

# BIRD BANDING NOTES

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

Vol. 2

Washington, D.C., September, 1934

No. 11

"Watch for Series Designations on Your Bands"  
(Series letters now include A, B, C, F, L, 34, and 35)

## REORGANIZATION IN BIOLOGICAL SURVEY

To promote more effectively an active national movement for wildlife restoration, J. N. Darling, Chief of the Biological Survey, has recently made certain changes in the organization of the Bureau.

Game Management Division Established.---Consolidating the Division of Game and Bird Conservation and the Division of Predatory Animal and Rodent Control, a new unit has been established and designated the Division of Game Management under the leadership of Stanley P. Young, former head of the Control unit. Eight regional directors have been designated to administer the Bureau's game and other wildlife management policies throughout the States. Leaders of predatory animal and rodent control, refuge custodians, law enforcement officers, and other field agents will be responsible to these regional directors. It is hoped that, as these regions become better organized, the directors and their agents will have opportunity to contact bird-banding stations and other cooperating agencies. In order that bird banding cooperators may have full information concerning this new set-up, the regions, headquarters, and directors are listed, as follows:

Pacific Region (No. 1). Washington, Oregon, California, and Nevada. Headquarters, Portland, Oreg. Regional Director, Ira N. Gabrielson.

Mountain-Plains Region (No. 2). Montana, Idaho, Utah, Wyoming, Colorado, North Dakota, South Dakota, and Nebraska. Headquarters, Denver, Colo. Regional Director, Leo L. Laythe.

Southwestern Region (No. 3). Arizona, New Mexico, Kansas, Oklahoma, and Texas. Headquarters (probably), Phoenix, Ariz. Regional Director, Donald A. Gilchrist.

West Central Region (No. 4). Minnesota, Wisconsin, Iowa, Illinois, and Missouri. Headquarters, Winona, Minn. Regional Director, George Tonkin.

---

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.

Southern Region (No. 5). Arkansas, Louisiana, Tennessee, Mississippi, and Alabama. Headquarters (probably), Starkville, Miss. Regional Director, Roy Moore.

East Central Region (No. 6). Michigan, Indiana, Ohio, and Kentucky. Headquarters (probably), Lafayette, Ind. Regional Director, Daniel H. Janzen.

South Atlantic Region (No. 7). Maryland, West Virginia, Virginia, North Carolina, South Carolina, Georgia, and Florida. Headquarters, Washington, D.C. Regional Director, James Silver.

Northeastern Region (No. 8). The New England States, New York, Pennsylvania, New Jersey, and Delaware. Headquarters (probably), Amherst, Mass. Regional Director, Bertrand E. Smith.

New Public Relations Unit.--To keep the public acquainted with the accumulating facts and findings and with the general activities of the Biological Survey, the Chief has established a Division of Public Relations and placed it in charge of H. P. Sheldon, formerly head of the Division of Game and Bird Conservation. In addition to giving attention to the press, radio, public exhibits, and public speakers, the new Division will keep watch on the Bureau's relations with the various regions and States. This Division includes a consolidation of the Office of Editorial and Informational Work and the Office of Exhibits, Photographs, and Publication Distribution.

Migratory Waterfowl Division Set Up.--To promote a national migratory waterfowl program, the Chief has established a new Unit to be called the Division of Migratory Waterfowl. This Division will be in charge of J. C. Salyer, who comes to the Bureau after valuable experience with the Research Department at the University of Michigan. This Division will plan for careful and thorough wildlife administration in the interests of the birds, the public, and the sportsmen. Immediate objectives will be emergency acquisition of refuge areas with the special funds that have been made available and the development of trained refuge custodians.

Administration Division Reorganized.--Mr. Darling has also amplified the duties and personnel of the Division of Administration, placing the enlarged unit in charge of W. R. Dillon, formerly assistant in the Division of Game and Bird Conservation.

New Section on the Distribution and Migration of Game and Other Birds.--In the Division of Biological Investigations a new Section has been formed by the consolidation of all work dealing with the distribution and migration of birds. This Section will center its activities around the bird-banding work, with Frederick C. Lincoln as head of the Section under Dr. W. B. Bell, who is in charge of the entire Division. In this new Section is grouped the work of bird-banding cooperators, migration observers, and special waterfowl observers. No change is at present contemplated in the status of bird-banding cooperators, but as soon as possible the migration and waterfowl observers will be reorganized somewhat along the lines of the regional areas in the Division of Game Management. It is, however, hoped not only that all bird-banding cooperators will continue to render the valuable service that has made this work such an outstanding means of investigation but also that they will cooperate in obtaining such other needed information concerning North American birds as will enable the Biological Survey to discharge more efficiently the administrative duties delegated to it by Congress. There are many ways in which the operators of banding stations can contribute

valuable information that will be not only important to science, but also of material assistance in the conservation of North American birds. Plans are being developed as rapidly as possible and will be transmitted to station operators, probably through the medium of Bird Banding Notes, as soon as possible.

#### GENERAL INFORMATION

Bands.--At the end of the last fiscal year the Biological Survey had on hand a quantity of bands carrying the series designation "34". These will, of course, be issued and should be used as usual. In other words, the series designations now used indicate the fiscal year in which the bands were purchased rather than the year in which they are used. The only purpose of the series designation is to enable the use of a larger quantity of bands without the necessity of employing numbers having more than six figures.

In the specifications drawn up for the contract for the current fiscal year (1935), changes have been indicated for sizes 4 and 7. The diameter of size 4 has been increased from 1/4 in. to 5/16 in., which will make it possible to use this band on such birds as Royal and Caspian Terns, Green Herons, the different species of Teals, and other birds with feet of similar size. Sizes 0 to 3, inclusive, and 5 and 6 are left as they were last year. Size 7 is continued as a band of 7/8 in. diameter, but the height of the band has been reduced from 3/4 in. to 1/2 in., to make it easier to handle in the field.

Biological Survey Moves to New Quarters.--The Bureau is now installed in new quarters in the new south building of the Department of Agriculture, and the Section of Distribution and Migration has been able to arrange its files and personnel so that better service should be possible to the bird students of America. A sorting machine will be available so that the banding records can be made more useful.

Life History of the Gambel Quail in Arizona.--An important publication under this title, prepared by David M. Gorsuch, has recently been issued as Biological Science Bulletin No. 2, of the University of Arizona. Mr. Gorsuch used the banding method to obtain his data on movements, covey formation, etc.

C. E. Boardman.--The Biological Survey regrets to announce the death on June 17, 1934, of C. E. Boardman of Jamestown, N. Dak. Although Mr. Boardman had been operating a bird banding station only since January, 1933, he had shown remarkable energy and enthusiasm for the work. The total number of birds that he banded was well over 4,000. In the July number of Bird Banding, there is printed an interesting posthumous article by Mr. Boardman entitled "Mid-Winter Banding of Eastern Snow Buntings, Lapland Longspurs, and Horned Larks in North Dakota."

New Permits.--During the present fiscal year it will be necessary to continue the policy announced in May 1933 of declining to issue new bird-banding permits, available funds not being sufficient to meet the needs for an increased supply of bands and for the clerical work that would result from the activities of additional banding stations. Exceptions will be made in special cases, but these will be judged entirely upon their individual merits and usually will apply only to prospective cooperators who contemplate some special investigation or who are so admirably located that they will be able to establish an unusually productive

station that will be important in the general system.

It is hoped that ultimately it will be possible to have 5,000 active banding stations in well organized chains, not only in the United States and Canada, but also in the Latin American countries. It is believed that in practically every country it will be possible to establish a few stations to be operated by resident Americans who would, of course, confine their banding work to North American birds. The advantage of these South and Central American stations will be that they will band our migratory birds on their wintering grounds, and banding stations in the United States and Canada may be able to recapture them as they come north. With such a system in operation we would be in a position to obtain much needed information relative to our migratory birds in their winter quarters.

#### WORK DURING THE YEAR

The study of migratory and other birds by means of numbered bands has again demonstrated not only its value as a method of obtaining authentic information but also its great popularity among nature students and sportsmen. This is well indicated in the following table showing the gross results of the year's work as compared with those of the fiscal year 1933:

	1933	1934
Bands purchased	443,000	475,000
Banded birds reported	258,081	363,905
Returns received	16,661	18,321
Number of cooperators	1,842	1,874
Grand total of birds banded since 1920	1,381,609	1,745,514
Grand total of returns since 1920	82,451	100,772

Birds Banded.--The following table lists the number of individuals of each species banded and reported during the fiscal year. The arrangement is that of the A.O.U. Check List of 1910 as this order is still being used in the banding files. An asterisk (\*) indicates a species new to the list of banded birds, of which seven have been added during the year--the Tufted Puffin, Cassin's Auklet, Lesser Prairie Chicken, Texas Nighthawk, Yellow-billed Magpie, Green Jay, and Smith's Longspur.

As heretofore, all subspecies are included in the total for the species and the names used are those of the typical species; for example, the Olive-backed Thrush (Hylocichla ustulata swainsoni) does not appear in the list as this is a subspecies of the Russet-backed Thrush (Hylocichla ustulata ustulata), under which the Olive-back is grouped. In all such cases the English name is followed by the technical specific name and the word "group".

#### SPECIES TOTAL--FISCAL YEAR 1934

Western grebe.....	7	*Cassin's auklet.....	14
Holboell's grebe.....	2	Black guillemot.....	50
Horned grebe.....	3	Pigeon guillemot.....	2
Eared grebe.....	10	Murre.....	64
Pied-billed grebe.....	12	Razor-billed auk.....	26
Loon.....	1	Dovekie.....	24
*Tufted puffin.....	1	Glaucous-winged gull.....	149
Atlantic puffin.....	1	Great black-backed gull.....	9

Western gull.....	564	Egret.....	16
Herring gull.....	8,175	Snowy egret.....	315
California gull.....	1,936	Louisiana heron.....	572
Ring-billed gull.....	2,309	Little blue heron.....	336
Laughing gull.....	1,032	Green heron.....	94
Franklin's gull.....	1,198	Black-crowned night heron.....	982
Caspian tern.....	453	King rail.....	1
Royal tern.....	3,134	Clapper rail.....	5
Cabot's tern.....	20	Virginia rail.....	13
Common tern.....	15,486	Sora.....	28
Arctic tern.....	37	Florida gallinule.....	18
Roseate tern.....	1,316	Coot.....	1,711
Least tern.....	94	Northern phalarope.....	1
Black tern.....	165	Wilson's phalarope.....	7
Black skimmer.....	171	Avocet.....	49
Ashy petrel.....	35	Black-necked stilt.....	5
Gannet.....	20	Woodcock.....	8
Water-turkey.....	3	Wilson's snipe.....	10
Common (European) cormorant.....	128	Dowitcher.....	11
Double-crested cormorant.....	308	Stilt sandpiper.....	14
White pelican.....	1,110	Knot.....	1
Brown pelican.....	891	Pectoral sandpiper.....	26
American merganser.....	1	White-rumped sandpiper.....	25
Hooded merganser.....	2	Least sandpiper.....	226
Mallard.....	9,435	Semipalmated sandpiper.....	2,035
Black duck.....	7,618	Western sandpiper.....	82
Gadwall.....	245	Sanderling.....	1
Baldpate.....	1,051	Marbled godwit.....	8
Green-winged teal.....	2,521	Greater yellow-legs.....	19
Blue-winged teal.....	146	Lesser yellow-legs.....	43
Cinnamon teal.....	304	Solitary sandpiper.....	5
Shoveler.....	110	Willet.....	45
Pintail.....	14,290	Upland plover.....	6
Wood duck.....	293	Spotted sandpiper.....	165
Redhead.....	635	Killdeer.....	205
Canvasback.....	393	Semipalmated plover.....	93
Greater scaup.....	163	Piping plover.....	28
Lesser scaup.....	2,045	Wilson's plover.....	3
Ring-necked duck.....	866	Ruddy turnstone.....	2
Goldeneye.....	14	Oyster-catcher.....	4
Bufflehead.....	6	Bob-white.....	338
Surf scoter.....	1	California quail.....	567
Ruddy duck.....	7	Gambel's quail.....	1
Snow goose.....	19	Ruffed grouse.....	10
Blue goose.....	176	Prairie chicken.....	6
Canada goose.....	193	*Lesser prairie chicken.....	356
Whistling swan.....	2	Willow ptarmigan.....	1
Roseate spoonbill.....	5	Pheasant.....	4
White-faced glossy ibis.....	24	Mourning dove.....	2,505
Wood ibis.....	3	Ground dove.....	124
Bittern.....	28	Inca dove.....	19
Least bittern.....	10	Turkey vulture.....	15
Great blue heron.....	464	Black vulture.....	41

Marsh hawk.....	102	Yellow-bellied flycatcher.....	22
Sharp-shinned hawk.....	16	Western flycatcher.....	22
Cooper's hawk.....	8	Acadian flycatcher.....	4
Goshawk.....	8	Alder flycatcher.....	48
Red-tailed hawk ( <u>borealis</u> group).....	37	Least flycatcher.....	161
Red-shouldered hawk( <u>lineatus</u> group).....	19	Hammond's flycatcher.....	1
Swainson's hawk.....	26	Wright's flycatcher.....	4
Broad-winged hawk.....	10	Vermilion flycatcher.....	4
Rough-legged hawk.....	1	Horned lark ( <u>alpestris</u> group).....	408
Ferruginous rough-legged hawk.....	11	Magpie.....	50
Golden eagle.....	4	*Yellow-billed magpie.....	2
Bald eagle.....	15	Blue jay.....	3,008
Prairie falcon.....	12	Steller jay ( <u>stelleri</u> group).....	154
Duck hawk.....	3	Florida jay.....	1
Sparrow hawk.....	91	California jay.....	78
Osprey.....	108	*Green jay.....	2
Barn owl.....	110	Canada jay ( <u>canadensis</u> group).....	9
Long-eared owl.....	47	Raven.....	13
Short-eared owl.....	18	Crow.....	274
Barred owl.....	9	Fish crow.....	51
Saw-whet owl.....	5	Clarke's nutcracker.....	32
Screech owl.....	173	Starling.....	23,705
Great horned owl.....	45	Bobolink.....	88
Burrowing owl.....	133	Cowbird.....	1,229
Pygmy owl.....	2	Yellow-headed blackbird.....	91
Road-runner.....	1	Red-winged blackbird.....	2,567
Yellow-billed cuckoo.....	34	Tricolored redwing.....	1,400
Black-billed cuckoo.....	29	Meadowlark.....	266
Belted kingfisher.....	73	Western meadowlark.....	38
Hairy woodpecker ( <u>villosus</u> group).....	78	Audubon oriole.....	1
Downy woodpecker( <u>pubescens</u> group).....	440	Hooded oriole.....	37
Yellow-bellied sapsucker ( <u>varius</u> group).....	78	Orchard oriole.....	44
Red-breasted sapsucker.....	1	Baltimore oriole.....	433
Red-headed woodpecker.....	157	Bullock's oriole.....	142
Red-bellied woodpecker.....	52	Rusty blackbird.....	265
Flicker ( <u>auratus</u> group).....	839	Brewer's blackbird.....	344
Red-shafted flicker.....	25	Grackle ( <u>quiscula</u> group).....	6,481
Whip-poor-will.....	8	Boat-tailed grackle.....	103
Nighthawk.....	29	Evening grosbeak.....	816
*Texas nighthawk.....	11	Pine grosbeak.....	13
Chimney swift.....	10,021	Purple finch.....	3,890
Ruby-throated hummingbird.....	6	House finch.....	4,373
Scissor-tailed flycatcher.....	7	Crossbill.....	1
Kingbird.....	159	White-winged crossbill.....	1
Arkansas kingbird.....	148	Gray-crowned rosy finch.....	1
Crested flycatcher ( <u>crinitus</u> group).....	33	Redpoll.....	144
Ash-throated flycatcher ( <u>cinerascens</u> group).....	1	Goldfinch ( <u>tristis</u> group).....	1,600
Phoebe.....	807	Arkansas goldfinch ( <u>psaltria</u> group).....	316
Say's phoebe.....	64	Lawrence goldfinch.....	4
Black phoebe.....	6	Pine siskin.....	472
Olive-sided flycatcher.....	4	English sparrow.....	147
Wood pewee.....	21	European tree sparrow.....	10
Western wood pewee.....	13	Snow bunting.....	1,539
		Lapland longspur.....	1,149
		Chestnut-collared longspur.....	5

*Smith's longspur.....	3	Bohemian waxwing.....	83
Vesper sparrow.....	459	Cedar waxwing.....	585
Ipswich sparrow.....	2	Northern shrike.....	8
Savannah sparrow.....	760	Loggerhead shrike( <u>ludovicianus</u> group).....	129
Grasshopper sparrow.....	37	Red-eyed vireo.....	145
Henslow's sparrow.....	21	Philadelphia vireo.....	27
Leconte's sparrow.....	4	Warbling vireo.....	65
Sharp-tailed sparrow.....	3	Yellow-throated vireo.....	2
Nelson's sparrow.....	2	Blue-headed vireo( <u>solitarius</u> group).....	20
Seaside sparrow.....	2	White-eyed vireo.....	2
Lark sparrow.....	14	Bell's vireo.....	3
Harris's sparrow.....	2,398	Black and white warbler.....	296
White-crowned sparrow		Prothonotary warbler.....	7
( <u>leucophrys</u> group).....	5,919	Worm-eating warbler.....	2
Golden-crowned sparrow.....	2,088	Blue-winged warbler.....	26
White-throated sparrow.....	14,338	Golden-winged warbler.....	18
Tree sparrow.....	5,708	Virginia's warbler.....	1
Chipping sparrow.....	2,785	Nashville warbler.....	147
Clay-colored sparrow.....	2,113	Orange-crowned warbler( <u>celata</u> group).....	387
Brewer's sparrow.....	29	Tennessee warbler.....	268
Field sparrow.....	1,301	Parula warbler.....	40
White-winged junco.....	4	Cape May warbler.....	25
Junco( <u>hyemalis-oregonus</u> group).....	18,810	Yellow warbler.....	650
Red-backed junco( <u>phaeonotus</u> group).....	22	Black-throated blue warbler.....	70
Black-throated sparrow.....	1	Myrtle warbler.....	869
Pine woods sparrow.....	9	Audubon's warbler.....	360
Rufous-crowned sparrow.....	2	Magnolia warbler.....	255
Song sparrow.....	9,038	Cerulean warbler.....	3
Lincoln's sparrow.....	1,906	Chestnut-sided warbler.....	95
Swamp sparrow.....	807	Bay-breasted warbler.....	40
Fox sparrow.....	1,939	Black-poll warbler.....	248
Towhee.....	1,145	Blackburnian warbler.....	30
Arctic towhee ( <u>maculatus</u> group).....	696	Yellow-throated warbler.....	4
Canon towhee ( <u>fuscus</u> group).....	329	Black-throated gray warbler.....	1
California towhee ( <u>crissalis</u> group).....	171	Black-throated green warbler.....	97
Abert's towhee.....	77	Townsend's warbler.....	2
Green-tailed towhee.....	64	Kirtland's warbler.....	1
Cardinal.....	1,096	Pine warbler.....	125
Rose-breasted grosbeak.....	155	Palm warbler. (both).....	43
Black-headed grosbeak.....	430	Prairie warbler.....	16
Indigo bunting.....	219	Ovenbird.....	585
Lazuli bunting.....	41	Water-thrush( <u>noveboracensis</u> group).....	206
Painted bunting.....	2	Louisiana water-thrush.....	2
Dickcissel.....	10	Kentucky warbler.....	23
Western tanager.....	85	Connecticut warbler.....	48
Scarlet tanager.....	50	Mourning warbler.....	97
Summer tanager.....	13	Macgillivray's warbler.....	16
Hepatic tanager.....	1	Maryland yellow-throat( <u>trichas</u> group).....	807
Purple martin.....	701	Chat.....	140
Cliff swallow.....	238	Hooded warbler.....	13
Barn swallow.....	2,224	Wilson's warbler ( <u>pusilla</u> group).....	232
Tree swallow.....	807	Canadian warbler.....	115
Northern violet-green swallow.....	42	Redstart.....	529
Bank swallow.....	1,918	Pipit.....	16
Rough-winged swallow.....	105	Sprague's pipit.....	4

Dipper.....	4	Plain titmouse ( <u>inornatus</u> group).....	46
Mockingbird.....	675	Chickadee ( <u>atricapillus</u> group).....	1,871
Catbird.....	2,747	Carolina chickadee( <u>carolinensis</u>	
Brown thrasher.....	2,051	group).....	73
Curve-billed thrasher.....	2	Mountain chickadee( <u>gambeli</u> group)..	59
California thrasher.....	81	Hudsonian chickadee( <u>hudsonicus</u> group)	1
Sage thrasher.....	3	Chestnut-backed chickadee	
Cactus wren.....	3	( <u>rufescens</u> group).....	3
Rock wren.....	11	Bush-tit.....	13
Canon wren.....	1	Verdin.....	2
Carolina wren.....	161	Wren-tit.....	110
Bewick's wren ( <u>bewicki</u> group).....	117	Golden-crowned kinglet.....	189
House wren.....	3,999	Ruby-crowned kinglet.....	260
Winter wren.....	88	Blue-gray gnatcatcher.....	5
Short-billed marsh wren.....	6	Wood thrush.....	291
Long-billed marsh wren.....	138	Veery ( <u>fuscescens</u> group).....	174
Brown creeper.....	438	Gray-checked thrush( <u>aliciae</u> group)	340
White-breasted nuthatch.....	473	Russet-backed thrush ( <u>ustulata</u> group)	945
Red-breasted nuthatch.....	117	Hermit thrush.....	1,388
Brown-headed nuthatch.....	11	Robin.....	8,192
Pygmy nuthatch.....	13	Varied thrush.....	10
Tufted titmouse.....	438	Bluebird.....	918
Black-crested titmouse.....	5	Western bluebird ( <u>mexicana</u> group).	90
		Mountain bluebird.....	33

It is of special interest to note the annually mounting number of banded warblers. In 1933 the total of these birds that had been banded was 6,678, and in 1934 it was 6,949. Excluding the Myrtle Warbler for both years, the totals are: 1933, 4,483; 1934, 6,080.

Station Totals.--The rules governing the preparation of the following table have been the same as those employed in previous reports. In order that this may be clear to cooperators whose names have not previously been listed in this report, it is repeated that the records included are those received at the offices of the Biological Survey before closing time on June 30, 1934, at which time the records had to be closed for the annual report. This means that in some cases a station may be listed in a lower group than it would be if all records had been received before the time specified. The Bureau again stresses the fact that the value of a station cannot be judged solely by the number of birds banded, but, since it is impossible to list all stations, it is believed that these tabulations are of interest in illustrating the growth of the banding project.

The following banded more than 1,000 birds:

O. L. Austin Ornithological Research Station, North Eastham, Mass.....	12,977
Lawrence E. Hicks, Columbus, Ohio.....	12,392
E. A. McIlhenny, Avery Island, La.....	6,690
Dr. J. F. Brenckle, Northville, S. Dak.....	4,645
A. J. Butler, Chilliwack, B. C.....	4,530
F. W. George, Aberdeen, S. Dak.....	4,144
E. Milby Burton, Charleston, S. C.....	3,921
Nion R. Tucker, Burlingame, Calif.....	3,758
C. E. Holcombe, Zion, Ill.....	3,580
Harold C. Wilson, Ephraim, Wis.....	3,468
Wm. P. Wharton, Groton, Mass.....	3,336
Frederick E. Ludwig, Lansing, Mich.....	3,226
Mrs. Marie V. Beals, Elmhurst, L. I., N. Y.....	3,142

Glenn Berner, Jamestown, N. Dak.....	3,133
Mr. and Mrs. Harold Michener Pasadena, Calif.....	3,081
G. C. Reifel, Vancouver, B. C.....	3,003
V. G. Musselmann, Quincy, Ill.....	2,936
Frederick C. Labahn, Jr., Blue Island, Ill.....	2,703
Dr. Edmund Jurica, Lisle, Ill.....	2,459
Dr. S. Prentiss Baldwin, Cleveland, Ohio.....	2,449
Dr. Herbert A. Burns, Ah-gwah-ching, Minn.....	2,405
M. J. Magee, Sault Ste. Marie, Mich.....	2,386
Prof. J. W. Stack, East Lansing, Mich.....	2,334
Geo. M. Benson, Princeton, Oreg.....	2,308
Charles H. Feltes, Modesto, Calif.....	2,277
R. Owen Merriman, Kingston, Ont.....	2,256
Wm. Vogt, Wantagh, L. I., N. Y.....	2,254
Louise J. Miller, Zion, Ill.....	2,245
Dr. and Mrs. J. E. Horning, Edmonton, Alta.....	2,121
O. A. Stevens, Fargo, N. Dak.....	2,068
Charles B. Floyd, Newton, Mass.....	2,015
Howard W. Braun, Canton, Ohio.....	1,986
C. Conklin, Canal Winchester, Ohio.....	1,816
Mrs. F. C. Laskey, Nashville, Tenn.....	1,800
R. J. Middleton, Norristown, Pa.....	1,698
G. W. Luther, Detour, Mich.....	1,691
Mrs. Kenneth B. Wetherbee, Worcester, Mass.....	1,686
Charles W. Ziegler, Logan, Ohio.....	1,574
Egbert Jones, Ceres, Calif.....	1,560
Wm. I. Lyon, Waukegan, Ill.....	1,560
Geo. E. Mushbach, Ogden, Utah.....	1,537
Mrs. Hannay R. Gray, Wilton, N. Dak.....	1,508
Rev. G. C. M. Bierens, Fairmount, N. Dak.....	1,505
Frank W. Robl, Ellinwood, Kans.....	1,446
Richard Gordon, Abbeville, La.....	1,445
Karl E. Bartel, Blue Island, Ill.....	1,408
Johnson Neff, Sacramento, Calif.....	1,404
Verdi Burtch, Branchport, N. Y.....	1,379
Vernon L. Marsh, Great Falls, Mont.....	1,264
M. O. Thompson, Lisbon, N. Dak.....	1,262
Hugh M. Worcester, Merrill, Oreg.....	1,254
Arthur Rotch, Boston, Mass.....	1,251
Dr. Karl Christofferson, Blaney, Mich.....	1,231
Wm. Arthur Collett, Zion, Ill.....	1,204
Lewis O. Shelley, Westmoreland, N. H.....	1,202
Eustace L. Sumner, Sr., Berkeley, Calif.....	1,191
B. S. Bowdish, Demarest, N. J.....	1,167
Mrs. Florence K. Daley, Napanoch, N. Y.....	1,166
M. M. Turner, Water Valley, Miss.....	1,158
Mrs. Daisy M. Morrison, Gulfport, Gla.....	1,083
Mr. and Mrs. Ben L. Clary, Coachella, Calif.....	1,070
Alfred D. Trempe, Sault Ste. Marie, Mich.....	1,059
A. L. Hager, Vancouver, B. C.....	1,057
James P. Melzer, Milford, N. H.....	1,024

The following banded between 800 and 1,000:

Robert Allison, Athol, Mass.  
Henry P. Baily, Philadelphia, Pa.  
E. Earl Bell, Water Valley, Miss.  
Marion Clow, Lake Forest, Ill.  
Edward M. Davis, Shirley, Mass.  
Russell S. Davis, Clayton, Ill.  
Dr. W. Bruce Large, Rochester, N. Y.

Preston F. Osborn, Lakin, Kans.  
Israel J. Pothier, Lower Wedgeport, N. S.  
Vernon C. Rossman, Waukesha, Wis.  
Harry D. Ruhl, Lansing, Mich.  
John E. Sibley, Whittemore, Mich.  
Dr. Windsor M. Tyler, Boston, Mass.

The following banded between 500 and 800:

Ben B. Coffey, Jr., Memphis, Tenn.  
Frank H. Convey, Elizabeth, N. J.  
Geo. L. Cook, Bashaw, Alta.  
Prof. Frank M. Erickson, Salem, Oreg.  
Reed W. Ferris, Beaver, Oreg.  
Prof. Allan C. Fraser, Ithaca, N. Y.  
Geoffrey Gill, Huntington, L. I., N. Y.  
Paul W. Hoffmann, Milwaukee, Wis.  
Dr. Harrison F. Lewis, Ottawa, Ont.  
Horace D. McCann, Paoli, Pa.

Martin K. Nelson, Fertile, Minn.  
Dr. William Pepper, Philadelphia, Pa.  
Dr. M. D. Pirnie, Battle Creek, Mich.  
Joseph Powers, Flanders, L. I., N. Y.  
Charles J. Spiker, Branchport, N. Y.  
Eric M. Tait, Summerland, B. C.  
Geo. F. Tyler, Philadelphia, Pa.  
Paul Wanamaker, Oradell, N. J.  
Edward Ward, Delta, Man.

The following banded between 300 and 500:

W. E. Albert, Lansing, Iowa  
Walter I. Allen, Altadena, Calif.  
Mrs. Effie A. Anthony, Bar Harbor, Me.  
Dr. Harry A. Barbour, Mayville, Mich.  
Samuel M. Batterson, Mohler, Oreg.  
Carmen Beining, Platteville, Wis.  
C. Victor Bracher, Pilot Rock, Oreg.  
Wm. E. Brentzel, Fargo, N. Dak.  
Herbert Buckalew, Milford, Del.  
James Cosbey, Jr., Buffalo, N. Y.  
Mrs. Marie Dales, Sioux City, Iowa  
Verne E. Davison, Arnett, Okla.  
Dr. David A. Dery, Quebec, Que.  
Ralph D. Dieterle, Detroit, Mich.  
Richard J. Eaton, Boston, Mass.  
Constance Everett, Waseca, Minn.  
Rudolph S. Fried, Katonah, N. Y.  
Mr. and Mrs. J. A. Gillespie, Glenolden, Pa.  
Mrs. Elsa K. Glossbrenner, Indianapolis, Ind.  
Christian J. Goetz, Cincinnati, Ohio  
Mrs. Ada Clapham Govan, Lexington, Mass.  
Edward H. Graper, Wakefield, Mich.  
John J. Gundlach, Madison, Wis.  
Mr. and Mrs. Vernon Haskins, East Durham, N. Y.  
Henry O. Havemeyer, Mahway, N. J.  
Harold Hedges, Kansas City, Mo.  
H. Gordon Heggeness, Fargo, N. Dak.  
J. C. Higgins, London, Ont.

Richard M. Hinchman, Milton, Mass.  
Frank J. Hinds, Ann Arbor, Mich.  
Frank Hopkins, Campbellsport, Wis.  
Joseph C. Howell, Orlando, Fla.  
H. A. MacGregor, Camrose, Alta.  
H. E. McArthur, Waukegan, Ill.  
Lewis C. McGregor, Pointia, Ill.  
J. Marshall Magner, Webster Groves, Mo.  
Grace C. Meleney, White Plains, N. Y.  
Allen S. Montgomery, Owosso, Mich.  
John L. Partin, Los Angeles, Calif.  
Mr. and Mrs. Wm. Pepper, Jr., Wyncote, Pa.  
L. C. Pettibone, Dawson, N. Dak.  
Alfred O. Ramsay, McDonogh, Md.  
Dr. Edward G. Rowland, Norwich, Conn.  
Mr. and Mrs. A. F. Satterthwait,  
Webster Groves, Mo.  
Rexford N. Saxton, Washington, D. C.  
Clarence H. Schoenike, Oconomowoc, Wis.  
Paul A. Stewart, Leetonia, Ohio  
G. Stratton, Waco, Tex.  
Dr. Dayton Stoner, Albany, N. Y.  
E. L. Sumner, Jr., Berkeley, Calif.  
Dr. Louis A. Test, Lafayette, Ind.  
B. L. von Jarchow, Racine, Wis.  
L. H. Wentz, Ponca City, Okla.  
Chas. L. Whittle, Peterboro, N. H.  
Walter N. Wilkins, Chapman, Kans.

The following banded between 200 and 300:

Prof. W. C. Baker, Kingston, Ont.  
L. H. Barkhausen, Chicago, Ill.  
Walt Batezel, Collingswood, N. J.  
Henry Bowden, Litchfield, Conn.  
Homer L. Bradley, Augusta, Mich.  
Charles H. Bradshaw, Mesick, Mich.  
Mrs. Geo. E. Burbank, Sandwich, Mass.  
Victor H. Cahalane, Bloomfield Hills, Mich.  
Lowell E. Carter, Russiaville, Ind.  
R. H. Carter, Sr., Muscow, Sask.  
Mrs. Arch Cochran, Chicago, Ill.  
Alston Clapp, Sr., Houston, Tex.  
John H. Davidson, Wilmette, Ill.  
Rev. Paul B. Frydrych, Dayton, Ohio  
Mrs. C. H. Hall, Los Angeles, Calif.  
Edward P. Hamilton, Milton, Mass.  
Dr. Harold H. Hayes, Hubbards Woods, Ill.  
Lawrence E. Hunter, Dallas City, Ill.  
Harold L. Hutchins, Hamden, Conn.  
Keith K. Kreag, Lansing, Mich.  
Henry C. Kyllingstad, Valley City, N. Dak.  
Mrs. and Mrs. Clarence S. Jung,  
    Milwaukee Wis.  
S. A. Liddell, Summerland, B. C.

Mrs. Elinor B. McCabe, Berkeley, Calif.  
Edward McColgan, Catonsville, Md.  
Arthur Milliken, North Andover, Mass.  
Mrs. Margaret M. Nice, Columbus, Ohio  
W. Rodman Peabody, Milton, Mass.  
Carl A. A. Pedersen, Montvale, N. J.  
Harold S. Peters, Silver Spring, Md.  
Geo. Pickering, East Calgary, Alta.  
E. Carroll Poler, Medina, N. Y.  
J. L. Primrose, Raleigh, N. C.  
Alfred H. Reuss, Jr., Blue Island, Ill.  
Walter R. Salt, Rosebud, Alta.  
Clarence F. Smith, Riverbank, Calif.  
Irvin Sturgis, Lexington, Mo.  
W. B. Taber, Jr., Kansas, Ill.  
Robert E. Taylor, Oakland, Calif.  
Mrs. Georgia B. Thomas, Indianapolis, Ind.  
Peter J. Van Huizen, Cambridge, Md.  
Dr. Geo. Wagner, Madison, Wis.  
S. H. Weakley, Ft. Smith, Ark.  
Elmo C. Weeks, Sanbornton, N. H.  
Thomas H. Weller, Ann Arbor, Mich.  
Julius H. White, Rochester, N. Y.

The following banded between 100 and 200:

Dr. Arthur A. Allen, Ithaca, N. Y.  
Oscar P. Allert, McGregor, Iowa  
Isabel Ames, Van Nuys, Calif.  
Geo. T. Baker, Bemidji, Minn.  
Bertram A. Barber, Hillsdale, Mich.  
Fred G. Bard, Regina, Sask.  
Clarence A. Barnes, Los Angeles, Calif.  
James B. Batson, Lumberton, Miss.  
M. E. Beatty, Yosemite National Park, Calif.  
Mrs. Anna Benson, Fruita, Colo.  
Philip R. Benson, Cockeysville, Md.  
Harriet W. Blake, Berkeley, Calif.  
Adrey E. Borell, Yosemite National Park, Calif.  
Clarence Bretsch, Gary, Ind.  
Harold J. Broderick, Washington's Birthplace, Va.  
DeWitt P. Brokaw, Plainfield, N. J.  
Read Burtsfield, West Lafayette, Ind.  
Mrs. Edith B. Carman, Grand Junction, Colo.  
Mrs. Rachel E. Caughey, Antrim, N. H.  
Lawrence B. Chapman, Newton Highlands, Mass.  
Mrs. Carson H. Chase, Ironwood, Mich.  
Ernest D. Clabaugh, Berkeley, Calif.  
James B. Connell, Henderson, N. C.  
C. Blair Coursen, Chicago, Ill.  
Stuart Criddle, Treesbank, Man.  
Herman H. Crouser, Mannington, W. Va.  
Wm. A. Cumming, Teulon, Man.

Gustave Domitz, Jr., Pequannock, N. J.  
L. E. Dyke, Winter Park, Fla.  
Mary M. Erickson, Berkeley, Calif.  
Frank B. Foster, Haverford, Pa.  
Mrs. Harriet A. Frothingham  
    Brookline, Mass.  
J. T. Fowle, Vernon, B. C.  
Keahon Garland, Demarest, N. J.  
Mrs. William Gerdes, Jr., Quincy, Ill.  
Geo. Goerlitz, Boonville, Ind.  
Arthur J. Gorski, Ephraim, Wis.  
W. F. Hammond, Cupar, Sask.  
Lyndon L. Hargrave, Flagstaff, Ariz.  
Mrs. Jessie H. Hatch, Ocean Beach, Calif.  
Harry S. Hathaway, South Auburn, R. I.  
Walter P. Houle, Forest Lake, Minn.  
Mrs. Esther L. Jackson, Ohio, Ill.  
Thos. N. Jones, Union, Ont.  
Louis B. Kalter, Dayton, Ohio.  
Howard Kates, Downington, Pa.  
Mrs. Arthur Koehler, Madison, Wis.  
Gerald L. Koffel, Louisville, Ohio  
P. Kuntz, Winnipeg, Man.  
Bert Lambert, Allenville, Mich.  
James A. Laughlin, Marshall, Mo.  
Rubert J. Longstreet, Daytona Beach, Fla.  
Arthur R. Lundquist, Webster, S. Dak.

John J. Lynch, Newport, R. I.  
Jesse V. Miller, Peterboro, N. H.  
William F. Mohr, Dayton, Ohio  
Detlof B. Nelson, Chicago, Ill.  
John T. Nichols, New York, N.Y.  
Wm. H. Over, Vermilion, S. Dak.  
Arthur N. Pack, Abiquin, N. Mex.  
Mrs. L. B. Payne, Santa Cruz, Calif.  
Theed Pearse, Courtenay, B. C.  
James L. Peters, Harvard, Mass.  
Mrs. Chas. Peterson, Madison, Minn.  
Charles Platt, Ambler, Pa.  
James V. Porter, Glenwood, Minn.  
Thomas F. Power, Worcester, Mass.  
Charles P. Preston, Danvers, Mass.  
R. R. Reppert, College Station, Tex.  
Ida L. Reveley, Aurora, N. Y.  
Mrs. Cristabel S. Rockwood, Northampton,  
Mass.  
Irl Rogers, Modesto, Calif.  
Agnes E. Russell, Westfield, Wis.  
Mrs. Herbert F. Salmond, Westfield, Mass.  
Clarence H. Sanderson, Sherrill, N. Y.  
Cora E. Shoop, Steelville, Mo.

Prof. Geo. S. Shortess, Elizabethtown, Pa.  
Alta Smith, Cuyahoga Falls, Ohio  
Prof. Frank Smith, Hillsdale, Mich.  
Frank R. Smith, Church Creek, Md.  
Ronald W. Smith, Wolfville, N. S.  
G. D. Sprot, Vancouver Island, B. C.  
Edna M. Stevens, Blue Rapids, Kans.  
E. Grace Stewart, New York, N. Y.  
James W. Stiles, Houston, Tex.  
Edward W. Stock, Detroit, Mich.  
William A. Taylor, Sharon, Mass.  
Blanche Vignos, Los Angeles, Calif.  
Rev. H. W. Wagar, Alexandria, S. Dak.  
Henry E. Wagner, Detroit, Mich.  
S. A. Walker, McClellanville, S. C.  
Dr. L. H. Walkinshaw, Battle Creek, Mich.  
J. O. Wetherill, Jr., Philadelphia, Pa.  
Mrs. E. S. White, Joliet, Ill.  
Francis B. White, Concord, N. H.  
LeRoy Wilcox, Speonk, L.I., N.Y.  
Dr. Harold B. Wood, Harrisburg, Pa.  
Harry E. Woods, Huntington, Mass.  
Wm. L. Wotherspoon, Hyas, Sask.  
Charles Yeomans, Chicago, Ill.

#### PHOTOGRAPHS

The collection of photographs has received several interesting additions since the issuance of the last number of Bird Banding Notes. It is hoped that sometime in the very near future it will be possible to mount all of these photographs in an album where they will be more readily accessible.

The pictures received during recent months are as follows:

Edward McColgan, Catonsville, Md.: Two enlargements, one showing a White-breasted Nuthatch at the feeding station and the other a young Screech Owl.

A. O. English, Norfolk, Va.: A very good picture of two banded Sparrow Hawks.

E. R. Hill, Colon, Mich: A picture of his waterfowl trap holding several Ring-necked Ducks.

Wm. Vogt, Wantagh, L. I., N. Y.: Three enlargements of photographs showing one of the nest shelters used, and the Black Ducks raised at the Flanders Club on the eastern end of Long Island.

Preston F. Osborn, Lakin, Kans.: Three, showing waterfowl in flight, the gathering cage connected to one of his waterfowl banding traps, and Mr. Osborn holding two Green-winged Teal.

Martin K. Nelson, Fertile, Minn.: Three, showing the banding trap designed and used by him at the Thief Lake waterfowl banding station, the second showing Mr. Nelson banding a Pintail, while the third shows the same duck as it was given its freedom.

Prof. Carl Welty, Fairfield, Iowa: Two, one of which shows how a Chimney Swift trap can be suspended within a large chimney, and the other the lowering from a tall chimney, of a gathering cage containing about 250 Chimney Swifts.

Vernon C. Rossman, Waukesha, Wis.: A portrait of the head of a Gambel's Sparrow.

Howard W. Braun, Canton, Ohio: Five excellent pictures showing traps and views in the vicinity of his banding station. The pictures are taken to show the different types of environment that have made possible the excellent record he has made in the banding work.

J. W. Stiles, Houston, Tex.: Six, showing young Brown Pelicans on Bird Island, and the nest, eggs, and young of the Black Skimmer on Galveston Island. Both islands are in Galveston Bay, Tex.

Alston Clapp, Sr., Houston, Tex.: Four, three being very fine pictures of adult and young Brown Pelicans at their colony in Galveston Bay, while the fourth shows the party that visited these colonies in July 1934 including the State and Federal wardens, Robt. P. Allen of the National Association of Audubon Societies, J. W. Stiles of Houston, Tex., and Mr. Clapp.

E. A. McIlhenny, Avery Island, La.: Nine, showing in a beautiful manner the plumage changes that are taking place from year to year among the captive Blue Geese that are held at his station. The plumage study of this species that is being conducted by Mr. McIlhenny is one of great interest and importance.

#### WORK AT BANDING STATIONS

Walter N. Wilkins, of Chapman, Kans., ended his first year as a bird-banding cooperater with a record of 212 birds of 23 species. His list is headed by the Tree Sparrow with 69 individuals, and it is interesting to note that the second bird on the list is the Harris's Sparrow of which he banded 36. One Black-capped Chickadee repeated 32 times between November 26 and March 3; a Tufted Titmouse repeated 26 times between November 23 and January 26 while a Downy Woodpecker repeated 25 times between December 3 and March 3. A Harris's Sparrow (C-697476), banded on December 8, 1932, returned to his trap on May 5, 1933.

Carmen A. J. Beining, of Platteville, Wis., reports a total of 540 birds of 21 species banded during the year. Most of his birds have been White-throated Sparrows, Slate-colored Juncos, and Robins, which, with Bronzed Grackles, represent the greater number of birds found in the vicinity. He reports that Brown Thrashers which are usually rather plentiful, were extremely rare during 1933. An adult Thrasher appeared to be rearing a young Robin, as, during a period in the summer of 1933 the Robin regularly met the Thrasher in order to receive its food. Mr. Beining states that at his station the Michener water trap caught 12 species of birds, some, such as Magnolia Warblers, Rose-breasted Grosbeaks, and Baltimore Orioles, being seldom caught in other traps. He finds that many Robins have such small legs that they will take 1A bands, while the legs of some female Grackles are also small and will require no. 2 bands although, as a general rule, no. 3 is best for these birds.

Preston F. Osborn, of Lakin, Kans., has prepared and forwarded an excellent sketch showing the construction and location of his waterfowl banding trap. This station has been in operation only a little more than a year, during which nearly 1,000

birds of several species including a fair representation of migratory waterfowl, have been banded.

E. A. McIlhenny, of Avery Island, La., in addition to his extensive operations with migratory waterfowl, which included the capture of many Blue Geese, has banded a large number of Black Vultures, Blue Jays, and Flickers. His trap for Black Vultures was set in the afternoon and before night it had captured 59 of these birds. The next morning 77 were caught and in the afternoon 39 more. While the Black Vulture has been banded on a few previous occasions, these captures by Mr. McIlhenny certainly set a record for work with this species.

Mr. and Mrs. Harold Michener, of Pasasena, Calif., are conducting an interesting piece of research intended to determine the relative amount of white in the wings and tails of Mockingbirds. They have sent the Bureau a copy of the chart that they use for this purpose, which is a mimeographed sheet carrying a sketch of a spread wing on which the amount of white or color may be indicated.

Through an oversight, the list in Bird Banding Notes, vol. 2, no. 9, omitted the total number of birds banded by Mr. and Mrs. Michener during the preceding fiscal year. They had banded 2,912 birds.

Miss Constance Everett, of Waseca, Minn., has submitted an interesting account of her experiences with the birds of Mexico. She also relates an incident concerning a Robin. Last spring Miss Everett's mother laid her handkerchief down beside her on the lawn, and it was promptly seized and carried off by a Robin, which used it as a nest lining. In commenting on the case, Miss Everett observes that it is not a common occurrence for baby Robins to have linen sheets on their beds.

Carl M. Gevers, of Chattanooga, Tenn., has submitted a most entertaining report of his activities during the first year of the operation of his banding station. While the birds banded numbered only 77, they represented 15 species, some being unusual, as, for example, two pairs of Summer Tanagers.

Harold J. Broderick, of Washington's Birthplace, Va., reports that since his station was started in November 1933 he has banded 243 birds of 23 species. On one occasion a Racing Pigeon carrying a band registered with the International Federation of Homing Pigeon Fanciers stopped at his station, remained for about a week, and then disappeared. When Racing Pigeons come to banding stations they should be fed, watered, and liberated.

R. N. Saxton, of Washington, D. C., reports the banding of 371 birds of 21 species during the past fiscal year. On January 3, 1934, Mr. Saxton banded the only Purple Finch that he had ever seen at his station, and during the spring season this bird was retrapped at Athol, Mass., by Robert Allen. At Mr. Saxton's station the State-colored Junco appeared in smaller numbers during the winter of 1933-34 than was the case in 1932-33, while, on the other hand, the Song Sparrow showed practically a 100 percent increase.

T. E. Musselman, of Quincy, Ill., has been awarded the honorary degree of Doctor of Science by Carthage College, one of the oldest educational institutions of Illinois. The Bureau understands that this degree was conferred because of Mr. Musselman's work in conservation, and he has stated his belief that bird banding was one of the elements that first called his activities to the attention of the Board of Trustees of the College.

Frederick C. Labahn, Jr., of Blue Island, Ill., reports that during his first full year as a bird banding cooperator he banded 1,766 birds representing 75 species and 1 subspecies. His report is remarkable in many ways, such as his record of 26 different species of warblers. Among these are the banding records of a pair of Cerulean Warblers, which are always rare birds in the Chicago area. Work at this station also demonstrated that Towhees, Swamp Sparrows, Lincoln's Sparrows, and Song Sparrows were far more abundant than had previously been believed. Mr. Labahn has been operating nine traps, and it is interesting to learn that his success in capturing warblers has been accomplished through the use of the Cohasset Warbler Trap. It is quite obvious that this is an excellent station and that it will provide further important reports in future seasons.

Prof. Carl Welty, of Fairfield, Iowa, worked out an ingenious solution to a Chimney Swift problem. Large numbers of these birds were roosting in a tall chimney, the top of which was so rotten with loose bricks as to be an unsafe place to work. Accordingly, he altered his Chimney Swift trap so that the entire apparatus, with the gathering cage attached, could be suspended inside the chimney. This expedient worked so well that he obtained 1,231 birds. In addition to the new Swifts captured and banded, he also took 83 local returns and 5 from foreign stations. The year's report from this station lists 1,648 birds of 36 species.

Glenn L. Berner, of Jamestown, N. Dak., has transmitted another interesting report summarizing the activities at his station during the spring migration. Tree Sparrows, Clay-colored Sparrows, and Towhees were noted in greater abundance than usual, and he was surprised to find that Field Sparrows were unusually common as, ordinarily, this species is rather rare in that area. Mr. Berner reports that he experienced his greatest thrill when he captured the first two male Lazuli Buntings that he had ever seen in that vicinity. These birds proved to be persistent repeaters, one of them staying nearby for two weeks and being in the traps as many as three times a day.

Miss Dorothy A. Baldwin, of Hardwick, Mass., is attempting to make a complete study of the habits of the Chickadee. As a foundation for further investigation, she would like to know what has been done with these birds by operators of other stations. Chickadees have been favorites at many stations, and it is recommended that station operators who have banded these birds in numbers and who believe that they have information that would be useful to this study communicate with Miss Baldwin.

L. E. Hunter, of Dallas City, Ill., desires to correspond with station operators, particularly in the Southern States, who may have notes relative to the nesting of the Chimney Swift. He writes that on two occasions he has lowered himself into chimneys in order to obtain closer observations. He expects to publish a report of his experiments in the September or December number of The Wilson Bulletin.

Geo. D. Robinson, of St. Petersburg, Fla., has been conducting some interesting experiments to test the homing instinct of the Red-winged Blackbird. He also has been successful in capturing Lesser Scaup Ducks by a method that is decidedly unique. By repeated feeding of bread he succeeded in getting a flock of these birds so tame that he was able to catch them by means of a wire hook on the end of a stick. Last season he banded 79 of these ducks by employing this method.

Howard Braun, of Canton, Ohio, banded 2,109 birds, representing 109 species, during the past fiscal year. With his report he transmitted an excellent description and several photographs of the area where his station is operated. From this

account, it is easy to see that he also is well located and that we may look for further important contributions from his station.

Dr. Edward G. Rowland, of Norwich, Conn., sent the Bureau an interesting specimen of a male Baltimore Oriole. It was banded on June 4, 1930, at which time it was a parent of a family on the grounds of the State Hospital. It then had some black feathers on the chin but only a few black feathers on the top of the head. It was found dead at the Hospital on June 21, 1934, and it still has the plumage that bird books describe for the immature male. Cases of this kind demonstrate that many times it is difficult to determine the exact age of a bird and they also show the great value of the banding work in producing accurate data on this subject.

Earl Loyster and Walter Mueller, of Milwaukee, Wis., are making arrangements to establish a goose-banding station near Janesville, Wis. A station in the central part of the country where these birds can be banded in large numbers is something that has been earnestly desired for many years. Information already at hand indicates that the Canada Geese of the Mississippi Flyway are mostly from a different group of birds than those that in winter come to the Atlantic Coast. Only by banding can definite information be obtained.

H. Gordon Heggeness, of Fargo, N. Dak., reports that White-throated Sparrows were decidedly scarce in his area during the past season. Ordinarily he states that he would have no difficulty in capturing at least 100 of these birds in a single season, but last year he was able to band only 15. In contrast to the success above noted in taking warblers with a Cohasset Warbler Trap by Mr. Frederick C. Labahn, Jr., of Blue Island, Ill., Mr. Heggeness reports that he made one of these traps but was unable to capture a single bird in it, whereas a Brenckle water trap gave excellent results with these birds. This indicates that traps successful in one area with certain birds cannot be depended upon for the same results in another region.

Willis B. Wood, of Cherryvale, Kans., reports that, while he was able to band only 97 birds during his first year as a bird-banding cooperator, he has been able to carry on some good missionary work by discussing this subject with the local Rotary Club, of which he is president.

#### BANDS

Important information relative to the use and sizes of bands is given on page 171 of this issue. Particular attention is directed to the use of the series designations and to the size of bands 4 and 7.

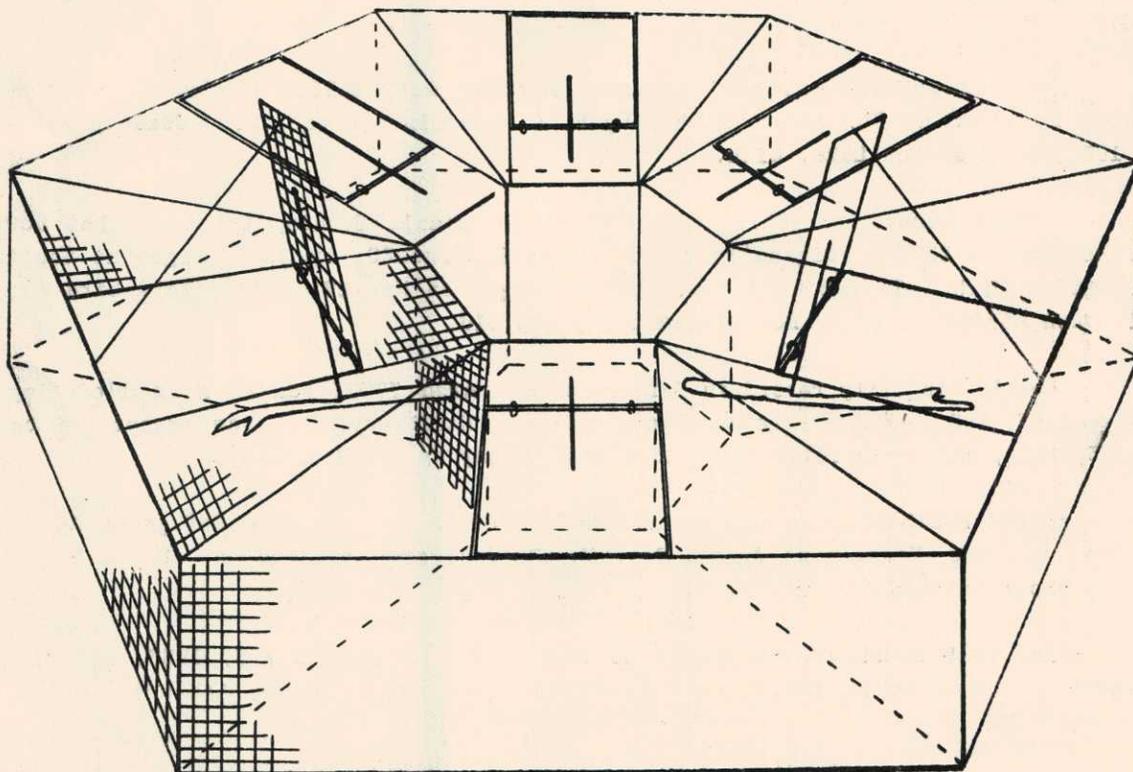
#### TRAPS

In response to many requests, the Bureau reproduces herewith the drawing of the Brenckle Warbler trap that was originally figured and described in Bird Banding Notes vol. 2, no. 5, page 67. The principle of this trap is that of the Chardonneret trap figured and described on pages 37 and 38 of the Manual for Bird Banders.

As a matter of fact, this trap, as originally made by Dr. Brenckle, is a 6-cell Chardonneret in which the water for all cells is energized by one water drip; that is, the shallow pan for bathing and drinking (not shown in the drawing) should be large enough to extend into all trap chambers. A good size for such a trap is 30 in. in diameter by 8 in. in height. The sketch shows the trap in a hexagonal shape, but in actual construction it might be a more simple matter to make it round. No. 2 hardware cloth is used throughout. Rubber bands are employed to make the doors close more quickly. Some station operators who have used this trap have found it advantageous to have alternate cells with ground openings, equipping such cells with sliding doors of the type employed on the Potter trap figured and described on page 22 of the Manual.

#### BAIT

Mrs. Marie Dales, of Sioux City, Iowa, has submitted some interesting comments concerning bait that she has found most satisfactory at her station. She reports that bread, cottage cheese, hemp, and sunflower seed have proved satisfactory and that her Cardinals, Rose-breasted Grosbeaks, and Chickadees have almost "kept her poor" buying them sunflower seed. She has taken one female Grosbeak out of a trap baited with these seeds on an average of four times a day. Early in the spring she puts out whole apples as bait for Cedar Waxwings. In using the apple bait, she crosses two 8-in. sticks and wires them together, leaving a long wire end on which to thread the apple, the crossed sticks below serving as perches. The end of the wire is then bent into a hook and hung in a tree or under a big trap. Mrs. Dales reports that on one occasion she had 5 Cedar Waxwings eating from one apple at the same time, a bird perched on each arm of the cross sticks while the fifth clung to the wire above. She also has found that Baltimore Orioles, Olive-backed Thrushes, Robins, and Catbirds are fond of apples.



## RETURNS

During the past season return records have been received every day, literally by the hundreds. These have included, not only the recaptures at the station of banding, but also some foreign returns from other stations and a great many birds that are shot or are picked up dead. In the latter classification, the waterfowl naturally head the list but these cases also include gulls, terns, herons, and other large birds.

James P. Melzer, of Milford, N. H., writes that last winter he captured Evening Grosbeak B-261619, which had been banded by M. J. Magee, of Sault Ste. Marie, Mich., and during the spring migration Mr. Magee captured one of these birds (34-208502) that had been banded by Mr. Melzer. These stations are more than 600 miles apart.

In commenting upon the Evening Grosbeak migration, Mr. Magee refers to a number of new returns that have been reported since last fall, one being from Minnesota, two from the western part of the upper peninsula of Michigan, one from northern New York, two from New Hampshire, and one from Rhode Island. He believes that his most interesting bird of this species is 462165, banded on March 9, 1927. It was recaptured by him on March 13, 1928; was trapped at Sandwich, Mass., on March 22, 1930; and was back at the banding station on March 14, 1931.

Edward McColgan, of Catonsville, Md., reports that during the spring of 1934 he recaptured 10 of the 24 Mourning Doves that were banded by him during 1933.

E. W. Ehmann, of Piedmont, Calif., reports a longevity record for Pintail 387867 (now A-601040) banded by him at Lake Merritt, Oakland, Calif., on January 23, 1926. It was retrapped at the station on January 26, 1934, being then more than eight years old. Mr. Ehmann also reports that an European Widgeon (A-620099) banded at Lake Merritt on January 17, 1929, was retrapped at that station on January 23, 1934.

A second longevity record concerns Herring Gull 237010 banded as a chick on July 25, 1923 at St. James, Mich., by F. C. Lincoln and was found dead on April 14, 1934, at Muskegon Lake, Mich.

A third record of this type concerns a female Evening Grosbeak that now carries band 34-237344 originally banded on April 4, 1926, by M. J. Magee at Sault Ste. Marie, Mich. It was recaptured by Mr. Magee on May 27, 1934. This bird was adult when banded so it is now at least 9 years old.

A fourth longevity record is for Louisiana Heron 37507 banded as a fledgling on August 13, 1920, at Avery Island, La., by E. A. McIlhenny. It was recaptured on July 13, 1934, and again released at this same colony by Mr. McIlhenny.

Mallard B-613453, banded at the Lake Malheur Migratory Bird Refuge on April 9, 1933, by Game Management Agent Geo. M. Benson, was captured at Union Lake, Quebec, about October 24, 1933.

Black Duck B-699545, banded at Newport, R.I., on February 5, 1933, by John J. Lynch was shot by an Indian on False River, near Fort Chimo, Labrador, about July 12, 1933.

Black Ducks B-655436 and B-642399, banded on October 16, 1932, and January 21, 1933, respectively, at the O. L. Austin station at North Eastham, Mass., were both killed at Attawapiskat Post, James Bay, Ont., about September 16, 1933.

Baldpate B-639220, banded at the Lake Malheur Migratory Bird Refuge on April 1, 1932, by Game Management Agent Geo. M. Benson, was killed on the Kobuk Flats, Alaska, about September 26, 1933.

Baldpate A-692220, banded on January 20, 1931, at Lake Merritt, Oakland, Calif., by E. W. Ehmann, was killed at Old Crow, Yukon Territory, about August 21, 1933.

Blue-winged Teal 323715, banded at Lake Scugog, Ont., on September 18, 1925 by the late H. S. Osler was killed at Pigeon Lake, Peterborough County, Ont., on October 4, 1933 (another longevity record).

Blue-winged Teal A-510103, banded on April 20, 1930, at Ellinwood, Kans., by F. W. Robl, was killed in March, 1932, at Sampues, Colombia, South America. This record was not reported until May, 1934.

Coot 599454, banded by C. E. Chapman at Oakley, S. C., on February 9, 1931, was killed at Grouard, Alta., about April 20, 1934.

Spotted Sandpiper F-117228, banded on August 19, 1933 at Wantagh, L.I., N.Y., by Wm. Vogt, was recaptured at Fort de France, Martinique, French West Indies, on September 13, 1933.

Killdeer A-289342, banded as a chick on June 17, 1933 at Carmangay, Alta., by Dr. and Mrs. J. E. Horning, was recaptured at Wamego, Kans., about October 30, 1933.

Chimney Swift C-24086, banded by Dr. Wyman R. Green on September 21, 1929, at Chattanooga, Tenn., came down the chimney of banding cooperator, Dr. A. R. Shearer, of Mont Belview, Tex., on April 29, 1934. It was, of course, released unharmed.

Phoebe H-60619, banded on July 9, 1935, at Guilford, Conn., by H. L. Hutchins, was killed on December 24, 1933 at Hobgood, N. C.

American Crossbill B-168051, banded on May 12, 1932 at Milton, Mass., by W. Rodman Peabody, was found dead on April 9, 1934 at Bemidji, Minn.

White-throated Sparrow F-107151, banded on January 19, 1934, at Summerville, S.C., by Wm. P. Wharton, was caught in a rat trap at St. John's, Newfoundland, about August 10, 1934.

Song Sparrow B-169943, banded at Berwick West, King's County, N. S., on April 6, 1932, by H. M. Rainforth, was found frozen on March 20, 1934, at New Haven, Conn., by Mrs. F. D. Hubbard.

Black-throated Green Warbler H-91583, banded on May 24, 1933, at Groton, Mass., by Wm. P. Wharton, was caught on October 22, 1933, at West Memphis, Ark.

SPECIAL NOTICE

The Biological Survey is anxious to prepare a compilation of areas administered by private individuals as wildlife preserves. By wildlife preserves is meant areas where no shooting is permitted and some planned effort is made to make the preserve attractive to wildlife and to encourage its increase there. Bird-banding cooperators may be able to render valuable aid in the preparation of this list. It, accordingly, will be appreciated if all cooperators knowing of such areas will supply the information below listed. Where actual details as to size, etc., are not available, an estimate should be made, and so indicated.

List, if possible, by name, location, and acreage.

Species of game produced on these preserves.

Relative abundance of wildlife on preserves compared with general distribution on similar adjoining areas not in preserves.

What species of migratory waterfowl use the preserves and to what extent.

The Bureau appreciates that in complying with this request, it may take some little time and trouble to collect the data, but it is particularly important at this time, in view of our national wildlife program, that we have all possible knowledge of what private citizens are doing in this direction. Also, the Bureau firmly believes that it can count upon the fullest measure of cooperation from the operators of banding stations, in all wildlife matters. In other words, the Survey holds to the opinion that persons participating in the banding work, constitute one of the most active and aggressive groups of nature students.

---

Who Had Band Number 70765?--A return has been received for band 70765, but it is found that through an error in the Issue Index, the banding record cannot be located. The cooperator who banded this bird should report to the Bureau the entire series of bands that he received when this particular one was issued. It is a size 2 band, and was manufactured in 1922.