



European Otter



Description:

A fast-moving **mammal** which lives in or near rivers.

Trophic Level:

Consumer

Dietary Group:

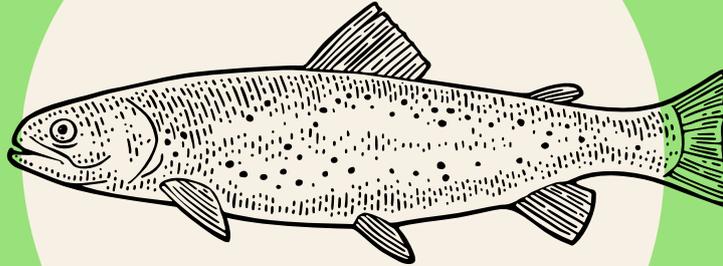
Carnivore

Food Sources:

Fish, crayfish, amphibians, small waterbirds.



Brown Trout



Description:

A fast swimming river **fish**.

Trophic Level:

Consumer

Dietary Group:

Carnivore

Food Sources:

Aquatic invertebrates such as caddis and mayfly nymphs, and freshwater shrimps. Larger trout may eat small fish and crayfish.



Kingfisher



Description:

A brightly-coloured **bird** which lives near rivers.

Trophic Level:

Consumer

Dietary Group:

Carnivore

Food Sources:

Small fish, tadpoles, aquatic invertebrates such as caddis and mayfly nymphs, and freshwater shrimps.



Heron



Description:

A large wading **bird** which lives near rivers.

Trophic Level:

Consumer

Dietary Group:

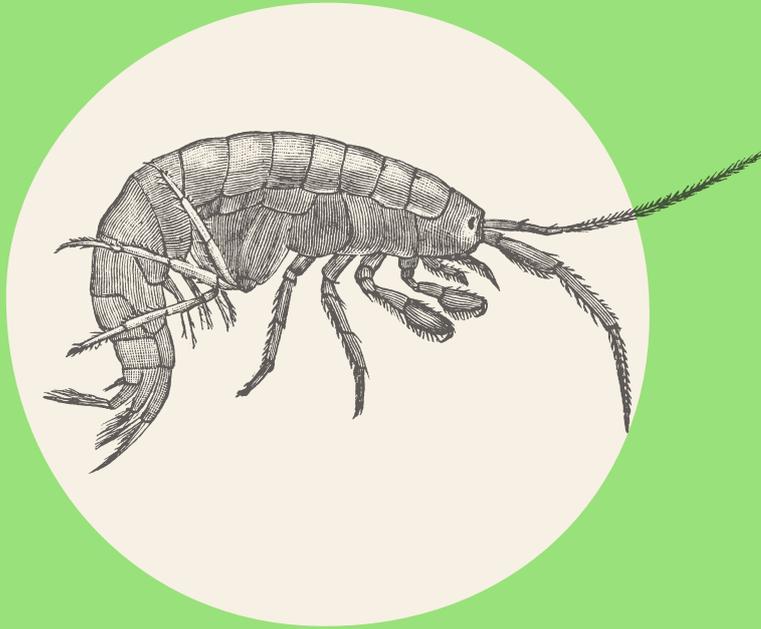
Carnivore

Food Sources:

Fish, amphibians, crayfish and small birds.



Freshwater Shrimp



Description:

A small freshwater **crustacean** which lives at the bottom of the river bed.

Trophic Level:

Consumer

Dietary Group:

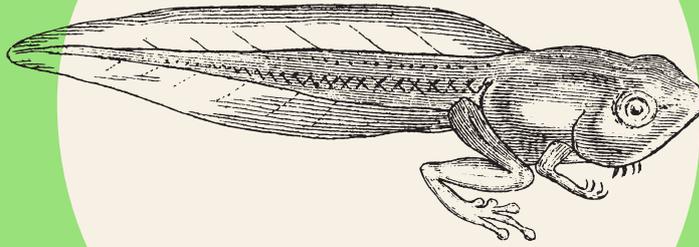
Omnivore

Food Sources:

Algae, decaying aquatic plants, and small aquatic invertebrates.



Tadpole



Description:

Tadpoles are the larval stage of **amphibians** such as frogs and toads.

Trophic Level:

Producer

Dietary Group:

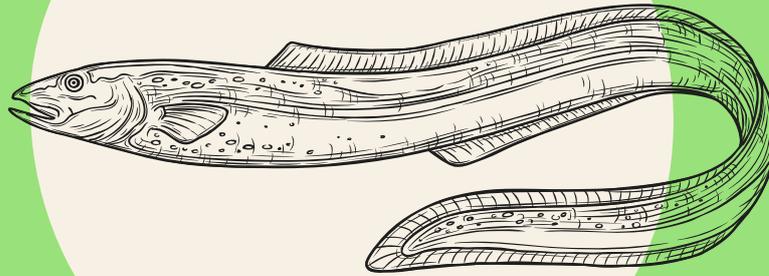
Omnivores

Food Sources:

Aquatic plants and algae when young. Small animals and aquatic invertebrates such as daphnia when older.



European eel



Description:

A long snake-like **fish** which lives in streams and rivers, then migrates to the sea to breed when older.

Trophic Level:

Consumer

Dietary Group:

Omnivore

Food Sources:

Fish, snails, mayfly nymphs, freshwater shrimps, crayfish and aquatic plants.



Dipper



Description:

A small **bird** which lives in or near fast-flowing rivers.

Trophic Level:

Consumer

Dietary Group:

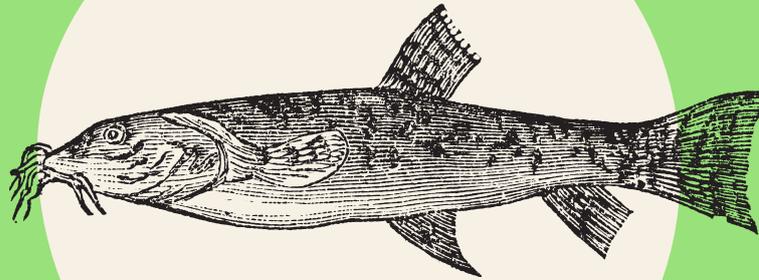
Carnivore

Food Sources:

Aquatic invertebrates such as caddisfly and mayfly nymphs, and freshwater shrimps.



Stone Loach



Description:

A small mottled brown **fish** which lives on the bottom of fast-flowing rivers and streams.

Trophic Level:

Consumer

Dietary Group:

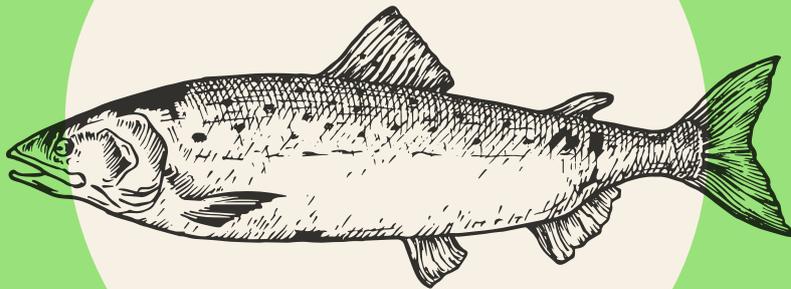
Carnivore

Food Sources:

Aquatic invertebrates such as mayfly and caddisfly nymphs, and freshwater shrimps.



Atlantic Salmon



Description:

A large, fast-swimming **fish** which spends most of its life in the sea but returns to the rivers to breed.

Trophic Level:

Consumer

Dietary Group:

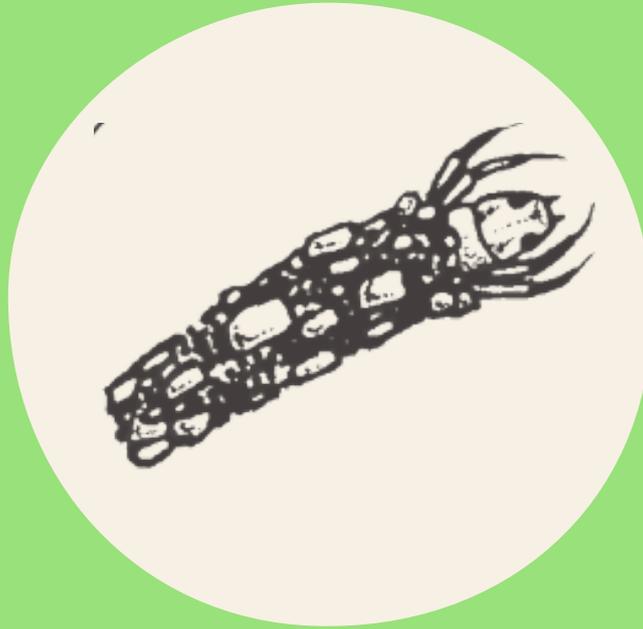
Carnivore

Food Sources:

Aquatic invertebrates such as caddis and mayfly nymphs, freshwater shrimp, crayfish, and small fish.



Caddisfly Nymph



Description:

The aquatic larvae/nymph of the Caddisfly **insect**, which live amongst the rocks and vegetation on the river bed.

Trophic Level:

Consumer

Dietary Group:

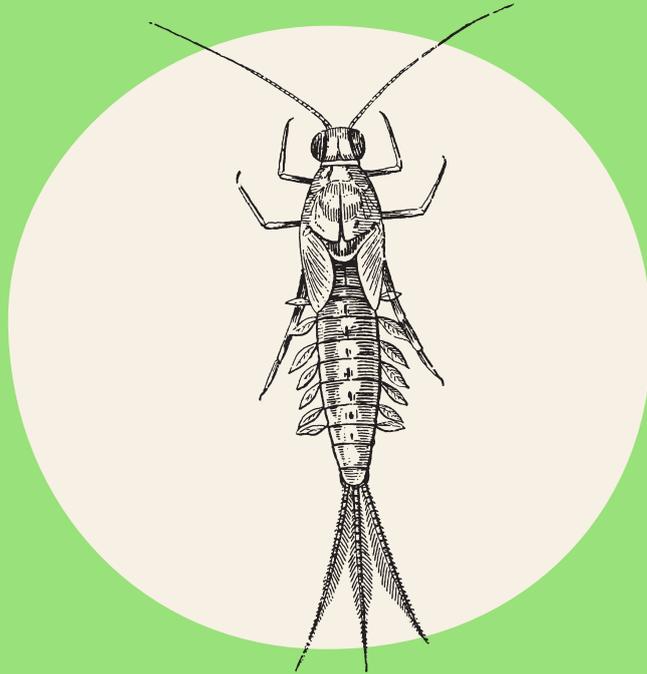
Omnivore

Food Sources:

Aquatic plants, and algae. Small aquatic invertebrates such as daphnia and freshwater shrimps.



Mayfly Nymph



Description:

The larvae/nymph of the mayfly **insect**, live amongst the rocks and vegetation on the bottom of rivers and streams.

Trophic Level:

Consumer

Dietary Group:

Herbivore

Food Sources:

Algae and aquatic plants.



Mallard Duck



Description:

An aquatic **bird** which lives on or near ponds, streams and rivers.

Trophic Level:

Consumer

Dietary Group:

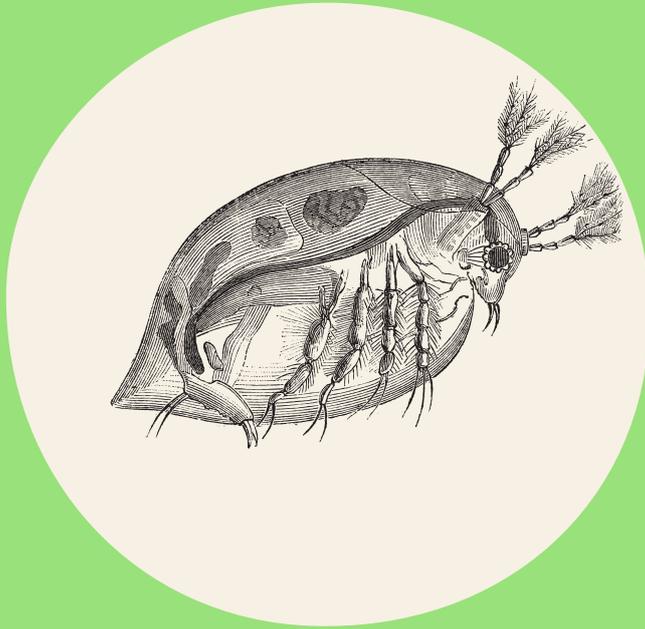
Omnivore

Food Sources:

Aquatic plants, aquatic invertebrates such as caddisfly and mayfly nymphs, and freshwater shrimps.



Daphnia



Description:

Small aquatic **crustaceans** which live in freshwater ponds, lakes, streams and rivers.

Trophic Level:

Consumer

Dietary Group:

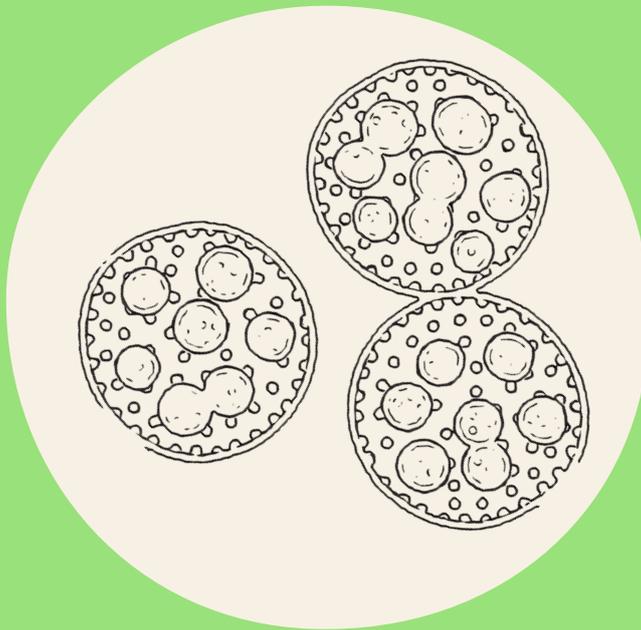
Herbivore

Food Sources:

Daphnia are filter-feeders, feeding on planktonic algae.



Algae



Description:

Simple **plant-like organisms** which can be found in ponds, lakes, rivers and streams.

Trophic Level:

Producer

Energy Source:

Sunlight

Food Sources:

Algae get their energy from sunlight through a process called photosynthesis.



Waterweed



Description:

Aquatic **plants** which grow in and along the margins of rivers and streams.

Trophic Level:

Producer

Energy Source:

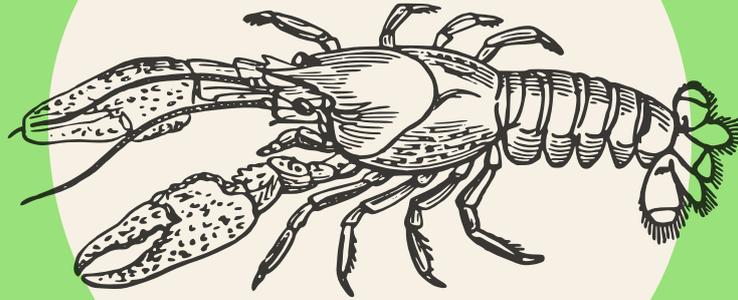
Sunlight

Food Sources:

Plants get their energy from sunlight through a process called photosynthesis.



White-clawed crayfish



Description:

Aquatic **crustaceans** which live in rivers and streams, lakes and ponds.

Trophic Level:

Producer

Dietary Group:

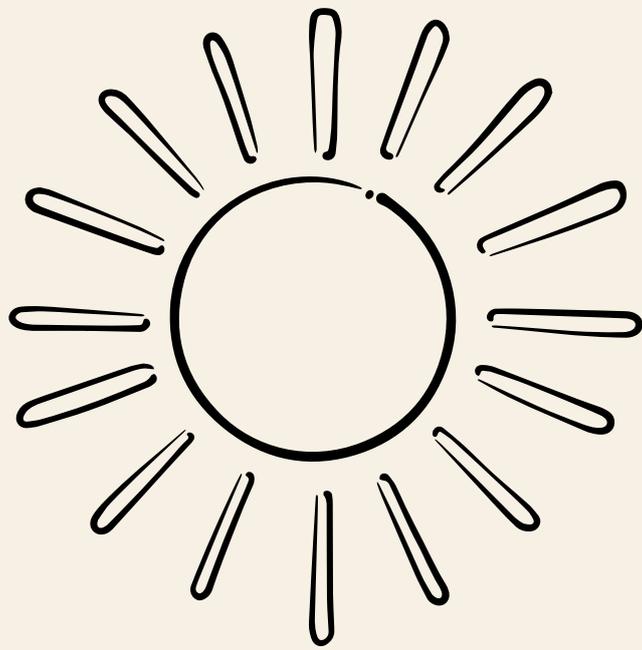
Omnivores

Food Sources:

Aquatic plants and aquatic invertebrates including caddisfly nymphs, mayfly nymphs and freshwater shrimps.



The Sun





Scenario Card

Human activities have removed otters from the river.

Everyone with an **otter card** **step out of the game**. What do you think will happen to the things they eat? How will this affect the food web?



Scenario Card

The river becomes blocked and no fish can move up or downstream to breed.

Everyone with **eel, trout, and salmon cards** step out of the **game** and observe what happens to the living things that are linked to them



Scenario Card

The river becomes polluted and all the mayfly and caddisfly nymphs die.

Everyone with **mayfly and caddisfly nymph cards** step **out** of the game and observe what happens to the living things that are linked to them



Scenario Card

Nutrient levels in the river have become too high due to pollution. This causes algae to grow rapidly. When algae dies it reduces the oxygen in the water. Fish are highly sensitive to reduced oxygen and cannot survive.

Everyone with **fish cards** swap it for **an algae card**. How does this affect the food web?



Information Sources:

Devon Wildlife Trust

<https://www.devonwildlifetrust.org/wildlife-explorer>

Freshwater Habitats Trust

<https://freshwaterhabitats.org.uk/species/>

© Produced by Westcountry Rivers Trust, 2025 in consultation with N. Collins, Fellow of the Primary Science Teaching Trust.

