

2023 Vermont Eastern Meadowlark Monitoring Project



Eastern Meadowlark © Nick Tepper

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). Upon being designated as a Threatened species in Vermont, formal monitoring began the following year.

Methods

Survey sites were selected *a priori* based on past Eastern Meadowlark sightings, prior knowledge of occupancy, and site-specific attributes like area and openness. Suitable habitat surrounding occupied sites, as well as tracts of potential habitat identified using satellite imagery and land cover data, were targeted for additional surveys. Surveys were primarily conducted monthly between April and July during peak hours of Eastern Meadowlark activity (sunrise through 9am), when wind and precipitation were light and unlikely to impair the observational period. Surveys were primarily conducted from field edges, such as public roads and trails. Due to the variety of site ownership, topography, and access limitations, both stationary counts and transects were utilized. Supplemental observations are reported opportunistically by participants outside of formal surveys. Observational data was emailed to the coordinator and/or entered to eBird (ebird.org, Sullivan et al. 2009) and shared with the group account “grasslandbirds”.

Observers were asked to note whether or not surveyed sites has been hayed at the time of observation. This temporal data was used to determine which sites were unlikely to have successfully fledged young before nest destruction occurred during haying. Following surveys, occupied sites were delineated based on the observed locations of adult individuals and landcover. Occupied sites were defined as sites with Eastern Meadowlark present for at least two consecutive months between May and July, or those with evidence of successful breeding (ie. fledglings or adults carrying food or fecal sacs are observed). A breeding pair was generally assumed to be present when only one individual (the assumed male) was observed singing.

Results and Discussion

302 Eastern Meadowlark observations were reported in Vermont between 17 March 2023 and 10 October 2023 from 74 observers, totaling 173 total hours of observation time (Figure 1, Table 1, Table 2). Based on these observations, the population size of breeding adult Eastern Meadowlark was estimated to be at least 94 individuals across 39 occupied sites (Figure 2). Four sites are owned, in part or in whole, by state (Kingsland Bay State Park, Edward F. Knapp State Airport, Eagle Point Wildlife Management Area) or federal agencies (Missisquoi National Wildlife Refuge). Dead Creek Wildlife Management Area’s Gage Road was potentially occupied, but reports were only submitted between 3 June 2023 and 30 June 2023.

Individual birds began arriving to their breeding grounds in late-March, with the first arrivals of the year reported on 17 March 2023 in Addison County (Table 2). Food for young was first observed being carried on 28 May 2023 in Franklin County, and 5 June 2023 in Rutland County. Surveys weren't temporally sufficient to determine the date of nest initiation, or to provide further context regarding breeding phenology.

While this year's population estimate is only slightly less than 2022's estimate of 96 individuals, that assumes that none of the sites newly reported in 2023 were occupied last year. At least two of this year's newly reported site are thought to have been occupied last season; this retroactively brings the 2022 estimate to at least 100 individuals, resulting in the estimate of 94 birds this year indicating a population loss of roughly 6%. Overall, there don't appear to be major changes in land use that would explain why sites were lost between 2022 and 2023. Several of the sites that went unoccupied by Meadowlark this year appear to be dominated by invasive plants, such as Stanton Road in Danville and William H. Morse State Airport in Bennington; this may potentially explain the loss of some previously occupied sites. Pesticides, such as neonicotinoids, are also known to negatively impact species like Meadowlark that reside on agricultural lands, reducing their fecundity and survivorship (Mineau and Palmer 2013). Further research is needed to see how pesticide use near occupied sites may impact long-term occupancy.

The estimated population at known sites is potentially skewed upwards due to the assumed presence of a pair at each occupied site. However, that number is an overall underestimate of Vermont's population as a whole. 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. Since most Eastern Meadowlark observations are made by ear, birds not actively singing during observation periods are likely to go undetected. Additionally, suitable habitat and survey points may be inaccessible to observers due to access limitations on private or restricted lands.

Two sites are directly across from Vermont's borders, one in Canada and one in New Hampshire. A site in Charleston, NH, approximately 1 mile from VT, has been monitored for several years. An array of active hay fields, we suspect that there has been limited recruitment of juveniles for past few seasons. Due to a mixture of wet weather delaying the haying of soggy fields in 2023, and an aging field reducing forage value, VCE and a team of community members, governmental groups (ex. NRCS), and other nonprofits (ex. American Farmland Trust) worked with the farmer to delay portions of the field where Meadowlarks appeared to be nesting. Two pairs appear to have nested and at least 5 young were successfully fledged. The site may be reseeded in 2024, so the future conservation of the population is unknown.

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.

Literature Cited

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Figures and Tables

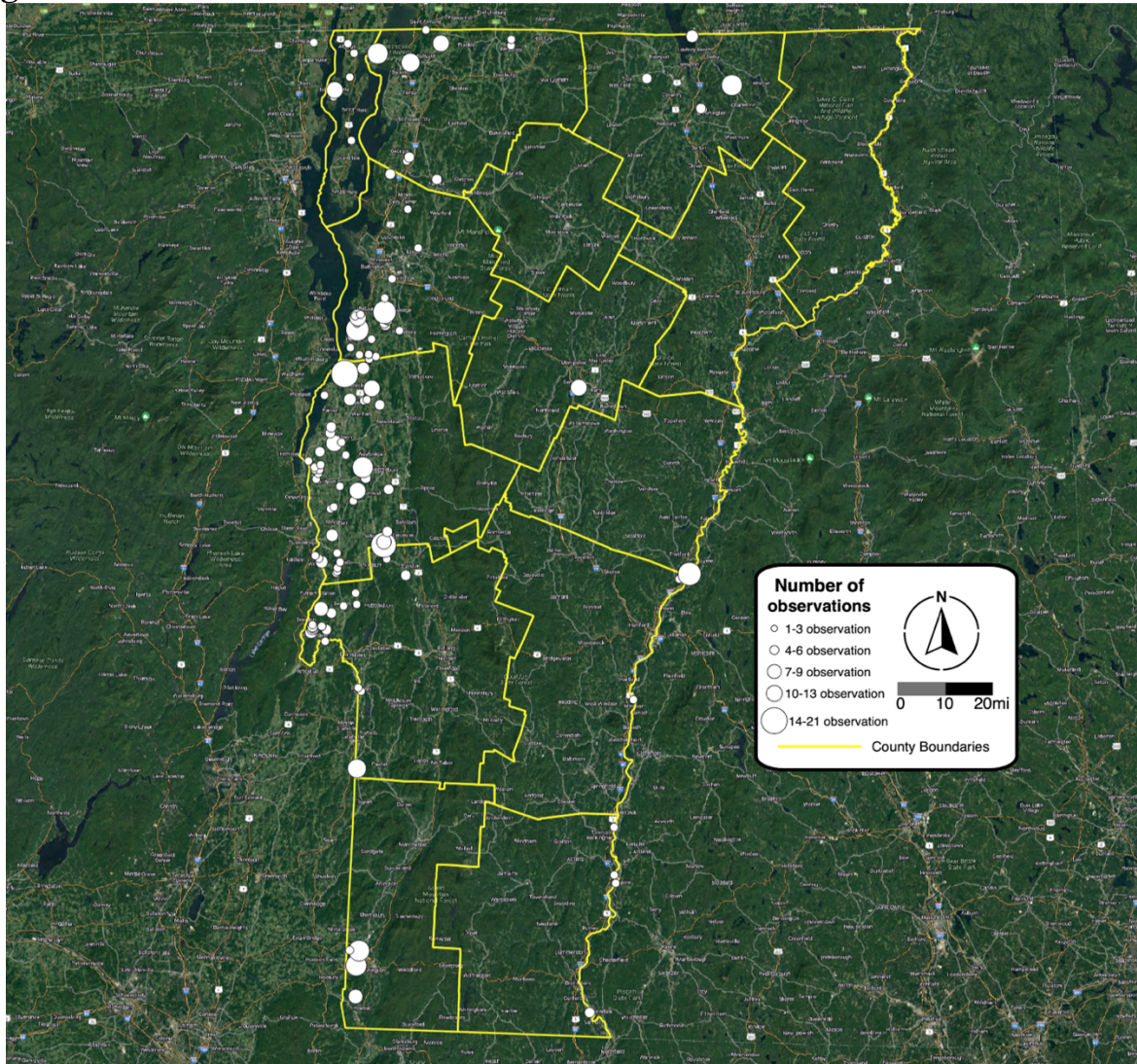


Figure 1. Locations of Eastern Meadowlark observations reported between March and October 2023.

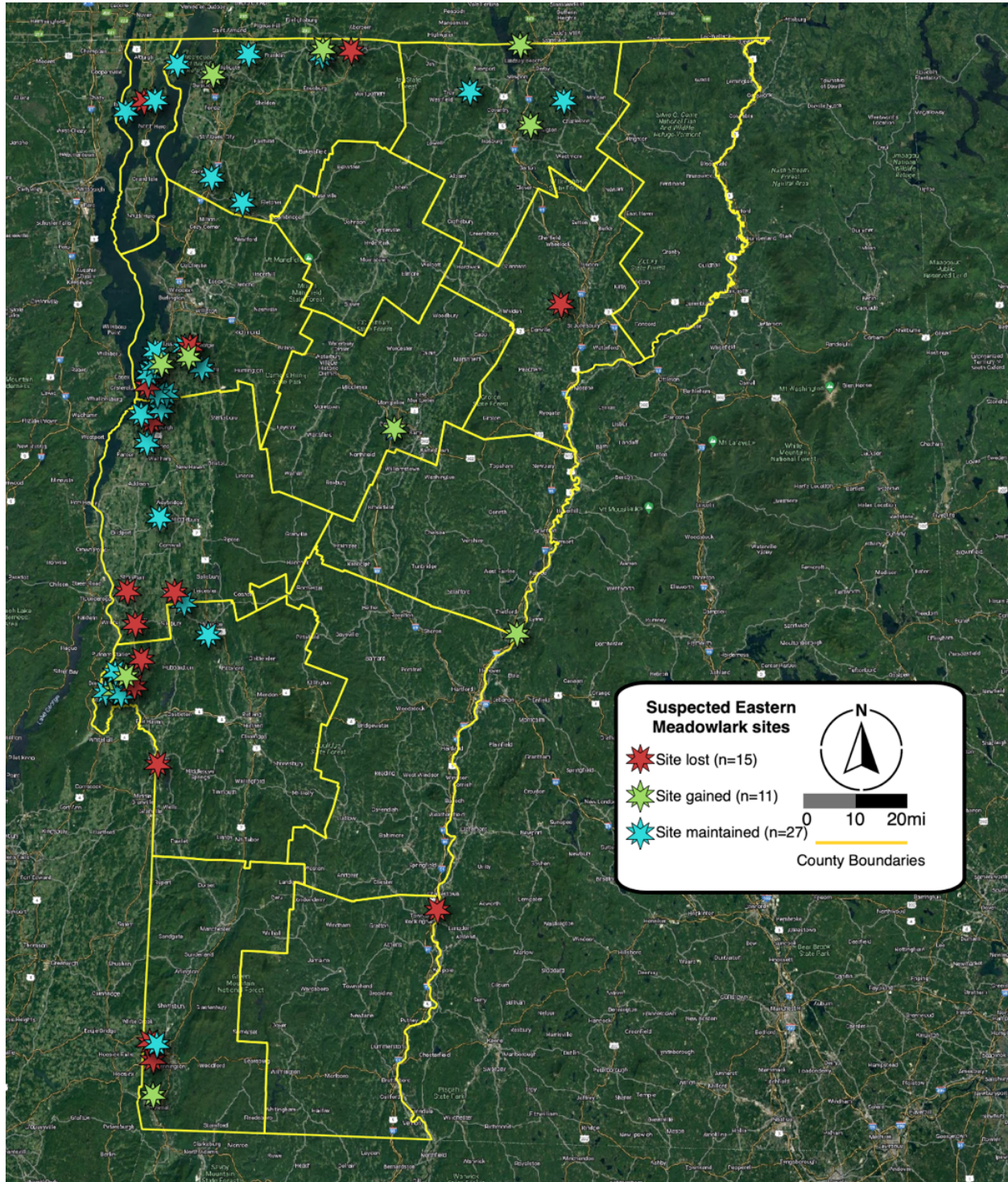


Figure 2. Locations of suspected Eastern Meadowlark sites gained, lost, and maintained between 2022 and 2023.

Table 1. Total survey effort time and number of submitted surveys. Reported sites had Eastern Meadowlark present for at least two consecutive months between May and July, or other evidence of successful breeding. Occupied sites were assumed to host a breeding pair when only one individual was observed singing.

County	Total survey time (minutes)	# of submitted observations	Reported # of sites	Estimated # of breeding adults
Addison	2,423	108	7	16
Bennington	626	20	2	4
Caledonia	0	0	0	0
Chittenden	2,079	57	9	22
Franklin	1,183	27	7	18
Grand Isle	1,152	10	2	6
Lamoille	0	0	0	0
Orange	286	10	1	2
Orleans	301	15	4	10
Rutland	2,027	43	6	14
Washington	34	5	1	2
Windham	234	5	0	0
Windsor	57	2	0	0
Sum	10,402	302	39	94

Table 2. Observations submitted to the 2023 Eastern Meadowlark Monitoring Project. A Count of “X” indicates presence. Breeding codes: S = Singing Bird, P = Pair in Suitable Habitat, S7 = Singing Bird Present 7+ Days, M = Multiple (7+ Singing Birds), CF = Carrying Food, CN = Carrying Nesting Material, PE = Physiological Evidence.

Date	County	Count	Latitude	Longitude	Start Time	Breeding Code	Observer(s)
17-Mar-23	Addison	1	43.78	-73.32	16:09		Chelsea Carroll, Andrew Farber
18-Mar-23	Windham	1	43.10	-72.45	12:45		Cat Abbott, Mick Baisley
21-Mar-23	Windham	1	43.08	-72.44	10:32		Don Clark, Martha Adams
24-Mar-23	Addison	1	43.85	-73.17	8:08		Nate Dansereau
24-Mar-23	Addison	1	44.24	-73.24	9:33		Diane Imrie
24-Mar-23	Windsor	1	43.49	-72.39	10:36		Chris Rimmer, Kyle Jones
25-Mar-23	Windsor	1	43.77	-72.24	8:10		Kyle Jones
26-Mar-23	Addison	1	43.85	-73.17	12:37		David Guertin
29-Mar-23	Addison	1	43.80	-73.36	9:15		Susan Wetmore
30-Mar-23	Chittenden	1	44.36	-73.25	10:57		Ken Ostermiller, Helen Ostermiller
1-Apr-23	Rutland	1	43.34	-73.25	13:55		Timothy Hotch
2-Apr-23	Addison	1	44.23	-73.30	17:12		John Peckham
2-Apr-23	Addison	1	44.23	-73.30	13:33		James Osborn
4-Apr-23	Bennington	1	42.92	-73.24	6:47		Melissa West
4-Apr-23	Rutland	1	43.34	-73.25	14:47		Timothy Hotch
5-Apr-23	Rutland	1	43.78	-73.10	7:40	S	Susan Wetmore
6-Apr-23	Bennington	1	42.89	-73.24	7:10		Eric Seyferth
7-Apr-23	Rutland	2	43.51	-73.24	7:59		Nate Dansereau, Joel Tilley, Sue Wetmore
7-Apr-23	Rutland	1	43.35	-73.25	8:16		Timothy Hotch
8-Apr-23	Addison	1	43.97	-73.25	10:59	S	David Guertin

8-Apr-23	Chittenden	1	44.33	-73.26	7:45	S	Sharon Glezen
8-Apr-23	Orleans	4	45.00	-72.20	7:50		Walter Medwid
9-Apr-23	Addison	1	43.97	-73.25	8:43	S	David Guertin
9-Apr-23	Chittenden	1	44.40	-73.17	18:39	S	Jacob Crawford
9-Apr-23	Addison	3	43.84	-73.17	9:34		Nate Dansereau
9-Apr-23	Addison	1	44.23	-73.30	16:18		James Osborn
9-Apr-23	Chittenden	1	44.37	-73.18	18:59		Jacob Crawford
9-Apr-23	Orleans	1	44.89	-72.07	8:35		Bob Stymeist, Martha Steele
9-Apr-23	Rutland	1	43.34	-73.25	8:02		Timothy Hotch
11-Apr-23	Rutland	2	43.70	-73.37	17:35		Chelsea Carroll, Andrew Farber
11-Apr-23	Rutland	1	43.34	-73.25	15:08		Timothy Hotch
12-Apr-23	Addison	2	43.84	-73.17	12:38		Nate Dansereau
13-Apr-23	Bennington	1	42.92	-73.24	7:00	S	Eric Seyferth, Kevin Tolan
13-Apr-23	Bennington	1	42.89	-73.24	6:22	S	Kevin Tolan
13-Apr-23	Addison	4	43.84	-73.17	6:57		Nate Dansereau
13-Apr-23	Bennington	2	42.89	-73.24	7:00		Kim Likakis
13-Apr-23	Chittenden	1	44.33	-73.26	13:05		Mae Mayville, Bill Mayville
14-Apr-23	Addison	1	43.92	-73.34		S	Amy Douglas
14-Apr-23	Rutland	2	43.70	-73.37	10:05	S	Chelsea Carroll, Andrew Farber
14-Apr-23	Addison	2	43.87	-73.33			Amy Douglas
14-Apr-23	Addison	1	43.86	-73.33			Amy Douglas
14-Apr-23	Addison	2	43.93	-73.33			Amy Douglas
15-Apr-23	Chittenden	2	44.28	-73.25	7:45	S	Nathaniel Sharp
15-Apr-23	Rutland	2	43.73	-73.26	17:09	S	Chelsea Carroll, Andrew Farber
15-Apr-23	Addison	1	44.23	-73.30	9:53		James Osborn
15-Apr-23	Bennington	1	42.82	-73.25	8:30		Eric Seyferth
15-Apr-23	Franklin	1	44.96	-73.20	10:30		Tom Hargy, Rich Kelley
15-Apr-23	Franklin	1	44.96	-73.20	10:30		Kenneth Copenhaver
15-Apr-23	Franklin	1	44.96	-73.20	10:32		Rebecca Giroux
16-Apr-23	Rutland	8	43.66	-73.39	17:14	M	Chelsea Carroll, Andrew Farber
16-Apr-23	Rutland	2	43.70	-73.37	17:03	S	Chelsea Carroll, Andrew Farber
16-Apr-23	Rutland	5	43.64	-73.40	17:43	S	Chelsea Carroll, Andrew Farber
16-Apr-23	Rutland	2	43.68	-73.33	18:16	S	Chelsea Carroll, Andrew Farber
16-Apr-23	Addison	1	44.05	-73.29	12:58		Mike Winslow
16-Apr-23	Bennington	1	42.89	-73.24	7:00		Kim Likakis
16-Apr-23	Franklin	2	44.96	-73.16	13:13		James Osborn
16-Apr-23	Orleans	1	45.00	-72.20	8:50		Walter Medwid
17-Apr-23	Chittenden	2	44.33	-73.26	8:20	S	Sharon Glezen
17-Apr-23	Chittenden	1	44.33	-73.26	8:28	S	Sharon Glezen
17-Apr-23	Rutland	2	43.71	-73.25	12:39	S	Chelsea Carroll, Andrew Farber
17-Apr-23	Addison	1	44.02	-73.37	16:46		Mike Winslow
17-Apr-23	Addison	1	44.01	-73.37	16:45		Mike Winslow
17-Apr-23	Addison	2	44.23	-73.30	16:20		James Osborn
17-Apr-23	Bennington	1	42.89	-73.24	6:59		Eric Seyferth
17-Apr-23	Chittenden	1	44.33	-73.25	8:48		Sharon Glezen
17-Apr-23	Chittenden	3	44.37	-73.18	7:53		Mae Mayville, Bill Mayville
17-Apr-23	Franklin	1	44.72	-73.11	16:52		Tom Hargy
17-Apr-23	Windham	1	43.20	-72.45	9:30		Cat Abbott
18-Apr-23	Addison	2	44.23	-73.30	9:22		James Osborn
18-Apr-23	Rutland	2	43.34	-73.25	10:15		Timothy Hotch
18-Apr-23	Windham	2	42.78	-72.52	8:55		David Johnston
19-Apr-23	Franklin	1	44.72	-73.10	14:47		Tom Hargy
21-Apr-23	Rutland	10	43.66	-73.39	17:21	M	Chelsea Carroll, Andrew Farber

21-Apr-23	Addison	2	43.97	-73.25	6:16	S	David Guertin
21-Apr-23	Chittenden	3	44.28	-73.22	7:20	S	Nathaniel Sharp
21-Apr-23	Rutland	2	43.64	-73.40	17:45	S7	Chelsea Carroll, Andrew Farber
21-Apr-23	Addison	1	44.23	-73.30	10:35		James Osborn
21-Apr-23	Chittenden	1	44.29	-73.28	7:48		Nathaniel Sharp
21-Apr-23	Orleans	1	44.89	-72.07	9:12		Bob Stymeist
21-Apr-23	Washington	1	44.20	-72.56	6:37		Richard Littauer
22-Apr-23	Addison	2	43.97	-73.25	6:22	S	David Guertin
22-Apr-23	Chittenden	1	44.36	-73.27	11:46		John Peckham
22-Apr-23	Franklin	0	44.67	-73.01	8:00		Julie Filiberti
22-Apr-23	Grand Isle	4	44.88	-73.34	11:25		James Osborn
23-Apr-23	Chittenden	1	44.45	-73.15	12:45		Mae Mayville, Bill Mayville
24-Apr-23	Chittenden	3	44.37	-73.17	11:45	S7	Mae Mayville, Bill Mayville
24-Apr-23	Bennington	1	42.89	-73.24	7:00		Eric Seyferth
25-Apr-23	Bennington	1	42.92	-73.24	7:59		Kevin Tolan, Melissa West
25-Apr-23	Chittenden	2	44.37	-73.18	13:10		Mae Mayville, Bill Mayville
25-Apr-23	Chittenden	2	44.33	-73.13	18:17		John Peckham
26-Apr-23	Chittenden	1	44.34	-73.17	14:20	S	Sharon Glezen
26-Apr-23	Franklin	1	44.96	-73.20	19:24		Allan Strong et al.
27-Apr-23	Rutland	4	43.70	-73.29	13:39	S	Chelsea Carroll, Andrew Farber
27-Apr-23	Chittenden	1	44.37	-73.18	11:30		Mae Mayville, Bill Mayville
27-Apr-23	Washington	1	44.21	-72.56	16:54		Sarah Janson
28-Apr-23	Bennington	2	42.92	-73.24		PE	Kevin Tolan
28-Apr-23	Addison	1	44.16	-73.19	18:34	S	Jon D. Erickson
28-Apr-23	Orange	1	43.78	-72.21	8:18	S	Rebecca Lovejoy
28-Apr-23	Addison	1	43.97	-73.25	5:55	S7	David Guertin
28-Apr-23	Rutland	5	43.64	-73.40	10:01	S7	Chelsea Carroll, Andrew Farber
28-Apr-23	Addison	1	43.80	-73.36	10:46		Susan Wetmore
28-Apr-23	Addison	1	44.23	-73.30	16:50		James Osborn
28-Apr-23	Chittenden	1	44.38	-73.18	10:15		Sharon Glezen
29-Apr-23	Addison	2	44.23	-73.30	7:25	P	Mike Winslow
29-Apr-23	Addison	2	44.17	-73.28	6:53	P	Mike Winslow
29-Apr-23	Chittenden	2	44.33	-73.25	8:40	S	Sharon Glezen
29-Apr-23	Franklin	1	44.96	-73.20	7:30		Kenneth Copenhaver
30-Apr-23	Addison	1	44.17	-73.23	7:48	S	Jon D. Erickson
30-Apr-23	Addison	1	43.78	-73.32	14:18		Nate Dansereau
30-Apr-23	Addison	1	43.87	-73.33	17:13		Mike Winslow
30-Apr-23	Addison	1	43.82	-73.38	11:32		Nate Dansereau
30-Apr-23	Addison	1	43.82	-73.32	17:05		Mike Winslow
1-May-23	Bennington	1	42.82	-73.25	8:06		Eric Seyferth
1-May-23	Grand Isle	1	44.96	-73.28	11:27		Carol Yarnell
2-May-23	Rutland	3	43.52	-73.25	8:47		Nate Dansereau et al.
3-May-23	Addison	1	43.94	-73.27	6:18		David Guertin
3-May-23	Grand Isle	9	44.88	-73.34	5:55		James Osborn
4-May-23	Addison	1	44.20	-73.21	15:04	S	Jon D. Erickson
4-May-23	Addison	1	43.94	-73.27	12:59		Brent Stephenson
4-May-23	Addison	1	44.16	-73.19	11:13		Jon D. Erickson
4-May-23	Addison	2	43.84	-73.17	8:12		Susan Wetmore
4-May-23	Bennington	1	42.92	-73.24	5:55		Eric Seyferth
4-May-23	Franklin	1	44.99	-73.00	9:33		Julie Filiberti, David Filiberti
5-May-23	Addison	1	43.97	-73.16	6:26	S	Jon D. Erickson
5-May-23	Rutland	2	43.62	-73.35	12:30	S	Chelsea Carroll, Andrew Farber
5-May-23	Addison	2	43.84	-73.17	17:17		Nate Dansereau

5-May-23	Addison	1	43.97	-73.16	6:47		Jon D. Erickson, Ian Worley
5-May-23	Addison	2	44.10	-73.34	9:15		James Osborn
6-May-23	Addison	1	44.02	-73.39	7:14		David Guertin
6-May-23	Franklin	1	44.96	-73.16	12:50		James Osborn
7-May-23	Bennington	2	42.89	-73.24	6:50		Kim Likakis
8-May-23	Addison	1	44.01	-73.39	6:15		Jon D. Erickson
8-May-23	Chittenden	1	44.36	-73.25	9:43		Ken Ostermiller, Helen Ostermiller
9-May-23	Addison	1	44.11	-73.34	11:30		Jon D. Erickson
9-May-23	Bennington	2	42.89	-73.24	6:15		Kim Likakis
10-May-23	Addison	2	44.02	-73.24	6:23	S	David Guertin
10-May-23	Chittenden	4	44.36	-73.26	9:19	S	Kevin Tolan
10-May-23	Chittenden	6	44.28	-73.22	7:37		Kevin Tolan
10-May-23	Chittenden	1	44.69	-73.16	19:22		Julie Filiberti
10-May-23	Chittenden	2	44.37	-73.17	9:47		Mae Mayville, Bill Mayville
11-May-23	Rutland	2	43.66	-73.39	9:16	S	Susan Elliott, Susan Wetmore
11-May-23	Rutland	1	43.69	-73.33	11:58	S	Susan Elliott, Susan Wetmore
11-May-23	Rutland	4	43.65	-73.39	8:28	S	Susan Elliott, Susan Wetmore
11-May-23	Rutland	1	43.65	-73.35	7:59	S	Susan Elliott, Susan Wetmore
11-May-23	Grand Isle	1	44.91	-73.29	13:29		Carol Yarnell
12-May-23	Addison	2	44.24	-73.24	8:23		Diane Imrie
12-May-23	Chittenden	1	44.33	-73.25	8:20		Sharon Glezen
12-May-23	Grand Isle	5	44.88	-73.34	7:15		James Osborn
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15-May-23	Grand Isle	4	44.88	-73.34	8:32		James Osborn
15-May-23	Orleans	1	44.89	-72.07	11:08		Bob Stymeist
16-May-23	Rutland	1	43.65	-73.38	9:31		Michael Blust
17-May-23	Rutland	1	43.65	-73.39	11:44	S7	Marvin Elliott, Susan Elliott
18-May-23	Bennington	2	42.92	-73.24	18:38		Eric Seyferth
18-May-23	Rutland	2	43.81	-73.16	14:00		Nate Dansereau
19-May-23	Chittenden	1	44.34	-73.17	16:45	S	Paul Wiczoreck
20-May-23	Addison	4	43.81	-73.37	12:02		Nate Dansereau
20-May-23	Addison	3	43.80	-73.36	7:17		Susan Wetmore
20-May-23	Franklin	4	44.98	-73.00	6:06		John Peckham, Avery Fish
20-May-23	Franklin	1	44.94	-73.10	4:48		John Peckham
20-May-23	Orange	1	43.78	-72.21	11:35		Chris Rimmer
20-May-23	Orleans	5	45.00	-72.20	16:30		Walter Medwid
21-May-23	Addison	1	43.84	-73.17	8:23		David Guertin
21-May-23	Addison	1	43.79	-73.31	8:41		David Guertin
21-May-23	Chittenden	1	44.36	-73.26	6:01		Joshua Phillips
21-May-23	Chittenden	1	44.35	-73.26	6:14		Joshua Phillips
21-May-23	Chittenden	1	44.35	-73.26	6:26		Joshua Phillips
21-May-23	Chittenden	1	44.33	-73.26	6:53		Joshua Phillips
21-May-23	Chittenden	1	44.61	-73.10	13:35		Elizabeth Alton
21-May-23	Chittenden	1	44.27	-73.22	10:53		Nathaniel Sharp
21-May-23	Chittenden	1	44.27	-73.20	11:55		Nathaniel Sharp
22-May-23	Windham	4	42.78	-72.52	8:57	S7	Kevin Tolan
22-May-23	Addison	2	44.05	-73.37	12:13		James Osborn
22-May-23	Washington	1	44.21	-72.56	12:18		Sarah Janson
23-May-23	Addison	0	44.02	-73.24	5:53		David Guertin
23-May-23	Grand Isle	1	44.76	-73.28	9:30		Beth Deimling

24-May-23	Orleans	2	44.83	-72.17	7:00	P	Kevin Tolan
24-May-23	Orleans	2	44.91	-72.34	8:38	P	Kevin Tolan
24-May-23	Addison	1	44.18	-73.36	16:09		Jon D. Erickson
24-May-23	Chittenden	2	44.69	-73.16	18:20		Julie Filiberti
24-May-23	Franklin	2	44.98	-73.00	5:48		Allan Strong et al.
24-May-23	Franklin	1	44.94	-73.10	8:26		Allan Strong
24-May-23	Orleans	2	44.83	-72.16	7:19		Kevin Tolan
25-May-23	Chittenden	2	44.37	-73.17	14:11	S7	Mae Mayville, Bill Mayville
26-May-23	Orange	1	43.78	-72.21	7:30	S	Rebecca Lovejoy
27-May-23	Addison	2	44.23	-73.30	10:54	P	James Osborn
27-May-23	Addison	2	44.17	-73.28	6:38	P	Mike Winslow, Ben Huston
27-May-23	Addison	1	44.23	-73.30	7:30	S	Mike Winslow, Ben Huston
27-May-23	Rutland	1	43.70	-73.37	19:07	S7	Chelsea Carroll, Andrew Farber
27-May-23	Chittenden	0	44.33	-73.25	8:25		Sharon Glezen
27-May-23	Chittenden	2	44.33	-73.26	8:15		Sharon Glezen
27-May-23	Chittenden	1	44.33	-73.26	8:05		Sharon Glezen
28-May-23	Franklin	1	44.94	-73.10	10:39	CF	Allan Strong et al.
28-May-23	Franklin	1	44.67	-73.01	5:55	S	Julie Filiberti
28-May-23	Franklin	2	44.94	-73.10	7:13		Kenneth Copenhaver, Tom Hargy
29-May-23	Franklin	2	44.98	-73.00	9:25		Zoc Cota, Alison Wagner
31-May-23	Addison	1	44.02	-73.24	6:42		David Guertin
31-May-23	Franklin	4	44.98	-73.00	10:53		Jon D. Erickson
31-May-23	Orange	1	43.78	-72.21	11:08		Larry Morin
1-Jun-23	Addison	1	44.10	-73.34	9:45		James Osborn
1-Jun-23	Addison	2	44.05	-73.37	11:51		James Osborn
3-Jun-23	Addison	1	44.08	-73.31	7:38		David Guertin
3-Jun-23	Addison	1	44.23	-73.30	10:56		James Osborn
3-Jun-23	Bennington	3	42.92	-73.24	10:21		Eric Seyferth
3-Jun-23	Rutland	1	43.65	-73.39	11:51		Michael Blust
4-Jun-23	Franklin	2	44.98	-72.78	12:39	P	Kevin Tolan
4-Jun-23	Franklin	3	44.99	-72.78	13:03	P	Kevin Tolan
4-Jun-23	Grand Isle	1	44.98	-73.30	6:50	S	Kevin Tolan
4-Jun-23	Franklin	2	44.94	-73.10	12:02		Grace Nelson
4-Jun-23	Franklin	1	44.96	-73.20	10:08		James Osborn
5-Jun-23	Rutland	1	43.65	-73.35	8:37	CF	Susan Elliott, Marvin Elliott
5-Jun-23	Grand Isle	4	44.88	-73.34	6:40		James Osborn
6-Jun-23	Washington	1	44.20	-72.56	10:06		Rebecca Waterman
7-Jun-23	Addison	2	44.23	-73.30	9:30		James Osborn
7-Jun-23	Chittenden	1	44.36	-73.25	10:22		Ken Ostermiller, Helen Ostermiller
8-Jun-23	Orange	0	43.78	-72.21	9:03		Rebecca Lovejoy
11-Jun-23	Addison	2	44.23	-73.30	13:33	P	James Osborn
11-Jun-23	Addison	1	44.24	-73.24	7:00		Diane Imrie
12-Jun-23	Rutland	2	43.84	-73.17	7:22	A	Kevin Tolan
12-Jun-23	Addison	3	43.85	-73.17	6:45	P	Kevin Tolan
12-Jun-23	Addison	5	43.84	-73.17	7:07	P	Kevin Tolan
12-Jun-23	Addison	4	44.02	-73.24	6:14	P	David Guertin
12-Jun-23	Chittenden	2	44.35	-73.17	16:45	P	Paul Wiczorek
12-Jun-23	Rutland	4	43.84	-73.17	7:27	P	Kevin Tolan
12-Jun-23	Chittenden	1	44.29	-73.28	16:27	S	Kevin Tolan
12-Jun-23	Rutland	1	43.66	-73.36	11:36	S	Kevin Tolan
12-Jun-23	Rutland	1	43.83	-73.18	7:53	S	Kevin Tolan
12-Jun-23	Rutland	2	43.83	-73.17	7:40	S	Kevin Tolan
12-Jun-23	Rutland	1	43.66	-73.36	10:05		Kevin Tolan

13-Jun-23	Addison	2	44.07	-73.33	14:25		Nate Dansereau
14-Jun-23	Chittenden	5	44.35	-73.16	14:20	CF	Paul Wieczoreck
14-Jun-23	Addison	2	44.23	-73.30	9:41	NB	James Osborn
14-Jun-23	Chittenden	2	44.34	-73.17	12:30	P	Paul Wieczoreck
14-Jun-23	Chittenden	3	44.35	-73.17	12:10		Paul Wieczoreck
15-Jun-23	Chittenden	2	44.33	-73.25	8:25	CF	Sharon Glezen
15-Jun-23	Addison	2	44.23	-73.30	10:19	P	James Osborn
15-Jun-23	Orange	1	43.78	-72.21	15:02	S	Rebecca Lovejoy
15-Jun-23	Chittenden	1	44.37	-73.25	8:53		Rebecca Giroux
16-Jun-23	Chittenden	2	44.37	-73.17	11:40	P	Paul Wieczoreck
16-Jun-23	Addison	1	44.20	-73.21	18:06	S	Jon D. Erickson
16-Jun-23	Orange	1	43.78	-72.21	17:10	S	Kevin Tolan
16-Jun-23	Rutland	4	43.78	-73.10	6:30		Allan Strong, Margaret Fowle
17-Jun-23	Addison	1	44.07	-73.33	18:50	S	Jon D. Erickson
17-Jun-23	Addison	1	44.07	-73.33	18:25		Jon D. Erickson
17-Jun-23	Addison	1	44.23	-73.30	11:46		James Osborn
19-Jun-23	Rutland	2	43.65	-73.39	7:08	S	Jon D. Erickson
19-Jun-23	Addison	1	44.07	-73.33	12:56		Allan Strong, Claire Reilly, Matt Hallahan
20-Jun-23	Chittenden	2	44.32	-73.28	9:00	CF	Paul Wieczoreck
20-Jun-23	Addison	0	44.23	-73.30	13:20	P	James Osborn
21-Jun-23	Addison	1	44.00	-73.23	7:12		David Guertin
22-Jun-23	Rutland	2	43.69	-73.33	13:41	CF	Susan Elliott, Marvin Elliott
22-Jun-23	Rutland	2	43.65	-73.39	12:29	S7	Susan Wetmore, Susan Elliott, Marvin Elliott
22-Jun-23	Rutland	1	43.65	-73.35	8:31	S7	Susan Wetmore, Susan Elliott, Marvin Elliott
23-Jun-23	Chittenden	1	44.52	-73.07	11:30	S	Paul Wieczoreck
23-Jun-23	Addison	2	44.02	-73.24	10:02		David Guertin
23-Jun-23	Bennington	1	42.92	-73.27	16:10		Kim Likakis
23-Jun-23	Chittenden	0	44.33	-73.26	8:48		Sharon Glezen
23-Jun-23	Chittenden	1	44.33	-73.26	8:42		Sharon Glezen
25-Jun-23	Addison	3	44.02	-73.24	7:47	CF	David Guertin
25-Jun-23	Chittenden	1	44.35	-73.17	10:50		Paul Wieczoreck
25-Jun-23	Franklin	2	44.72	-73.10	12:18		Tom Hargy
25-Jun-23	Orleans	4	44.89	-72.07	10:38		Bob Stymeist
26-Jun-23	Orleans	2	44.91	-72.34	11:58	FL	Kevin Tolan
26-Jun-23	Bennington	1	42.82	-73.25	7:05		Eric Seyferth
27-Jun-23	Franklin	2	44.94	-73.10	6:27		Zac Cota
28-Jun-23	Orange	1	43.78	-72.21	7:45	S	Rebecca Lovejoy
29-Jun-23	Addison	1	44.02	-73.24	11:30		John Peckham
29-Jun-23	Addison	2	44.23	-73.30	5:55		James Osborn
30-Jun-23	Addison	3	44.07	-73.33	6:39		David Guertin
30-Jun-23	Addison	1	44.03	-73.41	9:04		Sue Wetmore
30-Jun-23	Addison	3	43.84	-73.17	7:57		Sue Wetmore
1-Jul-23	Chittenden	2	44.31	-73.21	13:15	CF	Paul Wieczoreck
1-Jul-23	Orleans	1	44.89	-72.07	10:56		Bob Stymeist
4-Jul-23	Addison	2	44.23	-73.30	8:39		James Osborn
4-Jul-23	Chittenden	1	44.33	-73.25	9:20		Sharon Glezen
5-Jul-23	Franklin	1	45.01	-73.05	7:20		Kenneth Copenhaver
5-Jul-23	Grand Isle	1	44.86	-73.34	18:31		Spencer Hardy
7-Jul-23	Washington	1	44.21	-72.56	12:11		Sarah Janson
8-Jul-23	Addison	1	44.17	-73.24	19:38	S	Jon D. Erickson

8-Jul-23	Orange	3	43.78	-72.21	8:55	S	Kyle Jones
8-Jul-23	Addison	2	44.02	-73.24	7:37	S7	David Guertin
8-Jul-23	Orleans	4	44.89	-72.07	9:19		Bob Stymeist, Martha Steele
9-Jul-23	Orange	2	43.78	-72.21	8:09	S	Rebecca Lovejoy
11-Jul-23	Addison	1	44.20	-73.21	13:42	S	Jon D. Erickson
11-Jul-23	Addison	1	44.00	-73.23	7:13		David Guertin
14-Jul-23	Addison	2	43.84	-73.17	10:37		Nate Dansereau
17-Jul-23	Addison	2	44.00	-73.38	8:20		Barry Blust, Michael Blust
18-Jul-23	Addison	1	44.20	-73.21	16:18	S7	Jon D. Erickson
24-Jul-23	Addison	1	43.87	-73.16	13:20		Nate Dansereau
27-Jul-23	Orleans	1	44.84	-72.17			Jedidiah Gray, Matthew Gray
28-Jul-23	Addison	1	43.85	-73.16	9:51		Mike Winslow
29-Jul-23	Addison	1	43.85	-73.17	8:10		David Guertin
4-Aug-23	Addison	1	44.20	-73.21	17:21		Jon D. Erickson
4-Aug-23	Chittenden	3	44.31	-73.21	10:35		Paul Wiczorek
5-Aug-23	Addison	4	43.80	-73.31	18:50		John Peckham
17-Aug-23	Addison	3	43.99	-73.38	11:32		Fred Pratt, Martha Adams
30-Sep-23	Addison	2	44.11	-73.34	11:33		David Guertin
5-Oct-23	Addison	1	43.87	-73.16	10:33		Nate Dansereau