

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. 10.

April 14, 1924.

GENERAL INFORMATION TO COOPERATORS

Permits.--New Federal bird banding permits have been sent to all cooperators. These do not expire at the end of the calendar year, but are good until revoked by the Secretary of Agriculture; but "failure to render the reports required will be sufficient cause for revocation." Most of the permits are for work with non-game species only, as a study of activities indicates this to be all that is needed. Authority will be extended, however, to any cooperator contemplating banding such migratory game birds as ducks, rails, and coots; snipe, sandpipers, and plovers; or doves and wild pigeons. Federal game-bird permits are not needed for banding quail, grouse, or other upland game birds.

The proper State Game Departments are promptly notified as to who holds Federal bird banding permits. Most of these departments have agreed either to recognize the Federal bird banding permit as sufficient authority for work in their respective States, or to issue supplementary permits upon receipt of the Bureau's notification.

Records.--Record cards made out with lead pencil instead of pen and ink are still occasionally received. This requires that they be made over, thus destroying the obvious advantage of having in the files the original record in the handwriting of the cooperator.

All records should be forwarded promptly to the Biological Survey. It has been learned that a few cooperators have sent reports to the headquarters of their regional associations, apparently under the impression that this was the proper course. There is a distinct advantage in having cooperators keep in touch with their local headquarters, and while the Bureau has no objection to their sending reports to such associations, these should always be supplementary to the reports sent to the Biological Survey. The original files are maintained at the Washington office, where they are available to all interested.

NOTE:-- "Bird Banding Notes" is not a publication in any sense of the word, being issued merely for the information of our cooperators, 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 and to the Biological Survey.

We must again call attention to the wasted effort of some cooperators in sending in original records of banding on schedules when the same information has already been supplied on cards. Have the card record complete at the time it is sent to Washington; preserve subsequent information (repeats), and submit compiled reports semi-annually. Schedules need not be used at all if the bands received have cards numbered to correspond. Full details were given in Bird Banding Notes, nos. 5 and 7, and if your files do not contain these issues the Bureau will be glad to send them on request.

Casualties.--Be sure to report all accidents to birds at your station, giving the number of the band and the cause if known. This information will be of value in preparing studies regarding the mortality of birds.

What birds to band--One cooperator has requested information as to what birds to band and how many of each species. All native birds come under the bird banding method, and it is also well to band starlings. Do not band English sparrows, pheasants, Hungarian partridges, or domestic poultry of any kind. Obviously, the more individuals banded the more will be the returns received. The number is limited only by the industry and enthusiasm of our cooperators and by the ability of the Bureau to furnish bands.

Pigeons.--The Biological Survey is constantly receiving reports of racing pigeons that have become lost, probably during races. Cooperators are probably aware of the existence of racing pigeon clubs, whose members indulge in the sport of flying carrier (homing) pigeons from distant points. The national organization, composed of an association of the local clubs, is the American Racing Pigeon Union, of which Harry W. Leyh, of Jeannette, Pa., is secretary. Racing pigeons registered with this organization carry seamless aluminum bands bearing a serial number (usually designated also by letters), the monogram A. U. (which looks like A. J.), and a second number of two figures to indicate the year when the bird was hatched, for, as the bands are seamless, they must be slipped over the foot when the bird is only a few days old. The above information is included here so that cooperators may know how to treat any cases that come to their attention. It is our understanding that Mr. Leyh has the records of all these birds.

Reference books.--In response to numerous inquiries relative to convenient reference works for use in identifying birds, the following are suggested:

"The Bird Guides," by Chester A. Reed. Doubleday, Page, & Co., New York. There are several of these guides, pocket size, and illustrated with color plates.

"Handbook of Birds of Eastern North America," by Frank M. Chapman. D. Appleton & Co., New York.

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"Handbook of Birds of the Western United States," by Florence Merriam Bailey. Houghton, Mifflin, & Co., Boston.

"Portraits and Habits of our Birds." Edited by T. Gilbert Pearson. Two bound volumes of the educational leaflets issued by the National Association of Audubon Societies, New York City.

"The Book of Birds." Text by several specialists, most of whom are (or have been) members of the Biological Survey. Colored illustrations by Louis A. Fuertes. Published by National Geographic Society, Washington, D. C.

The two handbooks contain lists of other works on birds, but will in themselves be of material assistance to bird banders.

Visitors to the Washington Office.--The Biological Survey is always glad to receive calls from bird banding cooperators, and it is hoped that any who come to Washington will include in their itinerary a visit to the Bureau.

Since the first of the year we have had the following callers: Robie Tufts, of Wolfville, N. S., January 29; E. F. Chilcott, of Woodward, Okla., January 30; Mrs. Lillian D. Morey, of Chevy Chase, Md., January 31; Miss Marian Boggs of Waynesville, N. C., on two different occasions in February; Lieut. L. R. Wolfe, formerly of Plattsburg, N. Y., on February 21. Lieut. Wolfe expects to be stationed at Salt Lake City during the coming summer and may do banding work with waterfowl on the Bear River marshes. Miss C. E. Groetzing, who assists S. Harkness McCrea, at Darien, Conn., called on March 13. C. H. Watson, of Andover, N. Y., paid a visit to the office while on his way to Florida, and again on March 24. On this date, E. E. Critchfield, of Wheaton, Ill., and Seminole, Ala., was also a visitor in the Washington offices.

Dr. John B. May, of Cohasset, Mass., spent part of a day in Washington, late in January while on his way to Thomasville, Ga. This visit was repeated on March 12 and 13, on his return trip.

Herbert L. Stoddard, of Milwaukee, Wis., spent 10 days in Washington during the last of January and early part of February.

S. Prentiss Baldwin, of Cleveland, Ohio, stopped to confer with Bureau officials while en route to Thomasville, Ga., on February 26, and again on March 25, on the return trip.

Laurence B. Fletcher, of Cohasset, Mass., spent February 28 at the Biological Survey offices and supplied interesting details relative to the lectures and correspondence course in ornithology that are being given under the auspices of the Northeastern Bird Banding Association.

Photographs.--Several excellent photographs have been recently received. Cooperators who have attempted to photograph their traps have no doubt found that wire netting does not "take" well. As these pictures are best when taken while snow is on the ground, might be suggested the use of a sheet for a background, as we are anxious to obtain a good series of pictures of different types of traps. It is desirable to have birds in the traps when the photograph is taken. Pictures of this kind, and also of returned birds (showing the band if possible), may be of use as illustrations or lantern slides. They should be on glossy paper. Full acknowledgment will be made when such pictures are used.

STATIONS

From all parts of the country come reports that bird banding cooperators are anticipating a busy season. We have already almost equaled the total of the last fiscal year, so that indications promise a total of 30,000 to 40,000 birds banded for this year.

Cooperators are doubtless wondering who has been in charge of Mr. Baldwin's Thomasville, Ga., station this season. The work is being done by Dr. John C. May, of Cohasset, Mass., and from his preliminary reports he is collecting information of both interest and value. Frederick C. Lincoln, of the Biological Survey, was with him from February 7 to 20, and Mr. Baldwin went to Thomasville on February 26.

Station reports are becoming so numerous that only a few can be mentioned in these pages. We hope, however, that in the future we will be able to issue Bird Banding Notes at more frequent intervals so that the experiences of operators will be available for the benefit of all. It is a matter of satisfaction that operators are observing and recording many interesting avian habits and traits that will be useful in studies of the different species.

T. Gilbert Pearson, of New York, president of the American Association of Audubon Societies, was recently issued a bird banding permit. While visiting some of the stations at Cohasset, Mass., he became so much interested in trapping and banding that he is reported to have said that he just had to have a station of his own. All cooperators will agree with him that this is one of the most advantageous ways to study birds.

James C. Garner, of Russiaville, Ind., has recently established a station. He writes that at first he feared trapping would scare the birds away but found his fears groundless. Several persons expressed similar fears when the work was first started but it has actually been found that bird banding is doing much to protect and increase our native birds.

C. A. Patriquin, of Wolfville, N. S., recently banded several evening grosbeaks. One, No. 45430, became so tame that it was not necessary to use a trap to secure it, as Mr. Patriquin states that he would merely stoop and pick it up.

Everett C. Myers, of Homewood, Md., has been operating a station at Johns Hopkins University. Two sparrow traps have been in service and a house trap is now being installed.

Mrs. Ella H. Ellis, of Los Angeles, Calif., reports interesting observations relative to the rate of growth of the primaries of the house finch. There appears to be some variation in the length of time required by individuals of the same species.

Mrs. Lotta A. Cleveland, of Downers Grove, Ill., has made similar studies with a white-breasted nuthatch (No. 81781) that flew against a window on November 12 and lost its tail. The new tail was full grown by December 16. Two of the old feathers remained, which served as a guide in studying the growth of the new feathers.

Dr. Will Scott, of Bloomington, Ind., is establishing a bird banding station in connection with a bird sanctuary that is being set aside at the University of Indiana. It is now generally conceded that the use of bird sanctuaries as banding stations is in no way detrimental to their original purpose, but instead is distinctly advantageous and it gives those in charge a scientific reason for protecting and encouraging the birds.

John A. Gillespie, of Glenolden, Pa., has secured evidence of the "neighborhood grouping" of white-throated sparrows. This is an interesting subject as there is a possibility of blood relationship. It is regretted that more of this species are not banded on their breeding grounds.

Robert L. Jackson, of Ohio, Ill., has added two new traps to his equipment. We believe he holds the record for the elimination of English sparrows. He reports trapping 1,242 of these birds, also 28 cats, 1 weasel, 1 gray squirrel, and a few ground squirrels. Cooperators will appreciate his difficulties in establishing a trapping station, but we are glad to report that he is now doing excellent work. Among other birds he caught a canary that had escaped from its cage in another part of town.

Mrs. Alice C. Wolfe, of South Waterford, Maine, operated a drop trap in a vegetable garden last season. Red squirrels (very plentiful last year) caused her much trouble, as did neighborhood cats.

R. N. Berry, of Quincy, Mass., reports that his station is equipped with a Government sparrow trap, a tree-trunk trap (See Bird Banding Notes No. 9), a false-bottom trap; and a "double-end rat trap" that has given good results.

James Branch, of Martinsville, Ind., writes that he is not quite satisfied with his station equipment. He is using a Government sparrow trap, but may find that traps of other types are better suited for his particular area. The station operating the greatest variety of traps is likely to secure the greatest variety of birds, although some other station, operating several traps of one kind, might secure more individuals of a few species.

W. B. Taber, of Kansas, Ill., has forwarded a most interesting description of his station. He banded 52 mourning doves last season. These were caught in a house trap set near a natural-gas well. Mr. Taber reports that the earth nearby was saturated with salt, which was a potent attraction to the doves. An old chicken house, that was an attraction for quail as a place to take "dust baths," was also utilized as a trap and several of the bathers were captured and banded. Mr. Taber also succeeded in banding two adult marsh hawks by means of a drop trap baited with a rabbit carcass. Migration records of the birds of prey are always of special interest, and it is hoped that many more hawks and owls may be banded.

Allen Potter, of Milton, Mass., has recently put his station in operation, using four traps - a 3-foot drop trap, a tree-trunk trap, a "pergola" or covered collapsible-trap, and a canary-cage trap on a feeding shelf. Mr. Potter has worked with Richard B. Harding, of Cohasset, Mass., whose station has been mentioned in previous issues. We anticipate many interesting reports from this new station.

John M. B. Robertson, of Buena Park, Calif., has added a drop trap to his station. These traps are almost always successful, particularly for ground feeding birds, their only objection being that they must be kept under observation. This makes his third substation.

Roy H. Smith, of Kent, Ohio, has forwarded a report of activities at his station during the past season. A total of 116 birds were banded. The following from his report is interesting as showing the percentages of repeats:

| | | |
|-----------------------------------|---------|-----------|
| Robin | 12 = 66 | per cent. |
| Song sparrow | 2 = 25 | " |
| Grackle (bronzed) | 1 = 2 | " |
| White-breasted nuthatch | 10 = 83 | " |
| Chipping sparrow | 2 = 28 | " |
| Catbird | 1 = 50 | " |
| Red-headed woodpecker | 1 = 50 | " |

Strangely enough, no repeats were registered of blue jays, white-throated sparrows, juncos, wrens, or titmice.

Mrs. Ethel M. Crowell, of Franklin, Mass., has added two new traps to her station, one of which is of the window-feeding shelf type. Traps in these locations are usually productive of interesting results, as they are so easily watched and operated from the interior of the house.

Frank L. Bishop, of Rockport, Mo., reports that on one occasion his trap held a large opossum in one end, while at the other a mouse was trying his best to get out. A large ground squirrel was another unusual capture.

R. E. Horsey, of Rochester, N. Y., has added another substation - a window-feeding shelf - to his station at Highland Park, which we hope to reproduce in a forthcoming bulletin on returns.

Miss Helen S. Pratt, of Eagle Rock, Calif., has had an interesting experience in that the first bird that she banded (Gambel sparrow 54831) was also her first return. The bird was marked on April 8, 1923, and recaptured on November 1, 1923. A description of her station, recently received, indicates excellent facilities for this work.

George I. Hopkins, of Manchester, N. H., trapped a chipping sparrow suffering from the foot affection noted by the operators of the station at Thomasville, Ga. He also reports trapping fox sparrows in heavy rain, and he believes that weather conditions have very little effect on the visits of birds to their feeding grounds.

Johnson A. Neff, of Columbia, Mo., has added a window-feeding shelf to his station. Such stations are likely to prove satisfactory at all seasons, particularly during the winter.

Mrs. Harriet U. Goode, of Sharon, Mass., reports her belief that two chickadees (25914 and 25915) banded by her, nested last season in the vicinity of the station. This is, of course, quite possible and is one of the things that we hope to prove by the banding method. Cooperators who locate nests near their stations should watch the parent birds carefully, and if either is seen to be wearing a band every effort should be made to effect its capture.

E. C. Weeks, of Sanbornton, N. H., recently forwarded a tabulated list of 150 individuals of 17 species marked at his station last year. He ends his letter of transmittal by saying that "it is a very interesting game and would be more so if I could devote more time." Several hundred cooperators know just what he means.

Ada B. Copeland, of Grand Junction, Colo., has been doing excellent work despite the isolated position of her station. Among other birds, she caught Macgillivray warblers, which have not been frequently banded.

Willis H. Ropes, of Danvers, Mass., has a station only two miles from that of Charles H. Preston, but thus far neither has captured birds marked at the station of the other. This may indicate parallel lines of flight or a failure of the birds around the two stations to range over an area with a radius two miles in extent. With regard to resident species, the latter explanation appears the more plausible.

Misses Susie and Agnes Callaway, of Fairbury, Nebr., have recently started a station equipped with a homemade trap made from a large bird cage. Knowing the success other cooperators have had with such traps we feel sure that they will be able to capture a great many birds.

Mrs. Louise H. Emmons, of Dover, Mass., is another new cooperator whose station is in operation. Her first report, received early this month, shows 23 birds banded.

Duck stations.--Clarence E. Chapman has started a duck station on his estate at Oakley, S. C., and it is particularly gratifying to note the fact that he is banding many blue-winged teals.

L. V. Walton, of Cuivre Island, Mo., and John Broeker, at Portage des Sioux, Mo., have both resumed operations.

T. E. Musselman is also adding to his activities by operating a duck station at Secbey Lake, Mo., while still another station in that State is about to be established by M. D. Campbell, of Kirksville.

Douglas Beyea, of Union Springs, N. Y., was able to band many ducks before the close of the season in that latitude.

BANDS

Be particularly careful in reading band numbers containing the figures "8" and "3". Several supposed returns have been reported that upon investigation we have been able to diagnose as errors in the reading of these similar figures.

Prof. J. W. Stack, of East Lansing, Mich., reports that the reading of these numbers is greatly facilitated by the use of a small pocket or hand lens that will magnify 2 or 3 diameters. Such lenses are rather regularly carried by field naturalists, and cooperators would find them very useful for other purposes besides the reading of band numbers in small figures.

BAIT

Dr. Henry D. Chadwick, of Westfield, Mass., reports that he has found chopped nuts (mostly peanuts) excellent bait.

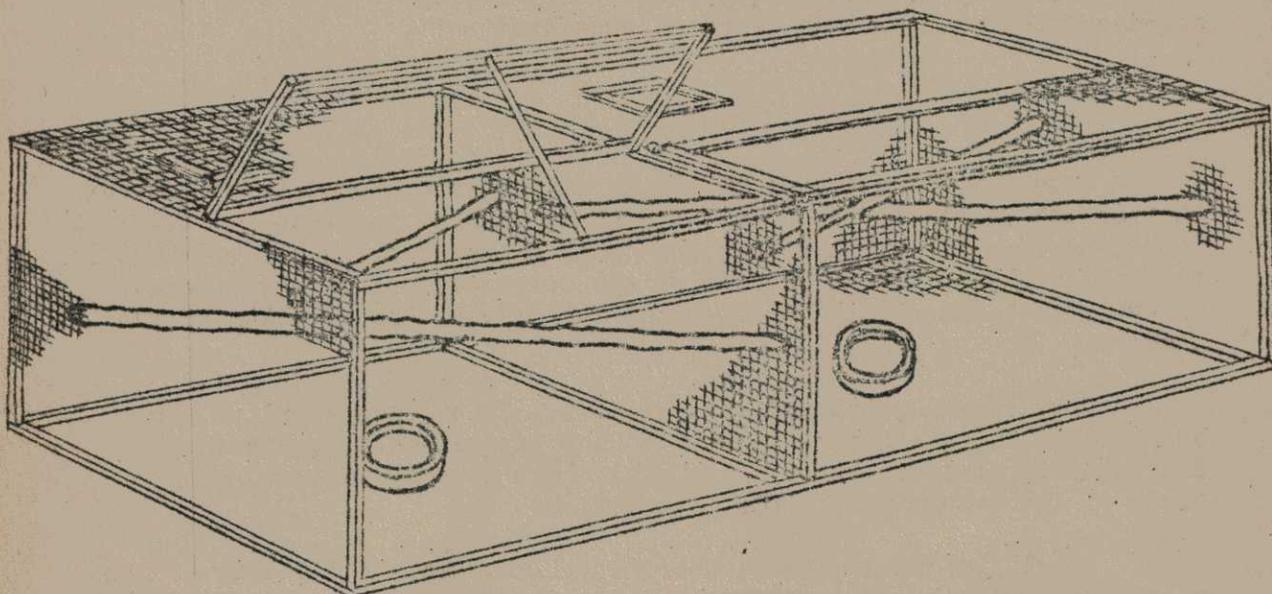
TRAPS

Thus far we have been unable to entice into ground traps species that do not habitually feed on the ground, such as warblers and orioles. Some experimental work has been done with these species, but previous to the fall of 1923 without results of any consequence. It now appears, however, that traps with top openings may provide the solution to the problem.

Mrs. Frank D. Hubbard, of New Haven, Conn., has supplied the Bureau with an interesting account of her experiences, together with drawings and photographs of a trap which has already captured many birds of the groups mentioned. She writes:

"Early in the summer I observed yellow warblers flitting around on top of my collapsible wire ground trap trying their best to get at the pan of water under the trap, but they couldn't find the entrance and were not banded.

"This gave me the idea that I must have an open top trap, and I consequently made an all-wire rectangular trap of hardware cloth. The top is cut in two pieces lengthwise, one is held up by a stick with a string fastened to it and operated in the same manner as a drop trap.... The trap rests on the ground (possibly such a trap might well be elevated a few feet) near a grape vine and under a plum tree. The bait used is bread crumbs, etc., and a pan of water is provided with a few stones in it.... the warblers apparently are looking only for water. I have caught redstarts, blackpoll warblers, black-throated green warblers, Maryland yellowthroats, catbirds, song sparrows, wood thrushes, and Baltimore orioles in this trap."

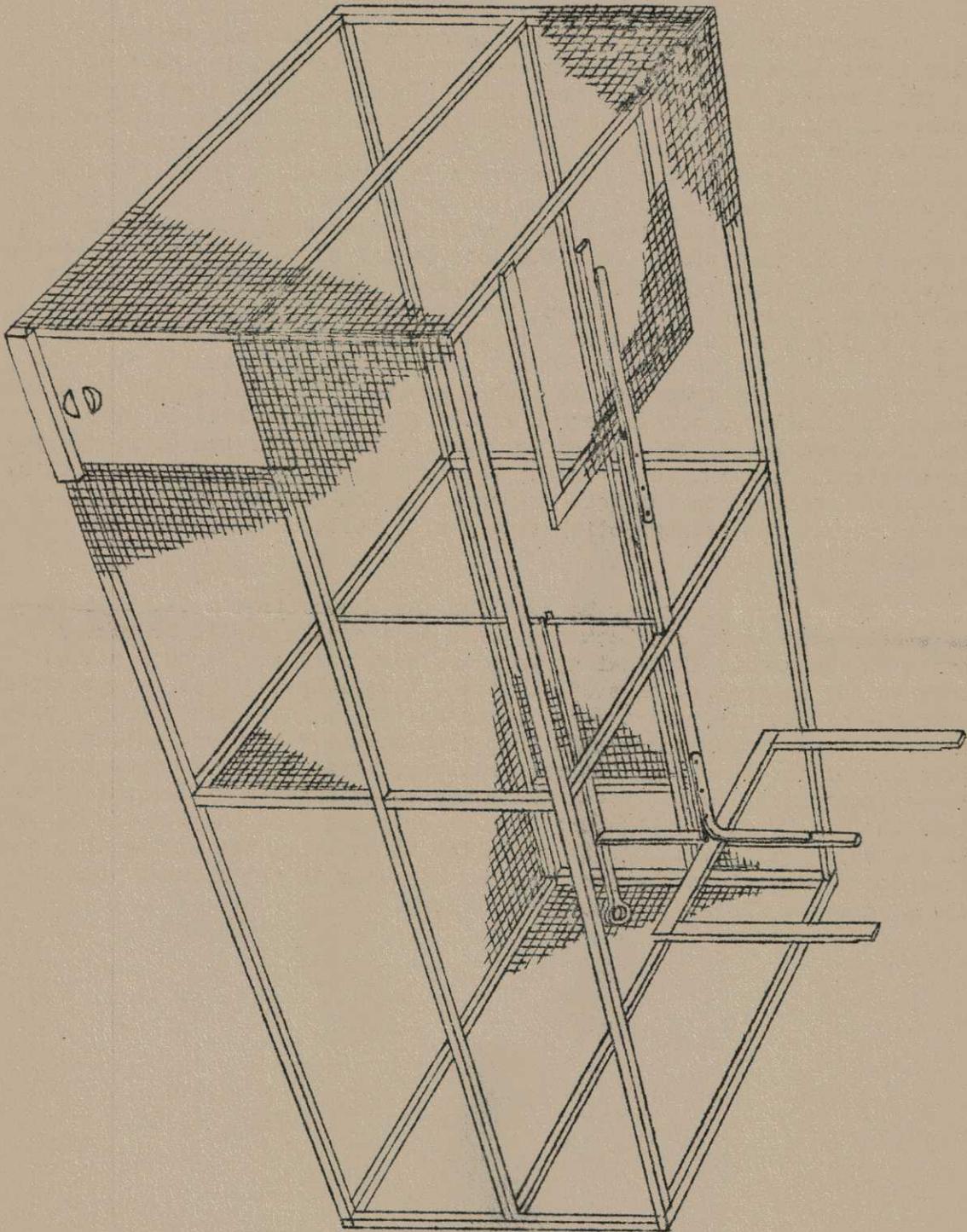


The above drawing is taken from the sketches supplied by Mrs. Hubbard; but it will be noted that it is shown as made with a wooden framework. This is not absolutely necessary, of course, and if used, it should be of very light strips. The trap illustrated consists of two chambers (each about one foot square), the tops to each chamber being divided with one portion hinged to the other. Perches used inside the trap, water pans, and doors for use in removing captured birds are illustrated. The drawing shows one door open with stick supporting it, and the other door closed.

The results obtained by Mrs. Hubbard with the trap above described are so encouraging that it would seem appropriate to describe another trap of the same type, known as The Chardonneret Trap, but not yet tested for the bird banding work. The original drawings were supplied to the Biological Survey by the National Parks Branch of the Canadian Department of the Interior, Hon. J. B. Harkin, Commissioner.

As will be observed from the accompanying drawing, this is also a two compartment trap with opening, or entrance, in the top. It is, however, automatic in operation. An opening about six inches square is cut in the top of each chamber, each of which is supplied with a door made of light wood and covered with wire netting. Between the pieces that form the sides of the doors, a parallel strip is fastened which projects about 4 or 5 inches and by means of a small hinge is fastened to the central piece that projects over both chambers from the center of the partition. When the door is raised to a vertical position this central piece will project downward into the chamber. It should be beveled on one side at the end to make a chisel-like point, which engages with a notch cut in the trigger stick. This last is readily whittled out of a piece of soft wood about 1/2 inch thick and about 10 inches long (for a trap with 12 inch chambers). One end should be paddle-shaped and hollowed out to form a little cup in which bait is placed. The other end should be notched to engage with a small rod or heavy wire that extends from top to bottom of the trap beside the middle partition. (One such rod will do for both chambers, as the netting may be snipped out to permit the trigger-stick from the opposite chamber to enter and engage the rod.)

The motive power may be supplied (as shown) from a light piece of steel, such as an old hack-saw blade or a corset steel, or rubber bands may be used. If steel springs are used they should be fastened only to the stationary part of the trap, thus allowing them to move freely over the middle strip of the doors, where they may be guided by a square staple. The drawing shows this trap with one door open and set, the pressure of the steel against the middle strip of the door maintaining the trigger stick in position. This may be adjusted very delicately so that the weight of the lightest bird in dropping from the top of the trap to the stick will disengage it and allow it to fall, the spring then being free to act and close the door. A pan of water in the chamber would no doubt increase the efficiency of this trap.



The Biological Survey has received many other descriptions of interesting and ingenious traps that will be illustrated and described in future issues of "Bird Banding Notes," but as the spring migration is approaching when warblers and other birds will be plentiful, it is recommended that several stations add either or both of the above traps to their equipment and make a report on their usefulness after a thorough test.

Mrs. Margaret M. Nice, of Norman, Okla., reports very little success with commercial sparrow traps of the tilting chamber type. These traps are manufactured for capturing English sparrows, and the size of the chamber is accordingly fixed, which at best limits the usefulness of these traps for bird banding work.

Frederick J. Hermann, of Laurium, Mich., has been using a trap of this type, however, and has recently reported capturing 55 birds by its use, not, of course, counting English sparrows. Among other birds, he captured a Harris sparrow (66944), a species which is rare in that region.

Charles H. Preston, of Danvers, Mass., reports installing a sparrow trap made in the usual form, but with the second funnel omitted. For such larger birds as jays, robins, and thrashers, a trap made in this way would be an advantage.

Mrs. Lotta A. Cleveland, of Downers Grove, Ill., has submitted a report which shows how simple may be the equipment for capturing some birds. She writes that her "trap No. 2" is a wire rat trap suspended on a tree in an upright position, which allows the door into the second chamber to fall open, making a two funnel trap. Nuthatches learned their way out again so the middle door was fastened shut, and the lower door arranged so that it may be closed by pulling a string. "Trap No. 3" was made by tacking an old corn popper to a board, cutting an opening in the upper end, and making a door of the cover, which is held shut by a rubber band. When set, the door is propped open with a stick that can be jerked out by means of a string running to a convenient window.

SPECIAL INVESTIGATIONS

The study of the blue jay is progressing slowly, but as cooperators are evidently trying to give this species special attention it is hoped that ultimately important information will be received. E. H. Howland, R. H. Dean, and Miss Lottie M. Smith are among those who have recently forwarded banding records for these birds.

Tree sparrows and juncos have, as usual, been numerous at northern stations. In addition to many other cooperators, we may mention that Arthur Morley, Wm. I. Lyon, E. C. Weeks, and Willis Ropes have been successful in capturing large numbers. Mr. Morley had a most interesting experience with these birds at Swampscott, Mass., and we quote from his letter: "On December 23 I awoke to find about one inch of snow, and on looking out of the window just after daylight noticed birds in the traps. I hurried down stairs expecting to use some bands, when to my surprise I had 7 birds, all banded - 2 repeats of recent banding and 5 returns from last season. This is the more remarkable, as there are not more than 15 or at most 20 birds around the station, when at this time last year there were 120 birds feeding on stormy days * * * so that out of a total flock of less than 20 birds, 7 are returns." An excellent percentage.

Conover Fitch, of Cohasset, Mass., had for several days many goldfinches at his station; and Don V. Messer, of Huntington, Mass., was able to band a number of starlings. Because of the possible economic problems involved, it is advisable to make special effort to band starlings.

Prof. Dayton Stoner, of the University of Iowa, is planning to do special work with nesting bank swallows during the coming summer, at the Iowa Lakeside Laboratory, Lake Okochoji.

Ernest H. Quayle and Carl N. Duncan are engaged in a study of the California quail on the grounds of the Stanford University, Calif. Mr. Quayle writes that of one flock that frequents the Botany Gardens 57 birds have already been banded and not all have yet been secured. Several repeats have been obtained that throw light on their feeding habits. At this station special arrangements are being made to secure the "bird-flies" or "tick-flies." Some bird banders may already have noticed that when handling birds, a peculiar fly with a sidestepping gait will sometimes cause considerable annoyance. These insects are parasitic and should be caught and forwarded to competent entomologists who are usually glad to receive such material.

BIRD BANDING ASSOCIATIONS

The regional bird banding associations have been formed with the consent and assistance of the Biological Survey to better coordinate the work in the different areas. We find, however, that several cooperators have not joined their local association because of a belief that it was in no way connected with the Bureau. It is not, of course, obligatory for cooperators to join these organizations, but it is advisable to keep in touch with the headquarters of the local association as well as with the Washington office. This should result in more orderly effort as the ornithologists who are the officers of the associations are likely to be thoroughly familiar with local conditions.

During the coming season two campaigns will be launched through the efforts of regional associations for the banding of large numbers of birds of certain species.

The Northeastern Association is going to make a special effort to band a large number of black-crowned night herons. The colony at Barnstable, Mass., will be again systematically worked, and it is hoped that other colonies all over the country will receive the attention of bird banders.

The Inland Association will concentrate its efforts toward covering the colonies of gulls and terns in the Great Lakes region. Plans are already being made by W. S. McCrea for a resumption of work at the colonies on the Beaver Islands, in Lake Michigan.

The active cooperation of all bird banders is solicited so that these campaigns may be assured exceptional success. If you know of a colony of herons, gulls, or terns, plan either to visit it yourself and band the young, or to advise the Bureau and we will endeavor to have some other operator there at the right time. Also, if you are looking for a different kind of a vacation and will be able to spend a few days at some colony, write to the Biological Survey or to one of the local secretaries; L. B. Fletcher, 50 Congress St., Boston, Mass., for the heron work; W. I. Lyon, 124 Washington St., Waukegan, Ill., for the gulls and terns.

We have learned that Geoffrey Gill, of Huntington, N. Y., is planning to visit gull and tern colonies in his vicinity, as is also Franklin P. Cook, of Atlantic City, N. J.; while Robert L. Jackson, of Ohio, Ill., has reported locating a heron rookery that he intends to work during the coming season. Geo. L. True, of Poultney, Vt., is also interested and will no doubt visit heron colonies in that region.

RETURNS

Among many interesting returns may be noted the following:

Herring gull 209565, banded July 28, 1923, at Bonaventure Island, Que., by Wm. M. Duval, was found dead at Lavallette Beach, N. J., November 22, 1923.

Mallard 231104, banded November 30, 1922; at Browning, Ill., by F. C. Lincoln, was killed 6 miles west of Sacramento, Calif., December 24, 1923.

Mallard 101924, banded January 15, 1923, at Cuiivre Island, Mo., by L. V. Walton, was killed about 40 miles west of Mine Centre, Ont., about November 15, 1923.

Mallard 203604, banded March 16, 1923, at Portage des Sioux, Mo., by John Broeker, was killed in Camden County, Ga., about January 30, 1924.

Mallard 232330, banded September 6, 1923, at Lac Ste. Anne, Alta., by Paul E. Page, was killed near Scottsbluff, Nebr., December 8, 1923.

Mallard 1405, banded November 6, 1923, at Headingly, Man., was killed about November 20, 1923, 6 miles west of Gillett, Ark.

Three mallards, 232083, 232095, and 232097, banded August 12, 1923, at Davidson, Sask., by R. Lloyd, were all taken in Louisiana, over a period from December 2, 1923 to January 5, 1924.

Black duck 29412, banded October 9, 1923, at Lake Scugog, Ont., by H. S. Osler, was killed December 15, 1923, 3 miles southwest of Redwing, Kans.

Black duck 204219, banded at Union Springs, N. Y., March 9, 1923, by Douglas H. Beyea, was recaptured at that station February 1, 1924.

Green-winged teal 504386, banded December 21, 1922, at Avery Island, La., by E. A. McIlhenny, was taken at Dos Palos, Calif., December 26, 1923.

Wood duck 3201, banded at Sharon, Mass., May 21, 1921, by Harry G. Higbee, was taken at the same place, December 20, 1923.

Black-crowned night heron 233728, banded at Barnstable, Mass., June 16, 1923, by R. B. Harding, was recovered in northern Lee County, Fla., December 25, 1923.

Another, No. 233845, banded at the same time and place by W. F. Fogg, was secured at the mouth of White Oak River, N. C., October 9, 1923.

Mourning dove 275206, banded September 21, 1923, at Kansas, Ill., by W. B. Taber, was killed in Leon County, Fla., November 29, 1923.

Barn owl 236102, banded July 1, 1923, at Knoxville, Tenn., by H. P. Ijams, was taken near Opp, Ala., December 27, 1923.

Downy woodpecker, A. B. B. A. 49604, banded February 1, 1920, at South Auburn, R. I., by Harry S. Hathaway, was recaptured by him March 24, 1923.

Downy woodpecker 27792, banded by Mrs. Elsie V. Perkins, November 15, 1923, at Topsfield, Mass., was found dead at Peabody, Mass., November 20, 1923, a distance of about 8 miles.

Bronzed grackle 107060, banded, August 3, 1923, at Waukegan, Ill., by Wm. I. Lyon, was recovered January 23, 1924, near Tchula, Miss.

Cowbird 43175, banded, March 31, 1923, at Auburn, Ala., by R. O. Russell, was recaptured February 7, 1924, at Corpus Christi, Tex.

Rusty blackbird 110884, banded, September 30, 1923, at Branchport, N. Y., by Verdi Burtch, was killed near Elloree, S. C., February 9, 1924.

Purple finch 67227, banded, at Norwalk, Conn., January 29, 1923, by Mrs. W. K. Harrington, was recovered from Haynesville, La., about February 1, 1924.

Purple finch 77230, banded at Peterboro, N. H., August 16, 1923, by Mrs. Helen G. Whittle, was killed near Thornton, Tex., January 30, 1924.

Goldfinches have yielded to Mrs. Alice B. Pratt, Middleboro, Mass., eleven returns from birds banded by her during 1923.

Golden-crowned sparrow 34731, banded by J. E. Law, at Altadena, Calif., April 23, 1922, returned to the same station December 7, 1923 and was still present January 24, 1924.

Tree sparrow 34731, banded December 25, 1922, by Miss Lottie M. Smith, at South Sudbury, Mass., repeated through January and February, 1923, and returned January 5, 1924.

Tree sparrow, A. B. B. A. 47044, banded by Herbert Parker, January 14, 1922, at South Lancaster, Mass., repeated until April 2, 1922; returned December 31, 1922, and again a year later, December 31, 1923.

Junco, A. B. B. A. 50021, banded February 27, 1921, at Demarest, N. J., by B. S. Bowdish, was retrapped by him January 15, 1923, and again on January 21, 1924.

Junco, 22140, banded at Danvers, Mass., January 14, 1923, by R. B. Mackintosh, was trapped January 1, 1924, at the station of Willis H. Ropes, also of Danvers.

Junco 24614, banded March 5, 1922, at Baltimore, Md., by Everett C. Myers, was retrapped by him February 23, 1924.

Shufeldt Junco 65433, banded at Santa Fe., N. Mex., December 31, 1922, by J. K. Jensen, returned January 9, 1924.

Song sparrow, A. B. B. A. 51797, banded at Northome, Minn., July 6, 1922, by Lester A. Badger, was recovered August 4, 1923, at the station of Miss Carolyn Jensen, also at Northome.

San Diego song sparrow 54841, banded at Eagle Rock, Calif., April 22, 1923, by Miss Helen S. Pratt, was recovered by her November 23, 1923.

White-breasted nuthatch 56991, banded at Darien, Conn., May 28, 1923, by S. Harkness McCrea, was recovered at that station February 18, 1924.

Tufted titmouse 65625, banded at Waynesville, N. C., April 29, 1923, by Miss Marion A. Bogg, was recaptured October 20, 1923.

Chickadee 75898, banded as a fledgling at Dell Rapids, S. Dak., by Edwin C. Anderson, June 10, 1923, was picked up at Pipestone, Minn., February 1, 1924.

Pallid wren-tit 52011, banded by J. E. Law, at Altadena, Calif., May 1, 1923, was recaptured October 12, 1923.

Robin, A. B. B. A. 56163, banded at Ann Arbor, Mich., by J. Van Tyne, May 16, 1922, was recaptured by him April 18, 1923. On March 7, 1924, it was killed at S^{Law}, Ga.

Robin 111472, banded at Kent, Ohio, April 15, 1923, by Roy H. Smith, was killed at Harrison, Ga., about February 20, 1924.

With this issue we are sending to each bird banding cooperator a separate from the December (1923) number of the Wilson Bulletin, "Bird Banding Department," supplied for this purpose by Mr. S. Prentiss Baldwin.