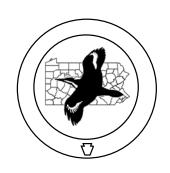
# PENNSYLVANIA BIRDS



Volume 14, No. 2 Apr - Jun 2000 Issued September 2000



# **PENNSYLVANIA BIRDS**

Journal of the Pennsylvania Society for Ornithology



## **VOLUME 14, NUMBER 2, APR – JUN 2000**

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## ILLUSTRATIONS:

COVER: Long-tailed Jaeger, Washington Boro, *Lancaster*, 5/23/2000. Photo by Rick Wiltraut.

## from the Editors...

## Transition

The transition to new editors proceeding apace. Several individuals have stepped forward and are under consideration by the Pennsylvania Society Ornithology Board of Directors. It appears that there will be a Chief Editor and four Seasonal Editors, plus a "Data Input Technician" (someone to do the "grunt" work). We have also received volunteers for some of the other tasks as well. We are pleased with these developments and feel confident that Pennsylvania Birds will continue with no interruption in service (or quality). We will publish more details as they get approved.

### Official List

As per their charter, the Pennsylvania Ornithological Record Committee has published the newest installment of the Official List of Pennsylvania Birds in this issue. They have made one major change (which we had advocated when we were on the committee, but were out-voted). In order to get onto the Official List, the record now has to be supported by a photograph, recording (video or audio), or specimen. Previously, written descriptions were all that was required.

This is in line with most other states' committees, although there are a few exceptions. We applaud this decision by the committee and feel it will make the Official List much stronger to defend.

Species for which only acceptable written documentation exists will be placed on the Provisional List. This list affirms the credibility of the sighting, but demonstrates that without physical evidence there is always room for doubt.

### NAMC Back on Track

With this issue, we get the North American Migration Count report back on schedule. Greg Keller has done a terrific job on this year's data. In spite of past problems, Pennsylvania has one of the best participation rates in this event. You (and we) are all to be congratulated.

## "Local" Big Years

We all read about the "Big Years" done state-wide each year. These efforts take a lot of time, travel, and resources. They are certainly fun and the birder gets to know the state intimately.

However, what about smaller areas? County? Township? Back vard?

This year, Frank is doing a Big Year in Caernarvon Township, Lancaster County. This is the township in which we live. It is amazing how many nooks and crannies we have found so close to home while searching for birds.

The township is 90 percent farmland—most in intensive use. There are no large bodies of water—the largest pond is less than a half acre. The largest track of forest is bisected by the turnpike. So, as you can see, it is not an ideal birding area.

However, going out almost every day has brought surprises. The best bird so far was the Little Gull (pictured in the last issue). Frank would not have seen it had he not been out daily checking the gull flocks, looking for Greater Black-backs.

The other interesting gull note is that while there was only one Greater Black-backed Gull that he could find, there were dozens of Lesser-backed Gulls. This appears to be a result of the Greater Blackbacks staying at the local landfill (just outside the township) while the Lesser Black-backs were willing to also forage in the nearby fields.

He also found a pair of nesting Cooper's Hawks and found Acadian Fly catcher and Louisiana Waterthrush on the one wooded stream in the township.

The spring warbler migration was much poorer than normal, so we are hoping the fall migration makes up for it.

So far, it has been a very rewarding experience. It obviously is not being done as a competition—who else would do it? It is being done for the fun of it and to learn more about the local area.

As of this writing the list stands at 158. This is far lower than a statewide list would be (probably in the high 200s). We will let you know the final tally at year's end.

Frank & Barb Haas Chief Editors

PENNSYLVANIA BIRDS (ISSN 0898-8501) is published four times a year by Pennsylvania Birds. Editorial and business offices are located at 2469 Hammertown Road, Narvon, PA 17555-9726. Subscriptions, all in US\$: One year U.S.A. \$20.00, Canada \$35, Foreign \$45. Library rate \$30. Single copies:, \$5.50. Checks and money orders in U.S.\$ only should be made payable to PENNSYLVANIA BIRDS. Copyright © 2000 by Franklin C. Haas and Barbara M. Haas.

SECOND CLASS POSTAGE PAID AT NARVON, PA 17555

POSTMASTER: Send address changes to PENNSYLVANIA BIRDS, 2469 Hammertown Road, Narvon, PA 17555-9726.

## A History of Northern Bobwhites in Pennsylvania

by Nicholas C. Bolgiano

As the years pass, we observe fewer grassland and early successional birds in Pennsylvania. The purpose of this article is to document the history of one of these species, the Northern Bobwhite (*Colinus virginianus*). If present trends continue, bobwhites may disappear from Pennsylvania as a breeding species.

The conservation of grassland and early successional species in eastern North America has often been neglected, in part from the perception that their presence dates from European settlement. But in reality, many of these species may have been present for thousands of years (Askins 1999, 2000). The bobwhites' history is relevant for an array of grassland/shrub species because bobwhites are sometimes thought of as an indicator of wildlife-habitat interactions in these ecosystems (Church et al. 1993). Because bobwhites are easily recognized and were much utilized for human food, our knowledge of their history surpasses that of most other grassland and early successional species.

The declines in grassland and early successional birds have been documented since 1966 by the U.S. Fish & Wildlife Service's Breeding Bird Survey (BBS) (Brauning 1992; Peterjohn et al. 1994; Peterjohn and Sauer 1999). According to BBS data, the calculated annual decline of bobwhites east of the Mississippi River between 1966 and 1991 was 3.3% (Askins 1999), but it was 11.0% in Pennsylvania (Church et al. 1993). BBS data can only tell the most recent part of the bobwhites' story, however. By examining other sources of information, we can better appreciate bobwhites' long Pennsylvania history.

# Life History and Habitat Requirements

Bobwhites require successional mosaics. Leopold (1933) characterized bobwhite habitat as well-interspersed woodland, brushland, grassland, and cultivated land, which is typical of bobwhites' range in the east. Grassland may constitute a higher percentage of their habitat in the western part of their range (Brennan 1999; Taylor et

al. 1999).

Bobwhites' preferred nesting cover in eastern North America consists of scattered shrubs and briars interspersed with moderately dense herbaceous or grassy vegetation. Too much grass or woody vegetation is undesired. Nests tend to be concentrated on idle land, especially if it is about two years past agricultural use, in pastures, hayfields, roadsides, or fencerows, although not where these occur in isolated patches. This habitat requirement means that bobwhites have a relatively short window of nesting opportunity during the plant succession cycle. After about 7-10 years, too much woody vegetation has grown and a disturbance, such as fire or clearing by humans, is needed to maintain the successional mosaic (Klimstra and Roseberry 1975; Roseberry and Klimstra 1984: Taylor et al. 1999).

Newly hatched bobwhites require a diet high in protein for rapid growth during their first few months. This is provided by insects that can most easily be found in low-growing herbaceous vegetation, preferably where there is bare ground for easy movement of chicks and a plant canopy to shield the birds from predators (Rosene 1969; DeVos and Mueller 1993).

In the fall, bobwhites band together in coveys of about 14 birds. Coveys may break up and reform in order to maintain a covey size sufficient for adequate heat retention within their nightly sleeping ring. Their preferred winter habitat consists of wooded areas with dense understory used for cover and loafing, accessible agricultural grains or weed seeds, and low, grassy cover for roosting (Rosene 1969; Roseberry and Klimstra 1984).

Bobwhites' life spans are short even under perfect conditions, in part because of their high metabolism. In the northern part of their range, annual survival may average about 17% and it is unusual for a wild bird to live more than three years. They have a high reproductive capacity, with about five juveniles annually raised per adult in northern populations (Roseberry and Klimstra 1984; Guthery 2000). If the first nesting fails,

renesting is usually attempted. Sometimes the male will incubate a second clutch while the female mates with another male and incubates a third nest herself (Burger et al. 1995b; Taylor et al. 1999). This life history strategy allows bobwhites to maintain or increase their population levels when favorable habitat is present.

Bobwhites' historical abundance followed a common pattern across much of their range. Before human settlement, a small number of bobwhites lived around natural forest openings. Then the fires and crude agriculture of humans created landscape mosaics and bobwhite populations reached their zenith. As farming was practiced more intensively, bobwhite populations declined in response to the diminished food and cover, although they sometimes temporarily increased as farm abandonment once again created favorable habitat (Leopold 1931; Schorger 1944). This scenario occurred in Pennsylvania as well.

## Bobwhites in Early Pennsylvania

Following the retreat of the Wisconsin glaciers, much of Pennsylvania's landscape was dominated by grassy savannahs containing spruce and pine trees (Guilday et al. 1964; Casselberry and Evans 1994; Askins 1999). We know this from pollen and bone deposits. Excavations at a Bedford County sinkhole (Guilday et al. 1964) and at Virginia's Natural Chimneys caves in the Shenandoah Valley (Guilday 1962) showed that the fauna of 11,000 years ago was typical of grassland and savannah species. The Virginia site included bones of a bobwhite, an early presence not far south of current-day Pennsylvania. The mix there of boreal bird and mammal species with southern reptile and bird species indicates that winters may have been milder than those of today (Lundelius et al. 1983). By about 9,000-10,000 years ago, the predominating vegetation of central Pennsylvania had changed to deciduous forest, as indicated by bones excavated at Centre County's Hosterman's Pit (Guilday 1967; Casselberry and Evans 1994).

The transition from boreal to deciduous trees did not proceed uniformly across the state, however. Deciduous trees were present in forest and savannahs of present-day Washington County by 16,000 years ago (Cushman 1982; Guilday and Parmalee 1982).

Could grassland birds have survived in Pennsylvania as the deciduous forest moved northward? Askins (1999, 2000) suggests that large herbivores may have maintained openings in the forest, much as African Elephants (Loxodonta africana) have done in East Africa. Large herbivores that were present in Pennsylvania included the extinct Jefferson's Ground Sloth (Megalonyx jeffersonii), Giant Beaver (Castaroides ohioensis), American Mastodont (Mammut americanum), Mammoths (Mammuthus sp.), Horses (Equus sp.), Long-nosed Peccary (Mylohyus nasutus), Flat-headed Peccary (Platygonus compressus), Stag-Moose (Cervalces scotti), Bison (Bison bison antiquus), and the modern Elk (Cervus elaphus), Moose (Alces alces), and Caribou (Rangifer tarandus) (Kurten and Anderson 1980; Lundelius et al. 1983).

After the extinction of most of the large herbivore species, humans could have maintained openings in the forest by their burning and land clearing (Askins 1999, 2000). Humans have lived in southwestern Pennsylvania for 16,000-19,000 years (Adovasio et al. 1977; Adovasio and Carlisle 1984) and in southeastern Pennsylvania for 12,500 years (Dent and Kauffman 1985, cited by Casselberry and Evans 1994). The presence in eastern North America of grassland birds like the Heath Hen (Tympanuchus cupido cupido), a race of the Greater Prairie-Chicken (Tympanuchus cupido), and the eastern subspecies of Henslow's Sparrow (Ammodramus henslowii susarrans) indicates that open areas were maintained over a long time (Askins 1999, 2000).

A good example of human clearings affecting the fauna is at Sheep Rock Shelter in Huntingdon County, where excavations showed that an increase in early successional species was associated with land clearing by American Indians. The bones of four bobwhites were also found there (Guilday and Parmalee 1965). The age of these bones is not

given, but matching the era of densest Indian settlement (Michels 1967) with radiocarbon dates of charcoal (Azer 1967) gives possible dates around the 1400s to 1600s.

The landscape was not completely a primeval forest when Europeans arrived in present-day Pennsylvania. As they did in neighboring states (Day 1953; Thompson and Smith 1970), American Indians cleared patches of forest for village sites, agricultural fields, firewood, and in pursuit of or to attract game. In New England, these practices probably contributed to the early presence of bobwhites (Thompson and Smith 1970); the same is true in Pennsylvania. Large areas of early successional vegetation from Indian activity were present in the lower Delaware, Susquehanna, and Great Valleys when Europeans arrived, and there is evidence that bobwhites were present at that time. Other barrens, glades, and grasslands existed outside these three areas (Hollister 1869; Fletcher 1950; Losensky 1961; DeSelm 1986), but most of these may have been too small or too isolated to have been bobwhite habitat.

The early bobwhites were likely of the subspecies *C.v. marilandicus*, whose historical range was New England south to Maryland, Delaware, and central Virginia, and west to Pennsylvania (Johnsgard 1988). Those that moved into western Pennsylvania from the Ohio Valley during the early to mid-1800s (Christy 1926) were probably of the subspecies *C.v. mexicanus*, whose range is westward of *marilandicus*. These two subspecies are often grouped with the nominate *C.v. virginianus* of the Atlantic seaboard (Johnsgard 1988).

Delaware Valley. Anecdotal accounts from the 1600s relate an abundance of bobwhites in the lower Delaware Valley. The English Captain Thomas Yong, who sought the Northwest Passage up the Delaware River, observed from the vicinity of the present-day Philadelphia in 1634, "The low grounds of which there is great quantitie excellent for meadowes and full of Beaver and Otter. The quantity of fowle is so great as can hardly be beleeved, wee tooke at one time 48 partriches together, as they crossed the river, chased by wild hawkes. I myselfe sprang in two houres 5 or 6 covies in walking of a mile" (Yong 1634, p. 48). It is likely that Yong referred to bobwhites because of their habit of forming coveys and of their occasional practice of flying across rivers during early Octobers of past centuries (Audubon 1831; Schorger 1944).

The Delaware Indians created forest openings along the Delaware and Schuylkill Rivers for village sites, agricultural fields, and by their burning in pursuit of game. Thomas Paschall, a Philadelphia Quaker, wrote of the clearings in 1683, "I know a man together with two or three more, that have happened upon a piece of Land of some Hundred Acres, that is all cleare, without Trees, Bushes, stumps, that may be Plowed without let, the farther a man goes in the Country the more such Land they find" (Paschall 1683, p. 254). In places, the forest understory had also been cleared. Thomas Budd wrote in 1685, "The Trees grow but thin in most places, and very little under-Wood. In the Woods groweth plentifully a course sort of Grass. ... The Woods are furnished with store of Wild Fowl, as Turkeys, Phesants, Heath-Cocks, Partridges, Pigeons, Blackbirds, &c." (Budd 1685, p. 34). William Penn wrote in 1684, "The land is generally good, well water'd & not So thick of wood as immagin'd; there are also many open places that have been old indian feilds. ... The food, the woods veild, is your Elks, deer, Racoons, Beaver, Rabbets, Turkeys, Phesants, heath-birds, Pidgeons & Partredge innumerably; we need no setting dogs to Ketch, they run by droves into the house in Cold weather" (Penn 1684, p. 513). "Partridge" and "pheasant" were early names for Northern Bobwhite and Ruffed Grouse (Bonasa umbellus), respectively (Blanchan 1904)."Heathcock" and "heath-bird" apparently refer to Heath Hen, once numerous in Pennsylvania (Fingerhood 1992).

Susquehanna Valley. The Susquehannock Indians burned immense areas on the western side of the lower Susquehanna River, in order to create habitat favorable for Deer (Odocoileus virginianus), elk, and Bison (Bison bison). The "York Barrens" constituted about 130,000 acres or 200 square miles of southern York County (to the south and east of present-day York). This was part of a larger barrens that extended into three Maryland counties to the south. There,

European settlers found a mosaic of grass, shrubs, and saplings, and small patches of timber (Mayre 1955a,b,c). Part of the York Barrens may have been repeatedly burned over thousands of years (Chrastina and Jones 1989, cited by Casselberry and Evans 1994). There were also grasslands and barrens on the Lancaster County side of the river (Fletcher 1950; Mast 1957).

Bobwhite bones dating from the 16th and 17th centuries have been excavated from old garbage heaps at Susquehannock village sites located near present-day Washington Boro in Lancaster County. Thousands of bone fragments have been identified, with most being from deer, elk, and Black Bear (Ursus americanus), but five bones, from three different villages inhabited during the periods 1575-1600, 1600-25, and 1645-65, were identified as being bobwhite bones (Guilday et al. 1962; Webster 1983). There was sufficient habitat around these villages for bobwhites, as the adjacent cleared land area was about 1-10 square miles (Webster 1983; Casselberry and Evans 1994). The Susquehannocks made the most efficient use of their hunting effort by concentrating upon big game (Webster 1983), so the few bones may not reflect the size of the early bobwhite populations.

Great Valley. The Great Valley, which is often called the Shenandoah Valley in Virginia and the Cumberland Valley in Pennsylvania, also contained extensive grasslands or barrens, much of it having been burned by American Indians. An extent of 150 miles, from the headwaters of Virginia's Shenandoah River to the Potomac River, contained tallgrass prairie (Maxwell 1910). Harbaugh (1856) wrote of Maryland's portion of the Great Valley, that there was "good timber" along the Conococheague Creek, "whilst the rest of the valley was destitute of timber, and covered with scrub-oak and hazle-bushes" (p. 172). Rupp (1846) remarks about the same valley just to the north in Pennsylvania's Franklin County, "It is a tradition well supported, that a great part of the best lands in the Conococheague Valley were, at the first settlement of the country, what is now called in the western states prairie. The land was without timber, covered with a rich, luxuriant grass, with some scattered trees, hazel-bushes, wild plums, and crab-apples. It was then called generally the barrens. The timber was to be found on or near the watercourses, and on the slate soils" (p. About Pennsylvania's 484). Cumberland County to the north, Rupp remarked "It should be borne in mind that the region of country between the Conodoguinett and Yellow Breeches (Creeks), from the Susquehanna, to ten or twelve miles westward, was a Barrens; not a tree to be seen on a thousand acres" (p. 447).

Although I have not found direct evidence for Pennsylvania's Great Valley being an early center of bobwhite abundance, circumstantial evidence suggests that it may have been such a place. The bobwhite bones found to the north at Sheep Rock Shelter and to the south at the Natural Chimneys caves, the long valley corridor containing large grasslands and barrens, the annual bison migration through there (Walker 1958) with the implication of "more or less continuous grazing areas" (Thompson and Smith 1970), and it being a center of bobwhite abundance during modern times suggests this area as also being a center of bobwhite abundance at the time of European arrival.

## Bobwhites in Pennsylvania: 1700-1900

The European colonists spread westward from the Philadelphia region. The area southeast of the Appalachians was settled by about 1740; by 1780, colonists had moved into the upper Susquehanna and the Juniata Valleys of the central region, into the Wyoming Valley of the northeast, and into the southwestern corner of the state. With the exception of the more mountainous areas, the remainder of Pennsylvania was settled by about 1800 (Simkins 1995).

The settlers cut, girdled, or burned trees to clear enough land for planting. Early farmers typically practiced all-grain rotations, which exhausted the fertility of the soil within several decades. There were two remedies, both of which would have created ideal bobwhite habitat: abandon the land and clear new ground or let the fields lie fallow for up to 7-15 years before replanting (Fletcher 1950).

The sheer abundance bobwhites in those early years can be difficult for us to imagine today. Peter Kalm observed about bobwhites in 1749 south of Philadelphia, "These birds are numerous in New Sweden ... On going but a little way you meet with great coveys of them, except near the towns, where they are either extirpated or frightened away by frequent shooting. They are always in lesser or greater coveys, do not fly very much, but run in the fields, and keep under the bushes and near the fences where they seek their food. They are considered a very delicious food, and the people here prepare them in different ways. For that purpose they are caught and shot in great numbers" (Benson 1937, p. 237). In some places, bobwhites became scarce because of heavy hunting. Kalm wrote in 1748, "About sixty or seventy years ago ... the birds which the Swedes in this country called partridges and hazelhens, were seen in large flocks in the woods. But at this time a person gets tired with walking before he can start a single bird" (Benson 1937, p. 153).

Bobwhite abundance extended into the northern half of the state. Seth Nelson, a noted Pennsylvania hunter, remarked of the early 1800s, "Quail were still found in immense numbers when I visited ... Milton, Northumberland County. .. The Pennsylvania quail were birds of the great open, hardwood forests that had been burned over to make pasture for the bison, and even in my time, I was born in 1809, the ground was covered with tall grass and free of underbrush (such forests stretched for miles ... in the Buffalo Valley). Many of the pioneers preferred quail to the flesh of passenger pigeons, and set out bobwhite nets in the fall of the year, with tame quails tied by one foot which kept chirping to draw the flocks to the feed beds, and when the trap was sprung, often a hundred birds would be taken" (Latham and Studholme 1952,

Bobwhites were sometimes so abundant that flocks of hundreds and even thousands moved unusual distances in the fall. Audubon (1831) reported on Bobwhites flying across the Ohio River from Ohio into Kentucky. In 1866 near Louisville, Kentucky, the fall dispersal began on September 15 and lasted until October 26, on a front

of 80 miles (Schorger 1944). One Iowa observer wrote, "They seem half deranged; they run into town, fill the streets, and even the barns, for they break numberless windows in their flight" (Schorger 1944, p. 87). Lewis (1906) relates how, during one fall in the mid-1800s just south of Chester and Lancaster Counties, no less than 900 bobwhites were caught in nets. "This account may seem incredible to those not familiar with the fecundity of partridges, and still less acquainted with the immense armies of these birds that congregate together during their migratory trips, and the regularity and pertinacity with which they pursue their course, sometimes passing through the heart of villages that obstruct their way" (p. 136). The fall irruptions, which occurred primarily on the northern and western edges of bobwhite range may help explain the rapid growth in bobwhite populations observed during early times (Leopold 1933: Schorger 1944). Schorger wrote. "There is little doubt that the habit of quail to emigrate or irrupt, when a certain density of population was attained, was a powerful factor in producing the huge numbers that existed in Wisconsin in the decade prior to 1854" (p. 89).

Market hunting during the 1800s became a means to meet the food demand of rapidly growing human populations of the cities. Bobwhites could be bought in the Milton market of 1830 for 12 cents a dozen, in the Harrisburg market of 1840 for 25 cents a dozen, and in the Harrisburg and Philadelphia markets of 1875 for 50-60 cents a dozen (Latham and Studholme 1952). "The Quail is prized by epicures and others as a most delicate and nutritious article of diet. Various devices in the shapes of snares, nets, and traps, are called into service to secure its capture, besides the dogs and guns of sportsmen. Naturally unsuspicious, and quite readily approachable", they were easy to trap in large numbers (Gentry 1877, p. 329).

## The Post-1855 Decline.

In the northern part of their range, deep or hard crusted snow cover and prolonged cold temperatures can kill many bobwhites from exposure or starvation, sometimes leaving few

survivors. The winter of 1855-56 was especially destructive Pennsylvania's bobwhites, consequence of the long-protracted cold weather ... coupled with the deep, hard snow which has thrown its chilling mantle over so wide an extent of land" (Lewis 1906, p. 139). The markets of the principal eastern cities were "most bountifully supplied with every description of game - in fact, filled to repletion with partridges and grouse" as hungry birds were easily attracted to bait. Great numbers of bobwhites were taken "by the aid of horsehair nooses, in New Jersey and Pennsylvania, and more particularly in the district of country adjoining our city (Philadelphia)" (Lewis 1906, p. 138).

In Wisconsin, the period of high bobwhite abundance coincided with a succession of 11 generally mild winters, between the winter of 1843-44 and 1853-1854. This was followed by a less benign period of 34 winters, from 1854-55 to 1887-88, of which 22 were judged as severe. The winter of 1855-56 was particularly severe and never again did Wisconsin's bobwhites approach the population levels of the preceding years (Schorger 1944). When Wisconsin suffered severe winters in 1855-56 and in the years between 1931 and 1991, Pennsylvania also suffered severe winters, though not as cold (Lewis 1906; Heim et al. 1993). I suspect that the severe Wisconsin winters during the period 1854-88 also occurred in Pennsylvania. Like Wisconsin, bobwhites in many parts of Pennsylvania probably never recovered to the levels that existed before the winter of 1855-56.

By the end of the 19th century, bobwhites had declined to a fraction of their numbers of the first half of the 1800s. Pennsylvania's Chief Game Protector commented in 1905, "Six times to my certain knowledge, ... quail, because of severe winters and the slaughter of market hunters, had almost become extinct in Pennsylvania" (Kalbfus 1905, quoted in Latham and Studholme 1952, p. 7). Warren (1890) wrote, "In many sections of Chester, Delaware and Lancaster counties these birds are much less numerous than they were five or six years ago" (p. 106). A number of W.E.C. Todd's correspondents noted that bobwhites were becoming scarce early in the 20th century (Todd 1940), although they remained common at Beaver in 1898 (Todd 1898).

Game laws were enacted in response to the bobwhite population decline. Trapping bobwhites was prohibited in 1869 and the sale of them was banned in 1897. A daily hunting limit of 15 and a season limit of 75 were implemented in 1897 and 1905, respectively (Latham and Studholme 1952).

1859, individual Pennsylvanians and sportsman's groups began releasing bobwhites "in a spontaneous, unstudied way" (Christy 1926), chiefly to maintain their numbers on shooting grounds (Kalbfus 1905, quoted in Latham and Studholme 1952; Christy 1926). At first, these were bought on the open market of nearby cities, but later they were purchased directly from the trappers. In western Pennsylvania, many of these birds were first brought from nearby states, such as Ohio and Indiana, and later from more distant places, such as Tennessee and Kansas (Christy 1926).

Market hunting and a period of severe winters undoubtedly contributed to the decline in bobwhite numbers, but the landscape was changing too. Pennsylvania agriculture passed from the subsistence to the commercial stage during the period 1840-60. Competition from Midwestern states, the spread of railroads, the use of labor-saving machinery, and the rapidly increasing demand of local cities for fresh produce gave rise to a commercial class of farmers (Fletcher 1955). With the development of more powerful machinery, agriculture became more intensive and more land, often marginally suited for farming, was cleared (Miller 1995). The early harvesting of hay and spreading urbanization are thought to have contributed to the decline of Dickcissels (Spiza americana) in eastern North America after 1850 (Hurley and Franks 1976). Urbanization undoubtedly affected bobwhites as well, but the overall impact of these landscape changes upon their welfare remains unknown.

## Bobwhites in 20th Century Pennsylvania

We have more certainty about the 20th century population trends of

Bobwhites. Their Pennsylvania breeding range included much of the southern part of the state and the border with Ohio. Peterson's (1980) map is a probably a good summary of this range during this century, with the highest concentrations found between Fulton and Chester counties (Harlow 1913; Jenkins 1942; Latham and Studholme 1952; Brauning 1992).

The Christmas Bird Count (CBC), which began in 1900, provides a bridge between the early anecdotal accounts and the more statistically rigorous BBS. I show here CBC data from Pennsylvania sites with centers below 41 degrees latitude, or the lower 56% of the state. During 1900-98, 98% of the total bobwhites were counted at these sites (I define a CBC year as the year in which Christmas occurs.) I omitted the first 22 years of data because observer effort was low in the early years of the CBC and most observers were concentrated in the Philadelphia region. After 1921, effort exceeded 100 hours and sites were more evenly distributed across the state. Where effort hours were missing for a small number of the early observations, I estimated them from the available information (Bolgiano 1997).

The 1922-35 bobwhite counts were the highest observed, averaging 9.0 birds/10 foot hours, with birds observed across the southern half of the state. This was during a period when bobwhites were noted as becoming more plentiful, with an increase starting around 1911 (Beck 1924; Weygandt 1930; Todd 1940; Latham and Studholme 1952). This population rise was apparently aided by a period of relatively mild winters (Todd 1940) and their numbers reached about a half million, judging from the approximate annual hunting kills of 200,000 with these being about 40% of the population (Latham and Studholme 1952). The sharp decline after 1935 followed one of the most severe winters on record. Britton (1970) wrote from Chambersburg, "It was January 19, 1936, that it began to snow and blow the worst. From that date forward it snowed almost every day for over a month. Snowdrifts ranged from six to 18 feet in depth" (p. 3). This severe weather killed up to 90% of the bobwhite population in Pennsylvania and across the northern tier of their bobwhite range, (Green and Beed 1936; Errington 1945; Latham and Studholme 1952). During 1936-44, the CBC data averaged 2.0 bobwhites/10 foot hours. A further reduction occurred after the winter of 1944-45, when again nearly 90% of Pennsylvania's bobwhites were killed from near zero temperatures and drifting snow (Latham and Studholme 1952) (Figure 1).

Bobwhite counts/10 hours appeared to slowly increase during the 1950s but this may be partially attributable to the New Bloomfield and Chambersburg sites beginning their counts in 1949 and 1955, respectively. Chambersburg is the top-ranked site and New Bloomfield is the second-ranked site for total Pennsylvania CBC bobwhite totals. The relatively few sites from south-central Pennsylvania

the land is not mowed during the nesting season (Burger et al. 1990; Brennan 1991; Roseberrry et al. 1994). Pennsylvania's bobwhites were known to frequently nest in hayfields and the 1958-70 set-aside programs probably provided bobwhites with secure nesting cover, just as they did for pheasants. Bobwhites likely benefitted more from the Soil Bank program, which retired fields over multiple years, than from the Feed Grain programs, which retired fields a year at a time (S. Klinger, pers. comm.).

With the ending of the Feed Grain programs after 1970 and the subsequent "fence row-to-fence row" farming, bobwhite populations precipitously declined in Pennsylvania and elsewhere for much the same

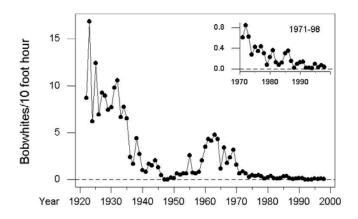


Figure 1. Bobwhites/10 foot hours from southern Pa CBC sites, 1922-98.

before 1949 indicates that the relative population size before the 1950s may be underestimated by the CBC data.

A second peak in counts/10 foot hours occurred during 1960-70, with a mean of 3.1. This increase occurred across most Pennsylvania sites where bobwhites were being reported, implying that the CBC peak reflects a population peak (Figure 1). The 1960-70 era was the period of agricultural set-asides that also brought the boom in Ring-necked Pheasants (Phasianus colchicus) (Bolgiano 1999). Although it is sometimes thought that bobwhites did not benefit from the Soil Bank program (Roseberry and Klimstra 1984), set-aside programs may provide secure nesting cover for bobwhites if reasons that pheasants did: a loss of suitable nesting, brood-rearing, and wintering habitats. CBC counts/hour have declined to very low levels during recent years (Figure 1). The CBC data are similar in pattern to the 1966-89 BBS data shown in the Pennsylvania Breeding Bird Atlas (Brauning 1992). The only Pennsylvania site where they have been consistently reported after the 1970s is Southern Lancaster County.

The overall pattern of the CBC data appears to reflect the general bobwhite population trend described by other sources. This general pattern is that bobwhites were widespread and fairly abundant in southern

Pennsylvania during 1922-35, experienced a steep decline with the winters of 1935-36 and 1944-45, recovered to a limited extent during 1960-70, and experienced another steep decline after 1970. Care should be taken in comparing bobwhite population levels from the data collected before and after about 1950 because the distance observers walked per hour tended to be higher in the early period (Bolgiano 1997) and because few observations were made at sites in or near the Great Valley during the early years.

## The Regional View

A regional view of CBC data shows that the Pennsylvania declines are part of a widespread trend (1960-96 data from Shipman 1998, 1997-98 data from American Birds). I mapped, for each of the last four decades, the median CBC bobwhite count/10 foot hours from sites where observations were made four or more times with a mean of 10 or more foot hours for each decade. If the site center changed, I used the most recent location.

During the 1960s, bobwhites were commonly found throughout much of Ohio, southern Michigan, southern Ontario, southern New England, Long Island, and points south. Since then, bobwhites have drastically declined over most of this range with significant range retractions (Andrle and Carroll 1988; Brewer et al. 1991; Veit and Petersen 1993) (Figure 2). Most of the remaining bobwhites in this region appear to be found along the Atlantic coast, around the Delaware and Chesapeake Bays, and in Virginia (Figure 2). Releases of pen-reared birds may be sustaining bobwhite numbers in southern New England (Veit and Petersen 1993).

In Pennsylvania, bobwhites may be gone or nearly gone as a naturally reproducing species from western Pennsylvania, most of the southcentral region, and the Delaware Valley. From Delaware County, Pulcinella (1998) reports that bobwhites have "become very difficult to find during the winter months" (p. 38), while from Adams County, Robinson (1999) reports that they "are now hard to find" (p. 86). In southern Lancaster County, they are "few and far between" with the largest numbers, though very small, occurring along the Maryland border in the lower

Octororo Creek Valley and in the Serpentine Barrens (R. Schutsky, pers. comm.). Any bobwhites found outside of the southern tier between Fulton and Delaware counties are likely to be released birds.

The Serpentine Barrens include Chrome, Goat Hill, New Texas, and Nottingham Barrens of southwestern Chester County. These barrens collectively form the State Line Barrens, an Important Bird Area (Crossley 1999) and one of the few locations where natural breeding of Pennsylvania bobwhites has been documented in recent years (Gross 1999). The Nature Conservancy is attempting to maintain the "barrens" habitat there through controlled

45. Bobwhites starve when heavy snow cuts off food supplies for a week or more at a time or die from prolonged exposure to snow, wind, and cold temperatures.

Severe weather can affect bobwhites in other ways. A snowstorm on Christmas night, 1969, brought about 20 inches of snow to central and southeastern Pennsylvania, followed by one of the coldest Januarys on record, with enduring snow cover (Environmental Data Service 1969-70). Where similar conditions prevailed in southern Illinois, mortality of bobwhites was not high, but reproduction in the summer of 1970 was almost a complete failure, possibly caused by adults' diminished energy

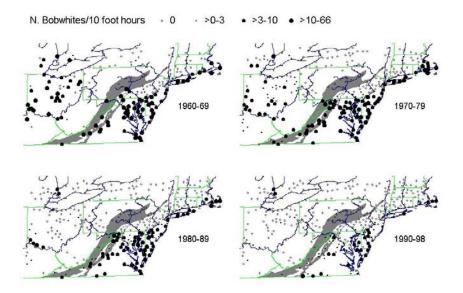


Figure 2. Median Bobwhites/10 foot hours from CBC sites sampled four or more times in a decade, 1960-1998. The gray regions represent the Ridge & Valley and Blue Ridge physiographic provinces.

burning.

# Factors Affecting Bobwhite Populations

Why have bobwhite numbers declined so drastically? Bobwhites are among the most well-studied of avian species, so we have an appreciation of the factors that have affected their populations.

Severe Winter Weather. The loss of up to 90 percent of bobwhite populations to severe weather periodically occurs, as it did in the winters of 1855-56, 1935-36, and 1944-

reserves (Roseberry and Klimstra 1984).

Declines in eastern bobwhite populations also occurred with the consecutive severe winters of 1976-77, 1977-78, and 1978-79 (Robbins et al. 1986). Consequently, the species was placed on the National Audubon Society's Blue List in 1980 and 1981, upgraded to a species of Special Concern in 1982, and further upgraded to a species of Local Concern in 1986 (Tate 1986). Optimism for bobwhites in Pennsylvania and other northern states, such as Michigan (Brewer et al. 1991), was unwarranted, for their numbers continued to decline.

The recovery of bobwhite

populations from severe winters generally takes a few years. But Latham and Studholme (1952) thought that the recoveries from the winters of 1935-36 and 1944-45 seemed to be unusually slow. Errington (1945) also noticed a "depression phase" in Wisconsin bobwhites following the winter of 1935-36. If a bobwhite population is reduced to a sufficiently low level, it may just take time for numbers to build back up (Guthery 2000); sometimes populations never recover to prior levels.

Changes in the Landscape. The most important factor governing the historical abundance of bobwhites in North America has been changes in the landscape, especially the extent and intensity of agriculture and the pattern by which humans build their homes and conduct business (Roseberry and Klimstra 1984; Klimstra 1986; Brennan 1991).

The amount of Pennsylvania's land devoted to agriculture peaked around the year 1880, at about 69 percent of the state's 28.8 million acres. In only 15 of the state's 67 counties, concentrated in the northcentral region of the state, was less than half of the land area devoted to agriculture at that time. Today, 25 percent of the land area remains in agriculture, or 36% of the peak amount. Much of the decline in farmland was concentrated during two periods: 1900-30 when 4.1 million acres (20.5% of peak acreage) were diverted and 1945-74 when 6.8 million acres (34.5% of peak acreage) were diverted. Today, only two counties, Adams and Lancaster, have more than half of their land in farms (U.S. Census and U.S. Census of Agriculture) (Figure 3-4).

Much of the first wave of farmland loss, during 1900-30, was from the abandonment of land poorly or marginally suited to farming. The reversion of these lands to early successional stages of vegetation generated much of the bobwhite habitat in southcentral Pennsylvania during the first half of the 1900s (Jenkins 1942; Latham and Studholme 1952).

The second wave of agricultural land loss, during 1945-74, occurred as farmers mechanized and specialized. With trucks moving food long distances, it became more economical

to grow certain foods in different regions of the country (Fletcher 1955; Miller 1995). Mechanization allowed farmers to manage bigger farms and many acquired land from their neighbors (Figure 4). As farms became bigger and more mechanized, fields became bigger, fencerows were removed, and crops became less diverse, creating conditions less favorable for bobwhites. The abandonment of marginal farmland

habitat into smaller patches also has a negative effect upon the remaining birds, because of increased predation and the inherent difficulties of survival by small populations (Wilcove 1999).

Bobwhites require certain amounts of interspersed agriculture, woodlots, fencerows or hedgerows, and fallow fields. The difficulty in saving Pennsylvania's native bobwhites is that current land uses tend to regenerate forests, practice intensive

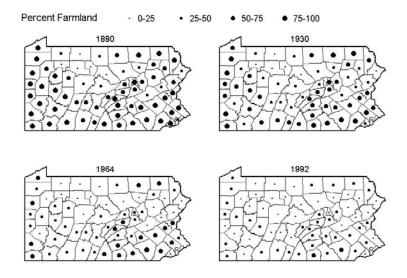


Figure 3. Percent farmland by Pennsylvania county in 1880, 1930, 1964, and 1992.

contributed to increases in bobwhite numbers, particularly in western and southcentral Pennsylvania. In other areas, however, most of the lost farmland was converted to housing or commercial developments and bobwhites didn't benefit.

Between 1930 and 1990, Pennsylvania's human population grew from 9.63 million to 11.88 million, an increase of 23%. At the same time, the number of households grew from 2.24 million to 4.94 million, an increase of 121% or a rate 3.8 times faster than the human population growth rate (U.S. Census and U.S. Census of Housing). A large portion of bobwhite habitat was directory lost to housing and commercial developments, but much of the remaining habitat was also affected. A relatively small number of houses in bobwhite habitat may negatively affect bobwhites from the associated vehicle traffic or disturbance by pets (Roseberry and Klimstra 1984). The fragmentation of agriculture, and build on and fragment habitats without creating successional mosaics on the required spatial scale.

Predation. As with most ground nesting birds, bobwhite nest success is low. In an Illinois study of 793 nests, hatching occurred in one-third of nests, with predators destroying 55% of the lost nests. House Cats (Felis domestica), Striped Skunks (Mephitis mephitis) and various snakes were considered to be the most frequent nest predators (Roseberry and Klimstra 1984). Avian predators, especially Cooper's Hawks (Accipiter cooperii), may kill as many or more bobwhites than mammalian predators (Errington 1934; Robinette and Doerr 1993; Burger et al. 1995a). Latham and Studholme (1952) thought that the main predators of Pennsylvania bobwhites were Cooper's hawks, house cats, Red Foxes (Vulpes vulpes), and Gray Foxes (Urocyon cinereoargenteus). As habitat becomes more fragmented, predation can increasingly affect ground nesting birds (Paton 1994; Faaborg et al. 1995; Wilcove 1999).

Hunting. The bobwhite hunting kill during the 1930s and 1940s was estimated at about 40% of Pennsylvania's bobwhite population (Latham and Studholme 1952). When populations are healthy, hunting kills up to 40% of the population are thought to have little impact upon long-term population levels (Rosene 1969; Roseberry 1979). As with predation, the impact of hunting upon bobwhite populations may increase as habitat declines (Robel 1993).

Following the bobwhite population declines in the late 1970s due to severe winters, the Pennsylvania hunting season on bobwhites was closed in 1981 (Anon 1981). The season reopened in 1982 except in 13 southeastern and southcentral counties (Adams, Chester, Cumberland, Dauphin, Delaware, Franklin, Fulton, Juniata, Lancaster, Lebanon, Perry, Snyder, and York) where naturally reproducing bobwhites were concentrated (Anon 1982). As this plan has been in effect since 1982, the impact of hunting on Pennsylvania bobwhite numbers has been minimal during the past two decades.

Loss of Adaptiveness. After the passage of a hunting license fee in 1931, the Pennsylvania Game Commission (PGC) had the resources to systematically stock large numbers of bobwhites. Between 1914 and 1932, the PGC bought and released over 90,000 Mexican bobwhites, presumably of the C.v. texanus subspecies (Christy 1926; Latham and Studholme 1952). Between 1932 to 1952, approximately 400,000 pen-reared bobwhites bought from private breeders or raised at state game farms were released in Pennsylvania (Latham and Studholme 1952). Stocking of pen-reared birds continued until 1973 (Godshall 1973).

The gene pool of Pennsylvania's bobwhites may have become less adaptive from the release of nonnative and pen-reared birds. The bobwhite population increased noticeably between 1911 and 1935, a time when many birds were released. But the series of mild winters favored native birds too (Todd 1940). As noted by Latham and Studholme (1952), when the population size was as many as

300,000 to 400,000 birds prior to the winter of 1935-36, the release of 12,000 pen-reared birds/year would have little effect upon the gene pool, given the very low survival of pen-reared birds (Buechner 1950; Roseberry et al. 1987; Hurst et al. 1993; DeVos and Speake 1995). When wild population levels were low, the genetic contribution from released birds may have been considerable. Between 1936 and 1952, the annual number of released birds may have been half or more of the wild population size (Latham and Studholme 1952).

Some Pennsylvania ornithologists thought that significant interbreeding of the imported *texanus* and native bobwhites occurred. The assistant curator of the Academy of Natural

replacement or weakening of the original stock in some places, there was insufficient evidence for judging that interbreeding with *texanus* permanently affected most of the native stock.

Population Size. If a population becomes too small, it is unlikely to persist. Inbreeding can reduce vitality and environmental disturbances, such as severe winter weather, can reduce numbers past the point of no return. This is what happened to the heath hens on their last refuge, the island of Nantucket (Bent 1932). A population size of 3000 bobwhites requiring 10,000-30,000 acres of habitat may be necessary for a bobwhite population to sustain itself (Guthery 2000).

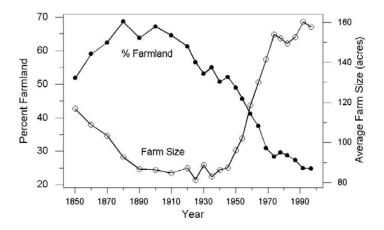


Figure 4. Percent Pennsylvania farmland (closed circles) and average farm size (open circles), 1850-1997.

Sciences of Philadelphia was quoted by Christy (1926) as saying, "I am careful to keep the Bob-whites, for there are no more to be had. Our native strain no longer exists in its purity" (p. 7). Sutton (1926) thought that the mixing of Mexican with native birds had caused a decrease in size and a change in coloration in the wild population, which is similar to Phillips' (1915) observation in Massachusetts after the importation of southern birds. Latham and Studholme (1952) believed that interbreeding with less-fit birds was a reason that bobwhites were slow to recover from the winters of 1935-36 and 1944-45. However, Todd (1940) thought that while the importation of distant birds had caused the partial

Pennsylvania's population of wild bobwhites may be near that critical level

## **Summary**

Bobwhites were well established in Pennsylvania before Europeans arrived and their population boomed upon clearing of the forests. They may have once numbered in the millions in Pennsylvania and they constituted an important food resource for humans. Market hunting and severe winters took their toll on bobwhites, but clean farming practices, the loss of habitat from housing and commercial development, and a lack of early succession-producing disturbances

have probably been the primary causes of their scarcity during the last 30 years. Bobwhites in eastern North America have severely declined in number and retracted in breeding range. If the present trend continues, bobwhites will likely be extirpated as a naturally breeding species in many places east of the Mississippi River within a relatively short span of years (Brennan 1991). The long Pennsylvania heritage of bobwhites may also end.

**Acknowledgments**: I am grateful to Doug Gross, Greg Grove, Paul Hess, and Scott Klinger for their valuable discussion and suggestions.

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# First Documented Nesting Records of Hooded Merganser in Berks County, PA By Bill Uhrich

previously Having gone unrecorded as a nesting species in Berks County, two Hooded Mergansers successfully nested in the county in spring, 2000. On April 8th, Jeff Schucker found a female Hooded Merganser on a nest of 13 eggs in one of his Wood Duck nest boxes in Lenhartsville. He banded the hen. Twelve of the eggs hatched around April 20, and the family group was seen swimming down the Maiden Creek. There were no further sightings of this group.

On April 28th, I found a female Hooded Merganser with 10 young at the Birdsboro Reservoir in Robeson Township. I photographed the birds on April 30. Harold and Ken Lebo recovered the egg shells from a Wood Duck nesting box they had erected. The birds remained on the reservoir until May 5th.

Schucker has maintained a network of Wood Duck nesting boxes in Berks, Lehigh, and Schuylkill counties since 1992. Since then he has banded 126 hens. His banding returns include two from North Carolina, one from New Jersey, and one from Pennsylvania. This spring he banded 20 hens and had 15 returns among his 45 nests. He also had more dead hens, four, than in any previous year due to possible raccoon predation. He found the feet, wings, and heads in the nest boxes. Schucker had one dump nest of 29 eggs, the largest in his records. Other large dump nests contained 24, 23, 22, and 20 eggs. Hens in his nest boxes produced a total of 537 eggs.

> 176 Clymer st Reading 19602

# Highlights of the 2000 North American Migration Count by Greg Keller

### Overview

The 9<sup>th</sup> annual North American Migration Count (NAMC), held on 13 May 2000, served as a perfect excuse to enjoy the return of migrants to Pennsylvania. Apparently, many of you agreed that few pursuits on a Saturday in May can be as fulfilling as documenting the presence of bird species in our favorite spots. Participation was record-breaking, with 862 observers in 47 counties taking to the field in pursuit of migrants. Previous records were 838 observers (1998) in 43 counties (1998). We found a total of 233 species, third behind 237 species observed in 1998 and 234 in 1997. The day also was unique in our counting approach, ranging from typical modes of transportation of foot and car, boat and bicvcle, to horse and buggy, golf cart, and surfing (Internet webcam of Peregrine Falcons in Dauphin County).

### Weather

As always, the weather had an influential hand in the NAMC this year. Thankfully, the day wasn't a total washout, which has happened in several recent years. Unseasonably warm and wet weather during early spring was replaced by seasonable temperatures during count week. As seems to be typical, if there is such a thing on count day, what began as a beautiful spring day quickly turned dark as a massive front worked its way eastward through the state. Comfortable temperatures and beautiful skies throughout Pennsylvania were replaced by heavy thunderstorms, relentless downpours, and, in places, hail and tornadoes. Temperatures, wind speeds, and wind directions ranged wildly depending entirely upon where one was relative to the front.

## Participation

Even though storms put a damper on observations this year, they did not dampen enthusiasm. The number of participants and number of counties involved far exceeded my expectations. This truly is a testament to your dedication to this national effort. Most satisfying was the number of "younger" birdwatchers who took to the field, as noted by many county compilers. Franklin County took top honors this year in participation, measured by number of observers (67), followed closely by Indiana County. Ten counties were represented by at least 35 counters.

## Table 1. The most participants.

1. Franklin	67	
2. Indiana	64	
3. Chester	53	
4. Bucks	46	
5. Dauphin	46	
6. Lancaster	45	
7. Berks	42	
8. Mercer	38	
9. Greene	37	
10. Westmoreland	35	

Although they may not have had the greatest number of participants, many counties boasted observers putting in much more than the typical 8-hour work day. As measured by average number of hours per party, Venango County won the Ironman Award for dedication, averaging nearly 15 hours in the field, followed closely by Bedford at 14 hours per party. Parties in 11 counties averaged at least 9 hours.

Table 2. The greatest effort (hours/party).

150
15.0
14.0
13.0
13.0
12.5
11.5
10.5
10.2
10.0
9.2
9.2

## Species Lists

Lancaster County led the day with a total of 166 species out of the 233 total observed in all counties combined. Seven counties topped the 150-species mark, and an amazing 35 counties topped the 100-species mark. The average number of species per county was 115.

Table 3. The top counts (number of species).

1. Lancaster	166
2. Westmoreland	155
3. Bucks	153
3. Dauphin	153
5. Berks	150
5. Franklin	150
5. Luzerne	150
8. Centre	146
8. Indiana	146
8. Juniata	146

Although not a particularly notable list, six ubiquitous species were detected in all 47 counties, and 10 more were found in 46 counties.

Table 4. The most widespread species and number of counties in which they were found.

47
47
47
47
47
47
46
46
46
46
46
46
46
46
46
46

Permanent residents and short-distance migrants dominated the list of most abundant species; only the Barn Swallow represented long-distance migratory species returning to Pennsylvania.

Table 5. The most abundant species (total individuals).

1. American Robin	14435
2. Common Grackle	11168
3. European Starling	10667
4. Red-winged Blackbird	10362
5. Canada Goose	8823
6. American Crow	6298
7. Gray Catbird	6127
8. Barn Swallow	5019
9. American Goldfinch	4836
10. Mourning Dove	4669

The list of Neotropical migrants, those birds for which Pennsylvania is well-known during spring migration, was dominated by nesting species rather than transients. Here is a list of the top 20 species, out of 75 species detected by all counties combined, that winter mostly or entirely in the West Indies, Mexico, Central and South America.

# Table 6. Most abundant Neotropical migrants.

1. Barn Swallow	5019
2. Red-eyed Vireo	4502
3. Ovenbird	3247
4. Baltimore Oriole	3221
5. Wood Thrush	3209
6. Yellow Warbler	2996
7. Indigo Bunting	2511
8. Chimney Swift	2406
9. American Redstart	1777
10. Scarlet Tanager	1655
11. Bobolink	1487
12. Bank Swallow	1032
13. N. Rough-winged Swallow	874
14. Rose-breasted Grosbeak	870
15. Great Crested Flycatcher	849
16. Eastern Kingbird	830
17. Purple Martin	811
18. Black-throated Green Warbler	749
19. Eastern Wood-pewee	745
20. Chestnut-sided Warbler	677

The list of most abundant passage transients, those species that are never resident in Pennsylvania, whether as summer breeders or winter residents, was an interesting mix of shorebirds and warblers.

Table 7. Most abundant passage transients.

1. Least Sandpiper	567
2. Solitary Sandpiper	163
3. Tennessee Warbler	125
4. Dunlin	73
5. Semipalmated Plover	68
6. Lesser Yellowlegs	52
7. Bay-breasted Warbler	47

8. Greater Yellowlegs	44
9. Wilson's Warbler	32
10. Semipalmated Sandpiper	31

According to the same criterion as above, a paltry nine passerine transient species (not including Blackpoll Warbler) were detected during the count. With the exception of Tennessee Warblers, numbers of individuals were very low.

# Table 8. Most abundant passerine passage transients.

1. Tennessee Warbler	125
2. Bay-breasted Warbler	47
3. Wilson's Warbler	32
4. Cape May Warbler	14
5. Olive-sided Flycatcher	9
5. Philadelphia Vireo	9
7. Gray-cheeked Thrush	7
8. Lincoln's Sparrow	6
9. Palm Warbler	4

## **General Impressions**

Most participants during the count noted the paucity of migrants. Although the number of migrant species for Pennsylvania as a whole was respectable, most counties had relatively few species and individuals. In addition, this count was notable for the few number of surprises and the large number of conspicuous misses.

Many species of waterfowl were missed during the count, including Gadwall, American Wigeon, Canvasback, Redhead, Greater Scaup, and Oldsquaw. A warm spring likely sent them northward early this year resulting in misses during this relatively late count date. Although some of the "regulars" were missed, Bedford counters were treated to a rare Trumpeter Swan, and the cooperative Ross's Goose held on in Indiana County for the NAMC.

Raptors were well represented; 14 species (including vultures) were detected, including all except Roughlegged Hawk and Golden Eagle. Shorebirds were not particularly noteworthy. However, Forest County was the site of the single Blackbellied Plover and both Ruddy Turnstones. Observers found all nine Sanderlings in Mercer County, both Western Sandpipers in Bucks, and both Stilt Sandpipers in Bedford.

Five owl species were counted during the NAMC. An impressive 11

Barn Owls were found in Berks County, and two Northern Saw-whet Owls were observed in both Luzerne and Venango Counties. Two counties, Bedford and Bucks, were responsible for very exciting sightings of Chuckwills-widows during the count.

Observations of flycatchers proved the highlight during many counts, with no species missed for all counties combined. Nine Olive-sided Flycatchers were found in eight counties; Bucks and Clearfield Counties each reported Yellowbellied Flycatchers; and an incredible 28 Alder Flycatchers were counted in 13 counties, with a high of five in Centre. All regular vireos also were detected. Most notable were nine Philadelphia Vireos in seven counties.

All five wren species were counted during the NAMC. Three of the six Marsh Wrens were found in Philadelphia County, and Sedge Wrens were observed in Centre and Clearfield Counties; the former was observed collecting nest material. All thrushes were counted except Bicknell's. Although a few counters thought that they heard this species singing, appropriate conservative reporting by compilers led to the omission of this species.

Perhaps the biggest surprise and most unfortunate miss was the complete absence of shrikes during the NAMC in Pennsylvania. The count was a bit late to find **Northern Shrikes**, even though they were extremely numerous during the winter of 1999-2000 (see Paul Hess' article in Volume 14 Number 1). However, counters in Adams County, the lone stronghold for nesting **Loggerhead Shrikes** during the past few years, did not locate this species during the NAMC; even worse, the species has not been found nesting in Pennsylvania this year.

If warblers are your passion, Westmoreland or Dauphin Counties were the places to be during the NAMC, with 32 and 31 species reported, respectively. Bucks County had high counts for the most (seven) species. As a whole, 34 species were detected; missed were three species high on every Pennsylvania birdwatcher's list of most wanted — Orange-crowned, Connecticut, and Swainson's. Whereas the latter species and Summer Tanager were two of the more southern breeders not

detected, participants did find others, including **Prothonotary** (three counties) and **Yellow-throated Warblers** (seven counties), **Blue Grosbeak** (three counties), and **Dickcissel** (only one county, which is surprising given the huge influx during the 2000 breeding season).

Fourteen sparrow species, including 1 Clay-colored Sparrow in Tioga County and four late Fox Sparrows in three counties, were detected during the NAMC. All winter finch species, with the exception of Common Redpoll, were counted; however, very few individuals were found – 300 Purple Finches, 5 Red Crossbills, 5 White-winged Crossbills, 44 Pine Siskins, 18 Evening Grosbeaks.

Finally, an unwelcome group of species were well-represented. Six introduced, non-native species were found throughout Pennsylvania: 82 Mute Swan, 112 Ring-necked Pheasant, 2994 Rock Dove, 10667 European Starlings, 2210 House Finches, and 4271 House Sparrows.

### The NAMC Future

Few, if any, other states can boast of the level of NAMC participation enjoyed in Pennsylvania, which truly is a testament to the degree of dedication by compilers and observers. Such participation consistently has resulted in 230+ species and 200,000+ individuals counted during the past few years. Perhaps more importantly, it also has resulted in a significant contribution to our knowledge of migrant distribution patterns in the state. You should all be commended for your efforts to this important, long-term data set.

Previous NAMCcoordinators have suggested that 1000 participants in 50 counties detecting 250 species are not unrealistic goals and will be surpassed soon. I agree wholeheartedly with their predictions. We are only three counties away from an even 50, and number of participants has increased each year with greater national and state awareness and promotion. However, to achieve 250 species will require much greater coverage to avoid missing common species and to pick up uncommon and rare species. Clearly, the addition of Erie (a must) and the remaining southeastern counties (Delaware, Montgomery) for shorebirds and waterfowl, as well as more northerntier counties (Warren, McKean, Potter, Bradford) for wintering lingerers, and other southwestern-corner counties (Washington, Fayette, Somerset) for southern intruders is critical for future NAMC success. Perhaps with a realistic goal of adding at least one county from each of these regions, we subsequently can reach for record species and individual counts next year.

## Acknowledgments

I would like to extend special thanks to Frank and Barb Haas for their unbelievable patience during this "transition" year and to county compilers for rallying the troops. Finally, I appreciate the webdevelopment expertise and web space provided by Integrated Technologies and Systems Group in State College, Pennsylvania, and PlumRiver Technologies in Salisbury, Massachusetts, for the www.birdingman.com site.

Appendix. List of compilers and addresses and unidentified bird species or hybrid forms for each county. Unidentified and hybrid forms are not used to calculate summary statistics.

- Adams (ADAM) Peter Robinson, P.

   Box 482, Hanover, PA 17331, 717-632-8462, peterrobins@hotmail.com
- Allegheny (ALLE) Paul Hess, 1412
   Hawthorne St., Natrona Heights, PA
   1 5 0 6 5 , 7 2 4 2 2 6 2 3 2 3 ,
   phess@salsgiver.com, Cuckoo sp. 1,
   Chickadee sp. 12
- 3. Armstrong (ARMS) Shirley Claypool
- 4. **Beaver** (BEAV) Bill Hintze, 4836 Ellsworth Ave., Pittsburgh, PA 15213, 4 1 2 - 6 8 3 - 2 6 6 9 , Hintze\_Bill@hotmail.com, Accipiter sp. 2, Buteo sp. 3, Chickadee sp. 9
- Bedford (BEDF) Ron Kidd, P. O. Box 37, Buffalo Mills, PA 15534, 814-623-6980, pegkid@nb.net, Empidonax sp. 2, Chickadee sp. 3
- Berks (BERK) Matt Wlasniewski, 21
   Scenic Dr., Hamburg, PA 19526, 610-562-7550, matski@enter.net, Peep sp. 1,
   Empidonax sp. 4, Chickadee sp. 17,
   Thrush sp. 1
- Blair (BLAI) Charlie Hoyer, P.O. Box 32, Tyrone, PA 16686, 814-684-7376, charma@nb.net, Empidonax sp. 3
- Bucks (BUCK) Ken Kitson, 704 Headquarters Rd., Ottsville, PA 18942, 610-847-2968, kkitkraft@aol.com
- 9. Butler (BUTL) Suzanne Butcher, 11 Norwick Dr., Youngstown, OH 44505,

- 330-759-1945, sarbie@msn.com
- Cambria (CAMB) Dave Gobert, 287
   Beech Rd., Patton, PA 16668, 814-674-8359
- Centre (CENT) Eugene Zielinski,
   1322 Old 220 Rd., Bellefonte, PA 16823,
   814-353-8212, eez55@juno.com, Tern
   sp. 1
- 12. Chester (CHES) Martin Page, 9 Old Covered Bridge Road, Newtown Square, PA 19073, 610-359-9887, Martin\_Page@msn.com, Thrush sp. 1
- 13. Clarion (CLAR) Margaret Buckwalter, 249 Maple Dr., Shippenville, PA 16254, 814-782-3925, mbuckwalter@usachoice.net, Empidonax sp. 3
- 14. Clearfield (CLEA) Steve Belin, RR 1 Box 285, Houtzdale, PA 16651, 814-378-5848, belin@clearnet.net, Empidonax sp. 1, Chickadee sp. 3
- Crawford (CRAW) Mavin J. Byler, 6498 Pine Rd., Hartstown, PA 16131
- 16. Cumberland (CUMB) Ramsay Koury, Jr., 123 Old Ford Dr., Camp Hill, PA 17011, 717-761-1871, rkoury123@aol.com, Empidonax sp. 1, Brewster's Warbler 1
- 17. *Dauphin* (DAUP) Grace Randolph, 1060 Country Hill Dr., Harrisburg PA 1 7 1 1 1 1, 7 1 7 6 5 2 8 1 2 9, grandol@msn.com, *Accipiter* sp. 1, Gull sp. 1, Crow sp. 12, Chickadee sp. 5, Thrush sp. 2
- Elk (ELK) Frank Hughes, RD#1 Box
   14A, Ridgway, PA, 15853, 814-776-1403, birder@ncentral.com
- 19. Forest (FORE) Florence McGuire, HC 1 Box 6A, Tionesta, PA 16353, 814-755-3672. mcguires@penn.com
- 20. Franklin (FRAN) J. Kenneth Gabler, 2 3 8 1 Lincoln Way West, Chambersburg, PA 17201, 717-263-3164
- 21. Greene (GREE) Kathy Kern, 322 Kennel Rd., Waynesburg, PA 15370, 724-627-5376, n3xsj@alltel.net
- 22. Huntingdon (HUNT) Nick Bolgiano, 711 W. Foster Ave., State College, PA 1 6 8 0 1 , 8 1 4 - 2 3 4 - 2 7 4 6 , Nbolgiano@minitab.com
- Indiana (INDI) Margaret Higbee,
   3119 Creekside Dr., Indiana, PA 15701,
   724-354-3493, bcoriole@twd.net
- 24. Juniata (JUNI) Linda Whitesel, RR 3 Box 820, Mifflintown, PA 17059, lkwhitesel@jc-net.com, Scaup sp. 1, Empidonax sp. 4, Brewster's Warbler 1
- Lackawanna (LACK) Rosann Bongey, 1414 The Hideout, Lake Ariel, PA 18436, 570-698-8266
- Lancaster (LANC) Bruce A. Carl,
   628 Fulton St., Akron, PA 17501, 717 859-4189, carls@desupernet.net,
   Accipiter sp. 1, Brewster's Warbler 1
- Lawrence (LAWR) Barb Dean, 321
   E. Meyer Ave., New Castle, PA 16105, 724-658-3393, barbcd@excite.com
- Lebanon (LEBA) Randy C. Miller, 607 Woodland Dr., Manheim, PA 17545, 717-664-3778, Brewster's Warbler 1
- 29.  $\textit{Luzerne}\ (\text{LUZE}) \text{James T. Shoemaker},$

- 24 Abrahams Dr., Wyoming, PA 18644, 570-693-5662, wyoshoe@aol.com
- Lycoming (LYCO) Wesley Egli, 105
   Sherman St., Muncy, PA 17756, 570-546-3957
- 31. Mercer (MERC) Neil Troyer, 876 Williamson Rd., Mercer, PA 16137
- 32. **Mifflin** (MIFF) Margaret Kenepp, 590 Mountain Ln., McVeytown, PA 17051, mkenepp@lcworkshop.com
- 33. Montour (MONT) Jon D. Beam, PPL Mountour Preserve, 700 Preserve Rd., Danville, PA 17821, 570-437-3131, jdbeam@papl.com, Accipiter sp. 1
- 34. Northampton (NORT) Michael Schall, 1149 Mickley Ave., Whitehall, PA 18052, 610-435-2781, mdtjschall@yahoo.com
- 35. Perry (PERR) Elaine Howe, P.O. Box 23, Newport, PA 17074, 717-567-2216, Dhelin@igateway.com, Crow sp. 47, Thrush sp. 1, Brewster's Warbler 1
- 36. **Philadelphia** (PHIL) Doris McGovern, 209 Dogwood Rd., Media, PA 19063, 610-5 6 5 8 4 8 4 , mcgovern2@masca.museum.upenn.edu
- 37. Pike (PIKE) Jim Lockyer, 35 Letitia Lane, Media, PA 19063, 610-565-2873, jim@jl-studio.com
- 38. Potter (POTT) Gary Witmer, 19 Avenue B, Coudersport, PA 16915, 814-274-7655, witmers@penn.com, American Black Duck/Mallard hybrid
- Schuylkill (SCHU) Dave Kruel, 540
   Pine Street, Pottsville, PA 17901, 570-622-1184, accip@pottsville.infi.net,
   Brewster's Warbler 1
- Sullivan (SULL) Nick Kerlin, PO Box
   Forksville, PA 18616, 570-924-3542,
   bluebird@epix.net, Accipiter sp. 1,
   Empidonax sp. 1
- Susquehanna (SUSQ) Jerry Skinner, Woodbourne Preserve, RD 6, Box 6294, Montrose, PA 18891, 570-278-3384, jskinner@epix.net, Accipiter sp. 1, Buteo sp. 2
- Tioga (TIOG) Robert M. Ross, R.D. 4
   Box 63, Wellsboro, PA 16901, 570-724-3322x239, rossr@epix.net, Peep sp. 4
- 43. **Venango** (VENA) Russ States, 24 East Fifth St., Oil City, PA 16301, 814-676-6320, russs@csonline.net
- 44. **Wayne** (WAYN) Voni Strasser, RR 2 Box 37, Hawley, PA 18428, 570-226-9856, sawwhet@ptd.net
- 45. Westmoreland (WEST) Dick Byers, RR1 Box 270 B, Stahlstown, PA 15687, 724-593-3543, otusasio@tcsinternet.net, Accipiter sp. 1, Buteo sp. 3, Empidonax sp. 5. Chickadee sp. 7
- Wyoming (WYOM) William Reid, 36
   Maple Grove Rd., Tunkhannock, PA 18657, 570-836-2734
- York (YORK) Bruce Fortman, RD 1 Box 2091, New Freedom, PA 17349, 717-235-5982, Fortas46@aol.com

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	ADAM	ALLE	ARMS	BEAV	BEDF	BERK	BLAI	BUCK	BUTL	CAMB	CENT	CHES	
Red-throated Loon						2						1	
Common Loon	•	,			က			4		9	-	က	
Pied-billed Grebe					-	9		2			-		
Horned Grebe				•	-								
Double-crested Cormorant		10		39	13	40		140	7	2	∞	4	
American Bittern					_								
Great Blue Heron	· ←	24		- 20		38 -	· –	- 29		۲ '	, 4	19	
Great Egret					2			13			-	က	
Snowy Egret					,	٠,	,	4		,			
Cattle Egret						- '		' <b>-</b>					
Green Heron	-	-		9	9	13		29		က	10	22	
Black-crowned Night-Heron		-	•		-	-	•	9					
Yellow-crowned Night-Heron					' -	' 7		' 7				, 70	
Brack Vulture Turkev Vulture	. 5	. 15	٠,	24	27	8 -	' <del>4</del>	133	່ ຕ	16	- 49	152	
Trumpeter Swan					-								
Tundra Swan													
Mute Swan					•	12	1	27		•		-	
Snow Goose (white form)						13		2					
Ross's Goose Canada Goose	- 144	178		167	- 179	577	່ ຕ	1043		' ^	' E	342	
Wood Duck	-	28		30	9	19	0 0	47	က	· m	28	38	
Green-winged Teal					2						7		
American Black Duck	٠,	' ;		က	- !	•	٠,	_ ;	٠,	٠,	'!	. ;	
Mallard	2	113		63	42	162	က	161	9 (	∞	117	69	
Notthern Pintall Blue-winged Teal					່ ແ				<u> </u>			٠.	
Ring-necked Duck					າ '				- '			- '	
Lesser Scaup						-		2				1	
Black Scoter										2			
Surf Scoter					•		•	•		•	•	•	
Bufflehead		٠,			-						-		
Hooded Merganser		- '			٠,			' c					
Red-breasted Merganser							4	1 '					
Ruddy Duck		,		,		14	. '	-	7	,			
Osprey						12		9	-	-		2	
Bald Eagle								-	-		2		
Northern Harrier Sharn-shinned Hawk		ო '		5 '		დ 4		່ ຕ	← '	← '			
Cooper's Hawk		-		-	-	7	2	2 0	-		2	2	
Northern Goshawk		,	•	•	,		,	,		•	•	•	
Red-shouldered Hawk		2	٠	က				-	•		4	_	
Broad-winged Hawk		-		-		21		2	-	-		-	
Red-tailed Hawk	ۍ <del>د</del>	17		21	ю <i>-</i>	040	က	62	4 -	4 -	16	29	
American resuel	- '	7			4 '	ກ '		ກ '	- '	- '	, '	0 '	
Peregrine Falcon	•	•	•	•		•		· <del>-</del>			•		
Ring-necked Pheasant		2	•	-	11	က		· m	2		-	4	
Ruffed Grouse	<del>-</del>	-		_		•	7		_		2		
Wild Turkey	-	23		4	15	თ	7	20	9	-	2	٠,	
Virginia Rail												- w	
Sora				-	<u>.</u> .						14	ာ ဖ	
Common Moorhen						•							

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	ADAM	ALLE	ARMS	BEAV	BEDF	BERK	BLAI	BUCK	BUTL	CAMB	CENT	СНЕЅ
American Coot		-		2	2	2		က			1	_
Black-hellied Plover		. •		. '				, ,			. •	. •
Seminalmated Ployer		-	•		ď	٠		ď	•		•	ı
Killdeer	4	28		14	20	18		41	4	m	21	16
Greater Vellowleds	. '	;			ο α	. '		. ^	. '	, '	· -	<b>2</b> . ∇
Lesser Yellowleds	,	4	,	. '	>	-		. 12		,	. '	r m
Solitary Sandpiper		7			<b>o</b>	9		22			-	Ω
Spotted Sandpiper	7	25		∞	0	13	-	09		13	20	23
Opland Sandpiper												
Sanday Lumsione Sandarling												•
Sanderning Semipalmated Sandbiber					' 4							' ←
Western Sandpiper					. •			2				
Least Sandpiper	•	7	•		7	41		167		•	4	28
Pectoral Sandpiper	•	•	•		•				•	•	•	
Dunlin								2				
Stilt Sandpiper					2				٠.			
Short-billed Dowitcher				٠.					-		٠.	
Common Snipe				- 1			٠.		٠,		<del>-</del> '	,
American Woodcock				ო			τ-	' 00	7		ო	
Laugning Guil								420			' (	•
Bonaparte's Gull		٠,		, 4		٠,		' 6	' Ç	, 6	υ c	٠, ١
King-billed Gull Herring Gull		+ v		o '	່ ແ	o <del>-</del>		303	7 '	y '	130	4 '
Great Black-backed Gull		, '			, '			00000			. •	
Common Tern	,		,		,	,		, '	_		,	
Forster's Tern	,									,		
Black Tern												
Rock Dove	16	18		65	14	227		86	20		59	140
Mourning Dove	113	80	9	91	78	297	10	313	11	43	111	183
Black-billed Cuckoo	-	တက		Ν (	m c	- 6					o	W 7
Fellow-billed Cuckoo		າ '		۷ '	۷ '	11		2 '			2 '	<b>,</b>
Fastern Screech-Owl	-				-	- o	0		-		2	22
Great Horned Owl		2				<u> </u>	ı m	2	. '		ı m	m
Barred Owl	2	,	,		_	,	•		-	,	,	
Northern Saw-whet Owl												
Common Nighthawk		4		2	-	7		0				
Chuck-will's-widow					_			-				
W hip-poor-will	က	2 2		' 1	13	' (	ıcı	' (	Ψ,	' (	18	' ' '
Chimney Switt Ruby-throated Hummingbird	' 01	9 4	, 4	105 10	4 K 2 K	72	ი 4	20	- 4	<u>ი</u>	52	941 9
Belted Kingfisher	2	o rc		2	13	21 6		) «C	4	<u>-</u>	. <sub>C</sub>	ာ တ
Red-headed Woodpecker	۲,	, '	,	. '		2	. '	, '	. '	. '	, '	, '
Red-bellied Woodpecker	17	58	2	37	24	7.9	4	135	4	2	21	135
Yellow-bellied Sapsucker				-	2	2						
Downy Woodpecker	11	22	-	25	19	45	2	49	4	3	10	40
Hairy Woodpecker	က	∞ ;	2	သ	တေ့	10	-	9	က		9	တ
Northern Flicker	1 22	29		29	17	46	4 c	0 0	φ <del>,</del>	ဖ	26	
Olive-sided Flycatcher	٠,	2 '	. '	<u>-</u>	<u> </u>	<u> </u>	۷ '	o <del>-</del>	- '		7-	t '
Eastern Wood-Pewee	27	15		20	7 2	56	4	47	-		17	09
Yellow-bellied Flycatcher	•		,		•		. •	-		,		•
Acadian Flycatcher	16	18		38	-	18	4	4	4		2	29
Alder Flycatcher	•	•	•	7	•	•		•	7	• ,	22	•
Willow Flycatcher		0 4		ω <i>τ</i>	7 0	15	٠ ،	16	- ,	- τ	0 1	22
Least Flycatcher		-		-	7	٥	7		<del>-</del>	_	0	

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Eastern Phoebe	80	9	17	19	43	7	45	9	6		39
Great Crested Flycatcher	17	٠ «	12	16	56	œ	72	2	-		28
Eastern Kingbird	13	2 -	<b>o</b>	15	19	2	84	1	80		06
White-eyed Vireo		4	12		21	_	10	2			41
Blue-headed Vireo Yellow-throated Vireo		. 4	4 4		დ <u>წ</u>	7 5	0 4		← '	37	΄ α
Warbling Vireo	. '	- 11	4		8 0		93	2			45
Philadelphia Vireo			•					2			
Red-eyed Vireo	_	8	154	21	269	19	225	8	24		219
Blue Jay		92 2	58	54	275	21	304	9	31		221
American Crow Eish Crow	17 150	0:	81	- 6	206	12	336	22	35		232
Common Rayer				α	0+		00				-
Horned Lark	_ '		2	o '					- დ		, 4
Purple Martin	10	-	, '		15		7	7	· '		24
Tree Swallow	6	32 -	52	72	144	က	261	24	37		146
N. Rough-winged Swallow			44	<del>.</del> .	23		112	2	2		34
Bank Swallow	33		•	יט ע	120		4 0				
Baro Swallow	37 6	64	147	3 3 3	210	' α	194	46	2 4 8		157
Black-capped Chickadee		4	20	29	45	17	52	16	20		
Carolina Chickadee		23 -	47		25		74				108
Tufted Titmouse		71 2	101	25	120	13	201	4	ω,		126
Red-breasted Nuthatch		' '		' (	4 0	٠ ,		' (	- I		' (
White-breasted Nuthatch	19 1	7 .	22	10	120	ٔ م	25	∞ '	ر م		26
Carolina Wren	' ო		34	່ ເດ	29	່ ຕ	- 67	5			64
House Wren		17 2	23	19	55	က	141	6	8		131
Winter Wren			•								
Sedge Wren		•									
Marsh Wren			٠,		•				-		
Golden-crowned Kinglet Ruby-crowned Kinglet			4 -		' 0		٠.				' -
Rub-gray Gratestober	' u	' "	- 52		2 00		- 12				- 4
Blac-gray Charcatorier		7 2	27	33 t	2 8	ט גמ	45	ാന	18		75
Veery	. 2		4	. ~	65	) <del>-</del>	22	) <del>-</del>	0 N		100
Gray-cheeked Thrush		-			-		2		-		_
Swainson's Thrush	-		22	5	en d	٠,	7		' '		0
Mermit Inrush			4 0		D C	- 17		. 07	ი ი		- 000
Wood IIIIusii American Robin	61 273	o 6.	143	- 110	249 466	- 60	792	0 7	2 86		220 634
Gray Cathird			74	29	505	12	591	12	19		750
Northern Mockingbird	31		5	26	39		66	-	-		110
Brown Thrasher	. വ	3 '	α '	. വ	თ '	<b>-</b> '	10		ο '		τ <del>,</del> σ
Codar Waxwing	27	, A	0	α	224	-	325	12	23		90
Codal Waxwing European Starling		, i	152	161	460	- 2	680	26	65		241
Blue-winged Warbler			30	. '	29	ı '	39	) ၈ I	, '		32
Golden-winged Warbler		-		2		က					
Tennessee Warbler			19	-	4 (	4 c	4 (				' c
Northern Darila	o c		, c		7 01	7	57				7 7
Yellow Warbler		28	64	<b>'</b> 9	125	<sup>'</sup> 4	258	41	· <del>-</del> -		198
Chestnut-sided Warbler	2	. 8	5	2	43	-	19	б	2		10
Magnolia Warbler	2	- 2	-		23		37	9	-		5
Cape May Warbler	٠,			' (	' 3	٠,	٠ ;		٠,		' (
Black-throated Blue Warbler	ກ	m		Z	77	4	21		7		10

# 2000 - VOLUME 14 NO.2 92 PENNSYLVANIA BIRDS

FEMINSILVAINIA BIRDS							9/					Z000 - VOLUM
			N	RTH AME	NORTH AMERICAN MIGRATION COUNT - MAY 13, 2000	GRATION	COUNT - I	AAY 13, 20	00			
	ADAM	ALLE	ARMS	BEAV	BEDF	BERK	BLAI	BUCK	BUTL	CAMB	CENT	CHES
Yellow-rumped Warbler	41	6 ч		4 ч	. ,	19	<b>←</b> α	45	٠, ٠	← α	22	ω σ
Blackburnian Warbler	7 7	o –		ာ က	- 4	. o	o '	9	- '	o <del>-</del>	27	n ←
Yellow-throated Warbler				4	<b>←</b> 0	- 0		← (	-		٠ ،	
Fine Warbler Prairie Warbler	45	' 9		, 4	7 -	ა წ		29	5 '		νю	2 '
Palm Warbler												2
Bay-breasted Warbler Blackboll Warbler	— თ	2 5		' 2	. 2	د ع	' m	82	← '	← '	11 2	- 41
Cerulean Warbler	) <del>-</del>	2		27	1 4	. m	0 0	1 4	2			: -
Black-and-white Warbler	က	က	•	12	41	56	80	42	F	<del>-</del>	30	11
American Redstart	23	19		45	25	80 00	,	117	7	ω	123	45
Promonotary warbler Worm-eating Warbler	۰ ،			' <del>-</del>	່ ຕ	, £	່ ແ	- 2			່ ແ	່ ຕ
Ovenbird	25	11	•	52	29	205	20	152	4	36	123	135
Northern Waterthrush						6	က	27			9	13
Louisiana Waterthrush	თ r	' c		ဖ ဖ		20	თ	12	2		2	15
Kentucky Warbler	n	∞ 4		٥		7		7			' -	٥
Mourning warbler	, <u>†</u>	_ c	. ,	' <u>'</u>	٠ ٥	105	, <del>1</del>	- 260	, <del>1</del>	, <u>.</u>	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	- 000
Hooded Warbler	- ო -	10		32	0 '	12	5 4	,	2 2	2 '	7 2	
Wilson's Warbler		-				-		2			2	
Canada Warbler	က	7		•	က	20		15	•	7	39	11
Yellow-breasted Chat		9		-	2	2		2	-		80	7
Scarlet Tanager	26	43	← ·	49	35	64	1 :	92	4 ;	۲ :	58	100
Northern Cardinal Ross-breasted Grosbeak	24	141	4 '	32	y 2	216	- - -	27.1	2 4	ا م	117 25	296
Blue Grosbeak		2 '		-	, '	67	≣ '	3 '	2 '	· '		
Indigo Bunting	21	47	က	81	34	113	41	42	10	10	127	96
Dickcissel		,										
Eastern Towhee	19	65	7	92	09	92	17	103	19	17	160	117
Chipping Sparrow Clav-colored Sparrow	32	49	' م	73	51	06		0,	9' '	8°,	82	92
Field Sparrow	6	35		45	41	63	ю	42	4	2	49	36
Vesper Sparrow		က	•							-	9	
Savannah Sparrow				2	2	က		4	2	3	က	3
Grasshopper Sparrow	-	52		22	7	4	4		-	7	13	14
Henslow's Sparrow		' ي		12	- '				' <del>-</del>	← '	ν '	
Song Sparrow	16	91	က	88	25	110	9	185	16	15	216	189
Lincoln's Sparrow	,	,	,		,				,	,	-	
Swamp Sparrow		٠.		7 5	4 1	7 5		24	9	-	28	ကဖ
White-throated Sparrow		-	٠,	4 ,	2	19		12	٠,		7 0	m (
W hite-crowned Sparrow			- '	- '	w <i>c</i>	7 '	۰ ' د		- '		D C	თ '
Lapland Longspur					·		, ,				2	
Bobolink	40	7	•	41	80	107	,	54	7	2		55
Red-winged Blackbird	92	158		198	86	356	8	499	24	93	326	382
Eastern Meadowlark	14	21		19	13	12		4	9	13	19	42
Rusty Blackbird	' '	, 25,		, 00	' (	, 0	ത	, 20	' o	' u	- 40.4	. 24
Common Grackle	5/3	971	' c	601	25 d	548	×	144	87	62	435	514
Orchard Oriole	٠ '	ა 4 დ	ກ ່	o m	<u>c</u> 4	24		35	ρ '	- '	ဂဏ	33
Baltimore Oriole	28	77	2	75	26	144	19	210	11	80	114	160
Purple Finch	' 6	' !	' (	, !	24	' (	← ι	2 5	-;	12	٠;	2 2
House Finch Red Crossbill	56	3/	16	54	77	118	ດ '	20L	ξ'	7.	- '	85

Common Grackle
Brown-headed Cowbird
Orchard Oriole
Buttimore Oriole
Purple Finch
House Finch
Red Crossbill

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White-winged Crossbill												
Pine Siskin	,	,	,	,	7	4	,	-	,	,	,	,
American Goldfinch	84	127	2	102	. 8	252	12	254	18	15	153	529
Evening Grosbeak					5							
House Sparrow	6	92	2	22	30	165	-	120	41	4	108	164
American Black Duck/Mallard hybrid	•							•			•	
Scaup sp.	,	,	,			,		,	,	,	,	
Accipiter sp.	,	,		2	,		,	,	,	,	,	•
Buteo sp.				8								
Peep sp.	•	,	•	•	•	-		•	,	,	,	•
Gull sp.												
Tern sp.		٠,									<del>-</del>	•
Cuckoo sp.		<del>-</del>			٠,	٠.	• ,					r
Empidonax sp.					2	4	က					
Crow sp.		' (		٠,	٠,	' !						•
Chickadee sp.		7.7		ກ	m	) <b>,</b>						٠ ,
Frewster's Warbler						- '						_ '
Diewolers warder					•		•	ı				
Total Species Total Individuals	101	125 3683	25 86	125 4096	137	150 10072	89 543	153 13428	110	91	146 6628	133 9720
Number Observers Total Hours	7 25.5	31		10 42.7	23	42	11 38	46 148.5	10 29.5	6 52.6	29 77.25	53 156.3
	I	I	I	I	I	I	I	I	I	I	I	
	CLAR	CLEA	CRAW	CUMB	DAUP	ELK	FORE	FRAN	GREE	HUNT	IQNI	ואחר
Red-throated Loon				٠,					,	٠,	• ,	
Common Loon Pied-hilled Grebe	2 0			_ '	. 3 . 3					ო '	ω <sub>(</sub>	
Horned Grebe						ľ	ŀ					
Double-crested Cormorant			2	5	50 3	6				2	24	
American Bittern							-				-	
Least Bittern	' '	, 6	, 6		٠ ' <u>د</u>		' <	, 20	' a	, 6	, ,	
Great Egret	. '	2 '	<u> </u>	9	36		, '	; '	o '	, '	4	
Snowy Egret												
Little blue Heron												
Green Heron	-	က	2		1 1	-	11		2	11	27	
Black-crowned Night-Heron		1		2	12		•	•	1	1		
Yellow-crowned Night-Heron				7	٠,		• ;				' (	
Black Vulture	, 4	٠ ،	٠,	9 7	4 6		4 6	, 00	, 2	' c	9 7	
Turkey validle Trumpeter Swan	2 '	ກ ່	_ '				140	- 120	- '	76	- '	
Tundra Swan												
Mute Swan				2			O				2	
Snow Goose (white form)							•	•				
	' !	' (						' 6	' '	- 1	' (	
Canada Goose Wood Duck	20 <i>7</i> 1	10	72 18	182 41 19 <sup>4</sup>	416 6 47 .	72	359	226 13	35	276 22	249 95	
Green-winged Teal							9					
American Black Duck		,			4					•	က	
Mallard	13	9	11 16	101 13	134 5		169	49	6	82	194	

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Part	Northern Pintail Blue-winged Teal									-				
Parish   P	ue-winged Teal	•												
Dickly  Property  Property	)				-				က				-	
Department of the property of	ng-necked Duck					-			2				2	
Aftergated for the protection of the protection	sser Scaup	•	•	•	•		•		ı			-	i	
Mergatiset 6 1 1 13 2 1 1 13 2 1 1 13 2 1 1 13 2 1 1 13 2 1 1 13 2 1 1 13 2 1 1 1 1	ck Scoter													
Properties   Pro	fScoter													
All Separate Fig. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ilehead				2	' :								
Manual control	ded Merganser	٠,				- ,	' (	٠,						
The district   E	mon Merganser	٥					13	7	•	•	•	٠,	٠,	
Interference of the control of the c	-breasted Merganser	' c			٠,							- c	4	
The state of the	ay Duck	00 1			n	- 0			٠ ،	٠,		×o	٠ ،	
High Harder S	rey.	-		' (		7 (			7 ,	-		•	7	
Figure 1	Eagle	٠,		m		m 1	٠,		_					
Activity of the control of the contr	hern Harrier	m	٠,		٠,	77 (	<b>-</b> ,		ကျ	' (		- ,	٠,	
hawk that the transfer of the	rp-shinned Hawk	•	_		_	2	_		က	က	-	_	_	
or flawk  in fla	per's Hawk	_			2	5			2	က		2	2	
Anterior of the control of the contr	hern Goshawk													
awk week 10 1 7 1 1 1 1 1 2 4 1 1 1 1 1 1 1 1 1 1 1 1 1	-shouldered Hawk	2			-	2	2		2	-			_	
street         10         1         7         8         34         1         24         23         6         46           Pheasent         2         1         2         1         4         14         14           Pheasent         2         1         2         1         2         1         14         14           Measure         1         4         2         4         7         4         14	id-winged Hawk	က			-	10	-	2	4	-		4	80	
Continue	-tailed Hawk	10	-	7	က	34	_		24	23	9	46	14	
Phesant   2	rican Kestrel	2			9	13	-		15	14	-	14	10	
Depart   D	. <u>.</u>													
Phesant 2 1 1 4 4 7 1 1 1 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	grine Falcon					9								
white 7 2 2 4 7 1 1 1 9 4 9 5 5 7 7 1 1 1 1 0 1 1 1 0 1 1 1 1 1 1 1 1 1	-necked Pheasant	2	•	,	,	י ער	2		12	2	-	14	m	
white         7         2         2         4         7         2         2         4         4         7         4         4         7         4         5         2         2         7         7         4 <td>d Grollse</td> <td>1 -</td> <td>. 4</td> <td></td> <td>0</td> <td>) <del>-</del></td> <td></td> <td>-</td> <td>-</td> <td>1 4</td> <td>- σ</td> <td>. v</td> <td>י ער</td> <td></td>	d Grollse	1 -	. 4		0	) <del>-</del>		-	-	1 4	- σ	. v	י ער	
white	)	- 1	r c	c	1 <	- 1	-	-	c	276	o c	2 0	<b>o</b> o	
onthen  wegs  wegs	- dikey	,	7	7	‡		•	•	n (	612	7	77	0 0	
tothen  tothen	ern Bobwnite								7			4	7.	
onten         3         3         3         11           pote         4         1         4         10           wiegs         8         3         6         16         32         20         7         14         49         5         102           wiegs         9         1         1         7         2         1         5         102           wiegs         9         1         4         2         4         4         5         102           wiegs         9         10         4         2         5         6         1         7         2         9         9         9         9         9         9         9         9         9         9         9         9	nia Rail													
Definition of the control of the con														
December	mon Moorhen													
Holover B 3 6 16 32 20 7 104 49 5 102 Weighs C 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	rican Coot				က	က						7	-	
Ad Plover         4         -         4         -         -         4         -	k-bellied Plover							-						
weights weight	ipalmated Plover				4			4	10					
whelegs         1         1         1         7         1         7         1         7         1         7         1         7         1         7         1         7         1         7         1         1         9         10         4         2         2         4         2         2         1         5         9         10         4         2         2         1         5         6         1         2         2         2         2         1         5         6         1         2         2         2         1         3         6         1         2         3         4         4         4         4	eer	80	က	9	16	32	20	7	104	49	2	102	41	
whegs         .         3         2         .         3         2         .         2         .         2         .         9         10         4         2         2         4         5         .         1         5         . <td>ter Yellowlegs</td> <td></td> <td></td> <td>-</td> <td>-</td> <td></td> <td></td> <td>_</td> <td>7</td> <td></td> <td></td> <td>_</td> <td></td> <td></td>	ter Yellowlegs			-	-			_	7			_		
tipiper         2         5         1         5           diploper         1         4         2         24         1         5           diploper         1         2         2         4         6         6           done         1         2         2         4         6         6           descention         1         2         2         2         6         6           depiper         1         2         2         2         2         2         6         7           dipper         1         2         1         2         2         3         3         3         3         3         4         3         6         3         6         1         1         2         1         2         1         1         2         1         1         2         1         1         2         1         1         2         3         1         1         2         3         1         1         2         3         1         2         3         1         2         3         1         1         2         3         3         3         3         3         3 </td <td>er Yellowlegs</td> <td></td> <td></td> <td></td> <td>ဇ</td> <td>2</td> <td></td> <td></td> <td>က</td> <td></td> <td>2</td> <td></td> <td></td> <td></td>	er Yellowlegs				ဇ	2			က		2			
deliber         1         4         2         24         2         4         6           topiper         2         4         2         24         8         6           deliber         3         4         2         24         8         6           deliber         3         2         2         3         3         3           depiper         3         4         2         26         3         3         3           depiper         3         4         3         4         4         5         4         3         3         4           powering         5         4         4         5         4         4         5         4         5         4           observed Coull         3         2         4         4         5         4         5         6           min         3         4         4         4         4         4         5         6           null         3         4         4         4         4         6         7           null         3         4         4         4         4         6         7	iry Sandpiper	2			က	7	2		5		-	2	2	
tione to a serial piper to the first serial	ed Sandpiper	-			တ	10	4	2	24		8	9	314	
tone  ad Sandpiper  be defined  be defined  conditions  condited  conditions  conditions  conditions  conditions  conditions	Sandpiper	. '	,	,	, '	· '	. '	, '	. '		, '	, '	. '	
ad Sandpiper	v Turnstone							2						
ad Sandpiper	arling	٠				٠		, '			٠			
tiper  iper  iper  condition  con	nalmated Sandniner					c						"		
the property of the property o	paris Sandnings					1 '						)		
backed Gull 2 2 2 2 2 4 2 2 2 2 4 2 2 2 2 4 2 2 2 2 4 2	erii Sariapipei	•			٠,	٠,							٠,	
er  Dowitcher  Dowitch	Sandpiper				٥	-			97		2		_	
er Sowitcher Sow	oral Sandpiper													
Sowitcher French	c							19				က		
Dowlitcher	Sandpiper													
ipe oodcock 5 4 3 2 1 2 9 9 00dcock 5 4	t-billed Dowitcher													
oodcock 5 4 3 2 1 2 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	mon Snipe		2			•			-				-	
	ican Woodcock	2	4				က	2		-	2	6	_	
Gull 2 1 1 6 6 1 6 6 1 1 1 6 6 1 1 6 6 1 1 1 6 6 1	hing Gull													
uill 30 - 2 24 93 - 40 23 backed Gull 1 3	parte's Gull	2			-						-	9		
backed Gull	billed Gull	30			2	24			93		40	23	2	
backed Gull	a Gull										-	က		
	Black-backed Gull				•							,		
	non Tern		٠	٠	•									
	or's Torn	,	,	,	,	,							,	

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Black Tern												_
Rock Dove	ო	_	13	29	118			365	40	16	35	381
Mourning Dove	17	53	3	132	192	69	10	393	226	25	411	128
Black-billed Cuckoo			2	-				12	œ	ო	4	18
Yellow-billed Cuckoo				7	15		_	28	ω	တ	က	35
Balli Owi					' «			י ני			۰ «	11 2
Great Horned Owl		٠ -			o 0	' -		റെത	' -		, v	- 0
Barred Owl		. '	_	- 0	, '	. '	,	0 0	. 4	2	ı <del>-</del>	ı <del>-</del> -
Northern Saw-whet Owl												
Common Nighthawk			,		4		,	-	9	,	က	
Chuck-will's-widow												
W hip-poor-will		' (	١ ,	- 1	18	٠ ،	٠ ،	7	e 2	17	11	11
Collmoley Switt	3,	7.	، م	٥/ م	4 د م	υt	יז מי	430 50	7.7	υ <u>(</u>	777	130
Ruby-tilloated Hummingbild	4 c	<b>4</b>	7 +	0 0	62	2	o <del>-</del>	15	7 7	0 4	93 15	25
Belled Milglisher Red-headed Woodbecker	۷ '		_ '	v <del>-</del>	o '		- '	<u>c</u> 7	, '	t <del>-</del>	<u>.</u> '	
Red-bellied Woodpecker	က		4	29	46	-	,	105	55	. 19	92	80
Yellow-bellied Sapsucker					-	2						
Downy Woodpecker	7	4	2	4	27	9	-	54	30	4	43	37
Hairy Woodpecker	ဇ			_	1	80	1	12	2	9	21	10
Northern Flicker	9 (	9 (	7	12	38	12	9 1	80	46	10	95	134
Pileated Woodpecker	<b>∞</b>	N		4	4 1		2	21	21	ω '	20	25
Clive-Sided Flycatchel	٠ «	٠.	٠ «	- ye	- 90		۰ «	- 1	. 78	- 60	- 77	' %
Vallow-ballied Flycatcher	າ '		າ ່	00	0 '		າ '	- '	t '	ر ۲	; '	o '
Acadian Flycatcher	,		-	00	4		,	19	26	31	34	11
Alder Flycatcher										-	4	
Willow Flycatcher	2		_	က	2		-	2	7	-	23	2
Least Flycatcher	8		_		_		_	2	-	10	13	
Eastern Phoebe	7	2	4	11	36	0	11	91	83	22	98	33
Great Crested Flycatcher	4 (	← (	တ၊	33	30	← (	٠,	59	2	34	17	20
Eastern Kingbird	9	2	2	12	41	2	9	99	22	m	43	62
W hite-eyed Vireo	٠.	٠,	٠,	9 (	Ν (		٠,	9 (	27	۰ ،	13	7
Blue-neaded Vireo	ი '	_ '		V 00	7 0		_ '	p	n 1	m (r	29	
Warbling Vireo			- ıc	ာ ဖ	10			11	10	. 1	9	- 00
Philadelphia Vireo	-	,	, '	, '	· '			. '	· '	: '	, '	} '
Red-eyed Vireo		13	11	142	66		26	205	119	168	580	159
Blue Jay		20	2	69	207	30	7	246	122	62	262	292
American Crow Fish Crow	5 5 8	31	ٔ ي	133 11	297 25	51	0/	271	303	101 አ	516	457 4
Common Raven		1 G		-	4	00		4	_	o m	2	r m
Horned Lark		o '		- 0	- თ	, '		15	. '	· '	10	) (d
Purple Martin	9	,	24	27			,	74	59	,		217
Tree Swallow	107	15	11	23	125	15	29	144	69	28	128	139
N. Rough-winged Swallow	-		2 ;	13	48	. 2	5.	37	7	9	09	51
Bank Swallow	' 0		18		251	- 0	4 6	15			9 ,	' '
CIIIT SWallow	20	, ,	7.5	- 202	15 116	m o	ر ء	- 200	. 26.1	' (	1 2 50	12
Black-capped Chickadee		19	000	10	31	45	10	93/		35	170	32
Carolina Chickadee				16	13			13	52			
Tufted Titmouse	10	9	2	7.0	85	11	4	149	96	36	116	137
Red-breasted Nuthatch	-					2	-	2		-	-	
White-breasted Nuthatch	∞		7	က	23	7	-	33	44	7	48	33
Brown Creeper				, 2	' 1			7 0	' '	1 7	4 0	' (
Carolina Wren				24	2.1			4.5	35	,	56	63

# 2000 - VOLUME 14 NO.2 80 PENNSYLVANIA BIRDS

Secretary Market Secretary		CLAR	CLEA	CRAW	CUMB	DAUP	ELK	FORE	FRAN	GREE	HUN⊤	IQNI	INUL	
1.	House Wren	80	∞	80	35	42	4	2	139	45	16	86	41	
1	Winter Wren								9				•	
10	Sedge Wren		-											
1	arsh Wren													
1	olden-crowned Kinglet			~					٠,		٠,	7	١,	
1	Jby-crowned Kinglet	٠,			' 0	' 0		' (	- (	' 0	- 4	٠,	w (	
1	ue-gray Gnatcatcher	- 4	٠,	' c	70	77	٠,	۰ م	£ 43	20	ω ,	4 6	42	
1	Eastern bluebild Veerv	<u>o</u> '	4 თ	VΘ	0 4	32	4 '	– ო	204 9	- '	_ ro	2	•	
1	Gray-cheeked Thrush				-									
3	Swainson's Thrush		,		-	7	,		-		,	4	•	
10	Hermit Thrush	က			2		10	6	9	2	-	ဇ	2	
167   865   44   129   129   149   898   891   119   189   2034   119   199   2034   119   129   2034   119   129   2034   1302   130	Nood Thrush	o	2	0	131	112		_	168	109	83	369	09	
27         18         12         169         329         7         9         370         171         54         314           9         -         -         7         32         -         -         54         45         65         60           122         62         -         -         -         -         -         -         50         -         -         50         -         -         -         50         - </td <th>American Robin</th> <td>167</td> <td>85</td> <td>44</td> <td>231</td> <td>450</td> <td>128</td> <td>44</td> <td>988</td> <td>811</td> <td>118</td> <td>2034</td> <td>365</td> <td></td>	American Robin	167	85	44	231	450	128	44	988	811	118	2034	365	
9.         7.         28         44         7.         10<	Gray Cathird	27	18	12	169	329	7	o	370	171	54	314	269	
1.22   5.2   7   1.2	Northern Mockingbird				28	44			122	45		10	17	
12	Brown Thrasher	6			7	32		2	54	37	2	20	80	
12   12   13   14   15   15   17   18   18   18   18   18   18   18	American Pipit					2			80				1	
12	Sedar Waxwing	62		4	89	281			167	51	49	312	330	
3         5         13         19         1         3         60         4         46           1         2         1         2         1 <th>ropean Starling</th> <td>122</td> <td>52</td> <td>7</td> <td>117</td> <td>473</td> <td>51</td> <td>33</td> <td>666</td> <td>669</td> <td>43</td> <td>1302</td> <td>286</td> <td></td>	ropean Starling	122	52	7	117	473	51	33	666	669	43	1302	286	
7         3         4	ue-winged Warbler	m	· '	. LO	13	19	. '	-	m	50	4	45		
1.   1.   1.   1.   1.   1.   1.   1.	Iden-winged Warbler				-	2				-	12	2	14	
38         3         15         23         6         1         1         10	nnessee Warbler			က	က	က	•	-	12	-		9	2	
38         3         1         4         4         4         4         4         6	shville Warbler		•		7	7	•	2		-		10	2	
38         3         15         23         81         11         14         16         72         231         38         250           4         1         5         3         6         7         4         7         3         22         4         1         7         29         29         4         1         7         3         29         4         1         7         4         1         7         1         7         2         2         2         1         1         7         2         2         1         1         7         1         1         7         1         1         1         7         1	rthem Parula				-	4		က	2	8	80	2	က	
30       -       2       4       7       3       22       4       1       7       29         4       1       5       3       3       15       -       -       2       2       1       2       2       2       1       2       2       2       1       2       3       2       1       1       2       3       2       1       2       2       2       2       2       2       2       4       9       6       -       -       4       9       8       4       1       2       4       9       8       6       -       -       2 </td <th>low Warbler</th> <td>38</td> <td>က</td> <td>15</td> <td>23</td> <td>81</td> <td>7</td> <td>18</td> <td>72</td> <td>231</td> <td>38</td> <td>250</td> <td>70</td> <td></td>	low Warbler	38	က	15	23	81	7	18	72	231	38	250	70	
4         1         5         3         8         3         16         .	estnut-sided Warbler	30		2	4	7	က	22	4	-	7	29	2	
The control of the	gnolia Warbler	4	-	2	ဇ	8	က	15			ဇ	21	7	
6         .         .         11         9         .         7         14         2         9         2           1         1         1         7         9         6         7         14         2         9         2           4         1	oe May Warbler				7	-					2	_	1	
The control of the co	ck-throated Blue Warbler	9	•		11	6		7	14	2	6	2	2	
10	low-rumped Warbler	2	<b>-</b>	-	7	თ	9		7	7	4	O	ω	
4       -       4       10       -       5       2       1       16       10         -        -       -       -       -       -       -       -       - </td <th>ck-throated Green Warbler</th> <td>16</td> <td></td> <td>ო</td> <td>တ</td> <td>16</td> <td>4</td> <td>10</td> <td>15</td> <td>-</td> <td>29</td> <td>84</td> <td>29</td> <td></td>	ck-throated Green Warbler	16		ო	တ	16	4	10	15	-	29	84	29	
1       1	ckburnian Warbler	4			4	10		2	2	-	16	10	2	
1	low-throated Warbler		τ-		٠,	← (			0 0	2	2	7	•	
1       1	• Warbler				. ,	Ν,			m •	' (	۱ '	' ¢	' '	
1       -        -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	me waiblei				-	=			4	71		y 2		
1       -        -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	II Walbiel				' c	່ ເ	٠,					۰ ،	٠ ,	
1       -	skooli Warbler	' <del>-</del>		· -	0 4	4 ر	- '		' σ		· c	<b>1</b> (C	- 4	
2       1       -       36       8       -       1       16       2       16       22         19       2       64       55       3       4       66       63       93       113         -       -       -       -       -       -       -       -       -       -         -       -       -       -       -       -       -       -       -       -       -         23       22       - <th>ulean Warbler</th> <td>-</td> <td>ŀ</td> <td></td> <td>-</td> <td>9</td> <td>ŀ</td> <td>ŀ</td> <td>20</td> <td>27</td> <td>1 2</td> <td>18</td> <td>2</td> <td></td>	ulean Warbler	-	ŀ		-	9	ŀ	ŀ	20	27	1 2	18	2	
19   2   5   64   55   3   4   66   63   93   113         14   11     7   -   7       138   186   9   11   139   57   113   221       1   14   6   -   -   14   139   57   113   221       -   1   14   6   -   -   14   14   14   15       -     1   14   6   -   -     14   14   15         1   14   109   13   19   127   121   128   598         1   1   1   1   1   1   1   1	k-and-white Warbler	7	-		36	80	,	-	16	7	16	22	ო	
23 22 - 144 11 - 7 7 7 7 2  23 22 - 138 186 9 11 139 57 113 221  1 - 1 1 4	erican Redstart	19	2	2	64	55	က	4	99	63	63	113	39	
23 22 - 14 11 - 7 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	thonotary Warbler													
23 22 - 138 186 9 11 139 57 113 221  1 - 1 1 4 3 - 2 1	rm-eating Warbler				14	11			7		7	2	19	
1 1 1 4 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	nbird	23	22	•	138	186	6	17	139	22	113	221	82	
1 1 14 6 14 34 17 10 1 5 2 2 1 1 11 11 16 1 1 1 1 1 1 1 16 1 1 2 37 3 9 41 109 13 19 127 121 128 598 1 1 1 - 5 13 11 - 1 13 14 19 50 1 1 1 - 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1	thern Waterthrush			-	4	က		2				-	5	
1 5 - 2 1 11 11 1 16  37 3 9 41 109 13 19 127 121 128 598  1	isiana Waterthrush			_	4	9			41	34	17	10	23	
1     - <th>tucky Warbler</th> <td></td> <td></td> <td></td> <td>2</td> <td>2</td> <td></td> <td></td> <td>-</td> <td>11</td> <td>-</td> <td>16</td> <td></td> <td></td>	tucky Warbler				2	2			-	11	-	16		
37     3     9     41     109     13     19     127     121     128     598       -     -     -     -     -     -     -     -     -     14     19     50       -     -     -     -     -     -     -     -     -     -     1       1     -<	Irning Warbler	_			•	•							2	
That - 5 13 11 - 14 19 50 - 1	nmon Yellowthroat	37	က	တေ၊	41	109	13	19	127	121	128	598	06	
Lhat	ded Warbler	-		2	13	11			13	14	19	50	m	
Chat 3 7 11 21 13 13 12 1 18 251 265 18 6 6 7 7 18 1 39 18 90 179 21 18 1 39 18 90	son's Warbler	٠,			٠,	nι					٠,	-	' -	
19 6 8 62 43 12 7 62 61 54 168 62 61 54 168 62 61 54 168 62 61 54 168 62 61 54 168 62 61 54 168 62 61 54 168 62 61 54 168 62 61 7 7 18 1 39 18 90	lada walbiel Owskroostod Chot	- '		. ,	<b>t</b> ო	0 1				, 6	t <del>-</del>	, 6	† α	
18 5 13 90 179 21 8 251 265 18 295 18 295 18 90 179 21 18 19 90 18	ow-breasted offat	19	· ·	σ	2 0	43	12	7	62	61	- 24	168	74	
20 12 9 6 7 7 18 1 39 18 90	them Cardinal	. <del>C</del>	ט גט	. £	06	179	21	- 00	251	265	1 8	295	176	
	se-breasted Grosbeak	20	12		9	2:		18	-	36	9 1	06	, ω	

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				)					1			
Blue Grosbeak								-				
Indiao Buntina	10	က	15	64	86	o	21	182	155	67	181	217
Dickcissel	,		,	,	,				-		,	
Eastern Towhee	24	17	2	72	85	2	4	103	232	128	429	53
Chipping Sparrow	48	14	9	88	7.1	28	21	163	185	49	479	96
Clay-colored Sparrow												
Field Sparrow	24	9	2	12	49	4	က	74	83	28	193	37
Vesper Sparrow	- ;		-	<del>-</del>	7		٠,	∞ ;	•	4	17	က
Savannah Sparrow	13			က	9		က	12	က	_	25	2
Grasshopper Sparrow	ر س ر	Ψ-		∞	7			22	2		43	1.1
Henslow's Sparrow	91				٠,						15	
rox spanow			, 6	. ,,	- 07	, 2	. 01	. 010	' 000	' '	. 406	
Song Sparrow	34	13	77	44	102	77	28	528	230	n 2	405	26/
Successive Sparson	່ ເ		٠, ،				٠,		•	۰ ،	۰ ،	٠, ٠
White-throated Sparrow	7	' c	י י	່ ແ	- v	. 4	- c:	' cr	΄ α	ე ო	י מ	- 70
White-crowned Sparrow		0 0	e	o <del>-</del>	) <b>/</b>	. '	, '	16	ט עכ	0 0	9	
Dark-eved Junco	41	1 ,	o '	. '	. '	56	2	2 '	· '	1 10	o '	0.4
Lapland Longspur	: '				က		. '			, '		. "
Bobolink	29		•	7	32	œ	9	30	4		61	2
Red-winged Blackbird	173	29	63	165	494	36	49	423	540	48	1087	552
Eastern Meadowlark	28	2		21	16		-	74	66	4	111	14
Rusty Blackbird	,		,	,								_
Common Grackle	55	53	11	305	374	36	20	1079	236	59	718	1826
Brown-headed Cowbird	9	21	11	1	101	31	<b>о</b>	139	184	22	100	96
Orchard Oriole			-	ო	2		•	თ	44		7	20
Baltimore Oriole	12	∞ ·	12	44	107	12	11	201	129	49	203	376
Purple Finch	4 .	- (	ကျ	' 0	' 0	23	Ν (	ກ ;	9 ;	۱ '	38	m (
House Finch Red Crossbill	24	12	∞ '	88	249	4 ,	თ '	44 4 ռ	84	, '	248	
White-winged Crossbill												
Pine Siskin			•		2	,	m	-	-	2	•	9
American Goldfinch	78	13	9	73	249	51	17	225	132	89	386	217
Evening Grosbeak	-					-						
House Sparrow	37	10	4	166	146	15	15	220	214	14	295	309
American Black Duck/Mallard hybrid							•		•		•	٠,
Scaup sp.					٠,							
Buten sp.												
Peep sp.		,		,				,	,	,	,	
Gull sp.			•		1				•			•
Tern sp.												
Cuckoo sp.	່ ຕ	٠, ٠	•	٠,					•		•	' -
Crow en	o '	- '			12							<b>,</b>
Chickadee sp.		່ ຕ			- 1 c							
Thrush sp.					2							
Brewster's Warbler				-								-
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l otal Species Total Individuals	108 2313	73 722	86 743	142 4276	153 8026	79 1055	828	150 12526	114 8594	120 2661	146 16295	146 10704
Number Observers	9	2	4	7	46	80	2	29	37	2	64	25
Total Hours	27	26.25	13	42	121.1	29	12.5	212	124.5	33	230	64.25

# 2000 - VOLUME 14 NO.2 85 PENNSYLVANIA BIRDS

Red-throated Loon	LACK	LANC	LAW R	LEBA	LUZE -	LYCO	MERC	MIFF	TNOM	NORT	PERR ' '	PHIL	
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Yellow-crowned Night-Heron													
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American Coot		က	2									
Black-bellied Plover												
Semipalmated Plover		33	1									
Killdeer		39	17									
Greater Yellowlegs	2	7										
Lesser Yellowlegs	က	80										
Solitary Sandpiper		2 2										
Sported Sandpiper Upland Sandpiper	o '	90	o <del>-</del>									
Ruddy Turnstone												
Sanderling												
Semipalmated Sandpiper	_	17	_									
W estern Sandpiper												
Least Sandpiper	18	203										
Pectoral Sandpiper	-											
Dunlin		24	10									
Short-billed Dowitcher		່ ເຕ										
Common Snipe	•											
American Woodcock	က	-										
Laughing Gull												
Bonaparte's Gull		12										
Ring-billed Gull	3 7	718	4									
Herring Gull		4 (										
Geat Black-backed Guil		0 +										
Common Tern		- •										
Black Tern												
Rock Dove	26	248	58									
Mourning Dove												
Black-billed Cuckoo		က	က									
Yellow-billed Cuckoo		10										
Barn Owl												
Eastern Screech-Owl		Ψ.	_									
Great Horned Owl	' -		٠,									
Northern Saw-whet Owl	-	-	-									
Common Nighthawk		4	2									
Chuck-will's-widow												
W hip-poor-will												
Chimney Swift			123									
Ruby-throated Hummingbird		20	7									
Belted Kingfisher	10	9										
Ked-headed Woodpecker Red-bellied Woodpecker	່ ຕ	7.1	່	· <del>-</del>	, 8	. 6	12	. 15	12	32	- 21	
Yellow-bellied Sapsucker		-										
Downy Woodpecker	10	35	15									
Hairy Woodpecker		2										
Northern Flicker		45										
Pileated Woodpecker	9	4	2									
Olive-sided Flycatcher		1	. ;									
Eastern Wood-Pewee	٥	29	11									
renow-benned Flycatcher Acadian Flycatcher		' <u>ተ</u>	່ ແ									
Alder Flycatcher	2	2 '										
Willow Flycatcher	1 m	9	2									
Least Flycatcher	31											

# 2000 - VOLUME 14 NO.2 84 PENNSYLVANIA BIRDS

7         5         5         5         7         3         1         -	Eastern Phoebe Great Crested Flycatcher Eastern Kingbird	LACK 49 21 28	LANC 36 73 47	LAW R 9 4	LEBA 7 18 18	LUZE 47 40 22	LYCO 16 9	MERC 10 7 8	MIFF 10 22	MONT - 2	NORT 7 6	17 17 18 5	PHIL 1
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Yellow-rumped Warbler	17	25	2						13	
Black-throated Green Warbler Blackburnian Warbler	33	വവ	10	2 -					N N	
Yellow-throated Warbler		2	2						2	
Pine Warbler Prairie Warbler	' & C	' w		٠, ٠	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	' α	 ' '	 ' -		
Palm Warhler	- 1	, '								
Bay-breasted Warbler		2							_	
Blackpoll Warbler		28		2					10	
Cerulean Warbler	2	-	5							
Black-and-white Warbler	26	42	2						•	
American Redstart	20	27	,	30					21	
Prothonotary W arbler		w (	_	٠ ,						
Wollifeaming Walbiel	108	166	. ^						່ σ:	
Northern Waterthrush		9	. 2						က	
Louisiana Waterthrush	2	19		4						
Kentucky Warbler		7		4					-	
Mourning Warbler		' (	' '						' ;	
Common Yellowthroat	16/	139 2	35	109					23	
Wilson's Warbler		7	-						-	
Canada Warbler	o	. 9	. '						13	
Yellow-breasted Chat	•	12	1	2						
Scarlet Tanager		29	16						= :	
Northern Cardinal		191 6	25	63					1,	
Rue Grosbeak	00	<b>o</b> m	,-						7 '	
Indiao Buntina	30	200	16	35					က	
Dickcissel		,								
Eastern Towhee	55	95	51						7	
Chipping Sparrow	117	78	84	12					4 '	
Field Sparrow	- '	3.5	20	, ,,						
Vesper Sparrow	77	1	t -						- '	
Savannah Sparrow	o	. 9	. 12						٠	
Grasshopper Sparrow	2	2	4							
Henslow's Sparrow		•	9							
Fox Sparrow		,							' 70	
Song Sparrow	132	153	84 ,	33					24	
Swamp Sparrow	7	ı <del>-</del>	œ	,					က	
W hite-throated Sparrow	•	26							က	
White-crowned Sparrow	ائ	4 '		- '			4 ,			
apland Longspiir	, '									
Bobolink	198	12	143	്ര					24	
Red-winged Blackbird		300	214					_	73	
Eastern Meadowlark	22	13	74	4						
Rusty Blackbird		, 40	, 20,						٠ ,	
Drown booded Couring	701	290	104	436					o	
Dichard Oriole		1 2	_ '						<u>.</u>	
Baltimore Oriole	104	215	24						25	
Purple Finch	23	2	2						•	
House Finch	56	71	25	29					7	
Red Crossbill										

# 2000 - VOLUME 14 NO.2 98 PENNSYLVANIA BIRDS

σ		118 127 150 104 141 115 34 125 103 99 3030 4349 7411 1554 4164 2125 116 2140 1895 1140 3 9 20 13 38 16 2 7 12 8 57.25 46 51.3 3 32 7 16 SCHU SULL SUSQ TIOG VENA WAYN WEST WYOM YORK	2 2 2 1 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1
		127 4349 9 15.75 SULL	
LANC L	0.00	166 11833 45 125	2 3
White-winged Crossbill - Pine Siskin American Goldfinch 117 Evening Grosbeak 117	ck/Mallard hybrid	Total Species 120 Total Individuals 6138 Number Observers 80.75 PIKE	Red-throated Loon Common Loon Fied-billed Grebe Horned Grebe Bouble-crested Cormorant American Bittern Least Bittern Great Butern Great Egret Snowy Egret Little blue Heron Cattle Egret Green Heron Black-crowned Night-Heron Fellow-crowned Night-Heron Black Vulture Trumpeter Swan Mute Swan Snow Goose (white form) Ross's Goose Canada Goose Canada Goose Canada Goose

YORK

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SULL

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PIKE

Northern Pintail									
Blue-winged Teal									
Aligatiecked Duck	•	•	•	•					
Lesser Scaup									
Black Scoter									
Sull Scotel									
Hooded Merganser									
Common Merganser	•	10							
Red-breasted Merganser									
Ruddy Duck		-	7						
Osprey			က						
Bald Eagle			٠,						
Shorn chingod Down									
Sharp-shinned Hawk		' '							
Coopers Hawk		-	_						
Red-shouldered Hawk									
Broad-winged Hawk		2	4						
Red-tailed Hawk		1 4	16						
American Kestrel			4						
Merlin									
Peregrine Falcon									
Ring-necked Pheasant			-						
Ruffed Grouse				0					
Wild Turkey		2	16						
Northern Bobwhite			-						
Virginia Kail		٠,							
Common Moorhen		_ '							
Amoriosa Coot									
American Coot Black-belliad Ployer		- '							
Semipalmated Ployer									
Killdeer		28	13						
Greater Yellowlegs			2						
Lesser Yellowlegs									
Solitary Sandpiper		-	o						
Spotted Sandpiper		11	17						
Opiana Sanapipel Buddy Turnstope									
Sanderling									
Semipalmated Sandpiper									
W estern Sandpiper									
Least Sandpiper			ത				•	•	
Pectolal Salidpipel									
Outnin Stit Sandrings									
Short-billed Dowitcher									
Common Snipe									
American Woodcock		-							
Laughing Gull									
Bonaparte's Gull									
Ring-billed Gull		15							
Herring Gull									
Gleat black-backed Guil									
Common Tern Forster's Tern									

# 2000 - VOLUME 14 NO.2 88 PENNSYLVANIA BIRDS

# NORTH AMERICAN MIGRATION COUNT - MAY 13, 2000

	PIKE	POTT	SCHU	SULL	susa	TIOG	VENA	WAYN	WEST	WYOM	YORK	
Black Tern												
Rock Dove		117	92	16	18	37	26	9	64	36	40	
Mourning Dove	4	163	94	68	15	71	15	69	214	61	49	
Black-billed Cuckoo		2	2 .			ო	2		ω :	٠.	ကျ	
Yellow-billed Cuckoo			4						16	-	7	
Barli Owl Fastern Screech-Owl									່ ແ	' -	' -	
Great Horned Owl	,		-	-			. '	۰ -	· <del>-</del>	. '	. '	
Barred Owl								<b>-</b>	<b>-</b>		2	
Northern Saw-whet Owl							2					
Common Nighthawk							2		_	-		
Chuck-will's-widow							٠,		٠,			
W hip-poor-will		٠,	' ;			٠ ;	დ ;		- (	' (	' ;	
Chimney Swift	•	ລຸດ	4 6	' c	٠,	17	4 0	23	173	, 2 2	24	
Ruby-mioated numiningbild		77	2 0	25	<b>4</b> •	1 @	0 0	o (	32	7	- ı	
Dod hooded Woodnooker		7	0	4	_	,	7	7	2	2	n +	
Dod bollod Woodbecker			, 6	٠,	٠,	٠,	٠, ٠		, 00	, 6	- 6	
Vellow-bellied Specials			2 '	tα		- u	) <del>-</del>	ี่ ซ	00	2 +	2 '	
Domain Woodsofter	-	<u>.</u> «	' <del>-</del>	0 5	– c	- <del>-</del> -	- c	<b>o</b> c	۷ ۲	- 1	' <	
Downly Woodpecker	٠.	o w	<u> </u>	ກ ແ -	o c	- ^	7 '	ന യ	5 t	~ لا	<b>1</b> 00	
Northorn Diokor	- c	0 70	0 0	0 7	7 4	16	, 6	0 0	t c	0 4	2 7	
Dipoted Woodsocker	۷ ۳	- °	<u>.</u> ம	= '	n m	<u> </u>	2	ກເ	4,0	<u> </u>	~ ~	
Olive-sided Flycatcher	- '	າ '	o ←		າ '	o '	٠,	۷ '	۲۵ '	o '	_ '	
Fastern Wood-Pewee			- 21		-	2	- en	12	er.	4	α	
Vellow-bellied Flycatcher			1 '			1 '	, '	<u>,</u>	3 '	. '	» '	
Acadian Flycatcher	•			•	•	· <del>-</del>	່ ຕ		57		΄ α	
Alder Flycatcher			က	ო		-		-	5	-		
Willow Flycatcher	•		. '	. '	•	4	7	-	9	4	_	
Least Flycatcher	,	16	10	4	11	18	7	16	2	22	. •	
Eastern Phoebe	2	41	22	22	15	19	∞	41	42	24	10	
Great Crested Flycatcher	7	ო	31		9	9	ო	13	œ	18	7	
Eastern Kingbird		16	7	9	12	21	-	28	40	6	12	
W hite-eyed Vireo							7		13		5	
Blue-headed Vireo	4	<del>.</del> 6	∞	4	10	12	7 0	17	' (	ဖ ဖ	٠,	
Yellow-throated Vireo	٠,	m	٠,			' (	7 7	7 (	13	٥ ;	m (	
Warbling Vireo	-	٠,	- '			91	- c	۰ ۲	77	4	ກ	
Red-eved Vireo	<b>,</b> 4	95	118	. 44	່ ຫ	100	50	26	- 569	- 67	, kb	
Blue Jay	4	92	158	100	21	72	1 -	55	174	73	14	
American Crow	5	150	198	87	40	158	30	105	310	103	54	
Fish Crow			9					-			18	
Common Raven		1		9		41	٠.	•	-	-		
Horned Lark Purple Martin						, '	- '		' °		- 43	
Tree Swallow		167	67	45	99	7.4	A.	205	67	7.8	24	
N Rough-winged Swallow		ē <sup>α</sup>	, <del>,</del>	5 4	) r	30	) L	26	20 20	ο σ -	- K	
Bank Swallow		37	<u> </u>	, '	o '	) o	400	2 2	, ,	30	) ()	
Cliff Swallow		44	40			40	20	15	-	,	, '	
Barn Swallow		155	105	106	47	09	45	192	236	95	37	
Black-capped Chickadee	3	43	32	49	43	36	23	38	51	50		
Carolina Chickadee									25		17	
Tuffed Titmouse	2	0 0	46	27	2	<del>,</del> –	თ	11	92	28	28	
Ked-breasted Nuthaton	٠ ،	7 +	უ 0	ω <b>(</b>		- c	' -	' u	4 0		' c	
Wille-Diedsted Nutilatell Brown Creener	v <del>-</del>	= ~	۰ ۵	<u>_</u> ←	' <del>-</del>	<u> </u>	<b>,</b>	o 4	n en	, '	<b>,</b>	
Carolina Wren		- '	10	- 2	_ '	. '	-	· '	36	4	' ω	

	PIKE POTT 13		SCHU S	SULL 20	SUSQ 7	110G	VENA	7	<b>⊢</b>	-	10 - -
←	7	. 288 4 , 100	22 22 28 - 4	- ' & w ' ' &	' თ თ თ ' <i></i>	. 6 7 1 6	, w <del>6</del> 4 , , 4	2 2 2 2 2 2 1 9 1 1 1 1 1 1 1 1 1 1 1 1	4 6 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	£ 0 6 4 , 5 6	11 20 2 1
0 € + , , , ,	- m 4 - 4			7 167 15 3	4 8 8 8 7 7 7 7 1 7 1	138 4 4	41 75 13 13	535 78 78 2	157 699 127 24 14	216 80 4 , 4	14 60 33 34 4 4
' w ' ' ' ' ' m	- 6		322 28 28 6 19 19 19	τς θ τ σ ' ' τ ε ' ε τ	, 00 k , , , 1 - 1 - 1	10 10 11 11 10 10 10 10 10 10 10 10 10 1	233 1 1 62 8 3 2 4 4 5 6 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6	109 3 3 9 9 4 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	456 356 35 135 135	v <del>L</del> v , , L L 0 c	557 57 677 78 75
	0 0 4 6	222 24 4 - 4 - 336 36 - 1 - 1 - 1	2	5 ' + 10 + 4 ' ' 4	50, -, 0, , , ,	3 6	o α ' ' ο ιο ο ← ' ←	00 163 163 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4	× 9 + 0 + 7 + 7 + 8 +	1 c . c c t c c	' - ' - O - O - 4 - O
		4 8 8	. 1 2 4 4 4 4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	4 5 97		7 8 6	. t . 4 8 5	' 4 0 + C + 0 4 9	0 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 +	1 , 7 4 , 1 8 8 2 4 8	r 2 4 4 . 0 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
	- C		116 - 120 - 5 - 5 - 7 7 7 17 17 17 17 17 17 17 17 17 17 17	39	4 4 9		. 1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 3 - 3 - 3 - 3	2	2 15 20 119 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2 5 2 7 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

# 2000 - VOLUME 14 NO.2 90 PENNSYLVANIA BIRDS

	PIKE	POTT	SCHU	SULL	SUSQ	TIOG	VENA	WAYN	WEST	MYOM	YORK
Blue Grosbeak											
Indigo Bunting Dickeissel		24	97	24	9 '	64	10	ω '	140	32	23
Eastern Towhee	ŀ	45	62	17	2	21	20	31	179	11	12
Chipping Sparrow	4	65	73	73	26	42	10	130	126	20	20
Cray-colored Sparrow Field Sparrow		2 '	16	4		23	16	. 4	35	່ ຕ	10
VesperSparrow						,	,	2	•		
Savannah Sparrow		24		7	6	-	2		2	18	
Grasshopper Sparrow					2		0 7		o 1		4
nensiows spariow Fox Sparrow				' 2			2 '		, '	- '	
Song Sparrow	2	75	51	28	2	105	20	113	155	92	21
Lincoln's Sparrow		' (	٠,	٠ ،	٠ ،	' (	۱ (	' (	<b>-</b> ,	٠ ،	٠.
White throated Section		7.5	- 4	m c	ກ	97	7 7	12	4 (	×	4
White-tilloated spallow		, £	n w	തെ		. 00	- m	<u>5</u> 4	0 ~	່ ຜ	
Dark-eved Junco		36	n m	94	-	388	n m	r 10	21		•
Lapland Longspur											
Bobolink		29	4	32	92	18	45	29	ω	7.5	2
Red-winged Blackbird		439	216	119	92	196	75	467	565	237	91
Eastern Meadowlark		20	0 0	τ-	_	o	12	2	25	28	ω
Kusty Blackbird Common Grackle		136	175	33	່ თ	- 02	- 25	- 68	8	176	47
Brown-headed Cowbird		30	68	16	17	5 4	12	27	09	28	21
Orchard Oriole		,	2	•		7	-		12	-	R
Baltimore Oriole	2	35	92	25	12	38	10	46	129	9.2	25
Purple Finch		υ <del>,</del>	o 1	39	7 0	20	← (	32	2 2	4 r	' 70
Red Crossbill		= '	_ '	<u>.</u>	ο '	<u>+</u> '	າ '	95	, ol	ი '	40
White-winged Crossbill									•		
Pine Siskin		,	က	,		,	,	,	ო	ო	
American Goldfinch		102	102	81	44	63	30	34	186	198	44
Evening Grosbeak		_		-					•		
House Sparrow		28	80	4	9	<del>-</del>	12	13	223	29	39
American Black Duck/Mallard hybrid		-									
Scaup sp.							•				
Accipiter sp.				-	-				_		
Buteo sp.			,		7	٠.			က		
Peep sp.						4					
Gull sp.											
Clerkoo wo											
Empidonax sp.				-					2		
Crow sp.											
Chickadee sp.					•		,		7		
Thrush sp.											
Brewster's Warbler			-								
Total Species	36	109	128	86	79	114	125	120	155	117	114
Total Individuals	94	3851	4269	2087	1053	3194	1888	3989	8352	3289	1736
Number Observers	- 4	11	18	23	4 0	9 40 5	د <del>بر</del>	ω <del>τ</del>	35	10	ω <del>,</del> γ
		2	2		0	2.0	2	2	0	3	

### PENNSYLVANIA BIRDS

	0.00	of Counts		Count	
Red-throated Loon	က	2	2	BERK	American Coot
Common Loon	73	23	6	LANC	Black-bellied Plover
Pied-billed Grebe	21	1	9	BERK	Semipalmated Plover
Horned Grebe	က	2	2	LANC	Killdeer
Double-crested Cormorant	521	32	190	BUCK	Greater Yellowlegs
American Bittern	4 4	4 4		- C	Lesser Yellowlegs
Least Bittern Great Blue Heron	L 98	٦ 43	1 9	BEKK	Spotted Sandpiper
Great Earet	84	15	36	DAUP	Upland Sandpiper
Snowy Egret	4	-	4	BUCK	Ruddy Turnstone
Little blue Heron	2	7	-	2	Sanderling
Cattle Egret	-	-	-	BUCK	Semipalmated Sandpiper
Green Heron	249	38	59	BUCK	Western Sandpiper
Black-crowned Night-Heron	189	10	139	LANC	Least Sandpiper
Yellow-crowned Night-Heron	100	- 07	7 7	COMB	Pectoral Sandpiper
Figer Value	101	5 6	t 9		Califfill Caidagas + i+O
Trimpeter Swap		ţ, ←	100	RFDF	Short-billed Dowitcher
Tundra Swan	2		- 5	LAWR	Common Snipe
Mute Swan	82	. =	27	BUCK	American Woodcock
Snow Goose (white form)	24	4	13	BERK	Laughing Gull
Ross's Goose	-	-	-	INDI	Bonaparte's Gull
Canada Goose	8823	44	1043	BUCK	Ring-billed Gull
N ood Duck	848	42	95	JUNI	Herring Gull
Green-winged Teal	29	ဖွ	10	LEBA	Great Black-backed Gull
4 merican Black Duck	27	10	, , ,	BUCK	Common lern
Manaid Northorn Distoil	2000	t + 5	2 - 2 0 - 2	LANC	Forsier's Term
Northern Pintall	10	- 5	0 7	MEDO	Black Tern
Bing-willged Teal	67	ב ער	- ^	)   	Mollping Dove
esser Scalin	. 65	0 00	1 4	NORT	Black-billed Cuckoo
Slack Scoter	2 0	) <del>-</del>	. 0	CAMB	Yellow-billed Cuckoo
Surf Scoter	-	-	-	VENA	Barn Owl
Bufflehead	12	2	7	LYCO	Eastern Screech-Owl
Hooded Merganser	17	9	1	DAUP	Great Horned Owl
Common Merganser	104	17	28	WAYN	Barred Owl
Red-breasted Merganser	15	7	4	4	Northern Saw-whet Ow
Ruddy Duck	198	16	80	VENA	Common Nighthawk
Osprey	06	24	12	2	Chuck-will's-widow
Sald Eagle	31	13	12	LANC	Whip-poor-will
Vorthern Harrier	34	18	m·		Chimney Swift
Sharp-shinned Hawk	32	20	4 (	BEKK	Kuby-throated Hummingb
Cooper's Hawk	63	26	ر ب	WEST	Belted Kingtisher
VOLUMENT GOSTIAWA	4 6	ი ლ	7 4	L02E	Red-lleaded Woodpecker
Red-shouldeled hawk	200	20	0 f	CLAR	Ked-bellied Woodpecker
Bload-willged nawk	00-	30	- 6	7710	Downson Woodsookor
American Kestrel	212		1 0 L	ER AN	Hairy Woodbecker
Merlin	-	-	-	NORT	Northern Flicker
Peregrine Falcon	10	4	ဖ	DAUP	Pileated Woodpecker
Ring-necked Pheasant	112	32	14	INDI	Olive-sided Flycatcher
Ruffed Grouse	82	31	10	SULL	Eastern Wood-Pewee
Wild Turkey	636	88	275	GREE	Yellow-bellied Flycatcher
Northern Bobwhite	: 1	သ ပ	4 (	INDI	Acadian Flycatcher
Virginia Kail	17	ω <del>τ</del>	ဟု ယ	CHES	Alder Flycatcher
Sommon Moorben	2 2		٥	DH I	Willow Flycatcher
	7	-	J	1	1,000

American Coot	52	20	Ξ,	INDI	
Semipalmated Plover	- 89	- 6	33 -	A N N N	
Killdeer	932	44	104	FRAN	
Greater Yellowlegs	44	17	ω ζ	BEDF	
Solitary Sandpiper	163	27	34	NORT	
Spotted Sandpiper	092	40	314	INUL	
Jpland Sandpiper	80	4	က	7	
Ruddy Turnstone	7 0		0 0	FORE	
Sandering Semipalmated Sandbiber	3. 5	- ∞	9 /1	MERC	
Western Sandpiper	2 2	· —	. ~	BUCK	
east Sandpiper	299	17	203	LANC	
Pectoral Sandpiper	7	က	2	LUZE	
Ounlin	73	_ ,	24	LANC	
Stilt Sandpiper Short-billed Dowitcher	7 (	- 0	71 (	BEDF	
Common Snipe	ο ∞	7	2 0	CLEA	
4merican Woodcock	43	17	၂ တ	ION	
aughing Gull	420	-	420	BUCK	
Sonaparte's Gull	27	7	12	LANC	
Ring-billed Gull	1378	31	718	LANC	
Herring Gull	336	10	303	BUCK	
Sreat Black-backed Gull	4 4	0 4	∞ α	BUCK	
common lem Eorster's Tern	= -	4 ←	∞ <del>-</del>	AND -	
Slack Tern	- 2	- 2		) ; ; ;	
Sock Dove	2994	1 4	381	INDC	
Mourning Dove	4669	46	411	INDI	
Black-billed Cuckoo	116	27	18	INON	
rellow-billed Cuckoo	213	26	35	INOT	
Barn Owl	16	က မ	11	BERK	
Eastern Screech-Owl	84	23	7.5	CHES	
Great Horned Owl	57	26 18	· <	O BERK	
Northern Saw-whet Owl	9 4	2 2	5 -	10	
Common Nighthawk	127	1 8 1	70	NORT	
Chuck-will's-widow	2	2	-	1	
Whip-poor-will	189	18	99	LUZE	
Chimney Swift	2406	41	430	FRAN	
Ruby-throated Hummingbird	648	45	77	GREE	
Belled Kinglisher Bed-beaded Woodbecker	246	- - α	25		
hellied Woodbecker	1285	42	135	N N N N N N N N N N N N N N N N N N N	
Yellow-bellied Sapsucker	74	4 <u>5</u>	15	100	
Downy Woodpecker	691	46	54	FRAN	
Hairy Woodpecker	229	41	21	INDI	
Vorthern Flicker	1088	45	134	INOL	
Pileated Woodpecker	295	39	25	INOL	
Olive-sided Flycatcher	o :	∞ :	5	BEDF	
Eastern Wood-Pewee	745	40	62	LANC	
Yellow-bellied Flycatcher	2 00	2 2	- 1	12 WFST	
Acadiali Fiycatchei Alder Flycatcher	380	13	, u	W EN EN	
Willow Flycatcher	169	33 - 33 -	23	- ION	
east Flycatcher	243	31	31	LACK	

NORTH AMERICAN MIGRATION COUNT - MAY 13, 2000

# NORTH AMERICAN MIGRATION COUNT - MAY 13, 2000

	Totals	Number of Counts	High	High Count		Totals	Number of Counts	High	High Count
Eastern Phoebe Great Crested Flycatcher	1084	45	98	INDI	Yellow-rumped Warbler Black-throated Green Warbler	557	40	163 84	WAYN
Eastern Kingbird	830	42	06	CHES	Blackburnian Warbler	267	37	36	POTT
White-eyed Vireo	203	24	14	CHES	Yellow-throated Warbler	43	18	۲ ,	16
Blue-headed vireo Yellow-throated Vireo	212 163	32	3, 14	BEAV	Pine Warbler Prairie Warbler	327	3.5	/- 49	NDI
Warbling Vireo	537	33	63	BUCK	Palm Warbler	4	2	5 2	17
Philadelphia Vireo Redeved Vireo	9	<b>∠</b> 74	2 2 580	13 I C N I	Bay-breasted Warbler	319	21	10	CUMB
Blue Jay	4320	47	304	BUCK	Cerulean Warbler	182	32	27	18
American Crow	6298	46	516	IONI	Black-and-white Warbler	604	4 1	56	BERK
FISH Crow	447	23	194	TING	American Redstart	1///	45	123	CEN
Common Raven Horned Lark	107	17	23	LAWR	Figure Warbler Worm-eating Warbler	171	25	24	BUCK
Purple Martin	811	22	217	INDL	Ovenbird	3247	45	221	INDI
Tree Swallow	3840	45	261	BUCK	Northern Waterthrush	125	25	27	BUCK
Bank Swallow	1032	24 -	400	V E V	Kentucky Warbler	103	- 6	34 20	WEST
Cliff Swallow	640	25	121	BERK	Mourning Warbler	15	80	2	POTT
Barn Swallow	5019	45	350	ION	Common Yellowthroat	3767	46	598	<u> </u>
Carolina Chickadee	537	15	108	SHES S	Wilson's Warbler	32	17	200	LUZE
Tufted Titmouse	2152	47	201	BUCK	Canada Warbler	187	29	39	CENT
Red-breasted Nuthatch	39	19	2	FRAN	Yellow-breasted Chat	147	26	21	GREE
W hite-breasted Nuthatch	657	43	120	BERK	Scarlet Tanager	1655	46	168	INDI
Brown Creeper Carolina Wren	617	34	67	LUZE BUCK	Normern Cardinal Rose-breasted Grosbeak	37.32 87.0	, 4 , 4	967	N ICN
House Wren	1343	47	141	BUCK:	Blue Grosbeak	2	i w	g e	LANC
Winter Wren	15	. 9	9	FRAN	Indigo Bunting	2511	46	217	INOS
Sedge Wren	2	2	-	14	Dickcissel	-	-	-	GREE
Marsh W ren	9 9	က	ကေ	PHIL	Eastern Towhee	2745	46	429	O I
Golden-crowned Kinglet Ruby-crowned Kinglet	26	ص <del>ر</del>	o 4	SCHU	Chipping Sparrow	3111	46	479	ION COLF
Blue-gray Gnatgatcher	760	38	95	BERK	Field Sparrow	1128	- 43	193	
Eastern Bluebird	1614	45	204	FRAN	Vesper Sparrow	51.	. 4	÷ +	N
Veery	517	39	100	CHES	Savannah Sparrow	233	32	25	INDI
Gray-cheeked Thrush	7	9 0	2 0	BUCK	Grasshopper Sparrow	285	31	52	ALLE
Swainson's Inrush Hermit Thrush	98	2.8	25	ALLE I 117F	Henslow's Sparrow Fox Sparrow	90 4	Z 65	9	SIEL
Wood Thrush	3209	45	369	INDI	Song Sparrow	3783	46	405	INDI
American Robin	14435	47	2034	INDI	Lincoln's Sparrow	9 000	22	2 2	LANC
Northern Mockinghird	720	32	122	E A A	Swallip Spallow White-throated Sparrow	198	280	35	LOZE
Brown Thrasher	391	38 8	54	TRAN.	White-crowned Sparrow	179	3 E	20	1106
American Pipit	57	5	28	LANC	Dark-eyed Junco	316	22	56	ELK
Cedar Waxwing	3150	41	330	JUNI	Lapland Longspur	က	-	က	DAUP
European Starling	10667	45	1302	I I I	Bobolink	1487	37	198	LACK
Solder winged Walblel	244	30	30	G A E E	Red-willged Blackbild	10362	450	111	
Golden-willged Walblei Tennessee Warbler	125	25	- <del>-</del> 0	BEAV	Easteili Meaudwiaik Rusty Blackbird	33	, 0	= =	MFF
Nashville Warbler	29	23	10	IDDI	Common Grackle	11168	45	1826	JUNI
Northern Parula	237	31	57	BUCK	Brown-headed Cowbird	2049	44	184	GREE
Yellow Warbler Chaefunt-sided Warbler	2996	45	258	BOCK	Orchard Oriole Baltimore Oriole	3221	7 8	44 376	GREE
Magnolia Warbler	328	38 -	37	BUCK	Purple Finch	300	31	330	SULL
Cape May Warbler	41	10	2	15	House Finch	2210	45	249	DAUP
Black-throated Blue Warbler	326	36	51	BUCK	Red Crossbill	2	_	2	FRAN

## **NORTH AMERICAN MIGRATION COUNT - MAY 13, 2000**

	lotals	Number of Counts	High	High Count
W hite-winged Crossbill	2	-	2	NORT
Pine Siskin	44	13	80	LYCO
American Goldfinch	4836	45	529	CHES
Evening Grosbeak	18	9	12	NORT
House Sparrow	4271	45	920	FRAN
Total Species	233		166	LANC
Total Individuals	202801		16295	INDI

## Codes for Multiple Counts in High Column

- BEDF, FRAN, JUNI, SCHU
  BERK, MIFF
  FRAN, JUNI
  BLAI, JUNI
  BLAI, JUNI
  BERK, LANC
  ALLE, BERK, CLAR, FRAN, LACK, VENA
  MERC, VENA
  JUNI, MERC
  GREE, LUZE
  LUZE, VENA
  BEDF, BUCK
  BUCK, CLEA
  BUTL, VENA
  CENT, CLEA
  ALLE, CUMB, HUNT, SCHU
  INDI, WEST
  CHES, WEST
  CHES, WEST

### Spring Raptor Migration Summary 2000

By Jennifer Ottinger and Keith L. Bildstein

Five watchsites reported counts for spring 2000 (Tables 1 and 2). Counts were conducted for from 84 to 253 hours at each site for a grand total of 890 hours of observation. A total of 6,446 raptors representing 17 species was reported. A new watchsite, White Deer Ridge, in Lycoming County, reported numbers for the first time. Highlights include a Rough-legged Hawk (Buteo lagopus) at Tussey Mountain, and a Mississippi Kite (Ictinia mississippiensis) at Rose Tree Park.

Count efforts (hours observation) for all watchsites increased considerably over those in 1998 (there was no published summary for spring 1999). Overall, this year's effort was more than twice that of 1998 (890 hours versus 348 hours). Three watchsites (Allegheny Front, Hawk Mountain Sanctuary, and Rose Tree Park) logged more than 200 hours of effort in spring 2000. Tussey Mountain and White Deer Ridge each had fewer than 100 hours of observation (Table 1).

### Composition of the Flight

As expected, at 43% of the overall flight, Broad-winged Hawks (Buteo platypterus) made up the largest percentage of the flight at all but two watchsites (Tussey Mountain and White Deer Ridge). The broadwing flight ranged from 0% of the total at Tussey Mountain, which counted only in February and March, to 63% of the flight at Rose Tree Park (Table 2).

At 15% of the overall flight, Redtailed Hawks (Buteo jamaicensis) were the second most numerous migrants. At 10% and 7% of the overall flight, respectively, Turkey Vultures (Cathartes aura) and Sharp-shinned Hawks (Accipiter striatus) were the next most common migrants. Redtails ranged from 4% of the total at Rose Tree Park, to 54% at Tussey Mountain. This species made up at least 15% of the flight at three of the five watchsites (Allegheny Front, Tussey Mountain, and White Deer Ridge). Turkey Vultures ranged from <1% of the flight at Hawk Mountain, to 32% of the flight at White Deer Ridge. Sharp-shinned Hawks made up no more than 6% of the flight at each watchsite, except for Hawk Mountain Sanctuary, where this small accipiter made up 12% of the flight. Ospreys (Pandion haliaetus), which made up 6.6% of the overall flight, ranged from none at Tussey Mountain, to 9% of the flight at Hawk Mountain Sanctuary (Table 2).

Each of the remaining 11 regular migrants made up less than 5% of the overall and individual flights, except Golden Eagles (Aquila chrysaetos), which made up 13% of the flight at Tussey Mountain (Table 2).

### Seasonal Highlights

### **Allegheny Front** Bedford County

Dean Jobe reported that the flight more than doubled from the previous year's migration, even though effort remained similar (759 individuals in 216 hours in 1999 versus 1.878 individuals in 239 hours in 2000). This watchsite reported a record year both for Ospreys (165) and Golden Eagles (77). The Osprey count was the watchsite's highest count ever, spring or autumn. The Golden Eagle count was the highest for any watchsite this

### **Hawk Mountain Sanctuary** Berks County

This was the third consecutive year of consistent spring counts at the watchsite. As was true in 1998 and 1999, the count was conducted almost entirely by Sanctuary interns. This year's count was the highest of the three. Broad-winged Hawks nearly doubled from the previous year (642 in 2000 versus 338 in 1999), and there were substantial increases for Ospreys, Sharp-shinned Hawks, and Red-tailed Hawks. In addition, seven Merlins (Falco columbarius) were seen at the watchsite.

### Rose Tree Park Delaware County

This is the first year of reporting since 1997 for this watchsite at a park in Media, west of Philadelphia. A Mississippi Kite was seen on May 1st.

Compiler Jim Lockver noted that the count of 2,010 birds exceeded the 1999 count. This was a record year for all species at the site except Broad-winged Hawks and Red-shouldered Hawks (Buteo lineatus). Broad-winged Hawks made up a larger percentage of the flight (64%) than at any other watchsite.

### **Tussey Mountain**

Centre County

A Rough-legged Hawk was seen on February 28th. This was sixth year of counts at this part-time watchsite (no count was made in 1999), and counts were only conducted in February and March. Red-tailed Hawks increased during the month of March over the 1998 count (190 in 2000 versus 154 in 1998). This year also brought the third highest Golden Eagle count for the watchsite (40 in March). The highest count for this species at the watchsite was 88 in March 1998.

### White Deer Ridge

Lycoming County

This is the first year of observation at this watchsite, atop White Deer Ridge, 2.5 miles south of Williamsport, in Armstrong Township. Turkey Vultures were the most numerous migrant (275 individuals; 32% of the overall flight). The site also reported 25 Golden Eagles during six days of counts in early March, and nine Northern Harriers (Circus cyaneus) on April 1st. A white (albino?) Red-tailed Hawk was seen on March 25th.

Acknowledgments: We thank the compilers who reported their counts for the spring 2000 season, and the watchsite participants who helped their respective compilers. We also thank Frank Hohenleitner for his assistance in contacting watchsite coordinators, and Frank and Barbara Haas for the opportunity to act as hawk watch editors. This is Hawk Mountain Sanctuary contribution number 43.

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Table 2. PENNSYLVANIA'S SPRING 2000 HAWK MIGRATION SUMMARIES

ALLEGHENY FRONT (Bedford) Dean Jobe, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid	Total
February	9	34	0	13	0	1	0	3	1	0	4	0	41	0	24	0	0	0	0	87
March	21	94	0	181	0	9	3	13	19	8	43	0	133	0	24	7	1	3	19	460
April	19	102	3	69	159	9	16	94	19	7	2	029	198	0	29	15	2	6	20	1298
May	2	6	0	0	9	0	0	3	2	1	0	3	15	0	0	1	1	0	1	33
Total	48	239	3	263	165	13	19	113	41	16	49	623	387	0	22	23	4	12	40	1878
Total per hr			0.01	1.10	69.0	0.05	0.08	0.47	0.17	0.07	0.21	2.73	1.62	0.00	0.32	0.10	0.02	0.05	0.17	7.86
% of flight			0.2	14.0	8.8	0.7	1.0	0.9	2.2	6.0	2.6	34.8	20.6	0.0	4.1	1.2	0.2	9.0	2.1	100.0

## HAWK MOUNTAIN SANTUUARY (Berks) 2000 Laurie Goodrich, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	СОНА	NOGO	RSHA	ВМНА	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid	Total
March	2	10	3	3	0	1	2	14	3	0	9	0	30	0	0	12	0	0	23	6
April	24	123	1	2	110	0	25	126	18	0	4	262	98	0	1	33	7	2	82	1,092
Мау	15	91	0	0	10	3	7	26	4	0	0	47	36	0	0	2	0	1	6	145
Total	41	224	4	2	120	4	34	166	25	0	10	642	152	0	1	47	7	3	114	1334
Total per hr			0.02	0.02	0.54	0.02	0.15	0.74	0.11	0.00	0.04	2.87	0.68	0.00	0.00	0.21	0.03	0.01	0.51	5.96
% of flight			0.3	0.4	0.6	0.3	2.5	12.4	1.9	0.0	0.7	48.1	11.4	0.0	0.1	3.5	0.5	0.2	8.5	100.0

### ROSE TREE PARK (Delaware) 2000 Jim Lockyer, compiler

Month	Davs	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	COHA	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid	Total*
March	22	105	4	85	15	3	11	35	13	-	5	0	53	0	0	35	0	0	11	271
April	56	146	25	13	66	9	48	91	32	3	1	1275	27	0	-	89	3	2	40	1734
May	1	2	0	0	1	0	0	1	0	0	0	2	0	0	0	0	0	0	0	2
Total	49	253	29	86	115	6	69	127	45	4	9	1277	80	0	1	103	3	2	51	2010
Total per hr			0.11	0.39	0.45	0.04	0.23	0.50	0.18	0.02	0.02	5.05	0.32	0.00	0.00	0.41	0.01	0.01	0.20	7.94
% of flight			1.4	4.9	2.7	0.4	2.9	6.3	2.2	0.2	0.3	63.5	4.0	0.0	0.0	5.1	0.1	0.1	2.5	100.0

\* includes 1 Mississippi Kite seen on 1 May.

### TUSSEY MOUNTAIN (Centre) 2000 Dan Ombaski, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	СОНА	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid	Total
February	8	20	3	8	0	2	0	1	0	0	0	0	11	1	10	0	0	0	1	37
March	20	02	16	18	0	2	3	19	13	1	16	0	190	0	40	6	1	1	6	338
Total	28	06	19	26	0	4	3	20	13	1	16	0	201	1	20	6	1	1	10	375
Total per hr			0.21	0.29	0.00	0.04	0.03	0.22	0.14	0.01	0.18	0.00	2.23	0.01	0.56	0.10	0.01	0.01	0.11	4.17
% of flight			5.1	6.9	0.0	1.1	0.8	5.3	3.5	0.3	4.3	0.0	53.6	0.3	13.3	2.4	0.3	0.3	2.7	100.0

### WHITE DEER RIDGE (Lycoming) 2000 Joe Yoder, compiler

Month	Days	Hours	BLVU	TUVU	OSPR	BAEA	NOHA	SSHA	СОНА	NOGO	RSHA	ВМНА	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid	Total
March	11	46	0	149	0	2	2	22	3	1	43	0	66	0	25	17	0	0	9	372
April	8	38	0	126	26	4	13	22	10	3	0	185	64	0	0	7	0	0	17	477
Total	19	84	0	275	26	9	18	44	13	4	43	185	163	0	25	24	0	0	23	849
Total per hr			0.00	3.27	0.31	0.07	0.21	0.52	0.15	0.05	0.51	2.20	1.94	0.00	0.30	0.29	0.00	0.00	0.27	10.11
% of flight			0.0	32.4	3.1	0.7	2.1	5.2	1.5	0.5	5.1	21.8	19.2	0.0	2.9	2.8	0.0	0.0	2.7	100.0

### **TOTAL FOR ALL WATCHSITES 2000**

Month	Days	Hours	BLVU	UVUT	OSPR	BAEA	NOHA	SSHA	СОНА	NOGO	RSHA	BWHA	RTHA	RLHA	GOEA	AMKE	MERL	PEFA	Unid	Total
February	14	24	3	21	0	3	0	4	1	0	4	0	25	1	34	0	0	0	1	124
March	92	325	23	436	15	14	24	103	51	11	113	0	202	0	88	80	2	4	89	1538
April	2.2	409	29	210	394	16	102	333	26	13	7	2705	375	0	31	123	12	13	159	4601
Мау	18	102	0	0	17	3	7	30	9	1	0	25	51	0	0	3	1	1	10	183
Total	185	068	22	299	426	36	133	470	137	25	124	2,757	683	1	154	206	15	18	238	6,446
Total per hr			90.0	0.75	0.48	0.04	0.15	0.53	0.15	0.03	0.14	3.10	1.10	0.00	0.17	0.23	0.02	0.02	0.27	7.24
% of flight			6.0	10.3	9.9	9.0	2.1	7.3	2.1	0.4	1.9	42.8	15.2	0.0	2.4	3.2	0.2	0.3	3.7	100.0

# Table 1. Watchsites reporting counts for spring 2000.

observation	239	224	253	06	84
County	Bedford	Berks	Delaware	Centre	Lycoming
Watchsite	Allegheny Front	Hawk Mountain	Rose Tree Park	Tussey Mountain	White Deer Ridge

### **BOOK REVIEW**

by Gene Wilhelm

Important Bird Areas in Pennsylvania. A Guide to Identifying And Conserving Critical Bird Habitat. Produced by the Pennsylvania Audubon Society Important Bird Areas program of the National Audubon Society. Compiled by Gary J. Crossley. xii + 219 pp; pen and ink front cover of American Woodcock and 47 other line drawings of birds by John Strawbridge, 2 color maps (Important Bird Areas and Physiographic Provinces of Pennsylvania) and 5 appendices. Published by Signal Graphics Printing, Mechanicsburg, PA. Purchase from the Pennsylvania Audubon Society, 100 Wildwood Way, Harrisburg, PA 17110. April 1999. Paper. \$19.95.

"Modern man's proudest works have devastated his most important inheritance. Almost every triumph of his civilization has been a defeat for the land - the land on which he lives; the thin, finite covering of his planet upon which he depends for life itself. For all our wondrous works and soaring dreams, the process of life is sustained by six inches of soil and the fact that it rains every now and then."

— Dan W. Lufkin The Spoiler's Hand; The Rage of Gain, 1974

So opens the EXECUTIVE SUMMARY of this powerful and timely report and sets as its theme the critical need for a centralized source of information on important bird habitats in Pennsylvania. To help save birds and other wildlife in the Commonwealth, we need to know where they live and breed and we need to get this data into the hands of activists and decision-makers who can effect a positive change for habitat preservation. There is no time to lose. Encouragingly the report brought together many dedicated and skilled people from every part of the state: Audubon chapters, independent bird clubs, land conservancies, government agencies and private individuals who heard about the IBA program and offered their expertise. The end product is a partnership of Pennsylvania's diverse environmental community. It truly is a manual guiding the commencement of an ornithological preservation process that will keep the document dynamic as new IBA sites are nominated and accepted and environmental changes occur in those sites.

The report's TABLE OF CONTENTS is divided into four sections:

1) Acknowledgments, Foreword: Why Pennsylvania?, Executive Summary and The IBA Program: A Global Perspective; 2) Overview: Habitat Conservation (pp. 1-84) which is especially well written; 3) Important Bird Areas in Pennsylvania (pp. 85-169); & 4) Appendices (pp. 171-219) containing valuable information, such as a quick reference to state IBAs, IBAs sorted by size, nomination guidelines and official form and a list of current land trusts in Pennsylvania.

The IBA process began in Pennsylvania in 1995 and was the first in the USA. Although BirdLife International, a conservation organization in Europe, developed the IBA concept and program, the National Audubon Society was the first organization to develop it in the United States. Pennsylvania was chosen to be the first state to begin the IBA process for a few important reasons: 1) Pennsylvania was the cradle of Am. ornithology with John James Audubon, William Bartram and Alexander Wilson; 2) the state today has one of the strongest traditions of birding in the country and a committed cadre of volunteers who helped collect field records for the ATLAS OF BREEDING BIRDS (1992) and THE BIRDS OF PENNSYLVANIA (2000); and 3) the state has a vast amount of quality bird habitat, mainly forests, which are the state's major contribution to North American bird populations. Wetlands, rivers, lakes, thickets and barrens provide a wide diversity of other habitats for nesting birds and add complexity to the state's mosaic of bird habitats.

IBAs in the state were chosen by nominations based on scientific criteria. Over 270 nominations were received for habitat sites across Pennsylvania in the initial review process of which 73 were determined to meet the criteria for IBA designation at that time. The IBA list will evolve as new habitat sites are documented or as habitat sites change and evolve. Thus the IBA list will be evolutionary and changing to represent the most current information. And the future of the IBA program is clear: designations will continue with a permanent review commission to evaluate future IBA nominations in Pennsylvania.

CHAPTER I: ECOSYSTEMS FOR PENNSYLVANIA BIRDS by Douglas Gross is a must reading for every birder in Pennsylvania. Included are vivid descriptions and lucid explanations of topics that are at the heart of the IBA process.

GEOGRAPHIC REVIEW of forest lands is concise and to the point. DIVERSITY THREATENED BY FRAGMENTATION tells it like it is with 17 percent of the nesting population of Scarlet Tanager and 8.5 percent of Wood Thrush here in Pennsylvania. The larger-scale forest fragments of the state make it a very important place for the continued success of many eastern deciduous forest birds. In fact, Pennsylvania forests may be "rescuing" the highly fragmented forest population by continually providing new birds in the large "source" habitat.

THE VALUE OF OLD-GROWTH FOREST, RIPARIAN FORESTS DIMINISHED BY DEVELOPMENT, BOREAL AND CONIFER HABITATS CONTRIBUTE TO DIVERSITY, FOREST RECOVERY FORECAST, BARRENS ARE BARREN IN NAME ONLY, GRASSLAND SPECIES IN TROUBLE and WETLAND BIRDS IN A QUAGMIRE are other subjects discussed briefly and accurately by Gross so that by the end of the chapter any reader has an up-to-date synopsis of the problems that our avian friends face on a daily basis in Pennsylvania.

In sum, the birds that we enjoy will not survive if we do not take responsibility for preserving their habitat. Martin Litton, one of twentieth century America's most passionate environmentalists, said: "When you compromise with what you believe in, you've lost, because you know that you've given up something which you really care about. Don't be too quick to give away the wilderness, it will never come back."

Now the most important work begins — putting into place management practices that will help enhance and preserve existing IBA sites and others to come that are so critical to birds and other wildlife in Pennsylvania.

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### Documenting Rare Birds: What the Records Committee Needs

by the Pennsylvania Ornithological Records Committee

By far the most concrete way to document a rarity traditionally has been a specimen. Many of the rare species on the Official Pennsylvania List are there because the P. O. R. C. was able to discover the presence and whereabouts of historical specimens. Most modern-day specimens are of birds already found dead or moribund. However, picking up dead birds is illegal under the federal Migratory Bird Treaty Act without an official collecting permit or salvage permit. The only exceptions are game birds otherwise regulated and a few introduced species. Therefore, this method is not particularly useful for most observers.

The best of the more widely used methods of documenting rarities is by photographs. A picture can indeed be worth a thousand words and can mean the difference between acceptance and rejection of a record. Photographs of rarities do not have to be the glorious portraits that grace the cover of Birding magazine. Even a Polaroid snapshot would do if it clearly depicted the bird in question, but quite obviously the better the quality of the photograph the easier the committee's job. All photographs should be clearly labeled with the observer's name, the locality, county, and the date the photograph was taken. All these details are actually more important than the name of the species photographed, as it is the committee's job to determine this during the evaluation.

Occasionally even good quality photographs may be insufficient to confirm the identity of a species. For example, Eastern and Western meadowlarks can best be safely separated in the field by voice; the most valuable form of documentation for these species would be a tape recording made of their songs. Several Pennsylvania records of Chuck-will'swidow have been documented adequately by tape recordings and accepted by the committee on the strength of these alone. Also, videotapes can be extremely useful in documenting the occurrence of rarities. Pennsylvania's first and only Ross's Gull was filmed using a home movie camera and the video submitted to P. O. R. C. The observer's commentary on such tapes and videos (date, location, county, and any other relevant details) is particularly helpful.

An accepted record based on a specimen, photograph, or tape recording is categorized as a Class I record. However, many rarities are found by observers who are either not photographers or who don't have access to a camera, tape recorder, or camcorder at the time. Some birds are simply too distant for photography or never call. In such cases the written word is extremely valuable as a form of documentation (Class II independent details from more than one observer, Class III for a single observer). Unfortunately many birders seem to underestimate the value of written descriptions of rarities. In many instances the committee has received only a photograph of a bird as supporting evidence for its occurrence. On more than one occasion, the quality of the photograph has been insufficient to identify the bird conclusively. The most thoroughly documented and acceptable of records are those where the observer has taken full advantage of as many forms of documentation as possible. Invariably in these cases the foundation of the document has been a high quality written description. Carry a notebook into the field with you and, when describing the bird you are watching, take notes and complete the description without consulting a field guide. Even well-observed rarities should be documented independently by as many observers as possible. One person's notes may possibly include an important descriptive feature that another observer's does not.

The written documentation received by P. O. R. C. over the years has varied greatly in quality. While many observers make an excellent attempt at describing what they see in writing, others supply brief, sketchy or inaccurate notes. On several occasions a person has supplied information on a bird based on a conversation with the observer. In these cases the author of the submission was not present when

the bird was seen. Regrettably the committee cannot accept submissions such as these. Only first-hand accounts can be accepted as documentation. For classification purposes, two independent descriptions are needed for an accepted record to be categorized as Class II. Often two observers will collaborate and co-author one description, but this ends up in the Class III category, if accepted, simply because only one submission was received.

As with all other forms of documentation, written descriptions should begin with the species described, the exact locality and county, the date (this is missed surprisingly often), and the observer's name and address. The circumstances surrounding the sighting should be given, especially the weather conditions at the time and the bird's distance from the observer. However, what matters most of all in written documentation is a plumage description of the bird itself. All too often precious little is said about this. In several extreme cases submissions have been received by the committee in which nothing is actually said about the bird's plumage in several pages of narrative. The committee has no option but to reject a record in these circumstances. In appropriate cases, tell also how the identification was separated from similar species.

Plumage descriptions should be as detailed and accurate as possible, and a thorough knowledge of what is often called a bird's "topography" is important. The topography consists basically of the visible parts of a bird. The most confusing written descriptions received by the committee are those in which it is unclear just exactly what part of a bird the observer is referring to. For instance, one common mistake is the use of the term "eye stripe". A Chipping Sparrow for example, is often said to have a white "eye stripe" in alternate plumage. In fact this species has a black eye stripe, which is the stripe running through the eye, and a white supercilium, which is the correct term for the stripe which passes from the bill base above the eye. It is important to learn the various topographical terms so that their accurate use removes any ambiguity in the description. Consult any of the current field guides for an illustration explaining the topography of a bird. The introduction in the National Geographic Field Guide to the Birds of North America has one of the best such illustrations available. It might be helpful to copy the illustrations and paste them to the inside cover of a field notebook.

Please send documentation for all review species on the accompanying list to: Nick Pulcinella, Secretary, P.O.R.C., 210 Welcome Ave., Norwood, PA 19074. E-mail: nickpul@bellatlantic.net

### CHECKLIST OF ELEMENTS TO INCLUDE IN AN IDEAL WRITTEN DOCUMENTATION

- 1. Species name
- 2. Location
- 3. Date and time of observation
- 4. How long you watched the bird
- 5. Your address and phone number
- 6. Names of other observers, if any
- 7. Distance from the bird
- 8. Weather conditions
- 9. Optics used
- 10. Bird's behavior
- 11. Complete description of the bird—what you saw, not copied later from a field guide (all of these might not be visible in every case):
- 12. --- top, including crown, nape, back, upper tail coverts and upper tail
- 13. --- side, including face, side of breast, and flanks
- 14. --- underside, including chin, neck, breast, belly, undertail coverts, and underside of tail
- --- wings, including as many portions of upperside and underside plumage as possible
- 16. --- non-plumage features, including bill, legs, feet, and color of eye (as for a gull)
- 17. How you distinguished the bird from similar species
- 18. Previous experience with the species, if any
- 19. Any discussion that might support the identification

### Large Catharus Thrush Migration in Hamburg, Berks Co., Pa.

by Kerry Grim

I have a nighttime habit of going out on the deck and listening for the 'peeps' of migrating birds. This spring, the weather was generally warm with clear skies during the first three weeks of May. In approximately 20 tries, I had heard only one peep from a single songbird. Obviously the migration under these conditions was high overhead and well out of my hearing range. Birds passing over our house would have to be well over 800 feet overhead to have enough altitude to cross over the Kittatinny Ridge a mile to the north of our house.

At 10 p.m. Sunday, May 21, I stepped outside and could hardly believe what I was hearing. The sky sounded like a chorus of spring peepers. The calls were those of Swainson's Thrushes—hundreds of them! In less than half a minute, I heard more Swainson's Thrushes then I had seen or heard previously in my 26 years of birding!

The next morning I was up at 3:30 a.m. and verified with recordings that some of the calls I had heard were Gray-cheeked Thrushes. Once again I went outside and heard a fair number of Swainson's Thrushes, along with several Gray-cheeked Thrushes. By 4:15 the robins were in full song and the *Catharus* thrush calls had ceased.

The weather Monday night was similar to that of Sunday night--cloudy, no wind, low cloud ceiling, but more humid than the previous night. Everything was wet from an evening shower. This time, with counter in hand, I tried counting the thrush calls. In 20 minutes I tallied 430 Swainson's Thrush and six Gray-cheeked Thrush calls. As high as the

99

number seemed, the rate of calls was approximately a third the number of calls heard the previous night! The calls were much less distinct than the previous night, probably due to the wet trees and vegetation.

Tuesday night, I went outside at 9 p.m. There was fog with a moderate drizzle. A few Swainson's Thrushes called, but nothing like the previous nights.

A lot of questions came to mind while thinking back on this. Did all the thrushes in the group call? Or, was it just a few that called in a large group? Where do they go during the day? No one had reported large numbers of them to our south. This migration of thrushes was likely normal, except that weather conditions brought them down to a lower altitude, within hearing range. I try to visualize what an awesome sight this would have been during the daylight hours.

Catharus thrush call references on the internet:

NOCTURNAL CALLS OF GRAY-CHEEKED & BICKNELL'S THRUSH:

http://www.birdsource.org/feature s/thrushes/

NOCTURNAL CALLS OF SWAINSON'S THRUSH:

http://www.pbs.org/wgbh/nova/kalahari/migrating.html

707 N Turner st Hamburg 19526-1452

### POPLAR FOREST

by Gene Wilhelm

In 1990 I had the privilege of surveying a large tract of land in Slippery Rock Borough for a developer and immediately discovered a natural haven for birds and other wildlife. Included in the natural inventory were scattered giant eastern hemlock, white pine, American beech and sugar maple, mostly in ravines. Tree species atop better-drained, drier and warmer benches included red, white, black, scarlet and chestnut oaks interspersed with hickories and other hardwoods. Tree ring counts of stumps of recently logged white oaks indicated that these former giants were between 150-200 years old.

It was apparent from my field reconnaissance that the western segment of the forest contained, until recent logging activity, as many as fifty stately and massive white and red oaks. Only Miller Woods and the Narrows on either bank of Wolf Creek two air miles west of the tract could compare in individual tree size, height, density and number.

Other natural assets included three intermittent streams. The northern stream cut through two types of Palustrine Wetland: a scrub-shrub wetland dominated by alders, willows, buttonbush, red-osier dogwood, young red maples and hawthorn; and a persistent emergent wetland containing Typha, sawgrass, sedges and a variety of broad-leaved persistent emergents such as loosestrife, dock and smartweed. The wetland has a colony of standing cattail and skunk cabbage on its eastern and western boundaries. The entrenched creek has formed steep clay banks (30 feethigh) at its western end with adjoining benches covered by two large grassy fields that formerly were cattle pastures. A second intermittent creek, located in the center of the property, flows through a natural bowl of scrub-shrub wetland and then a persistent emergent wetland. A third intermittent stream is located near the southern forest boundary with an

extensive elongated scrub-shrub wetland.

The landscape has changed considerably in the past ten years, mostly caused by Phase I and II of the Poplar Forest Development Plan. The creeks and wetlands are still present and so are the grassy fields. But the beautiful deciduous old growth forest has been severly fragmented by new roads and homes. Phase I lots average 5+ acres; Phase II lots 2.5 acres. Thus even more serious forest fragmentation is inevitable and the remaining open fields are destined to be covered by more roads and homes asPhase II, started in 1999, accelerates.

I have concluded that the rich biodiversity of the former Poplar Forest was caused by the meeting of two forest types in an ecotonal zone: the northern Beech-Maple/ Hemlock-White Pine Forest and the southeastern Appalachian Oak-Hickory Forest. The following bird species have been recorded breeding in Poplar Forest since April 1997 and the boreal tendency of some of these species is apparent. I now wonder how many species will continue to breed here with such a tremendous increase in Blue Jav. American Crow and Brown-headed Cowbird populations so evident the past ten years. Will Poplar Forest become just another bird "sink?"

Cooper's Hawk (1 1997-2000); Red-shouldered hawk (1 nest 1997-2000); Broad-winged Hawk (1 nest 1997-2000); Red-tailed Hawk (1 nest 1997-1998): Ruffed Grouse (1 nest 1997-2000); Wild Turkey (2 nests 1997, 3 nests 1998, 4 nests 1999-2000); Black-billed Cuckoo (4 nests 1997-1998, 1 nest 1999-2000); Yellow-billed Cuckoo (6 nests 1997-1998, 2 nests 1999-2000); Eastern Screech Owl (1 nest 1997-1999); Great-horned Owl (1 nest 1997-2000); Barred Owl (1 nest 1997-1998); YELLOW-BELLIED SAPSUCKER (1 nest 2000); Pileated Woodpecker (1 nest 1997-2000); Great Crested Flycatcher (2 nests

1997-2000); WHITE-EYED VIREO (1 nest 2000); Blue-headed Vireo (2 nests 1997-2000); RED-BREASTED NUTHATCH (2 nests 1999-2000): BROWN CREEPER (2 nests 1999-2000); WINTER WREN (1 nest 2000); GOLDEN-CROWNED KINGLET: Wood Thrush (5 nests 1997-2000); LAWRENCE'S WARBLER (1 nest 2000); CERULEAN WARBLER (1 nest 1999-2000); Ovenbird (4 nests 1997-2000); Louisiana Waterthrush (1 nest 1997-2000); Hooded Warbler (2 nests 1997-1998, 1 nest 1999-2000); Scarlet Tanager (8 nests 1997-1998, 6 nests 1999-2000); Rose-breasted Grosbeak (6 nests 1997-1999, 5 nests 2000); Baltimore Oriole (2 nests 1997-1999, 1 nest 2000); Purple Finch (2 nests 1997-2000).

Notes: Species in caps are first breeding records. Cuckoo breeding numbers fluctuated due to tent caterpillar infestations in 1997-1998. The Red-breasted Nuthatch has been recorded every month since August 1998. Both pairs dwell in a dense pine-spruce-fir stand and readily utilize nearby permanent bird feeding stations. The Lawrence's Warbler pair consisted of a male Lawrence's hybrid and a female Blue-winged Warbler. No offspring occurred. The male consistently sang a three syllable song: buzz-zee-zee which was tape recorded for the Cornell Laboratory of Ornithology's Golden-winged Warbler Atlas Project.

> 513 Kelly Blvd Slippery Rock 16057-1145 GeneWilhelm@aol.com

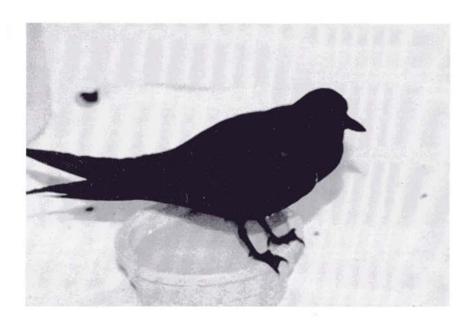
### PHOTOGRAPHIC HIGHLIGHTS



Least Tern, Washington Boro, *Lancaster*, 06/17/2000. Photo by Robert Schutsky.



Sandhill Crane, Green Pond, *Northampton*, Jan 2000. Photo by Rick Wiltraut.



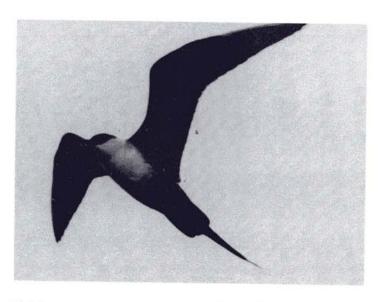
Sooty Tern, State College, Centre, 09/07/1996. Photo by Robyn Graboski.



Pomarine Jaeger, Presque Isle State Park, *Erie*, 04/19/2000. Photo by Gerry McWilliams.



Black-headed Gull, Presque Isle State Park, Erie, 04/29/2000. Photo by Gerry McWilliams.



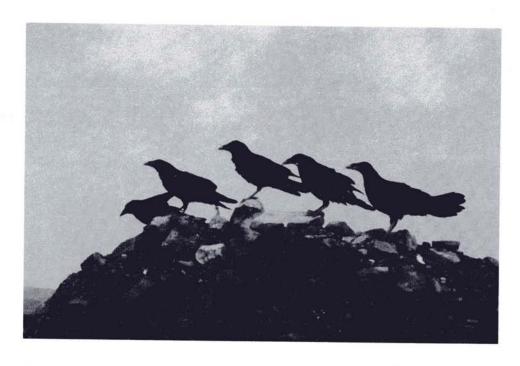
Long-tailed Jaeger, Washington Boro, Lancaster, 05/23/2000. Photo by Rick Wiltraut.



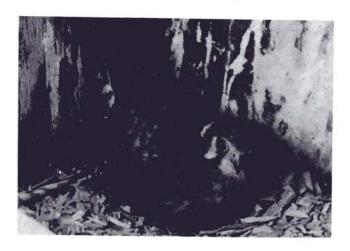
Glossy Ibis, Nazareth, *Northampton*, 06/16/2000. Photo by Rick Wiltraut.



Eurasian Collared Dove, Eckville, *Berks*, 05/07/2000. Photo by David Barber.



Common Ravens, St. Paul, Somerset, 05/18/2000. Photo by Anthony Marich Jr.



American Kestrel, Northampton, 06/11/2000. Photo by Rick Wiltraut.



Turkey Vulture, Cook Forest State Park, *Forest*, 05/07/2000. Photo by Anthony Cook.



Hooded Merganser, Hay Creek Lake, Berks, 04/29/2000. Photo by Harold Lebo.

### Official List of The Birds of Pennsylvania

Pennsylvania Ornithological Records Committee Nick Pulcinella - Secretary

The Official List of the Birds of Pennsylvania was first published in 1990 (Pa. Birds 4:51). A second edition of the list was published in 1995 (Pa. Birds 9:118-123). One of the responsibilities of the Pennsylvania Ornithological Records Committee (P.O.R.C.) is to review the status of all species on the state list and to publish an Official State List every five years. The committee has completed its assignment and the following list is the result of its work.

### **Definitions**

### CLASSIFICATION OF RECORDS

**Class I**: An accepted species documented by identifiable specimen, diagnostic photograph, or diagnostic recording.

Class II: An accepted sight record documented independently by two or more observers.

Class III: An accepted sight record documented independently by one observer.

The records must meet Class I criteria to be included on the Official List. This is a change from previous lists. Previous lists included Classes I, II, and III. (See Addition/Deletions below) Species in Class II and Class III above are accepted to the *Provisional List* until they can be elevated to Class I status through submission of physical evidence (specimen, photograph, sound recording).

### STATUS DEFINITION

**Regular**: Species recorded 8,9,or 10 of the last ten years.

**Casual**: Species recorded 4,5,6, or 7 of the last ten years.

**Accidental**: Species recorded 3 or fewer of the last ten years.

Extirpated: A previously regularly occurring species that has not been recorded in fifty years.

**Extinct**: Species which no longer exists.

Note: These definitions reflect the <u>number of years</u> in which the species has been recorded, <u>not</u> the number of

occurrences within one year. Therefore, 100 occurrences in one year in the last ten years would still be classified as Accidental. Also, it only reflects accepted records. For a number of species, there were several reports without documentation (Swainson's Hawk, for example). Adequate documentation of these additional sightings would upgrade their classification.

### **DOCUMENTATION**

Bold-faced/Underlined species and any species not already on the list are classified as rarities, and sightings of these species therefore require a specimen, photograph, recording, or one or more written descriptions for consideration of acceptance by P.O.R.C.

The distribution of certain rarities varies widely according to geographical location within Pennsylvania. Therefore, some species are exempt from the documentation requirement in certain areas and are noted in the list below. For example, Great Cormorant occurs annually along the Delaware River in Bucks, Delaware, and Philadelphia counties, but is extremely rare elsewhere in the state. For this reason, sightings of Great Cormorant in Bucks, Delaware and Philadelphia counties do not require documentation in order to be verified but require documentation for acceptance when found outside these areas.

### NOMENCLATURE

The taxonomic treatment and species sequence follows the *Check-list* of *North American Birds*, Seventh Edition, American Ornithologists' Union (1998).

### THE PENNSYLVANIA LIST

This third edition of the Official List contains 389 species in Class I, 4 species on the extirpated list and 2 on the extinct list. The Provisional list contains 7 species.

### Additions/Deletions

There are 6 additions and 7 deletions to the Official State List since the publication of the second edition in 1995. The additions and deletions are given below, along with the reason for the change. The year in parenthesis indicates the original date of documentation if different from the date the species was added to the list.

Northern Fulmar - Moved to Provisional List in 2000. A 1985 sighting was previously accepted as a Class II species in 1991.

Cory's Shearwater - Added in 1997 by specimen (1996).

Anhinga - Moved to the Provisional List in 2000. Previously accepted as a Class III species (1993).

Roseate Spoonbill - Added in 1997 by specimen (1968).

Pink-footed Goose - Added in 1999 by photograph (1997).

Black-tailed Godwit - Moved to the Provisional List in 2000. A 1979 sighting previously accepted as a Class II species in 1991.

Surfbird - Moved to the Provisional List in 2000. A 1979 sighting was previously accepted as a Class III species in 1989

Band-tailed Pigeon - Moved to the Provisional List in 2000. Previously accepted as a Class III species in 1992.

Eurasian Collared-Dove - Added in 1997 by photograph (1996).

White-winged Dove - Added in 1997 by photograph (1996).

apus sp. - Moved to the Provisional List in 2000. Previously accepted as a Class III species.(1997).

Violet-green Swallow - Moved to the Provisional List in 2000. Previously accepted as a Class III species (1996). Northern Wheatear - Added in 1996 by

photograph (1995).

### Class I - 383 SPECIES

Red-throated Loon (Gavia stellata)
Regular.

Pacific Loon (Gavia pacifica ) Casual.
Common Loon (Gavia immmer) Regular.
Pied-billed Grebe (Podilymbus podiceps)
Regular.

Horned Grebe (Podiceps auritus) Regular. Red-necked Grebe (Podiceps grisegena) Regular

Eared Grebe ((Podiceps nigricollis)
Regular.

 $\underline{\textbf{Black-capped Petrel}}~(~Pterodrom\,a$ 

hasitata ) Accidental.

 $\frac{\textbf{Cory's Shearwater}}{diomedea} \ ( \ Calonectris$ 

Leach's Storm-Petrel ( Oceanodroma leucorhoa ) Accidental.

Northern Gannet (Morus bassanus)
Accidental.

American White Pelican ( *Pelecanus* erythrorhynchos) Regular.

 $\frac{\textbf{Brown Pelican}}{\textbf{Accidental}}. (Pelecanus occidentalis)$ 

Double-crested Cormorant (*Phalacrocorax auritus*) Regular.

<u>Great Cormorant</u> ( *Phalacrocorax carbo*) Regular. ( Bucks, Delaware,
Philadelphia exempt)

 $\frac{\textbf{Magnificent Frigatebird}}{\textit{magnificens}} \text{ (} \textit{Fregata}$ 

 ${\bf American~Bittern~(} \textit{Botaurus~lentiginosus}) \\ {\bf Regular.}$ 

Least Bittern ( *Ixobrychus exilis* ) Regular. Great Blue Heron ( *Ardea herodias* )Regular.

Great Egret ( Ardea albua ) Regular. Snowy Egret (Egretta thula) Regular. Little Blue Heron ((Egretta caerulea) Regular.

 $\frac{\textbf{Tricolored Heron}}{\textbf{Regular}} \ ( \textit{Egretta tricolor})$ 

<u>Cattle Egret</u> (Bubulcus ibis) Regular. Green Heron (Butorides virescens)

Black-crowned Night Heron (Nycticorax nycticorax) Regular.

Yellow-crowned Night Heron (Nyctanassa violacea) Regular.

White Ibis (Eudocimus albus) Regular Glossy Ibis (Plegadis falcinellus)

Regular.

Roseate Spoonbill (Ajaia ajaia)

Accidental

Wood Stork (Mycteria americana)
Accidental

Black Vulture (*Coragyps atratus*) Regular. Turkey Vulture (*Cathartes aura*) Regular.

 $\underline{Black\text{-}belliedWhistling\text{-}Duck}$ 

(Dendrocygna autumnalis)
Accidental.

 $\frac{\textbf{Pink-footed Goose}}{brachyrhynchus)}\, \textbf{Accidental}.$ 

<u>Greater White-fronted Goose</u> (Anser albifrons) Regular. (Berks, Bucks, Chester, Delaware,

Lancaster, Lebanon, Montgomery, Philadelphia exempt).

Snow Goose (Chen caerulescens) Regular Ross' Goose (Chen rossii) ) Regular.

(Berks, Bucks, Chester, Delaware, Lancaster, Lebanon,

 $Montgomery,\,Philadelphia\,\,exempt).$ 

Canada Goose (*Branta canadensis*)
Regular.

Brant (Branta bernicla) Regular. Mute Swan (Cygnus olor) Regular Tundra Swan (Cygnus

columbianus)Regular.

Wood Duck (Aix sponsa) Regular.

Gadwall (Anas strepera) Regular

Eurasian Wigeon (Anas penelope)
Regular (male only exempt)

American Wigeon (Anas americana) Regular

American Black Duck (Anas rubripes)Regular

Mallard (Anas platyrhynchos) Regular. Blue-winged Teal (Anas discors) Regular Cinnamon Teal (Anas cyanoptera)

Accidental

Northern Shoveler (Anas clypeata)Regular Northern Pintail (Anas acuta) Regular Green-winged Teal (Anas crecca) Regular. Canvasback (Aythya valisineria) Regular Redhead (Aythya americana) Regular. Ring-necked Duck (Aythya collaris) Regular

 $\frac{\textbf{Tufted Duck}}{\textbf{Accidental}}. (Aythya\ fuligula)$ 

Greater Scaup (Aythya marila) Regular. Lesser Scaup (Aythya affinis) Regular.

<u>King Eider</u> (Somateria spectabilis)Accidental

<u>Harlequin Duck</u> (Histrionicus

histrionicus) Accidental White-winged Scoter (Melanitta fusca) Regular

Surf Scoter (Melanitta perspicillala) Regular

Black Scoter (Melanitta nigra) Regular.
Oldsquaw (Clangula hyemalis) Regular.
Bufflehead (Bucephala albeola) Regular.
Common Goldeneye (Bucephala clangula)
Regular

Barrow's Goldeneye (Bucephala islandica) Accidental.

Hooded Merganser (Lophodytes cucullatus) Regular

 $\begin{array}{c} {\rm Com\,mon\ Merganser}\ (\textit{Mergus\ merganser}) \\ {\rm Regular} \end{array}$ 

 $\begin{array}{c} {\rm Red\text{-}breasted\ Merganser}\ (\textit{Mergus\ serrator}) \\ {\rm Regular} \end{array}$ 

 $\frac{\textbf{Masked Duck}}{\textbf{Accidental}} (Nomonyx\ dominica)$ 

Ruddy Duck (Oxyura jamaicensis)

Osprey (Pandion haliaetus) Regular.

American Swallow-tailed Kite

(Elanoides forficatus) Accidental

Mississippi Kite (Ictinia

mississippiensis) Casual.

Bald Eagle (Haliaeetus leucocephalus) Regular.

Northern Harrier (Circus cyaneus) Regular.

Sharp-shinned Hawk (Accipiter striatus) Regular.

Cooper's Hawk (Accipiter cooperii)
Regular.

Northern Goshawk ( $Accipiter\ gentilis$ ) Regular.

Red-shouldered Hawk (Buteo lineatus) Regular.

Regular.

Broad-winged Hawk (Buteo platypterus)
Regular.

Swainson's Hawk (Buteo swainsoni)
Accidental

 $\begin{array}{c} \textbf{Accidental} \\ \textbf{Red-tailed Hawk} \; (\textit{Buteo jamaicensis}) \end{array}$ 

Rough-legged Hawk (Buteo lagopus)
Regular.

Golden Eagle ( $Aquila\ chrysaetos$ ) Regular American Kestrel ( $Falco\ sparverius$ )

Regular

Merlin (Falco columbarius) Regular

<u>Gyrfalcon</u> (Falco rusticolus) Accidental Peregrine Falcon (Falco peregrinus)

regrine Falcon (Falco peregrinus) Regular.

Ring-necked Pheasant (Phasianus colchicus) Regular

Ruffed Grouse (Bonasa umbellus) Regular Wild Turkey (Meleagris gallopavo) Regular.

Northern Bobwhite (Colinus virginianus)
Regular.

 $\frac{\textbf{Yellow Rail}}{\textbf{Accidental}} (Coturnicops \ noveboracensis)$ 

Black Rail (Laterallus jamaicensis)
Accidental.

<u>Clapper Rail</u> (Rallus longirostris)
Accidental.

<u>King Rail</u> (*Rallus elegans*) Accidental. Virginia Rail (*Rallus limicola*) Regular. Sora (*Porzana carolina*) Regular.

Spotted Rail (Pardirallus maculatus)
Accidental.

<u>Purple Gallinule</u> (Porphyrula martinica) Accidental.

Common Moorhen (Gallinula chloropus)
Regular.

American Coot (Fulica americana) Regular.

Sandhill Crane (*Grus canadensis*) Regular.

Black-bellied Plover (*Pluvialis squatarola*)

Regular.

American Golden-Plover (*Pluvialis* dominica) Regular.

<u>Snowy Plover</u> (Charadrius alexandrinus)
Accidental.

<u>Wilson's Plover</u> (Charadrius wilsonia) Accidental.

Semipalmated Plover (Charadrius semipalmatus) Regular.

<u>Piping Plover</u> (Charadrius melodus) Regular.

 ${\bf Kill deer}\; (Charadrirrs\; voci ferus) \; {\bf Regular}.$ 

<u>American Oystercatcher</u> (Haematopus palliatus) Accidental.

<u>Black-necked Stilt</u> (Himantopus mexicanus) Casual.

American Avocet (Recurvirostra americana) Regular.

Greater Yellowlegs (Tringa melanoleuca)
Regular.

Lesser Yellowlegs (Tringa flavipes)
Regular.

Solitary Sandpiper (*Tringa solitaria*) Regular.

 $\begin{array}{c} {\rm Willet}\; ({\rm Catoptrophorus}\; semipal matus) \\ {\rm Regular}. \end{array}$ 

Spotted Sandpiper (Actitis macularia)
Regular.

Upland Sandpiper (Bartramia longicauda)
Regular.

Whimbrel (Numenius phaeopus)
Regular.(Exempt in Erie)

<u>Hudsonian Godwit</u> (*Limosa haemastica*)
Regular.

<u>Marbled Godwit</u> (*Limosa fedoa*) Casual. Ruddy Turnstone (*Arenaria interpres*) Regular.

Red Knot (Calidris canutus)
Regular.(Exempt in Erie)

Sanderling ( $Calidris\ alba$ ) Regular. Semipalmated Sandpiper ( $Calidris\ pusilla$ ) Regular.

 $\begin{array}{c} \textbf{Western Sandpiper} \ (\textit{Calidris mauri}) \\ \textbf{Regular}. \end{array}$ 

 $\begin{array}{c} \textbf{Least Sandpiper (} \textit{Calidris minutilla)} \\ \textbf{Regular.} \end{array}$ 

White-rumped Sandpiper (Calidris fuscicollis) Regular.

Baird's Sandpiper (Calidris bairdii)Regular.

Pectoral Sandpiper (Calidris melantus)
Regular.

 $\frac{\textbf{Purple Sandpiper}}{\textbf{Regular. (Exempt in Erie)}}$ 

Dunlin (Calidris alpina) Regular. Stilt Sandpiper (Calidris himantopus) Regular.

Buff-breasted Sandpiper (Tryngites subruficollis) Regular. (Exempt in Erie)

Ruff (Philomachus pugnax) Accidental.
Short-billed Dowitcher (Limnodromus
griseus) Regular.

 $\begin{array}{c} \textbf{Long-billed Dowitcher} \ (Limnodrom\, us\\ scolopaceus) \ \textbf{Regular}. \end{array}$ 

Common Snipe (Gallinago gallinago) Regular.

 $\begin{array}{c} {\rm American\ Woodcock\ }(Scolopax\ minor) \\ {\rm Regular.} \end{array}$ 

 $\begin{tabular}{ll} Wilson's Phalarope (\it{Phalaropus tricolor}) \\ Regular. \end{tabular}$ 

Red-necked Phalarope (Phalaropus lobatus) Regular.

Red Phalarope (Phalaropus fulicaria)
Regular. (Exempt in Erie)

<u>Pomarine Jaeger</u> (Stercorarius pomarinus) Accidental.

<u>Parasitic Jaeger</u> (Stercorarius parasiticus) Casual.

<u>Laughing Gull</u> (*Larus atricilla*) Regular. (Exempt in Erie and the lower Delaware and

Susquehanna rivers)

Franklin's Gull (Larus pipixcan)
Regular.(Exempt in Erie)

Little Gull (Larus minutus)

)Regular.(Exempt in Erie)
<u>Black-headed Gull</u> (Larus ridibundus)

 $\begin{array}{c} \textbf{Bonaparte's Gull } (Larus \ philadelphia) \\ \textbf{Regular.} \end{array}$ 

Mew Gull (Larus canus) Accidental. Ring-billed Gull (Larus delawarensis)

Regular. Herring Gull (*Larus argentatus*) Regular.

Thayer's Gull (Larus thayeri) Regular.
Iceland Gull (Larus glaucoides )Regular.
Lesser Black-backed Gull (Larus fuscus)
Regular.

Glaucous Gull (*Larus hyperboreus*)
Regular.

Great Black-backed Gull (Larus marinas)
Regular.

 $\frac{\textbf{Black-Legged Kittiwake}}{tridactyla) \text{ Casual.}} \ (Rissa$ 

 $\frac{\textbf{Ross' Gull}}{rosea} (Rhodostethia\\ rosea) \textbf{Accidental}.$ 

<u>Sabine's Gull</u> (Xena sabini) Casual <u>Gull-billed Tern</u> (Sterna nilotica) Accidental. Caspian Tern (Sterna caspia) Regular.

Royal Tern (Sterna maxima) Accidental.

Roseate Tern (Sterna dougallii)

Accidental.

Common Tern (Sterna hirundo) Regular.

Arctic Tern (Sterna paradisaea)

Accidental.

Forster's Tern (Sterna fosteri)Regular.

<u>Least Tern</u> (Sterna antillarum) Casual.

<u>Sooty Tern</u> (Sterna fuscata) Accidental.

Black Tern (Chlidonias niger) Regular. **Black Skimmer** (Rynchops niger)

Accidental.

<u>Dovekie</u> (Alle alle) Accidental.

<u>Thick-billed Murre</u> (Uria lomvia)

Accidental.

Ancient Murrelet (Synthliboramphus antiquus) Accidental.

Rock Dove (Columba livia) Regular.

<u>Eurasian Collared Dove</u> (Streptopelia decaocto) Accidental

White-winged Dove (Zenaida asiatica)
Accidental

 $\begin{array}{c} \text{Mourning Dove } (Zenaida \ macroura) \\ \text{Regular.} \end{array}$ 

<u>Common Ground-Dove</u> (Columbina passerina) Accidental.

Black-billed Cuckoo (Coccyzus erythropthalmus) Regular.

Yellow-billed Cuckoo (Coccyzus americanus) Regular.

Barn Owl (Tyto alba) Regular.

Eastern Screech-Owl ( $Otus\ asio$ ) Regular.

Great Horned Owl (Bubo virginianus)
Regular.

Snowy Owl (Nyctea scandiaca) Regular.

Northern Hawk Owl (Surnia ulula)

Accidental.

Barred Owl (Strix varia) Regular.

Great Gray Owl (Strix nebulosa)

Accidental.

Long-eared Owl (Asio otus) Regular. Short-eared Owl (Asio flammeus) Regular.

Boreal Owl (Aegolius funereus)
Accidental.

Northern Saw-whet Owl (Aegolius acadicus) Regular.

Common Nighthawk (Chordeiles minor)
Regular.

<u>Chuck-wills-widow</u> (Caprimulgus carolinensis) Accidental.

 $\begin{array}{c} \textbf{Whip-poor-will } (Caprimulgus \ vociferus) \\ \textbf{Regular} \end{array}$ 

Chimney Swift (Chaetura pelagica)
Regular.

Ruby-throated Hummingbird (Archilochus colubris) Regular.

<u>Rufous Hummingbird</u> (Selasphorus rufus) Accidental.

Belted Kingfisher (*Ceryle alcyon*) Regular. Red-headed Woodpecker (*Melanerpes erythrocephalus*) Regular.

Red-bellied Woodpecker (Melanerpes carolinus) Regular.

 $\begin{tabular}{ll} Yellow-bellied Sapsucker (Sphyrapicus \\ varius) Regular. \end{tabular}$ 

Downy Woodpecker (Picoides pubescens)
Regular.

Hairy Woodpecker (Picoides villosus)

Black-backed Woodpecker (Picoides
arcticus) Accidental.

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Northern Flicker (Colaptes auratus)
Regular.

Pileated Woodpecker (Dryocopus pileatus)
Regular.

Olive-sided Flycatcher (Contopus cooperi)
Regular.

Eastern Wood-Pewee (Contopus virens)
Regular.

Yellow-bellied Flycatcher (*Empidonax* flaviventris) Regular.

 $\begin{array}{c} \text{Alder Flycatcher } (Empidonax\ alnorum) \\ \text{Regular.} \end{array}$ 

Willow Flycatcher (Empidonax traillii)
Regular.

Least Flycatcher ( $Empidonax\ minimus$ ) Regular.

<u>Pacific Slope Flycatcher</u> (Empidonax difficilis) Accidental.

Eastern Phoebe (Sayornis phoebe)
Regular.

Say's Phoebe (Sayornis saya) Accidental.

Vermilion Flycatcher (Pyrocephalus
rubinus) Accidental.

Great Crested Flycatcher (Myiarchus crinitus) Regular.

Western Kingbird (Tyrannus verticalis)
Casual.

Eastern Kingbird (Tyrannus tyrannus)
Regular.

<u>Scissor-tailed Flycatcher</u> (*Tyrannus forficatus*) Accidental.

<u>Loggerhead Shrike</u> (Lanius ludovicianus) Regular

Northern Shrike (Lanius excubitor)
Regular.

White-eyed Vireo (Vireo griseus) Regular.
Yellow-throated Vireo (Vireo flavifrons)
Regular.

 $\begin{array}{c} {\rm Blue\text{-}headed\ Vireo\ }(Vireo\ solitarius) \\ {\rm Regular.} \end{array}$ 

Warbling Vireo (Vireo gilvus) Regular. Philadelphia Vireo (Vireo philadelphicus) Regular.

Red-eyed Vireo (Vireo olivaceus) Regular Blue Jay (Cyanocitta cristata) Regular.

American Crow (Corvus brachyrhynchos)
Regular.

Fish Crow (Corvus ossifragus) Regular. Common Raven (Corvus corax) Regular Horned Lark (Eremophila alpestris) Regular.

Purple Martin (*Progne subis*) Regular. Tree Swallow (*Tachycineta bicolor*) Regular.

Northern Rough-winged Swallow (Stelgidopteryx serripennis) Regular.

Bank Swallow ( $Riparia\ riperia$ ) Regular. Cliff Swallow ( $Petrochelidon\ pyrrhonota$ ) Regular.

Barn Swallow (*Hirundo rustica*) Regular. Carolina Chickadee (*Poecile carolinensis*) Regular

Black-capped Chickadee (*Poecile* atricapillus) Regular.

 $\frac{\textbf{Boreal Chickadee}}{\textbf{Accidental.}} \ (Poecile \ hudsonicus)$ 

Tufted Titmouse (Baeolophrus bicolor) Regular.

 ${\tt Red\text{-}breasted\ Nuthatch\ } (Sitta\ canadensis)$ 

Regular.

White-breasted Nuthatch (Sitta carolinensis) Regular.

Brown Creeper (Certhia americana) Regular.

Carolina Wren ( $Thryothorus\ ludovicianus$ ) Regular.

<u>Bewick's Wren</u> (Thryomanes bewickii) Accidental.

House Wren (Troglodytes aedon) Regular. Winter Wren (Troglodytes troglodytes) Regular.

 $\frac{\textbf{Sedge Wren}}{\textbf{Regular}} \left( \textit{Cistothorus platensis} \right)$ 

Marsh Wren (Cistothorus palustris) Regular.

Golden-crowned Kinglet ( $Regulus\ satrapa$ )
Regular.

Ruby-crowned Kinglet ( $Regulus\ calendula$ ) Regular.

Blue-gray Gnatcatcher (Polioptila caerulea) Regular.

Northern Wheatear (Oenanthe oenanthe) Accidental.

Eastern Bluebird (Sialia sialis) Regular.

<u>Mountain Bluebird</u> (Sialia currucoides)
Accidental.

<u>Townsend's Solitaire</u> (Myadestes townsendi) Accidental.

 ${\it Veery}\;(Catharus\; {\it fuscescens})\; {\it Regular}.$ 

 $\begin{array}{c} {\rm Gray\text{-}cheeked\; Thrush\; }(Catharus\; minimus) \\ {\rm Regular.} \end{array}$ 

 $\frac{\textbf{Bicknell's Thrush}}{\textbf{Accidental}} \, (Catharus \ bicknelli)$ 

 ${\bf Swainson's\ Thrush\ } (Catharus\ ustulatus)$   ${\bf Regular.}$ 

Hermit Thrush (Catharus guttatus)
Regular.

Wood Thrush (Hylocichla mustelina) Regular.

American Robin (*Turdus migratorius*)
Regular.

Varied Thrush (Ixoreus naevius) Casual.

 $\begin{array}{c} \textbf{Gray Catbird (} \textit{Dumetella carolinensis} ) \\ \textbf{Regular.} \end{array}$ 

Northern Mockingbird (Mimus polyglottos)
Regular.

Brown Thrasher (Toxostoma rufum)
Regular.

European Starling (Sturnus vulgaris) Regular.

American Pipit (Anthus rubescens)
Regular.

Bohemian Waxwing (Bombycilla garrulus) Casual.

Cedar Waxwing (Bombycilla cedrorum)
Regular.

Blue-winged Warbler (Vermivora pinus) Regular.

Golden-winged Warbler (Vermivora chrysoptera) Regular.

Tennessee Warbler (Vermivora peregrina)
Regular.

Orange-crowned Warbler (Vermivora celata) Regular.

 ${\it Nashville\ Warbler\ (\it Vermivora\ ruficapilla)} \\ {\it Regular.}$ 

 $\begin{array}{c} {\rm Northern\ Parula\ }(Parula\ americana) \\ {\rm Regular.} \end{array}$ 

Yellow Warbler (Dendroica petechia)
Regular.

Chestnut-sided Warbler (Dendroica pensylvanica) Regular.

Magnolia Warbler (Dendroica magnolia)
Regular.

Cape May Warbler (Dendroica tigrina)
Regular.

Black-throated Blue Warbler (Dendroica caerulescens) Regular.

Yellow-rumped Warbler (Dendroica coronata) Regular.

Black-throated Gray Warbler

(Dendroica nigrescens) Accidental.

Black-throated Green Warbler (Dendroica virens) Regular.

<u>Townsend's Warbler</u> (Dendroica townsendi) Accidental.

Blackburnian Warbler (*Dendroica fusca*)
Regular.

Yellow-throated Warbler (Dendroica dominica) Regular.

Pine Warbler (Dendroica pinus) Regular. Kirtland's Warbler (Dendroica

kirtlandii) Accidental.

 $\begin{array}{c} \text{Prairie Warbler } (Dendroica \ discolor) \\ \text{Regular.} \end{array}$ 

Palm Warbler (Dendroica palmarum) Regular.

Bay-breasted Warbler (Dendroica castanea) Regular.

 $\begin{array}{c} \textbf{Blackpoll Warbler} \; (Dendroica \; striata) \\ \textbf{Regular}. \end{array}$ 

Cerulean Warbler (Dendroica cerulea) Regular.

Black-and-white Warbler ( $Mniotilta\ varia$ ) Regular.

American Redstart (Setophaga ruticilla) Regular.

Prothonotary Warbler (*Protonotaria* citrea) Regular.

Worm-eating Warbler (Helmitheros vermivorus) Regular.

<u>Swainson's Warbler</u> (*Limnothlypis* swainsonii) Accidental.

Ovenbird (Seiurus aurocapillus) Regular.

Northern Waterthrush (Seiurus noveboracensis) Regular.

Louisiana Waterthrush (Seiurus motacilla) Regular.

Kentucky Warbler (Oporornis formosus)
Regular.

Connecticut Warbler (Oporornis agilis) Regular.

Mourning Warbler (Oporornis philadelphia) Regular.

 ${\bf Common\ Yellow throat\ } (Geothlyp is\ trichas)$  Regular.

 $\begin{array}{c} \textbf{Hooded Warbler (} \textit{Wilsonia citrina} \textbf{)} \\ \textbf{Regular.} \end{array}$ 

Wilson's Warbler (Wilsonia pusilla) Regular.

Canada Warbler (Wilsonia canadensis)
Regular.

Yellow-breasted Chat (Icteria virens)
Regular.

Summer Tanager (Piranga rubra)
Regular. (Exempt in Greene)

Scarlet Tanager (Piranga olivacea)
Regular.

<u>Western Tanager</u> (Piranga ludoviciana) Accidental.

 $\underline{\textbf{Green-tailed Towhee}} \; (Pipilo \; chlorurus)$ 

Accidental.

Spotted Towhee (Pipilo maculatus)
Accidental

Eastern Towhee ( $Pipilo\ erythrophthalm\ us$ ) Regular

American Tree Sparrow (Spizella arborea)
Regular.

Chipping Sparrow (Spizella passerina)
Regular.

Clay-colored Sparrow (Spizella pallida) Regular.

Field Sparrow (Spizella pusilla) Regular.

Vesper Sparrow (Pooecetes gramineus)
Regular.

<u>Lark Sparrow</u> (Chondestes grammacus)
Accidental.

<u>Lark Bunting</u> (Calamospiza melanocorys) Accidental.

Savannah Sparrow (Passerculus sandwichensis) Regular.

Grasshopper Sparrow (Ammodramus savannarum) Regular.

Henslow's Sparrow (Ammodramus henslowii) Regular.

<u>LeConte's Sparrow</u> (Ammodramus leconteii) Accidental.

Nelson's Sharp-tailed Sparrow
(Ammodramus nelsoni) Casual.

Saltmarsh Sharp-tailed Sparrow
(Ammodramus caudacutus)

Accidental
Seaside Sparrow (Ammodramus

maritimus) Accidental.

Fox Sparrow (Passerella iliaca) Regular. Song Sparrow (Melospiza melodia) Regular.

Lincoln's Sparrow (Melospiza lincolnii) Regular.

Swamp Sparrow (Melospiza georgiana) Regular.

White-throated Sparrow (Zonotrichia albicollis) Regular

<u>Harris' Sparrow</u> (Zonotrichia querula) Accidental.

White-crowned Sparrow (Zonotrichia leucophrys) Regular.

Golden-crowned Sparrow (Zonotrichia atricapilla) Accidental.

Dark-eyed Junco (Junco hyemalis) Regular.

 $\begin{array}{c} \textbf{Lapland Longspur} \; (\textit{Calcarius lapponicus}) \\ \textbf{Regular}. \end{array}$ 

Snow Bunting (Plectrophenax nivalis)
Regular.

 $\begin{array}{c} {\bf Northern\ Cardinal}\ ({\it Cardinalis\ cardinalis}) \\ {\bf Regular.} \end{array}$ 

Rose-breasted Grosbeak (Pheucticus ludovicianus) Regular.

Black-headed Grosbeak (Pheucticus melanocephalus) Accidental.

Blue Grosbeak (Guiraca caerulea)
Regular. (Exempt in Bucks, Chester,
Delaware, Lancaster,
Philadelphia, and York)

Lazuli Bunting (Passerina amoena)
Accidental.

Indigo Bunting (Passerina cyanea)
Regular.

 $\frac{\textbf{Painted Bunting}}{\textbf{Accidental}} \ (Passerina \ ciris)$ 

Dickcissel (Spiza americana) Regular.

Bobolink (*Dolichonyx oryzivorus*) Regular. Red-winged Blackbird (*Agelaius* phoeniceus) Regular.

Eastern Meadowlark (Sturnella magna) Regular.

Western Meadowlark (Sturnella neglecta) Accidental.

### Yellow-headed Blackbird

(Xanthocephalus xanthocephalus) Casual.

Rusty Blackbird ( $Euphagus\ carolinus$ ) Regular.

### $\frac{\textbf{Brewer's Blackbird}}{cyanocephalus)} \xrightarrow{\textbf{Casual.}}$

 $\begin{array}{c} {\rm Com\,mon\,\,Crackle}\;(Quiscalus\,\,quiscula) \\ {\rm Regular}. \end{array}$ 

Brown-headed Cowbird (*Molothrus ater*)
Regular.

Orchard Oriole (*Icterus spurius*) Regular. Baltimore Oriole (*Icterus galbula*) Regular <u>Bullock's Oriole</u> (*Icterus bullockii*) Accidental

Brambling (Fringilla monotifringilla)
Accidental.

Pine Grosbeak (Pinicola enucleator) Regular.

Purple Finch ( $Carpodacus\ purpureus$ ) Regular.

 $\begin{array}{c} \text{House Finch } (Carpodacus \ mexicanus) \\ \text{Regular}. \end{array}$ 

Red Crossbill (*Loxia curvirostra*) Regular. White-winged Crossbill (*Loxia leucoptera*) Regular.

Common Redpoll (Carduelis flammea)
Regular.

### $\underline{\textbf{Hoary Redpoll}}\ (Carduel is$

hornemanni)Accidental

Pine Siskin (Carduelis pinus) Regular.

American Goldfinch (Carduelis tristis)

Regular.

Evening Grosbeak (Coccothraustes vespertinus) Regular.

House Sparrow (Passer domesticus)
Regular.

### EXTIRPATED - 4 SPECIES

Greater Prairie-Chicken (Tympanuchus cupido)

Eskimo Curlew (Numenius borealis) Brown-headed Nuthatch (Sitta pusilla) Bachman's Sparrow (Aimophila aestivalis)

### EXTINCT - 2 SPECIES

 ${\it Passenger Pigeon} \; ({\it Ectopistes \, migratorius}) \\ {\it Carolina \, Parakeet} \; ({\it Conuropsis \, carolinensis}) \\$ 

### TOTAL - 389 SPECIES

Provisional List - Although no species is accepted on the official Pennsylvania list without documentation by specimen, photograph or tape-recording, the Committee may accept sight records (i.e. for species not on the state list) which are supported by written details alone. Such species are added to this "Provisional List". If documentation in the form of specimen, photograph, or tape recording finally becomes available, the species is then

moved to the state list.

Northern Fulmar (Fulmarus glacialis)
Accidental.

Anhinga (Anhinga anhinga) Accidental.

Black-tailed Godwit (Limosa limosa)

Accidental

<u>Surfbird</u> (Aphriza virgata) Accidental. <u>Band-tailed Pigeon</u> (Columba fasciata)

Accidental

<u>apus sp. (</u>Apus). Accidental

<u>Violet-green Swallow</u> (Tachycineta

thalassina) Accidental

### Recognizable forms and subspecies

This is a list of recognizable forms and subspecies that have occurred in Pennsylvania and which documentation of future sightings in requested.

"Black" Brant (Branta bernicla nigricans).

small races of Canada Goose (Branta canadensis).

Green-winged (Common) Teal (Anas crecca crecca).

"Eastern" Willet (Catoptrophorus semipalmatus semipalmatus).

<u>Yellow-rumped (Audubon's) Warbler</u> (Dendroica coronata auduboni).

White-crowned (Gambell's) Sparrow (Zonotrichia leucophrus gambelii).

<u>Dark-eyed (Pink-sided) Junco</u> (Junco hyemalis mearnsi).

<u>Dark-eyed</u> (Oregon) Junco (Junco hyemalis thurberi).

 $\frac{\textbf{Dark-eyed (White-winged) Junco}}{\textit{hyemalis aikeni)}}.$ 

### PENDING DECISIONS

Yellow-billed Loon (Gavia adamsii)
Greater Shearwater (Puffinus gravis)
Band-rumped Storm-Petrel (Oceanodroma
castro)

 $\begin{array}{ll} {\rm Common\ Eider}\ (Somateria\ mollissim\ a) \\ {\rm Wood\ Sandpiper}\ (Tringa\ glareola) \\ {\rm Ash\text{-}throated} & {\rm Flycatcher} \quad (Myirarchus\ cinerascens) \end{array}$ 

Boat-tailed Grackle (Quiscalus major)

### Acknowledgements:

Everyone who has birded in Pennsylvania and reported their record(s) for publication has contributed to this Official List. P.O.R.C. wishes to thank the many observers who took the time to submit photographs and written documentation of bird species in Pennsylvania.

### REQUESTS FOR CORRECTIONS AND RECORDS

This Official List should not be considered as the final word on Pennsylvania birdlife. It is only our knowledge to the present, and will be outdated soon after it is published. Undoubtedly, there will be errors, typographical or technical, and perhaps omissions. When these are noted or when

authentic records are obtained for species that are not listed, that information should be forwarded to the Pennsylvania Ornithological Records, Nick Pulcinella, Secretary. 210 Welcome Avenue, Norwood, PA 19074.

Pennsylvania Ornithological Records Committee members who completed this third edition.

Roy Ickes, Chairman
Doug Couchman
Paul Hess, Treasurer
Jerry McWilliams
Nick Pulcinella, Non-voting Secreatry
Bill Reid
Paul Rodewald

### Another Sooty Tern from Hurricane Fran by Nick Pulcinella

When Hurricane Fran passed through Pennsylvania on 7 September 1996 the storm brought with it a variety of seabirds including at least nine Sooty Terns. Dan Brauning recently brought to my attention the grounding of yet another Sooty Tern from this storm.

On 7 September 1996 an immature Sooty Tern was found in State College and brought to wildlife rehabber Robyn Graboski at the Centre Wildlife Care in Leemont. Robyn said when the bird was first brought in it weighed 106 gm. Normal weight for Sooty Tern is 147-220 gm.as listed in a publication called Body Weights of 686 Species of North American Birds. By 9/23 it was up to 136 gm eating fish and starting to fly. At this point she says the bird started going down hill fast and died on 9/26. A necropsy found that it had a fluke infestation, a pseudomonas bacterial infection and pneumonia.

See photo in "Photographic Highlights" in this issue.

### Some Northern Butler County Field Notes

by Gene Wilhelm

The unusually cool, wet quarter (Apr-May-Jun) in northern Butler County helped bird reproduction more than hindering it. Herbaceous and woody plant growth was luxuriant, to say the least. And because local farmers had difficulty mowing wet hay fields, grassland birds had a tremendously successful and extended breeding season. Even as I write these field notes in late July, many unmowed grasslands are supporting their second nestlings of Field, Savannah, Grasshopper and Henslow's sparrows, Bobolink and Eastern Meadowlark.

Although known as a breeder along the upper Allegheny River for many years, this quarter marked the first breeding evidence of Common Merganser on Wolf Creek and Slippery Rock Creek. Only females and young were observed throughout the quarter; males were conspicuous by their absence. The four merganser families were especially fond of the rapids and white water sections of the creeks where both food and play needs were satisfied. Hooded Mergansers continue to occupy more Wood Duck nest boxes in local marshes and swamps each year but by and large avoid using the faster moving creeks.

The Sandhill Crane pair produced a single youngster this year, first observed on July 5 by Scott Shuffstall on Route 258.

At least one Northern Harrier nest site was active on the north side of Fergus Road this quarter as were three nest sites of the Dickcissel on the south side of the road. One male Dickcissel arrived on June 10 and by June 12 three females were present. By June 15

all three females had chosen nest sites that averaged only 100 yards apart in a straight N-S line. While the females tended to nest chores, the male sang continuously to all three from a high perch atop a telephone wire on the north side of Fergus Road. Other successful Dickcissel breeding occurred at the Barkeyville grasslands (2 pairs, 5 fledglings) and in a hay field on the west side of Route 258 (1 male, 2 females, 4 fledglings) just one mile north of Slippery Rock. A male Clay-colored Sparrow spent the entire quarter at the Barkeyville grasslands but apparently did not attract a mate.

The Cliff Swallow breeding colonies recovered nicely from last year's severe drought. Route 528 bridge over Lake Arthur, Moraine State Park, had 238 active nests this year, 97 more than in 1999. The US 422 bridge over Lake Arthur, Moraine State Park, had 88 active nests, 35 more than in 1999. Dean Kildoo reported that a record 70 pairs of Purple Martin laid 426 eggs this year in his sanctuary, producing 294 hatchlings of which 245 fledged. Some 18 previously banded birds from 4 different breeding sites in western Pennsylvania and eastern Ohio were present in the colony. However, unusual were the 39 fatalities in the breeding colony this year, cause(s) unknown but still under investigation.

Neither tent caterpillar nor webworm outbreaks occurred in 2000 in northern Butler County, the first time in four years, resulting in a sharp decline in breeding pairs of Black-billed and Yellow-billed Cuckoo outnumbered Black-billed Cuckoo two to one.

On the negative side, several reports of unsuccessful nesting in cool, wet April occurred among the Eastern Phoebe, American Robin and Eastern Bluebird.

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### Summary of the Season - April through June 2000

There were a lot of unusual reports this quarter - from hummingbirds to jaegers — dead and alive! Although we are getting more reports of rare birds than ever before, we still lack documentation on many of these sightings. We received 61 reports of birds requiring documentation this quarter, yet we received documentation on only 22 of those sightings (Documentation consists of a description of the bird, or an identifiable photograph (or video), or an identifiable audio recording, or a specimen.). By the way, "I have seen many of these out west" does not constitute a written description!

Dick Byers' article on misidentification in our last issue highlighted how susceptible we all are to errors in judgement when observing birds. Please help your county compiler by submitting documentation on any unusual birds you see. It makes their job (and ours) much easier.

As to this quarter's birds, the **Pacific Loon** in *Bucks* (documented) was the sixth state record in the past five years.

Since the abandonment of the Cattle Egret colony on Rookery Island in Lancaster County, **Tricolored Heron** and **Cattle Egret** have been hard to find. They therefore require documentation. Unfortunately, the word did not seem to get out (Tricolored Heron is highlighted on our checklist, but not Cattle Egret), so the Tricolored Heron in Erie and the Cattle Egrets from Berks, Bucks, Crawford, and Dauphin were not documented.

We are still looking for the state's first White-faced Ibis, so it is unfortunate that only one of the three **Glossy Ibis** reports was documented (*Northampton* - photo). The report of <u>30</u> in *Chester* was intriguing and would constitute a record high number for the state if documented.

The **Ross' Goose** in *Indiana* must have something wrong with it for it to linger through the entire quarter.. The only **Brant** this spring were 4 at Middle Creek in *Lancaster/Lebanon*.

Mississippi Kites were reported from 6 counties, but only half of the reports were documented. There were similar reports from surrounding states however, lending credibility to even the undocumented records.

The other interesting raptopr report was two June reports of **Merlin**. Reports of this species have increased significantly in recent years and they are expanding their breeding range. Will they eventually expand into Pennsylvania?

King Rail used to nest in this state (and might still), so the report from *Mercer* is interesting (but undocumented).

In addition to the *Mercer/Butler/Lawrence* birds, **Sandhill Cranes** were reported from 5 additional counties. Will they soon be nesting in new locales?

The shorebird migration was unexceptional, but the 2 **Whimbrel** in *Bucks* were a nice find.

Two **Pomarine Jaeger** reports were submitted — one dead (*Erie*) and one alive (*Centre*).

The bird of the quarter though had to be the **Long-tailed Jaeger** (*Lancaster*) that stayed around for two days so that multiple observers could see <u>and document</u> it (see the cover!) This was the first state record.

Erie had its usual collection of rare gulls — **Franklin's**, **Little**, and **Black-headed**. And another Little Gull was reported from *Dauphin*.

The **Arctic Tern** at Glen Morgan Lake in *Berks* is the <u>second</u> record for that location!

A Black Skimmer stayed on Avocet Point (Susquehanna River in Lancaster) long enough for several observers to see and document it.

Another **Eurasian Collared Dove** was reported from *Berks*. This species is expanding across the country and will probably be nesting here before too long.

The **Chuck-will's-widow** report from *Bucks* has led to speculation about a possible breeding colony there. More investigation is needed.

Two intriguing hummingbird reports were an **Allen's** from *Tioga* and a **Black-chinned** from *Carbon*. Since neither of these sightings resulted in identifiable photographs, if accepted by the records committee they would only make the Provisional List. However, we expect one of these days to find these species at someone's

feeder and get good photos.

Another tantalizing report was of a **Hammond's Flycatcher** (again not photographed) reported by banders in *Philadelphia*. Another Provisional List candidate.

The only lingering **Northern Shrike** from the winter invasion was in *Tioga*.

There has not been an accepted record of **Bewick's Wren** in the state since they stopped breeding here back in the mid-1970s. So it is unfortunate that another sighting in *Crawford* has gone undocumented. The **Sedge Wren** in *Lackawanna* likewise was undocumented.

Two undocumented reports of **Swainson's Warbler** were pretty amazing.

**Summer Tanager** is exempt from documentation in *Greene* where they breed, but require it around the rest of the state. Only one of the five non-Greene County reports included documentation.

Clay-colored Sparrow continues its breeding in *Clarion* and several June reports elsewhere suggest there might be other breeding areas in the state as well.

Lingering winter finches were few. A few **Red Crossbills** (except for the <u>73</u> in late May in *York*), one **Whitewinged Crossbill** in *Erie*, and a few **Common Redpolls**.

Did you notice a theme throughout this summary? Does "documentation" ring a bell?

There were 288 species reported this quarter, slightly higher than last year's 286, and above the 10-year average of 281. We received partial or complete reports from 56 counties.

Thanks again to our hardworking county compilers! ★

Frank & Barb Haas

### Birds of Note - April through June 2000

(Species not expected or reported in fewer than five counties this period)

Rare and unusual sightings for which details have been submitted will be reviewed by the Pennsylvania Ornithological Records Committee. "No desc" means no <u>description of the bird</u> was submitted.

Birds in *Italics* are uncommon, but occur most years. Birds <u>Underlined</u> occur at least 4 to 7 out of 10 years. <u>Italic/Underlined</u> occur fewer than 4 out of 10 years.

- <u>Pacific Loon</u> *Bucks*: 1 on 4/23 at Nockamixon State Park (Devich Farbotnik).
- Great Cormorant Delaware: 1 on 4/22 at Marcus Hook (Al Guarente); Northampton: 1 on 5/30 at Martins Creek (Rick Wiltraut).
- Little Blue Heron Berks: 1 on 5/13 at Oley (Rudy Keller) and 1 on 5/20 at Eckville (David Barber); Bucks: 1 on 5/13 (Max Devane, Nancy Wotrich); Centre: 1 on 4/8; Montgomery: 1 on 6/24-29 at Upper Perkiomen Park (Eva Abraham, Monica Kulp, George Franchois).
- Tricolored Heron Erie: 1 on 5/14-6/10 at Presque Isle State Park (Toby & Jean Cunningham, Bob Grubbs).
- Cattle Egret Berks: 4 on 5/4 at Albany (Jason Horn) and 1 on 5/22 at Reading (Bob Cook); Bucks: 1 on 5/13 (Nancy Goldstein); Crawford: 1 on 5/27 at Pymatuning Goose Management Area (Ron Leberman); Dauphin: 2 on 5/5 at Harrisburg (Deuane Hoffman).
- Yellow-crowned Night-Heron Centre: 1 on 5-22-25; Dauphin: Present part of the quarter; York: 1 on 4/22 at Kiwanis Lake (Peter Robinson).
- Glossy Ibis Berks: 1 on 4/10-11 at Evansville (Matt Spence)(no desc); Chester: 30 on 4/26 at Avondale (William Barber)(no desc); Northampton: 1 on 6/16 at Christian Springs Rd. (Rick Wiltraut).
- Ross' Goose Indiana: 1 present all quarter at Saltsburg (Mary Ann Dunmire).
- Brant Lancaster/Lebanon: 4 on 4/8 at Middle Creek WMA (Randy Miller, Jonathon Heller).
- White-winged Scoter Berks: 3 on 4/23 at Lake Ontelaunee (Rudy Keller, Matt Spence); Clearfield: 1 on 4/23; Dauphin: 2 on 4/4 at Harrisburg (Carolyn Blatchley, Deuane Hoffman); Erie: Present up to 4/27 at Presque Isle State Park (Jerry McWilliams); Tioga: 1 on 4/17 at Hammond Lake (Ben Israel).
- Black Scoter Armstrong: 2 on 4/30 at Keystone Reservoir (Margaret & Roger Higbee); Berks: 3 on 4/9 at Lake Ontelaunee (Matt Spence); Cambria: 2 on 5/13-14 at Prince Gallitzin State Park (Dave Gobert); Venango: 2 on 4/30 at Two Mile Run Park were new for the county (Russ States).
- Mississippi Kite Berks: 1 subad. on 4/29 over District Twp.(Rudy Keller)(no desc) and 1 subad. and 1 juv. were seen together near Blue Marsh Lake 5/2 (Harold & Joan Silagy)(no desc) and 1 imm. on 5/6 at SGL (Kirk & Lois Moulton)(no desc); Bucks: 1 on 5/1-7 at Peace Valley Park was a 2<sup>nd</sup> county record (August Mirabella, Devich Farbotnik); Delaware: 1 on 5/13 at Haverford College (Sheryl Johnson); Lebanon: 1 on 5/30 at Mt. Wilson (Randy Miller); Schuylkill: 1 on 5/3 at Rte 183 Hawk Watch (Ed Barrell)(no desc); York: 2 on 5/18 near Felton (Mike Sankovich).
- Golden Eagle Crawford: 1 on 4/8 at Pymatuning Fish Hatchery (Ron Leberman); Mercer: 1 on 4/21 at SGL 294 (Troyer Family); Berks/Schuylkill: 1 on 4/28 at Hawk

- Mountain Sanctuary (Arlene Koch); *Sullivan*: 1 on 4/16 at Splashdam Pond (Nick Kerlin).
- <u>King Rail</u> Mercer 1 on 4/27 at Pennsy Swamp (Randy Stringer)(no desc).
- Sandhill Crane Chester: 1 on 4/16 at Exton (Bill Zemaitis, Wendy Bastings); Clarion: 1 on 5/27 at Mechanicsville (Jack Williams); Dauphin: 2 on 6/19 at Haldeman Island (John Dunn); Lawrence: 1 on 4/16 at Black Swamp (Randy Stringer); Mercer: 2 on 4/16 at Pennsy Swamp (Randy Stringer); Northampton: the bird reported last quarter at Green Pond remained to at least 4/7 (m. obs.); Potter: 2 on 6/18-23 at Supplee Farm were a 1st county record.
- Black-bellied Plover Dauphin: 1 on 5/6 at Harrisburg (Deuane Hoffman); Erie: Present from 5/7-20 with a high of 10 on 5/13 at Presque Isle State Park (Jerry McWilliams); Forest: 1 on 5/13 at Buzzard Swamp (Flo & Jim McGuire); Northampton: 1 on 4/27 at Martin's Creek flyash ponds, 2 on DelHaven Rd. 5/22, and 1 at Frutchey Hill Rd. 6/1 (Rick Wiltraut); Potter: 1 on 4/8 at Lake Lloyd (Jack Mitterer).
- American Golden Plover Allegheny: 1 on 4/10 at Imperial (Fred & Carol McCullough); Venango: 1 on 5/10 at Kahle Lake (Jerry Stanley, Gary Edwards).
- Willet Erie: 1 on 5/7-8 at Presque Isle State Park (Jerry McWilliams).
- Whimbrel Bucks: 2 on 4/21 at Nockamixon State Park (Devich Farbotnik); Erie: 1 on 5/20 and 8 on 5/24 at Presque Isle State Park (Jerry McWilliams).
- Ruddy Turnstone Erie: Present from mid-May to early June at Presque Isle State Park (Jerry McWilliams); Forest: 2 on 5/13 at Buzzard Swamp (Flo & Jim McGuire); Montgomery: over 1500 on 6/4 at Green Lane Reservoir (Devich Farbotnik).
- Red Knot Erie: 50-60 on 5/17 and 1 on 5/28 at Presque Isle State Park (Jerry McWilliams).
- Sanderling Erie: Present from early May to early June at Presque Isle State Park (Jerry McWilliams); Mercer: 6 on 5/13 at Shenango River Reservoir (Troyer Family).
- Western Sandpiper Bucks: 2 on 5/13 (Sharon Furlong); Lebanon: 5 on 5/26 at Reistville Ponds (Randy Miller); Westmoreland: 2 on 5/8 at Donegal Lake (Bob Leberman).
- White-rumped Sandpiper Erie: 1 on 5/20 at Presque Isle State Park (Jerry McWilliams); Lebanon: 1 on 5/26 at Reistville Ponds (Randy Miller); Luzerne: 1 on 5/5 at Plains' Flats (Bill Reid); Tioga: 3 on 4/24 at Hills Creek Lake (Joanna Stickler).
- Stilt Sandpiper Huntingdon: 1 on 5/24-26 at Stone Valley (Greg Grove, Nick Bolgiano).
- Short-billed Dowitcher Erie: Present from early May to mid-May at Presque Isle State Park (Jerry McWilliams); Lebanon: 1 on 5/12 at Middle Creek WMA (Randy Miller); Northampton: 1 on 5/21 at Tatamy Rd. (Rick Wiltraut); Venango: 1 on 5/10 at Kahle Lake (Jerry Stanley, Gary Edwards).
- Wilson's Phalarope Philadelphia: 1 on 5/3 at the Army Corps Property (Keith Russell, Matt Sharp); Westmoreland: 1 on 5/15 at Mammoth wetlands (Dennis Lauffer).
- Red-necked Phalarope Bucks: 1 on 5/9-11 at Bradford Dam was a 3<sup>rd</sup> county record (August Mirabella, Devich Farbotnik, K Rieker).

- Pomarine Jaeger Centre: 1 on 5/22 at Bald Eagle State Park (John Puschock)(no desc); Erie: The dried remains of one was found on 4/19 at Presque Isle State Park (Jerry McWilliams).
- <u>Long-tailed Jaeger</u> Lancaster: 1 on 5/22-23 on the Susquehanna River between Long Level (*York*) and Washington Boro. This is a 1<sup>st</sup> state record. (Devich Farbotnik, Jason Horn, Rick Wiltraut, et al.).
- Franklin's Gull Erie: 1 on 5/13 at Preseque Isle State Park (Chuck Tague).
- Little Gull Dauphin: 1 on 4/4 at Harrisburg (Carolyn Blatchley, Deuane Hoffman)(no desc); Erie: 1 on 4/9 at Presque Isle State Park (Jerry McWilliams).
- <u>Black-headed Gull</u> *Erie*: 1 on 4/29 at Presque Isle State Park (Jerry McWilliams).
- **Iceland Gull** *Erie*: 1 on 5/14 at Presque Isle State Park was late (Jerry McWilliams).
- Lesser Black-backed Gull Berks: 1 on 4/22 at Blue Marsh Lake (Rudy Keller, Harold & Joan Silagy); Bucks: Present all quarter.; Montgomery: 4 present up to 4/2 at Green Lane Reservoir (Kevin Crilley, George Franchois).
- **Glaucous Gull** *Erie*:1 on 4/11 at Presque Isle State Park (Jerry McWilliams); *Tioga*: 1 on 4/17 at Hammond Lake (Ben Israel).
- <u>Arctic Tern</u> Berks: 1 on 5/20 at Glen Morgan Lake (Ken Lebo, et al.).
- Sooty Tern This is a belated report from 1996. Centre: An imm Sooty Tern was picked up alive in State College after Hurricane Fran. See note on page 109 and photo in Photographic Highlights.
- <u>Black Skimmer</u> Lancaster: 1 on 6/11 at Washington Boro (m.
- <u>Eurasian Collared Dove</u> Berks: 1 on 5/7 at Kempton (David Barber).
- Long-eared Owl Berks: Present up to 4/8 at Blue Marsh Lake (Katrina Knight, Peter Saenger); Bucks: Present up to 4/10 at Peace Valley Park (August Mirabella); Chester: 2 on 4/15-30 at Struble Lake (Greir Saunders, et al.); Erie: At least 4 present up to 4/23 at Presque Isle State Park (Dave Darney).
- Short-eared Owl Centre: 1 on 4/10 and 4/13; Clarion: 1 on 6/30 at Rimersburg (Walter Fye); Erie: At least 2 present up to 4/29 at Presque Isle State Park (Dave Darney); Lebanon: 1 on 4/19 at Middle Creek WMA (Ken & Jane Light); Venango: 1 on 4/1.
- <u>Chuck-will's-widow</u> Berks: 1 on 5/26 in District Twp. (Catherine Elwell)(no desc); Bucks: 1 on 5/13-30 along the Delaware River near Morrisville (G Dewaghe, et al.).
- <u>Black-chinned Hummmingbird</u> Carbon: 1 on 5/7 at Beltsville State Park would be added to the state's Provisional List if accepted by PORC as there were no identifiable photos (Dave Hawk, Robert Barowski) (See Local Notes for details of the sighting).
- <u>Allen's Hummingbird</u> Tioga: 1 on 6/9 at Jobs Corners would be added to the Provisional List if Accepted by PORC (Larry Brown).
- <u>Hammond's Flycatcher</u> Philadelphia: Ray and Marlene Miller reported banding 1 at John Heinz NWR at Tinicum on 5/14. If accepted by PORC, it would be added to the Provisional List.
- Northern Shrike *Tioga*: 1 on 5/14 at Jobs Corners (Larry & Arlene Brown).
- <u>Bewick's Wren</u> Crawford: 1 on 5/4 at Meadville (Isaack Field)(no desc).
- <u>Sedge Wren</u> Lackawanna: 1 on 6/1 near Newton/Ransom (Bill Reid, Jim Hoyson)(no desc).
- Bicknell's Thrush Luzerne: 1 on 5/20 at Kirby Park (Jim

- Hoyson, Jim Shoemaker, Rick Koval); *Philadelphia*: 1 on 5/27 at Veree (M Drake) and Matt Sharp heard another give it's flight call over W. Mt Airy at night.
- Orange-crowned Warbler Carbon: 1 on 5/6 at Beltzville State Park (Dave Hawk, Robert Barowski); Erie: 1 on 5/13 (Adam Erb) and 2 on 5/20 (Ron Leberman) at Presque Isle State Park; Venango: 1 on 5/4 at Buttermilk Hill Nature Sanctuary (Jerry Stanley).
- <u>Swainson's Warbler</u> Northampton: 1 on 6/25 at Wi-Hi-Tuk Park (Fritz Brock, et al.)(no desc); York: 1 on 5/8 at Gifford Pinchot State Park (Pat Sabold)(no desc).
- Connecticut Warbler Allegheny: 1 on 5/17 at Frick Park (Dana & Walt Shaffer); Butler: 1 on 5/24 at Jennings Nature Reserve (Gene Wilhelm); Erie: 2 on 5/21 at Presque Isle State Park (Jerry McWilliams, Jean Cunningham).
- Summer Tanager Centre: 1 on 5/30 at State College (Paul & Amanda Rodewald)(no desc); Delaware: 1 on 5/10 at Skunk Hollow (Skip Conant); Erie: 1 on 5/8 (Don Snyder)(no desc) and 1 on 5/13 (Louise Chambers, Jerry McWilliams) at Presque Isle State Park; Greene: Present from 5/15 through the quarter; York: 1 on 5/28 at Ski Round Top (Jeff Pheasant)(no desc).
- Clay-colored Sparrow Allegheny: 1 on 5/30 and 2 on 6/12 at Imperial (Chuck & Joan Tague)(no desc); Butler: 1 on 6/4 at Barkeyville (Gene Wilhelm)(no desc); Clarion: A small colony from 5/5-6/8 at Mt Zion (m. obs.)(no desc); Erie: 1 or 2 on 5/14-22 at Presque Isle State Park (m. obs.); Lawrence: 1 on 6/11 at Pensey Swamp (George & Barb Dean); Tioga: 1 on 5/7-13 at Wellsboro (Martha Copp).
- <u>Lark Sparrow</u> Erie: 1 on 4/17 at Presque Isle State Park (Brenda Watts)(no desc).
- **Lapland Longspur** *Dauphin*: 3 on 5/13 at Hershey South Area were late (Sharon & Steve Rannels).
- Dickcissel Butler: 1 on 6/4 at Barkeyville (Gene Wilhelm); Centre: the bird reported last quarter at State College remained until 4/16 (Dorothy Bordner); Clarion: 1 on 6/8 at Tylersburg (John Fedak); Erie: Several on 6/29 at Edinboro (John Fedak, Jason Horn); Greene: 1 on 6/27 at Kennel Rd (John Fedak); Indiana: 2 on 6/26 through the quarter at West Lebanon (m. obs.); Lawrence: 3 on 6/11 at Volant Strips (George & Barb Dean); Philadelphia: 1 on 5/10 (Chuck Hetzel).
- <u>Pine Grosbeak</u> Clarion: 1 on 6/20 at Cook Forest State Park (Paulette Colantonio, Anita Mason).
- Red Crossbill Adams: 2 on 5/22-25 at Mountain Rd (Deb Siefkin); Bucks: 2 on 5/27-28 at Levittown (E. Castro, R Mercer, et al.); Chester: 4 on 4/1 and 2 on 4/15 at Nottingham Park (Grier Saunders, Larry Lewis, Holly Merker); Clarion: 1 on 6/8 at Mt. Zion (Ken Behrens); York: 73 on 5/25-30 at Gifford Pinchot State Park (Ed Bernot, Peter Robinson).
- White-winged Crossbill Erie: 1 on 5/24 at Erie(Bob Grubbs).
- Common Redpoll Allegheny: 6 on 4/29 at Frick Park (Jim Valimont); Forest: Present up to 4/11 at Tionesta (Flo McGuire); Potter: Present up to 5/2.; Tioga: Present up to 4/8 at Mansfield (Ben Israel).

### **Local Notes**

Adams County

There were 155 spp. reported, including 27 spp. of warblers. The seven people who participated in the 5/13 North American Migration Count (NAMC) found 101 spp.

C. Loon appeared at Long Pine Run Res., with a high of 10 on 4/22 (D Siefken). An Am. Bittern was found 4/13 at a restored wetland near Fairfield (R Ryan), and there was a Great Egret at a pond near Hampton on 4/24 (P Robinson). In response to a call from a homeowner, an adult Bald Eagle was seen 4/28 eating a fish at a pond on Orchard Rd, between Cashtown and Ortanna (A&N Kennell).

Nine species of shorebirds were reported, most of them seen at the restored wetland areas at SGL-249. A few **Upland Plover** continue to nest in the hayfields s.w. of Gettysburg.

A N. Saw-whet Owl was found in the Michaux SF s. of Rt. 30, on a Saw-whet Owl survey route on 6/7 (PR). Whip-poor-will were also found at the southern end of Michaux SF, 5/13 during the NAMC (AK), and 6/7 during the Saw-whet Owl survey (PR).

An Olive-sided Flycatcher was seen and was heard calling 5/13 on Water Street, near Fairfield, during the NAMC (A&NK). A Yellow-bellied Flycatcher was heard calling at SGL-249 on 5/17 (PR).

Unfortunately, there was no confirmed sighting of **Loggerhead Shrike** this quarter. None was found at the site where they have nested for the past several years, or at the two other sites where they were found nesting two years ago.

**Red-breasted Nuthatch** were seen as late as 5/2 on Mountain Rd (DS), and 5/13 on the NAMC (A&NK).

Warbler species reported totaled 27. Those that could have been expected, but were not reported, include **Tennessee**, **Cape May**, **Yellow-throated**, **N. Waterthrush**, and **Mourning**.

Two large groups of **Chipping Sparrow** were seen. There were 50 or more on 4/21 in a yard in Abbottstown after a thunderstorm (B Moul), and an estimated 100 in a yard on Mountain Rd on 4/22 (DS), which demonstrates that birds of a feather do flock together. Eight **Vesper Sparrow** were found 6/14 during a grassland bird survey south of Bonneauville (PR). **Fox Sparrow** stayed until 4/15 in a yard on Bullfrog Road (A&NK), and a **Dark-eyed Junco** was last seen on Mountain Rd on 6/28 (DS). A **Blue Grosbeak** discovered along Pumping Station Rd was a nice find on 6/19 (DS).

There are probably a few pair nesting in the county every year, but this year there was an influx of **Dickcissel**. They were found at 10 or more locations. One was seen at the eastern edge of the county, along Westminster Rd, on 5/17 (C&B Fisher). Eight were found during a grassland bird survey on 6/14 (PR). Seven more were found on 6/17 on another grassland bird survey (PR).

Two **Red Crossbill** appeared at a feeder on Mountain Rd from 5/22-25 (DS). On 5/23/98 a single **Red Crossbill** was seen a few miles away at the Pine Grove Furnace section of the Michaux SF (PR). Are they nesting in the area? There is some suitable habitat. **Pine Siskin** continued to frequent a feeder on Mountain Rd until 6/3, with a high of 10 on 4/17 (DS).

Allegheny County

The quarter was an interesting one despite the lack of migration fallouts. We recorded many rare and unusual species with a few northern finches thrown in.

A banded **Mute Swan** was present for most of the quarter at McKees Rocks (MR) with a band reading #39 (S Kinzey). A **Ring-necked Duck** lingered into June at MR which is unusual (SK).

The Herring Gulls at the Highland Park Bridge on the Allegheny R. (AR) produced 7 young from four nests as of 6/26. Two other nests were in the incubation stage at that time (P Brown). A group of 5 Black Tern was on the AR at Verona 5/28 (R Santhouse). Heavy rains during that day probably accounted for this unusual treat.

A  $\bf Black\ Vulture$  at Tarentum 6/25 was very unusual (P&D Hess).

Very rare for the county were two reports of Am. Bittern: one at Beechwood Farms 4/18 (B Shema), and one in Jefferson Borough 4/28 (S Sinderson). Great Egret were seen 4/10-11 along the AR (SK), 1 was seen flying over Frick Park 4/27 (SK, J Solomon, SS) and 6 were seen flying over that location 4/29 (J Valimont). Another unusual heron was a Black-crowned Night-Heron seen flying at Harrison Hills Park 5/13 (PH).

Shorebird highlights included an **Am. Golden Plover** at Imperial (IMP) 4/10 (F&C McCullough), 2 **Dunlin** there 5/23 (M Fialkovich), a **Semipalmated Plover** at North Park 5/11 (J Hoffman, M Kern) and 1at IMP 5/13 (B Machesney). A nice count of 26 **C. Snipe** were at IMP 4/16 (MF, JV).

Merlin were not reported from Schenley Park in April, however a single bird was seen flying over nearby Frick Park 4/21 (C&J Tague, MF, JS, SS). The Peregrine Falcons in Pittsburgh hatched 4 young this year—all the young fledged.

Eight **Purple Martin** were seen at a small colony at Butler's Golf Course in Elizabeth Twp 5/2 (W Hammond). A **Yellow-bellied Flycatcher** was a nice fmd at W. Mifflin 5/24, and an **Olive-sided** was an even better find at that location 5/17-27 (K Behrens).

Red-breasted Nuthatch lingered until 5/7 following an invasion this past winter with widespread reports of this species. The warbler highlight was a Connecticut Warbler seen and heard at FP 5/17 (DS, WS). A Wilson's Warbler was recorded at the late date on 6/5 in Oakland (BH).

A Clay-colored Sparrow was at IMP 5/30, and two were there 6/12. One was observed carrying food, indicating a possible nest site (CT, JT). Some late northern finches added further interest to the quarter: a group of six Common Redpolls were seen at FP 4/29 (JV), and two Pine Siskin were visiting a feeder in Pittsburgh 5/21-22 (CM, FM).

Armstrong County

Reports from Keystone Res. comprised the bulk of this quarter's data as KR seemed to be the local "hotspot." A Redthroated Loon in breeding plumage was found at KR 5/23 (M&R Higbee) and seen later that day by S Graff. Two Red-necked Grebe were present on 4/22 (M&RH) while a singleton was observed 4/30 (SG). A \$\frac{2}{3} \text{Surf Scoter}\$ located first on 4/22 (M&RH) lingered till 4/30 when 2 Black Scoter were also noted (SG) on the same portion of the lake. Also on the morning of 4/30, SG happened upon a C. Moorhen which was still present later that afternoon (M&RH). Water levels remained high so few shorebirds were reported. Three Caspian Tern on 5/8 (M&RH) were a nice find. Farm fields south of Worthington yielded 2 Dickcissel 6/21 (J Fedak); one was spotted again at the same location 6/23 (D Jacobs).

Beaver County

125 spp. were found on the NAMC on 5/13.

A correction from last year: the **American Coot** reported on 8/22/99 should have been a **Common Moorhen**.

Bedford County

Laura and Mike Jackson, local bird rehabilitators, report that a juvenile N. Saw-whet Owl was picked up by a Penn-Dot Road Crew along Rt. 30 near Sideling Hill Forestry Station on 5/18. Dan Yahner, a *Bedford* PGC-WCO was contacted and he picked it up and took it to the Veterinary Medical Center.

Mike was contacted by the Vet Center to pick up some orphaned opossums and while at the Center, they also gave him the Saw-whet on 5/18. It didn't appear to have any injuries but appeared to be in need of food. The vets thought that might be why it didn't or couldn't fly when found. The Jacksons fed it parts of a gerbil, waxworms, mealworms (with heads removed to prevent

puncturing intestines), and pieces of raw venison.

It was put in their flight cage 5/20 and soon regained flight. It continued to do well and was returned to the Sideling Hill Picnic area near the forestry building on Rt. 30 and released the evening of 6/13. Mike placed waxworms on a stump and put the owl on the stump. He backed up and it began eating the worms. After eating 6 or so it flew to a Hemlock tree about 20' away which is where he last saw it before leaving the area.

### Berks County

Abbreviations: Blue Marsh L. (BML), Glen Morgan L., New Morgan (GML), Hawk Mt. Sanctuary (HMS), L. Ontelaunee (LO), State Game Lands 110, Kittatinny Ridge (SGL).

Two **Red-throated Loon** at GML and LO 5/13 (K Lebo, M Spence) were a day later than the previous late record set in 1943 (Earl Poole). The only large **C. Loon** fallout was of 200 birds, mostly in breeding plumage, at BML 4/27 (H&J Silagy). Like last year, 2-3 lingered at BML all quarter (K Knight, H&JS), somehow avoiding the powerboats and jetskis. The first 4 **Pied-billed Grebe** chicks of the season were seen at GML 6/24 (KL). Rain grounded 7 **Red-necked Grebe** at BML (E Barrell) and 6 at LO (R Keller) 4/22. The same weather system dropped 165 **Double-crested Cormorant** at LO 4/18 (RK).

Single Am. Bittern were at Kutztown 4/14 (B Martin) and Virginville 4/18 (A Muller). A Least Bittern was heard at GML, a probable breeding site, 5/12,17,20 (KL). The Great Blue Heron colony near Oley had 72 young in 23 active nests 6/18, a large increase over the 36 young in 16 nests counted 6/18/94 (RK). An isolated nest near Kutztown fledged a single young (fide C Elwell). The 3 other known colonies were not censused. Single Little Blue Heron were at Oley 5/13 (RK) and Eckville 5/20 (D Barber). Four Cattle Egret were near Albany 5/4 (J Horn) and 1 was on a lawn in W. Wyomissing 5/22 (B&R Cook). A Green Heron pair fledged 4 young from their usual nest in a multiflora rose at Gotwals pond, Oley 6/18 (RK). Black-crowned Night-Heron arrived at their nesting colony in the back yard of a suburban West Lawn home 4/14 (JB). By mid-June, 16-18 pairs were in residence and 14 young were being fed (J Brown, B Uhrich). A Glossy Ibis was in a rain pond near Evansville 4/10,11 (M Spence).

A Black Vulture nest in the attic of an abandoned house near Topton had 2 young 5/12 (D Klem, P Saenger), and 2 boulder-den nests near Birdsboro contained 2 young each in mid-May (R Bonnett). Also near Birdsboro were 2 Turkey Vulture nests with eggs in mid-May (RB).

A medium sized, red-collared (OYY2) Canada Goose seen at Oley 2/21/99 (RK) was a female hatched in 1995 or earlier and banded 8/4/96 near Ft. Albany, Northwest Territories, Canada. A Mallard X Black hybrid drake was at BML 4/29 (RK,H&JS). A count of 41 N. Shoveler at LO 4/12 (KK) was high for Berks. There were single sightings of 4 uncommon diving ducks at LO: 1 Surf Scoter 4/29 (T Frans), 3 White-winged Scoter 4/23 (RK, MS), 3 Black Scoter and 9 Oldsquaw 4/9 (MS). There were 2 ducklings among 10 Ruddy Duck at GML, the only known nesting site in Pa, 6/24 (KL).

Mississippi Kite staged their 3<sup>rd</sup> occurrence in *Berks*. A subad. moved north over District Twp with Broad-wings and other hawks 4/29 (RK). A subad. and a juv. were seen together near BML 5/2 (H&JS). A juv. was spotted at the Rt. 183 Hawkwatch 5/3 (EB) and an imm. was seen a few mi. n.e. of there at SGL 5/6 (K&L Moulton). Given the narrow time-frame and geographical area, there is a strong possibility of repeat sightings. The only previous records are of an ad. and a juv. with a Swallow-tailed Kite in s. Berks 5/27-6/6/95, and a bird at HMS 5/11/99 (A Koch).

Osprey were seen in every week of the quarter, and Bald Eagle till 6/10 (m.obs.). Cooper's Hawk are thriving in urban habitat, with at least 3 reported nesting in Reading and its inner suburbs. One pair took over an old Black-crowned Night-Heron nest in West Lawn, where 3 downy hawk chicks were seen in mid-June. The only apparent conflict involved hawks and herons stealing sticks from each other's nests (JB, BU). A N. Goshawk near Eckville 6/19 (L Goodrich) was near last year's nest site.

Rails heard at GML were a Virginia 5/12,20; 2 Sora 4/29 and 1 on 5/5,12 (KL). Three C. Moorhen were there 6/24, as were 2 Am. Coot chicks with 18 ad. (KL). Rainy weather probably accounted for an ad. Laughing Gull, a 2<sup>nd</sup>-winter Ls. Blackbacked Gull and a 1<sup>st</sup>-winter Great Black-backed Gull among 1200 Ring-billed Gull at BML 4/22 (RK,H&JS). The Lesser Black-backed was 20 days later than the previous late date. There were again June records of Black Tern, 1 at GML 6/6 (KL) and 3 near Kempton 6/14 (M Wlasniewski).

A Eurasian Collared-Dove, a 1<sup>st</sup> county record, was at a feeder near Eckville for 2.5 hrs. on 5/7 (D Barber). The observer, a naturalist at HMS, recently lived 3.5 yrs. in Fla., where this species has become a common breeder and was seen every day. Photos and description have been submitted to PORC.

A Barn Owl box in Rehrersburg contained a female and at least 3 young, and a box near Daniel Boone Homestead contained a female and 6 young in mid-May (RB). Two Long-eared Owl were still at their winter roost at BML 4/8 (KK, PS). A N. Sawwhet Owl was at HMS 4/13 (DB, TB). Catherine Elwell wrties "As I was feeding peanuts to flying squirrels at 8:35 p.m., 5/26/00, a Chuck-Will's-Widow began to sing from my lower wet woodland. I went in search and found it perched on a bare limb 20 ft. above Pine Cr. It made 12 flycatching sallies from this perch, deftly swooping over the brook. Its call was penetratingly loud. Before deep dusk set in, I could see its big head, thick neck, rounded tail and protruding whiskers backlit against the clear evening sky. When I headed back through the dark woods at 8:55 p.m., it was perched on the same limb but had stopped calling." This rare vagrant was a 20-minute wonder. It was not heard later that evening, nor on subsequent evenings by other birders. There are three previous county records, all brief encounters like this one. (See Uhrich, ed., A Century of Bird Life in Berks County, Pennsylvania.) This is the only one of the four Chucks that was seen by a birder. The only Whip-poor-will reported were 2 on the Kittatinny Ridge in May (K Bildstein, K Grim). The resident Redheaded Woodpecker pair near Bowers was nesting in late May (PS). At Kauffman Rd., Oley Twp, 2 ad. were calling 6/18, but no birds were found there on multiple visits before or after that day (RK). The birds had nested here since the early 1980s.

Five Olive-sided Flycatcher were seen 5/5 (a new early record--KL) to 5/25. Snags in the clearcut on Penn-Bern Rd., BML are a reliable place to see them off the Kittatinny Ridge. An Alder Flycatcher sang for most of June near a small stream on a brushy powerline cut in Hereford Twp (B&P Morris, m.obs.). A territorial male was at the same spot last June (B&PM). Since Alder and Willow flycatchers were formerly lumped as Traill's Flycatcher, the historical occurrence of Alder in Berks is unclear, but apparently no territorial male had been recorded since July, 1966 at LO (MS).

The Bank Swallow colony on Lowland Rd, Hamburg had 70 active nest burrows in late June (MW). A predator had dug out some of the nests, evidenced by disturbed soil and feathers at some burrows (MW). Besides the Gray-cheeked Thrushes heard with hundreds of Swainson's Thrushes 5/20-23 (KG-see related article), 2 were heard 5/13, 29 (RK). A probable Bicknell's Thrush responded to a taped call note of the sp. and sang very briefly in District Twp 5/29, when a Gray-cheek was also heard (RK). Neither bird was seen well. About 100 Am. Pipit were at LO 4/9 (MS, MW) and Eckville 4/25 (DB).

Thirty warbler spp. were counted, with no major or even minor fallouts. A Yellow-throated Warbler at Green Hills L. 5/13-16 (KL) was the only rare migrant. A regenerating clearcut at SGL attracted a host of Chestnut-sided Warbler with 25 males singing 5/27 (KG). Two Cerulean Warbler territories were active at Hay Cr. (RK, KL), presently the only known nesting area. Canada Warbler was found again at Pine Swamp, French Creek SP in June (nesting unconfirmed--L Lloyd); this is well south of the edge of its Pa. range on the Kittatinny. The hotspot for Yellow-breasted Chat is still the clearcut on Penn-Bern Rd, BML, where up to 4 males were displaying on snags in June (H&JS). An orange variant Scarlet Tanager was in Tulpehocken Creek Park 5/13 (C Warner).

The stronghold for grassland sparrows, Bobolink and E. Meadowlark continues to be the shaly farmland along the base of the Kittatinny in N. Berks, where grass hayfields are cut late enough to allow some young to fledge. Large Bobolink colonies were active on Monument Rd. and Hess Rd. near Hamburg and on Old Philly Pike, Albany Twp. Several Swamp Sparrow with fledged young were again in Pine Swamp, FCSP in June (RK). An Indigo Bunting with white cheek patches held a territory on Penn-Bern Rd, BML in June (H&JS). Purple Finch, never more than 20, were seen till 5/6, but a Pine Siskin was at Green Hills L. till 6/2 (KL). A female Purple Finch with conjunctivitis was at a feeder near Strausstown with infected House Finches 5/1 (C Cravotta). Four Evening Grosbeak breezed through E. Berks 4/28-30 (RK, PS).

### Blair County

On 4/12 two young **Bald Eagle** were seen taking fish from **Osprey** at Canoe Creek SP (B Sternagle).

The Bontas had their  $1^{\rm st}$  sighting of **Black Vulture** at Plummer Hollow on Brush Mt. They have lived on the property since 1971.

EXOTIC: On 4/25 a **Chukar** was at a feeder in Scotch Valley (BS).

### Bradford County

At least 109 spp. were recorded. **Hooded Meganser** was found all three months (T Gerlach), which makes one wonder if they bred again as they have in two recent years.

After an absence of many years, a Whip-poor-will was found for the  $2^{\rm nd}$  consecutive year at New Era (TG).

72 spp. were found by Bill Reid on the Wyalusing BBS on 6/21. Highlights included a **Golden-winged Warbler** at Brewer Hollow Rd and a **Yellow-breasted Chat**. Golden-wings, far more prevalent than Blue-wings in the 1950s, have been very scarce in recent years.

### Bucks County

A Pacific Loon was reported at Nockamixon SP (NSP) with 3 C. Loon on 4/23 (D Farbotnik, J Horn). This was the 2<sup>nd</sup> county record. A Mississippi | Kite was reported at Peace Valley (PV) first as a possible on 5/1 (A Mirabella) and then again on 5/7 (DF). This was the 2<sup>nd</sup> county record. Two Whimbrel were reported at NSP on 4/21 (DF, JH). This is the 4<sup>th</sup> county record. A Red-necked Phalarope was reported at Bradford Dam from 5/9 to 11 (DF, A Mirabella, K Rieker et al.). This was the 3<sup>rd</sup> county record. A Chuck-will's-widow was reported on the Birdathon on 5/13 (G Dewaghe) and again on 5/30 at Bristol (KR). Two Red-Crossbill were at a feeder at Levittown 5/27-28 (E Castro, R Mercer et al.).

Nesting highlights include: 43 **Great Blue Heron** nests at Quakertown Swamp (AM) and attempted nesting at NSP (AM). A report of **Mute Swan** with young at Penn Manor (H D'Allesandro) finally confirms this species as a resident. The **Osprey** successfully nested at Bristol again this year (DF). **Red-headed Woodpecker** were nesting at Richland Twp 4/25 (AM).

Other highlights: A **Red-throated Loon** was at PV 4/10-15 (AM). Five **Horned Grebe** were at NSP on 4/6 (AM), and another on the Birdathon on 5/13 (M Rutbell, W Whitelam). A **Red-necked Grebe** was at NSP 4/22 (DF). **Great Cormorant** were at Bristol 4/21 (DF) and Silver L. 5/27 (G Carmichael). There were 7 reports of **Am. Bittern** throughout the county from 4/5 to 5/21. A **Least Bittern** was at PV 5/3 (DF, AM). A **Surf Scoter** was at NSP 4/22 (AM).

Up to 8 Virginia Rail and 3 Sora were at Quakertown Swamp 4/29 (AM), they also were reported on the Birdathon/NAMC on 5/13. Two Western Sandpiper were at Churchville 5/13 (S Furlong). Two Forster's Tern were at PV 5/5 (AM). The Long-eared Owls remained at PV until 4/10. A Yellow-bellied Flycatcher was at PV 5/15 (J Mirabella) and 5/20 (DF). An Alder Flycatcher was at PV 5/16 (R Pfeffer) and 5/27 (DF). A Marsh Wren was at Silver L 5/6 (GC). Yellow-breasted

Chat were at NSP 5/11-6/25 (DF), PV 5/12 (C Crunkleton), on the Birdathon/NAMC 5113, and at Blooming Glenn 5/14-24 (C Rutt).

EXOTIC: 2 Egyptian Geese were at Richland Twp on 4/25 and 1 at PV on 5/2 (AM).

### Butler County

Notable waterbirds at L. Arthur (LA) were a **Red-throated Loon** 4/8 (D Darney, D Yovanovich) and 2 on 4/22 (R Stringer); 3 **Red-necked Grebe** 4/22 (RS); 4 **Great Egret** 4/3 (W&D Shaffer) and one 5/5 (DY), while another was at Glades 5/20 (S Butcher); 3 **Black-crowned Night-Heron** 4/3 (DD, DY) and these observers also saw 3 flying over Jennings Nature Reserve (JNR) 5/6; 3 **Oldsquaw** 4/8 (DD,DY) and April max. of 2000 **Ruddy Duck** (C&J Tague). That large Ruddy number has become a usual maximum count at LA in both spring and fall.

There were 2 Osprey nests at LA (DD) and a new one at Glades (P Simpson), where a nest had been built but abandoned last year. The Bald Eagle pair nested again at Glades, and one eaglet was visible in the nest in late May (SB); meanwhile 2 were present at LA 4/8 (DD, DY) and a sub-adult surprised DY by swooping down into a grocery store parking lot in Center Twp 6/14 ("No water anywhere, just concrete!" Debbie commented.) Rounding out the good raptors was a Rough-legged Hawk at Moraine S.P. 4/8 (DY)

A Virginia Rail at LA 5/8 (M Williams) was the only report. A nice tern presence at LA included up to 4 Caspian in April (DD, DY, MW), 2 Common 5/27 (DD, DY), a Forster's 4/7 (DD, DY) and 5 on 5/27 (DD, DY). Whip-poor-will were noted at two locations (B Machesney, D Smeltzer). 2 C. Raven at Evans City 5/1 (MW) were the 2<sup>nd</sup> county record. Unusual breeding news at Slippery Rock were single nests of Yellow-bellied Sapsucker, Red-breasted Nuthatch, Brown Creeper, and Winter Wren (all G Wilhelm). The sapsucker and the wren were 2<sup>nd</sup> county breeding records. N. Mockingbird was reported more widely than usual: an apparent pair at Moraine SP in April and May (MW) and singles at Evans City (C Trauterman) and Cabot (B Rimmel) in May.

Good birds also included several warblers: "Brewster's" at JNR 5/4 (DY), "Lawrence's" at Slippery Rock in late May and early June (GW), and Connecticut at JNR 5/24 (GW). A singing Clay-colored Sparrow and Dickcissel at Barkeyville grasslands just inside the county line 6/4 (GW). One of the most notable early spring records in years was an Indigo Bunting seen by experienced observers on 4/3 at Moraine SP (W&D Shaffer).

### Cambria County

Though Dave Gobert wanted **Dark-eyed Junco** sighting for NAMC, Judy Johns couldn't oblige until the following week, when for the second year, she has confirmed breeding juncos on SGL-26 at 2600'+ elevation. John Salvetti also found and confirmed breeding juncos on Lilly Mt.

Bill Hintze, while running a BBS route found 4 late Ruddy Duck at Prince Gallitzin SP on 6/8. Dave Gobert reports 22 active Cliff Swallow nests at the Prince Gallitzin SP colony.

### $Carbon\ County$

Black Chinned Hummingbird- 5/7 Saw Mill Trail, Franklin Twp David Hawk and Robert Barowski. Here is my diary entry for this hummer. My birding partner (who just got back into birding) spotted a hummer 10' above us in a walnut tree. As I focused in on the bird than looked at Rob he saw the look of amazement on my face. I said that is not a Ruby-throated, that is a Black-chinned Hummer. I ask him to look at the gorget and he said it was purple at the base which I called violet. We check the bird in our guides and confirmed our sighting. We went back to the car and got the camera and took pictures of a hummer that perched on a tree some 40' away. We could not be sure this was the same hummer we originally saw. I blew up these pictures from 200 mm to just a cropping of the bird and sent them to what I feel are experts. They could not confirm or deny the sighting. (Overcast day with bad lighting) I have seen BC hummers in Arizona, New

Mexico, Texas, California, and Washington and I am certain this was a BC hummer. Why does it seem that I am so defensive on this sighting? It is probably the first sighting in the state. Less we remember this area had a Mountain Bluebird (Klem), Arctic Tern (Wiltraut), Ruddy Turnstone (Wiltraut) plus numerous oddballs that I have seen.

### Centre County

The "Invasion of the Long-legged Waders" that started at the end of the last quarter continued into this quarter. The most notable sighting was that of an adult Yellow-crowned Night-Heron at Toftrees Pond (R Stone), but an adult Black-crowned Night-Heron that remained for nearly a week at Curtin Marsh (M Rockmore) and a Little Blue Heron at Black Moshannon SP (K Muston) were also significant. Am. Bittern showed up at a number of places, including Bald Eagle SP (BESP), Curtin Marsh, and Toftrees Pond; there were reports of Great Egret from some of these areas, too.

BESP was host to a **Red-throated Loon** (C Hazlett) as well as a large flock of **Red-necked Grebe**, many in breeding plumage (D Brauning). While **Gr. Scaup** are regularly seen in the county, the flock of 46 at BESP was unusually high (S Bills). A  $\sigma$  **Green-winged Teal** at the Penn State Retention Pond in early June was a fairly late migrant (M Brittingham), and a  $\sigma$  **N. Shoveler** stayed at Centre Furnace Pond from mid-April till at least mid-June (P Rodewald). A **Black Vulture** was seen over SGL-176 (PR). The immature **Bald Eagle** seen at BESP in April had probably been there through the winter (W Donovan), while the adult at Bear Meadows was probably a migrant (N Bolgiano). Sightings of single **Merlin** came from BESP (CH), SGL-176 (MR), and the State College area (D Bryant).

A probable **Pomarine Jaeger** was reported from BESP (J Pushock). Unfortunately, the bird was a good distance from the observer and departed well before other birders could get to the park. A **C. Moorhen** was seen at Toftrees Pond (J Mollenhauer, A Siepielski). Shorebird migration was lackluster, with only about five migratory species observed. Tern migration was much more interesting, with reports of **Caspian** from BESP and Colyer L., **Common** at BESP (JP), **Forsters** at Colyer L. (AS), and **Black** at Toftrees Pond (M Dunson).

Short-eared Owl were seen in the State College area (S Lewis) and on the Penn State campus (PR). Two N. Saw-whet Owl were found on one of the "Toot Routes" near Black Moshannon SP in late May (NB). The two reports of Red-headed Woodpecker for the period came from Toftrees (M) and the State College area (M Heath).

An Olive-sided Flycatcher was found in SGL- 176 (MR). There were several reports of White-eyed Vireo in the county, including individuals at Toftrees Pond and Walnut Springs Park. The only notable thrush was a Swainson's in State College (NB). Warbler migration seemed to be on the early side, with many species showing up before the end of April. The most interesting species was Mourning Warbler, reported from Big Hollow Road, Toftrees, and SGL-176.

An extremely unusual bird for the county, a Summer Tanager was heard well and seen poorly along Nixon Rd in the State College area (P&AR). A Henslow's Sparrow was heard in the Snow Shoe area (T&A Fuller, D Grim). A Baltimore Oriole was in a State College backyard on 4/21, an unusually early date (MH); the next report for this species wasn't till 5/3. The male Dickcissel reported from State College during the last quarter apparently left the area in mid-April (D Bordner). The only winter finch records were a couple of reports of Pine Siskin in the State College area and two female Evening Grosbeak at a feeder in Pine Grove Mills in early May (AF).

### Chester County

The amount of information gathered for this quarter is quite gratifying. I thank all the people who participated and reported their findings. I apologize to anyone who may have been overlooked.

Marsh Creek SP received an interesting assortment of birds for the quarter. On 4/3, Grier Saunders found 24 C. Loon, including 5 immatures. On 4/19, Ellie Wolf found a tight cluster of 8 Horned Grebe in breeding plumage, 8 Ls. Scaup, and 4 Ruddy Duck in the inlet beside the park office. What food brought them together? Red-throated Loon were found through 5/3, Common Loons through 5/19, Horned Grebes through 5/9, and Red-necked Grebe through 5/3. A Least Bittern was seen on 5/15 by John McNamara. Red-breasted Merganser lingered through 4/17.

On 4/16, Bill Zemaitis and Wendy Bastings saw a **Sandhill Crane** fly over Exton headed in the direction of Embreeville Park. No further reports were made.

William Barber reported a flock of 30 **Glossy Ibis** at Avondale on 4/26. Since no one else reported seeing Glossy Ibis during this quarter, I wonder where they went.

Red-breasted Nuthatch lingered into April with 12 reported on the RBA at Nottingham Park on 4/1. Ten Pine Siskin, 4 Red Crossbill, 6 Golden-crowned Kinglet, a Ruby-crowned Kinglet, and 3 Pine Warbler were also seen.

Unexpected was a **Hooded Merganser** in Willistown Twp on 6/11. Mike Harvell, Lisa Tull, and Lindley and Todd Winston found the bird during the WCBC Breeding Bird Count.

Warbler migration was poor except for Yellow Warbler, Yellow-rumped Warbler, Ovenbird, and C. Yellowthroat. Single Tennessee Warbler were seen on one day by only two groups. Single Nashville and Blackburnian warblers were seen on just two dates. No Yellow-throated or Hooded Warblers (once breeders) were reported. Bill Elrick found Bay-breasted Warbler on just two dates. Only 3 Cape May Warbler, 1 Cerulean, 1 Prothonotary, and 1 Mourning Warbler were seen. The development of this county is removing vital habitat for birds.

Scarlet Tanager apparently first arrived all over the county on 5/1. One was seen at Longwood Gardens by Dan Hegarty, another at W. Whiteland Twp by Bill Elrick, and another in W. Nantmeal Twp. by Grier Saunders.

Many field trips, surveys, and bird banding contributed to the information about bird movements. Since so many people were out there looking, the numbers of birds reported in *Chester* are fairly accurate.

Bill Elrick has been running a bird banding operation on former Church Farm School property in W. Whiteland Twp for the past several months and sent me information about birds banded from the beginning of the year. He is gathering information in an attempt to save the area, including wetlands and a large pond, from development. Please help to save this area.

West Chester Bird Club contributed a great deal of information. The club has a Spring Migration Count from 4/15 to 5/15 and urges all members to bird anywhere in the county and submit their reports for compilation. Field trips added valuable sightings. WCBC is also conducting a survey of birds at Longwood Gardens. The Breeding Bird Count (WCBC BBC) on 6/11 was in the same area as the CBC. Other sources of information were the BBC of Valley Forge Audubon Society on 6/3, NAMC on 5/13, and a couple of trips in *Chester* by the Birding Club of Delaware County.

### Clarion County

Great Blue Heron - 6/28 on Cherry Run Rd., one nest in a new location, 3 nestlings. Killdeer - on 4/25 at New Bethlehem John Fedak observed 4 newly hatched young.

Very early. **N. Saw-whet Owl** - The Toot Route organized by Doug Gross netted many more of this species than we ever knew were here. Final results are still to be posted but *Clarion* had about nine.

Purple Martin - Heretofore we have had only one colony in the county. Now another has been established at Beaver Creek with one group nesting at the pavilion on Rte 208 and the other group across the road on the privately owned property (W Fye).

Clay-colored Sparrow - At Mt Zion from 5/5 to 6/8 the following birders found the small colony: John Fedak, Ramsey

Koury, Mike Fialkovich, Dave Rieger, Joyce Hoffman, Mark McConnaughy, Deuane Hoffman, Randy Stringer, Ken Behrens and probably others I hadn't heard about.

**Pine Grosbeak** - Cook Forest, 6/20, a pair, seen by Paulette Colantonio and Anita Mason, pending PORC approval.

House Finch - In early April Hendrika Bohlen had a House Finch at her feeder that was yellow where they usually are red. (Geoffrey E. Hill in House Finch, in *The Birds of North America*, no. 46, 1993, p. 1, states: "In all populations males vary in color from pale yellow to bright red.... Males derive their yellow/orange/red coloration from carotenoid pigments in their food, and variation in the expression of male plumage coloration both within and among populations reflects variation in dietary access to carotenoid pigments during molt. Female House Finches prefer to mate with the reddest male available to them, and by choosing to mate with brightly colored males they gain resource benefits during nesting.")

### Clearfield County

Curwensville L. was host to a good variety of waterfowl early this quarter, including two Oldsquaw (G&S Young) and one White-winged Scoter (E Zielinski); Double-crested Cormorant were at the lake on two occasions. A Least Sandpiper at the lake on 4/23 was fairly early (EZ), as was a Ruby-throated Hummingbird near Osceola Mills on 4/30 (L Danko). A Bald Eagle was seen along the west branch of the Susquehanna near Shawville (J Aubuchon).

### Clinton County

Highlights included the discovery of 3 Am. Bittern in Mill Hall on 5/5 (S Bason, W Laubscher). On 5/14 at Beech Creek, a lone Black Vulture was observed (E Sigda, SB). This is only the 2<sup>nd</sup> county record. Pine Siskin were observed as late as 6/6 in Swissdale (WL). A small flock of Evening Grosbeak appeared in Swissdale from 4/2 until 4/12 (WL). Purple Finch were also observed in several locations during the same period (WL, B Zbegner). Not seen in the county for a few years, a of Orchard Oriole was observed in Mill Hall (C Hazlett) on 5/14. Near Woolrich on 6/7, 2 N. Saw-whet Owl were heard and also 1 was heard near Pottersdale on 6/28 (WL).

### Columbia County

A cold breezy 4/4 brought dozens of **Tree Swallow** to Young's Pond in search of insects while 77 **Ring-Necked Duck** (mostly paired) observed. Also present were 2 **Hooded Merganser**, 1 **C. Merganser**, 2 **Blue-winged Teal** and a male **Ruddy Duck**. Five **Ls. Scaup** at a very small nearby pond a week later were a nice find.

Forty-three **Double-crested Cormorant** at Briar Creek Res. on 4/11 jumped the opening of trout fishing season to the obvious dismay of observing fishermen!

Acadian Flycatcher, Willow Flycatcher, White-eyed Vireo and confirmed nesting E. Kingbird and Louisiana Waterthrush were late second quarter sightings around a Jonestown area lake/swamp.

A non-Toot-Route **N.** Saw-whet Owl was discovered by Autumn Pfeiffer while ("Herping")near Lightstreet and a singing **Ruby-crowned Kinglet** in the Jonestown area were somewhat out of place.

### $Craw ford\ County$

Good numbers of ducks remained in the area to the end of April. Ruddy Duck continue to summer here at Pymatuning L. and breed as 2 adults with 5 young were seen at the Pymatuning Spillway 6/4. Three adults were also noted at Tamarack L. Up to 3 Tundra Swan remained at Pymatuning L. through the period. They were injured birds unable to fly.

An adult male **Cattle Egret** in breeding plumage was at Pymatuning Goose Management Area 5/27 (J Hoffman, R Leberman) at close range (12').

I had an adult male Yellow-rumped Warbler near the

feeder at Meadville 6/17. Gordon & Kurlin Marsh had a **Pine Warbler** at their Meadville feeder 4/21 and I found 2 at Ford Is.

Scarlet Tanager were most plentiful this spring and I counted 16 at the Erie NWR at Gregs Mills on 5/28, including 1 extremely orange variant. Pine Siskin were still noted at Pymatuning 4/30 and an adult male Evening Grosbeak was there 5/15 (J&C Knox).

A <u>Bewick's Wren</u> was found 5/4 at Meadville on a new bike trail (old Erie/Lackawanna railroad bed) by Isaac Field (details to follow).

### Cumberland County

A rather ordinary spring migration with no unusual species found. A good variety of migrant waterfowl and passerines was noted. A strong movement of waterfowl was noted during the first few days in April. Most notable sightings include: 2 White-winged Scoter on Opossum L. 4/2 and the single Oldsquaw on tiny Fuller L., Pine Grove Furnace SP on 4/1.

Fortunately the Yellow-crowned Night-Herons at W. Fairview decided to come back for one more year. After last year's harassment by local youths I was a bit skeptical about this season. The herons built their loose colony a little more secluded this year and I counted five nests. Were well hidden by leaf out, and it is hoped that this kept them protected.

The stars of the passerine movement, warblers, put in a good show with 34 spp. recorded. Nothing unusual was seen. The first large movement occurred 4/22 at W. Fairview.

For at least the 6<sup>th</sup> year in a row **Dickcissel** returned to nest in farm fields near Newburg. Dickcissel were also found on the two grassland bird surveys that are run in the western half of the county. It seems that this year was a boom year not only in Pa. but in many surrounding states as well.

### Dauphin County

The joy and excitement of watching the growth and development of Harrisburg's **Peregrine Falcon** family was tempered by the reality of the dangers in the lives of young falcons. Three of the four fledglings were killed in flying accidents. Sad news also came from Haldeman Is., where, after ten consecutive successful years, the **Bald Eagle** pair abandoned their nest in mid-April. On a more positive note a new nest site for **Barn Owl** was reported and confirmed in southern *Dauphin*.

The peak of the waterfowl migration along the Susquehanna R. came in early to mid April. A total of 29 spp. was reported from Harrisburg to Marysville during this period including Pied-billed, Horned (58 on 4/4 C Blatchley, D Hoffman), and Red-necked (8 on 4/18 1313) grebes, Redhead, Canvasback, Oldsquaw, (27 on 4/4 CB, DH), Surf and White-winged scoters, and Ruddy Duck (29 on 4/4 CB, DH). A Red-throated Loon was reported from Haldeman Is. 5/8 (SB). Bonaparte's Gull was observed throughout April with 580 counted on 4/4 while one Little Gull was also found (CB, DH), and a Laughing Gull was discovered 4/14 (T Neumyer). Terns made their appearance the first week of May when Common, Forster's, Caspian, and Black were all tallied (R Koury). The annual Wade Is. and vicinity nest count was conducted on 5/4 with 134 Black-crowned Night-Heron, 148 Great Egret, and 9 Double-crested Cormorant nests located (S Hoffman). Two Cattle Egret were observed flying up river on 515

The most noteworthy finds during the NAMC on 5/13 included 3 Lapland Longspur near Hershey (S&S Rannels), a Yellow-throated Warbler and a Lincoln's Sparrow in East Hanover Twp (N Cladel), and 4 C. Raven in upper Dauphin (B Baker). A total of 31 warbler spp., and 12 sparrow species were among the 153 tallied on that day. The Bank Swallow colony on Haldeman Is. continues to thrive and Cliff Swallow remain active at both ends of the Clark's Ferry bridge (S Bills).

Other interesting spring reports were of an **Am. Bittern** 4/25 and a **Prothonotary Warbler** 5/5 at Wildwood Lake Sanctuary (G Randolph), a **Lawrence's Warbler** (hybrid) near Carsonville (J&J

Funck), a **Blue Grosbeak** at the Milton Hershey farms (remained through July) 6/18 (N&C Juris), and 2 **Sandhill Crane** on Haldeman Is. 6/19 (J Dunn). A **Merlin** was observed near Harrisburg on 4/26 (N&CJ) and another on 5/2 (RK), a **Blackbellied Plover** was found along the Susquehanna 5/6 (DH) while **Semipalmated Plover** were reported from Haldeman Is. 5/7 (SB, R Williams) and from the Milton Hershey ponds 5/19 (RW).

### Delaware County

173 species were found during the quarter. A **Red-throated Loon** was observed at Springton Res. (SR) 4/27 (A Guarente, N Pulcinella). **Great Cormorant** continued to be found along the Delaware R. near Marcus Hook until 4/22 (AG). Both **Least Bittern** and **Snowy Egret** were found near the Philadelphia Airport (PHL) 5/7 (AG, John D'Amico). **Snow Geese** were passing over the Rose Tree Park Hawk-watch (RTP) 4/1,6 (NP, JD).

The bird of the quarter was a Mississippi Kite found at Haverford College (HC) 5/13 (S Johnson). This was only the 2<sup>nd</sup> documented county record. The Rose Tree Park Hawkwatch was in operation from 3/15 through 5/1. A few of the high counts for the season were: Osprey 11 on 4/23; N. Harrier 17 on 4/6; and Broad-winged Hawk 685 on 4/23 (D Washabaugh). Two Merlin were seen over RTP 4/23 (DW). A C. Moorhen was found near PHL on 5/7 (AG). A Whip-poor-will was heard in Brookhaven 4/30 (M Kaczenski). An Alder Flycatcher was present at HC 5/16 (SJ). A high count of 8 Blue-headed Vireo was made at Ridley Creek SP (RC) 4/27 (AG) and 11 Warbling Vireo were found along Darby Creek (DC) 6/1 (NP). Unusual for spring, a Philadelphia Vireo was observed at RC 5/7 (JD). Cliff Swallow returned to nest for the 3<sup>rd</sup> consecutive year at SR (M Guenther). Red-breasted Nuthatch lingered until 5/6 at HC (SJ).

Twenty-eight warbler species were found. Noteworthy were 40 Palm Warbler at Tyler Arboretum (TY) 4/26 (D McGovern). A Summer Tanager was found at Skunk Hollow 5/10 (S Conant). A very late White-throated Sparrow was located at the Darlington Tract 6/24 (AG) to establish a new late date. Pine Siskin continued in small flocks up to 5/6 at TY (AG).

### Erie County

With cool temperatures and overcast skies, the hawk migration along Lake Erie was light with best days on 4/28 with 146 birds in 4 hours and 5/1 with 192 birds in 4.5 hours (J&TC). The Ring-billed Gull colony seems well established at the General Electric Plant in east Erie with approximately 3000 birds present with an estimate of between 500 and 700 nests. Included in the colony is at least 30 pair of incubating Herring Gull. There were already 100+ Ring-billed chicks by the end of May. On 6/3 I visited the gull colony at GE in east Erie and saw four different Herring Gulls each with chicks. One adult Herring Gull was feeding three chicks. The other three birds had one chick each. There were still about 15 incubating Herring Gulls or perhaps they were sitting on newly hatched young. This is the first successful nesting of Herring Gulls in Erie County and is presently one of only two nesting sites in the state (J McWilliams).

The passerine migration was considered good by birders who noted species diversity and individual numbers greatest on 5/12,13,19, and 20. Pine Siskin continued into the second quarter, but Evening Grosbeak were poorly represented with only three individuals reported.

### $Fayette\ County$

An Am. Bittern was a great find at Deer L. (DL) 4/15 (M McConaughy). Great Egret were reported from near Uniontown 4/23 (K Kern) and at Mill Run Res (MRR) 5/21 (MM).

A great count of 28 **Blue-winged Teal** was recorded at DL 4/15 (MM). Four **N. Shoveler** were at Jacob's Creek L 4/11 (S Kinzey).

A nice assortment of shorebirds was found this spring including **Dunlin**, **Gr. Yellowlegs**, **Ls. Yellowlegs**, **Solitary**, **Semipalmated**, and **Least sandpipers**. All were at MMR or DL

(MM). Nine Least were at MRR 5/14 (MM). A nice count of 6 Semipalmated Plover was seen at MRR 5/14 (MM). An Am. Woodcock was seen at Ohiopyle SP 4/15 (MM), where they are known to breed.

Along with Barn and Cliff swallows, single Bank Swallow were observed on 5/14 and 5/21 at MRR (MM). Barn and Cliff swallows continue to nest on the bridge over the Youghiogheny R. at OSP (M Fialkovich). Cedar Waxwing were observed building a nest in a small Black Locust along the Youghiogheny R at OSP (MF).

Golden-winged, Blue-winged, and Prairie warblers, and Yellow-breasted Chat continue to nest in the brushy areas near the campground at OSP. The first Louisiana Waterthrush of the spring were reported 4/23 at OSP (J Hoffmann, M Kern). Although known to breed in the county, Worm-eating Warbler went unreported.

Savannah, Grasshopper, and Henslow's sparrows were found in a grassland area near the towns of Filbert and LaBelle 6/25 (MM).

### Forest County

It was an exciting quarter, with 126 spp. reported in our tiny county.

Lingering winter birds included **C. Redpoll** until 4/11 and **Evening Grosbeak** until 5/12 at feeders near Tionesta. (F&J McGuire) The last **Pine Siskin** was found on 6/9 at Cook Forest by Ken Behrens. A **White-throated Sparrow** was reported at Beaver Meadows on 6/11 by Carolyn Blatchley and Deuane Hoffman.

Good migrants included a pair of Swainson's Thrush on 5/12 in the Allegheny NF near Tionesta; the NAMC on 5/13 produced Black-bellied Plover, Semipalmated Plover, Ruddy Turnstone, and 19 Dunlin at Buzzard Swamp and a Tennessee Warbler at Tionesta L. (F&JM). Pat Conway and Ann Hunt found 2 Oldsquaw at Buzzard Swamp as late as 5/5, where they also reported 3 Osprey and a Bald Eagle.

Dale Luthringer found a pair of **Red-shouldered Hawk** incubating on 4/19 at Cook Forest. Marge Neel reported two **Prairie Warbler** near Redclyffe on 5/14. Per Ted Grisez, this is the same location where they were recorded for the Breeding Bird Atlas.

An exciting find for Mike Leahy was an active N. Goshawk nest near Hottelville on 6/18. A trip a week later found that the young had fledged. A total of 2 adults and 1 juv. were observed. Mike also reported seeing an adult Bald Eagle near the Tionesta nest this April

A White-eyed Vireo on 6/11 at Beaver Meadows was a good find (CB, DH) An active Purple Martin colony was found at the Tionesta Fish Hatchery on 5/26. Surprising discoveries on a "toot route" on 5/15 were 3 N. Saw-whet Owl and 9 Whip-poor-will (F&JM).

### Fulton County

Some interesting birds were observed. Meadow Ground L. hosted 3 **Red-necked Grebe** 4/26 (D Gearhart, K Gabler) and 1 on 4/28 (D Snell). I noted an **Am. Bittern** in an overflowed creek near Harrisonville 4/22. On 75 from the road, the bittern was openly standing on top of a beaver dam. I imagine the torrential all-day rains left it few safe areas to stand. I contacted Harrisonville native Mike Newell and his whole family enjoyed the sighting.

On 5/11-12 at the Haines-Seville wetlands a  $\sigma$  hybrid N. Pintail x Mallard made an appearance (DSS) and photographed (MN). The hybrid was studied for approximately five minutes before disappearing into the vegetation. Although there were Mallards there, a  $\hat{\tau}$  Am. Wigeon seemed to have a strong affinity to stay near the hybrid male. (I can only imagine the possibility of any offspring.)

Fingerboard Rd near Amaranth had **Semipalmated Sandpiper** 5/11, **Dunlin** 5/11, **Am. Pipit** 5/13 at the ponds, and **Evening Grosbeak** 4/28 in the woodlands.

Greene County

A Great Egret, rare for here, was found on a PSO field trip in the W. Waynesburg area and seen by many (K Kern et al.). A Blue-wingedxGolden-winged Warbler hybrid was found. A Summer Tanager was at the Chidester Fram (R Bell). Three Dickcissel were found at Kennel Rd on 6/27 by an observer quite familiar with the species (J Fedak).

### Huntingdon County

On 4/2, we located a cluster of at least 4 **Great Blue Heron** nests in Rothrock SF. As we approached the area, at least 10 adults flew out, possibly more unseen (G Grove, L Grove). Eggs had already been laid as we found fragments of at least two on the ground. At this time I know of no other active heronries in the county, but given the increase in frequency of summer sightings of Great Blues this decade, it seems likely that other small breeding colonies occur. The Rothrock site contained active nests during the 1980s but had been abandoned.

Am. Bittern were seen at Huntingdon 4/15 (T Kyler) and in Stone Valley 4/19 (D Wentzel). The Bald Eagle pair at L. Raystown appeared headed for a successful season with three nestlings noted.

Huntingdon is not a shorebird Mecca. However, L. Perez in Stone Valley was drawn down creating passable mud flats. Present in late May were three species seldom seen here: Semipalmated Plover, Semipalmated Sandpiper, and 1 Stilt Sandpiper (GG), the latter the 1<sup>st</sup> county record of which I am aware. A Semipalmated Plover was at Old Crow Wetland near Huntingdon on 5/6 (GG).

A big year for Gypsy Moths and Yellow-billed Cuckoo: 75 Yellow-billed Cuckoos were found in Rothrock SF on three BBS routes which (combined) normally produce 5-10 cuckoos (GG, N Bolgiano). N. Saw-whet Owl were found at three locations during May (GG, J Puschock).

An encouraging development in recent years were Red-headed Woodpecker found during breeding season at a couple locations in Stone Valley. Unfortunately, none was found this year. The only Red-head was a migrant at Greenwood Furnace SP 4/25 (GG). An Olive-sided Flycatcher was at Alan Seeger Natural Area 5/6.

Golden-winged and Cerulean warblers appear to persist in stable numbers at established county locations - with Ceruleans doing especially well along the Lower Trail at Alexandria. A rare breeding species here, two Magnolia Warbler were in Detweiler Run 6/24, another was near Huntingdon 6/18 (D Kyler). Approximately 15 Evening Grosbeak lingered in Stone Valley until 4/29 (DK).

### Indiana County

Highlights this quarter included the continuance of the Ross's Goose near Saltsburg (MA Dunmire) through the end of June and the appearance of 2 Dickcissel near W. Lebanon (M&R Higbee) on 6/26. The Dickcissels were singing in the recently reclaimed strip mines just north of the town. On 6/27 J Salvetti noted 2 singing males and observed a female carrying nesting material. These birds, seen later by M Cunkleman, MAD, S Graff, L&L Hess, and L Wagner, lingered through the quarter's end.

A Red-necked Grebe stopped at Yellow Creek SP (YC) 4/25 (SG, C Guba, MH, D Jacobs, JS, MJ Seipler, LW) and lingered through 4/29 (B Betts, C Calahan, L Carnahan, CG, M&RH, DJ, Joe Taylor, John Taylor). Two Oldsquaw 4/2 (M&E Fowles) at Margus L. were the season's only reports. An Osprey at YC 6/16 (T Fetterman), though suggestive of breeding, was not seen again during the quarter. A sub-adult Bald Eagle was noted flying over the Jacksonville strips on 5/23 (M&RH). An Indiana "toot route" yielded 3 N. Saw-whet Owl near Trade City 6/7 (CG) while another routes found none. While birders in the eastern part of the state chatted about the high numbers of cuckoos, Indiana seemed to be suffering a deficit with only 8 Black-billed and 9 Yellow-billed reported during the entire quarter. The Whip-poor-wills returned again to Dark Hollow where on one early June evening 10

were counted (M&RH) along a 2.5-mile stretch of road. A singleton was reported regularly through 6/30 in the adjacent valley (M Anderson). Besides the 4 Alder Flycatcher on the NAMC-3 at or near YC (G Lamer, G Syster)-and 1 near Indiana (SG), singletons were heard near Homer City 6/1 (M&RH) and near W. Lebanon 6/26 (M&RH). Red-breasted Nuthatch nested again near Shelocta despite logging of the area where they have nested in past years. A Winter Wren singing along the Observatory Trail at YC on 6/20 (D Smeltzer) was highly unusual. Golden-winged Warbler were reported at five locations, but the YC birds could not be found after 5/13 (v.o.). Unusual was the fact that not even one Palm Warbler was reported. Species noted only once during the quarter included N. Waterthrush, Wilson's Warbler, and Canada Warbler. A Pine Siskin visited the Blairsville area on 5/30 (MS). Six Evening Grosbeak at Pine Ridge County Park, the lone report, were spotted 5/7 (LC).

### Juniata County

Generally a good quarter for reports. The NAMC was exceptional with some lingering species, including White-throated and White-crowned sparrows, and Pine Siskin. Also, several hybrids, both Brewster's and Lawrence's warblers. Mourning Warbler were a nice find along with Bobolink, Grasshopper, and C. Snipe bringing the NAMC count to well over 140 spp.

The nesting **Barn Owls** in Van Wert area fledge 5 young and again a pair of **Dark-eyed Junco** were seen on territory on Shade Mt. in late June. Also for the 3<sup>rd</sup> year a **C. Raven** nest was found in an old quarry of Lost Creek Ridge. Three young ravens were fledged. The total reported for the quarter was 180 spp.

### Lackawanna County

Bill Reid found 82 spp. in the county, most in the vicinity of Ford's Pond, Gravel, Pond, or Glenburn Pond. He noted only 1 C. Nighthawk on 6/1 and says this species remains very scarce in the Scranton area.

Rick Koval had an Am. Bittern at Corby Swamp on 5/5. He heard 3 N. Saw-whet Owl on a "Toot Route" on 5/20. A Sedge Wren was seen and heard near Newton/ Ransom during a grassland count on 6/1. Jim Hoyson saw and heard the bird the same day. The survey also produced 3 (very low) Field Sparrow, 4 Vesper Sparrow, 24 Savannah Sparrow, 42 Bobolink, and 29 E. Meadowlark. A flock of Evening Grosbeak was heard near Thornhurst at the Lehigh R. on 4/17.

### Lancaster County

A Black Skimmer was at the Conejohela Flats on 6/11 (J Book, T Garner, E Witmer, F&B Haas, P Robinson, J Heller, K Lebo, R Miller). A "Brewster's" Warbler was at Middle Creek WMA on 5/13 (F Habegger).

Migrating warblers were patchy in distribution, with several spp. such as Black-throated Blue, Canada, and Am. Redstart noticeably scarce. Higher numbers than usual of Wilson's, Blackburnian, and Mourning were reported.

### $Lawrence\ County$

Eight C. Loon were a good find at Edinburgh L. (EL) on 4/8. Double-crested Cormorant were more common than usual during the period, beginning their flight on 4/8. Green Heron were in lower than expected numbers.

Turkey Vulture were seen later than usual with only a few scattered reports in April. A single Oldsquaw was an interesting find at EL on 4/8 (G&B Dean). On this same date the two previous observers also had a higher than normal number of Bufflehead with a count of 105.

However, the species whose numbers were way above normal was **Ruddy Duck** with nearly 400 seen at EL on 4/8. Very few hawks moved through the county as evidenced by observers' low numbers. Yet, 2 **N. Bobw hite** were an excellent discovery in Plain Grove

A single  ${\bf Sandhill}$   ${\bf Crane}$  was both seen in flight and heard

calling at Black Swamp on 4/16 (R Stringer). This species is holding its own in this area and may possibly be increasing since sightings are more common in this general vicinity over a three-county area.

Shorebirds were few and far between with the normal species expected. The annual **Upland Sandpiper** returned to Vosler Rd at least by 4/16. Of concern is the fact that they could not always be found during the period and no more than two birds were seen. A **Dunlin** was noteworthy in the same area on 5/12 with a lingering **C. Snipe** seen in Plain Grove 4/30. This species has nested in the county and was found in suitable habitat for breeding.

At this inland locale it was encouraging to find 10 **Bonaparte's Gull** at EL on 4/6. A somewhat early **C. Nighthawk** duo were migrating over Mt. Jackson 4/15.

A Yellow-bellied Sapsucker was running behind schedule at McConnell's Mills SP on 4/30. A Winter Wren was still at the same location into early June owing to speculation of nesting in the area

American Pipit were still on Vosler Rd 4/30, numbering 20 individuals. Few warblers passed through the county during migration, though heartening was the presence of at least three different Pine Warbler 4/14,22.

A single **Prothonotary Warbler** sang repeatedly at EL from 5/11-19 without attracting a mate. This species is not totally unexpected due to the nesting sites just north and northwest of this area.

After a four year hiatus, **Dickcissel** (3) were discovered at Volant Strips on 6/11 by George and Barb Dean. They remained through the end of the period in a spot not a hundred yards from where a pair nested in 1995.

Honors, however, for the best bird goes to Linda Wagner for discovering a Clay-colored Sparrow at Pensey Swamp in early June and seen by other observers shortly thereafter. Details on this sighting will be submitted to PORC for acceptance.

### $Lebanon\ County$

On Memorial L. (ML) on 4/21 there were 41 **C. Loon**. At Middlecreek WMA (MC) 4 **Brant** were flying north on 4/8. Also on 4/8 at MC were 7 **Blue-winged Teal**. On 4/22 at MC 157 **Greenwinged Teal** were counted for a new county high. A pair of **Ringnecked Duck** on Bethlehem Steel L. was present all quarter. A fallout of 110 **Bufflehead** on 4/28 at ML was a good find.

A sub-adult **Mississippi Kite** made a showing at Mt. Wilson on 5/30 for a 4<sup>th</sup> county record. A **Merlin** was flying east at SGL-145 on 4/28. A **Peregrine Falcon** was seen on 5/13 at the Lebanon landfill. A beaver dam was built near Mt. Gretna making a nice wetlands. A **Sora** was found 5/13 and a **C. Moorhen** was heard calling on 5/28, both at the new dam.

A Ls. Yellowlegs on 5/26 at Reistville was late. Also at Reistville on 5/26 were 5 Western Sandpiper and a Whiterumped Sandpiper. C. Snipe were in good numbers.

Only 1 Black-billed Cuckoo was reported, on 5/18 at SGL-211. A very early Yellow-billed Cuckoo was calling on 4/16 at SGL-145. Only 4 Whip-poor-will were found on SGL 211 on 6/9. A Yellow-bellied Sapsucker was found 5/18 on SGL-211 near Yellow Springs. They have not been confirmed breeding in Lebanon.

A Yellow-bellied Flycatcher was at SGL-145 on 5/15. Blue-headed Vireo was first found at SGL-145 on 4/16. C. Raven was found until 5/29 near Mt. Gretna. Only 1 Swainson's Thrush was found at SGL-145 on 5/15. On 5/13 we found 151 Wood Thrush in Lebanon for a new high. Am. Pipit were common until

I found 6 Blackburnian Warbler on territory at SGL-211 on 5/18. On 5/13 a total of 196 Ovenbird were found. Two sightings of Mourning Warbler 5/13 and 5/28, on at SGL-145. Only 1 Lincoln's Sparrow was found at ML on 5/7. Whitecrowned Sparrow was found until 5/13 on SGL-145. Purple Finches were last found on 5/13 at ML.

### Luzerne County

There were 150 spp. observed on the spring NAMC for Luzerne as reported by compiler Jim Shoemaker. Notable species were Ruddy Duck, N. Saw-whet Owl, Black Vulture, Golden-winged Warbler, Lincoln's Sparrow, Orchard Oriole, and 66 Whip-poor- will. The flooded top soil pits at Plains Flats produced many good birds this spring to include a Snowy Egret on 4/21 by Bill Reid, Dunlin on 4/15 (S Galanty), White-rumped Sandpiper 5/5 (B Reid), and a Forster's Tern 4/19 (SG). Harvey's Lake had C. Tern on 6/6 (E Johnson). A C. Moorhen was found on 5/5 (BR) at Lee Swamp. Yellow-bellied Flycatcher was found on suitable breeding habitat in a remote bog in n.w. Luzerne on several occasions by Jim Hoyson, Rick Koval and Doug Gross A very early Mourning Warbler was at the feeder of Edwin Johnson on 4/25 in Dallas and a **Kentucky Warbler** was heard and seen by Rick Koval during a BBS route on 6/3 in southern Luzerne. Two singing Marsh Wren for the second year in a row were reported on several occasions in the large cattail marsh in Nanticoke.

### Lycoming County

The bird of the quarter was an **Upland Sandpiper** found on the property of Terry Schulz in Old Lycoming Twp on 5/24. Unfortunately, the bird did not linger for other birders to observe. A pair of **White-throated Sparrow** were discovered in Algerine Swamp on 6/10 by Dave Ferry and Fred Stiner. However, no nest was found. A pair of **Pine Siskin** appeared at the feeding station on the property of Ed & Tink Reish in Upper Fairfield Twp on 5/26,27.

### Mercer County

The big news is that the county now has a long-needed checklist, due to-the great effort of Neil Troyer. It includes seasonal occurrences, an abundance code and historical records.

Any Canada Goose nesting below or around summer pool level of the Shenango R. Res. (896') certainly got washed out the second week of April, due to high water. One smart pair, who chose an Osprey nesting platform near the Headquarter's Bldg., was successful. Randy Stringer found 2 Sandhill Crane at Pennsy Swamp 4/16. Lake Latonka hosted a remarkable 500+ Ruddy Duck 4/13; the number gradually diminishing to 9 on 5/13 (Troyer family). on 4/12. Two imm. Bald Eagle looking for an easy meal, scattered 300+ Am. Coot and upset a pair of Osprey on a nesting platform at the propagation ponds at SRR. And, 2 adult Bald Eagle sat side by side in a nearby tree watching the show. Bald Eagle also was reported from Williamson Rd. and Saguallas Ponds. 150 Broad-winged Hawk at SGL-294 4/21 (TF), was noteworthy, since the county usually reports only 1 or 2 isolated sightings.

Three <u>possible\_unusual</u> nestings were reported: **Hooded** Merganser 4/21 at SGL-294 (TF), Yellow-bellied Sapsucker 5/10 at SGL-130 (nest found) (TF), and Louisiana Waterthrush at Hermitage. The waterthrush sang from 4/16 - 5/31 in suitable waterfall habitat. A Golden Eagle at SGL-294 4/21 (N Troyer) and a King Rail at PS 4/27 (RS) tie for "best birds" prize. C. Snipe were in good numbers with 12 at WR 4/21 (TF). Caspian, Common, Forster's and Black terns were all reported from SRR in May (TF, S Butcher, S McCarl). Red-breasted Nuthatch hung around until 5/13 at LL, and Pine Siskin until 5/3 at Hermitage. 31 spp. of warbler were reported, including Golden-winged, Prothonotary and Yellow-breasted Chat.

### Mifflin County

I had a very productive BBS in June and also very good coverage with help for the NAMC in May for Mifflin. I am thankful for all the sightings reported for the NAMC count and for this quarterly report. Some interesting events of the season. As several fishermen were floating down the Juniata R. from w. of Ryde to McVeytown in mid-June. they observed 6 Great Blue Heron. Our Great Blue also has been visiting the orchard and stream. It is huge in size and very impressive as it watches us watching it. Both

species of cuckoo were plentiful on the backyard Linden trees which were being devastated by the invasion of Gypsy Moth this season. I was surprised to hear a Yellow-billed Cuckoo calling (singing?) at 2:04AM. And moments later the E. Screech Owl did its regular nightly vocalization. We observed the Tufted Titmouse adults with their 5 vocal juveniles. They were feeding the Gypsy caterpillars to their young before introducing them to the sunflower seeds in the feeders. Hopefully they did a good clean-up of those caterpillars at our backdoor, as they give me miserable rashes. Carolina Wren, Tufted Titmouse, Cardinal, Gray Catbird and E. Bluebird are known to have nested 3 times this season in our backyard. My bluebird trail fledged 24 juveniles this season thus far and Tree Swallow also did well. House Wren have taken over three bluebird houses and the Tree Swallows have gone elsewhere. A Carolina Wren built a nest in the bluebird house that was lying on the carport floor and it has 5 eggs in it. Last season they nested in an upturned washtub and the season before they nested in a rolled-up rug in the garage They overwinter and search the windows for spiders and insects. Red-eyed Viero, E. Wood-Pewee, Great Crested Flycatcher, E. Phoebe, Catbird, Brown Thrasher and Yellow Warbler and the usuals are very close to the house this season. It is a pleasure.

### Monroe County

Overall, the quarter was marked by wet, cool weather. The only waterfowl report was 4 Bufflehead dropping in at Skytop 4/30 (J Serrao). A Ruffed Grouse on a nest with 11 eggs was found in an upland area bordering the Tannersville Bog 5/11 (B Hardiman); hatching occurred 5/21. Black-billed and Yellow-billed cuckoos were heard through June at the Monroe Co. Environmental Education Center (EEC) (BH, D Speicher). A pair of adult Red-headed Woodpecker were likely breeders in a swamp at the Delaware Water Gap National Recreation Area's (DWG) headquarters near Bushkill 6/4 (JS).

An excellent find 5/30 by DS was a Yellow-bellied Flycatcher at the Nature Conservancy's Thomas Darling Preserve (TDP) at Two Mile Run near Blakeslee, a potential breeding locale for this threatened species. Long-time Pocono naturalist, Don Miller, noted with concern that an all-day excursion in an undisturbed forested area along Devil's Hole Creek 4/6 produced only an E. Phoebe.

The earliest report of **Blue-headed Vireo** came from the Tannersville Bog 4/11 (BH). **C. Raven** were nesting in April at Spruce L. Retreat near Canadensis (J Atwell) and the Mt. Minsi raven nest in the DWG fledge 3 birds in early May (BH). The downtown E. Stroudsburg **Purple Martin** house was again occupied this season (BH) and **Cliff Swallow** were reported nesting at Skytop in late June (E Parnum). JS found a singing **Winter Wren** at Skytop 4/4.

The Meesing site in Delaware SF near Marshall's Creek had at least one, and possibly up to 3, Golden-winged Warbler 5/11, with others in the Tannersville Bog 5/11 to 6/16 (BH), near Bushkill 5/6 (JS), and at Skytop 5/27 (JS). The Tannersville Bog also had Nashville Warbler, N. Waterthrush, and Canada Warbler all singing on territory into June (BH).

The Pocono plateau's affinity to northern species was highlighted on a Nature Conservancy field trip 6/7 to TDP, led by Doug Gross. The site's boreal shrub swamp held singing White-throated Sparrow on territory, with Dark-eyed Junco, Yellow-bellied Sapsucker, and Magnolia and Yellow-rumped warblers recorded in the northern hardwood forest. Many other species were seen, including many neotropical migrants.

**Bobolink** were reported from Long Pond 6/10 (JS). Six **Purple Finches** were noted at the EEC feeders 4/20 (BH), 2 at Zimmer Preserve 4/22 (EP), and a singing male at TDP 6/7 (BH).

### Montgomery County

In sharp contrast with 1999, the second quarter brought above average rainfall and below average temperatures in Montgomery. Variety of Neotropical migrants was above average,

and included 31 warbler species.

C. Loon at Green Lane Res. (GLR) peaked at 78 birds on 4/21 in the rain, and a late Horned Grebe was there 516 (G Franchois). Double-crested Cormorant were seen throughout the period with a high of 54 on 5/12 (GF). A Great Egret on the Skippack Creek 6/3 was out of the ordinary. (V Sheppard). Even more surprising was an adult Little Blue Heron at Upper Perkiomen Park (UPV) 6/24! (E Abraham, M Kulp) To my knowledge this matures only the 3<sup>rd</sup> Montgomery record of an adult bird. An immature Black-crowned Night-Heron was at GLR 5/30 (D Farbotnik ,J Horn). An Am. Bittern was at Church Rd., GLR 4/13-26 (EA, m.obs.), and 2 Glossy Ibis were there 512 (H&S Volker).

17 species of waterfowl reported included 17 **Blue-winged Teal** at GLR 4/4 (K Crilley, JH), a **Canvasback** at GLR 4/2 (KC), and a very late **Ruddy Duck** in Oreland 4/30 (B&N Murphy).

Raptors of note included a **Red-shouldered Hawk** in the Unami Creek Valley (UCV) 4/7 (A&J Mirabella), and a **Merlin** at GLR 4/21-22 (GF). Two **Bald Eagle** were at GLR 5/29, and a sub-adult bird remained there throughout the period (GAF, m.obs.).

Virginia Rail are never easy to find at GLR, so a report of 3 birds 4/26 was most welcome (DF, JH). Once again Am. Coot made a June appearance at Church Rd, GLR 6/11-12 (GAF, KC).

With continued high water at GLR, any shorebirds were a bonus. Sightings included a high of 9 Least and 1 Semipalmated sandpipers 5/9 (A&JM), and a Dunlin 5/3 (311). 3 large shorebird flocks totaling over 5000 birds passed overhead at GLR 6/4. One flock of over 1500 birds was comprised of Ruddy Turnstone (DF video)! Late-season gulls at GLR included 4 Ls. Black-backed 4/2 (GF ,KC), and a Great Black-backed 4/3 (KC). These were followed by a record early Caspian Tem 4/4 - breaking the old record by 8 days. (KC, JH). A Black Tern was at GLR 5/21 (K Reiker), and reached a high of 4 on 5/26 (S Grunwald).

Barred Owl remain scarce and somewhat enigmatic. One at Haverford College 4/18 was evicted from its daytime roost by an unruly mob of crows (S Johnson). Another at GLR (opposite end of the county) on 4/22 was calling repeatedly under overcast skies beginning at 1330 hours (KC). (So much for owling in the dark!)

Nice flycatchers included an **Alder** at Haverford College 5/16 (1<sup>st</sup> record for the campus), and a **Least Flycatcher** there 5/6 (another campus 1<sup>st</sup>) (SJ). Perhaps even more of a surprise was a **Least** at GLR 6/17·18 in very typical **Willow Flycatcher** habitat (GAF). With the nearest known breeding location in *Berks*, this date was interesting, to say the least. All 6 swallow species were reported from GLR during the period (A&JM, GF). A **Winter Wren** was at Gwynedd Preserve as late as 4/26 (A&JM). **Gray-cheeked Thrush** reports came from Delaware Valley College 5110 (A&JM) and Haverford. College 5/26 (SJ). (Makes me think about going back to school...)

An impressive 31 warbler species were found during the quarter, some of them in good numbers. Highlights included a Nashville at Haverford College 5/6 (SJ), Yellow-throated (presumably nesting again) in the UCV (GF, A&JM), a highly vocal male Prothonotary in the UCV 5/6-12 (GF, KC), a Hooded at Gwynedd Preserve 5/8 (A&JM), Wilson's at HC 514 (SJ), and a Yellow-breasted Chat in the UCV 5/9+ (A&JM). Among 25 warbler species at Fort Washington Park in May were several Cape May Warbler (B&NM).

A Fox Sparrow at FWP 4/18 was unusually late (B&NM), and our lone Rusty Blackbird report came from GLR 4/7 (A&JM). Purple Finch at the Guris's feeder near UPV peaked at 25 in early April, and all departed 5/12. (P&A Guris). After last fall's big numbers and a winter-long absence, 2 Pine Siskin finally returned to my UCV feeders 4/29 - 5/12 (KC), and another was at a Lansdale feeder 5/7 (KR).

### Northampton County

An imm. **Great Cormorant** was still at Martins Creek 5/30. 2 **Great Egret** were seen near Wind Gap 4/27 and a **Glossy Ibis** was in a flooded field on Christian Springs Rd 6/16 (RW, ph.). Late waterfowl at the Martins Creek flyash basin on 5/22 included a Ring-necked Duck, an Am. Wigeon, 2 Ruddy Duck, and 3 Ls. Scaup. An imm. Peregrine Falcon of the anatum race was the MC flyash basin 5/24. Sora and Virginia Rail were heard at School Rd 5/8 and another Sora was heard at Stone Church that same day (B Silfies, R Wiltraut). The Sandhill Crane at Green Pond remained to at least 4/7 (m.ob.).

Semipalmated Plover were sighted at 6 locations, including 7 at Nazareth 5/26. Black-bellied Plover sightings included 1 at the MC flyash ponds 4/27, 2 on DelHaven Rd 5/22 and 1 at Frutchey Hill Rd. 6/1. 14 Dunlin and a Short-billed Dowitcher were in a flooded field on Tatamy Rd 5/21. A Forster's Tern was at the MC flyash basin on 5/11 (SB, RW).

An **E. Screech-Owl** nest with 5 eggs in a Wood Duck Box at Jacobsburg Envir. Edu. Ctr. 4/6 contained the fresh remains of a Hermit Thrush. A **N. Saw-whet Owl** was picked on Jacobsburg Rd on 4/6 and released the next day (fide RW). **Whip-poor-will** were present through June at Little Gap Raptor Research Station (BS).

Snow on 4/9 forced many birds onto roadsides including at least 35 **Hermit Thrush** in the Minsi L. area (RW). **C. Raven** nested successfully at DWG with a family of 5 seen soaring near the cliffs on 5/11. A pair of **Pileated Woodpecker** was present at JEEC in June and probably nested or attempted to do so. 2 **Acadian Flycatcher** were singing at Bear Swamp 5/12 (SB, RW), a very local breeder in the county.

A Brewster's Warbler singing a Blue-winged song was present at JEEC in early May and an early Yellow-throated Warbler was singing at the Bethlehem Boat Club on the Lehigh R. 417 (RW). The snow of 4/9 forced 9 yellow Palm Warbler to roadsides near Minsi L. A singing Swainson's Warbler was heard by experienced observers at Wi-Hi-Tuk Park on 6/25 (F Brock, et al.) Yellow-breasted Chat were found during the quarter at JEEC and Kentucky Warbler were singing at Smith Gap and Katellen (SB, RW). A small group of Pine Siskin was found near Tatamy on 5/15.

### Perry County

The most interesting nots I have to pass along are related to warblers. I had a great morning on 5/6 at the "usual" spots of Lamb's and Miller's gaps, SGL-170, and Warm Springs Lodge, a total of 267 spp. tallied in a three-hour morning walk.

At Warm Springs Lodge it is with much glee to report that the small "colony" of Yellow-throated Warbler was at least three pairs strong this season. Let us hope for their continued success and possible colonization of other suitable habitat in the surrounding counties.

### Philadelphia County

Highlights include: Savannah Sparrow, nesting Yellowthroated Warbler, Dickcissel, Hammond's Flycatcher, Ringnecked Duck, Wilson's Phalarope and a second pair of Osprey.

Again this year J Miller found 5 Least Bittern nests at Tinicum (TI). An Am. Bittern was seen 4/18, but not the nest (D Brennan). G Gorton heard a Virginia Rail calling at TI 6/18. At the Army Corps property (ACP) beside the Girard Point Bridge on 5/3, M Sharp and K Russell observed a pair of Ring-necked Duck that were still being seen in July. Standing water at the ACP on 5/9 attracted shorebirds: 31 Least Sandpiper, 9 Spotted, 4 Solitary, and a Semipalmated Plover. An adult female Wilson's Phalarope was seen 5/3 (MS, KR).

Red-tailed Hawk made the news when a nesting bird took a swipe at a tourist who wandered too close to the nest near 4<sup>th</sup> & Arch. That nest was one of four Red-tail nests reported (J Siler). A second pair of Osprey attempted to nest on a "moth-balled" ship at the Phil. Navy Base. Following harassment by Am. Crows, the nest was abandoned in late April and the birds continued to be seen throughout the quarter. Three Osprey fledged at another Del. River site (C Lyman). A 3<sup>rd</sup> yr. Bald Eagle circled Chestnut Hill 5/8 (R Pfeffer).

MS reports that four of the five **Peregrine Falcon** sites (3 in the city limits) succeeded this year. Betsy Ross and Walt Whitman bridges pairs each fledged two. At the Girard Pt. Bridge only one of two fledglings was being seen on June 30. At City Hall 3 eggs yielded two chicks. The fate of the third egg is unknown and the second chick lived only 8 days. A lone male fledged 6/5. The Ben Franklin Bridge failed to attract a bonded pair so there was no nest

W Handley found 4 Wild Turkey in Fairmount Park 4/29. E Parnum saw a Red-breasted Nuthatch on the 5/13 NAMC at TI. Black-billed Cuckoo was recorded on the NAMC and 5/25 at CW (M Drake). Ray and Marlene Miller reported banding a Hammond's Flycatcher at TI 5/14. Only 7 records exist east of the Mississippi and all occurred between Oct. and Dec. A specimen taken in Lehigh in '66 was in such poor condition that the status for Pa's only reported Hammond's is "hypothetical." When accepted by PORC this will be the second sighting in Pa. and the first spring record.

A Purple Martin flew over the ACP 5/3 (MS, KR), but no martins nested in the 6 new martin houses the DVOC erected on Phil. Water Co. properties along the Schuylkill and Delaware rivers. No fewer than 38 Bank Swallow nests were found at the ACP 5/9 (MS, KR). Drake spotted a Bicknell's Thrush at Veree Rd 5/27 and MS heard another give its flight call over W. Mt Airy at night. Logan Circle hosted an E. Bluebird 4/10 (MS).

Most contributors reported a steady migration with 31 warbler spp., but no Golden-winged, Mourning, or Orange-crowned. Many reports of migrants came from atypical places like Temple Univ. N. Phil. campus: "I'm blown away by the number of warblers" (J McKinney). A huge fallout occurred on Penn's W. Phil. campus where J Siler had Cape May, Blackburnian, Scarlet Tananger and Blue Grosbeak along with the "perennial herd of Ovenbirds behind the Wharton School." KR spotted a Hooded Warbler at City Hall 5/11. In the Upper Wissahickon: a Prothonotary stopped 5/7 (RP), and a pair of Yellow-throated Warblers nested high in a white pine tree (D Agro). A Kentucky returned to Spring Lane, the last breeding spot in Phil., for a few days, but did not nest (CH). S. Lawrence saw a male and female Cerulean 5/13 at Harper's Meadow (G'town and N'wstrn Aves.) and a third Cerulean west of CW 6/18.

White-throated Sparrow lingered until 5/25 (KS). C Lyman found 2 Savannah Sparrow along the Del. River near the Pennypack 5/17. At Spring La. C Hetzel's "ground truthing" for the Cornell BirdCast project paid off with as many as 4 Savannah 5/9 and a fledgling Savannah was flushed 5/11. A Dickcissel sang briefly 5/10, and a Blue Grosbeak visited 5/13. J Billings saw Bobolink 4/20 in the NE and 120 flocked at SL 5/8 (CH). S. Lawrence saw 2 Pine Siskin at Dave Cutler's feeder.

### $Potter\ County$

The highlight has to be the 2 Sandhill Crane that arrived at the Supplee farm on Sweden Hill on 6/18. The word didn't get out to birders until 6/22 and the birds left the night of 6/23. This was a  $I^{at}$  county record.

8 **Osprey** were present at one time at Lyman Run on 8/23.

### Schuylkill County

A Red-throated Loon was at the Still Creek Res. (SCR) on 5/8 (D Kruel). The Swatara Park had an Am. Bittern on 4/8 (DK). The Landingville Dam (LVD) has been a reliable spot for spring Am. Bitterns over the past few years. For 2000, this species was found at the dam from 4/11 to 5/14 (M Ward), and 2 were there on 4/18 (MW). A Great Egret was seen flying over the Summit Station area on 4/9 (D Schwartz). This species was seen at LVD on 4/25, 5/12, and 5/13 (MW). Three Great Egrets were at the Sweet Arrow L. (SAL) on 6/1 (D Donmoyer). An imm. Black-crowned Night-Heron was at LVD from 4/4-4/7 (B Jucker, T Clauser), and a 2<sup>nd</sup> spring bird was at SAL on 4/15-16 (B Stauffer, DD).

SCR had a ? Surf Scoter on 4/25-27 (DK); and 4, including a full adult  $\sigma$  were at LVD on 5/8 (MW). An Oldsquaw was at LVD from 4/7-10 (MW), and another was at the Lebanon Res. on

4/8 (DK). Probably extremely rare for **Ruddy Duck** to last into June in Schuylkill, 2  $\sigma\sigma$  for the entire  $2^{nd}$  quarter at LVD (m. obs.).

A 2<sup>nd</sup> county record Mississippi Kite, an immature, was seen at the Rte 183 hawk watch on 5/3 (E Barrell). Aside from a few seen at the Hawk Mountain Sanctuary (HMS), a Bald Eagle was at SAL on 4/25 (DD). N. Harrier remained in the Hidden Valley area (HV) until 5/15 (AM Liebner). A Golden Eagle was seen from the north lookout at HMS on 4/28 (A Koch). A Merlin was seen perched at SGL-110 near Port Clinton on 5/12 (DK). Three Peregrine Falcon were tallied from the spring season count at the north lookout of HMS (4/23-5/2). The spillway mudflat area of LVD held 2 Pectoral Sandpiper and a Dunlin on 5/23 (MW). Two Dunlin were at this spot on 5/24 (DK). Three Bonaparte's Gull were at LVD on 4/18 (MW). Whip-poor-will records came from HV, a likely breeding spot, on 5/2 (AML), and a probable migrant from SGL-110 PC on 5/12 (K Grim).

Single Olive-sided Flycatcher were seen on 5/11 at SGL-229 near Tremont (MW), on 5/13 at SGL-110 PC (DK), and on 5/25 at the Owl Creek Res. (G George, J McNicoll). Rather early for the county, 3 Alder Flycatcher were tallied for the NAMC on 5/13; 2 at LVD (MW) and one in the New Ringgold area (D Wood). A great find was that of a Marsh Wren at LVD on 6/18 (TC). Winter Wren seemed to be very scarce this spring, with only one record for the quarter at SGL-110 PC on 4/2 (BJ, DK). Our only Swainson's Thrush was at SGL-110 PC on 5/5 (BJ, MW). An f1 Brewster's Warbler was seen singing a Blue-winged song at SGL-110 PC on 5/10 (G Hassel, BJ, MW), and an f2 Brewster's sang a Golden-winged song at SGL-227 near Tremont on 5/11, 5/13 (P Barber). The Tremont gamelands also held 5 Golden-winged Warbler on 5/13 (PB). Four Golden-winged Warblers were found at SGL-227 on 6/13 (J Plyler) in effort for Cornell's GOWA project. A very early N. Parula was seen at SAL on 4/7 (TC). The spillway area at LVD had a Mourning Warbler and a Lincoln's Sparrow on 5/19 (DK). A Blue Grosbeak was seen at LVD on 6/24 (TC). Rusty Blackbird remained until 5/13 at SAL (DD). A recently fledged Pine Siskin was at Owl Creek on 5/28 (DK).

### Somerset County

A Red-necked Grebe was found on 4/26 near Berlin (J&L Payne). Three Osprey were present at Somerset L. on 4/11 (S Bastian). As usual, a pair stayed on to breed. A high count of 41 C. Snipe was made on 4/9 near Roxbury (J&LP). Garret Mud Flats produced two intriguing birds on 6/27: Ls. Yellowlegs & a hen Hooded Merganser (J&LP). Hoodies are not yet proven breeders in the county; and was the Yellowlegs early or late?? A storm on 5/28 provided all 6 swallow species and 3 Black Tern at Somerset L. (J&LP). C. Raven nested at a coal surface mine site and hatched five young while the mine was idle. After operations resumed, equipment operators developed the habit of leaving lunch scraps for the ravens. All five young fledged (photo A Marich). The Paynes found several N. Saw-whet Owl on a 'toot route' survey and then, as a gratuity, had one call in their yard! Upland Sandpiper were located at various breeding sites (J&LP, AM, SB). Henslow's Sparrow are in good numbers at their stripmine/grassland sites.

### Sullivan County

Waterfowl/marsh species and numbers were generally as expected. Exceptions included a single **Am. Bittern** in the Dutch Mt area on 4/22 (R Megraw) and again on 6/3 (S Conant). A raft of 130 **Ruddy Duck** remained at Eagles Mere from 4/20-4/24 (v.o.). Two **Am. Coot**, seldom listed, also found the lake at Eagles Mere to their liking during the period 4/8-4/24 (v.o.).

A Golden Eagle was seen at Splashdam Pond on 4/16 (N Kerlin). Four Osprey in view at one time was a treat at Hunters L. on 4/24 (NK). A N. Saw-whet Owl survey at Dutch Mt. yielded two birds the night of 6/12 (SC).

Two Henslow's Sparrow, a single Grasshopper Sparrow, and 60 Bobolink were noted on a Grassland Survey conducted in the Dutch Mt area on 6/10 (SC). Many observers commented on the abundance of Rose-breasted Grosbeak present during the last

two months of the quarter. A single lingering **Evening Grosbeak** in Cherry Twp remained for the NAMC on 5/13 (J Mueller).

### Susquehanna County

On 6/8 Bill Reid recorded 69 spp. on the Rush BBS. Also on that date he heard and saw an Olive-sided Flycatcher along 858 s. of Little Meadows. Alder and Willow flycatchers were also found.

A C. Loon was present from 4/24 to 5/18.

### Tioga County

C. Snipe courtship was observed 4/8 at The Muck (B Ross) from 0800-0915, 40°F, fog/clouds lifting. Winnowing vocalizations are heard frequently this time of year from static locations on the marsh, but this bird winnowed continuously while in a high circular flight over the marsh and adjacent woodlands.

A **Prothonotary Warbler** was seen 5/13 (L&A Brown) at the same locaiton as last year (Jobs Corners) during migration. The bird did not stay to breed.

A Clay-colored Sparrow was observed at the feeder of Martha Cupp 5/7, documented by Ben and Chandra Israel at http://www.geocities.com/birdingteen/ccsp5-7-00.jpg; then observed at the same location 5/13 by the same observers.

An adult **Least Bittern** was seen in breeding habitat at Marsh Creek wetland 6/13 (J Corcoran), then a week later with a young black fledgling half adult size. These wetlands are downstream of The Muck, where this species has been observed previously in breeding season, but not documented for breeding. The same marsh habitat dominates both sites.

An Am. Robin nest on the ground along a Mansfield road fledge 1 (4 eggs on 6/4) on 6/17 (BI). Gray-tailed Ruffed Grouse present in Mansfield area throughout the quarter (BI).

### Venango County

April was colder than usual, with the passerines returning on time. The first two weeks of May were hot, with good migrant activity. After that migrants were scarce. June was wet and cool.

Waterfowl activity was largely over with by the beginning of the quarter, but there were some scarce birds. **Red-throated Loon** sightings are increasing, with three sightings at 2 locations (Kahle L. & Two Mile Run Park). **Red-necked Grebe** also is becoming fairly regular and there were two sightings at KL.

The 1<sup>st</sup> **Am. Bittern** since 1995 was discovered by Roy Boyle on 4/28 at TMRP. **Surf Scoter** continues to replace **White-winged Scoter**, showing up at two locations on four occasions (Hovis Pond & KL). The *I<sup>st</sup> county record* of **Black Scoter** resulted with a  $\sigma$  and a  $\circ$  at TMRP on 4/30 (R States, G Edwards). 500 **Ruddy Duck** were at KL on 4/22 and a few remained until 6/2, our latest spring record. The 2<sup>nd</sup> **Bald Eagle** nest in the county was found north of Emlenton on the Allegheny R. Unfortunately the 1<sup>st</sup> nest which had one young fell down (for the second time). Fate of the eaglet is unknown.

Lack of any wetlands produced few shorebirds. Farm ponds near KL did produce the county's 1st spring Am. Golden Plover on 5/10 (GE, JS) and a Short-billed Dowitcher on 5/10 (JS, GE), an uncommon bird for the county.

A late **Caspian Tern** was a flyover on 6/24 near Bullion (K Goodblood, J Stanley, RS). **Black-billed Cuckoo** were found in fair numbers, while **Yellow-billed Cuckoo** produced only one record the whole season, at Oil Creek SP on 6/16 (RS).

Five Venango "Toot Routes" in May produced 13 N. Saw-whet Owls. The 1<sup>st</sup> Purple Martin colony in at least 5 years was discovered near KL. A nest count of three active Bank Swallow colonies on 6/25 produced 600 nests!

Swainson's Thrush were scarce this year. 34 species of warbler were recorded this spring, but many migrants were seen on only one or two days and numbers were overall low. Yellow Warbler seems to be on the rebound after two years of scarcity. Orchard Oriole was found in 2 locations, CF and Barkeyville fields, with a pair present at CF, and just males sighted at BF.

The Barkeyville fields also produced **Dickcissels** this year, with three males first found on 6/17 (JS) and a week later a pair which was eventually seen carrying food on 7/8 (KG, JS).

Warren County

There were 2 C. Loon in Warren (WA) and 1 at Chapman Dam 4/5 (T Grisez), and 1 on the Allegheny Res. 4/9 (B Hill, A Morrison). Double-crested Cormorant continue to occur more in numbers and frequency on the Allegheny R. There were 13 or 26 at Starbrick (ST) 4/3 (BH, TG), and 15 in WA 4/7 (P Stewert).

Three **Great Egret** at a small pond near Youngsville was unusual and early on 4/3 (M Josephson, J Schultz, D Watts), and 1 at ST 5/17 (DW).

A pair of  $Mute\ Swan$  nested again at ST (v.o.). Three  $Redbreasted\ Merganser$  were in WA 4/5 (TG).

Sixteen **Bonaparte's Gull** were at three locations from WA to Irvine 4/3 (TG). Any tern is unusual in *Warren*, but there were 3 **Forster's Tern** on the river at ST 5/7 (JS, B Watts), and 1 in WA 5/13 (C Morrell).

An Alder Flycatcher was at Saybrook 5/3 and 5/14, and a Philadelphia Vireo there 5/14 (M Neel). A list of birds seen in the Hickory Creek Wilderness Area 5/2 included only two warbler species, but there were <u>26</u> Black-throated Green Warbler (F McGuire).

### $We stmore land\ County$

A Red-throated Loon and a Red-necked Grebe were among the more unusual waterbirds found by Ken Byerly on Beaver Run Res. 4/23. On that same day, Bob Shaw saw 2 Red-necked Grebes on Trout Run Res. near Ligonier. Doublecrested Cormorant were less common than during most recent spring migrations, with a high of just 16 on Beaver Run 4/23 (KB). The season's only Am. Bittern was at Powdermill Nature Reserve 4/21 (B Leberman). A possibly breeding pair of Blue-winged Teal was found by Dennis Smeltzer at the Monastery Run wetland near Latrobe 5/26. A Bald Eagle was a good find at Beaver Run 4/23 (KB). The only report of Virginia Rail was from Youngwood Swamp 4/18 (DS). Two Western Sandpiper at Donegal L. 5/8 (BL) were rare finds for this county. A late Least Sandpiper was still at Mammoth 6/30 (M McConaughy). The shorebird of the season was the Wilson's Phalarope found by Dennis Lauffer at Mammoth wetlands 5/15.

At Powdermill a "Brewster's Warbler" was banded 6/9 (BL). Dick Byers found the first Black-and-white Warbler at Stahlstown 4/17, and an early Hooded Warbler was at Powdermill 4/21 (BL, B Mulvihill). Pine Siskin remained and attempted to nest at Powdermill (BL, BM), and the last Evening Grosbeak was seen in Ligonier 5/1 (flde Carroll Labarthe).

Wyoming County

A Merlin, seen in Tunkhannock Twp 4/25 (B Reid) was

A **Blue-headed Vireo** was found building a nest at Stevens L. on the early date of 5/3 (S Newhart, B Reid).

Only 2 reports were received for **Fish Crow**, a decline from their expansion in the county near the Susquehanna R. in the last few years. These records were at S. Eaton. on 5/7 (BR) and Mehoopany on 6/15 (R Koval). A **N. Goshawk** was found by Koval on 6/21.

There were only 3 reports of **Purple Martin** this year (all by BR). These were: 1 at Sordoni's Farm on 3/30; 1 at the traditional nesting site along Rt. 29 in Tunkhannock Twp on 4/4; and 3 at L. Carey on 4/24. This is the first time in many years that I am not aware of them nesting in the county. **Cliff Swallow** was not recorded during the quarter (though they were in July), and most of the traditional breeding sites were unused this year.

**Blackpoll Warbler** are again nesting at Coal Bed Swamp (D Gross). A late migrant was heard at S. Eaton on 6/7 (BR).

Several observers have noted a sharp decline in **Field Sparrow** numbers this year. I had absolutely no Field Sparrows on the Hop Bottom BBS (starts in *Susquehanna*, but stops 11-50 are

in Wyoming). From 1967 through this year, I have run over 100 BBS Routes, and this is the only time that I've not had Field Sparrow. In fact, my 2000 Wyalusing BBS had 2 Field Sparrows — the only time aside from this year's Hop Bottom count that I've had as few as two. In 1999 I had 10 on the Hop Bottom count and 5 at Wyalusing. Henslow's Sparrow not found this year at the traditional breeding spot in W. Nicholson. The only record that I know of in the county this year was one in Lemon Twp on 5/13 (BR) in a field that was plowed days later.

There were at least 4 reports of **Orchard Oriole** this year – an encouraging sign for a species that is generally very scarce in this section of the state.

Purple Finch numbers, though not outstanding, have been increasing. Of particular interest is a pair which has been attending a feeding station along the highway at Kim's Country Restaurant at Evans Falls (E Johnson et al.).

At least 152 spp. were recorded in the county, with 117 on the NAMC on 5/13.

Bank Swallows have nested for many years, at a gravel pit in Exeter Twp. Sometimes you could. see as many as 50 birds there. There were that many there in May, but I began to notice fewer birds each time I was there. On 6/6, I (W. Reid) found the reason. As I was looking at the pit and wondering where the swallows were, I saw an adult Cooper's Hawk fly in and begin to swoop around the pit, apparently looking for dinner. It continued swooping around for 2-3 minutes until a grackle chased it away. One wonders if a colony so devastated will be able to come back next year.

At a small gravel bank in Eaton Twp., a pair of **Rough-winged Swallow** nested in an old kingfisher hole right next to the bank swallow holes.

York County

A **Red-throated Loon** was at Codorus SP (CSP) 4/22 (P Robinson) and Gifford Pinchot SP (GP) 4/26 (E Bernot). 126 **C. Loon** were at CSP on 4/18 (PR). **Red-necked Grebe** seen 4/1-5/5, with 3 by EB and P. Sabot at GP 4/28. Thirty-two **Double-crested Cormorant** at CSP 4/13 (PR). An **Am. Bittern** flew over Pahagaco L. 6/27 (A Spiese).

Great Egret nesting the center of a Black-crowned Night-Heron rookery at Kiwanus L (S Showers) always had 1 adult tending the nest. On 6/24 it was noted the nest was destroyed, possibly unattended or collapsed. A Black-crowned Night-Heron was seen carrying sticks from the nest. The pair remained in the general area (AS). On 4/16 Black-crowned Night-Herons started arriving at the rookery (m. obs.). Nineteen nests counted on 5/1 and 2 young still on nest 5/19. Estimated 50 adult and 1st- year adults. Retrieved 47 dead birds on the ground by 6/27. Still best production at this rookery. Many of the nests fledged 3 or 4 young (AS). One Yellow-crowned Night-Heron at the rookery 4/22 (PR). A Snow Goose was at Long Level 4/15 (J&L Downs). Two Tundra Swan on Newmans Pond 4/24 (AS). Two Mississippi Kite flew over a field near Felton 5/18 (M Sankovich). An Am. Avocet was wading at CSP 5/17 (PR). An Olive-sided Flycatcher was at CSP 6/20 (AS)

Two Horned Lark were near Glatco Lodge on 6/2 (PR). An out of location Black-throated Blue Warbler was at Glen Rock on 6/3 (R Phillips). A Swainson's Warbler was at GP on 5/8 (PS, no details). A late Canada Warbler at SGL-242 on 6/26 (EB). A Summer Tanager at Ski Roundtop on 5/28 (J Pheasant, no details). A Black-headed Grosbeak reported at home feeder near Yorkanna (J Fultz, no details). Purple Finch were at GP 4/25-30 (PR, EB). Three Lawrence's Warbler seen along Pinetown Rd on 4/25 (JP).

### **Seasonal Occurrence Tables - April through June 1999**

A summary of frequently reported species with arrival/departure dates and high counts

### HOW TO READ THE TABLES

The species listed in the following tables represent the "expected" species in most areas. The following 26 species, permanent residents that occur in almost every county, are not included.

Ruffed Grouse, Ring-necked Pheasant, Wild Turkey, Rock Dove, Mourning Dove, Eastern Screech and Great Horned owls, Belted Kingfisher, Red-bellied, Downy, Hairy, and Pileated woodpecker, Blue Jay, American Crow, Tufted Titmouse, White-breasted Nuthatch, Carolina Wren, Eastern Bluebird, Northern Mockingbird, Cedar Waxwing, European Starling, Northern Cardinal, Song Sparrow, House Finch, American Goldfinch, and House Sparrow

Not all of the above are "permanent residents" in the strictest sense. Kingfishers, for example, will leave an area if all of the open water freezes up. Blue Jays migrate, but since Pennsylvania is in the center of their summer and winter ranges, they are present year round. Comments on the above species can be found in either the Summary of the Season or Local Notes.

All other reported species can be found in the *Birds of Note* section.

### CODES

### The codes used in the tables are as follows:

 $A = \text{Present } \underline{A} \text{ll}$  quarter. This species was present from the first day of the quarter through the last day of the quarter. This could refer to individual birds or the species as a group.

 $P = Present \underline{P}$ art of the quarter. This species was present, but specific dates are not available.

**R** = Permanent **R**esident. This species breeds and is present year round in this county.

L = Late or Low. An L after a date indicates an unusually late date. An L after a number indicates an unusually low number.

**H** = **H**igh. An H after a number indicates an unusually high number.

**E** = **E**arly. An E after a date indicates an unusually early date.

- = An arrow <u>before</u> a date indicates the species was present from the beginning of the quarter to at least that date.

An arrow <u>after</u> a date indicates the species was present starting with that date and through the rest of the quarter.

- () = Numbers in parentheses indicate high counts <u>for the season</u>. No number means only 1-3 individuals or no number was reported.
- \* = Something noteworthy. Comments about the record may usually be found in the Local Notes section.
- **sp.** = Species unknown, such as Scaup.

A comma between dates indicates that the species was not present during that interval.

A blank does not necessarily mean that the species does not occur in that county, just that no reports were received by the compiler for that species.

### **EXAMPLES:**

**2/27-3/6(24)-3/30** means the species was first reported on 2/27 with a high of 24 on 3/6 and last reported on 3/30.

1/6-3/22(250) – means the species was first reported on 1/6 with a high of 250 on 3/22 and present through the rest of the quarter.

-1/5,3/15 means the species was present up to 1/5 then returned on 3/15 and was present through the rest of the quarter.

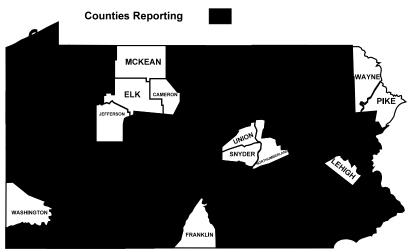
**5/6** means the species was first seen on 5/6 and remained the rest of the quarter.

**A-5/6(25)** means the species was present all quarter with a high of 25 on 5/6.

**9/4E** means the species was reported on 9/4, which was early for this county.

**1/15-2/26(300H)**→ means the species was first reported on 1/15, with a high count of 300 on 2/26, which was unusually high for this county.

### **COUNTIES REPORTING - APRIL TO JUNE 2000**



BUTLER

BUCKS

BRADFORD

BLAIR

BERKS

BEDFORD

ARMSTRONG BEAVER

ALLEGHENY

ADAMS

LOON. RED-THROATED		•	5/23		4/7	4/22-5/13L		•	4/10-15	4/8-22
NOMMOO	A-4/22(10)	4/8-23	→4/22(17)-5/23	4/16-23(3)		→4/27(200H)-6/30I	۵		→4/21(323)-5/13	→4/8(135H)-5/29
GREBE, PIED-BILLED	14/3	→4/8(5)-5/5	→4/24(9)	±4/16	→4/7(31)	A-4/8(15)	. с		→4/22	→4/17(23)-5/4
HORNED		→4/2(6)-17	→4/10(8)-30	4/23(4)	4/7	14/7	۵		→5/13	→4/17(23)
RED-NECKED			4/22-30			4/18-22(7)-23			4/22	4/22(3)
CORMORANT, DOUBLE-CRESTED		<b>→</b> 4/10(230)-6/17	4/4-5/23(6)	4/14-5/18(25)-6/23	3 -	4/1-18(165)→	۵		A	<b>→</b> 4/4(18)-6/16
BITTERN, AMERICAN	4/13	4/18-28	∢			4/14-18			4/5-5/2(7)-21	
LEAST						5/12-20			5/3	
HERON, GREAT BLUE	~	œ	A		R-4/7(4)	m.	œ.	4/6→	~	A
EGRET, GREAT	4/24	→4/29(6)			4/7(3)-22	4/11-5/30			4/30-5/16	4/3(4)-5/20
SNOWY				1014					4/20-5/16	
HERON, GREEN	5/13≠	†\8/4 €/10	5/3(4)↑	<b>↑</b> (22/4	ı	4/23+	L	17.79	†\15 † cl./4	5/4→
NIGHI-HERON, BLACK-CROWNED	. (	5/13				4/12(5)→			2/9↑	4/3-5/6(3)
VOLIURE, BLACK	צו	67.79				Υı	4/28		צו	9
IURKEY	Y	A	А	A	A	Υ.	¥	А	r	A-5/23(19)
GOOSE, SNOW						<b>V</b>			<b>1</b> 5/13	
CANADA	œ		R-6/20(20)	œ	R-4/7(36)	œ	œ	œ.	œ	œ.
SWAN, MUTE	A	4/2-6/13	R-6/17(4)			œ				
TUNDRA			14/10				۵			1
DUCK, WOOD	V	R-5/13(15)	A-4/16(5)	V	4/7→	¥	œ	4/8→	œ	A-4/9(8)
GADWALL						→4/5(10)-23			5/28	→4/17
WIGEON, AMERICAN	5/18	4/20				→4/5(25)-24			→4/19(14)	→4/9(4)
DUCK, AMERICAN BLACK		∝	→4/20(5)	5/13		→5/10	<b>a</b>		·	_
MALLARD	2		R-6/13(15)	~	~	<u>~</u>	~	~	~	ω.
TEAL BLUE-WINGED	15/2	4/2-5(5)-5/5	14/30	15/3	4/7(16)	<b>→</b> 4/10(26)-23			14/5(9)	4/9-17(36H)→
SHOVE ER NORTHERN	1	20 (2)		4/26	(2)	4/2-12(41)-29	. 0		(2)	4/8
DINITAL NOBTHERN				27/6		62-(+1)-7-7	_ 0			o Î
HINITIAN OPPLIATIONS	(01)01			- 1		10 (01)(01)	L (			( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )
LEAL, GREEN-WINGED	15/2(10)			4/10		→4/3(70)-25	<b>.</b> (		\$1/¢	<b>→</b> 4/15(4)
CANVASBACK						<b>→</b> 4/1(12)-13	ı	1		•
DUCK, RING-NECKED	<b>1</b> 4/13	→4/2(4)-6/13	→4/10(4)-24	4/21			۵	→4/8(4)-15	14/2	→4/9(50)-17
SCAUP, GREATER		4/2(10)-8				4/2-5/20L	<b>△</b>		14/8	
LESSER	15/18		<b>→</b> 4/10(29)-22	4/16	→4/7(12)	→4/12(33)-5/13	<b>_</b>		4/4(33)-5/13	<b>→</b> 4/9(100)-30
SCOTER, SURF			4/22-30			4/29			4/22	1
OLDSQUAW						4/9(9)	_	1		4/8(3)
BUFFLEHEAD		<b>→</b> 4/8(32)-17	<b>→</b> 4/22(15)-30		4/7	4/1(10)-6/25L	Д.		14/29	→4/9(200)-27
GOLDENEYE, COMMON							Д		14/1	
MERGANSER, HOODED		14/20				4	<b>△</b>	A	<b>→</b> 5/13	∢
COMMON						→5/22	_	œ	∝	ı
RED-BREASTED		<b>→</b> 4/21	→4/30(34)-5/8		4/7(6)	→4/11(15)-5/5	۵		4/19-5/13	→4/9(100)-5/28
DUCK, RUDDY		4/2(5)	<b>→</b> 4/16(14)-30	4/10-16		A-4/15(250)	۵		8/9↑	→4/9(2000H)-5/27
OSPREY	14/30		4/11-22	4/23		4/2-20(21)→	<u>م</u>		V	4
EAGLE, BALD	4/28-5/2					4/8-6/10	Ь	A	A	2
HARRIER, NORTHERN	4/27	4	→4/26	5/13		4/1-23(6)-5/27	1,9→		12/16	
HAWK, SHARP-SHINNED	œ	œ	œ		A	ď	œ	œ	œ	⋖
COOPER'S	~	~	~			~	~	~	~	~
GOSHAWK, NORTHERN						4/20-6/19	۵		4/8→	
HAWK, RED-SHOULDERED	œ	A	A-4/16(4)	6/23		∢	Α		œ	⋖
BROAD-WINGED	4/22→	A	4/22→	4/16→		4/8-22(120)→	4/14→		4/8→	4/14→
RED-TAILED	œ	œ	œ	œ	œ	œ	œ	œ	œ	ĸ
ROUGH-LEGGED										4/8
KESTREL, AMERICAN	×	œ :	A	×	×	~	<b>∝</b> 1	<b>~</b>	~	<b>x</b>
MERLIN		4/21				4/1-5/14	۵.		9/9	ı
FALCON, PEREGRINE	, (	œ			, (	4/2(4)-5/2	<b>△</b>		œ	
BOBWHIIE, NOKIHEKN	Y				Y		. (		0711 (0)0017	
KAIL, VIRGINIA				0,1		5/12-20	<b>1</b> 0	6/21(3)	4/29(8)-5/13	8/9
MOOR HILL COMMON		•	- 1,50	0/0		4/29-5/12	L		4/29-5/13	ī
MOORHEN, COMINGIN			4/30	67/0		6/24(3)				

#### 2000 VOLUME 14 NO.2 128 PENNSYLVANIA BIRDS

S BUTLER	→4/15(460)-5/26	•				٠, اع	4/19-5/16					→4/17	A	4/21-5/12(15000)-13 - 				4/8(4)-29	5/27	4/7-5/27(5)	107,4	71/6	\$\10 -	۲		. 077	↑ZL/G		2/3→		∢ <	ζ .				7 5/26↓ 5/11↓								2/3	1	<u> </u>	5/1*	۷	4/7→ A-4/9(200)
BUCKS	→5/13	5/5-6/1	œ	4/5-5/13	4/5-5/13	4/30-5/13	<b>4</b> /19 <b>1</b> /4	5/13	4/30-5/20		4/4-5/13	→4/22	A 4	4/21-5/	γ γ γ	<	∢			2/2	. ¥	0/0	∱ % ~		14/10	מב נ	† 0/0	- 4/22→	4/29→	œ	, c	5/13-14	5/10↑	5/13	2/1	5/16-27 5/5 <b>→</b>	5/5-13	<	4/29→	4/29→	4/21→	4/29-5/13	2/3↑	4/29 <b>†</b>	3/30	} } ~	: .		4/22↓ A
BRADFORD			A							•			∢								1 50	9/21		œ			. 9	\$\frac{1}{2}\text{8}	5/10→		5/4	۷,	MAY-6/21(11)→			5/17↓ MAY-6/21(5)↓	5/10-6/21(8)→	V	5/17→	<b>a</b> .		5/4→	<u>.</u>	MAY-6/21(5)→	5/17-6/21(43)	(04)17/0-11/0	œ	œ	- 4/8(50)→
BLAIR	Ь		∢				L			•			∢	- A/26/6)	A 4/20(0)	< <					1 1	1 100	5/11/ ↓	œ		<b>a</b> . c	L 1	5/3 4/24 1	2/3→	œ	<b>a</b> . a	۷,	5/13→		5/14→	₽ \$/7	4/17→	4/3	5/12→	2/2→	۵	4/16	5/4↑	<b>1</b> .	. 0	٠.	œ	∢	۵ ح
BERKS	A-54/15(100)		œ	4/12-30	4/8-5/13	4/29-5/13(6)	₽/4 <b>†</b>		5/6-17	4/2-3		→4/15	A A	4/1 8/22) 22	4/ 1-8(22)-22 A-4/22(1200)	1,5/13	4/8-22L	4/25-30			5/25-6/14L	0/10	↑ 9/2 2/3 2/3	œ	14/8	4/13	1 1	5/1.4 4/21↓	4/26→	œ	<b>→</b> 5/13	5/5-25	5/2→		2/3↑	6/3 5/2	4/29-5/13	<	4/28→	4/24→	2/6→	1,84	2/3↑	£/√2 1	, Y	5 22	: ∝	44/9	4/14 ↓
BEDFORD	→4/7(142)		A							•				- A/7(44)	()//						1	0/141	, ∝	œ			1	† 6/6 -	4/29→		, c	۷,	5/1	•				4	2/3→	2/6→					, <del>1</del> %	5 ,			4/4(17)→ 4/7→
BEAVER	12/3		⋖	4/21-5/18	4/21	4/26	4/20-5/31			,		4/9-26	5/13	4/16.26/4)	5/13(16)	6/23					1	0/0	5/13 <b>→</b>	œ		. 1	<u>†</u>	- 4/21 <b>→</b>	5/2→		4/10-16	5/13	5/11→		5/5-13(19)→	5/13	5/8	A	2/8→	5/13→	4/26→	4/14-6/11	4/26→	<b>4</b> /21 <b>↑</b>	1/26/1	[ C7   F -			۰ «
ARMSTRONG	→4/16(12)-5/27		A-4/24(4)			4/30	<b>↑</b> 47/4						⋖	- A/40/44\- E/E	4/10(11)-3/3 A-4/10(97)			5/8(3)			100	2/0		œ		- 10/10/10	↑(c)8L/q-//c	- 4/20-6/20(30)→	5/8-13(4)→		01/4/10	τ,	5/5-6/20(6)→	•	12-6/9(9)→	5/31	07.50	A	2/8	2/2→	5/25→	4/30↑	6/3-18(4)→	2/2	5/5-6/18/66) <b>1</b>	- (00)01/0-0/0	٨	6/13	4/24→ A-4/22(100+)
ALLEGHENY	→4/2(26)-5/4	5/11-13	¥	4/2-5/23	4/5-5/13(4)	4/22-5/13(6)-14	4/16-5/13(6)	5/23	4/2-5/13		5/23	→4/16(26)-20	⋖	0101011	→4/9(94)-5/23	ď					5/28(5)	3/101	↑ 	<b>∝</b>		, u	1,0/A	4/19-27(40)→	4/21→		→4/13(15)-5/2 ^	5/17-27	5/4-19(5)→	5/24	5/4-13(6)→	- 5/13 <b>↓</b>	4/28-5/19	¥	2/3→	4/29→	4/30-5/5(4)→	4/11-22(8)-5/24	5/1↑	4/2/ <del>+</del>	5/3	) ) )		4	4/22-5/2(8)→ 4/2→
ADAMS			œ	5/2(4)	5/2	4/20	4/23	† /7/ ·	5/2(5)			→5/2	∢		. «	: .					101/2	0/13	5/18 ↑	œ		2/9	107/4	5/15 4/16 ↓	4/22→	œ	€/2	5/13	2/6↓	5/17	5/13(8)→	5/17(4)	4/27	4	5/2→	4/30↑	2/3→	4/24-5/13	2/3↑	1,34	1 2/3	) S &	: ≃	∢	5/13(10)→ A
	COOT, AMERICAN	PLOVER, SEMIPALMATED	KILLDEER	YELLOWLEGS, GREATER	LESSER CANDIDED COLITABLE	SANDPIPER, SOLITARY	SPOLLED	SANDPIPER. SEMIPALMATED	LEAST	PECTORAL	DUNLIN	SNIPE, COMMON	WOODCOCK, AMERICAN	BONADADIES	RING-BILLED	HERRING	GREAT BLACK-BACKED	TERN, CASPIAN	COMMON	FORSTER'S	BLACK CLICKOO BLACK BLLED	COCKOO, BLACK-BILLED	YELLOW-BILLED OWL, BARN	BARRED	LONG-EARED	NORTHERN SAW-WHET	MIGHLIAAWK, COMINION	WHIP-POOK-WILL SWIFT, CHIMNEY	HUMMINGBIRD, RUBY-THROATED	WOODPECKER, RED-HEADED	SAPSUCKER, YELLOW-BELLIED	FLICKER, NORTHERN FLYCATCHER, OLIVE-SIDED	WOOD-PEWEE, EASTERN	FLYCATCHER, YELLOW-BELLIED	ACADIAN	ALDER	LEAST	PHOEBE, EASTERN	FLYCATCHER, GREAT CRESTED	KINGBIRD, EASTERN	VIREO, WHITE-EYED	BLUE-HEADED	YELLOW-THROATED	WARBLING PHII ADEI PHIA	PED-EVED	CROW. FISH	RAVEN, COMMON	LARK, HORNED	MARTIN, PURPLE SWALLOW, TREE

BUTLER

BUCKS

BRADFORD

BLAIR

BERKS

BEDFORD

ARMSTRONG BEAVER

ALLEGHENY

ADAMS

4/26→	4/8-22(12)→	4/16-22(32)→	4/16→	4/7→	A 4733	С С			4/7E→
101/10	1	() ::			1007	Δ.			
0/12/1					4/2071				1/17↓
	4/19			6/10→	4/8→	2/3		4/30↑	1/15(6)→
4/16→	4/7-8(10)→	4/11-22(50+)→	4/10→	€/10→	4/8	4/15→	4/11→		
۷,	<b>c</b> (		<b>~</b> (	, (	œ (	, (	, (	<u>د</u> ر	. (
¥	¥ ¦	K-4/16(20)	Y	٢ .	Y	Y	¥	ı,	Υ
	15/7	<b>→</b> 4/21	4/14 5/13	4/24-27	↓5/13(4) ↓5/13	, α	, Ω	// <del>*</del>	T 4
4/26→	4/22	4/30-6/18(11)→	5/4		4/20↑	4/24→	5/1-6/21(13)→	4/21↑	1/21→
	→4/13(4)-5/2	14/24	14/26		· A	_	(2.)		
			4/26				6/21		
	<b>→</b> 4/3(35)-25	→4/16	111		→4/8(20)	14/7	~		<b>→</b> 4/9(20)
12/3	4/3-23(11)-5/9	4/24	4/9-5/13	4/17-5/3	→5/13	4/16	4/19-5/1		→4/25
5/2→	4/17→	4/24-5/5(4)→	1,6/4	4/25→	4	4/15→	_		1/16→
4/22→	5/3-20		5/18-6/11		5/3→	_	2/8↑		19/9
	5/9-27				5/13-21(6)				5/12
5/13	5/3-17(20)-29		5/13	5/12	5/7-20(100S)-27	5/15-30			5/17
→4/24	4/2-20(8)-5/4		5/4		Α	4/6→	4/19→		45/6
4/27→	4/22-5/5(6)→	5/5-6/20(26)→	4/26→	100 € 100 €	4/24→	2/3→	5/4-6/21(18)→		4/30→
∝	œ	R-4/11(100)	A	4/19→	~	œ	A-6/21(100)		4
4/30→	5/3-5(7)→	5/5-6/18(40)→	5/3→	5/1↑	4/22→	2/3→	5/4-6/21(34)→		4/30→
4/24→	4/5→	4/16-24(5)→	4/9		4/4→	4/10→	MAY↓		1/14↓
					4/9(100)-25				
5/2→	4/21→	5/5-8(4)→	4/26→		4/27→	۵	2/6		5/2→
	5/13				-	5/13→	6/21→		Z
	5/4-15(12)-22		5/13	4/30	5/8-13(4)	4/27			5/6-14
5/13	4/25-5/10(5)-19	5/5	4/26	5/6	5/3-13	_			5/2-6
5/13	4/29-5/22	¢/9	4/26-6/11		± 4/28 ↑84/28	. a.	MAY↓		5/5-10
4/27→	4/25↓	4/26-6/3/19)→	1,5/3	6/10	4/24	. 🗅	5/4-6/21(33)+		1/23
4/27	1	5/5(5)	\$\frac{1}{2}\d	2	 4/201	£/12 1	5/4		2√2± 2√2±
5/6-17	5/3-15/0)-28	(2)22	5/13	5/15	5/4-5/26	10/12	96/36		5/4-17
2 000	5/9-13(9)-20		2	2	074-075	21.0	0770		0/4-1/
4/27-5/13	5/1-5(4)-27	7/2			4/28	10/2			2
15/12/13/	12(4)-21	00/81	4/0 5/42		1,52	4/20	100/1		14/20/20/
4/07	4/40 = (6/9) 22	4/20 = (=/44)	4/9-5/13	•	10/13	7 7/24	1,20		74/22(20)-5/11
4/2/ 1	4/19-5/6(6)-23	4/30-5/5(11)	4/14-6/11		4/3E →	106/3	t 87/4 C		# 77/h
5/15	4/21-5/29	4/241	4/23		5/1-2/	5/30	_		3/0-20
. <	4/27/ <del>4</del>	6/3 4/40	4/16(5)-6/11	•	5/13-16	51/3	•		† c7/t
1,00	4/21-5//	10.6	140		A 2007	r ii	15,0		(1)
4/24-1	4/21-1	4/241	3/13	•	4/24-1	2//0	0,41		3/20(4)
4/21-5/2	4/22-5/13(6)		4/20(5)		4/8-23(b)-5//	5/8			0/3-5
5/13	5/6-16(6)-30	0/4	140 04		5/7-13	5/14			5/1
5/13-17	3/7-20(10+)-0//	0/0	3/13-31		5/9-2/	5/14			3/13-24
1/24	4/27-5/6(10)	100/8	4/201		1000	1 100/8	100/		107
4/24	4/21-5/6(5)-14	4/30 =/=/0)	4 4 <del>1</del> 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	107/4	7/30	4/201	4/291 MAY 6/04/40)		170
2/5	4/30-1/(13)	4/30-3/3(3)	0/0	3/101	4/29	0,0	(91)17/0-1 VINI		1,201
	, į	. 0			7007			5/13 <b>†</b>	. (
10/10/1	3/0 4/26-5/5/7 <b>1</b>	0/30-E/E/00/1	01/0-0/4	9/6	1,78	S1/6	5/2-6/21/35) <b>1</b>		127
100	4/27 E/47/E) 34	(22)0000	17/1		. 62.17	1,12	6/34		121
124/4	47-(C) 11 (C-1714	10/4	1000		n -	1 1 5 6	1994		0/3-12 0 4/30/4)
12/43	18/6	1 2/2	111/4		100	1/1/4			100(1)
	5/4 20					1			. 710
. 7077	5/4-29	4,000			1014		. (07) (07)		
4/24	5/2 <del>1</del>	4/30-5/5(33)	0/0	† 9/0 2/0	4/2/ <del>+</del>	5/3 1	5/7-5/21(43)		4/29 <b>†</b>
5/13	4/29-5/0(4)	(c)c/c	4/70	0/0	5/3	0,41			0134
5/1/	5/3-6/7		, 4		9/10-28	1 L	- 10/0		0/1/-19
5/13-1/	5/7-29	107,0	5/4		1,4/C	0/0	12/9		2/-19
0/1/	3/3-13(3)	0/13	5/6		0/0	3/11/2	0/21		15.10
		€. £. 5	-4/3(35)-25 -4/3(35)-25 4/3-23(11)-5/9 4/17-4 5/3-20 5/9-27 5/9-27 5/9-27 5/9-27 5/9-27 5/9-27 5/9-27 6/9-27 6/9-27 6/9-27 6/9-27 6/9-27 6/9-29 6/1-5(10)-19 4/22-5/13(6) 6/1-5(10)-4 4/21-5/29 4/22-5/13(6) 5/8-29 4/22-5/13(6) 5/8-29 4/22-5/13(6) 6/1-5(10)-4 4/21-5/13(6) 6/1-5/13(6) 7 4/22-5/13(6) 6/1-5/13(6)	-4/3(35)-25  4/3-23(11)-5/9  4/17- 5/3-20  5/3-20  5/9-27  5/9-27  5/9-27  5/9-27  5/9-27  5/9-27  5/9-27  5/9-27  5/9-27  6/13(5)-29  4/22-5/16(5)-19  4/22-5/13(6)  5/3-20  4/22-5/13(6)  5/3-20  4/22-5/13(6)  5/3-20  4/22-5/13(6)  6/3-20  7  4/22-5/13(6)  7  4/22-5/13(6)  7  4/22-5/13(6)  6/2-20  6/2	-4/3(35)-25 -4/16  4/3-23(11)-5/9 4/24  4/17-+ 5/3-20  5/9-27  5/9-27  5/9-27  5/9-27  5/9-27  5/9-27  5/9-27  5/9-27  6/9-27	4.72-5(1)-2.9	14.3(35)-25	1,42(16)-26	1.000   1.00

#### 2000 VOLUME 14 NO.2 130PENNSYLVANIA BIRDS

CLARION

CHESTER

CENTRE

CARBON

CAMBRIA

DAUPHIN

CRAWFORD

COLUMBIA

CLEARFIELD CLINTON

WIGEON, AMERICAN			4/1-18	→4/15(21)					→4/16(67)-30	→4/28
DUCK AMFRICAN BLACK	5/29	A	) : :	±5/3			~	~	R-6/4(8)	) I
MALLARD	<u> </u>	: ≃	4	) C	œ	۵	: ∝	: œ	R-4/2(339)	: œ
TEAL, BLUE-WINGED	4/12(45)-26	4/1	→5/16	→4/15(8)-5/13	4/8(8)	<u>a</u>	5/14	4/4-7(3)	4/1-16(23)-6/10	→5/7
SHOVELER, NORTHERN			4/11-6/5	4/20	4/8				→4/8(8)	→4/28
PINTAIL, NORTHERN	-			•					→4/8(2250)-22	→APR
TEAL, GREEN-WINGED		۵	7€/5	→4/14(19)-5/3	4/1				→4/1(100)-30	1/2/
CANVASBACK									→4/22	<b>→</b> 4/4(19)
REDHEAD	-		4/3-27			. (			<b>1</b> 4/9	→4/4(8)
DUCK, KING-NECKED	<b>→</b> 4/12(20)-6/14	<b>a</b> . (	14/28	→4/4(37)-5/8	<b>→</b> 4/2(100+-)-30	ı.	5/14	<b>→</b> 4/4(77)-13	4/1-2(1055)-22	<b>↓</b> 5/13
SCAUP, GREATER	. 4/4/4/6)	<b>1</b> . c	4/4(46)	4/13-27(6)-5/7	.4/0/08.	4/20/400)		4/44/5/	4/2-16(3)	14/4
LESSEK SOOTHER STEEL	44/14(b)	L	77/57	4/15-19(8)-30	→4/8(25+-)	4/23(100)		4/14(5)	<b>→</b> 4/2(168/)-22	44/19
SCOTER, SURF	4/19(3)			4/4/6)	4/30(12)	7,0			4/0/0/ 0	4/4(6)-30
OLDS GOAV	. 4/00/06/		700	4/4(6)	14/30	0/1 0			4/2(6)-6	4/4(21)
DOLPIENEAU COMMON	<b>1</b> 4/30(23)-5/10		4/4	<b>-</b> 4/2/(16)-30	<b>14</b> /30(23+-)	L	2/ 14		74/10(120)	-44/4(160)-24 -4/4(10)
GOLDENEYE, COMMON	í .	. (	4/1					. •		→4/4(12)
MERGANSER, HOODED	<b>→</b> 4/12(55)-20	L (	12/5	4/15(6)-6/11	14/1		17/7.1	∢ (	<b>→</b> 4/2(103)-6/1/	A-5//(10)
		T :	14/23		8/9	. (	Y .	¥		15/13
KED-BKEASTED	67/5-1(10)-5/29	4/8		4/13-21(7)-29	→4/5(50+-)-5/2	1	5/14		→4/2(4 / 1)-8 -19(900) 0/4-1	→4/4(33)-5/13
DOCK, RODD!	44/19(35)-6/8L	Ţ	4/12-19(54)-5/5	4/18(15)-6/11	→4/11(100+-)-6/4	4/23(25)		7-4/4-1	4/8(900)-6/17	-4/4(29)-5/9
OSPREY	4/7-5/29	7/4	4/0-5/22	4/7-12(b)-b/3	4/9 <del>4</del>	17.0	5/14	ţ	4/2-5/4	±5/13
EAGLE, BALD	6/15 113	ı	4/23-28	4/2-24	67/9	6/15	. •	∢ (	K-4/8(9)	צו
HAKKIEK, NOKIHEKN	4/15 <del>†</del>		<b>.</b> .	\$1/c†	צ נ		∢ (	צ נ	7/5-9/7	T.
HAWK, SHAKP-SHINNED	צ נ	צו	צ נ	ע ווע	צ ו		צ נ	צו	-	ע ו
COOPER'S	¥	¥	¥	Υ.	Y :		Υí	¥	5/2/	Y
GOORIAM, NORTHERN	, •		. •	4/30	4/14-5/31		Υ •		2/2	. (
HAWK, RED-SHOULDERED	A		A	4/20-26	A		A		4/8	~
BROAD-WINGED	4/15→	4/25→	4/15→	4/20→	4/20↑		4/26→		4/25	64/22→
RED-TAILED	œ	œ	œ	<u>r</u>	œ	œ	œ	œ	œ	<b>~</b>
ROUGH-LEGGED										→4/20
KESTREL, AMERICAN	œ	œ	<u>ا</u>	<u>ا</u>	œ .	œ	œ	œ	<u>ر</u>	<u>د</u> !
MERCIN			4/22-5/1	4/3-5/4	2/9				4/22-30	4/26-5/2
FALCON, PEREGRINE	-	4/1			5/11					∢ !
BOBWHITE, NORTHERN	6/13			<u>.</u> د					5/2	<b>L</b>
RAIL, VIRGINIA	4/20(5)→			4/15-6/11					4/20→	
SORA	4/20↑		4/19-21	4/19-6/11	5/25		Д.		4/20-6/11(4)→	
MOORHEN, COMMON			4/12						4/28-6/10(7)→	ſ
COOT, AMERICAN	<b>→</b> 4/7(130)-5/29	<b>1</b> 4/1	14/30	→4/13(12)-5/1	4/22(25+-)	<b>△</b>			→4/8(326)-5/28	<b>→</b> 5/26
PLOVER, SEMIPALMATED				5/6-7	5/17					5/7-19
KILLDEER	⋖	A	A .	Α,	A-4/25(4)	⋖	¥	A	A-4/8(8)	∢ (
YELLOWLEGS, GREATER			4/23-5/10	4/25-5/13	5/1/				<b>→</b> 4/22(80)-5/2	T .
CESSER SANDRIDER SOLITARY	- A/OA E/A		- 20	4/22-24(0)-5/25	4107 6147				10/2(39)	4/26-5/13
SPOTTED	4/24-5/13(12)+	4/28	3/0-10 4/18 <b>↓</b>	4/18-5/3(5)	11/0-12/4	. Δ	1 1 8/6	4/18	4/22-5/4(8)	4/234
SANDPIPER, SEMIPALMATED	. (31)01/0 +3/4	24	5/10	4/30(4)-5/10			0 5 ı	2	. (0)1:0 -7:1	5/1(9)-13
LEAST			5/6	4/28-5/7(11)-14	5/17→	4/23			4/12(7)-5/2	5/5(12)-13
PECTORAL		6/3	, ,	5/11	: .	) !			4/2-8	- (- )- i-
DUNLIN	1		5/10			i	1			
SNIPE, COMMON			→4/21(14)-23	→4/1(28)-5/7	4/27	4/8(3)	5/14		4/2-16(8)-5/4	12/6
WOODCOCK, AMERICAN	⋖		⋖		A-4/5(11)		⋖	⋖		⋖
GULL, LAUGHING						. 1				4/14
BONAPARTE'S	→4/19(9)-5/3	۱ ۵	<b>→</b> 5/2	4/4-28(21)-5/2	4/2-5(1000+-)-5/13	<b>△</b> 1	5/14		<b>→</b> 4/8(18)	→4/4(500+)-5/2
KING-BILLED HEBRING	۸ بر 1	r 0	A/18-21	→4/20(122)-5/13 6/11	A-4/4(500+-) -	ı a	5/14(100)	∢ ,	4/2(141) <b>→</b> 4-4/8(20)	∢ Δ
GREAT BLACK-BACKED	-		2 -	5 .		-			(02)0# 1-	. 0
TERN CASPIAN	4/19-5/3		4/18-21(5)-5/24		4/11					5/2-5
COMMON		5/21	5/23	4/22	4/8(4)	,				5/2(4)

#### 2000 VOLUME 14 NO.2 132PENNSYLVANIA BIRDS

DAUPHIN	4/26(7)-5/3	5/5(4)	5/13/7)+		~ ~			3/0-13	4/25	4/25→		<b>→</b> 5/13	¥	2/7→	5/7→		5/12→	2/5,↑	τ «	4/24→	4/22→	4/25→	†87/4 1/2	5/21	5/3	<b>∝</b>	∝ <	A	۰ ۵	: ∢	4/28-5/13(250)→	4/23→	4/23→	۷ د	→4/28	œ	4/19→		4/14	1,5/3	4/15→	2/8↑	- 5/13(6)	3/13(0) R	4/28↑	~	4/25→ 4/6→
CRAWFORD	4/2	0 10 10	5/28	3 .	œ		- 7/7	5/27-6/10	4/22-5/18(15)→	2/8	4/18-5/18	4/22-6/25	¥	5/8-27(3)→	5/27(4)→	0/3	5/18-28(16)→	5/4-6/11(4)→	5/7-28(19)→	5/4								4/16	4/16-1∠(12)→ A-4/22(5300)	4/16-22(15)→	4/22-6/24(300)→	4/12-6/4(120)→	A-6/4(60)	. 02	4/2-16	•	4/22-30(6)→	5/18-6/11/20)→	(2-)	4/18-30(21)	4/18-5/8(6)-6/3	4/30→		4/25-5/28	4/30-6/3(25)→	~	5/4-6/24(67)→ 4/19-5/18
COLUMBIA		, ,	ı a	. ∝	~ ~		5/26 P	LΔ	. a.	± 4/7/4		5/3	¥	. 🗅	6/12		2/26→	. <	ζ Δ.	. 4/6	5/31→	∢			. ∢	œ	œ (	¥	۰ ۵	. 0_	۵	, <	₹	. œ		<u>د</u>	2/3↑			<b>→</b> 4/24	4/15→	<b>_</b>			4	А	5/3→ A
CLINTON		, (	т /2 1,7,7	2	œ		œ	1,087	5/14	4/30↑		<u>د</u> ر	¥	. 🗅	. 🕰	6/11(6)→	_ 3	† LL/9	6/11	5/14→	5/16→	6/11↓	r 0	7 \ 14 1	2/6/ <del>1</del>	A	∝ <	۲ J	† 8/3 ⊄	2/8	۵	5/11→	₹	. 🗠	4/8	۵	4/29↑	ζ,	4/24→		4/30↑	2/6		. 4	2/8	A	4/30→ 5/14→
CLEARFIELD					œ			, а	. 🕰	4/30↑		, (	¥	. a	. 1			, <	ζ Δ.	. 🕰		۵			. 4		깥 <	<b>4</b>	, Δ			, (	L	. 02	⋖	∢	₾ .		1					, Δ		4	۵.
CLARION		. 177	5/1/4	5 .	~		3/24	5/17	4/2-29(6)→	5/1		5/2-25	∡	+/3		5/20	5/13-27(4)→	\$/13 <b>↑</b>	4/30↑	2/2	5/14	4/22-5/31(15)→	10/4	5/10-17	5/9-25(49)→		~	(44)0000	5/13-6/20(14)→ A-4/5/1000s)	4/20(5)→		4/30-5/9(20)→	<b>†</b> 6/6	, œ	A-5/9(6)	œ	5/4 <del>+</del>	(2) 12/2-21/4	15/31	4/27	5/13→	4/11+	5/9-25	3/9-23 4/17-6/29(6)↓	4/10-5/13(9)→	, V	5/7-22(6)→ 4/1→
CHESTER		, i	/1/9-c/c	S &		4/15-30	12/4	7 5	4/26-30(70)→	4/29		, (	¥	5/5-10(12)→	5/6-6/11(7)→		5/7-6/11(27)→	5/14-6/11	4/30-6/30(5)→	4/26-6/11(16)→	4/2-5/3(6)→	4/20-5/5	3/4-6/5	4/29-5/10(10) <b>1</b> 5/13	5/5-13(34)→	A		4/4-5/13(4)	4/1-6/11(/0)→ A-4/30(150)	4/2-6/3(21)→			A-6/11(65)	4/23-30	→4/1(12)-5/1	→4/27	4/20-6/11(32)→ 4/22	77/+	4/1(6)-14	4/19-25(6)-5/13	4/11-5/6(20)→	5/1-6/11(15)→ E/13_37	3/13-2/	4/12-22(4)-5/6	4/29-5/13(22)→	R-6/11(180)	4/24-6/11(150)→ 4/12-6/11(7)→
CENTRE	4/12	5/21	5/2 5/5	) ) )	œ		4/21 5/16-L	3/13 <b>1</b>	4/16→	5/4↑	5/4-6/21	7/4↑	A 7	2/12	5/12→	5/12→	5/12→	† 6/6	5/4↑	2/2↑	2/2→	4/8	5/13-26	<u>1</u>	5/4	A	CC (	7	<b>†</b> 51/2 ∀	4/4	6/15	€/10→	<b>†</b> 4/ <b>†</b>	. ~	⋖	œ	4/22↑	ζ,	+5/13	→5/13	4/12→	4/30↑	F/13	<u>S</u>	4/25→	A	4/23 <b>→</b> 4/7 <b>→</b>
CARBON					œ		1 1	<b>†</b>	4/28	4/27→		, (	¥	5/20→	5/13→		4/29→	<b>†</b> \29 <b>†</b>	2/6	2/2		4/29↑	1	5/7	5/13→	⋖	∢	10,1	† C7/74 ↑	4/7→	4/8	4/29	t/ 13↓	- -	2/2		5/6→	- F	4/1	4/1	4/9	2/7→		, 4 †	2/6	<b>~</b>	5/3→
CAMBRIA	2/8-6/7		- 6/11 1	· · ·	~		, 0	⊾ .	4/23→	2\3 <b>↑</b>		4/7-6/26L	A 70	5/20↓	_		5/13→	t 6/4 <	5/13↓	2/3		5/11→			5/5→		R .	A-5/1(8)	- A-4/12(400)	4/19→		5/10→	4/201	. 🗠	5/13	<u>د</u>	5/3→		4/12	4/15-24(15)-5/2	4/20→	2/9↑		- 4/2-5/13(4)→	5/3	~	5/5→ 4/4→
	FORSTER'S	BLACK	VELLOW-BILLED	OWL. BARN	BARRED	LONG-EARED	NORTHERN SAW-WHET	WHIP-POOR-WILL	SWIET, CHIMNEY	HUMMINGBIRD, RUBY-THROATED	WOODPECKER, RED-HEADED	SAPSUCKER, YELLOW-BELLIED	FLICKER, NOKI HEKN	WOOD-PEWEE, EASTERN	FLYCATCHER, ACADIAN	ALDER	WILLOW	LEASI DIOTER TASTERN	FLYCATCHER, GREAT CRESTED	KINGBIRD, EASTERN	VIREO, WHITE-EYED	BLUE-HEADED	WABBING	WARBEING PHII ADEI PHIA	RED-EYED	CROW, FISH	RAVEN, COMMON	LAKK, HOKNED	SWALLOW TREE	NORTHERN ROUGH-WINGED	BANK	CLIFF	BARN CHICKADEE CABOLINA	BLACK-CAPPED	NUTHATCH, RED-BREASTED	CREEPER, BROWN	WREN, HOUSE	MARSH	KINGLET, GOLDEN-CROWNED	RUBY-CROWNED	GNATCATCHER, BLUE-GRAY	VEERY	SWAINSON'S	HERMIT	WOOD	ROBIN, AMERICAN	CATBIRD, GRAY THRASHER, BROWN

CLARION

CHESTER

CENTRE

CARBON

CAMBRIA

DAUPHIN

CRAWFORD

COLUMBIA

CLEARFIELD CLINTON

			!							
PIPIT AMERICAN				4/9-15/35+)-5/13					4/12(50)	15/13
WARRIER RITE-WINGED	۵		5/3.13	5/1-6/3(5)	5/5-27(4)→				2/4	4/2E+
GOLDEN-WINGED			5/4	- 00(0):	5/21	۵	5/14→			4/26→
TENNESSEE				5/14						5/7-13
NASHVILLE		. !	4/23→	5/1-10	4/29-5/7	, ;	6/11→	, (	5/4	4/25-5/13
PARULA, NORTHERN		↑ 2/4	5/8-13	4/24-29(4)→	5/13+	5/13→	д.	a 1		5/25 🕇
WARBLEK, YELLOW CHESTNI IT-SIDED	1 1 2/3	† † 2/2 2/2	† 87/4 ↑ 1	4/24-5/4(34) 1	4/29-5/13(9)→ 5/7-27(10)→	. 0	4/20+	<u>†</u> _/c _	4/22-5/4(76)→ 5/8-28/5)→	12/S
MAGNOLIA	5/4-13	2/6 2	5/4	5/6-5/14	. (01) 12-110				5/27	5/12-15
CAPE MAY			2/8	5/8(3)						5/13
BLACK-THROATED BLUE	6/9	5/13→	4/30→	4/28-5/6(4)-6/11	5/4-13		<b>∟</b>	<b>△</b>	,	5/4-13(5)
YELLOW-RUMPED	5/4	4/15	A	→4/27(200)-5/13	4/27-6/8(12)→	۵	4/9	A	/17	→5/13
BLACK-THROATED GREEN	4/24→	2/6→	4/22→	4/30-5/15	4/22-6/20(38)→	۵	5/14→	4/26→	4/25-5/28(20)	4/25→
BLACKBURNIAN	5/13	5/20→	4/30→	4/26-5/13	5/13-31(12)→	۵	6/11→	<b>a</b>		5/3→
YELLOW-THROATED	•			•						5/13
PINE		4/8→	4/7→	→4/15(6)-6/17	4/25-29	۵	Ь	4/8→	4/21	A
PRAIRIE	4/19→	4/3	4/28→	4/23-26913)→	4/12-26(7)→		5/14→	Ь		4/25→
PALM		4/8(6)	4/30-5/5	4/14-24(8)-30				4/3	4/25-5/4	4/2-28
BAY-BREASTED	5/13		5/7-12	5/8-9	5/18					5/13-15
BLACKPOLL	2/9		2/2-6/3	5/7-13(12)-6/8	5/12-14					-21.875
CERULEAN		2/2↑	<b>a</b>	6/3≠	5/13-21		5/14→	<b>a</b>		5/7→
BLACK-AND-WHITE	5/13→	4/29→	4/22→	4/20-5/13(4)→	4/30→		5/14→	4/29→	5/2-6/3	4/25→
REDSTART, AMERICAN	2/9(9)→	2/3→	4/30→	4/30-6/11(6).	4/15-6/13(19)→	۵	5/14→	<b>d</b>	5/5-8(14)→	4/29→
WARBLER, PROTHONOTARY				6/25						5/5
WORM-EATING	08/9	2/6→	2/3	4/29→			€/19			4/30→
OVENBIRD	2/3→	4/30→	4/25→	4/24-5/13(22)→	4/29-5/13(22)→	۵	5/14→	4/29→	5/27-28(20)→	4/26→
WATERTHRUSH, NORTHERN	•		4/22→	4/28-5/23	2/9-9/9		Ь		4/26-5/7	4/24→
LOUISIANA	4/24→	4/30→	4/15→	4/14→			Д.	4/26→	4/15-5/28	4/7→
WARBLER, KENTUCKY	5/12→		5/31	5/6-22(5)→	2/2		Д.			5/7→
MOURNING			5/13-15	5/26	5/13→		<b>d</b>		5/28→	
YELLOWTHROAT, COMMON	2/3↑	4/29→	4/30→	4/24-6/11(25)→	5/5-13(12)→	۵	2/6	<b>d</b>	5/7-6/11(45)→	4/17→
WARBLER, HOODED	۵	5/20	5/4→		5/13→		<u>ـ</u>	_		5/2→
WILSON'S		9/9	5/10-16	5/14-30			5/13(6)			5/7-13
CANADA	5/13→	5/13	2/2→	5/8-5/14			<b>a</b>		5/28(5)→	5/11→
CHAT, YELLOW-BREASTED	. !	. ;	2/7→	5/4→	5/23→	. 1	<u>.</u>			5/3→
TANAGER, SCARLET	2/2→	2/6→	5/4→	2/3-6(7)→	4/11-6/20(8)→	۵.	5/14→	<u>م</u> :	5/7-28(16)→	5/2→
TOWHEE, EASTERN	† <sub>6</sub> / <sub>4</sub>	1,6/4	⋖	œ	4/4-5/13(9)→	۵	⋖	4/3→	4/6→	A
OHIDDING	147.	10/4	. 4	A-6/11(16)	1/3/6/17	۰ ۵	. 4	14/13	1 2	1475 174
EIFID	4/13	÷ 7 <sup>#</sup> 7	< A	N (01)	4/23+	4/30	4/21	. 0.	OF 4	↑ † † † † † † † † † † † † † † † † † † †
VESPER	2/12	) -	< ∢	<b>:</b> ,	5/13→	4/30↑		. ∢	† <del>/</del> 2/4	4/24→
SAVANNAH	4/13→	9/9	: ∢	4/15-28(4)-5/13	5/5-13(10)→	4/30→	4/20→		1(9)9	
GRASSHOPPER	5/13→	65/10→	A	2/9	2/7→	4/30→	5/14→	5/10	6/4	2/6→
HENSLOW'S	5/13→		5/13	•	4/20-6/8(75)→				5/27	
FOX	<b>→</b> 4/7(3)-20		→4/12	4/14			4/3	<b>L</b>		→5/13
LINCOLN'S			5/10-16		9/9					5/13
SWAMP	† <u>7</u> /4	⋖・	∀	4/16→	4/22→		¥.	<b>A</b>	A-6/24(40)	¥
WHITE-THROATED	15/8	V I	15/20	→4/23(22)-6/3			→4/22 -:-	→4/29(12)		<b>→5/13</b>
WHITE-CROWNED	9/9	2/6(5)	4/30-5/16	→4/19(10)-5/14		, <	5/3	, (		<b>↓</b> 5/13
GROSBEAK ROSE-BREASTED	4/30†	· 2/2	† 1	4/20 <b>1</b>	R-6/29(26) 4/29-5/27(5)→	₹ Δ	A/20 <b>↓</b>	צ ם		<b>↓</b> 4/3 4/27 <b>↓</b>
BLIF	. 201			6/10	. (0) 13/0 03/1		. 67#			6/18 <del>+</del>
BUNTING. INDIGO	2/1	2/6	2/4	5/3-6/11(32)→	4/21→	۵	5/4→	<u> </u>		4/30→
BOBOLINK	5/13-6/14(25)→	5/13→	5/2	4/29-5/10(5)→	5/5→		_		5/2-6/4(54)→	2/6→
BLACKBIRD, RED-WINGED	A	А	4	A	A	۷	A	A		A
MEADOWLARK, EASTERN	A	A	A	4/15→	2/2→	⋖	۵	A	A-6/4(17)	A
BLACKBIRD, RUSTY			4/15-18(100+)-22						<b>→</b> 4/22(150)	4/15-26(50)

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	CAMBRIA	CARBON	CENTRE	CHESTER	CLARION	CLEARFIELD	CLINTON	COLUMBIA	CRAWFORD	DAUPHIN
GRACKLE, COMMON COWBIRD, BROWN-HEADED ORIOLE, ORCHARD BALTIMORE FINCH, PURPLE SISKIN, PINE GROSBEAK, EVENING	6/7 5/3 	A A S/9→ S/9→ S/6→ 5/20	A A 5,10→ 4/21→ 4/8-5/6 5/6-7	R A 4/30-5/10(8)→ 4/2-25(8)-5/13 4/1-15	A-5/13(47) A - 5/1-13(6)→ 4/28-5/3(7)-6/8 →4/24(100)-5/13	∢ , , ,	A A 5114→ 4/82→ A-4/20(20) 4/2-9(8)-12	A A 4/9→	- 5/6-7 5/4→ - 4/22-30 4/16-5/5	A R 4/29→ 4/29→ →4/28
	DELAWARE	ERIE	FAYETTE	FOREST	FULTON	GREENE	HUNTINGDON	INDIANA	JUNIATA	LACKAWANNA
LOON, RED-THROATED COMMON GREBE, PIED-BILLED	4/27 →4/21(6)-6/8 4/1-15	↓UN †46/1	- 4/11-12 →4/11(4)-30	- 4/4(18)-10 4/10	- →4/22(9)-28 →4/1(4)-22		- →4/23 A	- 4/1-2(12)-5/16 →/10(6)-25	- →5/13(8) A	- 4/9-5/1 4/6-9(3)-28
HORNED RED-NECKED CORMORANT. DOUBLE-CRESTED	5/16 - A-4/16(16)	→MAY 4/20-28 A	→4/11 - 4/11(5)-12	- - 4/9-22(10)-5/13	→4/1(4)-8 4/26-28		- 4/19(4) 4/12(6)	→4/2(14)-5/2 4/25-29 →4/18(40)-5/16	P - A-5/13(24)	- - 4/6-13(15)-28
BITTERN, AMERICAN LEAST	2/5	4/7-26(8) 5/6-6/14	4/15		4/22		4/15-19			5/5
HEKON, GREAI BLUE EGRET, GREAT SNOWY	K →5/8 5/7(5)	A 4/21(4)→ 5/12-21	K 4/23-5/21 -	4/10 <b>↓</b> - -	∢ , ,		K-4/2(10) 5/2 -	A-5/6(25) 4/2-6/27 -	∢	
HERON, GREEN NIGHT-HERON, BLACK-CROWNED VULTURE, BLACK TIIRKEY	5/7 T R R	4/29→ 4/20-5/3(4)-14 -	↑87/5 •	5/13→ - - A-110/10)	P - A (18/23)	↑ •	† 181 181 181 181 181 181 181 181 181 18	4/29-5/13(6)→ - - A-6/26/10)	A-5/13(27) 4/4→ R B	
GOOSE, SNOW CANADA CWAN MITTE	4/1(100)-6 R	ر ، د 1	ζ, α	A-5/5(150)	R-4/1(49)	ζ, α,	۷ . «	R-4/1(48)	- - R-5/13(249)	
GADWALL GADWALL	< .	4/20 A A A	- A-4/15(5) -	4 .	- A-4/10(9)		- - <b>1</b> 4/22	→4/2 A-5/13(9) →4/29	(△∢,	
WIGEON, AMERICAN DUCK, AMERICAN BLACK MALLARD	, « «	NUC ↑ ↑ A A	, , œ	- - A-4/22(12)	4/8(4)-5/18 P R	5/6↓		→4/1(4) →4/25(7)-5/6 A-5/13(27)	, ∢ ⊻	
TEAL, BLUE-WINGED SHOVELER, NORTHERN PINTAIL, NORTHERN	4/23	A ↓ MA ↓ APPR	→4/15(28)-29 4/11(4) -	- 4/8(3)	4/5-14(16)-28 - -	4/15(8)-29 - -	→4/23 - -	→4/18(6)-5/2 4/1-29 -	<b>a</b> .,	
TEAL, GREEN-WINGED CANVASBACK REDHEAD	→4/16(18)-5/7 - -	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓			→4/10(4)-22 - -		→4/8(12)	→4/2(6)-29 - -		
DUCK, RING-NECKED SCAUP, GREATER LESSER		↓ ↓ MAY ↓ JUN			→4/1(12) - →4/1(3)-5	4/8	→5/2(4)	→4/2(20)-5/16 →4/1(6)-2 4/2(6)-5/13	с,,	→4/9(18)-28 - -
OLDSQUAW BUFFLEHEAD GOLDENEYE, COMMON	- 4/6-5/2(10) -	↓ ↓ APR ↓ JUN ↓ MAY	- 4/11(11)-12 -	5/5 →4/29(12) -	- →4/28 -		- →4/17	4/2 →4/1(50)-5/6		4/6(3)
MERGANSER, HOODED COMMON RED-BREASTED	- →4/1(16)-6 5/18(10)	V V V V V V V V V V V V V V V V V V V	- - 4/29	4/8 A-4/10(17) 4/4(8)-13	→4/22(4) →4/28		→4/22 →4/23	→4/1(6)-25 - →4/10(102)-5/16	🗅	- 4/23(35) -
DUCK, RUDDY OSPREY EAGLE, BALD	→4/27(39)-5/7 →4/23(11)-5/29 →4/8	↓6/3 ↓MAY A	4/11-15(15)-29 4/29-5/14 -	- 4/22-5/5(3)-6/10 APR-5/5	→4/14(4) 4/22 -	- 4/8-5/13 -	- →4/23(4)-5/24 A	→4/18(19)-5/13 4/18-29(9)-6/16 4/25-5/23	- 4/20→ →6/9	4/16 -
HARRIER, NORTHERN HAWK, SHARP-SHINNED COOPER'S	→4/6(17)-23 →4/24(23)-5/11 R	۵∢∢	. 또 ㄸ	4/26 R R	, « «	, ~ ~	7 ± 5/6	↓5/13 A A	<b>ፋ</b> ቤ ቤ	4/2 4/19 -

LACKAWANNA

JUNIATA

INDIANA

HUNTINGDON

GREENE

FULTON

FOREST

FAYETTE

ERIE

DELAWARE

GOSHAWK, NORTHERN	4/24	4/1-25		4/19-6/18(3).			~			
HAWK RED-SHOULDERED	2/6	۵	<u>~</u>	4/19→	4/1-5/11	4/15→	~	4	4	
BROAD-WINGED	4/7-23(685)→	. ∢	4/29→	2/8	4/28→	2/6↓	4/12→	4/12-25(4)→	: 🕰	
RED-TAILED	œ	<b>«</b>	۳	R-4/21(6)	۳	œ	~	R-5/18(5)	۳	~
ROUGH-LEGGED					•				7/4/7	
KESTREL, AMERICAN	~	~	~	~	~	~	~	R-5/13(4)	~	~
MERLIN	4/23	4/12-20(11H)-5/21	•							
FALCON, PEREGRINE	ا ۵	4/20-5/10							. (	
BOBWHITE, NORTHERN	<b>a</b> .								ı.	
RAIL, VIRGINIA		APR↓					4/24			
SORA	, i	APR+								5/15
MOORHEN, COMMON	2//9	₩AΥ↓	-		- (1)(1)		-		. (	
COOT, AMERICAN		↑MA	<b>→</b> 4/15(7)		<b>→</b> 4/8(5)-14		<b>1</b> 4/28	→4/1(226)-5/16	<b>_</b>	→4/18(7)-28
PLOVEK, SEMIPALMATED	، ،	MAY-JUN	5/14(6)	5/13(4)	, <	, <	5/6-31	5/16-18	, <	
KILLDEEK	Y		A-6/25(26)	A-5/5(5)	A .	¥	A rit	A-5/13(15)	A	
YELLOWLEGS, GREALER	4/16-23(12)-5/29		4/29	5/13	4/8		4/5-5/6	4/2-5/18	4/22	
CESSER CANDEDED COLITABY	→5/7(b) E/7 0(c) 20	APK-IMA Y	4/29(4)	(01)6/6	4/28-5/11 4/9 E/13		5/6-13	4/18(4) E/13	5/3(4)	
SANDTIFEN, SOCIETANI	4/77		4/29-5/14	4/20 6/42	4/0-0/13	7,007,7	3/2-21	4/25 5/40/47	77   1	7,0
SPOTTED	4/2/1	4/02	4/23-5/14(1)	4/29-5/13	t 0/4	4/23	f 0 / <del>1</del>	4/53-5/10(4)	L	- /0
SANDPIDED SEMIDAL MATER	- 5/7	4/22 MAV- II IN	5/1/		5/11		5/24(6)	- E/13		
LEAST	5/7-6/1	NOC-LVIII	5/14/0)-21		5/6-11		5/6-24	5/16-18	. 0	
PECTORAL	5	<u> </u>	17-(6)+1-0				4/18	2		
		APR-MAY	4/29-5/14	5/13(19)	5/11		2 .	5/13		
NOMMON HOLD	4/16-5/7		10001	(61)61.6	4/5-14(4)		9/4	4/1-5/4	15/13	
MODDOOK AMERICAN	5	_ <	141/1	1/2(2)1	(t)t	, <		A-5/13(A)	2	, <
WOODOOK, AMERICAN	1(21/2/0/7)	E/12-E/20	î	(2)(2)	ς ,	ζ ,	ς ,	(+)0-10-4	ζ ,	
PONA PAPTERS	1001-64	0/13-0/23		4/4/66)	4/5		14/4/20/ 6/42	14/4/4 4) 5/46		
BING BILLED	. <	τ <		4/4(33)	4/3		14/11(30)-3/13	74/1(14)-3/10 A E/2(42)	. <	
HEBBING	ζ <	τ <		4/4(10)	77-1/4		4/22-5/13	A-5/2(45)	ζ Δ	
CDEAT BLACK-BACKED	< <	< <		77 .			2 6 7	2	_ 0	
TEDN CASBIAN	τ .	1(32/02 day			•		•	- A/DE	L ,	
NOW		APR.						27 -		
FORMEDIO	A/47/47)_2E	A/12-5/00/15)						5/2/0)-(2/2		
PONSIENS BIACK		4/ 12-3/22( 13)						3/2(3)-0/2/	5/13	
CLICKOO BLACK-BILLED	2/8	. 0	6/11	12/22	. Δ	5/13	2/6	5/9-13(3)	5/13/18)↓	
VELLOW-BILLED	19/6		5/21	5/13	5/11	19/2	1,4	5/13+	5/13(35)	
OWI BARN				2				. 2	B-6/20(7)	
BARRED		· œ	· œ	· œ	. 02	<u>~</u>	. 02	· œ	R 0,50(1)	
LONG-EARED		→4/23(4)								
NORTHERN SAW-WHET		→4/14(14)-28		A-5/15(3)			5/2-11	6/7(3)		5/20(3)
NIGHTHAWK, COMMON	5/13-14	MAY↓	•	5/12		5/13→	5/10→	4/26→		6/1
WHIP-POOR-WILL	4/30	4/21→		5/15(9)→	5/10→	5/13→	4/29→	5/6-13(9)→	4/8↑	1
SWIFT, CHIMNEY	1,84	APR→	4/20→	5/13→	5/5(10)→	4/16→	4/29→	4/18-5/13(70)→	4/19→	
HUMMINGBIRD, RUBY-I HRUALED	4/24↑	MAY↓	4/28→	5/1↑	4/20↑	4/22→	<b>↑</b> 67/4	4/27-5/13(6)→	<b>1</b> 2/3 <b>1</b>	
WOODPECKER, RED-HEADED		APR↓		9					, «	
SAPSOCKEK, TELLOW-BELLIED FILOKER NORTHERN	, α	∢ ⊲	, Ω	4/3 <b>→</b> Δ-4/22(6)	, Ω	, α	ξ /4 α	4/29 A-5/13(14)	∢ Ω	
FLYCATCHER, OLIVE-SIDED	ź ,	5/20-24	٤,	(2)	<u> </u>	ź ,	5/6	(11)	٤,	
WOOD-PEWEE FASTERN	†6/ <u>5</u>	MAY +	5/14→	4/19-5/24(4)→	5/11→	5/12→	2/6+	5/8-13(8)→	16/6/	
FLYCATCHER, YELLOW-BELLIED	· .	MAY	:		: ,	!	; ,	(2)2: 2:		
ACADIAN	2/7-6/9(8)→	MAY↓	5/14→		2/6→	2/2↑	2/3≠	5/6-13(17)→	. с.	
ALDER	5/16	MAY↓		€/11	١.	١.	2/28↑	5/13→		
WILLOW	5/25→	MAY↓	5/21→	5/28→	6/11-18(4)→	5/13→	5/13→	5/8-13(11).	۵	6/11
LEAST	5/6-16	MAY→	5/14→	2/4	5/11		4/29→	4/25-5/13(4)→	۵	5/7
PHOEBE, EASTERN	<b>4</b>	4	¥	4/13-5/3(5)→	A	<b>4</b>	А	A-5/13(15)	A	
FLYCATCHER, GREAT CRESTED	2/6→	MAY→		<del>+</del> 8/9	2/6→	2/2→	4/22E→	4/29→	5/2→	

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44/44 APR+ 44/5+ 44/5+ 5/9-6/5 44/20-27(8)-5/16 APR+ 5/3- 5/3- 5/3- 5/3- 5/3- 5/3- 5/4-6/9(7)- MAY  MAY  MAY  MAY  MAY  A A  A A  A A	65/21	5/13 → 6/11 5/6(7) → 5/31 	4/26→ P P P P P P P P P P P P P P P P P P P	4 4/29 † 4 4	8/3→ 4/22→ 4/29→ 4/28→ 4/28→ 4/28→ 6/3→ 8/3→ 8/3→ 8/3→ 1/7→	5/4-13(21)→ 4/23-5/13(10)→ 4/26-5/13(10)→ 4/26-5/13(10)→ 4/26-5/13(3)→	5/5+ P P P P P P P P P P P P P P P P P P P	
1	6/11 + 4/23 + 4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 4/29 (3) + 4/29 (3) + 4/29 (3) + 4/29 + 4/29 + 4/23 + 4/23 + 4/29 + 4/29 + 4/29 + 4/29 + 6/29	6/11 5/6(7)→ 5/31 - - 5/3-16(10)→ - 5/3-16(10)→ - 4/6-13(29)→ 4/6-13(29)→ 4/1-2-6(18)→ 5/3-13(4)→ 5/3-13(4)→ - - - - - - - - - - - - -	9 P P 4/22-28 4/22-28 5/11 → 5/6-11(7) → 5/6-11(7) → P P P P P P P P P P P P P P P P P P	4/21 + 4/25 + 4/25 + 4/25 + 4/29 + 4/29 + 4/29 + 4/21 + 4/21 + 4/21 + 4/21 + 4/21 + 4/21 + 4/21 + 4/21 + 4/21 + 4/21 + 4/21 + 4/21 + 4/21 + 4/21 + 4/22 + 4/	5/3 → 4/10 → 4/28 → 4/28 → 4/28 → 4/28 → 4/28 → 4/28 → 4/17 → A 4/17 → A 4/24 → 4/24 → 4/23(15)-5/24 → 4/13 → 4/1	4/23-5/13(6)→ 4/15-5/13(10)→ 4/29-5/13(9)→ 4/29-5/13(4)→	P P P P P P P P P P P P P P P P P P P	5/11 - 4/19 
55 1	4/23 → 4/29 → 4/29 → 4/29 → 1.72 ← 1.73 ← 1.72 ← 1	5/31 	4/22-28 4/28→ 5/11→ 	4/25-5/13 4/25 ↓ 4/29 ↓ 4/29 ↓ 1	4/10+ 4/29+	4/15-5/13(10)→ 4/29-5/13(9)→ 4/29-5/13(4)→ - 4/29-5/13(123)→ - A-5/13(7) - A-5/13(43) - 4/14-5/13(18)→ 4/14-5/13(18)→ - A-4/18(37) A A A-4/18(37) A A A-4/18(37) A A A-4/18(5) A-4/1(5)	A A A A A A A A A A A A A A A A A A A	5/11 
, ,	4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 4/22 + 4/23 + 4/	5/31 - 5/3-16(10) + R R - 5/26(4) + 4/19-5/6(9) + 5/13-26(18) + 4/19-5/6(9) + 5/13-26(18) + 4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 5/3 + 4/20 + 5/20 +	4/28→ 4/28→ 5/6-11(7)→ R R R A-4/8(45) 4/5-22(8)→ 4/7→	4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 4/29 + 4/20 + 4/	4/29 + 4/28 + 4/28 + 4/28 + 4/17 + 4/17 + 4/5 + 4/5 + 4/13 + 4/13 + 4/13 + 6/18	4/29-5/13(4)→ - 4/29-5/13(123)→ - 4/29-5/13(123)→ - A-5/13(4) - A-5/13(4) - A-5/13(4) - 4/14-5/13(18)→ 4/12-5/13(18)→ 4/12-5/13(18)→ 4/12-5/13(14)→	5.54 8.4721 14.21 14.21	5/11 A A 4/19 
, , <u>1</u>	4/29 →  - (4/29 →  - (4/26) →  - (4/26) →  - (4/29 →  - (4/23 →	5/3-16(10) \( -\)  - 5/26(4) \( -\)  5/26(4) \( -\)  4/13(29) \( -\)  5/3-13(10) \( -\)  5/3-13(10) \( -\)  5/3-13(10) \( -\)  - 4/13(4) \( -\)  - 4/13(4) \( -\)  - 4/13(4) \( -\)  5/3-4  A  A-4/13(4) \( -\)  5/3-4  A  - 4/13(4) \( -\)  5/4-4  A  - 4/13(4) \( -\)  6/4-4  A  - 4/13(	5/11↓ 5/6-11(7)↓ R R R A-4/8(45) 4/5-22(8)↓ - - - - - - - - - - - - -	4 4 7 4 4 7 5 4 4 7 5 4 4 7 5 4 4 7 5 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	4/28 → 4/28 → P P P P P P P P P P P P P P P P P P P	4/29-5/13(4)→  4/29-5/13(123)→  A-5/13(7)  A-5/13(18)→  4/29-5/13(18)→  4/14-5/13(18)→  1/29-5/13(18)→  4/23-13(13)→  R-4/18(37)  A  A  A  A  A  A  A  A  A  A  A  A  A	5/5+ 8/5+ 8/4+ 14/21 14/21	5/11 A A 4/19 
1	F R R R R R R R R R R R R R R R R R R R	5/3-16(10) →  R  R  5/26(4) →  4/13(29) →  4/19-5/6(9) →  5/3-13(4) →  5/3-13(4) →  5/3-13(4) →  5/3-13(4) →  6/3-13(4) →  7/3-13(4) →  8  R  A  A  A  A  A  A  A  A  A  A  A  A	5/6-11(7) →  R R R A-4/8(45) 4/5-22(8) →	4429 + A A A A A A A A A A A A A A A A A A	5.73 + P P P P P P P P P P P P P P P P P P	4/29-5/13(123)→ - A A-5/13(7) A-5/13(43) 4/14-5/13(18)→ 4/29-5/13(6)-16 5/13-16 4/1-5/13(43)→ R-4/18(37) A A A 4/23-5/13(14)→ A/4-1/(5) A-4/1(5)	5/5 R R R R R R B A A A A A A A A A A A A A A A	- 4/19 - 4/13 
1	R R R A 4/29(12) + 4/29(13) + 4/29(13) + 4/29(13) + 4/29(13) + 4/29 + 4/23 + 4/23 + 4/29 + 6/	F R 5/26(4) → 4/19-5/6(9) → 4/19-5/6(9) → 5/3-13(4) → 5/3-13(4) → 5/3-26(18) → 4/19 → 4/13(4) → 4/13(4) → 5/6-6/7(6) → 5/10-6/13(4) → 5/6-6/7(6) → 5/10-6/13(4) → 5/10-6/	R R R A-4/8(45) 4/5-22(8) → - - - - - - - - - - - - -	A A A A A A A A A A A A A A A A A A A	P P P P P P P P P P P P P P P P P P P	A A-5/13(7) A-5/13(7) A-5/13(18) 4/14-5/13(18) 4/129-5/13(6)-16 5/13-16 5/13-16 4/125/13(43) A A 4/13-5/13(14) A 4/23-5/13(14) A 4/23-5/13(14) A 4/23-5/13(14) A 4/23-5/13(14) A 4/23-5/13(14) A 4/1(5)	9.9.3 + A A A A A A A A A A A A A A A A A A	- 4/19 
1	R - 4/12-29(12) → 4/28(8) → 6/14-21 4/12-6/11(20+) → R R R - - - - - - - - - - - - -	F. 46-47-3(4) 4-46-3(29) 4-47-3(4) 4-56(9) 4-56(9) 4-56(9) 4-75-26(18) 4-75-26(18) 4-75-26(18) 4-75-26(18) 4-75-26(18) 4-77-3(4) 4-77-3(	R R R A-4/8(45) A-4/8(45)	A A A A A A A A A A A A A A A A A A A	P P P P P P P P P P P P P P P P P P P	A A-5/13(7)  - A-5/13(43)  A-5/13(43)  A/14-5/13(18)→  4/28-5/13(6)-16  5/13-16  5/13-16  A/1-5/13(43)→  R-4/18(37)  A  A  A  A  A  A  A  A  A  A  A  A  A	5/4 + A A A B B B B B B B B B B B B B B B B	4/19 
1	R R 172-29(12) → 4/12-29(12) → 4/12-9(12) → 4/12-9(11(20+) → 172-9(11(20+) → 172-9(114) → 172-9	5/26(4) + 4/6-13(29) + 4/6-13(29) + 4/19-5/6(9) + 5/3-13(4) + 5/3-13(4) + 4/29 + 4/29 + A 5/3	R R P A-4/8(45) 4/5-22(8) →   4/7 →          -	A A A A 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	P R 5/6 → 4/17 → 4/15 → 4/15 → 4/15 → 1 → 4/19 1 → 4/19 1 → 4/13 → 1	A-5/13(7)  - A-5/13(43)  4/14-5/13(18)→ 4/29-5/13(6)-16 5/13-16 5/13-16 4/1-5/13(43)→  R-4/18(37) A A 4/23-5/13(14)→ 4/18-6/20 - A-4/1(5)	R R A A A A A A A A A A A A A A A A A A	4/13 
1	- 4/12-29(12) → 4/29(8) → 6/14-21 → 4/29 → 4/23 → 4/23 → 4/23 → 4/23 → 4/23 → 4/23 → 4/23 → 4/23 → 6/64 ← 6/14 ← 6/64 ← 6/64 ← 6/64 ← 6/64 ← 6/64 ← 6/64 ← 6/64 ← 6/64 ← 6/29 ← 6/64 ← 6/29 ← 6/64 ← 6/64 ← 6/29 ← 6/64 ← 6/29 ← 6/64 ← 6/29 ← 6/64 ← 6/29 ← 6/64 ← 6/29 ← 6/64 ← 6/29 ← 6/64 ← 6/29 ← 6/29 ← 6/29 ← 6/29 ← 6/64 ← 6/29 ←	5/26(4)+ 4/6-13(29)+ 4/19-5/6(9)+ 5/3-26(18)+ R R R R A-4/13(4) -4/19 5/3-4 A-4/13(4) -4/19 5/3-4 A-4/13(4) -4/10 5/3-4 A-4/13(4) -4/10 5/3-4 A-4/13(4) -4/10 5/3-4 A-4/13(4) -4/10 5/3-4 A-4/13(4) -4/13(4) -4/13(4) -5/10 -4/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5/10 -4/10 -5	A-4/8(45) A-4/8(45) 4/5-22(8)	A A A 4/21 4/77 - 4/21 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5 /6 → A A 4 / 17 → 5 /3 → 4 / 5 → 1 / 24 → 1 / 24 → 1 / 24 → 1 / 24 / 3 → 1 / 24	A-5/13(13)  A-5/13(18) → 4/28-5/13(18) → 4/28-5/13(13) →	A A A A A A A A A A A A A A A A A A A	
1	4/12-28(12) + 4/28(8) + 4/28(8) + 4/28(8) + 4/29(4) + 4/29 + 4/29 + 4/23 + 4/23 + 4/23 + 4/29 + 4/29 + 6/29 + 6/24	9/20(4)→ 4/19-29)→ 4/19-56(6)→ 5/3-13(4)→ 5/3-26(18)→ 4/29→	A-4/8(45) 4/5-22(8)→	A A 4/2/4	A 4/17 → A 4/24 → A 4/23(15)-5/24 ← 4/13 → 4/13 → A 4/13	A-5/13(43) 4/14-5/13(18)→ 4/29-5/13(6)-16 5/13-16 4/1-5/13(43)→ R-4/18(37) A A 4/23-5/13(14)→ 4/18-6/20 - A-4/1(5)	A A A A A A B B B B B B B B B B B B B B	
1	4/12-28/12)→ 4/28(8)→ 4/28(8)→ 5/14-21 4/29→ 4/12-6/11(20+)→ R R R	4/6-13(29) + 4/6-13(29) + 5/3-13(4) + 5/3-13(4) + 4/29 +	A-48(45) 4/5-22(8) 4/7-  R 4/28 5/11	4 A 4 4 2 1	A A 4 17 + 4 17 + 4 17 + 4 13 + 18 18 18 18 18 18 18 18 18 18 18 18 18	A-5/13(43) 4/14-5/13(18)→ 4/25-5/13(6)-16 5/13-16 4/1-5/13(43)→ R-4/18(37) A A 4/23-5/13(14)→ 4/18-6/20 - A-4/1(5)	A A A A A A A A A A A A A A A A A A A	4/13 
1	4/29(8) → 4/29(8) → 4/12-6/11(20+) → R R R R - 4/23 → 4/23 → 4/23 → 6/9 ← 6/14	4/19-5/6(9) + 6/3-26(18) + 4/19-5/6(9) + 6/3-26(18) + 4/29 + R R R R R R R A 5/3 + A 4/13(4) + 6/6-6/7(6) + 5/6-6/7(6) + 5/6-6/7(6) + 5/6-6/7(6) + 6/3-4/13(4) + 6/6-6/7(6) + 6/3-4/13(4) + 6/3-4/13(4) + 6/6-6/7(6) + 6/3-4/13(4) + 6/6-6/7(6) + 6/3-4/13(4) + 6/6-6/7(6) + 6/3-4/13(4) + 6/6-6/7(6) + 6/6-6/7(	4/5-22(8) →	4/15 + 4/21 + 4/15 + 4/	4/17→ 4/15→ 4/15→ 4/15→ 4/15→ 4/13→ 4/13→ 4/13→ 4/13→ 5/18→	4/14-5/13(18)→ 4/12-5/13(6)-16 5/13-16 4/1-5/13(43)→  R-4/18(37) A A 4/23-5/13(14)→ 4/18-6/20 A-4/1(5)	A A A B A B A B A B A B A B A B A B A B	4/13 
1	6/14-21 4/12-6/11(20+)→ 4/12-6/11(20+)→ R R - - - - - - - - - - - - -	5/3-26(18) + 4/29 + R R R R A-4/13(4) -4/13(4) -5/6-6/7(6) + 5/6-6/7(6) + 5/14/2 (4)		+ 4/15 + + + + + + + + + + + + + + + + + + +	5.3 4/5→ 1/5→ 1/24→ 1/24→ 1/24→ 1/24/19 1/23/18)-5/24 4/13→ 5/6→ 5/6→	4/29-5/13(6)-16 5/13-16 	5/4↓ A A A A A A A A A A A A A A A A A A A	
1	4/29+ 4/12-6/11(20+)- R R 4/23- 4/23- 4/23- 4/23- 6/9- 6/14- 6/6-	5/13-26(18)→ 4/29 + R R A A-4/13(4) A-4/13(4) 5/3-4 5/6-6/7(6) → 5/4/12 6/4/12 A/4/12(4)	4.77→ R R 4/28 5/11 P P	4/7 R R H/21 	5/3→ 4/5→ R R 4/24→ 4/13→ 4/13→ 5/6→ 5/8→ 5/8→	5/13.16 - 4/1-5/13(43)→ - R-4/18(37) A A 4/23-5/13(14)→ - 4/18-6/20 - A-4/1(5)	5/4→ A A A A A A A A A A A A A A A A A A A	
1	4/12-6/11(20+) → R R R	4/29 +  R R A A 5/3 +  - 44/13(4) - 5/6-6/7(6) +  - 10.00 +  - 10.	4/7→ R R 4/28 5/11	4/15 + 4/15 +	4/5→ R R R 4/24→ 4/24  4/13  44/13  5/6→ 5/18	4/1-5/13(43)→  R-4/18(37) A A 4/23-5/13(14)→ 4/18-6/20 A-4/1(5)	A R R P 44/21 P A A A A A A A A A A A A A A A A A A	
1	R R 4/23 † 4/23 † 6/14 † 6/14	F R A A 5/3+ A A-4/13(4) -44/19 5/3-11(4) 5/6-6/7(6) -4/10.	R 4/28 5/11 P 1. - - - - - - - - - - - - - - - - - -	R 4/21 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	R R R R R A 4/24 → A/24 → A/19 → A/23(15)-5/24 A/13 → S/6 → S/6 → S/18	F-4/18(37) A A 4/23-5/13(14)  4/18-6/20 A-4/1(5)	A/21 64/30 → A/21 A A A A A A A A A A A A A A A A A A A	
1	R 4/23 ↑ 4/23 ↑ 4/23 ↑ 6/14 € 6/64	R R A 5/3 + A-4/13(4) 14/19 5/3-6/7(6) + 5/3-6/7(6)	R 4/28 5/11 P - - 4/8-28(9) 4/22→ -	4/21 1 1/15	R R R 4/24→ - 4/19 - 4/13 5/6→ 5/6 - 5/18	R-4/18(37) A A A 4/23-5/13(14)→ 4/18-6/20 - A-4/1(5)	R 4/21 64/30 + A A A A A A A A A A A A A A A A A A	
1	4/23 + 4/23 + 4/23 + 4/23 + 4/23 + 4/29 + 5/9   5/9   5/14   5/14   5/14	R A 5/3+ A A - 4/13(4) 5/3-11(4) + 5/6-6/7(6) + - 5	4/28 5/11 P - - 4/8-28(9) 4/22→	4/21 1	R R 4/24→ 4/19 4/13→ 5/8→ 5/8	A A 4/23-5/13(14)→ 4/18-6/20 - A-4/1(5)	→ 4/21 P A A A A 4/21	
1	4/23 + 4/23 + 4/23 + 4/29 + 4/29 + 6/14 + 6/14	A 5/3→ A 4/13(4) - 44/19 5/3-11(4) → 5/6-6/7(6) → 5/10 5/10 5/10 5/10 5/10 5/10 5/10 5/10	5/11 P - - - - - - - - - - - - - - - - - -	4/21 ↑ 	R 4/24→ R R - 4/19 - 44/13→ 5/6→ 5/18	A 4/23-5/13(14)→ 4/18-6/20 - A-4/1(5)	P 64/30 → A A A A A A A A A A A A A A A A A A	
<u>t</u>	4/23 + 4/23 + 4/29 + 4/29 + 6/14 + 6/14	5/3+ A A A 4/13(4) -44/19 5/3-11(4) + 5/6-6/7(6) - 5/12	P - - 4/8-28(9) - - -	4/21 	4/24→ R R -4/19 -44/23(15)-5/24 4/13→ 5/6→ 5/R	4/23-5/13(14)→ 4/18-6/20 - A-4/1(5)	64/30→ A - A A - - →4/21	
1	4/23 + 4/23 + 4/29 + 4/29 + 5/9 5/9 5/64	A-4/13(4) 1-4/13(4) 1-4/13(4) 5/3-11(4)→ 5/6-6/7(6)→ 5/13 4/12,6/13(4)→	- 4/8-28(9) 4/22→ -	4/15→	R - 44/19 - 44/13 (5)-5/24 4/13 → 5/6 → 5/8	4/18-6/20 - A-4/1(5)	A - A - A - A - A - A - A - A - A - A -	4/13 5/11
1	4/23 → 4/23 → 4/29 → 4/29 → 5/9 5/9 6/14		- 4/8-28(9) 4/22→ -	4/15 →	- 4/19 -4/23(15)-5/24 4/13 → 5/6 → 5/8	- A-4/1(5)	- A →4/21	- 4/13 - 5/11
1	4/23 ↓ 4/23 ↓ 4/29 ↓ 5/9 ↓ 5/14	A-4/13(4)  44/19  5/3-11(4) →  5/6-6/7(6) →  5/1	- 4/8-28(9) 4/22→ -	- 4/15→	→4/19 →4/23(15)-5/24 4/13→ 5/6→ -	A-4/1(5)	A →4/21	- 4/13 - 5/11
1	4/23 4/29 5/9 5/14 6/64	-4/19 5/3-11(4) → 5/6-6/7(6) → 5/12	4/8-28(9) 4/22→ -	4/15→	→4/23(15)-5/24 4/13→ 5/6→ -		→4/21	4/13 - 5/11
1	4/29↓  5/9 5/14	5/3-11(4)→ 5/6-6/7(6)→ - 5/12	4/22→	4/15→	4/13↓ 5/6↓ - -	4/10-20(10)-5/15		5/11
1	5/9 5/14 5/14	5/6-6/7(6)→ 5/12	١	!	5/6 - - - - - -	4/15-5/13(25)→	_	5/11
	5/9 5/14 5/6	5/12 5/12 4/10_5/13(4)			- 5/2	5/13→	5/2→	
	5/14	5/12 4/40_5/13(4)→			۵/۶			
	€/8	4/40,5/13(4) <del>+</del>			2	5/12-13	4/21(6)	
	000	115-5-5	5/11			15/13	· V	
↑ MA↓↑	4/29→	4/19-6/3(4)→	4/28→	4/22→	4/27→	4/29-5/13(61)→	5/2→	5/11
<	<	A-4/10(126)	<b>∝</b>	∝	<b>∝</b>	R-5/13(548)	<	
MAY→	5/14(7)→	5/4-17(4)→	2/6→	4/29→	4/28→	4/22-5/13(51)→	5/2→	
Þ	4/11→	4/19→	<b>△</b>	A	4/2→	A-5/13(15)	4/21→	
APR-MAY	•		5/13				4/20(200+)	
MAY↓	5/9-6/11(4)→	2/2→	1,000	4/22→	2/2	5/2-13(13).	۵	5/7
5/4-24	4/29→	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5/6(4)→	5/13	2/3→	5/11→	۵	
MAY	6/9	5/13	•	5/13	2/8	5/6-13(3)	۵	
APR-MAY	4/29	€5/7→		5/13	5/4-6	5/2-13(7)-16	۵	
	4/23(5)→	2/3(2)→	4/22→	4/21→	4/25→	4/29-5/8(6)→	۵	•
4/14-6/1(20)→ APR→	4/29→	4/10-5/6(6)→	4/22→	4/23→	4/28→	4/25-5/13(66)→	۵	
MAY↑	5/14→	5/3-16(10)→		5/13	2/4↑	5/5-11(6)→	<b>△</b>	
MAY-JUN	5/14→	5/6-13(6)→			2/2↑	5/5-13(6)→	۵	
MAY					5/8-13	5/7-13	_	
	5/21→	5/6-11(4)→	5/11	5/4	4/30→	4/29-5/13	۵	
	∢	9/9	4/22-28(9)-5/11	5/13	٧	→5/5(8)-15	⋖	
APR→	4/23(4)→	5/3(5)→	5/11→	5/13	4/16→	4/19-5/13(35)→	_	
MAY↓	5/14→	5/6(5)→	5/11	5/13	4/28→	4/26-5/13(4)→	<b>_</b>	
	4/17→			4/3↑	4/8↑	4/29↑		
APR-MAY		4/10	4/5→		V	¥	_	
	4/23→	5/14	4/28→	4/29→	4/27→	4/25-5/13(12)→	<b>a</b> .	
4/26(40)-30 APR-MAY	4/23-29						₾	
				. !	5/10	5/5-6(4)-13	<b>a</b> . 1	
5/7-6/1(5)-3 MAY-JUN	, !			5/20	5/24	5/9-16(4)-30	ا ۵	6/4L
MAY↓	4/29↑	, 1	4/28→	4/29→	4/29→	5/8-13(6)→	<b>a</b> . (	
APR-MAY	4/23+	5/13+	4/28→	4/25→	4/15→	5/2-13(5)→	۵. ۵	, ,
MA T	(a)17-41/C	(c)11/9-c/c	4/58-5/0(0) <del>-</del>	<b>↑</b> 0/c	4/22→	5/4-13(31)	L	(c)c/c
		APR-MAY MAY→ 5/4-24 MAY MAY APR-MAY MAY MAY-UN MAY- MAY- MAY- APR-MAY MAY- APR-MAY MAY- APR-MAY MAY- MAY- MAY- MAY- MAY- MAY- MAY-	APR-MAY  MAY  MAY  MAY  APR-MAY  4/29  MAY  APR-MAY  4/29  MAY  APR-  MAY  APR-  MAY  APR-  APR-	APR-MAY  APR-MAY  MAY  5/4-24  6/8-4  MAY  MAY  APR-MAY  A/29  6/87  6/8-4  MAY  A/29  A/29  6/8-7  6/8-7  MAY  A/29  A/29  A/10-5/6/6  MAY  MAY  A/29  A/14  5/14  5/14  5/14  5/14  5/14  A/10  5/14  APR-MAY  A/10  5/14  APR-MAY  A/10  5/14  A/10  5/14  A/10  A/10  5/14  A/10  A/1	APR-MAY  APR-MAY  APR-MAY  5,9-6/11(4)→ 5,5-+ 5,6-4  MAY  APR-MAY	APR-MAY  APR-MAY  MAY  MAY  APR-MAY  A	APR-MAY         5/13         -         5/13         -	APR-MAY         5/13         5/13         5/2-13(13).           MAY-         5/9-6/11(4)-         5/5-         5/6-         4/2-         5/13         5/1-1-           MAY-         5/9-         6/8-         5/6-         4/2-         5/1-         5/1-         5/1-           MAY-         4/29-         6/8-         5/6-         4/2-         5/1-

	DELAWARE	ERIE	FAYETTE	FOREST	FULTON	GREENE	HUNTINGDON	INDIANA	JUNIATA	LACKAWANNA
WARBLER, PROTHONOTARY		5/22-6/29								
WORM-EATING	4/27-5/9	•			2/6→		4/29→	5/13→	۵	1
OVENBIRD	4/26→	MAY→	4/29→	5/5-13(6)→	4/28-5/11(7)→	4/27→	4/28→	4/22-5/13(73)→	۵	
WATERTHRUSH, NORTHERN	4/28-5/13	MAY↓		5/13→			5/6-28	5/13	۵	i
LOUISIANA	4/6→	APR→	4/23(6)→	6/12→	4/8→	4/2→	4/2→	4/15→	۵	
WARBLER, KENTUCKY	2/6→	5/22	5/21→	•		4/28→	2/6→	5/6-13(4)→		
MOURNING		MAY↓		5/22→					۵	1
YELLOWTHROAT, COMMON	4/23-6/9(7)→	MAY Wax	4/29-5/21(21)→	5/5-13(5)→	4/28↓ 4/28 F/6/F)↓	4/29→	4/27↓	4/25-5/13(79)→	<b>a</b> . a	
WARBLEK, HOODED	5/7-18	A/20-MAV	4/29 <b>†</b>	<b>†</b> 9/c	↑(c)o/c-97/h	14/0	5/C	5/0-13(12)	L 0	
CANADA	4/28-5/24	MAY	. 0.	1978			5/4↓	5/8	. 0.	
CHAT, YELLOW-BREASTED	5/7→	MAY	5/14	}	2/6→	2/6→	2/6→	5/8-13(6)→	. 🕰	
TANAGER, SCARLET	5/4-7(5)→	MAY→	5/14(5)→	5/6-11(6)→	4/28→	4/29→	4/29→	5/4-13(18)→	۵	5/11
TOWHEE, EASTERN	œ	∢	4/14→	4/11-6/8(7)→	4/8-5/6(4)→	⋖	4/2→	A-5/13(69)	₹	
SPARROW, AMERICAN TREE	, <	†APR	4144	15/1	, ,	, <	. <	- 40000	<b>→</b> 4/21	
CHIPPING	∢ ۵	∢ <	†4\14 ↑	4/9-5/5(10) <del> </del>	P 0 4/4/5)	∢ <	∢ 0	A-5/13(64)	∢ <	1(16/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/1/1/8/
VESPER	. ک	† ₽ ₽ ₽	ς ,	170	(c) <del>t</del>	ζ,	۵ ک	4/184	ς Δ	S/11-3/1(3L)
SAVANNAH	4/25-26	APR	4/29→	4/22(4)→	4/1	2/2↑	. 4	5/4-13(10)→	- 4/8↑	6/1(24)
GRASSHOPPER	}	MAY↓	6/25		2/6(8)→	2%		4/20-5/13/14)→		(; ı); ;; ·
HENSLOW'S		2/6	6/25→		(-)	6/27		5/11-13(11)→		
FOX	4/12	APR		4/8-9	4/14		14/7	→4/23	<u>a</u>	
LINCOLN'S		MAY							4/21	
SWAMP		А		4/17→			A	A-4/29(10)	А	
WHITE-THROATED	→5/1(40)-6/24	↑MAY	4/29	4/11-5/2(11)-6/11	→4/28(4)	→5/13	→4/22(50)-5/13	→4/23(9)-5/13	→5/13	1
WHITE-CROWNED		APR-MAY		5/3-4(4)-13	4/26	5/13-20	15/15	15/13	→5/6(150+-)-13	1
JUNCO, DARK-EYED	→4/22	<b>V</b>	14/15	R-4/4(37)	<b>→</b> 4/7(12)	4/29	~	<b>→</b> 4/9(32)-30	<b>V</b>	
GROSBEAK, ROSE-BREASTED	5/1-7(5)-29	MAY 1	5/14→	5/3-13(6) <del>+</del>	19/g	2/2	2/5↑ 1/4	5/5-13(12) <del>+</del>	ı.	
BOBOLINK	5/6/30)-7	† †	5/14 4/23	5/3-13(8) <b>†</b> 5/13(4) <b>‡</b>	† 0/c	1,47 1,44	5/4 1/6	5/5-13(39)	A 5/2/4)‡	- 6/1(42)
BLACKBIRD, RED-WINGED	R (55) 7	ď	A-6/25(80)	A-5/13(23)	4			A-5/13(208)	A = ( )	(1,1)
MEADOWLARK, EASTERN	2/6	: ∢	A	4/19→	: œ	: ∢	: ∢	A-5/13(41)	: ∢	6/1(29)
BLACKBIRD, RUSTY		↓MAY			4/1(6)-22		→5/2	→4/23(120)-5/2	→5/13	
GRACKLE, COMMON	∝	A	٧	A-4/10(28)	A	A	A	A-5/13(123)	A	1
COWBIRD, BROWN-HEADED	œ	A	٧	A-5/13(6)	4/14→	¥	œ	A-5/13(20)	¥	
ORIOLE, ORCHARD	4/30-6/9(7)→	MAY			6/11	4/29→	<u>م</u> :	4/29→	5/13→	6/11
BAL I IMORE	4/30-6/1(5)	MA≺ ↑	¢/17 †	5/1-13(6) +	† 9/6 c	†82/4 †82/4	4/24	4/29-5/13(36) <del>+</del>	ı	1
SISKIN, PINE	4/21-30 	± 15/21	، ک	A-5/4(5) →5/10(6)-6/9	L ,	5/13	→4/22(∠∪)-20 →4/27	A-4/13(32) 5/30	1-2/27	
GROSBEAK, EVENING	-	APR-4/29		→4/12(47)-5/12	4/28		→4/14(15)-29	5/7(6)	→4/27(5)	4/1
	LANCASTER	LAWRENCE	LEBANON	LUZERNE	LYCOMING	MERCER	MIFFLIN	MONTGOMERY	MONTOUR	PHILADELPHIA
LOON, COMMON	4/22-5/5	4/8(8)	4/21(41)-5/13	A-4/9(71)	4/7	→4/12(8)-5/11		→4/21(78)-6/17	4/5-5/13	5/13
GREBE, PIED-BILLED		4/6-8(5)	→4/30	<b>→</b> 5/13	4/7-15(6)	14/9		→4/12	4/5-8(8)-5/6	4/21
HORNED	4/22		4/8-30	71/4	4/15(7)	→4/9(8)		9/2←	4/5-26	
RED-NECKED	4/22	- 14/8(12) F/8	- 4/8/22)	, <	96/3	- 2000/21/00		- A E/12/E4)	- 4/6 9/7/ 5/13	- 47(417)
BITTERN, AMERICAN	4/8	0/0-10-10-1	1/0(22)	4/7	4/24-26			4/13-26	4/13	14/18 →4/18
LEAST										MAY→
HERON, GREAT BLUE	200	~	R.	2	⋖	۳ <del>.</del>	A 9	A-6/19(9)	~	∢ •
SNOWY	100		4/53-0/13(4)	4/21		· 1	000	5/52-0/3		τ.
HERON, GREEN	4/22→	4/30→	4/19→	5/1	5/21→	4/21→	5/13→	4/29→	4/25→	MAY→
NIGHT-HERON, BLACK-CROWNED	<u>a</u>		5/13→	5/15→				5/30	4/29	4/13

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MONTOUR PHILADELPHIA		4/5↓ - 5/6-6/1(3)	R		A-5/13(28) A		)-5/2	4/5-21 R	۸/۶ ۱ ۲ کا			→5/4(4) A-5/13(10)		- - - - - - - - - - - - - - - - - - -				<b>→</b> 4/1(4)-28 -	· · · · · · · · · · · · · · · · · · ·	→4/13(13) →4/2		→5/2(23)-6 P	4/5-5/6(6)-6/9 A-//6(6) - 5/8	2/2 4/11 → 5/8	4/29 →4/18	∢ :		۵.	¥	, Ω	۷,	۲.	6/18			4/4-5(170)-25 P	- 5/9	±5/1(4)-13 P	- 5/1(4)-13	5/2-13 4/30-5/9(4)	5/13			- 5/9(31)		
MONTGOMERY	R-5/1(12)	K ↓5/22	œ	2.5	+7/4	→4/23	→4/2	<b>1</b> 4/28	A A/A(17)-5/12	4/2-12(4)-5/12		<b>→</b> 4/2(18)-30	14/2	- →4/10(12)-13	2. ()2	→4/12(13)		<b>→</b> 4/12(25)-28		→4/2(25)-23		14/30 4/0 00/0	4/2-23(8) <b>→</b> A	14/8	4/28	∝ ,	4/7	4/10→	¥	, α	4/21-22		- 4/24-26(3)-5/3			→6/12	. <	4/8-5/3	50-00	4/28-5/5	4/21→		5/9	5/3-9(9)		5/12
MIFFLIN	R-6/8(8)	¥ ,	R-5/28(74)		R-6/24(6)			R-5/18(5)	R-4/16(21) 5/8	4/18-21(8)			- 7/40	4/18(10)	4/22			4/8(8)	4/8	4/14-20(28)		4/12	6/28	5/18	œ	œ.,		5/13→	۲ 1 د د د د د د د د د د د د د د د د د د د	15/13L ₽	٠ ،				,		- D E/42/4E)	(C1)C1/C-V								
MERCER	, <	∢ ,	œ	4/22(10)-5/20	A-5/5(11)		4/1-12(50)		R 14/13/15)-5/3	4/3-9(4)	4/1	4/1(4)-5/6	. 1	4/22(35)-5/20	2-12 (22)	→4/13(50)-20		4/12-26(8)	- 14/21	-	→4/13(5)	→4/13(500+)-5/13	∢ Ω	4 ∢	œ	∝ ,	œ	4/20-21(150)→	۲ 1 ورا	<b>1</b> 4/20	4/4-15	4/22	-4/16-27(3)-5/4	4/23-5/4		→4/12(300+)-5/13	5/5(4)	4/21-5/5(7)	4/29-5/5	4/21-29(6)-5/13	4/21→			5/3-4		
LYCOMING	, <	∢ ,	œ						R 4/15/8)	(0)(1)/				4/15		4/15(15)		4/15(7)	- 4/15(7)	R-5/28(6)	4/15(6)	4/15(15)			œ	깥 ,	5/1	4/26→	¥	, α	۷,					4/15(15)	, <	ξ,				5/24*				
LUZERNE	5/13→	<b>†</b> 7/4	~	A 1	R R			<b>C</b>	L 4/16/30)	4/4(8)		9 →5/13	200	14/22 15/13	14/7	→4/11(36)	4/1-4(22)-22	6/4/6	, œ	: œ	4/2-21	→5/13L	<b>†</b>	<b>.</b> α.	œ	cc cc	: œ	+7/4	×	, Δ	۷,	œ ·	∢ ۵	2/6	2/2	6/2↑	. 0	4/10-5/20	5/9	4/10-5/13	4/22→		. :	5/1-5(18)-13		5/13
LEBANON	R-4/15(15)	R-4/15(250) A-4/4(30)	œ	۵	. «		<b>→</b> 4/22(4)	R-4/22(36)	R 4/8/7H)-14	4/8(8)-22 <b>→</b> 4/8(8)-22	<b>→</b> 4/8(7)	→4/22(157H)-5/19		- A-4/8(6)	→4/9(12)	→4/30(4)		<b>→</b> 4/28(110)-5/13	- 12/4	(14/9(70)	4/9	→4/28(100)-5/13	<b>†</b> 12/4 ∇	↑ 15/13	œ	CC CC	: œ	4/23→	¥	, Ω	4/28	5/13		5/13	5/20	→4/21(41)-5/13	5/12-19	K-3/13(3) 4/10-19(8)-22	4/8-22(10)-5/26	4/23-5/19	4/23-28(7)		5/12-13	5/12(30)-19		8/4
LAWRENCE	, <	∢ ,	œ		A-5/12(68)				R 4/12	4/8		4/6-8(12)		- →4/1(23)	(21)::: -	→4/8(12)-16	4/8(4)	4/1-8(105)-16	- 4/16	4/6		→4/8(400H)-16	6/6 -	· œ	œ	∝ ,	œ	4/30→	Y	, α	۷,	. :	5/11 <b>+</b>	5/11→	۵	4/8(32)	, <	4/22	4/9	5/7	4/16-22(3)→	4/16	5/5(5)	9/9		
LANCASTER	CZ (	٦ +4/8(30)	ď		. «		<b>→</b> 4/8(4)		R 4/5.25	4/8(20)	4/8(8)									14/9	4/22	4/8(15)-5/13	Lα	4/29-5/1	œ	œ ,		4/16→	¥	, Ω	4/28		7 4/8	2/2			. 0	A/5-6/5	4/16-20	5/2-13	5/4→		. !	5/4-7		
	VULTURE, BLACK	GOOSE, SNOW	CANADA	SWAN, MUTE	DUCK, WOOD	GADWALL	WIGEON, AMERICAN	DUCK, AMERICAN BLACK	MALLARD TEAL BLIE-WINGED	SHOVELER, NORTHERN	PINTAIL, NORTHERN	TEAL, GREEN-WINGED	CANVASBACK	DUCK RING-NECKED	SCAUP, GREATER	LESSER	OLDSQUAW	BUFFLEHEAD	GOLDENEYE, COMMON MERGANSER, HOODED	COMMON	RED-BREASTED	DUCK, RUDDY	OSPREY FAGIF BAID	HARRIER, NORTHERN	HAWK, SHARP-SHINNED	COOPER'S	HAWK, RED-SHOULDERED	BROAD-WINGED	RED-1 AILED	KOUGH-LEGGED	MERLIN	FALCON, PEREGRINE	BOBWHITE, NORTHERN RAIL. VIRGINIA	SORA	MOORHEN, COMMON	COOT, AMERICAN	PLOVER, SEMIPALMATED	YELDEEN YELLOWIEGS GREATER	I ESSER	SANDPIPER, SOLITARY	SPOTTED	UPLAND	SANDPIPER, SEMIPALMATED	LEASI	ועאטוטבס	דריט יסידר

PHILADELPHIA

MONTGOMERY MONTOUR

MIFFLIN

MERCER

LYCOMING

LUZERNE

LEBANON

LANCASTER LAWRENCE

WOODCOCK, AMERICAN	A	A	A	A		A	A			V
GULL, LAUGHING										4
BONAPARTE'S		4/6(10H)	→4/30(4)	4/2-10		→5/4(4)		4/2-10	4/7	
RING-BILLED	15/4		A-4/23(25)	A		A		_	→5/20(4)	ď
HERRING	۵		→4/30			<b>→</b> 4/24(3)-26	6/1	<b>a</b>		⋖
GREAT BLACK-BACKED								<b>1</b> 4/3		đ
TERN, CASPIAN						4/24-25		4/4		
COMMON				9/0		5/10-13				
PONSIER S	•			5 1		4/24(4)-3/3		(7) 06(4)		
CHCKOO BLACK BILLED		1	101/4	10,4	E/27	2/3		3/21-20(4) 6/11 <del>-</del>		1 2 2
COCKOO, BLACK-BILLED	101/4	† 1 0/0	3/18 <b>1</b>	5/8 1	17/06/3	107/2	100	1/2/1		5/25 <del> </del>
YELLOW-BILLED	†71/c	† 800 c	4/ 10E-5/21(b)	5/13	↑(1)67/c	t 01/6		1/(1		<u>†</u>
OWL, BARN	, (	צ נ	. (	. (	. (	. (		0		Υ
BAKKED	¥	Ľ	¥	צו	Y	¥	¥	4/8-22		
NORTHERN SAW-WHET				~						
NIGHTHAWK, COMMON		4/15→		2/2→	5/24→	2/1		5/11-24(4)		0
WHIP-POOR-WILL			6/3-9(4)→	5/10-13(66H)→	5/14→					
SWIFT, CHIMNEY	4/22→	<b>a</b>	6/1(8)→	4/25→	4/22→	4/15-5/6(100+)→	4/10↑	4/24(5)→		4/22→
HUMMINGBIRD, RUBY-THROATED	2/1↑	4/30↑	4/20→	5/10→	4/29→	2/1↑	5/2→	4/24→	5/12→	0
WOODPECKER, RED-HEADED	~	5/22→	~	1		~				
SAPSUCKER, YELLOW-BELLIED		4/30	→5/18	∝	4/7-6/10	4/11-5/10				<b>→</b> 5/1
FLICKER, NORTHERN	œ	22	2	~	4/7→	~	~	~	2	~
WOOD-PEWEE, EASTERN	5/11↓	2/7→	5/7-13(17)→	2/9→	5/28→	2/8	5/8-6/12(18)→	2/6→	4/11↓	0
FLYCATCHER, YELLOW-BELLIED	5/15		5/15	2/29↑						
ACADIAN	5/24→	2/2↑	5/12-18(26)→	5/13→	5/28↓	2/6	5/13→	<b>1</b> /6 <b>+</b>		5/18
AI DEB	. 170	5/11	(02)01-21(0	5/13 1		5/14-6/20	2	5/16		5/13-26
	11/0/4	·	1(1)(1)	12.73	100	11/11/11/11		1	101/10	6/13.26
WILLOW	0/247	L	3/13(4)1	3/134	0/34	3/111				07.13-20
LEASI		1.		4/29 <b>→</b>	5/1/-28(/)→	4/30-5/11(4)-2/		5/6-6/18		5/5
PHOEBE, EASTERN	⋖	A	A-4/7(10)	4/24→	A	¥	¥	ď	A	ď
FLYCATCHER, GREAT CRESTED	5/4→	4/30→	4/30-5/13(18H)→	2/3→	5/27→	2/4→	4/10↑	2/1↑	2/6→	0
KINGBIRD, EASTERN	4/24→	2/8↑	5/7-13(18H)→	2/6	2/18↑	4/30-5/11(7)→	5/13→	4/28→	2/3↑	0
VIREO, WHITE-EYED	2/2→	2/2→	4/23-5/13(5)→		2/59↑	2/2→		4/26→		0
BLUE-HEADED	4/16-5/1	5/6(4)	4/16-5/26(3)→	4/22→	5/17→	4/23-5/11	5/13	→5/15		5/5(5)→
YELLOW-THROATED	2/6→	4/27→		4/29↑	2/28↑	2/3-6(8)→	i	2/6→		5/4
WARBLING	2/7→	5/12→	5/7(3)→	2/2→		4/30-5/11(10)→	5/13→	2/3↑		MAY-5/15(18)→
PHILADELPHIA		5/11								
RED-EYED	2/3↑	<b>_</b>	5/7-18(151)→	2/2→	5/17(13)→	5/4→	5/6-14(18)→	5/4→	2/6→	0
CROW, FISH	~		R-4/8(30)	~	A		∢	∢	V	~
RAVEN, COMMON			5/26-29	~	R-6/10(5)		~			
LARK, HORNED	œ	R-4/16(3)	R-4/9(20)	<b>∝</b>		→4/22	6/12			
MARTIN, PURPLE	∢	5/9(52)→	4/22-5/13(6)→	4/22→	4/7(5)→	A	4/5-6/12(84)→	4/7-28(12)→	4/19(6)→	5/3
SWALLOW, TREE	4/4→	4/6→	A-4/22(400)	4/11(1000H)→	A	A	A	٨	A	4
NORTHERN ROUGH-WINGED	4/5→	4/16→	4/21-22(20)→	4/21↑	4/20→	4/10-5/5(6)→	6/12→	ď	4/29→	ď
BANK	4/22-27	4/23-30(8)→	4/21-5/13(5)→	5/13→		4/28↑	6/12→	4/19-5/21		5/9(80)
CLIFF	4/27→		5/13-18(10)→	2/6		4/21(6)→		5/22		
BARN	4/11↑	4/6↓	4/8-22(85)→	4/21→	5/27→	Α	4/14-6/12(100+)→	4/7→	4/13→	n
CHICKADEE, CAROLINA	œ		R-4/8(17)					œ		٣
BLACK-CAPPED	œ	œ	2	~	~	œ	<b>∝</b>		~	
NUTHATCH, RED-BREASTED	4/27-5/3		4/29	œ		15/13	<b>1</b> 5/13	15/6		4/25-5/13
CREEPER, BROWN	. :	12/6	œ	∝ :	<u>~</u>	14/9	<b>A</b>	14/14	. !	n ,
WREN, HOUSE	5/2→	<b>_</b>	4/21-5/12(16)→	4/14→	5/18-28(5)→	4/16-5/6(6)→	4/21→	4/23→	4/29→	0
WINTER	4/28	œ	→5/27	œ		↑APR	4/20	4/26		
MARSH		۱ ۵		6/27→	-	4/27-5/13(3)→				0 1
KINGLET, GOLDEN-CROWNED		<b>Υ</b> (	Y	œ.	4/15	14/20	×	<b>→</b> 4/14		9
RUBY-CROWNED	4/19-28(200)-5/6	ط. م	4/28(200)-5/13	<b>1</b> 4/29	4/15-25	4/13-5/11	-	6/2 <u>1</u>	-	9/2€
GIVATORIER, BLUE-GRAY	†\dL/\d 101/\d	4/30(4) <del> </del>	4/16-5/13(12) <del> </del>	†\24†	↑87/c	8/21-6/8	4/20 <del>1</del>	4// <del>/</del>	†\23/ <del>1</del>	†\\
VEEN	3/0/6	0/11	4/29-3/20(13)	2/3		0.1		0/0-13		

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	LANCASTER	LAWRENCE	LEBANON	LUZERNE	LYCOMING	MERCER	MIFFLIN	MONTGOMERY	MONTOUR	PHILADELPHIA
THRUSH, GRAY-CHEEKED						5/21		5/10-26		5/22
SWAINSON'S	5/15	4/30	5/15		. !	5/5-21	, 1	%5/14-27		5/12-13(20)
HEKMII	-	14/30	K-6/3(12)	†6/4 -:-	5/1/	4/9-23	5/13	£4/29		4/20
WOOD	4/28↑	<b>1</b>	4/29-5/13(151H)→	1 2/1	2/2/↑	4/28↑	† † *	4/29→	5/12→	<b>1</b> . (
ROBIN, AMERICAN	צ ע	Υ <b>Υ</b>	K-5/13(132)	<b>Y</b> <	Υ W	X 4/26 F/F/10)	× a	ץ ע ציי	A 4,13	Υ <
THPASHEP BROWN	1/12/	4/301	A-5/13(160H)	1/1//	3/10 <b>1</b>	4/20-5/5(19)	⊻ ⊲	0/21	4/13 4	τ Δ
PIPIT AMERICAN	4/4-23/350)-30	4/30(20)	7-3/13(2211) <b>→</b> 4/4(400H)-29	4/9-13		15/4	ζ,	4/9(12)	. 67.	- •
WARBLER, BLUE-WINGED	4/28→	5/12 <b>→</b>	4/28-5/13(10)→	5/4		5/1-6/8(9)→	5/20	4/30 →		۵
GOLDEN-WINGED	5/12		5/12	5/2→		2/2	5/13→			
TENNESSEE	5/12	5/12	5/12	5/13(5)		5/5-15		4/30-5/10		9/9
NASHVILLE	4/30-5/6	9/9	4/30-5/12	5/13→		4/30-5/11		9/9		4/30
PARULA, NORTHERN		2/6→	5/6-21(4)→	4/22→		5/11	5/13→	4/8		4/30
WARBLER, YELLOW	4/30→	4/22→	4/28-5/13(66H)→	2/6	5/5-28(11)→	4/21-5/6(40)→	5/10-14(16)→	4/26→	4/22→	_
CHESTNUT-SIDED	2/2→	2/2→	5/13(4)→	5/4→	5/17(8)→	5/3-6/7(5)→	5/13→	5/4-15	2/6→	2/2
MAGNOLIA	5/13	2/2	5/12(6)→	5/12→	5/17(4)→	5/6(4)-20		5/4-27	9/9	5/2-6(10)
CAPE MAY	, !		-	5/13		5/13	5/13	MAY		
BLACK-I HROATED BLUE	5/3	-	4/29-5/12(12)	† <sub>6/9</sub>	€/3	5/4-13	5/13↑	4/30-5/14(22)-28	- 100	5/1-6(10)
YELLOW-KUMPED	4/29-5/17	→4/22(10)-5/12	→4/29(50)-5/13	4/22+	4/24↑	15/15	<b>4</b>	15/15	4/29	4/11-5/6(50)
BLACK-IHKOAIED GREEN	4/28-5/23 5/6-13	4/30(6)↓ 5/6	4/30-5/18(31) → 5/6-18/6) →	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	5/1/-6/10(10) <b>+</b> 5/28-6/10(10) <b>+</b>	4/2/-5/3(4)-24 5/3-11	5/13+ 5/13+	4/30-5/1(30)-24	4/29	- 4/75
ALL OWN HOUSE	200		(0)01-0/0		(01)01/0-03/0			4/45 5/45		
YELLOW-IHROAIED	- 4/46	7 27 27	120,	10,7	1000	- 70/1	<b>1</b> 8/6	4/15-5/15		ı.
PBAIBIE	9/ 10	77-41/4	4/20 5/31/4/1	12/4	6/181	4/2/	101/4	100/8		7,16
DAIM	4/8-20	. 0	4/8-29	7/8	0.10	4/24-5/2/10)-11	127	4/4-28	4/25-20	4/13
PACM PAX BBEASTED	4/0'29	L C	4/0-23	1/0		4/21-3/2(10)-11 E/6 14		1/4/20	4/27-23	4/0-23(14)
BI ACKPOIL	5/15-6/3	_ 0	5/13/5)-25	5/13-28		5/7-29		MAY-6/8		65/6-14/30)-6/4
CERULEAN	5 .	. a.	5/12→	5/13→		2/6→				5/13-6/13
BLACK-AND-WHITE	4/20→	4/23→	4/28-5/13(24)→	4/22→	5/28(4)→	4/23→	5/13→	4/26→		4/24
REDSTART, AMERICAN	5/13→	5/12→	5/7-13(30)→	1,1	5/27→	5/3-11(15)→	4/21→	2/6		65/6-14(30)
WARBLER, PROTHONOTARY		5/11-19	•			2/6		5/6-12		2/2
WORM-EATING	•		4/29-5/13(3)→	5/12→			4/21→	2/6(7)→		24.5
OVENBIRD	4/28→	4/30→	4/28-5/13(196H)→	4/29→	5/17(16)→	4/28→	4/6→	4/26→	5/6-13	4/25
WATERTHRUSH, NORTHERN	5/6-25	5/11	4/7→	16/9		2/6		4/28-5/9		4/11
LOUISIANA	4/8⊅	۷	4/9-5/13(4)→	4/7E→		4/16→		4/7→		4/8
WARBLER, KENTUCKY		2/6→	5/12-13(4)→	€/9		2/19→		2/9→		۵
MOURNING	5/12-25		5/12-28	4/25E		5/23-6/2				
YELLOWTHROAT, COMMON	4/28→	<u>a</u>	4/23-5/13(109H)→	2/2→	5/17(15)→	5/4-11(8)→	4/21→	4/26→	2/6→	<b>_</b>
WARBLER, HOODED	5/13	۱ ۵	5/13-27(10)→	2/2→	5/29(8)→	5/3-11(11)→	5/13→	5/8		5/5
WILSON'S	5/15	۱ ۵	5/15(3)	5/9-28		5/5-21		5/4-15	9/9	5/9-13
CHAT VELLOW-BPEASTED	51/c 1/g	1 1 1	5/13 <b>↓</b>	5/13	<b>†</b> / L/G	5/11-13	- 12/13	4/20-5/20 5/9 <b>1</b>		5/14-6/4
TANAGER SCARLET	4/29		4/29-5/13(17)→	2/7	5/17-6/10(7)→	2/1	4/15→	4/30		5/14(5)
TOWHEE EASTERN	1 4 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1	. «	A-5/13(75)	4/20→	5/17(6)→	A-5/11(12)	4/6 +	4/28→	2/6→	() ()
SPARROW, AMERICAN TREE						→4/16	14/10			
CHIPPING	A	۵	4/2-21(21)→	4/4→	4/2-5/28(6)→	A-5/11(14)	4/15→	4/3→	4/25→	A
FIELD	4/29→	4/30→	R-4/16(15)	~	5/18→	A-5/6(8)	4/18→	A	2/6→	۵
VESPER	4/24-5/4	4/30↑		4/24→		4/7-15	5/13→			
SAVANNAH	4/29→	4/16(13)→	<u>د</u>	4/20↑		4/7-5/5(4)→	5/13→	4/7	2/6→	5/9(4)
GRASSHOPPER	4/28↑	J. 6	5/12-13(5)→	5/13≠		5/5	5/13≠			•
HEINSLOW S		t 67/4 0		10,00		(a)1.1-c/c				
SING	F/44 40	<b>.</b> .	- 17	→4/6(6) E/13	//4	1/4/		44/18		
SWAMP	2 - 7	L ≪	S// R-4/28(6)	2	- 6/10+	R-5/3(31)	. «	. 🗅	2/6	. ~
WHITE-THROATED	→4/28(75)-5/13		→4/28(75)-5/13	· œ	1€/10	→5/3(4)	14/6	→5/1(20)-7	4/29	1 € 5/25
WHITE-CROWNED	→5/13		5/7(7)-13	5/13	5/5-19	4/16-5/6			→5/13	
JUNCO, DARK-EYED	15/4	14/30	R-4/8(4)	<b>C</b>	œ	<b>→</b> 5/4	<b>→</b> 5/13	1,5/1	14/8	<b>a</b>

	LANCASTER LAWRENCE	LAWRENCE	LEBANON	LUZERNE	LYCOMING	MERCER	MIFFLIN	MONTGOMERY	MONTGOMERY MONTOUR	PHILADELPHIA
GROSBEAK, ROSE-BREASTED	5/2→	4/30→	5/6-12(15)→	2/9→	5/18→	4/29-5/5(8)→			2/6→	<b>d</b>
BLUE				-	-					۵
BUNTING, INDIGO	5/2→	4/30→	5/3-13(35H)→	2/9		2/6-6/8(5)→	4/2→	2/6→	2/6→	۵
BOBOLINK	5/12-13	4/29→	5/12-13(9)→							5/3-8(120)-24
BLACKBIRD, RED-WINGED	A	<b>∝</b>	R-5/13(70)		_			⋖	A	4
MEADOWLARK, EASTERN	œ	4/29(14)→	R-5/13(4)		4/15→		~	⋖	A	5/1
BLACKBIRD, RUSTY	4/8	۵					5/13	4/7		46/4
GRACKLE, COMMON	œ	~	R-5/13(436)	~			⋖	A	A	∢
COWBIRD, BROWN-HEADED	œ	A	R-5/13(43)	~			⋖	∢	A	A
ORIOLE, ORCHARD	5/11→	_	5/7→	5/13→		4/30→	5/13→	5/3→		۵
BALTIMORE	4/30→	<b>_</b>	5/4-13(32H)→	2/9		5/1-11(10)→	4/18→	4/29-6/25(5)→	5/13→	۵
FINCH, PURPLE	<b>→</b> 4/24	5/5	→4/29(16)-5/13L	∝	4/21(14)→	A-5/11(5)		→4/25(25)-5/5	2/6	9/9
SISKIN, PINE				4/4(8)-5/2		→4/25(6)-5/3	4/11(3)	4/29-5/12		5/13
GROSBEAK, EVENING		2/6		4/29			4/11			

ă II	POTTER	SCHUYLKILL	SOMERSET	SULLIVAN	SUSQUEHANNA TIOGA	TIOGA	VENANGO	WESTMORELAND	WYOMING	YORK
- 5/8 1/2 <b>1</b> 5/25	5/8 <b>1</b> 5/25		4/8-22	- 4/1-10/33\-5/13	- 4/24-5/18	- 	4/8-6/25	4/23	- 4/7 47(40)	4/22-26 
	13/23 15/19		4/22(12)-5/22	10(33)-3/13	- 4/24-3/10	<b>→</b> 4/22(20)-3/13 →5/1	→4/3(6U)-6/4 →6/25	4/1-5/14 A-4/24(6)	4/7-17(10) →4/14	<b>1</b> 4/10(1∠0)-0/1 <b>→</b> 4/28
4/3			4/18(15)-5/22	4/8(7)-24		→4/19(11)-18	12/19	4/9-11(5)-24	→4/29	→5/12
			4/26			4/19(6)-22	4/20-27	4/23		4/1-28(5)-5/5
4/2(13)→ 4/1(15)-6/18	4/1(15)-6/18		4/8-22(54)-6/6			4/2-21(183)-6/11	4/2-6/9	4/7-23(16)-5/14	4/8-5/13(13)	€/9
4/2 4/8-5/14	4/8-5/14			4/22-6/3		4/11→	4/28	4/21		6/3
•						6/13→				
œ	œ		⋖	¥	8/9	A-4/19(31)	A	A	4	~
4/9-6/1	4/9-6/1		4/13	ı		4/28-5/13	4/2-5/10	4/19-5/21		
5/4→ 4/20→	4/20↑		4/22→	·		A	4/22→	4/24→	2/7→	4/26→
4/4-16	4/4-16			·		4/28-6/20			6/2	4/6(35)→
→4/25	→4/25		6/4							~
∢	A		∢	A-5/31 (12)		A-6/22(20)	A	A	A	~
•	-									4/15
œ	۳		R-6/24(78)	~		R-6/15(15)	~	~	۳	8
٣	œ							∝		
ı			4/4			T£/9↑	4/18			4/24
œ	~		∢	∢		A	A	4/1→	4	∢
•			4/17			→4/19(3)	4/3-21	<b>_</b>		→4/30
						→4/19(5)	4/3-8	_		14/8
15/8	1€/8					→4/14(4)	4/1-2	Α		∢
ď	~		∢	A		∝	<b>~</b>	∝	<b>~</b>	~
4/2 →4/2(14)-5/24	→4/2(14)-5/2	24	4/4(32)-22		<b>→</b> 4/24	4/10(12)-22	4/3-23	4/11-5/26	4/14(10)-24	→4/10(43)-30
4/2-27	4/2-27		14/18				4/8-17	<b>△</b>		,
•				,		14/19				,
4/1 →4/27	→4/27		4/4(30)		14/3	4/1-22	4/4-12	_	<b>→</b> 4/17	→4/30
			4/4	ı			4/8-9			
1				·			4/4			
<b>→</b> 5/4 <b>→</b> 4/28	4√28		4/4(15+)		→4/7(9)-10	→4/2(95)-28	4/9-5/6	_	→4/11(5)	→4/28
→4/25	→4/25					14/10		4/15-19	→4/25(6)-29	
<b>→</b> 5/3 4/3(13)	4/3(13)		4/4-8(25)-22	4/24(26)		→4/10(17)-17	→4/26	_	→4/4(30)-10	→4/13
4/25-5/8(4)	4/25-5/8	(4)				4/28	4/18-5/13			
4/7-10	4/7-10			ı		4/19(13)-24	4/1		4/3-4(13)	
4/2 4/14-27(40)	4/14-27(4	(0	4/4-18(40)-22	→4/20(45)-24	14/7	<b>→</b> 4/17(33)-30	<b>→</b> 4/30	۵	→4/7(24)-5/5	12/5
			4/17							

#### 2000 VOLUME 14 NO.2 142PENNSYLVANIA BIRDS

	POTTER	SCHUYLKILL	SOMERSET	SULLIVAN	SUSQUEHANNA	TIOGA	VENANGO	WESTMORELAND	WYOMING	YORK
MERGANSER, HOODED	Ь	→4/21(7)	4/8-6/27	A		→4/26	→6/20	Ь	→5/13	→4/15
COMMON	۵	→4/27		A-4/3(20)		A-4/2(120)	16/16	, (	α <del>,</del>	→4/24(24)-26
NEG-BREASIED	4/8(4)	4/13	4/4-22(6)	4/20/130)-24		4/2-25(17)	4/ 1-3/10	01/4/10	0/1 -	4/2-5/5
OSPREY	r F Q	< ⋖	4/4-11(3)	4/7-27		A-6/4(7)	4/5-5/6	2	4/10-5/13	4/2
EAGLE, BALD	_	4/11-5/14		4/28		¥	4	4/23	4	A
HARRIER, NORTHERN	⋖	→5/15	۷			4/24→	4/15→	<b>△</b>	4/26-5/13	4/5-17
HAWK, SHARP-SHINNED	<b>4</b> 4	∝ ഹ	cc cc	CC CC		cc cc	cc cc	∢ ₩	с с с	↓5/13 R
GOSHAWK, NORTHERN	: .	: œ	<b>.</b>	: œ		: .	4/21		6/21	
HAWK, RED-SHOULDERED	⋖	· œ	5/16	5/13→		4/30→	4/23→	4	4/21→	
BROAD-WINGED	۵	4/8(14)→	A	5/13→		4/22-24(25)→	4/21(38)→	4/16→	4/22→	4/8→
RED-TAILED	œ	œ	œ	~		<u>د</u>	œ	<u>~</u>	~	•
ROUGH-LEGGED	, (		, 0			<b>→</b> 4/28	, (	, (	, (	œ (
MEDIN	Ľ	7.474	¥	¥		K-5/13(9)	¥	¥	4/2F	7.700 4/20
FALCON PERFORINE		4/1-3/12				4/19-6/23 6/10-23	4/20		C7/+ -	4/70
BOBWHITE, NORTHERN			6/22				2	<b>a</b>		∝
RAIL, VIRGINIA			4/27			A-5/13(4)	5/26-28(3)→	4/18	5/13	
SORA	4/14		4/27			A		4/29		r
COOT, AMERICAN		→4/8(9)-25	4/4-22(105)	4/8-24		4/18	→6/12	→5/26	→4/8(11)	→4/1(100)-5/17
PLOVER, SEMIPALMATED		2/2				5/16-19(20)				1
KILLDEER	∢ ;	2	¥ .	V		A-5/13(19)	<b>A</b>	<b>A</b>	۷	∝ ;
YELLOWLEGS, GREATER	5/2	4/13-5/23	4/25(18H)			4/17-18(7)	4/18-5/11	4/10-19		4/9
LESSEK Ottobing 00: Http://	4/30	5/12	4/25(25H)-6/2/			4/18		7	•	4/19-5/6
SANDFIPER, SOLITARY	5/1 4/26	4/29(7)-5/23 4/15 <b>→</b>		, ½		4/28-5/19(15) 4/22-5/13(7) <b>→</b>	4/28-5/6	4/29-5/20	<b>†</b>	4/30-5/1(23)
UPI AND	4/26	· 2	_ 0_			. (1)01/0-77/1	4/19	77 F		. 2
SANDPIPER, SEMIPALMATED	}		5/6(4)			5/19-24(10)	? .	5/8(4)-11		9/9
LEAST	,	5/12-13(9)	5/6(15)		,	4/24-5/19(20)-24	5/3-11	5/14(8)-6/30	,	2/6
PECTORAL		5/23	4/14			4/27	5/3-21	_		
DUNLIN	5/21	5/23-29				5/24(3)				
SNIPE, COMMON	4/2	4/19	4/9(41)			А	<b>→</b> 4/1(13)-5/3	А		4/6(50)-5/4
WOODCOCK, AMERICAN	A	¥	⋖	∢	8/9	A	∢	A	∢	4/30→
GULL, BONAPARTE'S	<b>△</b> 1	4/18	4/17			4/14(17)-5/1	→4/3(80)-5/19	4/23(8)	<b>→</b> 4/4(23)-11	→4/5(35)-23
RING-BILLED	۱ ۵	12/8	A-4/17(68)	4/20(3)		A	4/2-3(100)-24	→4/23(34)-5/23	. :	∢ .
HEKKING OTTAH DI ACK DA CKTD	ı		4/1/(5)			4/17(35)-25	4/3	ı	16	∢
GREAT BLACK-BACKED TERN CASPIAN	4/17		4/19/10)			4/17-18	4/19-6/24			4/13-6/10
COMMON	: .		9/9			5/23-24	5/13-19			
FORSTER'S	,				,		4/8-5/11		,	
BLACK			5/28(3)				5/11-19			
CUCKOO, BLACK-BILLED		5/10→		€/10→		5/13→	2/9	2/4	2/2→	€/4→
YELLOW-BILLED	6/28→	2/8↑	۵			5/24-25(6)→	€/16→	5/8-25(3)→	2/2↑	2/6→
OWL, BARN		צ ו		, 1						צ ו
BARKED NOPTHEDN SAW-WHET	Y %	<b>Υ</b> Δ	1 2 2	K 6/12		Ľ,	K 5/7-17	¥ ,	¥ ,	¥ ,
NIGHTHAWK, COMMON	2700	1,7	107/9	<u>4</u>	,	2/26→	2/6	۵	5/13	
WHIP-POOR-WILL		5/2→	€/9	4/22→			4/20-5/30(13).	. a.		19/6
SWIFT, CHIMNEY	2/5→	4/25→	4/21→	5/4→		5/3-13(17)→	4/19→	<b>△</b>	4/29→	4/15→
HUMMINGBIRD, RUBY-THROATED	4/20→	4/28→	4/28→	4/29→	8/9	5/3-13(19)→	2/2→	4/25→	5/4→	4/26→
WOODPECKER, RED-HEADED	i		2/6→		·		5/11	Ь	i	~
SAPSUCKER, YELLOW-BELLIED	4/5→	14/20		4/2→	8/9	A-5/13(15)	4/8↑	۵	4/3↑	→4/24
FLICKER, NORTHERN	Y.	ا د :	∢	4/16→	, ,	A-5/13(16)	<b>A</b>	~	4	~
FLYCAICHER, OLIVE-SIDED	6/15	5/11-25	19/9	. 4	8/9	107/4	5/11-26		107/4	6/20
WOOD-PEWEE, EASTERN FLYCATCHER, YELLOW-BELLIED	5/24 <u>-</u>	<b>L</b> 0/C	<b>†</b> 9/6 ,	5/28 5/28		5/13 <del>-</del>	5/10-7	5/10-6/3	0/10-1	5/11-24
				. 2310			2	200		17

	POTTER	SCHUYLKILL 5/8+	SOMERSET 5/6→	SULLIVAN	SUSQUEHANNA	IIOGA 5/13↓	VENANGO	WESIMORELAND	W Y OMING	YORK
5/28 <del>†</del>		5/8 <b>↓</b> 5/13-6/3	5/8 <b>→</b> 5/23	5/13	- 8/9	5/13 <b>+</b>	5/17↓ 5/17↓	↑ 8/6 •	- 5/13E→	<b>4</b> /2/ <b>1</b>
5/27→		€/3	5/28→	5/28→	8/9	5/13→	5/13→	5/13→	5/13→	€/10→
2/3		5/13→	2/6→	2/6↓	6/8(12)	5/2→	5/2→	4/24→	5/4→	
↑ % >		A 7.	A 7/7	¥ ¥ 1,6		₹ } }	¥ 2/8 1/8	4 Δ	A /4 ↓	A 4/29 <b>↓</b>
4/30→		5/5→	2/6→			5/8-13(21)→	A.	5/2→	4/29→	4/26→
		5/23→	. (				5/7 →	4/30↑		4/20→
4/15		†8/4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ב נ	4/15→	8/9	4/11 +	4/16+	A 1000 -	•	4/20-5/16
<u>†</u>		† 1 6/6	† † 2/9/2		8/9	† 1 7/6	4/28 <b>+</b>	4/29 <b>†</b>	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	4/25 <del> </del>
		5 .				5/23	5/13	5/10-17		
2/8		2/2→	2/6→	5/13(25)→		2/8→	2/2→	4/29→	5/4→	5/2→
		∢ :	. 1				. ;		5/2-6/5	<b>e</b>
œ		۱ ۲	∝ .	œ		œ .	6/4	<b>∝</b> (	<u>د</u> ر	~
		۵.	A i			<b>∀</b> 1	A i	~	<b>د</b> ۰	16/2
		<b>↑</b> 9/4	5/28	. <		2/e+	2/28↑	4/19+	Α •	4/22↑
¥ ¥		A	A L	A i		A-4/15(12)	A 440	4/11(6) <del>+</del>	<b>4</b> <	4 *
f \2		†4/4 † 00/4	14/4 100/1	† 8/c	•	4/10(5) <del> </del>	4/18 4/20 6/26/42000 .	4/14-5/2(30) <del> </del>	4/20 E/E/7E)	¥ ,
5/3		1/23 1/3	5/28-6/13(30)+			3/11(3)→ 4/25-5/13(40)→	4/27	3/14	4/30-00/1 -	4/26→
4/8		\$\frac{4}{2}	4/4	2/1↑		4/10-5/30(10) →	4/4	4/19→	4/10→	1,14
								~		~
~		~	~	~		<b>~</b>	<b>∝</b>	~	~	~
∢		~	9/9	<b>~</b>	8/9	4/8-30	4/3-5/4	∝	→6/21	<b>→</b> 4/30
< !		~		<b>~</b> ;	8/9	4/13-5/13	4/1-5/7	~	<u>د</u> !	→4/15
4/2/1		4/10 <del>↑</del>	4/16E↓	5/2→	0770	4/30↑	4/25→	4/26→	4/26→	4/18E→
∢		14/2	CL/4	<b>†</b> /7/4	91/9	1 ct/4	<b>†</b> 77 / <del>†</del>	₹ .	4/20-5/3	
. 4		<u>o</u>	APR	. 02		) A	12/0	. 4	. ~	- →4/25
. a		12/10	APR	4/10		4/11-5/12	4/8-5/11	→4/20(57)-5/15	4/11-5/3(6)-13	129
4/19→		4/14→	5/2→			A-5/28(6)	4/16→	ь (т.)	4/20→	4/15→
4/12→		2/2→	5/29→	5/13→	8/9	5/4→	5/13→	5/3→	5/5→	4/24E→
·								5/16-27		
5/20		2/2		•		5/8-11	5/6-21	5/5-30	5/13	5/8-25
4/5		A	A	4/10→	8/9	A	4/9→	А	2/2→	<b>→</b> 4/30
4/30↑		5/2→	5/2→	5/13(4)→	8/9	5/1↑	4/26→	4/21→	2/2→	4/21→
۱ ک		~ 3	۷ ر	۷ i		A	٣	۷ i	~ 1	~
1/2		4/28 <del>+</del>	5/5	5/5		4/2A+	4/30→	5/4↑	±4/0 	<b>†</b> L/ <b>†</b>
12/4		4/30 <b>1</b>	t = /4	t 8/4		<b>†</b> 77 / <del>†</del>	4/1/ <del>1</del>	€	† 5/6	€
5/7		4/30(5)→	2/6			5/11↑	3, 12(5) 5/3 <b>→</b>	5/1	2/2↑	4/24E→
		2/2→	2/6→				5/18-31(4)	5/11→		4/29
		5/8-14		5/13		2/8	5/1-16	5/4-14(4)-20		5/10
2/1		5/1-10		5/13→		5/4→	4/30-5/15	4/26-5/14(5)-17	5/3→	5/3-12
		4/7E→	2/6→			5/3→	4/23→	4/29→	4/29→	4/19→
4/27→		4/23→	5/4→	2/6→		5/3-13(83)→	4/23→	4/28-5/5(6)→	4/29→	4/22→
2/2		2/3→	2/6→	2/2→		5/4-13(48)→	2/3→	2/3→	5/13→	5/2-10
4/28→		4/29→	2/6→	2/2→	8/9	2/8↑	5/4→	5/5-14(14)→	5/10→	5/6-28
. !		5/13-21	5/8			5/23	5/10	5/13		
2/4		4/30↑	2/6	5/4→	-	4/29-5/12(10→	5/1↑	4/30↑		4/29-6/6L
4/24→		Α :	9/9	4/17-24(12)→	8/9	4/18-5/12(100)→	4/6-5/17	→5/15	(2(25)→	→4/20(75)-5/10
1/58 1/7 1/7		↑ZZ/4 1-2/3	↑ 2/2	↑ 1°/4	8/9	4/28 <del>4</del>	4/21↑ 1/1	±/21±	•	4/26-5/24 E/E 6
ţ Ţ		5/3	5/28	<b>†</b> 7/0		0/4-12(10)	3/1 <del>4</del>	1,46,1	10/0	5/5-6 4/16-1
4/10		. 4	2 ,			4/11→	4/23-28	- C	· 1/8 1/8	V 10 1
5/18		5/2→		5/13→	5/12→	5/2	4/28→	4/28→	5/13→	4/21-5/31

#### 2000 VOLUME 14 NO.2 144 PENNSYLVANIA BIRDS

	POTTER	SCHUYLKILL	SOMERSET	SULLIVAN	SUSQUEHANNA	TIOGA	VENANGO	WESTMORELAND	WYOMING	YORK
PALM	4/27	1,2/1				5/3	4/9-5/6	4/30-5/10		4/17-30
BAY-BREASTED		5/8-10				5/10(5)-23	5/10-21	5/8-15		5/10-31
BLACKPOLL	4/21	5/10-30	5/22			5/10-22(3)-6/4	5/11-31	5/10-24	5/13→	5/6-27
CERULEAN		5/6-13	2/6→	1		5/10→	5/1↑	4/24(4)→		2/8→
BLACK-AND-WHITE	4/29→	4/22→	2/6→	2/3→	8/9	4/28→	4/22→	4/17→	4/29→	4/23→
REDSTART, AMERICAN	2/1↑	2/3→	2/6→	5/5→		5/3-13(78)→	2/1↑	4/30→	4/29→	4/29→
WARBLER, PROTHONOTARY						5/13		_		5/7-10
WORM-EATING		4/30↑		1			5/3-4	<b>_</b>	5/13	4/30→
OVENBIRD	2/3↑	4/25→	5/2→	5/4-13(47)→		64/29-5/13(69)→	4/24→	۵	4/29→	4/15→
WATERTHRUSH, NORTHERN	5/11↑	5/13-21	9/9	5/28→			6/4	4/26-5/26	4/29→	4/22-5/1
LOUISIANA	4/17→	4/3→	4/15→	i		5/13→	۷	4/26→	4/23→	4/8→
WARBLER, KENTUCKY		5/26-6/24	5/27	ı			5/13-5/21	5/3		2/2→
MOURNING	4/28→	5/19		5/28→		6/11	5/13-5/31	2/2-6/3		
YELLOWTHROAT, COMMON	2/2↑	2/1↑	2/2→	5/5→		4/28-5/13(145)→	2/1↑	4/28→	5/4→	4/26→
WARBLER, HOODED	5/7→	4/30→		6/28		5/13	5/4→	4/21→		5/5-26
WILSON'S		5/10-19		•			8-9/9	5/3-26	5/13	5/3-10
CANADA	6/4	5/12→	2/6	1	9/16	5/11-13	2/6→	5/4→	5/13→	5/7-6/26L
CHAT, YELLOW-BREASTED		2/2→	2/6→	i			2/2	5/11→	5/13→	4/28→
TANAGER, SCARLET	5/15→	5/4→	2/2→	5/5→	8/9	65/5→	2/1↑	۵	5/4→	4/26→
TOWHEE, EASTERN	4/18→	∢	1,6/4	4/8→		4/15→	⋖	_	4/29→	<b>«</b>
SPARROW, AMERICAN TREE		→4/8(4)	14/9			→4/26	14/2	•		→4/11
CHIPPING	4/5→	A	4/3-21(31)→	A	•	4/2-23(15)→	4/8	A	4/7→	A
FIELD	4/2↑	A	A-4/8(15)	۵	8/9	11/4	¥	A	4/3→	<u>«</u>
VESPER	4/30↑	€/18	4/4	i	4/3			_		5/7-6/2
SAVANNAH	4/16→	۵	4/4	2/7(6)→		4/9-5/22(8)→	4/6→	4/1→	A	4/10
GRASSHOPPER	6/21→	6/18→	2/6	6/10→			2/6→	_	4/29	6/4→
HENSLOW'S	€/20		2/6→	€/10→			4/19→	5/13(6)→	5/13	
FOX	14/13	→4/15	4/1	→5/13		<b>→</b> 4/12	4/9	4/17		→4/13
LINCOLN'S	2/2	5/19						4/24-5/17		
SWAMP	4/16→	A	۷	1,8/4		A	4	4/2→	4/3	<u>~</u>
WHITE-THROATED	14/15	1,5/13	→4/21(42)	<		→4/24(8)-5/4	<b>→</b> 5/13	15/14	~	15/18
WHITE-CROWNED	14/13	1,5/13	2/3	4/22-5/13		4/29-5/5(12+)-12	4/16-5/15	۵	5/13	15/5
JUNCO, DARK-EYED	∢	→5/13	4/4	~	•	R-4/9(160)	¥	~	~	14/30
GROSBEAK, ROSE-BREASTED	4/23→	4/29→	4/30↑	5/2-20(10)→		4/30↑	5/1↑	4/28→	5/4→	4/25E→
BLUE		6/24								2/6→
BUNTING, INDIGO	2/2→	2/4↑	2/3→	5/2→		2/3→	2/1↑	<b>a</b>		5/7→
BOBOLINK	4/24→	2/7→	4/25→	5/7-6/10(60)→	•	4/28→	2/3→	_	4/29→	5/13→
BLACKBIRD, RED-WINGED	∢	¥	⋖			A	⋖	⋖	∢	ĸ
MEADOWLARK, EASTERN	A	¥	¥	4/16→	8/9	А	¥	A	А	<b>~</b>
BLACKBIRD, RUSTY	4/3	<b>→</b> 4/14(12)-5/13				4/8-20(18)	4/1-28	→4/23(55)	4/2	4/28
GRACKLE, COMMON	∢	۷	٧			Α	⋖	¥	A	ď
COWBIRD, BROWN-HEADED	A	A	A	4/4→		A	A	A	A	2
ORIOLE, ORCHARD		5/2-13	2/6	1	8/9	5/13	5/13→	2/5→	2/7→	4/26→
BALTIMORE	2/5↑	2/1↑	5/4→	5/13→		5/4→	2/3↑	4/28↑	2/4↑	4/28→
FINCH, PURPLE	4	<b>→</b> 4/9(12)-6/2	¥	<b>∝</b>	8/9	A-4/18(18)	4/3→	A	4	<b>→</b> 5/31
SISKIN, PINE	14/15	<b>→</b> 4/9(25)-5/28	4/8-6/15	4/9		12/10	4/3-5/3(5)-15	€/9	15/13	<b>→</b> 4/21
GROSBEAK, EVENING	12/3			→5/13		4/17-23(50)-5/2		4/19-5/1		1

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We wish to acknowledge the following individuals and organizations for supporting *PENNSYLVANIA BIRDS* through additional gifts.

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