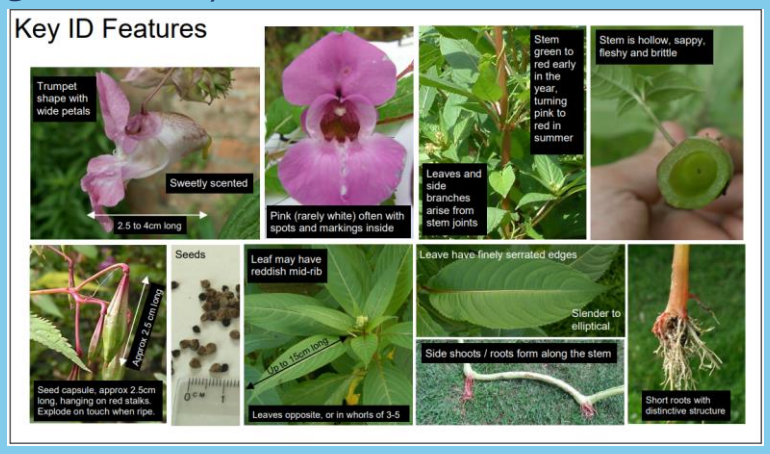
Birmingham River Champion's invasive species overview

Overview

Monitoring invasive species in rivers is essential to **protecting** the **health** of river ecosystems. Invasive species, introduced accidentally or deliberately, can **outcompete** native wildlife, **disrupt** food chains, and **damage** habitats. By closely monitoring invasive species in rivers, we can track their prevalence across Birmingham's watercourses that could potentially help target management interventions. In Birmingham River Champions, we have identified 5 invasive species to focus on that are prevalent regionally and nationally. Volunteers can record the occurrence of invasive species either whilst undertaking other Birmingham River Champion surveying (i.e., Urban Riverfly and/or water chemistry), or independently if you happen to see any whilst walking'. We have synthesised key information sources of each of these from the NNSS ID sheets, and you can see further details on these 5 species and other invasives here too.

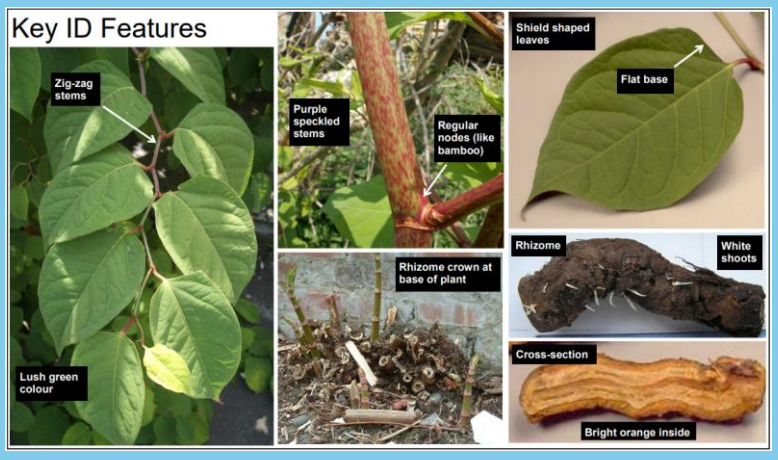
Himalayan balsam (*Impatiens glandulifera*):

Native to the Himalayas and introduced to the UK in the 19th century as an ornamental garden flower, this plant is easily identified by its striking **pink**, **helmet**-shaped flowers that bloom from June-October. It can grow up to 2 meters and has long, serrated leaves with a reddish tinge. H. balsam often forms **dense** clusters along riverbanks, **outcompeting** native species, and its shallow roots contribute to **soil erosion** in winter.



Japanese knotweed (*Fallopia japonica*):

Originating from East Asia, this plant has **bamboo-like** stems, which are hollow and have distinctive **purple speckles**. Its **heart-shaped** green leaves are arranged in a **zig-zag** pattern along the stem, and produces small, creamy-white flowers in late summer. It can grow up to 3 meters and spreads aggressively along riverbanks, damaging ecosystems and infrastructure with its **dense** root system.



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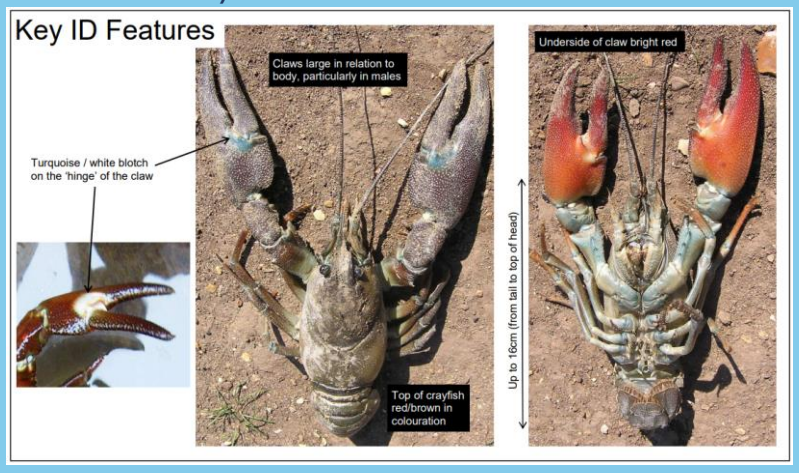
Giant hogweed (*Heracleum mantegazzianum*):

From the Caucasus region, giant hogweed is easily distinguished by its enormous size, reaching up to **5 meters tall**. Its white, **umbrella-shaped flower** heads can span up to 80 cm across, and it has large, sharply serrated leaves. The stems are green with purple blotches and covered in coarse hairs. Most importantly, its sap is **highly toxic** and can cause **severe burns** to humans (see the risk assessment).

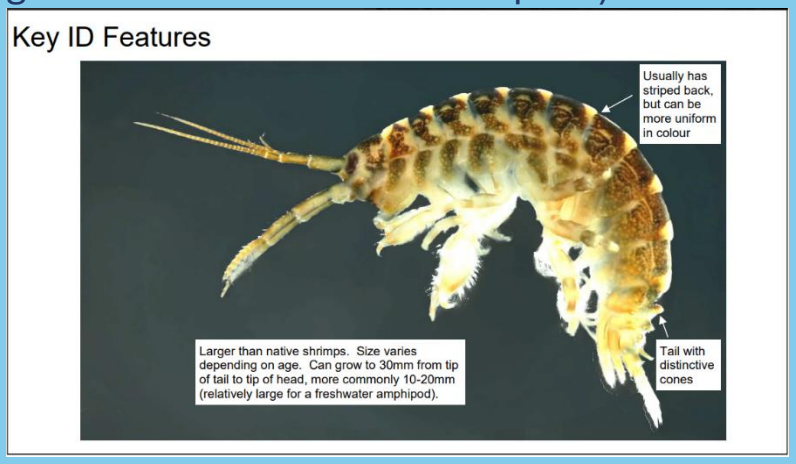
Signal Crayfish (Pacifastacus leniusculus):

Introduced from North America in the 1970s, signal crayfish are significantly **larger** than the UK's native 'white-clawed' crayfish, growing up to 16 cm long. They can therefore **outcompete** our natives, and further threaten their populations by carrying a **fungal** plague. Signals are identified by their large claws that are **red** on the underside and often have a distinctive **blue** or **white patch** near the joint (hence the name "signal"). Their burrowing activity destabilizes riverbanks.



Killer/Demon Shrimp (Dikerogammarus villosus/ haemobaphes):

Originally from the Ponto-Caspian region, both the killer and demon shrimp are **larger** than native freshwater shrimp (*Gammarus* sp.), growing up to 30 mm in length. They often have a **striped** appearance, with **spines** on their tail and appendages, giving them a **'spiky'** look – these features are not observed on our native shrimp. Killer / demon shrimp are omnivores, and can **outcompete** native species for organic matter like leaf litter, or can **predate** on them directly.



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