

our two sites would be considerable. Although there was less consistency than in spring, five species had relatively small standard errors around their mean arrival dates (Table 3) with Magnolia Warbler also included in the spring list.

The Chimney Swift ranked first in the group of five most predictable departing species (Table 4) with the smallest combined standard errors and narrowest range of dates just as it did in our 91 spring arrivals. The third-ranked Rose-breasted Grosbeak was tenth in that select spring group and the Baltimore Oriole, fourth in the spring list, actually ranked second in the least variable E Illinois fall departures with a mean date of 7 September (n=21) and an SE of 1.24 but the E Indiana sample size was inadequate for consideration.

Just as we concluded in our spring report, the recording of annual migration dates admittedly lacks precision. Each year the exact day a species first arrives or last leaves an area and the times it is recording doing so is likely a rare event. We



*The median fall departure date Fox Sparrow in western Illinois is 27 November, based on research done by the authors. Photo taken 9 March 1996 northwest of Springfield, Sangamon County, by Dennis Oehmke.*

still believe that long-term-median dates provide useful information for comparing regional and temporal trends and variations among midwestern migrants. In E Indiana, the median departures we have reported here were based largely on yearly records before 1970. In recent years, White-throated Sparrows have become regular winter residents there, Hermit Thrushes and Yellow-rumped Warblers linger more frequently, and Eastern Towhees, Field Sparrows, and Fox Sparrows have also wintered. How many other species will extend their stay if a gradual warming trend extends throughout our region? Verification with long-term data becomes essential.

#### Statistical Information

In Tables 1 and 2 each median arrival or departure represents the middle recorded date in a chronological sequence and is less affected by occasional extreme dates or chance clusters than either an arithmetic mean or mode. In Tables 3 and 4 the standard error (SE) is an estimate of the variability around each mean where sample sizes are unequal. For each mean date plus or minus 1 standard error the probability is 68% that this interval includes the true population mean for that species at the site and doubling the SE would increase to 95% the likelihood that the true mean falls within this expanded interval. We emphasize that the SE indicates nothing about the expected arrival or departure date in any single year. Each range represents the actual number of days between the earliest and latest arrival or departure dates for which we have records.

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**Table 4. Five Fall Migrants With the Least Annual Variability in Recorded Departure Dates Listed by Pooled Standard Error Increases and Range in Days**

Species	Site	Years	Mean	SE	Range
Chimney Swift	E ILL	23	10/10	1.01	25
	E IND	15	10/09	0.64	9
Common Nighthawk	E ILL	18	10/03	1.44	23
	E IND	20	10/09	1.45	29
Rose-breasted Grosbeak	E ILL	21	10/03	1.54	27
	E IND	11	10/01	1.79	18
Swainson's Thrush	E ILL	21	9/29	1.89	34
	E IND	20	10/04	1.53	27
Black-throated Green Warbler	E ILL	22	10/13	1.42	27
	E IND	11	10/16	2.01	25