

Oak Tree



Quercus robur

Oak trees are the dominant plant species in the UK. At one time they covered most of the country.

Position in food chain Producer

Size Height 20 - 25m

Mass 30 tonnes

Number of offspring Hundreds per year

Lifespan 500 years

Population density 6

Bluebell



Hyacinthoides non-scripta

It is illegal to pick wildflowers like the bluebell. They flower early in the year, before they are shaded by the oak tree leaves.

Position in food chain Producer

Size Height 15cm

Mass 2 - 3g

Number of offspring 50 - 100 per year

Lifespan 3 years

Population density 5

Aphid



Aphis fabae

This black aphid is one of over 4000 aphid species. It feeds on plant sap.

Position in food chain Primary consumer

Size Height 2.5mm

Mass 0.0000018g

Number of offspring Several per day

Lifespan 6 months

Population density 8

Winter Moth Caterpillar



Operophtera brumata

The most common caterpillar in the oak tree forest, these caterpillars spend all their time eating. They are preparing for metamorphosis, when they transform into the adult moth.

Position in food chain Primary consumer

Size Length 3 - 5cm

Mass 2 - 3g

Number of offspring None, until it becomes an adult moth

Lifespan 5 - 6 weeks, followed by metamorphosis

Population density 7

Blue Tit



Parus caeruleus

Common garden birds, blue tits usually breed in woodland. They eat insects & nuts.

Position in food chain Primary & secondary consumer

Size Length 12cm

Mass 12g

Number of offspring 8 - 10 per year

Lifespan 11 years

Population density 4

Shrew



Sorex araneus

Shrews are aggressive, solitary rodents. They eat beetles, woodlice, spiders, slugs & caterpillars.

Position in food chain Secondary consumer

Size Height 5 - 8cm

Mass 12g

Number of offspring Up to 20 per year

Lifespan 3 years

Population density 3

Barn Owl



Tyto alba

An excellent hunter, the barn owl eats small birds, shrews, mice & voles. It hunts after sunset, & uses its excellent hearing & low light vision to find prey.

Position in food chain Tertiary consumer

Size Height 39cm

Mass 470g

Number of offspring 4 - 7 eggs per year

Lifespan 2 years

Population density 2

Broad Leaved Pondweed



Potamogeton natans

One of the commonest pondweeds. Under water the leaves are grass-like, but higher up there are oval floating leaves.

Position in food chain Producer

Size Leaf width 10cm

Mass N/A

Number of offspring N/A

Lifespan 10-15 years

Population density 8

Common Reed



Phragmites australis

A very successful species, this reed tends to out-compete other plants.

Position in food chain Producer

Size 2 - 4m

Mass N/A

Number of offspring N/A

Lifespan 15 years

Population density 8

Freshwater Snail



Limnaeidae sp

These snails feed on broad-leaved pondweed and algae. They have a rough tongue to scrap off plant material.

Position in food chain Primary consumer

Size Length 5cm

Mass N/A

Number of offspring 20-100 eggs per year

Lifespan 12-15 years

Population density 6

Caddis Fly



Trichoptera sp

Caddis fly larvae build cases of small stones and sticks around their body. They eat plants and algae.

Position in food chain Primary consumer

Size 2cm

Mass 1g

Number of offspring After metamorphosis the adult fly lays up to 500 eggs.

Lifespan 1 year

Population density 7

Carp



Cyprinus carpio

Carp live in fast and slow moving streams. They eat many organisms, including crustaceans, molluscs and flies.

Position in food chain Secondary consumer

Size Length 60cm

Mass 3.5kg

Number of offspring A female may lay millions of eggs in a year.

Lifespan 15 years

Population density 5

Otter



Lutra lutra

One of the Uks biggest carnivores, the otter is an endangered species. They eat fish, insects and water birds.

Position in food chain Tertiary consumer

Size Length 70-90cm

Mass 7-10kg

Number of offspring 2-3 per year

Lifespan 8 years

Population density 1

Brown Trout



Salmo trutta

Native to Europe, trout are very popular with anglers. They eat a wide range of organisms, including flies, crustaceans, snails and amphibians.

Position in food chain Secondary consumer

Size Length 70-95cm

Mass 10-14kg

Number of offspring A female may lay millions of eggs in a year.

Lifespan 5 years

Population density 5

Pan Dropseed Grass



Sporobolus iocladius

One of the commonest savana grasses, their blue-green leaves are tastier than many other plants in this habitat.

Position in food chain **Producer**

Size **Height 80cm**

Mass **N/A**

Number of offspring **N/A**

Lifespan **N/A**

Population density **10**

Umbrella Tree



Acacia tortilis

The umbrella shaped leaves of this tree are a common sight across the African savanna. The leaves are prickly to protect them from some, but not all, herbivores.

Position in food chain **Producer**

Size **Height 20m**

Mass **N/A**

Number of offspring **N/A**

Lifespan **80 - 100 years**

Population density **9**

Spring Hare



Lepus capensis

These hares have slender bodies & bushy tails. They eat grasses & bushes.

Position in food chain **Primary consumer**

Size **Length 52 - 59cm**

Mass **4 - 5kg**

Number of offspring **9 - 18 per year**

Lifespan **1 - 2 years**

Population density **5**

Wildebeest



Connochaetes taurinnus

These large antelopes have cow-like horns. They usually eat grass, but will eat trees if this is not available.

Position in food chain **Primary consumer**

Size **Height 1.5m**

Mass **120 - 270kg**

Number of offspring **1 per year**

Lifespan **20 years**

Population density **5**

Leopard



Panthera pardus

Leopards spotted or black coats give them excellent camouflage. They feed on wildebeest, gazelles & smaller animals like the spring hare.

Position in food chain Secondary consumer

Size Height 70cm

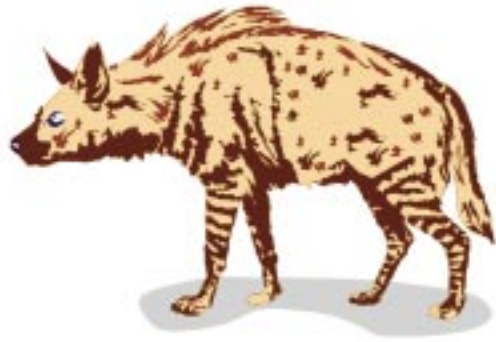
Mass 70kg

Number of offspring 2 - 3 per year

Lifespan 10 - 13 years

Population density 1

Spotted Hyena



Crocuta crocuta

Hyenas hunt alone or in packs. They scavenge from carcasses of wildebeest, gazelles & other big cat kills.

Position in food chain Secondary consumer

Size Height 90cm

Mass 55kg

Number of offspring 2 per year

Lifespan 25 years

Population density 2

African Lion



Panthera leo kruger

Lions stalk buffalo, zebra, wildebeest & gazelles. They live in prides of 10-20 lions, with one dominant male.

Position in food chain Tertiary consumer

Size Length 2.5m

Mass 175kg

Number of offspring 2 - 3 per year

Lifespan 13 - 25 years

Population density 1

Blue-green algae



Cyanobacteria

Cyanobacteria are the most ancient life form on earth. They use light energy for photosynthesis.

Position in food chain Producer

Size Diameter 0.002mm

Mass N/A

Number of offspring Divide every few hours

Lifespan Until they reproduce by dividing

Population density 10

Diatom



A type of phytoplankton

Diatom cell walls are made of silica. Phytoplankton float at the surface where there is more light energy for photosynthesis.

Position in food chain Producer

Size Diameter 0.001mm

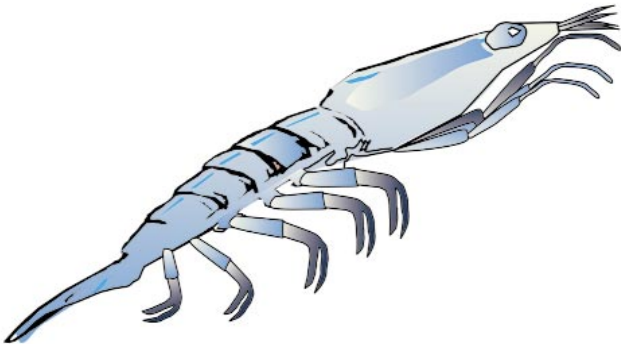
Mass N/A

Number of offspring Divide every few hours

Lifespan Until they reproduce by dividing

Population density 10

Krill



Euphasia superba

Krill are crustaceans that form the major part of a whale's diet. They eat plankton & algae.

Position in food chain Primary consumer

Size Length up to 5cm

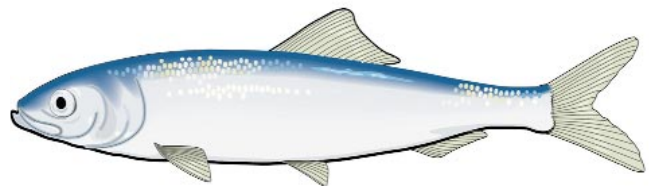
Mass 2g

Number of offspring Up to 10,000 each season

Lifespan 5 years

Population density 9

Atlantic Herring



Clupea harengus

This popular food was once fished to very low levels. They eat plankton & algae.

Position in food chain Primary consumer

Size Length 45cm

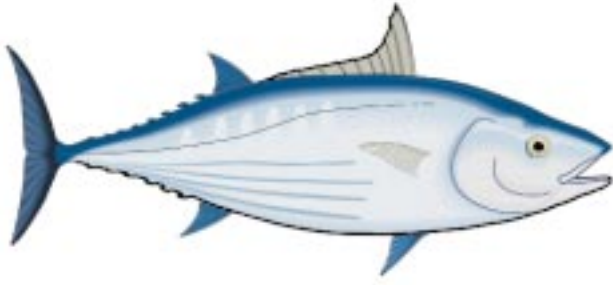
Mass 1kg

Number of offspring Up to 200,000 eggs per season

Lifespan 10 - 15 years

Population density 7

Skipjack Tuna



Katsuwonus pelamis

Tuna eat other fish, crustaceans and molluscs. Rarely seen around Britain, this species lives in waters with an average temperature of 15°C.

Position in food chain Secondary consumer

Size Length 80cm

Mass 10kg

Number of offspring 1.25 million eggs, x 4 per year

Lifespan 8 - 12 years

Population density 5

Elephant Seal



Mirounga angustirostris

These seals usually dive up to 600m for 20 mins, but they can dive for an hour or longer. They eat squid, fish, small sharks & rays.

Position in food chain Secondary consumer

Size Length 3 - 4.5m

Mass 1,500 - 3,000kg

Number of offspring 1 per year

Lifespan 14 years

Population density 3

Great White Shark



Carcharodon carcharias

A very efficient predator, this shark eats seals, tuna, dolphins, turtles & other sharks. They do not usually attack humans for food, but can do if they mistake them for a seal.

Position in food chain Tertiary consumer

Size Length 3.5 - 4.9m

Mass Up to 3200kg

Number of offspring 9 - 11 per year

Lifespan 20 - 25 years

Population density 1

Phytoplankton



Phytoplankton

Phytoplankton in the arctic bloom in spring, when the ice is thinner and broken up, so more light reaches the water.

Position in food chain **Producer**

Size **Diameter 0.001mm**

Mass **N/A**

Number of offspring **May divide every hour**

Lifespan **Until they reproduce by dividing**

Population **10**

Macroalgae



Laminaria saccharina

One of several species of large algae (kelp) found in arctic waters. Fed on by snails & some fish, they are important because they provide habitats for many crustaceans that other species feed on.

Position in food chain **Producer**

Size **Length 2 - 3m**

Mass **N/A**

Number of offspring **N/A**

Lifespan **2 - 4 years**

Population **8**

Clams



Mya truncata

These large bivalves burrow several cms into the sea bed. They feed on phytoplankton, which they filter from the water.

Position in food chain **Primary consumer**

Size **Length 7.5cm**

Mass **N/A**

Number of offspring **N/A**

Lifespan **5 - 10 years**

Population **7**

Arctic Cod



Boreogadus saida

Arctic cod live in sea temperatures between 0°C & 4°C. They feed on phytoplankton.

Position in food chain **Primary consumer**

Size **20 - 35cm**

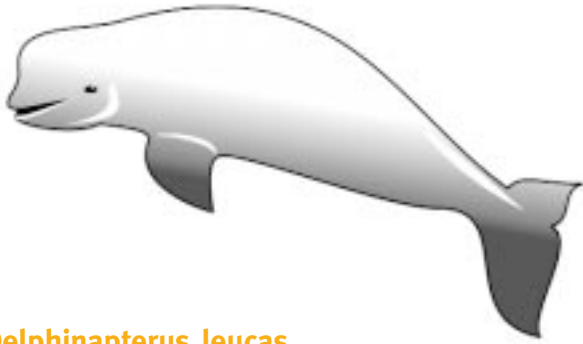
Mass **100 - 200g**

Number of offspring **A female may lay up to 21,000 eggs per year**

Lifespan **6 years**

Population **5**

Beluga Whales



Delphinapterus leucas

Beluga whales only live in the Arctic ocean & neighbouring seas, where the water maybe almost freezing. They eat octopus, clams & fish.

Position in food chain Secondary consumer

Size Length 3.5 - 4.5m

Mass 1300 - 1500kg

Number of offspring 1 per 2 to 3 years

Lifespan 25 - 30 years

Population 2

Ringed Seal



Phoca hispida

Ringed seals live under the ice for several months each year. They make breathing holes in the ice. Named after the dark spots with light rings on their fur, they feed on cod & shrimps.

Position in food chain Secondary consumer

Size Length 85 - 160cm

Mass 40 - 90kg

Number of offspring 1 per year

Lifespan 25 - 30 years

Population 3

Polar Bear



Ursus maritimus

Polar bears live on the ice pack. Their diet is mainly ringed seals, which they will attack when the seals come up to their breathing holes in the ice. Polar bears also eat small whales.

Position in food chain Tertiary consumer

Size Length 2.5 - 3.5m

Mass 350 - 550kg

Number of offspring 2 per year

Lifespan 15 - 20 years

Population 1

Play Top Science and learn more about feeding relationships!

Classification

This section tells you the scientific name for the organism.

Food chain position

This section tells you what level in the food chain the organism is.

Size

This section tells you the average height, length or width of the adult organism. There may be quite a big range, because males and females can be different in size.

Mass

This section tells you the average mass of the adult. There may be quite a big range, because males and females can have different masses.

Number of offspring

This section tells you the average number of offspring the organism produces. Depending on the organism, this may be per year, per season or even per hour.

Lifespan

This section tells you the average number of years that the organism lives for in the wild.

Population density

This section gives a rating for how common the organism is in the habitat. Usually the further up the food chain, the fewer organisms there are. There are some exceptions to this rule. For example, there are many caterpillars feeding on a single oak tree.

On some of the cards you will find that a category is not applicable. For some parts we cannot give you a number because the information was not available. If a feature doesn't have a number you have to choose another. If you find the missing information, let us know!