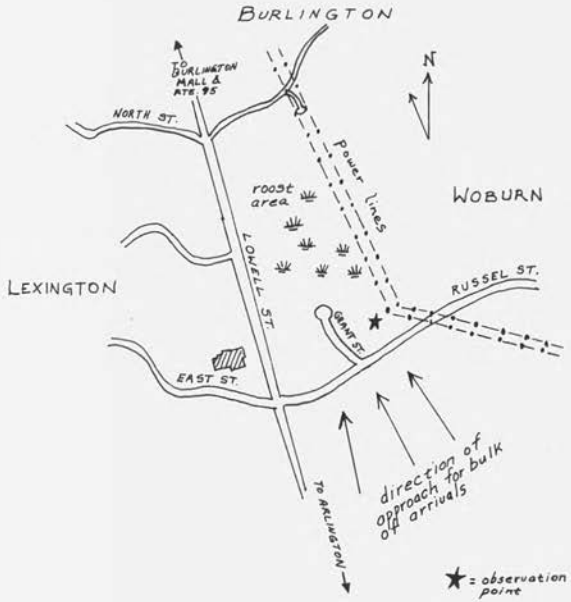
A POST-BREEDING ROOST OF AMERICAN ROBINS

by John W. Andrews, Lexington

In mid-July of last summer (1981) I began to notice that just before sunset flocks of birds would pass over my house, all flying in a northerly direction. Initially, the flocks were mostly Common Grackles (Quiscalus quiscula), but in August American Robins (Turdus migratorius) began to dominate. One evening over 600 robins passed in a 25-minute period. As they flew, the robins frequently emitted the special call that is given while the birds are in flight to their communal roosts. (In his Guide to the Behavior of Common Birds, Don Stokes compares this call to that of the Cedar Waxwing (Bombycilla cedrorum), "a high thin eeee".) This call, together with the day-to-day regularity of the movement, left little doubt that I was observing a well-established roosting flight.

By following the flight line by automobile, I was able to determine that the birds were flying to a site on the Woburn/Lexington town lines, some two miles north of my house. The roost site was in a deciduous swamp located just north of Russell Street in Woburn and just west of the power lines into Burlington. (see map.)

On August 26 a small group of interested birders assembled at the site with the intention of counting the birds as they entered the roost. The principal observation spot was a ballfield located on the southeast side of the roost. We waited for several minutes without seeing a single robin. Then, with impressive suddenness, the



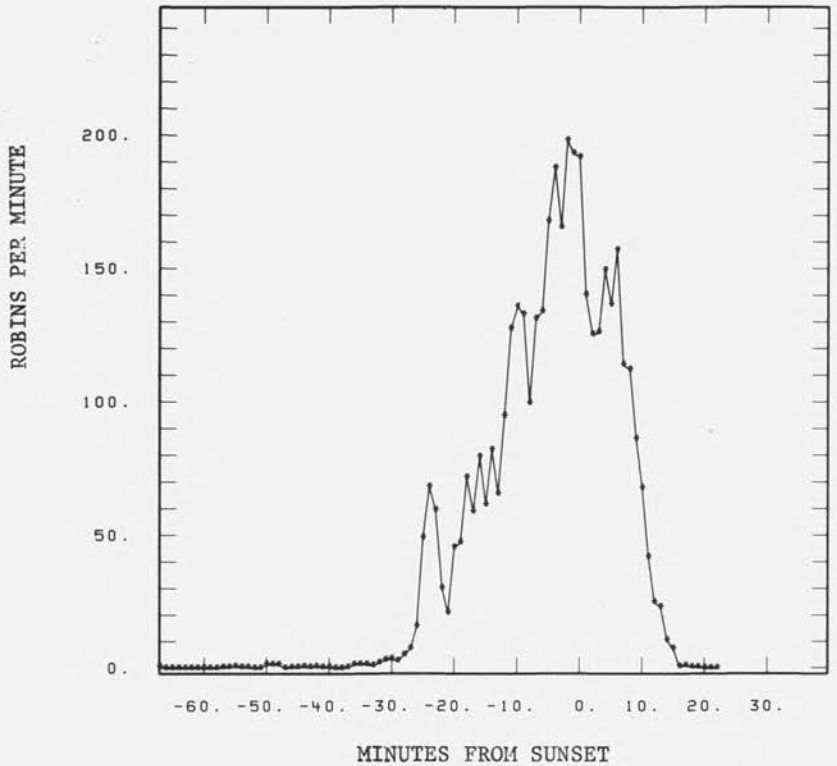


Figure 1 . Rate at which birds entered roost on August 26.

flight began. Flocks of a few dozen birds began to appear from the southeast. Soon there was an almost continual stream of robins - all heading toward the roost site. At its peak about 200 birds per minute were passing over the ballfield.

Figure 1 provides a plot of the rate at which the birds entered the roost.⊛ It can be seen that the flight took place over a 45-minute period, beginning about 30 minutes before sunset and ending about 15 minutes after sunset. The peak of the flight occurred in the 10 minutes preceding sunset. During the last 10 minutes, the birds flew at very low altitudes - often less than 15 feet above the ground. These late arrivals tended to alight in the shrubs and smaller trees near the periphery of the roost

⊛For plotting purposes the actual data recorded in the field were smoothed by averaging the count for each minute with the counts for the preceeding and following minute. This reduced spurious peaks caused by irregularities in the counting intervals.

area rather than flying farther to the larger trees in the center.

In total, over 4,100 robins were counted from the ballfield. Only a very small number of grackles were observed entering the roost area. Spot checks on other sides of the roost area revealed less than 20 birds/minute entering from those directions. Hence it appears that more than 75 per cent of the birds came from the south-southeast. This would imply that the total size of the roost was about 5,500 birds.

A second set of data was collected on September 9. Some 3,800 birds were counted then with a peak rate of approximately 150 birds/minute. The plot of the arrivals was remarkably similar in timing and shape to that of August 26 (although there seemed to be a more extended "leading edge" due to small numbers of birds arriving before the main flight).

A limited number of reports have suggested that the flight lines for this roost may have extended many miles (robins in Concord and Framingham were observed flying toward this roost at sundown).

On the face of it, this roosting behavior appears to be a ridiculous waste of energy. Why should a robin fly miles every day just to find a tree in which to spend the night? There must be some compelling evolutionary advantage to such behavior. It has been theorized that such flocking reduces predator pressure or allows birds to assist each other in finding food. It would be very interesting to find out just how far the flight lines extend. It would also be interesting to determine whether such large roosts form each year, how many roosts form in the Greater Boston area, and whether the same sites are used year after year.

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