. **This is an alert species: if found please report your sighting to iRecord.**

Giant hogweed

Heracleum mantegazzianum



Up to 5 m tall. Stem usually has sharp bristles & blotchy purple patches (sometimes completely purple).

Leaves are up to 3 m wide, and sharply divided / serrated.

Flowerheads are up to 80 cm wide, umbrella shaped, and white / pinkish.

WARNING: do not touch this plant. The sap is toxic and causes blistering of the skin on exposure to sunlight.

Himalayan balsam

Impatiens glandulifera



Often found on riverbanks, growing up to 2 m tall.

Leaves are up to 15 cm long, opposite on the stem or in whorls of 3-5. Flowers are pink and trumpet shaped, 2.5-4 cm long.

Grows in dense stands outcompeting native plants, harming other species that rely on them. Dies back in winter leaving riverbanks bare and at risk of erosion.

Parrot's feather

Myriophyllum aquaticum



Aquatic plant, may grow under the water, or out of the water's surface.

Leaves are blue-green and feather-like, growing around the stem in groups of 4-6.

Plants growing out of the water are more robust than those growing under water.

Can block ditches and dominate ponds.

Floating pennywort

Hydrocotyle ranunculoides



Aquatic plant with fleshy stems.

Leaves are up to 7 cm wide, shiny and kidney-shaped with a crinkled edge, usually broader than long.

Quickly forms dense mats which outcompete native plants and interfere with recreation.

To get involved in managing this plant, visit nonnativespecies.org/floatingpennywort.

Australian swamp stonecrop

Crassula helmsii



Leaves are small, round and fleshy and arranged along the stem in opposite pairs.

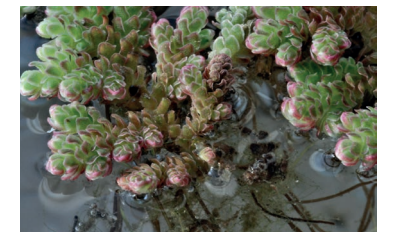
May have small white flowers with small petals.

Can grow under the water surface, out from the water, or on land by the water.

Forms dense mats and can grow 200 times faster than native pond plants.

Water fern

Azolla filiculoides



Very small free floating water plant.

Leaves have a rough, fern-like appearance and range from green to red.

Black / brown roots hang below the plants and can be easily broken.

Forms dense mats on the surface of still waters that can cause the surface of the water to appear solid.

Find out more about anything in this leaflet:



nonnativespecies.org/
checkcleandry

X: @CheckCleanDryGB

From the Aquatic Biosecurity Partnership, funded by water companies



How can I help?

Record your sightings

Sightings of these and other non-native species can be recorded online through [iRecord](https://iRecord.org/). Remember to note your location and try and take a photograph.

Volunteer

Why not join a Local Action Group working on invasive species management? If you're an angler, paddler, or take part in similar activities you can get involved through your sport. Visit nonnativespecies.org/floatingpennywort for details.

Check Clean Dry after leaving the water

Invasive species can be hard to spot so are easily spread on damp clothing, equipment and footwear. Remember to:

CHECK

Check your equipment and clothing as soon as you leave the water for plant and animal material and remove anything you find. Leave it at the site where you found it.

CLEAN

Clean everything thoroughly as soon as you can, pay particular attention to areas that are damp or hard to access. Use hot water if you can

DRY

Dry everything thoroughly for as long as possible as some invasive species can survive in damp conditions for over two weeks.

Find full ID sheets for the species in this leaflet and more on how you can help, at nonnativespecies.org/checkcleandry.

Chinese mitten crab

Eriocheir sinensis



The only freshwater crab found in the UK. Migrates downstream to estuaries in Autumn to spawn.

Green, brown, or grey in colour, with front white tipped pincers covered in dense matts of fine hairs.

Legs are long and hairy, body square and up to 85 mm across.

Undermines riverbanks through burrowing increasing the erosion risk.

Killer shrimp

Dikerogammarus villosus



Up to 30 mm long, body is curled and semi-transparent with two pairs of antennae and large, powerful mandibles (jaws).

Predator of native shrimp and other native fauna. Likely to disrupt ecosystems through direct predation and indirect effects across food chains.

Parasites carried by killer shrimps could reduce fish stocks.

Topmouth gudgeon

Pseudorasbora parva



Small fish up to 110 mm in length, usually 20—75 mm.

Has an upturned mouth, grey back, pale sides and belly, rounded fins.

Harms native and farmed fish by competing for food, transmitting diseases, and preying on young fish and eggs.

This is an alert species: if found please report your sighting to iRecord.



Signal crayfish

Pacifastacus leniusculus



Up to 16 cm long, resembles a small red / brown lobster.

Has large claws with a bright red underside and a turquoise / white blotch on the claw hinge.

Harms native crayfish through competition and can carry a crayfish plague that is deadly to native crayfish.

Burrows into riverbanks weakening them.

Quagga mussel

Dreissena rostriformis bugensis



Up to 40 mm long. 'D' shaped, rolls to side when placed on its front.

Brown-yellowish to completely black in colour, with stripes of different shape and size.

Changes ecosystems by filtering out large quantities of nutrients, blocks pipes, and smothers boat hulls.

Very similar to the invasive zebra mussel which is more widespread.

Invasive plants and animals harm wildlife and block waterways

Help protect the environment and activities you enjoy

STOP THE SPREAD