# THE EVENING GROSBEAKS IN NORTHERN VIRGINIA

By ARTHUR H. FAST

The Eastern Evening Grosbeak (Hesperiphona v. vespertina) was added to the Washington, D. C. area list in the winter of 1921-1922\*. During a few of the succeeding winters, occasional birds were seen in the area. The first record for Virginia was a single bird seen at Alexandria in late March, 1940. In 1945-1946 came the first invasion of any consequence to the Washington, D. C. area. They were first noted in November, 1945; 32 were reported in the 1945 Christmas Bird Count. We were frustrated in several attempts to see them as they were reported in various places in the area. Then on January 18, 1946, a beautiful male appeared on one of our feeding trays on our home acre, at 4924 Rock Spring Road, Arlington, Virginia — suburban Washington, D. C. As the days and weeks passed, they came in increasing numbers; they came regularly from daylight to about 1:00 P.M. Using a borrowed 12-cell Potter trap and bands supplied by another bander (our banding permit was still in the process of being issued), we banded the first 4 birds on February 24. At that time, this bird did not appear on the District of Columbia printed check list. Here was a new life bird for many of the visitors who came to see them. A neighbor, seeing the stream of visitors, asked if the house was up for sale. These birds continued to come regularly until late April, when their numbers progressively decreased until 2 females were last observed on May 13. In response to an inquiry made several years later (and before the greater 1951-1952 invasion), the Fish and Wildlife Service advised that a total of only 52 of these birds had been banded in Maryland, Virginia and the District of Columbia. We had banded 51 of them; the other bird had been banded by Harvey Brackbill at Baltimore, Maryland in February, 1946.

There was a much greater invasion of Evening Grosbeaks in 1951-1952. They came, up to 50 in numbers, to our home acre and to the other northern Virginia feeding and banding stations of Mrs. Dorothy Dreese in Arlington, to Mrs. Elizabeth Peacock in adjoining Fairfax County, and to Mrs. Mary Newlin Borton in nearby Alexandria. The birds maintained their numbers at most feeding stations until late April, after which there was a decided decline in populations. However, we had a late surge of birds. During the 3 weeks ending May 7, these birds were very active and came to our station in numbers up to 60. On the night of May 7, a cool north wind changed to a warm south wind — after which we saw and heard only a few of these birds; the last one was a female (presumably the same bird) which was seen and heard at least 5 times up to 4:30 P.M. Daylight Time on May 17\*. During this invasion, we banded 315 Evening Grosbeaks; Mrs. Dreese (using our bands) banded 92; Mrs. Peacock 178; and Mrs. Borton 97 — for a total of 682. Except for Mrs. Borton, each of these banders retrapped birds banded by the others. On April 21, 1952

\*In Birds of Mass. etc." by Forbush, III:3, appears a summary of the eastward extension of the range of the Evening Grosbeak — after its discovery in 1823 at Sault Ste. Marie, Michigan — successively through southern Canada and the northern tier of states. There were great eastward movements in 1889-1890 and 1910-1911. The first bird appeared in 1913 in Nova Scotia (Tufts, E.G. Survey News 1 (4):15) and New Brunswick (Birds of New Brunswick, 1952. W. Austin Squires). See also Shaub, 1952. Bull. Mass. Audubon Society, 36: 334-336.

and again on April 19, 1958, a male displayed before a female. He threw his head back, and his breast almost touched the tray; his wings were spread downward and outward, and they vibrated; he moved toward the female and almost touched her. For similar behavior instances, see Downs, *Bird-Banding*, 29 (1):27.

After another 6-year interval, the Evening Grosbeaks came for a third time to this home acre, during the 1957-1958 invasion. They arrived here quite late — April 12. At first they stayed high in the trees intermittently for several hours each morning; they were restless and called almost incessantly while here. They fed on the hemlock cones and on the old seeds, such as the tulip poplar, and the new buds on the other trees. Later they fed on the ground — principally under the dogwood trees. A few came to the bird bath. A liberal supply of sunflower seed was scattered around the bird bath. On April 18, the first one entered a Potter trap placed on the ground. They gradually became less restless and were more easily trapped on the ground, and later on the feeding trays. Through May 12, a total of 112 of these birds (43 males and 69 females) were banded here. 3 birds banded by others were trapped and released.

After a 2-year interval, the Evening Grosbeaks were back in the area, in the greatest numbers ever — the invasion of 1959-1960. This time the main concentration was at the feeding station of Mr. and Mrs. William P. Mull at Dunn Loring, Virginia — approximately 8 miles west of our station. Using only the two 4-cell Potter traps (placed on the window sill from which traps the birds were removed from the inside by opening the window) and the bands furnished by us, the Mulls banded 569 Evening Grosbeaks. Also 92 birds were banded by us, and 229 by Mrs. Elizabeth Peacock — making a total of 890 Evening Grosbeaks banded in this area during this invasion. The records of the Fish and Wildlife Service show this to be the greatest number of Evening Grosbeaks ever banded in one season in any area south of Pennsylvania and New Jersey.

The next winter, 1960-1961, was a low season for Evening Grosbeaks in Virginia. A few scattered birds were recorded in the state on the 1960 Christmas Bird Count. Later they came in limited numbers to this general area. Only one bird appeared on one day on our home place in Arlington—a female which was trapped and banded on January 12, 1961. Mrs. William Babcock of Sterling, Virginia—about 20 miles west of us—had them irregularly, up to 43, from January 11, 1961 to May 8, 1961. At our suggestion and in co-operation with another bander, Mrs. Babcock succeeded in banding 23 females. Lt. Col. William Houston of nearby suburban Alexandria, Virginia had Evening Grosbeaks irregularly from January 23, 1961 to April 18, 1961. Using 2 4-cell Potter traps and bands furnished by us, he banded 5 males and 15 females.

The Evening Grosbeaks have so extended their range that they have invaded Virginia with increasing frequency. They may now probably be expected in Virginia during most winters, although there will be a wide variation in numbers.

<sup>\*</sup> With respect to the same year 1952, Packard in E.G. Survey News, 2(7):40 reported: "Early May saw a marked migration of E.G.'s passing through Maine. — Large flocks suddenly appeared —. The height of this movement occurred between May 9 and 12."

## Table 1 (a)

The following is a summary of the arrival, banding and departure dates for the Evening Grosbeaks at our home feeding and banding station:

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						nu	mber	
		First date	First date	Last date	Last date	bai	ıded	Total
	Year	observed	banded	banded	observed	M	F	
1.	1946	January 18	February 24	April 28	May 13	9	42	51
2.	1947	January 18*	None	None	January 23*	None	•	
3.	1952	January 16	February 9	May 7	May 17	104	211	315
4.	1958	April 12	April 18	May 12	May 14	43	69	112
5.	1960	February 16	March 2	April 23	No record	14	78	92
6.	1961	January 12	January 12	January 12	January 12	0	1	1

Total banded 170 401 571

No Evening Grosbeak was observed or heard in our yard in any winter prior to the January dates listed above.

Table 1 (b) The following is a summary of the Evening Grosbeaks banded by us — by months:

	Year	February	March	<b>A</b> pril	May	Total
1.	1946	5	21	25	0	51
2.	1952	21	86	166	42	315
3.	1958	0	0	64	48	112
4.	1960	0	48	44	0	92
5.	1961	(One bird banded January	12)			1
	Totals	26	115	299	90	571
		22 6.1 1:1	1 1 1	1 . 20 1	1 4 '1	

80% of these birds were banded during March and April

Table 1 (c)

The following is a summary of the Evening Grosbeaks banded (by months) by the Mulls during the 1959-1960 invasion:

Dec.	Jan.	Feb.	Mar.	Apr.	May	Totals		
92*	134	121	119	83	20**	569		
17%	24%	21%	20%	15%	3%	100%		
MFU	M F	M F	M F	M F	M F	M F	Unknown	
19 72 1	41 93	35 86	27 92	28 55	6 14	156 412	1	Total 569

<sup>\*</sup> First one banded December 19

\*\* Last one banded May 4

By comparing the 80% banded by us (over the years) in March and April — the birds banded by the Mulls (for the one year of their operation) were spread without much variation from middle December to early May.

Of the 51 Evening Grosbeaks banded here in 1946, only 5 repeated once each. In 1952, only 33 Evening Grosbeaks (of the 315 banded here) repeated — 27 once, 5 twice and 1 three times, for a total of 40 repeats. Yet we retrapped, in the same season, 51 of these birds banded by the 3 ladies who were then banding in this area. A number of these were retrapped 2, 3 and up to 4 months after being banded. Possibly they had left the area going south, and came back through here. In 1958, we had 12 repeats; in 1960, 2 repeats. We retrapped, in the same season, 9 birds banded by the Mulls during the 1959-1960 invasion; they retrapped 2 birds banded here. Again up to 3 months elapsed between the dates of banding and retrapping. The interchanges of these birds among the several banders in this area during the same banding season, have been treated as essentially repeats, and have not been included in Tables 2, 3, 4, 5 and 6.

With the probable exception noted below — so far as we have been able to ascertain, no Evening Grosbeak banded in this area has returned to the

<sup>\*</sup> In 1947 only 2 birds were observed for 5 consecutive days.

Table 2.

The following Evening Grosbeaks were banded by Arthur H. Fast, at 4924 Rock Spring Road,
Arlington, Va., and retrapped or recovered as indicated:

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Band 1	No. Sex	Date Banded	By Whom and Place Retrapped	Date Retrapped	Time Elapsed
1. 41-206	221 F	Mar. 26, 1946	B. M. Shaub, Northampton, Mass.	April 24, 1949	3 years
<b>2.</b> 50-122	779 F	Feb. 11, 1952	Mr. Jean Dugay, Charlevoix County, Quebec, Canada	July 20, 1953	1 yr., 5 mos.
3. 50-178	013 <b>F</b>	Feb. 23, 1952	B. M. Shaub, Northampton, Mass.	April 20, 1956	4 yrs., 2 mos.
<b>4. 50-1</b> 78	111 F	Mar. 8, 1952	Ernest E. Wanek, Ramsey, N. J.	April 29, 1956	4 yrs., 1 mo.
<b>5. 50-1</b> 78	231 M	Mar. 15, 1952	Mrs. Margaret Fitzgerald, Amsterdam, N. Y.	May 9, 1955	3 yrs., 2 mos.
6. 50-178	254 <b>F</b>	Mar. 20, 1952	W. J. Mills, Halifax, Nova Scotia, Canada	Mar. 6, 1955	3 years
<b>7.</b> 50-178	258 M	Mar. 21, 1952	Mrs. Ernest P. Cook, Berlin, N. H.	April 17, 1953	1 year
8. 50-178	350 M	April 19,1952	Mark A. Wolf, Midland, Mich.	Jan. 30, 1958	5 yrs, 9 mos.
<b>9</b> . 50-178	3430 M	April 26, 1952	Edouard Lamouthe Cheneville, Quebec, Canada	Feb. 15, 1953 (Killed by cat)	10 mos.
10. 50-178	431 M	<b>A</b> pril 27, 1952	Mrs. Ernest P. Cook, Berlin, N. H.	Feb. 8, 1953	10 mos.
<b>11.</b> 50-178	432 M	April 27, 1952	Mrs. James Hill, Skowhegan, Maine	<b>A</b> pril 13, 1953	1 year
12. 50-178	3436 F	April 27, 1952	Mr. Lynn Lampi, Fitchburg, Mass.	April 7, 1959 (Found dead)	7 years
13. 50-178	1437 M	April 28, 1952	Mrs. Ernest P. Cook, Berlin, N. H.	Feb. 11, 1953	10 mos.
14. 50-178	3467 <b>M</b>	May 3, 1952	Mrs. Margaret Fitzgerald, Amsterdam, N. Y.	May 9, 1955	3 years
15. 50-178	1479 F	May 4, 1952	T. L. Quay, N. C. State College, Raleigh, N. C.	Mar. 10, 1956 ''Collected''	3 yrs., 10 mos.
16. 50-178	480 <b>F</b>	May 4, 1952	John W. Stewart, Burlington, Mass.	April 5, 1953	11 mos.
17. 55-182	2146 M	April 18, 1958	Frank A. Clinah, Watertown, N. Y.	April 12, 1959	1 year
<b>18</b> . 55-182	2169 F	<b>A</b> pril 24, 1958	Thomas H. Foster, Bennington, Vt.	May 9, 1958	15 days
<b>19</b> . 55-182	2185 F	April 28, 1958	Mrs. Margaret Fitzgerald, Amsterdam, N. Y.	May 21, 1958	23 days
20. 55-182	212 <b>M</b>	April 29, 1958	Ralph G. Carpenter, Wolfeboro, N. H.	Mar. 19, 1959	11 mos.
21. 55-182	2242 F	May 5, 1958	Mrs. Dominick D'Esepe, Rocky Hill, Conn.	Mar. 9, 1959 (Found dead)	10 mos.
22. 58-175	722 F	Mar. 19, 1960*	Miss Frances Brierly, Adams, Mass.	May 2, 1960	44 days
23. 58-175	724 F	Mar. 19, 1960*	Roger Ouellette, Sinclair, Maine	July 13, 1960 (Killed by car)	4 mos.
<b>24</b> . 58-175	5771 <b>M</b>	<b>A</b> pril 14, 1960	Thomas Brousseau St. Leon le Grand, Quebec, Canada	June 23, 1960	2 mos.

<sup>\*</sup> These birds were banded on nearby Old Dominion Drive, Arlington, by Miss Patricia Beach, assisting Arthur H. Fast.

Table 3.

The following Evening Grosbeaks were banded as indicated and were retrapped and released by Arthur H. Fast at 4924 Rock Spring Road, Arlington, Va.

Band No.	Sex	Date Banded	By Whom and	Date Retrapped	Time Elapsed
			Place Banded	_	
1. 45-200148	F	April 20, 1946	G. Hapgood Parks,	Feb. 17, 1952	5 yrs., 10 m <b>os.</b>
			Hartford, Conn.		
2. 42-233352	F	Feb. 24, 1950	Lvdia Gstell.	Mar. 12, 1952	2 years
			Berlin, Conn.	,,	- 7
3, 50-101563	F	April 15, 1950	G. Hapgood Parks,	Mar. 20, 1952	2 years
J. JO-101707	•	11p111 17, 1770	Hartford, Conn.	11111. 20, 1992	2 years
4 50 101026	3.6	M 17 1050		A	2
4. 50-101036	M	Mar. 17, 1950	B. M. Shaub,	April 24, 1952	2 years
			Northampton, Mass.		
5. 48-202555	F	Feb. 23, 1950	Samuel Cabot, Jr.,	April 27, 1952	2 yrs., 2 mos.
			Beverly Farms, Mass.		
6. 50-113172	F	Feb. 21, 1955	Mrs. Eleanor Dater,	May 8, 1958	3 yrs., 3 mos.
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7, 53-134619	F	Jan. 19, 1956	Mrs. Margaret Fitzgerald,	May 4, 1958	2 yrs., 4 mos.
7. 75-15-1017	-	Jan. 17, 1770	Amsterdam, N. Y.	1114, 1, 1990	2 /10., 1 11105.
0 52 1707/0	17	E.L 21 10/0		Man 1 10/0	0 James
<b>8</b> . 53-178769	F	Feb. 21, 1960	John V. Dennis,	Mar. 1, 1960	9 days
			Ashburn, Va.		
			(Near Leesburg)		
9. 56-118964		Jan. 29, 1959*	Franklin McCamey,	Mar. 18, 1960*	1 yr., 2 mos.
			Storrs, Conn.		•
10. 56-185851	F	Dec. 26, 1959*	Maurice Broun,	April 21, 1960*	4 mos.
10. 70 107071	-	200. 20, 1999	Kempton, Pa.		* *
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<sup>\*</sup> These birds were retrapped on nearby Old Dominion Drive, Arlington, by Miss Patricia Beach, assisting Arthur H. Fast.

place of banding in succeeding years. But it should be noted that before 1959-1960, these birds were banded only at 6-year intervals, in 1945-1946, 1951-1952, and 1957-1958. Thus the likelihood of obtaining returns was greatly reduced. Furthermore, almost immediately after the close of the 1959-1960 banding season in which they had banded 569 of these birds, the Mulls were transferred to Japan. We and the Mulls wholly failed in our attempts to interest the family who moved into the Mull house in noting

Table 4.

The following Evening Grosbeaks were banded by Mrs. Dorothy Dreese\*, at 4136 N. 41st St., Arlington, Va. and retrapped as indicated.

Band No.	Sex	Date Banded	By Whom and Place Retrapped	Date Retrapped	Time Elapsed			
1. 50-12275	1 M	Dec. 16, 1951	R. G. Carpenter, Wolfeboro, N. H.	May 6, 1953	1 yr., 6 mos.			
2. 50-12275	6 F	Dec. 24, 1951	G. Hapgood Parks, Hartford, Conn.	Mar. 16, 1953	1 yr., 3 mos.			
3. 50-12276	7 ′ <b>M</b>	Jan. 3, 1952	G. Hapgood Parks, Hartford, Conn.	Mar. 5, 1953	1 yr., 2 mos.			
4. 50-122830	0 F	Jan. 21, 1952	T. J. Courtney, Halifax, Nova Scotia,	Feb. 14, 1953	1 yr., 1 mo.			
5. 50-12283	1 F	Jan. 21, 1952	Canada Mrs. Margaret Fitzgerald, Amsterdam, N. Y.	Jan. 14, 1956	4 years			
The following Eugeing Crockeales were handed by John Torborob* 4502 N 26th St. Adjacton We								

The following Evening Grosbeaks were banded by John Terborgh\*, 4582 N. 26th St., Arlington, Va.

50-178017 Old F Mar. 1, 1952 Parker C. Reed, Jan. 24, 1953 10 mos. 52-136031 New Lexington, Mass.

<sup>\*</sup> The bands used were furnished by Arthur H. Fast

Table 5.

The following Evening Grosbeaks were banded by Mr. and Mrs. William P. Mull\* at Dunn Loring, (near Vienna), Va. and retrapped or recovered as indicated.

Band No.	Sex	Date Banded	By Whom and Place Retrapped	Date Retrapped	Time Elapsed
1. 58-175418	F	Dec. 20, 1959	Mrs. Louise Babcock,** Sterling, Va.	Mar. 17, 1961	1 yr., 3 mos.
<b>2.</b> 58-175471	F	Dec. 27, 1959	Olan W. Dillon, Jr., Slaterville Springs, N. Y.	April 15, 1961	1 yr., 4 mos.
3. 58-175533	F	Jan. 14, 1960	John Shaw, Stockholm, Maine	Nov. 30, 1960 (killed by auto)	10 mos.
4. 58-175553	M	Jan. 17, 1960	Thomas Brousseau, St. Leon Le Grand, Ouebec, Canada	June 24, 1960	5 mos.
5. 59-129088	F	Mar. 14, 1960	Thomas Brousseau, St. Leon Le Grand, Ouebec, Canada	July 26, 1960	4 mos.
6. 59-139208	M	Mar. 17, 1960	Mr. Broan Colford, Blackville, N. B., Canada	"Summer" 1960 (Struck by auto)	
7. 59-139273	M	April 1, 1960	Thomas Brousseau, St. Leon Le Grand, Quebec, Canada	June 6, 1960	2 mos.
8. 59-139350	M	May 1, 1960	Walter Schneider, Magnetawan, Ontario, Canada	Feb. 1, 1961 (Hit by car)	9 mos.
9. 58-175603	F	Jan. 27, 1960	C. S. Robbins, Laurel, Md.	April 28, 1960	3 mos.
<b>10</b> . 58-175662	M	Feb. 8, 1960	Elting Arnold, Chevy Chase, Md.	April 15, 1960	2 mos.
11. 58-175696	F	Feb. 18, 1960	C. S. Robbins, Laurel, Md.	April 20, 1960	2 mos.
12. 59-129090	F	Mar. 14, 1960	Elting Arnold, Chevy Chase, Md.	April 17, 1960	1 mo.
<b>13. 59-</b> 139300	F	April 14, 1960	C. S. Robbins, Laurel, Md.	April 24, 1960	10 days
14. 58-175438	F	Dec. 23, 1959	Stuart S. Wilson, Jr., Koo Koose Farm, Deposit, N. Y.	<b>A</b> pril 11, 1961	1 yr., 4 mos.

<sup>\*</sup> The traps and bands used were furnished by Arthur H. Fast.

whether or not any of these birds returned to that yard during the following season. On March 17, 1961, Mrs. William Babcock retrapped a female banded on December 20, 1959 by the Mulls (See Table 5, Item 1). The 2 stations are about 12 miles apart. This comes close to being a return.

Table 6. The following Evening Grosbeaks were banded as indicated and were retrapped and released by Mr. and Mrs. William Mull at Dunn Loring (near Vienna), Va.

Band No.	Sex	Date Banded	By Whom and Place Banded	Date Retrapped	Time Elapsed
1. 522-76682	-	<b>A</b> pril 4, 1955	Paul A. Becker, Walker, Minn.	Dec. 28, 1959	4 yrs., 8 mos.
<b>2.</b> 56-135917	F	May 11, 1958	Mrs. James R. Downs, South Londonderry Vt	Dec. 24, 1959	1 yr., 7 mos.

<sup>\*\*</sup> This bird returned to within 12 miles of the place of banding. This is the nearest to a return of any Evening Grosbeak banded in this area.

The following 44 Evening Grosbeaks, banded by us and our associates (Tables 2, 4 and 5), were retrapped or recovered in the states and provinces indicated:

## States in which retrapped or recovered.

Banded by:	Maine	N.H.	Mass.	Conn.	N.Y.	Que.	Md.	Misc.	
Fast (24)	2	4	5	1	4	3		5*	
Dreese (5)		1		2	1			1†	
Terborgh (1);			1	_		_			
Mull (14)	1				2	3	5	3 <b>§</b>	
Total	3	5	6	3	7	6	5	9	Total 44

- \* One each in Vermont, New Jersey, Nova Scotia, Michigan and North Carolina.
- † One in Nova Scotia.
- ‡ Using our bands.
- § One each in New Brunswick, Ontario and Virginia.

The following Evening Grosbeaks, retrapped by Fast and Mull (Tables 3 and 6), were banded in the states indicated:

### States in which banded.

Retrapped by	Conn.	Mass.	N.Y.	N.J.	Pa.	Va.	Minn.	Vt.	
Fast (10)	4	2	1	1	1	1	-		
Mull (2)		—				_	1	1	
Total	4	2	1	1	1	1	1	1	Total 12

Of the 56 Evening Grosbeaks listed in Tables 2, 3, 4, 5 and 6, nineteen were banded, retrapped or recovered by Mrs. Fitzgerald at Amsterdam, New York (5), Mrs. Cook at Berlin, New Hampshire (3), the Shaubs at Northampton, Massachusetts (3), Mr. Parks at Hartford, Connecticut (4), and Thomas Brousseau in Quebec (4). In connection with Thomas Brousseau, see "The Destruction of Nearly One Hundred Evening Grosbeaks at St. Leon le Grand, Quebec" by B. M. Shaub, Bird-Banding, 31: 150-156, where it was related that Brousseau and another killed at least 94 banded Evening Grosbeaks during the summer of 1959; they believed they were co-operating with the Fish and Wildlife Service. It is interesting to note that the 4 birds listed in our Tables were reported by the same Brousseau as having been taken at the same place in 1960.

With the exception of the bird collected at Raleigh, North Carolina (Table 2, Item 15), and the bird that came close to being a return (Table 5, Item 1) — all of the Evening Grosbeaks banded by us and our associates were retrapped or recovered in the states of the United States or the Canadian provinces north of here. Likewise with the exception of the bird banded in Virginia about 20 miles west of us, and retrapped here (Table 3, Item 8), — all of the birds retrapped by us and our associates were banded in the states and provinces north of us. One bird was retrapped in Michigan (Table 2, Item 8); Another was recovered in the Georgian Bay area of Ontario (Table 5, Item 8); a third bird was banded in Minnesota (Table 6, Item 1). The other 50 of the 56 birds included in Tables 2 to 6 were retrapped, recovered or banded in the following 12 states and provinces: Maryland, Pennsylvania, New Jersey, New York, Quebec (to 48° N. Lat.), Nova Scotia, New Brunswick, Maine, New Hampshire, Vermont, Massachusetts and Connecticut — being most of the states and provinces north of our 38° N. Lat. to 48° N. Lat. and east of 80° W. Long.

Most of the Evening Grosbeaks listed in Tables 2 to 6 were retrapped or recovered in a later season, up to 7 years after banding (Table 2, Item 12) — in a migration after the season in which they were banded. The

exceptions are: (1) The 2 birds banded here late in the season and retrapped respectively at Bennington, Vermont and Amsterdam, New York, 15 and 23 days after being banded here (Table 2, Items 18 and 19); (2) the 1 bird banded here March 19, 1960 and retrapped May 2, 1960 at Adams, Massachusetts (Table 2, Item 22); (3) The bird banded by us on March 19, 1960 and recovered 4 months later at Sinclair, Maine (Table 2, Item 23); (4) The 4 birds captured by Thomas Brousseau in Quebec, mentioned above\*; (5) The bird banded at Ashburn, Virginia — about 20 air miles west northwest of here — and retrapped 9 days later here. (Table 3, Item 8); (6) The bird banded by Maurice Broun at Kempton, Pennsylvania in December, 1959 and retrapped here 4 months later (Table 3, Item 10); and (7) The 5 birds retrapped at Laurel, Maryland (25 miles distant) and at Chevy Chase, Maryland (10 miles distant) within 10 days to 3 months after banding (Table 5, Items 9-13).

The records or retraps and recoveries for any one flight do not seem to indicate any significant variation from any other flight. Some years they penetrate as far south as Virginia — and beyond. With these flocks (usually) come a few birds banded elsewhere; most of them in previous years. The birds we band seem (usually) to return to their summer range in the remote forested areas of southeast Canada and northeastern United States\*\*. Our population seems to be mostly tied in with the newly established population in those areas. Shaub, 1952. E.G. Survey News, 2(7): 37 suggests that this nesting area must be very extensive.

Forbush\*\*\* (1929) says: "Recent bird-banding records quite clearly show that in migration these birds move east and west." Shaub\*\*\*\* (1952) says that the banding records continue to show that some Evening Grosbeaks move east and west along the general latitude of the United States-Canadian border to Central Michigan. However, "the early weak, occasional east-west migration has now developed into a strong fall and winter migration southward and southwestward along the Appalachian Mountains . . . . " Our retrap and recovery records contained in Tables 2 to 6 tend to support the last quoted statement.

The Evening Grosbeaks coming to our feeders and traps, with a few exceptions, have been predominantly females; in many instances exclusively or almost exclusively females. This accords with the experience of other banders and observers in this area. Mason and Shaub, 1949, Bird-Banding, 20(4): 169, 178; and Shaub, 1960, Bird-Banding, 31(3): 140, 150 state that the females tend to penetrate more deeply into the wintering grounds than the males; and that the males may leave the wintering grounds before the females.

Probably the largest flock of Evening Grosbeaks ever reported in this area is 91 birds — by the Mulls. Yet the banders in this area have usually banded many times the number of birds observed. Of all these birds which have come to the feeding trays, we have never seen more than a small per-

<sup>\*</sup> Shaubs, in E.G. Survey News, (1952) 2 (6):31; and (7):36 suggests that the small number of recoveries by the northern banders of the birds banded in the southern areas may be due to the rapid movement of these birds north in the spring.

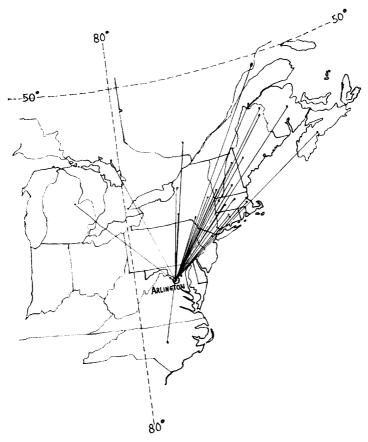
\*\* See Shaub, 1952. Bull. of Mass. Audubon Society, 36: 334-336; Shaub, 1958.

N. Hamp. Bird News, 2 (1): 3-10; and Shaub, 1954. Bird-Banding, 25 (3):88.

\*\*\* "Birds of Mass. etc." (1929) III:4

<sup>\*\*\*\*</sup> Bull. of Mass. Audubon Society, 36: 334-336.

See also Bergstrom, 1953. Bird-Banding, 24 (3): 108.



Figue 1, showing Arlington, Virginia (where the Evening Grosbeaks were banded), and the localities where they were retrapped or recovered.

centage of banded birds — even toward the end of the season, as in 1952, when 250 or 300 had recently been banded. Thus there would seem to be no resident flock, but rather a large reservoir of birds which circulate within an area of undetermined size. There would appear to be a number of flocks with a frequent shifting of individuals between the flocks.

When the Evening Grosbeaks arrive in our yard and on the feeding trays at the beginning of the season or are preparing to leave at the end of the season — they are sometimes restless or easily flushed — calling all the while. At other times they hold their ground, or even drive other birds away. But more often than not — especially when they become established

— they are calm and substantially tolerant of each other and of other species. When established, they are essentially a morning bird — arriving about full daylight, and coming to the trays intermittently until about 1:00 P.M. We have had sporadic instances of feeding in the afternoon — especially when the last 2 or 3 birds were about to leave for the season. It still seems to be mostly a mystery as to where these birds spend the remainder of their afternoons and nights. Although some effort was made, no night roost of these birds was discovered in this area. We have found one report of such a night roost of Evening Grosbeaks\*: After weeks of searching and exposure to the elements, a small roost was discovered on April 27, 1952 near Delmar, New York. A flock of 18 arrived in an old stand of hemlocks at 2:50 P.M.; after some calling, they settled down at 3:09 P.M. Observers were on location the next morning at 4:30 A.M. The birds left the roost between 4:52 A.M. and 5:38 A.M.

When the Evening Grosbeaks were trapped, it was found best to use traps having separate cells. When traps were used in which several were confined in the same enclosure, they sometimes attacked each other viciously and (with their huge bills) inflicted considerable damage before they could be removed from the traps. No nets have been used in our banding operations. These birds seem particularly susceptible to warm weather. After several of them expired in the traps within a short time on a warm April day with the sun shining on the birds, the traps were placed in the shade or watched constantly.

In April, 1960, an unusual Evening Grosbeak was captured here. In the trap it looked like a cross between a male and a female. The left side of the breast showed the yellow color of the male, while the right side was the gray of the female. A sharp line of demarkation on the breast extended to the under tail coverts. Even the back showed two colors. Dissection, under the supervision of Dr. John W. Aldrich, revealed the characteristics of both sexes. It is now a skin in the National Museum. Three birds similarly plumaged were reported by Shaub\*—"3 gynandromorphs."

The bills of the Evening Grosbeaks are of a uniform bone color in the winter. We have noted that by late March, the bills have turned a distinct green, which has been described as being "similar to that of the skin of a maturing apple just before the sun tinted it with the first faint blush of ripeness." \*\*

We are frequently asked: "What is the rarest bird you have banded?" There is no sure answer to that question. The Evening Grosbeak might be viewed as qualifying. Whether or not this is the rarest bird we have banded, it has had a greater influence on our activities than any other bird which has been trapped and banded, or possibly any event in recent years which has affected our activities. This bird introduced us to ornithologists, bird students, bird watchers, and nature photographers in the metropolitan Washington, D. C. area, and beyond; it was the incentive for us to begin banding. From late February, 1946 to the 1st of December, 1961, we have banded nearly 20,000 birds of 85 species — about 92% of them on our home acre. As the result of these activities, we began teaching conservation, and appreciation of birds and nature in general. Talks are given to groups of all ages, such as scouts, school children, church groups and

<sup>\*</sup> Fordham, 1952. E.G. Survey News, 2(6): 35.

garden and other clubs, which come here or assemble in other places. As many as 45 such talks have been given each March and April, the peak of the banding season.

- \* Contribution No. 26; Passenger Pigeon, Spring Issue, 1960
- \*\* Parks, 1948. Audubon Magazine, 50(2): 110

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## FOOT ABNORMALITIES OF WILD BIRDS

By C. M. HERMAN, L. N. LOCKE, and G. M. CLARK

Although foot abnormalities are frequently observed among birds trapped for banding, little work has been done to establish the causes of these lesions. Early banders believed that such abnormalities were due to trauma or were the effect of freezing weather. Actually, a large number of mechanical and infectious agents are capable of producing crippling injuries, and laboratory examination should be made to determine which agent is involved in a particular case. This paper discusses the various foot abnormalities we have found during the course of our studies at the Patuxent Wildlife Research Center since 1952.