

THE  
NATURE YEAR



JANUARY

THE  
NATURE YEAR  
JANUARY



First published in 2012 by Orpheus Books Ltd,  
6 Church Green, Witney, Oxon OX28 4AW England  
[www.orpheusbooks.com](http://www.orpheusbooks.com)

Copyright © 2012 Orpheus Books Ltd

All rights reserved. No part of this book may be reproduced or utilized  
in any form or by any means, electronic or mechanical, including  
photocopying, recording or by any information storage and retrieval  
system, without permission in writing from the publisher except by a  
reviewer who may quote brief passages in a review.

Created and produced by Nicholas Harris, Sarah Hartley, Katie Sexton,  
Ruth Symons and Erica Williams, Orpheus Books Ltd

Text by Ruth Symons

Scientific consultant: Chris Jarvis, Oxford University  
Museum of Natural History

Illustrated by Martin Camm and Ian Jackson

ISBN 978 1 7418 3790 1

Printed and bound in Singapore

# THE NATURE YEAR JANUARY



 Orpheus

# CONTENTS



THE WORLD · 6



NORTH AMERICA · 12



GALAPAGOS ISLANDS · 18



AUSTRALIA · 24



EUROPE · 8



NORTH AMERICA · 14



ATLANTIC OCEAN · 20



ANTARCTICA · 26



EUROPE · 10



SOUTH AMERICA · 16



NEW GUINEA · 22



THINGS TO DO · 28

# THE WORLD IN JANUARY

**I**N THE NORTHERN hemisphere, the shortest day of the year has come and gone.

Although there are more hours of daylight than there were last month, temperatures are the coldest of the year. Meanwhile, the southern hemisphere basks in the warmth of high summer.

In the far north, in the lands bordering the Arctic Ocean, the ground is frozen solid, lakes and rivers have iced over and there is thick snow on the ground.



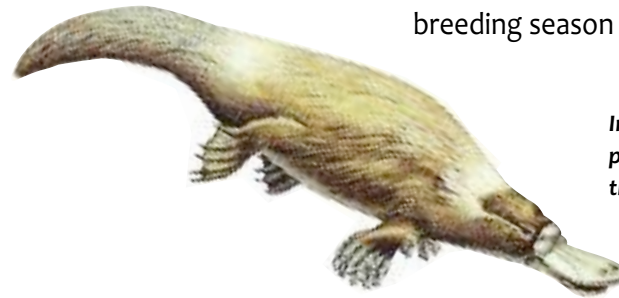
*Curled up in its burrow, a dormouse hibernates through the winter. Above ground, the land is covered in snow and ponds have frozen over. Despite the cold, many birds are active as they begin to prepare for the breeding season.*

In much of the northern hemisphere, January is a long, hard month for wildlife. Animals' fat reserves, built up in warmer months, are now dwindling. Even the squirrel, which stores food for the winter, may find its supplies running low. This is the start of the "winter kill", when animals that are weak or ill are likely to die.



*A badger forages for food in the snow.*

Life is much easier in the southern hemisphere, basking in warmer weather and long hours of daylight. There is an abundance of food, even in the seas off the permanently ice-covered continent of Antarctica. Many animals time their breeding season to fall in January.

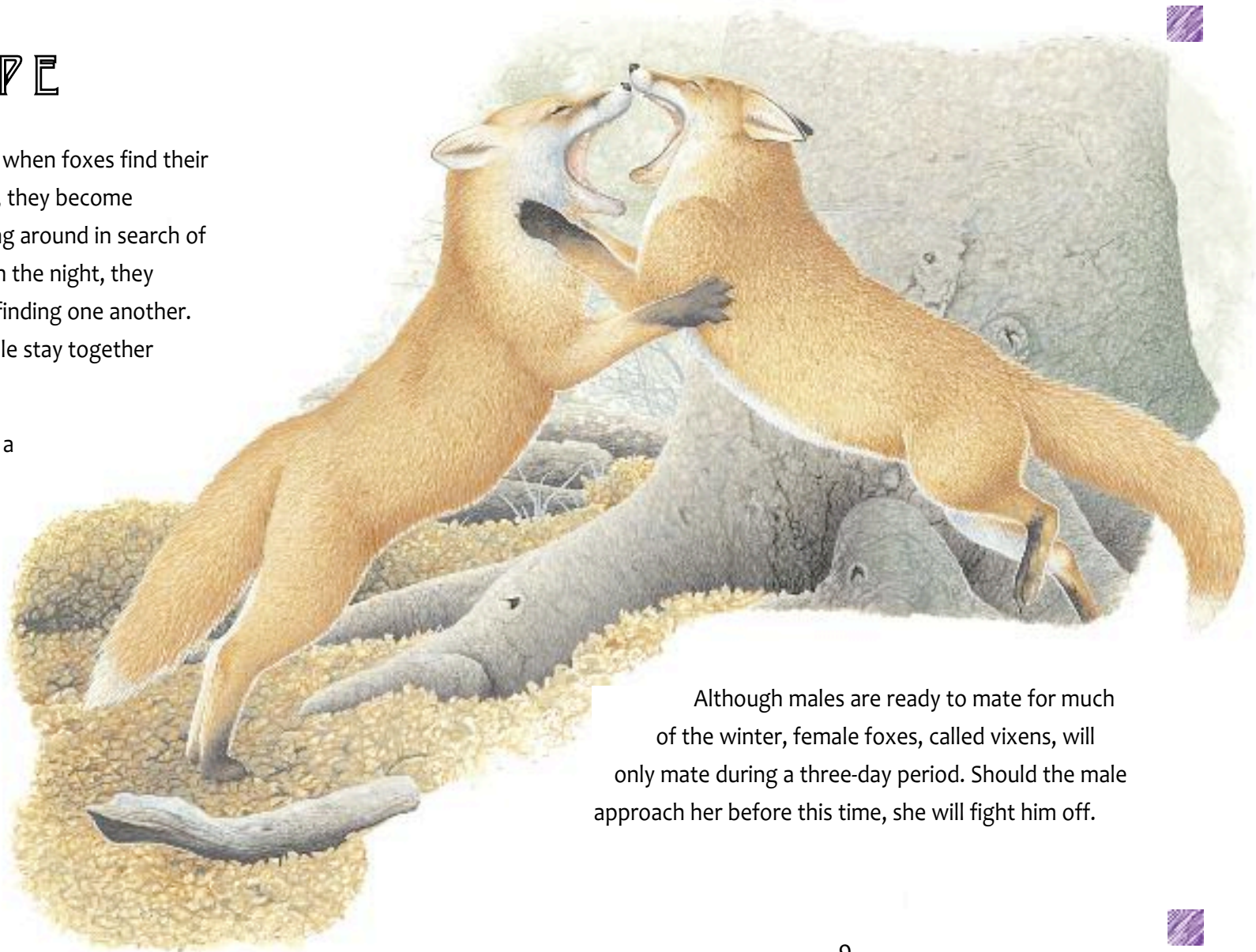


*In Australia, a duckbilled platypus youngster leaves the burrow where it hatched about four months ago.*


# EUROPE

**J**ANUARY IS THE MONTH when foxes find their mates. During this season, they become unusually active, wandering around in search of a partner. As they move through the night, they make loud screams as a way of finding one another. Once united, the male and female stay together throughout the mating season.

After mating, the foxes look for a suitable den, such as a hollow log, or the abandoned burrow of another animal. Urban foxes may even make their dens under garden sheds. This is where the female will give birth two months later.



Although males are ready to mate for much of the winter, female foxes, called vixens, will only mate during a three-day period. Should the male approach her before this time, she will fight him off.



A cross-section  
through a mole-  
hill. The mole is  
tunnelling  
towards the  
surface.

## EUROPE

**M**OLES SPEND most of their lives underground, feeding on earthworms and insects. In winter, the top layers of soil become hard and cold, making it more difficult for moles to dig through them. A brief thaw may result in a frenzy of mole activity. This mole is on her way to gather grasses from above ground, which she will use to line her underground nest.

**M**ANY INSECT-EATING birds struggle to find food in January, as there are few insects and short daylight hours in which to search for them. The treecreeper survives by using its curved, slender beak to probe beneath tree bark for insects that gather there in winter.

Treecreepers seek shelter from the cold themselves by hiding beneath strips of bark or inside natural holes in a tree trunk. Some even use their beaks to scrape out hollows in softwood trees.

*The treecreeper uses its  
claw-like feet to cling on  
to bark and its long, stiff  
tail to keep its balance.*



# NORTH AMERICA

**O**N A SNOWY PLATEAU in the Rocky Mountains, a herd of bison come to feed around a hot-water spring. The water is heated by hot rocks deep inside the earth. The springs warm the ground, enabling grass to grow here, despite the freezing temperatures.

*Steam may freeze and condense in the bison's fur, forming tiny icicles. But the bison are well-adapted to the cold, with thick winter coats and broad noses for shovelling away snow to reach the grass.*

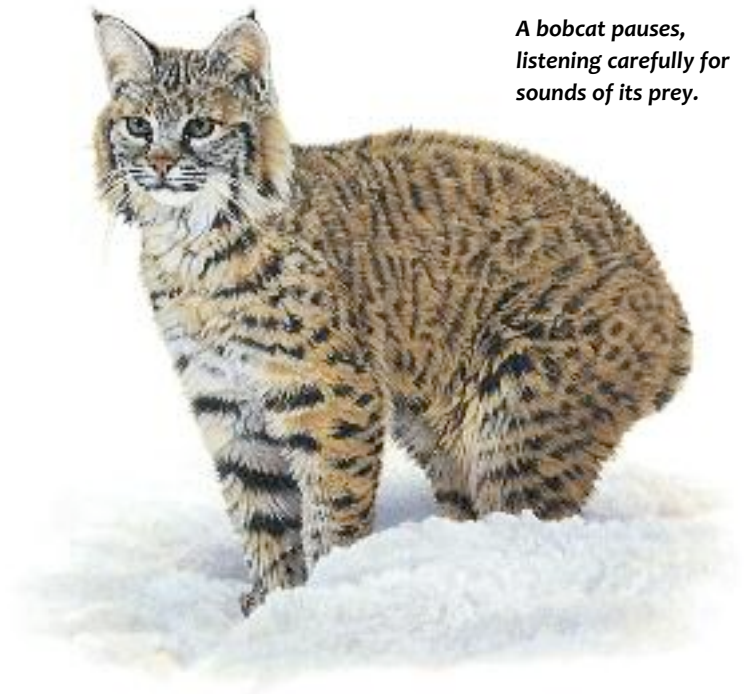
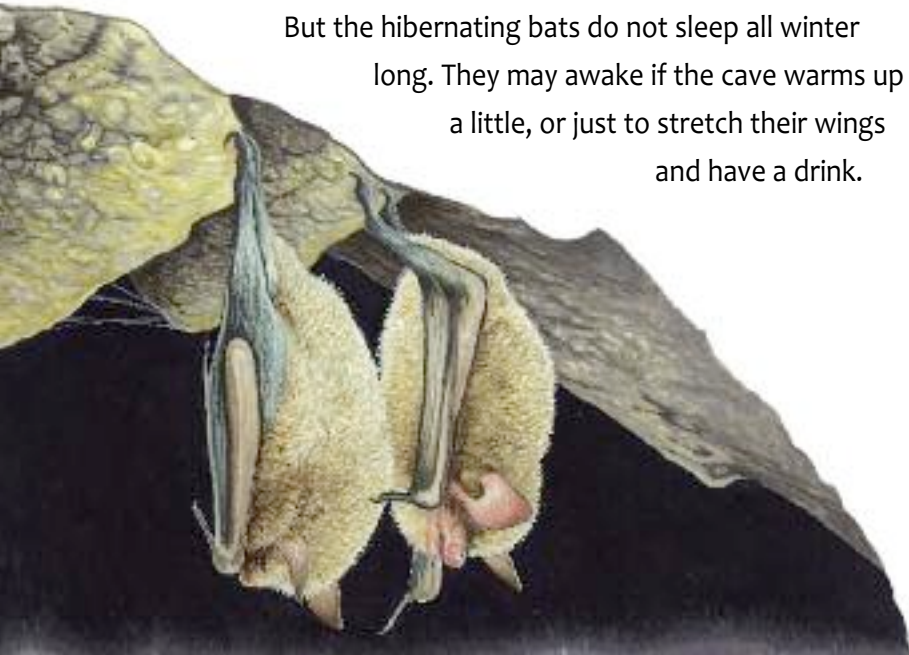
Bison and other grazing animals gather round the springs each year. Once they have stripped the region of plants, they move on in search of food elsewhere.

# NORTH AMERICA

**E**AST OF THE ROCKY MOUNTAINS, inside a hillside cave, a colony of pipistrelle bats are hibernating. To conserve energy, their breathing and heart rate are greatly reduced. Their body temperature drops to near freezing.

The bats' insect prey died out in the autumn, and new insects will not hatch until spring. Without this food supply, the bats must hibernate to survive the winter.

But the hibernating bats do not sleep all winter long. They may awake if the cave warms up a little, or just to stretch their wings and have a drink.



*A bobcat pauses, listening carefully for sounds of its prey.*

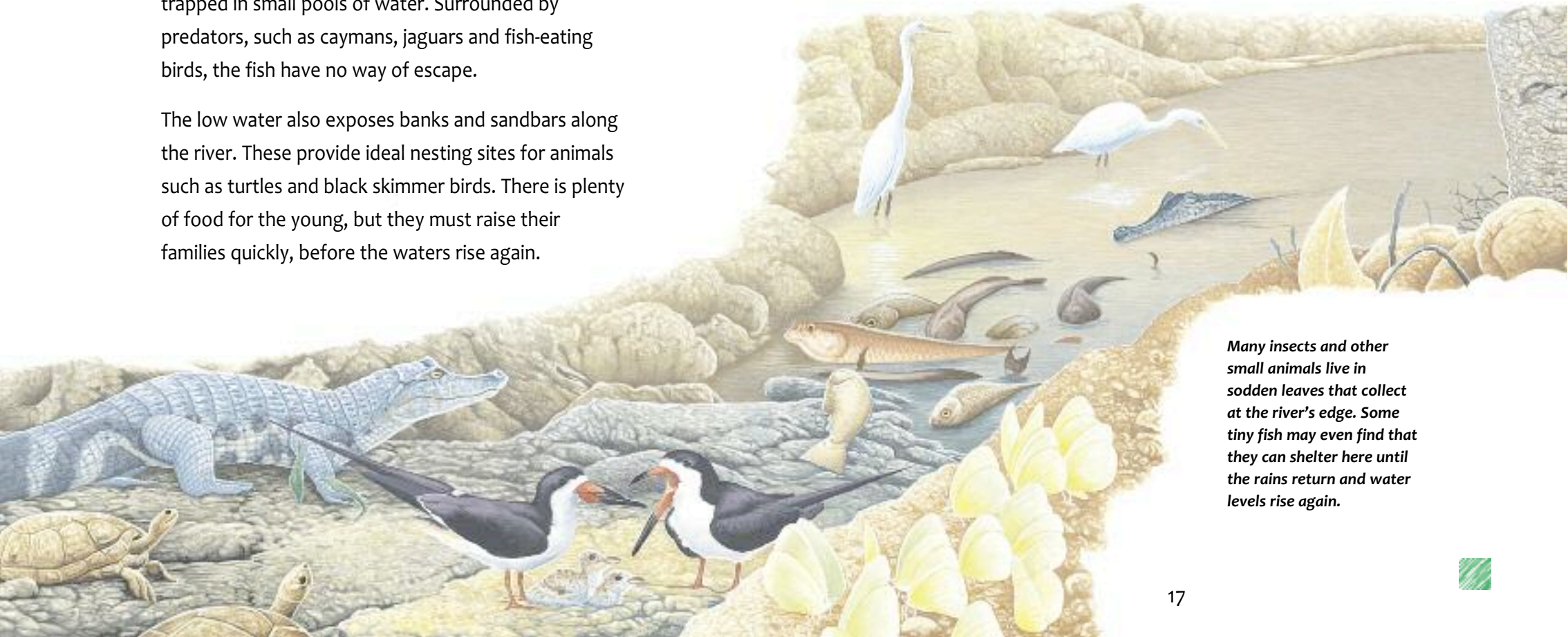
**T**HE BOBCAT lives in the mountains of North America. It feeds mainly on rabbits and birds, but can kill larger prey, such as deer, during the winter months when food is scarce. Once it has eaten its fill, it hides the deer's carcass under snow or leaves, where it may return another time to continue feeding.

# SOUTH AMERICA

**A**T THE HEIGHT of the hot, dry summer in South America, parts of the Amazon River are reduced to a shallow trickle. Fish now find themselves trapped in small pools of water. Surrounded by predators, such as caymans, jaguars and fish-eating birds, the fish have no way of escape.

The low water also exposes banks and sandbars along the river. These provide ideal nesting sites for animals such as turtles and black skimmer birds. There is plenty of food for the young, but they must raise their families quickly, before the waters rise again.

Millions of male butterflies gather on the wet sandbars to suck water, salts and minerals from the mud. They do this to replenish their supplies, which they need to keep their bodies healthy.



*Many insects and other small animals live in sodden leaves that collect at the river's edge. Some tiny fish may even find that they can shelter here until the rains return and water levels rise again.*

# GALAPAGOS ISLANDS

**W**ITH THE ARRIVAL of the mating season, the bodies of male marine iguanas change from their usual black or grey colour to shades of orange, red or green. They herd together groups of females to mate with, and guard them from other male iguanas.

Marine iguanas, the only sea-living lizards, feed on seaweed, diving over 15 metres into the water in search of it.

After their dives, they bask in the sun to warm up again.



**T**OWARDS THE END of January, greater flamingos start to gather around the saltwater lagoons of the Galapagos Islands. Here the birds build nests made out of mud, grass or feathers.

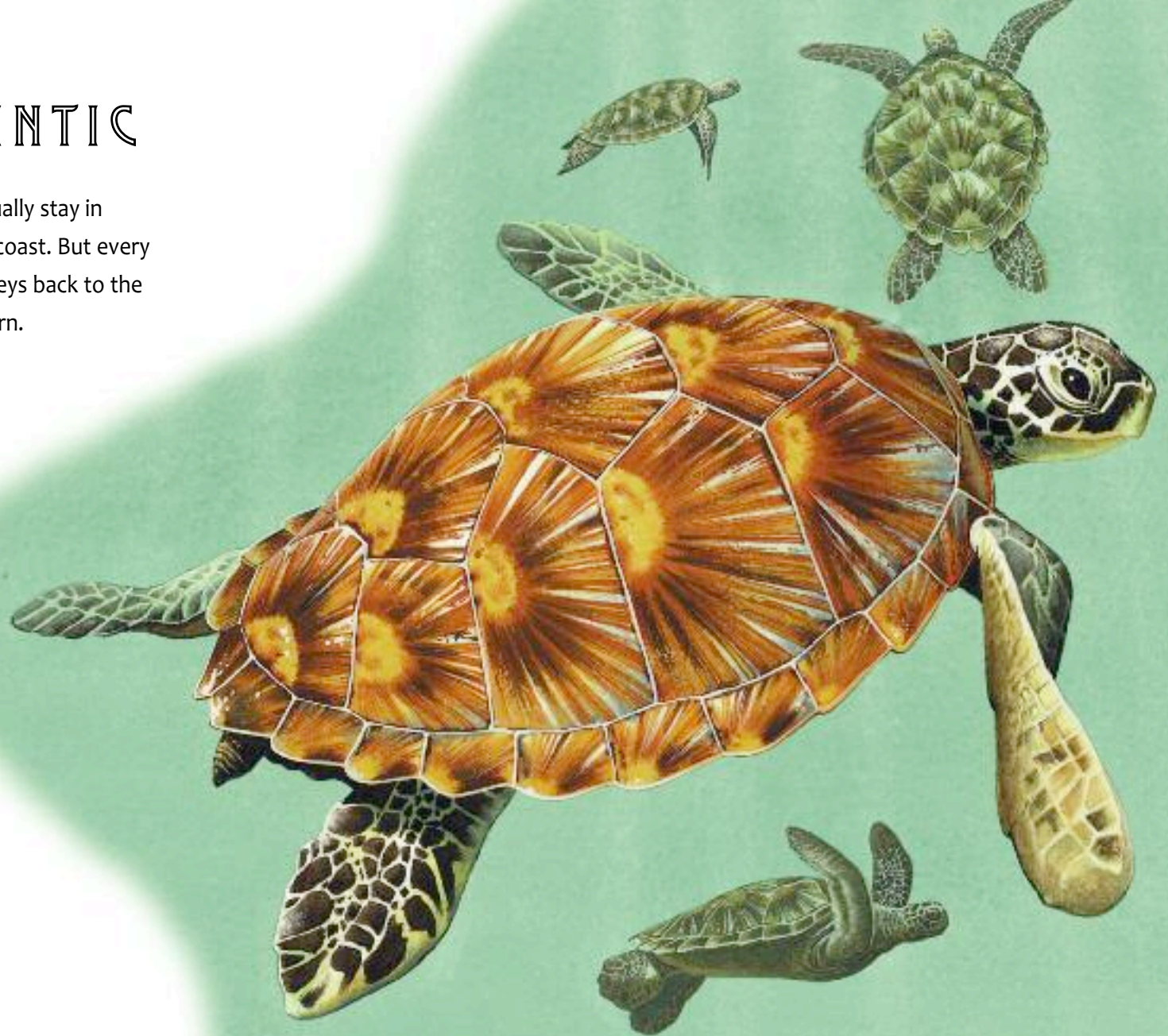
To feed, the flamingos stand with their heads upside down in shallow water. They use their beaks to filter out tiny plants and animals from the water. Flamingos get their pink colour from the tiny shrimps they eat.

# SOUTH ATLANTIC

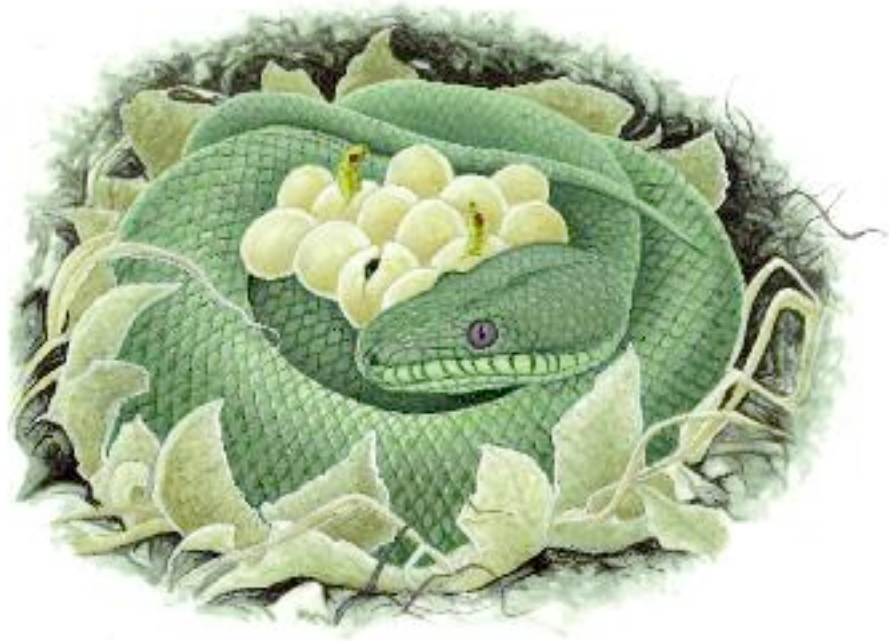
**T**HE GREEN TURTLES of Brazil usually stay in their home waters, close to the coast. But every few years, they make long journeys back to the breeding grounds where they were born.

In January, many turtles head east, on a dangerous journey of over 2300 kilometres to the tiny island of Ascension in the Atlantic Ocean. It takes the turtles between five and seven weeks to complete their journey.

The turtles follow ocean currents to help them find their way. As they swim, they must rise to the surface every few minutes for air.



## NEW GUINEA



*The first green tree python hatchlings emerge from their soft-shelled eggs. Their mother will soon abandon them to go hunting.*

**I**N THE TREETOPS of New Guinea, a green tree python watches over her clutch of eggs. Curled tightly around them, she will attack any animals that threaten their safety. She has not eaten since she laid her eggs two months ago. As soon as the young hatch, she will abandon them and go in search of food for herself.

The young snakes are independent from the moment they hatch. At first, they are bright orange or yellow, but their colour gradually changes as they grow. By the time they are six months old, they will be the same bright green as their mother.

Once mature, the pythons can be up to two metres in length. They feed on rodents and lizards. To kill their prey, pythons coil their massive bodies around the animal until it can no longer breathe.

# AUSTRALIA

**O**N THE AUSTRALIAN PLAINS, a mob of red kangaroos are raising their young. Female kangaroos have forward-facing pouches. Only when a joey, a young kangaroo, is about nine months old, does it leave its mother's pouch for good. It starts to eat leaves and grass, but it still returns to its mother for milk until it is about 12 months old.

Meanwhile, some of the females are giving birth to their young—tiny, hairless joeys, only the size of a bean. A newborn joey crawls up its mother's fur into her pouch and attaches itself to one of her teats. It stays there for six months, drinking milk and growing.



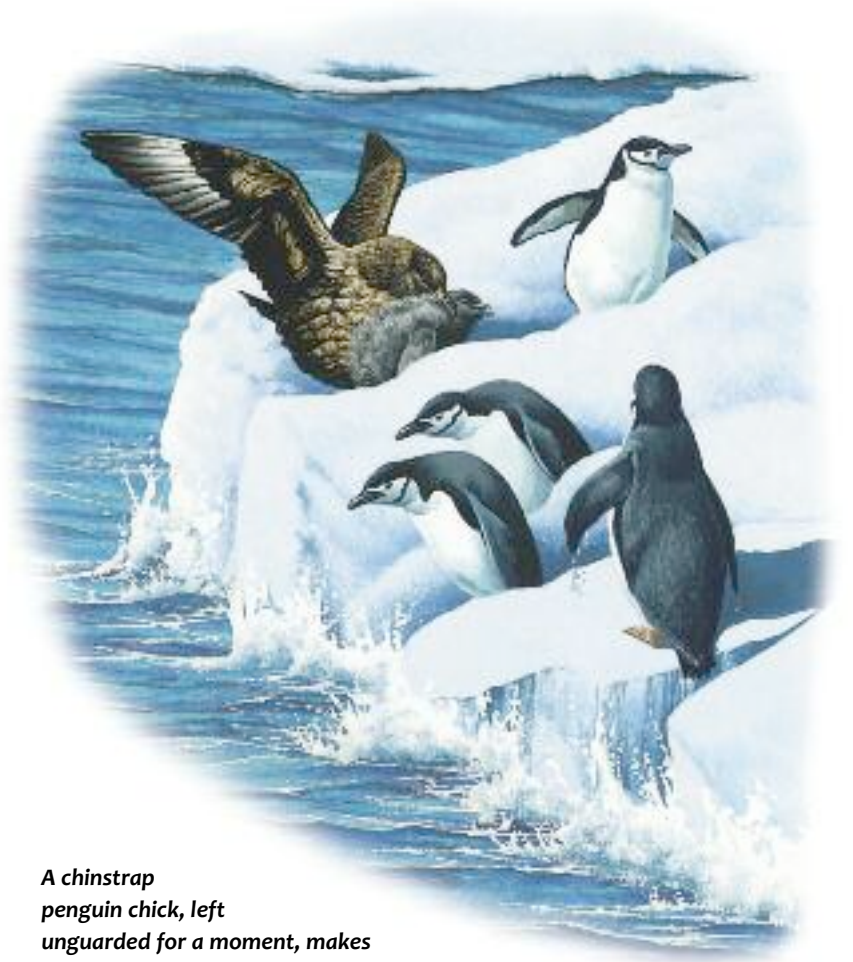
***A newborn joey in its mother's pouch.***



# ANTARCTICA

**O**N ANTARCTIC coasts, it is the middle of the breeding season. Wandering albatrosses settle in large colonies and build mud-and-grass nests close together. In early January, females lay a single large, white egg. Both parents take turn to sit on the egg until it hatches 11 weeks later.

Breeding colonies of seabirds attract great skuas and other predators. They prey on the eggs and chicks of smaller birds, including penguins. With such a surplus of food, the skuas can now feed their own chicks.



*A chinstrap penguin chick, left unguarded for a moment, makes an easy meal for a great skua.*

# THINGS TO DO:

## IDENTIFY ANIMAL TRACKS

Identifying animal tracks is a great way to see which animals pass through your garden or local park. Look for footprints in soft, muddy ground, on wet sand or in fresh snow.



Mouse

Rodents, such as mice, have four toes on their front feet and five on their hind feet. Weasels and badgers have five toes on both their front and hind feet. Deer have just two toes.



Fox

How many toes can you see? Are there any claw marks? Dogs and cats both have four toes, but only members of the dog family, such as foxes, leave claw marks.



Deer

Can you tell how the animal was moving from looking at its tracks? Prints left by a walking or trotting mammal show each foot being placed in front of the other and to the side. A bounding animal, such as a rabbit, leaves a triangular pattern as its hind feet land ahead of its front feet.



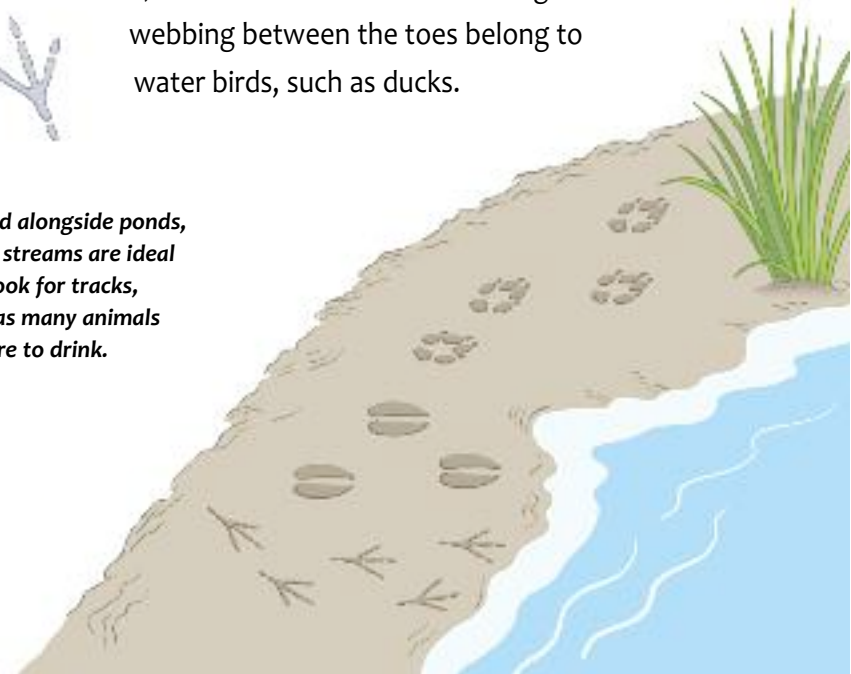
Rabbit

Small birds hop along leaving two prints side by side. Larger birds place one foot in front of the other as they walk, like humans. Bird tracks with signs of webbing between the toes belong to water birds, such as ducks.



Large bird

*Wet ground alongside ponds, puddles or streams are ideal places to look for tracks, especially as many animals gather there to drink.*



# THINGS TO DO: CATCH A SNOWFLAKE

No two snowflakes are ever exactly alike, although they all have six equal sides. Try catching some snowflakes to get a closer look at them. Place a piece of black paper or card in the freezer. When it starts to snow, lay the paper on something flat and hold it in the snow until it is lightly covered with snowflakes (this will not work in strong winds). In a cool, sheltered place, use a magnifying glass to study the snowflakes.



## NATURE WATCH



Animal tracks  
in the snow 10



New shoots 20



Old bird's nests  
in treetops 30



Frosted  
spiderwebs 40



Molehills 50

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

