

A large, green frog is shown from a top-down perspective, floating in clear water. Its mouth is wide open, and its body is inflated, suggesting it is in the process of swallowing or has just finished a meal. The frog's skin is a vibrant green, and its eyes are large and dark. The water around it is clear, with some small bubbles visible. The frog's legs are visible at the bottom of the frame, and its feet are spread out.

**Everything
you need to
know about**

FROGS

**AND OTHER
SLIPPERY
CREATURES**

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you need to
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FROGS**

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DK PUBLISHING



LONDON, NEW YORK, MUNICH,
MELBOURNE, and DELHI

Senior editor Carrie Love

Senior designer Claire Patané

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Ben Morgan, and Alexander Cox

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Proofreaders Caroline Stamps and
Lorrie Mack

Jacket editor Matilda Gollon

First published in the United States in 2011
by DK Publishing

375 Hudson Street, New York, New York 10014

10 9 8 7 6 5 4 3 2 1
001-180779-Aug/11

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A catalog record for this book
is available from the Library of Congress.

ISBN: 978-0-7566-8232-3

Printed and bound in China by Hung Hing

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Can you
SEE ME?

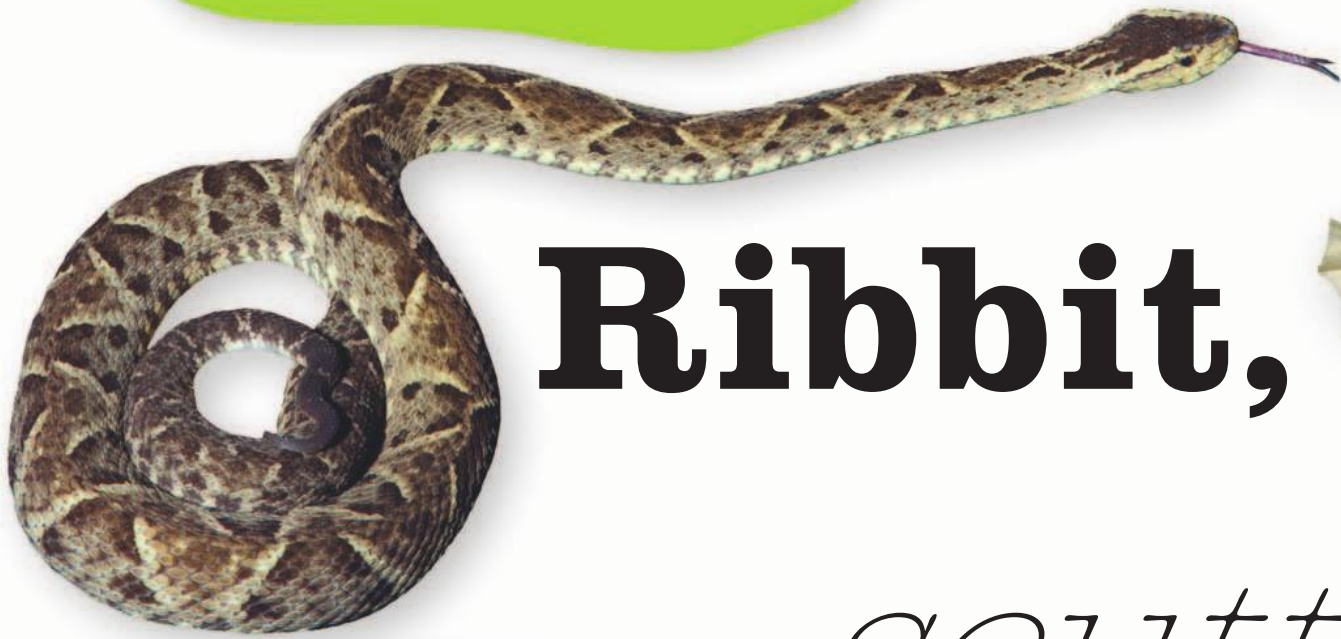
**This high-casqued
chameleon** (*Chamaeleo
hoehnelii*) is superb at blending in
with its surroundings. Find out
more about camouflage
on page 17.



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How does a fer-de-lance snake kill its prey?
Discover its tactic on **page 39**.



Ribbit,



scuttle,

Which lizard is an insectivore?
Take a look at **page 46**.



Why is the male midwife
toad a hands-on father? See
for yourself on **page 25**.



How can you survive an attack from
a crocodile or alligator? Read and
REMEMBER the tips on **page 71**.





How far can a leatherback sea turtle travel? Take a journey with one on **pages 60–61**.



Try to outstare a frog on **pages 30–31**. One frog will always win, since it has a spot that looks like an eye!

How does a reptile obtain heat from its surroundings? Get a glimpse on **page 28**.

slither



Play a game of snakes and ladders on **pages 50–51**. Be careful, or you might slip down an inland taipan!




When a frog sheds its skin what does it do with it? Discover the answer on **page 13**.





Amphibians




Amphibians are animals that live PARTLY in *water* and PARTLY on land.


Frogs, toads, NEWTS, and salamanders are all **amphibians**.



REPTILES have dry, *scaly skin*, but AMPHIBIANS have **soft**, moist skin. Most amphibians can breathe through their skin, but only if it stays *damp*. Adult amphibians can

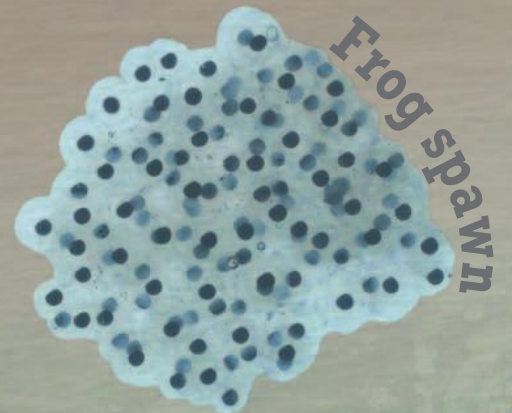


also BREATHE through **lungs**.



HOW MANY?

There are about **6,800** species of amphibian, most of which are *frogs*. There are about **600** species of newt and *salamander*.



Most *amphibians* breed in **water**. Unlike reptiles, which lay **tough-shelled eggs** on land, most amphibians lay **soft, jellylike eggs** in water.

Is a toad a frog?

I have dry, lumpy skin that looks like it's covered in warts. People usually call me a toad, but I'm really a frog.



I'm a tree frog

Most frogs live near a **river** or **pools of water**. But in **rainforests**, it is so humid the trees are **wet** all the time, allowing some frogs to stay in them permanently. They are called **tree frogs** and have **huge, sticky fingers** to help them climb.



Most baby amphibians live entirely in **water**. Called **tadpoles**, they **swim like fish** and **breathe through gills**. As they grow up, they develop legs and crawl onto land, but they must always be in wet places.



Tadpoles



When a **tadpole** hatches out of an egg, its first task in life is to **eat what's left of its egg**, which is **full of nutrients**. In most amphibians, the tadpole changes into an adult by a process called **metamorphosis**.



Reptiles

Today, there are more than **9,000 reptile species**

on Earth; the major groups are **alligators** and *crocodiles*,

TURTLES, **lizards**, and

snakes. ALL

REPTILES are **cold-blooded**,

which is why they WARM

THEMSELVES in *the sun* and

have bodies covered in **dry**,

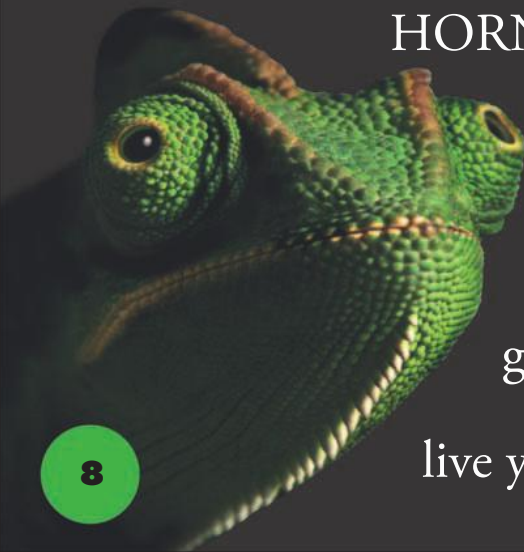
HORNY SCALES.

Some reptiles

lay eggs; others

give birth to

live young.



HOW MANY?

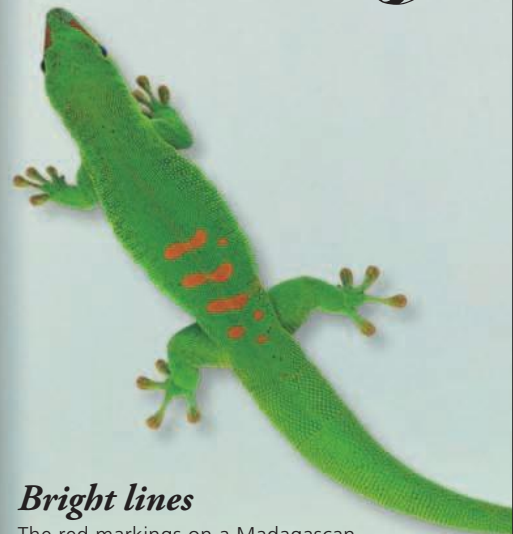
Lizards make up the largest group of reptiles (with **5,461 species**), followed by snakes (3,315 species), then turtles (317 species). There are fewer amphisbaenians (181 species), and even fewer crocodylians (24 species). The smallest group is the tuataras (with just 2 species).



Brightly colored

Iguanas and their relatives make up some of the most colorful of all lizards. This green iguana is brightly colored with a few markings.

All reptiles have backbones



Bright lines

The red markings on a Madagascan giant day gecko vary between individuals.



Reptiles vary greatly in *shape* and *size*. However, *all reptiles* have **scales** in contrast to the **smooth**, moist skin of amphibians. Scales differ among species, but they are a defining *feature* of a reptile.



Legless and long

Snakes are legless reptiles. They're found all over the world, but they don't do well in cold places. The Common boa constrictor, such as the one shown here, can grow to 3–13 ft (1–4 m)!

Light like sand

Like many geckos, this Sandstone gecko is colored to blend in with its surroundings.



Tuataras are a group of **reptile** found only in New Zealand.

What's **inside**?



FROGS have **simple skeletons** with fewer bones than other *vertebrates* (animals with backbones). They tend to have robust bodies and strong hind limbs. Most frogs have protruding eyes and no tail. Take a look at what's under a frog's skin.



Skull

Frogs tend to have broad heads with large sockets for the eyes. They usually have short spines and no ribs.

The hands and fingers of frogs vary according to lifestyle. Climbing frogs need fingers that can grip well.

Hand



Heart **CHAMBERS**

Frogs have a developed nervous system that is made up of a brain, nerves, and a spinal cord. A frog's heart has three chambers, whereas a mammal's has four.



A frog's brain is structured in a similar way to a human's brain. The cerebellum (region on the top of the brain) controls posture and muscular coordination.

Elongated ankle bone

Toe bone

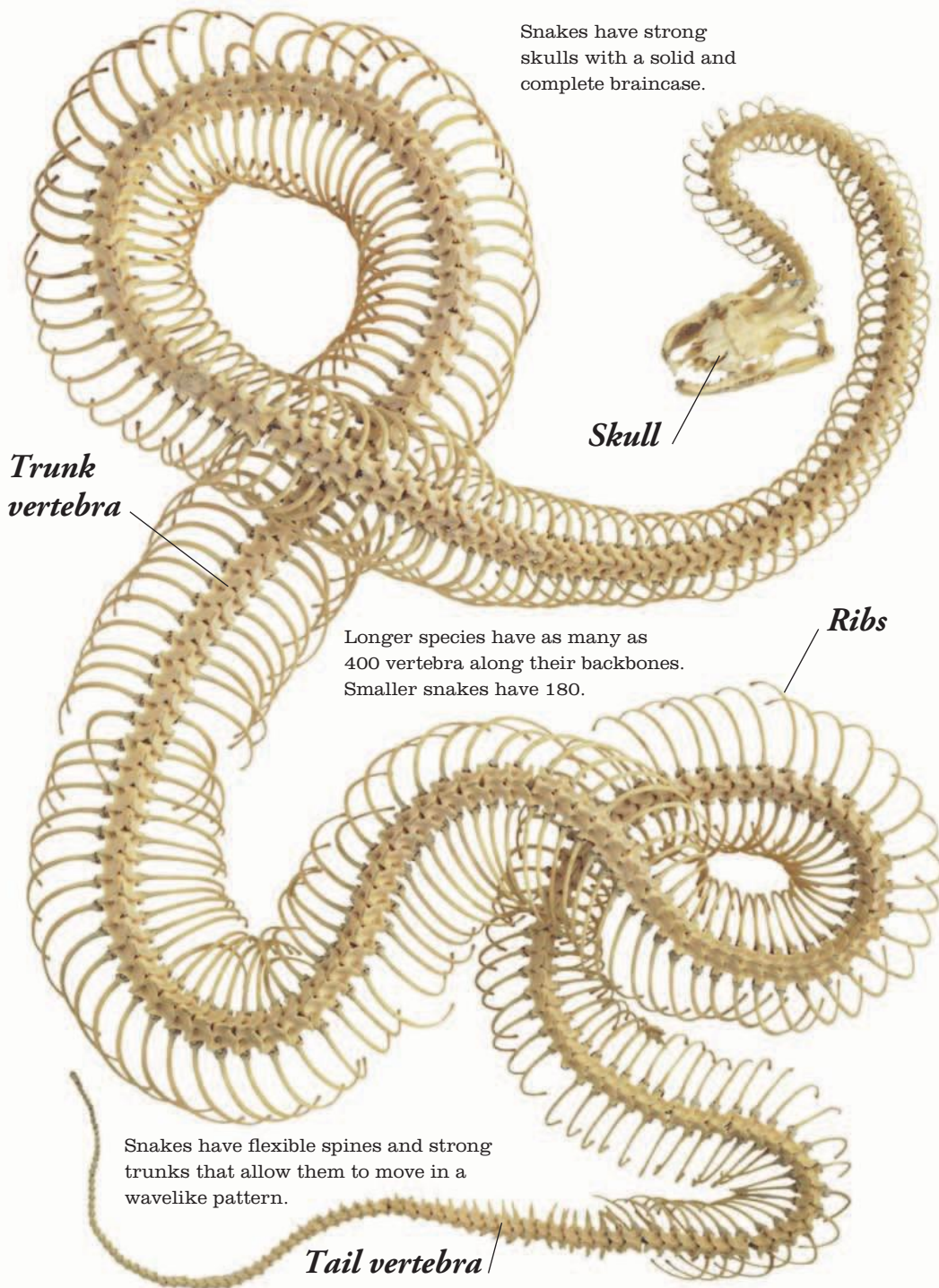


A frog's bone structure helps it jump a long way. The *tibia* (shin bone) and *fibula* (calf bone) are fused into a single, strong bone.

The legs and feet of frogs vary depending on where they live. Frogs that live in water have webbed toes. The more time they spend in water, the more webbed their toes are.

SNAKES have incredibly LONG necks. The neck takes up **one-third** of their length. Their **organs** are also long and fit in *one behind the other*. The heart is encased in a sac, but it's not fixed in place, preventing damage when swallowing a large animal.

Snakes have strong skulls with a solid and complete braincase.



Skull

Trunk vertebra

Ribs

Longer species have as many as 400 vertebra along their backbones. Smaller snakes have 180.

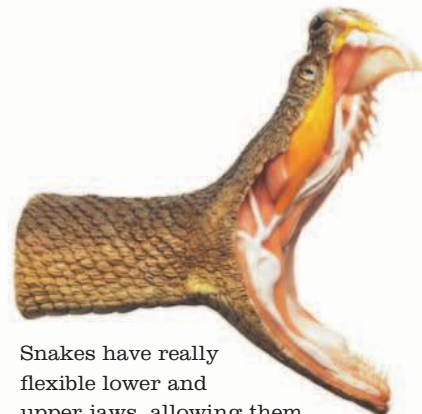
Tail vertebra

Snakes have flexible spines and strong trunks that allow them to move in a wavelike pattern.



Dry SKIN

Snakes have **dry, smooth skin** that is covered in scales. They shed their skin regularly. When they shed their skin it comes off as a whole layer and is often intact.



Snakes have really flexible lower and upper jaws, allowing them to stretch their mouths open wide to eat prey that is often wider than their own heads.

SUPER

Frogs have very **special skin**. They don't just

FROGS don't usually SWALLOW *water like we do*.

Instead, they absorb most of the **moisture** they need through *their skin*. They also get water

from prey that they eat. Their skin is used to get **extra**

oxygen from the water (in addition to the oxygen that's come into their lungs via their mouth cavity).

Because frogs only get **oxygen** through their skin

when it's moist, they need to take **good care** of it or they might suffocate. Some frogs are **slimy**. This is

because their **SKIN** secretes a

mucus that stops it from getting dry.



SKIN

wear it, they also **drink** and **breathe** through it!



Frogs regularly shed their outermost layer of skin cells to keep it **healthy**. This looks **pretty yucky**. They start to *twist and turn* and act like they have the **hiccups**. They do this to *stretch* out of their old skin! Finally, they **pull the skin OFF** over their head **LIKE A SWEATER**, and then (*this is gross*) they **EAT IT! Eeeeeewww!**

Life cycle of a frog

From a baby tadpole to a young frog



Life begins

A male and a female frog come together to **mate**. Eggs are laid in **clumps** or strings. An egg **hatches** about **six days** after it's been fertilised. At first it feeds on the remains of the yolk.



Tiny tadpoles

When an egg hatches, a **tadpole's** mouth, tail, and external gills are not fully developed. At about **seven to 10 days**, a tadpole begins to **feed on algae** and attaches itself to weeds.

Fully formed

Between **12 to 16 weeks** a frog has completed its **growth cycle**. The timing varies between species and on the food and water supply. A fully formed frog starts the process afresh by mating.





Getting bigger

At **four weeks** the *external gills* are covered by body skin. They eventually disappear and are replaced with lungs. Tadpoles have *tiny teeth* that help them to chew away at plants and algae-covered surfaces.



A bit of both

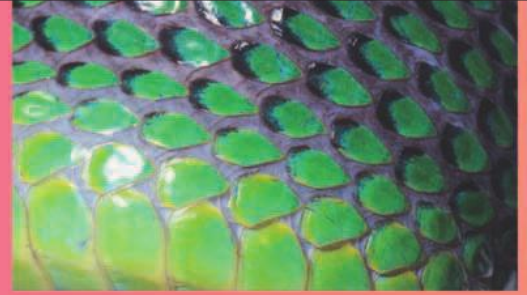
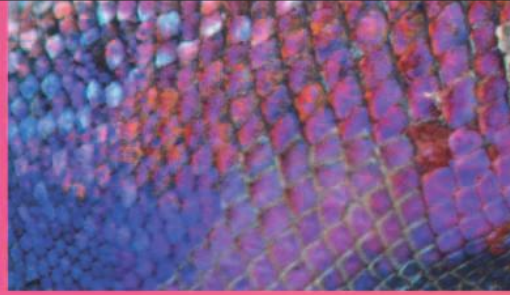
Tiny legs start to form from **six to nine weeks**. The head becomes more obvious. The *arms begin to come out*, with the elbows showing first. After **nine weeks** the tadpole is beginning to look more like a frog.



Nearly there!

By **12 weeks** the young froglet only has a small stub of a *tail*. It looks like a smaller version of an adult frog. Soon it will leave the water to live on the ground.





COLORS

AMPHIBIANS and REPTILES have a variety of *markings* and **colors**. The spectrum ranges from bright **reds** and **blues** to muddy *greens* and **BROWNS**.

Some have **spots**, while others have *stripes*.



Red-eyed tree frog



Fire salamander

and

MARKINGS

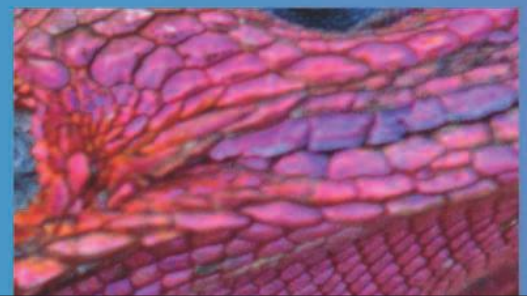


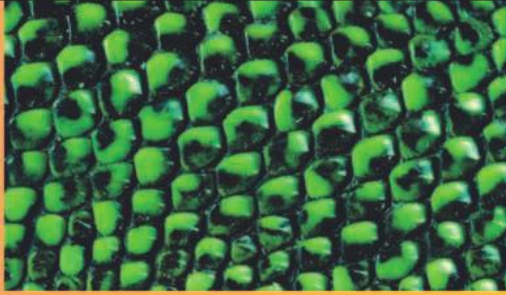
Texas coral snake

Markings can be deceptive! Milk snakes have thin black bands, and thick yellow and red bands. They aren't poisonous, but they appear to be dangerous because their banding is so similar to venomous **coral snakes**.



Regal ring-neck snake





Southern dwarf chameleon



Colorful CAMOUFLAGE

The pattern and color of an amphibian or reptile can help it to blend in with its surroundings to hide from predators. Chameleons, as their name suggests, have an amazing ability to hide themselves by changing their appearance. They can alter their color as well as their markings.

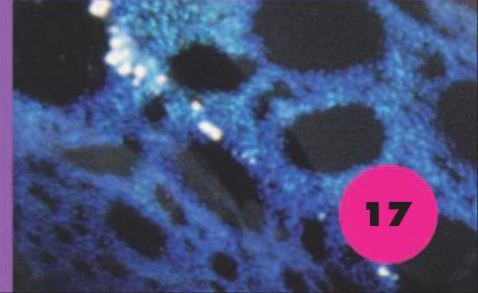
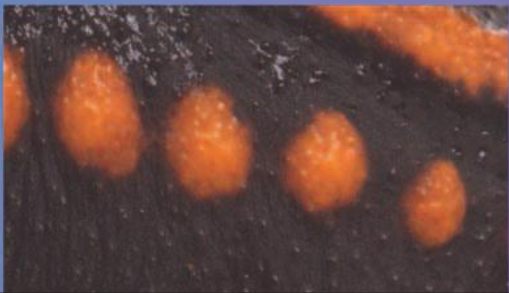
Collared lizard



Strawberry poison-dart frogs are bright red. This acts to warn other creatures that their skin secretions are highly toxic.

Hide and seek

The Pacific tree frog is able to blend into its surroundings very easily. It reacts to seasonal changes and can switch its coloring from brown to green. It can also change its markings and the lightness of its skin according to the shift in background brightness.



Home, Sweet Home

Amphibians are found on all continents except Antarctica. Nearly all amphibians live in or near wet areas such as streams, rivers, ponds, lakes, and other wetlands, but some display amazing adaptations that allow them to live in dry, dusty deserts. Many adult amphibians spend their lives on land, but nearly all need to lay their eggs in water.

Desert **LIVING**



The **desert tortoise** (*Gopherus agassizii*) spends about 95 percent of its life underground. It can go a year without water.



Couch's spadefoot toad (*Scaphiopus couchii*) gets its name from its feet, which help it to dig down through loose sand. It lives underground during dry months.



The **sandfish** (*Scincus scincus*) lives in Africa's Sahara desert and is famous for its ability to "swim" through sand.

Who lives in a dry place? Many reptiles live in deserts. They can hide from the extreme temperatures in burrows. The desert is the last place you might expect to find an amphibian, but a few species have adapted to this extreme environment.

Plant **LIFE**



The female **strawberry poison-dart frog** (*Oophaga pumilio*) lays her eggs on a leaf. When the tadpoles hatch, she moves them to a water-filled location.



The **gold frog** (*Brachycephalus didactylus*) makes its home in mountain rainforests. It mainly lives among leaf litter. It is a ground-dweller, since it can't jump or climb very well. The female lays eggs that hatch directly into small frogs, missing out the tadpole stage.

Who lives in a "house"? Some frogs have adapted to live in dead leaves that have fallen onto the forest floor whereas others cleverly use leaves to hide their eggs in until they hatch.

Up in the **TREES**



The **red-eyed tree frog** (*Agalychnis callidryas*) lives high up in rainforest canopies in Central America. It is also known as the "monkey frog" because of its excellent climbing skills.



The **tree hole frog** (*Metaphrynella sundana*) is a native of lowland forests in Borneo. It lives in the hollows of tree trunks. The little frog uses tree hollows to amplify its mating calls so that it can be heard over long distances.

Who lives up in the trees? Most of the world's frogs live in tropical rainforests, where the temperature is nice and high and there is plenty of water.

Reptiles don't exist in Antarctica either. Unlike amphibians, they have watertight skin. This means that they don't dry out as quickly. Some reptiles live in hot, dry places such as deserts. Others live in warm swamps, rivers, or forests. A few have even adapted to a life at sea, but all return to land to lay their eggs.

All at **SEA**



The **yellow-bellied sea snake** (*Pelamis platurus*) has the largest lung of any snake. This helps it to control buoyancy so it can stay under water for long periods of time (up to three and a half hours).



The **hawksbill turtle** (*Eretmochelys imbricata*) uses its narrow beak to forage for mollusks, sponges, and other animals.

In the **WET**



The **African clawed frog** (*Xenopus laevis*) lives in ponds, lakes, or streams in southern Africa. It spends most of its time in water.



Northern water snake (*Nerodia sipedon*) lives in and around streams, ponds, lakes, and marshes. Water snakes are good swimmers. They have been known to herd tadpoles to the water's edge before tucking in.

Cool **CREATURES**



The **wood frog** (*Rana sylvatica*) survives freezing conditions by hibernating. It finds cracks in rocks, or gaps in logs, or can bury itself in leaves, to get through the cold winters.



Slow worm (*Anguis fragilis*) is a legless lizard that hibernates in piles of leaves, or in hollows between tree roots. It goes to sleep in October and emerges in March to breed in early summer.

Who's that in the sea? Amphibians can't cope with seawater because their skin is too thin to protect them from all the salt. Reptiles have thicker skin and a few species can regulate the salt in their blood and are therefore able to live in the sea.

Who likes to live somewhere moist? Amphibians provide tasty meals for many reptiles, so where they live you will often find reptiles, too. The Northern water snake lives near ponds, where it can catch amphibians.

Who's hiding from the cold? Some reptiles and amphibians live in temperate parts of the world, with cold winters. One of the ways in which they can survive these cold months is to save energy by hibernating.

Amazon horned FROG

Famed for its big appetite and its bad temper, the Amazon horned frog can grow to reach the size of a small dinner plate.

ENORMOUS GAPE

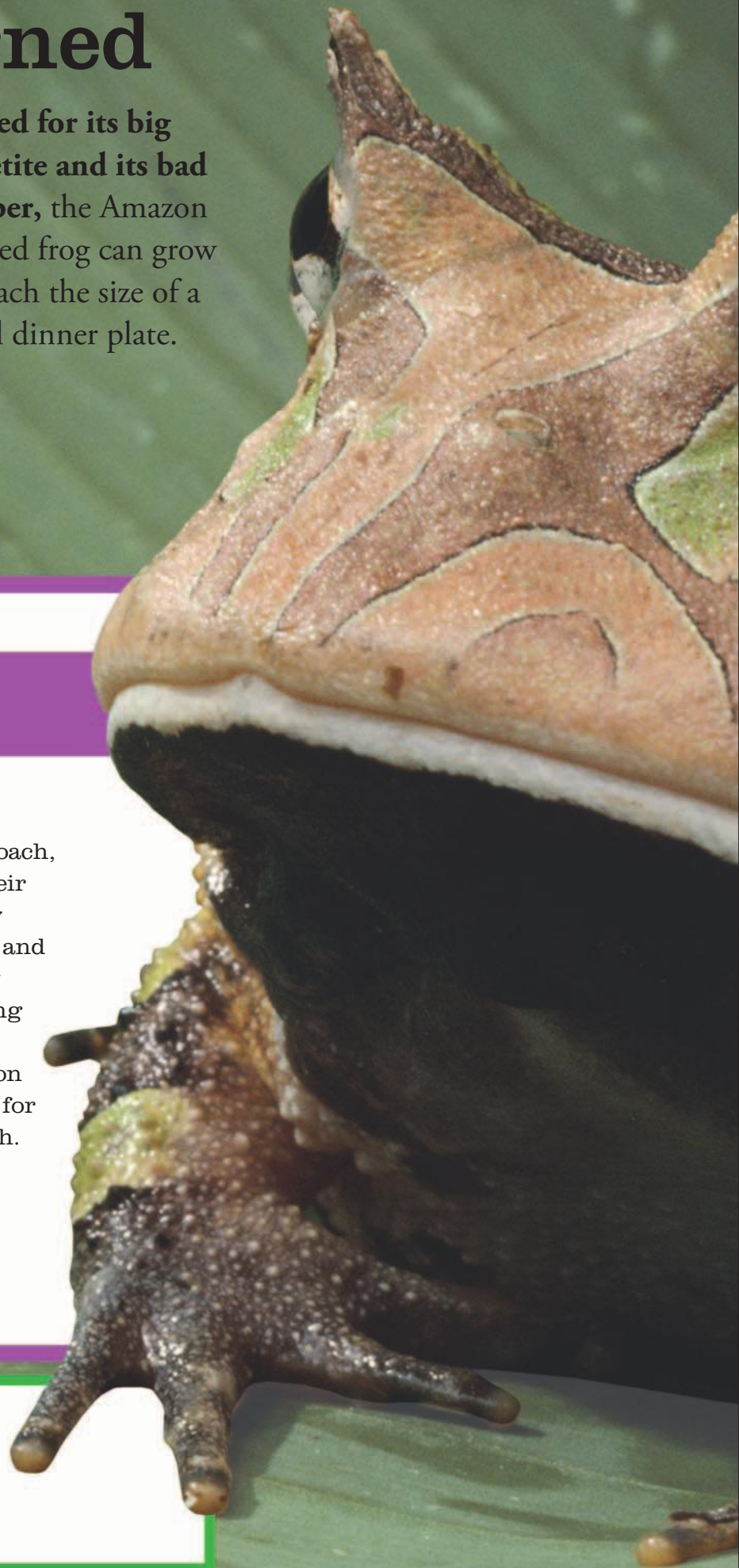
With a mouth that is wider than the length of its body, the Amazon horned frog can gobble up prey almost as big as itself.

Patient PREDATOR

Amazon horned frogs are voracious carnivores. They ambush their prey by sitting quietly and waiting for it to approach, before striking with a sudden snap of their jaws. **Amazon horned frogs aren't picky eaters.** Mostly they live on a diet of ants and other insects, but they will try to eat any animal smaller than themselves, including mice and, occasionally, rats. They don't always get it right, and may try to take on an animal that is too big for them to stomach.



Watch your feet! The Amazon horned frog will sometimes defend itself by attacking people if it is disturbed. They tend to grab anything that comes near them that could be edible.



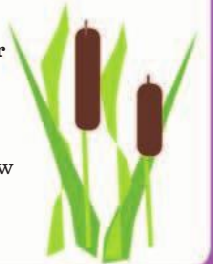
Impressive **HORNS**

As its name suggests, the **Amazon horned frog** has big fleshy horns above its eyes. These are the largest horns of any of the horned frog species. These pointed brows help to disguise the frog's shape as it sits among the leaves on the forest floor awaiting its prey.

FROG FACTS



- Unlike other tadpoles, the Amazon horned frog tadpoles are **predatory** from the start. When they hatch, they attack other tadpoles and even attack each other.
- Females lay up to **1,000** eggs! They lay their eggs around aquatic plants.
- Males are **slightly smaller** than females. They make a mating call that sounds like a cow lowing (making a "moo" sound).



This frog grows up to 8 in (20 cm) in length.

How do crocodiles breathe **underwater** ?

Crocodiles have an amazing ability to breathe and hunt underwater at the same time. By closing a flap of skin at the back of their throats they prevent water from flowing into their lungs. They hold air in their lungs until they resurface. They are able to keep their mouths open to grab prey underwater, although they usually move to land to swallow it. **They also have flaps that can be closed over the nostril and ear openings.**

Saltwater crocodile
(*Crocodylus porosus*)



Florida softshell turtle
(*Apalone ferox*)

TURTLES

Aquatic turtles breathe through their lungs. The Florida softshell (right) has to surface and use its snout to fill its lungs with oxygen above water. Some turtles manage to stay underwater for weeks, living on very low oxygen levels.




FROGS

Frogs can breathe through their skin when they're in the water. Their skin absorbs oxygen from the water around them. Find out more about their amazing skin on pages 12–13.


Okinawa frog
(*Rana sp.*)

SEA SNAKES

Sea snakes can stay underwater for up to five hours. They have an enlarged lung that helps them to store lots of oxygen for when they're underwater. They have to resurface to breathe in more oxygen before they can make another dive.



Banded sea snake
(*Laticauda colubrina*)



CROCODILIANS have a **FLAP** of tissue behind the **tongue** *that covers* their **throats** when they are *submerged* in **WATER**.

membrane that acts as a **transparent shield**.

AMPHIBIANS and REPTILES have different ways of *bringing their young* into the world. Most hatch from an **egg**.

Amphibian eggs

A lot of amphibians lay their eggs in water, where they develop into tiny tadpoles.

However, many amphibians choose a sheltered egg-laying location where they guard their eggs or protect them in a layer of foam.

Other amphibians carry eggs on their backs, in their vocal sacs, in skin pockets, or even in their stomachs!

Most lizards lay eggs. They rarely return to their nests, although some skinks stay with their eggs to help maintain moisture and warmth.

Alligators and caimans make their nests from mounds of soil and leaves. Crocodiles and gavials lay their eggs in holes they dig in sand or dry, crumbly soil.

The shells of eggs laid by most turtles and tortoises are hard, but the shells of marine and river turtle eggs are softer.

Reptile eggs

Father **FIGURES**

In some species of frog, the father plays a key role. The male Darwin's frog takes care of the eggs as they develop. When the tadpoles hatch, he puts them in his vocal sac, where they grow until they are released as tiny frogs.

The male midwife toad (right) shows an interesting form of care. The female lays the eggs, but the male carries them on his legs! After about three weeks, the male takes the eggs to water, where the tadpoles hatch.



Absent **PARENTS**

The majority of geckos lay their eggs in bark or in the crevices of rocks. Geckos DO NOT take care of their young. The young are self-sufficient from birth. Turtles lay the most eggs out of all reptiles, but they don't watch over them. The eggs are left in soil or sand and when the baby turtles emerge, they are on their own. They have to learn survival skills pretty quickly!

When a caiman or alligator is born, it stays close to its mother. The young reptiles are protected by their mothers in the early weeks of their lives. When danger is detected they can use their mother as a shield by hiding under her body.

Boy or girl?

The gender of baby crocodiles, turtles, and tortoises is often determined by egg temperature during incubation.





ACTUAL
SIZE



from this.....to this!

The GOLIATH FROG starts out SMALL.

Its tadpole is the same size as that of the average frog, but it **keeps on growing** until it reaches the *size of a cat*. With legs outstretched, the *frog* can MEASURE almost 3 ft (1 m) in length.



Goliath frog

The goliath frog is the largest anuran (the class of animal that includes frogs and toads).



The goliath frog

(*Conraua goliath*)

lives in western Africa. It is found across a narrow range of Equatorial Guinea and Cameroon, in and around fast-flowing rivers and waterfalls. It is a popular food for locals.

How small?

The smallest frog in the world is the Monte Iberia frog (*Eleutherodactylus iberia*) of Cuba. This tiny amphibian reaches a full size of only $\frac{1}{3}$ in (9.8 mm) from snout to vent. It would sit comfortably on one of your fingernails.

Smallest frog

The Monte Iberia frog breeds by direct development, missing out the tadpole stage altogether.



SUN seekers

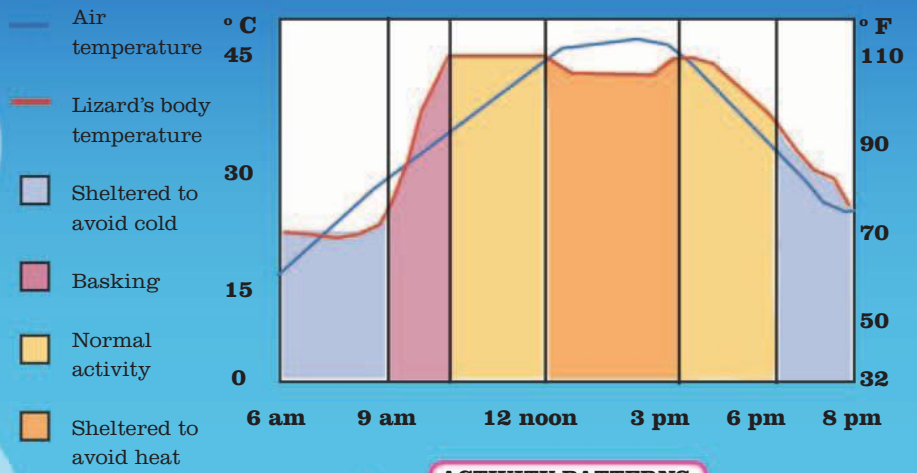
Reptiles are cold-blooded animals, although once they have *sunbathed* their blood is about the same temperature as ours. Most reptiles live in **warm climates**, as they rely on their surroundings to obtain heat.

Reptiles keep their internal temperature at a constant level by moving to and from the shade.

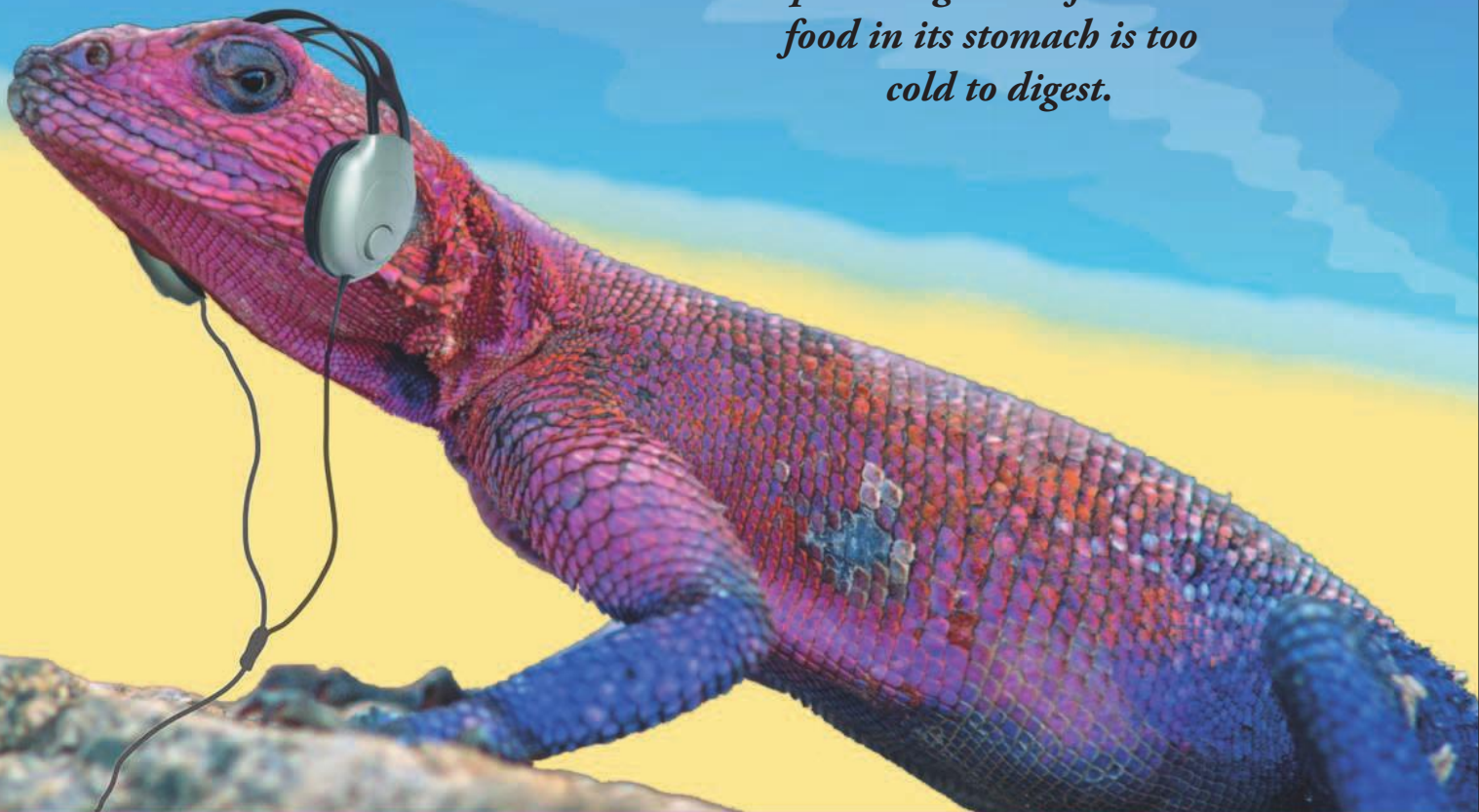
A reptile can also obtain heat by resting its belly on a warm rock.

In the **summer months**, reptiles that live in tropical areas are **inactive** in the middle of the day, since it's too hot to move.

This graph shows the activity levels of a lizard. Take a look at how and where it spends its day.

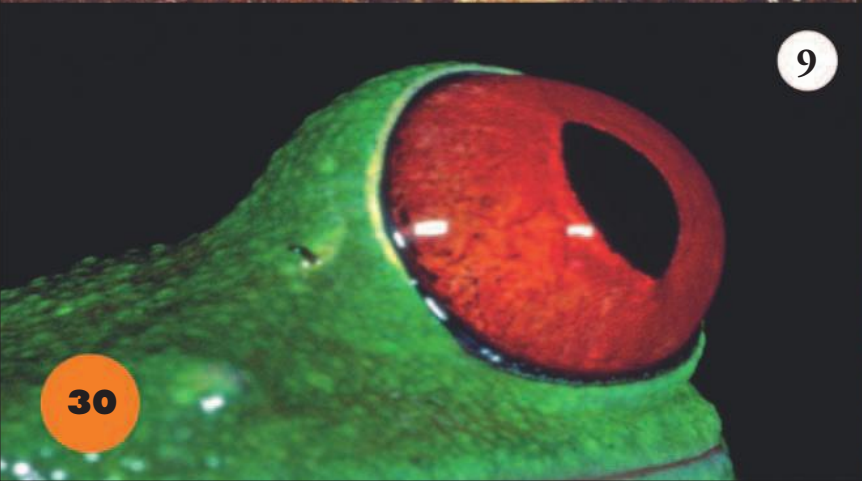
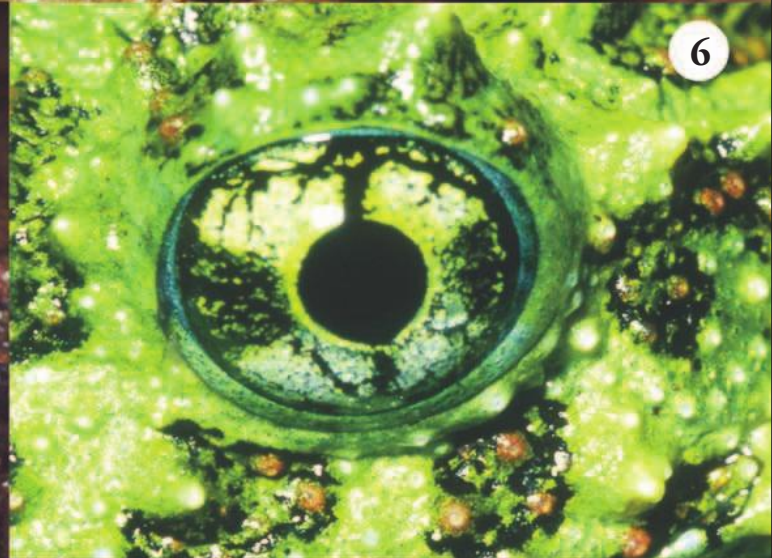
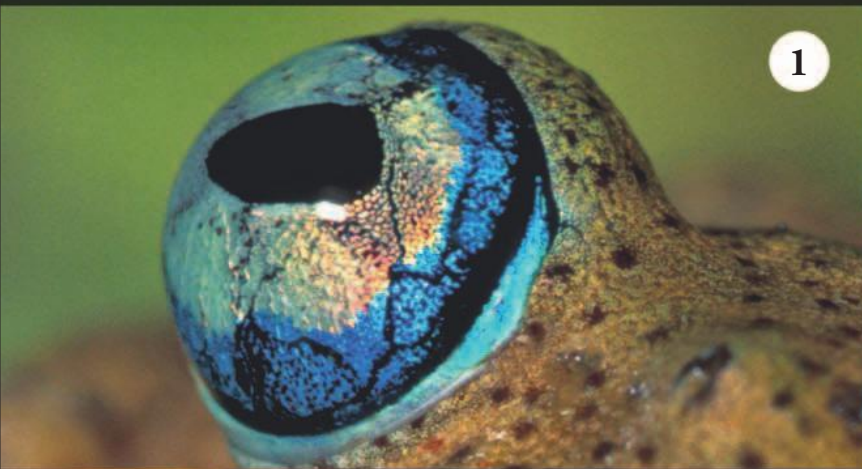


Reptiles need to stay warm when they eat. A snake that has eaten a meal but cannot get to a warm place might die if the food in its stomach is too cold to digest.



Can you spot the **FAKE**?

FROGS use their MARKINGS for protection against *predators*. One of the frogs shown here has a cleverly positioned *eyespot* that *helps* it to confuse any potential ATTACKERS. Can you tell which one it is?



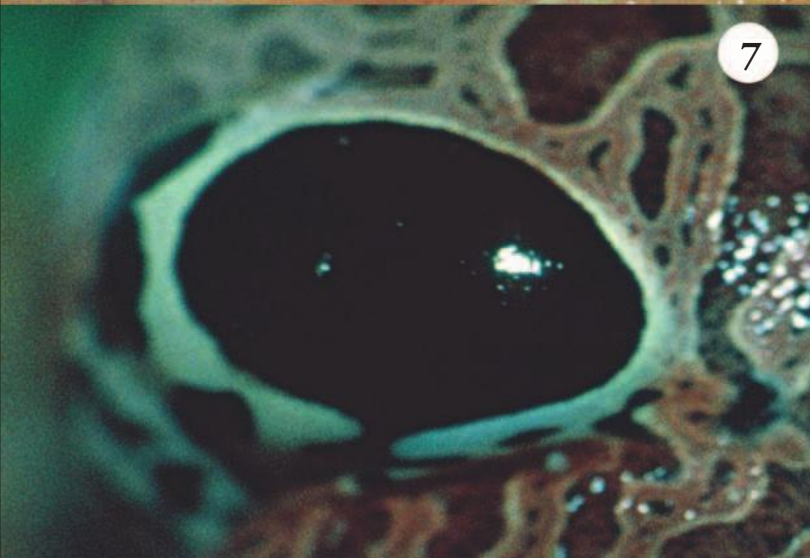
Answer: the fake eye is number 7, which is actually the back of a dwarf frog. Here are the names of the other frogs:
 1. Dumeril's bright-eyed frog 2. Common big-headed frog 3. Water-holding frog 4. Poisonous tree frog 5. Smoky jungle
 frog 6. Mossy frog 7. Dwarf frog 8. Long-nosed horned frog 9. Red-eyed tree frog 10. Bronze frog 11. American
 bullfrog 12. Red-eyed tree frog



3



4



7



8



11

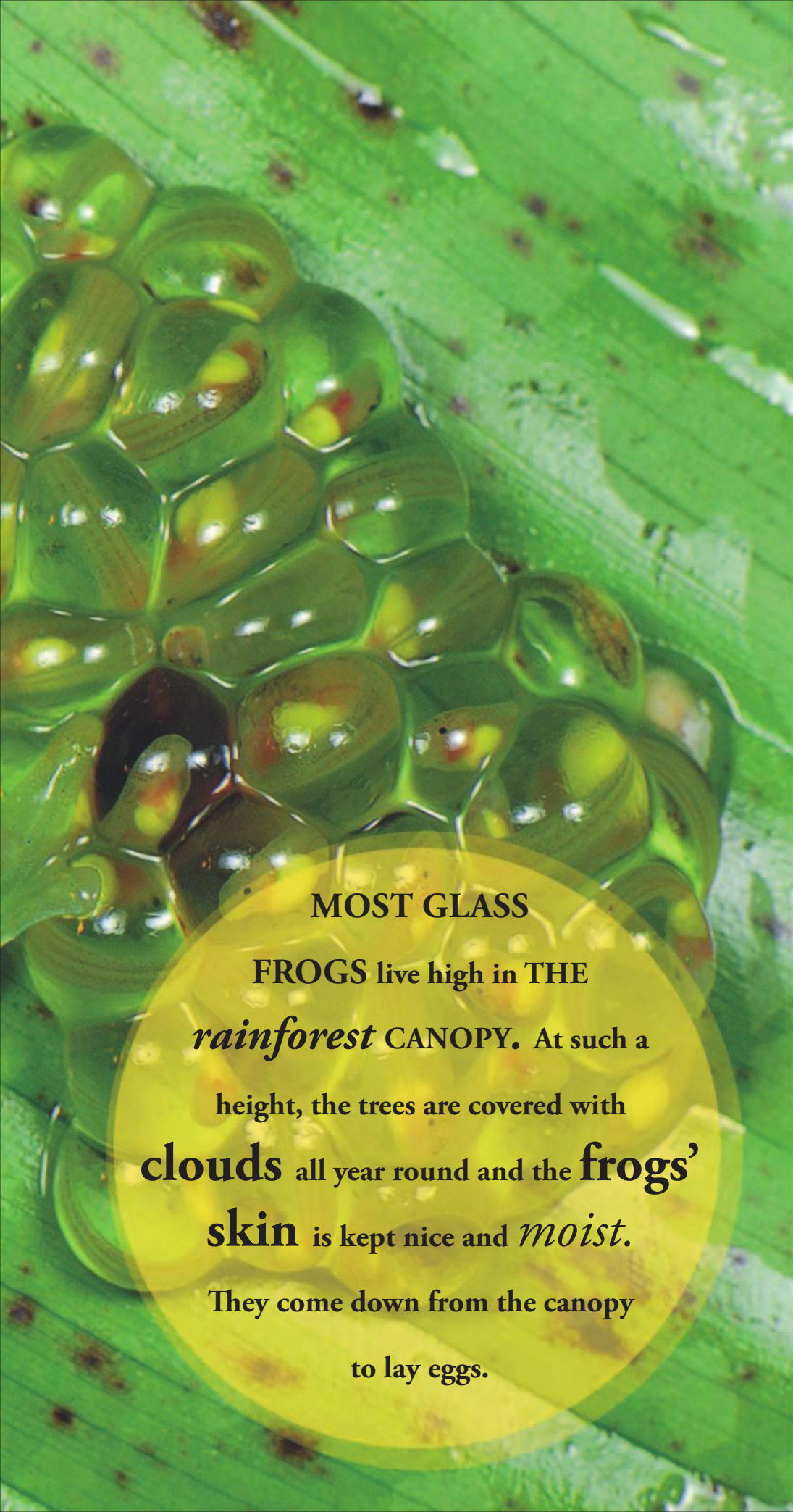


12

THE GLASS FROG

With its amazing see-through body, the glass frog blends in perfectly with its surroundings. This little frog hangs on to leaves with tiny, round-ended toes that seem almost to melt into the leaf surface. It lives in Central and South America.





MOST GLASS

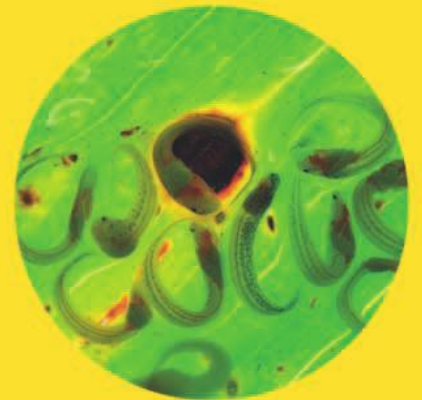
FROGS live high in **THE** *rainforest* **CANOPY**. At such a height, the trees are covered with **clouds** all year round and the **frogs' skin** is kept nice and *moist*. They come down from the canopy to lay eggs.



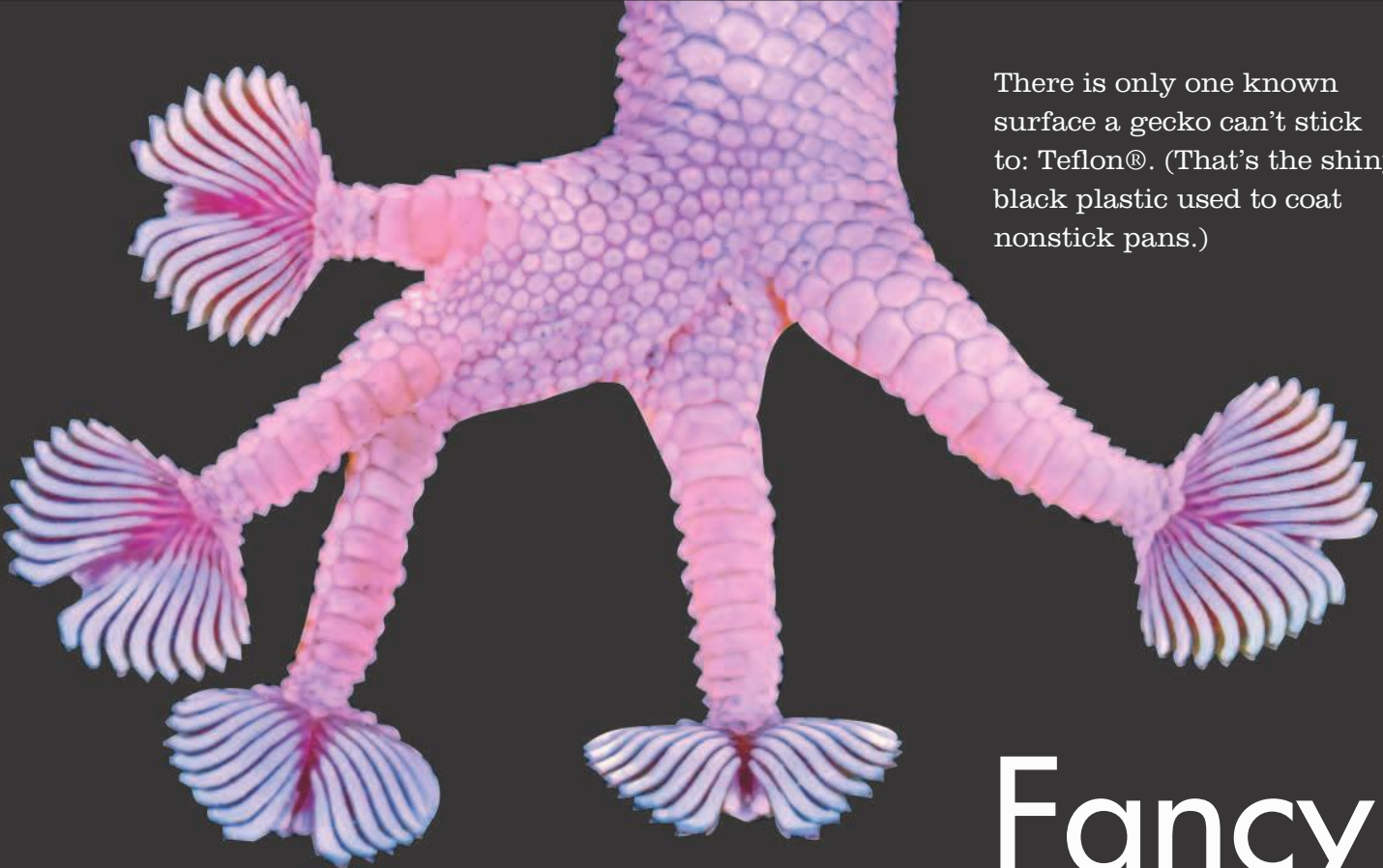
Glass frogs are more transparent from beneath. You can even see their hearts beating busily in their chests.



Glass frogs lay their eggs on leaves that overhang running water. The male frog stands guard and protects the eggs from parasitic flies.



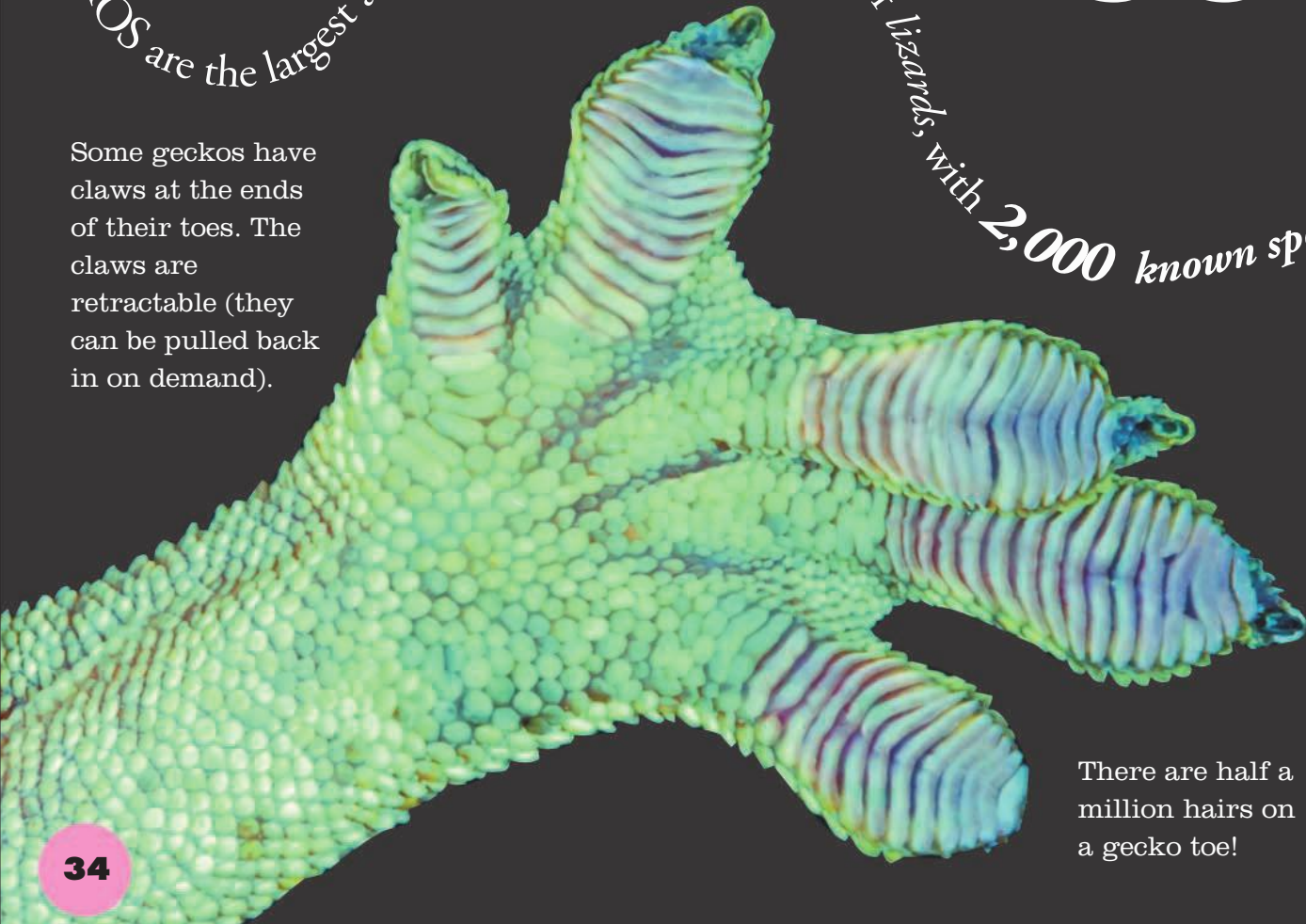
When the tadpoles hatch, they drop down into the water. They have powerful tails and are well-adapted for life in fast-flowing forest streams.




There is only one known surface a gecko can't stick to: Teflon®. (That's the shiny black plastic used to coat nonstick pans.)

Fancy feet

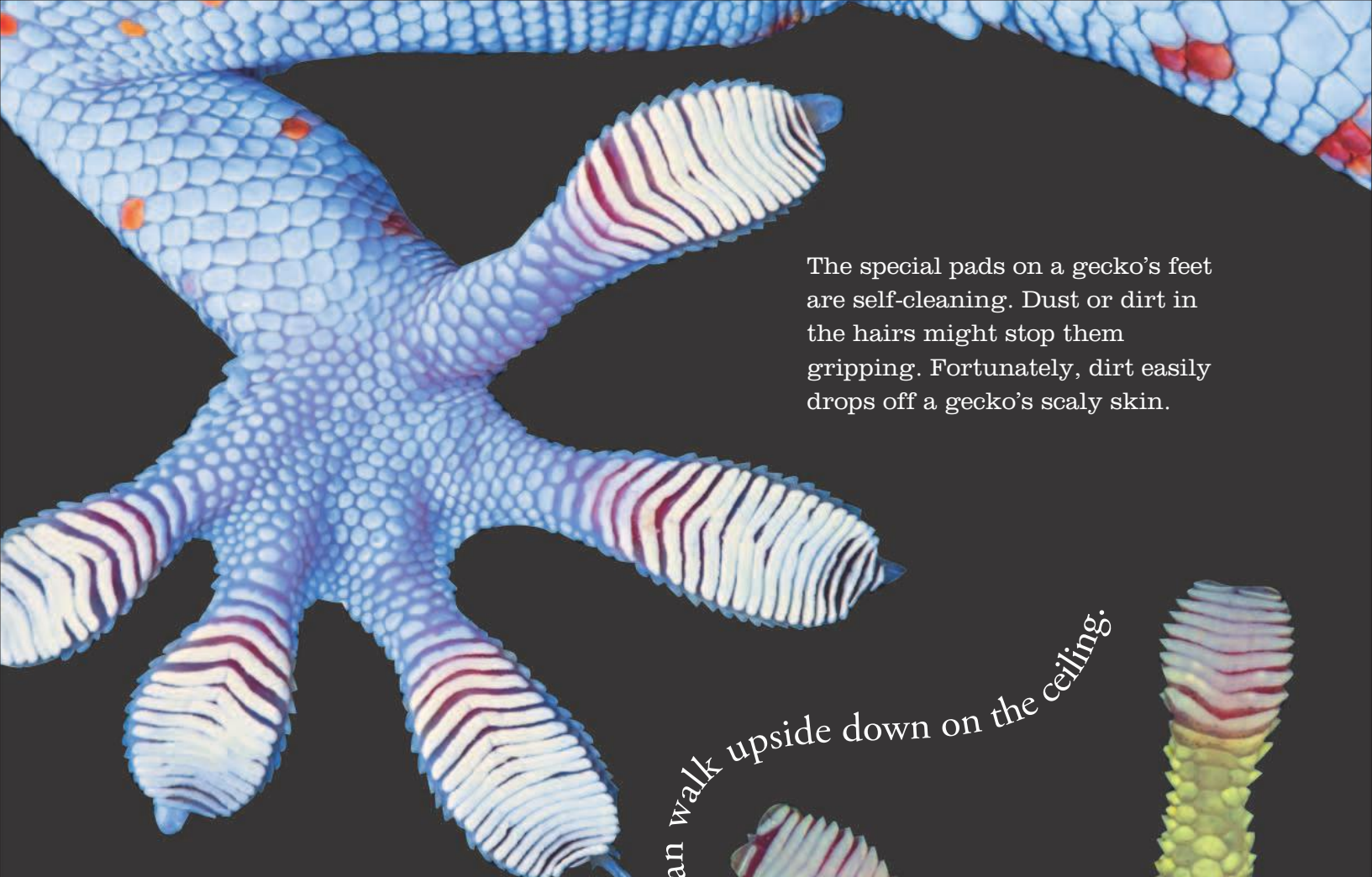
GECKOS are the largest and most colorful family of lizards, with 2,000 known species.



Some geckos have claws at the ends of their toes. The claws are retractable (they can be pulled back in on demand).

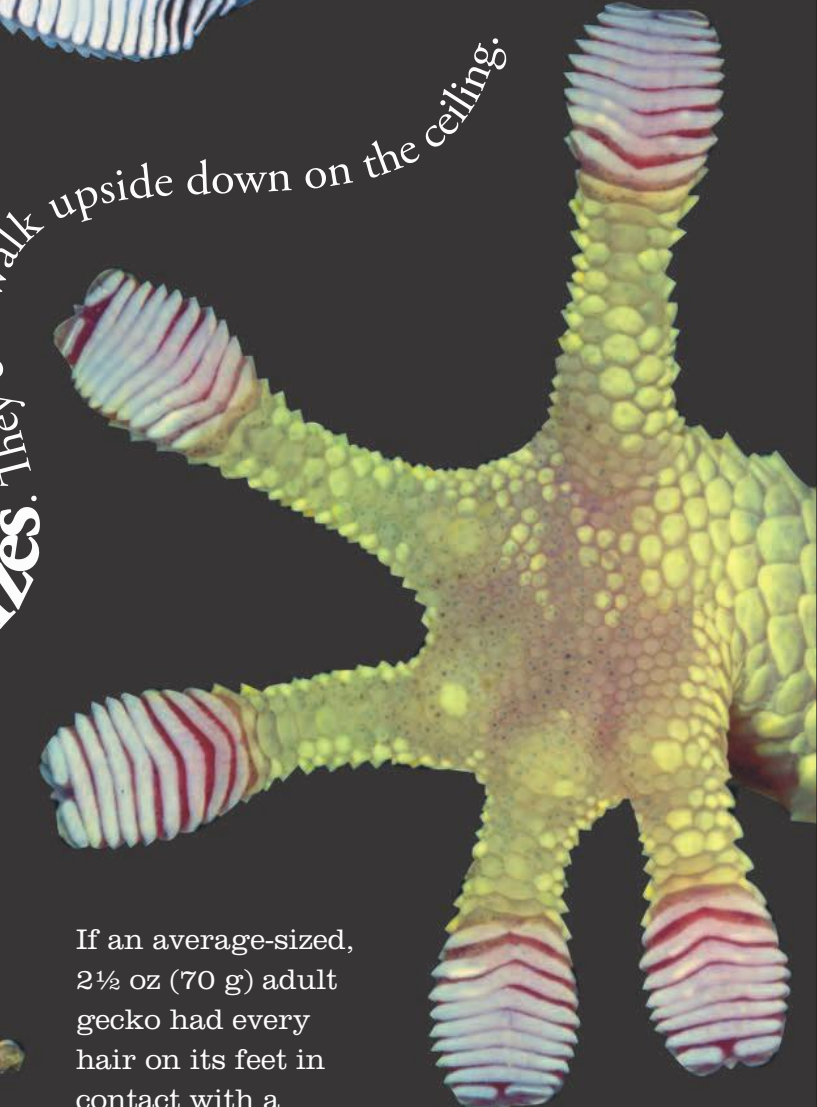


There are half a million hairs on a gecko toe!



The special pads on a gecko's feet are self-cleaning. Dust or dirt in the hairs might stop them gripping. Fortunately, dirt easily drops off a gecko's scaly skin.

Their FEET come in *all shapes* and **sizes**. They can walk upside down on the ceiling.



If an average-sized, 2½ oz (70 g) adult gecko had every hair on its feet in contact with a surface, it would have enough force to lift a 290 lb (133 kg) weight.

THE WATER- HOLDING FROG



This frog is bloated with all the water it has consumed.

Where does it **LIVE?**

The **water-holding frog** (*Litoria platycephala*) lives in Australia. During the rainy season, the frog absorbs water and in doing so puts on 50 percent of its own body weight! To keep from losing this water during the dry months, it creates an underground home to stay in. Since the mud is still wet from the rainy season, it's able to burrow down more than 3 ft (1 m) beneath the surface. It enters a summer hibernation and can stay underground waiting for the next rainy season. When it senses the water from heavy rains, it wakes up and starts to resurface.

STORING water

The water-holding frog stores water in its bladder and beneath its skin.

“Living **WELL**”

Aborigines used to dig up the frog to extract drinking water. They used the frog as a “living well.” To gain access to the water they squeezed the frog.

FEEDING time

When active above the ground, it lives in water bodies. It feeds on other frogs, tadpoles, and small insects.

EGG laying

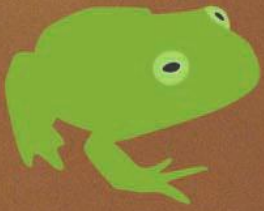
A female usually lays more than 500 eggs at one time! She lays her eggs and then goes into a hibernation. She enters this state in order to prevent damage from extreme dryness and heat.



$\frac{2}{3}$ in (6 cm)

Widespread in
Australia

Before...



In its normal state, a water-holding frog is just $2\frac{1}{3}$ in (6 cm) in length.

After...



When it has consumed half its own body weight in water, its body is enlarged to $4\frac{1}{2}$ in (12 cm) in length.



When active, it lives in puddles, pools, and streams.

estivation. It usually happens in the summer.



TOP 10



DEADLIEST



Most **reptiles** and **amphibians** are perfectly *harmless* to people, but a few can inflict **lethal bites** or *kill* with a touch of their *poisonous skin*. Here are some of the **world's deadliest cold-blooded killers**.



Poison dart **FROG**

Phylllobates terribilis of Colombia can kill you if you touch it. Just one of these tiny frogs contains enough poison to paralyze and kill 50 people. The deadly chemical in the frog's skin comes from poisonous plants, which are eaten by ants that are in turn eaten by the frog. Native peoples use the frog to make poison blowpipe darts.



Inland **TAIPAN**

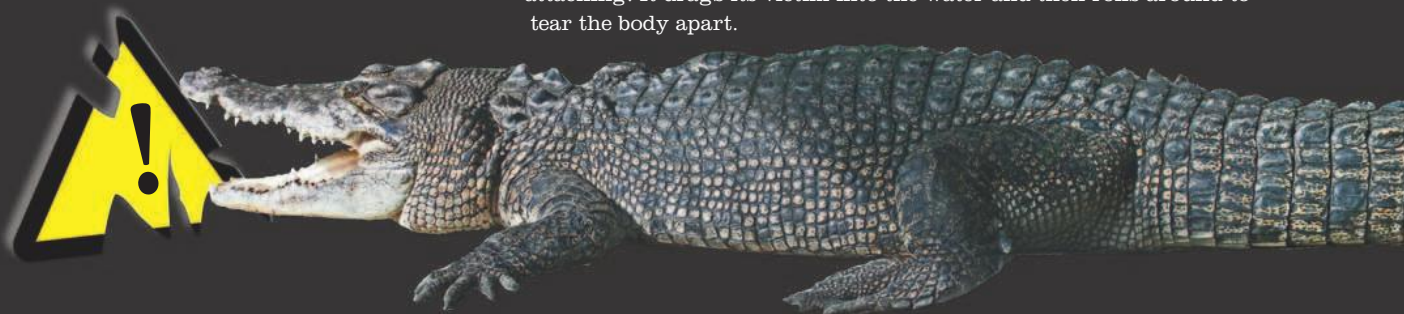
The inland taipan (*Oxyuranus microlepidotus*) of Australia has the deadliest venom of any land-dwelling snake. The venom, injected by a bite, not only poisons nerves, but also causes the victim's blood to clot, blocking arteries. Before an antidote was developed, there were no known survivors of a taipan bite. Fortunately, the taipan is very shy and bites are rare.

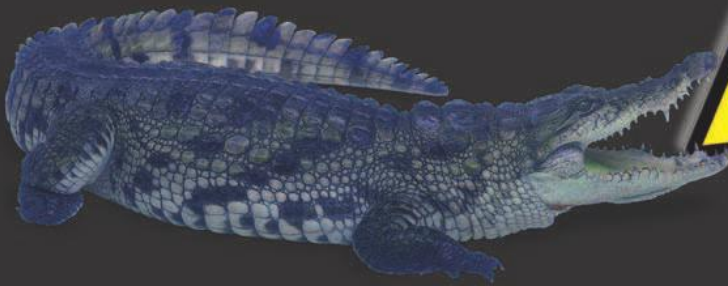
Australian brown **SNAKE**

The eastern (or common) brown snake (*Pseudonaja textilis*) of Australia is the world's second most venomous land snake after the Taipan, based on the strength of its venom. Its bite is usually fatal, unless the victim receives an antidote. The venom contains potent nerve toxins, which paralyze the victim's muscles, and chemicals that make the blood clot.

Saltwater **CROCODILE**

The saltwater crocodile (*Crocodylus porosus*) of Australia and parts of Asia is the largest reptile on Earth, with big males weighing more than a ton. Normally seen basking lazily in the sun or wallowing in shallow water, it is capable of explosive bursts of speed when attacking. It drags its victim into the water and then rolls around to tear the body apart.





Nile **CROCODILE**

The Nile crocodile (*Crocodylus niloticus*) of Africa kills a large number of people, since locals often collect water or wash from the river. It sneaks toward victims with its body hidden in the muddy water and only its eyes above the surface. It then leaps out and snatches the victim in its jaws before dragging them in the water.

Komodo **DRAGON**

The world's largest lizard, the Komodo dragon (*Varanus komodoensis*) weighs as much as a man and can attack and devour a human being. The lizard kills prey in an especially gruesome way, biting victims with filthy teeth that are covered with disease-causing bacteria. The victim may escape, but the bite turns into a festering wound that can kill.



Eastern diamondback **RATTLESNAKE**

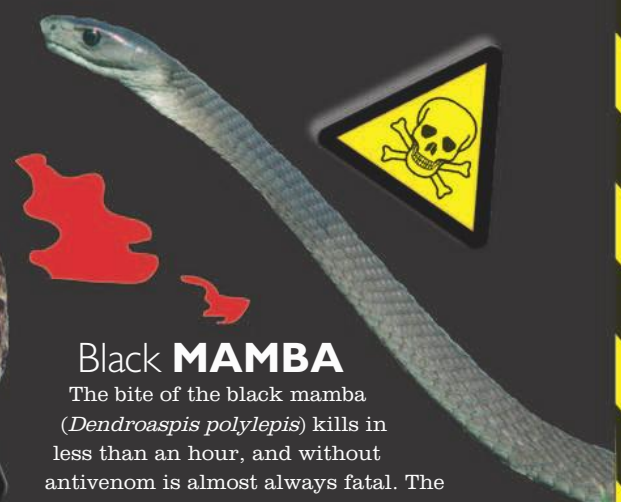
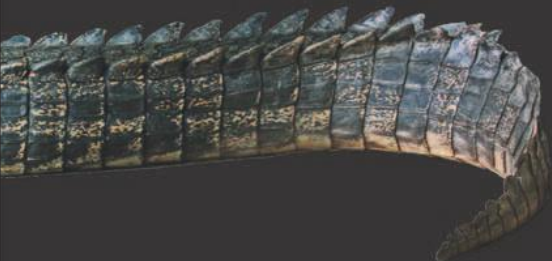
The bite of North America's deadliest snake can kill in a matter of hours. The Eastern diamondback rattlesnake (*Crotalus adamanteus*) venom contains hemotoxins, which attack the blood and damage a huge area of tissue, potentially leading to loss of a limb or death. Thanks to rapid treatment with antivenom, only a handful of deaths occur each year.

Puff **ADDER**

This bad-tempered African snake is called the puff adder because it hisses and puffs when approached, while curling itself into a tight S-shape, ready to strike. Get too close and it will lunge forward and sink its long fangs deep into your skin, injecting a venom that attacks the blood. The puff adder (*Bitis arietans*) causes more deaths than any other snake in Africa.

Fer-de-**LANCE**

This South American relative of the rattlesnake preys on rats and other rodents, killing them by injecting venom through its hollow teeth. The fer-de-lance's (*Bothrops atrox*) venom is packed with enzymes that destroy blood cells and body tissues, causing fits of vomiting, diarrhea, paralysis, and blackouts.



Black **MAMBA**

The bite of the black mamba (*Dendroaspis polylepis*) kills in less than an hour, and without antivenom is almost always fatal. The lethal ingredient in the venom is dendrotoxin, a chemical that paralyzes muscles and stops the lungs and heart from working. Death is usually caused by suffocation.