

Egyptian goose

Alopochen aegyptiacus

At almost 75 centimetres tall and with a wingspan of up to one and a half metres, the Egyptian goose is one of the most striking new arrivals from the animal kingdom. Originally native to eastern Africa, this bird is easily recognisable by its dark eyepatch and brown collar.

Egyptian geese are extremely flexible in their choice of nesting sites. They will breed in burrows on steep riverbanks, but are just as happy to build nests in the crevices of buildings. Sometimes they even drive other birds, including storks, out of their nests. During the breeding season, Egyptian geese will not tolerate other water birds within their territory.

Since some of them managed to escape from captivity in the Netherlands in the 1970s these geese have spread along the Rhine and its tributaries.



Chinese mitten crab

Eriocheir sinensis

This crustacean with claws covered in dense, brown fur, is a native of China. The crabs were probably introduced to the River Rhine as larvae in the ballast water of commercial ships. This species, which can grow to a length of up to thirty centimetres, has been proliferating here since the mid-20th century.

The adult mitten crabs live in burrows along the riverbank, where they venture out at night in search of food. They feed mainly on aquatic plants, but their diet also includes smaller animals. Mitten crabs require salt water to successfully reproduce. The sexually mature animals migrate to the North Sea when they are around six years old. There, the females lay their eggs in the Rhine's tidal estuary area. The larvae develop in the sea, and only migrate back upstream as juvenile crabs.



Nutria

Myocastor coypus

Nutrias bear a strong resemblance to beavers and can be seen roaming the Rhine's groyne fields. These animals, which are also known as beaver-rats or swamp-beavers, can best be observed there at dusk.

Nutrias live communally in small colonies in burrows, which they dig into riverbanks using their powerful claws. Their diet consists mainly of plants. To add variety, they will also eat snails, mussels, worms and insect larvae.

The original home of the nutria is far away in South America. Here in Europe, this species, which can grow up to one metre in length, has traditionally been bred for its thick, warm fur.

The populations on the Rhine originate from animals that have escaped from farms. In the *Park am Mäuseturm*, there are also frequent traces of these stately rodents.



Glandular globe thistle

Echinops sphaerocephalus

For centuries, the globe thistle, whose scientific name *Echinops* means 'hedgehog-like', has been planted in gardens as an ornamental plant. It has become naturalised in the dry and warm regions of Germany, which are climatically similar to its native habitat in the northern Mediterranean region.

The silver-coloured flower heads attract bees and bumblebees, which extract the nectar and pollinate the globe thistle. For this reason, beekeepers like to sow this low-maintenance plant along railway lines as bee forage.



Himalayan balsam

Impatiens glandulifera

Himalayan balsam, which can grow up to three metres tall, originally came to Germany from the western Himalayas as an ornamental plant: the “poor man’s orchid”. It has been spreading along rivers and streams here for around 100 years now. This plant, which has a lifespan of only one year, requires moist soil to ensure that it always has sufficient water for its vigorous growth. Thanks to its size and growth rate, the Himalayan balsam is capable of outcompeting native species.

The pretty flowers attract bees and bumblebees with their scent.

As the seeds mature, high pressure builds up inside the fruit capsules. If a grazing animal or a human touches the bulging fruit capsule, it bursts open and scatters the seed up to seven metres from the parent plant.



Japanese knotweed

Fallopia japonica

Japanese knotweed, which is native to East Asia, is an extremely vigorous plant. Its bamboo-like shoots can quickly grow into impenetrable thickets. This hardy perennial regrows its above-ground parts each year. The plant has a creeping, heavily branching rhizome that grows at a depth of up to two metres and can spread up to one metre per year. In just a few weeks, it can send up stems of up to four metres in height. These produce large leaves and dense clusters of small white flowers form in their axils.

Japanese knotweed likes to grow on earth mounds, where it will quickly suppress other plants. This phenomenon can also be observed at the Rhine's groyne fields.



Butterfly Bush

Buddleja davidii

When it comes into full bloom in mid summer, the butterfly bush, which originates from East Asia, reveals why it is so popular as an ornamental shrub. At the ends of its branches it produces dense panicles of purple flowers that attract large numbers of insects. Butterflies, in particular, enjoy visiting the honey-scented flowers.

In its native habitat, the shrub, also known as summer lilac, is typically found in rocky mountainous regions. Here in our region it also prefers to colonise stony habitats. After the Second World War, it spread rapidly among the rubble of the ruined cities. Today, this attractive shrub is primarily found growing in the gravel of railway tracks and along roadsides.



Narrow-leaved ragwort

Senecio inaequidens

The narrow-leaved ragwort, which originates from South Africa, displays its magnificent yellow flowers well into late autumn. The plant seed arrived here in Europe in bundles of sheep's wool, which were transported by ship and rail.

Here, it thrives on the dry, stony margins of railway tracks and roads. The plant produces large quantities of fruits known as achenes, each of which carries a parachute made of fine hairs. The seeds are easily carried away by the wind with the result that, in recent years, narrow-leaved ragwort has spread rapidly along the railway lines and roads of the Rhine Valley and its tributaries.



Black locust

Robinia pseudoacacia

The black locust tree was brought to Europe from its native North America over 300 years ago. Originally cultivated as an ornamental tree, it soon became popular for its extremely hard wood, which was used to produce vineyard posts and construction timber. Since then, the black locust has been spreading across uncultivated land.

The tree has protective thorns at the base of its leaf stalks and pendulous clusters of white flowers. Due to its similarity to the true acacia this species is also known as the “false acacia”. Through its system of root suckers it usually forms dense thickets. Like other members of the *Faboideae* family, the black locust lives in symbiosis with special bacteria that reside within its root nodules. These bacteria fix nitrogen from the air. The tree thus contributes indirectly to the enrichment of nutrients in the soil.



Canada goldenrod

Solidago canadensis

At its peak flowering time in midsummer, Canada goldenrod is a real feast for the eyes with its bright yellow, densely packed flower heads. As far back as the 17th century it was one of the first plant species to be brought to Europe from the so-called New World to be cultivated in gardens as an ornamental plant.

Since then, the Canada goldenrod has spread throughout the landscape. The fluffy, hair-like structures attached to its fruits enable them to travel long distances like tiny parachutes.

Once established, Canada goldenrod forms dense colonies using a branching system of underground creeping rhizomes. This can cause it to overgrow other grasses and perennials and eventual crowd them out.

