

**Breeding Bird Survey of Chauncey Marsh Natural Area**

Wildlife Preservation Fund

1998 Small Grant

Jeffery W. Walk & Eric L. Kershner

Department of Natural Resources & Environmental Sciences

University of Illinois at Urbana-Champaign

**Summary:** We surveyed Chauncey Marsh Natural Area, Lawrence County, Illinois, for breeding bird species from 23 April to 24 June 1998. A total of 64 breeding bird species were observed on the natural area during this time, and we are reasonably certain at least 54 species nested within the natural area boundaries during this period. Cavity nesting species were particularly abundant (woodpeckers, Great Crested Flycatchers, Tufted Titmice) and most species nesting in the canopies of bottomland forests were documented (notably, Red-shouldered Hawks and Cerulean Warblers were documented to breed within the natural area). Subcanopy and ground-nesting woodland birds were in low abundance.

Management objectives of IDNR-Division of Natural Heritage to control willow invasion of the marsh-shrub swamp, periodically burn the marsh, and ultimately restore natural hydrologic patterns to the marsh-shrub swamp will greatly improve habitat for marsh-shrub swamp species such as Least Bittern, Yellow-crowned Night-Heron and Common Moorhen. Although these species were not recorded, the habitat is present to occasionally attract these species to the natural area.

**Methods:** Breeding birds were surveyed by transect sampling through forest (4 transects), open field (1 transect), and marsh-shrub swamp habitats (2 transects) and 'area searches' into parts of the natural area not well-covered by transect sampling. Since the purpose of the survey was to develop a breeding bird list, all species observed were recorded from all locations, regardless of distance from transects. Transects were 500-700 m in length and were surveyed from sunrise

to 1000 h on 3-4 dates each from 23 April to 24 June 1998. We defined species as "reasonably certain" of nesting within the natural area based on nests located, fledglings observed or heard begging, observed copulation, observed nest building, and when pairs were observed for 3 weeks or longer and the species is known to regularly breed in the area.

As an index of abundance, we have ranked the species based on percent of observations within marsh-shrub swamp, forest, and open field-forest edge habitats. Species heard in one habitat but obviously located in another were not included (e.g., pileated woodpeckers heard from prairie restorations but located in the forest were not considered an open habitat species).

**Results:** Our surveys revealed 64 breeding bird species, at least 54 of which we are reasonably certain nested within the natural area during the survey period (Table 1). Significant finds include the documentation of successful nesting of Illinois Endangered Red-shouldered Hawks (Appendix 1), observed copulation of Cerulean Warblers, and observations of Black-billed Cuckoos and Vesper Sparrows, which are south of their typical breeding range. Forest habitats were dominated by cavity nesting species and the marsh-shrub swamp by Red-winged Blackbirds (Table 2).

**Conclusions:** Chauncey Marsh Natural Area supports an excellent diversity of breeding birds. The bottomland forests are significant for supporting breeding Cerulean Warblers and at least one pair of nesting Red-Shouldered Hawks. Observed diversity within the marsh-shrub swamp was low. However, the probability of not detecting secretive species among the dense bulrushes and

willows is high. The ability to restore natural hydrologic patterns to the marsh-shrub swamp would increase the time water remains in the area and greatly improve this habitat for species such as Common Moorhen, Least Bittern and Yellow-crowned Night-Heron. Monitoring the forest and marsh is important to document continued breeding of Red-shouldered Hawks and detect any threatened or endangered species that may begin utilizing the marsh as restoration efforts continue.

**Table 1.** Breeding birds of Chauncey Marsh Natural Area, April-June 1998. An \* denotes species breeding *within* the natural area during the survey period.

Great Blue Heron	*Green Heron
*Wood Duck	Hooded Merganser
Turkey Vulture	Red-tailed hawk
*Red-shouldered Hawk	*Northern Bobwhite
*Killdeer	*Spotted Sandpiper
*Mourning Dove	*Yellow-billed Cuckoo
Black-billed Cuckoo	Great Horned Owl
*Barred Owl	*Ruby-throated Hummingbird
*Northern Flicker	*Red-bellied Woodpecker
*Red-headed Woodpecker	*Hairy Woodpecker
*Downy Woodpecker	*Pileated Woodpecker
*Eastern Kingbird	*Great Crested Flycatcher
*Willow Flycatcher	*Eastern Wood-Pewee
*Horned Lark	Barn Swallow
*Blue Jay	*American Crow
*Carolina Chickadee	*Tufted Titmouse
*White-breasted Nuthatch	*House Wren
*Carolina Wren	*Gray Catbird
*Brown Thrasher	*American Robin
Wood Thrush	*Blue-Gray Gnatcatcher
Cedar Waxwing	*White-eyed Vireo
*Red-eyed Vireo	*Warbling Vireo
*Yellow-throated Vireo	*Yellow Warbler
*Northern Parula	*Cerulean Warbler
*Prothonotary Warbler	*Common Yellowthroat
*Red-winged Blackbird	*Orchard Oriole
*Baltimore Oriole	*Common Grackle
(*)Brown-headed Cowbird	*Northern Cardinal
*Indigo Bunting	*Dickcissel
*Eastern Towhee	*Grasshopper Sparrow
Vesper Sparrow	*Field Sparrow
*Song Sparrow	**American Goldfinch

\*\*American Goldfinches are abundant in the prairie restoration area and will certainly breed at the site during their breeding season (late-July to September).

**Table 2.** Relative abundances of breeding birds (% of observations) within different habitats at Chauncey Marsh Natural Area, 1998. Only the 20 most abundant species within a habitat are included.

Marsh-Shrub Swamp

Red-winged Blackbird (34)	Common Grackle (16)
Common Yellowthroat (11)	Indigo Bunting (10)
Song Sparrow (6)	House Wren (5)
Yellow Warbler (5)	Willow Flycatcher (4)
Wood Duck (3)	Green Heron (<2)
Spotted Sandpiper (<2)	Carolina Wren (<2)

Open Field-Prairie Restoration-Forest Edge

Indigo Bunting (14)	Common Yellowthroat (10)
Mourning Dove (7)	Common Grackle (7)
American Goldfinch (7)	American Robin (6)
Red-winged Blackbird (6)	Eastern Towhee (5)
Dickcissel (5)	Song Sparrow (4)
Northern Flicker (3)	House Wren (3)
Baltimore Oriole (3)	Northern Cardinal (3)
Red-headed Woodpecker (2)	Downy Woodpecker (2)
Northern Bobwhite (<2)	Grasshopper Sparrow (<2)
Brown-headed Cowbird (<2)	Field Sparrow (<2)

Bottomland Forest

Tufted Titmouse (18)	Downy Woodpecker (9)
Great Crested Flycatcher (8)	Eastern Towhee (8)
Red-bellied Woodpecker (7)	White-breasted Nuthatch (6)
House Wren (6)	Red-headed Woodpecker (5)
Eastern Wood-Pewee (4)	Blue Jay (4)
Carolina Chickadee (4)	Red-eyed Vireo (4)
American Crow (4)	Northern Flicker (3)
Yellow-billed Cuckoo (3)	Prothonotary Warbler (2)
Red-shouldered Hawk (2)	Yellow-throated Vireo (2)
Northern Parula (<2)	Cerulean Warbler (<2)

ILLINOIS NATURAL HERITAGE DATABASE  
Element Occurrence and Sighting Report Form

Name of Element: Red-shouldered Hawk

Date Last Observed: 6/16/98

Location: (If possible, please provide a map showing the location.)

County: Lawrence

Directions from Nearest Landmark: \_\_\_\_\_

3.5 miles East of the Village of Chauncey

Name of Topographic Map(s): \_\_\_\_\_

Legal Description: \_\_\_\_\_

Site Name: Chauncey Marsh Natural Area

Nature of Observation: 2 adult and 3 or 4 fledgling  
Red-shouldered Hawks. Adults were still feeding young.

Description of Area: Bottomland forest near north side  
of IDNR property.

Comments: Several nest structures were observed in the  
area; it is unknown which was used during this  
nest attempt.

Name of Observer: Jeff Walk + Eric Kershner, Univ. of Illinois

Observer's Phone Number: (217) 333, 9073

Routing:

Endangered Species Protection Board \_\_\_\_\_  
Nature Preserves Commission \_\_\_\_\_  
Avian Ecology Program \_\_\_\_\_  
Botany Program \_\_\_\_\_  
Mammal Program \_\_\_\_\_

Natural Areas Program \_\_\_\_\_  
Region Administrator \_\_\_\_\_  
District Heritage Biologist \_\_\_\_\_  
Other \_\_\_\_\_