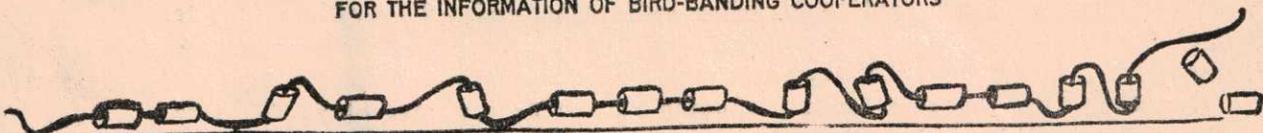


BIRD BANDING NOTES

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



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No. 3

GENERAL INFORMATION FOR COOPERATORS

Since the last number of Bird Banding Notes was issued many interesting and important data have been received from bird-banding stations. These indicate that the past season has been most unusual from the standpoint of bird life. Generally speaking, a marked scarcity of small birds has been noted at banding stations throughout the area affected by drought. There are a few operators, however, who report birds in unusual abundance, this seeming to signify that in certain limited areas birds have been concentrated because of favorable conditions. Additional comments will be given in the following pages and it will be of the greatest interest to watch the return of birds to their normal numbers.

Important: Who Has These Bands?--All persons holding Biological Survey bands are requested to examine them and advise the Bureau if they have in their possession any of the following series: Size X, Nos. 303000 to 303163; Size 2, Nos. A241551 to A241750; Size 6, Nos. 223886 to 223900; and Size 6, No. A640001 to A645000. When notifying the Bureau concerning any of these please give inclusive numbers and the date received, if known. Through some mischance these bands were issued without a proper entry being made in the issue index, and the Survey is unable to locate the records for any of these bands that may have been used. This is a most important matter and all station operators will please give it prompt attention.

Cooperators as References.--It frequently happens that applicants for Federal bird-banding permits give as references the names of persons already actively engaged in banding work. The Survey always writes to such references as it is obviously important that information be obtained relative to the ornithological knowledge of the prospective cooperator. In replying to such letters, the operator is requested to confine himself to this one subject as his letter will be attached to the application under consideration, rather than placed in the file of the writer.

To Study Birds in Haiti.--F. C. Lincoln, who has direct charge of the bird-banding work, has been detailed by the Survey to accompany Dr. Alexander Wetmore, Assistant Secretary of the Smithsonian Institution, on an ornithological expedition

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

to Haiti. They left the United States about March 15 and plan to return early in June. During the period of Mr. Lincoln's absence the regular banding work will be handled as usual, but under the immediate direction of Dr. W. B. Bell, in Charge of the Division of Biological Investigations.

Austin Transferred to Bird-Banding Section.--Dr. Oliver L. Austin, Jr., who for the past year has been in charge of field work under the McSweeney-McNary Forestry Research Act at the Lake States Forest Experiment Station at St. Paul, Minn., was transferred to the bird-banding section of the Bureau, effective February 1, 1931. He comes to this work with much enthusiasm and an excellent background. His work will be conducted chiefly in the Eastern States, where he will devote particular attention to migratory waterfowl, but it is expected that from time to time he will have opportunity to visit other banding stations and so make helpful contacts between the Survey and its cooperators.

Shrikes in New England.--Several cooperators have reported what apparently has been a wave of northern shrikes throughout the New England States and west at least as far as Michigan. It will be recalled that under an order of the Secretary of Agriculture issued March 17, 1924, holders of Federal bird-banding permits are authorized to kill shrikes when they become destructive at banding stations. It is desirable, however, that information concerning the migrations of these birds be obtained and accordingly they should be banded whenever possible. It is recommended that when a shrike is caught in a banding trap, it be banded and taken a few miles away and there released.

Casualties Should Be Reported.--All station operators should report all records of birds killed or found dead at their banding stations. In case these have been banded, the record should be sent in upon a return card, and in the space at the bottom of the card information should be given concerning the cause of death.

Return Cards.--The Survey greatly appreciates the care that almost all its cooperators are giving to the tabulating-machine return cards. Most of these are received in excellent condition. Occasionally, however, some cards are received that have been fastened together with a paper clip. This practice should be avoided as it is likely to bend or injure the edge so that the card will not run properly through the sorting machine.

Occasionally a cooperator asks whether the sex should be indicated both on return cards and on schedules. Sex always should be noted when there is definite evidence in the plumage or the operator has some particular reason for stating that the bird is a male or female. It is not necessary, however, to indicate sex for those species in which there is no apparent difference in plumage.

In making out return cards, the age to be given is, of course, the age of the bird at the time of banding, that is, whether it is a fledgling (juv.), immature (im.), or adult (ad.). In other words, all information above the double line on the return card should apply to the bird as of the date of banding.

Omission.--In the tabulation of work done at bird-banding stations during the fiscal year 1930, and published in Bird Banding Notes, Volume 2, No. 2, the name of

Mr. Henry E. Wagner, of Detroit, Mich., was inadvertently omitted. Mr. Wagner's name should appear in the tabulation of cooperators who banded between one hundred and two hundred birds during that fiscal year.

Schedules.--It has been noted that many station operators typewrite their bird-banding records on the schedules. As a suggestion for these, it may be stated that a schedule folded on the median line will fit nicely into a typewriter carriage.

PHOTOGRAPHS

Since the last number of Bird Banding Notes was issued the following cooperators have sent in photographs, which have been added to the collection:

Evarts G. Loomis, Newark, N. J.: One, showing his traps when they were located near the top of Mount Washington, N. H.

Oscar M. Bryens, McMillan, Mich.: One, showing the location of the sub-station that has been so successful in the capture of snow buntings.

F. E. Ludwig, Lansing, Mich.: Four, of the colony of common terns at Lone Tree Island, Mich., in 1930, and some of the birds that he banded there.

C. M. Palmer, of Wilmington, Del.: A series of 14 showing the waterfowl trap and incidents relative to the banding of black ducks on the Dupont Experimental Game Farm, at Carneys Point, N. J.

Maurice Broun, of Lenox, Mass.: Three, of a great horned owl that he banded, and the first little blue heron banded in the New England States.

W. B. Purdy, of Milford, Mich.: One, of four young herons wearing their bands.

Mrs. Mack Short, of Wayland, Mich.: One, of a young bittern in a characteristic attitude.

Mrs. Francis V. Crane, of Needham, Mass.: Two, showing a flat trap on the porch of her house, and Mr. Crane holding a banded purple finch.

Louis G. Flentje, of Desplaines, Ill.: Three, of Mr. Flentje with a vagrant cat that was destroyed at his station.

Norman O. Sibley, of Houghton Lake, Mich.: Four, of a large flock of bank swallows roosting on transmission wires, and two photographs of Mr. Sibley himself.

Prince Francisco Chigi, of Castel Fusano, Rome, Italy: A series of 11 photographs of various incidents in connection with the operation of his banding station. Included in this series are several showing the flue nets that are so successfully used in Europe for the capture of birds. The prince himself also appears in some of the pictures.

Dr. Karl Christofferson, of Blaney, Mich.: Four, of the doctor holding a banded wood duck.

George M. Benson, U. S. Reservation Protector, Malheur Lake Bird Reservation, Voltage, Oreg.: A series of 7 showing his large banding trap holding captured ducks and whistling swans, together with two interesting pictures of Mr. and Mrs. Benson with one of the swans.

E. O. Grant, of Patten, Me.: Three, showing the manner in which chimney swifts cling.

Mrs. Marie V. Beals, of Elmhurst, L. I., N. Y.: A series of 12 pictures of her trapping station, the banding of European starlings, and a number of other photographs of banded birds, including blue jays, redstarts, a northern water-thrush, a towhee, and an olive-backed thrush.

Maj. Montgomery-Meigs, of Keokuk, Iowa: Four, showing scenes at his trapping stations, and the different types of traps that he employs.

WORK AT BANDING STATIONS

John W. Piggott, of Bridgetown, Nova Scotia, reports several items of ornithological interest from Bird Haven. He sent in the second authentic record of the finding of a nest of the bluebird in Nova Scotia. He noted the development of the young birds, but unfortunately only one of the five reached maturity and carried away its band. His report contains a perspective plan for the development of his station as a bird sanctuary, which station promises to become an important breeding and resting ground for migrant species.

E. O. Grant, of Patten, Me., has transmitted an excellent summary of his experiences in banding chimney swifts. It is hoped that he will publish these notes in Bird Banding, as they are certain to prove of value to all station operators who are handling these birds.

Dr. Wyman R. Green, of Chattanooga, Tenn., in September and October, 1930, banded 13,427 chimney swifts. As has been indicated in previous issues, operations with chimney swifts are progressing so favorably that it seems reasonable to predict an excellent report on the migrations of these birds.

James Rintoul, of Bardonia, N. Y., has submitted schedules covering his first year as a bird-banding cooperator. During this time he banded 201 birds, representing 17 species, and had nine returns. Mr. Rintoul is to be congratulated upon this excellent start. He reports that he is using colored bands on the chickadees and nuthatches that frequent his feeding shelf, believing that this means of keeping such birds under observation is preferable to repeated trapping. During the fall of 1930, 75 per cent of his birds were captured in water traps.

David J. Davis, of Wilmette, Ill., banded 574 white-throated sparrows at his station during the autumn migration. He writes that he is making an effort to determine the average length of time individual migrants remain in the vicinity of his station before passing on. Quantitative data of this sort should be valuable as well as interesting.

Harry S. Hathaway, of South Auburn, R. I., has had a successful season with song sparrows, which evidently had a good breeding year in the vicinity of his station, either because of, or in spite of, the drought. He is endeavoring to carry on a study of the molts and plumages of individual birds, a subject that is of interest to many other station operators, and on which we may expect important results.

Oscar M. Bryens, of McMillan, Mich., who last year had such excellent results with snow buntings and redpolls, reports that the snow buntings have returned but redpolls are still rare. He has already recaptured several snow buntings banded by him in previous seasons, being, to the best of our knowledge the first bird-banding cooperator to have returns for this species. He advises that the mild winter with the consequent absence of deep snow has made it difficult to trap these birds. During 1930 he banded 859 birds of 29 species, and obtained 14 return records.

Henry P. Baily, of Overbrook, Philadelphia, Pa., states that birds are scarcer than usual at his station, especially the juncos and song sparrows, and that he has been able to band only 26 starlings whereas in the corresponding period of the previous year he banded 200.

Mrs. Marie V. Beals, of Elmhurst, L. I., N. Y., is one of the few operators who have reported birds as abundant in the vicinity of their stations. In 1930 she banded 1,534 individuals of 53 species, as against 503 individuals of 36 species in 1929. Of special interest in her carefully prepared report is the large number of warblers and thrushes captured, she having banded 153 of these birds, representing 20 species, all taken in the standard types of traps. She also banded 405 white-throated sparrows, 242 juncos, and 255 hermit thrushes, as well as robins, olive-backed thrushes, gray-cheeked thrushes, veeries, and wood thrushes. All other station operators will doubtless agree that she has had a most successful year.

L. C. Nielsen, of Battle Creek, Mich., reports that a number of the 204 bronzed grackles that he has banded during the past year have been suffering from a kind of foot scale, evidently caused by mites. He is in a position to carry on observations on this malady that should prove of value in combating it.

M. J. Magee, of Sault Ste. Marie, Mich., has submitted his annual report, which in common with many others shows a decided decrease in the number of birds present at his station. He presents a summary by years and species of his total banding operations covering the last decade. During this period he has banded 16,131 birds of 77 species, by far the greater part of which were purple finches. His returns number 1,354, or a little more than 8 per cent of the birds banded.

Dr. Edward G. Rowland, of Norwich, Conn., reports continued success at his station, but notes that birds are scarcer than usual. He has had his best results with grackles, in which he is trying to correlate the color of the eyes and other soft parts with the age of the bird. This is an almost unworked field and one that should give useful results. He has discovered that many grackles do not develop a bright yellow iris until they are at least two years old.

S. H. Weakley, of Fort Smith, Ark., has transmitted his report for the last half of 1930, covering 300 birds of 17 species. Of special note in his summary are 68 blue jays, 39 mockingbirds, 27 brown thrashers, and 19 cardinals. Banding operations are doing much to indicate the exact status and range of many species.

Dr. R. V. Dillingham, of Lansing, Mich., states that he has banded 766 birds of 33 species, the bronzed grackle leading with a total of 266. He has also kept an accurate record of all animals other than birds taken at his station, which indicates the extent of his trouble with the predatory species, and gives a good basis for an accurate study of their economic importance. It is noted that he has destroyed 24 vagrant cats and 4 brown rats. Curiously enough he also caught in his banding traps 4 muskrats, which were released.

Prof. O. A. Stevens, of Fargo, N.Dak., has submitted an excellent and detailed report of his activities from June 25 to November 15, 1930, during which period he captured 739 birds representing 24 species. Of particular interest are his summaries of repeats, of casualties, and of the ecological preferences of the various species as indicated by the location of the traps. Illustrative of this latter phase of the subject is a map showing the results of Harris's sparrows captured at different traps, each substation being described in the legend. He had two juncos die in his hand when taken from the trap without showing any external evidence of injury.

L. S. Jenkins, of Worcester, Mass., has sent in his first report of banding operations, which shows what can be done by a beginner in an urban district and with the simplest kind of equipment. Mr. Jenkins has been able to band only on week-ends, so his list of banded birds is not large, but his records show the prevalence of certain individual birds in his region. Stations of this kind have opportunity for keeping a close check upon the fluctuations in abundance of those species that are tolerant of human associations.

Dr. J. F. Brenckle, of Northville, S. Dak., has sent in records for 1,026 birds banded during the past season. He is inclined to apologize for being able to band only 543 Harris's sparrows. The doctor evidently has a good sense of humor, as we believe that the majority of our station operators would be satisfied with a much smaller number of these interesting birds. He is to be congratulated, however, upon the excellent showing that he has made, for we may expect the best results from banding large numbers of birds.

Lony B. Strabala, of Leetonia, Ohio, reports that he has been able to capture 74 prairie horned larks and 7 Lapland longspurs by the use of a simple drop trap six feet square. He advises that freshly scattered manure on snow in an open field is an almost invariable lure for horned larks. When they are feeding in such a field he baits them with ground corn, oats, wheat, and weed seeds. He has taken as many as 11 at one time.

Paul A. Stewart of Leetonia, Ohio, in a recent communication summarized the results obtained at his banding station over a period of three years. During this time he banded 1,777 birds, representing 49 species. He has taken up a study of the weights of birds and would like to communicate with others who have adopted this field of investigation at their stations. He says that during the past season he noted that chipping sparrows were comparatively free from the foot disease, slightly more than ten per cent being affected as compared with 59 per cent in 1928.

William I. Lyon, of Waukegan, Ill., has sent to the Survey a summary of his banding operations from 1913 to October 1, 1930. His is one of the oldest banding stations in the country, and probably the oldest when we consider that it has been in almost continuous operation at the same point. During the period of its activity Mr. Lyon has banded 34,568 birds, representing 161 species, and has received 883 returns. His list of banded birds is headed by 7,031 white-throated sparrows, these being followed by 6,711 herring gulls. An itemized list of the various station pests that have been eliminated is attached, and it is interesting to note that this includes 190 cats.

Mrs. Blanche M. Getty, of Sioux Falls, S. Dak., has transmitted an interesting communication relative to her work with rose-breasted grosbeaks. It will be recalled that she has had unusual success with these birds, nearly all of which were trapped in an ordinary canary cage. "Arbee," the female rose-breasted grosbeak that refuses to migrate, is still a pet at her house, and shows no interest in others of its own kind.

Reid W. Ferris, of Beaver, Oreg., in submitting his report of operations for the past year, sent in a detailed map showing the location of his station and the general conditions surrounding it. He, fortunately, has a great variety of environmental conditions, which means that a large number of different species of birds will be attracted to the vicinity.

Hugh R. Israel, of Palo Alto, Calif., recently sent in returns for 102 birds. The golden-crowned sparrow headed the list of returns with 76 records, eleven, or 14 per cent, of which were at least five years old or more. One of these was more than 7 years old, having been banded in the early part of 1924.

Mrs. Estella C. Feser, who operates a banding station for a short period in spring and autumn at a camp near Hayward, Wis., reports that during 1930 she was able to band 150 birds, representing 15 species, and that nine return records were obtained. Six traps were in operation. This is an excellent record for a station that is in operation only five to seven weeks out of the year, particularly when it is considered that the time is divided into two periods.

Herman F. Koerber, of the State Game Farm, at Chino, Calif., banded 20 barn owls in October, 1930. It is doubted whether any other station operator has ever reported banding so many birds of prey of one species.

R. J. Middleton, of Norristown, Pa., reported banding 1,221 birds of 50 species, and obtaining 20 return records during the past season. The white-throated sparrow headed the list with 318 birds, but Mr. Middleton states that this is the smallest number of this species he has banded during the past three years. At the time of his report (January 29, 1931) he had captured 9 tree sparrows banded during previous seasons. He has developed a new type of trap that has proved remarkably satisfactory in capturing thrushes, since by its use he was able to take 27 robins, 18 olive-backed thrushes, and 23 hermit thrushes, as well as a few warblers and other miscellaneous birds.

Ted G. Delang, of Wilmette, Ill., in a recent communication, says that he has had considerable trouble with rats and squirrels robbing and damaging traps. When rats are trapped they should be killed, but squirrels are considered game in some of the States. Frequently, however, when a squirrel has been caught in a bird-banding trap it is possible to transfer it to a box or other suitable receptacle and transport it to some other place where its presence will not be objectionable.

In concluding this section of bird-banding notes, we regret to record the death of Mr. Frank W. Commons, of Crystal Bay, Minn., on December 28, 1930, and of Col. Maunsell S. Crosby, of Rhinebeck, N. Y., on February 13, 1931. Mr. and Mrs. Commons, who for several years have operated the "Tanager Hill" Banding Station, were both greatly interested in the development of this work so that the passing of Mr. Commons represents one of the most severe blows that we have had. It was characteristic of him that his banding records were practically up to date at the time of his death, even including a letter prepared for his signature, transmitting them to the Survey. These records were sent to Washington by Mrs. Commons, and it is noted that last year they banded 2,670 birds. Several bird-banding cooperators have had the pleasure of calling at Tanager Hill and will remember Mr. and Mrs. Commons as charming hosts. In extending sympathy to Mrs. Commons we are sure that we reflect the sentiment of all others who know them.

Colonel Crosby has been actively concerned with banding work for many years, his station at Rhinebeck, N. Y., being one of the largest in the Eastern United States. He served as president of the Eastern Bird Banding Association for two or three years. All who knew him will recall his delightful personality, while those privileged to visit him will long remember his charming hospitality.

Waterfowl Stations.--Before the opening of the waterfowl season in the autumn of 1930 the Survey addressed letters to the operators of waterfowl stations asking them to make a special effort to band as many ducks as possible during the 1930-31 season. This request met with a most gratifying response, and large numbers of ducks of several species have been banded by Arthur Rotch, of Brewster, Mass.; Geo. T. Baker, of Bemidji, Minn.; J. A. Eheim, of Hutchinson, Minn.; Frank Hopkins, of Campbellsport, Wis.; Frank B. Foster, of Phoenixville, Pa.; Henry Bowden, of Litchfield, Conn.; C. L. Hauthaway, of Boston, Mass.; Dr. W. B. Large, of Rochester, N. Y.; Dr. Karl Christofferson, of Blaney, Mich.; Frank E. Swartz, of Milford, Mich.; Floyd Flanders, of the Munuskong State Park, Pickford, Mich.; Frank Schader, of Big Suamico, Wis. (operating for Mr. L. H. Barkhausen, of Chicago, Ill.); E. C. Smith, of the Dupont Experimental Game Farm, Carneys Point, N. J.; Clarence E. Chapman, of Oakley, S. C.; E. A. McIlhenny, of Avery Island, La.; Richard Gordon, of the Paul J. Rainey Wild Life Sanctuary, Abbeville, La.; Frank W. Robl, of Ellinwood, Kans.; Nion R. Tucker, of Burlingame, Calif.; E. W. Ehmann, of Oakland, Calif.; S. M. Batterson, of Mohler, Oreg.; George M. Benson, of Voltage, Oreg.; and others.

As a result of this activity great numbers of return records for banded ducks have been received, the average during the shooting season being about fifty a day, while on some days fully three times as many were received. Opportunity has not been presented for a study of these data, but without doubt much important information is contained in the records resulting from these operations of stations scattered over so great an extent of country. One of the outstanding events of the work on waterfowl was the banding of between forty and fifty whistling swans at the Malheur Lake Bird Reservation by U. S. Reservation Protector George M. Benson. At some stations, such as Lake Merritt, Oakland, California, and the Franklin Park Zoo, Boston, Mass., the banding was done in cooperation with the local officials, to whom, as well as to the station operators, the Survey extends its sincere thanks.

BANDS

Occasionally we still hear of a bird-banding operator who is convinced that he can attach small bands satisfactorily with his unaided fingers. It has been conclusively demonstrated that this cannot be done. In order to prevent birds from crushing their bands the metal used is given a hard temper, which gives the bands a certain springiness, with the result that the ends cannot be forced into close contact unless they are squeezed together with a pair of pliers. A band in which a thin sheet of paper can be inserted between the ends is improperly attached. It is agreed that bands can be attached more quickly with the fingers, but they can not be attached safely, and speed achieved at a possible sacrifice of the birds is not worth while.

Cooperators are requested not to reissue their bands to some other station except in cases of extreme emergency. Every string of bands issued from the Washington office is registered in the index, and it is this index that is examined when a return record is received from some person other than a regular cooperator or from a foreign station. If the band has been used by some person other than the one to whom it is charged, completion of the return may be delayed for a long time, or

the record may be lost entirely. If, however, it does become necessary to reissue some bands to another station operator, a report giving the name of the person to whom they were issued and the inclusive numbers should be sent immediately to the Survey. Watch for duplicate bands. Sometimes a band number will be repeated and the duplicate band issued to a banding station. When such are found they should be destroyed.

For obvious reasons it is not good policy to issue a large number of bands much in advance of the time when it is expected they will be used. Effort is made to avoid purchasing large quantities of bands at one time, in order to insure the best distribution of the limited funds available. To this end the cooperation of station operators is necessary, and while the Survey appreciates receiving all plans relative to future work, as this assists us in calculating probable needs, it is requested that actual orders for bands be withheld until participation in the work is assured.

The Survey desires to call to the attention of station operators who are using the Kennard banding pliers the need for reboring the pair designed to close the No. 2 bands. The outside diameter of the No. 2 band is now greater than it was when these pliers were designed, owing to the necessity of using thicker aluminum in order to prevent such birds as cardinals from crushing the bands. The pliers can easily be rebored at any good machine shop. A No. 6 drill is required, and after the hole has been bored care should be taken to smooth it carefully with a fine file or emery cloth so that the band will not be bruised when it is closed.

TRAPS

A short time ago, when Mr. Harold Michener, of Pasadena, Calif., visited the Survey offices, he described a trap that has been used with much success by Mrs. Ben L. Clary, of Coachella, Calif. This trap is made of ordinary hardware cloth, in the form of the Beginner's Flat Trap. It measures about 24 inches square and six inches deep. Hardware cloth is put on the bottom as well as on the top, and in the bottom near the center a hole three or four inches in diameter is cut. When this trap is placed on the ground, a shallow trench is scraped out leading to this central hole, through which birds pass and so work up into the trap. Although at first glance it would seem that such a trap would not be successful, Mr. Michener reports that Mrs. Clary has found it most satisfactory.

Allen Frazier, of Ithaca, N. Y., has sent in a report giving some details relative to the use of the Chardonneret trap at his station. We have considered this one of the best of the top-opening traps, and this opinion is confirmed by Mr. Frazier's experience. During the drought of the past season, water for drinking and bathing has been a particularly attractive bait at many stations.

From time to time the Survey has received communications from cooperators requesting information as to where they could obtain wire netting of the irregular hexagonal mesh such as was used in the construction of traps by the Western Bird Banding Association. Apparently this netting is not made by all manufacturers, but Mr. B. S. Bowdish, of Demarest, N. J., has taken up the matter and after much correspondence has ascertained that it can be obtained from the Crown Iron Works Company, of Minneapolis, Minn., or from its eastern office, Room 811, Graybar Building, 420 Lexington Ave., New York, N. Y. This company refers to this netting as "hexagonal mesh of one-half inch," and is prepared to fill orders for netting to be made from 22-gauge wire in widths from 24 to 48 inches in bales of 150 lineal feet. If cooperators learn of other dealers handling this netting, the Survey would be glad to be informed of them.

BAIT

Mrs. Rachel E. Caughey, of Antrim, N. H., advises that woodpeckers in the vicinity of her station are becoming fond of doughnuts. She says that she keeps one on a stick, and on one occasion noted a downy woodpecker feeding on top of it, while a chickadee hanging up-side-down was feeding underneath.

Russell S. Davis, of Clayton, Ill., reports that he has solved the problem of capturing large numbers of sparrows and finches at his station by planting some waste ground to hemp and millet. These grains attract the birds in fall and winter, and it is thus easy for him to capture them in rather large numbers. There is no question that much of the success of banding stations depends upon making them attractive for birds.

Mrs. Ben L. Clary, Coral Reef Ranch, Coachella, Calif., in a report sent in last fall just after the last number of Bird Banding Notes was issued, stated that she captured 10 western tangers with apricots as bait and several each of long-tailed chats and black-headed grosbeaks with what she called "balsam pods." We believe that she refers to the touch-me-not, or lady-slipper.

S. H. Weakley, of Fort Smith, Ark., reports the capture of goldfinches through the use of the familiar hedge apple. He says that this is their principal winter food in his vicinity, and while they would not come to his traps when baited with canary seed, they were unable to resist the offering of hedge apples.

Miss Emmeline Andruskevicz, of Green Bay, Wis., requests information concerning the advisability of using a trap over a bird bath. It is believed that this is being done at several stations, and so far nothing has been reported to the Survey that would indicate that it is not a legitimate practice.

Webb Toms, of San Diego, Calif., is giving special attention to the banding of mourning doves. He advises that poppy seeds are particularly attractive as a bait for these birds.

RECORDS

Albert K. and Daniel Smiley, Jr., of Mohonk Lake, N. Y., have reported the system that they employ for handling the records of their station:

When bands are received, the quantity and serial numbers are entered in a 7 1/2 by 9 1/2 loose-leaf notebook, one page being used for each size. Any information concerning distribution is recorded in this book. Another book of the same type carries the chronological notation of the bands used, each size being entered in a separate section, while a third book of this size is divided into sections for each species, and carries the banding records, substation designations, etc. Returns are entered in it with red ink. A three by five inch notebook with a section for each band size and the band numbers already noted is carried to and from the traps. Usually four of these books are used each year.

Return cards (Bi-137) are made out when the record is obtained, and the schedules to be sent to the Survey are filled in at the end of the season from the three by five notebook records, the permanent record for the station being made out at the same time in the station book arranged by species. Where special studies of a species are being carried on, the data for that species are entered on three-by-

five cards rather than in the species book, this size card also being used for the station's duplicate of the return records. Each month a three-by-five card is prepared summarizing the month's work by species.

This system at first seems somewhat elaborate, but through its use a double check is possible and errors are consequently reduced to the minimum. The Smiley Brothers are at present engaged in studies of plumage and weight variations.

RETURNS

On February 24 and 27, 1929, J. P. Melzer, of Milford, N. H., banded two tree sparrows. In 1930, these birds were not taken at his station, but on January 18 and 21, 1931, both were recaptured. It seems curious that the dates of recovery, like the dates of banding were three days apart.

The Survey has received a communication stating that a female widgeon, marked P. Skovgaard, Viborg, Denmark, V-6202, was killed in December, 1930, on Currituck Sound, N. C. It is assumed that this was a specimen of the European widgeon, banded probably in Iceland by a cooperator of Mr. Peter Skovgaard of Viborg, as other widgeons marked there with his bands have been recovered at several places on our Atlantic Coast.

Mrs. Francis V. Crane, of Needham, Mass., has been somewhat confused as to whether she should report captures of her banded chickadees as return records or as repeats. She believes that these birds have been in the vicinity of her station (although not taken in her traps) more or less continuously during the period between banding and date of recapture more than three months later. Although some birds ~~that are resident in a given area may never have a bona fide return~~ (most of the captures being repeats), in cases of doubt it is best to list the record as a return, so that it will be placed on file and so become available for use when some particular study is being made. In other words, when in doubt call such recapture a return and leave the decision to the Survey.

Among the great numbers of interesting return records received during the past few months, the following seem worthy of special interest.

Laughing gull No. A518811, banded July 13, 1930, at Muskeget Island, Mass., by Miss Grace C. Meleney, was picked up in Acajutla Bay, Salvador, on January 26, 1931.

Red-tailed hawk No. 655444, banded July 23, 1930, at Hepburn, Sask., by Philip Siemens, was killed at Flatonia, Texas, on December 30, 1930.

Flicker No. 652694, banded June 24, 1929, at Ohio, Ill., by Mrs. Esther L. Jackson, was killed on November 26, 1930, at Mer Rouge, La.

Black duck No. 5180, banded September 14, 1921, at Lake Scugog, Ont., by H. S. Osler, was killed during the autumn of 1930, at Jolicure, N. B.

Mallard No. 497337, banded November 2, 1928, at Milwaukee, Wis., by Owen J. Gromme, was shot at Nail Pond, Prince Edward Island, about October 21, 1930.

Coot No. A515245, banded October 22, 1930, at Big Suamico, Wis., by Frank Schader (for L. H. Barkhausen), was killed at Essex, Conn., on November 5, 1930.

Herring gull No. 236619, banded September 5, 1923, at Wood Island, Grand Manan, N. B., by Ernest Joy, was found in a weakened condition in a poultry yard at Freeport, N. S., on September 22, 1930.

White-crowned sparrow No. 679269, banded May 11, 1928, at Burlington, Vt., by Harry C. Fortner, was found dead about October 9, 1930, near Algonquin Park, Ont.

Cooper's hawk No. 386664, banded July 2, 1928, at Chester, Mass., by Harry E. Woods, was killed October 28, 1930, at Taylors Island, Dorchester Co., Md.

Black duck No. A633021, banded April 29, 1929, at South Rockwood, Mich., by Dr. Miles D. Pirnie, was shot at Mercer, Me., on October 7, 1930.

Long-billed curlew No. 531112, banded June 11, 1929, near Brigham, Utah, by Archie V. Hull, was shot September 18, 1930, at Todos Santos, six miles south of Ensenada, Lower California.

Blue jay No. 586277, banded July 3, 1928, at Smithtown Branch, Long Island, N. Y., by Loring W. Turrell, was killed about December 8, 1930, at Timberlake, N.C.

Flicker No. A345856, banded June 13, 1930, at Zion, Ill., by Wm. H. Farrar, was retaken near Hamilton, Ala., on December 16, 1930.

Pintail No. A658305, banded February 11, 1930, at Avery Island, La., by E. A. McIlhenny, and shipped to U. S. Game Protector Geo. Tonkin, at Berkeley, Calif., was liberated at Winter Island, Calif., February 15, 1930. It was killed at Lake Charles, La., January 15, 1931. Three other pintails from Avery Island released at the same time at Winter Island, Calif., were recaptured by Mr. McIlhenny at Avery Island, on February 11 and 12, 1931.

Papers Reprinted.--S. Prentiss Baldwin, Director of the Baldwin Bird Research Laboratory at Gates Mills, Ohio, has advised the Survey that he will make available a limited number of reprints of his papers: "Bird Banding by Means of Systematic Trapping," Abst. of Proc. Linnaean Soc. of N. Y., No. 31, pp. 23-56, 1919; and "The Marriage Relations of the House Wren," The Auk, vol. 38, pp. 237-244, 1921. Any cooperators wishing copies of these should address their request to the Bureau.

Fill Out And Return This Page

The Biological Survey well appreciates the fact that the actual value of the work of bird-banding cooperators can not be calculated in dollars and cents, but nevertheless this standard can be applied in a general way. To assist the Bureau in evaluating this cooperation, every station operator is requested to fill out the following form, sign the statement, and return it in the inclosed penalty envelope.

Date _____ 1931

1. Number of traps in station equipment _____

2. At what do you estimate their total value? _____

(Use the following as a basis:

Government Sparrow Trap, \$5; Canary Cage and False Bottom Traps, \$2; Woodpecker Trap, \$2.50; Chardonneret Trap, \$4; Collapsible or Beginner's Flat Trap, \$4; Potter Trap (two-cell), \$2.50, (four-cell), \$5; Inland Creeper Trap, \$5; Higgins Auto Trap and Lurvey Combination Traps, \$3; Cohasset Warbler and Michener Water Traps, \$4; Chimney Swift Trap, \$8.50; Cat Trap, \$2.50; Waterfowl Traps, \$10; and up.)

3. Estimated value of other station equipment _____

4. Estimated amount annually spent for bait _____

5. Estimated number of hours a year (average) devoted to banding work _____

Operator _____

Address _____

