

HAWK MIGRATION 1973

A fledgling project three years ago, the Northeastern Hawk Migration Study has steadily grown in participation, sophistication, and results. Project coordinators Donald Hopkins and Gerald Mersereau have recently published a summary of observations made on three week-ends in 1973, April 20-22, September 15-16, and October 27-28.

The primary objective of this investigation is to define better the principal hawk migration routes through southern New England and eastern New York state. To do this, ground-based, airborne, and radar observations were utilized. An ancillary project this year was the establishment of closely-spaced ground sites to determine the maximum distance at which Broad-winged Hawks can be identified and to learn whether these birds migrate along a broad front or a narrow corridor.

ITEM: On September 15th, Lighthouse Point, Connecticut, yielded a third of the reported Sharp-shinned Hawks, Marsh Hawks, and Ospreys, as well as half of the American Kestrels. The authors suggest that coastal areas on Long Island Sound should be more completely surveyed in the future.

ITEM: Also on the 15th, a large flight of Broad-winged Hawks occurred during the morning. The map shows the birds' southwestward progress from Massachusetts, across Connecticut, and into New York State. In all, the hawks were observed for four hours during which they covered 94 miles at an average speed of 23.5 miles per hour. The plot indicates how this flight pattern came about. From an airplane, the birds were seen to glide from kettles at a heading of 256° . The report continues: "Taking a course of 231° , a kettle height of 800 feet, a thermal lift of 100 feet per minute, a glide angle of 25 to 1, and a wind direction of north at 20 miles per hour ...; this yields a course of 208° which is close to the 210° derived from the ground observations."

ITEM: During aerial reconnaissance, the kettles tightened by a factor of four as the plane approached. The hawks that peeled off, usually from the top of the kettle, did so at a glide angle of less than four degrees.

ITEM: Seven close-site lookouts yielded mostly inconclusive data because of poor weather. However, it appears that in suitable terrain, Broad-winged Hawks can be distinguished at distances in excess of 1 1/2 miles by observers using binoculars. Putting this into perspective, a Broad-winged Hawk has a wingspread of three feet, which at a distance of 1 1/2 miles subtends an angle of 1.3 minutes of arc. Therefore, to an observer with seven-power binoculars, the wings appear to subtend nine minutes of arc, or about a third the diameter of the full moon as seen with the unaided eye. Of course, these numbers apply only if the bird is seen in full profile; that is, the wings are held perpendicularly to the line of sight. Mr. Hopkins believes that most hawks at a distance are first glimpsed while kettling. Hence, their profiles are foreshortened and their conspicuousness is lessened.

For 1974, hawk watch dates have been scheduled for April 20-21, September 14-15, and October 26-27. More information can be obtained from Mr. Donald Hopkins, 27 London Road., Windsor, Connecticut 06095.

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