

Regional Trends and Annual Variations in the Spring Arrival of Midwestern Birds

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Most regional ornithological journals that publish distributional data tend to emphasize rare sightings and extreme dates of occurrences. Many birders, however, would also benefit from knowing when common migrants are expected to appear. To be most useful such a bird calendar should be based on long-term averages to minimize the distortions of occasional extreme seasons. Furthermore, a single calendar can only apply to a particular geographic locality since seasonal advances of migrating birds show both latitudinal and longitudinal timing differences. From our migration field notes for 23 years in eastern Illinois and 42 years in eastern Indiana together with published records covering 15 years in western Illinois (Craig and Franks 1987) and 20 years in southern Wisconsin (Lange 1986), we have constructed a migration calendar for this midwestern region that depicts gradients of initial spring appearances along both north-south and east-west axes. Included are 91 species for which adequate yearly records were available. Among those listed we have also singled out the 20 species that statistically exhibited the least annual variability in recorded arrivals at our own 2 sites.



Hooded Warbler, Washington Park, Sangamon Co. 1 May 1996. Photo by Dennis Oehmke.

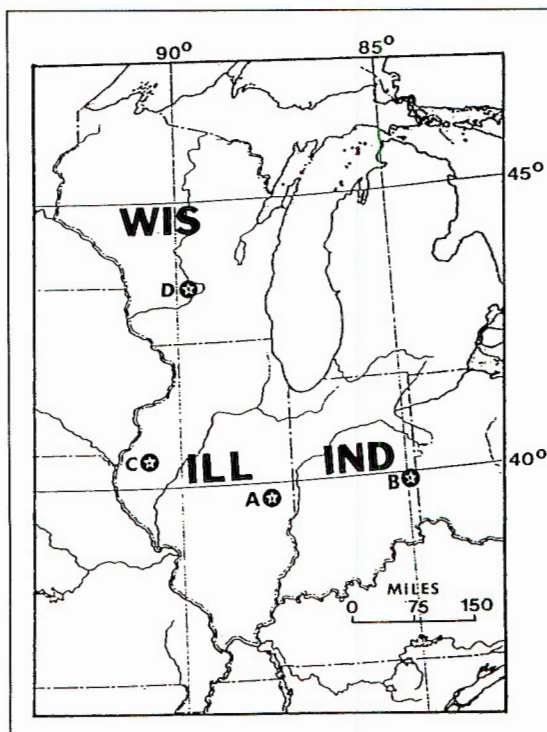


Figure 1. Migration data centers for E Illinois at (A) Charleston, E Indiana at (B) Richmond, W Illinois at Macomb and S Wisconsin at (D) Baraboo.

Several observers have reported on migratory progress in the Midwest in the past. Cooke (1888, 1915) compiled spring arrival sightings from numerous observers and later portrayed isochronal lines of advance for selected species, but his sampling years, however, were few or unreported. Other long-term migration studies in Illinois (Smith 1930), Connecticut (Saunders 1959) and Montana (Weydemeyer 1973) gave average and extreme dates for spring migrants, but none provided multi-site comparisons nor statistical tests of annual variability.

Study Areas and Methods

Our primary migration data were collected from 1965 to 1987 in eastern Illinois in Coles County near Charleston and from 1946 to 1987 in eastern Indiana in northern Union County and all of Wayne County near Richmond. We have included comparable data from western Illinois (Craig and Franks 1987) which cover a 22-county area around Macomb in McDonough County, 1969-1983, and from southern Wisconsin (Lange 1986) in Sauk County near Baraboo and Devil's Lake State Park, 1966-1985 (Figure 1).

Meadowlark