100 Years Ago in The Auk

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The Nocturnal Flight of Migrating Birds

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"It has long been a well-known fact of bird life that, during the migrating season, most, if not all, of the movement north or south takes place in the night. This ensures protection from enemies and opportunity for securing food during periods of rest. Under the cover of darkness, the bird passes safely and secretly through the air. During the day he can search for necessary food and by evening he is again ready to continue his flight.

"But the very conditions that shield the migrating birds from danger, also preclude any very satisfactory study of their movements. We know, to be sure, that during the fall migrations, most of the large flocks will be found in the early morning on the north side of groves or belts of timber, and in the spring they are to be found on the south side. We know, too, from observations covering a long period of time that birds are seen in the morning which were not in the neighborhood the day before. And most bird lovers know how distinctly the calls of the migrating birds can be heard during the nights of middle September. Still it must be confessed that in proportion to the magnitude of this movement in the bird world and the importance of the interests at stake, economical as well as biological, our actual knowledge of the migration is exceedingly meager.

"The writer has recently made two sets of observations upon the nocturnal flight of birds, an account of which may prove interesting to the general reader. The place of observation first selected was a small elevation west of the city of Madison, Wisconsin, with three lakes in the immediate vicinity. The evening chosen (September 14, 1896) was chilly and a raw southeast wind was blowing, though there were no clouds during most of the time. A total of three thousand eight hundred bird calls were recorded, an average of twelve per minute. This rate, however, varied greatly, sometimes running as high as two or three per second and again falling to about the same number per minute. The largest number of calls counted for any hour was nine hundred and thirty-six, between two and three o'clock, though nearly that number were noted for two other hours. Nor were the calls at all confined to the few hours during which they were recorded. They began much earlier in the evening and when the observations ceased, at a little after three, they were heard steadily on long after that hour, with the regularity of the ticking of a clock. Manifestly it is quite impossible to estimate the number of birds represented by these calls. The equation contains so many unknown quantities that no satisfactory mathematical solution is to be expected with out present knowledge of the subject. But is may be very safely assumed that the number of calls must be multiplied many times to express even approximately the size of the flocks that were heard to pass during the course of the observation."

A flowery description of Libby's observations follows. He concludes:

> "The fewness of such detailed observations as are here briefly sketched leads to the conclusion that their value is not appreciated as it should be. Those who study birds for the pure love of it may find here a delighted glimpse into a fresh field. A telescope is not a necessity, good field glasses will show all but the smallest birds. The larger the number of observers the more accurate will be the general conclusions arrived at in the end.
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> "Each may do something of value while studying in a new way the familiar problems of bird life. The writer hopes simply to encourage others to work along in a line which has been of so much interest to him and which seems so full of new material."

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