lasting not longer than a month.

- (d) Flock size varied enormously but averaged less than 25 birds.
- (e) The time of exodus from the Valley varied between the last week of April and middle of May with rapid migration northward.
- (f) A number of still unanswered questions regarding this species need further investigation. These include locations of roosting sites, and the extent to which native wild foods supplement the sunflower seeds eaten almost exclusively at feeding stations.
- (g) Cooperative surveys of a single species can produce results provided the bird is easily identifiable and reporting is consistently carried out in the period of the study. A centralized control of the distinctive marks used is also a necessity.

Arcadia Wildlife Sanctuary, Easthampton R.D., Mass., and 159 Elm St., Northampton, Mass.

MORE EVENING GROSBEAK NOTES FROM HARTFORD, CONNECTICUT

By G. HAPGOOD PARKS

Little did we realize what the next few winters held in store for us when, one morning in early February, 1942, two female Evening Grosbeaks (Hesperiphona vespertina vespertina Cooper) were seen eating sunflower seeds at one of our back-yard feeders. These were the first of this species ever to visit us. Little did we realize that, when we trapped them both on the 8th day of that February and marked them with government bands 41-211434 and 41-211435, we had begun a study which was to result in the accumulation of well over five thousand individual records within the next eight years.

No other Evening Grosbeak was observed that winter and the following year brought not even one of them to us. An inkling of what was to come should have been apparent, perhaps, when 41-211434 returned to our trap on March 10, 1944. From January 22 until April 28 of that year small flocks were irregularly and unpredictably with us and we succeeded in banding 45 females and 4 males. In addition to the one return a single recovery was also trapped.

We again drew a blank during the 1944-45 season, but on December 13, 1945, a banded female was seen at our suspended feeder and that season's historic invasion was on. But let us save space and time by constructing a tabular picture of the feathered actors which play the parts in the drama that is about to unfold (Table I).

During the 1946-47 season each newly banded bird was marked with a blue plastic on its right tarsus in addition to the numbered aluminum Fish and Wildlife Service band on its left. Brown above blue plastics distinguished the 1948-49 bandees, and during 1949-50 we used pink above blue.

Table I

Evening Grosbeaks Trapped At Hartford, Connecticut

Winter	No. Banded	Repeats	Returns	Recoveries
1941-42	2*	0	0	0
1943-44	49	13	1	1
1945-46	874	1525	4	20
1946-47	543	300	9	6
1948-49	112	141	4	2
1949-50	1286	438	8	59
Totals	2865*	2417	$\overline{26}$	88

^{*}One additional Evening Grosbeak was banded at Winchendon, Massachusetts, on May 2, 1942.

Evening Grosbeaks carrying these colors have been reported in every New England state except Rhode Island, in New York and New Jersey, and in at least three Canadian provinces. Because of the unreliability of the colors, the uncertainty of their perfect identification, and because of the fact that other banders may have used the same colors, we have decided to include in this paper only those birds positively identified by band number. This decision leaves us with 152 records to report, involving 142 individual birds. This report includes all known records through November 30, 1951.

Forty-four of these records provide us with completed life histories. A study of the code key which follows Table II will provide some idea of the hazards which beset this species.

Still incomplete, as far as our records can prove, are the life histories of the remaining 2,822 of our bandees. Unquestionably, many will never be heard from, but 98 of them have added brief chapters to our story by visiting the feeding trays of interested observers or the traps of banding cooperators. Twenty-five of these birds have returned to us in Hartford during some season subsequent to its banding. One of them returned during two different winters. Table III summarizes their records.

Table IV tells the story of 10 Evening Grosbeaks which were banded at our station. These birds were trapped at other stations in Hartford or vicinity under conditions which, as far as the purpose of this paper is concerned, could very well classify them as returns even though they did not actually re-enter our traps.

The stories of some 62 other individuals, each of which has supplied a single record subsequent to its banding, but which, so far as we can prove, may still be alive, are told in Table V. The code letters will be employed in order to condense their histories.

Eleven of the Evening Grosbeaks which were banded at our Hartford. Connecticut, station have each made two subsequent records. Table VI summarizes this group. It will be noted that three of these birds (44-214472, 44-214628, and 44-223968) have each been reported from three different stations.

Although the tables summarize our records they fall short of reporting some of the stories which may carry sufficient interest to justify the repetition which their telling will entail.

COMPLETED LIFE HISTORIES

Cause of Death	V	× -	V	: ن	<u>-</u>	<;	۽ ن	<u>.</u> , -	Κr	zqε	χ, -	Ā	F	2 2 (ا ف	89	ſ	2 0,	α;	Ξ,	a ·	V	2 2 (-	.	،	2 0 F	ਜ ਼	ц
Reported by	J. A. Sauer	Miss M. A. Sampson	J. A. Sauer	W. J. Smith	J. W. Kelley	(author)	(author)	D. Brule	F. A. Saunders	Ę,	Mrs. C. H. Partridge	Mrs. C. B. Bennett	E. T. Smith	E. W. Downes	Mrs. H. Graed	W. P. Conklin		J. Mullen	E. Nichols	Miss H. Inman	F. Kichard	W. L. Mooney	L. F. Bernier	S. N. Mapes	R. Laffeur	J. Bond	Mrs. Tipping	(author)	S. Byers
Place of Death	Denville, N. J.	Northampton, Mass.	Denville, N. J.	Hartford, Conn.	Clintonville, Conn.	Hartford, Conn.	Hartford, Conn.	Lake Gagnon, Quebec	South Hadley, Mass.	Hartford, Conn.	Hartford, Conn.	Hartford, Conn.	West Hartford, Conn.	Hartford, Conn.	Shawmut, Me.	Farmington, Conn.		West Hartford, Conn.	West Hartford, Conn.	West Springfield, Mass.	St. Jovite, Quebec	West Hartford, Conn.	- Doda Lake, Quebec	West Hartford, Conn.	Rockland East, Ontario	Riley Brook, New Brunswick	Claremont, N. H.	Hartford, Conn.	Crysler, Ontario
Date of Death	Feb. 11, 1946	j,	11,	10	21,	Mar. 5, 1946	'n,	6,	6,	7,	10,	ထ်	15,	۲,	18,	15,		11,		24,	က်	%	%	7 3	 3	. '2	53	May 2, 1947	
Sex Banded at Hartford	F Dec. 15, 1945					F Dec. 30, 1945			M Jan. 1, 1946	ე	F Jan. 6, 1946	26,	M Jan. 27, 1946	ળ,			ole VI	M Jan. 11, 1947	M Jan. 11, 1947	17, 1	F Jan. 18, 1947	21, 1	21, 1	F Feb. 2, 1947	16, 1	M Apr. 17, 1947	19, 1	M May 1, 1947	F May 2, 1947
Band No.	44-201576	44-201592	44-214457	44.214497	44-214663	44-214694	44-223806	44-223829	44-223850	44-223885	44-223942	44-224376	44-224389	44.224411	45-203671	40-232543	40-232552	46-211801	46-211809	46-211841	46-211869	* * 46-21220 2	46-212207	46-212251	46-212282	46-213140	46-213147	**46-218803	46-218806

VEHJBACKBBBBBB

H. D. Hart (author) T. Dwyer E. A. Carrier L. J. Edgerton Mrs. S. N. Mapes Mrs. W. J. Delaney F. C. Dean L. Steinberg W. H. Putnam G. W. Petersen C. D. Fowle (author) J. O. Enders
Blandford, Mass. Hartford, Conn. Hartford, Conn. Hartford, Conn. Avon, Conn. West Hartford, Conn. New Hartford, Conn. Brewer, Mc. Hartford, Conn. West Hartford, Conn. Algonquin Park, Ontario Hartford, Conn. Granville, Mass. Algonquin Park, Ontario Hartford, Conn. West Hartford, Conn.
Dec. 21, 1949 Apr. 29, 1949 Feb. 12, 1950 Feb. 21, 1950 Mar. 26, 1950 Apr. 21, 1950 Apr. 12, 1950 Apr. 2, 1950 Apr. 1950 Apr. 1950
Apr. 9, 1949 Apr. 12, 1949 Feb. 4, 1950 Feb. 12, 1950 Feb. 12, 1950 Feb. 25, 1950 Mar. 1, 1950 Mar. 17, 1950 Mar. 17, 1950 Mar. 11, 1950
HHHKKKKKKHHK
48-218562 48-218570 48-247804 48-247855 48-247962 48-263117 48-273041 48-273217 48-273220 48-2732380 50-100472 50-101428

** (46-212202 and 46-218803 were mounted for the Hartford Children's Museum collection.) *** (48-273122 was added to the University of Maine's collection of bird skins.)

A—Flew against obstacle (window, screen, etc.).

B—"Found dead" (cause unknown or not reported).

C—Killed self attempting to escape from enclosure (garage, camp, etc.).

E—Inernal hemorrhage.

F—Shot.

G—Caught 1— G—Caught by a cat.
H—Found sick and died.
I—Killed with stone thrown by a "small boy." J-Killed in road.
K-Found exhausted and died.

Table III
D As Returns At Hartford, Connecticut

NG	GROSBEAKS	KETR!	APPED As	RETURNS	AT HARTI	ORD,	CONNECT
	Band No.	Sex	В	anded	Re	turn	ed
	41-211434	F	Feb.	8, 1942	Mar.	10.	1944
	42-220788	F	Jan.	22, 1944	Feb.	26.	1946
				28, 1944			1945
	44-201567	F	$\overline{\mathrm{Dec}}$.	14, 1945	Apr.		
	44-201582	M	Dec.	15, 1945	Mar.	4,	1950
	44-214431	(See	Table V	I.)			
	44-214476	(See	Table V	I.)			
	44-214629	F	Dec.	26, 1945	Apr.	17,	1947
	44-214693	(See	Table V	I.)	-		
	44-223945	(See	Table V	[.)			
	44-223955	\mathbf{F}	Jan.	8, 1946	Jan.	17,	1947
	44-224333	(See	Table V	[.)			
	44-224337	F	Jan.	25, 1946	Jan.	4,	1947
	45-200013		Feb.		$_{ m Dec.}$	31,	1946
	45-200038		${f Feb.}$		May		
	45-200047	F	Mar.	8, 1946	Feb.	22.	1947
	45-200057	F	Mar.	13, 1946	Feb.	23,	1950
	40-232552	(See	Table V	[.)			
	40-232556	\mathbf{M}	Jan.	7, 1947	May		
4	46-218819			4, 1947		21.	1949
	46-218831			6, 1947	Apr.	7,	1949
	46-218996		Table VI				
	48-218505	(See	Table VI	.)			
4	48-218574				Mar.	16, 1	1950
4	48-218579	\mathbf{F}	Apr.	17, 1949	May	3,]	1950

There is, for example, the case of female 46-218806. Banded at Hartford on May 2, 1947, and marked with a blue plastic band, she was found sick, and later died, at Crysler, Ontario, by Mr. Stuart Byers, on February 21, 1950. Mr. Byers was unfamiliar with the Fish and Wildlife Service procedure and he was unable to decide what to do with the band until he chanced upon the comic strip "Mark Trail" depicting a banded goose which had been caught accidentally in a steel trap. Following the method of the comic-strip trapper, Mr. Byers sent the band to the Bird-Banding Office at Laurel, Md., and this bird's record, as a result, was completed. The blue plastic band, by the way, was still intact when the bird was found.

Female 40-232552 was banded at Hartford on January 6, 1947, and was marked with a blue plastic band. After having returned to Hartford again on April 18, 1949, she was found dead, with her plastic band still intact, in a camp at Steamboat Rock Lake in Quebec, on July 14, 1950, by Mr. Paul Simard. It seems that a door of this camp had been left open and a number of Evening Grosbeaks had entered and were discovered dashing themselves against the walls. A dozen of them had killed themselves. During the correspondence which resulted from the discovery of this group of dead birds, "mass suicide" was intimated. The logic of such an idea is questionable, however. When one has observed the efforts of this species to escape from any enclosure, especially when several birds are enclosed simultaneously and particularly when approached by a human, one would more likely explain the tragedy as the result of blind panic caused by unnatural restriction and augmented by the presence of other equally panic-stricken members of the same species even without the added stimulus of human presence. Our

TABLE IV

EVENING GROSBEAKS RETRAPPED NEAR, BUT NOT AT, OUR STATION

By	(author)	E. A. Bergstrom Mrs. T. B. Rhines	E. A. Carrier	Mrs. 1. B. Ruines E. A. Carrier	E. A. Carrier	Mrs. L. Gstell
At	Windsor, Conn.	West Hartford, Conn. Glastonbury. Conn.	Hartford, Conn.	Glastonbury, Conn. Hartford, Conn.	Hartford, Conn.	Berlin, Conn.
Retrapped	Mar. 23, 1947	Mar. 22, 1950 Feb. 1, 1950	22,8	, &	Mar. 13, 1950	92
Sex Banded at Hartford	M Dec. 28, 1945 (See Table VI)	M Apr. 19, 1946 F Jan. 1, 1947	M Jan. 6, 1947	F Jan. 22, 1947 M Jan. 27, 1947	(See Table VI.) F Mar. 10, 1949	F Apr. 12, 1949
Band No.	44-214684	45-200145 40-232533	40-232553	46-212221 46-212238	48-218505 48-218509	48-218569

KEY TO LEGEND USED IN TABLE V

A—Band number read without trapping bird.
B—Trapped and released.
C—"Trapped in breeding condition."
D—"Caught."
E—"Captured."
F—"Captured."
G—"Band found on bird."
H—"Captured, bird released" AFTER REMOVING BAND. I—"Found—BAND REMOVED."

CABLE V

SINGLE SUBSEQUENT RECORDS OF EVENING GROSBEAKS BANDED AT HARTFORD, CONNECTICUT

	Reported by	Mrs. H. W. Knup	J. F. Nields	S. C. Fordham, Jr.	T. C. Warren	I. Traskers	T. C. Warren	L. R. Marland	Mrs. H. W. Knup	F. A. Saunders	T. C. Warren	Mrs. B. M. Shaub	F. A. Saunders	G. E. Ramsdell	R. Allison	E. A. Mason	T. C. Warren	J. F. Nields	C. E. Hope	H. Doughty, Jr.	J. L. Peters	E. A. Mason	J. F. Nields	E. A. Mason	Mrs. B. M. Shaub	H. L. Hutchins	(author)	(author)	(author)
	Place	Norwichtown, Conn.	Hardwick, Mass.	East Greenbush, N. Y.	Ticonderoga, N. Y.	Haddam, Conn.	Ticonderoga, N. Y.	Ware, Mass.	Norwichtown, Conn.	South Hadley, Mass.	Ticonderoga, N. Y.	Northampton, Mass.	South Hadley, Mass.	Lewiston, Me.	Athol, Mass.	Easthampton, Mass.	Ticonderoga, N. Y.	Hardwick, Mass.	Algonquin Park, Ontario	Bangor, Me.	Harvard, Mass.	Northampton, Mass.	Hardwick, Mass.	Easthampton, Mass.	Northampton, Mass.	Canterbury, Conn.	Windsor, Conn.	Windsor, Conn.	Windsor, Conn.
	Date	"late Apr.," 1946					20,	Ŋ,	"late Apr.," 1946	m,	22,	Feb. 25, 1947	Apr. 9, 1947	Apr. 9, 1949	Apr. 24, 1947	Mar. 7, 1947	May 11, 1946	May 6, 1947	June 24, 1946	Apr. 15, 1947	May 3, 1947	May 10, 1946	Jan. 2, 1950	May 9, 1946	Apr. 4, 1950	Feb. 6, 1950	Feb. 15, 1947	Mar. 29, 1947	Mar. 29, 1947
	Legend	V	В	В	¥	¥	¥	В	V	В	A	В	В	В	В	В	A	В	ပ	ڻ د	В	В	Ø	æ	В	æ	В	В	щ
Banded	at Hartford		Dec. 15, 1945		Dec. 25, 1945	Dec. 25, 1945	Dec. 25, 1945	Dec. 26, 1945	Dec. 27, 1945	Dec. 28, 1945	Jan. 1, 1946	Jan. 1, 1946	Jan. 1, 1946	Jan. 6, 1946	Jan. 13, 1946	Jan. 17, 1946	Jan. 24, 1946	Jan. 27, 1946	Feb. 4, 1946	Feb. 17, 1946	Feb. 20, 1946	Feb. 20, 1946	Mar. 31, 1946	Apr. 7, 1946	Dec. 27, 1946	Jan. 8, 1947	Jan. 11, 1947	Jan. 11, 1947	Jan. 11, 1947
	Sex	伍	H	X	ഥ	Z	<u>-</u>	Z	Į.	Z	ᄺ	×	Z	ᅜ	[파	Z	Ż	ſ±ι	ĹŦ4	Σı	[24	<u>-</u>	Z	Z	×	[4	×	[±4	ĹΨι
	Band No.	42-220796	44-201574	44-214406	44-214601	44-214608	44-214617	44-214637	44-214651	44-214688	44-223813	44-223851	44-223871	44-223943	44-223984	44-224305	44-224329	44-224395	44-224452	44-224492	45-200002	45-200003	45-200109	45-200128	40.232518	40-232569	40-232586	40-232596	46-211807

H. Jourdain F. McKenzie E. Morel (author) Mrs. B. M. Shaub B. M. Shaub Mrs. T. B. Rhines Mrs. T. Gstell Mrs. L. Gstell Mrs. T. B. Rhines Mrs. T. B. Rhines B. M. Shaub B. M. Shaub B. M. Shaub B. M. Shaub	B. M. Shaub L. R. Marland J. McAskill V. Landry R. Cayouette B. M. Shaub
	Northampton, Mass. Ware, Mass. Plaster Rock, New Brunswick Laverendrye Park, Quebec Charlesbourg, Quebec Northampton, Mass.
June 26, 1948 Aug. 12, 1947 Aug. 12, 1948 Mar. 10, 1947 Apr. 28, 1949 Apr. 19, 1949 Apr. 19, 1949 Apr. 29, 1950 Apr. 29, 1950 Apr. 29, 1949 Feb. 7, 1950 Apr. 29, 1950 Apr. 11, 1950 Apr. 11, 1950 Apr. 11, 1950 Apr. 10, 1950 Apr. 27, 1950 Apr. 28, 1950 Apr. 29, 1950	22,22,20,24,22,22,23,23,23,23,23,23,23,23,23,23,23,
Омананананананананананана	вв-нвв
Jan. 17, 1947 Jan. 18, 1947 Feb. 25, 1947 Feb. 28, 1947 Feb. 28, 1947 Mar. 4, 1947 Mar. 5, 1947 Apr. 13, 1947 Apr. 2, 1949 Apr. 2, 1949 Apr. 2, 1950 Feb. 4, 1950 Feb. 11, 1950 Feb. 12, 1950 Feb. 22, 1950 Feb. 22, 1950 Feb. 22, 1950 Feb. 22, 1950	27, 3, 11, 11, 17,
**************************************	$r \neq r \neq r$
46-211858 46-211883 46-211883 46-213015 46-213015 46-213030 46-213030 46-213128 46-213128 46-213128 46-218537 48-218537 48-218537 48-218537 48-247983 48-247948 48-247948 48-247948 48-247948 48-247948 48-247948 48-247948 48-263074 48-263074 48-263246 48-263246 48-263246 48-263246 48-263246	48-273086 48-273155 50-100448 50-100455 48-273281 50-101511

****46-212295 was banded by author at Windsor, Conn.

FABLE VI

MULTIPLE RECORDS OF EVENING GROSBEAKS BANDED AT HARTFORD, CONNECTICUT

D. J. M.		D 1	I			. t.
54.914431	ZeX T	Danued at martiord Dec 29 1045	18 19 19	artiora 1045	9	Subsequent Records (a) In A 10A6 contured in Finalish consequent from at Charling Comm. htt Max. D.
101417-11	4	Dec.	, 1	04.61	a a	(a) Jan. 7. Definite of the Lighten Spation (ap at Chesnife, Collit, by Mrs. D. N. Bennett. (b) May 10, 1946, retrapped at Hartford, Conn., by author.
44-214472	<u>F4</u>	Dec. 23, 1945	23,	1945	(a)	Jan. 26, 1946, trapped and released at Tenafly, N. J., by Mrs. Betty Carnes. Feb. 16, 1947, caught and released at Lowell, Mass., by D. C. Alexander.
44-214476	M	Dec. 24, 1945	24,	1945	(a) (b)	Jan. ?, 1946, trapped and released at Windsor, Conn., by D. Barber. Apr. 19, 1946, retrapped at Hartford, Conn., by author.
44-214628	M	Dec. 26, 1945	26,	1945	(a)	Jan. 24, 1946, trapped and released at Westbrook, Conn., by J. Rintoul. Mar. 4, 1947, "reported" at a feeding station in Monroe, N. H., by Mrs. Inez Hart
44-214693	M	Dec,	Dec, 30, 1945	1945	(a)	 (a) Mass., 1949, trapped and released at Northampton, Mass., by Mrs. B. M. Shaub. (b) Mar. 18, 1950, retrapped at Harford, Conn., by author.
44-223945	M	Jan. 6, 1946	6,	1946	(a)	Mar. 10, 1947, retrapped at Hartford, Conn., by author. Apr. 7, 1950, trapped and released at Hartford, Conn., by E. A. Carrier.
44-223968	ᅜ	Jan. 12, 1946	12,	1946	(a)	Dec. 24, 1949, trapped and released at Hardwick, Mass., by J. F. Nields. Feb. 27, 1950, trapped and released at Northampton, Mass., by B. M. Shaub.
44-224333	Ŀι	Jan. 24, 1946	24,	1946	(a)	Apr. 20, 1947, retrapped at Hartford, Conn., by author. Mar. 30, 1949, retrapped at Hartford, Conn., by author.
40-232552	Į.	Jan. 6, 1947	6,	1947	(a)	Apr. 18, 1949, retrapped at Hartford, Conn., by author. July 14, 1950, found dead in camp at Steamboat Rock Lake, Quebec, by P. Simard.
46-218996	দ	Mar.	Mar. 5, 1949	1949	(B)	(a) Nov. 24, 1949, trapped and released at Barre, Vt., by Mrs. H. A. Drew. (b) Feb. 5, 1950, retrapped at Hartford, Conn., by author.
48-218505	ᅜ	Mar.	Mar. 6, 1949	1949	(a)	(a) Feb. 19, 1950, trapped and released at Hartford, Conn., by E. A. Carrier.(b) Feb. 20, 1950, retrapped at Hartford, Conn., by author.

Table II has listed at least two other instances of individual birds which killed themselves in a manner similar to this one, but without any semblance of suicidal intent. Exhibiting similar characteristics we have seen members of this species struggle blindly for more than a minute, against the inside of a covered angle formed by two 8 by 10-inch panes of glass, trying to force themselves through the glass, although no other structure barred their escape.

Female 44-214472 was banded at Hartford on December 23, 1945. She participated in the continued migration southward until she was trapped by Mrs. Betty Carnes at Tenafly, N. J., on January 26, 1946. This bird is known to have remained near the Carnes station for at least two weeks. The following winter, with the southward movement of the Evening Grosbeak migration much more restricted, this same bird was trapped and released by D. C. Alexander, at Lowell, Mass., on February 16, 1947.

Male 44-214628 revealed a similar migrational pattern. After having been banded at Hartford on December 26, 1945, he flew southward to Westbrook, Conn., where he was trapped and released by J. Rintoul on January 24, 1946. We heard next from him when he was "reported" at a feeding station in Monroe, N. H., on March 4, 1947, by Mrs. Inez Hart.

Female 46-218996, banded at Hartford on March 5, 1949, and destined to return to us the following season, stopped during her flight to visit Mrs. H. A. Drew at Barre, Vt., on November 24, 1949. Then she continued down the Connecticut Valley, arriving at our station on February 5, 1950.

The record of female 44-223968 reveals little, perhaps, beyond her liking for New England winters and her lack of shyness for traps. She was banded at Hartford on January 12, 1946, and was recovered by J. F. Nields, at Hardwick, Mass., on December 24, 1949. Then she made the brief hop over to Northampton, Mass., to check the hospitality of the B. M. Shaub's, or, perhaps, to test the efficiency of their traps, on February 27, 1950.

As is to be expected, the lion's share of our records has come from localities relatively close to our station. In fact, 84 of the 152 records come from our own state of Connecticut. Thirty-five others come from Massachusetts, largely as the result of the northward migrational trend of this species along the Connecticut Valley. Of the other New England states, Rhode Island, alone, has provided no record; 4 come from Maine, 2 from New Hampshire, and a single one from Vermont. The state of New York has given 6 records and 3 come from New Jersey. Three Canadian provinces have supplied, all together, 17 records, as follows: Quebec, 11; Ontario, 4; and New Brunswick, 2.

Only the New Jersey records and some of those from our own state have come from points geographically south of Hartford.

In summary: 142, or about 5.0% of the 2,866 Evening Grosbeaks banded at our Hartford, Connecticut, station have supplied records, exclusive of repeats, subsequent to their banding. Of these records, 44, or slightly less than 31% of them, have come from birds which had been killed or which died from some cause more or less indeterminable.

With regard to those of our bandees from which we have never yet heard, who can say how many may yet add their stories to our records? How many of their bands may already be in the possession of persons who need, perhaps, the enlightenment of a "Mark Trail" incident? How many others of these birds may still be a-wing, shorn of their opportunity to add to our knowledge because some captor along the line has removed their band? It is disappointing to report, in closing, that our two most recent recovery records read: "Band was removed—bird released."

No mention has been made in this paper of some 42 of our Evening Grosbeaks which were trapped by E. A. Bergstrom at his station in West Hartford during the same season in which they were banded, or of 82 others which were trapped during that same period by E. A. Carrier at his local station. The proximity of these stations to our own led us to classify these several records essentially as repeats.

99 Warrenton Avenue, Hartford, Connecticut.

EXPERIENCES IN BANDING BLACKBIRDS IN EASTERN ARKANSAS

By Johnson A. Neff and Brooke Meanley

During the past four years the writers have been engaged in a study of the effect of several species of birds upon the rice growing industry of eastern Arkansas. We have endeavored to cover all phases of the activity of red-winged blackbirds, grackles, and cowbirds throughout the year. The major objective of the study has been to determine whether or not there is justification for reductional control or other measures for the reduction or elimination of damage to the rice crop, and if so to develop practical measures.

One of the most important phases of such a study is to determine the effect of migration upon the populations of birds that are involved in the crop damage. If damage is inflicted largely by birds that nest in the rice district control may well be confined to that population. If migrants comprise the bulk of the offenders control must be restricted to the periods when these birds are present. Hence banding and study of the returns and recoveries play an important part.

One of the first steps was to assemble data on individuals of these species banded in Arkansas and killed elsewhere, and those banded elsewhere but killed in Arkansas. In this we were fortunate, since two Arkansans had done extensive banding of bronzed grackles and cowbirds before our work began. S. H. Weakley of Ft. Smith. on the western border of the State, has banded many thousands of bronzed grackles during the past 20 years, and in the midst of the rice area C. M. Owens, now deceased, had banded thousands of cowbirds. Thus we were able to direct our efforts toward banding of these two species at seasons when there was insufficient coverage, and toward banding redwings at all seasons.

Our banding efforts began in the autumn of 1949, and we found redwings difficult to trap in the rice area where food is plentiful at all seasons. Apparently most of the large scale trapping of redwings has