Materials and suggestions for making a Barn Owl nest box:

-Box should be mounted at least 7 feet above ground, and the post should be set in the ground 3 feet deep with concrete.

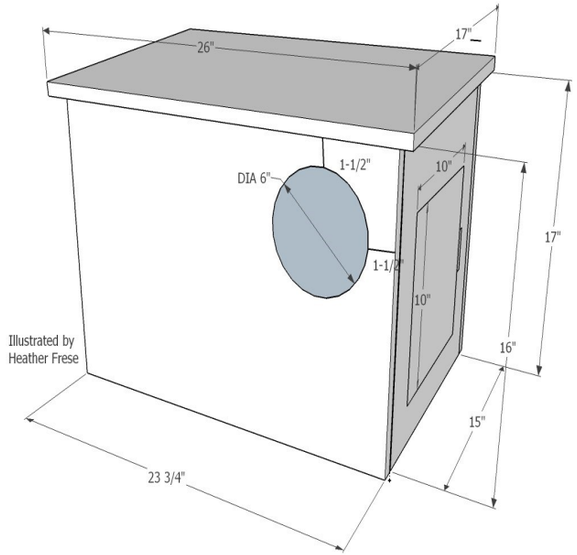
-Post can be wood or metal and needs a predator guard (3 feet length of PVC works well).

-Place box in an open grassland where trees are relatively near.

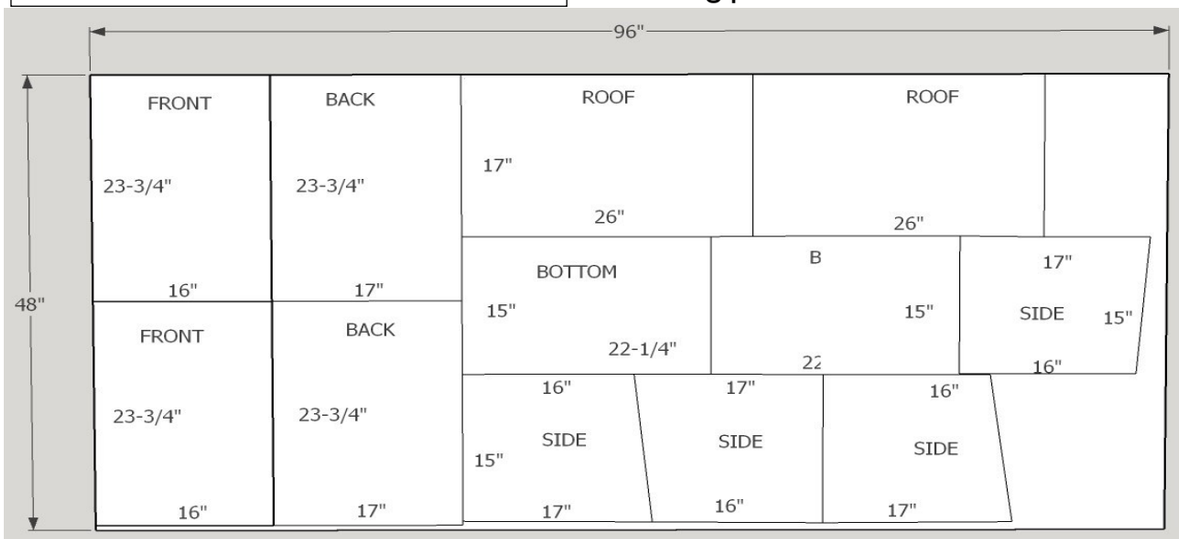
-Face box to the east (avoids overheating and bad weather).

-Use durable, weather resistant wood, such as .6" thick rough-sawn wood panel siding.

-Add 2" of woodchips in bottom of box for nesting material.



Cutting pattern for two nest boxes:



If you would like more information on building nest boxes or would like to purchase one, please go to the following website for additional resources: The Barn Owl Box Company https://www.barnowlbox.com/shop/boxes/the-pole-model/

Iowa Department of Natural Resources

1436 255th St.
Boone, IA 50036
Phone: (515) 432-2823
Fax: (515) 432-2835

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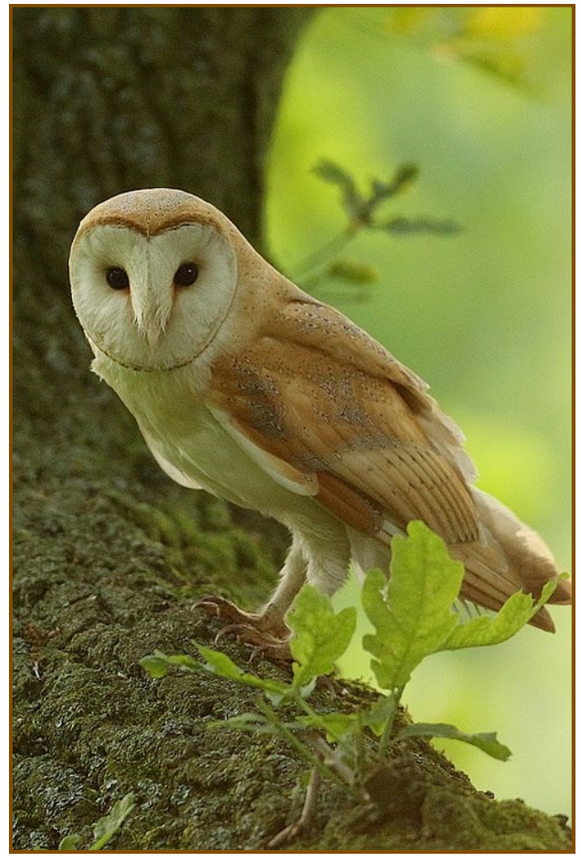
Written by Jenni Dyar and Ashley Reuter

The Barn Owl

Tyto alba pratincola



Iowa DNR Wildlife Diversity Program

Walking into an old, abandoned building, you hear a raspy screech coming from the rafters. Looking up, you spot the bird, swaying from side to side and staring right at you. You realize it's an owl, but it is paler colored than any you've seen before—and skinny! When you take a step closer, the owl reacts by stretching out its wings to their full reach. Its screeching becomes louder and more insistent. Backing away, you leave the owl to its roost. You've just met the Barn Owl, one of Iowa's rarest residents.

RANGE

Barn owls are found on every continent except Antarctica. In North America, they can occur as far north as southern Canada. However, they become rarer in the northern part of their range because they have trouble surviving severe winter weather.

In Iowa, barn owls are a rare permanent resident. They have been listed on the Iowa Endangered Species List since 1977. They occur uncommonly in the southern portion of the state and are seldom seen in the north.

LIFE HISTORY

Also known as the "ghost" or "spirit" owl, barn owls are the only North American owl in the Tytonidae family. They are generally white on the breast and belly, with the females being somewhat darker colored than the males. The best identifying characteristic is their heart-shaped face, sometimes called their "monkey face". They stand 14-16 inches tall and have a 3-½ feet wingspan. Barn owls do not "hoot." Instead, their call can be a hiss or ear-splitting screech. Their ear openings are asymmetric (one is higher than the other), allowing them to pinpoint the exact location of prey. Because of this, barn owls can hunt in complete darkness.

Matt Wetrich Photo

NESTING

A cavity nester, barn owls choose well-protected nest sites—tree cavities, church steeples, abandoned buildings, silos, and the location that gave them their name, barns. Barn owls breed only when conditions are favorable. Courtship and mating is timed to ensure the small mammal population can adequately feed their growing young for the next 2-3 months' time. The female will lay an egg every other day, until there are 3-11 eggs (usually from 5 to 7). Iowa barn owls have been known to produce up to two broods of young per year. Approximately 30 days after the first egg was laid, the eggs start to hatch. Since incubation begins at laying, owlets from the same clutch hatch at different times. Chicks fledge at 7-8 weeks of age.

Over half of the barn owls' eggs successfully hatch, and most of the chicks fledge. The earliest known date of egg-laying in Iowa is March 12th, and young have been documented fledging (learning to fly) in late November. In Iowa, the average number of young fledged is four, and of these four, probably only one young will survive to adulthood.

Factors that can negatively impact nest success include frequent disturbances during the nesting and fledging period (by people, raccoons or cats) and a lack of available prey to feed their young. Luckily, we have the ability and opportunity to improve both of these factors.

HUNTING & PREY

Barn owls are nocturnal. They begin hunting about 15 minutes after sunset and hunt most intensely during the first 90 minutes of the night. A single barn owl eats 1-5 rodents each night, depending on the size of the prey and the age of the owl. Owlets and juvenile barn owls eat more than the adults. A family of 2 adults and 6 young may eat as many as 1,000 rodents during the nesting and fledging period, making them a valuable ally. While most owls are generalist hunters, barn owls prefer meadow and prairie

voles. They can, however, eat mice, other voles, shrews, and even on rare occasions when the mammal population is low, birds, insects, reptiles, and amphibians.

WHY ENDANGERED?

Several factors have contributed to the decline of the barn owl in Iowa (and the Midwest). These include the conversion of grasslands, pastures and hayfields (all prime rodent habitat) into crop fields and urban developments; the disappearance of large cavity trees (such as cottonwoods and silver maples) and old buildings to nest and roost in; and competition and predation by the larger, more numerous Great Horned Owl.

WHAT WE CAN DO

Planting, restoring and maintaining prairie provides suitable habitat for small mammals. Even as little as 40 acres of prairie or other tall grassland can support enough small mammals to provide for a family of barn owls. Participation in the Conservation Reserve Program (CRP), allowing land to be idled, is another great asset for barn owls and other grassland-associated species.

Nest boxes are a vital part of barn owl conservation. Since Iowa began its nest box program for barn owls in 1983, there have been, at least, 26 successful nest boxes in 14 counties - with a total of 130 young produced. To learn how to build your own nest box, please refer to the plans on the reverse side.

While it is not known exactly how many barn owls reside in Iowa, we do know that the number of nests is increasing. For example, 17 nests were reported in 2016, the largest number of nests ever documented in one year. You can help the DNR by reporting barn owl sightings to the Wildlife Diversity Program at (515) 432-2823. Please note the day and exact location where the owl was seen. If you put up nest box(es) on your property, please do keep track of and report its occupancy. Each and every report is important, as it helps us keep track of the health of the population and may even reveal previously unknown populations.