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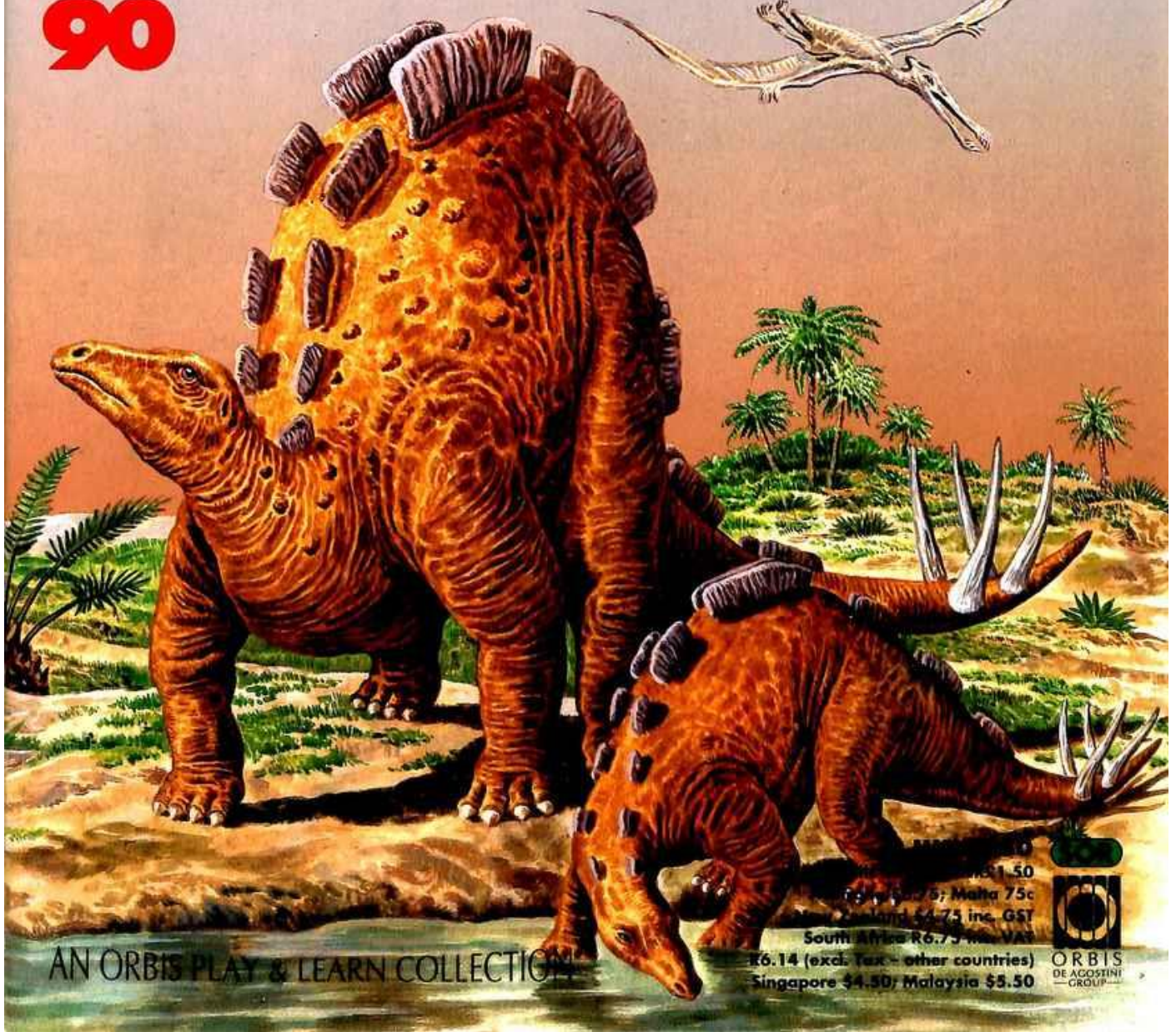


MRS ROCKET

# DINOSAURS!

• DISCOVER THE GIANTS OF THE PREHISTORIC WORLD •

90



AN ORBIS PLAY & LEARN COLLECTION

ISBN 978-1-85195-150-0  
 £6.14 (incl. postage); Malta 75c  
 New Zealand \$4.75 inc. GST  
 South Africa R6.75 inc. VAT  
 £6.14 (excl. Tax - other countries)  
 Singapore \$4.50; Malaysia \$5.50





# DINOSAURS!

• DISCOVER THE GIANTS OF THE PREHISTORIC WORLD •



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**DINOSAURS** is published by Orbis Publishing Ltd, Griffin House, 161 Hammersmith Rd, London W6 8SD © 1994 Orbis Publishing

**EDITORIAL & DESIGN** by Tucker Slingsby, 3G London House, 66-68 Upper Richmond Rd, London SW15 2RP

Nº90 94 12 22  
ISBN 0 7489 1690 3

Printed in Italy by Officine Grafiche De Agostini, Novara

## IDENTIKIT



# WUERHOSAURUS

Extraordinary, armoured dinosaurs such as *Wuerhosaurus* roamed the plains over 125 million years ago.

**W**uerhosaurus was a member of the stegosaur family. The stegosaurs were some of the strangest-looking dinosaurs of all. Mighty plates of bone jutted upwards from their necks, backs and tails. These plates were arranged in long rows and must have looked like bristling fences of armour.

## ODD ONE OUT

The stegosaurs evolved in the Early to Middle Jurassic Period, about 160 million years ago. They were successful plant-eaters and spread right across the world. Most seem to have died out by the end of Jurassic times, but *Wuerhosaurus* was an exception. The big herbivore appeared 30 million years later, in the Early Cretaceous Period.

## EAST AND WEST

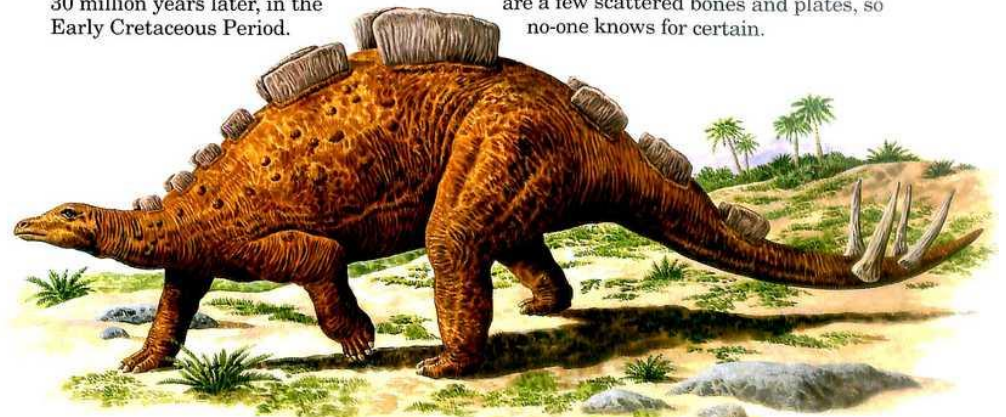
*Stegosaurus* is the best-known stegosaur. Well-preserved *Stegosaurus* fossils have been found all over North America, so scientists have a good idea of how the dinosaur might have looked. *Wuerhosaurus* lived on the other side of the world. It is one of several different varieties of stegosaur found in China.

## CHINESE PUZZLE

*Wuerhosaurus* puzzles scientists because it appeared 10 million years after most of the other stegosaurs had died out. Also, it has been difficult for the experts to get an accurate picture of what the dinosaur actually looked like.

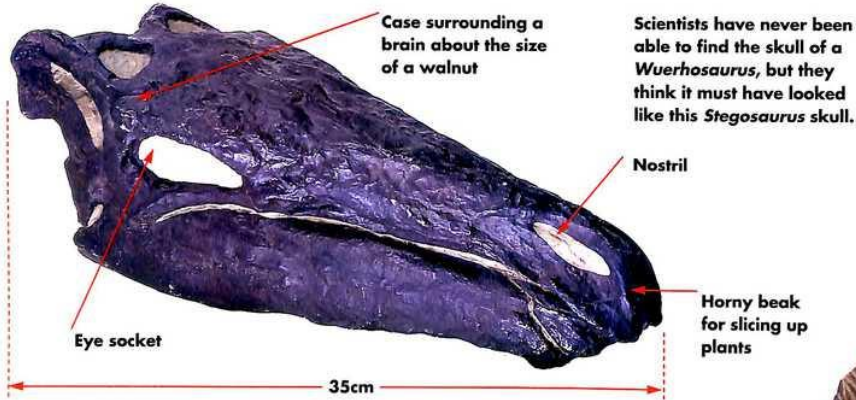
## DIFFERENT BREED

*Wuerhosaurus* probably looked different from most other stegosaurs. But, so far, all that has been discovered of this dinosaur are a few scattered bones and plates, so no-one knows for certain.



2137





Scientists have never been able to find the skull of a *Wuerhosaurus*, but they think it must have looked like this *Stegosaurus* skull.

**PLATE RACK**

*Stegosaurus* had two rows of broad, bony plates, which looked rather like huge arrowheads. *Wuerhosaurus* seems to have had a double row of lower, flatter plates, which looked like large spades.

**PIN HEAD**

All stegosaurus had tiny heads and massive bodies. *Wuerhosaurus* grew up to 6m long and weighed about 1.5 tonnes, but its tiny brain weighed less than 80g.

**LONG LASTERS**

The stegosaurus may have had tiny brains, but this was clearly all they needed. After all, they managed to survive for over 10 million years.

**IT'S A FACT**
**STING IN THE TAIL**

Slow-moving *Wuerhosaurus* would have been easy prey for a speedy meat-eater. But if cornered, this stegosaurus could have toppled an attacker by hitting it with its fearsome spiked tail.

**BIG APPETITE**

Stegosaurus were some of the most widespread and efficient plant-eaters of their time. As it was such a large creature, *Wuerhosaurus* must have spent most of the day feeding, in order to eat enough food to stay alive.

**MOVEABLE FEAST**

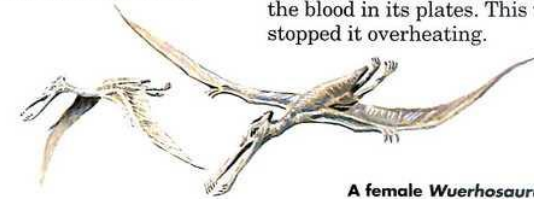
*Wuerhosaurus* lumbered around on all fours. It browsed on lush ferns, fleshy cycad 'flowers' and low-growing plants.

**TEMPERATURE CONTROL**

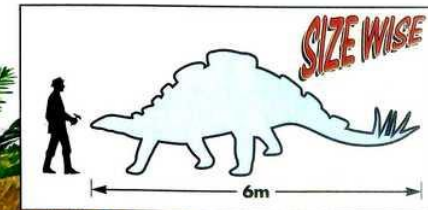
The bony plates on stegosaurus were richly supplied with blood. Some scientists believe the plates helped these creatures to control their body temperature.

**HOT AND COLD**

*Wuerhosaurus*' plates may have worked like solar-power panelling. It could have used them to store heat and so keep warm and give itself energy. Or, by standing in a breeze, *Wuerhosaurus* may have cooled the blood in its plates. This would have stopped it overheating.



A female *Wuerhosaurus* wanders down to a lake with her young. They drink and feed off the lush vegetation that grows all around, while the pterosaurs fly above their heads.


**MONSTER FACTS**

- **NAME:** *Wuerhosaurus* (wer-oh-saw-rus) means 'Wuerho lizard'
- **GROUP:** dinosaur
- **SIZE:** up to 6m long
- **FOOD:** plants
- **LIVED:** about 130 million years ago in the Early Cretaceous Period in China





# MAMMALODON

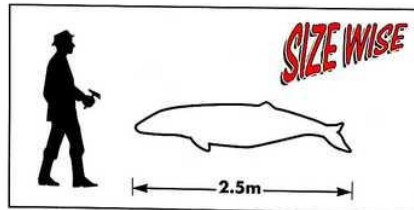
Sleek, streamlined *Mammalodon* was one of the earliest baleen whales.



Today's baleen whales have lots of thin plates in their upper jaws. These are made of whalebone, called baleen. The whales swallow mouthfuls of water and filter out food through the baleen.

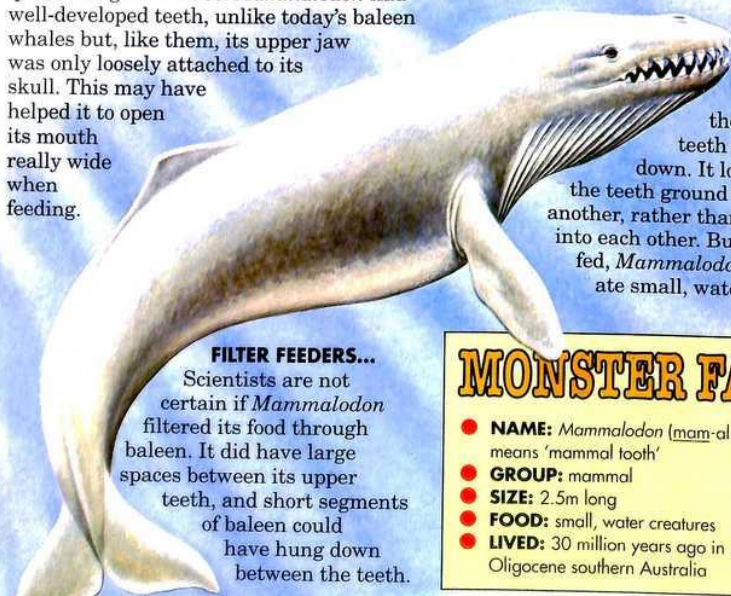
### TOOTHED ANCESTOR

*Mammalodon* was much smaller, at just 2.5m long, and more primitive than today's baleen whales. It had a short snout but quite a long brain case. *Mammalodon* had well-developed teeth, unlike today's baleen whales but, like them, its upper jaw was only loosely attached to its skull. This may have helped it to open its mouth really wide when feeding.



### ...OR A TOOTHY FILTER?

Some scientists have suggested that *Mammalodon's* upper and lower teeth fitted into one another to form a toothy filter. But other scientists think this is unlikely because of the way fossil teeth are worn down. It looks as if the teeth ground against one another, rather than slotting into each other. But however it fed, *Mammalodon* probably ate small, water creatures.



### FILTER FEEDERS...

Scientists are not certain if *Mammalodon* filtered its food through baleen. It did have large spaces between its upper teeth, and short segments of baleen could have hung down between the teeth.

## MONSTER FACTS

- **NAME:** *Mammalodon* (mam-al-oh-don) means 'mammal tooth'
- **GROUP:** mammal
- **SIZE:** 2.5m long
- **FOOD:** small, water creatures
- **LIVED:** 30 million years ago in Late Oligocene southern Australia



# PLATYHYSTRIX

A huge skin 'sail' rose up from the back of *Platyhystrix*.

### PLAIN SAILING

*Platyhystrix* had another useful weapon. The spectacular spiny 'sail' on its back was covered in skin. The amphibian would have been able to trap the heat of the early morning sun in the 'sail' and use it to warm up and give itself energy. So *Platyhystrix* could have been on the move at times when many of its attackers were still cold and sluggish.



About 300 million years ago, the warm, steamy climate of the Carboniferous gave way to the drier climate of the Permian. Amphibians such as *Platyhystrix* were quick to adapt to the new conditions.

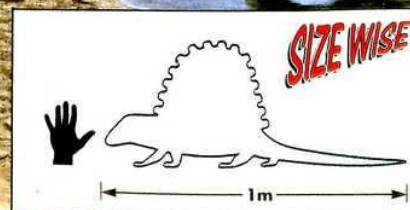
### SHELL SUIT

Many of the first reptiles that appeared in Early Permian times would have preyed on *Platyhystrix*. It was not totally defenceless, however. There was a tough covering of bony plates on its back.



### FROG FACE

Some of the early amphibians gave rise to the ancestors of today's frogs and toads. The sail-backed *Platyhystrix* had a frog-like look about its head and legs.



## MONSTER FACTS

- **NAME:** *Platyhystrix* (plat-ee-his-tricks) means 'with a flat web of tissue'
- **GROUP:** amphibian
- **SIZE:** 1m long
- **FOOD:** insects, worms
- **LIVED:** about 300 million years ago in the Early Permian in North America



# Atlas of finds Australia and New Zealand

Some amazing finds have been made in Australia and New Zealand, but many treasures are waiting to be discovered by future palaeontologists.

At the beginning of the Age of the Dinosaurs, Australia, New Zealand and Antarctica were joined together as one big continent. Dinosaurs lived all over this landmass. Gradually, the land began to split apart to make the continents we know today.

### RARE FINDS

Relatively few fossils have been found in this part of the world, but this makes the finds even more interesting. Some of the most important ones have been the remains of strange prehistoric animals found nowhere else in the world.

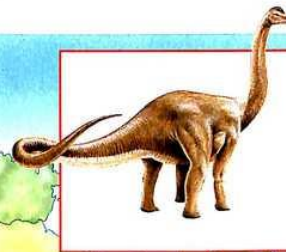
**Is it true** that some of the first animals to live on Earth were found in Australia?

Yes. In 1940, a geologist called R.C. Sprigg discovered 580-million-year-old animal fossils in the Ediacara Hills in south Australia. These simple animals lived in the sea and left disc- or leaf-shaped fossils. A new Period in Earth's history has been named after them – the Ediacaran Period.

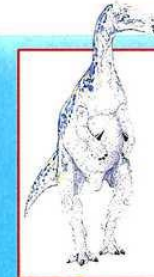
**ALCOOTA, NORTHERN TERRITORY**  
*Dromornis* (2) was probably the largest bird that ever lived. It was up to 3m tall and weighed around 300kg.



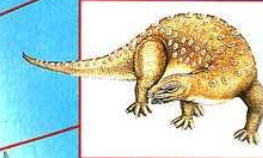
**MAXWELTON, QUEENSLAND**  
*Austrosaurus* (3) was discovered in 1932, but because so few bones of this sauropod were discovered, very little is known about it.



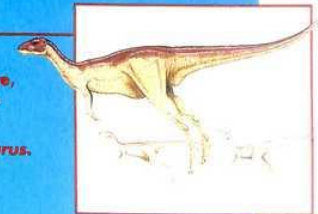
**MUTTABURRA, QUEENSLAND**  
*Muttaborrasaurus* (4) is Iguanodon's Australian cousin. This 7m-long plant-eater strode across Queensland about 150 million years ago.



**MINMI CROSSING, QUEENSLAND**  
Ankylosaurs were widespread in the rest of the world, but only two have been found in the southern hemisphere. *Minmi* (5) was found in 1980.



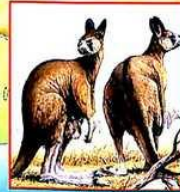
**NEW SOUTH WALES**  
*Fulgurotherium* (6) is a rare, plant-eating dinosaur that lived at the same time as *Minmi* and *Muttaborrasaurus*.



**ALCOOTA, NORTHERN TERRITORY**  
*Diprotodon* (1), a hippo-sized wombat, may have been the largest marsupial (animal with a pouch) that ever lived.



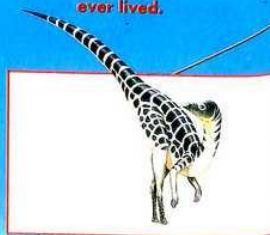
**NEW SOUTH WALES**  
*Procoptodon* (7) was the biggest kangaroo that ever lived.



**DINOSAUR COVE, VICTORIA**  
*Añascoprosaurus* (9) was a plant-eater that lived about 105 million years ago.



**DINOSAUR COVE, VICTORIA**  
In the steep southern cliffs, Tom Rich discovered *Leaellynasaura* (8), named after his daughter Leaellyn.



**NEW ZEALAND**  
*Carcharodon megalodon* (10) was a 12m-long shark that lived about 40 million years ago.





**PREHISTORIC JAWS!**

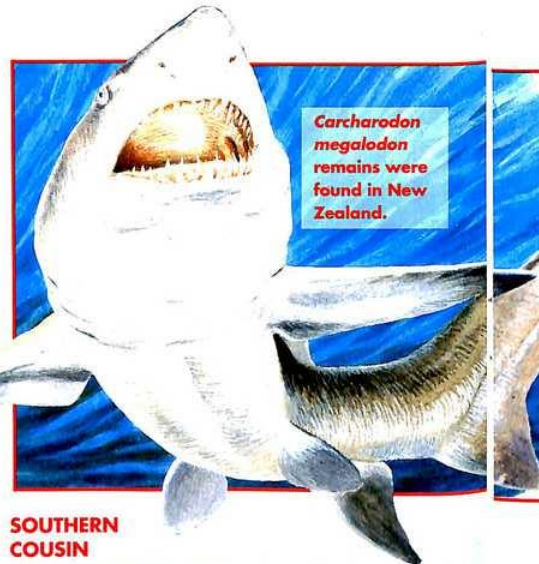
Fossilized prehistoric creatures are even more rare in New Zealand than they are in Australia. Only one dinosaur bone has been discovered so far, but among the fascinating prehistoric animal remains found there, one of the most impressive is of a giant shark. *Carcharodon megalodon* lived about 40 million years ago and was twice as long as the terrifying 6m-long pointer shark that lives off the coast of New Zealand today.

**OTHER FINDS**

In addition to the Australian dinosaurs shown on the map, remains of others have been found. These include *Agrosaurus*, *Allosaurus*, *Kakuru*, *Rapator* and *Timimus*.

**SUPER TRACKERS**

Scientists know that more dinosaurs lived in Australia than have been discovered so far. How do they know? Because the dinosaurs have left their footprints and trackways. Now all the palaeontologists have to do is find the dinosaurs...



*Carcharodon megalodon* remains were found in New Zealand.

**SOUTHERN COUSIN**

*Muttaburrasaurus* was an important find for two reasons: it is Australia's most complete dinosaur skeleton, and it is related to *Iguanodon* and *Camptosaurus*, proving that dinosaurs of this type lived in the far south as well as in the north.

This trackway (left) was found in Queensland. It shows footprints of smaller dinosaurs covering one made by a big meat-eater.



**AUSTRALIAN MONSTERS**

So few bones of *Austrosaurus* have been found that nothing about it is certain, except that it was a sauropod and lived in the Cretaceous Period. Scientists think that *Austrosaurus* may have grown to 18m long and weighed about 30 tonnes. Although it was not closely related to *Apatosaurus*, *Diplodocus* or *Brachiosaurus*, experts think that it looked like these sauropods. Another sauropod, *Rhoetosaurus*, was found in Queensland, Australia. It lived earlier than *Austrosaurus*, in the Jurassic Period.



*Austrosaurus* (above) was an Australian sauropod from the Cretaceous Period.

**DANGEROUS DIG**

Digging bones out of the cliffs, high above a pounding sea, was dangerous work for Tom and Patricia Rich, but it was worth it. They found the remains of chicken-sized *Leaellynasaura* – one of the hypsilophodontid dinosaurs, a group nicknamed the dinosaur gazelles.

**BONY BITS**

The Australian ankylosaur *Minmi* probably had scutes (plates of bone embedded in the skin) from head to foot. So far, only part of its back and a foot have been found, so scientists can say very little for certain about this small plant-eater.

**DRIFTING AWAY**

When Australia separated from Antarctica, it became isolated from the rest of the world. Many animals, such as monotremes (egg-laying mammals) and marsupials, such as kangaroos, evolved in isolation, too. They are found nowhere else in the world. *Procoptodon* was a kangaroo that lived about 25,000 years ago.

**IT'S A FACT**

**DINOSAUR TREASURE**

Opal is a semi-precious stone mined in several parts of Australia. Opalised fossils have been found in the mines. These fossils have undergone chemical changes that turn them into opal. This usually happens to fossilized marine animals, but it can also happen to dinosaur teeth and bones. One of the best finds was a complete plesiosaur skeleton made of opal.



# GIANTS OF THE PAST

## WUERHOSAURUS

Two *Wuerhosaurus* are feeding on the lush vegetation in Late Cretaceous China. One leans forward to drink from the shallow waters, completely unaware of the danger gliding through the water towards it. Slow-moving *Wuerhosaurus* will probably be easy prey for the vicious crocodile that is swiftly closing in for the kill. The plant-eater's only hope might be a well-aimed blow with its fearsome spiked tail.

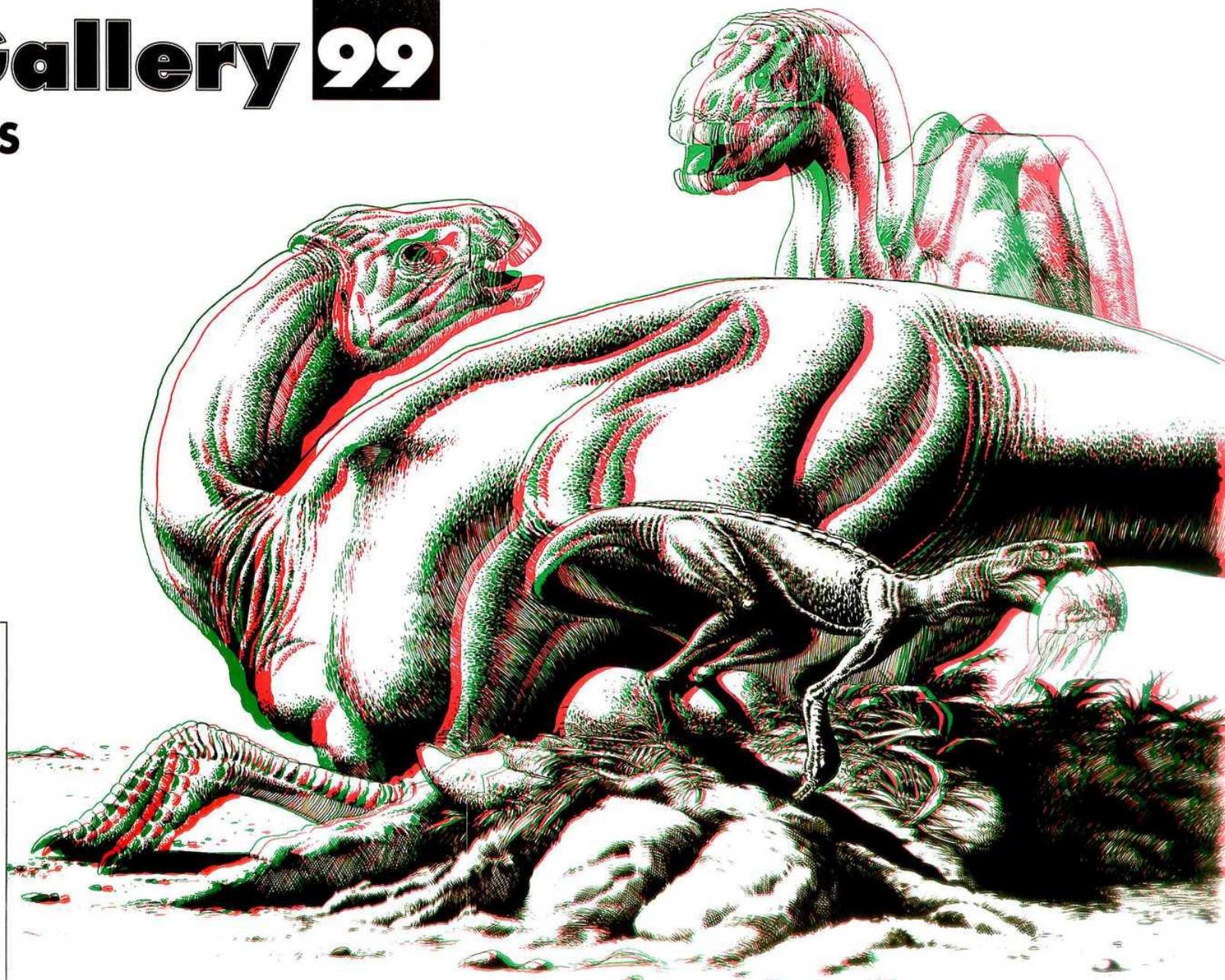
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2147



# 3-D Gallery 99

## DRYOSAURUS



*Dryosaurus* is standing guard by her eggs, which are easy pickings for predators. Distracted by another member of the herd, she does not see an agile little crocodilian reptile grab one of the eggs in its sharp teeth as it speeds past. Having no fear of the peaceful plant-eater, the reptile will soon return for another delicious snack.



# Dinosaur stampede

**How can you keep a collection of the largest creatures that ever lived? By collecting stamps of dinosaurs in an album, of course!**

**W**hy are dinosaurs pictured on stamps? The answer is simple – because they are so popular! Countries all over the world try to issue stamps that will encourage people to collect them, rather than just stick them on letters.

### FIRST ISSUE

The first stamps to show dinosaurs were issued in Poland in 1965. The brightly coloured set, called 'Prehistoric Animals', showed six exciting creatures – *Edaphrosaurus*, *Cryptocleidus*, *Brontosaurus*, *Mesosaurus*, *Stegosaurus* and *Brachiosaurus*.

### ANNIVERSARY STAMPS

Some dinosaur stamps are produced for special occasions. For example, the British set illustrating dinosaur skeletons commemorated the 150th anniversary of the first proper classification of dinosaurs, in 1841.

2150

### 100 YEARS

Another set of commemorative stamps was issued in the United States in 1970, to mark the centenary (100th anniversary) of the American Museum of Natural History.

### PREHISTORIC CANADA

A special series of Canadian stamps, called 'Prehistoric Canada', has been issued over several years. The dinosaurs featured were all found in Canada.

### STAMPS FOR FUN

Collecting stamps on one subject is called thematic collecting. It is now one of the most popular ways to collect them. There is no need to limit your thematic collection to commemorative stamps. Many countries have realised that dinosaurs are a good subject for collectors at any time. New Zealand, Uganda and Tanzania are just some of the countries to produce dinosaur stamps.

A set of four stamps from the 'Prehistoric Canada' series.

### BUYING STAMPS

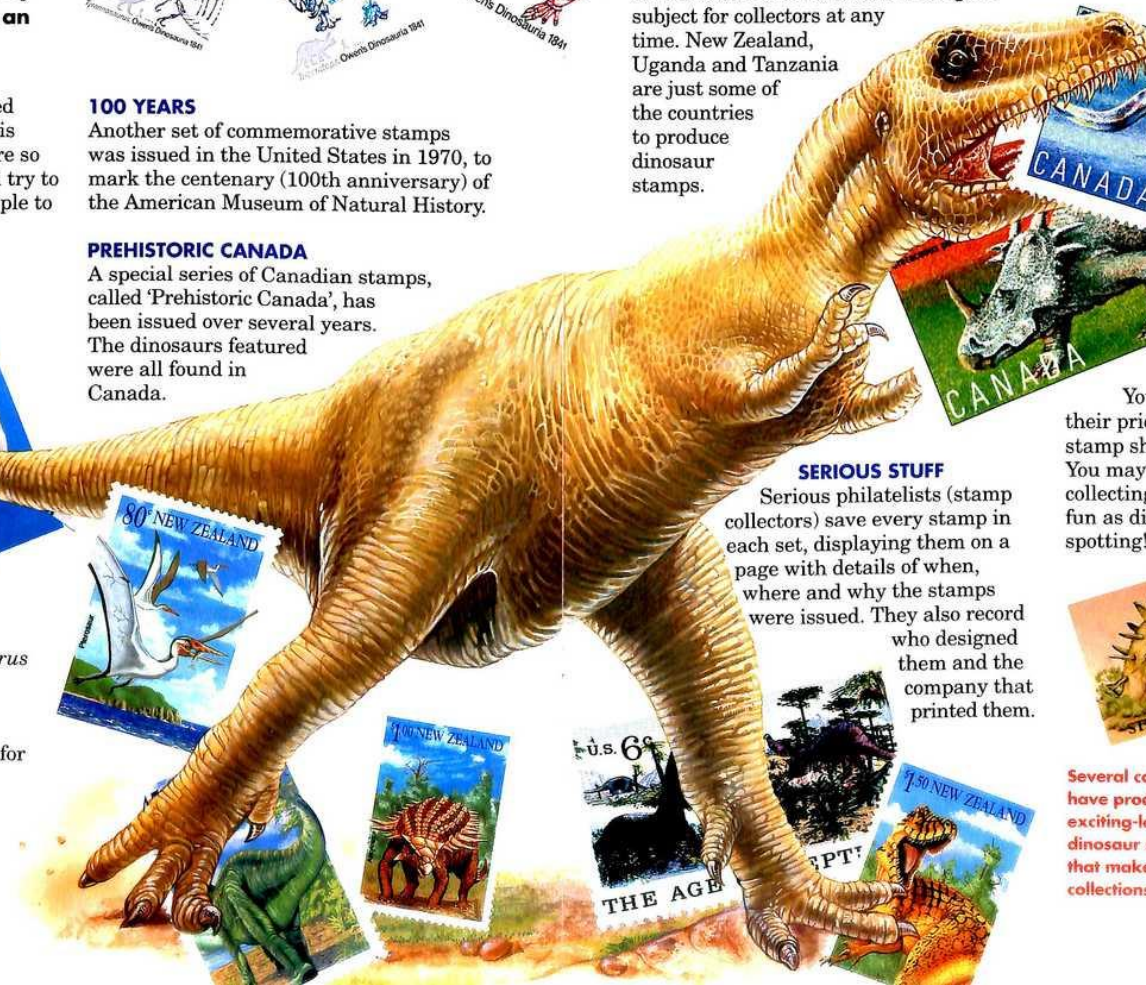
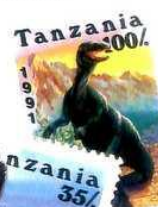
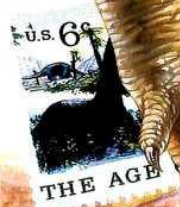
So where can you buy dinosaur stamps? Look out for advertisements in stamp magazines for dealers specialising in thematic stamps.

You can then write off for their price lists. Alternatively, try stamp shops or local stamp fairs. You may find that stamp collecting is just as much fun as dinosaur spotting!

### SERIOUS STUFF

Serious philatelists (stamp collectors) save every stamp in each set, displaying them on a page with details of when, where and why the stamps were issued. They also record who designed them and the company that printed them.

Several countries have produced exciting-looking dinosaur stamps that make fun collections.



2151



# Wild things?

If dinosaurs were alive today, could they be tamed to become pets? Let's imagine dinosaurs are still around, and take a look and see.

**M**any dinosaurs would, of course, be much too big and dangerous to keep as pets. However, some of the smaller varieties would fit perfectly into your home.

### EASY FEEDER

*Heterodontosaurus* would make a good pet. This dinosaur was about 1m long and, unless in a hurry, it walked around on all fours. It was a plant-eater and would be easy to feed. *Heterodontosaurus* could eat anything a goat eats.

### CUDDLY COMPANION

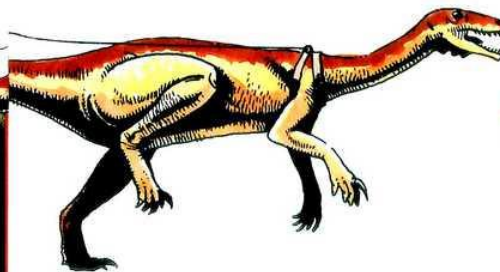
*Heterodontosaurus* was not at all aggressive and would probably be quite an affectionate and playful pet. It might even sit and watch telly with you!



### TUSK, TUSK!

The male *Heterodontosaurus*, however, had a sharp pair of tusks in each jaw. Although these were normally only used when fighting other males, they might cause nasty wounds to humans, too. So it would make sense to keep a female as a pet. Even professional breeders would have to be careful with the males.

Like a dog, *Anchisaurus* would need lots of exercise. It moved at a brisk pace and would make an ideal pet for a jogger.



Non-aggressive *Heterodontosaurus* (left) would make a perfect pet for children.

As playful as a cat, *Compsognathus* would be a fun pet. But it might make a tasty snack of your other pets, such as goldfish!



### BIT OF A HANDFUL

*Compsognathus* would be small enough to keep in a flat. Non-aggressive, it would be perfectly safe with children. However, this light, agile creature was a greedy predator, feeding on mammals, lizards, insects...and anything else it could get its hands on. Its grasping fingers could become a real nuisance.

### PLENTY OF GREENS

*Anchisaurus* may seem a little too big for a pet, but most of its 2m length was tail. Although it was mainly a meat-eater, *Anchisaurus* had a liking for plant food and would need lots of vegetables to eat.

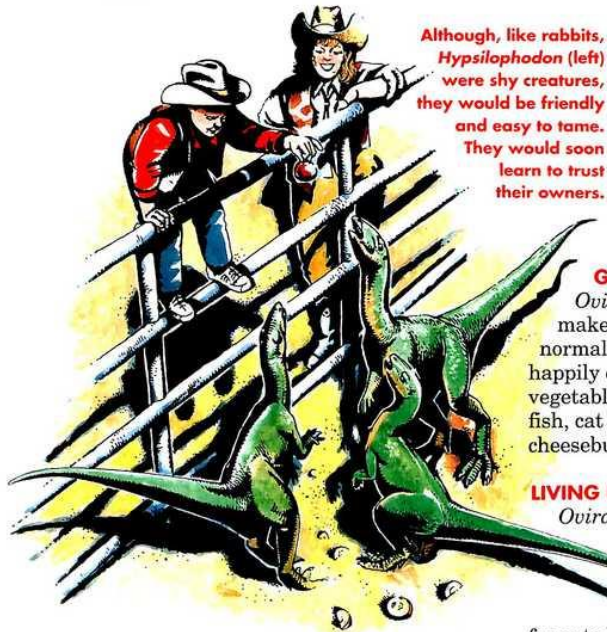
### JOGGER'S PET

*Anchisaurus* would need to be exercised every day. It walked on all fours, but ran on its hind legs. *Anchisaurus* would make a very good pet for joggers – but they would need an elasticated leash!

### NOT TOO BRIGHT

*Anchisaurus* had a very small brain and was not very clever. It probably had a very bad memory, too, so it would be likely to get lost and forget who its owner was! You would not be able to train it to do anything useful, but it would be affectionate.





Although, like rabbits, *Hypsilophodon* (left) were shy creatures, they would be friendly and easy to tame. They would soon learn to trust their owners.



**GOOD APPETITE**

*Oviraptor*, a 2m-long dinosaur, would make an unusual pet. Although it was normally an egg-eater, *Oviraptor* would happily eat almost anything except for vegetables. It would love eggs, of course, fish, cat food, dog food, corned beef and cheeseburgers, but would hate spicy foods.

**LIVING ROOM**

*Oviraptor* would be a very entertaining pet, but it was so fast and agile that you would need to give it lots of space. You would also need a strong fence to keep it in, so it couldn't escape.

**DINOSAUR BORE**

Although a bit boring, *Hypsilophodon* would make a very safe pet. It would be easy to tame and friendly, if rather timid to start with. *Hypsilophodon* ate mainly fruit and leaves, and didn't like grass. It was also a very fast and agile sprinter. It would be best to keep *Hypsilophodon* outside – it might die if it did not have space to run around in.

**Is it true**

that prehistoric humans kept dinosaurs as pets?

No. Dinosaurs died out about 60 million years before the first humans evolved. The cartoon character Fred Flintstone's pet dinosaur, Dino, is a figment of our imaginations!



You would have to keep *Oviraptor* away from other, smaller animals, or they might become quick snacks!

**LIGHT-FINGERED**

*Oviraptor* was also very inquisitive and could use its long fingers to snatch up anything it found interesting. It might be a bit of a menace in this way, but if you took precautions, *Oviraptor* would make a lovely pet. You would have to keep food, and smaller animals, out of its way.

**FRIENDLY PET**

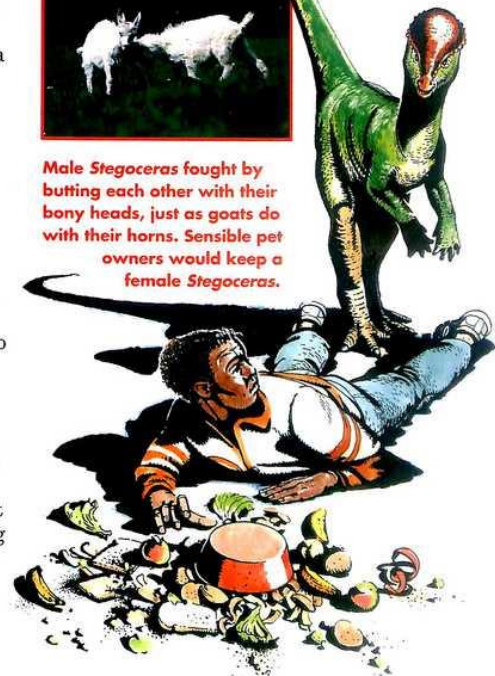
If you would like a friendly and (usually) harmless pet that is pretty and easy to feed, *Stegoceras* would be ideal. It was about 2.5m long and 1.5m high. A tough little creature, *Stegoceras* walked on its hind feet. As it was a herding dinosaur, it would be very fond of company. It would become friendly and affectionate, happy to wander around holding hands with you.

**PULLING POWER**

When *Stegoceras* wanted to move quickly, it leant forward, head down, and sprinted really fast. It could certainly run much faster than a person. As your pet, it might set off at a fast pace, forgetting everything else, including letting go of your hand. Or if you startled it when holding its hand, you might get dragged off at high speed wherever it decided to go. So you would always have to be careful.



Male *Stegoceras* fought by butting each other with their bony heads, just as goats do with their horns. Sensible pet owners would keep a female *Stegoceras*.



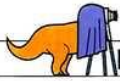
**REGULAR MEALS**

*Stegoceras* would be easy to feed, but would need to eat regularly every day. It could live on leaves, plants and grass.

**A HEAD-BUTTER**

There would be one major drawback to keeping a *Stegoceras*. In the wild, the males fought by butting each other with their bony heads. If you bent down to fill the food bowl of a male *Stegoceras*, your not very bright pet might mistake you for a rival. And you can guess who would win!





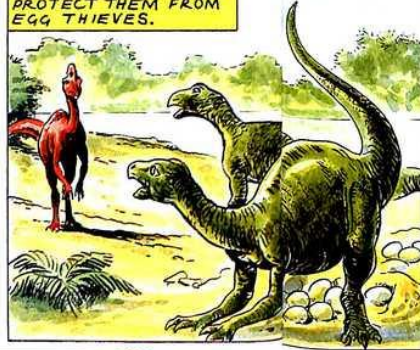
# A DAY ON EGG MOUNTAIN

LATE CRETACEOUS NORTH AMERICA SHORTLY AFTER THE MATING SEASON, AND SOME DINOSAURS ARE ON THE MOVE.



SOME ORODROMEUS LAY THEIR EGGS CLOSE TO THE EDGE OF A LAKE, MAIASAURA PREFER DRIER LAND AND TRUNDLE FURTHER UP THE MOUNTAIN.

ADULT ORODROMEUS STAY WITH THEIR EGGS UNTIL THEY HATCH, TO PROTECT THEM FROM EGG THIEVES.



IMMEDIATELY AFTER THEY HATCH, THE BABY ORODROMEUS CAN RUN FROM THE NEST TO SEARCH FOR FOOD, LEAVING ALMOST INTACT EGG SHELLS BEHIND.



BUT THERE ARE SO MANY BABIES THAT THEIR PARENTS ARE UNABLE TO PROTECT THEM.

THE NEWLY HATCHED BABIES ARE EASY PREY FOR HUNGRY MEAT-EATERS, SUCH AS TROODONS, WHO INSTINCTIVELY KNOW WHEN THERE WILL BE EASY FOOD AT THE NESTING SITE.



MEANWHILE FURTHER UP THE MOUNTAIN, THE MAIASAURA EGGS ARE STARTING TO HATCH.



BUT UNLIKE THEIR ORODROMEUS COUSINS, HATCHING MAIASAURA ARE UNABLE TO FEND FOR THEMSELVES.

NEWLY HATCHED MAIASAURA STAY IN THE NEST UNTIL THEY ARE STRONG ENOUGH TO LEAVE. WHILE THEY WAIT FOR THEIR MOTHERS TO BRING THEM FOOD, THEY ROLL AROUND, SMASHING THE EGG SHELLS INTO FRAGMENTS.



EVEN WHEN THEY LEAVE THE NEST, YOUNG MAIASAURA STAY WITH THEIR MOTHERS FOR SOME TIME.

ONE MOTHER TAKES HER YOUNG TO A CLUMP OF GREENERY SOME DISTANCE FROM THE NESTING SITE, WHERE SHE IS SPOTTED BY TWO VORACIOUS TROODON.



AS SHE TURNS TO FACE HER ATTACKER, THE MOTHER MAIASAURA LEAVES HER YOUNG MOMENTARILY UNDEFENDED.



SEIZING ITS CHANCE, THE SECOND TROODON SPRINTS IN, CLAWS READY TO STRIKE.

ON HER OWN, THE MAIASAURA IS POWERLESS TO STOP THE TROODON MAKING OFF WITH HER YOUNG. THE TROODON PICK THE BONES CLEAN, UNAWARE THAT PREDATOR IS ABOUT TO BECOME PREY.



A FEARSOME ALBERTOSAURUS SCENTS BLOOD IN THE AIR. THE TROODON ARE NO MATCH FOR THIS BRUTAL KILLER, AND AS IT SINKS ITS TEETH INTO ONE TROODON'S LONG, SLENDER NECK, THE OTHER SPRINTS TO SAFETY.



A YEAR LATER, THE ORODROMEUS AND MAIASAURA WHO HAVE SURVIVED, INSTINCTIVELY HEAD FOR THE SAME NESTING GROUNDS THEY USED THE YEAR BEFORE, AND THAT FUTURE GENERATIONS WILL USE YEARS FROM NOW.





# Improve and test your knowledge with... FACT FILE

*Dimetrodon* holds all the answers. See how you score in the quiz.

## Changing camels

Camels used to be the most important grass-eating mammals around. There were rabbit-sized camels, antelope-sized camels and elephant-sized camels, everywhere from Africa to North America. Today, their places have been taken by antelope and deer, and the only camels left are a few specialised desert and mountain species.

## Neck protection

*Triceratops'* neck vertebrae were quite lightly built, possibly to allow the dinosaur to pull at vegetation using a twisting motion. This made the neck quite vulnerable. In the 1920s, Professor Tait suggested that *Triceratops'* frill developed as a protection for it.

**5** How long was *Scutosaurus*?  
a) 25m  
b) 25cm  
c) 2.5m

**4** What did *Platyhystrix* have on its back?  
a) a spike  
b) a sail  
c) a hump

**3** *Leaellynasaura* was named after:  
a) its discoverer's daughter  
b) the place it was found  
c) a pet newt

**2** What kind of creatures were teratosaurids?  
a) dinosaurs  
b) crocodile-like reptiles  
c) birds

**1** Where was the famous 'Egg Mountain'?  
a) North America  
b) Egypt  
c) Switzerland

**Thick-skinned**  
The dried-up skin of giant sloths has been found in caves in Argentina. It is studded with tiny bones, making it as tough and as flexible as chain mail.

**6** *Oviraptor's* favourite food was:  
a) mushrooms  
b) bacon  
c) eggs

**7** Which is the most complete Australian dinosaur skeleton?  
a) *Austrosaurus*  
b) *Mullerburrasaurus*  
c) *Carcharodon megalodon*

**8** The first stamps to show dinosaurs were issued in:  
a) Frankfurt  
b) Poland  
c) Hungary

**9** *Stegosaurus* had a brain the size of:  
a) a walnut  
b) an orange  
c) a melon

**10** What is another name for balen?  
a) whalebone  
b) wishbone  
c) bone marrow

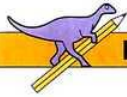
## Making a point



The dinosaur *Huayangosaurus* was discovered in Sichuan, central China, in the early 1980s. Unlike later stegosaurs, which had toothless snouts, this Mid-Jurassic stegosaur had seven teeth on each side of the front of its jaw. A pointed horn near the eye may have been found on male *Huayangosaurus* only.

Answers to the questions on inside back cover

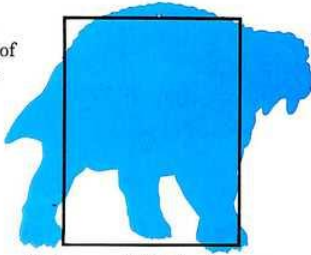




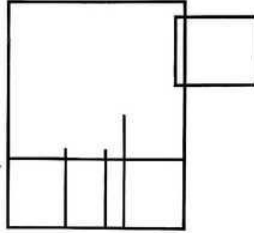
## HOW TO DRAW

# SCUTOSAURUS

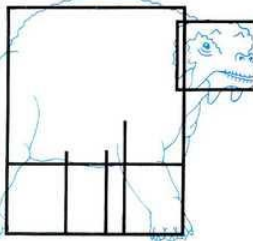
**1** This view of *Scutosaurus* shows the reptile from the side. The main part of the body has a very box-like shape. So, in pencil, lightly draw a large rectangle in the middle of your paper.



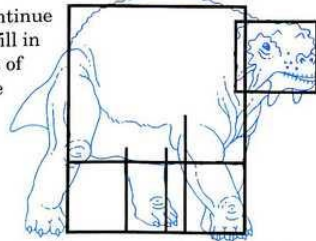
**2** Next, look at where the head and legs join the body. Draw a much smaller square for the head, and lines to show where the legs go. There isn't a gap between the front legs, so just draw one line for both of them.



**3** Now you can begin to fill in the outline of *Scutosaurus*, following the guidelines you drew in steps 1 and 2. Draw in the body first, then the outline of the two legs nearest you. Do not press down too hard with your pencil, so you can rub out any mistakes you make without leaving a mark.



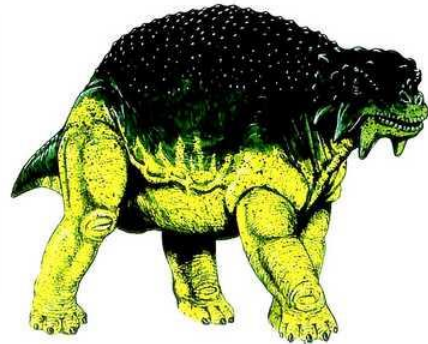
**4** Continue to fill in the details of the outline and draw the tail. Try to draw the wrinkles and folds in the skin, too. When you are happy with the outline, colour in *Scutosaurus* with felt-tip pens, colouring pencils or paints.



## Fact box

*Scutosaurus* was a large, plant-eating reptile with a spiked head and body armour.

- **NAME:** *Scutosaurus* (skoo-toh-saw-rus)
- **GROUP:** reptile
- **SIZE:** 2.5m long
- **FOOD:** plants
- **LIVED:** about 260 million years ago in the Late Permian Period in Russia

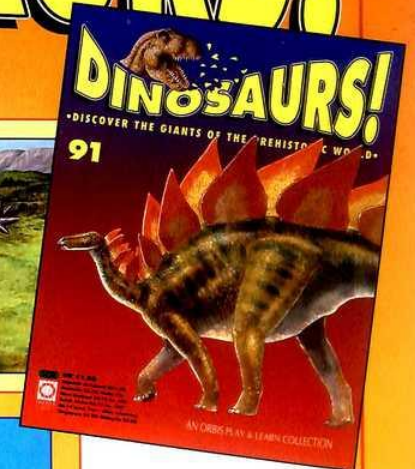
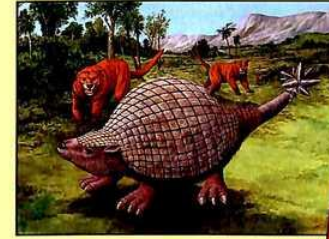


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COMING IN PART 91 OF

# DINOSAURS!

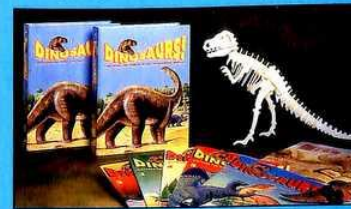
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ANSWERS TO FACT FILE QUESTIONS: 1.a. 2.b. 3.a. 4.b. 5.a. 6.c. 7.b. 8.b. 9.a. 10.a.



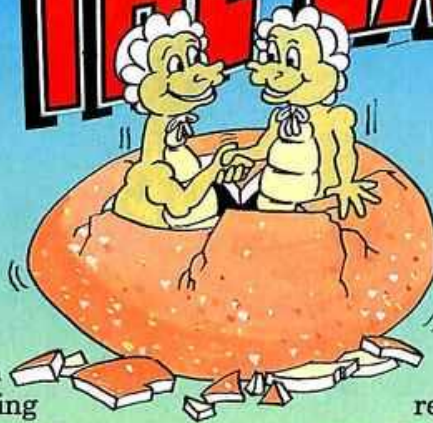
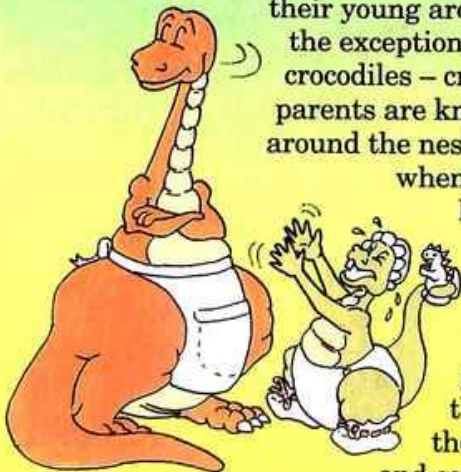


Dr. David Norman of Cambridge University answers your dinosaur questions

# ASK THE EXPERT

## Did any dinosaurs carry their young around with them?

Caring for young, and particularly carrying them around, are ways of behaving that we normally associate with mammals (creatures like ourselves). Reptiles, the general group of animals to which dinosaurs belonged, do not normally show much evidence of carrying their young around. With the exception, that is, of crocodiles – crocodile parents are known to stay around the nest at the time when the young hatch out. As soon as the young have hatched, the adults gently pick them up in their mouths and carry them off to a special nursery area. Here, the young crocodiles are kept safe from predators for the first few weeks of their lives. However, I think this is a very exceptional example of reptiles carrying their young around. It seems very unlikely that dinosaurs behaved in this way.



## Could dinosaurs have laid double-yolk eggs?

Since chickens can lay double-yolk eggs, and birds are apparently quite close relatives of dinosaurs, it seems quite likely that dinosaurs would have laid double-yolk eggs from time to time. So, there may have been dinosaur twins.

## Were teratosaurids dinosaurs or reptiles?

We only know of teratosaurids from bits and pieces of Late Triassic bone and teeth. They are a group of animals that were once thought to be some of the earliest dinosaurs. When their fossil remains were closely compared to reptiles that lived at the time, however, experts realised that the bones belonged to creatures called raiisuchians. These were large, crocodile-like, meat-eating reptiles that belonged to the ruling reptile family of archosaurs. So, teratosaurids were not dinosaurs.

