

EASTERN MASSACHUSETTS SPARROW SURVEY

by Nicholas and Oliver Komar, Newton

On October 18, 1981, local birders canvassed twenty communities of eastern Massachusetts, collecting data on preferred habitats and relative abundance of fall migrant sparrows. Twenty-three observers visited ten general habitats in search of all sparrow species of the family Fringillidae, including juncos. Data collected included the number of hours spent in the field and species subtotals arranged by habitat.

Table 1 ranks locations according to number of birds seen per hour. This statistic may have significance in determining preferred sparrow migration routes or detecting migration traps. It is interesting to note that the Squantum area yielded both the largest number of birds per hour (BPH) and the two most unusual finds of the survey: a Henslow's Sparrow (Ammodramus henslowii) and a "Gambel's" White-crowned Sparrow (Zonotrichia leucophrys gambelii). The former, a bird very rarely seen in Massachusetts, is "nearly gone from the northeast" (Peterson, 1980), while the latter is a migrant "through the Great Plains region, casual east of the Mississippi River" (Peterson, 1947).

Special mention should be made of the "Ipswich" Savannah Sparrow (Passerculus sandwichensis princeps) that was found at Allandale Farm in Brookline. This subspecies is very rarely seen away from its preferred habitat of sand dunes and beach grass. J. J. Elliot (1968), in his description in Bent, reports the "Ipswich" Sparrow as being "casual inland in Massachusetts."

Table 1. Results from Different Locations.

Location	Party Hours	Birds per Hour	No. of Species (includes subspecies)	Most Abundant Sparrow
Squantum	6	74.50	12	D.-eyed Junco
Concord	2.25	60.89	7	Savannah
Lexington	2	48.00	9	Song
Milton	3	42.33	6	Song
Arl.-Camb.-Bel.	3	38.67	8	Song
Brookline	4.75	37.68	10	W.-throated
Salisbury-P.I.	6	37.00	10	Song
Wayland-Weston	8.5	28.12	10	D.-eyed Junco
Newton	14	27.86	9	Song
Winchester-Woburn	3.67	20.71	8	Song
West Roxbury	3	19.67	3	D.-eyed Junco
Medford	1.5	12.67	6	Savannah
Cambridge	2.5	12.40	4	Song
Saugus	3.5	7.71	4	Song
Waltham	2	4.00	2	W.-throated
Medfield	2	1.00	1	Field

Total Party hrs. = 67.67; avg. BPH = 32.14; total sp. = 18.

Table 2 presents a breakdown of the habitats in which the migrant sparrows occurred. Description of habitats was left to the discretion of the observer. It should be noted that the amount of effort expended in each habitat type varied considerably. For example, an alder swamp was visited in only one area, whereas thickets were visited in most areas. A "BPH" statistic was not computed for each habitat, although such a statistic would provide a better measure of sparrows' preferences than raw totals.

Table 2. Habitat Preference.

	Thicket	Dry Fields	Freshwater Marsh	Farm, Garden	Dumpsite	Wet Meadow	Forest	Cemetery	Salt Marsh	Alder Swamp
Locations	14	12	5	4	4	3	2	1	1	1
No. of Birds	818	610	91	284	132	78	68	55	34	4
Species:										
Savannah Sparrow	52	103	1	110	46	-	-	-	12	-
"Ipswich"	1	-	-	-	-	-	-	-	1	-
Grasshopper	-	1	-	-	-	-	-	-	-	-
Henslow's	-	1	-	-	-	-	-	-	-	-
Sharp-tailed	-	-	-	-	-	-	-	-	11	-
Vesper Sparrow	-	1	-	-	1	-	-	-	-	-
Lark Sparrow	1	-	-	-	-	-	-	-	-	-
Dark-eyed Junco	167	115	3	26	34	-	60	55	-	-
Tree Sparrow	1	1	2	1	-	-	-	-	-	1
Chipping	15	6	-	3	5	-	-	-	-	-
Field Sparrow	50	33	-	24	9	1	-	-	-	-
White-crowned	43	40	-	6	1	-	-	-	-	-
"Gambel's"	-	1	-	-	-	-	-	-	-	-
White-throated	184	20	3	24	1	7	8	-	-	-
Fox Sparrow	3	1	-	-	-	-	-	-	-	-
Lincoln's	9	4	-	1	-	-	-	-	-	-
Swamp Sparrow	27	40	38	24	2	12	-	-	-	-
Song Sparrow	265	243	44	65	33	58	-	-	10	3

Table 3 provides abundance ratings for the sparrow species recorded on the survey. Species are listed in order of decreasing relative abundance. It should be kept in mind that these results reflect only the abundances which existed at the time of our survey. The numbers of certain species, such as Fox Sparrow and Tree Sparrow, which peak later in the year, are probably underrepresented in this count.

Table 3. Abundance of Sparrows.

Species	Total	Maximum BPH	Location of Maximum
Song	721	28.50	Lexington
Dark-eyed Junco	460	20.33	Squantum
Savannah	324	23.11	Concord
White-throated	247	12.42	Brookline
Swamp	143	10.22	Concord
Field	117	6.17	Squantum
White-crowned	90	10.00	Squantum
Chipping	29	1.17	Squantum, Salis.-P.I.
Lincoln's	14	1.33	Squantum
Sharp-tailed	11	1.83	Salisbury-P.I.
Tree	6	.35	Wayland-Weston
Fox	4	.50	Squantum, Lexington
"Ipswich"	3	.33	Salisbury-P.I.
Vesper	2	.67	Medford
Grasshopper	1	.50	Lexington
Lark	1	.17	Salisbury-P.I.
"Gambel's"	1	.17	Squantum
Henslow's	1	.17	Squantum

It is hoped that this census will be continued in the future as a project of the Bird Observer Field Studies Committee. Future sparrow surveys should provide answers to the following questions: (1) When do migrational peaks of individual species occur? (2) How do weather conditions affect these peaks on a daily as well as a yearly basis? (3) Why is one specific location better for migrant sparrows than other locations in the vicinity?

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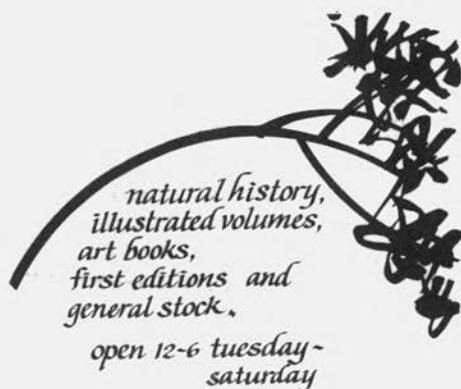

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NICHOLAS and OLIVER KOMAR, high school seniors, have been active birders for eight years and have served as trip leaders for Brookline Bird Club. Chosen for their special interest in ornithology, they appeared on the television series, "Quiz Kids." They have traveled in Mexico, Spain, Peru, and Costa Rica, primarily to bird.



1982 SPARROW SURVEY

The 1982 Eastern Massachusetts Sparrow Survey will be held in early October. To participate, contact Nick and Ollie Komar at 617-332-5509. Volunteers are needed.



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