

**THE
NATURE YEAR**



APRIL

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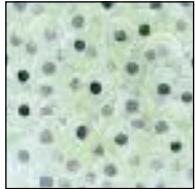
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THE WORLD IN APRIL



IN THE NORTHERN hemisphere, spring starts in earnest. Trees and shrubs burst into leaf and more flowers bloom. Meanwhile, autumn arrives in the southern hemisphere. Animals start to prepare for the winter months ahead.

April brings warming sunshine to many northern regions, spurring a burst of animal activity. As the soil warms up, insects multiply and, with more food about, birds prepare to raise their families. More and more birds arrive from the south and there is a frenzy of nest-building.

In their nest of twigs and mud, a family of song thrush chicks relentlessly call for their mother. The chicks develop quickly—they are ready to fly the nest just two weeks after hatching—but this means they need plenty of food. Their mother returns with a worm clasped in her beak. She will have a busy summer, raising up to three broods.

Many larger mammals, such as deer and sheep, having mated in the autumn “rut”, now give birth in spring, when food is easier to find. Smaller mammals, such as mice and rabbits, mate in the spring and give birth just a few weeks later. But there are some mammals, such as bears and badgers, that gave birth in their dens over winter. This means that by spring their young, now a few months old, are already strong enough to leave their homes in search of food.

In the southern hemisphere, the extreme heat of high summer starts to fade. A wombat and her year-old youngster can finally forage for food in the daylight, without the heat overwhelming them.



EUROPE

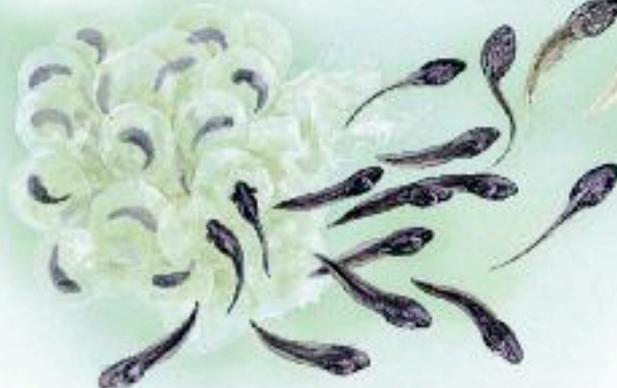
TWO MONTHS AGO, adult frogs massed in ponds and streams to mate, and females laid thousands of jelly-like eggs, called frogspawn. The jelly keeps the eggs moist and provides food for the growing young.

In April, the tadpoles hatch and feed on what is left of their eggs. Like fish, they breathe through openings in their heads called gills.

The tadpoles swim by wriggling their tails and feed on tiny plants in the water.



This sequence shows tadpoles hatching out and developing into young frogs.

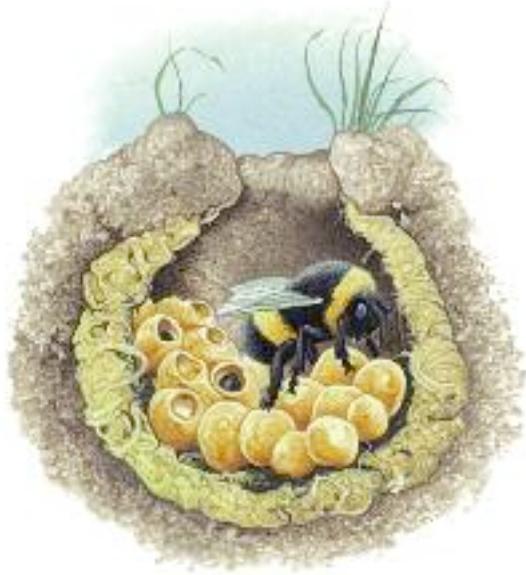


After two months, the tadpoles grow lungs and back legs.



A month later, the frogs' front limbs appear and their tails start to shorten. Four months after hatching, their eyes have grown bigger and their mouths are wider. Instead of plants, they now feed on tiny creatures. The young frogs are now ready for their adult life on land.





EUROPE

AFTER WAKING FROM hibernation, a queen bumblebee seeks a suitable place for a nest. A simple hole in the ground is ideal. She lines it with grass and starts to make tiny “pots” out of wax, which seeps out of glands on her body. Some pots are used for storing pollen; others are used to hold her eggs.

STORKS BUILD their nests in high, remote sites, out of reach of predators. Most choose cliff-tops or trees, but chimneys make a good alternative, and are wide enough to support their huge nests.

White storks mate for life, nesting in the same place every year. The male arrives at the nest first. When the female joins him, the couple court, throwing back their heads and clacking their beaks. Then they mate on the nest. An egg is laid each day until there are three or four. Both parents incubate the eggs until they hatch a month later.

After courting, the male climbs on to the female's back to mate.



Fish, sponges, sea anemones, worms, starfish, sea slugs and crabs all feed on kelp. They, in turn, are prey for larger fish, and mammals such as sea lions and otters.

NORTH AMERICA

OFF THE WEST COAST of North America, giant leafy “trees”, more than 40 metres high, sway in the water. These “trees” are a kind of seaweed called giant kelp. The forest is now thinner than usual, as winter storms have swept away swathes of kelp. But this damage is vital to the forest’s survival: it enables sunlight to reach the seabed in the spring and trigger new growth.

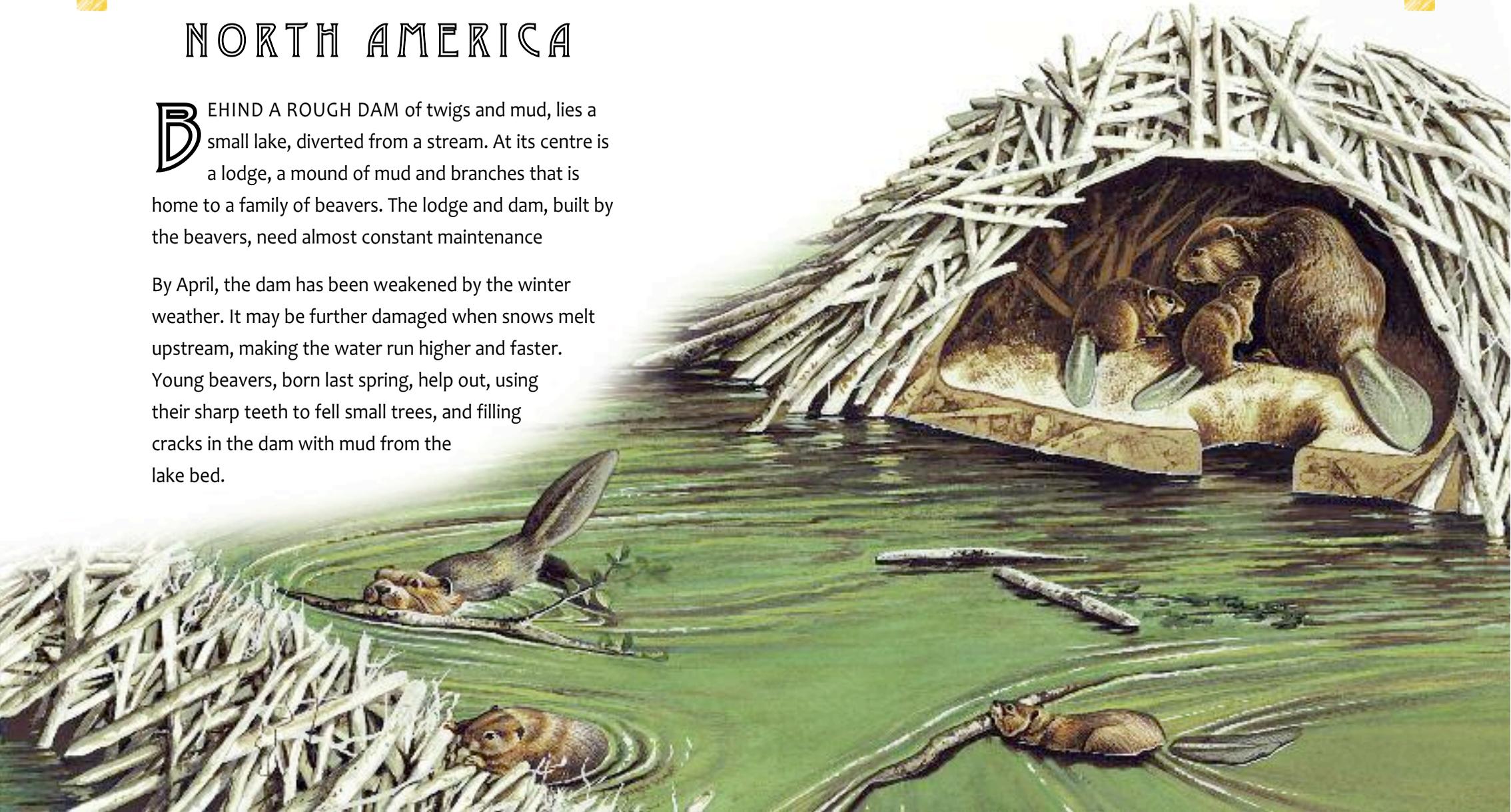
Floating amongst the fronds of kelp is a sea otter. Lying on its back, it smashes a sea urchin against a stone placed on its belly. With a loud crack, the spiky urchin’s shell breaks open, and the otter tucks into its tasty meal. At night, sea otters wrap themselves in kelp, to stop themselves from floating out to sea. They also hold hands whilst sleeping so that they do not drift apart.



NORTH AMERICA

BEHIND A ROUGH DAM of twigs and mud, lies a small lake, diverted from a stream. At its centre is a lodge, a mound of mud and branches that is home to a family of beavers. The lodge and dam, built by the beavers, need almost constant maintenance

By April, the dam has been weakened by the winter weather. It may be further damaged when snows melt upstream, making the water run higher and faster. Young beavers, born last spring, help out, using their sharp teeth to fell small trees, and filling cracks in the dam with mud from the lake bed.





*Butterflies mate
on a plant stem*

NORTH AMERICA

THESE MONARCH butterflies have spent the winter perched on trees across Mexico. With the arrival of spring in April, it is time for them to fly back north, but first they must mate.

Males pursue females through the air in an elaborate dance, nudging them from behind. If a female accepts a male's advances, the pair will land on a tree or shrub and mate.

Males die soon after mating and females fly north, in search of milkweed plants where they will lay their eggs. Milkweed is the only plant that monarch caterpillars will eat. When at last a female spots the plant, she lands to

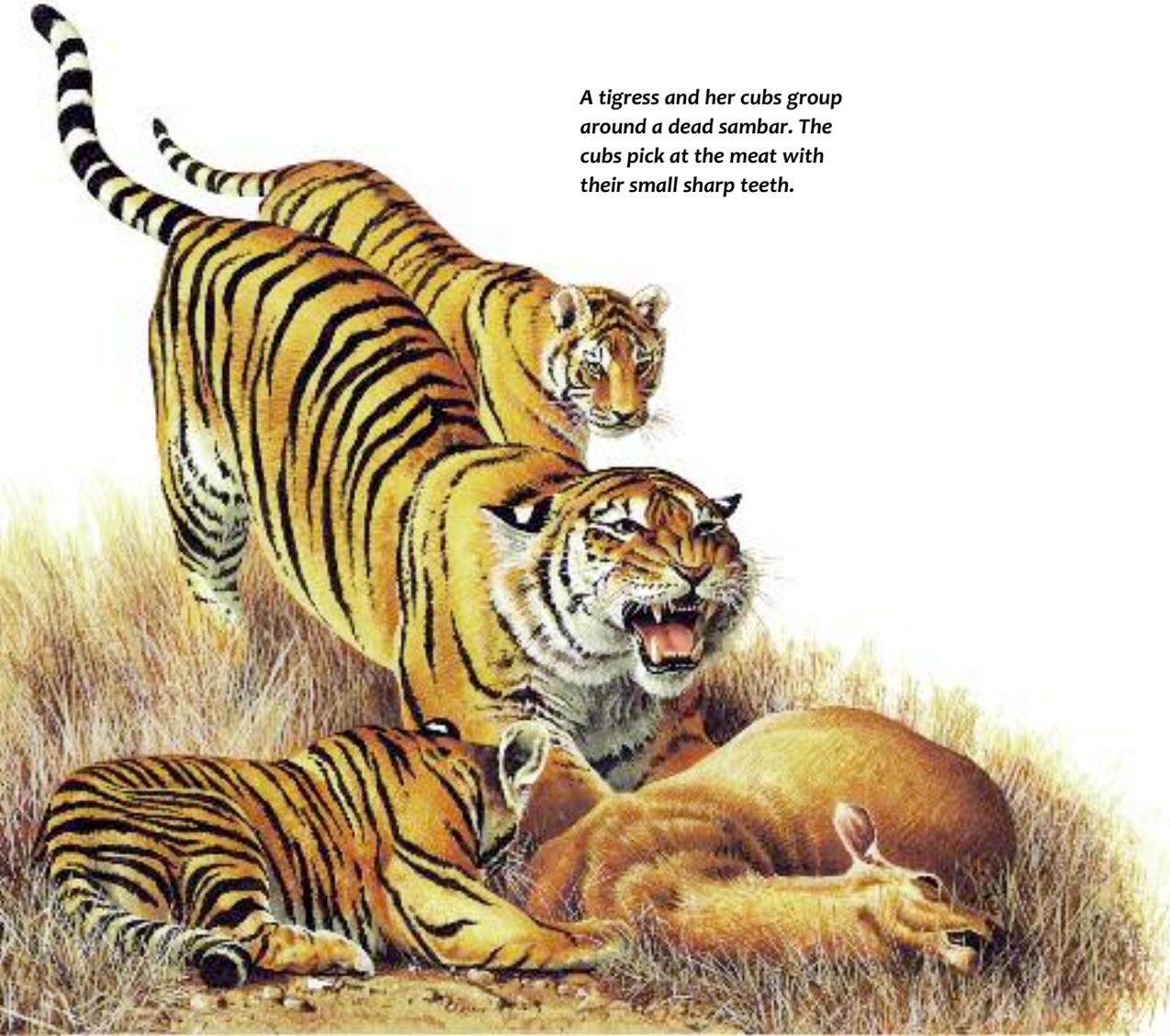
lay her eggs on the underside of its leaves. Shortly after laying the eggs, she too will die.



*A single pale,
ridged egg is laid
on the underside
of each leaf.
This ensures that
every caterpillar
will have enough to
eat when it hatches.*

SOUTH ASIA

A tigress and her cubs group around a dead sambar. The cubs pick at the meat with their small sharp teeth.



AS EVENING DRAWS IN, and the heat of the day eases, a tigress and her cubs go in search of food. The cubs are four months old and still feed on their mother's milk, but it is time for her to teach them to hunt.

The tigress stops abruptly. She has spotted a sambar deer in the distance. Silently, she creeps up on her prey. When she is close enough, she dashes out of the undergrowth, biting the deer at the throat and killing it quickly. The cubs look on. Observing their mother is the best way for them to learn. The cubs then approach the carcass for their first taste of meat.

Soon, the cubs themselves will start to practise hunting. At first they kill rodents, birds and other small creatures, under their mother's supervision. In time, the family will hunt as a group, but the cubs stay dependent on their mother until they are at least 18 months old.

SOUTH AMERICA

AS SNOWS MELT in the Andes mountains and heavy rains fall in the Amazon basin, many of the river's tributaries start to flood. As the waters rise, hoatzin birds split into breeding groups and fight over nesting sites.

The best spots are branches that overhang the flood waters. This is so that hoatzin chicks, if threatened by predators, can drop into the water and swim away from danger. They can later climb back to the nest using the claws at the tips of their wings. These are lost when the birds reach adulthood and learn to fly.

This escape route is crucial, as chicks are preyed upon by capuchin monkeys, which track the birds by their distinctive smell. Hoatzins have a very slow digestive system, which gives them a strong manure-like odour. They smell so bad that local people call them "stinkbirds"!



A hoatzin chick climbs up to its nest using its beak, feet and the claws at the tips of its wings.



SOUTHERN AFRICA

IN APRIL, wildebeest start to move north across the Serengeti grasslands in their annual migration. Moving on is essential if they are to find better grazing land, but their journey leads them into danger: hungry lions may be lurking in the long grass.

The hunting is actually carried out by the lionesses. They hunt in packs in order to bring down large prey, such as wildebeest. First they surround their target. Then one or two lionesses move in for the kill. With all escape routes blocked, the wildebeest cannot escape the deadly trap.



AUSTRALIA

IN A FOREST clearing, a superb lyrebird prepares to put on quite a show. It is the start of the breeding season, and he is eager to attract females to mate with.

First, he scrapes together a low mound of earth and twigs to make a display platform. Climbing the mound, he spreads his fan of silvery tail feathers and throws them over his head. The fan is framed by two distinctive, lyre-shaped feathers, after which the lyrebird takes its name.

The male then begins a graceful dance, turning on the spot and singing. He can mimic perfectly the different sounds heard inside his territory, from bird songs to car alarms and chainsaws. A wide range of sounds tells females that this male is strong enough to have acquired a large territory.



When a female arrives, the male dances around her. They eventually mate under the canopy of his tail. Once a pair have mated, the female will raise her young alone.



ANTARCTICA

BY APRIL, the king penguin chicks that hatched in December have grown a covering of fluffy brown feathers and have nearly reached their adult height. Their parents take turns to feed them, bringing back fish every few days. It is important that the youngsters build up their fat reserves before the winter descends in a month or two.

While the parents are away hunting, chicks huddle together to keep warm. This also helps to protect them from predators, such as skuas and giant petrels. Returning parents can struggle to find their own chicks among the thousands of penguins in the colony, so they recognize each other by their calls.

A three month old chick, kept warm by its fluffy brown feathers.



THINGS TO DO: GROW A BEAN PLANT

A bean is a type of seed that grows inside a long pod on a plant. By planting a bean, you can see how seeds germinate (start growing).

For this activity you will need a glass jar, a piece of blotting paper or kitchen towel, some soil or newspaper and a bean. Runner beans and broad beans are perfect.

1 Line a jar with damp blotting paper or kitchen towel. Then fill the jar with newspaper or soil to keep the blotting paper firmly in place.



2 Push one or two beans between the paper and the jar. Put the jar in a warm, dark place until the beans start to grow shoots and roots.



3 The roots grow downwards and divide into rootlets. Green shoots grow up towards the light.

4 After about 10 days, the bean will have grown a stem and leaves. Until it grows leaves to make food for itself from photosynthesis, it depends on food stored in its seed.



THINGS TO DO: HOW BIRDS SPREAD SEEDS



Some seeds are spread by animals that eat a fruit and spread its seeds in their droppings. But you, too, might be spreading seeds when you walk about.

1 After a walk in the countryside, take off your boots and scrape the mud from their soles into a plant pot.

2 Water the pot and leave for a week or two.

3. Look to see if any plants have grown. Do you recognise any from your country walk?



NATURE WATCH



Trees in leaf 10



Ants 20



Ducklings 30



Tadpoles 40



A bird sitting on its nest 50

See how many of these things that typically happen in April you can spot. Award yourself the points on the right!

