

Iowa Ornithologist's Union - 2014 Report

Grantee: Polk County Conservation Board

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Project Title: Barn owl nesting structures at Chichaqua Bottoms Greenbelt

Project Description:

Six barn owl nesting boxes were constructed and placed at Chichaqua Bottoms Greenbelt (CBG) in October 2014. Boxes were built using a modified Simmons design with an enlarged entrance to accommodate the larger body size of midwest birds. Boxes were constructed and placed by Polk County Conservation volunteer, David Johnson.

Placement was based on parameters outlined in our grant proposal. However, modification of this standard (at least 0.5 miles from timber / in at least 100 a of grassland) was required due to the difficulty in locating accessible sites 0.5 miles or more distant from woodland. This parameter was adjusted to at least 1000 feet, and in most cases, boxes are at least 1500 feet from timber that could potentially attract great-horned owls. We were able to maintain the 100 acre grassland minimum without difficulty.

A map has been attached showing locations of nest boxes on Chichaqua Bottoms.

Boxes were mounted on 3" galvanized metal poles. Poles were set 3-4' below grade and backfilled with "3/8s & fines" or concrete. Box bottoms were mounted at a height of approximately six feet. PVC predator guards were installed on the poles to further deter disturbance.

Unable to locate a monitoring protocol via Internet search, I developed one based on available information and requested review by Bruce Ehresman. A conservative monitoring protocol was utilized in order to minimize the chance of abandonment. Copies of the protocol and data sheet are attached and comments are welcome.

Project Goals:

The primary goal of this project is to reestablish a breeding population of barn owls at Chichaqua Bottoms Greenbelt. Secondary goals include providing opportunities for the public to experience this species in a natural setting, providing opportunities for environmental education on this species and involving volunteers in this restoration effort via construction, placement and monitoring.

We have not yet noted any use of these boxes by barn owls, which is not surprising considering the short time between placement and this report. A barn owl nest box, not part of this project, that was placed last February by DNR personnel on Chichaqua property, has likewise not been occupied (BOB #7 on map).

A volunteer has been heavily involved in this project. David Johnson, has spent approximately 100 hours constructing and installing these boxes. He has also agreed to monitor the structures and completed the initial checks in December 2014.

The Iowa Ornithologists' Union (IOU) provided a grant in the amount of \$200 to assist implementation of this project. This funding was used to purchase materials to construct the boxes including lumber, hardware and other supplies. By using marine grade plywood, instead of cedar siding, we were able to save enough money to construct two additional boxes.

Project Impact:

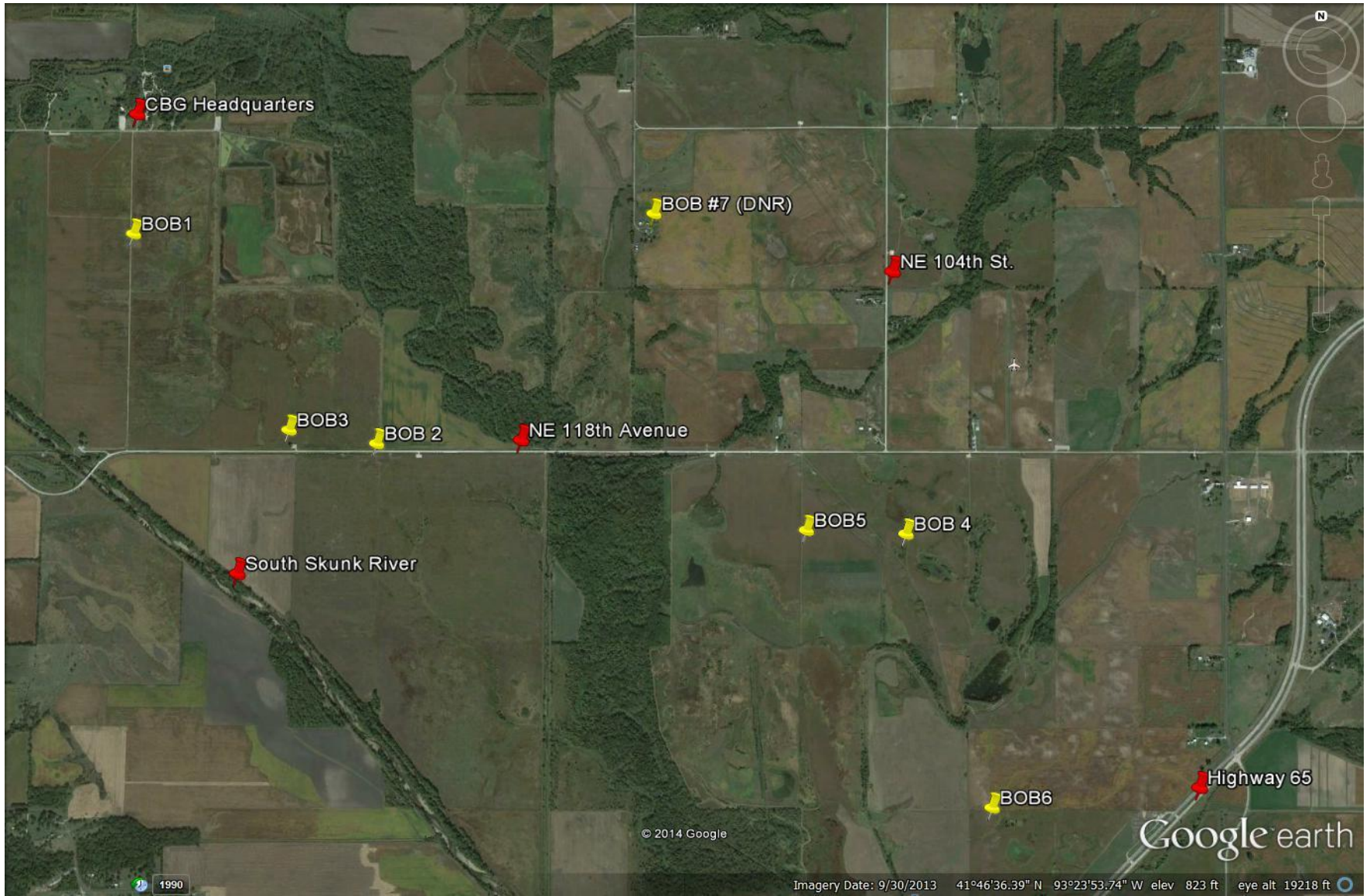
We hope that, by proper installation of proven nest structures, barn owls will return to this area to nest and raise young. Success in this endeavor would increase the population of barn owls. And it is possible that success would also lead to an increase in interest in barn owl restoration and additional efforts to restore them in other suitable sites – public and private. It should be noted that a barn owl nest was discovered in nearby Story County this summer (Ehresmann pers. comm.).

This project will also offer opportunities for PCC staff and others to educate the public about all aspects of barn owl ecology and the challenges they face in heavily-altered landscapes. PCC's environmental education staff offer programming to more than 23,000 school children from the Des Moines metro and surrounding school districts. An active barn owl nest box program will provide a great teaching tool.



Barn owl nest box #1 located in prairie restoration ca. one-half mile south of CBG headquarters.

Map showing location of barn owl nest boxes (BOB) at Chichaqua Bottoms Greenbelt.



BARN OWL BOX MONITORING PROTOCOL

Boxes will be monitored in the months of April, June, August and October. These months correspond with the period when most barn owl sightings have been reported in Iowa (Birds of Iowa - 1996). If possible, an additional observation in December is advisable. To insure consistency and to avoid longer gaps between monitoring visits, trips should be planned between the 12th and 18th of each month.

To proceed with the monitoring, first approach the nest box quietly while observing the box for activity. Check the ground beneath the box for pellets, whitewash, feathers, prey remains or anything else that might indicate occupancy.

After the initial observations, apply a "blocker" to the hole of the nest box. Once the blocker is in place, erect a ladder and have someone climb up to the box. Open the side door of the box slightly. If adults and/or young are present make a mental note of your observations (e.g., number of eggs or young noted) and close the door.

Boxes which are occupied should continue to be monitored weekly, until young have fledged. Polk County Conservation and/or Iowa Department of Natural Resources personnel will accompany the nest monitor to any occupied structures. A detailed post-fledging assessment of the box should be made when it becomes unoccupied including notes and photographs.

Record all data in the PCC Barn Owl Box Data Sheet.

PCC Barn Owl Box Monitoring Data Sheet

Observers: _____

Date: _____

Site: _____

Box No. _____

Outside Box Assessment: Feathers Pellets Whitewash No evidence

Comments: _____

Inside Box Assessment: Species present: _____ No evidence
(if evidence outside) No. of adult(s) _____ No. of eggs _____ No. of young _____

Comments: _____

Box No. _____

Outside Box Assessment: Feathers Pellets Whitewash No evidence

Comments: _____

Inside Box Assessment: Species present: _____ No evidence
(if evidence outside) No. of adult(s) _____ No. of eggs _____ No. of young _____

Comments: _____

Box No. _____

Outside Box Assessment: Feathers Pellets Whitewash No evidence

Comments: _____

Inside Box Assessment: Species present: _____ No evidence
(if evidence outside) No. of adult(s) _____ No. of eggs _____ No. of young _____

Comments: _____

Box No. _____

Outside Box Assessment: Feathers Pellets Whitewash No evidence

Comments: _____

Inside Box Assessment: **Species present:** _____ No evidence
(if evidence outside) **No. of adult(s)** ____ **No. of eggs** ____ **No. of young** ____

Comments: _____

Box No. _____

Outside Box Assessment: Feathers Pellets Whitewash No evidence

Comments: _____

Inside Box Assessment: **Species present:** _____ No evidence
(if evidence outside) **No. of adult(s)** ____ **No. of eggs** ____ **No. of young** ____

Comments: _____

Box No. _____

Outside Box Assessment: Feathers Pellets Whitewash No evidence

Comments: _____

Inside Box Assessment: **Species present:** _____ No evidence
(if evidence outside) **No. of adult(s)** ____ **No. of eggs** ____ **No. of young** ____

Comments: _____
