

# Swainson's Warbler survey in southern Illinois suggests potential breeding

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## Introduction

Commonly associated with large canebrakes (giant cane; *Arundinaria gigantea*), Swainson's Warblers (*Limnothlypis swainsonii*) are often difficult to observe within the densely vegetated bottomlands of the Southeastern United States (Brown and Dickson 1994). Due to the secretive nature of this species, accurate descriptions of breeding distributions are challenging to determine. Population trends derived from the North American Breeding Bird Survey (BBS) indicate Swainson's Warbler populations have likely decreased throughout the Mississippi Alluvial Plain (Hunter et al. 1993) and Midwestern United States (Thompson et al. 1993) over the past 40 years. Habitat loss and

degradation of wet deciduous forests and large canebrakes have influenced population declines of this habitat specialist (Brown and Dickson 1994). Many populations on the northern edge of the species distribution (e.g. southern Illinois) have observed dramatic reductions or extirpation (Graves 2001). However, the warbler's secretive nature and preference for often inaccessible habitat make it likely that many individuals go undetected.

Although Swainson's Warbler was not known as a breeding species in Illinois until the 1950s, Eddleman et al. (1980) discovered 36 singing males while surveying the Cave Creek Valley in Jackson County. Subsequent searches within the valley revealed a popula-

tion decline throughout the 1980's (Robinson 1996) and the species was consequently classified as state endangered and added to the list of Conservation Priority Birds as part of the Illinois Wildlife Action Plan (IWAP). With the last known breeding populations disappearing in the early 1990s (Kleen et al. 2004), individual observations in southern Illinois during 1991-2008 have been sporadic (Table 1). Given that observations have occurred recently in southern Illinois our primary objectives of this research were (1) to document the current distribution of Swainson's Warblers in southern Illinois; and (2) to determine the breeding status of located individuals.

## Methods

Swainson's Warbler surveys were conducted within the Cache River State Natural Area, Cypress Creek National Wildlife Refuge (CCNWR), Shawnee National Forest (SNF), Horseshoe Lake State Fish and Wildlife Area and private properties located in the southern region of Illinois. Following the habitat characteristics of breed-

ing Swainson's Warblers previously recorded in Illinois, southern Missouri and eastern Arkansas, we defined potentially suitable habitat as canebrakes or shrub thickets near water with high stem density resembling that of canebrakes (Eddleman et al. 1980, Brown et al. 2009). Specific suitable habitat patches surveyed were located

by using historical breeding sites (Robinson 1996), infra-red maps produced during recent winter aerial surveys conducted by CCNWR, and searching for previously unknown canebrakes within floodplains and bottomlands of southern Illinois. A few canebrakes in SNF were surveyed by volunteers from the Shawnee Audubon Society.

Table 1

Date	Details	Location	Publication
2008 6 July – 27 August	1-2 males singing	Alexander County (Near Thebes)	M 18:1:35
2007 19 July	1 male heard	Johnson County	M 17:1:34
2005 6-8 May	Male photographed	Wabash County	M 14:4:156
2004 29 June – 5 July		Johnson County	M 14:1:36
2001 "summer"	Some evidence for breeding	Southern Illinois	M 11:1:37
1999 "summer"	Possibly heard	Pope County	M 9:1:36