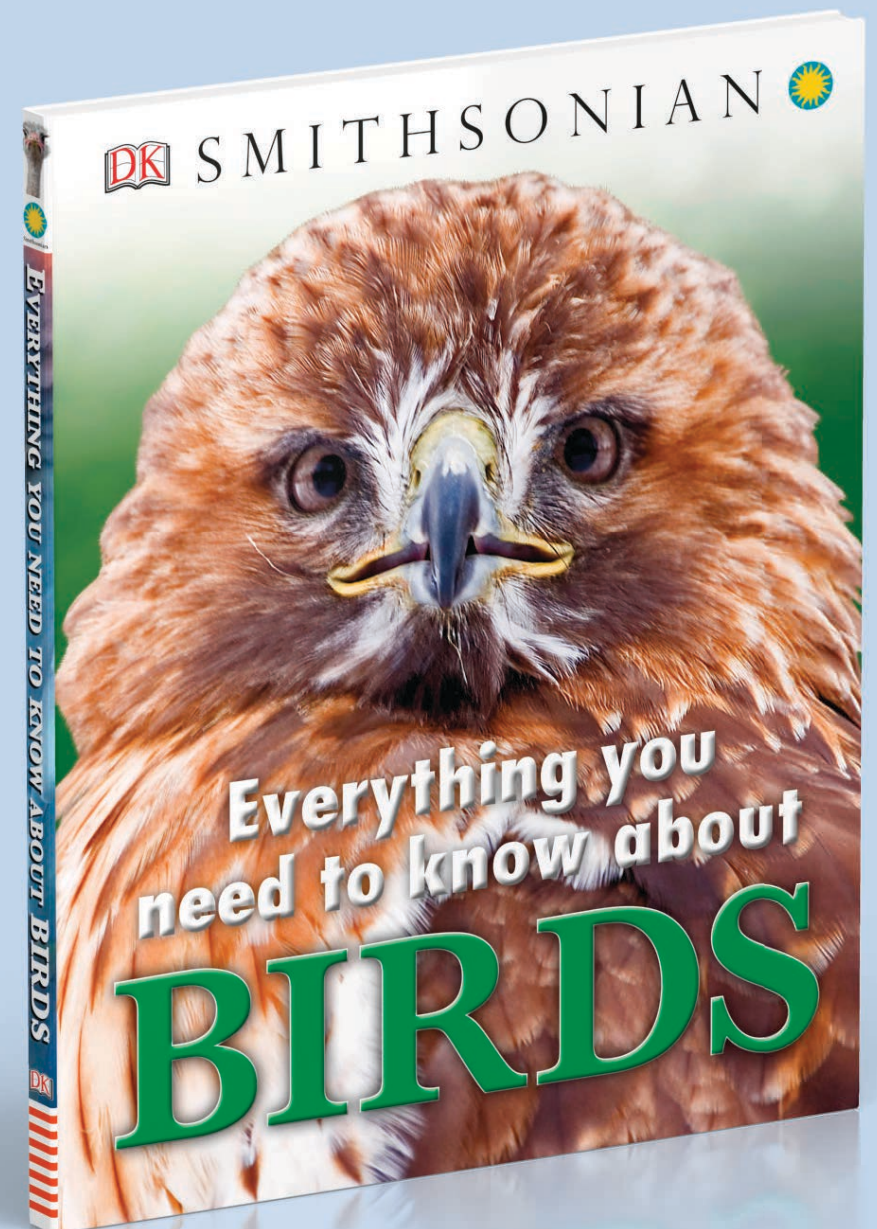




# Everything you need to know about **BIRDS**



## Downloadable Pack

# Global DOMINATION

Birds have made a home on every continent and in almost every habitat, from frozen polar regions to dry deserts and open oceans.

## Forest



**T**he greatest variety of birds live in forests. Fruit, nuts, berries, seeds, insects, and other small animals are easy pickings for food. Twigs and leaves are ideal for nest-making, while tree trunks can make good solid nest holes for those that can find a handy hollow.

## Grassland



**O**pen pastures, grassy fields, prairies, or savannas... Grasslands of all types provide lush feeding grounds for seed-eating and insect-eating birds, such as this finch. In winter, pasture is used by grazing waterfowl such as geese and swans.

## Scrubland



**W**ild, open areas of scrubland—which occur where it is too wet for deserts but too dry for forests to grow—attract a huge variety of birds from nectar-eaters to birds of prey. While there is plenty of food, there are few trees, so some birds nest on the ground.

## Desert



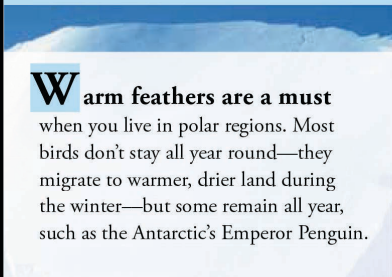
**D**eserts get less than 10 in (25 cm) of rainfall a year. Most birds avoid these dry regions, but some species can cope with droughts. Sandgrouse soak up water in their breast feathers and then fly back to their nest so the chicks can suck the feathers for a drink.

## Mountain



**T**he higher the altitude, the harder life is for birds. Large birds cover a wide area searching for food, while small birds peck for seeds and insects among the few plants. Perhaps the hardest bird is the Red-billed Chough—it has been seen at the summit of Mount Everest.

## Polar



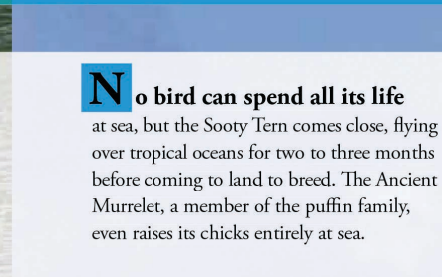
**W**arm feathers are a must when you live in polar regions. Most birds don't stay all year round—they migrate to warmer, drier land during the winter—but some remain all year, such as the Antarctic's Emperor Penguin.

## Wetland



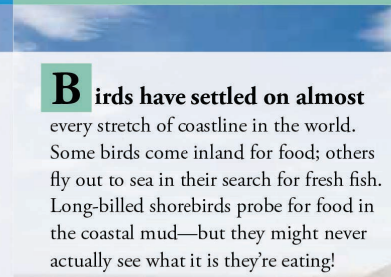
**F**reshwater wetlands such as lakes and rivers attract a huge variety of birds, from ducks to songbirds to pelicans. The water teems with fish, algae, and other food, while reeds can be the perfect bedding material.

## Ocean



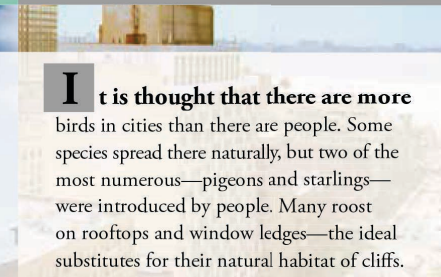
**N**o bird can spend all its life at sea, but the Sooty Tern comes close, flying over tropical oceans for two to three months before coming to land to breed. The Ancient Murrelet, a member of the puffin family, even raises its chicks entirely at sea.

## Coast



**B**irds have settled on almost every stretch of coastline in the world. Some birds come inland for food; others fly out to sea in their search for fresh fish. Long-billed shorebirds probe for food in the coastal mud—but they might never actually see what it is they're eating!

## Urban



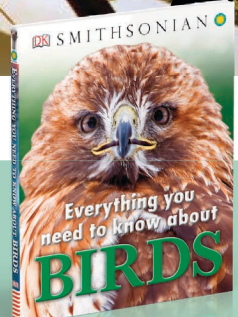
**I**t is thought that there are more birds in cities than there are people. Some species spread there naturally, but two of the most numerous—pigeons and starlings—were introduced by people. Many roost on rooftops and window ledges—the ideal substitutes for their natural habitat of cliffs.



For the curious

Content taken from *Everything You Need to Know About Birds*

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# These feet were made for...

All birds have two feet—but the shape, size, color, and even the number of toes can differ between species. It all comes down to the job they do.



## hunting

Owls rely on the element of surprise to catch prey. Thick feathers that reach all the way down to the ends of their wings help muffle sound so they can swoop silently down onto the unsuspecting animal. Then, with talons bared, the owl grabs the prey and carries it back to its roost.



## perching

Passerines, or perching birds, have flexible feet that can grip on to the thinnest perch—even telephone wires. The toes lock into place when the bird settles, so the grip remains strong when the bird is asleep. Small songbirds can even hang upside down by one leg.



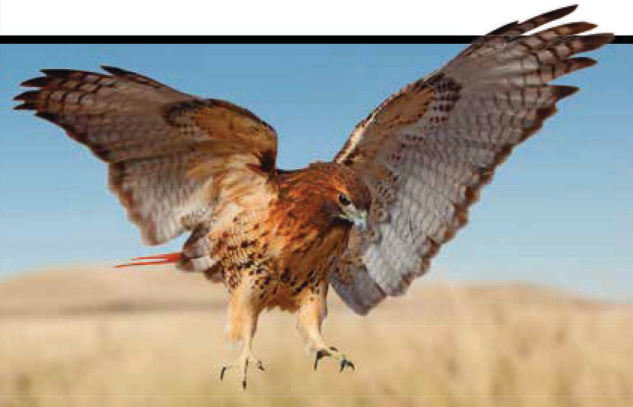
## running

Most birds have four toes, but ostriches are unique in that they have just two. Smaller feet mean there is less of a surface to come in contact with the ground. This reduces friction when running, allowing the ostrich to reach speeds of up to 45 mph (72 kph).



## mating

Why do Blue-footed Boobies have blue feet? So they look different from Red-footed Boobies! Females need to tell the species apart so they know which males they can mate with. Helpfully, the males perform a courtship dance to show off their feet.



## killing

Birds of prey, such as this Red-tailed Hawk, are the only birds that use their feet (rather than their bill) to kill prey. A hawk will fly in behind its prey, its feet pointing forward and talons outstretched for the kill. The rear talon is usually the strongest, and often delivers the fatal stab.



## walking on water

In their search for food, jacanas walk across lily pad leaves that float on the surface of pools. Their long toes help spread the weight of the bird (which isn't very heavy anyway) so they won't sink. From a distance it can look like the bird is walking on water.



## paddling

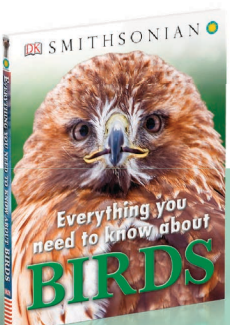
Swimming is so much easier with flippers to push against the water. Many waterbirds, such as this duck, have flaps of skin connecting their three forward-facing toes. A duckling fleeing danger can swim so fast, it almost runs on the surface of the water.



For the curious

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You know it makes sense

Birds have all the same senses as humans, but rely most on sight and hearing. These help them find food, attract mates, spot predators, and fly with great accuracy.

Some birds have a good sense of smell. Others have a touch-sensitive bill or whiskers that they use to detect worms in soil or shellfish in mud. Taste is the least developed sense, but it is good enough to help them avoid poisonous foods.

# Sight



I'm keeping one eye on you. The other one's on that cat...

**Starlings**, like most birds, have excellent vision. Their eyes are very large compared to the rest of their body, and can move independently to see what's happening on either side of the bird.



**Predators**, such as hawks, can see farther than other birds. They can spot a mouse on the ground 5,250 ft (1,600 m) below them. Vultures can spot carcasses from more than twice that distance.

# Sound



Feather tufts (not ears)

The ears are at the side of the owl's head

**Owls** have extremely good hearing. Their bowl-shaped faces act like a radar dish, focusing sound waves toward the ears. Some species hunt entirely by sound, listening for the slightest movement of an animal on the ground.

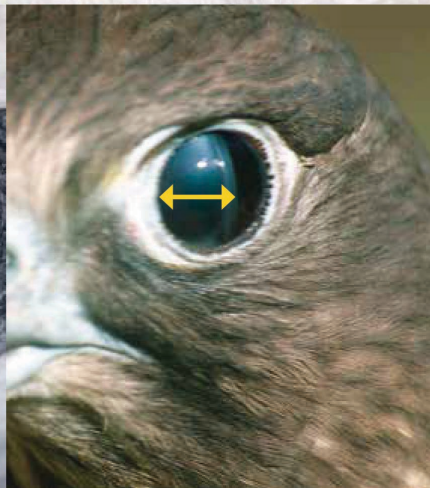


Mmm... smells good. Think it's going to be fish for supper.

**Petrels** have an exceptional sense of smell. Like many seabirds, they can smell fish oils floating on the surface of the sea after sharks or dolphins attack schools of prey many miles away. They fly in and pick up the leftovers.



**Gannets**, boobies, and other diving birds have forward-facing eyes. They can spot fish from high above the sea and calculate how far a fish will move as they plunge into the water after it.



**Birds** have a transparent third eyelid that slides horizontally across the eyeball to clean it. It also acts like a windshield to protect the eye when the bird is flying or diving underwater.



Is it just me, or is there an echo in here... here... here?

**Oilbirds** are like bats—they use echolocation to find their way in and out of the dark caves in which they roost. They call and listen for an echo to come back. They can tell where the cave roof and walls are by how quickly the sound returns.



Come out, little worm—I know you're down there!

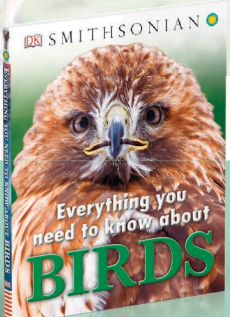
**Kiwis** are unique in having their nostrils at the end of their bills. This helps them sniff out insects and earthworms in the undergrowth, which is useful since kiwis are nocturnal and have poor eyesight.



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All the birds on the blue page are chicks. Their parents are on the white page. See if you can match each baby to the correct adult. Write down the numbers and letters you think go together, then check the answers on the facing page.

# Where's my mom?



# Match the parent to the chick



- Answers**
- 1e Domestic Duck
  - 2c Great Egret
  - 3g Osprey
  - 4a Great Frigatebird
  - 5d Lesser Flamingo
  - 6h Snowy Owl
  - 7b Fairy Tern
  - 8f Laysan Albatross

