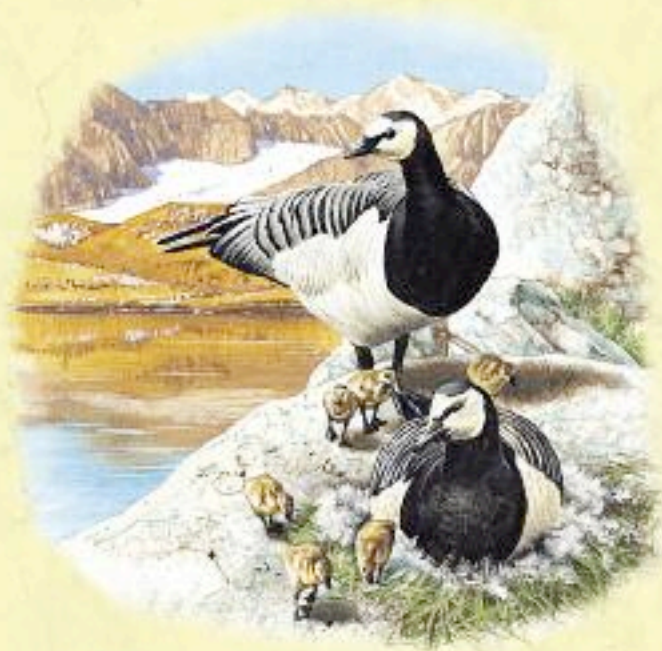


THE NATURE YEAR



JUNE

THE
NATURE YEAR
JUNE



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

THE NATURE YEAR

JUNE



 Orpheus

CONTENTS



THE WORLD · 6



EUROPE · 12



EAST AFRICA · 18



AUSTRALIA · 24



ARCTIC · 8



EUROPE · 14



SOUTH AFRICA · 20



ANTARCTICA · 26



ARCTIC · 10



NORTH AMERICA · 16



INDONESIA · 22



THINGS TO DO · 28

THE WORLD IN JUNE

IN THE NORTHERN hemisphere, it is the height of summer.

Plants flourish and there is a flurry of activity as the longest day of the year approaches. In the south, winter has arrived. Some animals migrate to warmer regions, while others prepare to endure the hardest months.

Where it is summer, flowers are blooming in the warmth. The trees are in full leaf; they lose their bright green, spring colour as they mature. Many animals are busy raising their young, while others are still breeding.



A bumblebee settles on a dog rose to gather nectar. In summer, the bees are busy feeding larvae as the colony quickly expands. Meanwhile, a pair of cabbage butterflies mate on a leaf. After mating, the female will lay her eggs on the underside of the leaf.

In June, the northern hemisphere is tilted towards the Sun, so the Arctic lands remain bathed in sunlight for 24 hours a day. On the other side of the world, Antarctica is permanently dark. It is now at its coldest time of the year, with ice covering the surrounding seas. Some animals, such as the humpback whale, leave for warmer waters further north. Only a few animals stay.

In the North Atlantic, seabirds nest in huge colonies along cliffs. When their chicks hatch, the parents catch fish to bring them. A puffin may carry about 10 fish in its beak at a time. Birds that feed further out to sea, such as guillemots, swallow their catch and regurgitate it back at the nest.



ARCTIC

SUMMER HAS FINALLY arrived in the tundra, the frozen treeless lands bordering the Arctic Ocean. The ground thaws briefly and plants, such as grasses, herbs and lichens, start to grow. Many animals give birth and raise young during this time of plenty.


On a high cliff, five barnacle geese have just hatched out. Within a few hours, they will leap from the cliff on to the grassy plain below. Here, there is abundant food for them: grasses, mosses and sedges recently uncovered beneath the snow. If they do not make

the leap, they cannot eat and so will die, but the drop is dangerous too. Many goslings are hurt on the rocks, and others fall prey to predators, particularly the Arctic fox.



EACH JUNE, reindeer gather on the tundra to graze. Females give birth to one, or very occasionally two, calves. The young reindeer can walk almost as soon as they are born and will be ready to head south with the adults in the autumn.

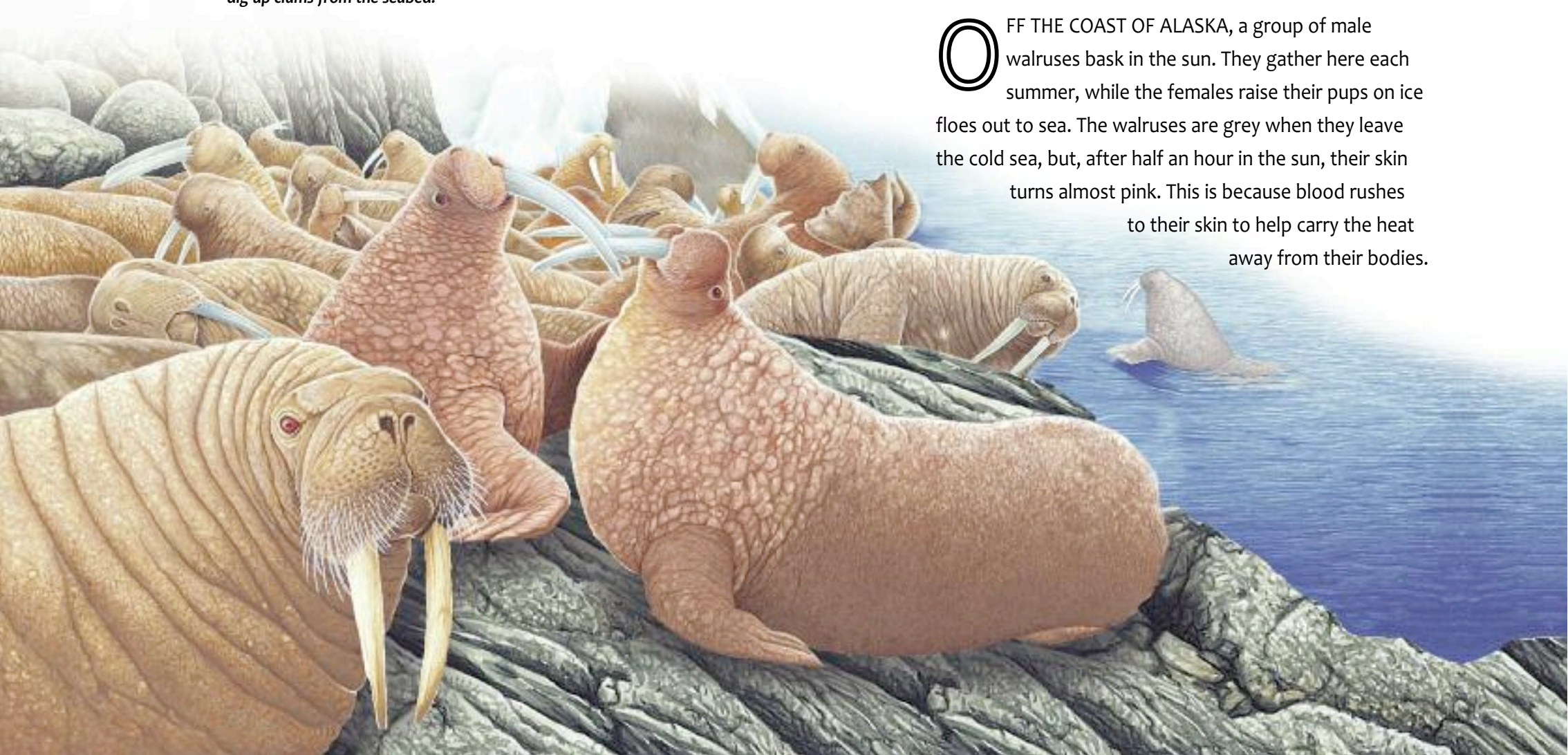




Walrus take to the sea from time to time to dig up clams from the seabed.

ARCTIC

OFF THE COAST OF ALASKA, a group of male walrus bask in the sun. They gather here each summer, while the females raise their pups on ice floes out to sea. The walrus are grey when they leave the cold sea, but, after half an hour in the sun, their skin turns almost pink. This is because blood rushes to their skin to help carry the heat away from their bodies.

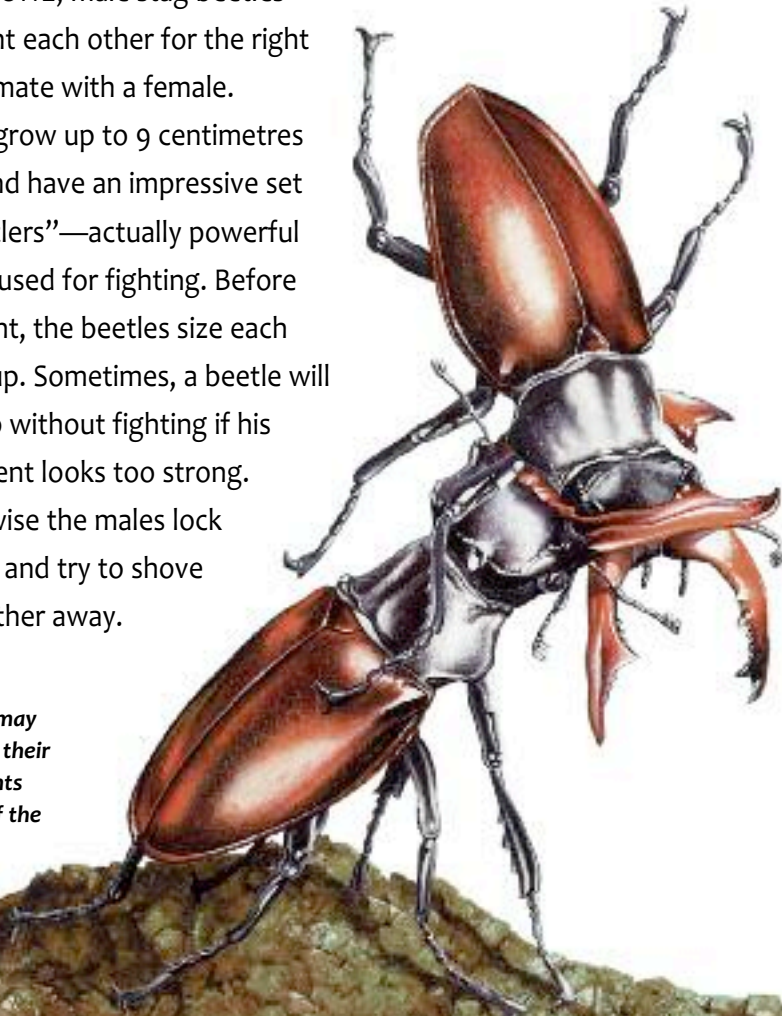


EUROPE

IN JUNE, male stag beetles fight each other for the right to mate with a female.

Males grow up to 9 centimetres long and have an impressive set of “antlers”—actually powerful jaws—used for fighting. Before the fight, the beetles size each other up. Sometimes, a beetle will give up without fighting if his opponent looks too strong. Otherwise the males lock antlers and try to shove each other away.

Beetles may even lift their opponents clean off the ground.



A queen bee and her workers fly to start a new colony. They cluster on a branch while scouts look for a suitable site for the hive.



BY EARLY SUMMER, a honeybee colony is getting crowded. As the colony grows, workers start to feed the young on royal jelly, a substance secreted by the bees. These young will grow into new queens.

Soon, the old queen will leave the hive to start a new colony. She is followed by a train of workers who protect her and help build the new hive. In the old colony, the first queen to hatch kills all the other queen larvae. She then leaves the nest to mate, before returning to the hive where she lays her eggs.



Three rabbit kittens huddle together for warmth. As evening falls, their mother will return to the nest to feed them.

EUROPE

IN A FUR-LINED BURROW under the ground, a litter of young rabbits lie sleeping. The baby rabbits, known as kittens, are just one week old. They were naked, blind and helpless when they were born, but in the last few days they have grown a coat of soft baby fur. Soon their eyes will fully open and they will start to feed independently. Until then, they rely on their mother's rich milk.

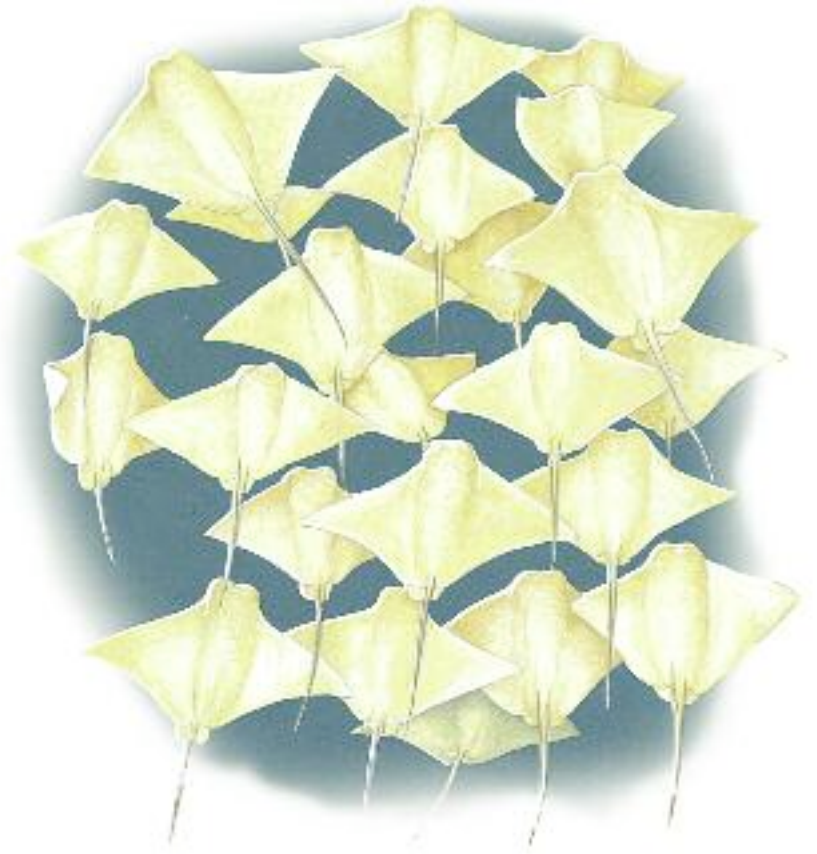
Because rabbit milk is so nutritious, the kittens need to feed only briefly: once in the morning and once in the evening. During the day, their mother stays away from the nest entrance. Her constant movement in and out of the nest would be a clear signal to predators that her young are concealed there.

NORTH AMERICA

EVERY YEAR, thousands of golden rays gather in the seas off the coast of Mexico. From here these schools of fish head towards the waters off western Florida.

Golden rays, also known as cownose rays, because of their domed heads, measure up to two metres across. With their large “wings”, they are able to cover long distances easily. Attached to their tail is a venomous stinger, nearly 40 centimetres long, but the rays will only use their stinger if attacked.

Unlike other rays, golden rays rarely rest on the seabed; they prefer to stay on the move. Swimming in groups, their flapping action stirs up sand on the seabed, exposing clams and oysters for the rays to eat.



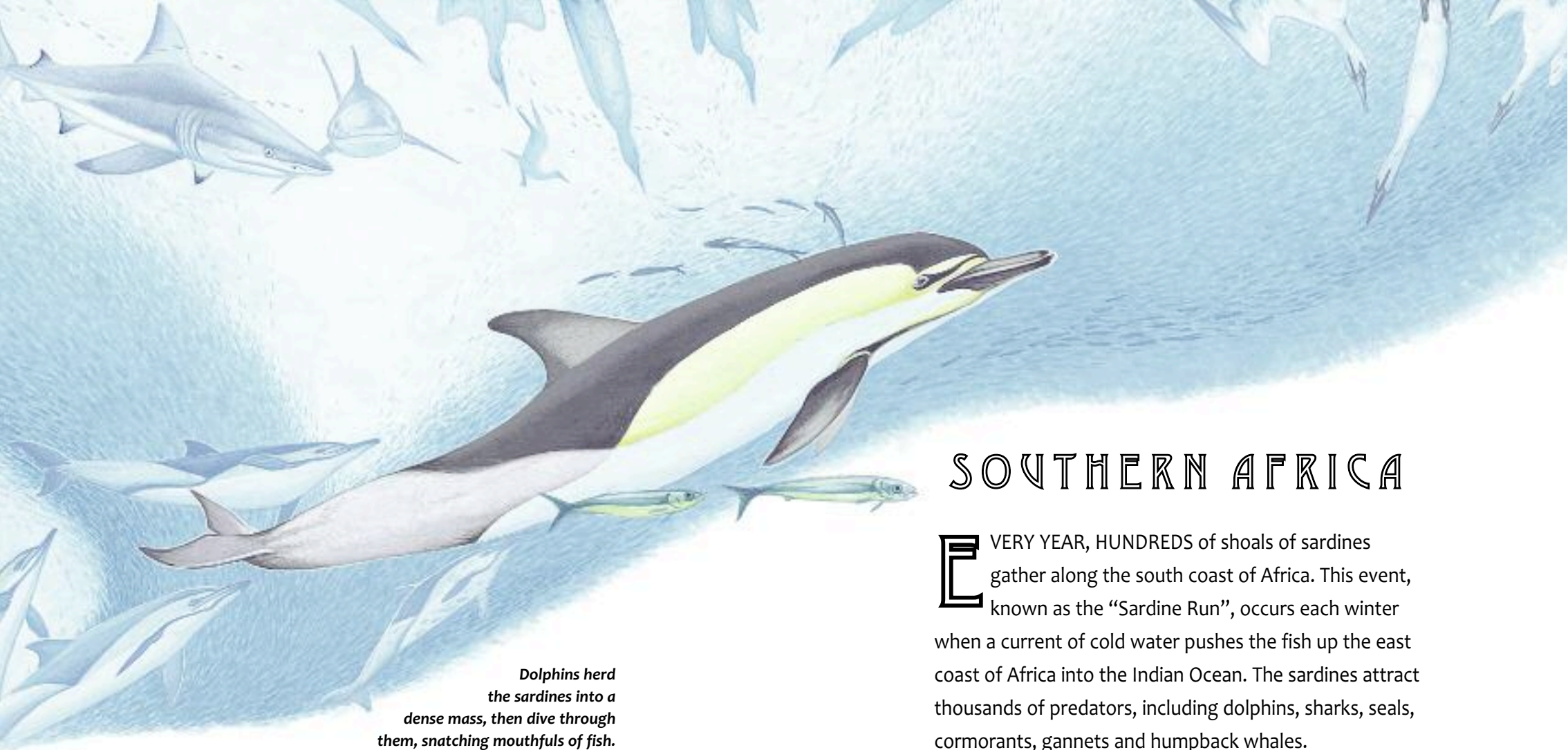
EAST AFRICA

ON THE SERENGETI PLAIN in East Africa, it is winter and the start of the four-month-long dry season. The wildebeest and zebras that roamed these plains in autumn have since moved on in search of better grazing. Without these animals to prey on, the lions face months with little food.

Vultures have keen eyesight and a sharp sense of smell to help them find carcasses in the wide plain. Spotting a vulture flying in low circles, a lioness goes to investigate. She finds the body of a zebra that has died from thirst. The lions will not go hungry today.

A hyena lurks near the carcass, hungry, but afraid of the lions. The vulture flies off. It will return once the lions have left and feed on the rich marrow inside the zebra's bones.





Dolphins herd the sardines into a dense mass, then dive through them, snatching mouthfuls of fish.

SOUTHERN AFRICA

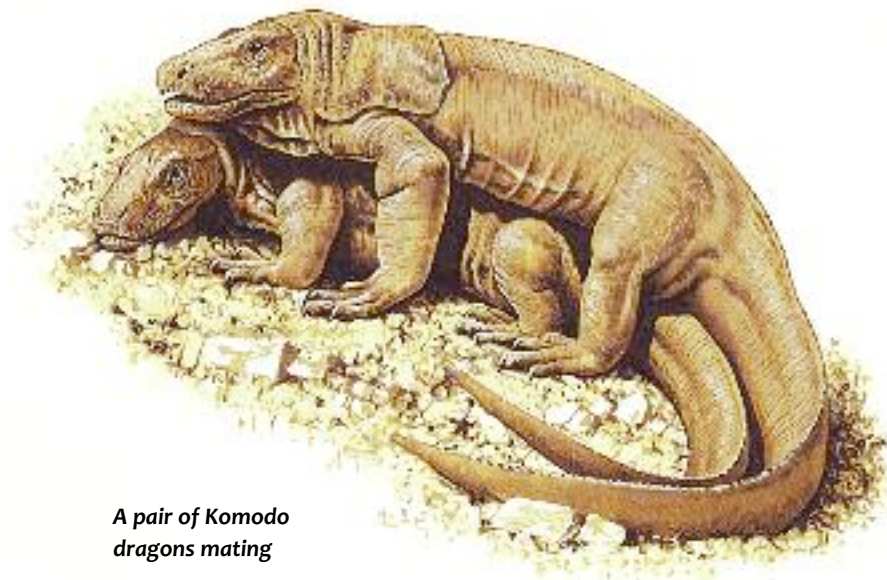
EVERY YEAR, HUNDREDS of shoals of sardines gather along the south coast of Africa. This event, known as the “Sardine Run”, occurs each winter when a current of cold water pushes the fish up the east coast of Africa into the Indian Ocean. The sardines attract thousands of predators, including dolphins, sharks, seals, cormorants, gannets and humpback whales.



INDONESIA

ORANGUTANS spend their days swinging through the treetops looking for fruit to eat. The prickly-skinned durian is one of their favourite foods, and June is the start of its fruiting season.

Climbing through the treetops 40 metres above the ground can be dangerous: one false step can result in a fatal fall. So, as orangutans move from tree to tree, they make sure to keep a firm hold on the branches. As soon as a fruit has been found, they break open its skin and devour the tasty flesh.



A pair of Komodo dragons mating

JUNE IS THE height of the Komodo dragon mating season. The lizards are usually solitary animals, but males and females sometimes meet when feeding. A courting male will follow a female for days, rubbing his chin against her and licking her back until she lets him mate with her.



A young koala clings to its mother's back in the treetops.

AUSTRALIA

IN THE BRANCHES OF a eucalyptus tree, a koala rests with her baby on her back. When it was born, the baby, known as a joey, was just the size of a bean. But after six months suckling and growing in its mother's pouch, it is now too big to stay there any longer.

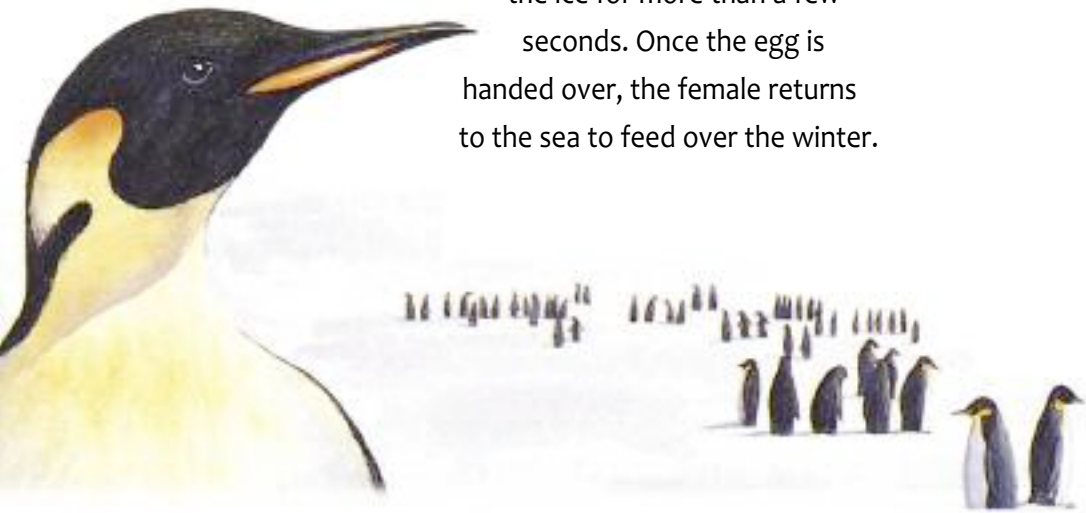
A month ago the joey started to peek out of the pouch. Now it enjoys riding around on its mother's back, occasionally venturing off on its own. It will stay with its mother for another six months, drinking her milk, and gradually starting to eat eucalyptus leaves, the staple food for koalas.

Female koalas leave their mothers when they are about a year old, but males may stay nearby for another year or two.

ANTARCTICA

ANTARCTICA IS IN the grip of winter. Temperatures are freezing and the land is swept by icy winds and blizzards. But despite these inhospitable conditions June is the peak of the emperor penguins' breeding season. They are the only penguins to breed during the Antarctic winter.

The penguins mate in May after a long march from the sea to their inland breeding sites. Each female lays a single egg, which she passes to the male to care for. If it is dropped at any point, the chick inside it will die, as it cannot withstand the freezing temperature of the ice for more than a few seconds. Once the egg is handed over, the female returns to the sea to feed over the winter.



The male balances the egg on top of his feet to keep it off the ice. The egg is kept warm under a special pouch of skin, called a brood pouch. Males keep the egg here for two months until it hatches. Emperor penguins are the only species of penguin where just one parent cares for the egg.



Males huddle together for warmth, taking turns to stand in the warmest spot at the centre of the group. Females return in July and the males pass over the eggs, which are nearly ready to hatch. By this time, the males may have lost up to half of their body weight.

THINGS TO DO:

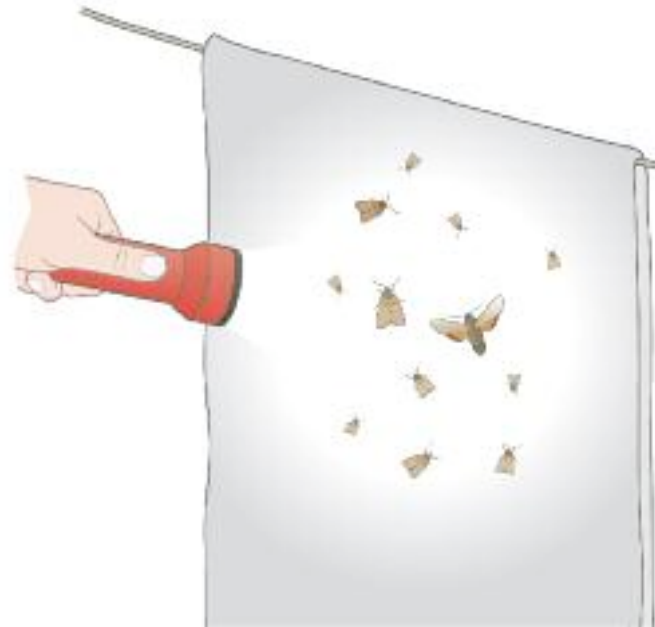
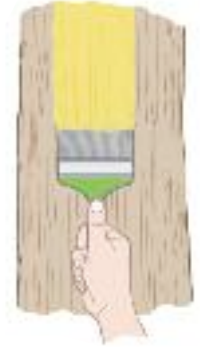
ATTRACT MOTHS

Moths are like butterflies with feathery antennae that fly about during the night. Like all nocturnal animals, they can be quite hard to find. But you can lure them to your garden using a sugary mixture or a bright light.



1 Stir together some golden syrup with a little hot water and a few extra spoonfuls of sugar. Alternatively, you can mash a bowl of slightly rotten fruit—the softer the better. Add some water so that the mixture is slightly runny.

2 Paint the mixture on to a tree trunk, fence post or a piece of rope hanging from a branch. Check the painted area after dark. How many different types of moth are there? Are there any other nocturnal insects?



3 You can also use bright lights to attract moths. When it gets dark, shine a torch at a white sheet, hung up outside. See how many moths land on the sheet.

THINGS TO DO: PRESSING FLOWERS

Pressed flowers and leaves can make a great addition to a nature notebook or homemade greetings card.



1 Pick a flower or leaf from your garden or find one that has naturally fallen. Never pick wild flowers.

2. Place it between several sheets of blotting paper or kitchen towel.

3 Place the flower and paper between two books and leave for at least 3 days.

4 Stick the leaves and flowers into a notebook.



NATURE WATCH



Butterflies 10



Swifts and swallows 20



Dog rose 30



Bees on flowers 40



Bats flying at dusk 50

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

