

E B B A N E W SSYMPOSIUM ON THE EASTERN ROBIN (Turdus m. migratorius)

Compiled by June R. Conway

The compiling and organizing of the data submitted for this symposium has been in the hands of one totally new and inexperienced in this kind of work. It has been a most enjoyable and informative experience, and we hope that the information presented herein will be of interest to those who read it. A gratifying number of members submitted a wide range of data, and to these persons, your compiler is deeply indebted for both the data and many helpful comments. A list of the contributors appears at the end of the symposium.

The many aspects of the subject that appeared point up the possibilities for future study and the need for keeping, or at least reporting, more detailed records. Much of the material presented below is disappointingly sketchy because of lack of information. Perhaps a more detailed outline for the preparation of data for use in a symposium should be supplied members for use with other species in the future. More and greater detail in reports might well alter data so as to change some of the tentative interpretations and conclusion made below.

It should be noted that the various tables are based on different totals of individual birds since all cooperators did not furnish information on all points.

A number of contributors to the symposium made the observation that large numbers of Robins are about during the banding season but that relatively few of them are trapped. This problem will be dealt with in more detail later.

Since most of the material for this study came from areas where the Robin is but a summer resident, the majority of data, with the exception of winter recoveries, deal with the bird in its summer haunts or with transient individuals passing through areas in which some members of the species occur as breeding birds.

Table 1: Age and Sex Data

Bander	AGE			SEX	
	Adult	Juvenile	Nestling	Male	Female
H. B. Wood	285	455	87	-	-
W. M. Davidson	84	69	8	-	-
L. L. Bailey	6	9	24	-	-
A. H. Fast	11	3	0	-	-
G. H. Parks	59	300	0	39	20
M. Wood	109	341	0	124	124
H. F. Farrand	12	17	6	-	-
J. G. Hitchner	1	3	0	-	-
F. Frazier	84	65	0	60	24
The Dumonts	391	524	0	362	283
A. E. Conway	10	11	87	7	3
A. E. & J. R. Conway	17	78	17	20	11
Total	1069	1875	239	512	365
*Percent	33.6%	58.9%	7.5%	58.4%	41.6%

*Note: Age percentages are based on a total of 3183 birds for which age was reported; sex percentages are based on a total of 877 birds.

Age and sex data not reported:

W. Middleton	7	Total of age-determined (or age and sex-determined) birds	3183
W. Pepper	736		
R. Middleton	4317		
I. K. Kuch	33		
J. M. Cadbury	188		
Total	5281	Total of not given age and sex birds	5281
		Grand Total	8464

Table 2: Repeats, Returns, and Recoveries

Bander	*Years Reported	Banded	Repeats	Returns	Recoveries
H. B. Wood	1928-1951	837	64	30	4
W. M. Davidson	1930-1948	161	-	4	-
L. L. Bailey	1940-1952	39	2	-	-
A. H. Fast	1952	14	1	-	-
G. H. Parks	1937-1952	359	72	36	3
M. Wood	1941-1952	450	29	9	3
H. F. Farrand	1949-1952	35	6	3	-
J. G. Hitchner	1952	4	-	-	-
F. Frazier	1949-1952	149	15	11	-
Dumonts, M. and G. A., Jr.	1933-1952	915	296	100	5
A. E. Conway	1937-1951	108	-	3	4
A. E. & J. R. Conway	1951-1952	112	3	-	-
W. Middleton	1951-1952	7	-	-	-
I. K. Kuch	1951-1952	33	-	11	-
W. Pepper	1929-1951	736	-	47	3
R. J. Middleton	1922-1952	4317	335	60	49
J. M. Cadbury	(Not given)	188	-	-	1
C. H. Blake	do.	-	-	-	1
Total		8464	823	320	73
Percent of total:			9.7%	3.8%	0.9%

*Under years reported, the dates indicated show the period of years during which Robins included in this study were banded. These dates do not necessarily indicate the total period of years during which a given bander has operated.

AGE AND SEX RATIOS

It is interesting to note that Table 1 shows an appreciably higher percentage of males (53.4%) taken in traps than females (41.6%). One question which arises is whether banders are confusing the sexes. Because of the general agreement in all the material submitted, one is inclined to discount that interpretation. Other possibilities which occur are whether there is actually a greater preponderance of male than females or are females less likely to be attracted to traps? If the latter is true, then time and energy might be expended in seeking out nests in order to capture brooding birds, assuming that it is the females which do the brooding. It occurs, however, that capture of an adult bird on the nest may be too great a risk for the safety of the young. Perhaps more challenging would be to develop new ways of enticing females to traps. It is also interesting to note that more males are recaptured than females, since Mrs. Dumont remarks that twice as many male Robins entered her traps as returns as did females. (Since Mrs. Dumont's ratio of males to females on original banding was 1.28 to 1, this recapture ratio of 2 to 1 would suggest a greater reluctance on part of females to enter traps.--Editor)

Another fact relating to the greater number of male birds banded than females, although not included in the data of Table 1, is that as immatures, 148 Robins were classified as male and 120 as females.

A further examination of Table 1 reveals that more juveniles (1875) were banded than adults (1069). It is difficult to explain with certainty, but there are two very plausible reasons. The more obvious is that there actually are more young than adult Robins alive during the middle and late Summer, this because each pair of two birds, being double-brooded, may produce eight to ten offspring, and, even allowing for considerable mortality before they leave the nest, it is likely that there would be roughly twice as many young as old birds about. The second possibility is that the greater number of immature birds reflects their tendency to disperse from their hatching place after they become self-sufficient, while the adults tend to remain in their territory until later in the season. It is also possible that, due to inexperience and lack of wariness,

younger birds are more likely to enter the traps for food and water.

LONGEVITY

Table 3: Years After Banding
in Which Last Return or Recovery of Robins Occurred

Years	Adults	Immatures	Not Given	Total
8	1	1	2	4
7	-	1	1	2
6	1	-	3	4
5	-	1	4	5
4	2	4	12	18
3	11	6	13	30
2	19	12	43	74
1	32	32	85	149
Total	66	57	163	286

Note: In the case of adults, one or more years must be added to the number which represents the years which have elapsed between time of banding and the final return or recovery; in the case of immatures, the years elapsing and the actual age of the birds correspond. Quite a number of the foregoing returned or were recovered two or more times; however, a given bird is entered only for the last time that it was recorded. Figures for returns and recoveries were so similar that they have been combined in this table.

Table 3, above, gives data concerning longevity based on 286 returns and recoveries. Several interesting facts can be deduced from an examination of this table.

Despite the fact that about twice as many young as old birds were banded, it will be noted that slightly more adults than immatures have been recorded either as recoveries or returns one or more years later. While the figures for returns and recoveries of less than one year are not included, it is commonly acknowledged, and the meagre data supplied on this point substantiates, that the mortality during the first year is high. After the first year, however, the rate for

birds banded as immatures is similar to that for birds banded as adults, it would appear from the data in this table.

As far as maximum length of life is concerned, one Robin lived to be at least 9 years old, being recorded eight years after being banded as an adult, another immature was eight years old when last recorded, and two other birds for which no data were submitted on age at banding were recorded eight years later.

Concerning the adult which was last recorded eight years after banding, Raymond Middleton remarks, "a partial albino adult (which) returned in each of the next eight years, thus (being) at least nine years old."

MOULT AND OTHER SEASONAL CHARACTERISTICS

Dr. Blake comments that post-juvencal moult has been noticed from August 20 to September 20 and post-nuptial moult from September 1 to 20. He believes, however, that both occur over a longer period than indicated.

Dr. Blake also says: "The bare skin of the eyelid is olive-yellow, or similar, in adults in March and April but from July on is brown in both adults and young. It is possible that the iris is rather light brown in old adults."

PLUMAGE ANOMALIES

Mr. Frank Frazier refers to a Robin which he captured and which he described in BIRD-BANDING (Vol. XXIII, No. 3, July, 1952, p. 114). The following quotations from this note are reprinted here for the convenience of those readers who do not have access to BIRD-BANDING.

On April 14, 1949, an adult male was trapped and banded at his station, being given band number 48-219681. Nothing abnormal was noted about its plumage. On June 7, 1951, it was recaptured, but this time "...most of the head feathers were white with the exception of some around the eye, but the throat and neck were clear white;

and there was a sizable area on the primaries.

"Dr. C. H. Blake has kindly given me his comments on this case. Most of the white plumages of birds are of genetic origin, such as true albinism. While at least six kinds of genetic whiteness are known in birds, this Robin does not appear to represent any genetic cause unless perhaps an age depigmentation, but if so, no similar effect seems to be known for domestic birds. It appears more likely that in this case the depigmentation was physiological in origin, involving a relatively limited area; if so, it appears to be one of the first authenticated instances, though the possibility has been recognized for many years."

Mr. Raymond Middleton reports banding an adult partially albino individual but no plumage description is given; this is the same bird referred to above, under longevity, as having reached at least its ninth year.

PARASITES, HEALTH, AND INJURIES

Only one mention was made of ectoparasites, and that by Mr. William Middleton who writes, "A small, brown flat fly among the feathers was noted on one immature Robin".

The concensus of opinion among those who mentioned the subject is that most Robins handled were healthy.

A substation operator for Albert Conway had a Robin die in the hand before he was able to band it, and Frank Frazier reports one which "died in the hand after banding". Similar deaths have been noted in other species, and Dr. C. Brooke Worth (letter to Editor some years ago) stated that he found, upon autopsy, gangrenous alimentary tracts in all such individuals. The supposition is that these birds were diseased and that handling, therefore, was only a precipitating factor in their deaths.

Dr. Blake reports "one adult bird has been taken with left foot, tarsus, and distal 2 cm. of tibiotarsus missing, the stump perfectly healed."

WEIGHT No data were submitted on weights.

STATUS OF THE SPECIES AND REGIONAL ABUNDANCE

No data were submitted on migratory movements of the species, but it is well-known that in the area from Maine through the District of Columbia, the Robin is principally a summer resident. In Spring, Robins appear in Maryland and southern Pennsylvania in late February or early March; farther north, it is April before they occur in substantial numbers. In the Fall, October is the last month they are common in the northern part of the region of this study, while in the southern portions they linger into November. While there are a few Robins around during December, January, and February, especially in the southern portion of the area, none of the contributors reported banding any during these months.

In general, the Robin is an abundant summer resident throughout our area, and it is the concensus of opinion that the number of Robins banded is but a small portion of the total available birds. This problem is discussed in more detail in a following section on trapping.

Table 4: Best Banding Months

Adults		Juveniles
	Jan.	
	Feb.	
*	Mar.	
**	Apr.	
***	May	*
***	Jun.	**
*	Jul.	****
**	Aug.	*****
***	Sep.	***
**	Oct.	*
	Nov.	
	Dec.	

Dr. Charles Blake says, "July, August, and September are about equally good for (trapping) juveniles. The best months for adults are May, June, September, and October.

The data presented graphically in Table 4 show that his observations are in accord with reports from throughout the region of this study. It is likely that the majority of local, summer resident birds are banded during the months immediately following their arrival, April, May, and June. Then, very few additional adults are taken until the shifting of populations in preparation for the southward migration. The banding of juveniles begins, in the southern portion, in late April, and increases in tempo until a peak is reached in August. In the northern portion, September sees the last of the immature birds banded, while in the southern portion, many are taken during October and a few in early November.

RECOVERIES

Reference to Table 1 (Page 2) indicates that out of the grand total of 8464 Robins included in this study, 73 or 0.9% of them have been recovered. A number of persons reported birds as recoveries which actually should have been classified as returns, since they chiefly were birds found dead within a five mile radius of the station; such cases have been eliminated from the present data. Table 5 (Pages 10 and 11) does not include data on all the 73 recoveries since not all cooperators gave detailed data.

The percentage of recoveries (0.9%) is just a little higher than that reported as an overall average for small bird banding station operations such as those of Middleton and the Conways where recoveries for all species have been 0.78% and 0.79%, respectively. There is a possibility that the percentage herein reported will be increased somewhat, since many of the birds included in the grand total were banded only this year and have not yet had time to be reported as recoveries.

Two reasons present themselves for this somewhat higher recovery rate for the present species. The first is the size of the bird and the bands used thereon which more likely would attract attention than with smaller birds and bands. The second is that

Table 5: Recoveries

Bander and Number	Date Banded	Place Banded	Date Recovered	Place Recovered
A. E. Conway				
38-301321	5/12/38	West Chester, Penna.	12/28/38	Hartsville, S. Car.
38-301306	5/23/38	West Chester, Penna.	2/11/40	LaBelle, Florida
38-201575	5/20/39	West Chester, Penna.	3/7/40	Easley, S. Carolina
39-359995	5/22/49	Harmony, New Jersey	2/27/50	Fayetteville, N. Car.
W. Pepper				
	5/16/29	Wyncote, Penna.	2/26/30	Augusta, Georgia
	10/11/45	Chestnut Hill, Penna.	2/11/49	Quitman, Georgia
	10/14/50	Chestnut Hill, Penna.	1/28/51	Kaylon, Georgia
R. Middleton				
**		Norristown, Penna.	**	Princeton, New Jersey
**		Norristown, Penna.	**	Virginia
**		Norristown, Penna.	**	South Carolina
**		Norristown, Penna.	**	North Carolina, 6 birds
**		Norristown, Penna.	**	Georgia, 5 birds
**		Norristown, Penna.	**	*Alabama, 3 birds
**		Norristown, Penna.	**	Mississippi
J. M. Cadbury				
	5/26/39	Haverford, Penna.	Aug. 1940	Albany, Georgia
H. B. Wood				
**		Harrisburg, Penna.	**	North Carolina
**		Harrisburg, Penna.	**	Florida
**		Harrisburg, Penna.	**	Baton Rouge, La.
W. M. Davidson				
	4/14/34	Silver Spring, Maryland	3/5/40	Pink Hill, N. Car.
	6/6/45	Takoma Park, Maryland	2/14/46	Manor, Georgia
	9/29/45	Takoma Park, Maryland	2/28/47	Pomplico, S. Car.

Table 5: Recoveries, continued

Bander and Number	Date Banded	Place Banded	Date Recovered	Place Recovered
G. H. Parks				
39-223480	4/2/39	Hartford, Conn.	1941	Dublin, Georgia
42-229985	9/19/44	Hartford, Conn.	3/10/46	Middleton, Georgia
48-218692	9/23/49	Hartford, Conn.	6/8/51	Elmwood, Conn.
M. Wood				
**		State College, Penna.	**	Manchester, Georgia
**		State College, Penna.	**	26 miles SW of Jacksonville, Fla.
**		State College, Penna.	**	Conway, S. Carolina
The Dumonts				
34-358936	7/15/35	Pequannock, New Jersey	1/20/37	Wilmington, N. Car.
38-361340	6/20/39	Pequannock, New Jersey	1/1/40	Nahunta, Georgia
40-367146	10/1/40	Pequannock, New Jersey	6/26/43	Mountain Lake, N.J.
41-213987	10/4/42	Pequannock, New Jersey	2/8/43	Middlesex, N. Car.
B-394118	6/4/33	Pequannock, New Jersey	2/19/36	Troy, Alabama

Note: Data are given above, in whole or in part, for 43 out of the 73 recoveries which have been obtained by the contributors to this symposium. It is regrettable that we do not have available details for the balance of these recoveries.

*Raymond Middleton says, "One adult banded here (Norristown, Pa.) May 18 was found injured the next May 5 (in Alabama) and died a few days later. This bird was probably ill at migration time."

Robins are quite commonly shot in the southern states when they annoy growers of early ripening berry crops such as strawberries. Causes of death for both returns and recoveries are discussed later.

An analysis of Table 5 indicates that this species winters chiefly from South Carolina through Florida and Alabama; late fall and early spring returns occur in states to the north of the wintering grounds. A few recoveries have also been made in the breeding area, usually not many miles (but more than five) from the banding location. Table 6, below, shows recoveries by states.

Table 6: Recoveries by States

State	Number	State	Number
Georgia	14	New Jersey	2
Florida	13	Louisiana	1
North Carolina	11	Virginia	1
South Carolina	5	Mississippi	1
Alabama	4	Connecticut	1

Table 7: Recoveries by Month

Jan.	*****
Feb.	*****
Mar.	*****
Apr.	*
May	**
Jun.	**
Jul.	*
Aug.	*
Sep.	*
Oct.	*
Nov.	**
Dec.	****

December, January, February, and March, are the months when the greatest number of recoveries have occurred. The northward migratory movement is on by February and March and to some extent even earlier. It is possible that the weaker birds succumb to the elements or to the strain of long flights or to the inability to obtain sufficient food. It would be interesting to correlate data concerning recoveries at various points with the local weather conditions and available

food supply. It might be remarked that relatively few birds are recovered during the fall migration when the weather is mild and food

is abundant and easy to get. In this connection, it might be remarked that one would expect a greater number of recoveries during the fall in view of the large number of inexperienced first-year birds.

CAUSES OF DEATH OF RETURNS AND RECOVERIES

The majority of birds reported as recoveries represent dead individuals, and every bander knows that it is very infrequently that one of his birds is captured by another bander. On the other hand, station returns, from which the data on longevity reported above were derived, are usually based on recaptures of living birds, although naturally, dead birds are occasionally found around or within five miles of the station. Table 8 which follows, compares the causes of death of returns and recoveries.

Table 8: Causes of Death

Recoveries	No.	Returns	No.
Shot	3	Shot	-
Killed by cat	2	Killed by cat	2
Automobile	-	Automobile	2
Disease	2	Disease	-
Injuries	1	Injuries	1
Window	1	Window	-
Unknown	41	Unknown	7
Total	50	Total	12

Of the total of 73 recoveries reported, 68.5% were dead; of the total of 320 returns reported, only 3.8% were dead.

Table 8 indicates that for dead recoveries, shooting, cats, and disease head the list for known causes; for dead returns, the same is true except that, for obvious reasons, shooting does not appear in the list. It must be remembered that these conclusions as to causes of death can, at best, be only tentative, since, in the majority of cases, the exact cause of death is unknown or unspecified by the person who made the recovery. One would suspect, however, that shooting might well account for more dead birds than actually reported.

RETURN OF BIRDS TO THEIR HATCHPLACE

The following is quoted from a letter from Dr. Harold B. Wood: "From 1928 to 1951, inclusive, I banded in and near my yard in Harrisburg, Pa., 285 adult Robins, 455 juveniles, and 97 nestlings, a total of 837 Robins. Among the adults, 34 individuals repeated the season of banding, and 30 returned in later years, up to 4 years.

"The juveniles made 16 repeats, up to 13 days after banding, and 6 managed to find their way back the following year. Only two of the birds banded as nestlings came into the traps during the season, none in after years. These figures support my contention that few Robins return to their hatchplace. (Underlining mine, JRC) The juveniles probably were not all hatched in the near vicinity of the banding station. A study of Robins on a nearby academy campus indicated that with color-banded birds, the juvenile Robins disperse and vacate the territory many days before their parents. One adult Robin color-banded in 1939 was seen in 1940 and 1941 but was not trapped until 1943, suggesting that birds not trapped should not necessarily be considered dead."

In connection with the foregoing, it might be remarked that, unless one made a very careful study, with the aid of color-banding, of an area of a square mile or so, he would likely get the impression that not many birds return to their hatchplace. While it is true that the young birds do not, in most cases, return to the immediate vicinity of their hatchplace, observations by various contributors show quite a few instances of birds banded at their hatchplace either as nestlings or very young fledglings returning to, or within a few miles of, the place of banding. Due to the high mobility of recently fledged birds, only intensive banding of nestlings in a carefully studied area would give conclusive evidence on this dispersal of this species.

Raymond Middleton reports a nestling which, as an adult, nested just fifty feet from where it had been hatched. Albert Conway, at West Chester, Pa., had a Robin, banded as a nestling, July 8, 1941, found dead a few yards from the place of banding, on April 3, 1942. Other cooperators probably have had similar experiences, but since data on this point were not given, we can only speculate concerning it.

Dr. Wood (BIRD-BANDING, Vol. XVIII, No. 3, July 1947, pp. 127-129) gives additional data in support of his contention that few Robins return to their hatchplace. The following is quoted from this interesting article to which readers may wish to refer:

"In attempting to determine the proportion of birds which return to their location of banding, the number of birds of the species hatched within the area and banded as nestlings, and the number of individuals which return during some future year must be reported. Also the reporter of records should define the limits of the district regarded as the area in which the birds were hatched. ... I banded 143 Robins, mostly within 500 feet of the banding station, and only two ever came into the traps in later years. Only those two banded as nestlings can be claimed to have returned to their hatch locality.

"Nestling Robins were given a special study in 1935 when I banded 43 in nests found within an eighth of a mile of the trapping station, and not one ever came back to the traps in any future year, although five were trapped as juveniles. During 1934 I banded 110 nestling Robins within 500 feet of the trapping station; of these five were found dead that same season, five were trapped that same summer, one returned the following year, and one was caught three years later in Baton Rouge, Louisiana."

As mentioned above, a radius of one eighth mile would seem a rather narrow limit in which to expect to find Robins in later years, and furthermore, the magnitude of a really comprehensive study is such that it would require the cooperative efforts of a group of banders and observers as well as the use of extensive color banding, a device which Dr. Wood did apply with success. In the absence of more adequate large investigations, it would be worthwhile for banders interested in this problem to repeat Dr. Wood's study in other locations.

TRAPPING PROBLEMS: TYPES OF TRAPS, BAITS, LOCATIONS, AND TIME OF DAY

In Table 9, on the next page, data supplied by four contributors as to the effectiveness of various traps is presented. However, a remark by Mr. Frazier neatly sums up the experience of those and the majority of other contributors: "Frankly, I don't know how to lure Robins successfully and regularly."

Table 9: Effectiveness of Traps

	Parks	Dumont	Frazier	Conway	Total	Percent
Flat drop trap	315	266	53	35	669	43.2%
Chardonnet, Bronkle, and other top-opening traps	33	155	5	8	211	13.6%
False bottom trap	3	152	-	1	156	10.1%
Havahart squirrel trap	1	-	-	-	1	0.1%
House trap	-	141	52	34	227	14.7%
Potter, trip-stop, etc.	-	102	46	-	148	9.6%
Government sparrow trap	-	86	-	-	86	5.6%
Maze traps	-	-	20	22	42	2.7%
Other	-	-	5	2	7	0.4%
Totals	352	912	181	102	1547	100.0%

Note: Totals reported herein are not the same as totals reported banded by these contributors since nest-banded fledglings, hand-caught birds (shortly after leaving nest), etc., are not included. In noting effectiveness of traps, remember that location markedly affects the effectiveness of a given type trap and also that some cooperators do not operate traps of all varieties listed.

FAVORED TRAPPING LOCATIONS

Location	Times Mentioned	Information concerning location of traps was very sketchy. Each asterisk indicates that a contributor mentioned a given location as being good. It is likely that suitable locations differ for taking summer residents and transient individuals, since the behavior of Robins varies markedly under the two conditions.
Near Bushes	***	
Open Ground	**	
Feeding Station	*	
Bird Bath	*	
Tree	*	
Field	*	

Concerning this problem, Dr. Wood says, "The ability to trap Robins depends more on local environment than on any other factor of traps or bait. My most successful traps for Robins have been modified house traps, with ground entrances, with funnels, or with pull-strings, the traps being equipped with pans of water. A drip is not essential. Robins will enter for bread. A mirror within the trap did not induce scrutiny." (Underlining mine, JRC)

Another questions which arises is whether the presence of birds of the same or different species within the traps attracts other Robins. Two reports of birds of another species sharing traps with Robins were given. J. G. Hitchner caught an adult Robin along with Cowbirds, and it is the experience of the Conways that Robins will enter traps with Cowbirds, Catbirds, small (Hylocichline) thrushes, Flickers, and, most often, with others of their own kind. In the experience of the latter persons, it was found that usually it was the young birds who were trapped in association with other species; generally, the adult birds were trapped individually. The Conways also noted that it was not unusual to trap two or more young Robins simultaneously in a house trap.

In small bird trapping, a controversy rages as to whether morning or afternoon trapping is most profitable. Of course, a definitive answer is not possible unless one also takes into consideration weather and other conditions, but the following data submitted by Mr. Frazier is of interest:

Table 10: Trapping by Time of Day (E. S. T.)

Time	Number	Percent	Combined Percent
Before 8 a.m.	45	23%	
8 a.m. to 12 noon	63	33%	A.M. 56%
12 noon to 4 p.m.	44	23%	
After 4 p.m.	34	18%	P.M. 41%
Time unknown	6	3%	Unknown 3%
	<u>192</u>	<u>100%</u>	<u>100%</u>

In Table 10, above, Mr. Frazier indicates that 56% of his Robins were taken before noon and 41% after noon, with the balance taken at time unknown. It is interesting to note that, out of a total of 55 Robins for which the Conways recorded the time, 31 or 56% were taken in the morning and 44% or 24 in the afternoon, a remarkable similarity to the data submitted by Mr. Frazier. In general, one may tentatively conclude that morning is somewhat more favorable for trapping Robins than afternoon.

Detailed information of a quantitative nature was not presented as to the effectiveness of various baits or attractants in capturing Robins, but Table 11, below has been constructed by tabulating the frequency with which various baits have been found useful by the contributors to this symposium.

Baits	Times Mentioned
Water	*****
Bread and cracker crumbs	*****
Raisins	*****
Berries	*****
Corn and grains	**
Apples	*
Cake	*
String	*
Choc Wees	*
Fledglings	*

In the foregoing table, it is apparent that water and bread and cracker crumbs lead all other attractants in catching Robins. Indeed, it would seem that the superiority of water over all other baits is even greater than indicated above, for many persons remarked that dripping or running water took a great many of their birds. The Conways caught practically all their birds with nothing but water as the bait; they also found that nestling birds, temporarily removed from the nest were good lures for capturing adults, and without any harm to the young.

MISCELLANY

Frank Frazier had the unique experience of banding a Robin on Bastille Day, July 14, one year, and then taking it as a return on the two following July 14ths!

Dr. Harold Wood says, "One Robin nest in a protected location was occupied successively for six years by different pairs of birds. (The charm was broken when a northeast storm carried it away.)" Without banding, one would have declared that it was the same pair of Robins which occupied it for each of the six years.

CONTRIBUTORS

Mrs. Gustave A. Dumont, Sr.	Pequannock, New Jersey
Mr. Gustave A. Dumont, Jr.	Pequannock, New Jersey
Mr. Frank Frazier	Upper Montclair, New Jersey
Mr. J. George Hitchner	Pitman, New Jersey
Mr. Raymond J. Middleton	Norristown, Pennsylvania
Mr. H. F. Farrand	Wilmington, Delaware
Dr. Harold B. Wood	Harrisburg, Pennsylvania
Mr. Merrill Wood	State College, Pennsylvania
Mr. William R. Middleton	Wenonah, New Jersey
Mrs. Laura Law Bailey	Goshen, Virginia
Mrs. Horman F. Kuch, Jr.	Philadelphia, Pennsylvania
Mr. E. M. Davidson	Orlando, Florida
Mr. Arthur H. East	Arlington, Virginia
Dr. Charles H. Blake	Lincoln, Massachusetts
Mr. William Pepper	Wyncote, Pennsylvania
Mr. G. Hapgood Parks	Hartford, Connecticut
Mr. Joseph M. Cadbury	Philadelphia, Pennsylvania
Mrs. Albert E. Conway	Easton, Pennsylvania
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The Editor wishes to thank his wife for the many hours which she spent in tabulating, organizing, and interpreting the material of symposium. In order that all the material concerning Robins could be included in one issue, it was decided to combine the November and December issues. We hope that you will enjoy the result.—AEC