

**THE
NATURE YEAR**



JULY

THE
NATURE YEAR

JULY



THE NATURE YEAR

JULY

First published in 2012 by Orpheus Books Ltd,
6 Church Green, Witney, Oxon OX28 4AW England
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

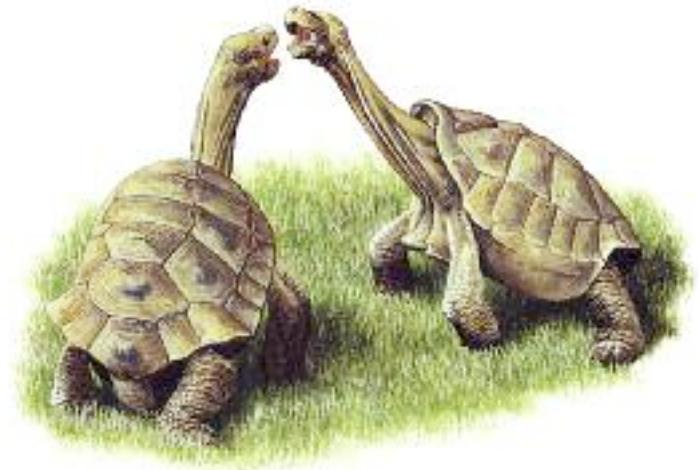
Text by Ruth Symons

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



 Orpheus

CONTENTS



THE WORLD · 6



EUROPE · 12



GALAPAGOS ISLANDS · 18



AUSTRALASIA · 24



ARCTIC · 8



NORTH AMERICA · 14



SOUTH AMERICA · 20



ANTARCTICA · 26



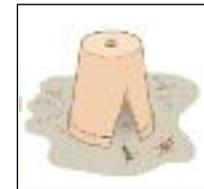
EUROPE · 10



ASIA · 16



INDONESIA · 22

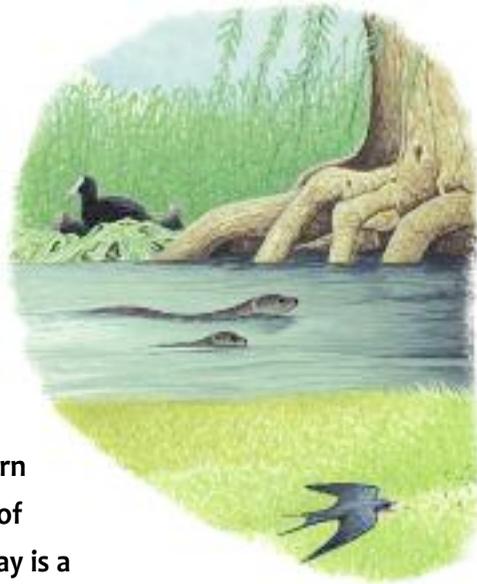


THINGS TO DO · 28

THE WORLD IN JULY

IN THE NORTHERN hemisphere, July is often the hottest month of the year. Meanwhile, the southern hemisphere is in the depths of winter. In Antarctica, each day is a struggle for survival.

Where it is summer, many plants are still in flower, but fruits and berries are now starting to grow. Animals eat as much as they can in this time of plenty and insects are at their busiest: butterflies and bumblebees sip nectar from flowers and dragonflies chase their prey along riverbanks.



In a European river, an otter cub takes its first swim with its mother. On the far side, a coot sits on her nest. Meanwhile, a swallow flies low over the ground, snatching up an insect in its beak.

In the northern hemisphere, the breeding season is over for most animals. Their greatest challenge now is to protect their vulnerable young from danger.

In the Arctic tundra, young musk oxen are tempting prey for wolves. The adult oxen bunch together around their young to protect them. So long as the oxen stay together and do not break rank, their young are protected by this formidable wall.

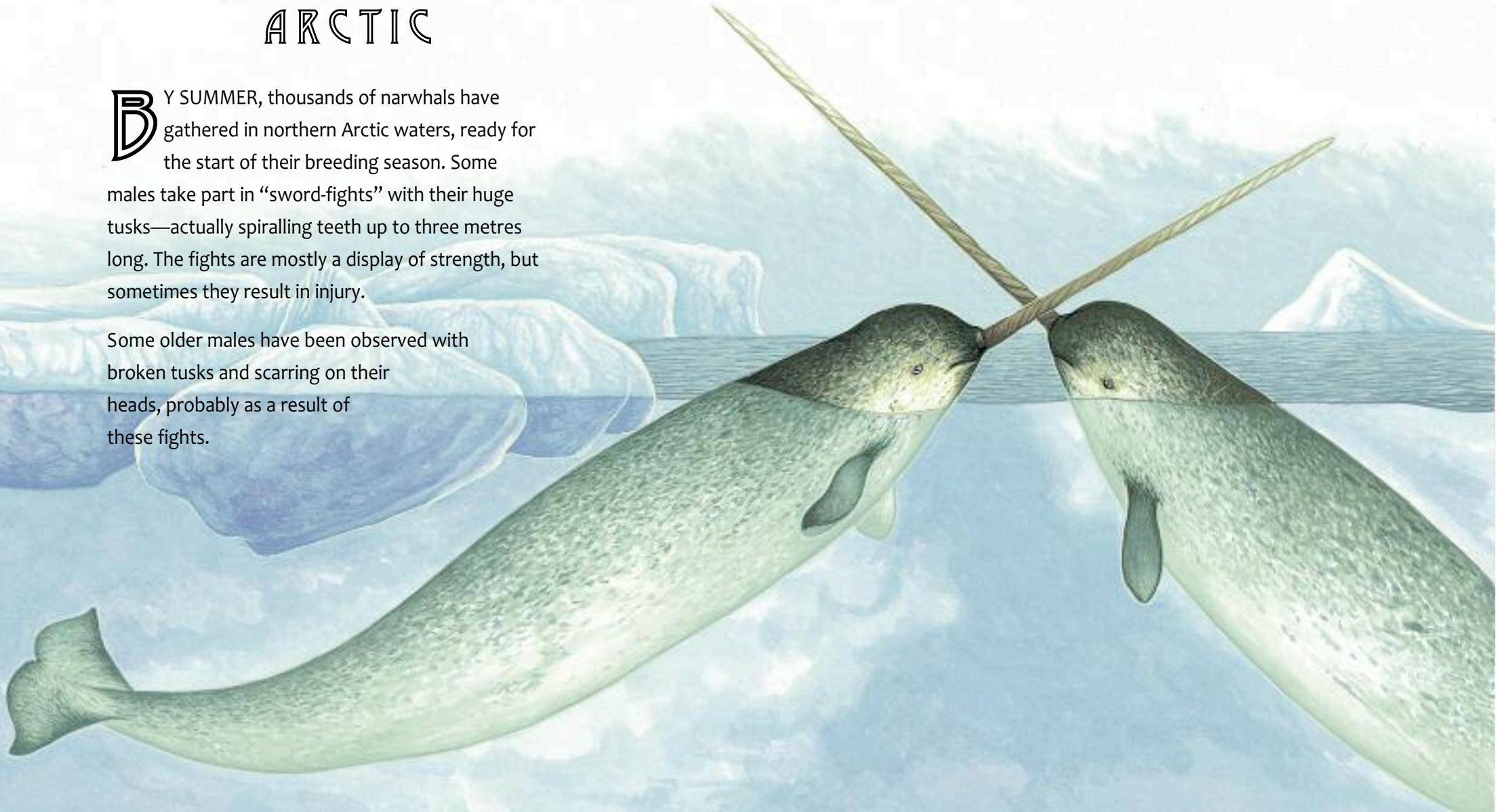
The wolves have no chance against the bulky adults, so they circle the pack, snapping at the oxen. If they are lucky, this may startle an individual into running away.



ARCTIC

BY SUMMER, thousands of narwhals have gathered in northern Arctic waters, ready for the start of their breeding season. Some males take part in “sword-fights” with their huge tusks—actually spiralling teeth up to three metres long. The fights are mostly a display of strength, but sometimes they result in injury.

Some older males have been observed with broken tusks and scarring on their heads, probably as a result of these fights.



EUROPE

BY MIDSUMMER, badger cubs have begun to play less and eat more. As dusk falls, the badger family leave their sett to go in search of food. The cubs' mother no longer needs to be so attentive, as the young badgers are becoming more and more able to fend for themselves.

The badgers spend the night foraging for insects, worms and small animals such as mice and birds. Earthworms make up the largest part of their diet. On warm, damp evenings, worms come to the surface to pull rotting leaves down into the soil. These are the nights when badgers are at their most active. One badger may eat up to 200 worms in a single night.





EUROPE

LAST SUMMER, an adult dragonfly lay her eggs just under the water, on the stalks of a lily. The young dragonflies that hatch out are called nymphs. Over the year, the nymphs remained underwater, hunting insects, tadpoles and small fish. As they grew, the nymphs shed their skin several times.

Now, on a warm day in July, a nymph climbs out of the water and rests on the stem of a plant. It then hauls itself out of its old skin and emerges as a fully-grown dragonfly in its bright adult colours.

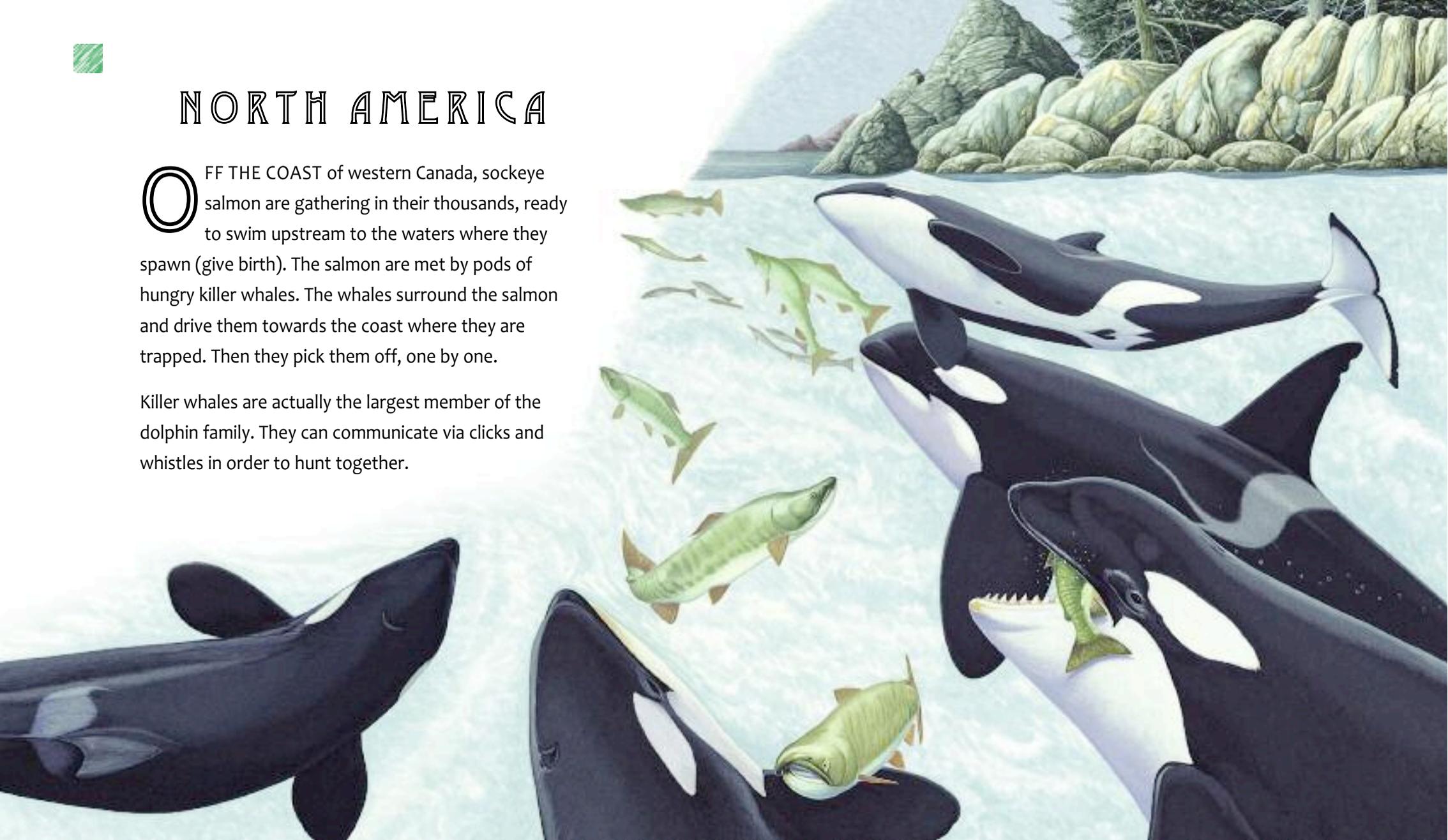
It takes an hour or so for the dragonfly to gain strength and for its crumpled new wings to flatten out and harden. It flies away as soon as it can. The dragonfly will spend the next few weeks feeding on insects and looking for a mate. It will then return to the water to lay its own eggs.



NORTH AMERICA

OFF THE COAST of western Canada, sockeye salmon are gathering in their thousands, ready to swim upstream to the waters where they spawn (give birth). The salmon are met by pods of hungry killer whales. The whales surround the salmon and drive them towards the coast where they are trapped. Then they pick them off, one by one.

Killer whales are actually the largest member of the dolphin family. They can communicate via clicks and whistles in order to hunt together.



MIDDLE EAST

IN THE HOT, dry desert of the Middle East, it is the peak of the pitted sandgrouse breeding season. Chicks can find food for themselves almost as soon as they hatch, but cannot yet fly to the nearest waterhole.

Their father will fly up to 25 kilometres each day just to find water. Here, he soaks his breast feathers in water. Then he flies back to his chicks who sip the water from his feathers.



AS NIGHT CLOSES IN, a jerboa bounds across the desert sand, searching for insects and seeds to eat. During this, the hottest month of the year, it spends most of its time in a deep underground burrow, only venturing out at night. It even plugs the burrow's entrance with sand each day to keep out the heat.

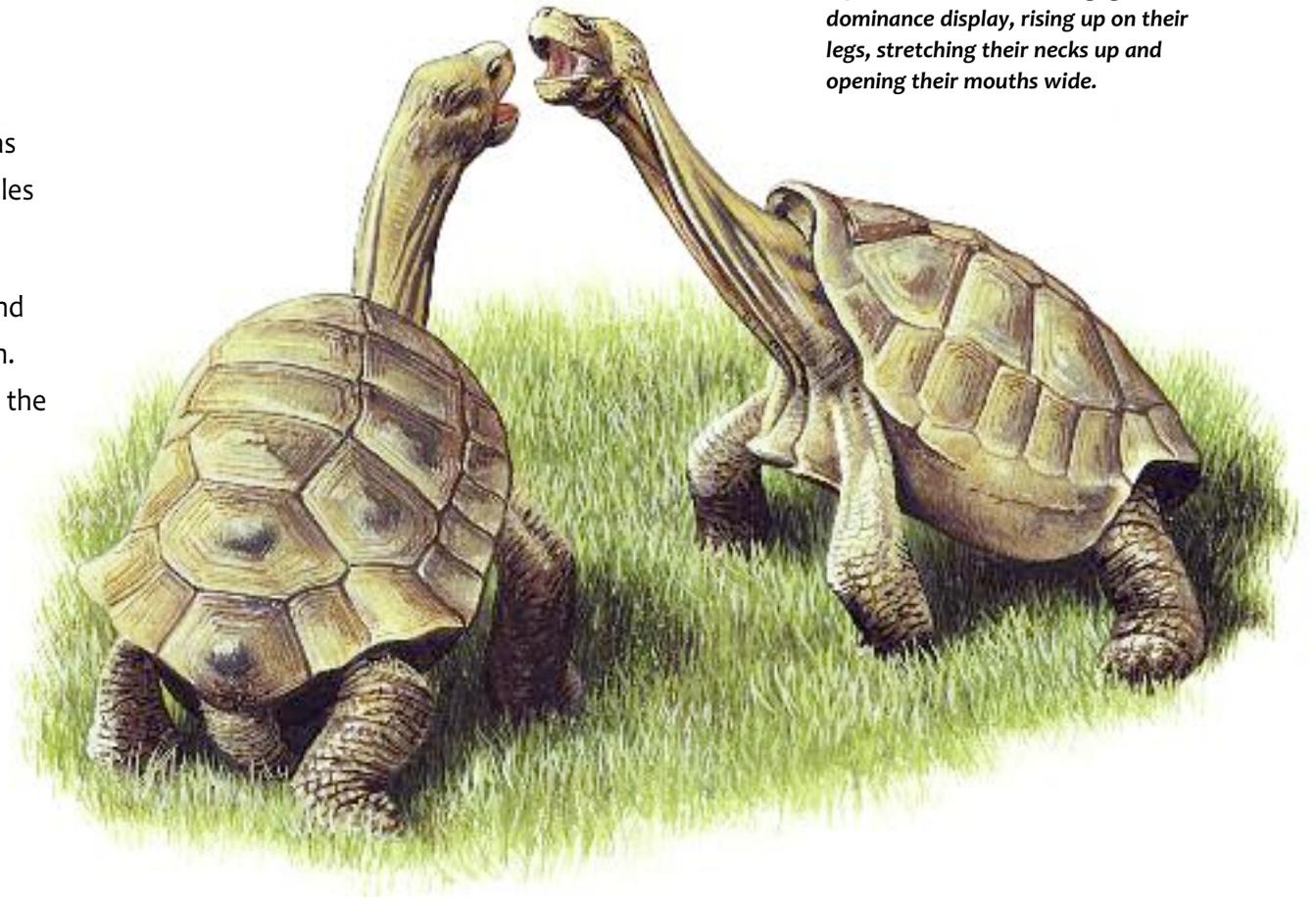
GALAPAGOS ISLANDS

EVERY BREEDING SEASON, male giant tortoises battle for supremacy. As well as winning the right to mate, dominant males also have the first pick of food.

When two males meet, they face each other and stretch their necks up as high as they can reach. The tortoise who stretches highest wins, while the other retreats. If neither tortoise backs down, the males may resort to bumping heads and even biting each other.

The Galapagos giant tortoise is one of the largest and heaviest reptiles in the world, reaching lengths of nearly two metres. They can live to be over 100 years old.

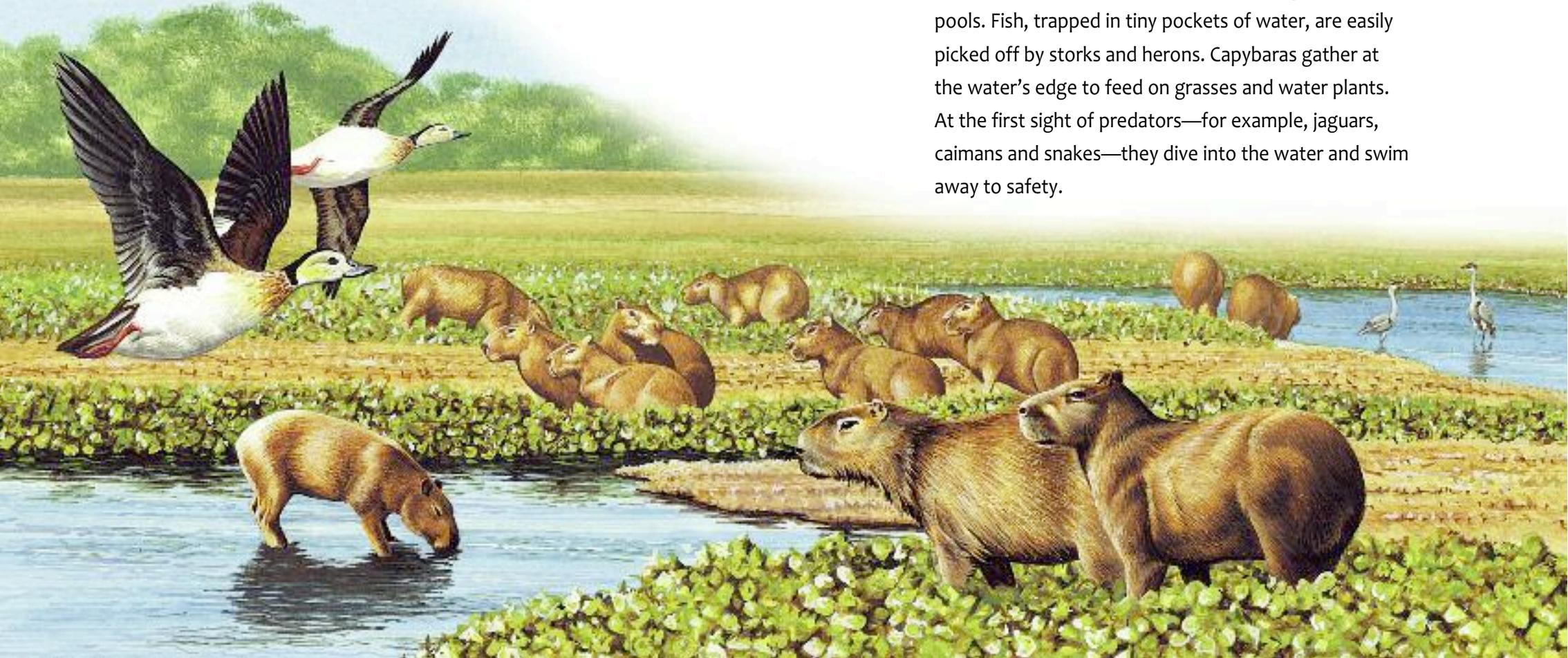
A pair of male tortoises engage in a dominance display, rising up on their legs, stretching their necks up and opening their mouths wide.



SOUTH AMERICA

Capybaras graze on plants exposed by the retreating waters while a pair of ringed teal ducks fly overhead.

THE PANTANAL, deep in the heart of South America, is the largest wetland in the world. But during the dry winter, it is no more than a string of shallow pools. Fish, trapped in tiny pockets of water, are easily picked off by storks and herons. Capybaras gather at the water's edge to feed on grasses and water plants. At the first sight of predators—for example, jaguars, caimans and snakes—they dive into the water and swim away to safety.



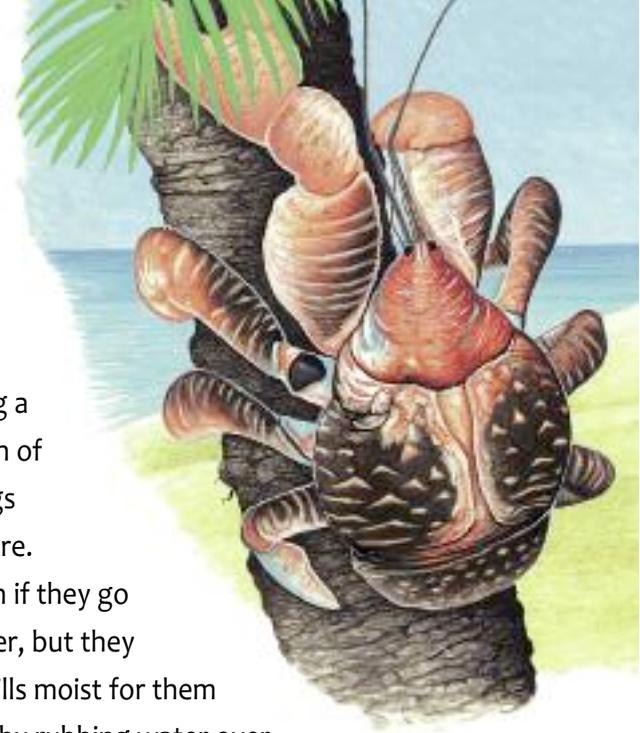
NEW GUINEA

THE LONG, COLOURFUL plumage of the male bird of paradise makes it highly attractive to females of the species. In the winter, males climb on to branches to perform their courtship displays, throwing their tail feathers over their heads and shaking them to impress the females. Their bright colours signal to females that the male is healthy and will produce strong young.



MEANWHILE, on the sea-shore, a coconut crab is scaling a tall palm tree in search of food. It is huge: its legs span more than a metre. Adult crabs will drown if they go completely underwater, but they must still keep their gills moist for them to work. They do this by rubbing water over them with their legs. The crabs usually live in burrows, coming out only at night to forage for fruit or nuts. In the breeding season, the crabs venture out for longer periods while they search for a mate.

After mating, the female lays her fertilized eggs in the sea. When they hatch, the young crabs will spend the first part of their lives in the sea.





A kiwi uses its long beak to manoeuvre its egg into position under its body.

AUSTRALASIA

NESTLED IN ITS BURROW, deep in the forests of New Zealand, a male kiwi incubates a single, extremely large, white egg. It was laid about a week ago by his partner. He will sit on the egg for up to three months until it hatches. Young kiwis may take up to three days to break out of their tough eggs. They then stay with their parents for three weeks.

In Australia and New Guinea, the cassowary, a relative of the kiwi, is also breeding. Female cassowaries lay a clutch of eggs in the nests of several different males. The males then incubate the eggs and raise the chicks until they are almost nine months old.

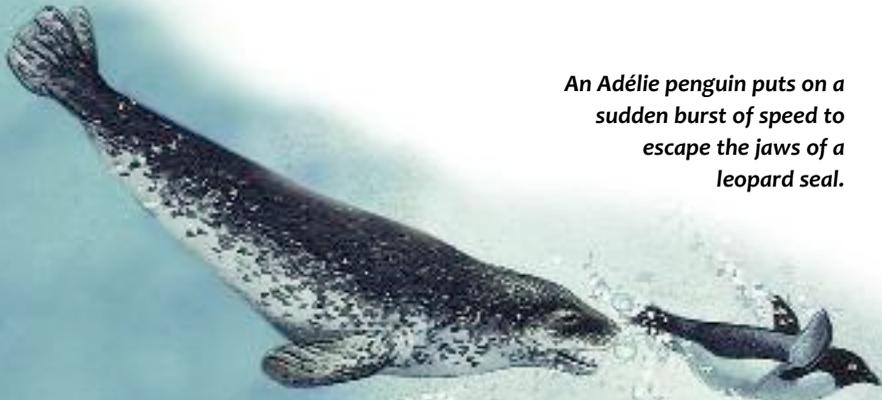


ANTARCTICA

ADELIE PENGUINS spend the Antarctic winter on the edge of the pack ice, diving for fish and krill. Like all penguins, the Adélies are fast and graceful swimmers, gliding smoothly through the water. But they must look out for leopard seals that patrol these seas.

Adélie penguins are so fearful of leopard seals that they hesitate at the water's edge, none daring to be the first to take the plunge. Leopard seals lurk in waters near the penguins' fishing grounds and mostly catch their prey by stealth. But in open water, a lucky penguin may be able to out-swim the predator.

An Adélie penguin puts on a sudden burst of speed to escape the jaws of a leopard seal.



IN THE winter, wandering albatrosses fly great distances across the Southern Ocean in search of food. They may soar hundreds of kilometres in a single day, using up-currents to keep them aloft without even flapping their wings. Albatrosses feed on squid, octopus and fish, which they catch by flying low over the water and scooping them up. Sometimes they eat so much that they are too heavy to fly. They then have to rest on the water until their food is digested.

THINGS TO DO: UNDERWATER VIEWER



If you're going to the seaside this summer, this activity is a great way to look more closely at rock pools. If not, ask an adult to help you scoop a bucket of water from a pond or river and use your viewer to see what's living in the water.

1 Using scissors, cut both ends off a plastic bottle. Take care, as the edges of the plastic may be sharp.

2 Stretch a clear plastic bag or a piece of cling film tightly across one end. Secure it with an elastic band or some sticky tape.



3 The plastic at the open end of your viewer may be quite sharp. Cover this edge with some thick tape, or several layers of normal sticky tape, to make it safer.

4 Push the covered end of the viewer beneath the surface of the water and look through the open end. You will be able to see under the water very clearly.

What animals and plants can you see?



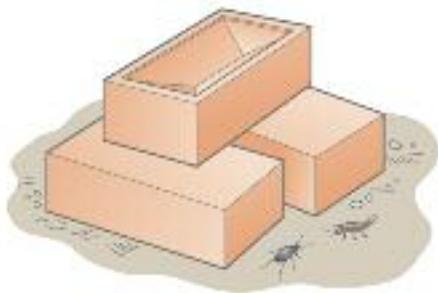
THINGS TO DO: MAKE A MINI-BEAST HOME

Lift up a log or stone in your garden or local park and you will probably see lots of mini-beasts living in the dark, damp space beneath it. To see which mini-beasts live near you, try making a “mini-beast home”.



1 Find a shady spot outside, for example, beside a fence or wall, but not too close to your kitchen or rubbish bins.

2 Stack some bricks into a pile or put out a broken plant pot. Look inside every day to see which creatures live there.



NATURE WATCH

	Stinging nettles	10
	Wild honeysuckle	20
	Caterpillar on a leaf	30
	Dropped feathers (from birds moulting)	40
	Flying ants	50

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

