

## Report on the Spring Migration of 1908

COMPILED BY WITMER STONE

The remarks of last year's report as to the value of the Club's migration record apply equally well to the coming season. It is of the utmost importance that we should not lose the services of any of the members of our Corps, and it is especially desirable that the number of observers within ten miles of Philadelphia be doubled. Those who are now on our list will confer a great favor by sending the names of others who are willing to keep records, and by making personal appeals to them to do so. Applications for blanks, etc., should be addressed to Mr. Alfred C. Redfield, Wayne, Penna., who will superintend this branch of the Club's work for the coming season.

Schedules covering the spring migration of 1908 were received from the following fifty-six stations:

### *New Jersey.*

Cape May, H. Walker Hand.  
Vineland, Miss Alice K. Prince.  
Downtown (near Newfield), W. W. Fair.  
Yardville, Rachel E. Allinson.  
Trenton, C. C. and R. M. Abbott.  
Princeton, Chas. H. Rogers.  
Bordentown, Minnie V. Flynn.  
Beverly, J. Fletcher Street.  
Burlington, Helen F. Carter.  
Rancocas, Emily Haines.  
Moorestown, Anna A. Mickle.  
Haddonfield, Mrs. E. Tomlinson Gill, Mrs. F. Morse Archer  
and Mrs. Wm. J. Hamlin.  
Pensauken, C. J. Hunt.

*Pennsylvania.*

Kennett Square, Charles J. Pennock.  
Mendenhall, Wm. Carter.  
Concordville, Mrs. K. R. Styer and J. P. Willits.  
Swarthmore, David E. Harrower.  
Swarthmore, George S. Roberts.  
Lansdowne, John D. Carter.  
Lansdowne, Louisa M. Jacob.  
Lansdowne, Marion A. Honsaker.  
Lansdowne, Anna D. White.  
Lansdowne, Friends' School.  
Lansdowne, A. J. Pennock.  
Collingdale, Paul L. Lorrilliere.  
Media, Lydia G. Allen.  
Media, Edith L. Palmer.  
Ardmore, Wm. L. Baily.  
Haverford, Reynold A. Spaeth.  
Haverford, L. C. Petry and W. E. Lewis.  
Wayne, Alfred C. Redfield.  
Wayne, L. S. Pearson.  
Wayne, Edwin B. Bartram.  
Bryn Mawr, Emily H. Thomas.  
Collegeville, Henry Fox.  
West Philadelphia, Thos. R. Hill.  
West Philadelphia, Mrs. Thos. R. Hill.  
Wissahickon, John R. Pickering, Jr.  
Germantown, Frank Miles Day.  
Germantown, Miriam F. Solis Cohen.  
Germantown, Hilda Justice.  
Germantown, Arthur F. Hagar.  
Olney, George S. Morris.  
Oak Lane, John W. Allen.  
Frankford, Richard F. Miller.  
Fox Chase, Alexander Patman.  
Bristol, Thomas D. Keim.  
Glenside, Richard C. Harlow.  
Woodbourn, Edward Pickering, Jr.  
George School, Students.

George School, Wm. E. Roberts.

George School, Jesse Packer.

Easton, Edw. J. F. Marx.

Columbia, Wm. F. Rochow.

Marietta, W. H. Buller.

Lopez, Otto Behr.

The spring migration of 1908 at Philadelphia was more irregular than usual apparently owing to the more frequent rises and falls in the temperature and the consequent breaking-up of large waves into a number of smaller ones. The greatest movements were on March 27, April 25-26, May 2-3; 8-9 and 13; that of April 25-26 being the largest. On the whole the dates of arrival were early. Of sixty-four species concerning which we have the fullest record the first arrival within ten miles of Philadelphia was earlier than the average of the past six years in 40 species, equal to the average in 7 and later in 17. Taking bulk arrivals 39 species were earlier than the average, 5 equal and 20 later. Owing to the well-known irregularity of early stragglers however, the first arrival in some species may be early while the bulk movement is late and vice versa. In fact in the above statement which seems to agree so closely there are 26 species in which one date is early and the other late.

Taking the birds whose bulk movement usually occurs in February or March we find that all were from two to nine days earlier than the average except the Fox Sparrow (2 days late) and the Flicker, Meadow Lark and Field Sparrow, which being partially resident, are not very satisfactory for migration studies. The Phoebe was seven days earlier than the average and one day earlier than ever before. Among the April migrants the bulk movements were early or normal in all but two species, the Bank Swallow and Chimney Swift, which were respectively two and three days later than the average.

The wave of April 23 and 26 occasioned remarkably early movements on the part of many species; the Brown Thrasher, House Wren, Grasshopper Sparrow, Maryland Yellowthroat, Solitary Vireo, Yellow Warbler, Ovenbird, Catbird and Wood Thrush came in bulk three to four days earlier than the average and from one to two days earlier than ever before recorded.

The early May migrants were usually a day or two earlier than the average; the White-eyed and Red-eyed Vireos, Baltimore Oriole and the Black-throated Blue Warbler making the earliest bulk movements recorded for these species.

Most of the later May migrants were late, owing, to the cooler rainy weather that prevailed from May 4 to 8. The Chat, Rose-breasted Grosbeak, Indigo Bird, Olive-backed Thrush, Yellow-billed Cuckoo, Hummingbird, Wood Pewee, Black-poll, Kentucky, Magnolia and Canada Warblers were all later than the average by from one to four days.

The dates of bulk arrival for the 64 species discussed above will be found in the last column of the Philadelphia schedule pp. 49-52. The date is that upon which the species had arrived at one-half of the stations at which it was recorded, disregarding entirely the last quarter of the records, which represent in the majority cases late or erroneous dates.

For example the House Wren was recorded as arriving as follows; at one station on April 16th, three on the 19th, two on the 20th, one on the 21st, four on the 23rd, five on the 24th, five on the 25th, five on the 26th, two on the 27th and one on May 1st, at twenty-nine stations in all. Discarding the last quarter of these records as probably later than the bird actually arrived we have twenty-two left, and the bird had reached eleven of these (one-half) by April 23 which we take as the date of bulk arrival.

NAME.	Moorestown, N. J. N. 1; E. 12.1	Haddonfield, N. J. S. 5; E. 6.	Pensauken, N. J. N. 0; E. 8.	Media, Pa. S. 3; W. 12.	Swarthmore, Pa. S. 3; W. 10.	Collingdale, Pa. S. 3; W. 6.	Lansdowne, Pa. S. 1; W. 6.	Armore and Haverford, Pa. N. 4; W. 8.	Bryn Mawr, Pa. N. 4; W. 9.	Wayne, Pa. N. 6; W. 11.	Germanstown, Pa. N. 6; W. 1.	Oak Lane, Phila. N. 7; E. 2.	Fox Chase, Phila.	Frankford, Phila. N. 5; E. 5.	Olney, Phila. N. 6; E. 3.	Bulk Arrival at Phila., 1908.
Canada Goose	May 13															
Green Heron	May 8															
Night Heron	May 8															
Spotted Sandpiper	May 3															
Solitary Sandpiper	May 3															
Killdeer	Mar. 3															
Dove	Mar. 2															
Osprey	Apr. 27															
Turkey Vulture	Apr. 14															
Yellow-billed Cuckoo	Mar. 8															
Black-billed Cuckoo	May 13															
Kingfisher	Apr. 13															
Yellow-bellied Sapsucker	Apr. 2															
Red-headed Woodpecker	May 3															
Flicker	Mar. 15															
Whip-poor-will	Apr. 29															
Nighthawk	May 8															
Chimney Swift	Apr. 21															
Hummingbird	Apr. 26															
Kingbird	May 3															
Great-crested Flycatcher	May 12															
Phoebe	Apr. 14															

<sup>1</sup> The relative positions of the stations are indicated by the number of miles, N. or S. and E. or W., that each one is distant from Philadelphia, Pa.,  $\epsilon$ , its latitude and longitude with reference to the City Hall.



NAME.	Moorestown, N. J.	Haddonfield, N. J.	Pensauken, N. J.	Media, Pa.	Swarthmore, Pa.	Collingdale, Pa.	Lansdowne, Pa.	Armore and Havertford, Pa.	Bryn Mawr, Pa.	Wayne, Pa.	Germanstown, Phila.	Oak Lane, Phila.	Fox Chase, Phila.	Frankford, Phila.	Olney, Phila.	Bulk Arrival at Phila., 1908.
Cliff Swallow . . . . .																
Barn Swallow . . . . .	May 4	Apr. 29	May 8	Apr. 25	Apr. 11	Apr. 25		Apr. 17	Apr. 7	Apr. 11	Apr. 29	Apr. 13	Apr. 18	May 1	Apr. 24	Apr. 18
Tree Swallow . . . . .	Apr. 21	Apr. 28	Apr. 12	May 10	Apr. 11	Apr. 29		May 24		Mar. 29	Apr. 22			Apr. 28	Apr. 26	Apr. 12
Bank Swallow . . . . .		May 2	May 24		Apr. 12	Apr. 29					Apr. 21			Apr. 25		Apr. 21
Rough-winged Swallow . . . . .				Apr. 12	Apr. 17	May 3	Apr. 16	Apr. 23		Apr. 10	Apr. 25			Apr. 13	Apr. 26	Apr. 13
Cedarbird . . . . .	May 25	Apr. 29	Mar. 8	Mar. 24	Feb. 20	May 14	May 14	Apr. 23		May 16	May 20	Apr. 19		Mar. 24	Apr. 24	Apr. 13
Red-eyed Vireo . . . . .	May 4	Apr. 29	May 24	May 13	Apr. 24	May 16	Apr. 21	May 10	May 11	May 13	Apr. 25	May 12		May 5	Apr. 24	May 8
Warbling Vireo . . . . .	May 21				May 17	May 8	May 5	May 5		May 9	May 16	May 12		May 16		May 9
Yellow-throated Vireo . . . . .	Apr. 27				May 3	May 3	Apr. 20	May 12		May 1	May 5	May 15		May 9	May 10	May 3
Soitary Vireo . . . . .					Apr. 12		Apr. 19	Apr. 15		Apr. 18		May 12		Apr. 24	Apr. 19	
White-eyed Vireo . . . . .		Apr. 26	Apr. 26	Apr. 28	May 2	Apr. 26	Apr. 28	May 11		Apr. 26	May 9	May 12		Apr. 30	May 9	Apr. 29
Black and White Warbler . . . . .	Apr. 13	Apr. 28	Apr. 26	May 8	Apr. 25		Apr. 22	Apr. 25	Apr. 25	Apr. 25	May 2	Apr. 19		Apr. 28	Apr. 17	Apr. 25
Worm-eating Warbler . . . . .					May 17			May 30		May 1	May 14	May 16		May 1		
Blue-winged Warbler . . . . .				May 10	May 2		Apr. 29	May 12		Apr. 28	Apr. 28	May 16	May 17	Apr. 26	May 2	May 2
Parula Warbler . . . . .	May 4		May 2	May 10	May 4		Apr. 29	May 12	May 11	Apr. 28	May 11	May 16		May 8	May 10	May 2
Yellow Warbler . . . . .	Apr. 27	Apr. 26	Apr. 26	Apr. 27	May 4	Apr. 26	Apr. 27	May 1		May 16	May 2	May 16		Apr. 24	Apr. 25	Apr. 26
Black-throated Blue Warbler . . . . .	May 8	May 9	May 2	May 10	May 7	May 8	Apr. 29	Apr. 26	Apr. 25	May 2	May 9	May 16		Apr. 28	Apr. 28	May 2
Myrtle Warbler . . . . .	May 8	May 3		May 3	Apr. 12	May 3	May 1	Apr. 25	Apr. 17	Mar. 30	Apr. 26	May 2		Apr. 22	Apr. 16	Apr. 24
Magnolia Warbler . . . . .				May 17	Apr. 25		May 11	May 10	May 4	May 13	May 17	May 16		Apr. 30	Apr. 29	May 10
Chestnut-sided Warbler . . . . .	May 3			May 10	Apr. 28		May 10	May 3		May 3	May 15	May 16		Apr. 29	May 9	May 3
Black-poll Warbler . . . . .	May 13	May 12		May 14	May 16		May 13	May 13	May 17	May 13	May 20	May 16		May 16	May 13	May 14
Blackburnian Warbler . . . . .		May 13	May 2	May 10	May 12		May 16		May 4	Apr. 29	May 19	May 16		Apr. 28	May 11	May 9
Black-throated Green Warbler . . . . .	May 8	May 9		May 10	May 11		Apr. 29	Apr. 28	Apr. 25	Apr. 25	May 13	May 16		May 8	May 4	May 8





*List of Other Species Reported by Observers During 1908, and  
Additional Notes. Winter Notes Refer to Winter of  
1907-8. Localities are in Pennsylvania  
Unless Otherwise Indicated.*

*Colymbus auritus*, Horned Grebe. Cape May, N. J., March 31 (*Hand*); Bridesburg, March 19 and 25 (*Miller*).

*Podilymbus podiceps*, Pied-billed Grebe. Beverly, N. J., March 21, 24, 27 and 30 (*Street*); George School, March 23 (*Scholars*); George School, March 25 (*Packer*); Wayne, March 29 (*Pearson*); Radnor, March 23 (*Redfield*); Tinicum, March 26 (*Redfield*); Princeton, N. J., Sept. 26-Oct. 31, March 13-Apr. 30 (*Rogers*); Richmond, March 21 (*Miller*); Delair, N. J., March 29 (*Miller*).

*Gavia immer*, Loon. Beverly, N. J., four on the river, April 25 (*Street*); four at Cape May, N. J., May 7 (*Hand*).

*Larus argentatus*, Herring Gull. Three near Yardley, N. J., April 16 (*Packer*); last seen at Cape May, N. J., May 8 (*Hand*); Berwyn, two April 1 (*Redfield*); Wayne one April 24 (*Pearson*); Princeton, N. J., March 7 (*Rogers*); Frankford, Sept. 19-May 6 (*Miller*); Tinicum, May 5 (*Harlow*).

*Larus atricilla*, Black-headed Gull. Cape May, N. J., April 20 (*Hand*).

*Sterna hirundo*, Bennett, N. J., May 9 (*Harlow*).

*Phalacrocorax dilophus*, Double-crested Cormorant. Flocks passed along shore all day at Cape May, N. J., April 21 (*Hand*).

*Merganser americanus*, American Merganser. Princeton, N. J., March 13 (*Rogers*); Bridesburg, May 19 (*Miller*); George School, three on Jan. 19, ten April 13 (*Packer*); plentiful at Cape May, N. J., April 6 (*Hand*).

*Merganser serrator*, Red-breasted Merganser. One shot Tinicum, Mar. 21 (*Redfield* and *Pearson*).

*Lophodytes cucullatus*, Hooded Merganser. Princeton, N. J., April 22 (*Rogers*); one shot Salem, N. J., March 21 (*Miller*).

*Anas boschas*, Mallard Chalfont. Nov. 16, 1907 (*Harlow*).

*Anas rubripes*, Black Duck. One shot Tinicum, Mar. 21 (*Redfield* and *Pearson*); Princeton, N. J., Oct. 3, Mar. 15-Apr. 2 (*Rogers*); Fish House, N. J., Mar. 25 (*Miller*); Tinicum, Mar. 26 (*Harlow*).

*Mareca americana*, Baldpate. Four shot Tinicum, Mar. 21 (Redfield and Pearson).

*Dafila acuta*, Pintail. One shot Tinicum, March 26 (Redfield).

*Aix sponsa*, Wood Duck. Princeton, N. J., last seen Oct. 31, 1907, first seen April 12, 1908 (Rogers); nest with sixteen eggs at Salem, N. J., April 26 (W. B. Crispin).

*Aythya marila*, Greater Scaup Duck. One shot Tinicum, March 21 (Redfield and Pearson); Princeton, N. J., Oct. 13, 1907 (Rogers).

*Aythya affinis*, Lesser Scaup Duck. Seven shot Tinicum, March 21 (Redfield and Pearson); four at Princeton, N. J., March 27–April 7 (Rogers); Fish House, N. J., March 25 and April 12 (Miller).

*Charitonetta albeola*, Bufflehead. Princeton, N. J., a pair March 12 and 14 (Rogers).

*Harelda hyemalis*, Old Squaw. Pair at Yardley, N. J. (Packer); Fish House, N. J., March 25 (Miller).

*Erismatura jamaicensis*, Ruddy Duck. Princeton, N. J., Oct. 13–19, 1907 (Rogers).

*Branta bernicla*, Brant. Beverly, N. J., March 29 (Street).

*Branta canadensis*, Canada Goose. Glenside, twelve on Sept. 19 (Harlow).

*Botaurus lentiginosus*, American Bittern. Ithan., April 8 (Bartram); Bristol, April 12 (Keim); Cape May, N. J., April 12 (Hand); Wayne, March 27, April 17 (Pearson); and one shot April 9 (Redfield); Fox Chase, April 7 (Miller).

*Ixobrychus exilis*, Least Bittern. Richmond, eggs May 27 (Miller); Tinicum, May 22 (Harlow); eggs at Hackensack, N. J. June 6 (Harlow).

*Ardea herodias*, Great Blue Heron. Haverford, March 28 (Petty and Lewis); Bristol, February 11, 25 and 27 (Keim); Cape May, N. J., a few reported all winter, plentiful March 25–April 2 (Hand); Wayne, April 19 (Pearson); Tinicum, January 4 (Redfield); Moorestown, N. J., April 27 (Mickle); George School, April 7 (Packer); Princeton, N. J., Sept. 26–Oct. 19, 1907, April 4–26 (Rogers); Pensauken Creek, N. J., April 17, had eggs at Salem, N. J., April 12 (Miller).

*Florida caerulea*, Little Blue Heron. Flock of about a dozen at Palatine, N. J., July 17, two adults, rest young (Bartram).

*Nycticorax n. naevius*, Night Heron. Bird in gray plumage at George School, Jan. 19 (*Packer*); numerous at Bennett, N. J., May 23 (*Harlow*).

*Rallus elegans*, King Rail. Bridesburg, May 24, nest and eggs, June 12 (*Miller*); Richmond, Sept. 5, 1907 (*Harlow*).

*Rallus virginianus*, Virginia Rail. Concordville, April 28 (*Styer*); Bridesburg, May 24 (*Miller*).

*Gallinula galeata*, Florida Gallinule. Richmond, April 25, seven nests found, eggs nearly hatched, May 27 (*Miller*); eggs at Hackensack, N. J., June 6 (*Harlow*).

*Fulica americana*, Coot. Princeton, Oct. 14, 1907 (*Rogers*).

*Philohela minor*, Woodcock. Edge Hill, Nov. 23, 1907, and March 24 (*Harlow*); Wayne, March 30, May 3 (*Pearson*); Princeton, N. J., last seen 1907 on Nov. 13, first, March 13 (*Rogers*); Frankford, March 9, April 7; Bustleton, May 9, and Chestnut Hill, July 1 (*Miller*); eggs just hatching in nest at Bennett, N. J., May 9 (*Harlow*); Vineland, N. J., March 27 (*Prince*); George School, March 8 (*Packer*); Lopez, March 24 (*Behr*); Cape May, N. J., Feb. 17, not so great a spring flight as usual; seen daily, July 3 (*Hand*).

*Gallinago delicata*, Wilson's Snipe. Kennett Square, March 16 (*Pennock*); Concordville, April 30 (*Styer*); Vineland, N. J., March 9 (*Prince*); George School, March 15 (*Packer*); Cape May, N. J., March 14 (*Hand*); Wayne, April 16, 21, 22 (*Pearson*); Bridesburg, May 14 (*Miller*); League Island, March 25 (*Harlow*).

*Tringa minutilla*, Least Sandpiper. Cape May, N. J., April 28 (*Hand*); Wayne, May 2, 3, 16 (*Pearson*); Bennett, N. J., May 23 (*Redfield*); Princeton, N. J., one, April 30 (*Rogers*); Frankford, May 12; Richmond, May 27 (*Miller*).

*Totanus melanoleucus*, Greater Yellowlegs. Flock of twelve passed over Lansdowne, May 11, 6:20 p. m. (*Carter*); Princeton, N. J., Oct. 13, 1907 (*Rogers*); Bridesburg, May 14 (*Miller*); Tinicum, May 22 (*Harlow*).

*Helodromas solitarius*, Solitary Sandpiper. Last seen at Frankford, May 20 (*Miller*).

*Bartramia longicauda*, Bartramian Sandpiper. George School, April 12 and 24 (*Roberts* and *Packer*).

*Numenius hudsonicus*, Hudsonian Curlew. Cape May, N. J., April 18 (*Hand*).

*Squatarola squatarola*, Black-breasted Plover. Cape May, N. J., May 5 (*Hand*).

*Oxyechus vociferus*, Kildeer. One pair nested at Edge Hill, another at Fort Washington; rare breeder here (*Harlow*).

*Arenaria interpres*, Turnstone. Cape May, N. J., May 5 (*Hand*).

*Hæmatopus palliatus*, Oyster Catcher. One shot on Anchoring Island, Little Egg Harbor, N. J., July 31, 1907; in collection of C. K. Drinker (*Spaeth*).

*Zenaidura macroura*, Mourning Dove. Flock of thirty-six at Maple Shade, N. J., Dec. 25, 1907; eggs, Pensauken, N. J., April 17 (*Miller*).

*Circus hudsonius*, Marsh Hawk. Wayne, Sept. 14–April (*Pearson*).

*Accipiter cooperi*, Cooper's Hawk. Nest and eggs, Edge Hill, April 24; eggs at Doylestown, May 2 (*Harlow*).

*Buteo borealis*, Red-tailed Hawk. Wayne, Oct. 27–April 5 (*Pearson*); Princeton, N. J., Oct. 31–April 1 (*Rogers*).

*Buteo lineatus*, Red-shouldered Hawk. Wayne, August 18–March 12 (*Pearson*); Princeton, N. J., October 13–March 15 (*Rogers*).

*Buteo platypterus*, Broad-winged Hawk. Wayne, first seen, April 17; nest and eggs, May 16 (*Pearson*); Bustleton, April 14 (*Miller*); Princeton, N. J., last seen, Oct. 31, 1907; first, April 21 (*Rogers*).

*Archibuteo lagopus sancti-johannis*, Rough-legged Hawk. George School, Jan. 19 and Feb. 27 (*Packer*); one shot at Bordentown, N. J., March 13 (*Redfield*); another at Bennett, N. J., Dec., 1907 (*Harlow*).

*Haliaeetus leucocephalus*, Bald Eagle. Downingtown, May 10 (*Bartram*); three seen at one time, Cape May, N. J., April 26 (*Hand*); Wayne, one shot, Sept. 20 (*Pearson*); Edge Hill, Aug. 20–21, 1907 (*Harlow*).

*Falco columbarius*, Pigeon Hawk. Princeton, N. J., Oct. 14, 1907 (*Rogers*).

*Strix pratincola*, Barn Owl. One flew over Lansdowne, screaming, at 8:10 p. m., April 7 (*Carter*); Edge Hill, April 29 (*Harlow*); one found dead at Tinicum, March 26 (*Redfield*).

*Asio wilsonianus*, Long-eared Owl. Moorestown, N. J., Feb. 10 (*Mickle*); Two shot at Edge Hill, Nov. 9, 1907 (*Harlow*).

*Asio accipitrinus*, Short-eared Owl. One at Tinicum, March 21 and two found dead (*Pearson*); one shot Bridesburg, Dec. 6, 1907 (*Harlow*).

*Cryptoglaux acadicus*, Acadian Owl. Frankford, Nov. 11 and Dec. 18, 1907 (*Miller*).

*Megascops asio*, Screech Owl. Nests with eggs Wayne, May 5 (*Redfield*); Glenside, April 5 (*Harlow*).

*Bubo virginianus*, Great Horned Owl. Bustleton, Dec. 25, 1907 (*Miller*).

*Ceryle alcyon*, Kingfisher. Tinicum, Jan. 4, Wayne, Dec. 22, 1907 (*Redfield*); one wintered at Tinicum (*Harlow*).

*Dryobates villosus*, Hairy Woodpecker. Cheltenham, one wintered (*G. S. Morris*), Beverly, N. J., April 5 (*Street*); Bristol, Nov. 16 and 28, 1907 (*Keim*); Moorestown, N. J., Dec. 7, 1907 (*Mickle*); nested at Chamounix, W. Fairmont Park in 1907, two young with parents May 13 (*Onderdonk*); nest at Oak Lane, April 28 (*Harlow*).

*Sphyrapicus varius*, Yellow-bellied Sapsucker. Frankford, last seen May 1 (*Miller*).

*Phlaeotomus pileatus*, Pileated Woodpecker. Several at Laanna, Pike Co., Apr. 13-20 (*Harlow*).

*Colaptes auratus luteus*, Flicker. Fairmount Park, Dec. 21, Wayne, Dec. 22 and Jan. 19 (*Redfield*); wintered at Tinicum, Edge Hill and Oak Lane (*Harlow*); wintered at Frankford (*Miller*).

*Chordeiles virginianus*, Nighthawk. Princeton, N. J., Sept. 30 and one Oct. 5, 1907 (*Rogers*).

*Chaetura pelagica*, Chimney Swift. Princeton, N. J., last seen Oct. 14, 1907 (*Rogers*).

*Trochilus colubris*, Hummingbird. Nest at Yardville, N. J., June 9, 1907, young were fledged and gone by June 22 (*Allinson*); Princeton, N. J., last seen Sept. 22, 1907 (*Rogers*).

*Myiarchus crinitus*, Great Crested Flycatcher. Eggs at Bustleton, May 15 (*Miller*); and at Oak Lane, June 5 (*Harlow*).

*Sayornis phoebe*, Phoebe. Princeton, N. J., last seen Oct. 22, 1907 (*Rogers*); young left nest at Pensauken, N. J., May 16,

second set in same nest June 13 (*Miller*); one at Edge Hill Dec. 25, 1907 (*Harlow*).

*Empidonax virescens*, Green-crested Flycatcher. Eggs May 29 at Bustleton in a "patched up" old Vireo's nest (*Miller*).

*Otocoris alpestris*, Horned Lark. Flock at George School, Nov. 9, 1907 (*Packer*), Cape May, N. J., March 14 (*Hand*); Wayne, Feb. 2 and 16 (*Pearson*).

*Cyanocitta cristata*, Blue Jay. Swarthmore, April 19 (*Roberts*); Haverford, April 25 (*Petry* and *Lewis*); Lansdowne, April 20, (*Pennock* and *Jacob*); Media, April 4 (*Allen*); Oak Lane, April 23 (*J. W. Allen*); Germantown, April 28 (*Justice*); Olney, April 21 (*Morris*); locally resident at Bristol, fifteen on March 1 (*Keim*); Wayne, March 14 (*Pearson*).

*Corvus brachyrhynchos*, Crow. Nest with eggs Glenside, March 30 (*Harlow*); six just hatched Pensauken, N. J., April 17, left nest about May 22 (*Miller*).

*Corvus ossifragus*, Fish Crow. Eggs, Bennett, N. J., May 10 (*Harlow*).

*Sturnus vulgaris*, European Starling. Five at Brown's Mills, N. J., April 12 (*Bartram*).

*Dolichonyx oryzivorus*, Bobolink. Still at Concordville, May 19 (*Styer*); several at Newtown, Bucks Co., May 30, (*Harlow*).

*Euphagus carolinus*, Rusty Grackle. Princeton, N. J., last seen Oct. 19, 1907, first April 4 (*Rogers*.)

*Quiscalus quiscula*, Purple Grackle. Princeton, N. J., last seen Oct. 22, 1907 (*Rogers*).

*Carpodacus purpureus*, Purple Finch. Haverford, April 14 (*Petry* and *Lewis*); Lansdowne, Jan 4-23 (*Pennock*); Oak Lane, April 12 (*Allen*); Kennett Square, April 26 (*Pennock*); Collegeville, March 23 (*Fox*); Wayne, Oct. 27-Dec. 27, 1907, arrived Apr. 4, 1908 (*Pearson*); Princeton, N. J., Sept. 26-Nov. 13, 1907 and Apr. 21-May 9 (*Rogers*); Frankford, Oct. 16-March 24 (*Miller*).

*Loxia curvirostra americana*, Crossbill. Six at Stafford Forge, N. J., May 17 (*Hill*).

*Acanthis linaria*, Redpoll. Near Trenton, N. J. Feb. 13-15 (*Abbott*); flock of nine at Frankford, March 9 (*Miller*).

*Spinus pinus*, Pine Siskin. Haverford, April 28-May 5

(*Petry and Lewis*); Easton, May 9 (*Marx*); Near Trenton, N. J., during February (*Abbott*); Swarthmore, ten on Feb. 23, one at Wayne, May 5 (*Redfield*).

*Plectrophenax nivalis*, Snowflake. Two shot from flock at Bridesburg in November (*Miller*).

*Poæetes gramineus*, Vesper Sparrow. Princeton, N. J., last seen Nov. 11, 1907 (*Rogers*); one shot Edge Hill, Dec. 21, 1907 (*Harlow*).

*Passerculus sandw. savanna*, Savanna Sparrow. One shot at Tinicum, Feb. 29 (*Redfield*); Princeton, N. J., last seen, Oct. 31, 1907 (*Rogers*).

*Coturniculus s. passerinus*, Grasshopper Sparrow. Eggs, Newtown, May 30 (*Harlow*).

*Ammodramus henslowii*, Henslow's Sparrow. Bennett, N. J., May 23 (*Redfield*); Rio Grande, N. J., May 10 (*Harlow*); nest, Cape May, N. J., May 25 (*Harrower*).

*Zonotrichia leucophrys*, White-crowned Sparrow. Lansdowne, May 10, several (*A. J. Pennock*); Kennett Square, May 10 and 11 (*C. J. Pennock*); Collegeville, May 13 (*Fox*); Easton, May 16 (*Marx*); Concordville, May 11-18 (*Styer*); Valley Forge, May 9 (*Pearson*); Princeton, N. J., May 9 and 10 (*Rogers*); Frankford, May 12 and 14 (*Miller*); Valley Forge, May 9; Wayne, May 11 (*Redfield*).

*Zonotrichia albicollis*, White-throated Sparrow. Wayne, Sept. 30-May 16, several wintered (*Pearson*); Princeton, N. J., Oct. 3-31, a few wintered; last seen, May 13 (*Rogers*); Glenside, Sept. 18-May 25 (*Harlow*); Frankford, Sept. 19-May 21 (*Miller*); wintered at Haverford (*Petry and Lewis*); last seen at Lansdowne, May 11 (*Jacob*); Bryn Mawr, Sept. 30-May 13 (*Thomas*); Kennett Square, May 13 (*Pennock*); Bristol, May 14 (*Keim*); Concordville, May 17 (*Styer*); George School, April 23-May 10 (*Packer*); Ardmore, May 13 (*Baily*); Pensauken, N. J., May 8 (*Hunt*); Moorestown, N. J., Oct. 5, 1907-May 13 (*Mickle*); Princeton, N. J., Oct. 3-31, 1907, a few wintered; last seen in spring, May 13 (*Rogers*); two wintered at Frankford; last seen, May 21.

*Spizella monticola*, Tree Sparrow. Wayne, Oct. 12-March 27 (*Pearson and Redfield*); Princeton, N. J., Oct. 31-April 23

(*Rogers*); Frankford, Sept. 27–April 7 (*Miller*); Glenside, Oct. 5–April 21 (*Harlow*); Bristol, Oct. 27–March 21 (*Keim*); Easton, Nov. 16–March 25 (*Marx*); George School, Nov. 10–March 27 (*Packer*).

*Spizella socialis*, Chipping Sparrow. Princeton, N. J., last seen, Oct. 19, 1907 (*Rogers*).

*Spizella pusilla*, Field Sparrow. Princeton, N. J., last seen, Oct. 31, 1907; one, Feb. 2 (*Rogers*).

*Junco hyemalis*, Junco. Wayne, Oct. 5–May 5 (*Pearson*); Princeton, N. J., Oct. 12–April 26 (*Rogers*); Frankford, Oct. 2–April 29 (*Miller*); Glenside, Sept. 27–May 4 (*Harlow*); Moorestown, N. J., Oct. 5, 1907–April 23 (*Mickle*); last seen at Haverford, April 24 (*Petry and Lewis*); Oak Lane, April 23 (*Allen*); Bryn Mawr, Sept. 30–May 1 (*Thomas*); Kennett Square, April 23 (*Pennock*); Bristol, Oct. 27–April 5 (*Keim*); Easton, May 16 (*Marx*); Downstown, N. J., Oct. 19–April 24 (*Fair*); Bordentown, N. J., Sept. 28–April 17 (*Flynn*); Concordville, May 12 (*Styer*); Yardville, N. J., Oct. 10–April 14 (*Allinson*); Willow Grove, April 29 (*Miller*).

*Melospiza c. melodia*, Song Sparrow. Arrived at Lopez, March 13 (*Behr*).

*Melospiza georgiana*, Swamp Sparrow. Eggs at Bridesburg, May 19; young left nest, June 3 (*Miller*); eggs at Tinicum, May 22 (*Harlow*).

*Passerella iliaca*, Fox Sparrow. Princeton, N. J., Oct. 31–Nov. 13, 1907; March 13–25 (*Rogers*); Fairmount Park, one, Dec. 26, 1907; Delair, N. J., Dec. 25 (*Miller*); Edge Hill, Dec. 22, 1907 (*Harlow*).

*Pipilo erythrophthalmus*, Chewink. One wintered in the Wisahickon Valley, winter 1907–8 (*Day*); Princeton, N. J., Oct. 31, 1907 (*Rogers*).

*Cardinalis cardinalis*, Cardinal. Several pairs all winter at Haverford (*Petry and Lewis*) and at Media (*Palmer*); several all winter at Collegeville (*Fox*); eggs, Pensauken, N. J., April 17 (*Miller*); nest with eggs at Germantown, April 20 (*J. R. Pickering*); nest with eggs, George School, April 10 (*Packer*); Wayne, April 14 (*Redfield*); rare at Glenside, one seen March 14 (*Harlow*).

*Zamelodia ludoviciana*, Rose-breasted Grosbeak. Princeton, N. J., last seen, Sept. 22, 1907 (*Rogers*).

*Piranga erythromelas*, Scarlet Tanager. Princeton, N. J., last seen, Oct. 12, 1907 (*Rogers*).

*Progne subis*, Purple Martin. Eggs at Bennett, N. J., June 3 (*Harlow*).

*Petrochelidon lunifrons*, Cliff Swallow. Small colony at Edge Hill (*Harlow*).

*Iridoprocne bicolor*, Tree Swallow. Princeton, N. J., last seen, Oct. 19, 1907 (*Rogers*).

*Lanius borealis*, Northern Shrike. One at Frankford early in December, 1907 (*G. S. Morris*); Bristol, Jan. 1 (*Keim*); Princeton, N. J., Nov. 23 (*Rogers*).

*Lanius lud. migrans*, Migrant Shrike. One shot, Edge Hill, March 21 (*Harlow*).

*Vireo olivaceus*, Red-eyed Vireo. Eggs at Frankford, June 4 (*Miller*); Princeton, N. J., last seen, Sept. 30, 1907 (*Rogers*).

*Vireo noveboracensis*, White-eyed Vireo. Eggs, Maple Shade, N. J., May 21; young left nest Pensauken, N. J., June 14 (*Miller*).

*Mniotilta varia*, Black and White Warbler. Princeton, N. J., last seen, Sept. 30, 1907 (*Rogers*); common breeder at Bennett, N. J. (*Harlow*).

*Helminthophila pinus*, Blue-winged Warbler. Princeton, N. J., last seen, Sept. 22, 1907 (*Rogers*); eggs at Valley Falls, June 1 (*Miller*).

*Helminthophila chrysoptera*, Golden-winged Warbler. Media, May 3 (*Allen*); Kennett Square, May 10 (*C. J. Pennock*); Concordville, May 12 (*Styer*); Wayne, May 1 (*Pearson*); Wayne, May 5 (*Redfield*); Frankford, May 8 (*Miller*); Tinicum, May 5 (*Harlow*); Ardmore, May 12 (*Baily*).

*Helminthophila rubricapilla*, Nashville Warbler. Easton, May 2 (*Marx*); George School, March 8 (*Packer*); Wayne, May 2 (*Pearson*); Wayne, May 2 (*Redfield*).

*Helminthophila peregrina*, Tennessee Warbler. Lansdowne, May 13, one in full song (*Pennock*).

*Compothlypis americana usneæ*, Parula Warbler. Princeton, N. J., last seen, Oct. 13, 1907, and May 19 (*Rogers*).

*Dendroica tigrina*, Cape May Warbler. Media, May 17 (*Allen*).

*Dendroica coronata*, Myrtle Warbler. Princeton, N. J., last seen Nov. 11, 1907 and May 11 (*Rogers*).

*Dendroica caerulescens*, Black-throated Blue Warbler. Princeton, N. J., last seen Sept. 26, 1907 and May 16 (*Rogers*).

*Dendroica maculosa*, Magnolia Warbler. Princeton, N. J., last seen Sept. 26, 1907 and May 19 (*Rogers*).

*Dendroica castanea*, Bay-breasted Warbler. Haverford, May 11 (*Petry* and *Lewis*); Lansdowne, May 14, 17 and 18 (*Pennock*); Bryn Mawr, May 11 (*Thomas*); Lansdowne, May 17, unusually abundant (*Carter*); George School, May 13, (*Packer*); Wayne, May 14 and 16 (*Pearson*), Frankford, May 8 (*Miller*); Ardmore, May 12 (*Baily*); Princeton, N. J., May 16 and 19 (*Rogers*).

*Dendroica striata*, Black-poll Warbler. Princeton, N. J., last seen Oct. 12, 1907 and May 29 (*Rogers*).

*Dendroica blackburniae*, Blackburnian Warbler. Princeton, N. J., last seen May 20 (*Rogers*).

*Dendroica virens*, Black-throated Green Warbler. Princeton, N. J., last seen Sept. 26, 1907, and May 16 (*Rogers*).

*Dendroica vigorsii*, Pine Warbler. Wayne, April 14, 18 and 19 (*Redfield*); Princeton, N. J., last seen April 22, unusually plentiful (*Rogers*).

*Dendroica palm. hypochrysea*, Yellow Palm Warbler. Princeton, N. J., last seen Oct. 15, 1907 and Apr. 24 (*Rogers*).

*Seiurus noveboracensis*, Short-billed Water Thrush. Princeton, N. J., last seen May 21 (*Rogers*).

*Seiurus motacilla*, Louisiana Water Thrush. On Wissahickon Creek, June 22, 29, July 1, 2, 3, one young bird on July 2, (*Pearson*); Princeton, N. J., May 9 (*Rogers*); Wissahickon, June 7, old and young (*Miller*).

*Geothlypis agilis*, Connecticut Warbler. Wayne, Oct. 5.

*Geothlypis philadelphia*, Mourning Warbler. Lansdowne, May 24 (*Carter*); Lopez, May 22 (*Behr*).

*Geothlypis trichas*, Maryland Yellowthroat. Princeton, N. J., last seen Oct. 13, 1907 (*Rogers*).

*Wilsonia pusilla*, Wilson's Warbler. Easton, May 16 (*Marx*); Concordville, May 13 (*Styer*); Wayne, March 12, 14, 16 and 18 (*Pearson* and *Redfield*); Frankford, May 8 (*Miller*); Tinicum, May 5 (*Harlow*); Moorestown, N. J., May 13, several (*Mickle*);

Haverford, May 12 (*Petry and Lewis*); Lansdowne, May 17 (*Pennock*); Woodland Cemetery, May 14 and 18 (*Hill*); Stafford Forge, N. J., May 21 (*Hill*).

*Wilsonia canadensis*, Canadian Warbler. Princeton, N. J., last seen May 25 (*Rogers*).

*Setophaga ruticilla*, Redstart. Princeton, N. J., last seen September 30 (*Rogers*). Six pairs along Pennypack Creek, June 13, between Walnut Hill and Bustleton, nest at Vereesville, June 13 (*Miller*).

*Anthus pensilvanicus*, Titlark. Moorestown, N. J., one Nov. 11–Dec. 2, 1907 (*Mickle*); Haverford, April 24 (*Petry and Lewis*); Kennett Square, flock of thirty March 20 (*Pennock*); George School, March 11, May 5 (*Packer*); Princeton, N. J., last seen Oct. 31, 1907 and April 12 (*Rogers*); Bridesburg large flocks Oct. 3–Nov. 2, 1907, two on Feb. 26 (*Miller*); Edge Hill, Feb. 29–May 6, and Tinicum March 26–May 5 (*Harlow*); Wayne, March 8, 12, 13, 16 and 21 (*Pearson*).

*Mimus polyglottos*, Mockingbird. One seen at Cape May, N. J., April 21, 22, 24 (*Hand*).

*Galeoscoptes carolinensis*, Catbird. Princeton, N. J., last seen Oct. 12, 1907 (*Rogers*).

*Toxostoma rufum*, Brown Thrasher. Princeton, N. J. last seen Sept. 30, 1907 (*Rogers*).

*Thryothorus ludovicianus*, Carolina Wren. Several heard between Yardley and New Hope (*W. E. Roberts*); along Millstone River near Princeton, N. J., March 8–June, first occurrence nearer than Pennington (*Rogers*).

*Nannus hiemalis*, Winter Wren. Last seen at Haverford, April 26 (*Petry and Lewis*); Bryn Mawr, Sept. 17–April 17 (*Thomas*); Bristol, April 12 (*Keim*); Easton, Nov. 16–April 17 (*Marx*); George School, Oct. 5–April 20, (*Roberts*); one at Lopez in Jan. and Feb. (*Behr*); Wayne, Oct. 20–April 14 (*Pearson and Redfield*); Princeton, N. J., Oct. 13–March 5 only one wintered (*Rogers*); Glenside, Sept. 18–April 19, scarce in winter (*Harlow*); Frankford, Sept. 26–May 1, only one seen in winter (*Miller*).

*Telmatodytes palustris*. Eggs at Richmond, May 27, an albino set collected June 3, differed from those of *C. stellaris* in shape, color and texture of shell (*Miller*).

*Certhia familiaris americana*, Brown Creeper. Last seen at George School, Apr. 12 (*Packer*); Wayne, Oct. 13–April 17 (*Pearson*); Princeton, N. J., Sept. 26–Apr. 21 (*Rogers*); Frankford, Oct. 10–Dec. (*Miller*); Glenside, Oct. 5–April 21 (*Harlow*); first seen at Haverford, March 28 (*Petry and Lewis*); Bryn Mawr, Oct. 13–April 17 (*Thomas*); Bristol, Oct. 27–April 12 (*Keim*); Moorestown, N. J., Oct. 5, 1907 (*Mickle*).

*Sitta canadensis*, Red-breasted Nuthatch. Moorestown, N. J., May 2 and 5 (*Mickle*); Wayne, Oct. 5, 1907 (*Pearson*); Frankford, Oct. 14 and 16, 1907 and March 10 (*Miller*).

*Parus atricapillus*, Black-capped Chickadee. Bryn Mawr, Nov. 16–March 21 (*Thomas*); Easton, Nov. 16–April 3 (*Marx*); Wayne, Nov. 16–March 30 (*Pearson*); Glenside, Oct. 25–April 5 (*Harlow*).

*Regulus satrapa*, Golden-crowned Kinglet. Last seen at Haverford, April 21 (*Petry and Lewis*); Media, April 5 (*Palmer*); Oak Lane, April 5 (*Allen*); Bryn Mawr, Oct. 1–April 17 (*Thomas*); Bristol, April 17 (*Keim*); Easton, Oct. 9–April 21 (*Marx*); George School, April 12 (*Packer*); Wayne, Oct. 5–April 19 (*Pearson*); Princeton, N. J., Oct. 5–April 14 (*Rogers*); Frankford, Oct. 1–April (*Miller*); last at Glenside, April 24, (*Harlow*).

*Regulus calendula*, Ruby-crowned Kinglet. One carefully identified was seen at Easton, Jan. 17, again March 7 and on March 12, 14 and 21 (*Marx*); Princeton, N. J., Oct. 5–22, 1907 (*Rogers*).

*Polioptila caerulea*, Blue-Gray Gnatcatcher. Wayne, one shot April 18 (*Pearson*); another May 2 (*Redfield*).

*Hylocichla g. pallasi*, Hermit Thrush. Princeton, N. J., last seen Oct. 15, 1907 (*Rogers*); Edge Hill, Dec. 1, 1907 (*Harlow*).

*Hylocichla u. swainsoni*, Olive-backed Thrush. Princeton, N. J., last seen Oct. 6, 1907 (*Rogers*).