



**Grantham Climate  
Art Prize 2021**

**THE PRIZE | THE BRIEF  
THE WALLS | THE SPECIES**



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# Hello!

For the Grantham Climate Art Prize 2021, we're showing our appreciation for local biodiversity and standing up for nature.

Wherever you live in the UK, you are surrounded by different habitats from ancient forests to wetlands, bogs and human-made canals. Each one supports a diversity of locally important plants, animals and other living organisms. They sustain each other and humans are part of that ecosystem too - but many UK species and habitats are threatened by human activities, including climate change. They need our help now.

We would like you to design a mural that focuses on the habitats and species under threat across the UK to let people know about the importance of biodiversity loss. Whether you define yourself through actions, or in paint or words – we want you to take part.

Working alongside their Wild Walls campaign, UK Youth for Nature have helped select examples of species that you might want to feature in your artwork. In this document, we've listed ten for each area, but there are many more that are being threatened by changes to their environment. Whether you choose to feature the largest shark in UK waters or our smallest bat, make your mural have impact.

Think about what you want to say about biodiversity loss. What message of hope do you want to tell your friends? your family? your community? What message do you want to share with people in power?

The winning works will be painted on a wall for everyone to see in seven different towns and cities - adding to UK Youth for Nature's Wild Walls across the UK. As well as having impact locally, photos of the best entries will be exhibited in the UK, with your message potentially being seen by world leaders and decision-makers at the UN Climate Change Conference (COP26) in Glasgow this November.

We can't wait to see your designs.

**Good luck from us all!**

**'This year's Grantham Climate Art Prize is really important. It is all about the links between biodiversity and climate change. We cannot fix one without fixing the other.'**

Dr Will Pearse, life scientist at the Grantham Institute, Imperial College London.

**Imperial College  
London**

**Grantham Institute**  
Climate Change and the Environment  
An Institute of Imperial College London

**octopus**energy



**UK YOUTH  
FOR NATURE**

# TO ENTER

## You must be:

- Aged 12-25 to be eligible to enter.
- Watch the online workshop on Octopus Energy's website & enter via the form at [octopus.energy/grantham-art/](https://octopus.energy/grantham-art/)

**The competition is open until 09:00 4 October 2021**

## Your Brief:

Create a mural design that represents a message of hope in the face of climate change and biodiversity loss. Make sure your design references one of our towns or cities of choice and at least one local species that is at risk. See the Species Factsheets from each place below.

## Tips for submitting your photo!

Take a photograph of your design in good light with no shadows. Make sure the artwork is in focus and fully visible. Submit via the online form as a JPEG, PNG, EPS file and under 10MB.

## Top Tips for creating your artwork.

- Remember we will need to reproduce this as a wall mural / billboard image. So avoid anything 3D or stuck onto paper.
- You can use any media to draw and paint with, just remember your design will be reproduced in paint. Think about how much detail is needed. Be big, bright and bold.
- When creating your artwork, keep in mind that it will be scaled up to the size of a very large wall and be viewed by people walking by, make sure your design will work at this size!

## How will the artwork be judged?

We are looking for:

- **Creativity and originality.**
- **Inclusion of at least one UK priority species:** Does the mural design feature one of the UK BAP priority species identified in the factsheet for the mural location?
- **Local relevance:** Does the design reference the local community / area
- **A Positive message:** Does your design provides a message of hope on climate change/ biodiversity?
- **Deliverable, Impactful & Clear:** Can the image be reproduced effectively by an artist as a wall mural? is your message clear?

**If you have any questions check out our FAQs here:**

[octopus.energy/grantham-art-faq](https://octopus.energy/grantham-art-faq)

**See our full terms and conditions here:**

<https://octopus.energy/grantham-terms-conditions/>

**'Art is a powerful way of communicating ideas, thought and emotion. I feel privileged to support a prize that enables young artists to communicate their commitment, ideas and sense of urgency about how we tackle the climate crisis.'**

Helen Cammock, Patron & Turner prize winning artist

**Imperial College  
London**

**Grantham Institute**  
Climate Change and the Environment  
An Institute of Imperial College London

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**UK YOUTH  
FOR NATURE**



BRIGHTON



GLASGOW



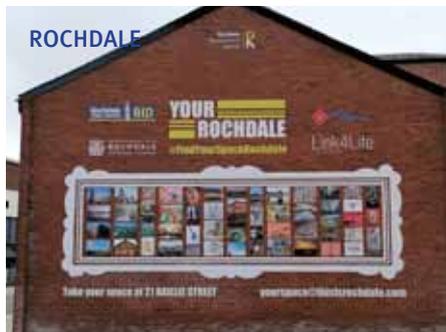
HACKNEY, LONDON



LEICESTER



NOTTINGHAM



ROCHDALE



STOKE-ON-TRENT

# THE WALLS

Make sure your design works for the space. Orientate your paper the right way round for the wall that you are designing for.  
eg: The end of terrace house in Hackney, London will suit a portrait image, Nottingham's Wollaton Hall 508 Cafe should be landscape.

Other images (clockwise): Kelp Forest; Adder *Vipera berus*; Sphagnum Moss *Sphagnum*

**'There has never been a better or more urgent moment to tackle the nature and climate crises together. Engaging people's imaginations, these murals will provide a point of reference from which to address the Government's progress towards effective policy and action on nature. The longevity of these murals will sustain public engagement with the importance of robust ecosystems for years.'**

Aura Goldman,  
Creative Director of  
UK Youth for Nature

Imperial College  
London

Grantham Institute  
Climate Change and the Environment  
An Institute of Imperial College London

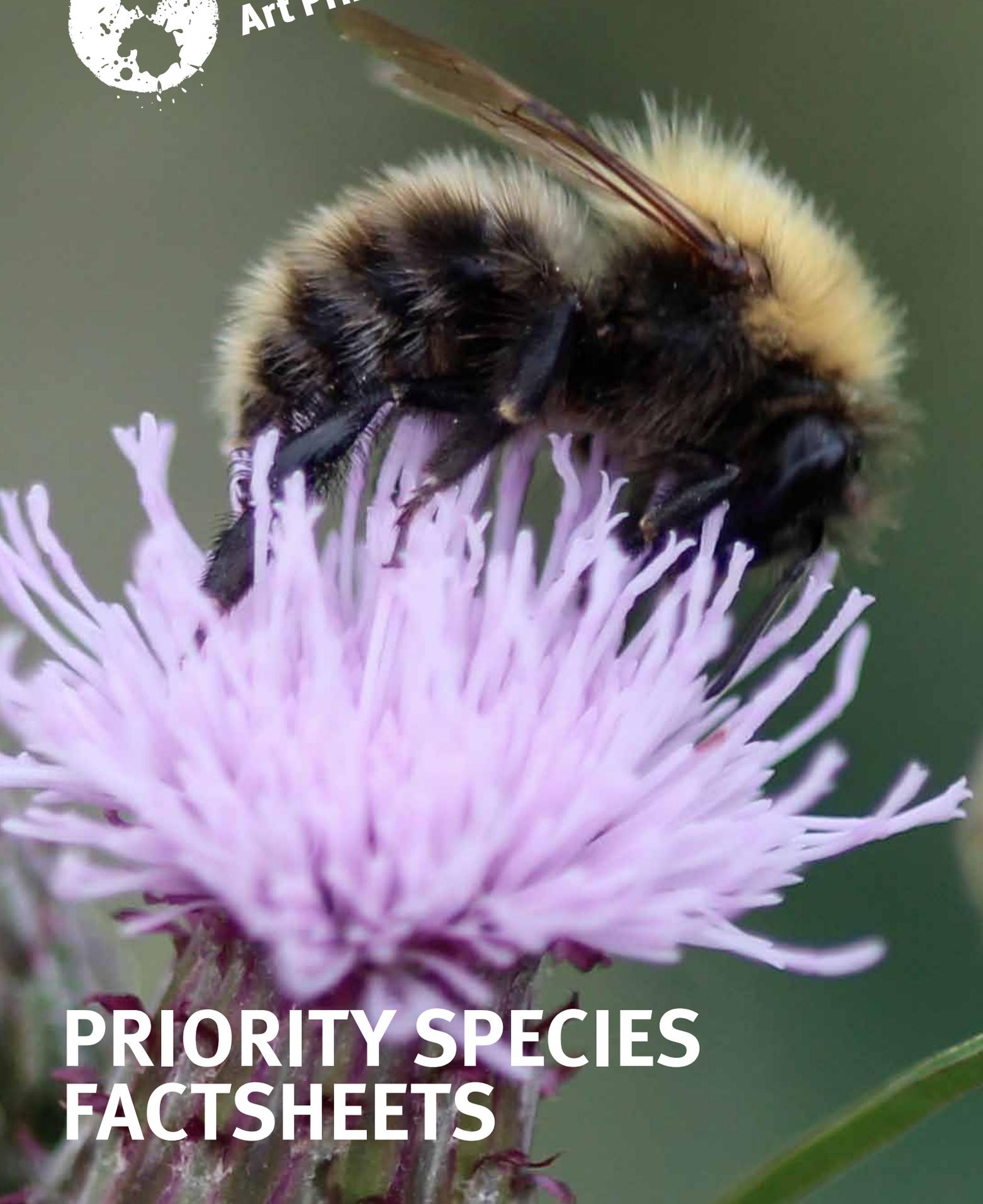
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**Grantham Climate  
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**PRIORITY SPECIES  
FACTSHEETS**



**Grantham Climate  
Art Prize 2021**



# **BRIGHTON SPECIES FACTSHEET**



**HIGHLIGHTED SPECIES:**

# EUROPEAN EEL

## Anguilla anguilla

**DIET:** Omnivore

**WEIGHT:** up to 6 tonnes

**IUCN RED LIST STATUS:**

Critically Endangered

**SIZE:** Up to 132cms

**AV. LIFE SPAN:** 7 - 85 years

**PRIORITY SPECIES:** UK 2010  
Post-Biodiversity Framework

**DESCRIPTION:** European eels have one of the most extraordinary life cycles on the planet. Unlike many migratory fish, the young are born at sea and then travel to coastal and freshwater areas where they feed and grow. When ready to breed the adults, known as silver eels, make their way down the rivers of Europe and out into the ocean. They then swim roughly 5,000 kilometres across the Atlantic Ocean to the Sargasso Sea, south of Bermuda. It is here that they mate and lay their eggs, before they finally die. Their eggs then hatch into near-transparent, leaf-shaped larvae known as leptocephalus, and they are caught by the Gulf Stream and drift back towards Europe. The journey can take up to two years. Less than one in 500 will have survived. By the time they reach the coast of Europe - ranging from Norway and Turkey - they will have undergone their first major change, turning into glass eels about six centimetres long.

Ten Priority Species on the Brighton & UK Biodiversity Action Plan include (in alphabetical order):

1. **Adder**  
*Vipera berus*
2. **Adonis Blue Butterfly**  
*Lysandra bellargus*
3. **Brown-banded Carder Bee**  
*Bombus humilis*
4. **Common Starling**  
*Sturnus vulgaris*
5. **Downland Furrow Bee**  
*Halictus eurygnathus*
6. **European Eel**  
*Anguilla anguilla*
7. **Fairy Shrimp**  
*Chirocephalus diaphanous*
8. **Kelp Forest (Tangle weed**  
*Laminaria hyperborean* / **Oar weed** *Laminaria digitate* / **Sugar kelp** *Saccharina latissimi*)
9. **Red Star Thistle**  
*Centaurea calcitrapa*
10. **Short-snouted Seahorse**  
*Hippocampus hippocampus*

As glass eels they start searching for a suitable freshwater river to swim up, their colour darkening as they become “elvers”. Swimming upstream, the elvers will cross over obstacles and even go over land to find a suitable patch of river to mature in. Here, they become yellow eels. They will then spend up to 20 years living in the rivers and lakes, until some still unknown trigger marks the final change in their life, as the yellow eels turn silver. As silver eels the European eels make the long and arduous journey back to the Sargasso Sea, where they breed, spawn and die - and the cycle begins again.

**THREATS:** European Eels are currently at risk from illegal fishing with over 350 million live eels being smuggled from Europe to Asia every single year. Since as recently as the 1980s, it is thought that the European eel population has crashed by as much as a staggering 96%. The species is listed by the International Union for Conservation of Nature (IUCN) as critically endangered.

But fishing isn’t the only threat they face. Blocked migratory routes, the pollution of our rivers and plastic in our oceans, alongside changes in ocean currents – exacerbated by climate change – will also mean that the eel larvae might not be taken to parts of the coast where they can thrive, threatening their extinction.



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# **GLASGOW SPECIES FACTSHEET**



HIGHLIGHTED SPECIES:

# BASKING SHARK

*Cetorhinus maximus*

**DIET:** Zooplankton  
**WEIGHT:** Up to 6 tonnes  
**IUCN RED LIST STATUS:**  
Endangered

**SIZE:** Up to 12m  
**AVERAGE LIFE SPAN:** Unknown, thought to be around 50 years  
**PRIORITY SPECIES:** UK 2010 Post-Biodiversity Framework



**DESCRIPTION:** The Basking Shark is the largest fish in UK seas and the second largest in the world yet it feeds exclusively on microscopic organisms. It does so by opening its mouth up to a metre wide and swimming along in this way for 30-60 seconds. Zooplankton in the water are then filtered and trapped in the shark's mucus-covered gill rakers (finger-like structures that prevent food from escaping through the gills).



They are most commonly seen in the summer, when they arrive in British waters. They can be found in the open ocean, in the surf zone, and occasionally in brackish water. They can be spotted across UK waters but the most frequent sightings are reported around southwest England, Wales and the west coast of Scotland.

Ten Priority Species on the Glasgow, Scotland & UK Biodiversity Action Plan include (in alphabetical order):

1. **Basking Shark**  
*Cetorhinus maximus*
2. **Bluebell**  
*Hyacinthoides non-scripta*
3. **Common Toad**  
*Bufo bufo*
4. **Golden-ringed Dragonfly**  
*Cordulegaster boltonii*
5. **Pine Marten**  
*Martes martes*
6. **Red Squirrel**  
*Sciurus vulgaris*
7. **Small Pearl-bordered Fritillary**  
*Boloria selene*
8. **Water Vole**  
*Arvicola amphibious*
9. **White-tailed Eagle**  
*Haliaeetus albicilla*
10. **Wildcat**  
*Felis silvestris*

During the summer months, these sharks spend much of their time moving along the sea's surface. Basking sharks are so named due to this behaviour, as they appear to be soaking up the sun's warmth. They can be identified by the large, dark, triangular dorsal fin moving slowly through the water.

This species is classified as Endangered on the IUCN Red List, listed under CITES Appendix II and classified as a Priority Species in the UK Biodiversity Action Plan. Globally their numbers are decreasing.

**THREATS:** Basking sharks are long lived, slow growing and produce few young making them extremely vulnerable to human impacts. One threat to their survival is fisheries. In the past basking shark fisheries have existed to harvest their fins, skin (used as leather) and liver oil. Whilst these have all but collapsed worldwide, illegal hunting continues in some areas. In addition, they are often caught in nets as bycatch or entangled by discarded fishing equipment. Because they spend so much time feeding at the surface of the water in summer they are also in danger of boat strikes. Even if no physical harm is caused by nearby boats, they may instead disrupt their natural behaviours.



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**HACKNEY, LONDON  
SPECIES FACTSHEET**



Ten Priority Species on the local Hackney, London & UK Biodiversity Action Plan include (in alphabetical order):

1. **British Grass Snake**  
*Natrix helvetica*
2. **Brown-banded Carder Bee**  
*Bombus humilis*
3. **Cinnabar Moth**  
*Tyria jacobaeae*
4. **Common Toad**  
*Bufo bufo*
5. **European Eel**  
*Anguilla anguilla*
6. **Horehound Longhorn Moth**  
*Nemophora fasciella*
7. **House Sparrow**  
*Passer domesticus*
8. **Song Thrush**  
*Turdus philomelos*
9. **Stag Beetle**  
*Lucanus cervus*
10. **Soprano Pipistrelle Bat**  
*Pipistrellus pygmaeus*

**HIGHLIGHTED SPECIES:**

## **BROWN-BANDED CARDER BEE**

### *Bombus humilis*

**DIET:** Pollen and nectar

**WEIGHT:** 0.1g

**IUCN RED LIST STATUS:**

Least Concern

**SIZE:** 10 - 15mm

**AVERAGE LIFE SPAN:** 2-8 weeks.

Queens live 2-5 years.

**PRIORITY SPECIES:** UK 2010  
Post-Biodiversity Framework

**DESCRIPTION:** There are three species of brown carder bumblebees in the UK. The Brown-banded Carder bee is the rarest. Their thoraxes are a glorious ginger colour, while their abdomen is beige with stripes of dark ginger hairs. Once, they could be seen throughout England and Wales. Now, you will only find them around Salisbury Plain and the Thames Gateway.

*Bombus humilis* nests in tall undisturbed grasslands, which provide shelter, warmth and nest materials. They comb together grass and moss to cover the surface of their nest. They live in relatively small colonies, with less than 50 worker bees.

Compared to our other bumblebee species, they emerge relatively late in the year. Queens can be seen from mid-May looking for a nesting site. The bees forage for pollen and nectar throughout the summer months, from May to September. The colonies last for a year, with new queens hibernating through the winter and establishing new colonies the following year.

It has a very short foraging range and relies on very high-quality habitats close to the nest. One of a number of 'long-tongued bees' that feed on flowers with long tubular florets, such as Red Bartsis, knapweed and plants in the Pea, Figwort and Mint families.

Bumblebees are great pollinators, and have a key role in producing much of the food that we eat. They pollinate many commercial crops such as tomatoes, peas, and strawberries. Bumblebees also help pollinate many wildflowers. Without this, many of these plants would not produce seeds, resulting in declines in both abundance and distribution for a range of species. As these plants are often the basis of complex food chains, it is easy to imagine how other wildlife such as other insects, birds and mammals would all suffer if bees disappeared.

**THREATS:** The main threat to this species is thought to be the loss of the flower-rich grassland and the intensity of modern farming methods. Many of their favoured food plants have become scarce, and with farmers now cultivating right to the edges of the field, places for the bees to make their nests have all but disappeared. Hedgerows too, as well as being in short supply, are cut back so regularly that they have ceased to be safe nesting sites.



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# LEICESTER SPECIES FACTSHEET



**HIGHLIGHTED SPECIES:**

# GREAT CRESTED NEWT

## *Triturus cristatus*

**DIET:** worms, slugs, and insects on land, tadpoles and molluscs in water.

**IUCN RED LIST STATUS:**  
Least Concern

**SIZE:** up to 17cm

**WEIGHT:** 6.3 - 10.6 grams

**AVERAGE LIFE SPAN:** 6-15 years

**PRIORITY SPECIES:** UK 2010  
Post-Biodiversity Framework

**DESCRIPTION:** Our biggest newt here in the UK, the Great Crested Newt is almost black in colour with spotted flanks and an orange belly. Males are easily identified during the breeding season by their prominent, wavy crest along their back and tail. It has warty skin (which explains why it's sometimes known as the warty newt) and is often described as a miniature dinosaur!

Breeding takes place in ponds in spring to early summer, when it's warm enough. In addition to their distinctive crests, males perform extravagant courtship displays akin to dancing.

After mating, females lay hundreds of eggs wrapping each one individually in the leaves of pond plants, for protection against UV damage and predation. After two to four weeks these eggs will hatch as tadpole-like larvae and after a further three to four months they will have grown legs and fully absorbed their gills.

At this stage they are capable of leaving the water as a newtlet (or eft) and will not return until they themselves mate one to three years later.

Away from their ponds this species will spend the rest of the year in woodlands, hedgerows, marshes and grassland. Winter will be spent sheltering under rocks, underground, amongst tree roots or in old walls. Great crested newts are widely distributed throughout lowland Great Britain but absent from Ireland. The UK's population of the great crested newt are internationally important.

**THREATS:** The last century has seen declines of this species across Europe. One of the main reasons for this is their reliance on networks of good quality ponds to complete their lifecycle. Destruction of these ponds, degradation of water quality and introductions of fish species has been catastrophic to populations. On top of this the species has seen loss and fragmentations of their terrestrial habitat. Because of these factors, great crested newts are a protected species within the UK and it is against the law to kill, capture, disturb or sell them, or to damage or destroy their habitats.

Ten Priority Species on the Leicestershire & UK Biodiversity Action Plan include (in alphabetical order):

1. **Barn Owl**  
*Tyto alba*
2. **Black Poplar**  
*Populus nigra*
3. **Black redstart**  
*Phoenicurus ochrurus*
4. **European Hedgehog**  
*Erinaceus europaeus*
5. **Great Crested Newt**  
*Triturus cristatus*
6. **Large Garden Bumblebee**  
*Bombus ruderatus*
7. **Otter**  
*Lutra lutra*
8. **Peregrine Falcon**  
*Falco peregrinus*
9. **Spreading Bellflower**  
*Campanula patula*
10. **Swift**  
*Apus apus*



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**NOTTINGHAM  
SPECIES FACTSHEET**



**HIGHLIGHTED SPECIES:**

# PEREGRINE FALCON

## *Falco peregrinus*

**DIET:** Medium-sized birds

**WEIGHT:** 6 – 1.3kg

**IUCN RED LIST STATUS:**  
Least Concern

**SIZE:** up to 50cm

**AVERAGE LIFE SPAN:** 13 years

**PRIORITY SPECIES:** UK 2010  
Post-Biodiversity Framework

**DESCRIPTION:** One of our most iconic birds of prey, the Peregrine falcon is truly the aerial ace of the animal world. Searching from above for medium-sized birds such as pigeons or waders, they stoop - folding back their wings and tail and tucking in their feet - and then dive on unsuspecting prey, reaching speeds of over 200mph! Travelling so quickly means they can stun or kill their prey on impact, and if they miss are perfectly adept at relentlessly pursuing their targets in flight.

Peregrine falcons have a huge global distribution, and in the UK they can be found in the uplands of the north and west, as well as along rocky coastlines. They are also becoming an increasingly common sight within urban areas, where there is abundant food and nesting sites. Their tendency to nest on the top of buildings, which resemble the cliff tops they would choose to nest on elsewhere, has made it easy to install cameras to watch them, and every summer our laptop screens are graced with the marvels of peregrine parenthood. A pair can be watched every year on the top of Nottingham Trent University's Newton Building!

Peregrines will mate for life, and nest in the same spots year after year. Courtship involves complex aerial acrobatics and food passed from the male to the female in mid-air - whilst she is flying upside down! Pairs will not build a nest but lay 3-4 eggs in a depression in the rock or a scrape, and then these are mostly incubated by the female, although the male will help as well. Around 42-46 days after hatching, the chicks will fledge, and remain dependent upon the parents for 2 months until they make their own way in the world.

Peregrine falcons suffered large declines worldwide in the 1960's as a result of persecution and pesticides. Organochlorine pesticides, especially DDT, can bio-accumulate in high concentrations as they travel up the food chain into top predators such as peregrines. DDT prevented the normal production of calcium, resulting in thin eggshells which would break under their parents' weight. Subsequent legislation, banning these pesticides, as well as recovery and reintroduction projects, have been hugely successful. Now there are about 1500 pairs in the UK.

**THREATS:** With the threat of pesticides greatly diminished, peregrines have enjoyed a steady recovery, and are now listed as a species of Least Concern by the IUCN, with numbers stable globally. In the UK it is against the law to kill, capture, disturb or sell them, or to damage or destroy their habitats. However, they still face risks due to illegal persecution, where they are killed to protect gamebirds and racing pigeons, and their eggs and chicks are taken from nests for collections and for falconry.

**Ten Priority Species on the Leicestershire & UK Biodiversity Action Plan include (in alphabetical order):**

1. **Atlantic Salmon**  
*Salmo salar*
2. **Barbastelle Bat**  
*Barbastella barbastellus*
3. **Eurasian Beaver**  
*Castor fiber*
4. **Grass-of-parnassus**  
*Parnassia palustris*
5. **Grizzled Skipper**  
*Pyrus malvae*
6. **Hazel Doormouse**  
*Muscardinus avellanarius*
7. **Nottingham Catchfly**  
*Silene nutans*
8. **Peregrine Falcon**  
*Falco peregrinus*
9. **Water Vole**  
*Arvicola amphibious*
10. **White-clawed Crayfish**  
*Austropotamobius pallipes*



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# **ROCHDALE SPECIES FACTSHEET**



Ten Priority Species on the Greater Manchester & UK Biodiversity Action Plan include (in alphabetical order):

1. **Brown Hare**  
*Lepus europeus*
2. **Floating Water Plantain**  
*Luronium nataris*
3. **Grass-wrack Pondweed**  
*Potamogeton compressus*
4. **Grey Heron**  
*Ardea cinerea*
5. **Pond Mud Snail**  
*Omphiscola glabra*
6. **Slow-worm**  
*Anguis fragilis*
7. **Sphagnum Moss**  
*Sphagnum*
8. **Twite**  
*Carduelis flavirostris*
9. **Water Vole**  
*Arvicola amphibious*
10. **White-clawed Crayfish**  
*Austropotamobius pallipes*

**HIGHLIGHTED SPECIES:**

# GREY HERON

*Ardea cinerea*

**DIET:** Fish, amphibians, small mammals, small birds, insects, molluscs & crustaceans

**IUCN RED LIST STATUS:** Least Concern

**SIZE:** Up to 1m

**WEIGHT:** 1-2kg

**AVERAGE LIFE SPAN:** 5 years

**PRIORITY SPECIES:** Protected 1981 Wildlife & Countryside Act

**DESCRIPTION:** The Grey heron will most often be seen wherever it can find food along the edges of our ponds, lakes, rivers and wetlands. Stalking stealthily amongst the shallows it picks a spot and stands motionless, waiting for its prey to get within striking distance. It's piercing eyes are perfectly adapted to scan the water whilst its head remains still, and when it locates prey it can catch it at lightning fast speeds. As well as fishing it is adept at catching all types of prey: frogs, small mammals, worms, and even ducklings!

Grey herons are widely distributed around Europe, Africa, and Asia, and will nest colonially in 'heronries' during the breeding season. They build stick nests high up in trees and these are used year after year. Rochdale has the third largest heronry in the whole of the Greater Manchester area. In London there are now also a number of heronries in places like Battersea or Regent's Park, with the birds benefiting from less harsh winters within the city and the improved water quality of recent years. Laying 3-5 eggs, the chicks will hatch after around 25 days and are fed on regurgitated fish. As the eggs hatch asynchronously, some chicks will be larger than the others, and it is uncommon for all of them to survive to adulthood. After 8 weeks the chicks will be flying, and become independent from their parents after another ten weeks when they disperse from the breeding colonies. UK populations are migratory in the non-breeding season and will disperse in September - October. For a juvenile heron, their first winter can be tough, and they need to learn the skills to hunt as well as survive potentially harsh conditions which increase competition for food. Only one in five will survive to adulthood.

**THREATS:** Grey herons are listed by the IUCN as a species of Least Concern, with numbers considered to be relatively healthy. Although in the past the bird was heavily persecuted due to its competition with fishermen and fish farmers, they are now protected by the 1981 Wildlife and Countryside Act in the UK. They are also on the increase due to improved water quality, which means healthier fish populations, and due to the ban on certain organo-chlorine pesticides which bio-accumulated in top-predators such as herons, resulting in fragile eggshells and embryo deaths. Harsh winters can also impact heron populations, as they are vulnerable to food shortages during this season and need ice-free water to be able to hunt.



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# **STOKE-ON-TRENT SPECIES FACTSHEET**



**HIGHLIGHTED SPECIES:**

# WHITE-CLAWED CRAYFISH

## *Austropotamobius pallipes*

**DIET:** Omnivore

**WEIGHT:** Up to 90g

**IUCN RED LIST STATUS:**

Endangered

**SIZE:** 6-12cm

**AV. LIFE SPAN:** 8 - 12 years

**PRIORITY SPECIES:** UK 2010

Post-Biodiversity Framework

**DESCRIPTION:** Crayfish are the largest, most mobile freshwater invertebrates, and are considered keystone species wherever they occur. The white-clawed crayfish is the UK's only native freshwater crayfish and has been described as "the UK's black rhino" due to their population decline.

The white-clawed crayfish is our largest freshwater crustacean. It is found in a wide variety of environments, including canals, streams, rivers, lakes, reservoirs and water-filled quarries. The White-clawed Crayfish needs mineral-rich water to fortify its exoskeleton, the same way we need calcium to enrich our bones. It eats invertebrates, carrion, water plants and dead organic matter. To try and avoid being eaten themselves, they are most active at night, meaning that we don't often see them.

They have an important role in the freshwater environment because of their diet, as well as providing food for other animals, such as fish, herons and otters. They are also important indicators of good water quality as they are intolerant of pollution. They like to inhabit areas where steep riverbanks are undercut so they can find shelter. They hide underneath stones, cobbles and rocks and in small crevices where they forage for food. Exposed tree roots that reach into the water are particularly attractive places for the crayfish to live – especially if there is submerged vegetation such as watercress, willow moss and water crowfoot, to provide food and cover.

**THREATS:** The white-clawed crayfish is in decline due to the introduction of the non-native North American signal crayfish (*Pacifastacus leniusculus*) in the 1970s. Introduced to British waters by commercial fisheries, the lobster-like American signal crayfish soon escaped its nets and cages and began a rampant march through Britain's rivers and stillwaters, outcompeting the native white-clawed crayfish for both habitat and food. This invasive species has brought disease to which our indigenous crayfish has no natural resistance.

White-clawed crayfish are also extremely vulnerable to pollution incidents, particularly those involving silage and even small levels of biocides. Work that involves dredging that might lead to the destruction of river banks should be avoided.

Ten Priority Species on the Staffordshire & UK Biodiversity Action Plan include (in alphabetical order):

1. **Barn Owl**  
*Tyto alba*
2. **Depressed River Mussel**  
*Pseudanadonta complanata*
3. **Dingy Skipper Butterfly**  
*Erynnis tages*
4. **Grass Snake**  
*Natrix helvetica*
5. **Logjammer Hoverfly**  
*Chalcosyrphus eunotus*
6. **Northern Yellow Splinter Crane-fly**  
*Lipsothrix errans*
7. **Scarce black mining bee**  
*Andrena nigrospina*
8. **Snipe**  
*Gallinago gallinago*
9. **White-clawed Crayfish**  
*Austropotamobius pallipes*
10. **White-letter Hairstreak**  
*Satyrion w-album*

Photo: Natrix helvetica Benny Trapp