

### LATCHING ONTO YOUR BIGGER NEIGHBOURS

**Navelwort, ferns and mosses** survive by attaching themselves to tree trunks and branches. Living things that do this are called **epiphytes**.



### TRANSPORTING POLLEN

**Water, wind and pollinating insects** make perfect pollen carriers. They ensure flowering plants can fertilise. Flowers attract the insects with nectar when they're foraging.



### TRANSFORMING AND FERTILISING

A **dead tree** is a rich source of food for **insect larvae** and **fungi**. The latter slowly help break down the wood, turning it into **humus**, which in turn helps young plants grow.

### SHARING LIGHT AND SPACE

When light or water resources have to be shared, **plants coexist** by growing to different heights or not consuming the same nutrients found within the soil.



### SHELTERING

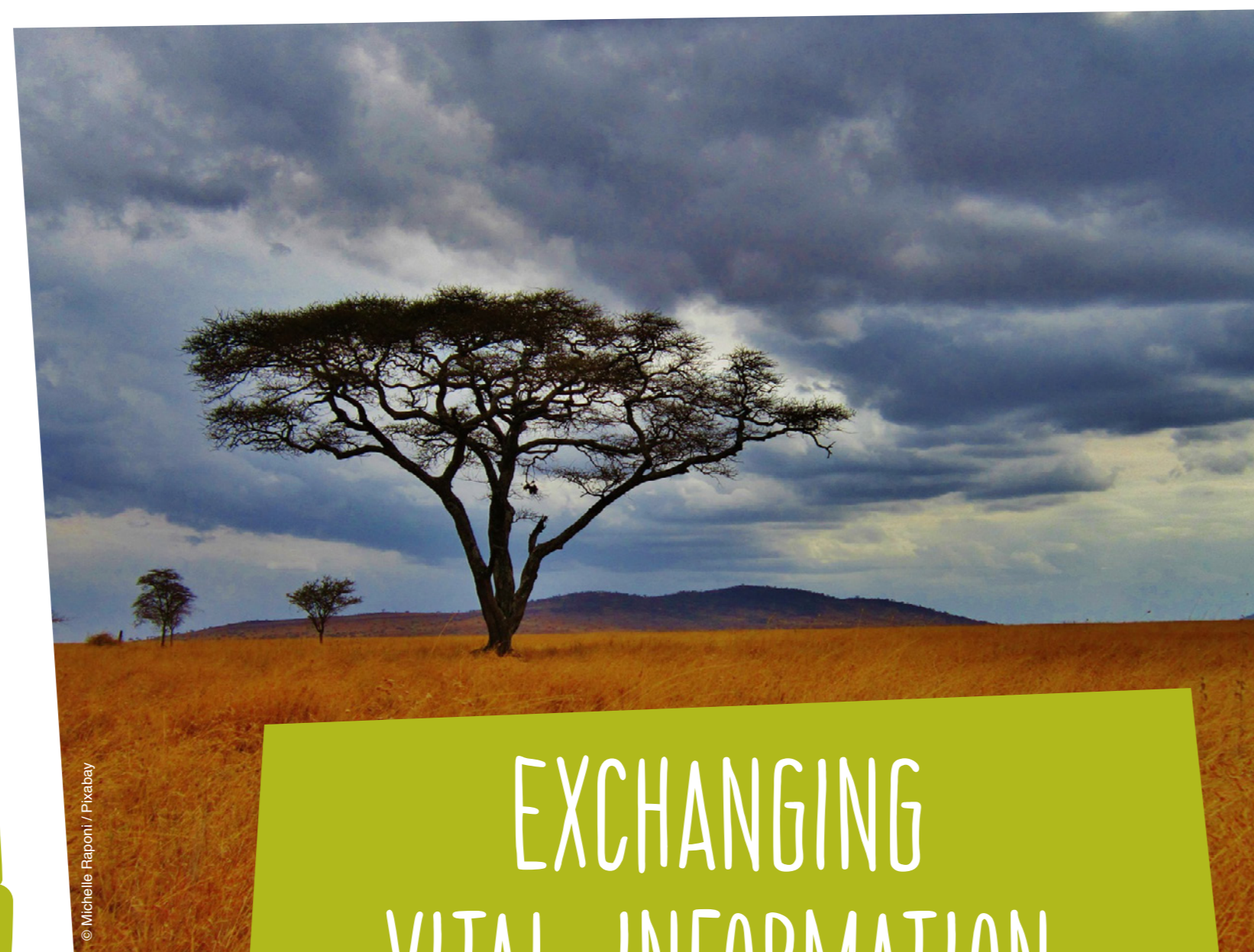
Lots of plants benefit from living in the **shade** of other species bigger than themselves. A forest's 'undergrowth' is a good example of this phenomenon.

# EXAMPLES OF INTERACTIONS WITHIN ECOSYSTEMS

An ecosystem is made up of a specific environment and a community of living things. These creatures interact with one another. And they can't survive without each other.

### SHARING FOOD

Some plants that aren't able to source all the nutrients they need to survive form **support networks with other living things**. For example, thanks to an **association (known as a mycorrhiza) between their roots and surrounding fungi**, plants will offer sugars to fungi, while fungi provide plants with minerals in return. Plants from the pea family also manage to create **associations with bacteria**, lodged in nodules on their roots, to benefit from nitrogen in the air.



### EXCHANGING VITAL INFORMATION

African acacias **emit ethylene when their leaves are grazed**. Ethylene spreads through the air and encourages neighbouring acacias to produce more tannin, something herbivores can't digest.

### KEEPING OTHERS AWAY

Some plants occasionally emit toxic substances from their roots to **stop other plants growing** beside them. It just goes to show, not all relations within the ecosystem are friendly!



### SPREADING SEEDS

By transporting seeds, **ants** help many species sow themselves further away! Lots of other animal species do this, too.



### CREATING SPACE

**Herbivorous mammals** help maintain herbaceous vegetation. Without their help, forests would simply grow and grow.

### TAKING ADVANTAGE OF YOUR NEIGHBOUR

Like **purple toothwort**, some parasitic plants don't have chlorophyll leaves. Instead, they draw their food from the roots of trees they live at the foot of.



Nodules on soybean roots

Mycorrhizae on trefoil roots