

## Report on The Spring Migration—1920

COMPILED BY WITMER STONE

Observers returning schedules.

### *New Jersey*

Cape May, H. W. Hand.	Haddonfield, J. W. Tatum.
Atlantic City, Mrs. N. S. Cromie.	Moorestown, Miss A. A. Mickle.
Vineland, Mrs. A. K. Prince.	Mrs. V. Wierman.
Downstown, W. W. Fair.	Rancocas, Miss Frances B. Stokes.
Camden, J. K. Potter.	

### *Pennsylvania*

Concordville, Miss E. P. and J. F. Styer.	Byberry, Miss Frances Richardson.
Media, Miss L. G. Allen, J. P. Moore, S. Omensetter.	Merion, G. H. Beatty, Jr. Frankford, R. F. Miller.
Swarthmore, Samuel C. Palmer, P. E. Howard.	Mt. Airy, R. W. Barker. Ardmore, W. L. Baily.
Addingham, D. E. Culver.	Haverford, W. J. Serrill.
Lansdowne, J. D. Carter.	Samuel Scoville, Jr.
Wayne, C. E. Alexander.	Downingtown, A. P. Kelly.
West Chester, R. P. Sharples.	Wyncote, Miss Esther Heacock.
West Chester, I. G. Roberts.	
West Chester, Mrs. H. P. Brinton.	Buckingham, Miss E. D. Broadhurst.
West Chester, C. K. Himmelsbach.	Newtown, J. E. Packer. Collegeville, W. A. Kline.
Doylestown, G. MacReynolds.	Greencastle, G. F. Ziegler, Jr.
Forest Grove, Miss A. K. Bewley.	Reading, E. L. Poole. Lopez, Otto Behr.

### *Delaware*

Wilmington, P. M. Jenness. Mrs. H. W. Fox.

NAME.	Ranocas, N. J. N. 4; E. 16.	Moorestown, N. J. N. 1; E. 12.	Garden, N. J. N. 0; E. 2.	Haddonfield, N. J. S. 5, E. 6.	Media, Pa. S. 2; W. 12.	Swarthmore, Pa. S. 3; W. 10.	Lansdowne, Pa. S. 1; W. 6.	Addingham, Pa. S. 1; W. 8.	Havertown and Ardmore, Pa. N. 4; W. 8.	Merion, Pa. N. 3; W. 4.	Wayne, Pa. N. 6; W. 11.	Germanstown, Phila. N. 6; W. 1.	Byberry, Pa. N. 14; E. 5.	Frankford, Phila. N. 5; E. 5.	Bulk Arrival, 1920.
Canada Goose	May 25	May 9	Apr. 24	May 9	Apr. 26	May 15	May 2	May 2	May 2	May 3	May 3	May 10	May 10	Apr. 28	May 2
Green Heron	May 2	Apr. 11	Apr. 2	May 9	May 11	Apr. 29	May 16	May 16	May 16	May 15	May 15	May 16	May 16	Apr. 6	Apr. 11
Night Heron	May 2	May 2	Apr. 19	May 9	Apr. 30	May 15	Apr. 25	Apr. 24	Apr. 25	May 15	May 15	May 16	May 16	Apr. 27	May 2
Spotted Sandpiper	May 1	Apr. 25	May 9	May 9	Apr. 30	May 15	May 9	May 9	May 9	May 9	May 9	Apr. 25	May 13	May 13	May 5
Solitary Sandpiper	Mar. 23	Mar. 11	Mar. 28	Mar. 24	Apr. 25	Mar. 20	Mar. 21	Mar. 28	Mar. 28	Mar. 28	Mar. 28	Mar. 31	Mar. 9	Mar. 14	Mar. 14
Killdeer	Mar. 23	Mar. 11	Mar. 28	Mar. 24	Apr. 25	Mar. 20	Mar. 21	Mar. 28	Mar. 28	Mar. 28	Mar. 28	Mar. 31	Mar. 9	Mar. 14	Mar. 14
Dove	May 2	Mar. 18	Mar. 24	Mar. 24	Mar. 10	Mar. 21	Mar. 28	Apr. 11	Apr. 18	Apr. 1	Mar. 20	Mar. 31	Apr. 1	Mar. 25	Mar. 24
Osprey	May 2	Res.	Apr. 11	Apr. 11	Mar. 30	Apr. 25	Apr. 25	Feb. 22	Apr. 21	Apr. 19	Apr. 1	Apr. 14	Apr. 1	Apr. 11	Apr. 11
Turkey Vulture	Mar. 20	Res.	May 12	May 12	May 13	Mar. 14	Mar. 14	Apr. 25	Mar. 28	Apr. 2	Mar. 30	Apr. 1	Mar. 30	Mar. 11	Mar. 14
Yellow-billed Cuckoo	May 1	May 12	May 8	May 12	May 13	Mar. 14	Mar. 14	May 22	May 9	Apr. 2	Mar. 26	May 9	May 5	May 28	May 12
Black-billed Cuckoo	May 1	Res.	Apr. 2	Apr. 11	Mar. 23	Mar. 31	Mar. 31	Mar. 23	Mar. 27	Apr. 2	Mar. 26	Mar. 31	Mar. 31	May 23	May 19
Kingfisher	May 1	Apr. 7	Apr. 2	Apr. 11	Mar. 23	Mar. 31	Mar. 31	Mar. 23	Mar. 27	Apr. 2	Mar. 26	Mar. 31	Mar. 31	Apr. 6	Apr. 7
Yellow-bellied Sapsucker	Mar. 22	Mar. 12	Mar. 7	May 14	Mar. 20	June 4	June 4	Mar. 23	Mar. 27	Apr. 2	Mar. 26	May 9	May 9	Apr. 6	Apr. 7
Red-headed Woodpecker	Mar. 22	Mar. 12	Mar. 7	May 14	Mar. 20	June 4	June 4	Mar. 23	Mar. 27	Apr. 2	Mar. 26	May 9	May 9	Apr. 6	Apr. 7
Flicker	May 4	Apr. 23	May 4	Jan. 20	Mar. 20	Mar. 24	Mar. 20	Mar. 26	Mar. 20	Mar. 22	Mar. 27	Mar. 23	Mar. 23	Mar. 18	Mar. 22
Whip-poor-will	May 4	Apr. 23	May 4	Jan. 20	Mar. 20	Mar. 24	Mar. 20	Mar. 26	Mar. 20	Mar. 22	Mar. 27	Mar. 23	Mar. 23	Mar. 18	Mar. 22
Nighthawk	Apr. 28	Apr. 18	May 4	May 12	Apr. 30	Apr. 25	Apr. 25	May 27	May 27	May 20	May 20	May 21	May 21	May 18	Apr. 30
Chimney Swift	May 10	May 15	Apr. 23	Apr. 24	Apr. 21	Apr. 22	May 2	Apr. 22	Apr. 25	May 20	May 20	Apr. 21	Apr. 24	May 18	May 20
Hummingbird	May 10	May 15	Apr. 23	Apr. 24	Apr. 21	Apr. 22	May 2	Apr. 22	Apr. 25	May 20	May 20	Apr. 21	Apr. 24	Apr. 26	Apr. 22
Kingbird	May 11	May 2	May 10	May 19	May 2	Apr. 29	Apr. 29	May 6	May 23	May 16	May 5	May 22	May 19	May 16	May 16
Crested Flycatcher	May 11	May 2	May 16	May 19	May 10	May 15	May 2	May 15	May 2	May 9	May 5	May 5	May 2	May 2	May 2
Phoebe	Mar. 28	Mar. 27	Apr. 16	Apr. 16	Mar. 10	Mar. 23	Mar. 23	Mar. 21	Mar. 27	May 14	May 14	Mar. 24	Mar. 22	Mar. 31	Mar. 23



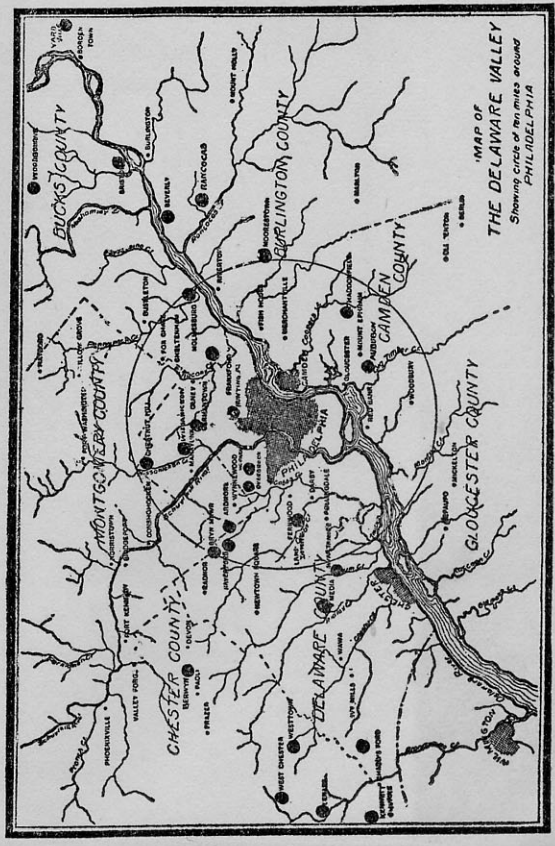
NAME.	Ranocas, N. J.	Moorestown, N. J.	Camden, N. J.	Haddonfield, N. J.	Media, Pa.	Swarthmore, Pa.	Lansdowne, Pa.	Addingham, Pa.	Haverford and Ardmore, Pa.	Merton, Pa.	Wayne, Pa.	Germanstown, Phila.	Byberry, Pa.	Frankford, Phila.	Bulk Arrival, 1920.
Cliff Swallow . . . . .	Apr. 19	Apr. 18	Apr. 25	Apr. 25	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Barn Swallow . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Tree Swallow . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Bank Swallow . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Rough-winged Swallow . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Cedarbird . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Red-eyed Vireo . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Warbling Vireo . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Yellow-throated Vireo . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Solitary Vireo . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
White-eyed Vireo . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Black and White Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Worm-eating Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Blue-winged Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Parula Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Yellow Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Black-throated Blue Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Myrtle Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Magnolia Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Chestnut-sided Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Black-poll Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Blackburnian Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22
Black-throated Green Warbler . . . . .	Apr. 19	Apr. 25	Apr. 25	Apr. 16	Apr. 22	Apr. 22	Apr. 16	Apr. 24	Apr. 24	Apr. 24	Apr. 24	Apr. 21	Apr. 21	Apr. 16	Apr. 22

NAME.	Ranccocas, N. J.	Moorestown, N. J.	Camden, N. J.	Haddonfield, N. J.	Media, Pa.	Swarthmore, Pa.	Lansdowne, Pa.	Addingham, Pa.	Haverford and Ardmore, Pa.	Merton, Pa.	Wayne, Pa.	Germanstown, Phila.	Byberry, Pa.	Frankford, Phila.	Bulk Artrial, 1920.
Pine Warbler . . . . .	Apr. 18	Apr. 18	Apr. 18	Apr. 16	Apr. 25	Apr. 19	Apr. 3	Apr. 25	Apr. 3	Mar. 31	Apr. 25	Apr. 18	Apr. 20	Apr. 20	Apr. 18
Yellow Palm Warbler . . . . .	May 15	Apr. 24	Apr. 24	Apr. 16	Apr. 25	Apr. 20	Apr. 3	Apr. 25	Apr. 3	Apr. 25	Apr. 25	Apr. 18	Apr. 20	Apr. 20	Apr. 18
Prairie Warbler . . . . .	Apr. 30	May 2	May 6	May 6	May 9	May 3	May 3	May 9	May 3	May 16	May 16	May 2	May 9	May 12	May 3
Ovenbird . . . . .	May 1	Apr. 30	May 1	May 11	Apr. 30	Apr. 24	May 4	May 9	May 1	May 2	May 2	May 2	Apr. 26	May 12	May 2
Water Thrush . . . . .	May 16	May 1	May 11	May 11	Apr. 28	Apr. 24	May 9	May 19	May 1	May 2	May 2	May 2	Apr. 26	May 12	May 2
Kentucky Warbler . . . . .	Apr. 25	Apr. 23	Apr. 23	Apr. 24	May 16	May 12	May 3	May 16	May 16	May 9	May 9	Apr. 25	Apr. 30	May 2	May 12
Maryland Yellow-throat . . . . .	May 6	Apr. 25	Apr. 23	Apr. 24	Apr. 24	Apr. 24	May 3	May 16	May 16	May 9	May 9	Apr. 25	Apr. 30	May 2	Apr. 29
Chat . . . . .	May 14	May 16	May 16	May 16	May 1	May 12	May 13	May 19	May 8	May 16	May 16	May 16	May 17	May 17	May 16
Canada Warbler . . . . .	May 16	May 16	May 16	May 11	May 15	May 15	May 13	May 23	May 19	May 9	May 9	May 6	May 5	May 12	May 5
Redstart . . . . .	May 5	May 1	May 2	May 9	May 16	May 12	May 3	Apr. 30	May 2	May 9	May 9	May 6	May 5	May 12	May 5
Catbird . . . . .	May 2	Apr. 27	May 4	May 6	May 7	Apr. 25	May 4	Apr. 25	May 23	May 2	May 2	May 5	May 5	May 2	May 5
Brown Thrasher . . . . .	Apr. 21	Apr. 24	Apr. 22	Apr. 16	Apr. 18	Apr. 25	May 2	Apr. 17	Apr. 18	May 2	May 5	Apr. 26	Apr. 28	Apr. 21	Apr. 21
House Wren . . . . .	May 1	Apr. 25	Apr. 25	Apr. 26	Apr. 24	Apr. 23	May 2	Apr. 25	Apr. 25	Apr. 24	May 5	Apr. 25	Apr. 30	May 9	Apr. 25
Long-bill'd Marsh Wren . . . . .	Apr. 17	Apr. 18	Apr. 18	Apr. 16	Apr. 14	Apr. 11	Apr. 2	Apr. 5	Apr. 5	Apr. 20	Apr. 20	Apr. 18	Apr. 18	Apr. 22	Apr. 17
Ruby-crowned Kinglet . . . . .	May 2	May 4	May 2	May 6	Apr. 25	Apr. 26	May 2	Apr. 27	Apr. 28	Apr. 29	May 4	Apr. 25	May 3	May 2	Apr. 30
Wood Thrush . . . . .	May 14	May 16	May 16	May 3	May 8	May 12	May 20	May 8	May 8	Apr. 28	May 4	Apr. 25	May 3	May 2	Apr. 30
Wilson's Thrush . . . . .	May 14	May 16	May 16	May 19	May 30	May 12	May 20	May 8	May 8	Apr. 28	May 4	Apr. 25	May 3	May 2	Apr. 30
Gray-checked Thrush . . . . .	May 22	May 11	May 11	May 16	May 26	May 11	May 22	May 23	May 16	May 16	May 16	May 16	May 5	May 6	May 8
Olive-backed Thrush . . . . .	Apr. 16	Apr. 16	Apr. 16	Apr. 19	May 26	May 11	May 22	May 23	May 16	May 16	May 16	May 16	May 5	May 6	May 8
Hermit Thrush . . . . .	Apr. 16	Apr. 16	Apr. 16	Apr. 19	Apr. 19	May 11	May 22	May 23	May 16	May 16	May 16	May 16	May 5	May 6	May 8
Robin . . . . .	Feb. 21	Mar. 21	Mar. 21	Mar. 12	Feb. 24	Feb. 9	Mar. 13	May 13	Mar. 13	Mar. 11	Mar. 13	Mar. 13	Mar. 4	Mar. 10	Mar. 10
Bluebird . . . . .	Mar. 21	Mar. 11	Mar. 18	Feb. 28	Jan. 28	Mar. 11	Mar. 17	Feb. 23	Feb. 23	Feb. 22	Mar. 13	Mar. 13	Mar. 23	Mar. 15	Mar. 11

NAMES.	Cape May, N. J. E. 13; S. 72.	Atlantic City, N. J. E. 42; S. 42.	Vinland, N. J. E. 7; S. 32.	Downton, N. J. E. 11; S. 28.	Mt. Holly, N. J. E. 19; N. 3.	Wilmington, Del. W. 20; S. 15.	Concordville, Pa. W. 20; S. 5.	West Chester, Pa. W. 24; N. 0.	Downingtown, Pa. W. 30; N. 4.	Wyncote, Pa. E. 1; N. 10.	Buckingham, Pa. E. 4; N. 26.	Forest Grove, Pa. E. 2; N. 28.	Newton, Pa. E. 10; N. 19.	Doylstown, Pa. E. 1; N. 26.	Collegeville, Pa. W. 16; N. 18.	Greencastle, Pa. W. 132; S. 12.	Reading, Pa. W. 40; N. 16.	Lopez, Pa. W. 60; N. 103.
Flicker.....	Res.	Apr. 11	Res.	Mar. 25	Feb. 1	Mar. 24	Mar. 23	Mar. 15	Mar. 23	Mar. 26	Mar. 11	Mar. 30	Mar. 10	Feb. 8	Mar. 28	Apr. 2	Mar. 26	Mar. 26
Whip-poor-will.....	Apr. 11			Apr. 26	May 29	Apr. 30	Apr. 30	Apr. 30	May 2	May 2	May 25				May 20	May 21	May 7	May 8
Nighthawk.....						May 17	May 16		May 22						Apr. 24	Apr. 13	Apr. 18	May 26
Chimney Swift.....						Apr. 23	Apr. 22	Apr. 19	Apr. 24	Apr. 22	May 11	Apr. 21	Apr. 22	Apr. 20	Apr. 24	Apr. 13	Apr. 18	May 12
Hummingbird.....						May 16	May 16	May 9	May 3	Apr. 3	Apr. 29	May 4	May 5	Apr. 25	May 5	May 16	May 23	May 23
Kingbird.....						Apr. 27	Apr. 26	Apr. 30	May 9	Apr. 28	Apr. 29	May 9	May 4	Apr. 25	Apr. 24	May 16	Apr. 24	May 5
Crested Flycatcher.....						May 18	May 9	May 2	May 9	Mar. 22	Mar. 17	Feb. 20	May 4	May 9	May 6	May 13	May 7	May 5
Phoebe.....	Apr. 11					Apr. 9	May 9	Mar. 25	Mar. 28			Apr. 1	Mar. 28	Mar. 27	Mar. 27	Mar. 27	Mar. 27	Mar. 27
Bobolink.....						May 12	May 9	May 9	May 9			May 11	May 6	May 7	May 7	May 7	May 11	May 11
Cowbird.....	Apr. 11					Mar. 30	Mar. 23	Mar. 12	Mar. 29			Apr. 10	Apr. 16	Apr. 11	Apr. 30	Apr. 10	Apr. 10	Mar. 28
Red-winged Blackbird.....	Res.	Apr. 11	Res.	Mar. 12	Mar. 10	Mar. 28	Mar. 11	Mar. 11	Mar. 22			Mar. 11	Mar. 17	Mar. 11	Mar. 21	Mar. 28	Mar. 28	Mar. 12
Baltimore Oriole.....	May 2	May 14	May 9	May 11	May 4	May 16	May 11	May 7	May 7			May 11	May 7	May 9	May 2	May 2	May 7	May 11
Purple Grackle.....			Res.	Res.	Mar. 9	Mar. 9	Mar. 3	Feb. 20	Mar. 12	Mar. 15	Mar. 11	Mar. 12	Mar. 5	Res.	Mar. 2	Mar. 15	Mar. 12	
Chipping Sparrow.....	Apr. 11	Apr. 14	Apr. 25	Apr. 3	Apr. 18	Apr. 1	Apr. 1	Mar. 29	Apr. 13	Apr. 11	Apr. 20	Apr. 22	Apr. 3	Apr. 12	Apr. 16	Apr. 16	Apr. 7	Apr. 23
Chewink.....	Apr. 20	Apr. 20	Apr. 21	Apr. 25	Apr. 4	Apr. 10	Apr. 23	Apr. 24	May 2	May 2	May 2	Apr. 18	Apr. 25	Apr. 18	Apr. 25	Apr. 10	Apr. 24	May 4
Indigobird.....	May 2	May 1	May 9	May 16	May 18	May 15	May 11	May 9	May 12	May 10	May 10	May 15	May 17	May 17	May 23	May 15	May 9	May 18
Scarlet Tanager.....	May 2	May 1	May 9	May 16	May 18	May 15	May 11	May 9	May 12	May 10	May 10	May 15	May 17	May 17	May 23	May 15	May 9	May 18
Purple Martin.....	Apr. 14	Apr. 14	Apr. 29	Apr. 3	Apr. 3	Apr. 15	Apr. 15	Mar. 31	Apr. 26	Apr. 26	Apr. 26	Apr. 20	Apr. 20	Apr. 20	Apr. 30	Mar. 26	Apr. 3	Apr. 7
Barn Swallow.....	Apr. 25	Apr. 25	Apr. 25	Apr. 25	Apr. 19	Apr. 12	Apr. 13	Apr. 18	Apr. 27	Apr. 27	Apr. 27	May 1	May 9	Apr. 22	Apr. 19	Apr. 21	Apr. 18	Apr. 22
Red-eyed Vireo.....	Apr. 25	Apr. 30	May 15	May 11	May 16	May 9	May 9	May 9	May 9	May 9	May 9	May 4	Apr. 30	May 6	May 5	May 5	May 8	May 8
Black-and-white Warbler.....			May 11	May 11	May 14	May 9	May 11	May 12	May 15	May 15	May 15	May 10	May 10	May 12	May 20	May 13	May 8	May 17
Ovenbird.....	Apr. 30	Apr. 30	May 11	May 3	May 1	Apr. 25	Apr. 30	May 2	May 2	May 2	May 2	May 9	May 4	May 2	Apr. 25	Apr. 24	Apr. 26	May 7
Maryland Yellowthroat.....	Apr. 25		May 9	May 9	May 3	Apr. 30	Apr. 30	May 1	May 2	May 2	May 2	May 9	May 6	May 9	Apr. 24	Apr. 24	May 7	May 18
Chat.....			May 22	May 23	May 29	May 29	May 16	May 12	May 12	May 12	May 12	May 16	May 16	May 16	May 16	May 23	May 16	May 16
Catbird.....	May 1	Apr. 30	May 2	May 2	Apr. 25	Apr. 10	Apr. 23	May 2	May 2	May 4	May 9	May 5	May 6	May 5	May 4	Apr. 27	Apr. 26	Apr. 26
Brown Thrasher.....	Apr. 25	Apr. 17	Apr. 28	Apr. 25	Apr. 18	Apr. 25	Apr. 18	Apr. 25	Apr. 19	Apr. 19	May 2	May 1	Apr. 26	Apr. 23	Apr. 25	Apr. 8	Apr. 24	May 4
House Wren.....	May 2	May 2	May 8	May 8	Apr. 25	Apr. 22	Apr. 24	Apr. 24	Apr. 25	Apr. 22	Apr. 22	May 1	Apr. 25	Apr. 15	Apr. 25	Apr. 24	Apr. 24	May 7
Wood Thrush.....	May 2	May 2	May 2	May 2	May 1	May 2	May 8	May 7	Apr. 25	Apr. 22	Apr. 22	May 5	May 5	May 6	May 6	May 7	Apr. 25	Apr. 22
Hermit Thrush.....			Apr. 21	Apr. 8	Apr. 21	Apr. 8	Apr. 8	Apr. 7				Apr. 20	Apr. 20	Apr. 23	Apr. 17	Apr. 17	Apr. 22	Apr. 16
Robin.....	Res.	Mar. 15	Feb. 29	Mar. 15	Mar. 3	Mar. 23	Mar. 12	Feb. 25	May 15	Feb. 18	Mar. 11	Mar. 19	Mar. 12	Mar. 14	Mar. 2	Feb. 28	May 7	Mar. 16
Bluebird.....	Res.		Res.	Mar. 4	Mar. 11	Mar. 12	Mar. 10	Mar. 7	May 15		Mar. 18	Mar. 10	Mar. 8	Mar. 11	Mar. 2	Feb. 28	Mar. 14	Mar. 16

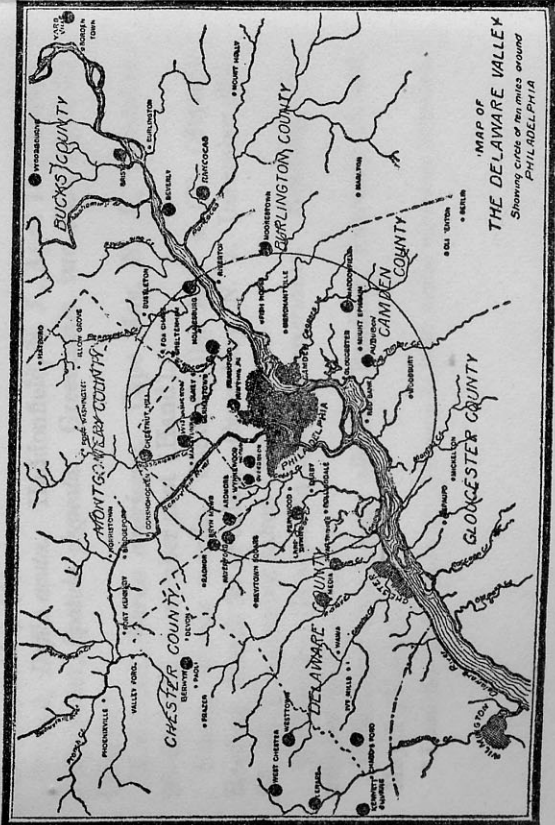
TABLE II.

SPRING MIGRATION, 1920.  
 EARLIEST DATES OF ARRIVAL OF  
 THIRTY-TWO SPECIES AT NINETEEN  
 STATIONS OUTSIDE THE PHILADEL-  
 PHIA CIRCLE.



NAME	Cape May, N. J. E. 13; S. 72	Atlantic City, N. J. E. 42; S. 42	Vineland, N. J. E. 7; S. 32	Downtown, N. J. E. 11; S. 28	Mr. Holly, N. J. E. 19; N. 3	Allentown, N. J. E. 3; N. 16	Princeton, N. J. E. 28; N. 29	Wilmington, Del. W. 20; S. 15	Concordville, Pa. W. 20; S. 5	West Chester, Pa. W. 24; N. 0	Darling, Pa.	Penfield, Pa.	Jeffersonville, Pa. N. 12; W. 12	Buckingham, Pa. E. 4; N. 26	Cartersville, Pa. E. 6; N. 30	George School, Pa. E. 11; N. 18	Newtown, Pa. N. 19; E. 10	Collegedale, Pa. W. 16; N. 18	Greencastle, Pa. W. 182; S. 12	Reading, Pa. W. 40; N. 16	Lopez, Pa. W. 60; N. 103
Flicker	Res.	Apr. 22	Res.	Mar. 16	Jan. 1	Apr. 1	9 Res.	Mar. 10	Mar. 10	Mar. 7	Feb. 23	Mar. 13	Mar. 16	Mar. 10	Mar. 4	Mar. 4	Mar. 30	Mar. 12	Mar. 16	Mar. 24	
Whip-poor-will		Apr. 20	Apr. 25	Apr. 25	May 15	Apr. 20	Apr. 20	May 13	May 13	May 15									Apr. 25	Mar. 16	May 12
Nighthawk		Apr. 24	Apr. 29	Apr. 29	May 28	Apr. 17	Apr. 17	May 8	May 8	May 10									Apr. 25	May 25	May 12
Chunney Swift			Apr. 28	Apr. 28	Apr. 17	Apr. 20	Apr. 17	May 8	May 8	May 8	Apr. 25	Apr. 27							Apr. 16	May 15	Jun. 3
Hummingbird			May 7	May 7	May 15	May 4	May 9	May 8	May 8	May 8	May 8	May 10							Apr. 16	Apr. 30	May 27
Kingbird			May 28	Apr. 25	May 8	May 2	May 8	Apr. 24	Apr. 24	Apr. 24	May 15	May 16							May 15	May 15	May 24
Crested Flycatcher			May 14	May 11	May 8	Mar. 13	May 11	Mar. 18	Mar. 14	Mar. 12	Mar. 17	Mar. 17							May 17	May 11	May 14
Phoebe							Mar. 11	Mar. 18	Mar. 14	Mar. 10	Mar. 13	Mar. 13							Mar. 13	May 8	May 14
Bobolink							May 11	May 10	May 7	May 7	Apr. 14	Apr. 14							Mar. 10	May 15	Mar. 26
Cowbird	Res.						Mar. 13	Mar. 6	Mar. 6	Mar. 6	Apr. 1	Mar. 2							Mar. 10	Mar. 15	
Red-winged Blackbird							Mar. 13	Mar. 6	Mar. 6	Mar. 6	Apr. 1	Mar. 2							Mar. 10	Mar. 15	
Baltimore Oriole							Mar. 12	Mar. 6	Mar. 6	Mar. 6	Apr. 1	Mar. 2							Mar. 10	Mar. 15	
Purple Grackle	Res.						Feb. 6	Mar. 3	Mar. 3	Mar. 3	Feb. 15	Jan. 23							Mar. 16	Mar. 16	Mar. 6
Chipping Sparrow	Apr.						Feb. 7	Mar. 3	Mar. 3	Mar. 3	Feb. 15	Jan. 23							Mar. 16	Mar. 16	Mar. 6
Chewink	Res.						Mar. 27	Mar. 20	Mar. 20	Mar. 20	Mar. 15	Mar. 30							Mar. 16	Mar. 16	Mar. 6
Indigobird							Apr. 3	Apr. 19	Apr. 19	Apr. 19	Mar. 22	Apr. 20							Mar. 16	Mar. 16	Mar. 6
Scarlet Tanager							May 10	May 13	May 13	May 13	May 14	May 16							Mar. 16	Mar. 16	Mar. 6
Purple Martin	Apr. 17						Apr. 24	Apr. 22	Apr. 22	Apr. 22	Apr. 17	Apr. 12							Mar. 16	Mar. 16	Mar. 6
Barn Swallow	Apr. 9						Apr. 17	Apr. 14	Apr. 14	Apr. 14	Apr. 17	Apr. 12							Mar. 16	Mar. 16	Mar. 6
Red-eyed Vireo							May 10	May 13	May 13	May 13	May 14	May 16							Mar. 16	Mar. 16	Mar. 6
Black and White Warbler	May 8						May 15	May 13	May 13	May 13	May 14	May 16							Mar. 16	Mar. 16	Mar. 6
Chestnut-sided Warbler	May 8						May 15	May 13	May 13	May 13	May 14	May 16							Mar. 16	Mar. 16	Mar. 6
Ovenbird	May 8						May 15	May 13	May 13	May 13	May 14	May 16							Mar. 16	Mar. 16	Mar. 6
Maryland Yellow-throat	Apr. 20						Apr. 30	Apr. 28	Apr. 28	Apr. 28	Apr. 23	Apr. 23							Mar. 16	Mar. 16	Mar. 6
Chat	Apr. 16						May 8	May 8	May 8	May 8	May 8	May 10							Mar. 16	Mar. 16	Mar. 6
Catbird	Apr. 16						May 8	May 8	May 8	May 8	May 8	May 10							Mar. 16	Mar. 16	Mar. 6
Brown Thrasher	May 8						Apr. 22	Apr. 20	Apr. 20	Apr. 20	Apr. 15	Apr. 15							Mar. 16	Mar. 16	Mar. 6
House Wren	May 8						Apr. 22	Apr. 20	Apr. 20	Apr. 20	Apr. 15	Apr. 15							Mar. 16	Mar. 16	Mar. 6
Wood Thrush	May 8						Apr. 22	Apr. 20	Apr. 20	Apr. 20	Apr. 15	Apr. 15							Mar. 16	Mar. 16	Mar. 6
Hermit Thrush	Res.						Apr. 14	Apr. 9	Apr. 9	Apr. 9	Apr. 10	Apr. 10							Mar. 16	Mar. 16	Mar. 6
Robin	Res.						Apr. 14	Apr. 9	Apr. 9	Apr. 9	Apr. 10	Apr. 10							Mar. 16	Mar. 16	Mar. 6
Bluebird	Res.						Apr. 14	Apr. 9	Apr. 9	Apr. 9	Apr. 10	Apr. 10							Mar. 16	Mar. 16	Mar. 6

TABLE II.  
SPRING MIGRATION, 1921.  
EARLIEST DATES OF ARRIVAL OF  
THIRTY-TWO SPECIES AT NINETEEN  
STATIONS OUTSIDE THE PHILADEL-  
PHIA CIRCLE.



Loon, *Gavia immer*. Swarthmore, May 15 (Howard).\*

Horned Grebe, *Colymbus auritus*. Falls of Schuylkill, January 1 (Miller); Reading, November 2, 1919, April 23 (12), and May 1 (5) (Poole).

Pied-billed Grebe, *Podilymbus podiceps*. Media, April 25–May 9 (Allen); Reading, November 2, 1919 (Poole).

Double-crested Cormorant, *Phalacrocorax d. dilophus*. Cape May, N. J., April 15 (Hand).

Herring Gull, *Larus argentatus*. Beach Haven, N. J., June 12–13 (many) (Miller); Mt. Holly, N. J., April 2 (Pumyea).

Laughing Gull, *Larus atricilla*. Atlantic City, N. J., May 8 (Cromie); Cape May, N. J. April 15 (Hand).

Black Tern, *Chlidonias nigra surinamensis*. Reading, September 6, 1919 (Poole).

Merganser, *Mergus americanus*. Beach Haven, N. J., June 10 (Miller); Ridley Creek, Moylan, March 24 (Howard); Newtown, April 30 (Packer); Neshaminy Creek, Doylestown, March 21 (10), March 28 (13) (MacReynolds); Reading, December 26, 1919 (8) March 14 (3) (Poole).

Red-breasted Merganser, *Mergus serrator*. Beach Haven, N. J., June 13 (Miller).

Hooded Merganser, *Lophodytes cucullatus*. Concordville, March 17 (2) (Styer).

Mallard, *Anas platyrhynchos*. (Gloucester, N. J., April 28 5) (Miller).

Black Duck, *Anas rubripes tristis*. Doylestown, March 28 (MacReynolds) (4).

Pintail, *Dafila acuta*. Haddonfield, N. J., April 11 (Tatum).

Shoveller, *Spatula chlypeata*. Greencastle, two shot, April 10 (Ziegler).

Red-head, *Marila americana*. Cape May, N. J., December 20–23, 1919, a number shot (Hand).

Scaup, *Marila marila*. Concordville, May 4 (2) (Styer); Reading, March 20 (Poole). Cape May, N. J. December 20–23, 1919, a number taken (Hand).

Golden-eye, *Glancionetta clangula americana*. Reading, November 15 (4) (Poole).

Bufflehead, *Charitonetta albeola*. Reading, February 14 and May 1 (Poole).

\* Localities in Pennsylvania and dates in 1920, unless otherwise indicated.

Wood Duck, *Aix sponsa*. Salem, N. J., May 16, nest and 8 eggs ready to hatch (Miller); West Chester, April 4 (Sharples).

Whistling Swan, *Olor columbianus*. Cape May, N. J., November 6-8, 1919 a flight (Hand).

Great Blue Heron, *Ardea h. herodias*. Haddonfield, N. J., May 12 (Tatum); Moorestown, N. J., March 22 (Mickle); Mt. Holly, N. J., February 18 (Pumyea); Rancocas, N. J., May 2 (Stokes); Wissahickon Creek, April 21 (Barker); Byberry, April 9 (Richardson); Haverford, May 9 (Serrill); West Chester, April 3 (Sharples); Newtown, May 6 (Packer); Doylestown, April 29 (MacReynolds); Reading, April 24 (Poole).

Egret, *Casmerodius egretta*. Cape May, N. J., August and September, 1919 and Fishing Creek, N. J., April 15-20 (Hand).

Black-crowned Night Heron, *Nycticorax n. naevius*. Cape May, N. J., one in the heart of town, December 23, 1919, first in spring, April 5 (Hand).

Bittern, *Botaurus lentiginosus*. Moorestown, N. J., May 2 (Mickle); Haverford, May 2 (Serrill); Reading, May 1 and 9 (Poole); Cape May, N. J. April 15 (Hand).

Little Black Rail, *Creciscus jamaicensis*. Stone Harbor, N. J., one seen May 31 and June 21 (Miller).

Woodcock, *Philohela minor*. Mt. Holly, N. J., April 12 (Pumyea); Frankford, March 17 (Miller); Media, March 21 (Moore); Ardmore, March 22 (Baily); Cape May, N. J., November 6, 1919, about 1000 killed, a large flight, another flight December 3 (Hand). In spring, April 11 and nest and eggs, April 25 (Hand).

Wilson's Snipe, *Gallinago delicata*. Doylestown, February 29-April 14 (one) (MacReynolds); Reading, September 27, 1919 (Poole); Downingtown, February 15, after very cold spell five in company with a Killdeer (Baily); West Chester, March 17 (Sharples); Frankford Phila., May 11 (Miller); Cape May, N. J., a flight, December 3, 1919, first in spring March 24 (Hand).

Greater Yellowlegs, *Totanus melanoleucus*. Haddonfield, N. J., April 22 (Tatum); Gloucester, N. J., April 19 (3) (Miller);

Reading, October 29 and November 2 (Poole); Atlantic City, N. J., May 16 (Cromie); Cape May, N. J., April 5 (Hand).

Hudsonian Curlew, *Numenius hudsonicus*. Cape May, N. J., April 25 (Hand).

Semipalmated Sandpiper, *Ereunetes pusillus*. Atlantic City, N. J., May 16 (Cromie).

Least Sandpiper, *Pisobia minutilla*. Atlantic City, N. J., May 16 (Cromie); Cape May, N. J., May 1 (Hand).

Upland Plover, *Bartramia longicauda*. Fort Washington, April 6 and rather frequent April to June in Gwynedd and Worcester twps., nestling several days old at Belfry May 29 (Miller); Forest Grove, April 18 (Bewley); Newtown, April 20 (Packer); Doylestown, April 18 (2) (MacReynolds); Greencastle, April 24 (Ziegler).

Red-backed Sandpiper, *Pelidna alpina pacifica*. Cape May, N. J., May 9 (Hand).

Knot, *Canutus canutus*. Cape May, N. J., May 9 (Hand).

Turnstone, *Arenaria interpres*. Cape May, N. J., May 1 (Hand).

Killdeer, *Oxyechus vociferus*. Buckshutem, N. J., March 31, nest and eggs (Prince); Belfry, December 23 and 24 (Miller); Downingtown, two all winter, 1919-20, seen several times December to February (Baily).

Semipalmated Plover, *Charadrius semipalmatus*. Atlantic City, N. J., May 16 (Cromie).

Mourning Dove, *Zenaidura macroura carolinensis*. Rancocas, N. J., February 2 (Stokes).

Ruffed Grouse, *Bonasa umbellus umbellus*. Cedar Grove, N. J., April 23 (Howard); Reading, November 23 (Poole).

Bobwhite, *Colinus virginianus virginianus*. Crum Creek, May 16 (Serrill).

Ring-necked Pheasant, *Phasianus colchicus*. Buckshutem, N. J., May 21, nest and 14 eggs (Prince); Darling, April 11 (Daley); Ardmore, December 21, 1919 (Baily); Concordville, February 25, driven into barnyard by snow (Styer).

Marsh Hawk, *Circus hudsonius*. Tinicum, January 13 (3) (Miller); Concordville, February 21 (Howard).

Rough-legged Hawk, *Archibuteo l. sancti-johannis*. Camden,

N. J., January 30 (Miller); Ardmore, November 11–December 21, 1919 (Baily); Sharon Hill, January 13 (Baily); Reading, March 8 (Poole).

Broad-winged Hawk, *Buteo platypterus*. Downtown, N. J., May 30, nest and two eggs (Fair); Moorestown, N. J., April 30, May 5 and 15 (Linton and Mickle); Frankford, April 7 (Miller); Concordville, May 27 (Styer); Doylestown, February 29 and March 14 (MacReynolds); Reading, April 24 (Poole).

Duck Hawk, *Falco peregrinus anatum*. Bridesburg, January 19, February 11–24 (Miller).

Pigeon Hawk, *Falco columbarius*. Doylestown, April 6, 11, 15, 25, one bird (MacReynolds).

Bald Eagle, *Haliaeetus l. leucocephalus*. Reading, May 7 (Poole).

Osprey, *Pandion h. carolinensis*. Concordville, April 3 (Styer).

Screech Owl, *Otus asio asio*. Vineland, N. J., June 10, six young hatched in a bird box (Prince).

Long-eared Owl, *Asio wilsonianus*. Reading, November 9–23 (Poole).

Saw-whet Owl, *Cryptoglaux acadica*. Reading, November 23–January 30 (Poole).

Barn Owl, *Tyto pratincola*. Newtown, January 4 (Packer); Reading, November 7 (Poole).

Yellow-billed Cuckoo, *Coccyzus a. americanus*. Frankford, October 13 (Miller).

Belted Kingfisher, *Ceryle a. alcyon*. Camden, N. J., January 30 (Miller); Belfry, January 9 (Miller); Doylestown, two wintered on Neshaminy Creek (MacReynolds).

Flicker, *Colaptes auratus luteus*. Belfry, January 7–12 (Miller).

Downy Woodpecker, *Dryobates pubescens medius*. Ardmore, digging a hole in tree, December 21, 1919 (Baily).

Red-headed Woodpecker, *Melanerpes erythrocephalus*. Mays Landing, N. J., April 11 (Miller); Doylestown, May 15 (MacReynolds).

Whip-poor-will, *Antrostomus v. vociferus*. Calling in the heart of Moorestown, N. J., April 23, (Wierman).

Nighthawk, *Chordeiles v. virginianus*. Moorestown, N. J. August 27–October 5 (Mickle).

Chimney Swift, *Chaetura pelagica*. Moorestown, September 25, 1919 (Mickle).

Yellow-bellied Flycatcher, *Empidonax flaviventris*. Reading, May 22, one shot (Poole).

Olive-sided Flycatcher, *Nuttallornis borealis*. On Brandywine Creek near Downingtown May 12 (Baily); Haverford, May 2 (Serrill).

Horned Lark, *Octocoris a. alpestris*. Richmond, Phila., February 17 (45) (Miller); Downingtown, December 31, 1919 (Baily); West Chester, January 17 (Sharples); Concordville, December 20–February 25, abundant (Styer); Reading, February 8–March 28 (Poole).

Bobolink, *Dolichonyx oryzivorus*. Reading, September 6 (Poole).

Rusty Blackbird, *Euphagus carolinus*. Ardmore, December 7, 1919 (Baily); Doylestown, March 21–31 (several) (Mac-Reynolds).

Red-winged Blackbird, *Agelaius p. phoeniceus*. Cape May, N. J., over 2000, November 21 (Hand).

Purple Finch, *Carpodacus p. purpureus*. Vineland, N. J., November 20–January 10 (Prince); Moorestown, N. J., May 5–15 (Mickle); Mt. Holly, May 9 (Pumyea); Frankford, Phila., October 2 (Miller); Byberry, May 11 (Richardson); Swarthmore, May 15 (Howard); Darling, May 14 (Daley); West Chester, May 15 (Sharples); Doylestown, April 23–28 (Mac-Reynolds).

Red Crossbill, *Loxia curvirostra minor*. Mt. Holly, N. J., November 2–February 1 (Pumyea); Rancocas, N. J., February 28 (Stokes); Swarthmore, March 26 and April 30 (Palmer); West Chester, May 5 (Sharples), and May 21 (Roberts).

White-winged Crossbill, *Loxia leucoptera*, Reading, January 25 (Poole).

Goldfinch, *Astragalinus t. tristis*. Very abundant as follows: Rancocas, N. J., May 22 (Stokes); Allentown, N. J., May 9 (Gordon); Addingham, April 22 (Culver); West Chester, May 13 (Sharples).

Pine Siskin, *Spinus pinus*. Vineland, N. J., March 3 and April 2 (Prince); Moorestown, N. J., April 26 (Mickle); Swarthmore, May 16 (Palmer); Haverford, November 23, 1919, Ardmore, February 7 and Darby Creek, February 23 (Baily); West Chester, October 18, 1919 to May 6 (Roberts); Concordville, February to March 15 (Styer); Greencastle, February 28 (Ziegler); Reading, January 11 (45), January 18 (22), April 26 (15) (Poole).

Redpoll, *Acanthis linaria linaria*. Frankford, February 11 (Miller); Concordville, flocks throughout February to March 23 (Styer); Doylestown, March 14 (6) feeding on Alders (MacReynolds); Greencastle, February 28 (Ziegler); Reading, February 8 (12), March 1 (40), March 14 (4) (Poole).

Snow Bunting, *Plectrophenax n. nivalis*. Seaside Park, February 12 (Pumyea).

Evening Grosbeak, *Hesperiphona v. vespertina*. Vineland, N. J., February 21–May 7 a flock of from 6 to 40 feeding on cedar berries, under cherry trees and on maple buds also reported at Millville, N. J., the last of February (Prince); Moorestown, N. J., April 16–23, 26 in one flock April 17, four males seen (Wireman); Mt. Holly, N. J., April 21, 2 males and 2 females (Pumyea); Addingham, March 7 (6) (Culver); Bryn Mawr, March 23 (4) (Tuttle); Concordville, February 12 (5) (Styer); Reading, December 26, 1919, March 7 (2), March 14 (1) (Poole); Lopez, May 24 (Behr).

Tree Sparrow, *Spizella m. monticola*. Mt. Holly, N. J., November 16–March 28 (Pumyea); Darling, March 21 (Daly); West Chester, December 8–March 21 (Roberts); Concordville, March 23 (Styer); Downingtown, December 2–April 13 (Kelly); Doylestown, November 9–14 (MacReynolds); Reading, November 23–March 30 (Poole).

Lincoln's Sparrow, *Melospiza l. lincolni*. Birdsboro, May 15 (Poole).

White-throated Sparrow, *Zonotrichia albicollis*. Vineland, N. J., November 6–May 17 (Prince); Moorestown, N. J., September 24–May 18 (Wireman); Mt. Holly, N. J., September 19–May 9 (Pumyea); Frankford, September 18 (Miller); Byberry, April 30 (Richardson); Swarthmore, May 15 (Howard); Dar-

ling, October 15–May 16 (Daly); West Chester, arrived April 22 (Roberts); Concordville, April 18–May 17 (Styer); West Philadelphia, April 14–May 15 (Kelly); Doylestown, April 25 (MacReynolds); Reading, April 22 (Poole).

White-crowned Sparrow, *Zonotrichia leucophrys*. Haddonfield, N. J., May 11 (Tatum); remaining for a week within a hundred yards of the same spot; Moorestown, N. J., May 10 (Mickle); Darling, May 5 and 16 (Daly); Oaks, May 9 (Bailey); West Chester, May 13, a pair (Roberts); Concordville, May 2–16 (Styer); Reading, May 15 (10), 16 (6) (Poole).

Junco, *Junco h. hyemalis*. Downstown, N. J., October 19–April 21 (Fair); Vineland, N. J., November 14–April 10 (Prince); Moorestown, N. J., October 11 (Mickle); Mt. Holly, N. J., September 27–April 21 (Pumyea); Frankford, September 16 (Miller); Byberry, April 21 (Richardson); Darling, October 10–April 15 (Daly); Roslyn, to May 3 (Griscom); West Chester, October 13–April 19 (Roberts); Concordville, to May 2 (Styer); Downingtown, September 27–April 29 (Kelly), Doylestown, September 28–May 2 (MacReynolds); Reading, October 9–May 8 (Poole); Greencastle, to April 20 (Ziegler); Wilmington, Del., November 30–April 25 (Jenness).

Scarlet Tanager, *Piranga erythromelas*. Westtown, an orange-colored male, May 15 (Roberts).

Purple Martin, *Progne s. subis*. Moorestown, N. J., September 10, 1919 (Mickle).

Tree Swallow, *Iridoprocne bicolor*. Cape May, N. J., large flocks, November 10–December 15 (Hand).

Cedar Waxwing, *Bombycilla cedrorum*. Vineland, N. J., December 18 (8) 1919, and March 1 (Prince).

Migrant Shrike, *Lanius l. migrans*. Bromall, September, 1919 (Allen); West Chester, April 6, 1919 (Roberts) in song.

Northern Shrike, *Lanius borealis*. December 27, 1919, Cape May, N. J. (Hand).

Red-eyed Vireo, *Vireosylva olivacea*. Vineland, September 14 (Prince).

Prothonotary Warbler, *Protonotaria citrea*. Mt. Holly, N. J., April 25 (Pumyea). Carefully watched at close quarters and identified by several observers [W. S.].

Golden-winged Warbler, *Vermivora chrysoptera*. Moorestown, N. J., May 14 (Linton and Mickle); Lansdowne, May 16 (Carter); Roslyn, May 11 (Griscom); Concordville, May 16 (Styer); Reading, May 9 (Poole).

Tennessee Warbler, *Vermivora peregrina*. Moorestown, N. J., May 22 (Wireman); Lansdowne, May 21 (Carter); Swarthmore, May 16 (Palmer); West Chester, May 11 (Sharples), May 12 (Roberts); Concordville, May 23 (Styer); Doylestown, May 16 (MacReynolds).

Nashville Warbler, *Vermivora r. ruficapilla*. Haddonfield, N. J., May 23 (Tatum); Moorestown, N. J., May 4 a pair (Wierman); May 15 (Linton); Mt. Holly, N. J., May 9 (Pumyea); Lansdowne, May 6 (Carter); Swarthmore, May 9 (2) (Palmer); Merion, May 2 (Beatty); Haverford, May 9 (Serrill); Roslyn, May 11 (Griscom); West Chester, May 11 (Sharples); Newtown, May 16 (Packer); Reading, April 29 and May 9 (Poole).

Myrtle Warbler, *Dendroica coronata*. Downstown, N. J., May 16 abundant (Fair).

Cape May Warbler, *Dendroica striata*. Haddonfield, N. J., May 11 (Tatum); Moorestown, N. J., May 10 abundant (Wierman), and May 14 (Mickle and Linton); Media, May 14 (Allen); Swarthmore, May 13-14 (Palmer); Merion, May 15 (Beatty); Ardmore, May 12 (Baily); West Chester, May 16 (Sharples); Concordville, May 11-22 (Styer); Birdsboro, May 15 collected (Poole).

Bay-breasted Warbler, *Dendroica castanea*. Haddonfield, N. J., May 11 (Tatum); Moorestown, N. J., May 22 (Wireman); Addingham, May 23 (Culver); Lansdowne, May 23 (Carter); Haverford, May 23 (Baily); Concordville, May 23 (Styer); Birdsboro, May 15 and 22 latter collected (Poole); Fairmount Park, May 26 (Clair).

Pine Warbler, *Dendroica vigorsi*. Vineland, N. J., October 4 (Prince).

Mourning Warbler, *Oporornis philadelphia*. Moorestown, N. J., May 25 (Mickle); Swarthmore, May 29 (Palmer).

Water-Thrush, *Seiurus n. noveboracensis*. Vineland, N. J., September 5, 1919 (Prince).

Louisiana Water-Thrush, *Seiurus motacilla*. Reading, April 25 (Poole).

Hooded Warbler, *Wilsonia citrina*. Moorestown, N. J., May 16 (Mickle and Linton); New Lisbon, N. J., May 9 (Pumyea); Darling, May 4 (2) (Daly); Atlantic City, N. J., May 1 (Cromie); Cape May, N. J., April 25 (Hand).

Wilson's Warbler, *Wilsonia p. pusilla*. Haddonfield, N. J., May 16 (Tatum); Swarthmore, May 15 (Howard); Ardmore, May 16-23 (4) (Baily); Haverford, May 22-23 (Serrill); Reading, May 22 (Poole).

Redstart, *Setophaga ruticilla*. Vineland, N. J., May 1-17, breeds at Buckshutem (Prince).

Pipit, *Anthus rubescens*. Pennsgrove, N. J., April 18 (5) (Miller); Concordville, last May 9 (Styer); Newtown, March 30, May 6 (Packer); Doylestown, May 2 (10), May 9 (7) (MacReynolds); Reading, March 30 (50) and April 24 (6) (Poole).

Mockingbird, *Mimus p. polyglottos*. Downstown, N. J., May 21-June 1, began to sing in the evening about 10 o'clock and kept it up for a long time (Fair); Concordville, November 7 (Styer); George School, one remained all winter 1919-20.

Carolina Wren, *Thryothorus ludovicianus ludovicianus*. Concordville, one all winter, the first for several years (Styer); Cape May, N. J., December 28, 1919 (Hand).

Winter Wren, *Nannus h. hiemalis*. Haddonfield, N. J., April 11 (Tatum); Moorestown, N. J., November 19 (Mickle); Mt. Holly, N. J., October 7-January 6 (Pumyea); Frankford, September 15-May 5 (Miller); Merion, April 22 (Beatty); Forest Grove, April 10 (Bewley); Reading, November 1 and May 2 (Poole).

Brown Creeper, *Certhia familiaris fusca*. Vineland, N. J., October 19 (Prince); Moorestown, N. J., Nov. 16, 1919 (Mickle); Frankford, October 13 (Miller); Byberry, April 5 (Richardson); Ardmore, March 11 (Baily); West Chester, October 13, 1919 (Roberts); April 10 (Sharples); Downingtown, April 15-May 1 (Kelly); Doylestown, October 8-April 28 (MacReynolds); Reading, November 1-April 15 (Poole).

Red-breasted Nuthatch, *Sitta c. canadensis*. Moorestown, N. J., May 15 (Linton and Mickle); Greencastle, March 8 (Ziegler).

Brown-headed Chickadee, *Penthestes hudsonicus subsp.* Media and vicinity, January 20, 1918 (Helen A. Walker). Careful observation at close quarters and identified beyond question [W. S.].

Black-capped Chickadee, *Penthestes a. atricapillus*. Mt. Holly, N. J., November 23, 1919 (Pumyea); Ardmore, February 23 (Baily); Doylestown, November 8-March 24 (MacReynolds).

Tufted Titmouse, *Baeolophus bicolor*. Resident in one locality near Reading (Poole).

Golden-crowned Kinglet, *Regulus s. satrapa*. Haddonfield, N. J., April 11 (Tatum); Moorestown, N. J., October 7-December 25, 1919, scarce in winter (Mickle); Mt. Holly, N. J., October 8-April 11 (Pumyea); Frankford, October 13 (Miller); Byberry, April 12 (Richardson); Ardmore, April 3 (Baily); none wintered. West Chester, March 21 (Roberts); Downingtown, April 15-May 6 (Kelly); Reading, November 1-April 18 (Poole).

Blue-gray Gnatcatcher, *Poliophtila c. caerulea*. Moorestown, N. J., April 11 and in the same place April 18 (Mickle); Mt. Holly, N. J., April 25 (Pumyea); Addingham, May 23 (Culver); Swarthmore, April 17 (Howard); Media, April 25 (Allen); Roslyn, April 23-26 (Griscom); Collegeville, May 2 (Kline); Cape May, N. J., May 2 (Hand).

Robin, *Plenesticus m. migratorius*. Merion, eggs on April 24 (Beatty); Doylestown, wintered in upper Bucks County (MacReynolds).