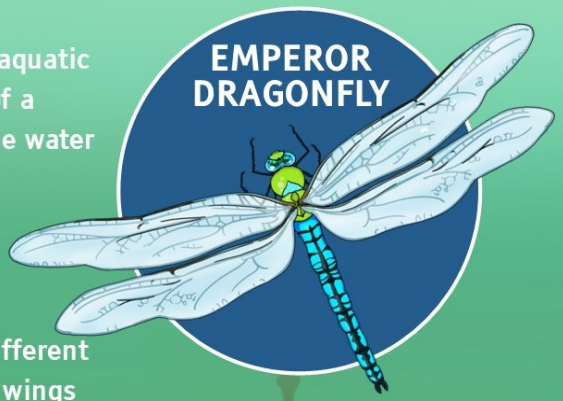
POND LIFE

Even a small pond can rapidly attract a plethora of wildlife, providing food, shelter and a place in which to breed for many species, including reptiles and amphibians...

EMPEROR DRAGONFLY



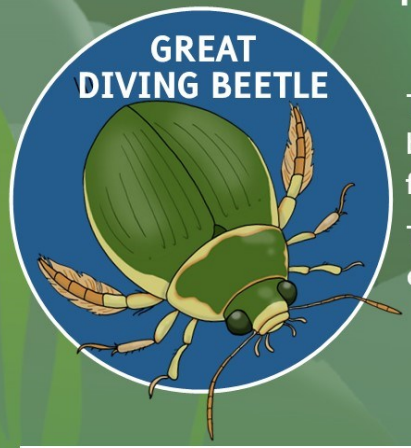
After a year as a ferocious aquatic predator, the larval stage of a dragonfly climbs beyond the water to complete a radical transformation.

Bursting out of their infant exoskeleton, the stunning adult form looks entirely different with their elaborate paired wings and vivid colours.

SMOOTH NEWT

RAMSHORN SNAIL

GREAT DIVING BEETLE



The great diving beetle can fly between ponds to exploit new feeding opportunities.

These stocky insects are one of our biggest beetles.

GAMMARUS

Ponds support incredible biodiversity, and are rich in invertebrate life, including a variety of insects and aquatic molluscs. If **undertaken safely**, and **with respect for the creatures** that live there, pond-dipping can give a fascinating picture of the wildlife present.

GRASS SNAKE

Despite their name suggesting these reptiles prefer a life on land, they are actually highly skilled hunters of pond life including amphibians and even small fish. The grass snake, which can reach lengths of 1.5metres, is non-venomous and can be spotted basking in the sun, their body temperature having cooled in the water. Holding their heads above the water, they may be spotted making a distinctive 'S' shape as they swim at the waters surface.

FROG TADPOLE

The common frog lays clusters of around 500 eggs (frogspawn) that soon develop into tadpoles.

Whilst only a few these will survive to adulthood, they offer an important food source to many predators such as grass snakes, birds, fish and newts.

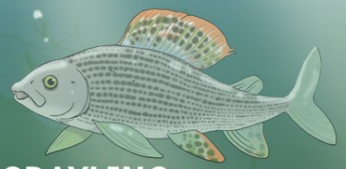
COMMON FROG

THE RIVER BED

The energy of flowing water breaks apart tumbling rocks into gravel and smooth pebbles, providing a habitat to an abundance of wildlife in this oxygen-rich environment.

DIPPER

Plunging beneath the surface, dippers are small birds that scurry around the river bed in the search for prey. They have evolved many adaptations that assist their lifestyle including special nostril flaps that prevent water entering whilst foraging amongst the pebbles.



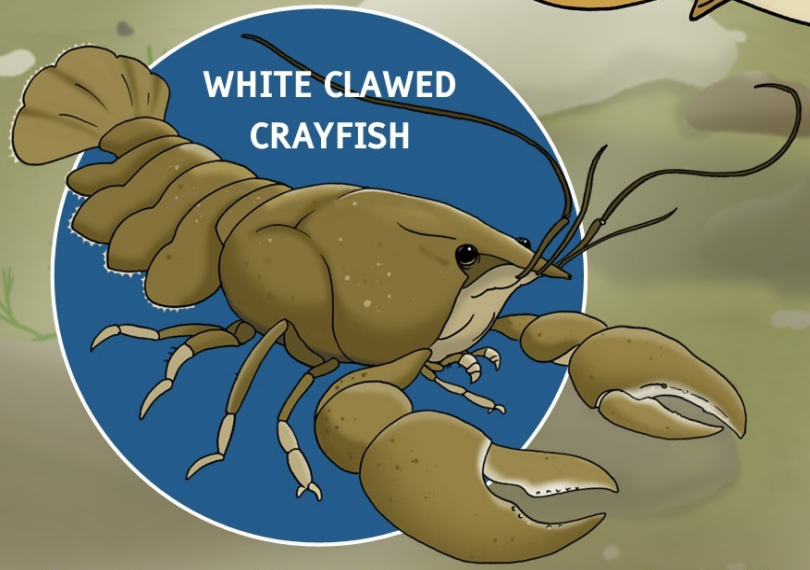
GRAYLING

CADDIS FLY LARVAE

An amazing variety of larvae can be found in riverbeds. These are a vital food source to predators. Caddis fly larva construct tubes of debris from the river bed that both disguise and protect them from predators.

BARBEL

Barbel have long, moustache-like, sense organs called barbels (hence the name). These sensitive projections locate food hidden in between the gravel and within sediments on the river bed.



WHITE CLAWED CRAYFISH

White clawed crayfish are shy creatures, most active at night when they forage for organic material. If disturbed they may kick a powerful thrust of their tails, propelling them backwards rapidly.

BULLHEAD

Bullhead are stout, large-mouthed fish with broad pectoral fins. Sheltering under stones in fast-flowing waters, their excellent camouflage merges with the variety of textures on the river bed.

BANK BURROWS

A home by the water gives easy access to the food sources found within or near the water. Burrowing into the side of a riverbank can offer a retreat, escape routes or a place in which to raise offspring, as these examples show...

The burrows of water voles extend deep in to the bank side and consist of various chambers, which include sleeping and nesting spaces. A special underwater tunnel can be used to enter the burrow, or to swiftly exit, should a threat present itself!

WATER VOLE

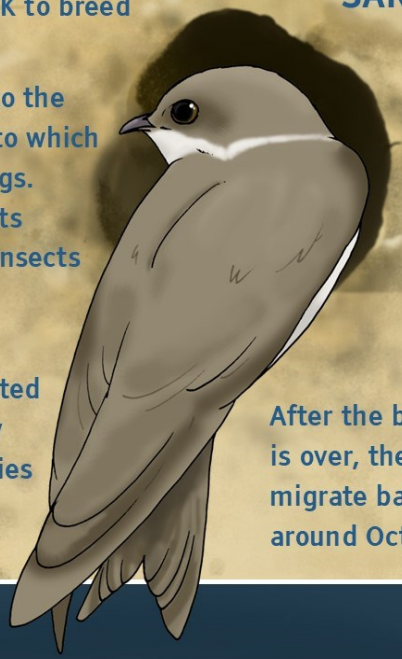
Patches of nibbled vegetation may indicate that a water vole has been feeding nearby.

SAND MARTIN

After over-wintering in North Africa, sand martins fly to the UK to breed in early spring.

They dig long tunnels into the sandy banks of rivers, into which they raise around five eggs. These agile aerial acrobats swoop about, collecting insects with which to feed their ever-hungry young.

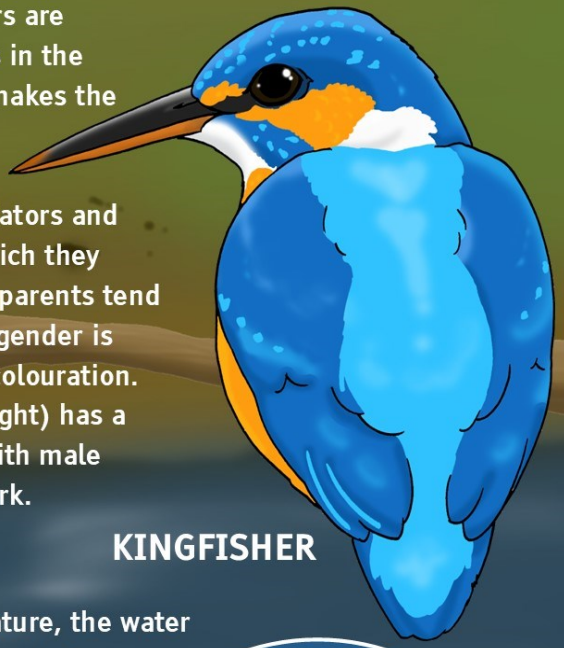
Such nest sites are revisited year upon year and many martins form large colonies in the same area.



After the breeding season is over, they once again migrate back to Africa around October.

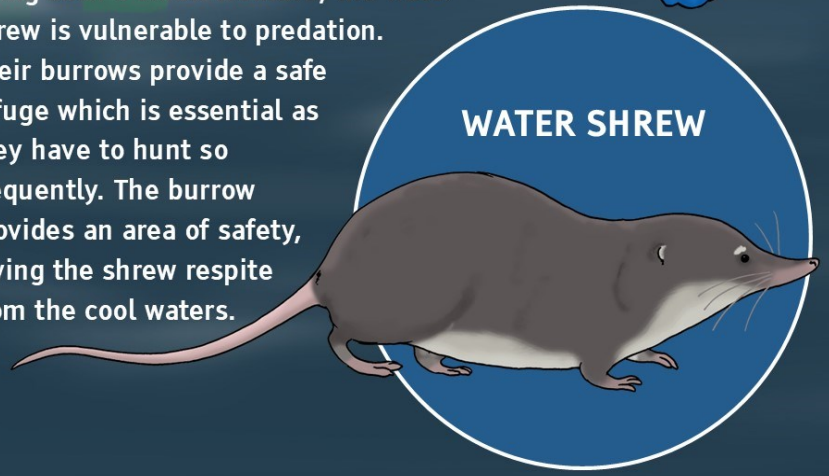
The young of kingfishers are hidden away in burrows in the river bank. Whilst the makes the nest susceptible to flooding, it is much less accessible for predators and near the water from which they source their prey. Both parents tend to the young and their gender is distinguished by beak colouration. The female (pictured right) has a red-orange lower bill with male beaks being entirely dark.

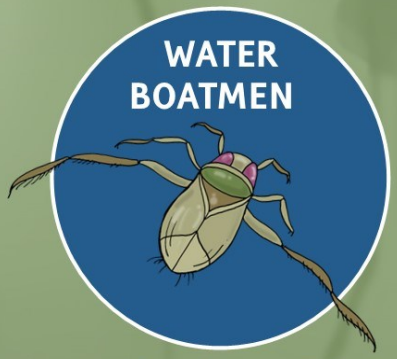
KINGFISHER



Being such a small creature, the water shrew is vulnerable to predation. Their burrows provide a safe refuge which is essential as they have to hunt so frequently. The burrow provides an area of safety, giving the shrew respite from the cool waters.

WATER SHREW

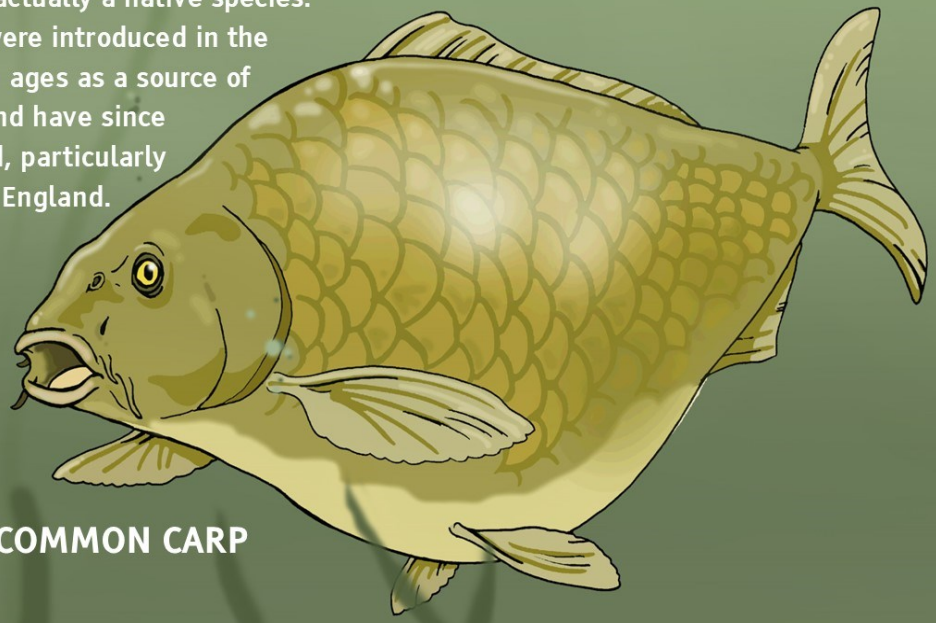




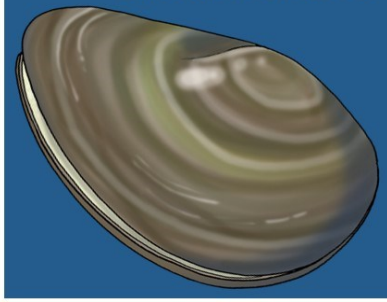
Water boatmen, also known as backswimmers, have adapted legs that act like oars, propelling these aquatic predators after prey. There are many species of these fascinating insects which can be tricky to tell apart.

You may be surprised to hear they can actually fly between bodies of water.

One of our largest fish, the common carp, is not actually a native species. They were introduced in the middle ages as a source of food and have since thrived, particularly across England.



COMMON CARP

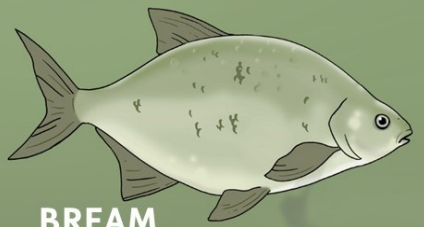


SWAN MUSSEL

Despite less sunlight penetrating into the gloom of deeper waters, life is abundant. **Molluscs** such as the swan mussel, can improve the quality of water, **filtering** gallons every day. They also **remove particles** that would allow bacteria to bloom, restricting the light for aquatic flora, starving animal life of oxygen.

GOING UNDER

Water depth has a huge impact on the range of the life that lives there. Large permanent lakes are stable habitats, allowing inhabitants to grow to impressive sizes.



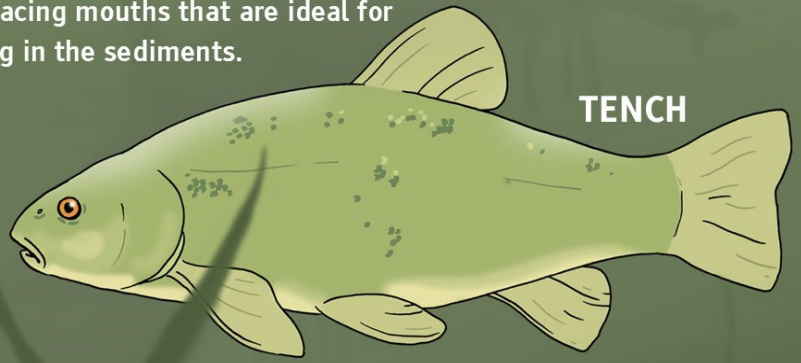
BREAM

Fish populations indicate the quality of our waterways with significant concerns existing around pollution from **untreated sewage**.

Freshwater fish have different body forms depending on how they behave and feed. **Bream** (above) are disc-shaped, fast-swimming predators that snatch-up any free-swimming prey they may spy, their thin bodies cutting through the water with ease.

Both **carp** (left) and **tench** (below) are heavy bodied, with downward-facing mouths that are ideal for feeding in the sediments.

TENCH



Whilst lacking in terms of size, the male three-spined stickleback has an attitude to match his extravagant breeding colours.

During the breeding season, male stickleback develops a scarlet underside as a way of attracting females. However, he must first build, then fiercely guard a fragile nest constructed from vegetation.

IN THE REEDS

Bridging open water and land, reed beds grow densely and provide sanctuary for wildlife to breed, feed and hide. The maze of towering vegetation is home to some iconic

Long legs allow wading birds to patrol the reed bed effectively and with less disturbance. Their height also offers an elevated position from which to spy prey.

The little egret is the most common of three egret species found in the UK (including the great white egret and cattle egret).

Their distinctive yellow feet stir up the sediment to flush out small fish which are rapidly snatched up and devoured.

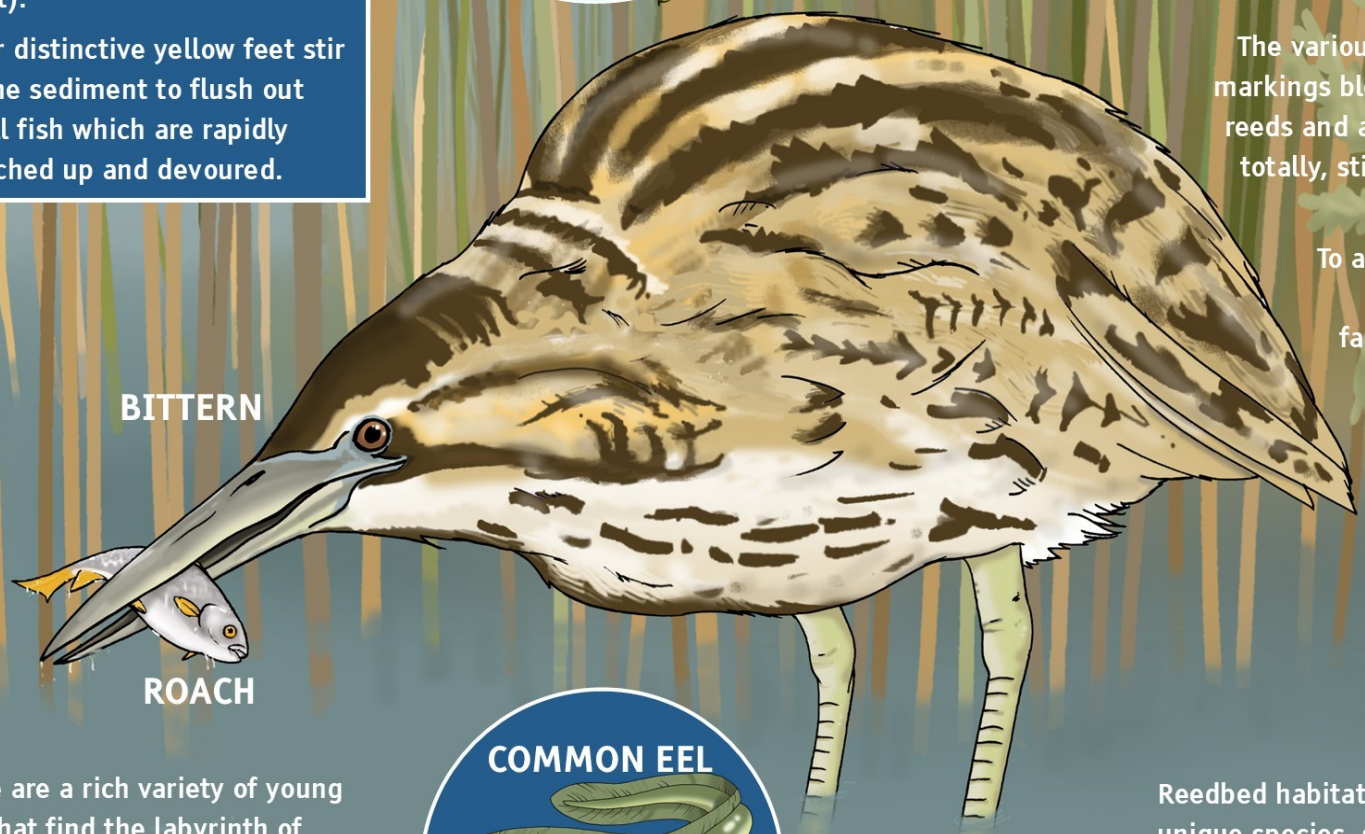
LITTLE EGRET

The bittern is a type of heron, and they share the elongated neck and long, dagger-like beak. Their incredible camouflage is even more effective when they stand tall, beak pointed upwards.

The various light and dark barred markings blend in with the vertical reeds and as the bittern can stand totally, still, it is near impossible to see unless it moves.

To attract a mate, the male makes a distinctive, far-reaching “boom” call.

REED BUNTING



BITTERN

ROACH

COMMON EEL

There are a rich variety of young fish that find the labyrinth of vegetation perfect to seek refuge. The common eel has a perfectly adapted body shape to weave between and exploit food in even the tightest of spaces.

BEARDED TIT

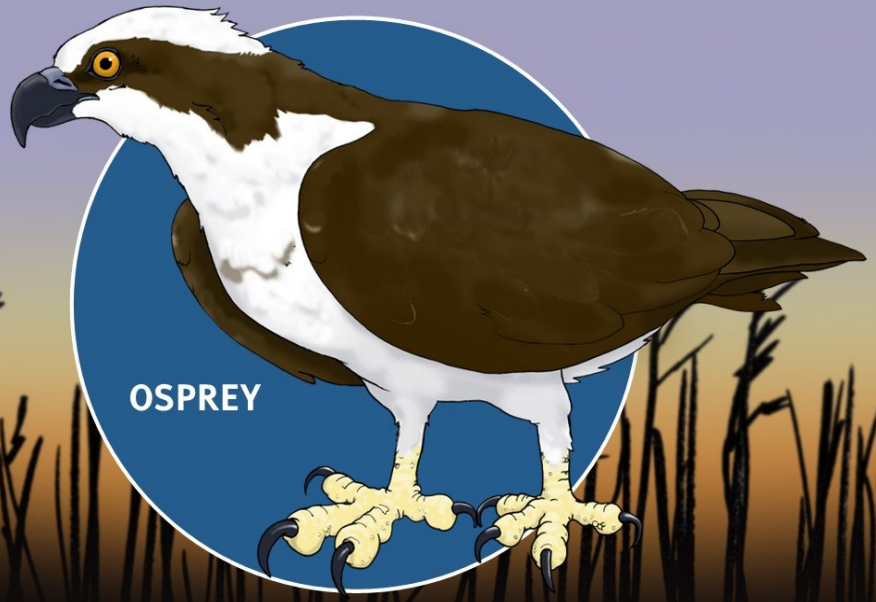
Reedbed habitats have some unique species, such as bearded tit, reed bunting and the bittern. Their dependence on such specific locations means they require careful conservation and management.

HUNTING ABOVE

The abundance of life both in, and besides, bodies of freshwater attracts predators who demonstrate specialist approaches to hunting above these aquatic habitats.

Hobby are tiny falcons that can be found across a range of habitats, but are particularly fond of the dragonflies and damselflies that are abundant by water. These highly agile, aerial predators can also snatch small birds from the air.

Having located their prey from high above, osprey then make spectacular dives into water, feet-first. Ensnared in wickedly-hooked talons, this powerful bird carries large fish, such as salmon, to a perch before tearing it apart.



Just like the hobby and osprey, marsh harriers migrate to Africa for winter. Upon their return, they tend to favor wetland habitats, which have the prey species and suitable nest sites that they prefer.

Marsh harriers came close to extinction in the UK in the 1960s, in a large part due to use of the pesticide, DDT. Whilst they have recovered from a single breeding female to around 600 pairs, they remain a protected species.

The courtship of breeding pairs involves elaborate aerial acrobatics, with the male tumbling about as he plummets at speed. The female bird may even link talons with her partner in mid-flight.

The number of flying insects, such as midges, around water sources makes wetland habitats an attractive hunting ground for bats. The pipistrelle, is our most common species of bat.