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WHY CONTROL IS IMPORTANT

According to the World Conservation Union, invasive species are the second most significant threat to biodiversity after habitat loss. Invasive species can cause extinctions of native plants and animals, competing with native organisms for limited resources, and altering habitats. Legislation and government directives place a growing emphasis on the need to control the spread of invasive plants in the UK.

Currently there are nearly 200 known species of non-native invasive weeds growing across the country, causing significant issues for homeowners and developers as well as affecting the use of amenity landscapes such as highways and public pedestrian areas, as well as affecting the natural environment.

Some terrestrial species such as Giant hogweed and Hemlock have extremely high toxicity levels, causing great harm to humans and wildlife if touched, disturbed or ingested.

Other native invasive species such as Common ragwort contain chemicals that are harmful to livestock, and Horsetail if ingested by horses can be fatal.

Invasive Non-Native Species (INNS) and Native species are **NOT TO BE IGNORED!**

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ROSEBAY WILLOWHERB

ABOUT GIANT HOGWEED

SCIENTIFIC NAME: *Heracleum mantegazzianum* ORIGIN: Western Caucasus

Giant hogweed is a member of the Parsley family which includes; Wild Carrot, Fool's Watercress, Cow Parsley, Hogweed, Wild Angelica, Alexanders, Sweet Cicely and Hemlock. Giant hogweed is a tall biennial or perennial herbaceous plant with white flowers, that look like very large Cow parsley heads. NOTE: This dramatic looking weed must be treated with extreme caution.

- Hollow green/purple stems with fine spines that make them appear furry.
- Large, dark green coarsely toothed leaves.
- Small white flowers are arranged in flat-top umbrella-like clusters. Flowering stalks start to elongate in May, with peak flowering in June/July.
- Growth up to 3-5m tall with individual umbels measuring up to half a metre across and leaves up to 2m across.
- Often mistaken for its much smaller variety - Common hogweed.

HABITAT

As well as river margins, it can also be found on roads and railways, derelict land and rubbish tips. Giant hogweed growing across or along the route of a public right of way is likely to attract the involvement of the Environment Agency due to the threat it presents to public health.

ENVIRONMENTAL IMPACT: HIGH

It forms a dense canopy that can quickly out-compete native species. It can cause stream bank erosion in riparian areas when the large shading plant dies back late in the year leaving riverbanks exposed to the elements.

TOXICITY LEVEL: EXTREMELY HIGH

Extremely harmful to humans and wildlife, Giant hogweed can cause recurring painful skin blistering on the slightest touch through sensitivity to sunlight. Contact with the eyes can lead to temporary or, in some cases permanent blindness.



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ABOUT HIMALAYAN BALSAM

SCIENTIFIC NAME: *Impatiens glandulifera* ORIGIN: Himalayas

Himalayan (or Indian) balsam is an annual herb that was introduced to Britain in 1839. Its common name is 'Policeman's Helmet' due to the shape of the flowers. A native of the western Himalayas, it is the tallest annual plant in the British Isles, growing up to 3m high.

- Trumpet shape wide petals.
- Pink (rarely white) petals.
- Leaves grow in opposite directions, or in whorls of 3 to 5, with finely serrated edges.
- Seed capsules are around 2.5cm long hanging on red stalks between June and October.
- Stem is green to red early in the year, pink to red in summer.
- Stems are hollow, sappy, fleshy and brittle.

HABITAT

Most commonly found in woodlands, along riverbanks and in areas of damp ground. Also found growing in amenity or urban areas, such as highways, footpaths and green open spaces.

ENVIRONMENTAL IMPACT: MEDIUM-HIGH

Provides a significant ecological impact especially in riparian environments since it grows in dense stands that have the capacity to completely suppress native grasses and other flora. In the autumn the plants die off leaving riverbanks bare and therefore highly susceptible to erosion.

TOXICITY LEVEL: ZERO

Himalayan balsam presents no physical danger to either humans or animals.



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ABOUT HORSETAIL

SCIENTIFIC NAME: *Equisetum arvense* ORIGIN: UK

Horsetail (or Field horsetail) is an invasive native herbaceous perennial plant. It is sometimes incorrectly referred to as Marestalk. Easily recognised throughout the summer and autumn by its upright light green, fir tree like shoots with folded needle like leaves pointing upward around the stem. A single cone can produce 100,000 spores.

- Light brown stems in spring.
- Upright 5-60cm light green stem.
- Pointed green shoots.
- Folded needle like leaves.

HABITAT

Commonly found in fields or common ground, residential gardens or alongside roads and pathways in urban areas.

ENVIRONMENTAL IMPACT: HIGH

Horsetail is a pernicious weed capable of rapidly colonising a diverse range of sites as it's extremely hardy. It spreads quickly, out-competing other plants to form a dense carpet of foliage. Surprisingly due to the relative fragility of the individual stems it also presents a risk to hard standing. Tarmac surfaces laid over untreated Horsetail infested ground are particularly prone to surface penetration and damage.

TOXICITY: EXTREMELY HIGH

Horsetail is extremely dangerous to grazing horses, as it inhibits production of vitamin B1. Symptoms of Horsetail poisoning in horses include scruffy physical appearance, weight loss, diarrhoea, uncoordinated movements, loss of muscular control, staggering gait, balance issues, seizures, and may eventually lead to death from exhaustion.



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ABOUT HEMLOCK

SCIENTIFIC NAME: *Conium maculatum* ORIGIN: Europe and North Africa

A biennial herbaceous flowering plant that is a member of the carrot family (*Apiaceae*) it is colloquially known as Hemlock, Poison hemlock or Wild hemlock, this species is highly poisonous. All parts of the plant are toxic, even dead stems can remain toxic for up to 3 years.

- A tall green plant - grows up to 2m high.
- Purple spotted stems.
- Umbrella like clusters of small white flowers in June and July.
- Repellent smell.
- Highly toxic both green and cut, dried plant are poisonous (see below).
- NOTE: Often confused for the edible herb - Chervil.

HABITAT

Hemlock prefers a damp environment such as ditches, riverbanks, waste ground and rubbish tips. It also happily grows on farmland and in woodland areas and is often found on roadsides.

ENVIRONMENTAL IMPACT: HIGH

A fast-growing species, Hemlock can reduce native plant cover by blocking out sunlight to native plant communities in riparian woodlands, floodplains of natural aquatic systems, and grazing areas, particularly pastures and meadows.

TOXICITY LEVEL: EXTREMELY HIGH

Hemlock is highly toxic to livestock and humans and can be fatal. Symptoms display after 30 minutes to three hours depending on the amount ingested. Poisoning affects the nervous and respiratory systems and can lead to respiratory failure. Symptoms include trembling, burning sensation in digestive tract, increased salivation, dilated pupils, muscle pain, weakness, rapid followed by decreased heart rate, loss of speech, convulsions and unconsciousness. When touched the plant can generate a painful rash, or burning on the eyes.



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ABOUT VARIEGATED YELLOW ARCHANGEL

SCIENTIFIC NAME: *Lamiastrum galeobdolon subsp. argentatum* ORIGIN: Unknown

Variegated yellow archangel is an invasive, non-native plant, producing creeping runners that grow horizontally with a mass of stems growing vertically with variegated leaves and whorls of yellow two-lipped flowers. It is a low-growing herbaceous perennial that grows from underground rhizomes. Leaves are boldly variegated in all seasons, unlike the native Woodland yellow archangel.

- Variegated leaves with silver markings.
- Oval-shaped and toothed-edge leaves.
- Square and opposite stems.
- Flowers are small, yellow and tubular.
- Stems grow 1-2ft tall.
- Unpleasant odour.

HABITAT

Away from cultivation the plant is mainly found in shady locations (e.g woodland and hedges), where it can dominate the ground cover at the expense of other native plants. In gardens it will grow pretty much anywhere if allowed, but prefers shady areas such as underneath bushes, trees or shrubs.

ENVIRONMENTAL IMPACT: MEDIUM

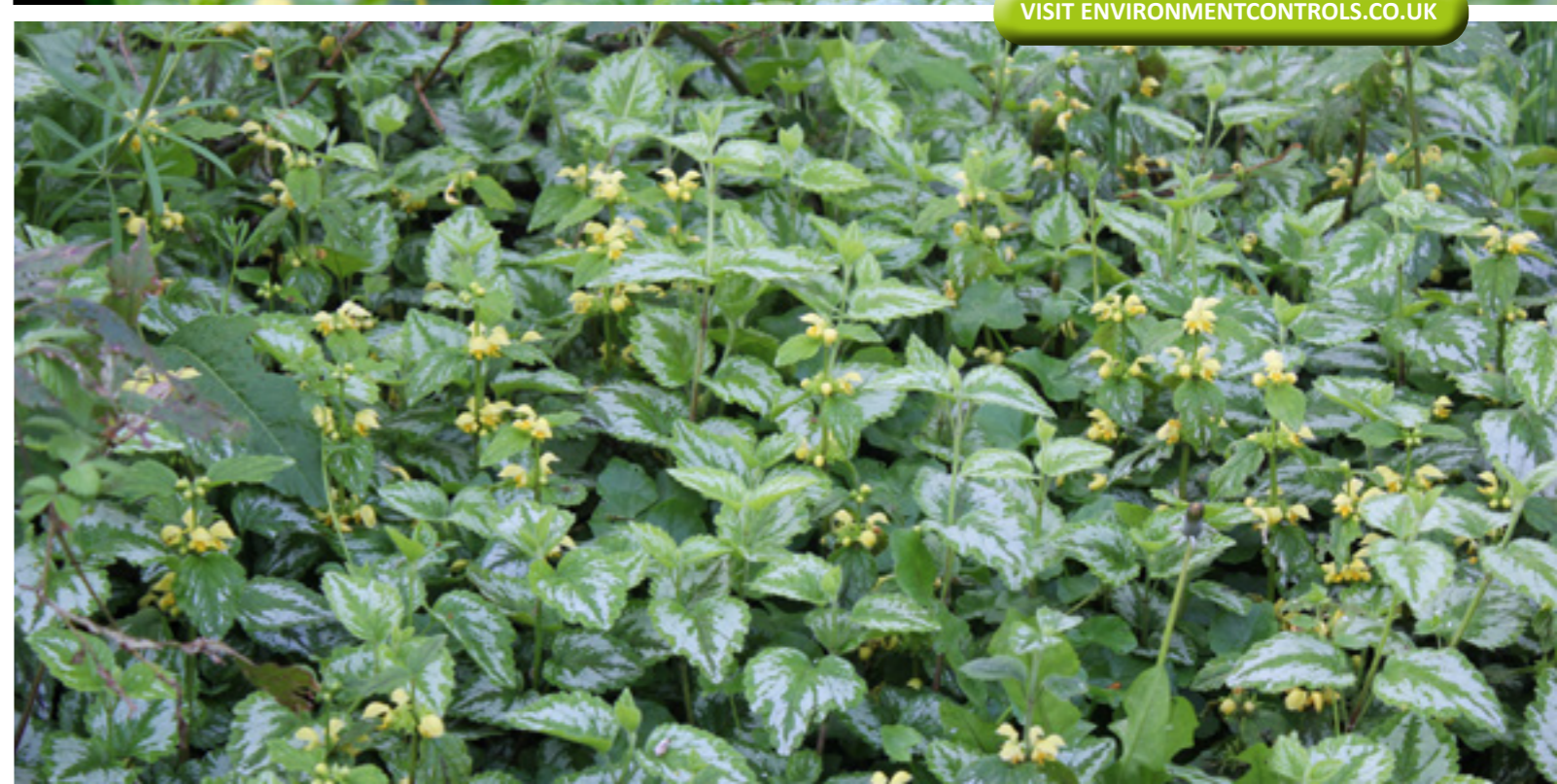
Due to its rampant aggressive growth, it can swamp and eventually out-compete other native species by forming dense patches. There is evidence of genetic transfer with native subspecies and possible dilution and loss of native genetic diversity.

TOXICITY LEVEL: ZERO

Variegated yellow archangel presents no physical danger to either humans or animals.



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ABOUT VIRGINIA CREEPER

SCIENTIFIC NAME: *Parthenocissus quinquefolia* ORIGIN: US

Virginia creeper is a vigorous deciduous climber with either tendrils or disk-like suckers and an abundance of lobed green leaves that turn bright red and orange in autumn. It originally came to the UK in 1629 as a decorative plant, but it was first recorded in the wild in 1927. Birds and small mammals are known to eat the berries and disperse them in their droppings, but it's not yet clear how viable the seeds are in the UK climate.

- Can grow up to, and beyond 50ft high.
- Leaves grow in an alternate pattern, turning a distinctive bright red in autumn.
- Stems are reddish-brown.
- Flowering is in late May to August.
- Dark purple berry fruits ripen in September and October.

HABITAT

Virginia creeper is scattered throughout England and Wales, frequent in the south, rarer in Scotland. As it grows by attaching itself to structures, or other plants or even trees, it is most often seen enveloping buildings, houses and structures where it can entwine itself around.

ENVIRONMENTAL IMPACT: MEDIUM

The plant is fast-growing on trees or shrubs and reduces the availability of light, swamping and out-competing other species. Can also cause damage to structures and property as the weight of these climbers can contribute to branches breaking or collapse of the host's canopy.

TOXICITY LEVEL: MEDIUM

If the leaves or berries are ingested they can cause irritation to the lips, mouth, tongue, and throat. Although rare, nausea, vomiting, diarrhoea, and difficulty swallowing have been reported.



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ABOUT RHODODENDRON P.

SCIENTIFIC NAME: *Rhododendron ponticum* ORIGIN: Iberian Peninsula

Rhododendron P. is an established invasive non-native species found all over the UK. An evergreen shrub often reaching 4-5m in height at maturity, even up to 8m in the optimum environment. These shrubs have light brown, woody stems which develop into trunks over time and elliptical, glossy, dark green leaves.

- Large leathery leafed shrubs.
- Clusters of white, pink, red or purple blooms that flower March to October.
- Rhododendron flowers have fragrant blossoms.
- Brown woody stems.

HABITAT

Rhododendron P. was first recorded in the wild in 1894, as it had escaped from horticulture and been planted in woods for game cover. Now populating woodland areas across the UK.

ENVIRONMENTAL IMPACT: HIGH

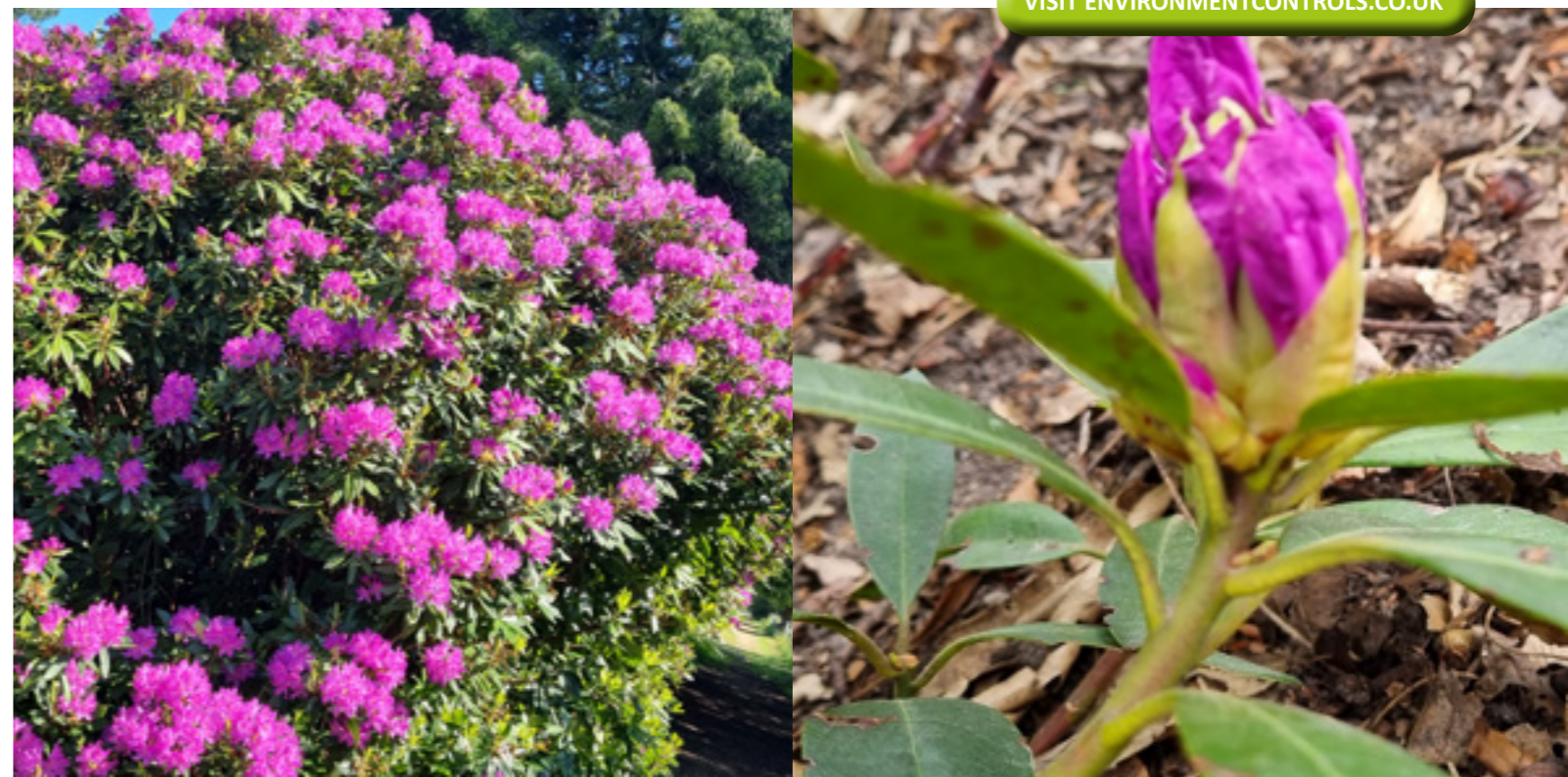
Rhododendron is currently a threat to a variety of habitats and the associated flora and fauna causing damaging effects on the local environment. By growing rapidly this plant out-competes native flora, decreases biodiversity and is a sporulating host to the harmful *Phytophthora ramorum* and *Phytophthora kernoviae* which caused the Irish potato famine and more recently, is responsible for Sudden Oak Death.

TOXICITY LEVEL: MEDIUM

Potentially toxic chemicals, particularly 'free' phenols, and diterpenes, occur in significant quantities in the tissues of Rhododendron P. Diterpenes, known as grayanotoxins, occur in the leaves, flowers and nectar which are toxic if ingested.



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ABOUT BUDDLEIA

SCIENTIFIC NAME: *Buddleja davidii* ORIGIN: China

Buddleia is a fast-growing, medium to large perennial shrub with long arching branches. The lilac/purple and sometimes white flowers occur in dense pyramidal-shaped panicles, which produce large quantities of nectar which attract bees and other insects. The leaves are deep green, long and wider in the middle, with a white velvety surface underneath.

- Grows up to 15ft tall.
- Showy flower spikes grow at the branch ends, 4 - 10 inches long.
- Purple, pink or white flowers typically with orange centres.
- Young stems are green, older stems have peeling, grey-brown bark.
- Leaves are long and narrow and arranged oppositely on the branches.
- Flowers bloom between June and October.

HABITAT

Has become widely naturalised and colonises disturbed ground on railway lines, quarries, roadsides and waste ground, also commonly seen growing from cracks in buildings and other structures such as walls. Often seen on the grounds of commercial buildings or property where it has been left to grow.

ENVIRONMENTAL IMPACT: MEDIUM

Can cause structural damage when it gets a foothold in walls, pavements, chimneys etc. Listed and historic buildings are particularly under threat, and it is estimated the cost of damage to properties, both historical and private, currently in the UK is around £1m. Further to this, it also causes significant problems for the management of the rail network.

TOXICITY LEVEL: ZERO

Buddleia presents no physical danger to either humans or animals.



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ABOUT BAMBOO

SCIENTIFIC NAME: *Phyllostachys species* ORIGIN: Asia

Bamboo is a rapidly growing, tall non-flowering plant that produces clumps of thin elongated leaves from tall hollow stems. The two general patterns for the growth of bamboo are 'clumping' and 'running', with short and long underground rhizomes, respectively.

Bamboo is not classed as an 'invasive' species under the Wildlife and Countryside Act 1981, hence there are currently no restrictions on planting it. However, public encroachment cases are becoming more common in the UK, with homeowners taking legal action against neighbours who allow bamboo to spread onto their property. The underground rhizomes can spread rapidly, and the fully grown plants are problematic to eradicate.

- Tall ridged, hollow canes.
- Profuse green leaves.

HABITAT

Bamboo can thrive in damp soil but not constantly waterlogged or excessively dry conditions. Often used as an ornamental garden plant or screen, however can spread rapidly and take over large areas.

ENVIRONMENTAL IMPACT: MEDIUM

Although Bamboos have a very positive effect in their ability to absorb large volumes of carbon dioxide from the atmosphere, they are becoming known for causing local land issues. The running plant's rhizomes can, if not controlled quickly spread beyond its original planted location and encroach into neighbouring land. Bamboo rhizome and growth has also been recorded as causing minor damage to buildings and infrastructures as it exploits any weak areas that it can grow through.

TOXICITY LEVEL: ZERO

Bamboo presents no physical danger to either humans or animals.



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ABOUT COMMON RAGWORT

SCIENTIFIC NAME: *Senecio jacobaea* ORIGIN: UK

Common ragwort is classed as an 'injurious' weed, due to its toxicity levels. An erect plant that can reach 30-100cm high, with tough stems that are often tinged red/purple near the base, and characteristic dark green leaves and yellow daisy-like flowers. As a perennial the above ground growth completely dies off in winter. Each plant can produce up to 150,000 seeds with a 70% germination rate and seeds remain dormant in the soil for up to 20 years.

- Plants have large, flat-topped heads of dense yellow flowers.
- Seeds ripen in July and August and are normally shed from September.
- Leaves are dark green, curly edged and quite tough.
- Stems are tinged red at the base and a brighter green nearer the middle.

HABITAT

Ragwort proliferates on roadside verges, railway tracks, wasteland and pasture land. It prefers light soils of low fertility, particularly in over or under grazed pasture. Can often be identified by the presence of Cinnabar moth caterpillars (*Tyria jacobaea*), as these caterpillars feed almost exclusively on Ragwort. The caterpillars are distinctive, black with gold stripes, and grow up to 3cm long.

ENVIRONMENTAL IMPACT: LOW

Where there is no threat to animal welfare, Common ragwort is a native species and makes an important contribution to the biodiversity of the countryside. Common ragwort has its own Code of Practice.

TOXICITY LEVEL: EXTREMELY HIGH

Common ragwort is one of the most frequent causes of plant poisoning of livestock in Britain, with equines and bovines being more susceptible than others – particularly the young. It can also be poisonous to people and has been suspected of causing liver damage in those who pull the plant without wearing protective clothing. Ragwort acts as a cumulative poison, eventually destroying the liver, and a small intake of ragwort over a long period can be just as damaging as a large intake on a single occasion.



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ABOUT YELLOW AZALEA

SCIENTIFIC NAME: *Rhododendron luteum*

ORIGIN: South-Eastern Europe & Southwest Asia

Yellow azalea or Honeysuckle azalea is a bushy deciduous shrub (part of the Rhododendrons) with oblong leaves turning orange, purple and red in Autumn and a bright display of yellow clustering flowers with a heady perfume.

As with all Rhododendron species, they can reproduce and spread in two ways - via seed dispersal to form new plants and by branch growth. Azalea root systems form a mass directly below the plant. Though they prefer to root close to the surface, the density of these root systems can make them hard to remove completely.

- Upright deciduous perennial shrub.
- Grows 3 - 4m high.
- Yellow flowers that are characteristically fragrant.
- Smaller flowers than R.Ponticum.

HABITAT

Commonly found in woodlands, also in wet heathlands, dunes and bogs as azaleas have shallow roots so prefer moist, well-drained soil.

ENVIRONMENTAL IMPACT: MEDIUM

The danger with hardy invasive species such as Yellow azalea is that they change the balance in our native ecosystems, usually for the worse, resulting in out-competing indigenous species.

TOXICITY LEVEL: HIGH

Azaleas contain substances called grayanotoxins that are present in all parts of the plant.

Grayanotoxins block normal function of the muscles in people and animals, including the heart, and can impair nerve function. If ingested is toxic to humans and animals.



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ABOUT COTONEASTER

SCIENTIFIC NAME: *Cotoneaster integrifolius* ORIGIN: Eastern Asia

Cotoneaster species are native to Eastern Asia and were first introduced to the UK in 1824 as ornamental plants. There are over 100 species of Cotoneaster now being cultivated in the UK but only 5 species are deemed as invasive. Himalayan Cotoneaster is an erect deciduous shrub, with leaves of 1.5 - 2.5 cm long, whilst Small-leaved Cotoneaster is evergreen with very small leaves at 0.5 - 0.8cm long.

- A species of green shrubs and small trees, some deciduous and some evergreen.
- All Cotoneaster species have shiny leaves.
- Leaves are hairless on the upper surface and slightly hairy on the underside.
- Flowers are small, white or pink in the spring, followed by prolific dense clusters of red/orange berries in the autumn.
- Wall Cotoneaster has branches in a 'herringbone' shape.

HABITAT

Widely seen in woodland, scrub, hedgerows and quarries, and on railway banks, roadsides, sand dunes, cliffs, walls and waste ground.

ENVIRONMENTAL IMPACT: HIGH

Once Cotoneaster is established, it can dominate areas, out-competing native flora and creating dense thickets. They are particularly problematic on limestone cliffs, pavements and screes as they form an extensive root system which is difficult to remove.

TOXICITY LEVEL: HIGH

Poisonous in large amounts, toxic to Humans, dogs, cats and horses.



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ABOUT THREE-CORNERED GARLIC

SCIENTIFIC NAME: *Allium triquetrum* ORIGIN: Mediterranean Basin

Three-cornered garlic (or Three-cornered leek, as it's sometimes called) is a bulbous perennial with a characteristic garlic odour. It can be mistaken for snowdrops, young bluebells, young daffodils or some lilies, but none of these look-alikes smell of garlic. It arrived in the UK in 1759 but was first spotted in the wild in 1849 after it escaped from horticulture.

- Short to medium tufted plant.
- Floppy, triangular leaves.
- White flowers are bell shaped, 10 - 18mm long with a strong green stripe going down the middle of each pettle.
- Flowers form in an umbrella format from each central stem..

HABITAT

A shade lover, it is most commonly found in woodlands, alongside roads, verges and banks in southern and western Britain but is on the increase and spreading further north.

ENVIRONMENTAL IMPACT: MEDIUM

Three-cornered garlic threatens biodiversity as the plant aggressively forms monocultural masses, having the potential to rapidly occupy large tracts of land. It out-competes native plants, dominating the ground-flora when conditions are suitable (mostly shaded).

TOXICITY LEVEL: ZERO

Three-cornered garlic presents no physical danger to either humans or animals, and can be used in recipes.



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ABOUT MONTBRETIA

SCIENTIFIC NAME: *Crocsmia x crocosmilflora* ORIGIN: South Africa

Monbretia is an extremely popular garden plant, widely grown for its impressive sprays of reddish-orange flowers that appear in late summer. Part of the *Crocsmia* species, these plants are easily recognised when in flower by the distinct shape and colour of their flower heads which drape along each stem.

- Orange & tubular flowers in clusters.
- Long stamens.
- Grows up to 60cm tall.
- Flat spear-shaped leaves less than 3cm wide.
- Flowers June to September.

HABITAT

Usually found on roadside verges and hedgerow banks, along cliff tops and woodland edges and on waste ground where garden plants are discarded. A hardy plant, Monbretia tolerates frost, heat, moderate shade and grazing so is capable of colonising a variety of habitats.

ENVIRONMENTAL IMPACT: MEDIUM

Spread can then be rapid, resulting in dense stands at the exclusion of all other vegetation. It is especially frequent in the west and around coasts. In western Ireland whole roadsides can be densely carpeted for miles on end. Small fragments of rhizomes can easily separate from the parent plant and become established in the wild. Also, corms can break off from the parent plant and begin to produce their own root network.

TOXICITY LEVEL: ZERO

Monbretia presents no physical danger to either humans or animals.



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ABOUT GIANT RHUBARB

SCIENTIFIC NAME: *Gunnera tinctoria* ORIGIN: Chile and Argentina

Giant rhubarb (or *Gunnera* as it is most widely known by) is a large herbaceous hardy perennial, mostly recognised by its enormous serrated leaves, unusual flower heads and clumping formation. It is, however unrelated to rhubarb, as the two plants belong to different orders, but they can look similar from a distance and both are edible, though most people would choose rhubarb over *Gunnera*. Giant rhubarb is an ancient plant, plant brought to the UK in 1867. The leaves are rooted in the ground with each leaf sitting on top of its stalk. In summer large panicles of red/green spiky florets appear.

- Thorny, leathery leaves that grow up to 6ft across.
- Plants can reach to 10ft tall.
- Deciduous with short, stout horizontal rhizomes.
- Each plant produces over 250,000 seeds.
- Edible stalks.

HABITAT

Thrives near water, ponds, rivers and streams.

ENVIRONMENTAL IMPACT: MEDIUM

Once established, it can be a very invasive plant and form dense colonies, suppressing native plants. The large leaves prevent other plants growing underneath them, and when they die back in Winter it leaves large patches of bare ground that can easily erode. It can also impede water flow through the obstruction of drainage in adjacent streams and rivers particularly when water levels are high.

TOXICITY LEVEL: ZERO

Giant rhubarb presents no physical danger to either humans or animals.



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ABOUT CANADIAN GOLDENROD

SCIENTIFIC NAME: *Solidago canadensis* ORIGIN: North America

Canadian Goldenrod is a rhizomatous perennial that has been cultivated as an ornamental plant in the UK since 1648. There is also a native European Goldenrod (*Solidago virguarea*), which is common and widespread throughout Britain and Ireland. Goldenrod is a vigorously growing plant that displays beautiful yellow pyramid clustered flowers with 10 to 17 short rays in broad pyramidal panicles. Its leaves and flowers have medicinal properties and have been used in folk medicine as a remedy for all sorts of conditions.

- Can grow up to 2m high.
- Leaves that are predominantly 'toothed'.
- Flowering may start as early as the end of July, with peak flowering between mid-August and the end of September, it can even continue through October.

HABITAT

Can be found in grasslands, meadows and alongside riverbanks, as well as on roadside verges or waste ground.

ENVIRONMENTAL IMPACT: HIGH

Goldenrod is a non-native species which can quickly out compete native plants. The rhizomes (roots) grow prolifically and like any rhizomatous species can be difficult to get rid of as any fragment left behind will form new plants. The roots also produce a group of chemicals that can inhibit the growth of other plants that surround them, a process called allelopathy. Dense infestations along waterways can impede flow and increase flood risk and erosion. According to a paper published in the Journal of Insect Conservation, invasive goldenrod in Europe are also killing off native ant and butterfly species.

TOXICITY LEVEL: ZERO

Goldenrod presents no physical danger to either humans or animals.



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ABOUT GOAT'S RUE

SCIENTIFIC NAME: *Galega officinalis* ORIGIN: Middle East

Goat's rue is a strong growing bushy herbaceous perennial that belongs to the legume family (*Fabaceae*), and gets its name from when it was given to nanny goats to increase their milk yield. However it was found to be toxic to ruminants with the potential to induce a build-up of excess fluid in the lungs, cause blood pressure, paralysis and eventually death. Goat's rue is used in medicines especially for diabetes, also during the plague! Each plant can produce over 15,000 seeds that remain viable for 10 to possibly 26 years.

- Each plant tends to form a crown and ranges 1 - 1.8m tall.
- A single plant may have 20 stems (which are hollow) with a deep taproot.
- The white and purplish pea-like blossoms flower in late May to June and continue until frost around November.
- Leaves grow in pairs horizontally from the stem.

HABITAT

Goat's rue thrives in marshy fields, damp meadows, stream banks, woodlands, sunny forest edges, semi shaded fields and along roadsides and waste ground.

ENVIRONMENTAL IMPACT: HIGH

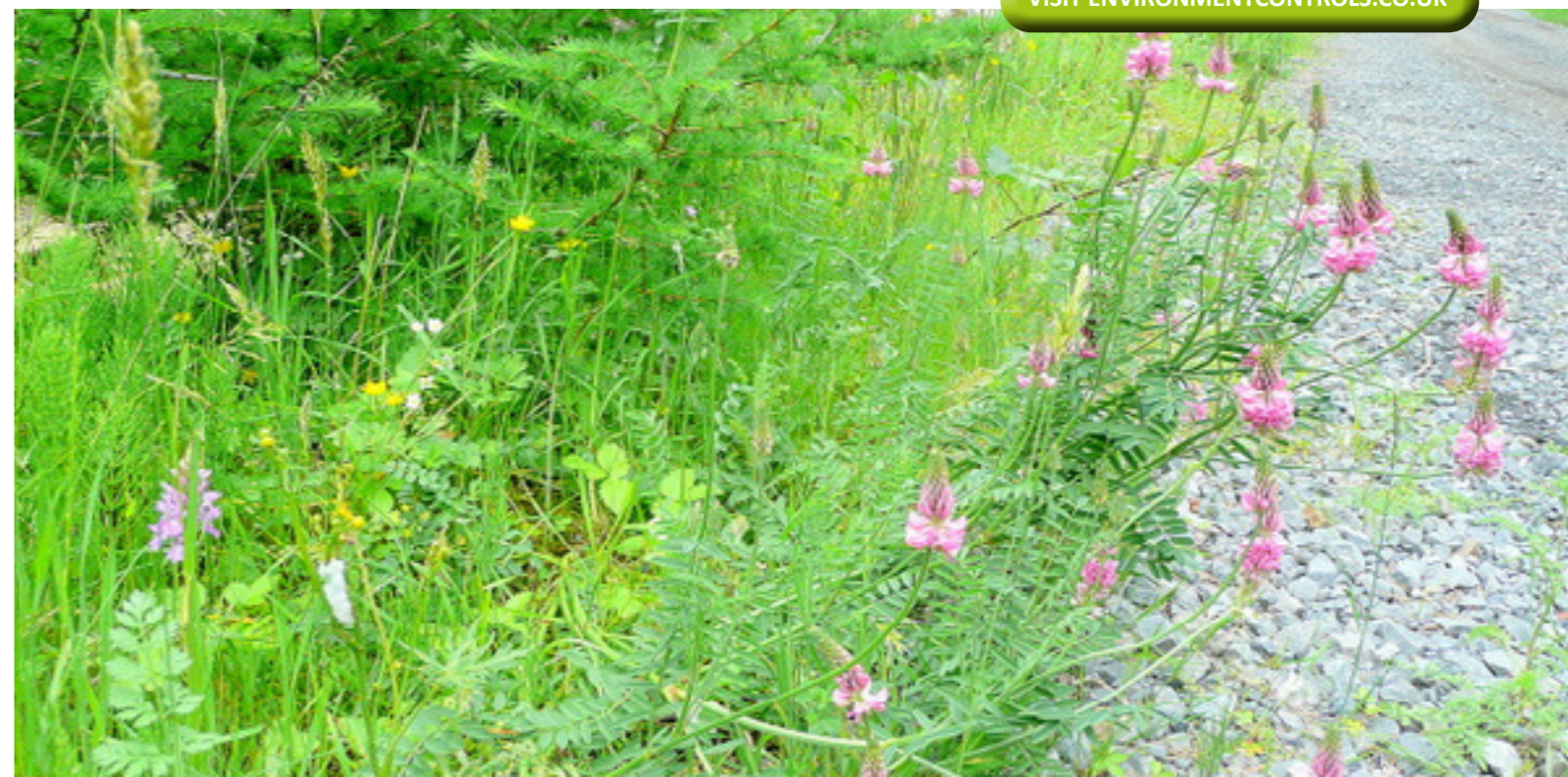
Goat's rue forms dense thickets that can out-compete native flora, as such is a threat to biodiversity.

TOXICITY LEVEL: HIGH

Poisonous to livestock especially when seed pods are young. Produces a toxic alkaloid (galegine) which lowers blood pressure and can paralyse the nervous system. Poisoning to humans is very rare and no recordable evidence.



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ABOUT ROSEBAY WILLOWHERB

SCIENTIFIC NAME: *Chamaenerion angustifolium* ORIGIN: UK

Rosebay willowherb is a tall perennial known as a pioneer weed meaning it's the first plant to emerge after a fire or other disturbance. It also adopted the nickname 'bomb weed' during the war as it was often the first plant to establish on a bombsite. As well as seeding on the wind, each plant develops an extensive root system by which it can quickly establish a dense mass on a piece of waste ground turning the area into a sea of pink flowers. '*Angustifolium*' means narrow-leaved, and 'Rosebay' is derived from the flower's passing resemblance to rose flowers, and the leaf's resemblance to bay leaves.

- Seeds have a plume of small hairs and are wind dispersed.
- Bright pink flowers from June - September
- Flowers are attached to a spike which open from the bottom first.
- Stems are green.
- Leaves are arranged spiralling around the stem.

HABITAT

Most commonly found in waste ground throughout the UK, it also enjoys damp woodland areas and rocky places and can be seen in most urban environments. It grows well in wet conditions around ponds as well as on dry sandy heathland and on chalk downs. Rosebay willowherb is a tough species that tolerates shade and also a broad range of climatic conditions.

ENVIRONMENTAL IMPACT: MEDIUM

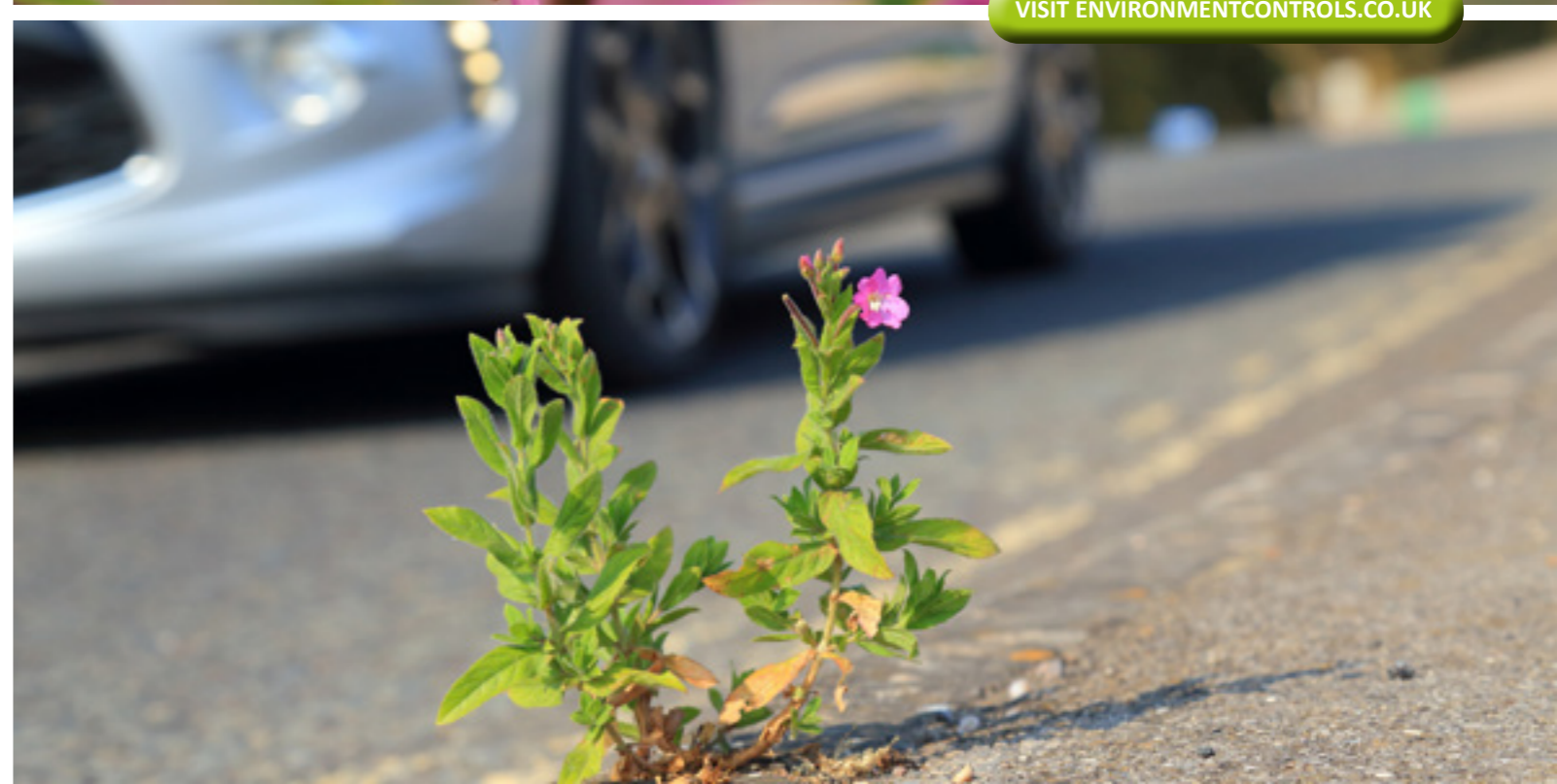
It has been recorded that 20 - 50% of seeds may be carried up to 100m by the wind and some could potentially travel over 100 kilometres (60 miles). Root fragments as little as 10-15cm can regenerate and produce new shoots and it has been recorded that a twenty-year-old root can produce viable buds. A common issue for Local Authorities as it grows along urban networks and highways.

TOXICITY LEVEL: HIGH

Rosebay willowherb contains Grayanotoxin which affects skeletal/cardiac and nerve function and all parts are toxic and can be fatal if ingested by equines.



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