Aquatic

Covering over 75% of the Earth's surface, the aquatic biome is vast. It is the largest of all the biomes. There are lots of different areas split into two broad groups: marine and freshwater. Freshwater habitats contain less than 1% salt, whereas marine environments are heavily salted. Areas where the two meet are described as brackish. Most rivers, lakes and ponds are freshwater, whereas the oceans and seas are marine. Brackish areas occur mainly in coastal areas.

Unlike other biomes, aquatic areas are controlled by things like how quickly they move and how deep they are. Rivers and streams are fast-moving and often relatively shallow compared to lakes and oceans. Lakes and ponds are static - the water is often refreshed by feeding rivers, but some are cut off entirely. These are called closed lakes. If water only flows into lakes, it is hard for aquatic wildlife to leave. Lakes, where water flows out, are often more diverse.

There is an abundance of life in the shallower waters. There is more sunlight here which means that more algae can grow. This is the bottom of the aquatic food chain, and so the more algae there is, the more food there is for the animals further up. As you go deeper underwater, less sunlight can penetrate, so there is less food. Animals that live in deeper water are usually scavengers that live off dead animals that sink to the bottom. When a large animal, such as a whale, dies, creatures flock from miles around to feast on it on the ocean bed. One animal can feed these smaller creatures for months.

Water at the beginning of a stream or river is often clear and full of oxygen. This is great for a wide range of wildlife. As it runs along its course, it picks up debris. This makes it cloudy and removes some of the oxygen. Less wildlife can live in water like this, but specially adapted fish and insects make the most of it. When you look at slow-moving low-land rivers like the Amazon basin, it's sometimes so cloudy that it's hard to see where the land ends, and the water begins. However, it is still home to thousands of species.

By the time water reaches the oceans and seas, it has been on a long journey. It carries with it lots of nutrients that help to feed plants in the shallower ocean water - yet another reason why most animals live there. Unfortunately, rivers also carry pollution from factories and other human waste. This is harmful to the oceans as well as rivers.

Pollution, along with climate change, is damaging aquatic biomes across the globe. Important habitats, such as the great barrier reef, are being bleached and killed because of changing water temperatures and toxic chemicals. Rivers are being choked with human debris and deprived of oxygen. In the UK alone, over 90% of wetland habitats have been lost in the last 100 years, and over 10% of the aquatic wildlife is threatened with extinction.

VOCABULARY FOCUS

1. What impression do you get from the word “vast”?
2. What would you expect to find in something that was described as “brackish”?
3. Find and copy a word that describes how creatures move towards a dead animal on the ocean bed.
4. What impression do you get of rivers and oceans from the phrase “choked with human debris”?
5. What does “deprived” mean?

VIPERS QUESTIONS

R Where is water most full of oxygen?

R How do most animals that live in the deep ocean find food?

S How are rivers different to lakes and ponds?

S How does human activity on land affect the aquatic biomes?

I What evidence is there that things are getting worse for this particular biome?