



Water KIDZ

The wonderful world of freshwater habitats

Water does not only sustain us. It provides a home to some of the world's most interesting creatures.



A dragonfly nymph. The world's rivers support thousands of insects, which provide a source of food for other animals, such as birds and fish.

In addition to being our main source of drinking water our river systems are some of the most species-rich habitats in the world.

There are various freshwater animals that inhabit rivers, wetlands and lakes (or dams in South Africa). Freshwater animals are generally defined as those animals which depend on freshwater habitats for any critical part of their lifecycle.

There are hundreds of thousands of animals that are dependent on freshwater systems, mostly insects. Almost half of the world's fish spend at least part of their lifetime in freshwater. Nearly 4 000 amphibian species (like frogs) can be found in ponds and wetlands. When you add other animals such as molluscs (e.g. snails), crocodiles, hippos and otters to this total, it becomes clear what an important role freshwater systems play in maintaining our world's biodiversity.

It is important to realise that while terrestrial and marine ecosystems have a larger percentage of known species, the relative richness of freshwater ecosystems is higher. This is because these species are restricted to living in a habitat which only covers an estimated 0.8% of the world's surface area.

River systems are also rich in plants species. Reeds and rushes along the shores shelter frogs. Birds and mammals nest and feed in wetland vegetation. In South Africa, we are lucky to also have large animals in some of our water courses, such as otters, crocodiles and hippos.

Plants and algae are particularly important to freshwater ecosystems as they provide oxygen through photosynthesis, and food for animals. In fast streams and rivers many plants have special structures that keep them from being carried away by



Freshwater systems support up to 14 000 known fish species in the world.

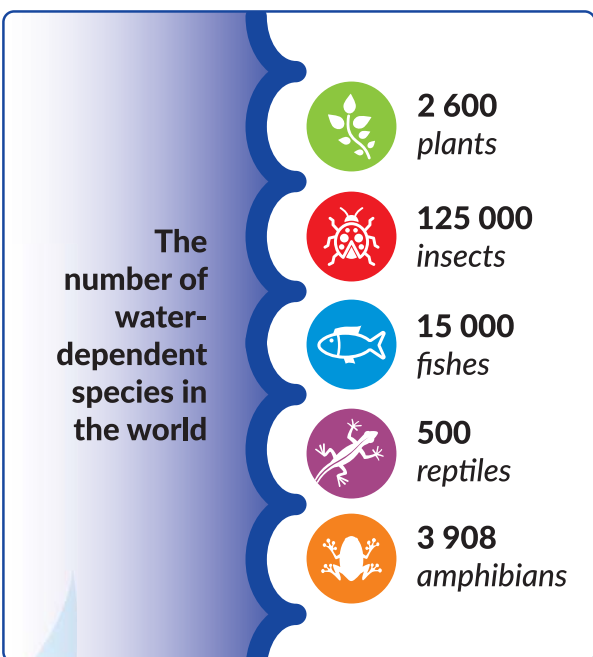
the water. Some aquatic plants have strong roots that keep them anchored securely, while others have stems that bend easily with the movement of the water.

On the other hand, plants such as water lilies float on the surface. Reeds, lilies and other vegetation grow along the shoreline of many freshwater ecosystems.

While South Africa is a dry country we have some special freshwater species. The country has about 300 freshwater fish species. Most of these species are endemic, which means that they are found nowhere else on Earth.

People are dependent on river systems, and not just for their water supply. While about 21% of protein intake in Africa is from freshwater fish, people also make use of freshwater plants for medicine and building material, for example.

Despite their many values, rivers rank among the most degraded ecosystems on the planet. As people we haven't been taking care of their freshwater ecosystems, using and abusing our rivers to the point that many of them don't flow all year round



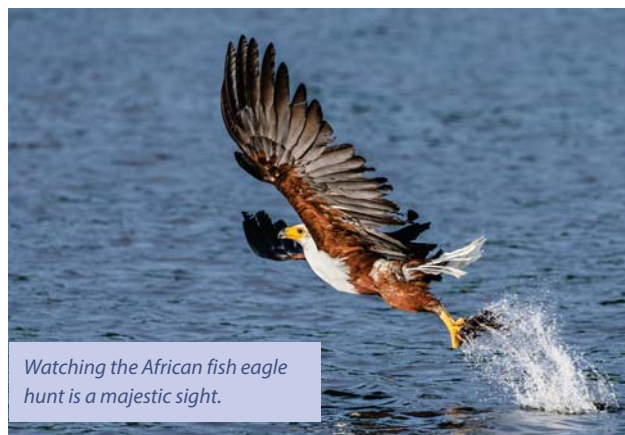
Source: IUCN

anymore. Other rivers are so degraded that they have little to no life in them.

Another threat is invasive alien species. Fish species such as smallmouth, largemouth and spotted bass, all introduced from North America, eat our indigenous fish, and have taken over many of our river systems. Invasive alien trees are also a problem as they shade out our sun-loving species and use excessive volumes of water.

This has not been good for our freshwater plants and animals, with many of these species now threatened with extinction.

We have to start taking care of our river systems and all the creatures that live in them.



Watching the African fish eagle hunt is a majestic sight.



One of South Africa's most endangered riverside creatures is the riverine rabbit. This little bunny is endemic (i.e. found nowhere else) to the semi-arid Great Karoo and parts of the Klein Karoo region of South Africa. The riverine rabbit functions as the flagship species as well as an indicator species for the river ecosystems of the Karoo as its regional extinction in many areas of its former natural distribution range is indicative of the degraded status of the riverbanks along the perennial Karoo rivers. The riverine rabbit is critically endangered and is recognised as one of the most threatened terrestrial mammals in southern Africa.