

LONGEVITY

Averages compiled from the 266 returns show that 16 per cent of the total number of Red-wings banded survived one year, 7 per cent two years, 4 per cent three years, 2 per cent four years, and 0.3 per cent five years after banding. When graphed, these records yield a smooth curve, suggesting a steadily decreasing survival rate. However, it gives very little clue to the age they normally attain, for the age at banding varies. The oldest males in the records are two banded as adults in April, 1931, and taken yearly through 1936. As it requires at least two years to attain to adult plumage, these birds were hatched in 1929, or earlier, thus being at least seven years old. Several females lived five years after banding.

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SOME RETURNS OF BANDED BIRDS¹

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THE present paper deals with a miscellaneous group of species, those for which a comparatively small number of returns have been received. This makes possible a careful study and getting the complete return data on any one bird. Included also are the returns of several supposedly sedentary species, which have yielded data of unusual interest. Among these are several cases in which the banded bird did not report at the traps for several years. This may have been accidental or may indicate some local migration.

The return files do not, of course, contain the record of individuals that are constant boarders at the traps. These are to be found in

¹The word "return" in this paper is used in conformity with the system adopted by the United States Biological Survey in filing its banding records. This system manifestly is not based on the varied and important ornithological phenomena resulting from the recaptures of banded birds at the place of banding or elsewhere. Attention is called to this matter in order that foreign readers of *Bird-Banding* (and also not a few readers in the United States) may understand that the author is not attempting a complete analysis of the ornithological data presented.

It is suggested that those who are interested in banding terminology should read a paper written by Mabel Gillespie entitled "Suggestions for a Revised Bird-Banding Terminology," appearing in this Journal in 1930, Vol. I, pp. 14-19.—*The Editor*.

the station records, which must contain some interesting material. The repeating habits of some species probably account for the scarcity of return records, that is, the birds are never absent for three months.

Migration records are always interesting because of distance, direction, speed, or a combination of these. Longevity records, likewise, have special importance.

The Biological Survey would be glad to receive suggestions from the banding stations regarding particular groups or problems that they would like to have taken up in this series of papers. Such suggestions would be helpful in selecting the material for publication.

BELTED KINGFISHER. *Megasceryle alcyon*

- 210661, banded at McMillan, Mich., July 2, 1933, by Oscar M. Bryens, was caught in a trap at a fish hatchery at Stevens Point, Wis., September 4, 1933.
A415405, banded at Waukegan, Ill., June 8, 1930, by William I. Lyon, was killed at Libertyville, Ill., May 27, 1931.
A426430, banded at North Eastham, Cape Cod, Mass., April 13, 1931, by the Austin Ornithological Research Station, was retrapped at the same place October 13, 1932.

FLICKER. *Colaptes auratus*

- 10354, banded at Zehner, Sask., May 17, 1928, by J. A. Briggs, was recaptured May 28, 1930, in the same nest where it was banded.
399736, banded at Indian Head, Sask., July 13, 1926, by George Long, was caught at Illinois Bend, Tex., January 15, 1927.
623881, banded at Frankslake, Sask., June 25, 1929, by J. A. Briggs, was shot at Seagoville, Tex., February 23, 1931.
A345856, banded at Zion, Ill., June 13, 1930, by William H. Farrar, was shot 5 miles west of Hamilton, Ala., December 16, 1930.
A353177, banded at Detroit, Mich., July 15, 1931, by Henry E. Wagner, was found dead at Mobile, Ala., October 9, 1932.
A360227, banded at Fairdale, N. Dak., July 9, 1931, by Frank J. Vejtasa, was killed by a cat at Breslau, Tex., October 30, 1931.
A426251, banded at Zion, Ill., September 18, 1932, by Louise J. Miller, was killed by a small boy at Holly Ridge, La., in January, 1933.
A435724, banded at Sioux City, Iowa, September 7, 1931, by Mrs. Marie Dales, was killed at Dekalb, Tex., about June 27, 1932.
A443953, banded at Norristown, Pa., June 17, 1932, by R. J. Middleton, was caught at Johns, N. C., October 20, 1932.
B259302, banded at Rosyth, Alberta, June 27, 1933, by Harmon W. Burpee, was found dead at Ennis, Tex., about January 8, 1934.
B341346, banded at Northville, S. Dak., June 1, 1932, by J. F. Brenckle, was shot at Beaukiss, Tex., November 20, 1932.
B342707, banded at Fairmount, N. Dak., June 2, 1932, by G. C. Bierens, was shot 15 miles north of Liberty, Tex., January 1, 1934.
B379628, banded at Westfield, Wis., May 26, 1934, by Agnes E. Russell, was shot at Haynesville, La., November 17, 1935.
B390069, banded at Winnipeg, Manitoba, June 30, 1933, by J. P. Kennedy, was found dead at Wilburton, Okla., in November, 1934.
B394822, banded at Mesick, Mich., June 30, 1933, by Charles H. Bradshaw, was found dead at Tutwiler, Miss., October 25, 1934.
C304561, banded at Camden, N. J., June 17, 1933, by Walt Batezel, was killed at Mount Olive, N. C., December 29, 1934.
C304820, banded at East Westmoreland, N. H., June 13, 1934, by Lewis O. Shelley, was killed at Trenton, Fla., in November, 1934.

- C332523, banded at Wilton, N. Dak., July 20, 1934, by Hannah R. Gray, was killed at Marietta, Okla., September 28, 1934.
 C311727, banded at Bashaw, Alberta, June 16, 1934, by George L. Cook, was shot at Jasper, Tex., about January 20, 1935.
 34-314413, banded at Aberdeen, S. Dak., July 2, 1934, by F. W. George, was caught at Fayetteville, Tex., October 28, 1934.

RED-SHAFTED FLICKER. *Colaptes cafer*

- 338981, banded at Claremont, Calif., May 23, 1925, by E. L. Sumner, Jr., was found dead at Ontario, Calif., August 20, 1927.
 B342156, banded at Palo Alto, Calif., May 5, 1932, by Frank I. Fuller, was found dead at Atherton, Calif., July 12, 1932.

RED-BELLIED WOODPECKER. *Centurus carolinus*

- 215016, banded at Kansas, Ill., May 6, 1924, by W. B. Taber, Jr., was retrapped at the same place January 2, 1929.
 242498, banded at Thomasville, Ga., March 30, 1924, by John B. May, was retrapped at the same place May 8, 1926, and March 11, 1927.
 427557, banded at Leetonia, Ohio, May 20, 1926, by L. B. Strabala, was retrapped at the same place December 10, 1927, January 27, 1929, and March 20, 1932.
 437201, banded at Fairhope, Ala., May 3, 1930, by Mrs. W. H. Edwards, was shot at Point Clear, Ala., January 7, 1931.

RED-HEADED WOODPECKER. *Melanerpes erythrocephalus*

- 216081, banded at Pewaukee, Wis., December 1, 1923, by Ethel M. Towne, was killed at Harviell, Mo., in August, 1927.
 255115, banded at Crystal Bay, Minn., June 19, 1925, by Mr. and Mrs. F. W. Commons, was retrapped at the same place July 8, 1929.
 343015, banded at Winterset, Iowa, July 17, 1925, by H. C. Waechter, was killed by a car 12 miles southeast of Des Moines, Iowa, June 29, 1927.
 427625, banded at Sooth Haven, Mich., October 10, 1927, by Arthur Moore, was reported from Lillie, La., December 16, 1927.
 462271, banded at West Lafayette, Ind., August 28, 1927, by L. A. Test, was retrapped at the same trap May 18, 1930.
 A260926, banded at Clayton, Ill., July 21, 1931, by Russell S. Davis, was captured at Huntville, Ill., May 17, 1933.
 A270912, banded at Madison, Wis., on May 20, 1931, by Prof. George Wagner, was captured at Davenport, Iowa, when the bird alighted on frame of pen at a mink farm. When found it was in the grip of a mink, that was endeavoring to pull it through the wires. The bird died the next day of injuries, on June 20, 1931.

YELLOW-BELLIED SAPSUCKER. *Sphyrapicus varius*

- 34-316506, banded at Neebish, Mich., June 28, 1934, by A. D. Trempe, was killed near Rome, Ga., December 14, 1934.

HAIRY WOODPECKER. *Dryobates villosus*

- 110304, banded at Olivera, N. Y., June 15, 1927, by Mrs. F. K. Daley, was retrapped at the same place January 27, 1928, May 20, 1929, and May 25, 1930.
 219935, banded at Muscow, Sask., February 19, 1924, by R. H. Carter, Jr., was retrapped at the same place December 22, 1925, January 12, 1927, November 27, 1928, and February 20, 1929.
 390463, banded at Tiffin, Ohio, November 30, 1925, by Eugene C. Stacy, was retrapped at the same place June 8, 1928, and was accidentally shot, with some sparrows at Tiffin, June 8, 1929.
 393947, banded at Florence Lake, Big Creek, Calif., April 15, 1926, by Lila M. Lofberg, was retrapped at the same place, January 15, 1930.

70004, banded at Glenwood, Minn., January 5, 1927, by James V. Porter, was retrapped at the same place May 18, 1929, May 28, 1930, and May 15, 1932. A200888, banded at Blaney, Mich., December 14, 1932, by K. Christofferson, was retrapped at the same place October 17, 1933, November 5, 1934, June 19, 1935 and April 13, 1936.

DOWNY WOODPECKER. *Dryobates pubescens*

- 83460, banded at Elkader, Iowa, February 2, 1925, by Kathleen M. Hempel, was found dead at Balsam Lake, Wis., October 25, 1925, a distance of more than 175 miles.
- 140206, banded at Manchester, N. H., January 28, 1927, by Eugene Goellner, was retrapped at the same place March 4, 1928 and March 27, 1931.
- 168987, banded at Petersfield, Manitoba, August 24, 1928, by A. Guilbert, was shot at Poplar Point, Manitoba, about June 1, 1929.
- 169355, banded at Crystal Bay, Minn., November 22, 1925, by Mr. and Mrs. F. W. Commons, was retrapped at the same place November 1, 1926, October 23, 1927, May 1, 1928, and April 28, 1929.
- 191572, banded at Gates Mills, Ohio, May 26, 1926, by S. P. Baldwin, was retrapped at the same place March 31, 1928 and May 12, 1929.
- 258132, banded at Windsor, Conn., November 21, 1924, by John G. Wolf, was found dead at Windsor, Conn., December 26, 1929.
- 424933, banded at Ottawa, Ont., August 8, 1926, by R. E. DeLury, was retrapped at the same place May 4, 1929, May 12, 1931, and May 3, 1932.
- 441773, banded at Canton, Mo., January 15, 1927, by Edgar L. Knight, was shot at Burlington, Iowa, July 5, 1927.
- 459144, banded at Olivera, N. Y., April 20, 1928, by Mrs. F. K. Daley, was retrapped at the same place June 12, 1929, March 23, 1930, March 31, 1931, May 26, 1932, and February 14, 1933.
- 459195, banded at Muscow, Sask., March 6, 1927, by R. H. Carter, Jr., was retrapped at the same place November 27, 1931.
- 614189, banded at Clayton, Ill., December 7, 1929, by Russell S. Davis, was retrapped at the same place January 14, 1931.]
- A62715, banded at Rhinebeck, N. Y., February 12, 1927, by Maunsell S. Crosby, was retrapped at the same place January 26, 1930. The bird had not been taken between these dates.
- A254409, banded at Dorlan, Chester Co., Pa., April 27, 1932, by H. A. W. Kates, was retrapped at the same place January 10, 1936.

EASTERN KINGBIRD. *Tyrannus tyrannus*

692527, banded at Jamestown, N. Dak., July 14, 1928, by Glenn L. Berner, was found with a broken wing and had to be killed at Harvey, N. Dak., June 26, 1930.

CRESTED FLYCATCHER. *Myiarchus crinitus*

B272230, banded at Lisle, Ill., May 30, 1934, by Dr. E. Jurica and V. Laketek, was retrapped at the same place June 13, 1936. This bird was bitten on the thigh by a garter snake at the time of banding two years before.

EASTERN PHOEBE. *Sayornis phæbe*

- 140984, banded at Harrison, Maine, August 2, 1924, by H. H. Cleaves, was killed in 1925 at Ellenton, S. C.
- 155135, banded at Rock, Mass., April 18, 1925, by A. W. Higgins, was retrapped at the same place July 17, 1926 and March 19, 1927.
- 174585, banded at Vienna, Va., July 4, 1926, by Carlo Zeimet, was caught in the snow at Spring Hope, N. C., March 4, 1927.
- B74327, banded at Holderness, N. H., June 21, 1929, by Richard B. Harding, was reported from Headland, Ala., November 1, 1929.
- C144541, banded at Westfield, Wis., June 4, 1935, by Agnes E. Russell, was reported from Hallettsville, Tex., about December 25, 1935.

H60619, banded at Guilford, Conn., July 9, 1933, by Harold L. Hutchins, was killed at Hobgood, N. C., December 24, 1933.

SAY'S PHOEBE. *Sayornis saya*

A188997, banded at Coachella, Calif., March 26, 1930, by Mr. and Mrs. Ben L. Clary, was retrapped at the same place March 12, 1931, and January 8, 1932. This bird is a year-round resident at Coachella and nests each year on a chimney beam. For two seasons her nestlings have been banded.

F25005, banded at Modesto, Calif., December 29, 1930, by C. H. Feltes, was accidentally shot when it flew into direct line as a boy was shooting pigeons 8 miles northeast of Modesto, December 1, 1933.

YELLOW-BELLIED FLYCATCHER. *Empidonax flaviventris*

C50944, banded at Summerland, B. C., June 23, 1931, by E. M. Tait, was shot at the place of banding June 30, 1932.

F38047, banded at Groton, Mass., May 29, 1931, by William P. Wharton, was caught by a cat near Groton, about May 18, 1934.

LEAST FLYCATCHER. *Empidonax minimus*

A2264, banded at Rock, Mass., July 3, 1924, by A. W. Higgins, was found dead at Lake Assawampsett, near Middleboro, Mass., June 4, 1927.

C62668, banded at Groton, Mass., June 5, 1930, by William P. Wharton, was retrapped at the same place May 13, 1934.

H93386, banded at East Westmoreland, N. H., May 31, 1933, by Lewis O. Shelley, was retrapped at the same place June 25, 1934.

HORNED LARK. *Otocoris alpestris*

B143978, banded at Rush, Colo., April 30, 1931, by Sam. J. Shellhorn, was retrapped at the same place August 30, 1932.

C51239, banded at McMillan, Mich., March 14, 1930, by Oscar M. Bryens, was retrapped at the same place March 2, 1931.

BANK SWALLOW. *Riparia riparia*

H68930, banded at Ephraim, Wis., June 8, 1933, by Harold C. Wilson, was found dead at Manistique, Mich., June 30, 1934.

CLIFF SWALLOW. *Petrochelidon albifrons*

A19386, banded at Stanford University, Calif., May 3, 1926, by E. Myers, was retrapped at the same place April 20, 1928,, and April 17, 1929.

F39897, banded at Jonesboro, Maine, June 12, 1931, by Arnold E. Davis, was retrapped at the same place July 9, 1933.

PURPLE MARTIN. *Progne subis*

A. B. B. A. 55422, banded at Melbourne, Fla., May 27, 1922, by W. I. Lyon, was found at Eau Gallie, Fla., February 27, 1928.

240552, banded at Winnipeg, Manitoba, July 31, 1924, by Andrew M. Davidson, was trapped in a martin-house and released unharmed at Fertile, Minn., June 27, 1930.

428492, banded at Vicksburg, Mich., June 27, 1926, by Frederick W. Rapp, was retaken at the same place May 24, 1932.

428534, banded at Vicksburg, Mich., June 27, 1926, by Frederick W. Rapp, was retaken at the same place May 29, 1931, and May 24, 1932.

A143038, banded at Ohio, Ill., July 12, 1925, by Esther L. Jackson, was caught at Sipe Springs, Tex., about November 23, 1929.

B163264, banded at McMillan, Mich., July 15, 1932, by Oscar M. Bryens, was retrapped at the same place April 30, 1934, June 14, 1935, and April 29, 1936.

B163265, banded at McMillan, Mich., July 15, 1932, by Oscar M. Bryens, was retrapped at the same place May 6, 1934, May 11, 1935, and April 15, 1936.

B221369, banded at McMillan, Mich., May 10, 1933, by Oscar M. Bryens, was killed at Clayton, Ala., April 16, 1936.

CANADA JAY. *Perisoreus canadensis*

- 436659, banded at Barkerville, B. C., September 23, 1927, by T. T. McCabe, was retrapped at the same place April 18, 1928, September 1, 1929, September 29, 1930, May 18, 1931, July 30, 1933, August 14, 1934, and August 10, 1936. On August 11, 1936, this bird was killed in a rat trap about half a mile from Barkerville.
- 436662, banded at Barkerville, B. C., September 25, 1927, by T. T. McCabe, was retrapped at the same place October 29, 1928, April 8, 1929, October 14, 1929, and October 6, 1931.
- 463986, banded at Barkerville, B. C., May 15, 1927, by Joseph Wendle, was retrapped at the same place November 3, 1929, and February 21, 1931.

STELLER'S JAY. *Cyanocitta stelleri*

- 267383, banded at Strawberry Flat, San Bernardino, Mts., Calif., August 29, 1927, by C. A. Barnes, was killed at Twin Peaks, Calif., May 11, 1929.
- 443254, banded at Calcite, Colo., October 23, 1926, by R. B. Jerrard, was retrapped at the same place February 15, 1929.
- 443279, banded at Calcite, Colo., November 13, 1926, by R. B. Jerrard, was killed at Steamboat Springs, Colo., October 7, 1930.
- 590910, banded at Cristola, Colo., August 20, 1927, by J. B. Rishel, was found dead at Green Mt. Falls, Colo., December 27, 1930.
- 652238, banded at Cristola, Colo., August 18, 1929, by J. B. Rishel, was found dead at the same place about April 15, 1933.
- A403427, banded at Cristola, Colo., August 19, 1929, by J. B. Rishel, was caught in a trap at Green Mt. Falls, Colo., January 7, 1931.

CALIFORNIA JAY. *Aphelocoma californica*

- 240041, banded at Pasadena, Calif., October 9, 1924, by M. H. Finley, was retrapped at the same place May 8, 1928.
- 276002, banded at Berkeley, Calif., July 10, 1929, by E. D. Clabaugh, was shot at the same place February 28, 1932.
- 506878, banded at Berkeley, Calif., April 16, 1927, by Mary F. Hall, was retrapped at the same place January 28, 1931.
- A411668, banded at Strawberry Canyon, near Berkeley, Calif., June 28, 1932, by E. L. Sumner, was retrapped at the same place May 11, 1934.
- A377323, banded at Pasadena, Calif., June 6, 1931, by Harold Michener, was retrapped at the same place July 21, 1933. This bird comes to the lunch tables every day and eats out of hands.
- B376336, banded at Berkeley, Calif., June 1, 1932, by Harriet W. Blake, was retrapped at the same place April 19, 1935.

AMERICAN MAGPIE. *Pica pica hudsonia*

- A437719, banded at Horseshoe Lake, 8 miles west of Great Falls, Mont., May 22, 1932, was caught at Belt, Mont., April 10, 1933.

RAVEN. *Corvus corax*

- 560892, banded at Bowdoin Harbor, Labrador, July 18, 1928, by Donald MacMillan, was shot at Pinware River, Straits of Belle Isle, Labrador, about December 1, 1928.

WHITE-NECKED RAVEN. *Corvus cryptoleucus*

- A622322, banded at Fort Bayard, N. Mex., April 10, 1931, by C. L. Snyder, was caught in a trap at La Feria, Tex., about February 9, 1935.
- A648947, banded at Spur, Tex., November 7, 1931, by E. R. Kalmbach, was caught in a trap at Abilene, Tex., March 28, 1935.
- B647376, banded at Fort Stockton, Tex., October 18, 1932, by Shaler E. Aldous, was killed at Caprock, N. Mex., July 10, 1934.

CROW. *Corvus brachyrhynchos*

- 208230, banded at Noblesville, Ind., May 11, 1928, by Malcolm F. Bundy, was killed at Atlanta, Ind., September 15, 1933.
- 223123, banded at Palmyra, N. J., May 13, 1928, by John T. Emlen, Jr., was found dead at Woodbury, N. J., November 28, 1932.
- 226175, banded at Muscow, Sask., June 29, 1924, by R. H. Carter, was shot at Fort Qu'Appelle, Sask., about August 10, 1931.
- 227831, banded at Muscow, Sask., July 20, 1924, by R. H. Carter, Jr., was found dead, probably killed by dogs, two miles east of Muscow, July 1, 1929.
- 227833, banded at Muscow, Sask., July 20, 1924, by R. H. Carter, Jr., was shot near Muscow, May 8, 1930.
- 228307, banded at Stillwater, Okla., January 2, 1923, by C. E. Sanborn, was found dead at Sioux City, Iowa, February 20, 1931.
- 450044, banded at Edmonton, Alberta, November 24, 1929, by William Rowan, was caught in a wolf trap at Shade Hill, S. Dak., December 17, 1929.
- 450319, banded at Edmonton, Alberta, November 9, 1929, by William Rowan, was shot at Oungre, Sask., December 24, 1929.
- 453101, banded at Portage la Prairie, Manitoba, October 10, 1935, by William Rowan, was shot at Minto, N. Dak. October 20, 1935.
- 453019, banded at Beaverhills Lake, Alberta, August 25, 1935, by William Rowan, was found dead at Celeste, Tex., March 22, 1934.
- A519171, banded at North Eastham, Cape Cod, Mass., August 19, 1931, by the Austin Ornithological Research Station, was retrapped at the same place February 6, 1933, and March 30, 1934.
- 35-402818, banded at Chickasha, Okla., March 8, 1936, by Shaler E. Aldous, was shot near Manitow, Manitoba, May 23, 1936.
- 35-404174, banded at Norman, Okla., February 5, 1936, by Shaler E. Aldous, was caught in a trap at McAuley, Manitoba, May 5, 1936.
- 35-404208, banded at Norman, Okla., February 14, 1936, by Shaler E. Aldous, was shot at Wainwright, Alberta, April 27, 1936.

CLARK'S NUTCRACKER. *Nucifraga columbiana*

- 373893, banded at Big Creek, Calif., April 16, 1926, by Lila M. Lofberg, was retrapped at the same place, December 31, 1926, and July 18, 1930.
- 373897, banded at Big Creek, Calif., April 27, 1926, by Lila M. Lofberg, was retrapped at the same place April 16, 1927, and June 3, 1930.

CAROLINA CHICKADEE. *Penthestes carolinensis*

- A46559, banded at Waynesville, N. C., August 24, 1927, by Marion A. Boggs, was retrapped at the same place December 19, 1929.
- A62365, banded at Neotoma, Ohio, June 6, 1926, by Edward S. Thomas, was retrapped at the same place May 22, 1927, and April 1, 1928.
- C98651, banded at Foster, Ohio, February 1, 1931, by Belden C. Saur, was retrapped at the same place January 15, 1932, July 18, 1932, and April 29, 1933.

MOUNTAIN CHICKADEE. *Penthestes gambeli*

- 74562, banded at Big Creek, Calif., February 2, 1928, by Lila M. Lofberg, was retrapped at the same place December 29, 1931.

HUDSONIAN CHICKADEE. *Penthestes hudsonicus*

- A73365, banded at Barkerville, B. C., November 13, 1926, by T. T. McCabe, was retrapped at the same place October 14, 1927, November 22, 1928, and April 18, 1929.

CHESTNUT-BACKED CHICKADEE (*Penthestes rufescens*)

- B34330, banded at Stanford University, Calif., April 24, 1929, by John B. Price, was trapped and released at the same place December 26, 1932.

TUFTED TITMOUSE. *Bæolophus bicolor*

- 168053, banded at Indianapolis, Ind., September 3, 1925, by Sue S. Sims, was retrapped at the same place, July 12, 1928.
638109, banded at Knoxville, Tenn., June 4, 1928, by W. M. Johnson, was retrapped at the same place February 21, 1929, December 27, 1929, and February 11, 1930.
A179660, banded at Fort Smith, Ark., May 25, 1931, by S. H. Weakley, was retrapped at the same place on May 2, 1932, November 8, 1932, and March 25, 1933.

PLAIN TITMOUSE. *Bæolophus inornatus*

- A11869, banded at Altadena, Calif., on December 7, 1926, by J. Eugene Law, was retrapped at the same place April 28, 1929, August 11, 1929, and April 18, 1930.
A11871, banded at Altadena, Calif., December 7, 1926, by J. Eugene Law, was retrapped at the same place October 20, 1929, and May 7, 1930.
B25386, banded at Pasadena, Calif., July 4, 1928, by Harold Michener, was retrapped at the same place January 27, 1929 (had repeated to Sept. 14, 1928), and June 11, 1929.
B34326, banded at Stanford University, Calif., April 18, 1929, by John B. Price, was retrapped at the same place April 15, 1930, and April 23, 1931.
B44208, banded at Stanford University, Calif., April 28, 1928, by John B. Price, was retrapped at the same place April 25, 1929, and April 23, 1931.

BUSH-TIT. *Psaltriparus minimus*

- B405, banded at Pasadena, Calif., July 27, 1927, by Harold Michener, was retrapped at the same place May 26, 1928; no repeats.
B406, banded at Pasadena, Calif., July 27, 1927, by Harold Michener, was retrapped at the same place May 24, 1929; no repeats.

WHITE-BREASTED NUTHATCH. *Sitta carolinensis*

- 51101, banded at Rhinebeck, N. Y., November 15, 1924, by Maunsell S. Crosby, was retrapped at the same place October 29, 1925, November 7, 1926, and November 25, 1927. This bird repeated 79 times in less than one and one-half months in 1924.
56503, banded at Antrim, N. H., May 14, 1923, by Mrs. Rachel E. Caughey, was retrapped at the same place June 11, 1924, March 5, 1925, May 5, 1928, October 2, 1928, May 23, 1929, December 2, 1929, September 11, 1930, and May 12, 1931.
74544, banded at Big Creek, Calif., April 19, 1927, by Lila M. Lofberg, was retrapped at the same place February 15, 1930.
142284, banded at Demarest, N. J., December 23, 1924, by B. S. Bowdish, was retrapped at the same place September 30, 1925, January 16, 1926, January 9, 1927, and August 23, 1927.
471561, banded at Branchport, N. Y., March 8, 1927, by Verdi Burtch, was retrapped at the same place September 9, 1931.
A51980, banded at Aurora, N. Y., February 1, 1927, by Miss I. L. Reveley, was retrapped at the same place October 17, 1928, May 22, 1929, and January 9, 1932.
A62716, banded at Rhinebeck, N. Y., February 12, 1927, by Maunsell S. Crosby, was retrapped at the same place January 31, 1930. This is the only retrap.
A63115, banded at Ottawa, Ontario, August 28, 1926, by R. E. DeLury, was retrapped at the same place February 27, 1927, November 27, 1927, July 15, 1928, and March 15, 1930.
A191442, banded at Kimmswick, Mo., February 18, 1931, by Dorothy A. Boyer, was killed at Festus, Mo., about January 20, 1934.
B53108, banded at Montclair, N. J., October 29, 1929, by Mrs. Charles S. Hegeman, was retrapped at the same place June 10, 1931, and May 16, 1932.

- B111763, banded at Milton, Mass., November 30, 1930, by R. M. Hinchman, was retrapped at the same place November 1, 1931, and October 8, 1932.
 C169528, banded at Katonah, N. Y., December 19, 1932, by Rudolph S. Fried, was retrapped at the same place October 5, 1933, July 22, 1934, and October 28, 1935.
 H43951, banded at Stanford University, Calif., May 11, 1933, by John B. Price, was found dead at Campbell, Calif., about July 27, 1933.

PYGMY NUTHATCH. *Sitta pygmaea*

- H01522, banded at South Rim, Grand Canyon, Ariz., October 23, 1932, by E. D. McKee, was retrapped at the same place February 22, 1936.

BROWN CREEPER. *Certhia familiaris*

- A80474, banded at Waukegan, Ill., April 14, 1926, by William I. Lyon, was found injured at Ely, Minn., May 4, 1928. It died soon after.
 B79745, banded at Concord, N. H., January 31, 1930, by F. B. White, was retrapped at the same place January 19, 1931.
 F29822, banded at Amherst, Mass., February 19, 1932, by Mrs. F. M. Cutler, was retrapped at the same place, November 18, 1932.

WREN-TIT. *Chamaea fasciata*

- 52014, banded at Altadena, Calif., March 18, 1923, by J. E. Law, was retrapped at the same place October 16, 1923, and December 28, 1924. On April 13, 1926, it was killed in a mousetrap 125 yards from where it was banded.
 A936, banded at Berkeley, Calif., August 2, 1925, by E. D. Clabaugh, was retrapped at the same place March 12, 1931 (repeated to March 29, 1931), and February 29, 1932.
 A90724, banded at Berkeley, Calif., December 8, 1927, by Mary F. Hall, was killed in a mouse-trap at Berkeley, Calif., March 5, 1932.
 F17784, banded at Berkeley, Calif., July 6, 1931, by E. L. Sumner, was retrapped at the same place February 25, 1932, and November 23, 1932. No repeats.

WINTER WREN. *Tannus hiemalis*

- A163405, banded at Kokomo, Ind., January 22, 1931, by S. L. Wilson, was caught in a steel trap at Cutler, Ind., about December 2, 1931.
 F53006, banded at Church Creek, Md., March 13, 1932, by Frank R. Smith, was retrapped at the same place November 1, 1932.

CAROLINA WREN. *Thryothorus ludovicianus*

- A99374, banded at Waynesville, N. C., November 5, 1928, by Marion A. Boggs, was retrapped at the same place July 20, 1929, April 9, 1930, and April 30, 1931.
 C167737, banded at Winter Park, Fla., January 10, 1933, by Edward M. Davis, was retrapped at the same place, May 8, 1935.
 C53020, banded at Fairhope, Ala., May 18, 1930, by Mrs. W. H. Edwards, was retrapped at the same place, June 2, 1932.

CURVE-BILLED THRASHER. *Toxostoma curvirostre*

- 579077, banded at Oracle, Ariz., July 5, 1928, by Mrs. J. W. Lawson, was retrapped at the same place, April 9, 1930.

CALIFORNIA THRASHER. *Toxostoma redivivum*

- 520038, banded at South Pasadena, Calif., October 2, 1929, by Mrs. Alice C. Ward, was found dead at the same place May 30, 1933.
 A267984, banded at Smythe Canyon, near Berkeley, Calif., February 5, 1931, by Mary M. Erickson, was found dead at Strawberry Canyon, near Berkeley, Calif., December 3, 1934. The last time it was trapped was March 7, 1932.

WOOD THRUSH. *Hyllocichla ustulata*

- 426119, banded at Melrose Park, Philadelphia, Pa., August 28, 1926, by Dr. William Pepper, was retrapped at the same place July 21, 1930.

- 629386, banded at Wyncote, Pa., May 6, 1930, by William Pepper, Jr., was retrapped at the same place May 11, 1929, August 1, 1929, May 18, 1930, May 15, 1931, and May 15, 1933.
- A202094, banded at Demarest, N. J., July 1, 1929, by B. S. Bowdish, was retrapped at the same place May 16, 1930, and May 18, 1932.
- A219986, banded at Melrose Park, Philadelphia, Pa., August 22, 1930, by William Pepper, Jr., was retrapped at the same place May 13, 1931, May 18, 1932, had repeated twice, September 10, 1932, September 22, 1932, and May 1, 1933.
- B131979, banded at Northville, S. Dak., May 26, 1931, by J. F. Brenckle, was found dead at Brunswick, Nebr., May 29, 1932.

HERMIT THRUSH. *Hylocichla guttata*

- 178859, banded at Altadena, Calif., May 13, 1928, by Walter I. Allen, was retrapped at the same place December 23, 1928, October 31, 1929, and December 21, 1930.
- A120313, banded at Summerville, S. C., February 1, 1929, by William P. Wharton, was retrapped at the same place January 24, 1931, and February 4, 1933.
- A3281, banded at Berkeley, Calif., November 26, 1925, by Ernest D. Clabaugh, was found dead at Berkeley, Calif., March 30, 1931.
- A100028, banded at Milwaukee, Wis., October 3, 1928, by Paul W. Hoffmann, was found dead at Forest City, Ark., about October 30, 1929.
- A170417, banded at Milwaukee, Wis., October 3, 1929, by Paul W. Hoffmann, was trapped at Madison, Wis., May 28, 1933.
- B116085, banded at Elmhurst, Long Island, N. Y., October 31, 1930, by Marie V. Beals, was found exhausted at Brunswick, Ga., February 13, 1933.
- C108093, banded at Zion, Ill., September 21, 1932, by Louise J. Miller, was caught at Boerne, Tex., about March 15, 1936.
- H51760, banded at Zion, Ill., October 4, 1932, by Louise J. Miller, was found dead at Turkey, N. C., about March 10, 1934.

RUSSET-BACKED THRUSH. *Hylocichla ustulata*

- A172556, banded at Beaver, Ore., July 16, 1930, by Reed Ferris, was retrapped at the same place May 22, 1931, and May 21, 1932.
- C114043, banded at Northville, S. Dak., May 30, 1932, by J. F. Brenckle, was retrapped at Wilton, N. Dak., May 12, 1934.

VEERY. *Hylocichla fuscescens*

- 690306, banded at Clayton, Mo., May 5, 1929, by C. W. Allison, was found dead at St. Louis, Mo., July 30, 1931.
- A228960, banded at Mohonk Lake, N. Y., August 21, 1929, by A. K. Smiley, Jr., was retrapped at the same place August 16, 1930, and August 2, 1931.

MOUNTAIN BLUEBIRD. *Sialia currucoides*

- 49915, banded at Denver, Colo., May 21, 1928, by J. B. and C. B. Rishel, was retrapped at the same place March 11, 1929 and March 6, 1931.

CEDAR WAXWING. *Bombycilla cedrorum*

- C177657, banded at Shirley, Mass., July 11, 1933, by Edward M. and W. M. Davis, was found dead at Houma, La., February 25, 1934.
- C190051, banded at Groton, Mass., August 31, 1933, by William P. Wharton, was captured at Watson, La., February 16, 1934.

NORTHERN SHRIKE. *Lanius borealis*

- B271756, banded at Harwich, Mass., November 8, 1934, by O. L. Austin, was found dead at Clarenceville, Quebec, about April 1, 1936.

SHRIKE. *Lanius ludovicianus*

- B166224, banded at Carmangay, Alta., June 25, 1933, by Dr. and Mrs. J. E. Horning, was killed at The Grove, Tex., December 22, 1933.
- B252535, banded at Carmangay, Alta., July 16, 1933, by Dr. and Mrs. J. E. Horning, was killed at Granger, Tex., October 6, 1934.

WESTERN Tanager. *Piranga ludoviciana*

- 179997, banded at Big Creek, Calif., July 6, 1926, by Lila M. Lofberg, was retrapped at the same place June 16, 1927, and May 22, 1928.
 582225, banded at Big Bear Lake, Calif., August 9, 1929, by Wright M. Pierce, was retrapped at the same place August 2, 1932.
 H43935, banded at Camp 19, Yosemite Valley, Calif., May 6, 1933, by Mr. and Mrs. A. E. Borell, was retrapped at the same place July 11, 1934, and June 20, 1935.
 L34305, banded at Camp 19, Yosemite Valley, Calif., July 10, 1933, by A. E. Borell, was retrapped at the same place June 22, 1935.

SCARLET Tanager. *Piranga erythromelas*

- A286073, banded at Montvale, N. J., July 2, 1931, by Carl A. A. Pedersen, was retrapped at the same place May 18, 1932, and May 19, 1933.

ROSE-BREADED GROSBREAK. *Hedymeles ludovicianus*

- 117449, banded at Peterboro, N. H., June 13, 1924, by Mrs. C. L. Whittle, was retrapped at the same place May 24, 1925, June 17, 1926, and May 15, 1927.
 425324, banded at Wellesley, Mass., July 5, 1926, by Mrs. E. M. Dunham, was retrapped at the same place May 27, 1927, June 30, 1928, May 26, 1929, and June 12, 1930.
 425326, banded at Wellesley, Mass., July 19, 1926, by Mrs. E. M. Dunham, was retrapped at the same place May 20, 1927, May 13, 1928, May 7, 1929, and May 10, 1930.
 A152101, banded at Sioux Falls, S. Dak., June 1, 1929, by Mrs. Blanche M. Getty, was retrapped at the same place May 22, 1930 and May 19, 1931.
 A222623, banded at Milford, N. H., June 7, 1930, by James P. Melzer, was retrapped at the same place May 21, 1931, and June 19, 1932.

BLACK-HEADED GROSBREAK. *Hedymeles melanocephalus*

- 68807, banded at Altadena, Calif., June 11, 1925, by J. Eugene Law, was retrapped at the same place April 21, 1930.
 156120, banded at Pasadena, Calif., May 22, 1925, by Harold Michener, was retrapped at the same place May 14, 1926, and May 24, 1929. This is the first return since May 14, 1926.
 156131, banded at Pasadena, Calif., July 20, 1925, by Harold Michener, was retrapped at the same place April 28, 1926, and May 26, 1928. Last previous repeat was May 2, 1926.
 246471, banded at Altadena, Calif., May 2, 1927, by Laura B. Law, was retrapped at the same place July 2, 1929, and April 18, 1930.

PINE SISKIN. *Spinus pinus*

- 427151, banded at Barkerville, B. C., June 20, 1926, by T. T. McCabe, was retrapped at the same place June 24, 1927, May 31, 1928, and June 27, 1931.
 B27790, banded at Barkerville, B. C., June 21, 1928, by T. T. and E. B. McCabe, was retrapped at the same place July 22, 1929, and June 20, 1930.

CROSSBILL. *Loxia curvirostra*

- 576253, banded at Barkerville, B. C., May 15, 1928, by T. T. McCabe, was killed by a cat at Hansard, B. C., August 11, 1931.
 B168051, banded at Milton, Mass., May 12, 1932, by W. Rodman Peabody, was found dead at Bemidji, Minn., April 9, 1934.

FOX SPARROW. *Passerella iliaca*

- 121505, banded at Berkeley, Calif., January 14, 1924, by E. D. Clabaugh, was killed in a trap at the same place February 16, 1929.
 132677, banded at Newton Centre, Mass., March 15, 1930, by Frederic H. Kennard, was caught at Little St. Lawrence, Newfoundland, April 20, 1930.
 139440, banded at Strawberry Canyon, Berkeley, Calif., February 22, 1925, by E. D. Clabaugh, was retrapped at the same place November 20, 1930.

- 426634, banded at Paoli, Pa., November 21, 1928, by Horace D. McCann, was found at Deer Lake, Newfoundland, about May 30, 1930.
- 470117, banded at Berkeley, Calif., November 5, 1930, by E. L. Sumner, was retrapped at the same place October 7, 1931 (last repeat November 24, 1930), and March 27, 1932 (last repeat December 6, 1931).
- 470124, banded at Strawberry Canon, Berkeley, Calif., November 14, 1930, by E. L. Sumner, was retrapped at the same place October 12, 1931 (last repeat January 13, 1931), and March 10, 1932 (last repeat October 12, 1931).
- A110379, banded at Woodacre, Calif., October 19, 1928, by J. Mailliard, was retrapped at the same place February 23, 1929, February 11, 1930, November 2, 1930, and March 20, 1931.
- A171006, banded at Fargo, N. Dak., October 2, 1929, by O. A. Stevens, was killed at Ethelbert, Manitoba, April 11, 1930.
- A218349, banded at Germantown, Pa., March 3, 1930, by John T. Emlen, Jr., was shot at Coinjock, N. C., December 1, 1930.
- B128889, banded at Worcester, Mass., November 17, 1930, by Mrs. Kenneth B. Wetherbee, was killed at Fair Bluff, N. C., January 21, 1933.
- B135664, banded at Strawberry Canon, Berkeley, Calif., March 17, 1931, by E. L. Sumner, was retrapped at the same place October 3, 1931 (last repeat March 31, 1931), and March 31, 1932 (last repeat October 28, 1931).
- C44476, banded at Quincy, Mass., December 8, 1929, by Seth H. Low, was retrapped at Elmhurst, L. I., N. Y., December 27, 1930.

LINCOLN'S SPARROW. *Melospiza lincolni*

- A93346, banded at Barkerville, B. C., June 5, 1927, by T. T. McCabe, was retrapped at the same place August 3, 1928, and May 15, 1929.
- B13528, banded at Berkeley, Calif., April 16, 1929, by Ernest D. Clabaugh, was retrapped at the same place December 17, 1931.
- B2547, banded at Altadena, Calif., April 10, 1930, by W. I. Allen, was retrapped at the same place November 19, 1930.
- B27515, banded at Barkerville, B. C., May 25, 1928, by T. T. and E. B. McCabe, was shot for scientific purposes one mile from Barkerville, June 2, 1930.
- B95144, banded at Jamestown, N. Dak., May 12, 1929, by Mrs. M. L. Guest, was found dead at Mildmay Park, Sask., May 24, 1929.

SWAMP SPARROW. *Melospiza georgiana*

- 98569, banded at Crystal Bay, Minn., May 9, 1924, by Frank W. Commons, was retrapped at the same place May 5, 1925, and April 23, 1927.
- 154388, banded at Crystal Bay, Minn., July 31, 1925, by Frank W. Commons, was retrapped at the same place April 23, 1930.
- A29477, banded at Branchport, N. Y., July 15, 1925, by Verdi Burtch, was retrapped at the same place July 5, 1926, and May 4, 1927.
- A54831, banded at Branchport, N. Y., October 7, 1926, by Verdi Burtch, was found dead at Renfrew, Ontario, May 2, 1928.
- F31918, banded at Lisle, Ill., May 1, 1931, by Dr. Edmund Jurica, was found dead at Clarion, Mich., on May 2, 1932.

Biological Survey, Washington, D. C.