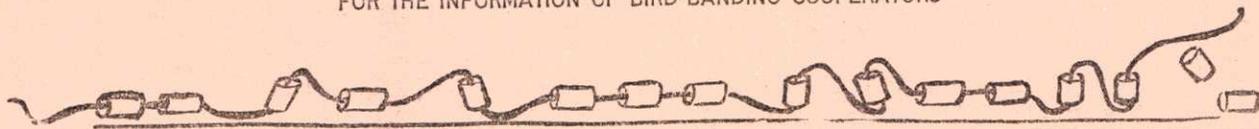


BIRD BANDING NOTES

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



Vol. 2

Washington, D. C., June, 1930

No. 1

Much Important Information Is Contained in This Number of Bird Banding Notes; It Should Be Examined Carefully by Every Station Operator

GENERAL INFORMATION FOR COOPERATORS

In starting the second decade of bird banding under the direction of the Biological Survey, it is fitting that we make a survey of past accomplishments. In doing this we find that the technique of banding has been developed to a surprising degree, one family of birds after another yielding to the method. The possibilities, however, have by no means been exhausted, as there are still several groups, such as the flycatchers and nighthawks, and to a lesser degree the shorebirds, warblers, and thrushes, that require the development of suitable trapping methods.

The use of nets presents practically a virgin field for experimental work. They are successfully used, chiefly by the peoples of southern Europe, and indications are that they may be well suited to obtain birds for banding. Because they sometimes are used illegally, much prejudice exists against them. Accordingly, the experimentally minded operator should proceed unobtrusively until it has been fully demonstrated that such contrivances are or are not suited for our work. So far the Bureau has not placed any prohibition on the use of nets for capturing birds under permit, as information is desired concerning their possible use in the bird-banding work. Russell S. Davis, of Clayton, Ill., has advised us that he is prepared to furnish "half-over" and "clap" nets.

Since Bird Banding Notes No. 28 (Vol. 1) was issued, cooperators have been most active, sending in many interesting and valuable reports. Only a few of these can be included in this number, but the Survey desires all operators to understand that it greatly appreciates all the information that is sent in, and will continue to report in Bird Banding Notes as much of the work at the 1,800 stations as space permits.

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.

Cooperators are reminded, also, that all the regional associations issue printed or mimeographed bulletins that are open to the use of the membership. With all these avenues for the diffusion of information, news and items of interest should reach every operator.

Manual.--When the Manual for Bird Banders (Miscellaneous Publication No. 58) was issued, effort was made to include only the traps and other equipment that had been fully tested. A copy of this Manual should be at every trapping station, so if yours did not arrive, a duplicate copy will be sent on request.

Showing Dates by Figures.--Although it is preferable to write out dates in banding and return records, it is entirely proper to indicate this information by figures, provided the American system is used; that is, the month should be given first, as for example in writing January 9, 1930--1/9/30. If the day is given first, some confusion will result, for 9/1/30 under the American system means September 1, 1930, while under the European system it means the 9th of January, 1930.

European Bird-Banding Atlas.--Dr. Ernest Schüz, director of the Ornithological Observatory at Rossitten, Germany, has announced that an atlas that will contain all important return records of birds banded in Europe is to be published. This will be financed entirely by subscription, but the Survey is not informed concerning the price. Any cooperators interested may obtain full information by writing to Doctor Schüz at Rossitten, Kurische Nehrung, East Prussia, Germany.

Der Vogelzug.--Under the editorship of Doctor Schüz, of Rossitten, and Dr. Rudolf Drost, of the ornithological observatory at Helgoland, Germany, a new quarterly journal, Der Vogelzug, has appeared, the numbers for January and April being at hand. This magazine is devoted to the subject of bird migration.

Bird Banding in Russia.--In Aquila, the journal of the Royal Hungarian Institute of Ornithology (vol. 34-35, 1927-1928, p. 458), it is stated that at the end of 1927, 7,450 birds had been banded in Russia with bands marked "Moskva," and that the Forest Institute at Leningrad has also taken up banding work, using bands marked "Lessnoy Institute Leningrad." We have not seen these bands, but the Survey is building up a collection of foreign bands, and already has specimens of most of those used in other countries.

"Bird Banding".--The name of the journal formerly issued as the "Bulletin of the Northeastern Bird Banding Association" has been changed to "Bird Banding." This publication is now the official organ of the Northeastern,

Eastern, and Inland Bird Banding Associations. It will be a valuable addition to the literature of every banding station, and is open to receive for publication papers based upon an application of the banding method. Further information regarding the journal may be obtained by writing to Chas. B. Floyd, Northeastern Bird Banding Association, 95 South Street, Boston, Mass.

Cats.--Geoffrey Gill, of Huntington, Long Island, N. Y., sent in a terse note concerning the disappearance of a song-sparrow nest and a cat. He says, "Late in May the nest with five eggs was found scattered over the ground and we strongly suspected the cat, but couldn't prove it was the cat that did it. However, the cat couldn't prove she didn't do it, so the cat is dead. We can prove that."

This problem of cats is a serious one, but cooperators may be interested to know that with the exception of shooting (which is confined chiefly to blackbirds) cats have been responsible for the death of more small banded birds than all other known causes together. We have no quarrel with persons who have valuable cats that are not permitted to roam the neighborhood, particularly at night, but any cats that are free to hunt are vagrants and should be dealt with as such. It is safe to state that aside from climatic conditions, cats constitute the most destructive agency of small birds that exists to-day. If every banding station would operate a cat trap, the lives of many birds would be saved. The cat trap described in the Manual is effective, particularly when catnip is used as bait. It should be remembered further that cats are not natural enemies of birds, for they were introduced by man. Natural enemies do little real harm, as they are Nature's means of controlling the surplus.

S. M. Stagg, of Frankfort, Ky., reported that his station is situated on the right bank of the Kentucky River, which is overgrown with weeds and inhabited by abandoned cats. The damage these animals are doing there can be easily surmised, but Mr. Stagg is taking steps to remedy the situation.

Records.--The Inland Bird Banding Association is issuing to its membership a new form that seems to have merit. The sheets are letter-size and are punched for looseleaf covers. A page is used for each species. The sheets are ruled vertically into 14 columns, 12 being for the months of the year, 1 for the yearly total, and the other for the grand total. The horizontal rulings carry at the left margin the years from 1920 to 1940. The form has been in use for some time by W. I. Lyon, of Waukegan, Ill., and is intended to show the month-by-month banding of new birds of each species. With such a record consistently maintained every year, it is possible at a glance to note the seasonal variations in numbers. We are sure that Prof. J. W. Stack, of East Lansing, Mich., secretary of the Inland Association, will be glad to send sample copies of the form to those station operators who are not members of the Association.

PHOTOGRAPHS

The Survey has within recent weeks received many interesting and valuable photographs depicting banding operations at various stations. These are greatly appreciated by the Bureau, for through the continued interest of station operators an important collection is being built up. The following tabulation acknowledges the contributions from the different stations:

Key

- No. Number of photos sent in.
- B. Birds (usually banded); also nests and eggs.
- M. Miscellaneous.
- O. Banding operations, as with colony birds, chimney swifts, etc.
- Op. Station operators.
- S. Station views, showing general conditions, location of traps, etc.
- T. Traps, frequently holding captured birds.

Operator	Address	No.	B	M	O	Op	S	T
Anthony, Mrs. John F.....	Bar Harbor, Me.	14	x				x	x
Baily, Henry P.....	Philadelphia, Pa.	13	x					
Beals, Mrs. Elsie V.	Elmhurst, N. Y.	17	x				x	
Bourne, O. C.	Boston, Mass.	3	x	x				
Brooks, Dr. Earl.....	Noblesville, Ind.	3	x		x			x
Buckalew, Herbert.....	Milford, Del.	6	x				x	x
Carter, R. H., Jr.	Muscow, Saskatchewan.....	1						x
Christofferson, Dr. K.	Munuskong, Mich.	1	x			x		
Cox, Miss D. Gordon.....	Vancouver, British Columbia	1	x					
Daley, Mrs. Florence K.	Oliverea, N. Y.	4	x				x	x
East, Ben	Grand Rapids, Mich.	7	x			x		x
Edwards, Mrs. Helen	Fairhope, Ala.	2	x		x			
Frank, Carl	Rochester, Minn.	3					x	
Getty, Mrs. Blanche.....	Sioux Falls, S. Dak.	7	x			x		x
Goetz, C. J.	Cincinnati, Ohio.....	14	x		x		x	x
Green, Dr. Wyman R.	Chattanooga, Tenn.	1			x			x
Griepentrog, Elmer, L.	Salem, Oreg.....	1	x					
Hall, W. B.	Cape Elizabeth, Me.	1					x	
Haskins, Vernon.....	East Durham, N. Y.	1					x	
Hoffman, E. C.	Lakewood, Ohio	5	x	x			x	x
Hoffman, Paul W.	Milwaukee, Wis.	24	x			x		x
Holcombe, C. E.	Zion, Ill.	1	x					
Marland, Lester R.	Ware, Mass.	1						x
Marsden, Dr. R. R.	Hanover, N. H.	5					x	x
Marx, Gustave.....	Milwaukee, Wis.	2	x					
Meigs, Montgomery	Keokuk, Iowa.....	14	x				x	x
Palmer, C. M.	Wilmington, Del.	8	x					x
Peabody, Mrs. Emily C.	Appleton, Wis.	3					x	x
Peake, Mrs. Claude D.	Mission, Tex.	2					x	x
Rebenschied, Mrs. R.	Kansas City, Kans.	2	x					

Operator	Address	No.	B	M	O	Op	S	T
Reuter, Wm. H.	Nebraska City, Nebr.	3					x	x
Richardson, Carl	Trail, Oreg.	3	x					
Shipman, C. M.	Willoughby, Ohio	2	x					
Smiley, A. K., Jr.	Mohonk Lake, N. Y.	6	x					
Snyder, C. L.	Fort Bayard, N. Mex.	4					x	x
Spear, James	Wallingford, Pa.	12	x				x	
Thorp, Mrs. Hildegrade C.	Springfield, Mass.	2	x					
Tonkin, George	Berkeley, Calif.	5	x				x	
Trempe, A. D.	Sault Ste. Marie, Mich.	3	x			x		
Tyrrell, W. Bryant	Bloomfield Hills, Mich.	9	x		x			
Varrelman, Prof. F. A.	Washington, D. C.	3	x					
Vejtasa, Frank J.	Fairdale, N. Dak.	1	x					
Weakley, S. H.	Fort Smith, Ark.	3					x	x
Wellemeier, Dr. W. A.	Vassar, Mich.	7	x				x	x
Williams, A. B.	Cleveland Heights, Ohio	2	x					

WORK AT BANDING STATIONS

C. L. Snyder, of Fort Bayard, N. Mex., has recently succeeded in capturing several white-necked ravens. He uses a simple drop trap about 6 feet square and 18 inches deep.

Dr. A. R. Shearer, of Mont Belvieu, Tex., banded nearly 2,000 cowbirds during the past spring season. This, we believe, is a record for this species. In planning for next season's work he hopes to band 10,000 birds, and believes that he can do it.

S. H. Weakley, of Fort Smith, Ark., is another station operator who has had remarkable success with blackbirds. A recent report from him gives the banding records for 3,025 birds, including 1,779 bronzed grackles, 1,019 rusty blackbirds, and 99 redwings.

M. J. Magee, of Sault Ste. Marie, Mich., banded his 10,000th purple finch on May 10, 1930. When it is recalled that Mr. Magee has detailed plumage notes on all these birds, the quantity of important data that he possesses will be appreciated. Mr. Magee has transmitted a tabular digest of his banding activities from 1921 to date. His grand total is 14,294 birds of 75 species. The purple finch leads, followed by the evening grosbeak. It is interesting to note that he has banded 23 species of warblers, some in goodly numbers. The report lists the "removal" of 123 cats.

R. J. Middleton, of Norristown, Pa., in March, 1930, sent in a report covering 1,058 banded birds representing 41 species. Many warblers of several species were taken in Chardonneret traps with the water-drip arrangement. During the past season he obtained 62 returns.

Christian J. Goetz, of Cincinnati, Ohio, banded 400 European starlings at Lawrenceburg Junction, Ohio. Not so many of these birds were banded last winter as in previous seasons, but a few other operators did have some opportunity for work with them.

E. C. Hoffman, of Lakewood, Ohio, has made some interesting observations and deductions concerning the migration of blue jays. He asks: "Does the supply of grit affect their movements?" The majority of the jays were noted to disappear during long periods when snow covered the ground, and stomach examination of jays found dead during these periods showed mostly cinders instead of sharp gravel or grit. By experimenting he thought he was able to hold through the winter more jays than usual, if an abundant supply of grit was furnished. Anyone having further notes on this subject should write to Mr. Hoffman, 1041 Forest Cliff Drive, Lakewood, Ohio.

Harold and Josephine R. Michener, of Pasadena, Calif., sent in a summary of the birds banded at their station in 1929. This gives the records for 3,779 birds of 43 species and subspecies. The house finch leads with 2,897, while the list mentions such other characteristic western birds as the plain titmouse, golden pileolated warbler, Arizona hooded oriole, western tanager, Brewer's blackbird, and black-headed grosbeak.

Mrs. Florence K. Daley, of Oliveria, N. Y., reports that her station is obviously becoming more and more the objective of migratory birds along their route. We believe that this is a growing condition at every permanent banding station. This in itself is ample evidence of the attitude of the birds toward the attractions and protection provided for them at these points.

A. K. Smiley, of Mohonk Lake, N. Y., reported a decrease in the number of chipping sparrows afflicted with "bird pox." In 1929 only two that showed evidence of the disease were observed, while in 1928 many were noted. He also found many bird flies in the plumage of sparrows.

Mrs. E. V. Beals, of Elmhurst, N. Y., has had remarkable success in taking hermit thrushes. Her report for last year listed 160 of them, as well as nine species of warblers.

Prof. O. A. Stevens, of Fargo, N. Dak., last December sent in a detailed report of the work at his station. Those cooperators who also are members of the Wilson Ornithological Club will recall the excellent paper prepared by Professor Stevens and Prof. Myron H. Swenk, on Harris's sparrow, which was published in the Wilson Bulletin for September, 1929. Last season Professor Stevens banded 248 of these interesting birds. His report contained a tabulation showing the number of captures at each substation.

Dr. J. F. Brenckle, of Northville, S. Dak., started his station in December, 1929, but last spring the migrating sparrows arrived in such numbers that the Survey had much difficulty in keeping him supplied with bands. We do not know his total score, but are sure that it numbers several hundred birds, in which Harris's sparrows are conspicuous.

Oscar M. Bryens, of McMillan, Mich., ended his operations last year with 82 snowflakes banded. These Arctic visitors may furnish return records of unusual interest.

Mrs. J. A. Gillespie, of Glenolden, Pa., prepared a species tabulation showing the banding work done by her and her husband during the period October 1922, to October, 1929. This shows a grand total of 3,230 birds of 81 species. She also lists a remarkable number of returns received.

Mr. and Mrs. Frank W. Commons, of Crystal Bay, Minn., had a banner year in 1929; 3,065 birds were banded, with 3,501 repeats and 117 returns. Reports received so far this year indicate that birds are not nearly so abundant in that and many other regions as in former years.

Russell S. Davis, of Clayton, Ill., reported under date of December 2, 1929, that during that year he banded 2,952 birds. He has been trying to conduct some life-history studies with loggerhead shrikes, but although he has banded many no returns have so far been obtained.

Dr. Wyman R. Green, of Chattanooga, Tenn., banded more than 3,000 chimney swifts during the fall of 1929. Shortage of bands was felt keenly as he actually trapped about 9,000 for which bands were not available. This year he has set a goal of 15,000, and the Survey hopes that a full stock of bands for this work will be available.

Maj. Montgomery Meigs, of Keokuk, Iowa, experienced some trouble with a rather unusual station pest, an old woodchuck. It was so large that a four-foot wire trap was no obstacle at all, and although it merely went under it at will, Major Meigs states that it was strong enough to walk off with the whole affair had it so desired.

BANDS

During the past few months the Bureau has experienced much difficulty in making shipments of bands promptly to banding stations. Part of this trouble was caused by the inevitable congestion that arose during the process of transferring the old return records to the new punch cards. It was also due, however, to the natural growth of the work and to lack of adequate facilities for handling it. This will be better understood when it is known that at present with nearly 1,800 cooperators, and with a volume of work several hundred per cent greater than it was 4 years ago, the office personnel is practically the same as it was then. The Survey greatly appreciates the patience shown by many cooperators at the delays in filling orders, and it is realized that sometimes important opportunities were lost. Provision has been made for an additional assistant for the coming year.

In returning the tube containers in which bands are sent, do not put communications in them. The returned containers go back into stock, so a letter sent in one might not be detected for a long time.

Series designations.—Again we repeat: Watch for series designations on all bands. The series letter is a part of the number and always should be given, as C78439, A316422. Thousands of numbers have been duplicated as many as five times, and can be told only by the series letter. All bands now manufactured have a serial designation. A reminder is now stamped under the flap of envelopes for the return of schedules and return cards.

Occasionally it is noted that a cooperator has banded a few bats. The Survey would be glad to have information on these mammals obtained through the banding method, but the bands now issued are unsuited to such investigations. The soft metal will not stand the abrasion to which it is subjected when carried by bats or any other mammals. Bands so used are accordingly practically wasted.

Chester K. Rolfe, of Hamilton, Ohio, has sent in a specimen of a band holder and expander that he has developed and found highly satisfactory. One particularly good feature is its compactness and small size. One of these little kits could easily be carried in a pocket with a small pair of pliers, and the operator would thus be always ready to band any bird that might come to his hands.

As shown in the sketch (fig. 1), the framework consists of a piece

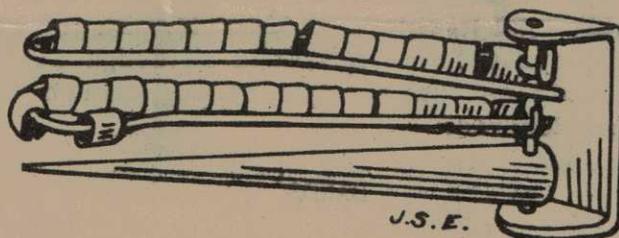


FIG. I

of flat brass with the ends bent at right angles so as to be opposite and parallel to each other. Holes are drilled through the ends and an iron axle passed through. On this axle are the expander and band holders. The expander is made from a piece of iron or steel rod about three-eighths of an inch in diameter and three inches long. It should be tapered to a blunt point and polished smooth. The band holders are merely adaptations of the familiar "safety pin" holders. The sketch shows two of these, but three or four could be used without making the outfit too bulky. When the holders and expander are threaded on the axle, the ends of this are burred over to make rivet ends and so secure it to the brass frame.

TRAPS

Miss Dorothy A. Baldwin, of Hardwick, Mass., in a general report covering last season's work, gives much interesting information concerning her observations with different types of traps. With drop traps open only on one side (see Manual, p. 14, fig. 8), she finds it desirable to attach the string to the door so that it can be lowered gently. Sometimes this can be done without disturbing the feeding bird. In traps with false bottoms she found that birds became frightened by slipping on the slanting floor of the trap when it was sprung. A piece of bark tacked to the false bottom supplied the remedy.

Karl D. King, Jr., of Wilmette, Ill., finds the Potter traps well adapted to his station. He makes them with the doors sliding in metal grooves that are detached from the doors and are driven into the ground. Also, he uses panes of glass for the back walls, which he reports are effective in deceiving the birds, but which in no way injure them when captured. Last season he was successful in taking a rather large number of bank swallows through the use of quart milk bottles placed at the entrance of the nesting holes.

Manufacturers.—Probably most station operators make their own traps and other equipment, using the specifications contained in the Manual, but others prefer to purchase traps ready made. In response to many requests, the following list is given of cooperators who are prepared to furnish traps of standard types at moderate cost:

A. W. Higgins, Rock, Mass.

F. J. Lurvey, 258 Broadway, Somerville, Mass.

Russell S. Davis, Clayton, Ill.

W. I. Lyon, 124 Washington St., Waukegan, Ill.

Walter I. Allen, 2057 Pepper Drive, Altadena, Calif.

Mr. Davis, of Clayton, Ill., is prepared to make almost any style of trap desired, and Mr. Higgins has advised us that he will give increased time to trap production.

So far the Kennard banding pliers can be obtained only from A. J. Wilkinson & Co., 184 Washington St., Boston, Mass.

BAIT

A. F. Satterthwait, of Webster Groves, Mo., has been able to capture thrushes of several species as well as other birds through the use of live beetles such as those commonly called "June bugs." With a piece of fine wire he pierces one elytron and suspends the beetle in the trap so that it will rustle an old oak leaf or ripple the surface of a dish of water. He reports that one beetle may rustle for several days, if the birds will permit it, without other inconvenience than need for food and shade. Direct sunlight soon kills these insects.

Mrs. John A. Gillespie, of Glenolden, Pa., reports that she has found that soda crackers are comparatively more attractive than any other one variety of bait she has used. She suggests that the success of this bait may be due to its high visibility.

Mrs. Kenneth B. Wetherbee, of Worcester, Mass., writes that this season she plans to use milkweed silk as a bait for goldfinches. This material is much prized by these birds for nest construction.

Dr. Wm. A. Wellemeier, of Vassar, Mich., advises that he has found that rotten apples and cull strawberries make good bait for early robins; that unbaked pastry dough is good for winter birds; and that ripe elderberries are much relished by white-throated sparrows.

Joseph Wendel, of Barkerville, British Columbia, reports that he has found warblers to be fond of sweets. He uses a syrup mixed to a paste with corn meal. He states that syrup alone will not do, as birds get their feet stuck in it. Cake crumbs and brown sugar mixed with meal also have been good bait. This is a good suggestion for those operators who are making special attempts to band these birds.

RETURNS

The new system of handling return records is working satisfactorily. All old records have not yet been transferred to the punch cards, but about 30,000 have been completed.

At first there was a little confusion in the minds of some operators, who thought they were supposed to fill out a card for every banded bird. These cards do not in any way replace the schedules, except that the returns that formerly were reported on the schedules with the band number circled with colored ink or pencil, should now be reported on the new cards. Repeats are no longer required on station reports, but in the case of returns from birds that have been regular repeaters, it is well to indicate on the back of the card at the left end the last date of capture preceding the one that constitutes the return. In other words in the future schedules need contain only original banding records.

Return Records of "Resident" Birds.—Occasionally the recapture of a so-called resident bird may cause some confusion, as the operator will feel sure that the bird has been in the vicinity of the station during the interval. It being assumed that traps have been more or less constantly in operation, any bird should be reported as a return if three months have elapsed since the last time it was captured, or if the bird is found dead.

Returns for Birds on Which Bands Have Been Changed.—Sometimes when a bird is retaken as a return the band will be so worn or damaged that it is desirable to change it. When this is done, destroy the old band, but report the return under the original number, noting in the block "How Obtained," "Band No. _____, worn or damaged, changed to No. _____." Then, should further returns be obtained for this bird, they should be reported under the new number, the original date of banding, of course, still being maintained.

Return Cards.—The new cards, Bi-137, must receive some care if they are to operate smoothly through the electric sorting machine. Do not use on them pins or clips, which might damage the edges. Be particularly careful not to bruise or fray the long edges. Occasionally, it is true, cards may be badly bent or torn while in the mail, but so far there have been very few such cases. When cards are received in a damaged condition at the office in Washington, they are rewritten, but operators can render material assistance by taking care to see that all cards leave their stations in good condition. The cards are kept under pressure both in stock and in the files, for which reason it is not advisable for operators to order them in quantity. Very few stations will use 100 of these cards in a year.

Foreign Returns.—When banded birds are captured at a station other than that of banding, a return card should be filled out and sent in to the Survey, giving the band number, species, and return record. The record of banding will then be added and both operators advised of the details of interest to them.

In connection with such returns it will save much time both to the Survey and to operators if neighboring stations can keep in touch with one another. In this way, when a banded bird is captured and the band is foreign to the station, the operator should first learn (if possible) whether the bird is one banded at a near-by station. The distance that birds will travel during a non-migratory season is still more or less unknown, but it seems desirable to adopt an arbitrary rule for the distance from station to station for these "foreign returns." An air-line distance of not less than five miles has accordingly been selected as the "yard stick" to be applied to such cases. Station to station returns for shorter distances will be called repeats and so need not be carded.

Mrs. Rachel E. Caughey, of Antrim, N. H., captured on December 2, 1929, White-breasted Nuthatch No. 56503, which she banded May 14, 1923. This bird therefore is at least 7 years old.

Henry P. Baily, of Philadelphia, Pa., has had an interesting experience with a return. The first bird that he banded was a starling, which was marked on April 10, 1928. On November 6, 1929, this bird was retaken at his station. We wonder how many operators have retaken their first birds a year or more after banding.

Among many other interesting return records the following seem worthy of special notice:

Mallard No. A618355, banded November 8, 1928, at Moiese, Mont., by Frank H. Rose, was retrapped December 7, 1929, at Voltage, Oreg., by Geo. M. Benson.

Black duck No. A604550, banded March 6, 1929, at Southampton, N. Y., by Chas. J. Mercer, was shot October 10, 1929, near Wabasha, Minn.

Pintails Nos. A638860 and A647295 were both banded September 10, 1929, the former at the Bear River Marshes, Utah, by Archie Hull, and the later at Dawson, N. Dak., by F. C. Lincoln. By a remarkable coincidence both were killed on the same day, by the same man, at Toluca, Mexico.

Pintail No. 542068, banded July 6, 1929, at Goose Lake, Stillwater County, Mont., by Geo. Mushbach, was killed October 23, 1929, at Playa Norte, Puerto Mexico, Vera Cruz, Mexico.

Ruddy turnstone No. A217098, banded September 4, 1929, at Zion, Ill., by C. E. Holcombe, was recovered October 10, 1929, at Bayou Scofield, La.

Spotted sandpiper No. A134132, banded as a fledgling August 23, 1929, at Zion, Ill., by Mr. Holcombe, was captured and released on September 27, 1929, at Raleigh, N. C.

Mourning dove No. 436770, banded March 11, 1929, at East San Diego, Calif., by Frank F. Gander, was killed about September 10, 1929, at Reno, Nev.

Duck hawk No. A701032, banded June 18, 1929, at Mohonk Lake, N. Y., by Albert K. Smiley, Jr., was shot September 26, 1929, at Grand Island, Nebr.

Flicker No. 373736, banded as a fledgling June 26, 1928, at Crowell, Mich., by Mrs. Maida C. Merrill, was caught in a garage and released unharmed, April 8, 1929, at Philippi, W. Va.

Chimney swift No. A37826, banded October 3, 1925, at Thomasville, Ga., by H. L. Stoddard, C. O. Handley, and Sydney Stringer, was captured and released unharmed June 6, 1928, at Claremore, Okla., and again at the same point on May 8, 1929.

Chimney swift No. B59016, banded September 2, 1928, at Kingston, Ontario, by R. Owen Merriman, was trapped and released September 14, 1928, at Charleston, W. Va., by I. H. Johnston who added band No. A107528. On May 10, 1929, this bird was again trapped at Kingston, by Mr. Merriman.

Cowbird No. 630561, banded March 17, 1928, at Mont Belvieu, Tex., by Dr. A. R. Shearer, was trapped and released on June 2, 1929, at Belding, Mich., by Bert Gregg.

Evening grosbeak No. A217456, banded May 16, 1929, at Sault Ste. Marie, Mich., by M. J. Magee, was retrapped February 8, 1930, at Topsfield, Mass., by Mrs. Elsie V. Perkins.

Purple finch No. A54292, banded January 30, 1927, at Cohasset, Mass., by Chas. L. Whittle, was retrapped March 10, 1929, at Pickford, Mich., by Dr. Karl Christofferson.

Purple finch No. 193651, banded June 23, 1926, at Northeast Harbor, Me., by Mrs. Eleanora S. Morgan, was retrapped April 24, 1929, at White Plains, N. Y., by Mrs. Colvin Farley.

Purple finch No. 103609, banded July 28, 1922, at Sault Ste. Marie, Mich., by M. J. Magee, has been recaptured at the same station on April 27, 1923, May 2, 1924, April 20, 1925, May 8, 1926, May 14, 1928, April 18, 1929, and May 15, 1930. It was adult (at least two years old) when banded, so at its last recapture it was at least ten years old.

Purple finch No. A127258, banded April 24, 1929, at Hyde Park, Mass., by Miss Helen C. Hunt, was recaptured about February 13, 1930 at Nacogdoches, Tex.

Snow bunting No. B30267, banded February 23, 1929, at McMillan, Mich., by Oscar M. Bryens, was found wounded April 18, 1929, at Chelmsford, Ontario. This is the first return for this species.

White-throated sparrow No. A140119, banded April 30, 1929, at Hanover, N. H., by Dr. R. R. Marsden, was recovered December 24, 1929, at Tabor, N. C.

White-crowned sparrow No. 667408, banded May 8, 1928, at Hubbard Woods, Ill., by Dr. Harold H. Hayes, was killed about March 29, 1929, at Goldthwaite, Tex.

Tree sparrow No. B78849, banded February 10, 1929, at Branchport, N. Y., by Verdi Burtch, was found dead, April 30, 1929, at Les Escoumains, Saguenay County, Quebec.

Tree sparrow No. 38765, banded December 11, 1926, at Berlin, Mass., by Walter R. Spofford, was killed December 25, 1929, at Hardin, Tex.

Junco No. 184535, banded April 8, 1926, at Amherst, Mass., by Mrs. J. S. Chamberlain, was killed by a cat about April 22, 1929, at Le Quille, Annapolis County, Nova Scotia.

Fox sparrow No. 643516, banded March 18, 1929, at Rhinebeck, N. Y., by Col. M. S. Crosby, was killed by a cat April 30, 1929, at Port au Port, Newfoundland.

Cardinal No. 242473 ("Baldy") banded March 28, 1921, at Thomasville, Ga., by S. Prentiss Baldwin, has been retrapped April 8, 1922, March 6, 1923, January 21, 1924, May 1, 1926, January 27, 1927, March 6, 1928, and February 2, 1930, the last capture having been made by J. F. L'Hommedieu, of Thomasville.

Catbird No. 392781, banded May 14, 1927, at Schoharie, N. J., by Mrs. Perry E. Taylor, was recovered October 25, 1929, at Tela, Honduras, and the band sent to the Survey.

Chickadee No. 33958, banded April 16, 1923, at Topsfield, Mass., by Mrs. Elsie V. Perkins, has been retaken by her on October 15, 1923, October 15, 1924, February 16, 1925, November 7, 1925, November 10, 1927, and January 4, 1930.

Robin No. 467945, banded April 26, 1928, at Barkerville, British Columbia, by T. T. McCabe, was found February 9, 1929, at Slaton, Tex.

Robin No. 265463, banded August 3, 1929, at Delaware, Ohio, by H. H. Hipple, was caught about December 19, 1929, at Fyffe, Ala.

