RECOVERIES OF EVENING GROSBEAKS BANDED AT CARLISLE DURING THE 1951-52 INVASION

By FORREST C. GRIMM

During the spring of 1952 at Carlisle, Pennsylvania, 408 Evening Grosbeaks *(Hesperiphona vespertina)* were banded by the author. That winter of 1951-52 marked one of the most extensive invasions of these grosbeaks, which penetrated as far south as the Carolinas. Although arriving in our region in late October and early November of 1951, all of the 408 Evening Grosbeaks were banded from February 10 to May 15, the two best banding days being April 20 (18 banded) and March 25 (16 banded); the average was about four grosbeaks banded per day during this period. Also during this period four recoveries were made at Carlisle of Evening Grosbeaks banded in 1949 and 1950 in Maine, Connecticut, and New York (see Table 1 details). All were trapped and released at the author's banding station; furthermore, all are females.

When the grosbeaks moved north late in the spring of 1952 (last seen at Carlisle on May 22) two banded that spring in Carlisle were recovered en route. Male 50-189852, banded on April 4, was recovered by Mrs. S. Y. Hoyt on May 9 at Etna, New York; however, it is interesting to note that this bird last repeated at Carlisle on April 26, thus requiring less than two weeks to travel the distance. Female 50-172132, banded on February 15 and which last repeated at Carlisle on March 10, was recovered by Mr. H. A. W. Kates on April 22 near Montoursville, Pennsylvania. Both birds seem to have flown almost due north from Carlisle.

In the following winter of 1952-53 the Evening Grosbeaks did not disperse as widely south, reaching only Virginia, and were uncommon south of Connecticut (at Carlisle only one female spent the winter). It was during this winter that fourteen Evening Grosbeaks banded at Carlisle during the great invasion in 1951-52 were recovered in the New England States and Canada; this is about 3.4% birds recovered of the 408 banded (see Table 2 for details).

All except four grosbeaks in Table 2 were trapped and released by other banders. Male 50-172120 was found dead in a field by a high school boy in the first half of February, 1953, at Royalton, Vermont, and was reported to a high school teacher from Montpelier, Vermont. Male 50-183788 was found in Nova Scotia in the middle of March, 1953, the band of which passed through the hands of three persons before reaching the Ottawa, Ontario, banding office (band filed). Female 50-189836 died from being blown by a strong gust of wind into a fence. Female 52-100442 was found dead in a 1951 Chevrolet radiator grille by a motor mechanic who reported his find to a professor of Middlebury College (band again submitted and filed).

Of the fourteen grosbeaks, five were recovered in New Hampshire, three in Maine, three in Massachusetts, two in Vermont, and one in Nova Scotia, Canada. Male 50-183788 had the distinction of being recovered farthest from Carlisle, at Wedgeport, Nova Scotia; female 50-189817, recovered at Island Falls, Maine, was the most northern recovery. It is also interesting to note that none was recovered south of Massachusetts, the recoveries being concentrated around New Hampshire.

TABLE 1. FOREIGN RECOVERIES OF EVENING GROSBEAKS AT CARLISLE

Band Number	Sex	Date Recovered at Carlisle	Date Banded	Banding Location	Banded By
48-226057	F	Mar. 20, 1952	Mar. 17, 1950	Schenectady, N. Y.	Mrs. W. E. Blowney
48-271273	F	Mar. 25, 1952	Feb. 26, 1950	Glastonbury, Conn.	Mrs. T. B. Rhines
48-224718	F	Apr. 21, 1952	Feb. 26, 1949	Lewiston, Me.	F. E. Pomeroy and G. E. Ramsdell
48-218567	F	Apr. 30, 1952	Apr. 11, 1949	Hartford, Conn.	G. H. Parks*

*same bird listed by Parks in *Bird-Banding*, **24**: 15.

TABLE 2. RECOVERIES OF CARLISLE EVENING GROSBEAKS

Band Number	Sex	Date Banded at Carlisle	Date Recovered	Location	Reported By
50-172120*	M	Feb. 13, 1952	Feb. 1-14, 1953	Royalton, Vt.	Mrs. H. W. Caswell
50-172163	F	Mar. 4, 1952	Feb. 15, 1953	Lewiston, Me.	G. E. Ramsdell
50-172174	F	Mar. 5, 1952	Feb. 22, 1953	Lexington, Mass.	P. C. Reed
50-172175	F	Mar. 5, 1952	Apr. 4, 1953	Lexington, Mass.	P. C. Reed
50-172185	F	Mar. 7, 1952	Feb. 7, 1953	Lexington, Mass.	P. C. Reed
50-183751	F	Mar. 24, 1952	Feb. 24, 1953	Berlin, N. H.	Mrs. E. P. Cook
50-183788*	M	Mar. 28, 1952	"middle of March, 1953"	Wedgeport, Nova Scotia	S. Cottreau
50-183795	F	Mar. 28, 1952	May 6, 1953	Wolfeboro, N. H.	R. G. Carpenter
50-189817	F	Mar. 30, 1952	Mar. 18, 1953	Island Falls, Me.	F. D. Dunn
50-189836*	F	Apr. 2, 1952	Mar. 25, 1953	Somersworth, N. H.	Mrs. F. E. Storer
50-189861	M	Apr. 6, 1952	Dec. 22, 1952	Berlin, N. H.	Mrs. E. P. Cook
52-100419	M	Apr. 18, 1952	Mar. 12, 1953	Cumberland Mills, Me.	Mrs. I. A. Werner
52-100442*	F	Apr. 20, 1952	"about Jan. 20, 1953"	Middlebury, Vt.	H. B. Hitchcock
52-100482	F	Apr. 26, 1952	Jan. 17, 1953	Berlin, N. H.	Mrs. E. P. Cook

*found dead—see details in article

Although 200 females and 208 males were banded in the spring of 1952, only four of the fourteen recoveries in Table 2 are males. According to the Chi-Square Test, with four and ten the observed frequencies and the expected frequencies calculated from 208 and 200, the deviation of sex ratios of those banded from those recovered may be significant, since the resulting Chi-Square value lies intermediately between the figures denoting significance and non-significance; of course, the value of this test rests on the ability to distinguish the sexes by plumage when at a minimum age of six months. Before anything definite can be noted, however, further clarification on sex identification and more birds for mathematical treatment are necessary.
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LEG SIZES AND BAND SIZES; FIRST REPORT

BY CHARLES H. BLAKE

The determination of the proper sized band to place on an individual bird can be approached from two directions. If one is not interested in actual measurements and the variation in tarsal size the simplest procedure is to use the "go-no go" gauge described by Michener (1947). If one does want to study variation, then a gauge reading in actual measurements is necessary. Since the variation in small birds extends to only a few tenths of a millimeter, some magnification of the distance between graduations is needed. This is most readily accomplished by a V-gauge which can be made to yield a magnification of 10 or even more. Figure 1 illustrates such a gauge. With one I have measured both the greater diameter (anteroposterior) and the lesser diameter (transverse) at the region of least diameter.

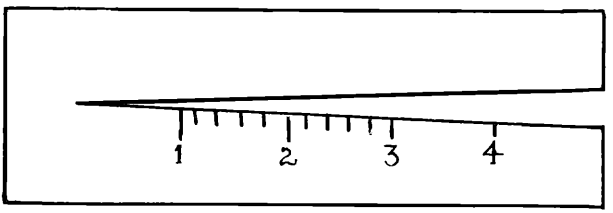

FIGURE 1

One practical question has to be answered in the beginning. What is the minimum clearance which should be allowed? The answer I have used is 0.2 mm. or six per cent of the internal band diameter, whichever is larger. The maximum percentage clearance is then about 10 per cent for the Size O band. The range of leg sizes allowable for each band size is shown in Table I.

There are two reasons for allowing some clearance. First, a slightly oversize leg may be banded without harm. Second, bands are often a