

# BIRD BANDING NOTES

ISSUED BY THE BUREAU OF BIOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF AGRICULTURE  
FOR THE INFORMATION OF BIRD-BANDING COOPERATORS

Vol. 2

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No. 8

"Watch for Series Designations on Your Bands"  
(Series letters on bands now include A, B, C, F, H, and L)

## SPECIAL NOTICE

Limitation on Issuance of Banding Permits.--Because of reduced appropriations, funds are not available for the purchase of the increased stock of bands that would be demanded by further expansion of the work. The Biological Survey accordingly feels that its resources should be utilized for the benefit of those stations already operating. With this in mind, and effective at once, additional banding permits will not be issued until further notice. Exceptions may be made for some special work, but these will be few, and each case will be considered solely in its relationship to the general program. It is hoped that this situation will be temporary, but apparently it will continue through the next fiscal year ending June 30, 1934. Station operators can materially aid the Survey by explaining the matter to prospective co-operators so that they will not make application for permits which, during this emergency, must be rejected. A plan for more adequate financing of the banding work is under consideration and this may be announced at a later date after opportunity has been provided for a full discussion with some of the regional leaders.

## GENERAL INFORMATION FOR COOPERATORS

The Biological Survey appreciates the patience shown by station operators during the past few months, when orders for bands and information concerning recovered banded birds have been considerably delayed. During the present season the volume of work has increased greatly, while the personnel of the Bird Banding Section has not grown at a corresponding pace. During the height of the hunting season it was not uncommon to receive 100 letters in one day, reporting the recovery of banded birds of all kinds. Acknowledgment of such letters is considered of first importance, since the correspondents usually are not persons in regular contact with the Bureau. This has delayed sending out notices of returns to the banding stations, but this is now being done.

In addition to correspondence relating to returns and the usual exchange of letters between the Bureau and the banding stations, thousands of schedules and return cards have been received from stations. These have not yet been counted, while punching of the return cards received since the spring of 1932 has only recently

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NOTE.--"BIRD BANDING NOTES" is not for general distribution, but anyone using in a published paper any of the information contained in it will be expected to give credit to the person named and to the Bureau.

been started. Every effort will be made to have the original banding records in the files by July 1 and the cards punched, so that the usual tabulation may be made.

As this is only the second number of Bird Banding Notes issued during the present fiscal year and probably will be the last for this period, it is obvious that space available for comment concerning bird-banding activities is extremely limited. It is therefore hoped that station operators will not feel that their work has been in any way slighted if reference to it is not made in the following pages. The active stations being so numerous, it is possible to refer here to only a few of the many outstanding activities and, in consequence, much interesting information contained in schedules with valuable summary reports cannot be included.

Errata.--The following correction should be made in Bird Banding Notes, Volume 2, No. 7, page 89: The total number of greater scaup ducks banded during the fiscal year 1932 was 567, and the number of lesser scaups was 5,994.

An error was made also (p.93) in giving the number of birds banded last year by Dr. J. F. Brenckle, Northville, S. Dak. His total was given as 2,505, whereas the correct figure is 4,626; this moves his name much higher in the list.

Who Used These Bands?--Return records have been received for the following bands for which banding records have not been located, apparently because, through an oversight index slips were not prepared and placed in the file at the time the bands were issued: 303,159, A544,501, B117,497, B678,066, and C115,238. It is requested that all cooperators examine their records and that the operators who placed these bands on birds send in the banding data to the Bureau.

Urge Use of One Series of Bands.--Each year many bands not issued by the Bureau are reported to the Biological Survey. These usually have been taken by sportsmen from ducks, and it is the opinion of the Bureau that generally they are from birds that have been kept as decoys at gun clubs or that they may have escaped from game farms. It is rarely that one of these bands has an identifying legend and can be traced. The Bureau also occasionally receives letters from persons who desire to obtain bands carrying their personal address for use on native birds. It seems entirely proper that State game commissions making a special study of upland-game birds, such as the pheasant and the quail, use bands carrying a local address, since usually such birds banded will be recovered near the point of banding. It is desirable, however, to eliminate as much as possible the confusion arising from the use of several series of bands. All cooperators are therefore requested to keep this matter in mind and to urge the use of official bands in all studies of North American migratory birds. It should be borne in mind, however, that the banding of migratory birds is illegal unless the operator holds the special Federal or Canadian banding permit.

Code Designations for "How Obtained" on Return Cards.-- Station operators frequently inquire concerning the information desired on the return card under the heading, "How Obtained (Including Cause of Death)". In the following table are given all the designations with the accompanying code numbers now used by the Biological Survey:

Code No.	Meaning	Code No.	Meaning
00	Found dead	16	Collected as scientific specimen.
01	Shot	17	Drowned.
02	Starvation	18	Died from "duck sickness".
03	Found injured (died later).	19	Killed by reptile.
04	Caught in trap (not banding).	20	Sick when captured.
05	Killed by carnivore (other than cat or dog).	21	Captured in building.
06	Killed by rodent.	22	Died from "fright".
07	Killed by miscellaneous bird.	23	Killed by contact with oil.
08	Killed by shrike.	24	Fell from nest and was killed.
09	Killed by hawk or owl.	25	Poisoned.
10	Killed accidentally at banding station.	26	Entangled in string, nets, fishing gear, or similar object.
11	Killed by dog.	27	Killed by train.
12	Killed by cat.	28	Caught by hand.
13	Killed by flying into some object.	29	Identified by colored band.
14	Killed by automobile.	97	Miscellaneous causes of death.
15	Killed by weather conditions.	98	No information.
		99	Trapped and released.

The code numbers, of course, are punched in the last column at the right of the card. The numbers between 29 and 97 will be assigned as need for additional designations arises.

Paper on External Parasites.--The attention of station operators is directed to the article in the April number of Bird Banding, entitled "External Parasites Collected from Banded Birds", by Harold S. Peters, of the Bureau of Entomology, United States Department of Agriculture. Much of the information presented in this paper resulted from the splendid cooperation Mr. Peters received from many station operators, and the Biological Survey desires to express its appreciation for this assistance.

Suggest Report on Number of Species Banded.--Mrs. Marie V. Beals, of Elmhurst, N. Y., suggests that it would add interest to the tabulation printed in these notes after the close of a fiscal year if in the records of these stations banding 1,000 or more birds the number of species represented is given. Many large stations send in a summary of operations, giving the number of individuals of each species banded, and when this is available it would, of course, be a simple matter to include it in the table. If, however, it should be necessary for the personnel of the banding section to examine several hundred schedules from each station and tabulate the number of species banded during a fiscal year, the task would be more than could be conveniently handled. It is suggested, therefore, that those stations banding 1,000 or more birds during the present fiscal year prepare a summary of their operations for the year, that is, since July 1, 1932, giving the number of species banded, and submit it to the Bureau before or shortly after July 1.

Portraits of New England Birds.--It is not the practice to review ornithological works in these notes, but realizing that there are many station operators who are anxious to obtain authentic colored pictures of birds, we suggest that the volume recently issued by the State of Massachusetts, entitled "Portraits of New England Birds," is one of the best collections of colored plates that have been issued. The plates are the work of the distinguished bird artists, Louis Agassiz Fuertes and Major Allan Brooks. The volume is sold only by the Secretary of the Commonwealth, Room 118, State House, Boston, Mass., and the price is \$1.75.

#### PHOTOGRAPHS

Since the last number of Bird Banding Notes was issued the following photographs have been received from bird-banding stations:

S. E. Perkins, III, Indianapolis, Ind.: A picture of 5 immature great blue herons.

George R. Stanek, Madison, Wis.: Two photographs of downy young killdeers.

Howard W. Braun, Canton, Ohio: Two, showing the new automatic door release he has devised, attached to a Brenckle 6-cell trap. This device is described and figured in this issue under "Traps."

Mrs. Florence K. Daley, Oliverea, N. Y.: A picture of an immature banded woodcock.

Miss Louise J. Miller, Zion, Ill.: Five, one of which shows a 4-cell trap with a cedar waxwing in each cell; three are of a male banded cardinal that became very tame; and one shows an American bittern, apparently on its nest.

Allen Green, Oakville, Iowa: Five, taken on his game sanctuary, three showing the type of fence he uses, one a large flight of ducks, and one of himself in a canoe.

George D. Eustis, Vineyard Haven, Mass.: A series of seventeen, tracing the development of two broods of barn owls raised last year in the same nest at Martha's Vineyard, Mass. Photographs of the first brood were made during July and August, the last being taken on August 24 when the birds were 78 days old. A second set of eggs was laid early in October, and Mr. Eustis obtained a second series of photographs that extended through October, November, December, and into January. A set of these prints has been deposited by Mr. Eustis in the Library of Congress.

Eugene C. Stacy, Tiffin, Ohio: Five, of a mounted dovekie.

E. C. Weeks, Sanbornton, N. H.: A picture of his latest covered gourd nest box.

## WORK AT BANDING STATIONS

Paul A. Stewart, of Leetonia, Ohio, desires to correct an impression given in Bird Banding Notes, Vol. 2, No. 7, page 98, concerning his experiments with a flashlight when taking brooding birds from their nests at night for the purpose of banding. The statement made suggests that when the work is done in barns that harbor cats, captive birds should be caged before banding is commenced. Mr. Stewart says that this, or a similar treatment (more drastic?), was intended for the cats instead of for the birds. Also, the statement implied that his report covered all species, whereas it was meant to apply only to barn swallows. With reference to other species he says that he has found considerable diversity in results obtained with this method, this being apparently influenced by the location of the nest. For example, with brooding phoebes his success was 100 percent, while failure with bush-nesting species such as the catbird, was equally complete and accordingly was discontinued. Last season he captured 239 barn swallows and obtained two returns; one, B77369, nested during four consecutive years in the same barn, and another, C93145, banded as a fledgling in 1931, returned in 1932 to nest in the same barn where it was hatched.

Dr. Harrison F. Lewis, of Ottawa, Ontario, recently transmitted records of birds banded by him in Saguenay County, Quebec, during 1932. In addition to large numbers of gulls and terns of two or three species, he banded 73 European cormorants, 105 double-crested cormorants, 31 Atlantic murres, and 50 black guillemots.

Harrison D. Burchell, of Clearwater, Kans., in reporting the results of his bird studies conducted last summer and fall in Colorado, says that he observed a female nighthawk move her two young for distances of 50 and 100 feet. The old bird picked up the young in her beak by seizing the wing near its junction with the body. He also reports that he saw these birds feeding their young insects, which were not regurgitated as has been sometimes believed.

Prof. O. A. Stevens, of Fargo, N. Dak., has continued to have success in the banding of Harris's sparrows. His latest report covering the period June 25 to December 1, 1932, records the banding of 1,431 birds of 40 species. Harris's sparrow was represented by 478 individuals. He reported that an unusual number of birds were trapped that had been recently injured. While the cause of the injuries was not learned, it was evident that they were in no way connected with the operation of the banding station. Professor Stevens always supplements his reports with helpful comment concerning the efficiency of different makes of traps.

Mrs. F. C. Laskey, of Nashville, Tenn., reported the banding of 589 individuals of 25 species. She also sent in 15 return cards.

Howard A. W. Kates, of Downingtown, Pa., early in December informed the Bureau that he had banded 359 birds of 25 species, and that he had obtained 26 returns of 8 species. At that time he was constructing additional traps for his station, in one of which he used in combination several features described in the Manual.

Gustave Domitz, Jr., of Pequannock, N. J., and other cooperators have inquired concerning the olive-backed thrush which is not mentioned in the tabulation given in the last number of Bird Banding Notes. It is the practice of the Bird Banding Section to group all subspecies, and although large numbers of olive-backed thrushes have been banded at several stations, they are listed in the tabulation under the specific name of russet-backed thrush. Mr. Domitz, a new cooperator, evidently has excellent facilities for a banding station. He reports that in 1929 on his acre of land were 24 occupied nests, a single old apple tree containing 7, the owners of which appeared to be on excellent terms with one another.

Edward M. Davis and Joseph Howell, of Winter Park, Fla., banded 5 Audubon's caracaras on the Kissimmee Prairie, about February 26, 1933. Mr. Davis also banded one Everglade kite, which is another new bird in the list of those that have been banded.

Prof. Lawrence E. Hicks, of Ohio State University, Columbus, Ohio, has compiled the banding records of the Wheaton Club, from 1927 to April 1, 1933. These include the operations of Edward S. Thomas, George Wolfram, Roscoe W. Franks, C. Conklin, Floyd B. Chapman, William Ireland, Robert Geist, Professor Hicks, and others. The grand total of birds banded by this club is 15,402. The growth of the club's activities is illustrated by the fact that in 1927 1,064 birds were banded, while during the first three months of 1933 4,634 birds were banded.

Mr. and Mrs. Harold Michener, of Pasadena, Calif., report banding 2,923 birds of 37 species, during the calendar year 1932. They have continued to give special attention to the house finch, which is represented on their schedules by 2,280 individuals. In a recent number of *The Condor* (vol. 34, pp. 253-256, Nov. 1932), Mr. Michener published a most instructive paper on "Colors Induced in Male House Finches by Repeated Feather Removals."

R. N. Saxton, of Washington, D. C., reports that although starlings and purple grackles together comprise 25 percent of all the birds taken at his station not a single bird of either species has repeated. It is, of course, a well-established fact that some species of birds quickly learn not only how to find their way out of traps, but also how to avoid them after having once been caught. The subject of comparative intelligence displayed by the various species is well worth extensive investigation.

Louis W. Campbell, of Toledo, Ohio, has been successful in banding a large number of robins. He reports that a drop trap suspended over a bird bath into which water continually drips from a tank overhead caught more than 95 percent of these birds. The use of the water-drip bait is unquestionably the most satisfactory method of taking these and other thrushes.

M. J. Magee, of Sault Ste. Marie, Mich., transmitted to the Bureau a detailed report of his banding activities, which began in 1921. The total number of birds banded at his station to the end of 1932 was 20,626. Included in this number was more than 14,000 purple finches, as well as 24 species of warblers. More than 1,600 return records have been received, including those of birds retrapped at the station and 63 reported from other points. Mr. Magee states that more than 90

percent of the total number of birds he has banded were trapped within 75 feet of his dining-room window. A few were recaptured 8 years after they were banded.

Oscar McK. Bryens, of McMillan, Mich., reports that during 1932 he banded 473 birds of 28 species and obtained 33 returns, three of these being from points other than the banding station. During 1932 Mr. Bryens banded his first saw-whet owls, starlings, and Gambel's sparrows.

S. H. Weakley, of Fort Smith, Ark., banded 4,707 birds during the first four months of 1933. The bronzed grackle heads his list with 3,545 individuals, followed by the goldfinch with 670, and by the rusty blackbird with 240. Mr. Weakley is to be congratulated upon his splendid success.

Henry C. Kyllingstad is a new cooperator who has started a station at Valley City, N. Dak. From a report submitted early in the present year it is noted that he has captured a few Harris's sparrows. It will be recalled that this has been an important species for other North Dakota stations.

L. C. Nielsen, of Battle Creek, Mich., in January, reported on the activities at his station during 1932. He banded 211 birds of 19 species. Among these were 98 bronzed grackles and 47 blue jays. Mr. Nielsen says that he did not band nearly as many grackles in 1932 as in previous years, but that he found less indication of disease on the feet of these birds.

E. L. Sumner, business manager of the Western Bird Banding Association, with headquarters at Berkeley, Calif., has transmitted a summary of his personal banding activities for 1932. His traps were in operation 184 days, during which he banded 1,301 birds, of 32 species and identified subspecies. The species most numerous represented was the golden-crowned sparrow, of which 257 were banded; next in the list was the California quail, with 248 records, and then Nuttall's sparrow, with 212. It is interesting to note that Mr. Sumner banded an even 100 San Francisco towhees, an indication that this bird must be rather plentiful in that vicinity.

Henry P. Baily, of Overbrook, Philadelphia, Pa., reports that during the second half of 1932 he banded 1,918 birds, most of them in Maine. His list include 748 herring gulls, 297 Leach's petrels, 13 black guillemots, and several hundred juncos, purple finches, song sparrows, white-throated sparrows, warblers, and thrushes of several species.

Dr. Frederick C. Test, of Chicago, Ill., has commented upon the progressive reduction in the number of birds at his station during the last three years. In 1929 he captured 211 birds of 22 species; in 1930, 185 birds of 17 species; in 1931, 132 birds of 21 species; and in 1932, 58 birds of 14 species. It is believed that the drought conditions so prevalent over large parts of the continent during those years, may have had something to do with the apparent reduction in bird life, and it is gratifying to note Dr. Test's report that this spring there is an apparent increase in the number of birds at his station.

John Ripley Forbes, of Stamford, Conn., started his banding station in November 1932. His first report includes a large variety of birds and indicates that his will be a successful station. His description of the grounds shows habitat types that are desired by many different kinds of birds.

Lewis O. Shelley, of East Westmoreland, N. H., in a report transmitted early in January, included records of 244 individuals, representing 26 species. With 210 herring gulls banded by him in July 1932, his total for the present fiscal year is already 454, which is the largest number he has banded in any similar period.

Harold C. Wilson, of Ephraim, Wis., also has sent in a general summary of his entire bird-banding operations, from which we note that his grand total of banded birds is 10,612, representing 81 species. From these he has obtained about 300 return records. The herring gull heads the list with 6,285 records, followed by the chimney swift with 1,584. He is working in cooperation with Arthur J. Gorski, and in September 1932 he wrote that they had more than 30 traps in operation and were trapping about 50 birds a day, half of which were new. He reported at that time the capture of several Harris's sparrows, the first to be taken at that station.

J. Paul Jones, of Des Moines, Iowa, asks if there is any practicable way to distinguish between male and female brown thrashers and wrens. It will be recalled that S. Prentiss Baldwin was able to distinguish the sex of his house wrens as only the males were observed to sing. We are not sure, however, that this will apply to the brown thrasher. Certainly there is no sexual character in the plumage of either of these species.

W. Rodman Peabody, of Boston, Mass., writes that apparently it has not been generally recognized that birds which are regarded as wandering in flocks through New England during the winter months move through a comparatively narrow range. He finds, moreover, that the flocks of winter birds seem to be composed in large part of the same identical birds from year to year. In this connection he mentions a flock of goldfinches banded by him during the winter of 1930 which returned as a flock and entered his traps on the same or successive days in 1932. He reports having banded 108 tree sparrows, of which 32, or 30 percent returned to his station after an absence of 6 months or more. Considering the high rate of mortality among birds, this proportion of return records seems astonishingly large.

Keahon Garland, of Demarest, N. J., submitted an interesting report showing activities at his banding station during the last 6 months of 1932. It covers 91 days of actual banding operations, during which 486 birds were banded. These included 34 species, headed by the myrtle warbler with 214 records. Nine other species of warblers are represented in his report.

J. E. Lescelius, of Keweenaw Bay, Mich., comments on the great variation in color and markings that he has observed in such birds as the song sparrow. He finds that with the song sparrow the median crown-line shows the greatest variation. On some birds it is clearly defined, while on others it appears to be almost entirely lacking. It is a fact that the majority of bird books do not mention variations that are more or less minute, and consequently there are times when

exact identification is somewhat difficult. This is particularly true with immature birds of some species. Mr. Lescelius recommends that any station operator craving a little excitement should undertake to band, single-handed, an adult horned owl. In his opinion it is a job for two men, and even then he thinks the "odds are even."

Henry O. Havemeyer, of Mahwah, N. J., recently sent in the records of birds banded by him at Mountain Lake, Fla., during the past winter. The report covers 639 birds of 16 species. It is interesting to note that in addition to other species, Mr. Havemeyer banded 110 ground doves.

Miss Edna M. Stevens, of Blue Rapids, Kans., reports that during the last calendar year she banded 173 birds, of 26 species. During the past winter a mourning dove spent the season at her station, and on November 16, 1932, she believes that she saw a Clark's nutcracker in a tree near one of her traps.

H. Gordon Heggeness, of Fargo, N. Dak., informs us that he is working on a method to distinguish immature from adult white-throated sparrows. While he does not furnish details he does state his conviction that he has discovered a way to achieve this end. He says that brightness of coloration does not seem to be a reliable guide, as three adults he examined were dull in color, while the plumage of three immature birds was extremely bright. During the last 6 months of 1932, he banded 458 birds, of 27 species.

Dr. R. V. Dillingham, of Lansing, Mich., reports banding 188 birds of 23 species in 1932. This number of birds is less than the number banded during his first year, 1930, and while this was due partly to some absences from the station, he also has noticed a scarcity of birds in the vicinity of his station during the past two years. Doctor Dillingham says that 44 stray cats have been destroyed at his station, and we note that last year he had some rather unusual captures, such as two snakes and three muskrats.

Lester R. Marland, of Ware, Mass., banded 476 birds during the last 6 months of 1932, which brings his total for the calendar year to 1,191.

Mrs. Hannah R. Gray, of Wilton, N. Dak., recently submitted a banding report covering 1,201 birds of 45 species. These included a large number of warblers and thrushes of several kinds. Mrs. Gray remarks that she is somewhat disappointed in not having obtained any returns, but all cooperators will agree that these interesting records will come sooner or later. This is only the second year for her station, but she is doing excellent work.

R. J. Middleton, of Norristown, Pa., in a report transmitted in February, 1933, included records of 1,955 birds representing 70 species. He states that the increase of banded birds at his station during the past year applies chiefly to robins and purple grackles, of which he banded 395 and 251, respectively. He also took 115 catbirds; 99 wood, olive-backed, and hermit thrushes; 124 winter, Carolina, and house wrens; and 208 warblers of 18 species. In banding this large number of birds Mr. Middleton established the gratifying record that no bird was injured in any way.

Harold D. McCann, of Paoli, Pa., sent in records of 653 birds of 35 species, banded at his station during the last 6 months of 1932. Among other interesting birds taken were three white-crowned sparrows, which Mr. McCann says are the first he had seen in life. This species seems to be more common each year in the eastern United States. In transmitting the report Mr. McCann comments on the fact that his station has been in operation more than ten years.

M. I. Jordan, of Oklahoma City, Okla., writes that during the coming summer he plans to devote much time to the development of a crow trap. It is desirable that a large number of crows be banded in order that definite information regarding their movements may be obtained. The migrations of these birds are not well understood.

A. K. Smiley, Jr., and his brother Daniel Smiley, of Mohonk Lake, N. Y., have sent in their fifth annual bird-banding report, which shows an increase of 436 birds over the number taken during the previous year. The number of birds banded during 1932 at this station was 1,704, representing 35 species. The Smiley brothers also obtained 123 returns.

Louise J. Miller, of Zion, Ill., submitted a report for the last 6 months of 1932, showing 1,307 birds of 52 species banded. Between 25 and 30 traps were operated and one of these has a remarkable record. A creeper trap, placed on a small walnut tree in the yard, took 71 brown creepers during the autumn season. Miss Miller also banded more than 100 hermit thrushes.

Mrs. Arthur N. Pack, of Princeton, N. J., calls attention to the fact that although bird books state that brown eyes are a character of immature bronzed grackles, one banded by her on April 1, 1932, was recaptured on March 4, 1933, and still had brown eyes. This is a subject well worth watching at other stations.

Work at Waterfowl Stations.—The banding data for all waterfowl stations in operation during the past season have not yet been received or checked over, and consequently it is probable that the records herein given are not complete. The following tabulation, however, will show the extent of the banding operations in this field:

Dr. O. L. Austin, Jr., of North Eastham, Mass., more than 2,100 ducks and Canada geese. The ducks were chiefly black ducks, but included also mallards, pintails, blue-winged teal, and one European widgeon.

George T. Baker, of Bemidji, Minn., about 100 mallards.

Philip C. Barney, of Farmington, Conn., 500 mallards and black ducks.

S. M. Batterson, of Nehalem, Oreg., about 450 ducks of several species, chiefly scaups.

E. H. Bendick, of Leduc, Alta., Canada, about 38 ducks of two or three species. United States Reservation Protector George M. Benson, of Lake Malheur Bird Reservation, Voltage, Oreg., about 3,000 ducks of several species, including gadwalls, mallards, green-winged teal, pintails, widgeons, and coots.

Henry A. Bowden, of Litchfield, Conn., at the Litchfield and Morris Game Sanctuary, about 280 wood ducks.

Herbert R. Buettner, of Burlington, Iowa, 53 mallards.

A. J. Butler, of Chilliwack, B. C., Canada, more than 1,300 ducks, chiefly mallards, but including also some pintails, widgeons, and coots.

Lee S. Crandall, of the New York Zoological Park, 100 ducks, chiefly black ducks, but including also a widgeon and a few wood ducks.

E. W. Ehmann, of Piedmont, Calif., who operates at Lake Merritt, in Oakland, Calif., 479 ducks, chiefly pintails and widgeons.

A. E. Etter, Game Commissioner for Saskatchewan, Canada, 18 mallards and canvasbacks.

Willard Ferguson, of Muskegon, Mich., 75 mallards, black ducks, and pintails.

A. E. Forder, of Middle River, Minn., 41 lesser scaups.

Frank B. Foster, of Phoenixville, Pa., 100 hand-reared mallards.

Christian J. Goetz, of Cincinnati, Ohio, working in the marshes of the Illinois River, about 200 mallards, with a few black ducks, pintails, and green-winged teal.

Richard Gordon, superintendent of the Rainey Wild Life Sanctuary, Abbeville, La., about 850 ducks, chiefly lesser scaups, but including also mallards, pintails, ring-necks, canvasbacks, and redheads.

Clarence E. Hawthaway, of Boston, Mass., 34 black ducks.

Frank Hopkins, of the Moon Lake Refuge, at Campbellsport, Wis., about 800 ducks of several species.

M. I. Jordan, of Oklahoma City, Okla., more than 200 ducks, chiefly mallards.

Bert Lloyd, of Davidson, Sask., Canada, more than 500 ducks of three or four species.

John J. Lynch, of Newport, R. I., 60 black ducks.

E. A. McIlhenny, of Avery Island, La., about 6,000 ducks and geese. This is the largest number of waterfowl ever banded by one operator during a single season. Mr. McIlhenny's birds include the lesser scaup, widgeon, pintail, ring-neck, blue-winged teal, blue goose, coot, and Florida gallinule.

James Moffitt, of San Francisco, Calif., 78 Canada goose.

George E. Mushbach, superintendent of Bear River Migratory Bird Refuge, Brigham, Utah, assisted by Archie V. Hull, 725 ducks, chiefly pintails and redheads.

Dr. M. D. Pirnie, Kellogg Bird Sanctuary, Battle Creek, Mich., more than 300 ducks, chiefly black ducks.

George C. Reifel, of Vancouver, B. C., Canada, more than 3,100 pintails, green-winged teal, and mallards.

Frank W. Robl, Ellinwood, Kans., about 200 ducks, of three or four species.

Arthur Rotch, of Boston, Mass., about 1,200 birds, at Brewster, Mass., chiefly black ducks.

H. D. Ruhl, of the Michigan Department of Conservation, Lansing, Mich., about 81 mallards.

Ray C. Steele, superintendent of the Upper Mississippi River Wild Life and Fish Refuge, Winona, Minn., 37 mallards.

G. Stratton, of Waco, Tex., about 80 pintails and mallards.

Ernest D. Todd, of Victoria, B. C., Canada, 93 mallards, pintails, and widgeons.

Nion R. Tucker and J. O. Tobin, of San Francisco, Calif., about 2,300 pintails, mallards, and coots.

Henry Turner, of Penikese Island, Mass., 15 black ducks.

Wm. Vogt, of the Jones Beach Bird Sanctuary, Wantagh, N. Y., 945 black ducks and pintails.

Edward Ward, of Delta, Man., Canada, more than 900 mallards, canvasbacks, pintails, lesser scaups, and redheads.

Clarence Webb, of Earlville, Md., more than 100 Canada geese.

United States Reservation Protector H. M. Worcester, of the Tule Lake Migratory Bird Refuge, Merrill, Oreg., about 900 scaups, redheads, mallards, ring-necks, whistling swans, and snow, cackling, and white-fronted geese.

## BANDS

Series Designations.--The large quantity of bands now used annually by station operators makes it apparent that within a few years the letters that may be used satisfactorily as series designations will be exhausted. In that event it will be necessary to adopt some new system. This is a subject that from time to time has received much thought at the Survey, and it is now proposed to use as the series designation, the fiscal year in which any particular lot of bands are made, that is, the number 33, 34, 35, etc., would be stamped on the band either before the serial number, from which it would be separated by a dash (34-129743), or, on the smallest bands, above the serial number as is now done with series letters, thus; 34.

92536

Comments regarding this proposed method are invited from all cooperators.

The Bureau must again caution operators to be careful to use the correct size of band on the different birds. Occasionally it is found that a cooperator uses Size 1A on robins and Size 2 on grackles. Both of these sizes are too small for the birds mentioned. Reports have reached the Bureau that in the Lake Michigan region dead banded gulls have been found with the leg badly injured from pressure of the band, as room for growth of the tarsus had not been allowed. Unfortunately, the band numbers were not given, so the operator responsible for such hasty and unsatisfactory banding is not known. On the other hand, it is desirable that the band used should not be too large. In fact, using a band too large is just as bad as using one that is too small. This is a most important matter and should be given careful attention by everyone, as injuries to birds due to improper bands will bring the work into disrepute. When a bird is in hand for banding, two matters of equal importance determine the selection of the proper band: First, the band should fit without binding, but also it should not be so loose that it might slip down and lock the bird's toes; second, the band should be of proper temper to resist crushing by the bird's bill. Size 2 is the smallest "hard" band, and if it should be too large for a cardinal, grosbeak or other bird with a powerful beak, it should be reduced by trimming off a small section from one or both ends.

Although the table in the Manual specifies Size 3 for mourning doves, this size is too small for most birds of this species, and in such cases Size 4 should be used.

Reed W. Ferris, of Beaver, Oreg., reports that he has found the colored celluloid bands wider than is necessary. By splitting them in half he can use two colors on the same leg, with an aluminum band, and in this way he has been able to work out more than 70 color combinations on one leg. This is a valuable suggestion for those operators who are conducting studies through the medium of the colored bands.

The No. 7 bands made during the present year are a split-ring band similar to the other sizes. They are large enough to be used on birds as large as swans, white pelicans, and eagles. For geese, and other birds on which the No. 7 band should be used, it will be necessary to trim off a part of the band, which can readily be done with a pair of tin snips, a pair of pliers provided with side cutters, a pair of stout-bladed scissors or (best of all) a pair of diagonal wire cutters

Thomas J. Jiracek, of LaCrosse, Wis., sent in two samples of band holders that he has found useful. One is made of about 20-gauge stiff brass wire formed into a figure 8. The two ends of the wire overlap in the middle in such a way that the bands are securely held on the carrier but at the same time may easily be removed. The other holder was evidently originally intended for use as the curtain supporter of a shower bath. This should be easily obtained from any store handling household furnishings, and it is believed that it will be satisfactory for all bands up to and including Size No. 4.

#### TRAPS

E. S. Huddleston, of Tiptecanoe City, Ohio, sent to the Bureau a sketch with description of a modification of the Baldwin woodpecker trap described and figured on pages 41 to 44, in the Manual. Mr. Huddleston's modifications are concerned chiefly with the upper door, on which he has reversed the crank, so that when the door is open the crank extends toward the tree trunk on which the trap is fastened. A notched dowel stick rests on the crank of the lower door and supports the crank of the upper door, holding the latter open, so that when the trap is sprung by a bird entering and coming into contact with the trigger, both doors are closed simultaneously. It would seem that this adaptation should encourage birds to enter the trap more readily, as they are able to look through it without obtaining the impression of a trap. For example, some woodpeckers and nuthatches sometimes work backward down a tree trunk and so enter a trap from the top.

C. Yeomans, of Chicago, Ill., submitted a sketch of a device he has used to raise an open top trap to the lower branches of a tree. The trap is attached to an axle at right angles to the end of a "sweep," that is, a pole that may be fastened to a tree by a lag screw. This lag screw passes through the pole about midway of its length. By pulling down the free end of the pole, the trap is elevated to the lower branches of the tree. As the trap swings free on the axle, it maintains a horizontal position. After the trap is elevated, it is, of course, necessary to tie the lower end of the pole. This idea is somewhat similar to the well sweeps that are still in use for raising water in many parts of the Old World.

Glenn L. Berner, of Jamestown, N. Dak., is of the opinion that the Brenckle 6-celled warbler trap would be more effective for robins and some of the larger birds that take to the water-drop bait, if the doors instead of being top opening are of the Potter type. For those station operators who are using this trap it is suggested that it might be worth while to have top openings on alternate cells, the other cells to have sliding doors such as are described further on in this section. The traps would thus be suitable for birds that prefer the top entrance as well as for those that enter only on the ground level.

Lewis O. Shelley, of East Westmoreland, N. H., reports that during the past season he had better success than formerly with the Chardonneret trap. He used it baited with crumbs and scratch feed, and his schedules show that the "Chardonneret catch" was much increased, both as regards individuals and new species. He remarks, however, that success frequently depends on placing the different types of traps in the environment for which each is best fitted.

This is certainly true, as has been learned by many other station operators. Commenting further on the Chardonneret trap, Mr. Shelley says that he found the old style trip did not work well when set with a Y-shaped stick as a trigger, as it usually was set either too light or too heavy. He therefore took a short stick one end of which he fastened with fine wire to the outside partition of the trap so that it swung free when tripped. The other end was notched to hold the upright of the door. He reports that this trip is instantaneous with either a light or a heavy bird.

Howard W. Braun, of Canton, Ohio, sent to the Survey the model of a new door and trigger arrangement he has devised for use on some of the cells of his Brenckle water-drip trap. It would seem that this door and trigger release is one of the most efficient and easily constructed that have been developed for the unit-cell type of trap. In addition to its undoubted efficiency is its simplicity, as it can readily be constructed by anyone at little cost. As will be seen from the illustration (fig. 6), the trap is of

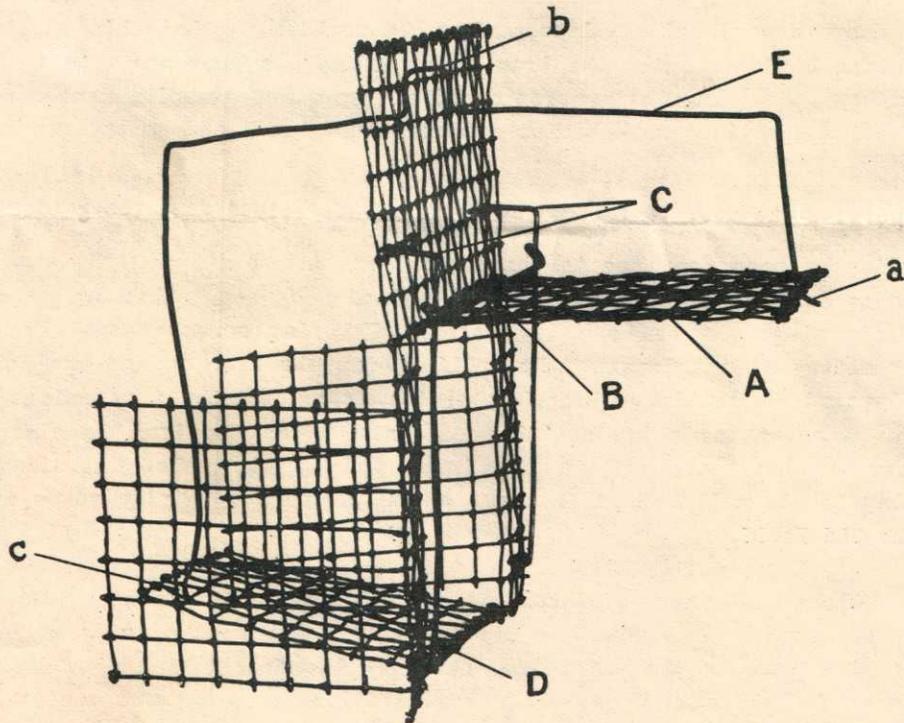


Fig. 6

the treadle type with a door that falls through an arc of 90 degrees. The illustration represents merely the front of one cell with the door and trigger. The door "A" is extremely light, there being no framework of any kind. It is hinged at both ends and in the middle by the simple expedient of rings made from rather fine wire. Because of its lightness the door must be provided with a locking device to prevent it from being opened from the inside. This is done by a locking bail "B", which is merely a piece of straight galvanized

wire about the size of telegraph wire, with rings in both ends, and which extends horizontally across the door. This bail slides on guides "C", also made of galvanized wire, which are attached by fine wires to the front of the trap on either side of the door. Note that the upper part of these guides is about 5/8 inch from the front of the trap, while the lower part is only about 1/8 inch from it. This insures that the locking bail will slide down over the door. The treadle "D" is a piece of hardware cloth, 3 1/2 or 4 inches square, attached by light wires to a piece of galvanized wire that extends across the sill of the door. The trigger "E" is another piece of galvanized wire, which (starting from the outside end) has a slight hook "a" at the end to support the door when it is in a horizontal position. About 2 inches from this end the wire is bent at right angles so that it will extend through the hardware cloth forming the front of the trap cell. At the point where it passes through the front of the trap it is bent to form three sides of a square loop about 1/2 inch across "b", so that it will not slip back and forth. At a point opposite the rear of the treadle the wire is bent down at a right angle. It should be cut off about 1 inch above the floor of the trap. A slight reverse hook, or "hump" "c" should be bent in this end of the wire at the tip. This will support the rear end of the treadle when the trap is set. In operation, the locking bail is raised to the top of the guides and the door swung out to a horizontal position, the trigger is passed through the front of the trap and the hook engaged with the lower edge of the door. The treadle is then raised so that the rear edge will engage with the reverse hook, or hump, on the inside end of the trigger wire. This set may be made very delicate, depending upon the "spring" given to the trigger by bending the vertical sections. When a bird hops on the treadle, this is disengaged from the trigger and permits the door to fall. The locking bail slides down the guides and prevents opening of the door from the inside. This form of door and trigger release is well adapted for bottom entrances on the Brenckle water-drip trap and also on the Potter single, double, and 4-celled traps.

E. A. McIlhenny, of Avery Island, La., has submitted a sample of a trap that he has worked out for the capture of jacksnipe, meadowlarks, and other birds that frequent meadow land and which are not readily taken in cage traps. When this trap has been more thoroughly tested it is hoped that it will be possible to figure and describe it for the use of other banding operators.

#### BAIT

Paul A. Stewart, of Leetonia, Ohio, in reply to an inquiry of the Bureau concerning the means he employs for the capture of goldfinches says that the requirements are few, consisting of only a profuse planting of sunflowers to attract the birds to the environs of the station. When the goldfinches are well accustomed to feeding on the sunflower seeds, a trap is placed near by. Mr. Stewart reports that he has found the type of trap to be unimportant, but it must be baited generously with sunflower seeds. He finds that it is not necessary to wait until the food supply has been depleted on the standing sunflowers.

Miss Dorothy Baldwin, of Hardwick, Mass., writes that owing to the planting of millet by neighboring farmers, birds were quite scarce at her station during September 1932. She says that this season she plans to compete with the farmers

by planting a small area to millet, hoping thereby to attract a larger share of the migrating birds to her land. There is no question that the planting of food-producing plants adds greatly to the attractiveness of a banding station.

Henry C. Kyllingstad, of Valley City, N. Dak., reported on December 27, 1932, that the baits he has used most generally and which have brought the best results are cracked corn, cracked wheat, mill screenings and canary seed. Sunflower seeds, bread crumbs, raisins, pie crust, and suet were used, but less successfully. At the time of writing he was operating a false-bottom trap on a 40-inch window shelf, using peanuts as bait, which was resulting in the capture of many chickadees and nuthatches.

Edward M. Davis, of Shirley, Mass., reports that while operating a banding station at Winter Park, Fla., he found white bread to be the best bait. With this in his traps he captured such birds as red-winged blackbirds, shrikes, and even a yellow-throated warbler.

Miss Louise J. Miller, of Zion, Ill., writes that much of her success in capturing hermit thrushes was due to abundant baiting with such wild berries as those of the Virginia creeper, dogwood, mountain ash, and honeysuckle.

Glenn L. Berner, of Jamestown, N. Dak., says that he has been informed that Bohemian waxwings are fond of salt. His information comes from a store where it was the practice to dump the salt water from ice-cream freezers in a certain spot on the snow and ice. It was noted that the waxwings persistently pecked at the snow and ice at this spot in preference to other places. Mr. Berner adds, however, that when he tried scattering salt on the snow (possibly in the hope that some of the birds would get it on their tails) the waxwings appeared to pay no particular attention to it, taking snow from whichever place was most convenient. Nevertheless it is true that some birds have a distinct liking for salt, the old idea that salt was fatal to birds having long since been exploded.

#### RETURNS

Important.—The Survey desires to repeat its ruling that any bird absent for a period of 3 months from the banding station, during which time traps are in operation with more or less regularity, and then retaken, should be reported as a return regardless of whether or not the particular species may occur regularly throughout the year in that vicinity. This has particular reference to chickadees and other birds that are generally considered as being nonmigratory. It is not known how far these birds travel in their wanderings and by banding them we propose to find out. The following case well illustrates the importance of reporting these birds when the return to a banding station is under the conditions just outlined:

Black-capped chickadee No. F-81651, banded on October 7, 1932, at Amherst, Mass., by Mrs. F. M. Cutler, was killed by a cat on December 24, 1932, at Belvidere, N. J. This has every appearance of involving a migratory flight.

R. J. Middleton, of Norristown, Pa., reports that his most interesting return for the past year, was that of a robin banded as a fledgling in its nest in 1928. It returned to the station in 1930, and again in 1932. Last year this bird built its nest and reared its young at a point only 50 feet from the nest where it was raised. Returns of young birds to the point of hatching are not common. Mr. Middleton also writes that this past year he had two four-year returns, one of a song sparrow, the other of a tree sparrow.

G. D. Sprot, of Cobble Hill, Vancouver Island, B. C., sent in an interesting story concerning a glaucous-winged gull, No. A-683795, banded by him as a juvenile on Bare Island, Haro Straits, in August, 1931. This bird took up its quarters on board a small boat lying in Esquimalt Harbour, Vancouver Island, and early in May, 1932, it was enticed close enough to the galley porthole to permit its number to be read. Later in May the boat left on a summer cruise and did not return to the harbour until October 1932. As the boat picked up its moorings the same bird came aboard, and was still with the boat at anchor on December 20, 1932. Mr. Sprot states that it will not allow any other gull to land on the boat.

As may be surmised from the opening statements in this number of Bird Banding Notes, many returns of unusual interest have been received during the past season. Among these, the following are typical:

Wm. P. Wharton, of Groton, Mass., while operating his winter trapping station at Summerville, S. C., captured on March 13, 1933, a white-throated sparrow that had been banded at Milton, Mass., on October 7, 1932, by R. M. Hinchman, Jr. Mr. Wharton also captured at Summerville on March 27, 1933, a vesper sparrow banded by Dr. O. L. Austin, Jr., at North Eastham, Cape Cod, Mass., on October 4, 1930.

Gannet No. 662,345, banded on Bonaventure Island, Quebec, on August 8, 1928, by Wm. M. Duval, was recovered on February 10, 1933, 30 miles south of Hatteras, N. C.

Black-crowned night heron No. A663,024, banded at Barr, Colo., on June 21, 1930, by R. J. Niedrach, was killed near Villa Aueta, Vera Cruz, Mexico, on December 1, 1932.

Black-crowned night heron No. B664,635, banded at East Springfield, Mass., on June 18, 1932, by Harry E. Woods, was recovered in Liberty County, Tex., on November 29, 1932.

Roseate spoonbill No. A711,836, banded by Alston Clapp, Sr., at Vingte'un Island, Trinity Bay, Tex., on June 5, 1932, was recaptured near Lake Charles, La., on December 5, 1932.

Pintail No. 303,007, banded at Igiak Bay, Alaska, on July 14, 1924, by Frank Dufresne, was shot at Weiss Lake, Marshall County, Ill., on November 11, 1932.

Pintail No. A658,600, banded at Avery Island, La., on February 14, 1930, by E. A. McIlhenny, was shipped to the Biological Survey in Washington, D. C., and released on the Potomac River. It was killed at Gustine, Calif., on November 2, 1932.

Redhead No. A651,072, banded in the Bear River Marshes, Utah, on July 24, 1930, by Archie V. Hull, was killed on December 19, 1932, near Cambridge, Md.

Turkey vulture No. A674,818, banded at Battle Creek, Mich., on September 20, 1931, by Dr. L. H. Walkinshaw, was recovered at Plant City, Fla., on December 23, 1932.

Marsh hawk No. A626,612, banded at Madison, Wis., on June 11, 1930, by Dr. Geo. Wagner, was shot in Jackson County, Miss., on December 10, 1932.

Marsh hawk No. A.B.B.A. 35,531, banded in Anoka County, Minn., on July 2, 1932, by Dr. T. S. Roberts, was killed at Winnsboro, Texas, on February 5, 1933.

Osprey No. A719,002 banded at Slaughter Beach, Del., on April 25, 1932, by Herbert Buckalew, was shot on the Milk River, Jamaica, British West Indies, on March 10, 1933.

Woodcock No. 244,598, banded as a juvenile, at Fort Snelling, Minn., on May 8, 1932, by Dr. T. S. Roberts, was killed at Ocean Springs, Miss., on January 7, 1933.

Laughing gull No. A548,151, banded at Muskeget Island, Mass., on July 22, 1932, by Charles Lanier, was recovered on Taboga Island, 12 miles from Balboa, Canal Zone, on January 22, 1933.

Screech owl No. A510,850, banded at Glenwood, Minn., on March 25, 1932, by James V. Porter, was recovered about 180 miles south at Emmetsburg, Iowa, on December 20, 1932.

Flicker No. A353,177 banded at Detroit, Mich., on July 15, 1931, by Henry E. Wagner, was found at Mobile, Ala., on October 9, 1932.

Blue jay No. A445,664, banded at Minneapolis, Minn., during the autumn of 1932, by Mrs. John A. Thompson, was recovered at Claremore, Okla., on December 17, 1932.

Blue jay No. B342,057, banded at Wilmette, Ill., on May 7, 1932, by John H. Davidson, was recaptured at Pocahontas, Ark., on January 16, 1933.

Wren-tit No. 91,519, banded by E. D. Clabaugh, at Berkeley, Calif., on March 22, 1925, was retrapped and released by E. L. Sumner on December 3, 1932, at the same place. It was then at least 8½ years old.

Brown thrasher No. B330,375, banded on July 17, 1932, at Wyncote, Pa., by Wm. Pepper, Jr., was recovered at Dunnellon, Fla., on January 17, 1933.

Robin No. A279,233, banded at Zion, Ill., on July 29, 1932, by Miss Louise J. Miller, was shot at Plant City, Fla., on January 3, 1933.

Robin No. A252,006, banded at Bedford, Va., on April 24, 1930, by Miss Katherine P. Claytor, was recaptured at Black, Ala., on January 18, 1933.

Bluebird No. B143,271, banded at Leetonia, Ohio, on August 1, 1931, by Lony B. Strabala, was found at Gray, Ga., on December 20, 1932.

Yellow palm warbler No. H27,223, banded on October 13, 1932, at Elmhurst, N. Y., by Mrs. Marie V. Beals, was found dead at Durham, N. C., on January 15, 1933.

Myrtle warbler No. F80,373, banded at Fargo, N. Dak., on October 2, 1932, by Prof. O. A. Stevens, was found dead at Clarence, La., on December 5, 1932.

Golden-crowned kinglet No. F21,752, banded on November 5, 1931, at Elmhurst, N. Y., by Mrs. Marie V. Beals, was recovered about January 19, 1933, at Suwanee, Ga.

Meadowlark No. A258,965, banded at Sheboygan, Wis., on June 8, 1932, by W. H. Farrar, was killed at Oak Grove, La., on January 19, 1933.

Red-winged blackbird No. B362,030, banded at Wyncote, Pa., on August 1, 1932, by Wm. Pepper, Jr., was shot at Roper, N. C., on November 19, 1932.

Purple finch No. B116,922, banded at Newton Highlands, Mass., on April 14, 1932, by L. B. Chapman, was found dead on March 30, 1933, at Sault Ste. Marie, Mich., by M. J. Magee.

Purple finch No. A128,605, banded at West Hartford, Conn., on February 14, 1929, by Mrs. H. J. Pratt, was killed at Strawberry, Ark., on January 28, 1933.

Savannah sparrow No. F91,198, banded on August 10, 1932, at McMillan, Mich., by O. M. Bryens, was retaken at Beatrice, Ala., on January 24, 1933.

Harris's sparrow No. C131,123, banded on October 9, 1932, at Jamestown, N. Dak., by Glenn Berner, was recaptured on December 27, 1932, at Wynne Wood, Okla.

Harris's sparrow No. C131,221, banded on October 14, 1932, also at Jamestown, N. Dak., by Mr. Berner, was recovered at Sanger, Tex., on December 1, 1932.

White-crowned sparrow No. B149,796, banded at Oliverea, N. Y., on May 11, 1931, by Mrs. Florence K. Daley, was found on December 15, 1932, at Sturgis, Ky.

Gambel's sparrow No. 135,125, banded at Davidson, Sask., on September 16, 1924, by R. Lloyd, was trapped and released at Grand Junction, Colo., on January 30, 1933, by Mrs. Edith B. Carman.

Gambel's sparrow No. 178,821, banded on April 5, 1927, at Altadena, Calif., by W. I. Allen, has returned and been recaptured at that station in February 1929, December 1930, December 1931, and January 1933.

White-throated sparrow No. B102,783, banded at Sherrill, N. Y., on October 8, 1932, by C. H. Sanderson, was recovered at McGehee, Ark., on December 29, 1932.

White-throated sparrow No. B121,664, banded on October 2, 1931, at Jackson, Mich., by Harold Wing, was killed at Pickens, Miss., on December 25, 1932.

White-throated sparrow No. C121,387, banded at Waukegan, Ill., by H. E. McArthur, on September 28, 1932, was recaptured at Ratliff, Miss., on December 18, 1932.

White-throated sparrow No. C12,623, banded on October 4, 1929, at Wilmette, Ill., by Ted G. DeLang, was caught at Andrews, S. C., on December 27, 1932.

White-throated sparrow No. B169,079, banded by Carmen Beining, at Platteville, Wis., on May 7, 1932, was trapped and released at Wyncote, Pa., on January 6, 1933, by Wm. Pepper, Jr.

Junco No. C15,718, banded at Zion, Ill., on November 15, 1929, by Miss Louise J. Miller, was recovered at Titusville, N. J., in October 1932.

Junco No. 132,257, banded by Mrs. Florence K. Daley, at Oliverea, N.Y., on October 21, 1926, was retrapped at the same station on April 8, 1933.

Fox sparrow No. B128,889, banded at Worcester, Mass., on November 17, 1930, by Mrs. K. B. Wetherbee, was recovered at Fair Bluff, N. C., on January 21, 1933.

Song sparrow No. C149,423, banded on September 11, 1932, at Greenwich, Conn., by Miss M. G. Willson, was retaken at Tabor, N. C., on December 25, 1932.

Song sparrow No. B184,387, banded at Oliverea, N. Y., on October 26, 1931, by Mrs. Florence K. Daley, was recovered at Unionville, N. C., on December 23, 1932.