

irregular and prolonged.” Couple those problems with our awareness that in fall there are fewer observers afield making fewer notes and we are not surprised by the greater variability in fall dates between sites and between years than those we reported in spring. Given the total years of fall data at the four sites ranging from 44 for the Blackpoll Warbler to 79 for the Dark-eyed Junco, it is tempting to regard relatively small differences in median dates among the sites as representing actual trends but with the above limitations in mind we have tried to single out a few major patterns and to ignore anomalous data. Why, for instance, should average fall arrival dates for four species be earlier in W Illinois than in S Wisconsin nearly 220 miles farther north (Table 1) or why should Barn Swallows stay later in S Wisconsin than in E Indiana about 330 miles farther to the southeast (Table 2)?

In our 1996 report on 91 spring migrants in the mid-west, we found that 25 kinds (27%) had medial arrival dates at the Illinois and Indiana sites with the same four-day spans for their species. Among our 24 fall arrivals (Table 1), only Golden-crowned Kinglets and Magnolia Warblers demonstrated this degree of uniformity at the same three sites. Long-term average arrivals of Swainson’s Thrushes in S Wisconsin nearly equaled those in E Illinois and E Indiana but typically occurred five days later in W Illinois.

Surprisingly, among the median fall departure dates of 27 species (Table 2), Swainson’s Thrushes, Black-and-white Warblers, American Redstarts, and Rose-breasted Grosbeaks were last seen at all four sites within the five-day intervals as were Eastern Wood-Pewees and Canada Warblers across Illinois and Indiana. Site departure dates were also nearly identical for Ruby-crowned Kinglets and Brown Thrashers except in W Illinois. There Craig and Franks (1987) reported their earliest annual departure of kinglets on 29 October and thrashers on 29 September, both nearly the same as our median departures in E Illinois and E Indiana. Their median departures for these two species were a month later than ours. Such differences create more questions than answers.

In Richard Graber’s (1968) study of directional orientation by migrants in central Illinois he reported most radar

images in spring were heading toward the northeast, and the majority of fall migrants were tracking southeastward. Our comparisons of spring arrival dates across Illinois and Indiana (Hunt and Cope 1996) suggested the opposite orientation but without statistical standing. Although five land bird species in spring usually arrived first in W Illinois followed by E Illinois and E Indiana, 14 species were found first in E Indiana and last in W Illinois. In our combined fall arrival (Table 1) and fall departures (Table 2) nine species were recorded from west to east and six from east to west. The only species we detected with the same arrival direction both spring and fall were Fox Sparrows traveling eastward and Black-throated Green and Bay-breasted Warblers with westward trends.

Annual Variations

In our previous paper on the arrivals of spring migrants we identified 10 species as valid harbingers of spring with their limited variability in E Illinois and E Indiana arrival dates. Considering the wide range of median fall dates regionally we wondered whether annual differences over many fall migrations at



The Hermit Thrush had the least annual variability in recorded arrival dates in southern Wisconsin, western Illinois, Eastern Illinois and eastern Indiana, based on the authors’ research. Photo taken in Springfield, Sangamon County, 21 December 2000 by Dennis Oehmke.

Table 3. Five Fall Migrants With the Least Annual Variability in Recorded Arrival Dates Listed by Pooled Standard Error Increases and Range in Days

Species	Site	Years	Mean	SE	Range
White-throated Sparrow	E ILL	23	9/30	0.96	18
	E IND	20	9/28	1.09	19
Golden-crowned Kinglet	E ILL	23	10/05	0.85	18
	E IND	17	10/02	1.26	21
Magnolia Warbler	E ILL	23	8/30	1.00	24
	E IND	17	9/03	1.61	26
Hermit Thrush	E ILL	22	10/07	1.00	22
	E IND	17	10/03	1.69	30
Swainson’s Thrush	E ILL	20	9/04	1.04	15
	E IND	23	9/04	1.87	37