

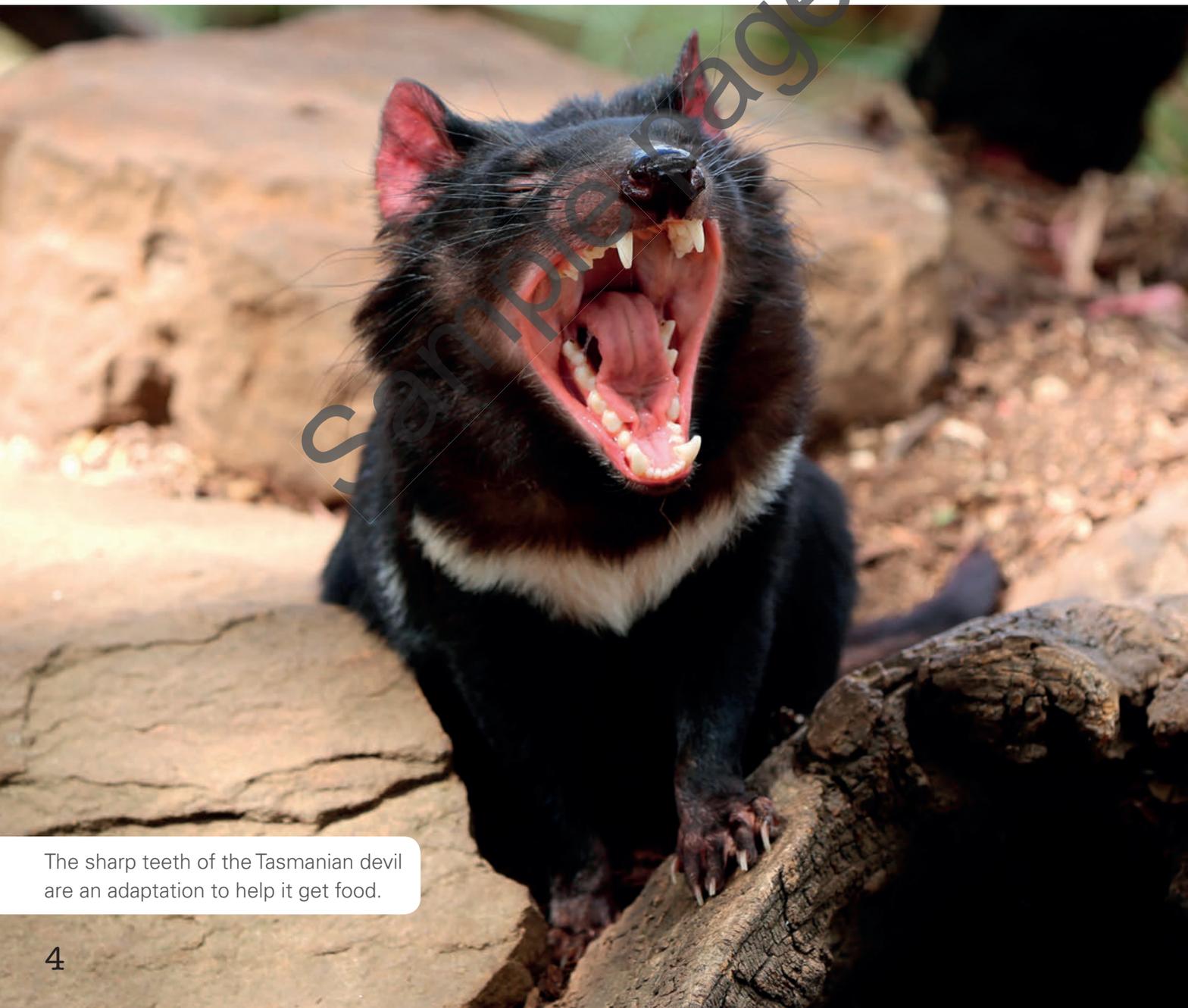
Adaptations

An **adaptation** is a characteristic that any living thing has to help it survive in its environment. The environment in which an **organism** lives is called its **habitat**. An organism's habitat provides everything it needs to live. This includes food, water, oxygen and energy, as well as a mate to have offspring with. Adaptations can be anything that help the plant or animal get these things.

Different environments pose different challenges to the organisms living there.

However, all adaptations enable organisms to better live in their specific environment. Even if plants and animals live in the same habitat and have to live with similar environmental conditions, they sometimes develop different adaptations to deal with these conditions.

There are many different adaptations that living things could develop to help them survive. However, there are three main types of adaptations. These are structural, behavioural and functional adaptations.



The sharp teeth of the Tasmanian devil are an adaptation to help it get food.

Structural Adaptations

A **structural adaptation** relates to how a **species** looks—its size, shape and colour. A kangaroo's long tail is an example of a structural adaptation. It helps the kangaroo to balance when standing and when moving.

Wombats do not hop on their back legs so they don't need a long tail to help them move. Instead, a structural adaptation for a wombat is its long front claws. The long claws of the wombat help it to scratch the dirt and dig burrows so that it has somewhere to hide.

Another example of a structural adaptation is how an organism is able to **camouflage** itself, or blend in with its environment. Being able to do this is very important for **predators** (animals that eat other animals) and **prey** (animals that get eaten by other animals). For example, the tawny frogmouth is a predator. It is nocturnal and eats mainly insects that fly at night. During the day, the tawny frogmouth camouflages itself while it rests in a tree. It sits very still with its head raised, which makes it look like a stumpy branch, nearly invisible to other creatures. What benefit do you think this has for the bird?

Plants also have structural adaptations. The Australian eucalypt has a wax covering on its leaves. This reduces the amount of water that is lost from the plant.

Meerkats have dark circles around their eyes that look like sunglasses and reduce glare. This structural adaptation helps them to see in bright sunlight.



This caterpillar has developed scary-looking spines that protect it by frightening predators.