GENERAL INFORMATION TO COOPERATORS.

Bird Banding Notes serve a double purpose. First they are intended as a medium of communication from the Biological Survey to bird banding cooperators; general instructions and useful information are thus disseminated as well as precautionary notes concerning common errors either in the operation of trapping stations or in caring for the records. Second, they serve the purpose of inter-station communication between cooperators, whereby the results of their experiments and other activities are made available for the general advancement of the work. Cooperators should therefore consider each issue in the light of an individual letter to them from the Bureau.

Such a large number of winter residents have been banded within the past two years that we believe they offer exceptional opportunities for obtaining interesting returns. As an example, several thousand white-throated sparrows have been banded, but very few returns have been reported. This indicates an unusual migration route, and cooperators should make an effort to capture and report upon every white-throat in the vicinity of their stations. The Nuttall sparrow of the Pacific coast probably has similar peculiarities in its migratory routes.

Identify the bird.--This heading was used on page 8 of the first issue of Bird Banding Notes, where it was stated that a bird whose identity was questioned might be banded but the record should be queried. Experience has demonstrated that this is not only unsatisfactory but dangerous. Returns frequently come in from persons who have little or no knowledge of birds, and who are neither able to name the bird nor to furnish an intelligible description of it. Two returns have recently been received that might be valuable records but for the fact that the identity of the carrier was uncertain. As it is, they are worthless and can never be used. Therefore we reverse the former opinion and now say, do not band under any circumstances any bird that can not be positively identified. Better allow it to go unbanded than to run the risk of causing erroneous data to be placed in the files. Accuracy is paramount.

NOTE:--"Bird Banding Notes" is not a publication in any sense of the word, being issued merely for the information of cooperators of the Biological Survey, Wis., not for general distribution. However, anyone using in a published paper any of the information contained in this circular will be expected to give full credit to the person named, if any, and to the Biological Survey.
The number is always the key.---When writing to the Biological Survey for information concerning any banded birds, be sure to give the band numbers. Supplying this information promotes efficiency as it saves time at the Bureau, where the files are arranged in numerical order.

The new bird banding permits.---At an early date bird banding cooperators will receive from the Bureau permits that will be good until revoked by the Secretary of Agriculture or until returned by the cooperator. It will be noticed that most cooperators will receive a permit authorizing operations only on nongame birds. Only a few cooperators are working with game species, but should others desire to extend their activities to include these groups, they should notify the Bureau so that the proper form of permit may be issued.

Send original records to the Bureau promptly.---This is a subject to which we are continually giving emphasis. With addressed envelopes and franked furnished by the Biological Survey, which in the United States require no postage, it would seem that cooperators should have no difficulty in complying with this requirement. It is learned that a few operators have forwarded original records to the headquarters of their regional association but not to the Bureau. There is no objection to cooperators’ sending copies of their records to their local organizations if they so desire, but the original records should be sent direct to the Bureau. The only exception to this is in the case of Canadian operators, who send their records to Mr. J. B. Harkin, Commissioner of Canadian National Parks, at Ottawa, Ont., for transmittal to this office.

STATIONS.

Aaron C. Bagg, of Holyoke, Mass., reports that a white-throated sparrow (No. 65227) banded by him on October 4, 1923, repeated regularly for several days and then disappeared. Two weeks later it was again trapped. The bird had accidentally lost its tail and Mr. Bagg is of the opinion that the bird, finding itself handicapped for a long flight, returned to the trapping station where it was assured of food.

Richard B. Harding, of Brookline, Mass., has forwarded an interesting report of activities at his station, accompanied by a number of photographs that will make valuable additions to the series. We are particularly interested in his successful experiments in trapping piping plovers at their nests with a piece of mosquito netting.
Two ruby-throated hummingbirds were banded during the past season by Halter Deane, of Cambridge, Mass.; one by Miss Bertha L. Brown, of Bangor, Me.; one by S. L. Wilson, of Kokomo, Ind.; and a fifth by Mrs. R. C. Flannigan, of Norway, Mich. These are interesting records, but so far it has not been demonstrated that the banded of these tiny birds is of sufficient importance to warrant the production of special bands for the purpose.

Geoffrey Gill, of Huntington, Long Island, N. Y., has forwarded his report, adding thereto interesting information pertaining to the bait that attracted the different species. His total banding for the season was 175 birds of 19 species.

J. F. Kilgus, of Williamsport, Pa., was employed as nature counselor at Camp Moosilauke, N. H., during the past summer, and while there he banded a number of birds. He plans to return next year, and it is hoped he will find it possible to establish a trapping station there that will be in operation each season.

M. J. Magee, of Sault Ste. Marie, Mich., ended his purple finch season with a total of 1,092 marked and 33 returns. He is now preparing to devote his attention to the evening grosbeaks that usually visit his station during the winter.

Prof. J. W. Stack, of East Lansing, Mich., has recently established a trapping station in the Forest Nursery of the Michigan Agricultural College. He is using Government sparrow traps and has forwarded an interesting description of the station, which we hope may develop great activity.

Mr. and Mrs. Frank W. Commons, of Crystal Bay, Minn., in their October report noted the fact that they have banded 506 birds of 30 species since they commenced operations in May, 1923. During this period 200 repeats were obtained.

Joseph N. Beck, of Remsen, Iowa, has added a fourth trap to his station. This one is four feet square, and is placed over a bird bath. During hot weather such traps gave excellent results and they should be given a thorough test during the winter months as well.

Mrs. Lotta A. Cleveland, of Downers Grove, Ill., is operating a false-bottom trap with a Government sparrow trap. Her capture of several blue jays will, we hope, contribute information to our investigation of this species.
Ray S. Price, of Lockport, La., is planning to carry on banding work with ducks and other waterfowl during the present season.

Ernest D. Clabaugh, of Berkeley, Calif., is using four types of traps, the sparrow trap, false-bottom trap, a drop trap operated by a figure-4, and a bird cage trap apparently similar in design to the one used so successfully by Mrs. Herrick. His traps are all located within 50 feet of each other. In addition to about 100 birds during September and October, Mr. Clabaugh caught 18 field mice and one wood rat.

Miss Jessica A. Potter, of Los Angeles, Calif., sent in 40 records as a part of her first report. She is operating a typical back-yard station within a few blocks of the business center of the city. The traps used are a four compartment trap with vertical sliding doors operated by the tilted false bottom developed and described by Mr. Law in the last number of The Condor, and a similar trap made from an old bird cage.

Mrs. Ella H. Ellis is another new cooperator at Los Angeles. By means of her four false bottom traps she is taking up the study of the sequence of plumages of the house finch. Studies of this character are likely to be important, especially if the same species can be investigated and the results checked by different operators.

Duck station.--Cooperators will be interested to know that the station of H. S. Osler, at Lake Scugog, Ont., resumed operations this season, and that almost 1,100 ducks have been banded.

A. M. Shields, of San Francisco, Calif., banded and released 100 mallards that had been hatched and raised in captivity. Their migrations will be watched with interest.

Frank Thompson, operating at Bar Harbor, Me., and Herbert K. Job, at Amston, Conn., have also succeeded in adding materially to the number of banded ducks.

The operation of the duck stations at Cuivre Id., Mo., by L. V. Walton, and Portage des Sioux, Mo., by John Broscher, will be continued later in the season, as will also, we believe, Allen Green's station, atOakville, Iowa.

Cooperators frequently have experiences which we believe would be of interest to all others engaged in this important investigation. The following, from the station of F. Kuntz, of Winnipeg, Man., is an excellent example, and we are glad to include it in this issue. It is only regretted that we can not reproduce the excellent photographs that accompanied the report.
BANDING ROSE-BREASTED GROSBEAKS.

By P. Kuntz.

During the months of July and August, 1923, I made it my special task to band rose-breasted grosbeaks. Any one who has tried to band these birds knows how difficult it is to get any results without a callbird of the same species. With a purple finch as a decoy, I was fortunate enough to catch a young female. The traps were placed and baited with hemp and canary seed and I secured a few young birds the first month. Thinking the results rather poor, I baited the traps with sunflower seed. The traps were left out all night; although needless to say I attended to them early in the morning, sometimes in the afternoon, and always in the evening.

As soon as the traps were baited with sunflower seed, the trouble started. For three days in succession, the traps were closed, the bait eaten, and the drinking water upset. I couldn't understand the cause and kept a close watch, and behold one afternoon, I saw a chipmunk climbing out. I had to put another trap cage underneath the one with the callbird in, and as the chipmunk persisted in rifling the cages off the seeds I was able to effect his capture.

I also trapped two flying squirrels in the same manner, after which I was successful with sunflower seed as bait. I then banded a number of fledglings, but only two old males.

When the rose-breasted grosbeaks are taken out of the traps, they squeal loudly, whereupon all the rose-breasted grosbeaks in the vicinity come around; just quietly to see what it is all about. The male rose-breasted grosbeaks arrived at Lot 75, East Kildonan, April 27, 1923, when there were no leaves on the trees, the females arriving a week later. The last I banded were 2 birds, on September 9, and none was observed after that date.

BANDS.

Use the proper band.—In compiling statistics relative to the different bands, we have been amazed to discover that some cooperators have used bands that were decidedly incorrect on different birds. For example, every size from 1 to 5 has been used on common terns when size 3 is correct; the same applies to the bobwhite, which has been marked with every size of band that is issued. Size 3 or #3 would be correct. Flickers have also been banded with bands that were too large and too small. Size 3 is correct. White-throated sparrows are carrying sizes 1 to 5, when 1a is right for birds of this size. Fox sparrows have even been marked with size 6; 1a is correct. Using incorrect markets is likely to cause unfavorable criticism, and as the Biological Survey has ample supplies of all sizes, such practice is unnecessary. It is frequently possible to use a band one size larger by lapping the ends, but a smaller size should never be used. Bands should fit snugly but not closely, and should turn smoothly.
BAIT.

Miss Jessica A. Potter, of Los Angeles, Calif., reports that she is using bird seed, bread crumbs, and crumbled walnut meats for house finches, and grapes and apples for mockingbirds.

Ernest D. Clabaugh, of Berkeley, Calif., is using fresh fruits and various seeds, including grass seed. He reports that coarse chaff feed appears to be the best bait that he has tried.

TRAPS.

John A. Gillespie, of Glenolden, Pa., has sent in the drawings and specifications of a new form of house trap which he is using successfully, and which we will endeavor to reproduce in an early issue.

Among accidental captures of birds for banding purposes, mention should be made of a house wren that got caught on a sheet of fly paper and was banded and released by Mrs. H. C. Miller, of Racine, Wis.

S. E. Perkins, III, of Indianapolis, Ind., writes that he has "found that a lady's hair net placed over the nest of any small bird, in such a way that half lies on the nest and the other half can, with a thread, be doubled back after the bird has come to the nest, will snare the parent bird without hurting it or the young." Experiments of this character should be undertaken with great care, and every effort should be made to alarm the birds as little as possible.

Two very simple but effective devices for operating traps are described by J. Eugene Law in "TheCondor" for September-October, 1923.

The barrel-hoop trap illustrated in this issue was designed by Walter B. Savary, of Wareham, Mass.; the tree trunk trap, by Richard B. Harding, of Brookline, Mass.; and the device used to render a drop trap automatic, by C. M. Pettingell, of Meadville, Pa.
The barrel-hoop trap, it will be observed, is really a form of drop trap. Mr. Savary described it as follows: The base of the cage is made by using an ordinary wooden barrel hoop, 21 inches in diameter, to which 3 umbrella ribs, equally spaced, are attached. The ribs should be attached to the inside of the hoop, and for one of this size they would be about 8 inches apart. The umbrella ribs are united and securely wired together at the top. Starting at the bottom, light wire is then laced between the ribs, the courses not more than one-half inch apart, until ten circuits have been made. The door frame (of heavy wire) is placed just above this wiring. The upper part of the cage is covered with an old minnow seine, a dip net, or any netting of small mesh. The trap is operated on a base board, over which it is suspended by means of a cord and a light tripod. Three or four umbrella ribs set vertically in the base board prevent swaying and serve as guides when the trap is falling. Mr. Savary reports that a trap of the dimensions here given caught more birds than three other traps that he tried, and was never responsible for injury to any bird.
This simple trap, used by Mr. Harding, has proved excellent for the capture of chickadees, downy woodpeckers, creepers, etc.

A wire basket, such as is used for desk papers or for draining dishes, is used. A board, somewhat larger than the basket, is fastened to the trunk of a tree, and the basket is suspended by a nail driven into the board at an angle at the top. About a foot below the board a nail is driven into the tree, to serve as a support to the trigger stick. This should be of sufficient length to hold the lower end of the basket about 3 inches from the board when in place. A string from the trigger stick to the point of observation enables the operator to spring the trap. Rubber bands may be stretched from the basket to the board to speed the action, or the lower end of the board may be inclined from the trunk an inch or two, so that the basket will not hang perpendicularly when sprung. Suet is probably the most satisfactory bait.
Mr. Pettingell's device to operate a drop trap is merely a method of sensitizing it by use of an ordinary mouse trap, which is first fastened to the side of a small stake, to be driven into the ground beside the supporting stick of the tray. The trigger is operated by a light thread that divides to form two sides of a triangle, between which the bait is placed. The ends of the threads are secured to small pegs. A bird moving toward the bait touches one of the threads, which pulls the trigger of the mouse trap; the wire loop of the spring flies around, striking the supporting stick, and the tray falls. Care must be exercised to see that the tray will clear the mouse trap in falling, and that the stick "A" is so placed that it will allow wire "B" to swing clear and still be in its direct path. The stick "A" should be placed on a flat stone.

Cooperators will be interested to know that traps sensitized by mouse traps were discussed at the A. O. U. meeting in Cambridge, Mass., on October 10, by Mr. Henry E. Childs, of Providence, R. I.
At the annual meeting of the American Ornithologists' Union, held at Cambridge, Mass., on October 9, 10, and 11, the morning session of October 10 was given over entirely to bird banding, and several papers of exceptional interest were presented. The New England Bird Banding Association had made arrangements for a bird banding trip on the 12th, when all interested in this subject were offered the opportunity to inspect the excellent stations of Richard B. Harding, Conover Fitch, Chas. L. Whittle, and L. B. Fletcher, at Cohasset. All these stations are less than a mile apart, and all are well supplied with excellent traps, preference being shown for the collapsible drop trap described in Bird Banding Notes No. 8.

Following the trip, a bird banding dinner presided over by Dr. Alfred O. Gross, of Brunswick, Me., was given at the Hotel Essex. The "trap" was "well baited," and about 75 persons were "caught." The speakers were Dr. Chas. W. Townsend, President of the New England Association, Dr. Witmer Stone, the retiring president of the A. O. U., Frederick C. Lincoln, of the Biological Survey, and L. B. Fletcher, secretary of the N. E. B. B. A. Mr. Fletcher illustrated his remarks with lantern slides from photographs made at different trapping stations.

The Inland Bird Banding Association held its annual meeting at Indianapolis, Ind., on November 2 and 3, at the joint invitation of the Indiana Audubon Society and the Nature Study Club of Indiana. The presidents of both these organizations, Alden H. Hadley and S. E. Perkins, III, respectively, are active station operators. The meeting was a great success, and it is believed that this is the first time in the history of American ornithology that a two-day session devoted to a specialized field of investigation has been held. At the business meeting on November 2 all officers were re-elected. The public sessions were well attended and great interest shown in the various papers, given by S. Prentiss Baldwin, Wm. I. Lyon, Herbert L. Stoddard, Frederick C. Lincoln, A. F. Ganier, W. S. Blatchley, and Hon. Richard Lieber, Indiana Commissioner of Conservation. More than 50 persons attended the annual dinner, held at the Lincoln Hotel. The speakers were Dr. Amos W. Butler, State Ornithologist of Indiana, Frederick C. Lincoln, of the Biological Survey, Orpheus M. Schantz, president of the Illinois Audubon Society; and Alden H. Hadley, president of the Indiana Audubon Society.

In response to requests for information concerning the territory covered by the different regional associations and the banding chapter of the Cooper Club, the Biological Survey has prepared the following map of North America with the boundaries indicated.
1. New England Bird Banding Association, Laurence B. Fletcher, Secretary, 50 Congress Street, Boston, Mass.

2. Eastern Bird Banding Association, Mrs. J. E. Webster, Secretary, 16 Davis Place, East Orange, N. J.

3. Inland Bird Banding Association, Wm. I. Lyon, Secretary, 760 North Sheridan Road, Waukegan, Ill.

RETURNS.

Returns are being received so rapidly that it is obviously impossible to give more than a very few in this issue. Since the first of October about 500 records have been completed, due largely, of course, to the fact that the shooting season brings in large numbers of returns from banded ducks and other waterfowl.

An unusual record has been reported by P. P. Thrasher, of Tuscaloosa, Ala., who writes that in the year 1880, a "buzzard" (probably a turkey vulture), wearing a small collar with a bell attached, was killed in Pike County, Ala. An inscription on the bell indicated that it had been attached to the bird's neck in the State of Ohio about 15 years previously.

Herring gull No. 231393, banded by F. C. Lincoln and W. S. McCrea, at St. James, Mich., July 22, 1923, was found on the St. Lawrence River, at Montreal, Quebec, September 9.

Another herring gull, No. 209571, banded by Wm. M. Duval, at Bonaventure Island, Que., July 30, 1923, was found on the shore of Harritan Bay, at Keansburg, N. J., October 3.

Ring-billed gull, No. 210171, banded at Pointe au Maurier, Saguenay County, Que., August 12, 1923, by Harrison F. Lewis, was returned from Domino Nun, Labrador, September 14.

Double-crested cormorant No. 232048, banded by R. Lloyd, at Last Mountain Lake, Sask., July 1, 1923, was killed 5 miles northeast of Granville, N. Dak., October 14.

Another cormorant of the same species, No. 204756, banded by Harrison F. Lewis, July 13, 1923, near Fog Island, Saguenay County, Que., was caught in a fish net 5 miles north of Cape Hatteras, N. C., October 18.

Mallard No. 205196, banded by L. V. Walton, at Cuivre Island, Mo., January 22, 1923, was killed at Lake Manawi, 15 miles south of Fort Chipewyan, N. W. T., on August 29.

Mallard No. 102126, banded by Allen Green, at Oakville, Iowa, January 30, 1923, was shot at Regina Beach, Sask., November 2.

Black duck No. 297273, banded by E. S. Oeler, at Lake Scugog, Ont., October 3, 1923, was killed 11 miles southeast of Dallas, Tex., October 25.
Another black duck, No. 203310, banded by John Broeker, at Portage des Sioux, Mo., January 22, 1923, was taken at the mouth of the Michipicoten River, Ont., May 3.

Baldpate No. 210511, banded by R. Lloyd, at Davidson, Sask., September 6, 1923, was killed near Clements, Kans., October 2.

Blue-winged teal No. 210958, banded at Oak Lake, Man., May 29, 1923, by Herman Battersby, was shot November 11, 4 miles south of Adams, Kans.

Pintail No. 101853, banded at Cuivre Island, Mo., January 14, 1923, by L. V. Walton, was at the Hudson Bay Company's Churchill Post, July 15.

Greater scaup duck No. 204243, banded by Douglas H. Beyea, at Union Springs, N. Y., March 15, 1923, was shot on the St. Lawrence River, Ont., near the Quebec boundary, September 29.

Lesser scaup duck No. 504563, banded by E. A. McIlhenny, at Avery Island, La., January 18, 1923, was killed October 19, 6 miles west of Chambers, Nebr.

Reddish egret No. 233333, banded by R. D. Camp, at Green Island, Tex., May 15, 1923, was captured about October 20, at Cuicatlan, Oaxaca, Mexico.

Several returns have been secured from black-crowned night herons, among which may be mentioned the following three birds banded at Barnstable, Mass., June 16, 1923, by W. F. Fogg, A. O. Gross, and S. G. Emilio: 233847, near Quebec, Que., September 9; 200741, near Springvale, Maine, September 26; and 233764, at New Holland, Pa., August 22.

Florida gallinule No. 101224, banded by H. S. Osler, at Lake Scugog, Ont., August 26, 1922, was retrapped at the same station, September 8, 1923.

Mourning dove No. 274615, banded by W. B. Taber, Jr., at Kansas, Ill., September 1, 1923, was shot near New Roads, La., November 8.

Marsh hawk No. 220121, banded at Kenosha, Wis., by H. L. Stoddard, June 10, 1923, was taken September 27, 4 miles north of El Paso, Ill.

Red-tailed hawk No. 204807, banded July 1, 1923, at Muscow, Sask., by R. H. Carter, Jr., was killed near Randall, Iowa, October 31.
Belted kingfisher No. 113954, banded on July 1, 1923, at Andover, N.Y., by C. H. Watson, was caught at Harrison Valley, Pa., August 20, and again liberated.

Northern flicker No. 19417, banded by Henry E. Childs, at Smithfield, R.I., June 17, 1922, was recaptured by him September 8, 1923.

Northern flicker No. 11092, banded by R. H. Carter, at Muscow, Sask., May 23, 1923, was killed by a small boy near Terrill, Tex., about October 20.

Wood pewee No. 74563, banded at Unity, Me., July 25, 1922, by Arthur W. Taylor, was recaptured by Mr. Taylor at the same place, on July 27, 1923.

Cowbird No. 43197, banded by J. M. Robinson at Auburn, Ala., April 2, 1923, was taken near Prattville, Ala., October 8.

Purple grackle No. 217388, banded at Glenolden, Pa., by John A. Gillespie, July 11, 1923, was killed in Salem County, N.J., August 17. G. Irving Hall, in reporting the return, stated that the bird was in perfect plumage, the purple being very prominent. This is of interest as Mr. Gillespie writes that the bird was in the dark brown plumage of immaturity when banded, having acquired full plumage in 37 days.

Bronzed grackle No. 23571, banded by Wm. I. Lyon, at Waukegan, Ill., July 3, 1922, was recaptured at this station, August 4, 1923.

Another, No. 16145, banded May 23, 1922, at Lawrence, Kans., by Mrs. Bessie P. Reed, was killed at Meeker, La., February 3, 1923.

Mrs. Geo. Burbank, of Sandwich, Mass., retrapped on May 21, 1923, chipping sparrow No. 26262, banded by her May 9, 1922.

Horace D. McCann, of Paoli, Pa., caught white-throated sparrow No. 119373, October 26, 1923. This bird was banded by R. J. Middleton, at Jeffersonville, Pa., October 15, 1923.

White-throated sparrow No. 12865, banded December 16, 1922, by B. S. Bowdish, at Demarest, N.J., repeated until February 11, 1923. It returned to the same station, October 30.

Two purple finches, Nos. 13570 and 13571, were banded June 25, 1922, at Lakeville, Mass., by K. S. Bowen. By a remarkable coincidence both were retaken by him on May 7, 1923.
Song sparrows continue to afford much interesting information. A few of the records recently received are:

No. 51029, banded March 24, 1923, at Danvers, Mass., by Willis H. Ropes; caught in a store at Weymouth, N. S., in June, 1923, and again released.

No. 30326, banded May 14, 1922, at Rutland, Vt., by Leslie Crane; recaptured by him May 1, 1923.

No. 26701, banded April 25, 1922, at East Kildonan, Man., by K. G. McDougal; recaptured by him, April 24, 1923.

No. 27029, banded June 29, 1922, at Upper Montclair, N. J., by R. H. Howland; repeated regularly until October 10, 1923; next appeared July 17, 1923.

Brown thrasher No. 16214, banded May 1, 1922, at the station of Fred N. Hadley, in Whiting, Ind., was recaptured May 15, 1923, at the station of C. F. McNeil, also in Whiting.

Bank swallow No. 75873, banded at Banff, Alta., July 15, 1922, by P. F. Foran, was recaptured by him on July 13, 1923.

Who Banded Crow No. 3220? The record of banding for this bird has not been sent in by the cooperater. It was killed on October 1, 1923, near Penn Yan, N. Y. The operator who used this band is requested to send the banding record to the Bureau as soon as possible.