# **Ecosystems and Habitats**

## **DEFINITIONS**

The following common terms can be used to describe living things in their environment:

- environment all the conditions that surround a living organism
- habitat the place where an organism lives
- population all the members of a single species that live in a habitat
- community all the populations of different organisms that live together in a habitat
- ecosystem a community and the habitat in which it lives

**Biodiversity** is a measure of the variety of **different species** living in a habitat. The greater the number of different species in a habitat, the greater its biodiversity.

## **Food Chains**

A food chain shows what eats what in a particular habitat. It shows the flow of energy and materials from one organism to the next, beginning with a producer.

The **Sun** is the ultimate source of energy for most communities of living things. Green plants are usually the producers in a food chain.

**Producers** are organisms that make their own organic nutrients (food) - usually using energy from sunlight. Green plants make their food by photosynthesis. The other organisms in a food chain are consumers, because they all get their energy by consuming other organisms.

ORGANISM	HOW IT GETS ITS ENERGY	. c.O.
Consumer	Feeding on other organisms	
Primary Consumer	Eating Plants	
Secondary Consumer	Eating primary consumers	
Tertiary Consumer	Eating secondary consume s	
Herbivore	Eating Plants	
Carnivore	Tating other animals	
Decomposer	Feeding on dead and decaying organisms, and on the	
	undigested parts of plant and animal matter in faeces	

#### FOOD WEBS

A food web is a network of interconnected food chains. It shows the energy flow through part of an ecosystem. Information from a food web

oak tree  $\rightarrow$  squirrel  $\rightarrow$  fox

oak tree  $\rightarrow$  earthworm  $\rightarrow$  wood mouse  $\rightarrow$  fox

oak tree  $\rightarrow$  earthworm  $\rightarrow$  wood mouse  $\rightarrow$  owl

The oak trees are the **producers**. Squirrels and earthworms are **primary consumers**, and the wood mice are **secondary consumers**. The foxes and owls are **tertiary consumers** (the foxes are also secondary consumers).

Foxes and owls eat the wood mice, and foxes eat wood mice and squirrels. The fungi and earthworms are **decomposers** in this food web.

### **COMPETITION AND INTERDEPENDENCE**

Habitats have limited supplies of the resources needed by plants and animals. Therefore, plants and animals may **need to compete** with one another **for food, water, space and mates** in order to survive.