

# RECOVERIES AND FOREIGN RETRAPS OF BIRDS BANDED AT ISLAND BEACH, N.J.

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## INTRODUCTION

This paper is a comprehensive 16-year chronology of birds banded at Island Beach State Park, Island Beach, New Jersey, 1 July 1956 through August 1972 (excluding waterfowl and Mourning Doves) and recovered or retrapped outside of the block of Island Beach (395-0740).

The Atlantic seaboard from Canada southward is fringed with peninsulas and some barrier reefs. It seems apparent that as the various birds reach tide line on their fall migration, they are confined to the coastal belt because the land falls away eastward. Each tapered finger of these peninsulas and barrier reefs constitutes a funnel along which the birds concentrate, especially near the southern extremity of each of these points of land. Netting the hosts of migrants at these fortunately situated spots has been practiced as far back as 1951. In 1959 the efforts of a number of the banders at some of these spots were coordinated, common purposes defined, and common procedures fixed. The name "Operation Recovery" was adopted for this cooperative project.

Banding was first accomplished on an organized basis in the fall of 1956 at Island Beach Bird Banding Station (Ocean County), New Jersey. In 1968 the program was expanded to include a Spring "Operation Recovery" type of banding.

## METHODS AND DESCRIPTION OF AREA

Island Beach State Park is a narrow strip of coastline, purchased by the State of New Jersey in 1953 from the Phipps Estate. It constitutes the southern 10 miles of a barrier beach, extending from Seaside Park in Ocean County to Barnegat Inlet. The peninsula is, for the most part, less than  $\frac{1}{2}$  mile wide, bounded by the Atlantic Ocean on the east and Barnegat Bay on the west. Except for the sand dunes at the ocean edge, it is level and the nature of the terrain and of the flora here makes it particularly adaptable to netting. The east portion of the Park is principally beach and sand dunes with some cover near the paved road which bisects the strip from the north end to within one mile of the Inlet. The west side of the road is almost entirely covered with natural vegetation, which in turn covers most of the 2,300 Park acres. Net lanes are located on the west side in shrub-thickets that include: wild cherry, bayberry, catbrier, oaks, holly, poison ivy, red cedar, Hudsonia and pitch pine with lesser amounts of blueberry, sumac, Virginia creeper, and various herbs. Inasmuch as the shrubs and bushes into which the birds drop to feed rarely exceed 4 to 12 feet in height (except in a few places where they reach perhaps 20 feet), it is clear that once the birds are down, they are unlikely to pass over the nets as they move along their course.

Extending from the road on both sides are paths used by fishermen to get to their boats and bait on the bay side and to the beach on the ocean side. The bay side is generally sandy but there are swampy areas, and in some instances, large salt marshes as the bay is approached. These fishermen's lanes proved to be ideal net locations, sometimes 5 to 10 feet wide and running east-west across the peninsula. The area has long been recognized as ideal feeding and resting area for migrating birds, warblers in particular, especially in the fall.

In this paper a computer "print-out" from the Bird Banding Laboratory with birds banded at Island Beach and recovered or retrapped elsewhere was utilized, as was Bruce Adams' 14-year summary sheet (also computerized), together with the spring total sheets from the station itself. In cases where the city could not be ascertained the 10-minute block concept was utilized. The material is arranged by species. Many records are being published here for the first time, others have appeared elsewhere in print. This listing is as nearly correct as can be ascertained between the computer print-out, my communications with the banders and my own visit to the Bird Banding Laboratory at Laurel, Maryland to confirm the dubious records. I would greatly appreciate a written communication noting any obvious discrepancies.

#### RESULTS AND DISCUSSION

##### *Spring: 1968 through 1972*

Total banded: 14,424. Recoveries and Foreign retraps: 18 in seven states and four Canadian Provinces. Recovery and Foreign Retrap percentage rate: 0.131%.

##### THE TEN MOST COMMON SPECIES BANDED WERE:

	Number banded	Number recovered	Percent recovered
Common Yellowthroat	3,261	3	0.091
Gray Catbird	1,528	5	0.327
Magnolia Warbler	843	0	0
American Redstart	675	0	0
Black-and-white Warbler	664	2	0.300
White-throated Sparrow	561	0	0
Parula Warbler	537	0	0
Blackpoll Warbler	495	0	0
Ovenbird	466	1	0.214
Yellow Warbler	349	1	0.286

##### *Fall: 1956 through 1972*

Total banded: 237,502. Recoveries and foreign retraps: 248 in 21 states, Atlantic Ocean, 11 countries and 5 Canadian Provinces. Recovery and Foreign retrap percentage rate: 0.104%.

## THE TEN MOST COMMON SPECIES BANDED WERE:

	Number banded	Number recovered	Percent recovered
White-throated Sparrow	25,000	15	0.060
Dark-eyed (Slate-colored) Junco	24,945	22	0.088
Gray Catbird	16,051	35	0.218
Golden-crowned Kinglet	13,157	4	0.030
Yellow-rumped (Myrtle) Warbler	12,249	7	0.057
American Redstart	12,220	5	0.040
Brown Creeper	12,089	6	0.049
Common Yellowthroat	10,297	9	0.087
Ruby-crowned Kinglet	8,352	2	0.023
Song Sparrow	7,261	12	0.165

*TOTALS FOR SPRING AND FALL 1956 - 1972*

Total birds banded during this time: 251,926 with 265 recovered or retrapped in 21 states, Atlantic Ocean, 10 countries and 5 Canadian Provinces. Recovery and foreign retrap rate: 0.105%. Total species banded during this time: 195. Species recovered or retrapped were 68. There were 82 birds banded elsewhere at other stations and recaptured at Island Beach during this period.

## TEN MOST COMMON SPECIES BANDED WERE:

	Total	Recovered	Percent recovered
White-throated Sparrow	25,561	15	0.058
Dark-eyed (Slate-colored) Junco	24,950	22	0.088
Gray Catbird	17,579	40	0.227
Common Yellowthroat	13,558	12	0.088
Golden-crowned Kinglet	13,176	4	0.030
American Redstart	12,895	5	0.038
Yellow-rumped (Myrtle) Warbler	12,511	7	0.055
Brown Creeper	12,118	6	0.049
Ruby-crowned Kinglet	8,627	2	0.023
Song Sparrow	7,379	12	0.162

Island Beach Banding Station holds the record for an Operation Recovery station with the greatest number of birds banded in one year. This was in 1963 when 31,676 of 157 species were banded between 1 August and 27 October, with 34 birds of 21 species subsequently recovered or retrapped. The "big" day was 13 October when 3,337 were banded with 8 birds of 4 species recovered or retrapped.

The most distant recovery was a Semipalmated Sandpiper banded by Bruce Adams on 09-02-63. This bird was recovered at Igarapa Das Armas (at the mouth of the Amazon River) on 04-18-64. This is a distance of approximately 3,800 miles. Out of 35 banded, 12(34%) of the fall banded Gray Catbirds were recovered/retrapped in Florida.

#### *DIRECT vs. INDIRECT RECOVERIES*

*Direct Recovery* as defined by the Bird Banding Manual: A banded bird killed or found dead before, during or immediately following the first period of migratory movement following banding and before return migration would likely have occurred.

*Indirect Recovery* as defined by the Bird Banding Manual: A banded bird killed or found dead during or after its second migratory season following banding. For example, a bird banded in July and recovered the next January would be a direct recovery. One banded in July and recovered 15 months later in October would be an indirect recovery.

Of 186 birds sampled there were 103 direct recoveries or 55.3%; indirect recoveries were 83 birds or 44.7%.

*CATS*: Where cats were *known to be directly* responsible for a bird's death of the 186 found dead or killed, 20 (10.7%) were killed by cats.

#### SUMMARY

The objective of this paper is to describe topography and operation of one of the few remaining barrier beach banding stations on the east coast directly adjacent to the ocean. This station is still in operation after a period of 20 years and constitutes a major link in the coastal chain. Also presented are data of recovered/retrapped birds from a large sampling (approximately one quarter million) from this coastal station. These data have been set down and researched as accurately as possible. Hopefully, some of this material and/or computed percentages can be used by other researchers. It is interesting to note, even though the numbers of fall banded birds was quite different from spring birds banded, the percentage retrap figures were similar.

#### ACKNOWLEDGMENTS

Since 1956 a large number of skilled and devoted banders have worked tirelessly at the Island Beach Banding Station during the spring and/or fall. These persons are far too numerous to mention by name, so I wish to thank all those who graciously gave me permission to use their data, thereby making this paper possible. I am especially indebted to Bruce Adams for his tabulation of Island Beach birds. Special thanks are due Chandler Robbins for his encouragement, for editing, criticism and help in preparing this manuscript; George Jonkel, Chief, Bird Banding Laboratory, for granting me permission to use their files to verify the otherwise dubious foreign retraps and recoveries and to his very competent staff including Jay Sheppard. They all went out of their way to help

me secure the much needed information. Thanks also goes to Kenneth Prescott for his notes of encouragement. A very sincere "thank you" is extended to Roger W. Foy, for encouragement, advice, editorial help and without whose time (given generously) this paper would not have seen the light of day.

*Box 164, Ship Bottom, N.J. 08008.* Received 17 April 1975, accepted 20 April 1976.

#### APPENDIX

I have included the following: species, band numbers, age and sex, date banded, date recovered, location recovered, approximate miles and direction from Island Beach, present condition and how obtained code and bander's name code. Also used are: Hatching Year = HY; After Hatching Year = AHY; Male = M; Female = F; Unknown = U.

#### *Present Condition Code*

- PC00 - Bird condition unknown, band status unknown
- PC06 - Bird alive and released, band status unknown
- PC07 - Bird alive & released, band left on bird
- PC08 - Bird alive & released, band removed
- PC10 - Bird alive in captivity, band left on bird

#### *How obtained Code*

- 00 - Found dead
- 01 - Shot
- 03 - Caught due to injury
- 04 - Caught in trap - not banding
- 11 - Killed by dog
- 12 - Killed by cat
- 13 - Killed by flying into object
- 14 - Killed by auto
- 21 - Caught or found dead in building
- 28 - Caught by hand
- 45 - Found dead on highway
- 50 - Skeleton found
- 97 - Found dead on ship at sea
- 89 - Trapped and released in different 10-minute block

#### *Bander's Abbreviations*

- |                       |                      |
|-----------------------|----------------------|
| BA - B. Adams         | FM - F. Mears        |
| DB - D. Bordner       | JM - J. Miller       |
| EB - E. Berger        | PGM - P. G. Murton   |
| MOB - Mrs. O'Brien    | RM - R. Margerum     |
| WB - W. Bigger        | CN - C. Neel         |
| DC - D. Corkran       | FN - F. Neumann      |
| ED - E. Dickerson     | KP - K. Price        |
| FFJ - F. Frazier, Jr. | KWP - K. W. Prescott |
| FFS - F. Frazier, Sr. | WP - W. Pepper       |
| GG - G. Goldbeck      | JR - J. Richardson   |
| HG - H. Gorman        | AS - A. Schnitzer    |
| JG - J. Given         | GS - G. Smith        |
| WBG - W. B. Gette     | JS - J. Swinebroad   |
| PH - P. Hamer         | JCS - J. C. Schmid   |
| EI - E. Ilgenfritz    | TS - T. Smith        |
| BMJ - B. Murray, Jr.  | MT - Mrs. Townsend   |
| JJ - J. Jehi          | DW - Dr. Wilkins     |
| JL - J. Logan         | JW - J. Weske        |
| ML - M. Logue         | MW - M. Warburton    |
| BM - B. Matlack       | RY - R. Yunick       |

Species, band no.	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Bandier
<i>Merlin (Falco columbarius)</i>							
514-09953	U-U	09-20-58	12-08-58	Delray Beh. Fla.	940 SSW	00	ED
524-72032	HY-U	09-28-66	10-27-67	Cape Charles, Va.	210 SW	00	BA
524-72034	HY-U	10-03-66	11-28-66	Forked River, N.J.	6 NW	01	BA
653-82307	U-U	10-08-61	04-13-69	Auburn, Me.	325 NE	01	FM
Semipalmated Plover ( <i>Charadrius semipalmatus</i> )							
31-125064	U-U	09-30-61	10-23-61	Lanoka Harbor, N.J.	6 NW	00	ML
Lesser Yellowlegs ( <i>Tringa flavipes</i> )							
56-200810	U-U	09-03-61	10-01-61	Lamentin, Martinique	2,200 SSE	01	MW
Short-billed Dowitcher ( <i>Limnodromus griseus</i> )							
582-76033	U-U	09-01-64	? - ? -64	Margate City, N.J.	47 SW	01	MW
Semipalmated Sandpiper ( <i>Calidris pusillus</i> )							
60-95513	U-U	09-02-63	04-18-64	Mouth of Amazon River, Brazil	3,800 SE	01	BA
Black-billed Cuckoo ( <i>Coccyzus erythrophthalmus</i> )							
632-39157	HY-U	09-24-64	09-26-64	Toms River, N.J.	11 NNW	45	JL
Saw-whet Owl ( <i>Aegolius acadicus</i> )							
653-31012	U-U	10-01-65	10-20-66	Wenonah, N.J.	72 W	89	MW
653-31093	U-U	10-13-66	11-05-68	Blackwood, N.J.	30 SW	PC10	MW
Herring Gull ( <i>Larus argentatus</i> )							
556-36859	HY-U	09-06-62	07-16-65	Providence, R.I.	200 NE	00	ED
Belted Kingfisher ( <i>Meagasceryle alcyon</i> )							
573-29633	HY-F	08-29-68	04-27-72	Patuxent WCR, Md.	145 WSW	00	DB
Yellow-shafted Flicker ( <i>Colaptes auratus</i> )							
583-37172	AHY-M	09-10-58	02-19-63	Pleasant Hill, S.C.	490 SW	01	ED
603-17069	AHY-M	09-21-60	11-01-60	SW of Quincy, Fla.	820 SW	01	WB
603-17097	U-U	09-27-60	03-? -67	Smithfield, Va.	240 SSW	00	WB
603-23303	AHY-M	09-20-58	06-16-60	Palisades Park, N.J.	75 N	12	WP
623-39525	U-U	09-22-60	05-? -64	Holbrook, Mass.	210 NE	00	MW
643-98753	U-U	09-29-61	02-? -62	Benson, N.C.	370 SW	PC07	ML
643-98771	U-U	09-30-61	06-? -62	Saugus, Mass.	225 NE	00	ML

Species, band no.	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Banders
663-71142	U-U	09-22-63	04-?-67	Bethel, Me.	335 NNE	12	MW
663-71739	U-F	09-28-66	01-06-67	Location unknown in Ga.		00	MW
693-92327	AHY-M	09-26-64	04-15-68	Area of Hawley, Pa.	75 NNW	45	TS
693-93010	U-U	09-22-62	06-?-63	Barnstable, Mass.	215 NE	13	WB
693-93097	AHY-M	09-23-63	09-?-63	Bishopville, Md.	120 SW	00	WB
713-66292	U-U	09-23-63	08-?-65	Wellesley, Mass.	200 NE	00	BA
713-91321	U-M	09-23-63	12-?-63	S. of Florence, S.C.	475 SW	01	JL
713-91713	U-F	09-25-64	05-?-65	New Milford, N.J.	72 N	13	JL
763-04366	U-U	09-24-67	04-04-68	Kernersville, N.C.	390 WSW	00	RM
1083-18205	U-F	09-12-68	06-05-71	Kerhonkson, N.Y.	130 NNW	12	RY
1083-66054	U-F	09-30-68	05-29-70	Swansea, Mass.	185 NE	00	BA
Yellow-bellied Sapsucker ( <i>Sphyrapicus varius</i> )							
59-114045	U-U	10-01-60	12-10-61	Waverly, Ala.	750 SW	01	MW
60-176529	HY-U	09-22-62	02-23-63	Chadbourne, N.C.	440 SW	28	WB
103-111522	HY-U	09-26-65	12-08-67	Fairmont, N.C.	435 SW	01	FM
103-189689	HY-U	09-21-68	12-20-69	N. of Charleston, S.C.	540 SW	89	EB
Downy Woodpecker ( <i>Dendrocopos pubescens</i> )							
104-135365	HY-M	09-29-68	06-11-69	Moosic, Pa.	130 NW	45	GG
Eastern Kingbird ( <i>Tyrannus tyrannus</i> )							
67-178942	HY-U	08-30-67	08-04-68	Fredericton, New Br., Can.	650 NE	00	JM
Great-crested Flycatcher ( <i>Myiarchus crinitus</i> )							
73-140074	U-U	09-14-68	09-27-68	N. Ocean City, Md.	120 SSW	89	RY
Eastern Phoebe ( <i>Sayornis phoebe</i> )							
56-16004	U-U	10-12-64	12-28-65	E. of Jamestown, La.	1,100 WSW	45	FM
70-82317	HY-U	10-05-64	06-19-65	Southwick, Mass.	150 NNE	12	WB
Least Flycatcher ( <i>Empidonax minimus</i> )							
111-84261	HY-U	09-07-66	12-?-66	Filomeno Mata Vera Cruz, Mex.	1,800 SW	01	DB

Species, band no.	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Bander
Unidentified <i>Empidonax</i>							
25-64378	U-U	09-10-59	07-02-60	Location unknown		14	MW
25-64379	HY-U	09-10-59	07-? -61	W. of Parrsboro, N.S., Can.	740 NE	14	MW
Tree Swallow ( <i>Iridoprocne bicolor</i> )							
56-28629	HY-U	09-12-65	02-06-66	Miami, Fla.	980 SSW	00	MW
75-34377	HY-U	09-21-71	05-? 71	Area of Norway, Me.	330 NE	00	ET
106-80347	U-U	09-15-63	05-31-65	E. of Presque, Isle, Me.	530 NE	00	DB
111-83427	HY-U	09-12-65	05-10-67	Brewer, Me.	400 NE	00	DB
Barn Swallow ( <i>Hirundo rustica</i> )							
76-29771	HY-F	05-21-70	05-? -71	Medoc, Ontario, Can.	380 NW	13	WP
Blue Jay ( <i>Cyanocitta cristata</i> )							
562-71726	U-U	09-22-61	07-24-66	Belmar, N.J.	30 N	PC10	ED
743-97914	U-U	09-22-63	11-? -65	Bricktown, N.J.	18 N	45	RM
Black-capped Chickadee ( <i>Parus atricapillus</i> )							
119-00388	U-U	05-11-69	03-? -70	Toms River, N.J.	11 NNW	00	KP
White-breasted Nuthatch ( <i>Sitta carolinensis</i> )							
104-156147	U-F	09-27-65	10-10-67	Siasconset, Mass.	215 ENE	89	MW
Red-breasted Nuthatch ( <i>Sitta canadensis</i> )							
104-63041	U-M	10-18-62	11-13-62	Cape May, N.J.	75 SW	00	JR
Brown Creeper ( <i>Certhia familiaris</i> )							
102-37431	U-U	10-11-62	10-12-62	Seabright, N.J.	38 N	89	ED
102-37952	U-U	09-27-63	11-24-63	Beach Haven, N.J.	19 SSW	00	ED
104-62221	U-U	10-07-62	10-07-62	Toms River, N.J.	11 NNW	21	JR
111-98385	HY-U	09-26-65	10-08-68	Chamberlain, Me.	345 NE	89	RY
116-56197	U-U	10-09-68	10-28-68	Chestertown, Md.	120 WSW	89	HG
117-38649	U-U	10-21-68	12-25-70	Marlton, N.J.	45 W	89	RY
Mockingbird ( <i>Mimus polyglottos</i> )							
581-59412	AHY-U	09-23-59	03-10-65	West Hartford, Conn.	160 NE	03	WB
592-69573	U-U	10-10-62	02-13-64	Lakehurst, N.J.	18 NW	89	ED



Species, band no.	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Band
Gray Catbird ( <i>Dumetella carolinensis</i> )							
55-168844	HY-U	09-08-57	02-23-58	Carrabelle, Fla.	855 SW	00	BM
55-168912	U-U	09-12-57	01-26-58	Fort Lauderdale, Fla.	950 SSW	12	BM
55-168933	U-U	09-13-57	01-27-58	Key West, Fla.	1,070 SW	00	BM
56-146149	HY-U	09-02-59	06-22-63	Barnegat Light, N.J.	4 S	00	WP
56-147532	HY-U	09-07-58	06-14-61	Toms River, N.J.	11 NNW	89	JG
57-155068	HY-U	09-15-65	10-07-65	Margate, N.J.	40 SW	89	AS
59-114388	U-M	09-23-61	01-23-62	Central Espana, Cuba	1,300 SW	PC00	MW
59-114456	U-U	09-30-61	06-17-64	Calais, Me.	460 NE	00	MW
59-115596	AHY-U	09-18-66	03-27-69	Homestead, Fla.	1,000 SSW	89	BA
59-115956	HY-U	09-23-67	01-19-69	Homestead, Fla.	1,000 SSW	89	BA
59-144482	AHY-M	09-27-61	07-10-62	Long Island, N.Y.	80 NE	89	JL
59-168552	U-U	09-22-60	09-? -62	Lakewood, N.J.	20 N	14	WB
60-197448	U-U	09-29-61	06-23-63	Plympton, Mass.	210 ENE	00	ED
61-169104	HY-U	08-26-61	10-30-61	Tampa, Fla.	895 SW	00	FM
61-178571	HY-U	09-30-61	06-? -62	Truro, Mass.	235 ENE	14	FM
61-178583	HY-U	09-30-61	03-20-62	Hobe Sound, Fla.	890 SSW	00	FM
			hr date				
62-179157	HY-U	08-30-66	05-14-67	Manasquan, N.J.	20 N	00	HG
62-192199	HY-U	10-07-66	06-21-68	Brewster, Mass.	230 ENE	45	TS
62-192231	HY-U	10-08-66	05-17-67	Bolton, Conn.	165 NE	45	TS
63-131681	HY-U	09-16-62	08-20-64	Area of Bailey, New Br., Can.	590 NE	01	JS
64-102778	HY-U	09-10-65	10-15-65	SE of Tampa, Fla.	885 SW	00	WBG
64-102786	U-U	09-11-65	05-03-69	Bernardsville, N.J.	65 NNW	00	WBG
64-153340	HY-U	09-19-65	10-11-65	Ocean City, N.J.	45 SW	00	RY
64-187484	HY-U	08-29-65	08-21-71	Babylon, N.Y.	70 NE	89	MW
64-187875	HY-U	10-14-65	05-? -66	Avon Park, Fla.	890 SW	00	MW
65-107087	HY-U	09-27-69	05-11-70	Long Branch, N.J.	33 NNE	45	GG
67-183773	HY-U	09-17-66	02-03-67	Bennettsville, S.C.	440 SW	PC06	RM
69-161096	HY-U	09-05-66	09-25-66	Egg Harbor City, N.J.	35 SW	89	MW

Species, band no.	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Banders
71-140106	HY-U	09-18-67	11-?-67	Leesburg, Fla.	830 SW	00	DB
71-140108	HY-U	09-18-67	06-18-68	Mantoloking, N.J.	16 N	00	DB
71-160335	HY-U	09-02-70	05-09-73	Ithaca, N.Y.	200 NW	89	MW
72-159593	HY-U	10-06-68	06-?-70	NE of Toronto, Ontario, Can.	410 NW	21	DC
72-198819	HY-U	09-16-67	03-?-68	SW Palm Beach, Fla.	920 SSW	00	KWP
73-117947	HY-U	08-16-70	?-?-71	Location unknown		00	KP
73-117960	U-U	08-17-70	02-27-72	Location unknown		00	KP
73-121057	HY-U	05-30-69	07-20-69	East Quimon, N.S., Can.	590 NE	00	KWP
73-158546	AHY-U	05-18-71	06-28-71	Mechanicville, N.Y.	200 N	00	WP
74-104138	AHY-U	05-03-70	05-04-70	Location unknown		00	KP
75-113609	HY-U	05-24-70	04-27-71	Morales, Izabal, Guatemala	1,920 SW	00	KP
75-169143	AHY-U	05-03-70	06-?-71	Cap Tree Island, N.Y.	60 NE	00	GS
Brown Thrasher ( <i>Toxostoma rufum</i> )							
532-40511	U-U	09-19-56	05-06-59	Norrisville, Md.	125 WSW	00	ED
542-79208	HY-U	09-22-62	07-06-63	Whitinsville, Mass.	190 NE	PC00	FFS
542-80596	U-U	09-16-57	04-?-63	Hampton, Va.	215 SW	00	ED
552-26138	U-U	09-07-58	11-06-65	Glassboro, N.J.	55 WSW	00	GM
562-00960	U-U	09-29-62	07-21-64	Reeds Ferry, N.H.	235 NE	00	MW
562-71603	U-U	08-08-60	05-23-61	Forked River, N.J.	6 NW	00	ED
602-59861	HY-U	09-30-61	09-23-63	Baltimore, Md.	140 WSW	00	FM
602-98199	U-U	10-06-62	07-?-67	Woodbridge, Va.	180 WSW	11	JR
612-06341	U-U	10-06-63	10-20-63	Elberon, N.J.	35 N	12	WB
Itr date							
622-05418	HY-U	09-13-62	04-27-68	Canaan, Pa.	110 NW	00	FM
622-32521	U-U	10-06-62	04-?-63	Tabor City area, N.C.	440 SW	00	PH
632-39132	U-U	09-24-64	07-16-65	Barton, N.Y.	190 NW	00	JL
Itr date							
702-53208	AHY-U	10-02-67	12-13-67	Gordon, Ga.	670 SW	00	PGM
722-56807	HY-U	09-24-67	04-29-71	Mechanicsburg, Pa.	150 WNW	00	KWP

Species, band no.	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Band
American Robin ( <i>Turdus migratorius</i> )							
582-76641	U-U	10-29-65	07-?-72	Morrisville, Pa.	55 WNW	89	MW
612-06339	U-U	10-05-63	03?-64	Williston, S.C.	570 SW	00	WB
622-05465	U-U	10-07-62	02-23-64	Americus, Ga.	725 SW	01	FM
622-35927	HY-U	09-14-67	06-06-71	Area Norristown, Pa.	60 W	12	FFS
632-90111	U-U	09-30-68	07-?-70	Whippany, N.J.	70 NNW	PC10	BA
632-90125	HY-U	10-21-68	05-10-69	Riverton, N.J.	50 WNW	00	BA
642-34568	U-U	10-15-63	05?-64	Spruce Creek, Pa.	210 WNW	PC00	DB
702-32196	HY-U	10-30-66	06-?-69	Brier Is., N S, Can.	560 NE	00	PGM
712-64038	U-U	08-28-68	05-14-69	Area Edgely, Pa.	55 WNW	00	FN
712-91190	U-U	10-21-68	04-14-69	Chester, N.S., Can.	680 NE	00	RY
Wood Thrush ( <i>Hylocichla mustelina</i> )							
56-146446	U-U	09-14-61	07-17-66	Marblehead Neck, Mass.	230 NE	00	WP
Gray-cheeked Thrush ( <i>Catharus minima</i> )							
101-126061	U-U	10-01-64	10-11-64	Rydal, Pa.	65 W	13	WP
107-135367	AHY-U	05-24-70	03-05-71	Hondo Valle, Dominican Republic	1,480 SSE	PC00	WP
Veery ( <i>Catharus fuscescens</i> )							
28-185741	U-U	09-23-61	11-21-61	Toms River, N. J	11 NNW	00	JL
101-145049	HY-U	09-02-63	05-15-72	Englewood, N.J	78 N	13	DB
Golden-crowned Kinglet ( <i>Regulus satrapa</i> )							
102-93499	U-M	10-08-62	12-28-62	Whiteville, N.C.	425 SW	01	JR
104-63532	U-F	10-21-62	12-?-62	Lavallette, N.J.	11 N	00	JR
104-90580	U-M	10-13-63	10-26-65	Parma, Ohio	380 WNW	00	FM
107-32112	U-U	10-13-63	04-23-65	Long Point, Ont. Can.	410 WNW	89	DB
Ruby-crowned Kinglet ( <i>Regulus calendula</i> )							
104-90623	U-M	10-13-63	11-16-64	Sumter, S.C	510 SW	00	FM
111-41224	HY-M	10-21-68	08-?-70	4 miles off N. shore Madeline Island, Quebec, Can.	480 NNE	PC08	TS

Species, band no	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Banders
Cedar Waxwing ( <i>Bombicilla cedrorum</i> )							
33-161596	HY-U	10-10-63	10-31-64	White Sulphur Spring, N.Y.	165 NNW	PC00	WB
58-163526	HY-U	11-05-59	12-11-59	Morrisville, Pa.	55 WNW	00	JJ
106-11691	HY-U	10-20-66	01-23-68	Greenville, Tenn.	510 WSW	00	MW
Starling ( <i>Sturnus vulgaris</i> )							
562-00781	U-U	09-24-63	06-20-64	Beach Haven, N.J.	21 SSW	00	MW
Red-eyed Vireo ( <i>Vireo olivaceus</i> )							
65-78020	HY-U	09-23-61	10-?-69	Yallico, Honduras	1,800 SSW	11	JL
Black-and-white Warbler ( <i>Mniotilta varia</i> )							
119-14479	HY-F	05-25-69	08-?-71	Bloomfield, Newfoundland, Can.	1,210 NE	01	DC
106-80273	HY-F	09-10-63	?-?-64	Lac A Pit, Chandler Quebec, Can.	800 NE	PC00	DB
Nashville Warbler ( <i>Vermivora ruficapilla</i> )							
114-95393	HY-F	10-20-67	10-21-67	Mantoloking, N.J.	16 NNE	13	MW
Yellow Warbler ( <i>Dendroica petechia</i> )							
120-04304	HY-F	05-08-70	06-30-70	West Pulnico, NS., Can.	545 NE	PC00	KWP
Magnolia Warbler ( <i>Dendroica magnolia</i> )							
106-63145	U-U	09-10-63	06-11-64	St. John, New Br., Can.	605 NE	12	MW
121-15827	HY-U	09-12-70	09-?-70	Monmouth Hills, N.J.	40 N	03	JM
Black-throated Blue Warbler ( <i>Dendroica caerulescens</i> )							
28-80400	U-U	09-17-59	02-02-60	Location unknown in Dom. Rep.	1,490 SSE	01	AS
116-95507	HY-M	09-09-68	04-24-71	Merritt Island, Fla.	820 SSW	00	WP
Yellow-rumped (Myrtle) Warbler ( <i>Dendroica coronata</i> )							
72-85431	U-U	10-14-65	06-17-66	St. Johnsbury, Vt.	325 NNE	21	MW
73-11304	U-U	10-23-66	05-30-67	Rutherford, N.J.	75 N	00	MW
106-80894	HY-U	10-04-63	10-06-63	New Gretna, N.J.	25 SW	89	DB

Species, band no.	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Banders
108-79271	U-U	10-15-64	03-28-66	Chapel Hill, N.C.	360 SW	89	WB
108-79357	U-U	10-15-64	12-?-64	Castleberry, Ala.	890 WSW	01	WB
110-72868	HY-F	10-06-65	11-03-68	SW of Brooklyn, N.Y.	50 NNE	45	GG
124-65868	HY-M	10-09-71	05-03-72	Block Island, R.I.	175 NE	89	KP
Blackpoll Warbler ( <i>Dendroica striata</i> )							WP
119-56622	HY-U	10-01-69	10-12-71	Manchester, Conn.	155 NE	00	WP
Western Palm Warbler ( <i>Dendroica p. palmarum</i> )							FM
104-11821	U-U	10-06-62	10-17-62	11 miles due E. of Cape Charles, Va.	200 SSW	97	FM
106-78623	U-U	10-25-63	01-?-64	Medford, N.J.	40 W	PC00	DW
112-16931	HY-U	09-25-66	01-28-67	Caryville, Fla.	850 SW	00	FM
115-20073	AHY-U	10-05-67	02-15-68	Apopka, Fla.	825 SW	00	PGM
Ovenbird ( <i>Seiurus aurocapillus</i> )							ED
63-26801	U-U	09-23-61	06-07-65	Wiscasset, Me.	345 NE	00	ED
78-66346	AHY-U	05-20-71	05-22-71	Ship Bottom, N.J.	12 S	89	WP
Northern Waterthrush ( <i>Seiurus noveboracensis</i> )							WP
76-29813	HY-U	05-28-70	06-06-70	Roberts Arm, Newfoundland, Can.	1,180 NE	13	WP
Connecticut Warbler ( <i>Oporornis agilis</i> )							GG
63-16810	U-U	09-11-60	09-17-64	Lancaster, Pa.	110 W	00	GG
Common Yellowthroat ( <i>Geothlypis trichas</i> )							BMLJ
28-85677	AHY-U	09-04-59	06-12-62	Billings, N.Y.	110 N	00	FM
104-11042	HY-F	09-13-62	10-16-63	Spanishtown, Jamaica	1,550 S	01	FM
104-42976	AHY-M	10-03-64	05-24-71	Tobay Beh, N.Y.	60 NE	89	BA
111-22130	HY-U	10-02-66	05-16-67	Hillsborough, N.C.	360 SW	89	JM
112-17275	AHY-M	10-21-66	07-?-70	Altcona, Pa.	220 W	14	FM
114-53447	U-F	08-28-68	05-09-69	Point Pleasant, N.J.	18 N	00	DB
114-53510	HY-F	08-29-68	09-09-68	Wenonah, N.J.	57 W	12	DB
115-73032	U-U	10-02-67	08-17-68	Littleton, Mass.	210 NE	89	WP
118-78352	HY-M	09-14-68	06-?-71	Keene Valley, N.Y.	280 N	14	DB
121-66648	AHY-F	05-09-70	05-30-70	Falmouth, Me.	315 NE	12	JW

Species, band no.	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Banders
121-72133	AHY-F	05-19-70	06-01-72	Stonington, Conn.	165 NE	89	WP
125-24257	AHY-F	05-19-71	05-28-71	Block Island, R.I.	175 ENE	89	WP
Yellow-breasted Chat ( <i>Icteria virens</i> )							
28-190101	U-U	09-12-61	04-26-62	Vera Cruz, Mex.	1,800 SW	21	WP
56-105770	AHY-U	09-05-60	06-07-62	Powdermill, Rector, Pa.	270 W	89	FFS
56-105770	AHY-U	09-05-60	05-11-63	Powdermill, Rector, Pa.	270 W	89	FFS
104-190532	HY-U	08-30-68	06-19-70	Bradford Woods, Pa.	300 W	45	DB
Canada Warbler ( <i>Wilsonia canadensis</i> )							
26-44000	AHY-M	05-23-58	06-15-61	Cuttingsville, Vt.	235 NNE	12	JG
63-66450	U-U	08-31-61	05-18-65	Springfield, Mass.	205 NNE	89	MW
111-83167	HY-U	09-03-65	06-20-70	Jeffersonville, Vt.	305 NNE	01	DB
American Redstart ( <i>Setophaga ruticilla</i> )							
27-41031	U-U	09-13-58	05-29-62	West Bowdin, Me.	330 NE	00	ED
28-65708	U-U	08-26-63	itr date				
111-84885	HY-U	09-24-66	06-?-67	Stow, Me.	300 NE	00	ED
112-44727	HY-M	09-03-66	10-12-66	Charleston, S.C.	555 SW	00	DB
			05-?-67	Location unknown in Jamaica	1,550 S	PC00	MW
			itr date				
119-56541	U-U	09-29-69	10-02-69	Ship Bottom, N.J.	12 S	89	WP
Red-winged Blackbird ( <i>Agelaius phoeniceus</i> )							
552-03249	HY-F	09-10-58	04-15-62	Barnegat Light, N.J.	5 S	PC06	ED
Baltimore Oriole ( <i>Icterus galbula</i> )							
57-172965	U-U	08-25-63	06-27-64	Wolfeboro, N.H.	280 NNE	14	ED
58-100464	U-U	09-01-63	05-07-65	Allentown, Pa.	75 NW	03	BA
63-143215	U-U	09-07-62	01-31-63	Salisbury, N.C.	420 WSW	89	ED
69-161145	U-U	09-07-66	05-23-67	Waterford, Conn.	160 NE	00	MW
Common Grackle ( <i>Quiscalus quiscula</i> )							
563-38720	U-U	09-07-58	05-29-59	Harvey Cedars, N.J.	10 S	00	FFJ
763-50402	HY-M	08-28-68	06-?-70	Unknown location, Md.		PC00	DB
Brown-headed Cowbird ( <i>Molothrus ater</i> )							
731-09553	HY-U	08-29-68	10-28-68	Medford, N.J.	40 W	00	HG

Species, band no	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Banders
Cardinal ( <i>Cardinalis cardinalis</i> )							
62-192354	AHY-F	10-26-68	06-29-69	Andover, Mass.	225 NE	12	TS
Rose-breasted Grosbeak ( <i>Pheucticus ludovicianus</i> )							
55-196613	HY-M	09-09-57	05-?-65	Quogue, N.Y.	100 ENE	13	ED
67-183809	HY-M	09-24-66	04-20-68	San Felix, Panama	2,190 SSW	01	RM
Purple Finch ( <i>Carpodacus purpureus</i> )							
28-190063	HY-F	09-06-61	03-23-63	Bennington, Vt.	210 NNE	00	WP
76-05096	HY-U	09-14-68	08-27-71	LaMalbaie, Quebec, Can.	590 NNE	00	RY
House Finch ( <i>Carpodacus mexicanus</i> )							
74-31407	U-F	08-27-68	12-22-68	Shrewsbury, N.J.	35 N	21	DB
Rufous-sided Towhee ( <i>Pipilo erythrophthalmus</i> )							
56-105467	HY-F	09-14-57	01-03-61	Area of Carrollton, Va.	230 SW	01	FFS
58-100671	HY-F	09-28-64	03-26-66	Beaufort, N.C.	360 SSW	00	BA
58-100699	AHY-M	10-18-64	10-?-64	Fort Lee, N.J.	70 N	13	BA
59-269144	U-F	09-27-61	01-11-62	Williamston, N.C.	300 SSW	00	ED
			ltr date				
71-151780	HY-M	10-20-67	01-13-68	Sumter, S.C.	500 SW	04	MW
57-212889	HY-F	09-19-60	01-?-63	Conway, S.C.	465 SSW	01	WB
60-233524	HY-M	10-02-61	12-30-61	Location unknown, S.C.		01	WB
60-233583	U-F	10-08-61	11-14-64	Yulee, Fla.	725 SW	PC00	WB
60-259806	HY-M	08-26-61	04-14-62	Twin City, Ga.	630 SW	04	FM
			ltr date				
Vesper Sparrow ( <i>Pooecetes gramineus</i> )							
70-082001	U-U	10-18-63	04-27-74	Patten, Me.	470 NE	89	WB
Dark-eyed (Slate colored) Junco ( <i>Junco hyemalis</i> )							
66-81348	U-U	10-10-61	02-?-63	Pinehurst, N.C.	410 SW	21	ML
66-88376	AHY-U	10-17-63	04-14-65	Morrisville, Pa.	50 WNW	89	ED
66-98661	U-U	10-13-63	10-21-65	West Chester, Pa.	85 W	12	FM
68-93794	U-U	10-17-63	02-27-64	Poughkeepsie, N.Y.	120 N	89	WB
70-82593	U-U	10-15-64	11-01-64	Doylstown, Pa.	70 WNW	89	WB
71-94047	U-U	10-31-64	12-08-66	Lawrencetown Twp., N.J.	48 NW	00	BA

Species, band no.	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Banders
71-94186	U-U	11-01-64	12-09-64	Laverock, Pa.	70 WNW	89	BA
73-10517	U-U	10-17-66	03-19-69	Toronto, Ontario, Can.	380 NW	89	MW
73-11693	HY-U	10-26-66	11-12-66	Feasterville, Pa.	60 W	89	MW
74-52897	U-U	10-29-67	11-06-67	Bricktown, N.J.	20 N	00	MW
75-29525	HY-U	09-23-68	11-07-68	Hillsborough, N.C.	350 WSW	89	MW
75-29525	HY-U	09-23-68	11-10-69	Hillsborough, N.C.	350 WSW	89	MW
76-94655	HY-U	10-15-68	10-27-68	Old Bridge, N.J.	45 NNW	00	MW
78-88136	HY-U	10-29-71	05- ? -72	Freeville, N.Y.	200 NW	12	RY
104-45867	HY-U	10-27-63	03-09-65	Indiana, Pa.	250 WNW	89	JM
105-95703	U-U	10-12-63	10-17-63	Hockessin, Del.	75 WSW	89	CN
106-97167	U-U	10-13-63	10-19-63	Red Bank, N.J.	35 N	00	GG
107-35963	U-U	10-13-63	10-20-63	Glenside, Pa.	60 W	00	DB
108-78803	U-U	10-12-64	02- ? -67	Clover, Va.	315 SW	00	WB
109-77007	HY-U	10-12-64	04-18-65	Atlantic Bch., N.Y.	50 NNE	89	FM
112-17643	HY-U	10-21-66	11-18-66	Langhorne, Pa.	65 WNW	12	FM
115-73417	U-U	10-06-67	11-15-67	Lakehurst, N.J.	18 NW	14	WP
Chipping Sparrow ( <i>Spizella passerina</i> )	U-U	09-10-58	06-01-59	Geraldton, Ontario, Can.	960 NW	00	MT
28-68103	U-U						
Field Sparrow ( <i>Spizella pusilla</i> )	HY-U	10-20-67	02-20-71	Shrewsbury, N.J.	35 N	89	JM
116-29589	HY-U						
White-crowned Sparrow ( <i>Zonotrichia leucophrys</i> )	HY-U	10-20-66	03-14-67	Kent Island, New Br., Can.	530 NE	89	MW
106-116907	HY-U						
White-throated Sparrow ( <i>Zonotrichia albicollis</i> )	U-U	10-02-62	10- ? -62	Vineland, N.J.	55 SW	12	BA
25-17289	U-U	09-29-61	03-10-63	Mansfield Center, Conn.	170 NE	89	JCS
26-126908	U-U	10-06-67	06-28-68	Area of Doles, Ga.	725 SW	00	BMJ
27-178180	HY-U	09-23-61	04- ? -68	Burlington, N.C.	365 SW	00	WB
29-185035	U-U	10-09-62	04-26-64	Ware, Mass.	175 NE	89	WB
31-122860	U-U	10-05-61	03-22-63	Mount Pleasant, S.C.	545 SW	00	ML
31-125113	U-U	10-13-62	10-29-64	Magnolia Gardens, S.C.	550 SW	89	JR
31-187326	U-U						



Species, band no.	Age sex	Date banded	Date recovered	Location	Approx. miles and direction	How obtained or present condition	Banders
101-162063	U-U	10-13-63	04-21-64 1 yr date	Georgetown, S.C.	495 SW	PC00	BA
101-162818	U-U	10-25-65	02-?-66	Branchville, Va.	270 SW	00	BA
101-162883	U-U	10-25-65	03-30-67	Bell Island, N.C.	250 SSW	01	BA
102-143821	U-U	10-14-64	07-07-65	Washington, D.C.	160 WSW	89	WB
106-106739	HY-U	09-28-68	03-29-69	New Bern, N.C.	360 SSW	00	BA
106-121094	U-U	10-30-66	01-?-68	Cappahayden, Newfoundland, Can.	1,225 NE	00	MW
106-161016	HY-U	10-21-68	12-09-68	Taylor's Bridge, Del.	85 WSW	00	RM
107-189296	HY-M	09-23-68	?-?-68	Location unknown		00	MOB
Swamp Sparrow ( <i>Melospiza georgiana</i> )	U-U	10-20-65	11-?-65	Newport News, Va.	225 SW	12	MW
Song Sparrow ( <i>Melospiza melodia</i> )	U-U	10-03-60	07-03-62	Sumter, S.C.	510 SW	00	ED
27-153111	U-U	04-08-61	10-18-62	Granville Ferry, N.S., Can.	620 NE	12	ED
27-153341	U-U	10-06-62	04-15-66	Addison, N.Y.	210 NW	50	JR
31-187150	U-U	10-16-63	03-?-64	Cleveland, N.Y.	230 NNW	00	WB
33-161954	U-U	10-14-64	04-08-66	2 miles west of Nashua, N.H.	230 NE	89	FM
56-161099	U-U	10-27-66	01-?-70	Flemington, N.J.	57 NNW	14	RY
72-27878	U-U	09-18-66	03-17-67	New Castle, Del.	80 WSW	PC00	EI
72-81117	HY-U	10-29-66	08-19-67	Vischer Ferry, N.Y.	190 N	89	RY
73-32027	HY-U	10-12-66	07-27-68	Croton, N.Y.	210 NW	00	MW
102-165424	U-U	10-06-65	01-?-66	Scotland Neck, N.C.	305 SW	12	JM
102-174241	U-U	10-21-66	10-22-66	Colts Neck, N.J.	32 N	00	FM
103-147636	U-U	10-22-67	04-14-68	Cape La Madelaine Quebec, Can.	470 N	12	GG