



“CACTUSBËSCH” NATURE TRAIL

Yuppi is visiting his friend Sophie Seechomes in order to explore Cactusbësch together with her and Willi Wëllschwäin. Go along with them on their rounds of discovery!



PRACTICAL INFORMATION:

- The trail is approximately 5,5 kilometres long. Children need about two hours for this. But it would be better to plan for an additional one or two hours in order to be able to see everything.
- Yuppi shows you the way from the car park to the first station.
- Because nature is not supposed to be changed too much the trail is unfortunately not accessible for people in wheelchairs or for prams.
- Because the nature trail cannot be monitored all the time the trail has to be used at the user's own risk. Neither Cactus SA nor natur&ëmwelt / Fondation Hëllef fir d'Natur are responsible for accidents that happen on the trail.



01. ANTHILL

INFO:

Do you know where the Luxembourg word for “ant” comes from? Seechomes means an ant (Omes) that pees (seecht) and is thus the same as the old English word “pismire”.

1/ *D’Aarbechterinnen = The workers*

Workers spend the first period of their lives in the anthill where they watch over the eggs and the larvae.

Later they become “soldiers” or they go outside of the anthill to look for food. Workers live to be up to three years old.

2/ *Agank mat Wiechter = Entrance with “soldiers”*

The soldiers defend the entrance to the anthill. They can tell by scent if the ants belong to their colony.

They pinch enemies with their strong claws and spray their venom.

3/ *Déi jonk Kinniginnen an d’Männercher = The young queens and the drones*

At the start of summer the young queens and drones fly out on their nuptial flight.

Then the drones die. The queens lose their wings and start a new colony.

4/ *Doftspueren = Scent trails*

When they are on the move outside of the anthill the workers leave scent trails behind. In that way they always find their way back and if they find an interest source of food these scent trails show other ants the way. Ants smell with their feelers.

5/ *D’Vorratskammer = The storage chamber*

Food that the workers drag in is stored in the storage chamber. Food consists of caterpillars, insects, larger dead animals, seeds from different plants and honeydew. Honeydew is a sugary juice that aphids secrete

6/ *D’Poppen = The pupae*

The pupae are stored in a specific place of their own and cared for there by the workers.

After two weeks the ripe ants hatch.

7/ *D’Larven = The larvae*

The larvae are taken to another chamber.

The larvae that are later to become queens are fed by the workers with special queen jelly. After eight days the larvae develop into pupae, they are said to pupate.

8/ *D’Kinnigin = The queen*

The queen is the mother of the anthill.

She spends her entire life in the anthill where she does not do very much except lay eggs. During a lifetime, which can last up to 25 years, this makes about one million eggs.

9/ *D’Brutkammer = The breeding chamber*

In the breeding chamber the eggs are cared for by the brood guardians. Here the temperature and the moisture in the air are always constant. The eggs are repeatedly licked for two weeks in order to keep them moist and to clean them.

After two weeks the larvae hatch.



Hello, Sophie!
So this is where you live with your
sisters and your mother!
My, but this is a nice big hill.

Hello, Yuppi,
here you are finally.
You know, anthills can even
get much bigger.

Come, I'll show you
everything. And then
we'll be off to discover
the forest!
Willi is surely already



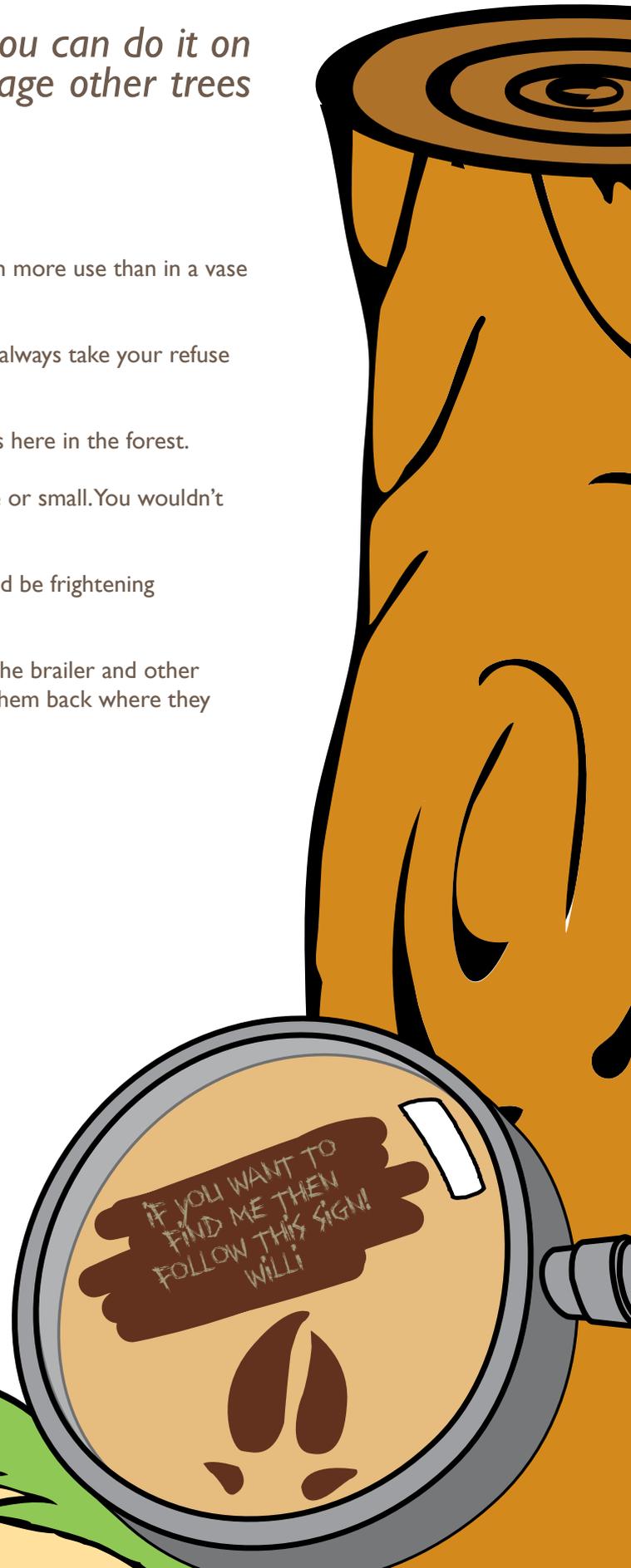


02. GRAFFITI

If you want to leave your mark then you can do it on this tree trunk. But please, don't damage other trees and plants.

FOREST RULES

- Let the flowers grow here. Here in the forest they are of much more use than in a vase at home.
- It's okay for you to have a picnic here in the forest. But please always take your refuse back with you.
- Do not light a fire. That is extremely dangerous for the animals here in the forest.
- Do not catch any animals, regardless of whether they are large or small. You wouldn't want to be caught either.
- Please don't make too much noise here in the forest. You would be frightening the forest animals.
- To make it possible for every child that walks the path to use the brailer and other objects belonging to the path over and over again, please put them back where they belong when you are finished.





"If you want to find me then follow this sign! Willi."



03. TREES

Which trees do you know?

Look to see if you can find those trees around here.

Esp = Aspen

Bich = Beech

Biirk = Birch

Summereech = Common oak

Ficht = Spruce

Ahorn = Maple

Bënzelter = Rowan

Esch = Ash



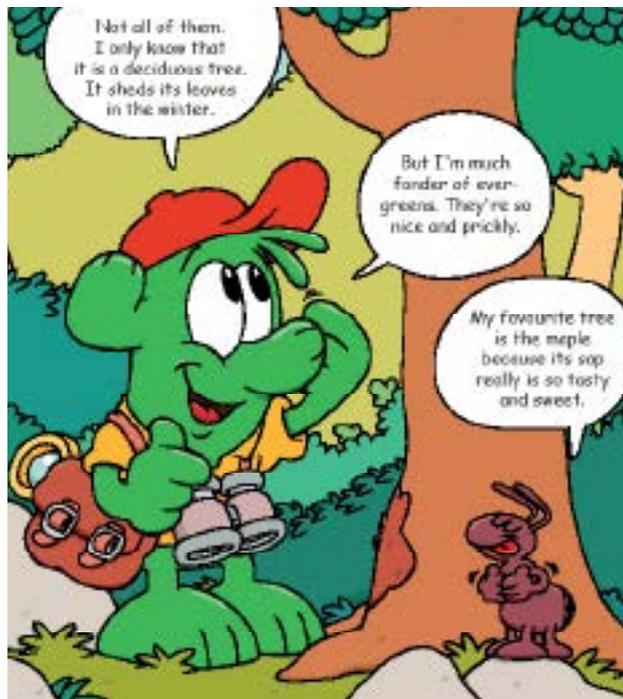


Yuppi, come here and look at this. Here Willi also rub up against the trees.



Right. Tell me, Sophie, what trees are those, after all.

What? Don't you know them?



Not all of them. I only know that it is a deciduous tree. It sheds its leaves in the winter.

But I'm much fonder of evergreens. They're so nice and prickly.

My favourite tree is the maple because its sap really is so tasty and sweet.



04. ANIMALS

TRY IT YOURSELF:

What animals does Yuppi see?
Can you find them too?

WHAT ANIMAL IS THIS?

- 1/- This animal has short pointed ears and long whiskers.
 - It has a long, bushy tail with black stripes.
 - It has dangerous jagged teeth and claws that it can pull in.
 - It likes to eat mice more than anything else.
 - It has grey striped fur.
- 2/- It is a bird.
 - It has black feathers and the back of its head is red.
 - It has a powerful, pointed beak with which it looks for insects in wood.
 - It hollows out trees to make a nest.
- 3/- It is a rather large bird.
 - It has sharp claws.
 - It has a thick, round head that it can turn around all the way to its back.
 - It has completely soft feathers that do not make any noise when flying.
 - It sleeps in the daytime.
- 4/- This animal has long, thin legs.
 - It has large ears and large, dark eyes.
 - It eats grasses and buds from trees.
 - It has brown skin.
 - When it is little it has white spots in its skin.
- 5/- It is quite small.
 - It climbs around in trees.
 - It has strong teeth with which it can crack nuts.
 - It has two long, thin ears and red skin.
 - It has a long, bushy tail.
- 6/- It is a rather rare bird.
 - With its brown and white patterned feathers it is almost invisible.
 - It resembles a chicken a little bit, but is much smaller.
 - It cannot fly very well.
 - It eats blueberries, buds and insects.







05. THE GLADE IN THE FOREST

INFO:

Many animals are cold-blooded. That means that their body temperature is dependent on the ambient temperature. If it is cold outside, these animals are also cold and less active. With very low temperatures they go into a state of rigidity due to the cold. But if the sun has warmed them up well, they quickly become warm as well. The cold-blooded animals include lizards and snakes, frogs and newts and even insects and arachnids.

1/ Kaisermantel = Silver-washed fritillary

2/ Wespespann = Wasp spider

3/ Heesprénger = Grasshopper

4/ Goldschmadd = Golden ground beetle

5/ Eidechs = Bellflower with bee

6/ Glackeblumm mat bei = Field scabious

7/ Klëppel = Knautie

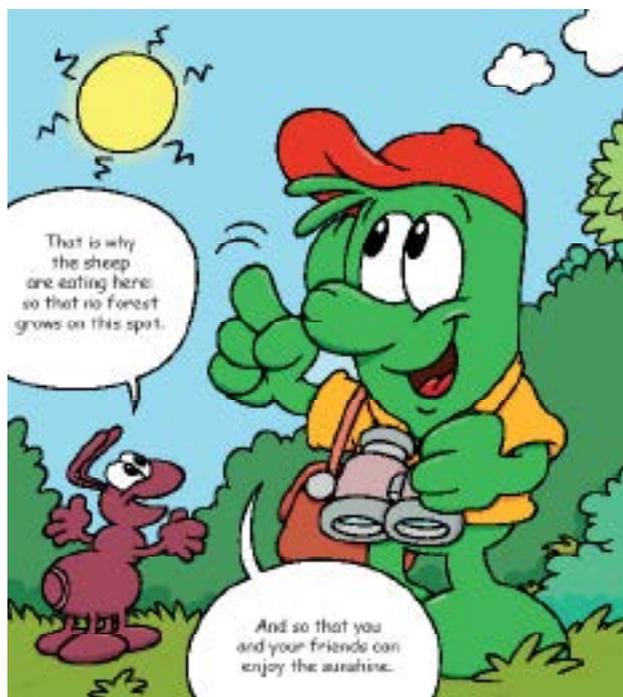
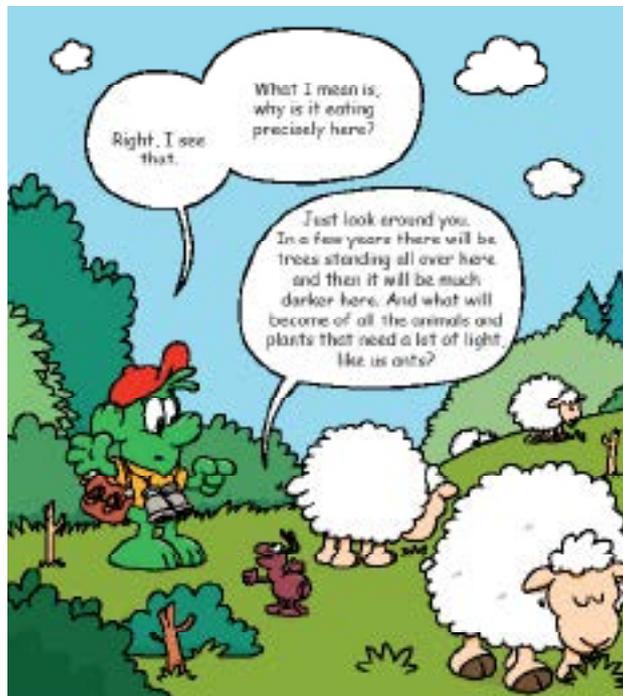
8/ Malf = Mallow

But also many plants and especially flowers need an extra dose of sun. In the shade of trees they would quickly disappear and, with them, all the animals that like to dine on floral nectar: butterflies, bees, beetles, etc.

Look under the flap and find out what effect the sun has!

(Unfortunately, this only functions when the sun is shining)



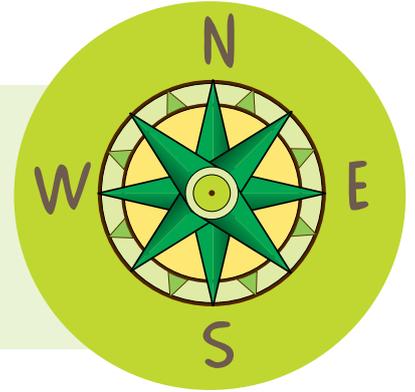




06. CACTUSBÄSCH

TRY IT YOURSELF:

Animals do not have maps in order to find their way around the woods. They look, smell and feel in order to know where they are located. If you want to know how the ground of the forest feels, take your shoes off and walk through the next section barefoot. But watch out where you step.



Légend:

The part of the forest that belongs to natur&ëmwelt is **encircled in red**. At first it was one big clearing where all of the old spruce trees had been chopped down.

On the **brown** part the ground was planted.

On the **yellow** terrain nature was left to itself.

There are also trees standing here as well. On the **hill** above and in the **valley** below no more forest is supposed to grow.





Wow! From here you can really see far and wide. Is all of that Cactusbüsch?

No. Only the front part. Look, the forest is marked on the map.



The part that belongs to Naturdenkmal is about 45 hectares in size.

That is really enormous, almost as big as 30 football fields.

Yes, but that's not all that big for a forest. Animals like us need space to live in, to eat, to sleep and so forth.



Sophie, look here at what the map says.

"Will's favourite place." If we just turn the map around the right way we should be able to find him.

And how do we do that?

We orient ourselves by the position of the sun but we can also try to do it with a compass, like human beings do.



07. STREAM

WHAT ANIMALS CAN YOU FIND IN THE STREAM?

The freshwater limpet eats the algae from the stones at the bottom of the stream. Their special shape makes it possible for the water to flow easily around them without pulling them with it.

Dragonfly larvae are dangerous predators. With their specialized labium they catch insects, tadpoles, small fish and sometimes even fingers.

The flatworm gets its name from the tiny hairs under its belly which it uses to move forwards and at the same time “swirls” fresh water for breathing.

Salamander larvae need cool and clean water with lots of oxygen in it. After a few months in the water they become black-yellow spotted fire salamanders that make their way into the woods.

Like all other insects, the **pond skater** has six legs. However the two front ones are slightly smaller. Its many fine hairs on its body and on its legs prevent it from getting wet and making it possible to walk on water. Pond skaters eat other insects that fall into the water and, unlike the pond skaters, are not fortunate enough to be able to run away.

The larvae of the caddisflies make themselves a sleeping bag of sand kernels, pebbles, parts of plants or even snail houses into which they can retreat in case of danger.

Mayfly larvae: When the larvae have developed into mature mayflies they fly out of the water to mate. They subsequently lay their eggs in the water and die. Since these flies do not eat anything during their brief life they do not have any mouth either.

Brown trout: In order to catch trout you have to be quick. It lies in wait with its head pointed against the current for fish and other waterborne animals which it then eats. But as soon as it sees any movement above itself it disappears like lightning.

In order not to get pulled along with the current, **leeches** have two suction cups with which they can stick to surfaces. The little fish leech sucks the blood of fish, frogs and snails. The larger horse leech goes hunting for water insects.

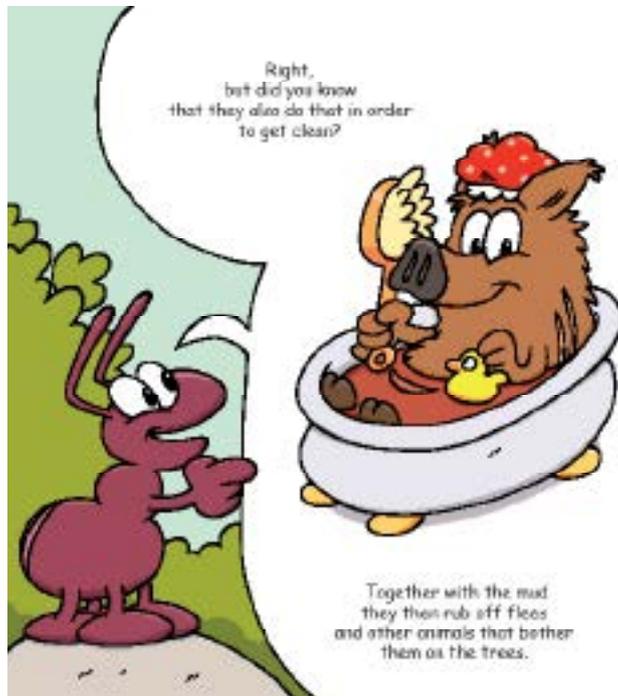
Alderfly larvae are predators in the water eating the larvae of other flies, mussels and worms. They live in mud and the water where they are found is therefore normally not all that clean.

By contrast, **stonefly larvae** prefer a clean habitat. They are found in clear water under stones.

The little amphipod crab is found under stones in mostly clean water. It eats the remains of plants and dead animals.

The bullhead swims on the bed of the stream where it searches between the stones for crabs and fly larvae in order to eat them. In doing so, however, it has to be on the lookout or risk being eaten itself by a black stork.







08. DEADWOOD

WHAT LIVES IN DEADWOOD?

De Feierschwamm = Phellinus igniarius

The phellinus igniarius is a mushroom that feeds off lignin in timber. This makes the wood soft and the tree breaks. Because the willow bracket always grows in the same direction in relation to the ground it turns around when the tree on which it was growing falls down. This mushroom burns very well and people used it to light fires. This is why it is referred to as a "fire sponge" in some languages.

Spiechten = Woodpeckers

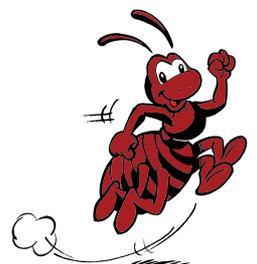
Woodpeckers are the carpenters of the forest. With their strong beak they chop holes in tree trunks. One part they use themselves as their nests but the nests are also lived in by other animals such as bats. However, woodpeckers also take deadwood apart in their search for insects.

Käfer = Beetles

There are many different types of beetles that live off deadwood. The largest and the least common are the stag beetles. They are called that because the male beetle has large tentacles that resemble antlers. But it is not the beetle itself that lives off the wood but its larvae: the maggots. The stag beetle's maggot will eat itself through a dead tree trunk in four years until it finally pupates in the ground.

Fledermaus = Bats

Bats sleep during the day hidden in cracks or crevices of dead trees. Old woodpecker holes are frequently used by bat colonies, either as their winter quarters or by their females as a place to give birth where they bear and bring up their young.







09. GRAZING

HOW DOES THE VALLEY DEVELOP WITH COWS AND WITHOUT THEM?



The valley today

Only 100 years ago most of the valleys here in the Ösling looked like this one. The moist valley meadows were mowed late in the summer when they were dry. The hay was used as litter in animal stalls. But because this was a lot of work that was not worth it people planted their valley meadows with spruce or simply let them lie fallow.



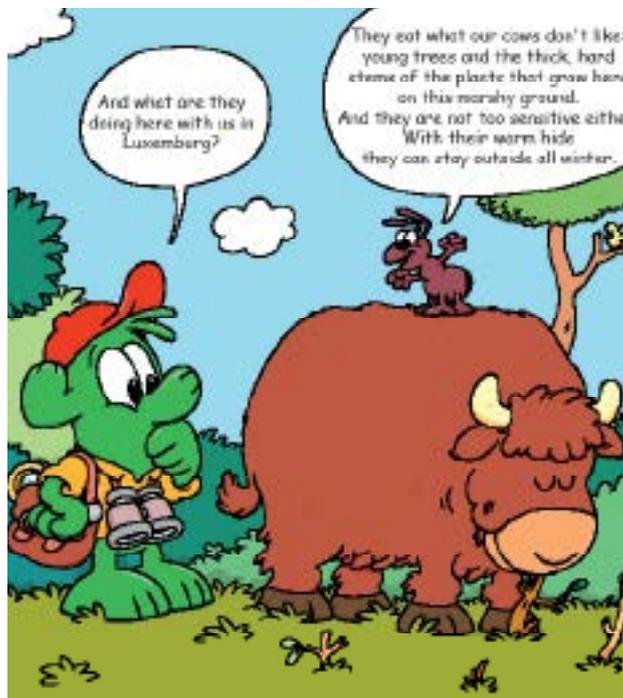
The valley in 10 years

If meadows are no longer mowed or grazed they gradually grow back in. After only 10 years young trees and bushes can be seen. Plants and animals that need a lot of light to live gradually disappear.



The valley in 50 years

After 50 years the meadow has developed once again into a real forest. Such a forest with alders and ash trees is referred to as an alluvial forest.





10. SOUND

WHAT CAN YOU HEAR?

Poufank = Chaffinch

Wellschwän = Boar

Mistkäfer = Dung beetle

Fledermaus = Bat

Réi = Roe Deer

Spiecht = Woodpecker

TRY IT YOURSELF:

With a sheet of paper and a pencil you can draw a sound map here. It works like this: Close your eyes and listen, with or without an amplifier. Record the sounds you hear on the map, more exactly on the spot where you feel they are coming from.







II. SEEDS DISSEMINATION

INFO:

Plants have developed different techniques in order to disseminate their seeds in all directions and in that way to have as much progeny as possible. What do you think: How is that seed disseminated?

LOOK AROUND YOU. CAN YOU FIND THE SEEDS OF THE PLANTS?

1/ *Dandelion, maple, birch, clematis*

This seed is so light that it flies. Wings, a parachute or attachments like feathers also help.

2/ *Strawberry, rose hip, wild cherry, raspberry*

Their colour attracts animals that eat the fruits. But they only digest the fruit pulp around the actual core of the seed. They then excrete the seed with their excrement.

3/ *Burdock, nodding bur-marigold, common agrimony, greater burdock*

With its many little barbs the seed gets stuck hanging in the fur of animals and is carried elsewhere in that way. Did you know that burdocks were the inspiration for Velcro fasteners?

4/ *Hazelnut, acorn, beechnut, chestnut*

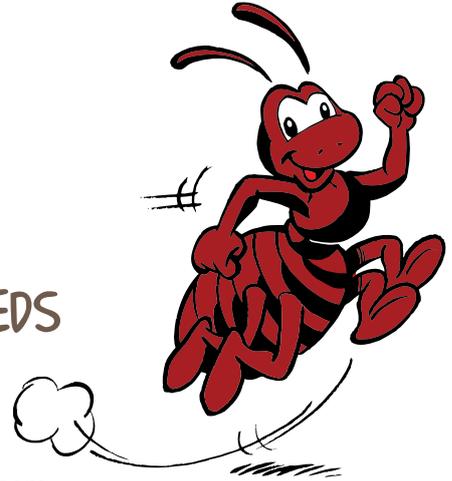
The heavy seed simply falls off, and may perhaps roll a bit and then remains close to the tree. Or the jay or the squirrel get the fat and nutritious fruit of the nuts and hide them as reserves for the winter. From the hiding places they can no longer locate new trees start to grow in the spring.

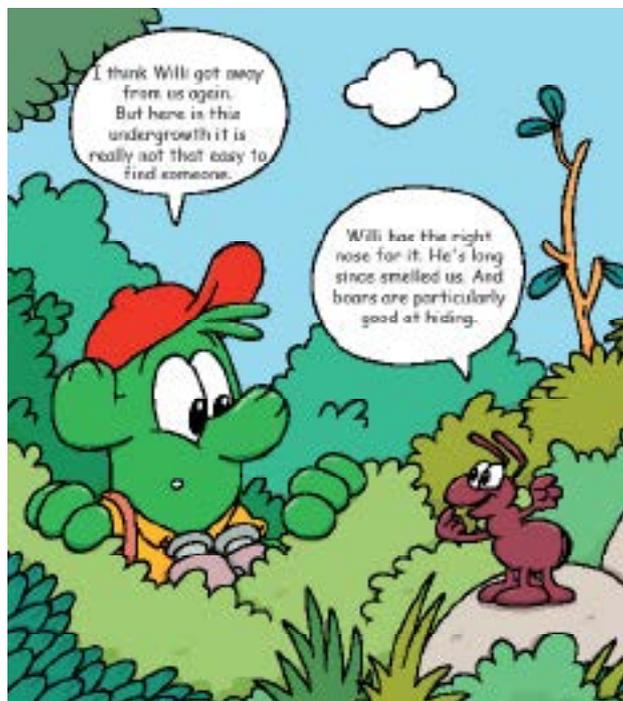
5/ *Snowdrops, hollowroot, knapweed, deadnettle*

An appendix with sugar and fats which ants like to eat is attached to this seed. For this reason they take the seed with them into their anthill. After having eaten the appendix they again discard the seed.

6/ *Wood cranesbill, touch-me-not balsam, broom, columbine*

These plants throw their seed out themselves as soon as it is mature. By means of special mechanisms it is flung several metres.







12. SOIL LIFE

TRY IT YOURSELF:

Take up a shovel full of soil and see for yourself what animals you find.

Spannen = Spiders

Fuedemwurm = Roundworms

Schléken = Snails

Milben = Mites

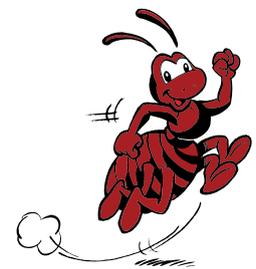
Dausendfüssler = Centipedes

Käfer = Beetles

Sprangschwänz = Springtails

Schwéngercher (Asseln) = Woodlice

Réngelwurm = Annelids



INFO:

Boars like to eat beetle larvae and earthworms. But in the soil of the forest there is even more life. It is said that a handful of soil contains more living organisms than there are humans on the earth. But most of them can only be seen under the microscope. Taken altogether they all help to reproduce soil from old leaves, fallen-off branches and even dead animals.

