

## Report of the Spring Migration of 1910

COMPILED BY WITMER STONE

Our corps of observers this year numbered thirty-nine. We earnestly appeal to all of them to continue the work next year and to encourage others to send in their observations. Schedules will be mailed upon application to the Delaware Valley Ornithological Club, care of the Academy Natural Sciences, Logan Square, Philadelphia.

Our observers for 1910 were as follows :

### *New Jersey.*

Cape May, H. Walker Hand.  
Vineland, Mrs. Alice K. Prince.  
Downtown, W. W. Fair.  
Yardville, Rachel E. Allinson.  
Trenton, R. M. Abbott.  
Rancocas, Emily Haines and Frances B. Stokes.  
Moorestown, Anna A. Mickle.  
Haddonfield, Mr. and Mrs. Robert T. Moore.  
Haddonfield, S. Earle Riddle.  
Camden, Julian K. Potter.

### *Pennsylvania.*

Kennet Square, Charles J. Pennock.  
West Chester, Isaac G. Roberts.  
Concordville, Mrs. K. R. Styer and Miss E. P. Styer.  
Westtown, William B. Evans.  
Westtown, George H. Hallett, Jr.  
Westtown, Geo. B. S. Dunn.  
Swarthmore, Samuel C. Palmer.  
Swarthmore, Miss Mary S. Pusey.  
Lansdowne, Edwin L. Nicholson.

Lansdowne, Louisa M. Jacob.  
 Lansdowne, Friends' School.  
 Collingdale, Paul L. Lorrilliere.  
 Media, Lydia G. Allen.  
 Ardmore, William L. Baily.  
 Haverford, William J. Serrill.  
 Haverford, Alfred C. Redfield.  
 Wayne, L. S. Pearson.  
 Wayne, Miss Mary K. Baker.  
 Bryn Mawr, Miss Emily H. Thomas.  
 West Philadelphia, Thos. R. Hill.  
 Fairmount Park, Geo. H. Hallett, Jr.  
 Wissahickon, John R. Pickering, Jr.  
 Melrose Park, Samuel H. Barker.  
 Frankford, Richard F. Miller.  
 Fox Chase, Alexander Patman.  
 Holmesburg, Henry W. Fowler.  
 Frazer, Edwin B. Bartram.  
 Collegeville, Henry Fox.  
 Lopez, Otto Behr.

The temperature during the spring of 1910 showed none of the sudden rises which bring well-marked bird waves. March had the mildest temperature and least precipitation on record for the month, and arrivals were consequently early. For this month and February, two species, the Fox Sparrow and Phoebe came on exactly the average date, while all others up to March 25, were from two to five days earlier than the average. April and May were unusually cloudy, only eight clear days being recorded in each month. Five of the species arriving during these months were exactly 'on time' *i. e.*, Towhee, Myrtle Warbler, Maryland Yellowthroat, Blue-winged Warbler and Black-throated Green Warbler; of the rest forty-two species were from one to eleven days late, the average being five days, while two were early, the Thrasher one day and the Black and White Warbler two days. As is usual in cloudy weather with no 'hot waves' the birds hung back as long as possible, and then came through in force May 9-15, and many rare birds, notably the

Cape May and Golden-winged Warblers were observed quite generally throughout our territory.

The above remarks refer to the "bulk arrivals" given in the last column of the following schedule and computed by the method explained in previous reports.

*List of Other Species Reported by Observers During 1910, and  
Additional Notes. Winter Notes Refer to Winter of  
1909-10. Localities are in Pennsylvania  
Unless Otherwise Indicated.*

*Podilymbus podiceps*, Pied-billed Grebe. Wayne, April 2 (*Redfield*); Camden, N. J., April 6 (*Potter*); Delair, N. J., April 24 (*Miller*).

*Gavia immer*, Loon. Camden, N. J., May 12 (*Potter*); Cape May, N. J., flocks on Oct. 1, 1909 and April 9, 1910 (*Hand*), Wayne, Nov. 25, 1909 (*Pearson*).

*Larus delawarensis*, Ring-billed Gull. Bridesburg, Feb. 23, and March 20 (*Miller*).

*Larus argentatus*, Herring Gull. Camden, N. J., October 24, to April 26 (*Potter*); Swarthmore, May 11 (*Palmer*.)

*Larus atricilla*, Black-headed Gull. Cape May, N. J., April 16 (*Hand*.)

*Phalacrocorax auritus*, Double-crested Cormorant. Cape May, N. J., March 21 (*Hand*); Indian River Inlet, Del., Oct. 13, 1910 (*Fowler*).

*Sula bassana*, Gannet. Cape May, N. J., April 19, and May 16 (*Hand*).

*Mergus americanus*, Merganser. Camden, N. J., Feb. 27—May 12 (*Potter*).

*Querquedula discors*, Blue-winged Teal. Fish House, N. J. Flock of fifteen on May 12 (*Miller*).

*Branta canadensis*, Canada Goose. Fish House, N. J., April 14, twenty-four and six on the Richmond marsh the same day (*Miller*).

*Botaurus lentiginosus*, Bittern. Pensauken Creek, N. J., April 24 and May 14 (*Miller*); Cape May, N. J., May 1 (*Hand*).

*Ixobrychus exilis*, Least Bittern. Bridesburg, May 1 (*Miller*).

*Ardea herodias*, Great Blue Heron. Pensauken Creek, N. J., April 3 (*Miller*); Camden, N. J., April 23 (*Potter*).

*Nycticorax n. naevius*, Night Heron. Cape May, N. J., Nov. 30, 1909 (*Hand*).

*Rallus virginianus*, Virginia Rail. Camden, N. J., Nov. 25, 1909 (*Potter*).

*Rallus crepitans*, Clapper Rail. Cape May, N. J., March 20; 28 shot on Nov. 28, 1909, and 8 on Dec. 1 (*Hand*).

*Gallinula galeata*, Florida Gallinule. Richmond, April 21; eggs hatching May 26 (*Miller*).

*Fulica americana*, Coot. Camden, N. J., April 3 (*Potter*).

*Philohela minor*, Woodcock. Frankford, March 7th and Neshaminy Falls, May 30 (*Miller*); Swarthmore, March 7 (*Palmer*); Cape May, N. J., small flight, Nov. 25-26, 1909; another Nov. 29 (17 shot), probably 300 shot between Nov. 11 and 30. Three young May 1, at Price's Beach (*Hand*).

*Gallinago delicata*, Wilson's Snipe. Bridesburg, April 2, Torresdale, April 26 and Pensauken, N. J., April 24 (*Miller*); Camden, N. J., March 20 (*Potter*); Westtown, March 20 (*Dunn*); Cape May, N. J., Oct. 2, 1909 (*Hand*). large flight, Camden, N. J., Nov. 28, 1909 (*Potter*).

*Pisobia minutilla*, Least Sandpiper. Camden, N. J., May 28 (*Potter*); Richmond, May 13-23 (*Miller*), Swarthmore, five on May 14 (*Palmer*); five at Wayne, May 15 (*Pearson*).

*Calidris leucophaea*, Sanderling. Cape May, N. J., Nov. 13, 1909 (*Hand*).

*Totanus melanoleucus*, Greater Yellowlegs. Camden, N. J., May 8 (*Potter*); Cape May, N. J., Oct. 27 and Nov. 11, 1909 (*Hand*); Richmond, April 24 (*Miller*).

*Catoptrophorus simipalmatus*, Willet. Two at Dewey Beach, Del., Oct. 13, 1910 (*Fowler*).

*Numenius hudsonicus*, Hudsonian Curlew. Cape May, N. J., April 19 (*Hand*).

*Squatarola squatarola*, Black-bellied Plover. Cape May, N. J., Nov. 13, 1909 (*Hand*).

*Argialitis semipalmata*, Semipalmated Plover. Cape May, N. J., May 28 (*Potter*).

*Oxyechus veriferus*, Killdeer. One pair nested at Bustleton (*Miller*); flock of thirty Sicklerville, N. J., July, 1910 (*Stone*); Camden, N. J., Dec. 19, 1909 (*Potter*).

*Colinus virginianus*, Bobwhite. Vineland, N. J., June 13, nest with 17 eggs (*Prince*).

*Cathartes aura*, Turkey Vulture. Nest with young 10 days old, Concordville, June 3, 1909 (*Styer*).

*Circus hudsonius*, Marsh Hawk. Pair nesting near Tuckahoe, N. J., April 11 (*R. T. Moore*).

*Archibuteo lagopus sancti-johannis*, Black Hawk. Tinicum, Nov. 26, 1909 (*Pearson*).

*Halizæetus leucocephalus*, Bald Eagle. Westtown, May 22, (*Hallett*).

*Pandion hal. carolinensis*, Osprey. Cape May, N. J., Nov. 16, 1909 (*Hand*).

*Cryptoglaux acadica*, Saw-whet Owl. Cape May, N. J., Dec. 7, 1909 (*Hand*).

*Sphyrapicus varius*, Yellow-billed Sapsucker. Holmesburg, May 5 (*Miller*).

*Dryobates villosus*, Hairy Woodpecker. Moorestown, N. J., Oct. 22 to March 20 (*Mickle*).

*Colaptes auratus*, Flicker. Cape May, N. J., large flight September 25, 1909 (*Hand*); young hatched, Harrowgate, May 7 (*Miller*).

*Chaetura pelagica*, Chimney Swift. Moorestown, N. J., to Sept. 23, 1909 (*Mickle*); Camden, N. J., to Oct. 24, 1909 (*Potter*).

*Sayornis phoebe*, Phoebe. Kennett Square, Jan. 2, 1910 (*Pennock*); Eggs hatching. Pensauken, N. J., April 24 (*Miller*).

*Nuttallornis borealis*, Olive-sided Flycatcher. Frankford, May 1; no doubt of its identity (*Miller*).

*Otocoris alpestris*, Horned Lark. Camden, N. J., March 6 (*Potter*); Concordville, Dec. 30, 1909 (*Styer*).

*Cyanocitta cristata*, Blue Jay. None at Westtown until April 26 (*Dunn*).

*Sturnus vulgaris*, European Starling. Cape May, N. J., Nov. 26, 1909; nest in Stockton Hotel, April 4, 1910 (*Hand*); Moorestown, N. J., Feb. 20 (*Mickle*).

*Molothrus ater*, Cowbird. Flock of eight females and five males, Frankford, Dec. 31, 1909 (*Miller*); Holmesburg, on

Dec. 17, 1909 (*Fowler*); Cape May, N. J., Dec. 27-31, 1909 (*Hand*); one with Juncos, Concordville, Jan. 8 (*Styer*); two eggs in nest of the Blue-winged Warbler, Westtown, June 8 (*Evans*); two eggs in nest of Red-eyed Virco, Rose Valley, June 1 (*Palmer*).

*Dolichonyx oryzivorus*, Bobolink. Twenty-five at Tinicum, May 18 (*Pearson*).

*Euphagus carolinus*, Rusty Blackbird, one at Bridesburg, April 21 (*Miller*).

*Quiscalus quiscula*, Purple Grackle. Ten at Frankford, Dec. 31, 1909, and six Holmesburg, Jan. 31, 1910 (*Miller*).

*Poocetes gramineus*, Vesper Sparrow. Wayne, Dec. 24, 1909 (*Pearson*).

*Passerherbulus henslowi*, Henslow's Sparrow. Many at Buckshutem, N. J., April 26 (*Prince*).

*Zonotrichia albicollis*, White-throated Sparrow. Westtown, Sept. 26-May 22 (*Hallett*); Moorestown, N. J., Oct. 7-May 14 (*Mickle*); Haddonfield, N. J., Oct. 2-May 28 (*Riddle*); Bryn Mawr, Sept. 29-May 21 (*Thomas*); Last seen, Swarthmore, May 13 (*Palmer*); Lansdowne, May 15, (*Jacob*); West Philadelphia, May 21 (*Hill*); Concordville, May 14 (*Styer*); Wayne May 22 (*Baker*); West Chester, May 17 (*Roberts*); Arrived at Lopez, April 24 (*Behr*).

*Zonotrichia leucophrys*, White-crowned Sparrow. Swarthmore, May 14 (*Palmer*); Yardville, N. J., May 15-16 (*Allinson*); Rancocas, N. J., May 12 (*Haines*); Frankford, May 12 (*Miller*).

*Spizella monticola*, Tree Sparrow. Last seen Swarthmore, March 14 (*Palmer*); West Chester, March 27 (*Roberts*); Bryn Mawr, Oct. 9-April 4 (*Thomas*).

*Junco hyemalis*, Junco. Last seen Swarthmore, April 10 (*Palmer*); Lansdowne, April 14 (*Jacob*); Fairmount Park, April 22 (*Hallett*); Melrose Park, April 10 (*Barker*); Concordville, May 7 (*Styer*); West Chester, Oct. 20-March 25 (*Roberts*); Westtown, Oct. 24-April 7 (*Hallett*); Haddonfield, N. J., Oct. 16-April 10 (*Riddle*).

*Passerella iliaca*, Fox Sparrow. Wayne, Dec. 24, 1909 (*Pearson*); Last seen at Frankford, April 6 (*Miller*).

*Lanius bersalis*, Northern Shrike. New Lisbon, N. J. Jan. 16 (*Emlen*).

*Vermivora chrysoptera*, Golden-winged Warbler. Camden, N. J., May 10 (*Potter*); Moorestown, N. J., May 3 and 5 (*Mickle*); Wayne, May 1 (*Redfield*); May 15 (*Pearson*); Kennett Square, May 15 (*Pennock*); Haverford, May 9 (*Redfield*); Concordville, May 11 (*Styer*); Westtown, May 9 (*Dunn*); Frankford, May 12 (*Miller*).

*Vermivora pinus*, Blue-winged Warbler. Nest and eggs at Moylan, June 4 (*Palmer*).

*Vermivora rubricapilla*, Nashville Warbler. Moorestown, N. J., May 13 (*Mickle*); Haverford, May 15 (*Serrill*).

*Dendroica tigrina*, Cape May Warbler. Camden, N. J., May 14 (*Potter*); Media, May 12 (*Allen*); Haverford, May 9 (*Redfield*); Kennett Square, May 15 (three) May 17 (*Pennock*); Westtown, May 22 (*Hallett*); Trenton, N. J., May 15 (*Abbott*); Concordville, May 14 (two) Rancocas, N. J., May 22 (*Haines*).

*Dendroica coronata*, Myrtle Warbler. Camden, N. J., Nov. 25, 1909 (*Potter*).

*Dendroica castanea*, Bay-breasted Warbler. Haverford, May 20 (*Redfield*); Kennett Square, May 15 (*Pennock*); Camden, N. J., May 22 (*Potter*).

*Wilsonia pusilla*, Wilson's Warbler. Camden, N. J., May 28-29 (*Potter*); Westtown, May 17 (*Dunn*); Haverford, May 12 (*Redfield*); Wayne, May 15 (*Redfield*); Concordville, May 11 (*Styer*).

*Wilsonia citrea*, Hooded Warbler. Moorestown, N. J., May 3 and May 13 (*Mickle*); Haverford, May 9 (*Redfield*); West Chester, May 12 (*Roberts*); Westtown, May 3 (*Dunn*) and May 9 (*Evans*).

*Anthus rubescens*, Titlark. Camden, N. J., April 6 (*Potter*); large flock, Concordville, March 6 (*Styer*).

*Nannus hiemalis*, Winter Wren. Haddonfield, N. J., Oct. 16-Dec. 28, 1909 (*Riddle*); Bryn Mawr, Oct. 1-April 4 (*Thomas*); West Chester, Oct. 20-March 27 (*Roberts*); arrived Westtown, Oct. 19, 1909 (*Hallett*); Moorestown, N. J., Oct. 26, 1909 (*Mickle*).

*Thryothorus ludovicianus*, Carolina Wren. More abundant than formerly at Moorestown, N. J. (*Mickle*).

*Certhia familiaris americana*, Brown Creeper. Bryn Mawr,

Oct. 6–April 4 (*Thomas*); Westtown, Oct. 17–March 26 (*Hallett*); arrived at Moorestown, N. J., Oct. 22, 1909 (*Mickle*).

*Mimus polyglottos*, Mockingbird. One at Cape May, N. J., May 16 (*Hand*); one at Berwyn, Nov. 21, 1909 (*Redfield*); one at Lindenwold, N. J., May 10 (*Miller*).

*Dumetella carolinensis*, Catbird. Last seen at Yardville, N. J., Oct. 10, 1909 (*Allinson*).

*Regulus satrapa*, Golden-crowned Kinglet. Bryn Mawr, Sept. 26–April 28 (*Thomas*); Haddonfield, N. J., Oct. 16–March 25 (*Riddle*).

*Hylocichla guttata pallasii*. Hermit Thrush. Last seen at Camden, N. J., Nov. 25, 1909 (*Potter*); Cape May, N. J., Dec. 27, 1909 (*Hand*.)

| NAME.                    | Moorestown,<br>N. J.; E. 12 1 | Haddonfield, N. J.<br>S. 4; E. 7. | Camden, N. J.<br>N. 0; E. 2. | Media, Pa.<br>S. 2; W. 12. | Swarthmore, Pa.<br>S. 3; W. 10. | Collingdale, Pa.<br>S. 3; W. 6. | Lansdowne, Pa.<br>S. 1; W. 6. | Ardmore and<br>Haverford, Pa.<br>N. 4; W. 8. | Bryn Mawr, Pa.<br>N. 4; W. 9. | Wayne, Pa.<br>N. 6; W. 11. | West Philada.<br>N. 0; W. 2. | Germanstown,<br>N. 6; W. 1. | Melrose, Pa.<br>N. 7; E. 2. | Fox Chase,<br>Phila.<br>N. 9; E. 4. | Holmesburg,<br>Phila.<br>N. 6; E. 7. | Frankford, Phila.<br>N. 5; E. 5. | Bulk Arrival<br>Phila., 1910. |
|--------------------------|-------------------------------|-----------------------------------|------------------------------|----------------------------|---------------------------------|---------------------------------|-------------------------------|--|-------------------------------|----------------------------|------------------------------|-----------------------------|-----------------------------|-------------------------------------|--------------------------------------|----------------------------------|-------------------------------|
| Canada Goose             | Mar. 3                        | Mar. 3                            | Mar. 24                      | Mar. 24                    | Mar. 11                         | Mar. 25                         | Mar. 25                       | Mar. 24                                      | Mar. 24                       | Mar. 15                    | Mar. 14                      | Mar. 15                     | Mar. 27                     | Mar. 20                             | Mar. 20                              | Mar. 27                          | Feb. 27                       |
| Green Heron              | May 3                         | May 7                             | Apr. 24                      | Apr. 24                    | Apr. 25                         | Apr. 25                         | Apr. 25                       | May 1  | May 1                         | May 15                     | May 15                       | May 15                      | May 1                       | May 10                              | May 18                               | May 1                            | May 1                         |
| Night Heron              | Apr. 19                       | May 9                             | May 1                        | Apr. 29                    | Apr. 29                         | Apr. 29                         | Apr. 29                       | Apr. 24                                      | May 1                         | May 15                     | May 14                       | May 14                      | May 8                       | May 10                              | May 10                               | Apr. 24                          | Apr. 24                       |
| Spotted Sandpiper        | Mar. 4                        | Feb. 19                           | Mar. 2                       | Mar. 13                    | Mar. 24                         | Mar. 24                         | Mar. 24                       | Mar. 5                                       | Mar. 8                        | May 15                     | May 14                       | May 14                      | May 8                       | May 10                              | May 10                               | May 10                           | May 10                        |
| Solitary Sandpiper       | Mar. 20                       | Mar. 19                           | Apr. 3                       | May 3                      | Mar. 15                         | Mar. 25                         | Mar. 25                       | Mar. 21                                      | Mar. 1                        | May 3                      | May 3                        | May 3                       | Res.                        | Mar. 20                             | Mar. 20                              | Mar. 29                          | Mar. 29                       |
| Killdeer                 | Mar. 20                       | Mar. 19                           | Apr. 3                       | May 3                      | Mar. 15                         | Mar. 25                         | Mar. 25                       | Mar. 21                                      | Mar. 1                        | May 3                      | May 3                        | May 3                       | Res.                        | Mar. 20                             | Mar. 20                              | Mar. 29                          | Mar. 29                       |
| Dove                     | Mar. 20                       | Mar. 19                           | Apr. 3                       | May 3                      | Mar. 15                         | Mar. 25                         | Mar. 25                       | Mar. 21                                      | Mar. 1                        | May 3                      | May 3                        | May 3                       | Res.                        | Mar. 20                             | Mar. 20                              | Mar. 29                          | Mar. 29                       |
| Osprey                   | Apr. 3                        | Mar. 19                           | Apr. 3                       | May 3                      | Mar. 15                         | Mar. 25                         | Mar. 25                       | Mar. 21                                      | Mar. 1                        | May 3                      | May 3                        | May 3                       | Res.                        | Mar. 20                             | Mar. 20                              | Mar. 29                          | Mar. 29                       |
| Turkey Vulture           | Mar. 11                       | May 7                             | Mar. 21                      | May 22                     | Mar. 22                         | May 21                          | Apr. 15                       | Apr. 4                                       | Mar. 1                        | May 21                     | May 15                       | May 15                      | May 21                      | Mar. 15                             | Mar. 15                              | Apr. 9                           | Apr. 9                        |
| Yellow-billed Cuckoo     | Apr. 3                        | Res.                              | Mar. 23                      | Mar. 27                    | Apr. 10                         | Mar. 11                         | Mar. 22                       | Mar. 16                                      | Mar. 1                        | Mar. 26                    | Apr. 25                      | Apr. 25                     | Apr. 7                      | Mar. 28                             | Mar. 28                              | May 24                           | May 24                        |
| Black-billed Cuckoo      | Apr. 3                        | Res.                              | Mar. 23                      | Mar. 27                    | Apr. 10                         | Mar. 11                         | Mar. 22                       | Mar. 16                                      | Mar. 1                        | Mar. 26                    | Apr. 25                      | Apr. 25                     | Apr. 7                      | Mar. 28                             | Mar. 28                              | May 26                           | May 26                        |
| Kingfisher               | Apr. 3                        | Apr. 3                            | Apr. 3                       | Apr. 3                     | Res.                            | Apr. 5                          | Apr. 5                        | Apr. 3                                       | Apr. 3                        | May 4                      | Apr. 10                      | Apr. 10                     | Apr. 7                      | Mar. 28                             | Mar. 28                              | Mar. 29                          | Mar. 29                       |
| Yellow-bellied Sapsucker | Apr. 3                        | Apr. 3                            | Apr. 3                       | Apr. 3                     | Res.                            | Apr. 5                          | Apr. 5                        | Apr. 3                                       | Apr. 3                        | May 4                      | Apr. 10                      | Apr. 10                     | Apr. 7                      | Mar. 28                             | Mar. 28                              | Mar. 29                          | Mar. 29                       |
| Flicker                  | Mar. 21                       | Res.                              | May 19                       | Mar. 24                    | May 29                          | May 5                           | Mar. 18                       | Feb. 12                                      | Feb. 25                       | Mar. 20                    | Mar. 20                      | Mar. 20                     | Res.                        | Mar. 28                             | Mar. 28                              | Apr. 11                          | Apr. 11                       |
| Whip-poor-will           | Apr. 30                       | Apr. 30                           | May 9                        | May 13                     | Res.                            | Mar. 11                         | Mar. 18                       | Feb. 12                                      | Feb. 25                       | Mar. 20                    | Mar. 20                      | Mar. 20                     | Res.                        | Mar. 28                             | Mar. 28                              | Apr. 11                          | Apr. 11                       |
| Nighthawk                | Apr. 27                       | Apr. 30                           | May 28                       | Apr. 24                    | Apr. 25                         | May 21                          | Apr. 27                       | Apr. 30                                      | Apr. 29                       | Apr. 29                    | May 15                       | May 15                      | May 13                      | May 10                              | May 10                               | May 15                           | May 15                        |
| Chimney Swift            | Apr. 27                       | Apr. 30                           | Apr. 24                      | Apr. 24                    | Apr. 25                         | May 21                          | Apr. 27                       | Apr. 30                                      | Apr. 29                       | Apr. 29                    | May 15                       | May 15                      | May 13                      | May 10                              | May 10                               | May 15                           | May 15                        |
| Hummingbird              | May 18                        | May 7                             | May 14                       | May 11                     | May 12                          | May 21                          | May 28                        | May 15                                       | May 18                        | Apr. 25                    | Apr. 30                      | May 9                       | May 13                      | May 10                              | May 10                               | May 19                           | Apr. 26                       |
| Kingbird                 | May 3                         | May 15                            | May 10                       | May 10                     | May 7                           | May 21                          | May 23                        | May 12                                       | May 15                        | May 15                     | May 5                        | May 13                      | May 7                       | May 5                               | May 5                                | May 19                           | Apr. 26                       |
| Crested Flycatcher       | May 7                         | May 7                             | May 3                        | May 10                     | May 3                           | May 5                           | May 11                        | May 1  | May 3                         | May 15                     | May 7                        | May 7                       | May 1                       | May 13                              | May 13                               | May 5                            | May 5                         |
| Phoebe                   | Mar. 24                       | Mar. 19                           | Mar. 20                      | Mar. 20                    | Mar. 9                          | Apr. 3                          | Mar. 26                       | Mar. 19                                      | Mar. 4                        | Mar. 20                    | Mar. 26                      | Mar. 20                     | Mar. 27                     | Mar. 28                             | Mar. 28                              | Mar. 11                          | Mar. 20                       |

<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., i. e., its latitude and longitude with reference to the City Hall.

| NAME.                            | Moorestown, N. J. | Haddonfield, N. J. | Camden, N. J. | Media, Pa. | Swarthmore, Pa. | Collingdale, Pa. | Lansdowne, Pa. | Ardmore and Havertford, Pa. | Bryn Mawr, Pa. | Wayne, Pa. | West Philada. | Germanstown, Phila. | Melrose, Pa. | Fox Chase, Phila. | Holmesburg, Phila. | Frankford, Phila. | Bulk Arrival Phila., 1910. |
|----------------------------------|-------------------|--------------------|---------------|------------|-----------------|------------------|----------------|-----------------------------|----------------|------------|---------------|---------------------|--------------|-------------------|--------------------|-------------------|----------------------------|
| Wood Pewee . . . . .             | May 7             | May 15             | May 22        | May 22     | May 20          | May 21           | May 19         | May 23                      | May 18         | May 21     | May 15        | May 15              | May 18       | May 20            | May 20             | May 12            | May 19                     |
| Acadian Flycatcher . . . . .     | May 17            | May 17             | May 1         | May 1      | May 4           | May 4            | May 1          | May 1                       | May 1          | May 1      | May 7         | May 7               | May 1        | May 1             | May 1              | May 24            | May 24                     |
| Least Flycatcher . . . . .       | May 17            | May 17             | May 23        | May 23     | May 13          | May 13           | May 13         | May 15                      | May 15         | May 15     | May 7         | May 7               | May 15       | May 15            | May 15             | May 7             | May 15                     |
| Bobolink . . . . .               | May 17            | May 17             | May 23        | May 23     | May 13          | May 13           | May 13         | May 15                      | May 15         | May 15     | May 7         | May 7               | May 15       | May 15            | May 15             | May 7             | May 15                     |
| Cowbird . . . . .                | Apr. 23           | Apr. 23            | Mar. 2        | Mar. 2     | Mar. 20         | Mar. 1           | Apr. 6         | Mar. 12                     | Mar. 12        | Mar. 20    | Apr. 24       | Apr. 24             | Mar. 13      | Mar. 28           | Jan. 26            | Feb. 21           | Mar. 25                    |
| Red-winged Blackbird . . . . .   | Feb. 27           | Feb. 22            | Mar. 2        | Mar. 2     | Mar. 20         | Feb. 28          | Apr. 24        | Mar. 5                      | Mar. 5         | Mar. 20    | Mar. 26       | Mar. 26             | Mar. 13      | Mar. 28           | Mar. 13            | Mar. 3            | Mar. 2                     |
| Meadow Lark . . . . .            | Res.              | Res.               | Res.          | Res.       | Res.            | Mar. 11          | Res.           | Feb. 13                     | Mar. 4         | Res.       | Mar. 26       | Mar. 26             | Res.         | Mar. 15           | Mar. 6             | Res.              | Mar. 4                     |
| Orchard Oriole . . . . .         | May 7             | May 15             | May 14        | May 14     | May 3           | May 12           | May 12         | May 15                      | Mar. 4         | May 14     | May 14        | May 14              | May 9        | May 10            | May 8              | May 2             | May 10                     |
| Baltimore Oriole . . . . .       | May 10            | May 21             | May 8         | May 8      | May 3           | May 16           | May 7          | May 8                       | May 9          | May 14     | May 14        | May 13              | May 9        | May 10            | May 8              | May 3             | May 8                      |
| Rusty Blackbird . . . . .        | Mar. 13           | Mar. 13            | Mar. 27       | Mar. 27    | Apr. 1          | Mar. 24          | Mar. 24        | Mar. 24                     | May 1          | May 1      | May 1         | May 1               | May 1        | Mar. 4            | Mar. 21            | Mar. 21           | Mar. 21                    |
| Purple Grackle . . . . .         | Feb. 18           | Feb. 28            | Mar. 2        | Mar. 2     | Feb. 20         | Feb. 22          | Feb. 16        | Feb. 22                     | Feb. 25        | Mar. 5     | Mar. 20       | Mar. 6              | Feb. 27      | Mar. 4            | Feb. 23            | Feb. 21           | Feb. 23                    |
| Vesper Sparrow . . . . .         | Mar. 13           | Mar. 13            | Mar. 25       | Mar. 25    | Mar. 27         | Mar. 28          | Mar. 28        | Mar. 19                     | Mar. 26        | Mar. 26    | Mar. 26       | Mar. 26             | Mar. 26      | Mar. 28           | Mar. 27            | Mar. 23           | Mar. 25                    |
| Savanna Sparrow . . . . .        | May 13            | May 13             | Apr. 10       | Apr. 10    | May 7           | May 7            | May 7          | Mar. 26                     | Mar. 26        | Mar. 26    | Mar. 26       | Mar. 26             | Mar. 26      | Mar. 28           | Mar. 27            | Mar. 5            | Mar. 25                    |
| Grasshopper Sparrow . . . . .    | Mar. 28           | Mar. 25            | Mar. 14       | Mar. 14    | May 7           | May 7            | May 7          | Mar. 26                     | Mar. 26        | Mar. 26    | Mar. 26       | Mar. 26             | Mar. 26      | Mar. 28           | Mar. 27            | Mar. 5            | Mar. 25                    |
| Chipping Sparrow . . . . .       | Mar. 27           | Mar. 27            | Mar. 20       | Mar. 20    | Mar. 30         | Apr. 6           | Mar. 25        | Mar. 29                     | Mar. 28        | Mar. 28    | Mar. 20       | Mar. 20             | Apr. 1       | Mar. 3            | Apr. 1             | Mar. 29           | Mar. 28                    |
| Field Sparrow . . . . .          | Mar. 27           | Mar. 6             | Feb. 20       | Feb. 20    | Mar. 25         | Mar. 25          | Mar. 25        | Mar. 23                     | Mar. 28        | Mar. 26    | Mar. 20       | Mar. 20             | Apr. 1       | Mar. 3            | Apr. 1             | Mar. 29           | Mar. 28                    |
| Swamp Sparrow . . . . .          | Mar. 27           | Mar. 27            | Mar. 27       | Mar. 27    | Apr. 15         | Apr. 15          | Apr. 15        | Feb. 13                     | Mar. 28        | Mar. 26    | Apr. 22       | Apr. 14             | Mar. 24      | Mar. 28           | Mar. 13            | Res.              | Mar. 25                    |
| Fox Sparrow . . . . .            | Feb. 27           | Mar. 6             | Mar. 19       | Mar. 19    | Mar. 7          | Mar. 20          | Mar. 3         | Mar. 4                      | Mar. 4         | May 15     | Mar. 5        | Mar. 6              | Mar. 4       | Mar. 28           | Mar. 13            | Apr. 21           | Mar. 25                    |
| Chewink . . . . .                | Apr. 19           | Apr. 30            | Apr. 16       | Apr. 16    | Apr. 29         | Apr. 29          | Apr. 12        | Apr. 2                      | May 1          | Apr. 30    | Mar. 5        | Mar. 6              | May 1        | Apr. 20           | Mar. 13            | Mar. 2            | Mar. 6                     |
| Rose-breasted Grosbeak . . . . . | May 5             | May 5              | May 12        | May 12     | May 14          | May 14           | May 14         | May 9                       | May 9          | Apr. 30    | Apr. 22       | May 3               | May 1        | Apr. 20           | Apr. 24            | Apr. 22           | Apr. 19                    |
| Indigobird . . . . .             | May 14            | May 7              | May 21        | May 21     | May 11          | May 16           | May 12         | May 15                      | May 10         | May 15     | May 11        | May 11              | May 13       | May 10            | May 13             | May 9             | May 9                      |
| Scarlet Tanager . . . . .        | May 13            | May 15             | May 10        | May 10     | May 9           | May 16           | May 6          | May 9                       | May 9          | May 12     | May 14        | May 14              | May 15       | May 10            | May 13             | May 6             | May 12                     |
| Purple Martin . . . . .          | Apr. 5            | May 21             | May 8         | May 8      | May 9           | May 9            | May 6          | May 9                       | May 13         | May 15     | May 15        | May 15              | May 15       | May 10            | May 13             | May 6             | May 12                     |



| NAMES.                        | Cape May, N. J.<br>E. 13; S. 72. | Vineland, N. J.<br>E. 7; S. 32. | Downstown, N. J.<br>E. 11; S. 28. | Kennett Square, Pa.<br>W. 30; S. 8. | Concordville, Pa.<br>W. 20; S. 5. | Westtown, Pa.<br>W. 21; S. 2. | West Chester, Pa.<br>W. 24; N. 0. | Frazer, Pa.<br>W. 21; N. 6. | Rancocas, N. J.<br>E. 16; N. 4. | Yardville, N. J.<br>E. 25; N. 15. | Trenton, N. J.<br>E. 23; N. 16. | Collegeville, Pa.<br>W. 16; N. 16. | Lopez, Pa.<br>W. 60; N. 103. |
|-------------------------------|----------------------------------|---------------------------------|-----------------------------------|-------------------------------------|-----------------------------------|-------------------------------|-----------------------------------|-----------------------------|---------------------------------|-----------------------------------|---------------------------------|------------------------------------|------------------------------|
| Flicker.....                  | Mar. 26                          | Res.                            | Mar. 23                           | .....                               | Res.                              | Mar. 20                       | Mar. 23                           | Mar. 19                     | Mar. 8                          | Feb. 27                           | .....                           | Mar. 2                             | Mar. 26                      |
| Whip-poor-will.....           | Apr. 18                          | Apr. 20                         | .....                             | Apr. 19                             | May 5                             | .....                         | May 15                            | May 16                      | May 11                          | .....                             | May 16                          | .....                              | May 16                       |
| Nighthawk.....                | .....                            | .....                           | .....                             | .....                               | .....                             | .....                         | .....                             | .....                       | .....                           | .....                             | .....                           | .....                              | .....                        |
| Chimney Swift.....            | May 2                            | Apr. 27                         | May 8                             | Apr. 23                             | Apr. 22                           | Apr. 26                       | Apr. 26                           | Apr. 29                     | Apr. 23                         | Apr. 28                           | Apr. 30                         | May 2                              | May 22                       |
| Hummingbird.....              | May 14                           | May 10                          | May 14                            | May 17                              | May 11                            | May 11                        | May 11                            | .....                       | Apr. 30                         | May 10                            | .....                           | .....                              | .....                        |
| Kingbird.....                 | May 1                            | May 22                          | May 3                             | May 15                              | Apr. 30                           | May 7                         | May 1                             | May 1                       | May 8                           | May 4                             | May 11                          | .....                              | May 19                       |
| Great-crested Flycatcher..... | May 1                            | May 22                          | May 8                             | May 15                              | May 6                             | May 6                         | May 3                             | .....                       | May 8                           | May 13                            | May 10                          | May 10                             | .....                        |
| Phoebe.....                   | .....                            | Apr. 23                         | .....                             | .....                               | Mar. 6                            | Mar. 12                       | Mar. 23                           | Mar. 20                     | Mar. 26                         | Mar. 29                           | Mar. 23                         | Mar. 30                            | Mar. 25                      |
| Bobolink.....                 | May 11                           | .....                           | .....                             | .....                               | May 11                            | .....                         | May 13                            | .....                       | .....                           | May 12                            | .....                           | .....                              | .....                        |
| Cowbird.....                  | .....                            | .....                           | .....                             | Apr. 2                              | Mar. 2                            | Mar. 8                        | Mar. 23                           | Mar. 20                     | .....                           | Apr. 23                           | Mar. 4                          | Apr. 4                             | .....                        |
| Red-winged Blackbird.....     | Res.                             | Mar. 2                          | Mar. 16                           | .....                               | Mar. 2                            | Feb. 27                       | Mar. 4                            | Mar. 5                      | Mar. 1                          | Apr. 1                            | Feb. 27                         | Mar. 16                            | Mar. 4                       |
| Baltimore Oriole.....         | Apr. 25                          | May 7                           | May 10                            | May 2                               | Apr. 19                           | May 7                         | May 5                             | Mar. 6                      | May 9                           | May 4                             | May 4                           | May 2                              | May 14                       |
| Purple Grackle.....           | Feb. 23                          | Mar. 3                          | Mar. 24                           | Feb. 22                             | Feb. 16                           | Feb. 16                       | Feb. 19                           | Feb. 28                     | Feb. 17                         | Feb. 27                           | .....                           | Feb. 23                            | .....                        |
| Chipping Sparrow.....         | Apr. 1                           | Mar. 28                         | Mar. 28                           | Apr. 1                              | Mar. 13                           | Mar. 27                       | Mar. 29                           | Mar. 27                     | Mar. 27                         | Mar. 29                           | Mar. 27                         | Apr. 4                             | Apr. 16                      |
| Chewink.....                  | Apr. 26                          | Mar. 27                         | .....                             | .....                               | Apr. 19                           | Apr. 30                       | Apr. 24                           | Apr. 27                     | Apr. 22                         | Apr. 23                           | Apr. 6                          | May 4                              | Apr. 22                      |
| Indigobird.....               | May 8                            | May 28                          | .....                             | May 15                              | May 11                            | May 10                        | May 15                            | .....                       | May 11                          | May 8                             | May 17                          | .....                              | .....                        |
| Scarlet Tanager.....          | .....                            | May 15                          | May 19                            | .....                               | .....                             | May 9                         | May 13                            | .....                       | May 19                          | May 10                            | May 11                          | .....                              | May 18                       |
| Purple Martin.....            | Apr. 10                          | Mar. 5                          | Apr. 26                           | Apr. 15                             | .....                             | May 9                         | Apr. 4                            | .....                       | .....                           | .....                             | .....                           | May 2                              | Apr. 18                      |
| Barn Swallow.....             | Apr. 10                          | Mar. 9                          | May 18                            | .....                               | Apr. 18                           | Apr. 28                       | Apr. 24                           | Apr. 24                     | Apr. 25                         | Apr. 18                           | Apr. 19                         | Apr. 20                            | Apr. 27                      |
| Red-eyed Vireo.....           | .....                            | May 10                          | May 11                            | .....                               | Apr. 30                           | May 7                         | May 9                             | .....                       | May 10                          | .....                             | .....                           | .....                              | May 14                       |
| Black and White Warbler.....  | May 4                            | May 3                           | May 8                             | .....                               | May 2                             | Apr. 30                       | Apr. 24                           | .....                       | Apr. 24                         | May 5                             | Apr. 24                         | .....                              | May 2                        |
| Chestnut-sided Warbler.....   | .....                            | .....                           | .....                             | May 15                              | May 11                            | May 9                         | May 13                            | .....                       | May 11                          | .....                             | May 11                          | .....                              | May 10                       |
| Ovenbird.....                 | .....                            | .....                           | May 7                             | .....                               | Apr. 29                           | Apr. 26                       | Apr. 27                           | May 8                       | May 8                           | May 15                            | May 7                           | .....                              | May 9                        |
| Maryland Yellowthroat.....    | Apr. 16                          | Apr. 22                         | Apr. 24                           | Apr. 27                             | Apr. 26                           | Apr. 27                       | Apr. 25                           | May 1                       | Apr. 26                         | Apr. 26                           | Apr. 26                         | .....                              | .....                        |
| Chat.....                     | .....                            | .....                           | .....                             | May 15                              | May 11                            | May 9                         | May 14                            | .....                       | May 22                          | May 10                            | May 13                          | .....                              | .....                        |
| Catbird.....                  | Apr. 28                          | Apr. 19                         | May 6                             | .....                               | May 2                             | May 5                         | Apr. 30                           | May 5                       | May 4                           | May 5                             | Apr. 28                         | May 4                              | May 20                       |
| Brown Thrasher.....           | Apr. 26                          | Apr. 19                         | Apr. 17                           | Apr. 17                             | Apr. 19                           | Apr. 28                       | Apr. 24                           | .....                       | Apr. 18                         | May 1                             | Apr. 20                         | Apr. 13                            | May 2                        |
| House Wren.....               | May 2                            | Apr. 28                         | Apr. 26                           | Apr. 25                             | Apr. 19                           | Apr. 30                       | Apr. 27                           | .....                       | Apr. 16                         | May 8                             | Apr. 27                         | May 5                              | May 14                       |
| Wood Thrush.....              | .....                            | .....                           | May 22                            | May 15                              | May 1                             | May 1                         | Apr. 30                           | .....                       | May 9                           | May 5                             | May 5                           | .....                              | .....                        |
| Hermits Thrush.....           | .....                            | .....                           | .....                             | Apr. 4                              | Apr. 16                           | Apr. 3                        | Apr. 5                            | .....                       | Apr. 6                          | .....                             | Apr. 5                          | Apr. 5                             | Apr. 5                       |
| Robin.....                    | Res.                             | Res.                            | Feb. 7                            | Jan. 20                             | Feb. 15                           | Feb. 16                       | Feb. 27                           | Feb. 27                     | Feb. 15                         | Mar. 3                            | .....                           | Mar. 3                             | Mar. 2                       |
| Bluebird.....                 | Res.                             | Res.                            | Feb. 23                           | .....                               | Feb. 27                           | Mar. 2                        | Feb. 27                           | Feb. 27                     | Feb. 19                         | Feb. 27                           | .....                           | Feb. 23                            | Mar. 3                       |

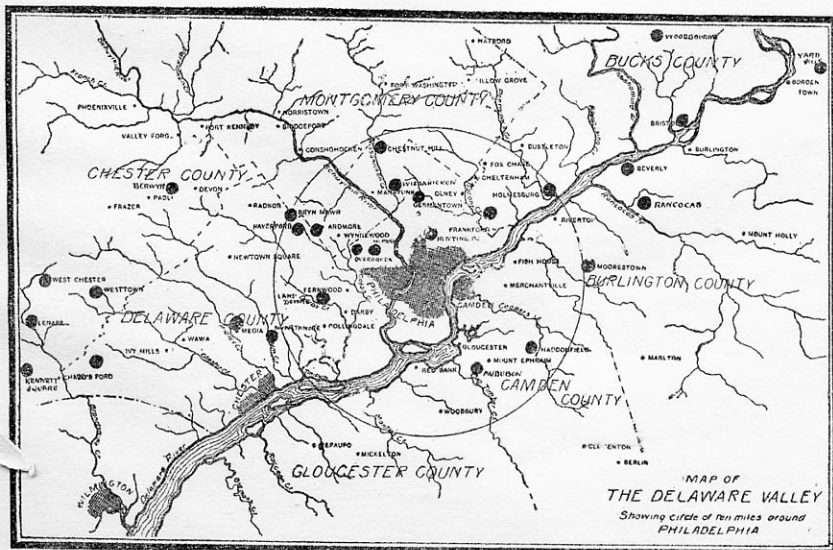


TABLE II.  
SPRING MIGRATION, 1910.  
EARLIEST DATES OF ARRIVAL OF  
THIRTY-TWO SPECIES AT THIRTEEN  
STATIONS OUTSIDE THE PHILADEL-  
PHIA CIRCLE.



| NAME.                            | Moorestown, N. J. | Haddonfield, N. J. | Camden, N. J. | Media, Pa. | Swarthmore, Pa. | Collingdale, Pa. | Lansdowne, Pa. | Armore and Havertford, Pa. | Bryn Mawr, Pa. | Wayne, Pa. | West Philadelphia. | Germanstown, Pa. | Melrose, Pa. | Fox Chase, Phila. | Holmesburg, Phila. | Frankford, Phila. | Bulk Arrival at Phila., 1910. |
|----------------------------------|-------------------|--------------------|---------------|------------|-----------------|------------------|----------------|----------------------------|----------------|------------|--------------------|------------------|--------------|-------------------|--------------------|-------------------|-------------------------------|
| Pine Warbler . . . . .           | Apr. 23           | Apr. 10            | . . . . .     | . . . . .  | . . . . .       | . . . . .        | . . . . .      | . . . . .                  | . . . . .      | . . . . .  | . . . . .          | . . . . .        | . . . . .    | . . . . .         | . . . . .          | . . . . .         | . . . . .                     |
| Yellow Palm Warbler . . . . .    | Apr. 30           | May 1              | Apr. 10       | . . . . .  | . . . . .       | Apr. 29          | Apr. 19        | Apr. 2                     | Apr. 4         | May 1      | Apr. 25            | . . . . .        | . . . . .    | . . . . .         | . . . . .          | May 10            | Apr. 17                       |
| Prairie Warbler . . . . .        | . . . . .         | May 30             | Apr. 26       | . . . . .  | May 3           | . . . . .        | May 15         | May 5                      | . . . . .      | May 5      | May 2              | . . . . .        | . . . . .    | . . . . .         | . . . . .          | Apr. 5            | Apr. 10                       |
| Orenbird . . . . .               | Apr. 30           | Apr. 27            | May 1         | Apr. 30    | May 3           | May 5            | Apr. 30        | Apr. 30                    | May 9          | May 1      | May 2              | . . . . .        | May 9        | . . . . .         | . . . . .          | May 3             | Apr. 30                       |
| Water Thrush . . . . .           | . . . . .         | May 9              | May 11        | May 1      | May 7           | . . . . .        | May 10         | May 10                     | May 9          | May 15     | May 1              | . . . . .        | May 2        | . . . . .         | . . . . .          | May 13            | May 9                         |
| Kentucky Warbler . . . . .       | . . . . .         | . . . . .          | . . . . .     | . . . . .  | May 14          | . . . . .        | May 14         | May 10                     | May 9          | May 15     | May 1              | . . . . .        | May 12       | . . . . .         | . . . . .          | May 13            | May 13                        |
| Maryland Yellowthroat . . . . .  | Apr. 19           | Apr. 23            | Apr. 24       | Apr. 27    | Apr. 27         | Apr. 29          | Apr. 24        | Apr. 30                    | Apr. 28        | May 1      | Apr. 25            | . . . . .        | May 1        | . . . . .         | May 22             | Apr. 22           | Apr. 27                       |
| Chat . . . . .                   | May 13            | May 15             | May 11        | May 10     | May 14          | May 7            | . . . . .      | May 8                      | . . . . .      | May 15     | May 21             | . . . . .        | May 14       | . . . . .         | May 15             | May 6             | May 13                        |
| Canada Warbler . . . . .         | . . . . .         | May 21             | May 22        | . . . . .  | . . . . .       | . . . . .        | May 12         | May 9                      | May 15         | May 15     | May 3              | . . . . .        | May 9        | . . . . .         | May 24             | May 15            | May 15                        |
| Redstart . . . . .               | May 3             | May 7              | May 4         | May 12     | May 7           | . . . . .        | May 14         | May 9                      | May 1          | May 15     | May 3              | . . . . .        | May 9        | . . . . .         | May 13             | May 1             | May 7                         |
| Catbird . . . . .                | May 3             | May 1              | May 6         | May 3      | May 2           | May 8            | May 10         | May 3                      | May 10         | May 13     | Apr. 25            | May 8            | May 12       | . . . . .         | May 9              | May 1             | May 3                         |
| Brown Thrasher . . . . .         | Apr. 23           | Apr. 10            | Apr. 10       | Apr. 15    | Apr. 14         | Apr. 21          | Apr. 19        | Apr. 21                    | May 3          | Apr. 22    | Apr. 22            | . . . . .        | May 1        | Apr. 20           | May 7              | Apr. 20           | Apr. 21                       |
| House Wren . . . . .             | Apr. 27           | Apr. 23            | Apr. 27       | Apr. 23    | Apr. 30         | Apr. 29          | Apr. 28        | Apr. 28                    | Apr. 28        | May 1      | Apr. 28            | May 12           | May 1        | . . . . .         | . . . . .          | Apr. 22           | Apr. 28                       |
| Long-bill'd Marsh Wren . . . . . | . . . . .         | . . . . .          | May 8         | . . . . .  | . . . . .       | . . . . .        | . . . . .      | . . . . .                  | . . . . .      | . . . . .  | . . . . .          | . . . . .        | . . . . .    | . . . . .         | . . . . .          | May 1             | . . . . .                     |
| Ruby-crowned Kinglet . . . . .   | Apr. 27           | Apr. 10            | Apr. 13       | Apr. 14    | Apr. 15         | . . . . .        | Apr. 19        | Apr. 9                     | Apr. 8         | Apr. 16    | . . . . .          | . . . . .        | . . . . .    | Mar. 28           | . . . . .          | May 13            | Apr. 13                       |
| Wood Thrush . . . . .            | May 9             | May 7              | May 4         | May 1      | May 2           | May 7            | Apr. 30        | May 4                      | May 8          | Apr. 24    | Apr. 26            | May 5            | May 7        | May 9             | . . . . .          | May 6             | May 4                         |
| Wilson's Thrush . . . . .        | May 7             | May 21             | May 3         | May 1      | May 7           | . . . . .        | May 11         | May 6                      | May 1          | May 1      | May 3              | . . . . .        | May 14       | . . . . .         | . . . . .          | . . . . .         | May 6                         |
| Gray-cheeked Thrush . . . . .    | May 14            | . . . . .          | . . . . .     | . . . . .  | . . . . .       | . . . . .        | May 5          | . . . . .                  | . . . . .      | . . . . .  | . . . . .          | . . . . .        | . . . . .    | . . . . .         | . . . . .          | May 16            | . . . . .                     |
| Olive-backed Thrush . . . . .    | . . . . .         | May 7              | May 14        | . . . . .  | May 17          | . . . . .        | May 15         | May 15                     | . . . . .      | May 15     | . . . . .          | . . . . .        | Apr. 30      | . . . . .         | . . . . .          | May 13            | May 14                        |
| Hermit Thrush . . . . .          | Apr. 3            | . . . . .          | Apr. 9        | Apr. 2     | May 12          | May 5            | Apr. 5         | Apr. 5                     | Apr. 4         | Mar. 13    | Apr. 2             | . . . . .        | Apr. 10      | . . . . .         | . . . . .          | Mar. 29           | Apr. 5                        |
| Robin . . . . .                  | Feb. 27           | Feb. 5             | Feb. 8        | Feb. 19    | Feb. 17         | Feb. 25          | Mar. 3         | Feb. 26                    | Feb. 17        | Mar. 4     | Mar. 26            | Mar. 6           | Feb. 28      | Mar. 4            | Mar. 4             | Feb. 16           | Feb. 26                       |
| Bluebird . . . . .               | Res.              | Feb. 19            | Mar. 2        | Res.       | Res.            | Feb. 26          | Feb. 16        | Feb. 26                    | Feb. 14        | Feb. 24    | . . . . .          | Mar. 6           | Mar. 6       | Mar. 6            | Mar. 5             | Feb. 8            | Feb. 26                       |