Vol. 18 No. 3



150

NATURE NOTES

EDITORIA

Hello there.

As the weather gets wetter and wetter, it's easy to wish that summer was here again, isn't it? Cheer up! Nothing lasts forever and this is especially true of nature. Changes are taking place all around us and it's easy to overlook many of them. Some of the daily changes happen--ing in nature are not so easy to forget. are they? Can you name three changes that



happen every day? What about the changes that happen every few months to the plants and animals in your garden? Perhaps you could make a monthly survey of a particular area near your home or school to find out what changes are occuring there. A picture chart might be a useful way of recording the information you gather.

Of course, its just not possible for us humans to watch the very slow changes that are happening in nature all the time. Many of the 'change stories' in this month's magazine unfol--ded over millions of years. The dinosaurs were only one group of animals to die out completely, never to be seen a--gain. What is the word which describes this 'dying out'? Are any animals today in danger of becoming ex....?Why?What part do humans play in the killing off of certain types of plants and animals? Perhaps you could use your library to find out what happened to the Dodo, the Moa bird and the Tasmanian tiger. Why are some people against whaling? I'll now leave you with the task of finding out the ans--wers to these questions. As long as the bad weather keeps up, I'm sure you'll find a cosy library one of the nicest places to be. Cheerio for now, FRONT COVER PHOTO: Thanks to

Debra Brydon' ACCOUNTRY CONTRACTOR OF THE STATE OF THE STA

'The Day of the Dinosaur'p.113 poppopport poppopp

Page 1 NATURE NOTES..... A RINGWOOD INSPECTORATE PUBLICATION

From blobs to brains... by D. Brydon.

DRAWINGS: W. PROHASKY

THE STORY OF CHANGING LIFE THROUGH THE AGES.

If you expect this cartoon to tell you what the first animals looked like, forget it!Nobody knows. Of course, you can't stop scientists from making guesses and their guess is that the first animals (our ancestors) were soft and mushy blobs. This is maybe why scientists can't find any fossils of animals living in the first 4450 MILLION years of the Earth's life. These sloppy animals were ...

... just not tough enough to get their pictures into the history books. where's my riame? HISTOR

Over millions of years,

into animals with back-

Page 2

some of these changed

-bones.

WORLD

Trilobites were one of Trilobites shared their sea home the first sorts of with other plants and animals... animals to leave foss--ils for us to dig up. .=== Some of these are still found Their skin was hard living in the sea today. The first new arrivals had shells or a chalky skeleton of coral.

During the next few million years, the trilobites continued to crawl over the sea floor but there were new creatures, too. annan manager and a second second



THIS'N THAT

THE KING THAT WAS NOT

Tyrannosaurus rex (his name means 'king of the tyrant rep--tiles') has been the star of many monster movies. In these movies, unlucky visitors to the past fear the worst and say their good-byes when T-rex. appears on the scene. Time and time again, they are saved from being torn to pieces by the arrival of dinosaur No.2 who saves them by becoming T-rex's next meal.

Every year, scientists find out more and more about dinosaurs. Many of them feel that the rep--tile king does not deserve the 'crown' he was given in the days when he terrorised the film sets of Hollywood.Instead of towering above the trees in an upright pose, many scientists now believe that Tyrannosaurus rex stood horizontally with his tail not on the ground but up in the air .His head would have have been no higher than a human's head off the ground. He was made out to be.Almost all of the other sorts of dinosaurs could have outrun him.But let's suppose that one day T-rex did outrun and catch himself a meal.It would probably be just a waste of good meat because his teeth were strong enough only for eating, not for killing.They would have snapped off in battle and where would T-rex be then?For a while, some scientists thought that the vicious claws capping his



Some scientists today believe that T-rex was not the sprinting champ' the movies made him out to be. In fact, it is now thought that he could not run at all because of his enormous weight.Footprints of tyrann--osaurs have been found and they show that the 'king' had a stride of only about a metre. Can you step further than this? I know I can. Unable to run, T-rex was prob--ably not the fierce hunter he was made out to be. Almost all of the other sorts of one day T-rex did outrun and catch himself a meal. It would probably be just a waste of good meat because only for eating not for killoff in battle and where would some scientists thought that the vicious claws capping his toes could have been a killing weapon However, this would have have needed T-rex to give an almighty one-legged kick; and because of his immense weight this kick would have unbal--anced him and sent him sprawling on the ground. If you're sorry to see the rep--tile king dethroned, don't des--pair.Not all scientists agree on T-rex's weakness and new

fossils may be found in the future to prove his strength.



SCOTTISH DINOSAURS OR VERY BAD EYESIGHT?

Since the first photograph of a 'Loch Ness monster' was taken in 1934, there has been hundreds of sightings. Radio and film have both been used to try to prove for the final time that Scotland is the home of the world's last dino--saur.All of them have failed. The photos', taken in the thick thick peaty water of Loch Ness are just too blurry. Yet there are some scientists who are almost sure a whole family of Loch Ness monsters live in the extremely deep lake. The huge supply of salmon would be the perfect food for them if they do live there.

Some scientists believe that 'Nessie is a <u>plesiosaur</u>.Plesiosaurs were dinosaurs that lived underwater millions of years ago and are thought to

be extinct (unless they really do live in Loch Ness). There are 3 things wrong with the idea of plesiosaurs in Loch

Ness.Firstly, plesiosaurs were air breathing animals. If it had to breathe air the Loch Ness monster would need to come up to the surface quite often and would have been seen by people a lot more than it has been. Secondly, Loch Ness is too cold for reptiles. Thirdly, ten thousand years ago, Loch Ness was under SEVERAL HUNDRED METRES OF ICE. To get into the Loch.plesiosaurs would have had to WAIT AROUND FOR 65 MILLION YEARS SOMEWHERE ELSE AND THEN ENTER THE LAKE AFTER THE ICE MELTED. No fossils of them have been found anywhere for the 65 million years after the other dinosaurs became extinct. Maybe they will be, someday. Do you think so?

DON'T BELIEVE THE STORY ABOUT FRED AND HIS PETS.

Do you watch 'The Flintstones' on T.V.?Don't be fooled into believing that Stone Age people lived alongside the dinosaurs.Dinos' became ext--inct at least 135 million years before humans appeared on the scene!



Flying from meal to meal. pollen stuck onto the bees! hairy legs.As this pollen was brushed from flower to flower, the bees were helping to fertilize the flowers. What does this mean?

Anyway,

the bees kept on

visiting the green and

white flowers, helping

them to set their seed.

Every now and again, one of

the plants got mixed up and instead of following its plan'

of making a green or white

one instead.

flower, made an orange, ~...

year after year.

Once upon a time, 150 million years ago, there was no such thing as a yellow flower, a blue flower or an orange flower. Only a few plants had flowers at all and if they did the flowers were either white or green. How boring!

> As plants . invented these first flowers. insects invented ways to use them for their own good. As they were eating the pollen and sipping the nectar, the bees were also doing the flowers a favour.

How the bees made colored flowers

To get the best seeds, many plants must have pollen from another plant of the same kind. When the pollen. is brushed onto the plant's seed box. the seeds are fertilized -they are able to 'grow'.

Because the seed boxes of the brightly colored flowers were fertilised much more often than the green or white ...

Red flowers can probably thank a pollinating fly.

The bees . noticed the plant's color mis--take. Unlike many other animals, they have the ability to see colorsall except red.

> Every time a color mis--take was made. the bees rushed to the brightly colored flower. They brushed pollen onto its seed box. Seeds of the color mistake plant could then grow. Of course, the color mistake plants became more common because ...

Bees can even see a color we can't even see at allultraviolet.

> ... whenever bees were flying around looking for pollen. they would notice a brightly colored flower more easily than a green or white one. Sometimes the bees might not notice the duller green or white flowers at all.

flowers. the bright flowers mult--iplied much more quickly than their duller cousins. Today, few flowers are white or green. Can you think of

Only red flowers were not helped by the bees. Bees cannot see the color red. It looks just like black to them.

yellow or maybe a pink

Mammals with Pouches

The first mammals probably laid eggs like their ancestors, the reptiles. Later some mammals gave birth to very tiny babies. The babies crawled into a pouch on the mother's stomach and stayed there until they had grown. Mammals with pouches are called marsupial mammals.

Most mammals living now give birth to fully grown babies. They are called placental mammals. In Australia, though, there are still some marsupials and also some very primitive mammals which still lay eggs.



The duck-billed platypus has sleek hair and a horny bill. It lines its burrow with grass and lays two eggs. When the eggs hatch the babies drink their mother's milk.

The main difference between placental mammals and marsupial mammals is that the marsupials are born about the size of a bee and then crawl



The spiny anteater, or *Echidna*, is a mammal which lays eggs. It has a long nose for digging in ant hills and stiff, prickly spines.





When the dinosaurs and the first mammals were alive, all the land was joined up. Then, about 150 million years ago, the continents began to slowly move apart.



Later, placental mammals developed in Europe and North America. They survived more easily than the marsupials, which eventually all died out. page 10

Today, marsupial mammals ere found only in Australia and America. The koala is a marsupial mammal. Its babies develop in the mother koala's pouch.



When Australia and America broke away from the rest of the land, there were no placental mammals anywhere. Marsupials lived on all the continents then.



Marsupial mammals survived in Australia because no placentals developed there. All the placentals now in Australia were taken there by people.

Thanks to 'CHILDREN'S ENCYCLOPEDIA OF PREHISTORIC LIFE' by A. Mc.Cord pages 38-39

Australia's WILL WE EVER FIND OUT WHAT HAPPENED TO ...

THE GIANT WOMBAT: DIPROTODON -pronounced DIE-PRO-TOE-DON

Those of you who watch the 'Leyland Brothers' on T.V. may have watched a recent programme about their journey to Lake Callabonna, a salt pan in north--ern South Australia. Their purpose was to visit the lake's huge diprotodon graveyard. Long ago, the salt lakes had more water in them than they have today. As the water dried up in the hot sun, a thick crust of salt formed on top-just thick enough to carry the weight of most animals. Diprotodons were out of luck. Being the largest and heaviest marsupial mammal ever known to have lived (about the same size as a rhinoceros) Di' must have walk--ed onto the salt crust...and sunk into the mud below. A sad end for the unlucky diproto--don, of course but lucky for us humans. Without these. fossils, we would know very little about the animals of Australia's past.

Fossils have given us some clues about how Di' lived, what he ate and why he became extinct but many things about him are still a mystery to us. What sort of things do you think it would be difficult to find out about an animal JUST BY LOOKING AT ITS FOSSILS? Why?

What we do know about the Diprotodon is that it had a pouch and that it was a plant eater. Di (two)proto (front) don (teeth)- the giant wombat's two front teeth were probably used for gnawing.

What happened to the Diprotodon? No-one is exactly sure but some scientists believe that Australia'a weather changed to become much drier. This meant that many of Ser S the

vanished giants?

Diprotodon s' favorite plant foods were wiped out. Others say their death may have been helped along by the aborigines been a flesh eater for he had who may have hunted them. when the dingoes arrived in Australia 8000 years ago.

THE LION WITH A POUCH

Diprotodon

Thylacoleo

You'll raise a laugh from your friends if you tell them about Australia's lion. Lions don't come from Australia-or do they (or rather, did Procoptodon they)? THYLACOLEO. Australia's marsupial tion was only just a

little smaller than the lions alive in other parts of the world today. Thylacoleo may have strong stabbing teeth and a Perhaps they became dingo food body well suited to hunting but some scientists believe that he fed only on fruit.

PROCOPTODON: THE GIANT KANGAROO

With a name meaning 'front crushing teeth' Proc' spent most of his time browsing around high shrubs and trees. using his long arms to pull down the branches so he could bite off the leaves. Proc' was 3 times heavier than the largest of today's kangas and twice as

tall.

Drawing: Thanks to 'THE EVOLUTION OF MAMMALS by L.B. Halstead, pp. 100-101



Tracize

* BE at Broome (WA) when it nothing on this cactus in has an exceptionally low tide of Norm and Elsie Dunand and you can see a series of in Villeroy St. Hampton. metres from the base of the cliff at nearby Gantheaume only a few inches off **E** Point.

Experts have vouched that wires. the tracks were made by a species of dinosaur that was Mrs Dunand said it was about 3.5 metres high and lived the third strange cactus in the Cretaceous Age, some the couple had grown. = 130 million years ago.

If you can't be at Broome for Mr and Mrs Dunand 15 said Mrs Dunand. an exceptionally low tide, years ago, by a neighbor, don't worry. You can see a cactus society cement cast of the dinosaur cactus society. footprints on display at the top = But the neighbor has Mrs Dunand expects that of the cliff.

Thanks to 'Post of 12-2-8]

Peculiar arowth

JACK'S beanstalk had 141

The cactus has grown 14

The cacti were given to poles, it's most peculiar. The cactus is just coming into flower for the

From

the

it was

since died and Mr and Mrs like the others, it will die Dunand can't remember soon after. what type of cactus he said

"The plant goes yellow and then the whole thing's finished forever," she said.

first time in 15 years and

"But he never had any

The cactus has had Sandr residents and passersby intrigued. They agree that ingham it's a prickly problem.

and Brighton Advertiser'.

rdie DVe $\left| 0 \right\rangle$ 8 species from the pleisto-

cene epoch (10,000 to two

Dr Gerry Van Tets.

from the CSIRO, and Dr

P. V. Rich, from Monash

University, said the re-search had discovered

and a family of giant

They appear to have

flamingoes

back more

million years ago).

Australian

AUSTRALIA had three species of flamingo 10,000 years ago - and one was larger than any in the world today.

According to researchers studying fossils in the Lake Eyre Basin, Australia had a richer and more diverse bird fauna 10,000 years ago.

birds called the mihirungs. Scientists from the CSIRO's division of wildlife research in Canberra vanished about 10,000 Monash University years ago, after a long history in Australia and have been studying the fossils of what are be- stretching lieved to be unique bird than 20 million years.



The picture above shows the fossil remains of one of the earliest birds -a pterosaur. These early birds had teeth but no feathers. Instead they were covered with a thin layer of hair.

PHOTO: 'The Day of the Dinosaur'p.150 by John Man.

Kare rescued

LOS ANGELES, 18 Feb. — An extremely rare baby whale, rescued from a southern Californian beach at the weekend, is making good progress at Marineland of the Pacific.

An army of volunteers is working around the clock to keep the 1¹/₂-metre mammal alive.

It is believed to be the first known case of a dwarf sperm whale being kept alive in captivity

The whale, which was trying to beach itself, had severe cuts on its tail.

It was carried to Marineland where dozens of young volunteers have been working fourhour shifts walking it slowly around a six-metre tank to make sure it does not drown or injure itself further.

Marineland reported yesterday that the whale ate its first meal in captivity through a tube - fish gruel fortified with vitamins and minerals.

Congratulations to the people of California who freely gave their time to save this rare whale. One hundred years ago, this type of res--cue would probably never have happened.

Today, more people know about what is happen--ing in the world of plants and animals. They know much more about which animals are in danger of becoming extinct. More importantly, many people today care about what happens to animals like the rare whale found in California. Are zoo-keepers having much success in helping the almost extinct Giant Panda?Why not? Page 14

If you have read 'From blobs to brains' you may remember that many years ago,all animals lived in the sea. Slowly, some animals changed their bodies so that they could live on land.Axolotls are a type of salamander.Like tadpoles, most salamanders begin their life as water animals but then grow new bodies so they can live on land (like frogs).Axol--otls are a sort of salamander that NEVER grow new bodies for land living.They have tails like fish and walking legs like those of many land living animals:real 'in betweeners'. HOW TO LOOK AFTER AN AXOLOTL

An aquarium measuring 60 cm. long, 30 cm. wide and 30 cm. deep is a good sized home for 3 fully grown axolotls. The tank should have a layer of sand on the bottom and at least 15 cm. of water. A flower pot on its side or a 'rock cave' will give them an ideal resting place. A simple box filter connected to an aquarium air pump is ideal in the axolotl tank because these animals soon cloud their water. The water should never be completely changed all at once, no matter how dirty the water looks. The shock may kill these animals. Change only ½ of the water at a time and warm it up to room temperature before putting it in. Axolotls are meat eaters and should be fed small pieces of liver, lean meat, earth--worms or fish pellets. Powdered or flaked fish food is of no use to them.2 or 3 small pieces of meat every second day is enough for each axolotl. For goodness sake, don't keep axolotls in an aquarium with goldfish-a large fish will eat the axolotl's gills and axolotls will eat small fish.

make interesting pets

solotls

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