

# Raptors

## in the Neighborhood



These **wild birds** could be your neighbors in town or country.

A few years ago, a different kind of family moved onto a quiet street near the Minneapolis airport. For weeks, the parents hustled and bustled to build their home. Sometimes they yelled to each other loudly. They always ate outside but never cleaned up afterward. People in nearby houses welcomed the family anyway. They got used to the family's strange habits. What else could they expect? The new neighbors were bald eagles.

Eagles and other *raptors* are *birds of prey*, which means they hunt for fish, mice, smaller birds, or other prey to eat.

Raptors have always been symbols of wild places. Native people and early settlers living in the Midwest often saw these powerful birds soaring and swooping over forests, grasslands, and waterways. Today you might expect to see eagles, hawks, falcons, and other raptors when you go camping or canoeing or hiking in state parks and forests. Did you know raptors are also at home in urban places—cities, towns, and suburbs?

Don't be surprised if you spot a bald eagle skimming over a city lake to grab a fish. Keep an eye out for a Cooper's hawk feeding chicks in its nest in a tree alongside a busy street. You might even see a peregrine falcon—the world's fastest creature—perched atop a church steeple. In this story, you'll learn more about these three raptors: bald eagle, Cooper's hawk, and peregrine falcon.

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*A bald eagle takes wing from a nest near the Mississippi River in Minneapolis.*

## What is special about raptors?

LIKE MANY BIRDS, raptors are *predators*, chasing and eating other animals. Think of the robin that plucks insects from a grassy lawn or a heron hunting for fish and frogs in a pond. Raptors are the only birds that rely on their feet to catch or kill prey. Their specially adapted eyes and beaks also make them skillful hunters.



**Feet.** Birds of prey have strong feet. Each foot has three toes facing forward and one pointing backward. Each toe is tipped with a *talon*, or claw. With its feet, a raptor can seize, hold, or squeeze its prey.

You can tell a lot about a raptor by its feet. The bald eagle has especially large talons, and the fleshy parts of the toes are covered in tiny spikes. Talons and spikes help the eagle hold its favorite prey—slippery, fresh fish.

The Cooper's hawk has long, slender toes with needle-sharp talons. It uses its flexible feet to capture birds in flight. It holds tight to the live prey while flying to a perch to eat.

The peregrine falcon's back toes have es-

pecially long talons to grab its prey, making a swift kill. This hunter can curl its toes into tight fists to strike another bird in midair. The prey falls stunned to the ground.

**Eyes.** Excellent eyesight in full color allows birds of prey to see several times farther and in much greater detail than people can. A raptor can easily spot prey while soaring in the sky or sitting atop a high perch. A raptor's large eyes are close to the front of its face, so it has binocular vision, which means it can see objects in three dimensions. Just as important for finding and chasing prey, a raptor can judge the distance between itself and its prey.



**Beak.** The upper half of a raptor's beak is curved downward like a hook. A raptor uses its beak for bathing and scratching and eating.

A raptor's beak reflects its eating habits. Raptors with larger beaks can eat larger prey. A bald eagle can use its long, thick beak like a knife to cut through the skin of its prey.

A Cooper's hawk hunts primarily songbirds, and its smaller beak is ideally suited for plucking feathers.

A peregrine falcon catches a wide variety of prey—from dragonflies to birds much bigger than itself. A notch on the peregrine's upper beak helps it to grasp and break the neck of its prey.



# Bald Eagle (*Haliaeetus leucocephalus*)



BALD EAGLES live near lakes and open marshes. If you have a lake or river in your town, you might see an eagle flying over the water, looking for fish. You might see an eagle's gigantic nest nearby. Researchers have found about 90 eagle nests around the Twin Cities.

A bald eagle can soar high in the sky. It holds its long, wide wings flat. Its tail feathers look like a fan, spread wide to catch the wind. Its white head looks big.

When lakes and rivers freeze, bald eagles move to find food. Many bald eagles spend winter near Lake Pepin, a wide stretch of the Mississippi River that does not freeze even in the coldest months.

**Hunting.** An eagle launches into flight from its perch on a tree branch overhanging the lake. Swooping low, it drops suddenly with wings thrown back and feet spread wide. Rising again, the eagle flaps slowly back to its perch with a fish held firmly in its bright yellow feet.

**Eating.** A bald eagle eats fish or whatever it can catch—ducks, rabbits, or even turtles. It is also a *scavenger*, finding and eating dead animals such as a deer killed on a road. If an eagle finds more food than it can digest at one time,

it can store extra food in a space in its throat called a *crop*. It slowly digests the feast over several days.

**Family life.** Bald eagles take about five years to grow up. When ready to find a mate and nest, these raptors often return to the area where they were hatched. A pair of eagles builds a nest with large branches and sticks near the top of a tall, sturdy tree. Every year they add twigs and branches to their nest until it weighs as much as a small car.

The female lays one to three eggs in late winter. For about 35 days, the parents take turns sitting on their eggs. Even before hatching, a baby eagle begins to make peeping calls from inside the egg. The attentive parents lean down to listen. Later, eaglets beg for food with high-pitched cheeping sounds. Parents work together to bring them food. Because the oldest chick is often largest and loudest, it might be fed the most.

For their size, adult bald eagles have a surprisingly weak voice. The male and female cackle and chirp to stay in touch with each other. Their warning to intruders is a series of sharp whistles ending in a scream: *kee-kee-kee-kee-er!*

INSET PHOTOGRAPH BY MICHAEL FURTMAN



# Cooper's Hawk (*Accipiter cooperi*)



COOPER'S HAWKS are common in most Minnesota towns during spring and summer. They *migrate* in fall, heading to the southern United States, Mexico, and Central America for the winter.

**Hunting.** If a raptor is hunting at your backyard bird feeder, it is probably a Cooper's hawk. You might see one swoop down from its perch in a tree, fly across the yard, and land on a branch. That's when you see the robin clutched in its talons. Leaves and branches make good camouflage, allowing this hawk to get close to prey before bursting into flight.

This hawk flies with a steady pattern of wingbeats—flap, flap, glide. Its long tail is usually closed rather than fanned. Tail feathers work like both a rudder and a brake, so the hawk can quickly change direction or slow down.

**Eating.** A Cooper's hawk eats mostly songbirds, but sometimes chases bats or chipmunks. An adult Cooper's hawk might eat about 12 percent of its body weight every day. That's like a 100-pound person eating 12 pounds of

food! Because raptors don't have teeth, they can't chew up or digest feathers, bones, and other hard body parts. As these materials go through the hawk's digestive system, they form a solid pellet. After several hours the bird coughs up the pellet.

**Family life.** The papa hawk does most of the hunting and drops off the food at the nest. He rarely feeds the hawk chicks, also called *eyases*. The mama hawk uses her sharp beak to tear off small pieces of meat, making the bites larger as her chicks grow. When a chick is full, its crop bulges, making its chest look swollen.

Instead of leaving uneaten food in the nest, the mama hawk hangs the leftovers on a nearby branch and fetches them later.

The Cooper's hawk makes about 75 different sounds—more than any other raptor. Chicks cheep and chirp. Papa calls *kik* to tell the family he's coming home with food. Mama says *whaaa* when taking food from her mate. When this bird feels threatened, it makes a grumpy-sounding alarm: *cak-cak-cak!*



INSET PHOTOGRAPH BY MICHAEL FURTMAN



# Peregrine Falcon (*Falco peregrinus*)



PEREGRINE FALCONS nest on tall buildings and other structures in the downtowns of many Minnesota cities including Duluth, Rochester, Minneapolis, and St. Paul. A few stay in their city territories year-round. Even in winter, cities can provide a steady supply of food. Some individual peregrines fly thousands of miles to spend winter in South America.

**Hunting.** Something streaks through the sky, plummeting toward earth at high speed. Is it a plane? Is it Superman? No, it's a peregrine falcon! A peregrine is easiest to spot in spring and summer when hunting to feed chicks in the nest.

Sometimes a peregrine *stoops* from hundreds of feet above the ground. Wings tucked close to its body, a stooping peregrine drops like a bullet to strike prey at speeds reaching 240 miles per hour.

Sometimes a peregrine falcon flies directly toward prey as hawks do. But falcons look different from all other raptors in flight. Each of a falcon's long, pointed wings bends slightly at the front edge, forming a curved shape like a hunting bow.

**Eating.** A peregrine falcon eats any kind of bird, from a tiny sparrow to a tall heron. While flying, the hunter can

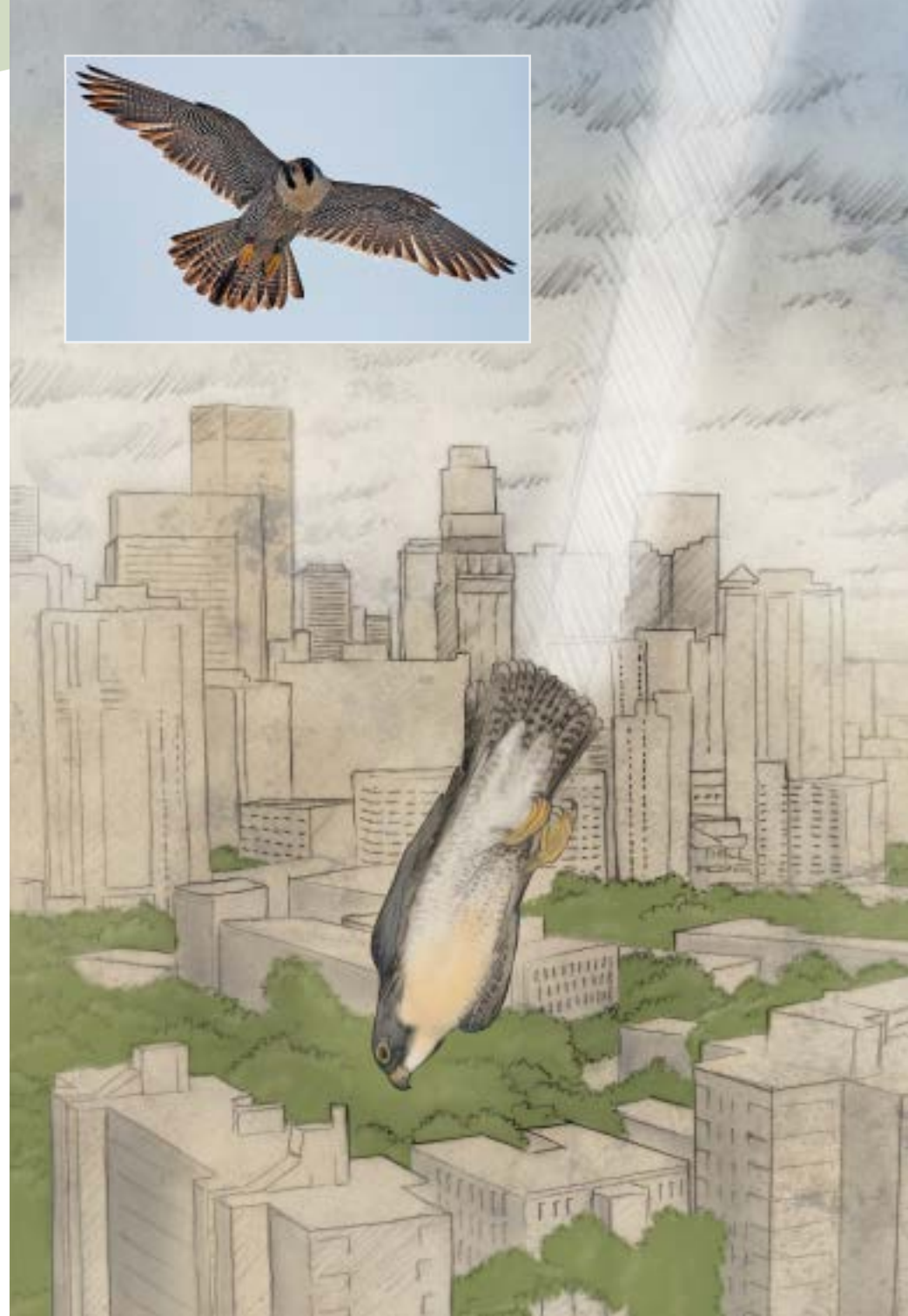
gulp down a whole small bird. When the peregrine catches larger prey, it lands on a perch to eat it in bites. The falcon's beak-notch breaks the bones, making the food easier to swallow. The peregrine saves extra food to eat later.

**Family life.** Peregrine falcons do not build a nest. They scrape a low spot into the surface of a high ledge. The female lays up to five eggs. The male and female then take turns hunting and keeping the eggs warm for about a month.

Because the eyases (chicks) need to eat about once an hour, both parents are always busy hunting and bringing them food. Eyases beg for food with pitiful wails and demanding grunts.

Chicks begin to fly at about 6 weeks of age. But the family sticks together for several more weeks. Young falcons learn to hunt while flying and playing with their parents.

Peregrines hardly make any noise when away from the nest. But family members chitter and chip when close to each other. Before nesting, male and female communicate with gentle calls and head-bowing movements. And they make rapid *cak* calls or scream eerily to warn intruders away from the nest.



INSET PHOTOGRAPH BY MICHAEL FURTMAN

# Bouncing Back

IN THE LATE 1800S, as settlers arrived, farms began to spread across Minnesota. People built towns where woodlands and prairies once grew. Raptors could not find enough food in this changed habitat. People sometimes killed these birds, fearing they would hunt farm animals.

In the 1960s people realized chemicals such as DDT used to kill insects also harmed raptors. The chemicals caused the raptors to produce weak eggshells, so the eggs often broke before the chicks were ready to hatch. Raptor populations became smaller. To survive, birds of prey retreated to wilder

places. For many decades, it was rare to catch sight of a raptor.

Just as people sometimes harm wildlife, they can also find ways to help. Laws passed since 1900 have helped protect raptors. Some make it illegal to harm or disturb the birds and their young. Others preserve raptors' natural habitat. When DDT was banned in 1972, raptor eggs stopped breaking and raptor populations became healthier. In the 1980s biologists began to breed peregrine falcons for release back into the wild. Since then, most raptor populations in Minnesota have bounced back.

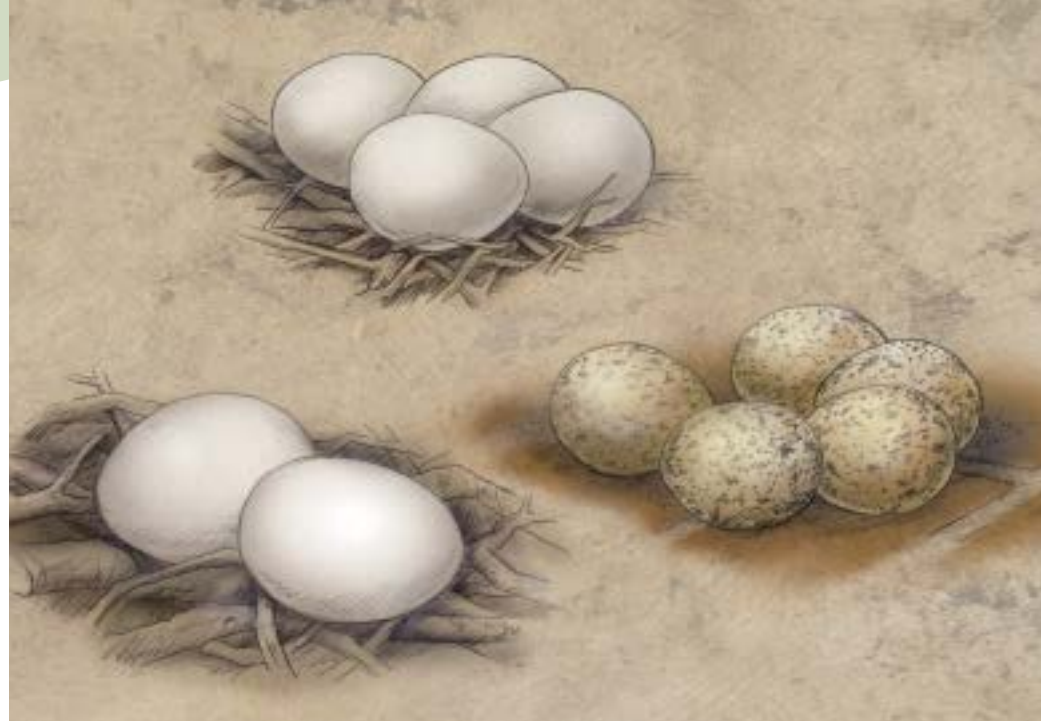
## Life in the City

Cities offer many resources raptors need to survive. Our homes attract birds, mice, and other prey that can feed hawks and falcons. Most Minnesota cities also have lakes, streams, and wetlands where bald eagles and peregrines can hunt. People have planted trees that make good shelter for some raptors. Even our buildings are useful to them. In wilderness areas, peregrine falcons nest on high cliffs to avoid predators and look down on prey. In the city, tall buildings, bridges, and electrical towers make good nest sites.

But city raptors continue to face dangers. Too often, they fly into electric

cal power lines. An eagle feeding on a road-killed animal might be hit by a car or truck. Cooper's hawks and peregrine falcons sometimes crash into windows while chasing other birds.


During the winter, urban eagles often visit fields and forests where people hunt deer. Bits of lead in bullets might be left behind after a hunter shoots a deer. If an eagle scavenges a deer carcass, it may also be eating lead. About 90 percent of the bald eagles in Minnesota have some lead in their bodies. Too much lead damages an eagle's nervous system, making the bird sick and



The eggs of urban raptors, clockwise from top: Cooper's hawks lay two to six white eggs. Peregrine falcons lay two to five speckled eggs. Bald eagles lay one to three large white eggs.

sometimes killing it. Hunters can avoid this unnecessary loss of our national bird by using nontoxic copper bullets.

Raptors are wild animals that deserve our respect and protection. Enjoy watching these neighbors from a distance. Raptors do not like noise or activity near their nests. If you find an

injured raptor or a raptor chick, don't go near it. Call experts at The Raptor Center for help. You can also visit The Raptor Center in St. Paul to meet and learn more about these remarkable wild neighbors. 

To report an injured raptor, call 612-624-4745.

### NOTE TO TEACHERS

Find links to teachers guides for this and other stories at [www.mndnr.gov/young\\_naturalists](http://www.mndnr.gov/young_naturalists).

Tune in during nesting season to see live video of bald eagles and peregrine falcons, provided by the DNR Nongame Wildlife Program, at [www.mndnr.gov/eco/nongame](http://www.mndnr.gov/eco/nongame).

To learn more about raptors, visit The Raptor Center at the University of Minnesota, [www.raptor.cvm.umn.edu](http://www.raptor.cvm.umn.edu).