

SEPTEMBER HAWKING

"DID you count ahead of us, high and well past the tower?" I asked T. W. Finucane, and then suddenly, realizing the size of the flight: "Wow, there must be hundreds of hawks up there!" We were lying flat on our backs on a rock outcropping in the sunshine of a still day in September, high atop Clinch Mountain at the Mendota Firetower. With binoculars we strained eyesight higher still to mere specks in the blue and white of an autumn sky. I counted rapidly, having now scanned the open distance ahead to be certain I had sighted the leading hawks of the long flight. This one was large, but ideal for counting, strung out in a long narrow line, averaging about three hawks in width. I settled back to count each as he effortlessly soared by the edge of a white cloud and out into the blue. Mr. Finucane counted simultaneously. Some fifteen minutes later, at the count of 830 the flight cut off suddenly. The chain of broad-winged hawks now extended past us, easily a mile along the narrow ridge of the Clinch, the leading birds having long since passed beyond our visibility.

By the close of the day, September 22, 1962, we had the highest single day's total count in the history of observation at the Mendota Firetower: 2,369 broad-winged hawks, which together with a handful of redtails, ospreys and other hawks brought the total count to 2,379 hawks. From morning till noon the day was slow, but the few hawks that did come past were low, often pausing to circle for altitude over the tower. At noon the wind died down, and clouds gathered over the knobs and ridges, forming, disappearing, and reforming throughout the afternoon. The flow of hawks increased, now high above. By half past two we had spotted 220; within the next hour 416 more had passed, and by four the count rose to 1,030. After a lull there came the largest single flight ever spotted at the tower, 830, followed by a few smaller flights. By five o'clock the count reached 2,369. Then flights cut off, as if five were quitting time, and not a hawk was seen in the evening sky.

The Mendota Firetower sits astride Clinch Mountain on the Washington County-Russell County line in Southwest Virginia, some 11 miles, as the hawks fly, from Bristol. At 3,018 feet it is not an especially high tower, but it commands a majestic view over open valleys to the north and south. The hawks could find wilder terrain. In sight across the Great Valley to the south are the Holston and Iron Mountains, part of the chain that becomes the Unakas and runs south into the Smokies. On clear days White Top and Mt. Rogers, Virginia's highest mountains, are visible in the distance. But observations from higher towers, such as the Feathercamp Tower, have proved disappointing. In sight northward across the Clinch River is the wild High Knob area, and a series of mountain ridges leading out to the Cumberlands. But the hawks do not seem to be there either, though further observation data is needed to confirm this. For some reason known only to the hawks, they have chosen the long, narrow Clinch as a major flyway on their early autumn journey through Southwest Virginia. Down the Clinch Mountain, after it enters Tennessee, reports from lookouts are as good and better. But to add to the mystery, eastward and up the Clinch, over similar terrain, preliminary reports are that the hawks are not there

ON CLINCH MOUNTAIN

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in such numbers, though this perhaps in part can be attributed to the lack of adequate observation data.

For 14 years the Tennessee Ornithological Society has conducted an annual survey of the fall migration of birds of prey, now under the leadership and co-ordination of Mr. T. W. Finucane of Kingsport. The fifteenth annual count begins September, 1964. Some fifty reports of days and half-days of observation, or of chance sightings of soaring flocks, are filed with Mr. Finucane, then summarized and printed annually in the *Migrant*, journal of the Society. Total hawks counted in 1963 were 5,437, of which 5,224 were broadwings. In 1962 total count was 6,286, of which 5,915 were broadwings; in 1961, 6,347, of which 5,915 were broadwings. Inconveniently, but factually, the broadwing count these two years was identical in total. The second largest year of the project was 1960, when 10,273 hawks were counted, of which 10,135 were broadwings. The record year in the history of the count was 1959, with a total count of 11,457, of which 10,998 were broadwings. Previous years back to 1949 have averaged some 7,680 broadwings annually. Differences in annual counts reflect in part actual numbers of hawks in migration in our area, but also reflect increasing interest in the project and hours spent in observation. The average peak flight date accumulated since 1949 is September 22.

Since the beginning of the Tennessee hawk count, one of the most productive lookouts has been in Virginia, the Mendota Firetower. The best guess as to what makes

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The author and T. W. Finucane at the Mendota fire tower.



Mendota such a good lookout is its unique location as a narrow isolated ridge banded by open valley farmland north and south. There may be equal numbers of hawks scattered in smaller flights over the broad ranges of the Holston and Iron Mountains, but they are not all funneled into large flocks forced past a given point comparable to Mendota. The ridge seems to provide updrafts suited for coasting hawks. These updrafts are evidenced by the formation of clouds above the knobby ridges when the sky is otherwise quite clear. Such weather seems ideal for the hawks. But flights are always unpredictable; just right conditions may produce no hawks at all. Everyone agrees that wind and weather are all-important, but nobody knows just how this is so.

The only thing predictable about the broadwings is their prevailing direction. Without fail they appear from the east, flying toward the tower, and proceed, sometimes circling for altitude, over and by the tower, and disappear to the west on their long way southward and down the Clinch. In early morning the hawks generally fly low, often at tower level, or a little southward and below tower elevation. They come in singles, doubles, or groups of a dozen. Their coloration and banding is easily visible; and even immatures can be separated from adults. They never cry or call. By mid-morning they fly higher and the flight groups may grow larger; or they may not. Inexplicably there is, at least in the tradition of observers, a noon lull, and flights resume in the early afternoon. On hot afternoons the broadwings, noted for their altitude of flight, fly so high we cannot be sure of spotting all the pinpoints in the spacious firmament. By evening flights cut off. If rain appears the hawks disappear, presumably into or above the clouds. Flights of hawks are often observed swirling in and out of a cloud, what we have named a "kettle" boiling with hawks.

Other species of hawks are frequently spotted at Mendota, including sharp-shinned, Cooper's, and red-tailed hawks. Red-shouldered hawks and osprey are seen occasionally; less often a peregrine falcon (duck hawk), marsh hawk, or rarely an eagle is sighted. Sparrow hawks are common in the area, though not particularly abundant at the tower. But 95 per cent of the count is migrating broadwings. Counts to the north, such as that made at Hawk Mountain Sanctuary in Pennsylvania, do not have so high a percentage of broadwings; they may run as low as 40 per cent broadwings, and up to 20 per cent red-tails and 20 per cent sharpshins. This may be due in part to the fact that our observations have been mostly on September dates of peak flight. There is some evidence that red-tail counts would rise if observations continued into November. Moreover, broadwings seem to winter almost exclusively south of the U.S. border; few or none turn up in Christmas counts. All the broadwings make the long migration southward, whereas only a portion of other hawks migrate so far. While the other species of hawks seen at Mendota are clearly generally migrating, as their prevailing direction is like that of the broadwings, this is by no means as universally true as with the broadwings. The accipiters and red-tails in particular may come in and leave from any direction.

A major weather front moving across the Southeastern U.S. seems to deflect total migration patterns. In the spectacular 1959 record year for Virginia, broadwing flights

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Hawking on Clinch Mountain (Continued)

coincided with a frontal system moving across Kentucky, West Virginia, and Pennsylvania, deflecting the hawks, we theorize, into our Southwest Virginia area. That year the Pennsylvania Hawk Mountain Sanctuary had its poorest flight in 13 years, and other points to the north had few hawks as well.

Where do the hawks roost? Or do they fly all night? There are no reports of large flocks roosting in Virginia or Tennessee, but single hawks are often flushed in early morning from perches that are presumably roosts. In Avery County, North Carolina, on one occasion about 500-700 hawks were seen to drop into a wooded area about 4:30 in the afternoon before an approaching thunderstorm. The consensus of ornithologists is against the speculation that hawks fly all night.

How, when, and where do the hawks return northward? Presumably they return in singles or pairs in the spring, but we do not really know. They do not seem to pass over Mendota in the spring in significant numbers, but we have very little observation data in March and April. Large soaring flocks, as are common in late September, are not observed in the spring at all.

What is the flight pattern of hawks to the north and south? Hawks seem to continue to utilize the updrafts of the Clinch until its end in mid-Tennessee. There have been some attempts at correlation of particularly large flights passing successive towers in this area. But in Virginia we do not know. Considerable work has been done observing migration of hawks in the Shenandoah mountains, especially at Reddish Knob (see VIRGINIA WILDLIFE, September 1961). Numbers sighted there are significant, though considerably lower than at Mendota.

Over most of the rest of the Virginia mountain chain from the Shenandoah southwest through the state, our knowledge of hawk ways and flyways is nearly a blank. If you wish to devote some leisure hours to this pursuit, mount almost any good firetower in the intervening stretches this September, and you can become the world's foremost authority on hawk migrations in your chosen locality pretty quickly.

While numerous birds other than hawks are sighted from the tower, including ravens, the only other creature evidently in migration is the Monarch butterfly. They flutter by in singles and pairs and in the aggregate sometimes a dozen or two a day, always in the same direction as the hawks.

Fortunately the funneling of these hawks by Mendota is not abused by local gunners. In only one instance in recent years has there been shooting of these hawks, which are protected by law from their wanton destruction. Actually, local residents seem rather unaware of the extensive flights. Hunters and farmers notice more hawks in the woods in the fall, but for the most part are quite unaware of the vast flocks high above.

Each hawk silently, solemnly searches out his path in the trackless Appalachian sky. Surely there are things whereof they know but I am unaware. It is a most unique and, to me, a most satisfying recreation to escape the pressures and stress of my vocation by retiring to a solitary mountain tower to note these things so little noticed by the common rush of men. There is a mystery and majesty about the wild hawk in the wind-swept sky that elevates and frees the human spirit as well. "I do not understand: the way of an eagle in the sky" (Proverbs 30.19).

All data taken from the MIGRANT.

Species composition of hawks seen at Mendota Firetower, 1959-1963

	1959	1960	1961	1962	1963	Total
Broad-winged Hawk	4,363	844	1,138	2,869	1,459	10,673
Red-shouldered Hawk	5	3	7	5	1	21
Red-tailed Hawk	4	5	18	7	13	89
Cooper's Hawk	3	19	19	9	5	90
Sharp-shinned Hawk	1	6	15	6	12	55
Osprey	9	9	6	7	5	36
Bald Eagle	0	0	1	2	1	4
Marsh Hawk	2	2	2	1	2	9
Sparrow Hawk	1	1	4	3	3	12
Duck Hawk						
(Peregrine Falcon)	5	0	0	1	2	8
Unidentified Hawks	42	14	26	21	17	120
Totals	4,527	903	1,236	2,931	1,520	11,117

Broad-winged hawks counted at Mendota Fire-tower, with dates of observation

1959		1960		1961		1962		1963	
Sept. 6—	0	Sept. 10—	2	Sept. 4—	0	Sept. 8—	17	Aug. 31—	13
Sept. 7—	0	Sept. 11—	15	Sept. 9—	6	Sept. 12—	31	Sept. 2—	4
Sept. 12—	353	Sept. 12—		Sept. 10—	4	Sept. 15—	0	Sept. 8—	48
Sept. 13—	407	Sept. 15—	207	Sept. 11—	21	Sept. 18—	43	Sept. 15—	980
Sept. 15—	507	Sept. 16—	30	Sept. 15—	13	Sept. 22—	2,369	Sept. 17—	254
Sept. 17—	16	Sept. 17—	165	Sept. 16—	138	Sept. 23—	86	Sept. 20—	107
Sept. 18—	387	Sept. 18—	3	Sept. 17—	125	Sept. 29—	179	Sept. 21—	38
Sept. 19—	1,184	Sept. 23—	50	Sept. 23—	111	Sept. 30—	106	Sept. 22—	2
Sept. 20—	735	Sept. 24—	69	Sept. 24—	211	Oct. 1—	38	Sept. 24—	4
Sept. 24—	32	Sept. 25—	237	Sept. 25—	442			Sept. 27—	3
Sept. 26—	42	Oct. 1—	7	Sept. 29—	0			Sept. 28—	0
Sept. 27—	1	Oct. 15—	0	Sept. 30—	62			Sept. 30—	2
Oct. 3—	446			Oct. 1—	5			Oct. 1—	4
Oct. 4—	253							Oct. 6—	0
								Oct. 13—	0
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4,363		794		1,138		2,869		1,459	