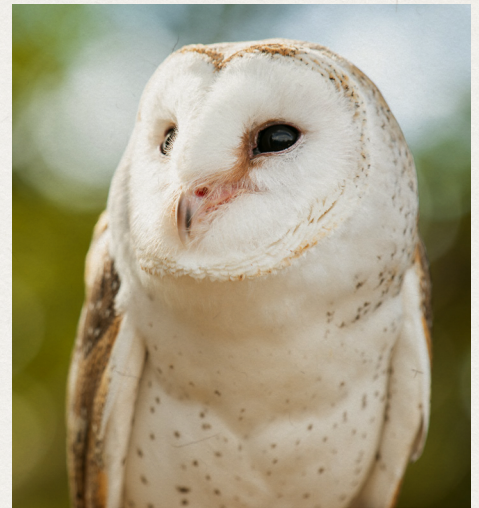


# BARN OWL



The **Barn Owl (*Tyto fulcata*)** is one of Richmond's most unusual and charismatic birds. Most active after sunset and often seen in flight, these pale, large-headed dark-eyed birds can appear moth-like or even ghostly. A bird of farmlands, Barn Owls were more common in Richmond when old-fields were widespread and wooden barns were numerous. As farmland gave way to urban development and agricultural practices modernized, the population of Barn Owls in Richmond declined, almost to the point of disappearing. In recent years this species has begun to bounce back, thanks largely to a carefully monitored nest-box program and the creation of habitat suitable for rodent prey species, and the City's commitment to protecting and enhancing the island's natural environment.

Barn Owls are a distinct subgroup of owls, known for slender-bodies, long-legs, and heart-shaped faces. They have dark eyes and lack the "ear tufts" of Great Horned Owls and many other species and are found on every continent except Antarctica. In Canada, they only reside in southern Ontario and southern British Columbia, where snow rarely covers the ground for lengthy spells which makes hunting for rodents difficult. North American Barn Owls are 30 to 37 cm from head to tail, and have a relatively large wingspan of up to 100 cm. They have an overall pale appearance, but with a golden, rufous, or tan back, marked with irregular patches of grey and tiny black and white spots. The underside can be solid white, or may have some amount of spotting, with females tending to be darker and more speckled. Typical of owls, females are slightly larger than males.

Barn Owls don't hoot, but instead have a variety of hisses and bark-like sounds, and in keeping with the owl's ghostly appearance, can make a drawn-out shriek that will make the hairs stand up on the back of your neck.

## Distribution and Habitat in British Columbia

Barn Owls get their name from their preference for farmlands where small mammals are plentiful in grassy areas, and traditional barns, easily entered by owls and suitable for nesting, are available. Within their British Columbian range, they are year-round residents. Their population is centred in the Lower Fraser Valley, but they also occur on the Gulf Islands and on southeastern Vancouver Island, from Victoria to Nanaimo, and occasionally as far north as Campbell River. More uncommonly, they venture into the central or southern interior of the province. It is believed that the range of Barn Owls in southern British Columbia increased with the expansion of farmland during the 1900s, but subsequently decreased in some areas as habitat was lost to residential, commercial, and industrial development.

## Diet

The primary prey of Barn Owls in British Columbia is the Townsend's Vole, a small rodent that owls hunt by flying slowly above fields of unmown grass, listening intently for movement. The owl's facial disc directs sounds to asymmetrically positioned ears, which help pinpoint the vole's location. Barn Owls also consume Norway Rats, Black Rats and House Mice, which are non-native rodents recognized as "pest species." Less commonly, their diet may include bats, small rabbits, and small birds.

## Reproduction

Barn Owls in Richmond begin courting in February or March and quickly establish nests and begin laying eggs from mid-March through May. Clutch sizes range from 1 to 11 eggs, with an average of 4 to 6. Incubation is 29 to 34 days, and young owls leave the nest after about 10 weeks and disperse widely, in search of new breeding areas. In years when prey are plentiful and weather is favourable, experienced pairs may raise a second family in late summer. Barn Owl pairs will reuse the same nest site year after year, and even pass ownership from one generation to the next.



Most famously, Barn Owls nest within wooden barns, but will also nest on flat surfaces in grain silos, water towers, church steeples, airplane hangars, or beneath bridges and overpasses. In the absence of human-made structures, Barn Owls will nest in hollow trees, holes in earthen banks, or within cliff face cavities.

## Threats

### Habitat Loss and Degradation

The conversion of traditional agriculture, characterized by old-field habitats and wooden barns, to mechanized agriculture, using expansive cultivation, large greenhouses and closed metal buildings, results in the loss of rodent populations and nesting sites. Formerly prime habitat becomes uninhabitable to Barn Owls, which will move elsewhere in search of places to hunt and nest.

### Roads

Barn owls often hunt along roadways, flying low, seeking prey along grassy shoulders and ditches. Unfortunately, they may swerve across traffic lanes and be injured or killed by vehicles.

### Secondary Rodenticide Poisoning

Since rodenticides act slowly, poisoned rats and mice are often caught by owls. Toxins may be transferred to adult owls and to nestlings, which can result in debilitation or death. Ironically, Barn Owls, catching 3 to 4 rodents per night per adult, and the same number for each nestling, are among the best controls for rodent populations. A breeding pair of Barn Owls can catch 4000 rodents in a year.

### Winter Weather

Barn Owls cannot tolerate harsh winters with prolonged, deep snow that prevents them from finding prey. This limits their range in Canada to southern British Columbia and southern Ontario, where habitat is rapidly being lost due to urbanization and where the risk of road kills is the highest.



## Protection and Conservation Status

Barn Owls are protected under the British Columbia Wildlife Act, which prohibits the killing or harming of owls, the collection of eggs or live owls, or the destruction of active nesting sites. Under the federal Species at Risk Act, Barn Owls in British Columbia are considered “Threatened,” which means they could become endangered (facing imminent extinction) without supporting efforts. Similarly, the BC Conservation Data Centre has assigned Barn Owls to the provincial Red List, indicating a species that is at risk of being lost in British Columbia.

## Conservation and Richmond Based Initiatives

Efforts around Barn Owl conservation focus on maintaining habitat that supports populations of prey species, and providing places to nest.

### Old-field Habitat

Townsend’s Voles and other small mammals thrive in old-field habitats with grass of medium height and density that is intermittently mowed (at most once a year), similar to what would be found in fields in rotation in traditional farmlands. This mowing cycle allows grass to go to seed and provide food for small mammals, but prevents the grass from growing too tall or dense for owls to find and catch them. Preservation and creation of such habitats, even strips as narrow as a few meters along the edges of fields and ditches, provides foraging sites for Barn Owls, and is the basis of the Old Field Management Strategy being applied to the fields in the [Terra Nova Natural Area](#) and [Terra Nova Rural Park](#).

### Nest Boxes

Barn Owls readily move into appropriately designed nest boxes that are placed in or near habitats such as old agricultural fields and marshes. Since 2010, nest boxes have been placed in green spaces in Richmond. A few have been mounted on buildings or on the trunks of tall trees, but most have been erected on 5-meter metal poles in the middle of fields in park land. Nest boxes can be seen at the [Terra Nova Natural Area](#), [Terra Nova Rural Park](#), and in the [Garden City Lands](#). These boxes are monitored by a licensed Canadian Wildlife Service bird bander.

The nest box program has been very successful. In 2021, 12 of 15 boxes were being used for nesting or roosting and nine boxes contained breeding pairs. In a favourable season these nests could produce up to 30 young owls.

Prior to COVID-19 restrictions, opportunities for small groups to observe the monitoring of active owl boxes in Terra Nova Rural Park were available, as shown in this [short video](#).

Contact the [Richmond Nature Park](#) for information on the status of this program.

