

GREEN WOODPECKER

CARD 49

GROUP 2: BIRDS

ORDER
Piciformes

FAMILY
Picidae

GENUS & SPECIES
Picus viridis



R. Wilmshurst/Bruce Coleman Ltd

A large and brightly colored bird, the green woodpecker inhabits the trees of open woodland. It uses its powerful beak to excavate nest holes in soft bark.

KEY FACTS



SIZES
Length: 12 in.
Beak length: 2 in.
Tongue length: 4 in.
Wingspan: 16 in.
Weight: 6-7 oz.



BREEDING
Sexual maturity: 1 year.
Breeding season: April-August.
Eggs: 5-7 white eggs in clutch.
Incubation period: 17-19 days.
Fledging period: 23-27 days.



LIFESTYLE
Habit: Woodland bird, but feeds mainly in grassland. Birds mate in spring and share nest duties.
Diet: Mainly ants, including eggs, larvae, pupae, and adults. Also other insects, seeds, and fruits.
Lifespan: Oldest known bird, 7 years, 4 months.



RELATED SPECIES
There are over 200 species of woodpecker worldwide.



Range of the green woodpecker.

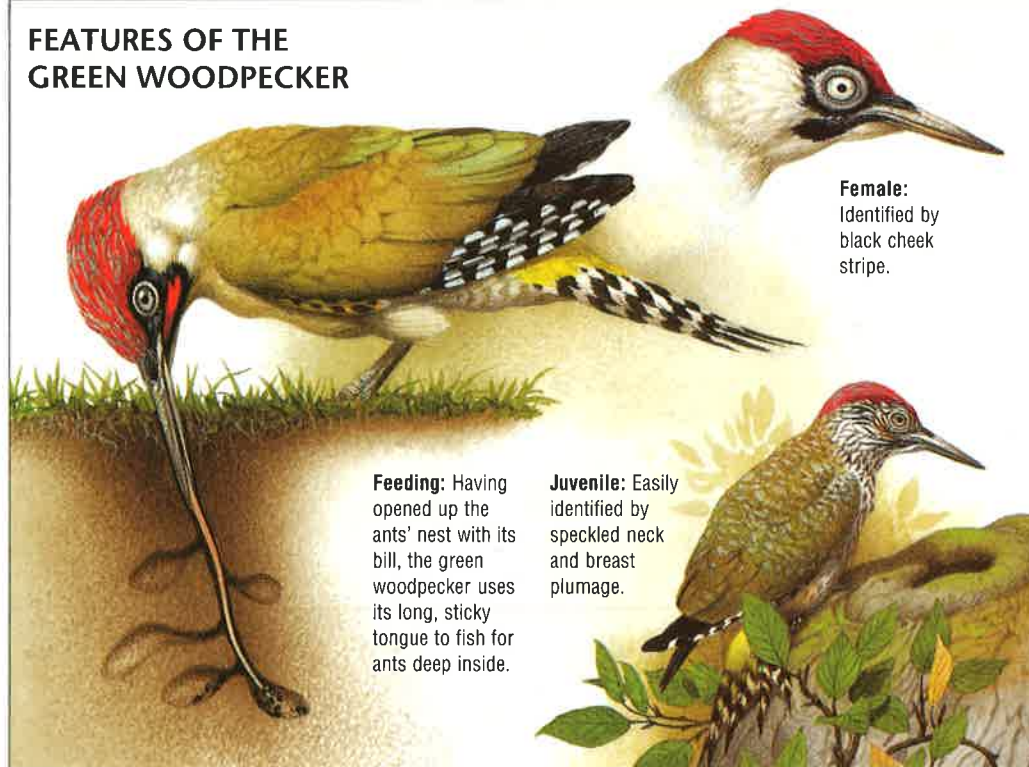
DISTRIBUTION

Widespread throughout central and southern Europe, but not found in Ireland or northern Scotland.

CONSERVATION

The destruction of woodland and improvement of pasture has led to a decline in green woodpecker population in many places.

FEATURES OF THE GREEN WOODPECKER



Female: Identified by black cheek stripe.

Feeding: Having opened up the ants' nest with its bill, the green woodpecker uses its long, sticky tongue to fish for ants deep inside.

Juvenile: Easily identified by speckled neck and breast plumage.



Clarke Nature Photographers

The well-camouflaged green woodpecker is one of the most elusive of woodpecker species since, once among the trees, the bird soon disappears from view. Then the only clue to its presence is its loud ringing call most often heard in spring.

BREEDING

Male and female green woodpeckers feed and roost separately during the winter but remain in the nesting area year-round. In spring, they call loudly to one another from their roosting trees, signaling that they are ready to mate.

Sometimes the birds will use one of their winter roosting holes for nesting. If they do not, it will take both birds 10 to 30 days to excavate a new hole in a tree trunk. The female then lays five to seven small white eggs.

Both birds share the duties of incubating the eggs and feeding the young. Once the young are able to leave the nest, the parents may split up the brood, each caring for three or four young until the chicks can fend for themselves.



J. Grandjean/Bruce Coleman Ltd

Right: A juvenile clings to a branch using its long, clawed feet, balancing itself on its stiff tail.

Left: Up to seven young are hatched in a cramped nest hole, which is cut into the trunk of a dead tree by both adults.

Right: The characteristically rounded wing shape of all woodpeckers is clearly visible in this juvenile.

R. T. Mottler/Aquila Photographics



R. T. Mottler/Aquila Photographics



BIRDWATCH

Green woodpeckers are common throughout much of central and southern Europe. They can be found in parks where mature trees grow and on hillsides where ant colonies are plentiful. Sometimes the birds move to more open areas in winter.

Generally, however, woodpeckers are more often heard than seen, since their loud call is easily recognizable. Bird-watchers may be able to follow a woodpecker by its call and catch a brief but memorable view of the colorful bird.

FOOD & FEEDING

The green woodpecker has an insatiable appetite for ants and consumes approximately 2,000 a day. When it finds an ants' nest, it will tug at the grass and dig a hole three inches deep with its long beak. As the ants rush out, the bird licks them up with its tongue.

Once a large ants' nest is found, the bird will feed for an hour or more and return to the nest often.

Although the green woodpecker prefers ants, it feeds on almost any insect it can pull out of the ground or from the bark of trees.



J. Markham/Bruce Coleman Ltd

Above: A female green woodpecker returns to feed her hungry young.

GREEN WOODPECKER & MAN

Modern farming methods have led to a widespread decline of the green woodpecker. In the past, pastures were left undisturbed, allowing ant colonies time to become established and grow large.

Today pasture is regularly plowed, reseeded, and fertilized to produce richer grazing

for livestock. The ants' nests are destroyed in the process, and the shade of the tall grass makes conditions too cool and moist at ground level for them to recolonize.

Still, despite habitat loss, the green woodpecker continues to be fairly widespread.

DID YOU KNOW?

- Woodpeckers also eat fruit and seeds. They pick up pine cones and hammer out the seeds with their beaks.
- The woodpecker's characteristic tapping sound is actually a mating call. It is produced by the bird's hammering its bill on branches, which resonate and amplify

- the sound.
- In winter, the green woodpecker tunnels through drifts of snow for food. It has been known to dig a tunnel a yard long to reach an ants' nest.
- Some people call the green woodpecker the rain bird, since its call is believed to herald the coming of rain.

MALLARD

CARD 50



GROUP 2: BIRDS

ORDER
Anseriformes

FAMILY
Anatidae

GENUS & SPECIES
Anas platyrhynchos



Dr. Scott Neilson/Bruce Coleman Ltd

The mallard is the largest of all ducks and is a common sight on lakes and ponds. It is one of the most numerous and widespread of all bird species.

KEY FACTS



SIZES
Length: 20-25 in.
Wingspan: 30-40 in.
Weight: Male, 44 oz. Female, 38 oz.



BREEDING
Sexual maturity: 1 year.
Mating season: March.
No. of broods: 1.
Eggs: 10-12 gray-green or buff colored (occasionally blue).
Incubation: 27-28 days.
Fledging period: 50-60 days.



LIFESTYLE
Diet: Plant material, seeds, shoots, insects, and mollusks.
Habit: Sociable.
Lifespan: Oldest recorded, 29 years.



RELATED SPECIES
There are 45 species and 58 subspecies related to the mallard.



Range of the mallard.

DISTRIBUTION

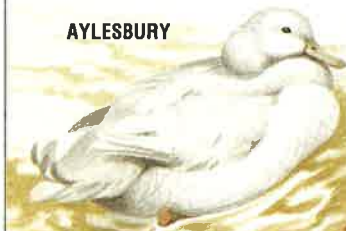
Widespread throughout northern hemisphere. Breeds through most of North America, Asia, and throughout Europe. Winters in southern part of range.

CONSERVATION

Despite being widely hunted, mallards are not endangered. The species' adaptability and willingness to live alongside man may guarantee its survival.

THE MALLARD'S DESCENDANTS

AYLESBURY



All varieties of domestic duck are descended from the mallard, except for the South American muscovy, *Cairina moschata*. Many of the domesticated species of duck retain clearly visible mallard features, such as the curly tail

in all domestic drakes and the bottle green head and white collar visible among the drakes of the Rouen and Welsh harlequin varieties. Other mallards display a wide variety of colors and characteristics.

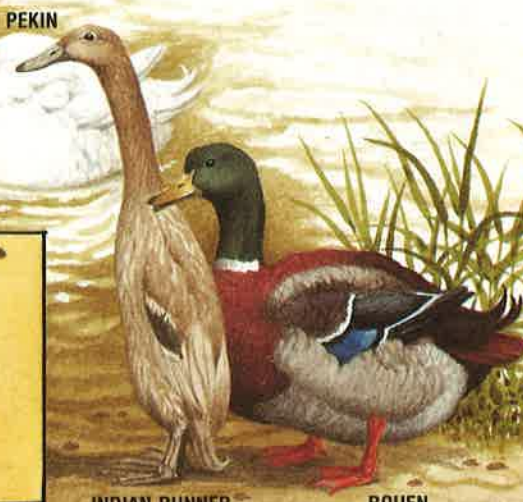
PEKIN



KHAKI CAMPBELL



MALLARD



INDIAN RUNNER

ROUEN

Most mallards feed by searching underwater for food—by dabbling or upending themselves. But they can also be found grazing on land, like geese. Archaeological evidence suggests that mallards were bred by ancient Egyptians, possibly even before the chicken was domesticated.



S. Krause/istockphoto.com/NHPA

HABITAT

The mallard is one of the most widespread of all bird species. It is found in a variety of habitats throughout much of the northern hemisphere. Although it prefers still and shallow inland waterways, such as ponds, lakes, rivers, reservoirs, and marshes, the

mallard may also be found on the sea, particularly during its winter migration. Most ducks are wary by nature. Yet one of the mallard's most interesting characteristics is its willingness to live close to human populations.

Above: The male mallard has distinctive markings.

Right: The drably colored female watches over her eggs.



Joe Bo. Blossom/WPT/Survival Anglia Ltd

FOOD & FEEDING

Mallards eat a wide range of food. They feed by dabbling in the water: sifting water through their broad and flat bills to filter out tiny plant and animal material. They also feed by grazing underwater and on land.

To reach submerged vegetation, mallards upend themselves, rather than dive, so that their bodies remain on the surface of the water, while their heads and necks are stretched below the surface. For this reason they prefer shallow water.

Throughout the year mallards eat a variety of food, including grains, grasses, potatoes, insects, mollusks, crustaceans, and small fish. Their varied diet allows them to eat what is available.



Andy Purcell/Bruce Coleman Ltd

Above: A mallard upends itself.

Below: A mallard dabbles.



Ian Beames/Ardea London



William Paton/NHPA

Left: Female mallard with ducklings, displaying her speculum (patch of color).

BREEDING

Large numbers of mallards pair off in August to mate, although migrating birds may not mate until spring. The birds usually pair for just one season, but occasionally the same birds mate again in subsequent years. Mating takes place on the water at regular intervals between September and March. A pair separates when the female begins incubating. The male, called a *drake*, may then try to mate with other females.

The large winter flocks begin to break up in February as pairs look for breeding sites around which they establish a

home range. Once a site is selected, the female makes a cup-shaped nest and lines it with grass, as well as with feathers she plucks from her breast. The nest is usually on the ground, although some are in hollow trees or on the roofs of buildings.

The female lays 10 to 12 eggs that she incubates. The male behaves protectively toward the eggs at first, but he soon loses interest and goes off to feed with other males.

Once the young hatch, the female leads them to water and watches over them. Despite her care, more than 50 percent of the ducklings are eaten by foxes, weasels, rats, pike, and predatory birds.

DID YOU KNOW?

- Only female mallards quack—males whistle and grunt.
- Mallards have a distinctive patch of color on their wings called a *speculum*.
- Ducklings born in nests above ground must jump out to reach water. They are so light that they often fall 10 feet or more without harm.
- The mallard is a popular game bird, and hunters shoot thousands of the ducks yearly.
- Some species of mallard interbreed with domestic species of duck.
- It is believed that the mallard was the first domesticated bird, predating even the chicken.

BIRDWATCH

Mallards are found year-round in their habitat. The male's distinctive markings make him easy to spot in the summer: bright green head, brown breast, blue and white speculum, pale grey belly,

and white ring around his neck. Females are harder to find because of their dull, mottled brown coloration.

In the winter males molt into their *eclipse plumage* and resemble females.

WANDERING ALBATROSS

CARD 51



GROUP 2: BIRDS

ORDER

Procellariiformes

FAMILY

Diomedidae

GENUS & SPECIES

Diomedea exulans



The wandering albatross has a wingspan of more than nine feet—the largest of any living bird. It soars vast distances across the ocean with little effort.

KEY FACTS



SIZES

Length: 4-5 ft. Male larger than female.

Wingspan: 9-10 ft. To a maximum of 11 ft.

Weight: Male, 18-26 lb. Female, 15-20 lb.



BREEDING

Sexual Maturity: At 9-15 years.

Breeding Season: November to July in alternate years.

Eggs: 1. White, red speckled.

Incubation: 75-82 days.

Hatching: 3 days to break the shell

Fledging period: 270-280 days.



LIFESTYLE

Habit: Solitary or small feeding groups at sea. Breed in colonies.

Diet: Mainly squid, octopus, and cuttlefish; also crustaceans, fish, and food from boats.

Lifespan: 30 years, but some may live to 80 years.



Full range.

Island breeding sites.

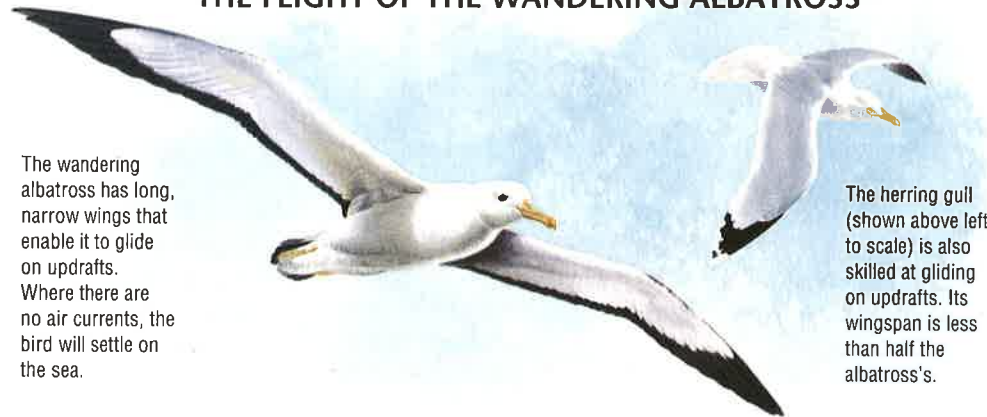
DISTRIBUTION

Small islands in the southern oceans, between Antarctica and the Tropic of Capricorn.

CONSERVATION

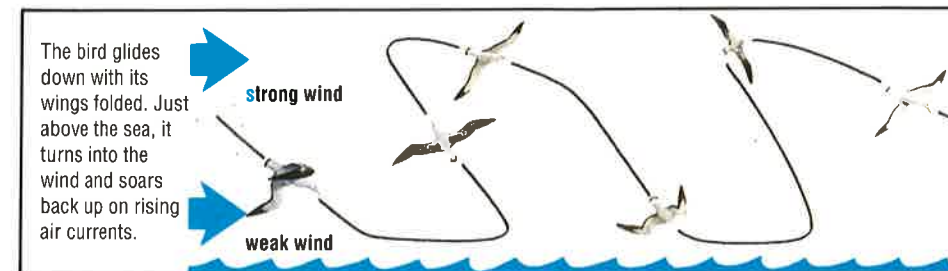
Chief predators are skuas. Its main threat today comes from oil and chemical pollution. As commercial fishing increases in its range, the wandering albatross may have to compete with humans for its food.

THE FLIGHT OF THE WANDERING ALBATROSS



The wandering albatross has long, narrow wings that enable it to glide on updrafts. Where there are no air currents, the bird will settle on the sea.

The herring gull (shown above left, to scale) is also skilled at gliding on updrafts. Its wingspan is less than half the albatross's.



The wandering albatross roams the

southern oceans and circles the

Antarctic continent. It comes to land

only to breed on small subantarctic islands.

The bird has occasionally been spotted

off the South American coast but it has

been seen only twice in Europe since 1957.

DID YOU KNOW?

- Sailors have often called the black-footed albatross the "gooney bird" because it is so clumsy on land.
- The wandering albatross has been known to follow a ship closely for six days, even during strong winds and on moonless nights.

• The scientific name for the entire albatross family, *Diomedidae*, comes from the ancient Greek, Diomedes. According to legend, he was shipwrecked on the coast of Italy. After he died there, his companions were transformed into birds.

- The name "albatross" comes from the Portuguese word *alcatraz*, which originally meant "any large bird."
- The wandering albatross has the lowest egg output a year of any living bird.
- Some albatross may live up to 80 years.



Above: Left unguarded, this chick is vulnerable to predators such as skuas.



BREEDING

Although the wandering albatross lives an unusually long time, it breeds infrequently. The bird rarely breeds until at least seven or eight years of age. It may wait until it is 15 before it finds a mate. Pair bonding is usually permanent, until one mate disappears or dies. Also, if the pair does not eventually produce young, the birds separate.

Breeding colonies are located on cliff tops or hillsides of remote islands, where pre-

Left: A wandering albatross may spend months in the air, without once touching land.

vailing winds help the great birds become airborne. The male and female perform an elaborate mating ritual. They bow to one another and touch bills noisily. The birds also swing around each other on the ground with their wings spread out wide. At the end of the ritual, they point their bills skyward and scream loudly.

Both birds build the large nest—a messy mound of soil and vegetation. They make a hollow for the single egg. The pair alternates incubating the egg every two or three

weeks, and they lose about 17 percent of their weight each shift.

The egg takes about two and a half months to hatch, and the chick takes another three months to *fledge* (grow feathers). As a result, a pair of wandering albatross breeds no more than once every two years.

The parents feed the fluffy, white chick throughout the winter. Between feedings the chick is left alone to fend for itself. When the young albatross finally fledge, it sets out alone for the ocean. The immature, black-feathered albatross will take as long as 10 years to gain its adult white plumage.

HABITS

The range of the wandering albatross is 30 million square miles of the southern oceans between the Tropic of Capricorn and Antarctica. Albatross breed in colonies, and they often gather in rich feeding grounds. Colonies disband after the breeding season.

Wandering albatross are silent at sea. But in feeding groups, they may make hoarse croaking or grunting cries when squabbling for

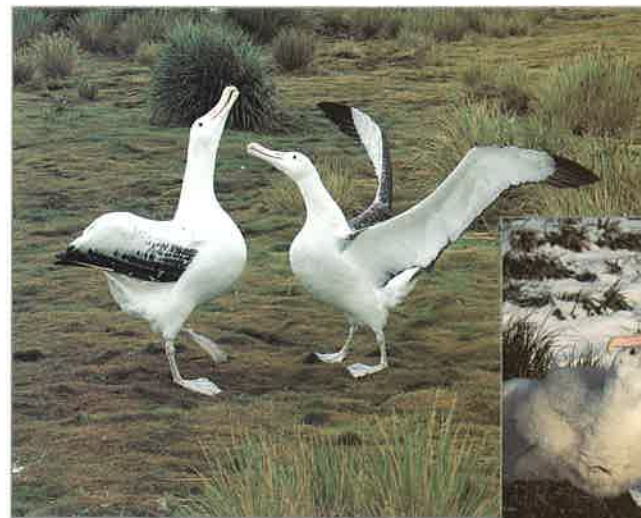
offal (waste parts from a butchered animal) that is thrown from passing ships.

Although it soars gracefully across the waves, this great sea bird is clumsy on land. When waddling along on its huge feet, the albatross often trips itself and falls. Landing is hazardous, too, and many albatross crash into the breeding colony. They may even turn a few somersaults before coming to rest.

FOOD & FEEDING

The wandering albatross feeds mainly at night. It catches its prey—squid, octopus, and cuttlefish—by landing on the sea and scooping it from the surface with its huge bill. It also makes shallow dives to catch fish, crustaceans, and other sea creatures.

The wandering albatross follows ships, attracted by the waste food, or fish *offal*, that is stirred up by the propellers or thrown overboard.



Left: After finding the right mate, two albatross perform a noisy mating ritual.



Inset: Parents feed their chick for almost nine months.

ANDEAN CONDOR

CARD 53

GROUP 2: BIRDS

ORDER
Falconiformes

FAMILY
Cathartidae

GENUS & SPECIES
Vultur gryphus



The Andean condor has a greater wing area than any other bird. Although it may appear awkward at close range, the condor flies with agility and grace.

KEY FACTS



SIZES
Wingspan: About 10 ft. Female slightly smaller.
Weight: About 25 lb.



BREEDING
Sexual Maturity: 6-7 years.
Breeding Season: September to January.
No. of broods: 1 every 2 years
Eggs: 1, white.
Incubation: 7-9 weeks.
Fledging period: 6 months.
Independent at 12-18 months.



LIFESTYLE
Habit: Solitary or in pairs.
Diet: Most *carrion* (dead flesh)



RELATED SPECIES
California condor (*Gymnogyps californianus*) is the closest relative. Also related to the North American turkey vultures.



Range of the Andean condor.

DISTRIBUTION

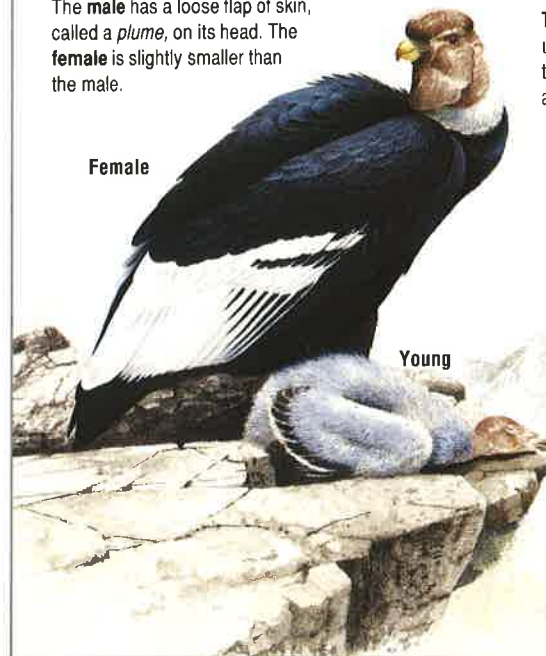
Throughout the Andean Mountains on the eastern side of South America, and south to Tierra del Fuego.

CONSERVATION

The condor's numbers have been reduced by man's hunting of the birds' prey: guanacos and alpaca are killed for their fur. But the Andean condor is not an endangered species, unlike the California condor.

FEATURES OF THE ANDEAN CONDOR

The **male** has a loose flap of skin, called a *plume*, on its head. The **female** is slightly smaller than the male.

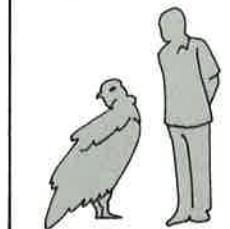


Tail: The condor uses its broad tail in flight like a rudder.



The **egg** is laid in the bare rock face on a high, inaccessible mountain ledge. The **chick** is covered with a thick, brown-gray down.

Size of the condor compared to an average-sized man.



Living high among the Andes mountains

of South America, the Andean condor is

a magnificent bird of prey.

It can soar a mile high in the sky,

invisible to all below.



HABITS

The Andean condor nests and roosts on inaccessible and exposed mountain ledges thousands of feet above sea level. It is well adapted for such a life. Its actual wing area—the largest of any bird in the world—allows it to soar high in the sky. (The wandering albatross's wingspan is slightly longer, but narrower.)

The condor uses rising air currents, called *thermals*, to

fly. The giant bird uses the ends of its flight feathers to control its direction by opening or closing them to regulate the amount of air flowing through them. It can soar farther than three miles.

To land, the condor lowers and spreads its legs, which act as brakes. The bird is clumsy on the ground and stays only long enough to feed, then soars off again.

FOOD & HUNTING

From its vantage point in the sky, the Andean condor constantly scans the ground for signs of food. It feeds on *carrion* (dead animals). The condor flies hundreds of miles each day, searching for food.

The Andean condor has keen eyesight. It circles, looking for herds of guanacos, llamas, and alpacas, and for the recent kills of pumas or other predatory animals.

Once the condor spots a

carcass, it drops from the sky, followed by other condors. The condor uses its powerful beak to tear through the carrion's hide.

Parts of the bird's neck and head are bald. Since it cannot

clean these areas, which become bloodstained while feeding, its baldness is a useful adaptation.

In its southern range, the Andean condor feeds on penguins and dead fish.



Above: A flock of condors feeds on a carcass.

Left: The condor rides rising air currents by simply spreading its wings.

Right: A chick matures sexually after six or seven years.



DID YOU KNOW?

- The longest wingspan recorded for an Andean condor is about 10 feet.
- The guanaco, a favorite condor food, is related to the llama.
- The Andean condor has a poor sense of smell. During experiments it flew to a fake carcass that it could see, rather than to a real carcass that had been covered with a tarpaulin.

BREEDING

The condor has few natural enemies; it lives for about 50 years. Its breeding rate is low. The Andean condor matures sexually when it is six or seven years old. It then finds a partner and mates for life.

Every two years the Andean condor courts its mate. With wings outstretched, the pair jump past each other, as if dancing, while clucking and hissing. They circle each other

and rub and peck until one flies off the mountain ledge. The birds then chase each other in the air.

After mating, the female lays a single white egg on a bare rock face or in a rock crevice. The partners take turns incubating the egg.

The newly hatched young chick is covered with brown-gray down.

Both parents feed the chick for almost two years, even though it can fly when it is six months old. The parents do not breed again until the following spring.

SHEARWATER

CARD 54

GROUP 2: BIRDS

ORDER
Procellariiformes

FAMILY
Procellariidae

GENUS
Puffinus



Shearwaters get their name from the graceful, apparently effortless way in which they fly fast and low over the sea, with their wings almost touching the waves.

KEY FACTS



SIZES

Length: 12-15 in.
Wingspan: 30-35 in.
Weight: Adult, 13-20 oz. Young, often heavier.



BREEDING

Sexual maturity: 5-6 years.
Breeding season: May to September.
No. of broods: 1.
No. of eggs: 1 (white).
Incubation: 47-63 days.
Fledging period: 62-76 days.



LIFESTYLE

Habit: Migratory. Mates for life.
Call: Range of loud screams, chuckles, and howls.
Diet: Small fish, squid, and crustaceans.
Lifespan: About 10 years.



RELATED SPECIES

Shearwaters belong to an order which includes both huge albatrosses and tiny storm petrels.



■ Breeding sites. ■ Migration routes.

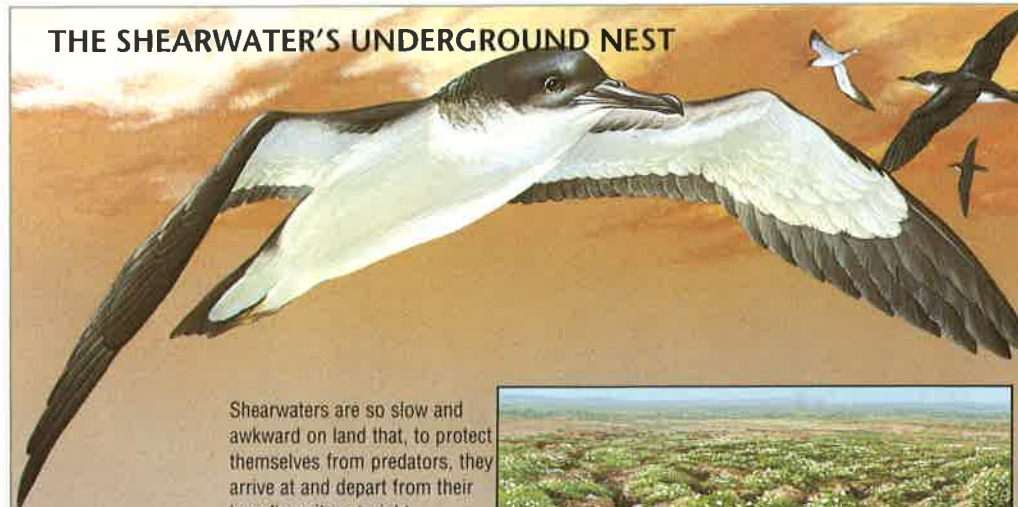
DISTRIBUTION

Breeds in areas of California, Great Britain, some Atlantic islands, the Mediterranean, and New Zealand. Seasonally it is widely dispersed in the South Atlantic and also in the North Atlantic and Pacific.

CONSERVATION

The main threat comes from the introduction of predators such as cats and rats to the shearwaters' breeding islands.

THE SHEARWATER'S UNDERGROUND NEST



Shearwaters are so slow and awkward on land that, to protect themselves from predators, they arrive at and depart from their breeding sites at night.

To avoid predators, the shearwater nests on offshore islands and lays its single white egg in a burrow that is up to three feet deep.



Shearwaters spend most of their time in flight. They return to land only to breed in long-established breeding colonies. They often migrate thousands of miles to new feeding grounds.



Left: Shearwaters gather on the water surrounding their nest sites and wait for nightfall. When it is dark, they go ashore to feed their young.

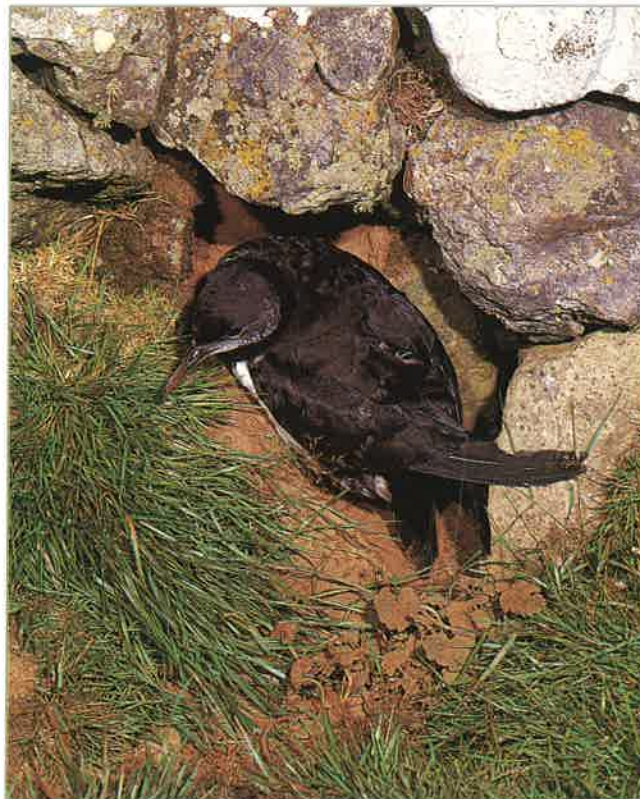
HABITAT

Shearwaters are found on the Atlantic coasts of Iceland and northern Europe, as well as in the Mediterranean and the North and South Pacific. Despite their vast range, they have a highly developed homing instinct that allows them to find their way back to their breeding sites. Their long, slender wings are adapted for

long migrations and make the flight almost effortless.

Shearwaters are usually seen flying low over the water because they use the air currents created by the rise and fall of the ocean's waves to help keep them aloft.

Below: A shearwater may use a crevice in a stone wall as a nest.



BREEDING

Shearwaters usually nest in underground burrows selected by the pair. The female lays a single egg and leaves the nest for several days to feed while the male incubates the egg.

When the chick is a few days old, it is left alone in the burrow during the day. The parents return at night to feed it regurgitated fish. After six

weeks the chick leaves the burrow and makes its way to the sea. It may reach the flock's feeding grounds within three weeks.

At two years of age, young birds return each spring to the colony where they were born. They are not ready to breed until they reach maturity at the age of five or six.

Right: By the time the chick is two months old, it has been so well fed that it is larger than its parents. It is then left to fend for itself and must live on its fat reserves.



FOOD & HUNTING

Shearwaters feed on small fish such as herring, sprats, and anchovies, as well as squid and small crustaceans. They pluck prey from the water while hovering overhead. Sometimes shearwaters plunge into the water from the air in pursuit of fish.

Because many of the fish that shearwaters prey upon are mi-

gratory, the birds must fly great distances to new feeding grounds. When rearing young, the adults may fly hundreds of miles a day between the nesting site and good feeding areas so that they can provide food for their chicks.

Below: The shearwater's long wings are adapted for gliding and therefore make take-off difficult.



DID YOU KNOW?

- The shearwater's legs are positioned near the rear of its body to enable it to swim strongly. But this makes the bird awkward on land, where it must shuffle along with the aid of its beak and wings.
- Shearwaters mate for life, but the pairs spend most of the year apart, meeting only

- when they return to their breeding site each spring.
- Shearwaters have specially adapted beaks that allow them to detect variations in air flow. Because of this ability, they can fly close to the ocean's surface without being overcome by rising waves.



BIRDWATCH

Shearwaters can be seen in great numbers at their breeding colonies. A colony can contain 100,000 pairs of birds. Many of them can be seen in groups on the ocean surface, waiting for darkness to fall before coming ashore to feed their young. Serious

birdwatchers sometimes stay overnight to see the great number of noisy birds return to their burrows with food.

Migrating shearwaters can be seen traveling south through inshore waters in the fall and returning north in early spring.