

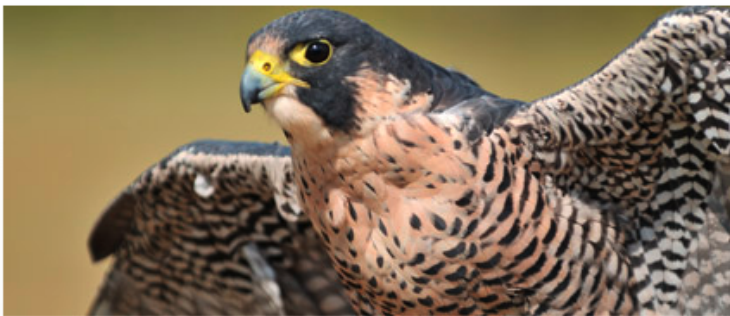


# ALL ABOUT PEREGRINE FALCONS

## Fast Facts

- One of the largest members of the Falcon family and the fastest bird in the world
- Can be found everywhere on Earth, except Antarctica and New Zealand
- They prefer open habitats like shorelines, marshlands, meadows and tundra
- When hunting, Peregrine falcons will dive towards their prey at incredible speeds, punching them out of the sky using their feet
- Peregrine falcons mate for life and return to the same nesting sites each year
- Globally, Peregrine falcons are a species of least concern, but in Canada they are still considered special concern (COSEWIC, 2007) as populations recover from DDT contamination

## DESCRIPTION



The word 'Peregrine' comes from the Latin peregrinus, which means "wanderer". This name suits the Peregrine falcon because they have one of the longest migration routes of any North American bird. Peregrines that nest in the harsh Arctic tundra will migrate all the way to South America for the worst part of the winter. That's a round trip of 25,000km, which is like traveling across Canada five times!

Peregrine falcons are about the same size as a large crow and are one of the largest members of the Falcon family. They are the fastest birds in the world. When cruising, they can easily reach speeds of 40-50km/hr. Once they spot their prey, they dive towards it at speeds close to 550 km/hr.

To reach and maintain such incredible speeds, the Peregrine falcon has a number of special adaptations. Their wings are long and pointed, and they have long flight feathers that are stiff and rigged with sharp outer edges. These characteristics enable Peregrines to slice through the air and accelerate during their downward dive. Peregrine falcons also have little bony cones that stick out from their nostrils called tubercles, which slow the air rushing over their beaks and let them breathe normally while plummeting through the air. Peregrine falcons also have a clear third eyelid that acts like goggles, keeping their eyes clean, moist and focused while diving so fast. The Peregrine falcon is such an amazing flyer that aeronautical engineers have used some of their flying features to inspire designs of high-speed aircrafts.

## HABITAT



The Peregrine falcon is a cosmopolitan species, meaning that populations of these birds can be found almost anywhere on Earth. In fact, there are only two places worldwide where you won't find them: Antarctica and New Zealand, making Peregrine falcons the most widespread raptor!

Since they are found over such a wide global range, what they look for in a habitat is pretty diverse. They generally prefer cliff edges when nesting. They do most of their hunting in wide-open areas like shorelines, river valleys, marshes, grasslands and the tundra.

In addition to natural spaces, Peregrines are becoming increasingly common in environments where humans live. These areas include farmland and urban areas, where they can establish nesting sites on top of tall buildings, ledges or bridges and hunt for prey in city parks, harbours or in downtown cores.



Peregrine falcons are generally thought of as apex predators. Some larger birds like Great horned owls, Gyrfalcons and Golden eagles will prey on them, but once a Peregrine falcon has reached adulthood they have few natural predators. Since they are on the top of the food chain they play an important role in helping to control populations of the smaller birds that they hunt, including pigeons, doves, ptarmigan and ducks. By catching and eating the unhealthy or weak birds from flocks of these smaller avian species, Peregrine falcons help ensure that each surviving generation of these birds becomes stronger and healthier in their environment, a process known as 'natural selection'.



As with most members of the raptor family, Peregrine falcons are skilled hunters. They have keen eyesight, strong talons and a sharp, hooked beak that they use to tear up their food. They have been known to prey on as many as 450 different bird species in North America and an estimated 2,000 species worldwide, nearly one fifth of all bird species in the world! Peregrine falcons feed mostly on birds, but they will also eat small mammals such as mice, voles and bats.

Peregrine falcons usually head out to hunt at both dawn and dusk. Once they spot their prey they begin a fast, downward dive in a body position known as a 'hunting stoop'. A powerful flap of their wings propels the Peregrine into a dive as they fold back their wings and use their feet to steer. Dives last as long as 50 seconds, during which time a Peregrine can travel over 1km. Downward dives can approach a near vertical angle, meaning the Peregrine can hit its prey from almost directly above it. When reaching its target the Peregrine falcon clenches its foot and punches its prey with its feet so hard that the bird is stunned and sometimes killed. If the prey is small enough, the Peregrine falcon will turn to catch it and carry it back to a perch and eat it. If the prey is larger, however, the Peregrine falcon will let it fall, feeding on it once it has hit the ground.

Some Peregrine falcons living in cities have learned to use artificial light to hunt migratory birds at night. Waiting on top of high buildings, Peregrine falcons will watch for the silhouettes of birds passing below. Using shadows from the tall structures to shield them from sight, the Peregrine will then sneak up on their prey undetected. For the most part, people welcome these birds in cities because they prey on birds people consider to be pests, like pigeons and invasive European starlings.





Peregrines usually mate for life and will return to the same nesting sites year after year. They typically choose sites on south-facing ledges that are high enough to protect their eggs and nestlings from predators. They lay their eggs in scrapes, nests made by digging a shallow groove into the ground using their feet. Peregrine falcons living in urban areas will also nest on tall buildings, transmission towers, bridges and silos.

Females lay three to five eggs after which both parents go on extra high alert to protect their nest. Not only do they have to watch out for other Peregrine falcons, but also birds like eagles, owls, gulls, crows or ravens that will prey on their eggs or young. In some areas mammals like foxes, bears or cats may also be a threat to the eggs. Peregrine falcons will fearlessly protect their nests and have been known to fight off and even kill birds as large as Golden eagles while defending their young.

Nestlings hatch after about 30 days and are completely helpless until they fledge (leave the nest and are able to fly). Nestlings that depend on their parents to feed and take care of them for the first several weeks of life are known as 'altricial'. Peregrine falcon nestlings usually fledge after about 40 days, but even after they can fly the fledglings will continue to rely on their parents for food and protection for another two months.



- Globally a species of least concern, but a species of special concern in Canada (COSEWIC, 2007)
- Biggest threat is food contaminated with human-made chemicals

Since they are apex predators, Peregrine falcons are particularly sensitive to chemicals like pesticides due to a process called bioaccumulation. Bioaccumulation happens when a substance builds up in an animal's body. For example, in the 1950s, a pesticide called DDT was used on plants throughout North America. Small birds (lower down in the food chain) ate DDT-covered seeds and became sick. Since Peregrine falcons hunt smaller birds they often ended up eating many of the birds carrying DDT in their systems. Those same chemicals began to accumulate in the Peregrine falcons' bodies and limited their ability to make strong eggs. The shells were so thin the eggs would break when the mother tried to incubate them in the nest. During this time, Peregrine falcons almost completely disappeared from the Eastern part of their range. Luckily, the use of DDT was banned in the United States in 1972 and in other parts of North America soon after. Thanks to captive breeding programs and nest restoration, the Peregrine falcon has come back from the brink of extinction.

Although the Peregrine falcons' numbers have largely recovered, in Canada they are still considered a species of special concern. Pollution continues to threaten reproduction. Scientists recently found flame retardant chemicals in Peregrine eggs. In some areas as many as 30% of breeding pairs do not raise any young successfully. Peregrines are an example of a species that has made a great comeback, but could become threatened or endangered again if we don't work together to keep our environment healthy.

References: Fitzgerald, Lee A. "Tupinambis Lizards and People: A Sustainable Use Approach to Conservation and Development". *Conservation Biology*. 8:1(1994) 12-15

Johnson, Steve A. "Tegu Lizards". *Department of Wildlife Ecology, University of Florida*. ,

Keifer, Mara Cintia and Ivan Sazima. "Diet of juvenile tegu lizard *Tupinambis merianae* (Teiidae) in southeastern Brazil", *Amphibia-Reptilia*. 23:1(2002) 105-109,

Norman, David R. "Man and tegu lizards in Eastern Paraguay". *Biological Conservation*. 41:1(1987) 39-56

[Cornell Lab of Ornithology. Peregrine Falcon. All About Birds](#)

[Hinterlands Who's Who. Peregrine Falcon.](#)