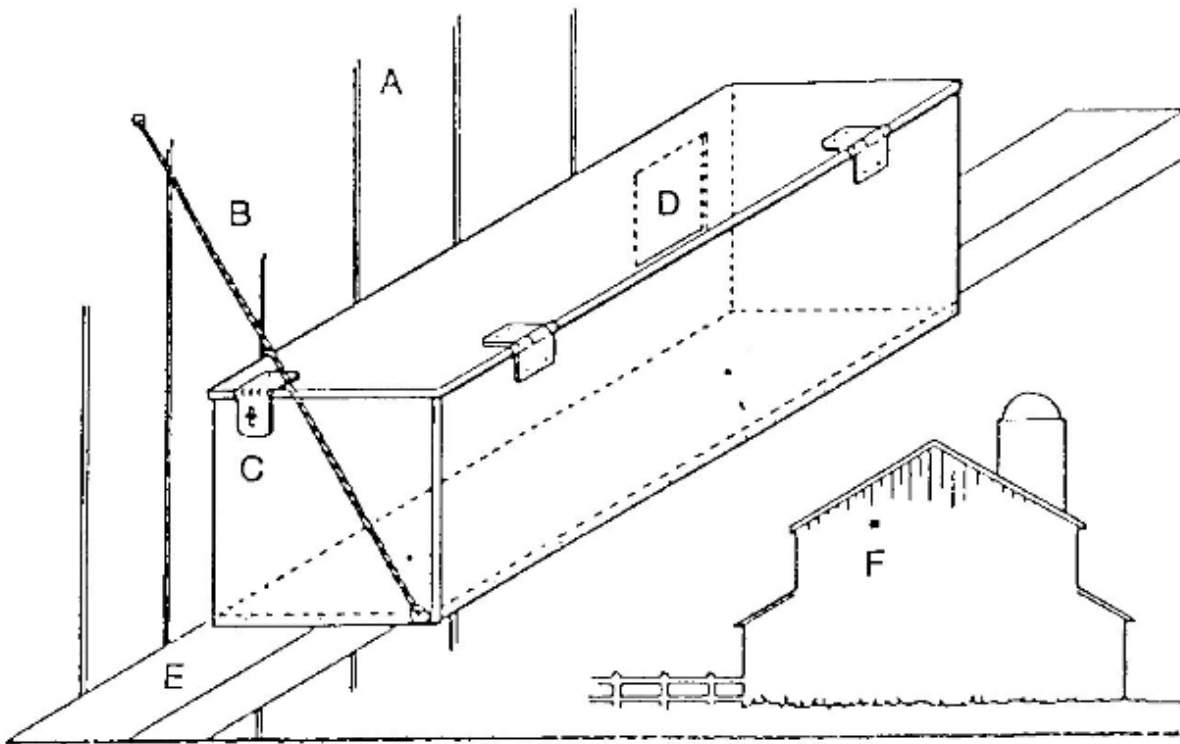


BARN OWL NEST BOX PLANS



- A. Interior of barn wall**
- B. Wire (or wood) support if beam is narrow**
- C. Latch**
- D. Entrance**
- E. Crossbeam**
- F. Entrance (6" by 6")**

BUILDING A NEST BOX

The box can be constructed from a 6-foot length of 1" by 12" pine board and 1/2" utility-grade plywood, or it can be made entirely from 1/2" plywood. The dimensions are as follows:

- 1 bottom, 40" long - pine
- 2 ends, each 16" long - pine
- 1 back, 16" x 41 1/2" - plywood
- 1 top, 11 3/4" x 41 1/2" - plywood

-or-

- 1 bottom, 12" x 40" - plywood
- 2 ends, each 12" x 16" - plywood
- 1 back, 16" x 41" - plywood
- 1 top, 12 1/2" x 41" - plywood

The barn wall acts as the front of the box. Nail the box together with 7d or



8d box nails. The top should be removable for cleaning the box but secured by hinges and

a latch, or partially nailed in place, to prevent entrance by raccoons.

Mount the box on a cross beam against the inside of the barn after cutting a 6" x 6" entrance way in the barn wall approximately 7" above the beam. The entrance-way placement is important to prevent the owlets from falling out of the box. There should be a clear flight path to the box which ideally should face open fields. Position the box with the entrance approximately 2" from one end and nail it securely to the cross beam, through the bottom of the box. If the beam is narrow, additional support under the box or a wire or rope extending from the lower corners of the box to the barn wall may be necessary.

If you want to put the box somewhere else, you can construct a front by cutting another piece to the dimensions of the back, and cutting a 6" x 6" hole approximately 2" from the end.

Box design credits:

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Photo credit: Brian Scott

Barn Owl *Tyto alba pratincola*

WILDLIFE DIVERSITY PROGRAM



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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 more rare 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 most identifying characteristic is their heart-shaped face, sometimes called their “monkey face”. They stand 13-16 inches tall and have a 3-½ foot wingspan.

Barn owls do not “hoot.” Instead, their call is more of a hiss or 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 have the ability to hunt in complete darkness.



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 in 2-3 months' time. The female will lay an egg every other day, until there are 3-11 eggs (usually between 5 and 7). After approximately 30 days, the eggs start to hatch. Since incubation begins at laying, owlets from the same clutch hatch at different times. Chicks fledge at 7-9 weeks old.



About half of the barn owls' eggs successfully hatch, and most of the chicks fledge. Factors that can negatively impact this rate 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 those.

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



Photo credit: Joaquim Coelho

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

The restoration of barn owls is one of at least 16 projects of Iowa's Wildlife Diversity Program funded by your contributions from the Chickadee Checkoff on Iowa's income tax form. Participation in the Conservation Reserve Program (CRP), allowing land to be idled, is another great asset of barn owls and other grassland-associated species.

Nest boxes are a vital part of barn owl conservation. In 1999, there were 6 nests in 4 counties (Carroll, Ringgold, Taylor, and Wayne), with a total of 21 young hatched. 3 of the pairs nested in provided nest structures. To learn how to build your own nest box, please refer to the plans on the reverse side.

It is still unknown exactly how many barn owls reside and nest in Iowa. You can help the DNR by reporting any sightings of this rare animal to the Wildlife Diversity Program at (515) 432-2823. Please note the day and exact location where the animal was seen. If you put up nest box(es) on your property, you can also 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.