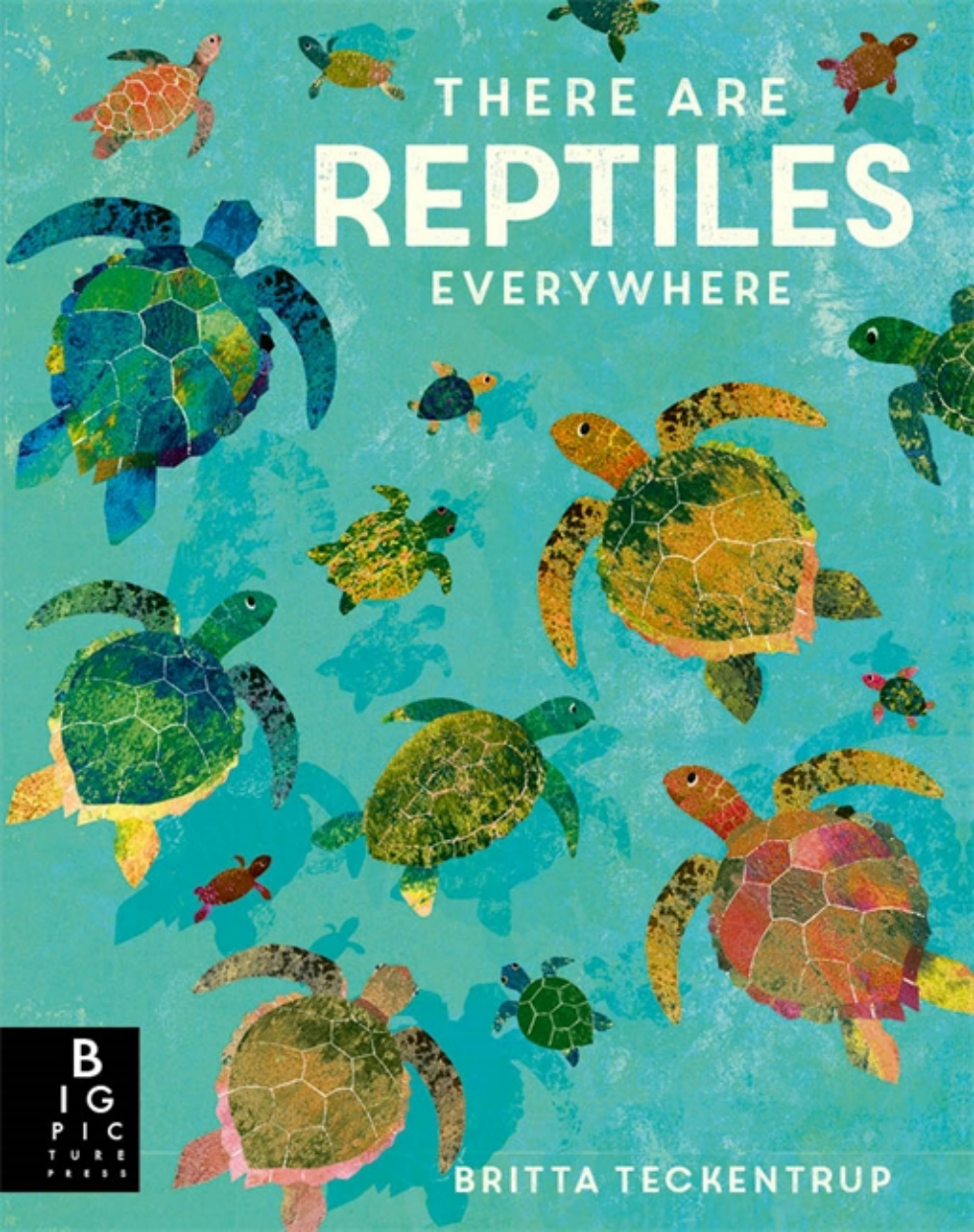
THERE ARE
REPTILES
EVERYWHERE
BIG PICTURE PRESS
BRITTA TECKENTRUP

To Nathalie and Lydia – B.T
For Edmund Johnson, with love and thanks – C.B

BIG PICTURE PRESS

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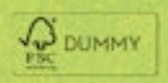

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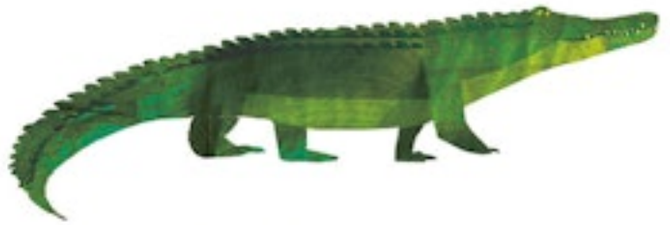
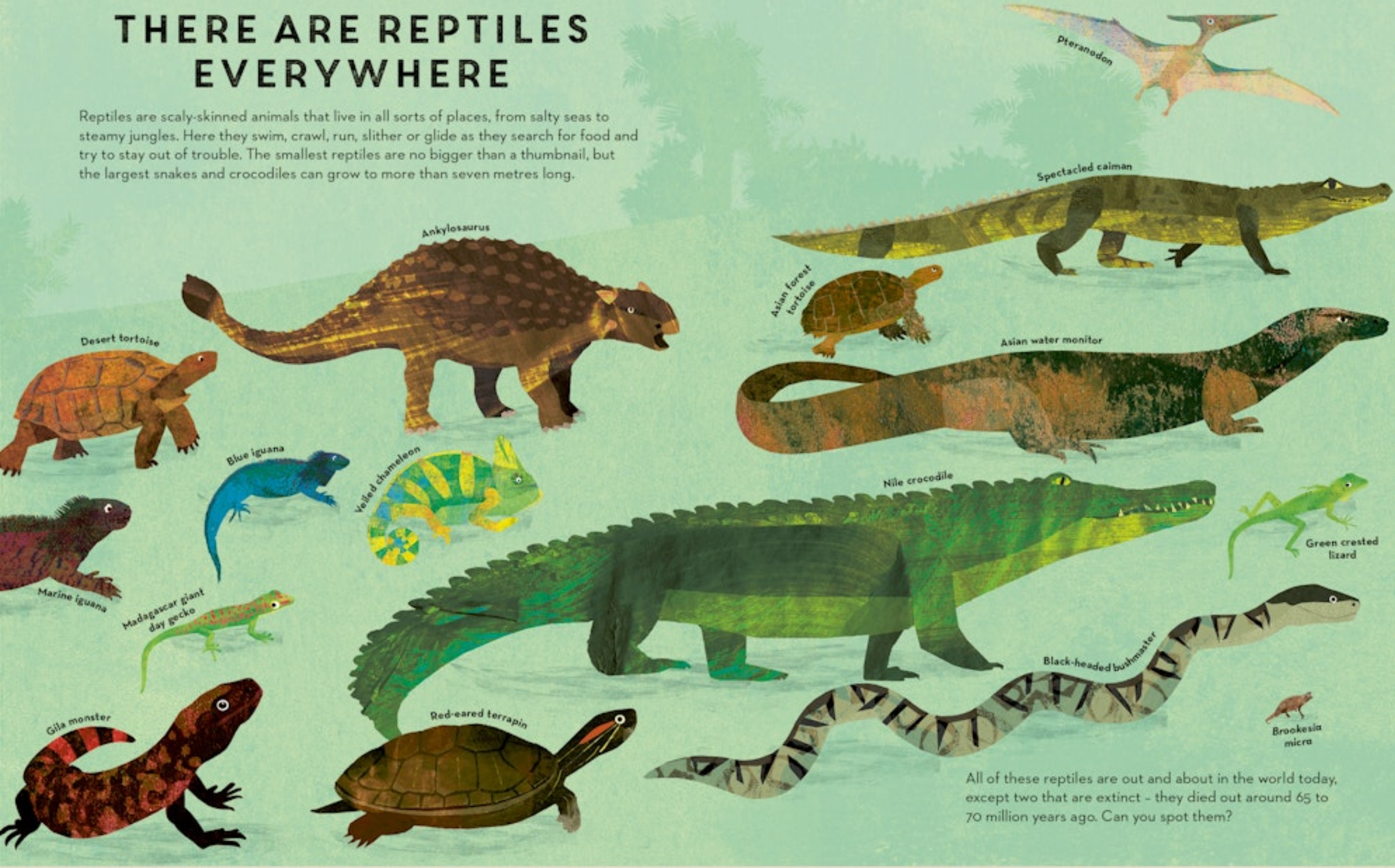


ILLUSTRATED BY BRITTA TECKENTRUP
WRITTEN BY CAMILLA DE LA BEDOYERE

B P P

THERE ARE REPTILES EVERYWHERE

Reptiles are scaly-skinned animals that live in all sorts of places, from salty seas to steamy jungles. Here they swim, crawl, run, slither or glide as they search for food and try to stay out of trouble. The smallest reptiles are no bigger than a thumbnail, but the largest snakes and crocodiles can grow to more than seven metres long.



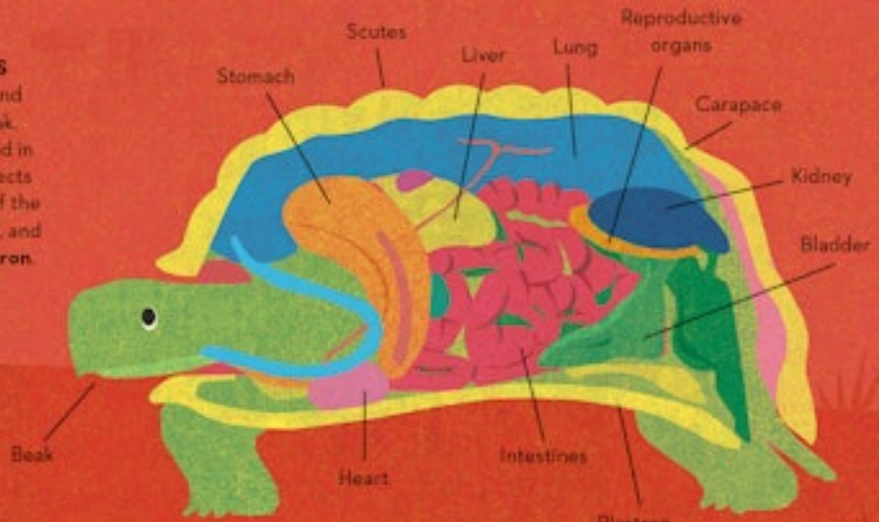
All of these reptiles are out and about in the world today, except two that are extinct – they died out around 65 to 70 million years ago. Can you spot them?

IT'S A REPTILE! (SO WHAT *IS* THAT?)

Reptiles don't have fur or feathers. Instead, their skin is covered in scales or bony plates, or both. Most reptiles lay eggs, but some of them give birth to their babies, like mammals do.

TURTLES AND TORTOISES

Instead of teeth, turtles and tortoises have a hard beak. A tough, bony shell covered in plates, called **scutes**, protects their soft bodies. The top of the shell is called the **carapace**, and the flat bottom is the **plastron**.



COLD BLOOD

Reptiles are cold-blooded. This means that they can't keep their bodies at a steady temperature, like we do. Instead, they have to bask in the sun to warm up. When they get too hot, they have to move into the shade to cool down again.

LUNG POWER

The lungs of marine turtles are a bit like inflatable armbands. When their lungs are full of air, the turtles can swim near the surface of the sea.

CROCODILIANS

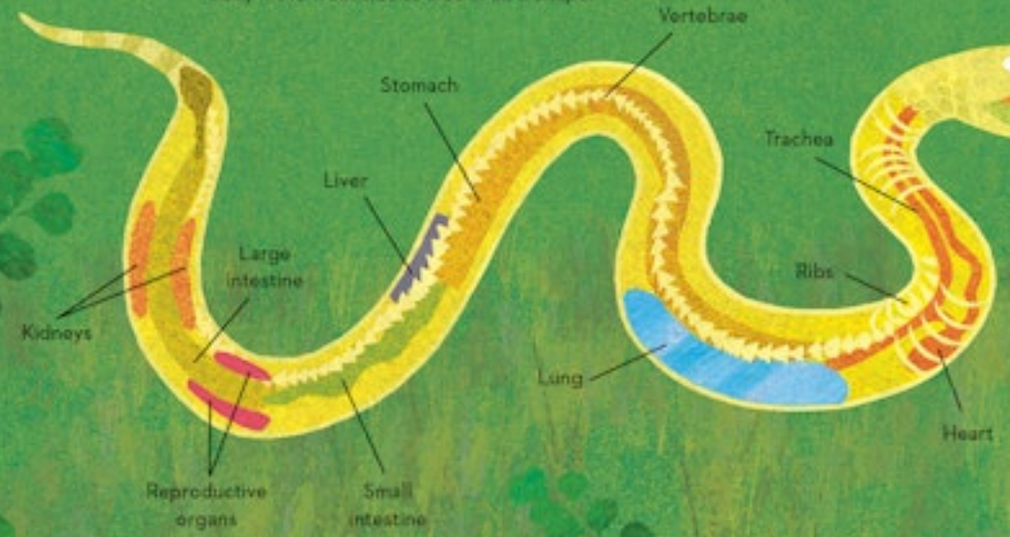
There are 25 species of crocodilians, the large reptiles in the crocodile family. They have long bodies covered in bony scales and long jaws for snapping up fish. This family includes crocodiles, alligators, caimans and the rare gharial, which has a skinny snout lined with sharp teeth.

LIZARDS

Lizards have four legs and a tail and most of them are speedy movers. Many lizards have sharp claws, but geckos have sticky toes for gripping onto branches, or webbed feet that they use like hang gliders to 'fly' through the air.

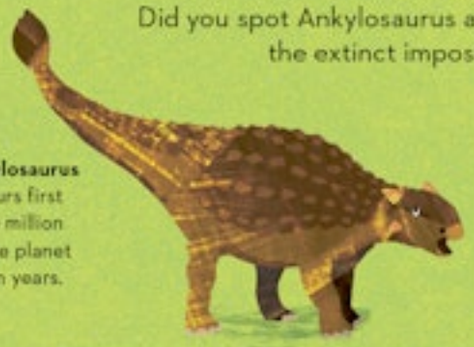
SNAKES

A snake has no legs, but it can slither and slide using its uniquely shaped body. The scales on its underside grip the ground like the sole of a shoe, so it can push itself forwards with its muscles. These muscles move in waves, making the body move from side to side in an S-shape.



IT'S A BIG FAMILY!

Did you spot Ankylosaurus and Pteranodon, the extinct imposters?



Dinosaurs such as **Ankylosaurus** were reptiles. Dinosaurs first appeared around 240 million years ago and ruled the planet for the next 174 million years.

Pteranodon was a huge flying reptile with long, toothless jaws. Pteranodon wasn't a dinosaur – it belonged to a different group of reptiles called pterosaurs.

The **crocodilians** are the closest relatives of Ankylosaurus and Pteranodon. Like Ankylosaurus, they have bony plates on their bodies.

You can still see dinosaur-like features in modern reptiles. **Jackson's chameleons** have three horns, which make them look a bit like **Triceratops**!

REPTILES HAVE BEEN AROUND FOR AGES

Reptiles have been around for 312 million years, long before furry or feathered animals appeared. To put this into perspective, modern humans have only been on the planet for about 200,000 years!

330–340 MILLION YEARS AGO

All reptiles evolved from a group of animals called amphibians, like **Balanerpeton**. It laid its eggs in water, just like modern frogs and toads.

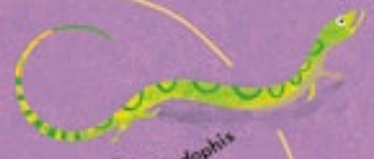
Hylonomus was probably one of the first types of reptile to evolve, about 312 million years ago. It had sharp teeth for eating bugs and it laid its eggs on land.

Eunotosaurus is the earliest known member of the turtle family. It had large, wide ribs that may have been the beginnings of a turtle shell.

By 210 million years ago there were reptiles with bony shells, but **Proganochelys** looked much scarier than modern turtles. It had rows of spikes around its neck and a spiky tail that ended in a club – useful for walloping any predators that wanted to eat it.

The first crocodilians, such as **Protosuchus**, looked like long-legged lizards and they were probably fast movers both on land and in the water. They had strong jaws and hunted their prey alongside dinosaurs.

A very strange-looking snake with four tiny legs lived 120 million years ago. **Tetrapodophis** had a long body for squeezing its prey to death, just like modern constrictor snakes.



Sarcosuchus was a mighty meat-eating monster as long as a bus. This mega-croc had giant jaws that were lined with more than 120 teeth. It lived 112 million years ago.

The largest turtle EVER lived in oceans 70 million years ago and hunted soft, squishy jellyfish, squid and octopuses. **Archelon** grew to 4 metres long – that's the length of an elephant.

This looks like a lizard, but it's not. It's a **tuatara** – a reptile that's been called a living fossil, because it is so similar to reptiles that lived at the time of the dinosaurs. Tuatara and its ancestors have been in New Zealand for more than 80 million years.

TODAY

Amazingly, some reptiles did survive. Six million years after the asteroid crashed into Earth, enormous snakes like **Titanoboa** – up to 14 metres long – were slithering through steamy prehistoric rainforests.

Around 66 million years ago, an enormous ball of burning rock came from space and slammed into the planet. It caused huge fires and clouds of deadly smoke to fill the sky. Three-quarters of all animals and plants went extinct.

WHERE DO REPTILES LIVE?

Reptiles prefer warm places, but they can make their home almost anywhere. All they need is something to eat, somewhere to warm up, and somewhere to shelter when they need to rest, hide or cool down.

CUNNING CAVE SNAKES

A dark and gloomy cave is not the ideal hunting ground for most reptiles, but Kantemó Cave in Mexico provides a delicious meal for **yellow-red rat snakes**. As the sun rises, they simply hang upside down from the cave roof and wait for supper to arrive. At dawn, hundreds of bats return to the cave to sleep – only to be gobbled up by these ravenous suspended snakes.

Yellow-red rat snake

Marine iguana

SALTY SEA SNAKES

The **yellow-bellied sea snake** spends its whole life at sea, using its flat, paddle-shaped tail to swim. When it finds a tasty fish, it swims backwards to get its fangs in the perfect position, then it strikes with its deadly venom.

Yellow-bellied sea snake

DEEP-SEA DIVERS

Marine iguanas live on the Galápagos Islands off the coast of Ecuador, and take a daily plunge into the Pacific Ocean. They hold their breath for up to 40 minutes while they swim to the seabed and nibble on seaweed.

CHILLY LIZARDS

On New Zealand's Stewart Island, the weather can turn wet and windy in the winter. **Harlequin geckos** have a clever way of coping with the cold. Their bright skin turns dark, because darker colours soak up sunlight faster than light colours can.

Harlequin gecko

DESERT REPTILES

Reptiles rule in hot, dry deserts, where it rarely rains and few plants can grow. Snakes and lizards bask in the strong desert sun, which quickly warms up their muscles so they can chase bugs and scorpions.

SIDEWINDERS

Most snakes struggle to move across deserts. All those tiny grains of sand keep moving, making it difficult to grip onto the ground. To solve this problem, **Mexican desert sidewinders** scoot across the slippery sand by throwing their bodies into S-shaped coils. Only two parts of their body touch the hot sand at a time, so it's a cool way to travel – and speedy, too.

Mexican desert sidewinder

COOLING DOWN

The Sonoran Desert in North America is baking hot in the day, but becomes very nippy at night. **Desert tortoises** dig burrows so they have somewhere to hide from the sun and stay snug at night. Their feet are spade-shaped, so they're perfect for digging through soft sand.

Desert tortoise

ANT-EATERS

Spiky-skinned **thorny devils** live in Australia's Great Sandy Desert. They lap up passing ants with their sticky tongues, gobbling up hundreds at a time.

A spiny body is handy when it's time for a drink. Overnight, the desert cools down and dew collects on the lizard's back. The water runs along little grooves between its spikes and pours into its mouth.

Thorny devil

RAINFOREST REPTILES

This is Borneo, a large island in Southeast Asia, and it's a reptile's paradise. From the longest snake in the world to a flying dragon, more than 250 species of reptile live happily in the steamy heat of the rainforest. It's nice and warm, there's plenty of food and there are lots of places to hide.

Asian forest tortoise

Draco lizard (flying dragon)

The fearless **Asian forest tortoise** protects her eggs by piling a mound of leaves on top. If a predator comes snooping around, she'll quickly add more leaves and stand on top to guard her babies.

Watch out – this **Draco lizard** is on the move! Thin sheets of skin between its ribs act like a parachute as it glides to the next tree. Gliding is much faster than climbing up and down.

Wise **spiny terrapins** stay on their guard. They may have a hard, sharp-edged shell, but that's no defence against fierce neighbourhood predators like the saltwater crocodile.

Spiny terrapin

A **saltwater crocodile** lurks in the shadows. Its nostrils and eyes are on top of its head, so it can stay out of view while watching for something tasty to cruise by – like a nice, crunchy spiny terrapin . . .

Saltwater crocodile

CAN YOU FIND?

Small and dainty, the **green crested lizard** scuttles through the trees. Its bright green skin blends in with the background, but it turns brown when it's scared. There are six green crested lizards hiding, but how many of them are feeling frightened?

Tokay gecko

Beware a hungry **blue coral snake**! Its bright orange head and tail are a warning that it's very dangerous, with venom that can kill in minutes. Luckily, its favourite food isn't people, but other deadly snakes!

A strange sound can be heard in the rainforest. It's a colourful **tokay gecko**, named after the male's loud call of "to-kay, to-kay". He's calling out to attract a mate.

Blue coral snake

Anyone brave enough to put their head inside a **false gharial**'s mouth would be able to count more than 80 razor-sharp, pointy teeth.

False gharial

The **sailfin lizard** has a miraculous talent. When it takes fright, it heads to the river and runs across the water. It doesn't sink straight away because it runs so quickly and has big, wide feet that trap air beneath them.

Sailfin lizard

Reticulated python

The world's longest snake is about to take a dip. It's a **reticulated python** and it can grow to a monstrous 10 metres long. Female pythons lay their eggs in hollow trees and look after them until they hatch.

FEEDING

Of the thousands of reptiles around the world, some eat plants, some eat other animals, and some are omnivores and eat both!

MEET THE HERBIVORES

On the tropical island of Madagascar, there is plenty of plant life on the menu.

SWEET TOOTH

At night, **geckos** set out to find food. Some of them do hunt bugs, but others prefer the sugary liquid that flowers make, called nectar.

Radiated tortoise

Peacock day gecko

SLOW AND STEADY

Turtles and **tortoises** are slow-moving creatures, so they can't chase and catch fast-moving animals. That's why most of them munch on plants, or little bugs that they can snap up in their beak-like mouths.

Madagascar day gecko

Standing's day gecko

Phelsuma masohoala

CAN YOU FIND?

Brookesia chameleons hide from predators by pretending to be dead leaves, which is easy when you are brown, scaly and smaller than a thumb. How many can you count on this page?

MEET THE CARNIVORES

Snakes, crocodilians and lizards have some of the most impressive weapons and hunting skills in the animal kingdom.

Carpet python

SIT AND WAIT

Pythons and **boas** are **ambush predators**, which means they lie around waiting for their prey to wander past. With their patterned skin blending into the background, their victims never see them coming.

Veiled chameleon

ELASTIC TONGUES

Chameleons have the longest tongue of any lizard – up to one and a half times their body length! It comes in very handy for catching bugs that think they're safely out of reach. Their super-speedy sticky tongues shoot out like a slingshot – zap, crunch and gulp!

SPECIAL SENSES

We use our eyes and nose to see and smell food, but **pit viper snakes** have an extra super sense for tracking down their lunch. They have special pits beneath their eyes that can sense the heat coming off other animals' bodies.

White-lipped pit viper

Nile crocodile

A DEADLY DIVE

The **death roll** is the secret weapon of all crocodilians. Using their strong jaws, they drag their prey underwater to drown them, then spin around to tear the body apart.

KOMODO DRAGONS

Growing up to three metres long, the biggest lizard in the world is the mighty **Komodo dragon**. These ferocious predators live only on Komodo Island in Indonesia and other small islands nearby. They can swallow a goat whole and will later throw up everything they can't digest – leaving a stinking pile of teeth, fur, horns and hooves.

DRAGON WEAPONS

Komodo dragons have killer instincts and scary weapons to match their size and strength. They can run at top speeds of 20 kilometres an hour, but Komodo dragons rarely use their speed to hunt – they prefer to ambush their prey instead.

Teeth and **saliva:** Each Komodo dragon has nearly 60 teeth, serrated like a bread knife for maximum damage. They also have venomous saliva (spit), which finds its way into their victim's bloodstream once it's been bitten.

THE ATTACK

Komodo dragons don't mind waiting for dinner, because they can survive for days without eating. They spend hours on a forest track, hiding in the shadows while they wait for a pig or deer to come by . . . then, they pounce.

Senses: Komodo dragons can't see or hear very well, but they have a great sense of taste and smell thanks to their forked tongue.

Jaws: Strong jaws are good for crushing crunchy bones. A Komodo dragon can open its jaws very wide, which makes it easier to wolf down big chunks of food.

Claws: These can grow to four centimetres long and are sharp and curved, perfect for plunging into prey.

Muscles: Strong, sturdy legs and a powerful tail are useful weapons for scrapping with other Komodo dragons.

THE END

Brute strength allows the dragon to overpower its prey in seconds. It can devour up to 80 per cent of its own body weight in a single meal. Even if a pig, goat or deer manages to escape the predator's deadly grip, it will soon die from the effects of the venom.

CAN YOU FIND?

What's a Komodo dragon's favourite meal? Tender, juicy, *baby* Komodo dragons! Can you spot a baby dragon hiding from the grown-ups?

MEET THE FAMILY

Komodo dragons belong to a group of reptiles called **monitor lizards**. Monitor lizards, Mexican beaded lizards and Gila monsters are all part of the same family, a group of lizards called **anguimorphs**.

MEGALANIA

How would you feel about having a six-metre-long lizard as a neighbour? Forty thousand years ago, giant lizards called **Megalania** lived alongside people in Australia. They were twice the size of Komodo dragons.

GILA MONSTER

Despite their scary name, **Gila monsters** only use their venomous bite to defend themselves and their bright stripes warn predators to stay away – so not that scary, really. These lizards grow up to 50 centimetres long.

MEXICAN BEADED LIZARD

The **Mexican beaded lizard** is very venomous, but it's also very shy and is usually hidden away in its forest burrow. These lizards store fat in their oversized tails as an energy reserve. They can grow to nearly a metre long, but almost half of this is tail!

SUNSHINE, SHADE AND SLEEP

Reptile bodies work a bit differently to ours. To get out and about, they need to warm up their blood and muscles by lying in the sunshine, known as **basking**. But if they get too hot, they have to slip into the shade to cool down. That's why they are often on the move, scurrying from sunshine to shade trying to control their body temperature. In the winter, reptiles in very cold parts of the world get round this by having a long sleep, called **brumation**.

TEMPERATURE CONTROL

Human bodies stay at a steady temperature of 37°C. We control our temperature by making heat inside our bodies when we get too cold, and sweating to cool down if we are too hot. This makes us **warm-blooded animals**, just like birds and other mammals.

Fish, reptiles and amphibians can't make heat in their bodies or sweat to cool down, so their body temperature depends on the temperature of the air around them, and changes all the time. We call reptiles cold-blooded animals, but in fact their blood can be warmer than ours on a very hot day.

ON HOT DAYS...

... a reptile basks in the sunshine. It needs to be able to move quickly if it wants to hunt or escape from danger, but it can only do this once its blood and muscles are warm enough. Sunbathing reptiles have to be careful of sunstroke, though – if they get too warm, they need to find somewhere cooler to bring their body temperature down.

Rainbow agama

ON COLD DAYS...

... a reptile's muscles are too cold to work very well and it has to rest rather than go looking for food.

Luckily, reptiles don't use as much energy as warm-blooded animals, so most of them will happily go for days without eating.

Copperhead snakes

BRUMATION

WINTER SLEEPS

Most reptiles live alone, but in cold weather it's a good idea to huddle together for warmth. **European lizards** survive long, cold winters by finding a safe place to snooze through the coldest months. They don't have to eat, but they may wake up a few times if they get thirsty and need a drink.

WASTE NOT, WANT NOT

During brumation, the digestive system of some reptiles – like this **marginated tortoise** – slows right down. There's no point producing energy that's not going to be used.

SNAKE SLUMBER PARTY

When autumn comes, **copperhead snakes** return to their dens, which are usually hollow logs or spaces between rocks. Up to 100 of them huddle together, sharing their body warmth to keep winter chills away.

STAYING ALIVE

From the moment a reptile pokes it head out into the world, it has to be quick on its feet. There are hungry hunters everywhere looking for an opportunity to grab a scaly snack. Luckily, reptiles have lots of clever ways of staying alive.

HIDE!

Reptiles use all sorts of colours and patterns – stripes, spots, blotches and speckles – to **camouflage** their skin so it blends into the surroundings.

CAN YOU FIND?

There are 15 species of **leaf-tailed geckos** in Madagascar. The colour and texture of their skin is a perfect match for the lush rainforest surroundings. How many are hiding here?

MASTERS OF SURVIVAL

LOOK SCARY!

Bright colours also work as a warning sign. The red, black and white stripes on a **South American coral snake** tell predators to go away.

Milk snake

South American coral snake

LOOK SNEAKY!

Milk snakes are harmless, but they use cunning colours to fool predators into thinking they're as dangerous as a coral snake.

BE PRICKLY!

Armadillo lizards are covered in spiny scales. If they are attacked, they grab their tails in their mouth and curl into a prickly ball to protect themselves.

Armadillo lizard

LOOK SICKLY!

A **Texas horned lizard** makes itself look too gross to eat by squirting blood from its eyes. It's only 10 centimetres long, but predators steer clear of this tiny terror after such a shocking display.

Texas horned lizard

LOOK BIG!

When a **frilled lizard** is frightened, it opens its mouth wide and raises its huge neck frill. If looking big and scary doesn't work, it turns tail and runs for its life.

Frilled lizard

TAKE COVER!

Turtles and **tortoises** use their strong bony shells to stay safe. They pull their head and legs inside and wait for danger to pass.

Greek tortoise

BE DEADLY!

Many snakes are equipped with one of the best defences in the animal kingdom: venom. It's made in poison glands that are attached to the teeth. Some snakes even inject venom with special hollow fangs.

Black mamba

SOUND SCARY!

When a **rattlesnake** hisses, it's a warning to keep a safe distance. To make even more of a racket they shake the rattles on the tips of their tails, which are made of dead skin. Smart animals hear the warning and move off, fast.

Mojave rattlesnake

REPTILE PARENTS

Unlike mammals, which give birth to live young, most reptiles lay eggs. The females of many species then leave their offspring to fend for themselves, but others take the job of parenting more seriously. Before they start a family, though, reptiles have to attract a mate.

TECHNICOLOUR

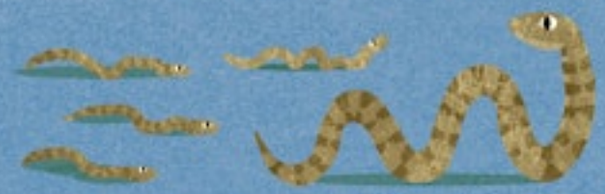
Veiled chameleons can switch from dull brown to rosy pink or brilliant blue in less than a minute. Males turn on the colour when they want to send a love rival on his way, or to show a female how handsome they are. When a female isn't keen to mate, her skin turns dull brown or black.

WHERE'S DAD?

Most reptile families start with a mother and a father, but female **mourning geckos** manage the whole process alone. Males are very rare, so females are able to make eggs without mating.

A GOOD MOTHER

A **timber rattlesnake** mum gives birth to little snakelets instead of laying eggs and takes good care of her babies. Sometimes she's helped out by her sisters, who are happy to babysit. When it's time for the snakelets to live alone, Mum shows them the best spots to make a den.



TOO HOT FOR BOYS

Alligator snapping turtles spend most of their lives in lakes or rivers, but in the summer, females bury up to 50 eggs in the sandy riverbank. If the summer is very hot, all the eggs will grow into female turtles. If the weather is cooler, the eggs will grow into males.

PARENTING SKILLS: NILE CROCODILES

1. It's mating time and adult **Nile crocodiles** gather by lakes and rivers. The males swish their tails around in the water and blow bubbles to show they are ready to attract a female. If the females enjoy the show, they join the males in the water. The couples swim together in a watery dance before they mate.

2. Once she's ready to lay her eggs, the female digs a hole in the riverbank. She lays up to 60 eggs in the hole and gently covers them with soil and grass to hide them from hungry predators.

3. For the next three months the mother stays with the nest night and day, lying on top and fighting off attackers if she needs to. She won't even leave to eat.

4. When the eggs are ready to hatch, the baby crocodiles call their mother from inside their shells. She hears their loud "umph umph" calls and starts to dig the eggs out of the nest.

5. Fathers sometimes help the hatchlings by gently rolling the eggs in their mouths until they break open.

6. The mother takes the baby crocs down to the river, carrying each one tenderly in her giant jaws.

7. The proud croc parents protect the hatchlings in the water, fending off crabs, fish, birds and mongooses. They look after their babies for about three months until they are big enough to live alone.

A TURTLE'S TRAVELS

The sun is setting on a warm tropical beach and a pile of sand begins to move. Buried deep beneath the surface, a tiny **leatherback turtle** baby is hatching. She is about to start an epic journey across the Pacific Ocean.

As the sun goes down, the Moon appears above the island of New Guinea in Indonesia. The Moon's silvery light is reflected on the water and it will guide this young female and her many siblings – up to 100 hatchlings in total – from their sandy nest towards the sea.

The baby turtle swims down to the seabed, where the water drags her out to the open ocean. She feeds on little plants and animals while the water pulls her further and further out to sea.

Leatherback turtles return to the beaches where they hatched to lay their own eggs. They probably use the Earth's magnetic field to find their way, but exactly how they do this is a mystery!

The waves sweep her up and carry her into deeper water, where fish gather in the hope of catching a snack. She is small enough to fit inside a teacup, so this is a dangerous time.

Once she reaches the beach the turtle will lay her eggs, carefully burying them in the sand. Then, she will shuffle into the water and head east, ready for a long journey back to the other side of the world.

The little turtle starts swimming across the Pacific Ocean and, after a few years, reaches shallow seas on the other side of the ocean, near Oregon, USA. There's plenty of food here, so she eats well and grows until she is 2 metres long. At this great size, she is too big for most predators to attack her.

Now it's time to head west, back to the beach in New Guinea where the turtle began her life. It takes her more than a year to travel across the Pacific Ocean. She swims an incredible 16,000 kilometres.

CAN YOU FIND?

In their early years, young turtles are in great danger of being eaten by birds, crabs, squid and fish, including sharks. Can you spot some predators searching for a snack?

REPTILES AND PEOPLE

There is a long history between reptiles and humans. In the past we have worshipped reptiles, often we fear them, and scientists have spent a lot of time studying them to find out more about the Earth and how it has changed over time. More recently, people are trying to find ways to live in harmony with reptiles, and learn more about how we can protect them and their homes for years to come.

MYTHS AND LEGENDS

All around the world, people have honoured reptiles in religion and mythology. Central American cultures featured a feathered snake-god called **Quetzalcoatl**, worshipped as the creator of the world and the god of winds and rain.

DINOSAUR FEVER

Everyone is fascinated by the most famous reptiles of them all – **dinosaurs.** The fossils of about 50 new species of dinosaur are being discovered every year. Scientists study them to learn more about how reptiles have evolved over time.

DEADLY REPTILES

Most reptiles aren't dangerous, but in some parts of the world humans have a good reason to fear them. Australia has more venomous snakes than any other country. Just a few drops of posion from an **inland taipan** could kill 100 humans.

REPTILES AT RISK

Reptiles may not be very cute or fluffy, but they still play an important role in our world. All over the planet, people are working hard to help reptiles survive and thrive. This is called **conservation**.

CITIZEN SCIENCE

In citizen science projects, groups of volunteers explore a local area to find and count different types of reptile. This helps scientists learn more about reptiles and find ways to protect them.

VOLUNTEER

In warm coastal places like Kefalonia, Greece, volunteers and scientists work together to protect sea turtle eggs as they hatch and guide the baby turtles to the sea.

BOUNCING BACK

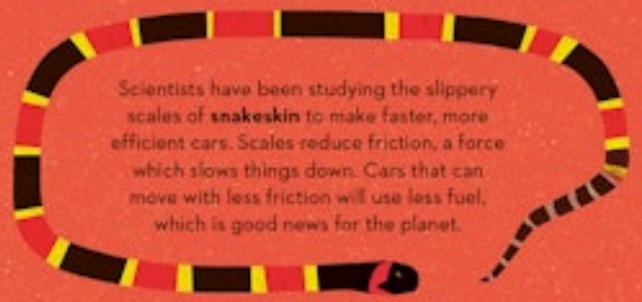
Thanks to conservation, some reptiles that were once nearly extinct are now thriving. Not so long ago there were fewer than 25 **blue iguanas** in the wild. Now there may be nearly a thousand! They live in the Cayman Islands in the Caribbean Sea.

A CHANGING WORLD

Reptiles are great survivors, but now they face some big challenges. If we help protect them and their ecosystems – both at home and far away – they could still have a bright future.

REPTILES AND TECHNOLOGY

Chameleons can change the colour of their skin. This skill could be used to make clothes that change colour in a flash! Scientists have already worked out how to make some fabrics change colour when the temperature changes.



Scientists have been studying the slippery scales of **snakeskin** to make faster, more efficient cars. Scales reduce friction, a force which slows things down. Cars that can move with less friction will use less fuel, which is good news for the planet.

For more than 2,000 years, doctors have used the **venom** of some reptiles to develop **medicines** that treat snake bites. Today, reptile venom helps make medicines to treat diabetes and blood diseases.

Geckoes are lizards with **sticky feet**. If we can find a way to copy the way they climb up walls and walk upside down on ceilings, then we can make new glues and robots that can climb up the sides of buildings, repair bridges or even clean satellites in space.

CAN YOU FIND?

This little gecko is critically endangered, which means it is at very serious risk of dying out forever in the near future. It's called ***Phelsuma antanosy*** and it lives in forests on the island of Madagascar. In recent years, large areas of forest have been cut down for farming and today there are fewer than 10,000 of these geckos left alive. But there is one ***Phelsuma antanosy*** hiding somewhere in this book!
Can you find it?