

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY
Washington, D. C.

B I R D B A N D I N G N O T E S

No. 13.

November , 1924.

GENERAL INFORMATION TO COOPERATORS.

The section of Bird Banding Notes under the above heading should receive careful attention from cooperators, for the Biological Survey considers it in the same light as a personal communication. By this means the great volume of correspondence is kept at a minimum.

Reports. --Cooperators should keep the Bureau fully advised regarding their plans. Several who have received bands have never rendered a report, while others who have done some work have not been heard from for several months.

Detailed reports of all repeats and returns are desired. It is assumed that every station preserves a record of each repeat, and these should be compiled and forwarded to Washington semi-annually, preferably during the last of June and the first of January. Monthly reports of this nature are not desired, for the reason that there is just as much labor involved in entering these data on the cards - which must be taken from files that now contain many thousands - for a monthly report as for one covering a period of six months.

Noting the number of times that a bird repeats in a given period, without exact dates, is not sufficient. The Bureau wishes to take this opportunity to thank those cooperators who have adopted the model described on pages 22 to 26 of Miscellaneous Circular No. 18. Any letter-sized stationery is suitable for reports. The supply of old schedules is almost exhausted and, as previously announced, it is not anticipated that more will be printed.

Bands. --During the fiscal year ending June 30, 1925, we may experience a little difficulty in maintaining an adequate stock of bands, due to insufficient funds for the purpose. We will, of course, make every effort to see that no station is obliged to suspend activities because of a lack of this material, but in order to do so we must have full cooperation from every operator. First, if for any reason a station is obliged to cease work temporarily, all unused bands should be immediately returned to

NOTE:- "Bird Banding Notes" is not a publication and is not for general distribution. It is issued for the information of cooperators of the Biological Survey, but anyone using in a published paper any of the information contained in it will be expected to give full credit to the person named and to the Bureau.

Washington for reissue to other cooperators. The Bureau will endeavor to see that a fresh supply is sent when operations are resumed. Second, stations should not anticipate probable needs for a period of more than two or three months. Orders of more than 100 for any size should be fully explained.

New stations.--The Biological Survey will always give careful consideration to an application for a Federal bird banding permit that is endorsed by a station operator, for we are sure that before signing such request he will ascertain that the applicant is fully qualified, both as to a knowledge of birds that will guarantee accurate identifications and in a determination to establish a trapping station. Promiscuous banding of fledglings has not been productive of results, and except for colony birds, those that may be regularly trapped as adults, and those that may be killed by hunters, fledgling work should be discontinued.

Major W. T. MacMillan, of Cohasset, Mass., suggests that each trapping station try to have another started in the same neighborhood, that they may work together. In this way a gradual but orderly expansion of our plans may be effected.

R. Bruce Horsfall, of Washington, D. C., has stated his belief that cooperators would eliminate certain interference with their traps if these were conspicuously labeled to the effect that they were being operated under Federal permit in cooperation with the Biological Survey. The effect is largely moral, but we know of a few stations where this scheme has been adopted, apparently with beneficial results.

Age and sex of banded birds.--So far as possible the record for each new bird banded should contain this information. With many species, such as most of the sparrows, chickadees, etc., it is not possible with our present knowledge to state sex with any degree of certainty. Age can, however, usually be told, and the record should be marked ad. (= adult); im. (= immature); or juv. (= juvenile or fledgling).

Records.--Since Bird Banding Notes No. 12 was issued, the Biological Survey has received a few accounts of different methods in vogue for handling station records.

J. K. Jensen, of Santa Fe, N. Mex., has forwarded for examination the book in which he keeps all bird banding data. In this book (which measures about 5 by 8 inches) each record is duly entered, four sets of data being noted on each page. The records are, of course, in numerical order. Repeats are noted in the usual manner, but returns are entered with red ink.

Miss Kathleen M. Hempel, of Elkader, Iowa, writes that she is using the card system, the records being kept in a collar box, arranged numerically under species. When a return is obtained a new card is made out and attached with a paper clip to the original record. Pieces of adhesive tape are fastened to blank cards for "guides," the name of the species being written on the tape.

John A. Gillespie, of Glenolden, Pa., is also using the card system, supplementing the permanent file with a "day card" and book record in which totals are carried forward from day to day, thus showing at any time the number of birds banded at his station and the number of repeats and returns. The individual record cards are filed numerically under species, the band number being supplemented by a second number that indicates the number of individuals of that particular species banded. Returns are cross-indexed by a return card that lists these data by number and species.

Photographs.--The importance of building up a good file of photographs of banded birds (particularly returned birds), traps, and stations in general, can not be overestimated. Material of this character is of much value to the Bureau and to our cooperators.

Among photographs recently sent to the Washington office are a series forwarded by Mrs. Alice B. Pratt, of Middleboro, Mass., which show some of the chickadees frequenting her station; one by Richard B. Harding, of Cohasset, Mass., showing a young great blue heron being banded at its nest; one from Mrs. A. Arnold, of Inavale, Nebr., showing her government sparrow trap, which is operated on a platform; two from Mrs. Martha E. Martin, of Watchung, N. J., showing the traps at her sub-stations; a series of nine from the station of Mrs. E. Louise Hathaway, of West Bridgewater, Mass., showing her traps and some of the birds that she has banded; and an excellent series of bird portraits by Paul W. Hoffman, of Milwaukee, Wis., showing red-backed and semipalmated sandpipers, blue jays, bronzed grackles, loons, and chestnut-sided warblers.

STATIONS

W. I. Lyon, of Waukegan, Ill., reports the fall migration of white-throated sparrows one to two weeks late. He writes that he has every available trap ready, and we are hoping that he will obtain some returns. Despite the great number of these birds that have been banded, there have been very few returns, indicating a migratory route of more than ordinary interest. Each station should make a special effort to trap every white-throat that comes to the vicinity.

Dr. Edward G. Rowland, of Belchertown, Mass., has forwarded the report of his station on the grounds of the Belchertown State School. A map accompanying the report illustrates the position of the various sub-stations, at which he has been able to trap a large number of birds not reported from most stations. This is due largely to the different types of environment that are available.

The report of R. H. Dean, whose station is on the grounds of the U. S. Weather Bureau at Anniston, Ala., contains many features of interest, some of which will be mentioned under the headings "Bait" and "Bands." Mr. Dean is operating a sparrow trap and a modified barrel hoop trap, the latter being sensitized by a mouse trap. The traps are placed either on the ground or on a platform elevated about 5 feet. The platform is supported at the center by a single piece of galvanized iron pipe, which gives it the

advantage of being dog and cat proof. Mr. Dean has found the platform an effective base for traps to capture all birds that are not strictly ground feeders. He writes that his total score on English sparrows is 654 and on vagrant cats, 41.

Miss Linda M. Block, of Wakefield, Mass., desires to call attention to robin No. 254465, brought to her last June with a broken tarsus. She set the leg in a cast, which was removed September 18, 1924. The break had knitted perfectly, and we believe Miss Block is to be complimented on her successful surgery.

Mrs. Marie Dales, of Sioux City, Iowa, has sent in a description of her station, which for a mid-city location appears to offer exceptional inducements for birds. She started feeding the birds in 1923 and reports a most gratifying increase this year in their numbers.

Miss Bessie M. Bruce, of Glendora, Calif., has started her station with most satisfactory results. During the month of July she was able to trap 52 birds, mostly Brewer blackbirds and Anthony towhees. She is operating two traps, one a two-compartment false bottom and the other a made-over trap originally designed for warblers.

Mr. and Mrs. John A. Gillespie, of Glenolden, Pa., established a temporary station at Oak Bluffs, Mass., where they spent their vacation. Mr. Gillespie recently stated that he considers September the most difficult month for the successful operation of a trapping station. How does this compare with experiences at other stations?

Elbert Benjamine, of Los Angeles, Calif., was also able to continue his bird banding work during his vacation, his operations being carried on in southern Utah. Small portable or collapsible traps are ideal for such occasions.

Mrs. Martha E. Martin, of Watchung, N. J., is another new cooperator who has recently established a trapping station. At present she has two traps, but with 12 acres of land, much of it in uncleared second growth, we feel sure that this equipment is going to be increased.

A. W. Higgins, of Rock, Mass., has forwarded an interesting paper that he has entitled "A Haven in the Time of Storm." It deals with the severe storm conditions that prevailed in his vicinity last May, when many tree swallows sought refuge in nest boxes which he had erected. Nine were counted going into one box. Needless to say, they were duly banded. On the basis of his observations Mr. Higgins makes the important suggestion that nest boxes should face in a southerly direction. Boxes with openings to the north were not utilized for shelter by the swallows.

Arthur Morley, of Swampscott, Mass., reports adding a drop trap to his station to capture birds which learn the way in and out of funnel traps. He will no doubt be interested in the Polynesian trap described in this issue.

Mrs. Eleanora S. Morgan, of Northeast Harbor, Me., continued the operation of her station at that point during the past summer, securing several returns and banding a large number of new birds, among which were four hummingbirds.

Miss Margaret Thomas, of Bangor, Mich., has been experimenting to learn the reaction of certain birds to music. Harmonious chords produced a quieting effect on both a catbird and a brown thrasher, but curiously enough the thrasher appeared to dislike "jazz" and protested strongly all the time it was being played.

Miss Elizabeth Whelen, of Williamsport, Pa., reports difficulty in attracting birds during the summer. This is the most difficult season for the successful operation of a trapping station, but when supplies of both food and water are maintained, some birds are almost always secured. Miss Whelen had the pleasure of having an adult cedar waxwing alight on her finger and feed a fledgling she was holding.

F. Dale Pontius, of Columbus, Ohio, operating three traps, reports that the site of his station is the best bit of bird country in that vicinity. This is substantiated by the number of birds he is banding.

Miss Lottie M. Smith, of South Sudbury, Mass., placed one of her traps in a cornfield for the purpose of capturing blackbirds. The guard wires were bent up to permit the entrance of these birds, and "scratch" feed was used as bait. Information is greatly desired regarding the movements of all kinds of blackbirds because of the fact that they are a serious pest in some communities. Cooperators should, therefore, give attention to this group whenever possible.

Harrison F. Lewis, of Ottawa, Ont., has continued his work with sea birds in Saguenay County, Que., banding 316 birds. Among them are common murre, razor-billed auks, great black-backed gulls, Caspian and common terns, kittiwakes, puffins, and black guillemots. Mr. Lewis also reports three returns of murre banded by him in 1923 and found, recently killed, near the place of banding. The bands were in perfect condition despite their long submergence in sea water, which is very hard on aluminum.

Dr. Earl Brooks, of Noblesville, Ind., has recently forwarded a report in which he contrasts the work of his station this year with the same period in 1923. During the 1923 period 100 birds of 17 species were banded. Thus far this year he has banded 310 individuals of 45 species. He is operating four traps, - a sparrow trap, a drop trap, a house trap, and a "heart-shaped" trap, - the latter being, we believe, the first use of this trap at a small bird station as it was designed primarily for the capture of water-fowl.

BANDS

When ordering a fresh supply of bands it is advisable to follow up the request in case neither the bands nor the notice of their shipment is

BAIT

In an interesting report from the station of A. F. and E. A. Satterthwait, of Webster Groves, Mo., the statement is made that these cooperators have frequently found cheese attractive to birds when other foods were refused. They also report that of all baits tried, sunflower seed and suet have attracted the greatest number of species.

R. H. Dean, of Anniston, Ala., reports water to be an excellent bait. When used inside the trap he finds that birds frequently become much bedraggled and he has found it just as effective when placed outside the traps.

Miss Bessie M. Bruce, of Glendora, Calif., has successfully used watermelon rind as bait for orioles, mockingbirds, and grosbeaks.

TRAPS

We should like to have information in the semi-annual reports showing the efficiency of the various types of traps. It is not necessary to make reports regarding the following, which we now know to be suitable for many different kinds of birds: Government sparrow trap, house trap, drop trap (several models), false-bottom trap, canary cage trap, and nest box trap-door.

The false bottom trap has proved particularly successful on the Pacific coast, and we have received descriptions of several stations equipped with them. E. L. Sumner, Jr., of Pomona, Calif., is operating six of them placed from 50 to 150 feet apart. One is under a bird bath and the others are near hedges of berry-bearing shrubs. He is also interested in traps for warblers, and we predict that in another season this subject is going to occupy the attention of several stations.

Harry S. Hathaway, of Quonochontaug, R. I., has requested information regarding methods of trapping adult bluebirds, other than by trap nest boxes, and what bait may be used. If any cooperator has had experience with this species, both Mr. Hathaway and the Bureau would be glad to have the information. This problem should also receive the attention of some of our ingenious operators.

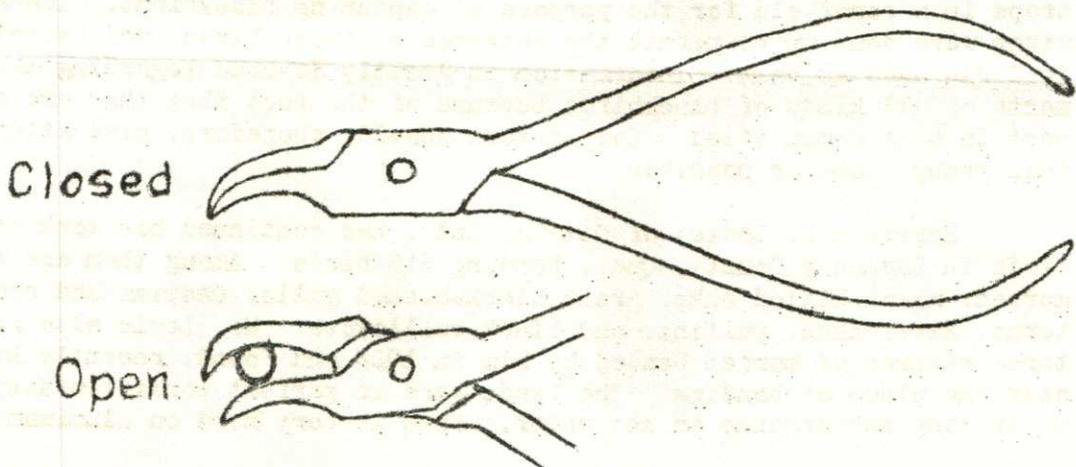
Horace D. McCann, of Paoli, Pa., has added a Chardonneret trap (See Bird Banding Notes No. 10) to the equipment of his station and has found it useful. The first bird taken was a purple grackle, and this was followed by several Baltimore orioles. Every station should have at least one trap with top entrance, and before next spring we hope to describe another trap that has been developed especially for warblers by R. B. Harding, of Brookline, Mass.

We are describing in this issue a three-leaved clover trap that was originally designed by F. C. Lincoln, of the Biological Survey, for

received within a reasonable period, which ordinarily would be about two weeks. Although there are very few losses of this character, it must be admitted that post cards do not always receive the care that is given to letters by those handling them.

R. H. Dean, of Anniston, Ala., has reported a method of treating bands which brings out the numbers and renders them more legible. This is a most useful discovery, and we recommend that every operator who has had difficulty in reading the numbers on the smaller bands treat his supply in the same way. The bands are merely pulled through or rolled between thumb and finger on which there is a pinch of black paint. The tube paint used by artists is excellent for the purpose and one tube would suffice to treat thousands of bands. The excess color is wiped off with a cloth from the surface of the bands, thus leaving a deposit of color in the numbers. The effect is that of enameling, and the numbers show up so clearly that there should be no difficulty in reading them. Mr. Dean says the credit for his discovery should go to Blue Jay No. 278997, which returned with its band smeared with reddish clay. Try this out, save your eyes, and eliminate mistakes.

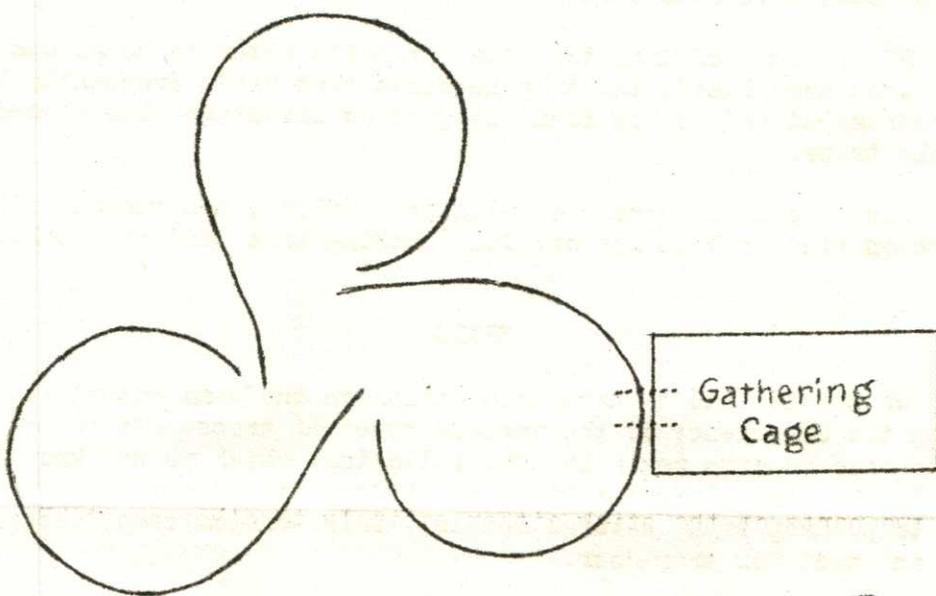
Dr. LeRoy M. Fink, of Edwardsville, Ill., has forwarded a sketch of the tool used by him in attaching bands, which we reproduce herewith.



The instrument is known as a dentist's "contouring pliers," and Dr. Fink says every bird bander should be able to obtain a pair through his dentist. These pliers will take any size ring band and will never slip.

R. H. Dean, of Anniston, Ala., sent in to the Bureau a drawing of a tool for closing bands which is quite similar to the one described in our last issue. The Biological Survey has always maintained that it is not wise to attempt to close any bands with the unaided fingers, and we are therefore gratified to note that our cooperators are employing tools designed especially for this work.

the capture of mourning doves. It was tested last spring at Mr. Baldwin's Thomasville, Ga., station, and was found satisfactory for these birds and also for other ground-feeding species. The principle employed is that of the funnel, the advantage being that three are used, thus permitting birds to enter from any direction.

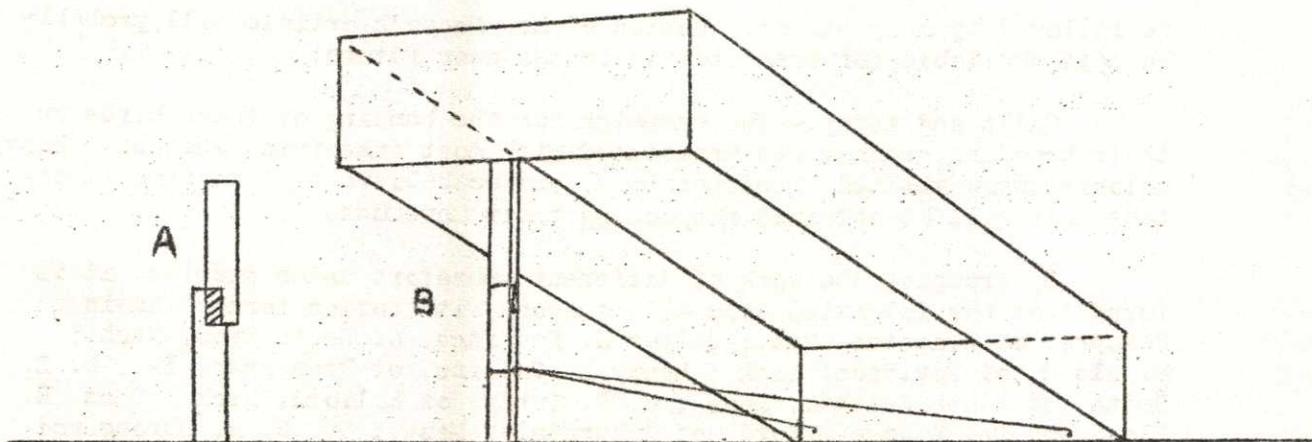


Ground Plan - Three-leaved Clover Trap

As originally designed, the trap was to be made of the small-meshed wire-netting which comes in 18-inch or 2-foot widths and which is known as rabbit or pigeon wire. Three pieces of netting, each about 4-1/2 feet in length, are used. These are placed upright on the ground in the manner indicated by the sketch, the lower edges being secured to the ground by means of forked stakes. This will make each chamber about 18 inches in diameter. The top is covered over with the same kind of netting, and a door is provided in the back of one chamber to permit the transfer of captured birds to a gathering cage.

If it is desired to make a portable trap of this same type it should be made smaller and of the regular small-meshed hardware cloth. A bottom should also be provided, and it would be well to reinforce the whole with heavy wire. This trap combines the advantages of the ordinary funnel trap with the increased efficiency through having three openings.

Ernest H. Quayle, of Stanford University, Calif., has sent in the drawings and description of the following trap, which he calls a Polynesian trap, as it is used by the natives of the Polynesian Islands for the capture of jungle-fowl and wild pigs.



Polynesian Trap

We are showing the device as used on a simple drop trap, but it might be successfully employed on the New England collapsible trap and on any other closed by a door falling through an arc of 90 degrees. The trip stick is sawed half through from opposite sides about half an inch apart and then split between the cuts. When set together they support the tray or door of the trap, the sensitiveness of the "set" being adjusted by placing the two parts of the stick either entirely together as at "B" or widely separated as at "A." Two pieces of fine piano wire or any small glittering wire are fastened from the lower portion of the stick to opposite corners of the trap. The bait is then spread between the wires. Mr. Quayle reports having caught four California quail at once in a trap so sensitized. Cooperators will recognize a similarity between this device and the one used in Mrs. Herrick's canary-cage trap (See Bird Banding Notes No. 4), the stick in the latter trap being horizontal instead of vertical.

SPECIAL INVESTIGATIONS

In noting here the work on certain groups of birds it is not possible to refer to the activities of all cooperators, because of the great number of records that are almost daily received. It is our purpose, however, to note such bandings as are unusual either as regards the species or the numbers handled. It is nevertheless possible that some exceptional cases are overlooked, but such oversights are in no way due to a lack of appreciation of the efforts of our cooperators.

Attention is called to the excellent paper in *The Auk* for October, 1924, by M. J. Magee, of Sault Ste. Marie, Mich., dealing with the changes of the plumage of the purple finch. The Bureau has been urging the importance of such studies for the past two years, and Mr. Magee has demonstrated the possibilities open to every station to make a definite contribution to our knowledge of the different species. It is hoped that his example will

be followed by many others. Copies of Mr. Magee's article will probably be made available for each station in the near future.

Gulls and terns.--The campaign for the banding of these birds on their breeding grounds was prosecuted with most gratifying success. Many colonies were visited by cooperators, and we believe that in time important data will be obtained respecting their movements.

By grouping the work of different operators under species, it is found that the following were able to work with common terns: Edwin Beaupre, of Kingston, Ont.; Walter E. Hastings, of South Lyon, Mich.; R. Lloyd, of Davidson, Sask.; Henry M. Collins, of Bryn Mawr, Pa.; W. E. Smith, of South Chatham, Mass.; W. B. Purdy, of Milford, Mich.; Chas. B. Floyd and Dr. Eugene Ufford, of Auburndale, Mass.; Dr. R. M. Strong and W. S. McCrea, of Chicago, Ill.; and Geo. M. Luther, of Detour, Mich.

Herring gulls were banded by Dr. R. M. Strong and W. S. McCrea, of Chicago, Ill.; Ernest Joy, of Grand Manan, N. B.; Geo. B. Luther, of Detour, Mich.; Harold C. Wilson, of Ephraim, Wis.; Dr. Chas. W. Townsend, of Boston, Mass.; Wm. M. Duval, of Bonaventure Island, Que.; Harrison F. Lewis, of Ottawa, Ont.; Wm. I. Lyon, of Waukegan, Ill.; and M. J. Magee, of Sault Ste. Marie, Mich.

Glaucous-winged gulls were banded by J. A. Munro, of Victoria, B. C., and D. W. Gillingham, of Kerrisdale, B. C.; Caspian terns by W. S. McCrea, of Chicago, Ill., and Harrison F. Lewis, of Ottawa, Ont.; and roseate terns by W. E. Smith, of South Chatham, Mass., and Chas. B. Floyd and Dr. Eugene Ufford, of Auburndale, Mass., while Harrison F. Lewis, of Ottawa, Ont., placed a large number of bands on ring-billed gulls, and Ernest Joy, of Grand Manan, N. B., banded a few great black-backed gulls.

Ducks and geese.--As the result of a drive in which 21 Eskimos with 8 kyaks took part, the Alaskan expedition from the Biological Survey banded 115 cackling geese and 16 Emperor geese on their breeding grounds near Hooper Bay south of the delta of the Yukon River.

The trapping station of H. S. Osler at Lake Scugog, Ont., is again in operation, and the first report contained records for 564 black ducks and blue-winged and green-winged teals.

During this year we have made arrangements for beginning operations as the season advances at several new duck stations.

Frank W. Robl, of Ellinwood, Kans., has banded a large number of blue-winged teals, mallards, and pintails; R. H. Carter, of Muscow, Sask., banded a few mallards; Paul E. Page captured a number of mallards at Lac Ste. Anne, Alta.; and R. Lloyd, of Davidson, Sask., banded several mallards, baldpates, and pintails.

Miscellaneous water birds and shorebirds.--Under this head may be listed a hundred young gannets banded by Wm. M. Duval, of Bonaventure

Island, Que.; a marbled godwit and a Holboell grebe by H. Battersby, of Oak Lake, Man.; some willets, cormorants, and Wilson phalaropes by R. Lloyd, of Davidson, Sask.; a black skimmer by H. M. Collins, at Anglesea, N. J.; a large number of murre and razor-billed auks by H. F. Lewis, of Ottawa, Ont.; a northern phalarope and a puffin by Ernest Joy, of Grand Manan, N. B.; several kildeers, marbled godwits, and willets by E. E. Baynton, of Bigstick Lake, Sask.; a few kildeers by Joel Johnston, of East Jordan, Mich.; several coots by Frank W. Robl, of Ellinwood, Kans.; a large number of Florida gallinules by H. S. Osier, at Lake Scugog, Ont.; a sanderling by W. I. Lyon, of Waukegan, Ill.; and a spotted sandpiper by T. D. Carter, of New York City.

Blue jays.--Miss Kathleen M. Hempel, of Elkader, Ia., writes that she has banded 50 blue jays since April. Other stations where large numbers of jays have recently been banded are those of R. H. Dean, of Anniston, Ala.; N. E. Huff, of Minneapolis, Minn.; Dr. Earl Brooks, of Noblesville, Ind.; and Dr. John A. Brady, of Lakewood, Ohio. Cooperators in the northern part of the blue jay's range should give these birds special attention, as they are likely to migrate.

Birds of prey.--It is gratifying to note the increased attention that these birds have received from cooperators, for there is always the chance of a return of special interest from a banded hawk or owl. R. H. Carter, of Muscow, Sask., banded 3 young Swainson hawks, 4 red-tailed hawks, 9 marsh hawks, 3 long-eared owls, and 5 saw-whet owls; Mrs. C. A. Leedy, of Youngstown, Ohio, banded 5 sparrow hawks; E. E. Baynton, of Bigstick Lake, Sask., banded a brood of rough-legged hawks; and Dr. John A. Brady, of Lakewood, Ohio, banded a saw-whet owl.

Doves.--Mourning doves have been banded by Geo. Lang, of Indian Head, Sask.; H. E. Jacques, of Mt. Pleasant, Iowa; Joel Johnston, of East Jordan, Mich.; Oscar P. Allert, of McGregor, Iowa; and E. C. Anderson, of Dell Rapids, S. Dak.; while R. J. Longstreet, of Daytona Beach, Fla., banded several of the little ground doves.

Sparrows and their relatives.--This group is always well represented in the records from trapping stations, those from banded song sparrows being particularly numerous. Willis H. Ropes, of Danvers, Mass., banded about 40 during the month of August. Other stations where large numbers have recently been banded are those of H. A. Southerland, of Hall, N. Y.; B. K. Matlock, of Bridgeton, N. J.; S. G. Emilio, of Danvers, Mass.; Verdi Burtch, of Branchport, N. Y.; R. M. Marble, of Woodstock, Vt.; Oscar P. Allert, of McGregor, Iowa; L. B. Fletcher, of Cohasset, Mass.; and Rev. Wilfrid Scott, of Guelph, Ont.

Lincoln and swamp sparrows also have been more than ordinarily numerous according to the reports from the stations of K. Grant McDougal, of Winnipeg, Man.; Verdi Burtch, of Branchport, N. Y.; J. K. Jensen, of Santa Fe, N. Mex.; and Oscar P. Allert, of McGregor, Iowa.

RETURNS

Department Bulletin No. 1268.--This bulletin, "Returns from Banded Birds, 1920 to 1923," has been recently issued and a copy forwarded to every bird banding cooperator. If yours has not been received, a second will be sent on request. In this bulletin, all returns received by the Bureau during the period from January 1, 1920, to June 30, 1923, are listed and made available in this form for study by our cooperators. It is planned to issue similar bulletins annually hereafter, and the task of compiling the records received during the period from July 1, 1923, to June 30, 1924, is now well under way. Any suggestions or criticisms that will tend to make this material more useful will be welcomed by the Biological Survey.

We are again obliged to omit mention of recently received returns because of the length of the present issue. It may be said, however, that a great many have been obtained, both from station reports and from other sources.

NEW COOPERATORS

Federal bird banding permits have been issued to the following new cooperators by the Biological Survey, or by the Canadian Department of the Interior, since Bird Banding Notes No. 12 was issued:

Allison, N. C.
Route B, Box 315,
Indianapolis, Ind.

Doolittle, E. A.,
136 Pearl St.,
Painesville, Ohio.

Baumgartner, J. Hampton,
Rogers Ave. & Cross Country Blvd.,
Baltimore, Md.

Draper, Miss Sarah L.,
Fair Haven, Vt.

Blocher, Arthur,
West Division St.,
Amboy, Ill.

Floyd, Joseph,
St. James, Mich.

Brett, Geo. W.
342 21st St., West,
Owen Sound, Ont.

Foft, Samuel F.,
Waukeg, Iowa.

Cole, Elton,
433 S. Burdick St.,
Kalamazoo, Mich.

Gardner, Kenneth,
1941 Glenn Ave.,
Pasadena, Calif.

Daley, Mrs. Florence K.,
Oliverea, N. Y.

Haase, Dr. Chas.
"Stoneacres," R. D. No. 4,
Elmira, N. Y.

Davis, John M.,
723 L St.,
Eureka, Calif.

Hadley, Miss Theodosia,
Western Normal School,
Kalamazoo, Mich.

Hoffman, Edward C.,
803 W. Superior Ave.,
Cleveland, Ohio.

Howatt, Dr. Gilbert A.,
1922 F St.,
Eureka, Calif.

Jones, Waldo Hilman,
Wilburns Creek Beach,
Poplars P. O., Md.

Leedy, Mrs. Chas. A.,
343 Falls Ave.,
Youngstown, Ohio.

McDaniel, Geo. H.,
234 West Pratt St.,
Eureka, Calif.

McNicholas, James Richard,
Station Hospital,
Fort Banks,
Boston, Mass.

Mac Carty, Mrs. Helen M.,
820 3d St., S.W.,
Rochester, Minn.

Marks, Horace,
118 Main St.,
Nantucket, Mass.

Michener, Harold,
418 Elm Ave.,
Pasadena, Calif.

Moore, Jack K.,
312 S. Commonwealth Ave.,
Los Angeles, Calif.

Mull, Mrs. Bert F.,
Foothill Blvd.,
Glendora, Calif.

Osborne, Livingston E.,
Woodland Ave.,
Ravinia, Ill.

Sallee, Roy M.,
Oneida, Ill.

Sampson, W. B.,
1005 N. San Joaquin St.,
Stockton, Calif.

Sarver, Mrs. Bina T.,
Spring Ledge Station,
Crawfordsville, Ind.

Sarver, Clifford D.,
Spring Ledge Station,
Crawfordsville, Ind.

Scotfield, H. C.,
704 Laurence Ave.,
Sturgeon Bay, Wis.

Shaw, Miss Ruth G.,
Crystal Lake,
Canaan, N. H.

Simpson, G. Buchanan,
Lake Cowichan, B. C.

Stanford, Joseph S.,
Carey, Idaho.

Stragnell, Mrs. Sylvia J.,
Harmon-on-Hudson, N. Y.

Stringer, Sydney,
Beachton, Grady County, Ga.

Taylor, Mrs. H. J.,
1711 Douglas St.,
Sioux City, Iowa.

Toepelman, Prof. W. C.,
University of Colorado,
Boulder, Colo.

Tullock, Mrs. Gilbert,
379 Edgewood Ave.,
New Haven, Conn.

Ulmer, L. J.,
Lock Haven, Pa.

Watkins, Geo. B.,
2412 E. 16th St.,
Indianapolis, Ind.

Wilkins, J. A.,
Rosedale, Miss.

Faint, illegible text on the left side of the page, possibly bleed-through from the reverse side.

Faint, illegible text on the right side of the page, possibly bleed-through from the reverse side.

