

2024 Vermont Eastern Meadowlark Monitoring Project



Eastern Meadowlark © Susan Elliott (CC-BY-NC via iNaturalist)

Annual Report to
Vermont Fish & Wildlife Department

Submitted by Kevin Tolan



Introduction and Background

Eastern Meadowlark (*Sturnella magna*) is a migratory blackbird (family Icteridae) with an annual range that extends from northern South America into southern Canada. Eastern Meadowlark is listed as federally Threatened in Canada, Threatened In New Hampshire, and considered a Species of Greatest Conservation Need in Maine, Massachusetts, and New York. They likely became widespread and numerous in Vermont during the severe agriculturally-driven deforestation of the 19th and early 20th centuries, and have rapidly declined since the middle of the 20th century.

Eastern Meadowlark are partial migrants: some individual birds may remain on the same territory year-round, while other birds may make short- (100s of kilometers) or long-distance (>1000 km) seasonal movements between the breeding and nonbreeding grounds (Hill and Renfrew 2019). Adults of both sexes exhibit a high level of site fidelity, with individuals generally returning to the same breeding locations yearly (Jaster et al. 2022).

Species-specific survey efforts for Meadowlarks began in 2021 with the informal Meadowlark Blitz, an effort to rally birders to document previously unreported individuals that was coordinated by the Vermont Center for Ecostudies (VCE). Formal monitoring began upon Meadowlark being designated as a Vermont State Threatened species in 2022.

Summary and Results

The statewide population is estimated to be 95 adult individuals across 40 sites (Figure 1). After accounting for three previously unreported sites known to be occupied in past years, this is a decline from revised population estimates of 102 adults in 2023 and 108 in 2022 (Table 1). Adults were first observed carrying food on 27 May in Ferrisburgh, and only four observations were reported after July.

Eight sites were lost between 2023 and 2024 (Figure 1B). Surveys at these sites will continue in future years for recolonization, or if birds were present but went undetected. No major changes in local land use appear to be driving the decline of birds at the majority of known sites, though increased management intensity was the cause of loss from at least one site. Invasive plants appear to be driving the decline at several sites, both reducing local abundances and rendering sites unusable. Preliminary vegetation surveys occurred at some sites over the summer of 2024, with formal grassland vegetation surveys beginning in 2025 through a separate Vermont Center for Ecostudies project.

At least two sites unoccupied in 2023 were occupied this season, one in Charlotte and one in Rockingham. The Rockingham site, which hosted at least three individuals that fledged two successful broods, last yielded breeding individuals in 2020 when it was manured in early-Spring. This is one of three successful Eastern Meadowlark breeding sites in the lower VT/NH Connecticut River Valley in 2024, with the other two being in New Hampshire (Cathryn Abbott pers. comms.).

Three occupied sites are on state-owned land: Franklin County State Airport, Edward F. Knapp State Airport, and Eagle Point Wildlife Management Area. While Lemon Fair Wildlife Management Area almost certainly hosts breeding Eastern Meadowlark, due to the large field size and lack of public roads to facilitate road/trailside surveys much of the property goes unsurveyed. Aural detections of Eastern Meadowlark decrease by ~50% between 125 m and 175 m from the bird to observer (Matthews 2018), reducing the probability of detection for birds in larger fields and away from field edges. Effort will be made to survey the birds and vegetation of Lemon Fair WMA next season.

Acknowledgements

This project would not have been possible without contributions from numerous community scientists who spent their mornings surveying hayfields throughout Vermont. Landowner participation and property access was integral to thoroughly documenting numerous Eastern Meadowlark sites. The coordination of this project was funded in part by the Vermont Fish and Wildlife Department.

The following community members volunteered their time and observations this season:

Alison Wagner, Allan Strong, Amy Douglas, Becky Manning, Bernard Foy, Bob Stymeist, Candice Huber, Carol Yarnell, Cathryn Abbott, Chelsea Carroll, Chris Rimmer, Coleen Lawlor, David Guertin, Diane Imrie, Eric Seyferth, Gail White, Jedidiah Gray, Jim Armbruster, Joel Tilley, John Peckham, Jon D. Erickson, Julie Filiberti, Justine Logan, Kathleen Guinness, Kenneth Copenhaver, Kim Likakis, Linda Gionti, Linda Larrabee, Martha Steele, Marvin Elliott, Mike Winslow, Nathan Dansereau, Pamela Ploof, Rebecca Giroux, Rebecca Lovejoy, Rich Kelley, Richard Littauer, Sean Beckett, Sharon Glezen, Susan Elliott, Terri Armata, Timothy Hoch, and Tom Hargy.

Citations

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- Matthews, A.M. 2018. Modeling Detection and Density Using Distance Sampling for Three Priority Grassland Bird Species in Texas – Northern Bobwhite (*Colinus Virginianus*), Eastern Meadowlark (*Sturnella Magna*), And Painted Bunting (*Passerina Ciris*). Texas State University.

Figures and Tables

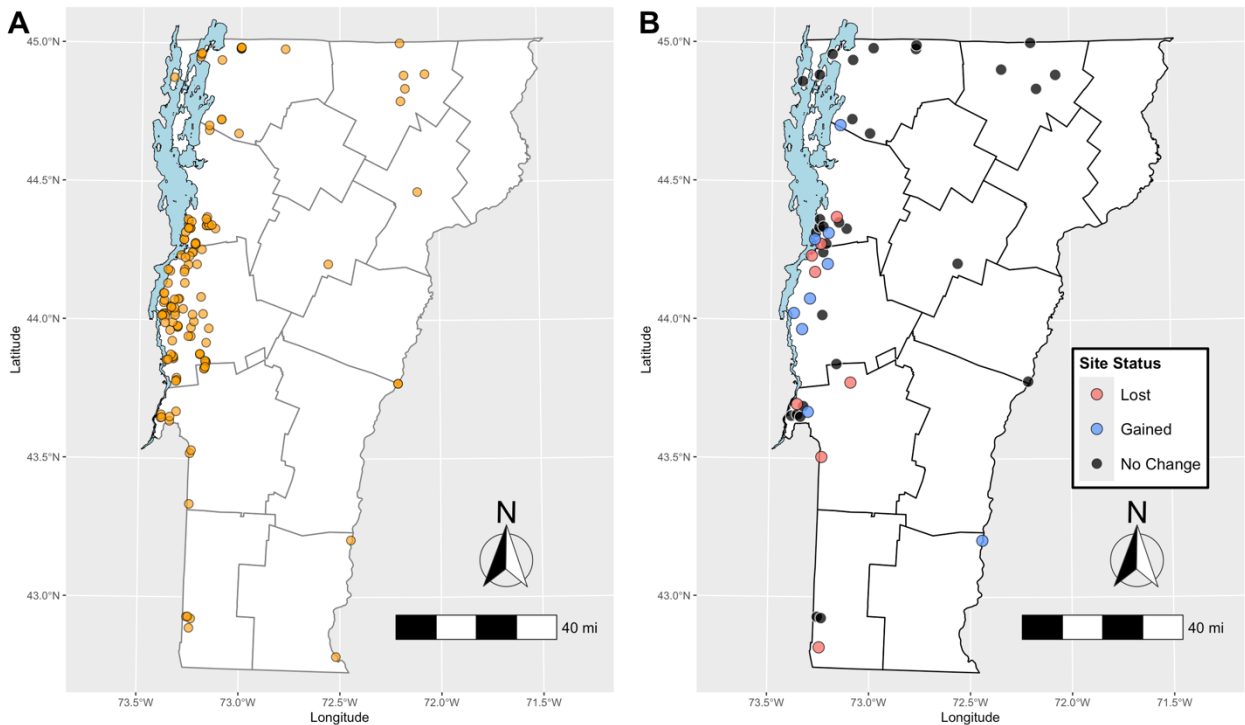


Figure 1. A: Locations of Eastern Meadowlark observations reported to the Vermont Eastern Meadowlark Monitoring Project between March and October 2024. **B:** Suspected Eastern Meadowlark sites gained, lost, and maintained (No Change) in Vermont between 2023 and 2024.

Table 1. Population estimates of breeding adult Eastern Meadowlark in Vermont. Original Population Estimates are from the annual project report of that year. Revised 2024 Population Estimates account for breeding sites that were unreported during previous survey years, but are known to have had breeding adults in past seasons.

Year	2022	2023	2024
Original Population Estimate	96	94	95
Revised 2024 Population Estimate	108	102	NA