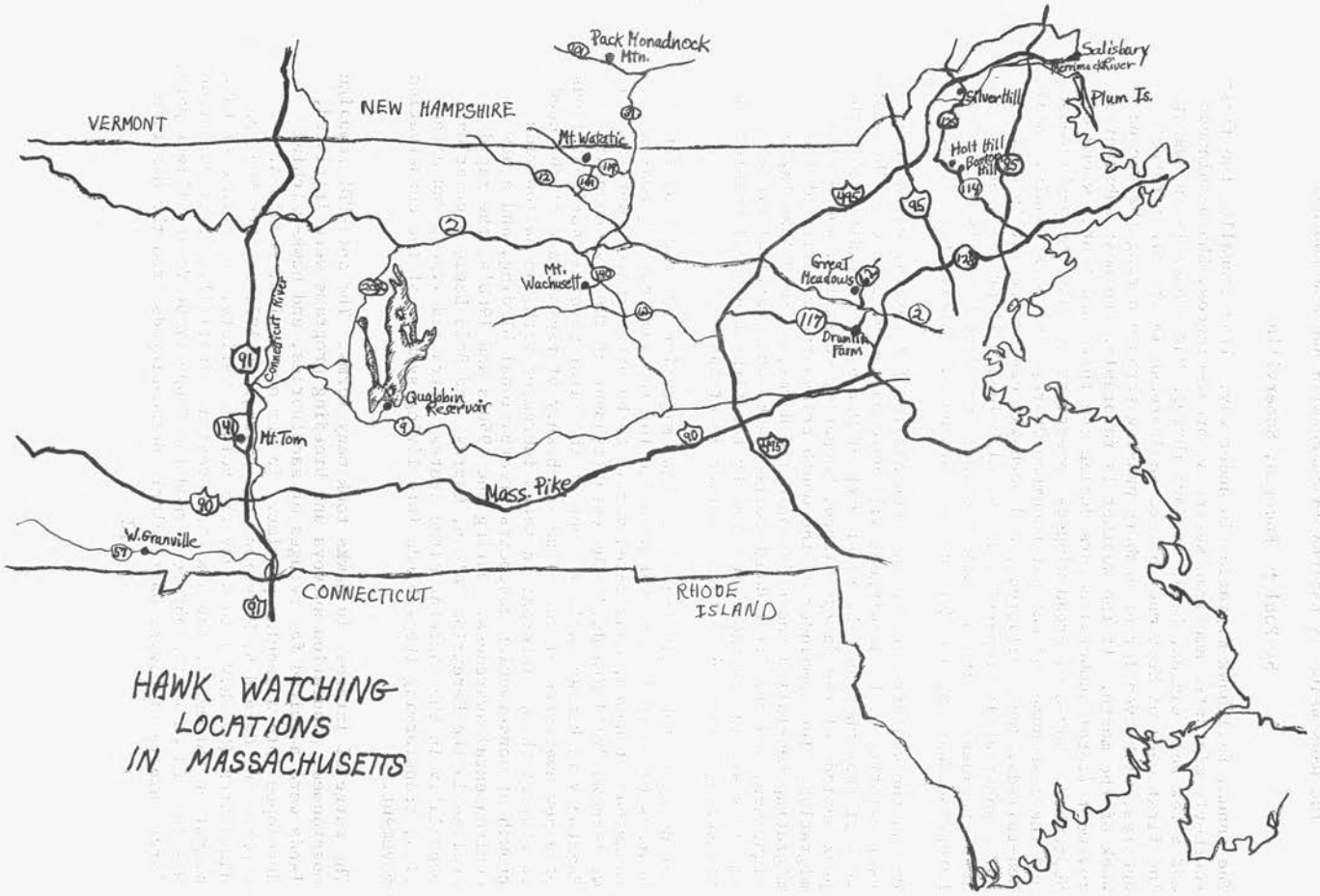

HAWK WATCHING LOCATIONS IN MASSACHUSETTS

THE HAWK WATCH IN EASTERN MASSACHUSETTS AND NEW ENGLAND

by Paul M. Roberts, Somerville

The annual fall hawk migration is under way. Traditionally, the first southerly migrants, American Kestrels, Broad-wingeds, Sharp-shinneds, and a few Bald Eagles, begin to move through Massachusetts in August. The first week of September brings an increase in the first three species, with even larger numbers passing through during the second week of the month. If the weather is favorable, the most substantial movement (total numbers) occurs during the third and fourth weeks of September. Waves of Broad-wingeds appear, as do many Sharp-shinneds and the less numerous but not uncommon Ospreys and Marsh Hawks. Many Red-taileds, Red-shouldereds, and Goshawks can be seen at this time, but a substantial proportion of the sightings will probably be of local residents. The uncommon species, including Cooper's Hawks, Peregrine Falcons, and Merlins, are around but difficult to find.

Unless the weather pattern has been stalled for several weeks, the vast majority of Broad-wingeds will have passed by October. The last week of September and the first week of October is traditionally the peak period of the Sharp-shinned, Cooper's, Peregrine, and Merlin migration. The remainder of the month brings the majority of the migrating Red-tailed and Red-shouldered Hawks, a few Golden Eagle sightings, and the first Rough-legged Hawk, whose arrival evokes emotions similar to those produced by the first Blackpoll Warbler in the spring. The end of the migration is at hand.

For decades, the beginning of the hawk migration was a signal for hunters to begin live target practice for the game hunting season. Thousands of hawks, considered vermin to be exterminated, were shot at well-known "kill stands." The establishment of the Hawk Mountain Sanctuary in Pennsylvania was one of the first physical manifestations of a new awareness of the value and beauty of raptors and of the need to protect them. Interest in hawks increased with the nation-wide growth of conservation movements, recreational birding, and a new environmental awareness. During the 1950's and 1960's, the rapid decline in the Peregrine Falcon, Osprey, and Bald Eagle populations, especially in the eastern United States, attracted widespread attention, transforming these birds into living symbols of the conservation movement.

The surge of interest in hawks took many forms. The anti-DDT campaign mushroomed, population surveys and breeding programs were initiated, lands were acquired for refuges or sanctuaries, and hawk-watching developed into a popular pastime. In our own region, Donald A. Hopkins and Gerald S. Mersereau established in 1971 the New England Hawk Watch (N.E.H.W.) to study the volume, variety, and nature of hawk migration throughout the six-state region. Initially, their attention was focused on what might be termed the Connecticut Valley flight path. Large numbers of hawks, particularly Broad-wingeds from the Maritime

Provinces of Canada and northern New England, have long been known to use the thermals and updrafts produced along that valley's ridges to carry them southwestward across Massachusetts and Connecticut to the Kittatinny Ridge. Relying entirely on volunteers, the watch established many observation sites on a weekend in the spring and several weekends in the fall.

This intense new interest in hawks was evident in many other regions. Observer participation in hawk watches increased not only at Hawk Mountain, but at Cape May, Hawk Cliff, Point Pelee, and Duluth. In 1974, the Hawk Migration Association of North America (H.M.A.N.A.) was founded. Among its many functions, this organization seeks to encourage observation of hawk movements throughout the entire United States and Canada and to disseminate its findings. The United States Fish and Wildlife Service is now computerizing the data compiled from the hawk watches conducted by H.M.A.N.A. from 1974 through 1976.

The H.M.A.N.A. has just published a 24 page report on the Fall 1976 Hawk Migration; its findings can be summarized on a species-by-species basis. The Turkey Vulture appears to continue its range expansion northwards throughout the eastern two-thirds of the nation, including Massachusetts. The Goshawk's status remains stable throughout its range. There appears to be good news regarding the Cooper's Hawk, which was reported in increased numbers in New England, the Eastern Great Lakes, the Northern Great Plains, and the Southern Great Plains regions. However, as Eric Single points out in the current H.M.A.N.A. Newsletter, field identification of the Cooper's remains a major problem. (In New Jersey, two sites within view of each other reported Cooper's/Sharp-shinned ratios of 1:133 and 1:277. Reports from Canada indicate that some observers there probably confused Red-shouldered Hawks, especially immatures, with Cooper's.) The buteo populations appeared stable. Red-tailed Hawks were reported in average numbers, and Red-shouldered reports were lower in the south and slightly up in Ontario. Broad-winged flights were average, but one site in southern Texas counted more than 220,000 during one week in September. No trend in Rough-legged Hawks was discernible, but increased numbers of Swainson's Hawks were reported in the east. Marsh Hawk numbers were down in New England but average elsewhere. Osprey counts were also down in New England, but no significant change in the status of this species is evident (Cape May reported more than 1,200). The Peregrine, Merlin, and Kestrel flights were as expected. Eagle counts were up, but as in the case of the Swainson's Hawk, this was probably due to increased coverage throughout the nation. Rarities for the season included some Gyrfalcons, a Prairie Falcon in South Carolina, a Black Hawk in Minnesota and a Zone-tailed Hawk in Nova Scotia.

The 1976 N.E.H.W. report can be dealt with more thoroughly. The spring watch was virtually washed out, and the fall watch was affected by unfavorable weather on three of its four weekends. Despite the poor weather, a record number of volunteers participated. The following summary is based on incomplete returns representing 86 sites and 322 reports, primarily from Connecticut, Massachusetts and New Hampshire.

NEW ENGLAND HAWK WATCH, FALL, 1976

		G	SS	C	RT	RS	BW	RL	GE	BE	MH	O	P	M	K	U
Sept. 18	36 sites	1	130	1	34	7	1,404	--	1	--	19	77	1	14	79	72
19	40 sites	8	1,007	34	145	11	12,702	--	1	2	73	403	7	53	656	346
Sept. 25	27 sites	1	520	23	67	7	2,299	--	--	2	21	106	-	8	98	168
26	19 sites	1	204	6	8	1	120	--	--	--	15	55	-	3	43	55
Oct. 2	11 sites	1	164	4	3	3	31	--	--	--	16	89	-	1	194	29
3	8 sites	-	56	2	2	1	80	--	--	--	3	8	1	9	29	29
Oct. 30	12 sites	-	19	1	71	6	2	1	--	2	4	--	-	3	18	23
Oct. 31	3 sites	-	--	1	1	3	--	--	--	--	1	1	-	--	--	5

(G = Goshawk, SS = Sharp-shinned Hawk, C = Cooper's Hawk, RT = Red-tailed Hawk, RS = Red-shouldered Hawk, BW = Broad-winged Hawk, RL = Rough-legged Hawk, GE = Golden Eagle, BE = Bald Eagle, MH = Marsh Hawk, O = Osprey, P = Peregrine Falcon, M = Merlin, K = American Kestrel, U = unidentified)

Two aspects of this report require additional comment. At least 20 eagles were reported throughout New England last autumn, only eight of which were recorded on watch weekends. Thirteen Bald Eagles were seen, including four adult, eight immatures and one unidentified. At least seven Golden Eagles were reported, including one adult, five immatures and one unidentified. Obviously, there are substantial numbers of eagles moving through the region. The number of immatures is particularly encouraging and should prompt people to review carefully the differences between immature Bald and Golden Eagles.

Secondly, the Broad-winged Hawk total was much lower than in 1975. There is no evidence to indicate that this reflects any decline in the total population, although one can't be quite certain as to the effects of the spraying in New Brunswick. The lower total appears to be the result of weather conditions, which encouraged an early, prolonged, and disparate migration. Significant flights of Broad-wingeds were reported in Connecticut as early as mid-August and in the second week in September. There did not appear to be any "big wave" in September. The 1976 totals might be put in better perspective when compared with the report for the 1975 watch, which had very good weather in early September only to suffer through adverse winds, and often rain, for the last three weeks.

NEW ENGLAND HAWK WATCH, FALL, 1975

			G	SS	C	RT	RS	BW	RL	SW	GE	BE	MH	O	P	M	K	U
Sep.	13	58 sites	26	344	17	122	19	22675	4	1	--	3	74	222	2	11	439	910
	14	60 sites	22	658	22	104	11	41760	11	--	--	6	123	225	9	14	961	583
Sep.	20	13 sites	2	29	--	4	--	7	--	--	--	--	8	3	-	2	8	19
	21	30 sites	20	400	71	47	12	4462	12	--	--	--	36	76	2	23	178	266
Oct.	4	25 sites	18	1174	25	119	9	245	4	--	--	--	59	97	1	24	734	119
	5	21 sites	15	480	11	44	2	14	2	--	--	--	24	92	1	7	220	197
Nov.	1	16 sites	1	18	1	137	3	--	11	--	--	--	2	2	-	--	4	79
	2	13 sites	3	9	1	69	11	6	2	--	1	5	--	2	-	--	4	37

The totals for 1975 are quite impressive, but they represent only one aspect of the N.E.H.W. Responsible interpretation of the totals is difficult due to a number of variables, including weather, the number of observers in the field, their location, the number of man-hours invested in observation, and count duplication. The N.E.H.W. has, therefore, sought to expand and refine our knowledge of the nature of hawk migration, especially that of the Broad-wingeds. Since 1973, the watch has employed aircraft (including gliders) and radar to monitor flights down the Connecticut Valley and across southwestern Connecticut. Their reports are contributing to our understanding of the mechanics of the Broad-winged Hawk migration. That same year also signaled the beginning of the close-site watch, which may answer basic questions regarding the Broad-winged flight. Does this species move across a wide front or en masse down a narrow corridor? What effect does the weather have on the shape of their flights? Do the hawks tend to follow specific topographical features every year, despite the wind direction? In 1974, the N.E.H.W. began to conduct watches to study hawk movement, primarily accipiters, falcons, and harriers, along the coast. Additional data is required before any conclusions from the close-site or shore line watches can be drawn.

In 1976 another innovation was added to the N.E.H.W. Prior to that year, the watch was essentially a western New England activity. There was little published data or local knowledge available regarding the size, paths, and nature of hawk migration in the eastern half of the six state area, particularly in eastern Massachusetts, which is perhaps the most thoroughly birded region in the nation. During September and October, most local birders appear to have concentrated on the shorebird migrations. Occasional Sharp-shinneds, Cooper's, Ospreys, Marsh Hawks, and Peregrines were reported, usually from the coast. However, there were some tantalizing bits of information which indicated that hawk movements in eastern Massachusetts might be more substantial than most people thought. Mt. Desert Island, Maine, is known to have good accipiter and falcon flights. Where do these birds go? The same

question was asked by George Appell, who recorded large Broad-winged, accipiter, and falcon flights at Harpswell, Maine. Arnold Johnson found a possible explanation in September 1975, when he counted more than 4,000 Broad-wingeds and a number of other hawks pass over his Groveland, Massachusetts, home in a single day. This information and the continued growth of interest in hawks inspired several birders in eastern Massachusetts to organize that region's first coordinated hawk watch.

EASTERN MASSACHUSETTS HAWK WATCH, FALL, 1976

		G	SS	C	RT	RS	BW	RL	SW	GE	BE	MH	O	P	M	K	U	
Sept. 18	2 sites	-	-	-	-	-	2	-	-	-	-	7	-	-	-	9	-	
19	7 sites	-	75	-	24	2	1,515	-	-	-	-	9	29	1	11	71	19	
Sept. 25	4 sites	1	35	-	22	-	17	-	-	-	1	1	7	-	-	20	1	
26	1 site	-	-	-	-	-	-	-	-	-	-	4	2	-	1	-	-	
Oct. 2	3 sites	1	8	-	-	-	24	-	-	-	-	1	3	-	1	8	7	
3	3 sites	-	13	-	2	-	73	-	-	-	-	3	2	-	1	13	5	
Oct. 30	4 sites	-	-	-	10	-	-	-	-	-	-	-	-	-	2	8	1	
31	2 sites	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	
Totals		2	131	-	58	2	1,631	-	-	-	1	25	44	1	16	129	33	2,074

The weather was unsuitable for substantial hawk movement on seven of the eight watch dates. Only September 19th enjoyed favorable conditions.

On that date, observers in the northeastern half of the state were rewarded with good flights.

EASTERN MASSACHUSETTS BY SITE, September 19, 1976

	SS	RT	RS	BW	MH	O	P	M	K	U
Canton	17	3	-	-	2	1	-	5	31	-
Groveland*	6	1	-	66	-	3	-	-	2	-
Haverhill	14	-	-	436	2	6	-	3	10	5
North Andover*	29	-	-	327	1	14	1	1	18	3
Norwell	-	19	2	3	2	-	-	1	2	3
Princeton (Mt.Wachusett)	9	-	-	683	-	5	-	-	7	8
Sharon	-	1	-	-	2	-	-	1	1	-

* Indicates only partial coverage

The September 19th Broad-winged total at Mt. Wachusett exceeded the highest daily total at Mount Tom for the entire season! Of course, no firm conclusions can be drawn from the first years data. It is conceivable, but unlikely, that last years eastern migration was atypically large. Rather, the evidence tends to indicate that it was a poor year for total numbers. In all likelihood, good weather with moderate northwest winds might tend to drive the Broad-wingeds farther east into our region in greater numbers.

On the basis of last years work, three goals have been set for this falls Eastern Massachusetts Hawk Watch, which will be conducted on September 17-18, 24-25, October 1-2 and 29-30, and during the interval September 17-25 at Mt. Wachusett. The watch hopes to place as many observers in the field as possible and to expand coverage along the coast, including Cape Cod and the islands. The latter locations are not expected to have large autumnal buteo flights, but falcon and accipiter numbers could be substantial, especially in the second and third weeks of the watch. Secondly, the watch plans to station observers on a semi-close-site basis in the northeast corner of the state from Salisbury to Ashburnham and south to Princeton. This would seem to be particularly important during the first two weeks of the watch when the major Broad-winged flights are likely to occur. Finally, the watch hopes to maintain a consecutive day watch at Mt. Wachusett (Princeton) from September 17-25. This will help gauge the magnitude of the flights through the region.

In order to be a success, the Hawk Watch requires not only good weather and hawks, but volunteers as well. Observers are needed for whatever time they might be able to spare, from a few hours to the entire day on any or all watch dates. Volunteers are invited to work sites of their own choice, or they might use sites recommended by the watch co-ordinator. Do not hesitate to volunteer merely because you do not feel confident identifying hawks in the field. Field experience is the best teacher. If you have doubts about identification, you can be stationed with more experienced observers who would benefit from your help in spotting hawks while they would aid you in identifying them.

Individuals wishing to participate in the Eastern Massachusetts Hawk Watch (east of the Quabbin Reservoir), or desiring additional information, should contact the author at 24 Pearson Road, Somerville, Mass. 02144 (telephone 617-776-8566)! Those wishing to participate west of Quabbin should write to Mr. Moreton Bates, 1341 Plum Tree Road, Springfield, Mass. 01101.

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The author will be grateful if anyone who sees significant hawk flights or uncommon raptors such as eagles, Peregrines, Merlins, Cooper's or Goshawks at any time during the season would drop him a brief note. Describe what was seen, where, how many of each species (including unidentifieds), the direction of flight, and the weather conditions (including estimates of wind direction and speed).