

B3.2 Glossary

Abundance	<p>The quantity or amount of something present in a particular area.</p> <p><i>The ecologist sampled the field to estimate the abundance of daisy plants present.</i></p>
Biodiversity	<p>The variety of all the different species in an ecosystem or area.</p> <p><i>A stable ecosystem has a high biodiversity.</i></p>
Biomass	<p>A measure of the total quantity of biological material in one or many organisms.</p> <p><i>The total biomass of all the grass plants in the field is 10000 kg.</i></p>
Biotechnology	<p>The use of biological processes for industrial or medical purposes.</p> <p><i>Genetic modification of bacteria to produce human insulin is an example of biotechnology.</i></p>
Carnivore	<p>An animal that only feeds on other animals.</p> <p><i>A lion is an example of a carnivore.</i></p>
Climate Change	<p>The overall change in weather patterns (global or regional) over a long period of time.</p> <p><i>Many countries have reported more extreme weather thought to be due to climate change.</i></p>
Consumer	<p>Organisms that cannot make their own food, so must eat other organisms.</p> <p><i>All animals are consumers because they cannot make their own food.</i></p>
Contamination	<p>Making something impure by polluting or poisoning.</p> <p><i>Sewage water must be treated properly otherwise there is a risk of contamination to rivers and seas.</i></p>
Deforestation	<p>When humans cut down wide areas of trees.</p> <p><i>Deforestation is happening around the world to make space for farming.</i></p>





Ecosystem	<p>The interaction of a community of organisms with the non-living (abiotic) parts of their habitat.</p> <p>A rainforest ecosystem contains gorillas, ants, nut trees, water and sunlight.</p>
Efficiency	<p>The proportion of something which is useful vs wasted.</p> <p>The efficiency of biomass transfers from one trophic level to another is around 10%.</p>
Emissions	<p>The release of greenhouse gases.</p> <p>Increased carbon dioxide emissions are linked to global warming.</p>
Energy Transfer	<p>Energy is moved between trophic levels when one organism eats another organism.</p> <p>The first energy transfer in a food chain happens when a consumer eats a producer.</p>
Eutrophication	<p>Excessive nutrients in a body of water which cause excessive plant growth.</p> <p>Fertilisers running from fields into rivers and streams can cause eutrophication.</p>
Famine	<p>An extreme shortage of food.</p> <p>Decreased food security may lead to famine.</p>
Fertiliser	<p>A chemical added to soil to increase the mineral content which improves plant growth.</p> <p>Farmers add fertilisers to the soil every year to help their crops grow.</p>
Food Security	<p>Having enough food to feed a population.</p> <p>Increased birth rates is a factor that can threaten the food security of a country.</p>
Global Warming	<p>The rise in global temperatures due to greenhouse gases.</p> <p>Burning fossil fuels is a big contributor to global warming.</p>
Greenhouse Gas	<p>A gas that contributes to the greenhouse effect and global warming.</p> <p>Carbon dioxide and methane are both examples of greenhouse gases.</p>



Habitat	The area where an organism lives. <i>The habitat of a polar bear is sea ice.</i>
Herbivore	An animal that eats only plants. <i>A rabbit is an example of a herbivore.</i>
Indicator Species	Organisms that can tell us about the levels of pollution in an area by their presence or absence. <i>Lichen are an indicator species for air pollution.</i>
Intensive Farming	A process that uses machines, fertilisers and man-power to maximise food production. <i>Intensive farming methods have been used because there is high demand for cheap meat and animal products.</i>
Leaching	Movement of minerals through soil often due to rainwater. <i>Leaching of minerals from farmers' fields can lead to eutrophication of surrounding bodies of water.</i>
Peat	A dark brown substance, like soil, that is formed when plant material cannot decay because of acidic and anaerobic conditions. <i>Peat can be burned as fuel or used as compost by gardeners and farmers.</i>
Pollution	Caused when human waste isn't properly handled or disposed of. <i>Water pollution can come from untreated sewage or from fertilisers.</i>
Predator	Consumers that eat other animals. <i>A fox is the predator of a rabbit.</i>
Prey	Animals that are eaten by other animals. <i>A rabbit is the prey of a fox.</i>
Producer	Organisms that can make their own food using photosynthesis. <i>Plants and algae are examples of producers.</i>





Quadrat	<p>A piece of equipment used to count the number of organisms/individuals in a specific area.</p> <p>Quadrats are used during both random and systematic sampling to count the individuals in an area.</p>
Quota	<p>A limited quantity of something.</p> <p>Countries have fishing quotas meaning there is a limited number of fish they are allowed to catch.</p>
Resources	<p>A substance or object required by an organism for normal growth, maintenance and/or reproduction.</p> <p>Resources that plants need to live are space, water, sunlight and minerals.</p>
Sewage	<p>Wastewater that is produced from human households and industries.</p> <p>Sewage water needs to be treated so that it does not pollute rivers and seas.</p>
Species	<p>A group of similar organisms that breed together to produce fertile offspring.</p> <p>Lions and tigers are different species because when they breed together their offspring are not fertile.</p>
Thermoregulation	<p>The process where an animal uses energy to maintain a constant body temperature.</p> <p>Humans need to use energy to thermoregulate and keep their internal body temperature at approximately 37°C.</p>
Transect	<p>A line placed across a habitat for systematic sampling.</p> <p>The ecologist used a transect to investigate how the presence of a lake affected the distribution of frogs.</p>
Trophic Level	<p>An organism's position in a food chain.</p> <p>A producer is always found at the first trophic level as they are at the beginning of a food chain.</p>

