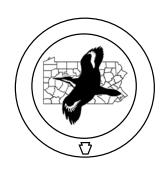
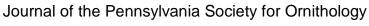
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COVER: Townsend's Warbler, Drums, 2/16/1998 Photo by Rick Wiltraut

from the Editors...

APOLOGIES AND CORRECTIONS

First, we apologize for the lateness of this issue. As we noted in the last issue, we asked our compilers to hold off from sending in their reports as we were waiting for the AOU to publish their new checklist. This was expected in April. We were then going to create new report forms for the compilers, distribute them, and incorporate the new checklist order into this issue.

However, not only did the checklist not come out in April, it still isn't out! We waited until late May and then told our compilers to submit their reports on the old forms. Therefore, we received most of the reports more than a month later than usual. We have been playing catchup, and our next issue should be on time. We will continue to use the old AOU order until the new one gets published and we will not hold up another issue in anticipation.

Secondly, we really mangled Steve Feldstein's article on subspecies and morphs in the last issue. We had scanned the article in and then had to edit the words and terms that the scanner didn't recognize, mostly scientific names. However, through a series of miscues, we managed to publish the unedited version! The article as sent in by Steve was accurate and correct. The errors were all our fault.

To correct this situation, we are making available "clean and edited" copies of the article to anyone who wishes a copy. Just send us a large stamped self-addressed envelope with one first-class stamp and we will send you a copy.

Also, as we are going to press, Ted Floyd is creating a WEB page to serve PSO, *Pennsylvania Birds*, and PORC. The URL will be published in the next issue. We will put a copy of Steve's article on that WEB site for anyone who wishes to get a copy that way.

CHANGING COMPILERS

The Kennells are retiring as compilers for *Adams*. We thank them for their faithful service since 1988! Debra Siefkin has volunteered to take over the compiling duties for *Adams*.

The Henises are moving to Michigan, and are therefore relinquishing their compiling duties for *Franklin*. We owe a lot to them, not just for their continued contributions to *Pennsylvania Birds* since 1991, but also for setting up a listserve for Pennsylvania birders on the internet. They will be missed. Dale Gearhart has agreed to take over the compiling duties in *Franklin*.

Bill King is stepping down as compiler for *Blair*, but has found no successor.

In addition to *Blair*, we still have several other counties without compilers (See the list of observers at the back of this issue). If you live in or near a county without a compiler, please consider volunteering.

ARTWORK NEEDED

We have used photographs on the covers of the last issue and this one because we have not received any good artwork to use instead. Although photographs are okay, we would prefer to give local artists some free exposure.

If you are an artist (budding or otherwise), consider doing a cover for *Pennsylvania Birds*. We do not pay for anything published in this magazine, but the exposure cannot but help your prospects.

We are very open to the type of

artwork (and species) received, but realize that it will be reproduced in black-and-white. Also, the more relevant the illustration is to the season and particular sightings the better.

A NOTE ABOUT PORC

The Pennsylvania Ornithological Records Committee welcomed three new members this year, Ted Floyd, Paul Hess, and Dr. Kenneth Parkes. This was the largest turnover in membership since the committee's inception, and was due to job and personal reasons of the former members. The incumbent members are Frank Haas, Roy Ickes, Paul Schwalbe, and Jerry McWilliams.

We would like to emphasize that PORC is not the "checklist police." You can count on your lists whatever you desire. For instance, we count Barnacle Goose on our state list, even though the committee has always split on their wild/escape status, therefore not including them on the "Official" state list. We also count on our lists species for which we did not send any documentation to PORC because we knew the sighting was too brief to be adequately documented, but we were satisfied for our own purposes.

Remember, PORC is not evaluating the observer, just the documentation submitted to them. Also, most of the records that are not accepted are a result of split votes, rarely a unanimous decision. This means that some members thought that the documentation was adequate, while others did not. Please don't shoot the messenger because you don't like the message.

Frank & Barb Haas Chief Editors

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Pennsylvania's Crossbill Winter of 1997-98

by Paul Hess, Michael R. Leahy, and Robert M. Ross

The winter of 1997-98 brought an immense "northern finch" invasion to the eastern and central United States. Foremost in Pennsylvania were the crossbills, Red (*Loxia curvirostra*) and White-winged (*L. leucoptera*), both famous for unpredictably invading regions where they are otherwise seldom seen, often in large numbers.

This invasion was a classic "irruption" as defined by Lack (1954) in contrast to regular annual migrations: irregular in years of occurrence, numbers of birds, and directions taken. It was also a "superflight" involving Red-breasted Nuthatch (Sitta canadensis) and all the highly irruptive finches (Bock and Lepthien 1976). Pine Grosbeak (Pinicola enucleator), Purple Finch (Carpodacus purpureus), Common Redpoll (Carduelis flammea), Hoary Redpoll (C. hornemanni), Pine Siskin (C. pinus), and Evening Grosbeak (Coccothraustes vespertinus) were recorded in Pennsylvania -- in fact, within Clarion alone. Only Pine Grosbeaks and of course Hoary appeared in minimal Redpolls numbers.

Irruptions may stem from food crop failure (Bock and Lepthien 1976) -- conifer seeds in crossbills' case -- but a key factor is bird populations too large for whatever food resources are available (Newton 1973; Benkman 1987a, 1992). After high mortality during irruptions, crossbills' extraordinary ability to reproduce builds populations within a few years that can overwhelm even moderate cone crops and force emigration (C.W. Benkman, pers. comm.). Across much of Canada in the winter of 1997-98, conifer-feeders could find no food at all, according to Ian Thompson of the Canadian Forest Service (pers. comm.). He reported, "There are no seed on any trees this year over the entire area from Manitoba across Ontario and Quebec. I have never seen such a 'bust' year where all species were dormant simultaneously. We have been monitoring resident birds for several years now in various forest types in winter, and this year we had our lowest-ever counts of all species, including nuthatches which should not have been so affected."

Pennsylvania's last crossbill invasions were made by Red in 1972-73 (Hall 1973, Scott and Cutler 1973. Bolgiano 1998) and Whitewinged in 1981-82 (Hall 1982, Hess 1982, Paxton et al. 1982, Bolgiano 1998). The extent of those invasions did not become clear until months after they occurred. This time BirdSource, an innovative web site at the Cornell Laboratory of Ornithology, tracked the irruption immediately on a continental scale. By mid-January more crossbills were reported to BirdSource from Pennsylvania than from anywhere else in North America (S. Kelling, pers. comm.). Within the state, PABirds internet group members added an unusually detailed picture. Their contributions, BirdSource data, and information from many individual observers enable a more complete description than was possible for any previous invasion.

Distribution and Abundance

From September through April crossbills were reported to us in 55 of Pennsylvania's 67 counties (Figures 1 and 2). Both species were found in Adams, Allegheny, Armstrong, Berks, Bradford, Bucks, Butler, Carbon, Centre, Chester, Clarion, Clinton. Columbia, Crawford, Cumberland, Dauphin, Delaware, Fayette, Forest, Franklin, Huntingdon, Indiana, Jefferson, Juniata, Lancaster, Lebanon, Luzerne, McKean, Mifflin, Montgomery, Perry, Philadelphia, Pike, Potter, Schuvlkill, Snyder, Somerset, Sullivan, Union, Venango, Warren, and Westmoreland. Only Red was reported in Erie, Greene, Lehigh, Lycoming, Montour, Northampton, Northumberland, and York. Only White-winged was listed in Cameron, Clearfield, Mercer, Tioga, and Wyoming.

The highest counts were in *Clarion*, where maximum estimates clustered around 800-1,000 Red and 2,000-3,000 White-winged, most in

Cook Forest State Park at the *Clarion*, *Forest*, *Jefferson* intersection. Totals of 500 or more were noted at several other *Clarion* locations, though some could have represented movements by the Cook Forest throngs.

Other large counts were 200 Red and 1,500 White-winged on Appalachian ridges in Somerset (J. Tilley, pers. comm.), and 120 Red and 665 White-winged in Venango (G. Edwards, R. States, pers. comm.). Notable White-winged flocks also included 300-400 in Centre (D. Brandes, pers. comm.), 200 in Huntingdon (N. Bolgiano, pers. comm.), 200 in Perry (D. Henise, pers. comm.), and 175 in Franklin (BirdSource).

The birds passed many locations without staying. A prime passage site was Hawk Mountain Sanctuary, Schuylkill/Berks, where hawkwatchers tallied 164 Red and a record 502 White-winged on Kittatinny Ridge in November and December (L. Goodrich, pers. comm.). The mountain ridges in Somerset were evidently another major route for crossbills to and from regions south Pennsylvania, though hundreds also remained in that county for the winter (J. Tilley, pers. comm.). Except for Cook Forest, the largest numbers of both transients and winter-long residents were found in the Ridge and Valley Province. What Cook Forest and the mountain region shared primarily was an adundant hemlock cone crop (see below). Widespread crossbill occurrences across the state's northern tier, southwest, and southeast were mainly temporary stops by small flocks.

Among approximately 120 individual locations where crossbills were reported, twelve had more than 100 White-winged, seven had more than 100 Red, and six of those had more than 100 of both species. The general ratio of White-winged to Red numbers appeared to be at least 3:1 statewide during most of the winter.

Red was listed on 18% and Whitewinged on 24% of the Christmas Bird Counts (CBCs) in Pennsylvania (Floyd

1998), matching the state's historical high percentage for Red in 1969 but not reaching the high of 35% for White-winged in 1963 (Bolgiano 1998). The 67 CBCs tallied 1,920 crossbills statewide, compared to a grand total of 32 during the entire preceding 5-year period (Floyd 1998). Dramatic as that difference may be, it pales against the opposite picture at Algonquin Park, Ontario: previous records of 3,527 Red and 8,728 White-winged, compared to zero of both species on this winter's CBC (Pittaway 1998). As Pittaway commented, "Crossbills and cones are boom or bust."

Timing

Distinct stages of the invasion began with a single White-winged at Hawk Mountain Sanctuary Sept. 22 (L. Goodrich, pers. comm.) and three White-winged at DuBois Reservoir, Clearfield, Oct. 17 (G. Zielinski, pers. comm.). The major influx came in November with an almost daily movement past Hawk Mountain beginning Nov. 10 by White-winged and Nov. 16 by Red (Goodrich, pers. comm.). By late in the month both species were flooding most of the state in numbers that rose steadily through December and early January.

An interesting feature of the irruption was a sudden explosion of both species in western Pennsylvania on Jan. 17-18. The burst covered a wide region and appeared most conspicuously at Cook Forest, the Somerset ridges, and Venango. Though Reds increased greatly in Cook Forest at that time (M. Buckwalter, unpub. data), White-winged still outnumbered them afterwards in all three of those areas. Speculation was that the influx may have involved a dispersal from the great early-January ice storm in Quebec and eastern Ontario; however, a survey by Hess of observers in adjacent areas south and west of the storm region uncovered no major movements. (Perhaps crossbills were not present within the storm area in the first place.)

Diminishing numbers of Whitewinged at several major Pennsylvania sites in late February and early March brought the first impressions of a season-ending departure. During that period crossbills also began appearing in places where they had not been seen for several months or at all. Many small flocks were noted flying northward over *Butler* Feb. 26-March 6 (G. Wilhelm, pers. comm.). At least several hundred continued at Cook Forest past mid-March, but at monthend the huge winter flocks were gone (M. Buckwalter, pers. comm.), and in *Somerset* only a few stragglers were being seen irregularly (J. Tilley, pers. comm.). By early April the invasion of Pennsylvania was essentially over, with fewer than two dozen reports during the month limited to transient small flocks and single birds.

Red "Types"

At least three forms of the Red Crossbill visited Pennsylvania during the 1997-98 irruption, according to Jeffrey G. Groth at the American Museum of Natural History (pers. comm.). A bit of background offers perspective on his finding. The history of curvirostra taxonomy is difficult to follow through the extensive literature. Dickerman (1986a) called it "more complex and confused, or just plain wrong, than for any other North American avian species ... a nomenclatural mess." North American forms have been treated as subspecies with confoundingly changing names (e.g. Griscom 1937, American Ornithologists' Union 1957). They have been grouped more simply if less precisely into four size classes (e.g. Monson and Phillips 1981, Dickerman 1987). Most recently they have been classified as "types" and proposed as up to eight sibling species, based primarily on consistent differences in flight calls (Groth 1988, 1993).

The different calls are recognizable by ear with experience, and the types can be confirmed visually in audiospectrograms made from recordings. Groth analyzed recordings taped at Cook Forest on Jan. 29 by Margaret Buckwalter of Clarion and on Feb. 1 by Julie Feinstein of the American Museum of Natural History. He provided a sonagram for this article from their tapes (Figure 3).

The Cook Forest recordings showed three of the eight Groth call types: "Type 3," the smallest Red form, which ranges widely from British Columbia southward along the Pacific coast but has irrupted occasionally across the continent and nested in the eastern states and provinces

(Dickerman 1986b, Groth 1993, Pittaway 1998); "Type 1," a medium-sized form, which is known to breed in Washington and British Columbia as well as in the Appalachians (Groth 1988, 1993); and "Type 4," similarly medium-sized, which breeds commonly in the Pacific Northwest but has been found along the northern Atlantic coast and in many intervening areas (Groth 1993). The standard concept of a species' or subspecies' breeding range does not apply to these nomads; each Red type nests from time to time in widely separated regions.

At their extremes, the eight Red types range from "distinctly smaller" to "considerably larger" than Whitewinged (Benkman 1987b). Observers who studied both crossbills side by side during the invasion described Reds of two sizes consistent with the calls Groth identified. Corresponding to Type 3, a form conspicuously smaller than White-winged was seen at State Game Lands 110 in Schuylkill/Berks (R. Keller, pers. comm.). Corresponding to Types 1 and 4, a form about the same size as White-winged was seen at several localities (D. Gross in Luzerne, D. Henise in Perry, P. Hess and M. Leahy at Cook Forest).

Several other reports pointed to the presence of more than one Red form. Individuals in *Venango* were definitely smaller-billed than those seen at Cook Forest by the same observer (R. States, pers. comm.). Within Cook Forest itself, a relatively small and a slightly larger Red were suspected to be present (M. Buckwalter, pers. comm.), and two different Red flight calls seemed to predominate in January and late February (P. Hess, pers. obs.).

Sonagrams of calls recorded in New Jersey and Maryland during the invasion showed Types 3 and 4 predominant there (M. O'Brien, pers. comm.). O'Brien's analysis of the calls from New Jersey also revealed a few individuals of Type 2, which is much larger-billed and larger overall than the others. On one occasion at Cook Forest several observers found six Reds with conspicuously large bills feeding on both hemlocks and pines (J. Fedak, pers. comm.), which suggests that perhaps Type 2 visited western Pennsylvania in small numbers. Type 2 birds generally prefer pine, and the smaller forms typically prefer hemlock (C.W. Benkman, pers. comm.).

Flock Characteristics

Observers at Cook Forest marveled at flocks of 200-500 criss-crossing noisily overhead. Equally large mixed-species groups often landed nearby, covering trees in colorful, hyperactive movement. The flocks were predominantly adults, usually slightly more males than females, and only a tiny proportion of heavily streaked apparent immatures.

On huge Cook Forest hemlocks, aggressive interactions within the feeding flocks were less frequent than might have been expected, perhaps reflecting cones spread widely over the trees rather than clustered as at a spruce top (Benkman 1992, 1997). On pines at SGL 110, Schuylkill/Berks, encounters involved male Reds displacing female Reds from cones and White-winged of both sexes displacing even male Reds of a smaller "type" (R. Keller, pers. comm.; see last section below).

The variety of male hues was striking: White-winged rose with bright wing bars; Reds usually brick-colored but some bright scarlet, orange-red, dull pink, even a few in rich ochre shading to a bright yellow rump. Such Red variations are well known (Benkman 1992, Clement et al. 1993, Groth 1993, Adkisson 1996). A visitor described the scene aptly: "It looked like decorated Christmas trees" (J. Feinstein, pers. comm.).

Flocks sometimes fed on one group of trees for an hour but more often after a few minutes erupted into chatter, took off in a swirling mass, and either disappeared from view or swung back in a tight circle to land again. Continual forming, dividing, and re-forming into flocks of varying size seemed habitual (J. Tilley, pers. comm.), and this restlessness was conspicuous elsewhere (D. Gross, pers. comm.). After taking off on long flights, the mixed flocks sometimes divided into Red and White-winged groups -typical behavior, as is the oddly sudden "crescendo" of calls just before takeoff (Benkman 1992, Adkisson 1996).

Small groups of White-winged were seen foraging rarely and briefly with Pine Siskins in another typical behavior pattern (Benkman 1992). More unusually, White-winged were seen traveling in large Black-capped Chickadee (*Poecile atricapillus*) flocks

at Ricketts Glen State Park, *Luzerne* (D. Gross, pers. comm.).

Food

In cone-crop ratings reported to BirdSource from 27 locations in Pennsylvania, crossbill numbers strongly reflected the presence or absence of sufficient food resources. Where cones were said to be widely abundant (five locations), as at Cook Forest and elsewhere in Clarion, large flocks spent the entire winter. Where no cones were reported to be available (nine locations), small flocks stopped only briefly if any were seen at all. At 13 localities where the cone crop was rated as "moderate," the picture varied from large numbers wintering in Somerset, Venango, and Schuylkill to very small and infrequent flocks in the Allegheny National Forest of Warren.

The correlated patchiness of conecrop quality and crossbill abundance well illustrated in the Sullivan/Wyoming/Luzerne area (D. Gross, pers. comm.). The crop in the old-growth Glen Natural Area of Ricketts Glen State Park (though "not terribly impressive") was the best in that region, and crossbill flocks were observed there repeatedly during the winter. Meanwhile, in Wyoming State Forest and several state gamelands in the same counties, where the hemlock cone crop was "almost zero" and the pine cone crop was "poor," Gross could find no crossbills.

Eastern hemlock (*Tsuga* canadensis) is one of crossbills' favorite foods during irruptions into the northeastern United States (Todd 1940, Austin 1968), and it was both species' clear preference in Pennsylvania during the 1997-98 invasion. Observers in all areas where large flocks remained through the winter reported crossbills to be feeding almost exclusively on hemlock cones.

Eastern white pine (Pinus strobus) is another important winter food, especially for Reds in the northeast (Martin et al. 1951), but at Cook Forest the crossbills mainly ignored white pines loaded with cones. Small groups did forage occasionally on the pines, usually manipulating a cone briefly and then quitting after extracting a seed or two (M. Leahy, pers. obs.). Given that the rate of seed intake strongly influences where crossbills forage (Benkman 1987a,

1987b), the white pine cones in Cook Forest, which were open, may have had few seeds left in them and consequently were less profitable for crossbills compared to hemlock.

Pennsylvania's invaders used at least 10 other cones, catkins, or buds secondarily: Virginia pine (Pinus virginiana), Norway spruce (Picea abies), larch (Larix sp.), yellow birch (Betula alleghaniensis), tulip-tree (Liriodendron tulipifera), and sweetgum (Liquidambar styraciflua) by Red; white spruce (Picea glauca), red spruce (Picea rubens), yellow birch, black birch (Betula lenta), tulip-tree, and sugar maple (Acer saccharum) by White-winged.

With cones in place, the crossbills used three methods of reaching seeds. On hemlocks they usually left the cones attached, turning and holding them upright with one foot. On pines they sometimes detached and held cones, extracted seeds, then "rained" the cones on observers below (M. Leahy, pers. obs., M. Fialkovich, pers. comm.). Often on both trees, birds simply hung upside down on attached cones or adjacent branches to probe for the seeds. Depending on cone type and circumstances, all of those foraging methods are typical (Benkman 1992, Adkisson 1996).

In late March at Cook Forest, a flock of hundreds of White-winged fed on the ground beneath hemlocks, taking seeds both from fallen cones and from the ground (M. Buckwalter, pers. comm.).

A few other cases of groundforaging by small numbers of Whitewinged were reported in early April. This behavior usually occurs after crossbills have depleted cones on the trees or after the cones' seeds have fallen; by late in the season many more seeds may be available on the ground than on trees (Benkman, pers. comm.).

Both species rarely used feeders. We learned of about a dozen cases statewide, a proportion consistent with feeder use in only 15% of continental reports to BirdSource. All the Pennsylvania reports came late in the winter and involved very small numbers of birds eating sunflower seeds exclusively. Observed closely, a Red appeared to roll a seed around in its bill for a short time, then the hull would shoot out in two pieces (J. Meier, pers. comm.). Crossbills husk a seed by securing it with the tongue in

a groove in the palate and applying pressure with the sharp-edged lower mandible to crack and remove the seed coat (Newton 1973, Benkman 1993).

In Venango a White-winged was seen peeling bark off a deciduous tree (R. States, pers. comm.), and at Cook Forest both species gleaned on bark (M. Leahy, pers. obs.). This activity has been noted elsewhere, though what is consumed is unclear (Benkman 1992). Close inspection of the freshly worked wood may show no visible evidence of mineral deposits, insects, fungi, or anything else that might have served as a food source (Crins and McRae 1998).

Breeding Prospects

Crossbills, particularly Red, may nest wherever they find abundant food and in any month (Benkman 1990). Breeding often occurs at invasion sites, and at Cook Forest in February several observers noted Reds in full song or apparent courtship flight around treetops. In *Venango* even a female White-winged sang (R. States, S. Butcher, B. Richter, pers. comm.); females are known to sing occasionally, but only males do so regularly (Austin 1968, Benkman 1992).

At this writing (late April), no 1998 nesting had been reported in the state, but crossbill nesting is notoriously difficult to document (Todd 1963, Kibbe and Boise 1985); for example, each species was confirmed in only 8% of the New York atlas blocks in which they were found (Peterson 1988).

There are no White-winged breeding records in Pennsylvania, though they have bred less than 15 miles north of the state line (Peterson 1988). Nearly all Pennsylvania breeding reports of Red are merely presumptive (reviewed in Fingerhood 1992), based only on presence of pairs, courtship behavior, or parental feeding of already full-grown young that could have traveled far from their birthplace. No recent records appeared in the state checklist (Santner et al. 1992), but Douglas Gross (pers. comm.) confirmed breeding by a Type 1 pair when he found a female nest-building Dutch Mountain. Sullivan/Wyoming, in March 1993.

Three Red Crossbill breeding reports in western Pennsylvania are not widely known and may be of interest here. Two followed a 1963-64 invasion: a nest built in April apparently held young in May near Mars, *Butler* (Preston 1964), and three newly fledged young accompanied a female through early June at Allison Park, *Allegheny* (Simon and Simon 1964). After a 1969-70 invasion "at least one pair raised young" in April at Ingomar, *Allegheny* (Freeland 1970, Hall 1970).

An observer fortunate enough to discover crossbills nesting in Pennsylvania should describe the event in detail and attempt to record Red breeders' flight calls so that their type can be documented.

ACKNOWLEDGEMENTS

This report would not have been possible without the cooperation of countless observers who supplied data to BirdSource, PABirds, the Rare Bird Alerts, and to the authors. Some are named in the personal communications cited, but others' contributions were equally important. Especially detailed data were provided by Margaret Buckwalter and Douglas Gross from their Special Area Projects, and by Ted Floyd on Christmas Bird Counts. We are indebted to Steve Kelling for extensive distributional data from BirdSource, to Craig W. Benkman for expert advice, and to Jeffrey G. Groth for sonagram analysis. C. W. Benkman and M. Buckwalter offered valuable comments on an earlier draft.

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> Hess: 1412 Hawthorne St. Natrona Heights PA 15065

> > Leahy: P.O. Box 15 Knox PA 16232

Ross: Biological Resources Division USGS Research & Development Laboratory RD 4, Box 63 Wellsboro PA 16901

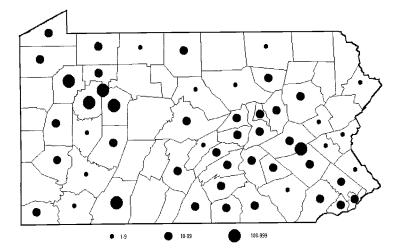


Fig. 1. Red Crossbill distribution in Pennsylvania by county, winter 1997-98. Circles of increasing size represent maximum count reported for each county in three classes: 1-9 birds, 10-99 birds, and 100-999 birds. Two additional circles that cross county lines are Cook Forest State Park in the west and Hawk Mountain Sanctuary in the east. No counts over 1000 were reported to the satisfaction of county compilers. (Sources: BirdSource, PABirds, personal communications)

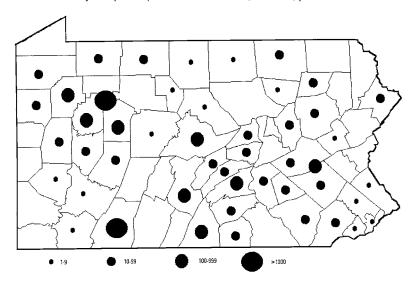


Fig. 2. White-winged Crossbill distribution in Pennsylvania by county, winter 1997-98. Circles of increasing size represent maximum count reported for each county in four classes: 1-9 birds, 10-99 birds, 100-999 birds, and more than 1000 birds. Two additional circles that cross county lines are Cook Forest State Park in the west and Hawk Mountain Sanctuary in the east. (Sources: BirdSource, PABirds, personal communications)

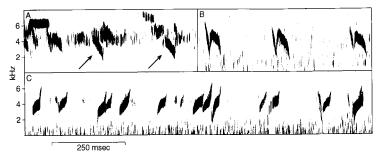


Fig. 3. Audiospectrograms of three Red Crossbill flight call types recorded at Cook Forest in 1998. (A) Single Type 3 flight call (far left) and two Type 1 flight calls (indicated by arrows) recorded by Margaret Buckwalter on Jan. 10. (B) Series of Type 3 flight calls recorded by Julie Feinstein on Feb. 1. (C) Type 4 flight calls from a flock recorded by Julie Feinstein on Feb. 1. (Source: Jeffrey G. Groth, American Museum of Natural History; see Groth 1993 for complete discussion of call types, which were proposed as representing separate sibling species)

Bird Banding at Presque Isle State Park

by Evelyn Anderson

A strategic location on the Atlantic Flyway is Presque Isle, a seven-mile peninsula that curves out into Lake Erie from the western to the eastern side of Pennsylvania's most northerly city which shares the name of that Great Lake. It was there in 1960 that the Lebermans, a Meadville family with a permit from the U.S. Fish and Wildlife Service, set up a bird banding station that has continued to operate year after year during peak days of the spring and fall migrations.

Like countless others, Lebermans had found that 3200-acre peninsula, being a recurved sandspit, was an ideal place to go birding. The wide protected harbor that Presque Isle forms attracts numerous species of waterfowl, and its wide sandy beaches, inland ponds, lagoons, swamps, thickets and woodlands are ideal habitats for land birds. Most importantly, because Long Point, Canada's peninsula, juts out into Lake Erie almost directly across from Presque Isle, that makes it a shorter route across the open water for birds follow during the migration seasons. On Presque Isle's shore. where there is plenty of food and shelter, the migrants are able to feed and rest before flying across the lake to northern nesting grounds in the spring, and it is there that they can feed and rest after their 22-mile flight back across the lake as they head south for the winter. It is during those times when unusual sightings are apt to be made. Of the 318 species recorded for Presque Isle, 36 have been listed as "Species of Special Concern" in Pennsylvania.

When birds are captured, banded, released, and later recaptured elsewhere, it is sometimes possible, by checking band numbers and records, to determine their migration routes and the locations of their nesting and wintering grounds.

In the days of the Roman Empire, emperors' falcons were marked for identification, but bird banding, as we know it, did not begin until 1890 when birds that had been banded by a Danish school teacher began turning up in different places in Europe. As the news about his method of tracking

birds spread, other people began to band birds. There were soon so many banders that it was then decided that they could accomplish more if they worked together as a group. In 1909 they formed the American Bird Banding Association. Their work convinced biologists in the Bureau of Biological Survey – which is now the Bureau of Sport Fisheries and Wildlife - that banding was an excellent way to learn more about bird migration and the life span of birds. In 1920 Canada and the United States took over the ABBA's work as a joint effort to garner more facts about birds.

Anyone who is at least 18 years old and knows how to identify all of the common birds in their different seasonal plumages, and how to gently handle them, may apply for a permit to band birds. To be accepted as a bander, ornithologists or well-known bird banders must vouch for the applicant's qualifications.

In 1958, when he was in his early twenties, Robert Leberman, who had been birding since the early 50s or late 40s, was granted a permit and began to band birds around his home. Within a short time, his older brother, Ronald, and their mother, Mary, earned sub-permits under him. That first year, using only live traps, they banded 400 birds. A couple years later, they received permits to use nets; that year they banded about 2000 birds.

In 1960, the Lebermans decided to go to their favorite birding spot – Presque Isle State Park – to do some banding.

"Dad went with us each time, to go fishing and to keep our coffee pot hot," said Ron, who is now the only member of the Leberman family manning the station. Brother Bob left about 1961 to start a banding station at Powdermill, the Carnegie Museum of Natural History's field research station in the Laurel Highlands, where he has continued his work as a naturalist. For several years after their father. Charles Leberman, died. Ron and his mother continued the work until her death in 1989. Since then, Ron has continued with the help of Thelma Patton, a Meadville neighbor who received her banding permit about 10 years ago.

That first banding station at the peninsula was located where the present administration building now stands. "Back in those early years" said Ron, "we used to see 2000 Brown Creepers in the area by the administration building. Every tree would have Brown Creepers on it. Then, another week we'd see 3000 or 4000 Black-throated Blue Warblers."

Noticing expressions of disbelief, he said, "No, I'm not exaggerating. We used to get huge flocks of warblers and other birds in there. We haven't seen any large flocks like that since then. About 1964 or 1965 they built the administration building and that may have scattered the birds."

Shortly after the Lebermans began banding at the peninsula, the Stulls, Jean and Jim, got a banding permit and began banding in the same location. Except for a short period of time, they banded every year at that station (which was moved behind the administration building when construction began) until Jim died in 1993. Their records, when combined with those of the Lebermans, who moved their banding station farther east to an area near the Niagara boat ramp, have added much to the knowledge of migrating birds.

Ron said his recent banding records are indicating that birds may now be crossing at Niagara Falls and following down along the Lake Erie shore rather than crossing the lake itself. If that is true, he said, it may be why numbers of birds on the peninsula have decreased in recent years.

"Certainly there are fewer birds today than there were 40 or 50 years ago," he said. "Of course there's more space being used for homes. Forests in Central and South America are pretty well ravished, and there are fewer places for birds to winter, and fewer places for them to nest. In Canada, they've been spraying for their tree farms, and that cuts down the warbler populations."

Ron believes that each of those things is in part responsible for the lower number of birds. Back in the early 1960s they used to band 3000 birds in a year. "I would consider it a

good year now if we got a thousand birds," he said. Even with the lower numbers, he still considers Presque Isle one of the best birding areas in the state. "It has more species than in any other spot in western Pennsylvania," he said. "But as far as total birds, I'd say that there probably are some other areas that are better. But, of course, things seem to be more concentrated out here...there are fewer acres so that the birds that are here seem like more."

Weather, Ron said, has a lot to do with the number of birds that they see. Some days, all the birds seem to be on the lake side – none on the bay side of the peninsula where he is banding. "Then," he explained, "if we get a real northwest wind coming across and making pounding waves on that side, and this side is calm, this is where the birds will be."

A Swainson's Warbler, a southern species, was one of the rarest birds Ron has banded. That was at Presque Isle, back about 1985. And on 26 September 1992, he and Thelma Patton, the Meadville neighbor who had been helping him, banded a Western Kingbird that was caught there in one of their mist nets. They believe that the bird must have been blown off-course during a hurricane the previous week.

The most often caught species in Ron's mist nets at the peninsula is Golden-crowned Kinglet. Ruby-crowned Kinglets, Yellow Warblers, White-throated Sparrows, Swainson's and Hermit thrushes, and Gray Catbirds are among other frequently banded species.

The lightweight nylon nets that banders use to capture birds look much like hair nets, but are 40 feet long and 10 feet high. They are stretched between aluminum poles.

Beyond a savannah, by the Niagara boat ramp where Ron continues to band, several lanes have been cleared through the thickets just wide enough for the poles and the nets, and for Ron to be able to walk through to retrieve the birds that are caught. When a bird flies into a net, its weight creates a little hammock which gently holds it until it is carefully removed by the bander.

For a number of years when they first began banding at Presque Isle, both the Lebermans and Stulls banded shorebirds. Most common were the Least, Semipalmated, and Spotted sandpipers, but they also banded some of the rarer migrants. Ron recalls the day that they didn't even need a net to capture and band a Stilt Sandpiper, a rare migrant that winters, as do many of the others, in South America. That bird was found on the beach so exhausted from it flight across the lake that it couldn't fly. Ron said they stopped banding birds along the far outer beaches when he and his family realized that shorebirds, because they need to rest as well as feed along the shoreline, should not be disturbed.

With specially made pliers, each captured bird is fit with a numbered aluminum band around its leg. The largest birds Ron has ever banded at Presque Isle were the Great Blue Herons; the smallest were Ruby-throated Hummingbirds. There are 17 different sizes of bands to fit different sized birds. The Bird Banding Laboratory supplies the bands free of charge to the banders, who work as volunteers.

The careful records that are made about each banded bird – its species, sex, age, amount of body fat, place captured and released, and the date when it was banded – are sent to the Bird Banding Laboratory where they are recorded on a computer so they can be quickly located whenever there is a recovery or other information is needed. Only about a tenth of the more than a million birds that are banded every year are ever recovered.

Some species of birds show up in the same place year after year; some, many years later. A healthy male Northern Flicker, banded by Ron on 3 September 1983 at Presque Isle was retaken there, by the Stulls, on 23 May 1992, indicating that it was at least 10 years old. A Warbling Vireo that was banded there 29 August 1987 was retaken by Ron, 16 May 1992, making it at least five years old.

About ten years ago Ron began doing research on Yellow Warblers. He chose them, he said, because they nest at Presque Isle. Since they return year after year, he is able to get many recoveries.

"If I got a hatch bird, and I banded it, then maybe three years later it'd come back and I would know exactly how old it was," he said. "I have some that have repeated nine years, which is a long time for a bird like a warbler to live."

More exciting than the returns, perhaps, are reports of birds that were banded at Presque Isle and found elsewhere. A Yellow-rumped Warbler. a bird which spends the winter in Panama, was banded at Presque Isle on 1October 1972 and found 9 June 1975 in Houghton, Michigan. An Ovenbird banded by Ron on 14 May 1987 was found 19 May 1990 in Quebec City, Canada. Even reports of our common Robins are interesting. One that Ron banded at the peninsula 11 May 1963 was found 29 January 1966 in Evans, Georgia. And one that was banded there on 19 June 1964 was found in Suniland, Texas two years later, in January.

Sometimes, however, it is the people who come to the banding table to watch, rather than the birds that are being banded, which are most interesting. Ron still chuckles about the time a woman asked if they put salt and pepper on their tails to catch them. She was serious, he said. She really did think that that was the way birds were caught.

Knowing what it takes for Ron to have been banding birds all these years at Presque Isle, one has to wonder why he does it. After all, he has to drive 40 miles just to get there. It takes an hour to set up the poles and the nets, and then, after spending long hours banding he has to take them down, which takes another half hour before he can even begin the 40 mile drive back home.

Ron said they began banding birds because they wanted to find out where they go and how long they live. He has always enjoyed birds and handling birds, and says that finding an unexpected bird in the net adds to the enjoyment. Banding at Presque Isle is a special treat for him because it is a place he has loved ever since the first time he went there.

When asked about the total number of bird banded since they began in Meadville in 1958, Ron, who has a full time job elsewhere, said he guessed that, for doing it in spare time, they weren't bad totals.

The numbers?

178 species

74,074 birds

963 Colony Drive Erie, PA 16505

If you find a banded bird

An important phase of the banding work is the finding and returning of bands.

If bands are found on a dead bird, the band should be removed, straightened out, taped to heavy paper and mailed to Bird Banding Laboratory, U.S. Fish and Wildlife Service, Laurel, MD 20810. Include the following information: your name and address, plainly printed; all the numbers and letters on the band; the date and place where the band was found, with specific information about location: state and county, and direction and distance from nearest town; details about the bird, noting if it had been shot or caught in some other way.

Never remove a band from a live bird. Carefully read the number on the band, write it down, and release the bird. The Bird Banding laboratory will later send a Certificate of Appreciation telling where the bird was banded, the species, and who banded it. The person who banded it will be sent information telling where and when the band was found.

Swallow Notes By Gene Wilhelm

The Cliff Swallow *Hirundo pyrrhonota* continues to increase in population in Butler and Mercer counties, thanks in large measure to the erection of concrete bridges over large water-bodies. At the time of the Pennsylvania Breeding Bird Atlas project (1983-1989), the species was restricted to five "confirmed" breeding sites in these counties, each containing less than a dozen active nests (Atlas 1992:225). It is noteworthy, therefore, to emphasize the annual increase of birds at the following breeding sites.

Route 528 bridge over Lake Arthur, Moraine State Park, Butler Co:

Year	Nests
1990	5
1991	40+1
1992	$45 + {}^{2}$
1993	$50+{}^{3}$
1994	108+ 4
1995	$188+^{5}$
1996	$219+^{6}$
1997	386+

1997. U.S. 422 bridge over Lake Arthur, Moraine State Park, Butler Co: 91+ nests⁷

1997 Route 18 bridge over Shenango Lake, Mercer Co: 131+ nests 8

Only complete nests with evidence of adult and/or young birds were counted. However, many partial nests were present at each site as well as ten dead adults hanging by fishline. Discarded fishlines along lakeshores are collected with mud by adult swallows for nest building. Once the birds plaster the mud and fishline, the latter acts as a dangling noose into which the birds fly upon leaving the nest. Have other birders experienced this human-made havoc?

References and Footnotes

Daniel W. Brauning, ed. Atlas of Breeding Birds Birds in Pennsylvania. Pittsburgh, Pa: University of Pittsburgh Press, 1992, pp. 224-225.

- 1 Pa. Birds 4(2):80.
- 2 Pa. Birds 6(2):73.
- 3 Pa. Birds 7(2):61.
- 4 Pa. Birds 8(2):99.
- 5 Pa. Birds **9**(2):91.
- $6\ Pa.\ Birds\ {\bf 10} (2){:}98.$
- 7 The U.S. 422 Bridge is a one-year-old refurbished four-lane steel and concrete structure with the potential for extensive Cliff Swallow nesting space, especially above Lake Arthur, which permits less human interference.
- 8 I suspect that this Cliff Swallow colony is older than one year based on the number of active and partially constructed nests.

Barred Owl Note by Gene Wilhelm

A Barred Owl has accepted the amenities associated with bird feeders in our neighborhood in Slippery Rock Borough the past several months. The adult bird flies from neighbor to neighbor, visiting these human-made devices both day and night and surprising its prey victims, mostly field mice, voles, moles and chipmunks that feed upon the abundant supply of birdseed. In March, in broad daylight, the owl startled an adult gray squirrel atop a feeder, caught it on the spot and devoured it within minutes. The bird is unafraid of humans and pet dogs and senses that it is protected within the confines of the borough

Is such Barred Owl behavior a rarity or have other birders had similar experiences? Please let me know. My address and telephone number are listed on the inside front cover.

A Century of Bird Life in Berks County, Pennsylvania. William D. Uhrich, Ed. Illustrations by Earl L. Poole. Foreword by James J. Brett. 335 pp., 1 map of Berks County, 14 site guides, 3 black and white photographs, 9 color artworks, 164 line drawings, species accounts, supplementary list, bibliography and index. The Reading Public Museum, 500 Museum Road, Reading, Pa. 19610-1425. 1997. \$40.

Not since 1947, when the Reading Public Museum published Earl L. Poole's A Half Century of Bird Life in Berks County, Pennsylvania, has there been a thorough treatment of this county's avifauna.

Fifty years later, thanks to a splendid cooperative effort between the Baird Ornithological Club and Hawk Mountain Sanctuary, the Reading Public Museum presents this truly grand ornithological treatise that should be used often by professional ornithologists and amateur birders alike. Although dedicated to Samuel C. Gundy, former director of the museum, the work draws heavily from Poole's unpublished Pennsylvania Birds manuscript and his field journals from 1922-1972, in addition to Baird Ornithological Club and Hawk Mountain Sanctuary primary source records.

Beautifully illustrated with Poole's extraordinarily accurate 164 line drawings and 9 color artworks of birds, many unpublished for over 60 years, the book introduces a new generation of birders to his artistry. Color plates include a pair of American Kestrels on the front jacket; a Bald Eagle robbing an Osprey; Long-eared Owl; winter birds (depicting six species); marsh birds (depicting five species); a pair of Ruffed Grouse; a grouping of Blackburnian Warblers, Common Yellowthroats, Black-and-White Warbler, and Wood Thrush; Osprey

Lake Ontelaunee; and Red-headed Woodpeckers -all inserted together between pp. 160-161. Most Pennsylvania birders do not know that Poole (1891-1972) illustrated over 40 books on various aspects of natural history from Cape May, New Jersey, and Arctic Canada to Sumatra and South America, including Bird Studies at Old Cape May, Birds of Malaysia, Birds of the Phillippines, Birds Columbia, Birds of the West Indies, and Birds of Colorado.

The book is conveniently subdivided into six parts: Introduction (pp. 1-42), Site Guides (pp. 43-75), Species Accounts – the bulk of the work (pp. 76-310), Supplementary List (pp. 311-318), Bibliography (pp. 319-331), and Index (pp. 332-335).

The wonderful Introduction includes a detailed history of the bird life and birders of Berks County since the late nineteenth century, perhaps best summarized by Bill Uhrich's concise sketch on pp. 3-11. Since the late 1940s, for example, readers learn that there have been major changes in both the county's avifauna landscape. In his introduction to the 1947 edition, Poole lamented the loss of habitat with the draining of wetlands and their conversion to pasture land. Today those pastures have given rise to housing developments. In fact, ever increasing suburban sprawl, new rounds of logging and development are fragmenting the remaining forests and changing the face of the northern, eastern, and southern parts of the county alarmingly fast. These detrimental environmental factors plus acid rain, water pollution, and general land degradation will continue to alter the numbers and distribution of birds in Berks County and elsewhere in the Commonwealth.

"But there have been positive changes in attitudes, too, throughout the last 50 years," states Uhrich. No longer are hawks shot along the length of Blue Mountain and organochlorides like DDT have been banned. Special promotions and public outreach by local birding organizations have attracted a new and expanding generation of county birders. Nest box programs have resulted in the restoration of Wood Duck, American Kestrel, Barn Owl, Eastern Screech Owl, Purple Martin, Tree Swallow, and Eastern Bluebird. In fact, the latter species' numbers are currently at the highest level this century after being nearly extirpated from the county in the 1960s, says Uhrich. I also suspect that other cavity nesters, such as House Wren, Black-capped Chickadee, and Tufted Titmouse, have benefitted as well. Thus A Century of Bird Life in Berks County offers birders and land use planners an opportunity not only to understand the environmental effects of these changes but also, it is hoped, to be able to suggest sustainable remedies for these problems.

In 1947, Poole listed 275 species of birds occurring in Berks County with 15 hypothetical and 1 extinct. In 1997, the county list stands at 330 species including 23 hypothetical, 23 escaped or introduced, and 1 extinct. Bird records are current to March 1997. The highest annual recorded species total in the county is 263 in 1995 including 27 species of shorebirds, 3 species of grosbeaks, 2 species of kites and 36 species of warblers. During the Atlas of Breeding Birds in Pennsylvania years (1983-1989), 122 species were confirmed breeding in the county out of 146 species present during the nesting season. A special ornithological feature includes the

Pennsylvania German names of birds and bird lore which gives some clues for the early status of Berks County birds. An article first written by Herbert Beck in *The Auk* in 1924 introduces the reader to this feature, while research into Pennsylvania German names for birds accomplished by William Rupp in 1946 is cited throughout the text.

However, the Introduction also encompasses a century of bird watchers, including biographies of the three giants of Berks County ornithology: Levi W. Mengel, the founder of the Reading Public Museum and the first to systematically document the county's bird life; Earl L. Poole, the second curator of the Reading Public Museum and, as already mentioned, an internationally acclaimed ornithologist and bird artist; and Maurice Broun, the first curator of Hawk Mountain Sanctuary. "Berks County Overview," courtesy of the Berks County Planning Commission, is a brief physiographic description of the county, including its size (920 sq. miles), shape (roughly diamondlike), land features (varied), location, natural vegetation cover, water bodies, and land use (pp. 41-42). Nevertheless, the overview is a fitting transition essay leading into Site Guides, the second part of the book.

The Site Guides section is quite informative. Each of the fourteen sites includes its specific location, directions for getting there, the best birding spots and trails, what species of birds one can expect where and when, and other valuable site information. Hawk Mountain Sanctuary rightfully receives special attention in the section with a reprinted article from The Auk in 1934 by Earl L. Poole titled "The Hawk Migration Along the Kittatinny Ridge in Pennsylvania," and another excerpted from a 1935 issue of The Auk by Maurice Brown titled "The Hawk Migration During the Fall of 1934, Along the Kittatinny Ridge in Pennsylvania." My only wish is that the editor would have used a simple numbering system for depicting the fourteen sites on the county map found on the page opposite Table of Contents. This would have been especially helpful to out-of-county birders who would be visiting Berks County for the first time.

The Species Accounts segment of the book is ornithologically rich and attractive with the addition of Poole's 164 line drawings and 8 color plates of birds. The arrangement of species and their common and scientific names follow the order of the sixth edition of the American Ornithologists. Union "Check-list of North American Birds" and its supplements. Following Poole's policy outlined in A Half Century of Bird Life in Berks County, only those species represented by local specimens, sight records of birds identified by two or more competent field observers, or those recently identified by a competent observer and supported by a local specimen or an old record are included. Also photographic records were accepted. A supplementary list follows the main species accounts. Records that do not meet the stringent criteria are listed there as hypothetical. Exotic and introduced species that have been found in Berks County likewise are listed. Holding to such a high standard for species acceptance should be a model for other local and county bird records in Pennsylvania.

I further commend Berks County for using precise quantitative terminology and numbers for species abundance. Each category has specific given numbers. For examples, Rare is 1 to 6 individuals per season; Common is 21 to 50 individuals per day. Such quantification is important and should become universally standardized across the Commonwealth. Finally, hawks

and their allies (pp. 114-149) are especially well documented because of yearly Hawk Mountain Sanctuary tabulations for each species between 1934 and 1996. By examining such species tables, it becomes obvious that certain years (e.g., 1995) can be called exceptionally good "hawk years" for number of species and individuals.

In sum, this is an exceptional bird book that is not intended to be a field guide but a field companion. Berks County has been ornithologically blessed to have such a rich and continuous birding tradition. Few other counties in Pennsylvania or elsewhere can mirror such a grand natural history heritage. It becomes apparent after reading this work that to achieve such a scientific study as A Century of Bird Life in Berks County, Pennsylvania, a county must have generations of dedicated birders, organizations and corporations working together in a community spirit. Above all, there is overpowering evidence that Berks County still follows the sound ornithological guidelines and principles laid down by its former master ornithologists over 100 years ago.

As Bill Uhrich concludes in his introductory article: Now it remains for the next two generations of Berks County birders to stand on the Kittatinny Ridge, to walk the shores of the lakes and the Schuylkill River in storms and in fair weather, and even to glance over their own backyards to accumulate the data necessary to publish in 2047 "A Century and a Half of Bird Life in Berks County."

I, for one, have no doubt that such a goal will be achieved. ♣

513 Kelly Rd. Slippery Rock, PA 16057

Summary of the Season - January through March 1998

Crossbills, crossbills, crossbills!

That pretty much sums up the quarter. The invasion is well documented in the accompanying article in this issue.

This is an excellent example of how little effect our local weather conditions have on invasions of northern species. Our weather throughout the state was above normal temperatures and below normal snowfall. Too often, observers look at our local weather patterns and think they have an effect on birds that aren't even here! For example, we often get questions when there is a mild spring as to why the migrants don't come back earlier since it is so warm! Of course. most of those migrants are in Central and South America and have no idea as to what our weather is like up here. Likewise, in the winter, birds north of us react to the food and weather conditions up there to determine their behavior. They have no idea as to what our weather conditions are like until they get

Too many pundits give much too much credence to wildlife's ability to "predict" the weather. Nature can only react, not predict.

There were other birds around this quarter. Eared Grebes continued their annual occurrence, this year showing up in *Chester* and *Clarion*.

The most notable rarity this quarter was a **Band-rumped Storm-Petrel** found dead on the Lake Erie shore in February. This would be a first state record. There is one previous report of this species in the state, but the specimen reported from Chambersburg in 1912 bears no label to authenticate its origin. The record was probably correct.

This marks the seventh consecutive year that **Am. White Pelicans** have shown up in the state, this quarter in *Erie* and *Butler*.

The Am. Bittern in

Cumberland was a rare winter record.

Trumpeter Swans continue to show up — we should be able to start counting these birds one of these days — this time in Westmoreland.

The **Pink-footed Goose** reappeared in *Berks* again, albeit for a shorter period of time, but demonstrates that it has started a pattern of migration. This brings up the sticky problem of exotic waterfowl.

As you know, there are many waterfowl collectors and breeders throughout the country. They have in their collections birds as diverse as Mallards to Mandarin Ducks. Records committees constantly struggle with how to judge species that could be wild, but could also be escapes. The lack of bands on a bird is frequently cited as an argument for its wild status. However, it has come to our attention that federal laws require collectors/breeders to put bands on native species only! This leaves out all of the birds we worry about. We will continue to debate this subject.

Other species once considered rare, but now showing up annually are Ross' Goose, Barnacle Goose, and Eurasian Wigeon. These species are now occurring in multiple records each year. The Ross' can be attributed to the Snow Goose explosion in recent years, but the others fall into the above category of wild/escape. Does the increased frequency of sightings indicate a wild population, an escaped population that has taken hold and is breeding somewhere in Canada, or more careless handling by breeders?

A Common Eider seen flying by at Lake Ontelaunee in *Berks*, would be a first state record if accepted by PORC. Like the Petrel above, a specimen supposedly existed for this species, but it can no longer be found.

Both species of **Yellowlegs** put in early appearances, with Lessers in January (*Philadelphia*) and

February (*Lancaster*). These were winter lingerers. The birds that showed up in March were early migrants.

The **Mew Gull** and **Thayer's Gull** in *Lebanon* were first county records.

The Rufous Hummingbird in Westmoreland reported in the previous quarter remained throughout this one. As did a Say's Phoebe in Cumberland.

There were at least two wintering **House Wrens**, and a **Marsh Wren** in *Tioga* was early.

A Varied Thrush in *Allegheny* was a first county record, and the **Blue-headed Vireo** in *Philadelphia* on 7 March was remarkable.

Warblers made a strong showing this quarter due to the mild winter. The **Townsend's** reported last quarter in *Luzerne* remained until late March. An **Orange-crowned** spent a month and a **Nashville** the entire quarter in *Montgomery*.

Other warblers (Yellow, Blackthroated Blue, Prairie, Palm, Worm-eating, Ovenbird, and Wilson's) showed up early in late March, no doubt having wintered in the U.S. rather than Central or South America.

Although crossbills came down in huge numbers, **Pine Grosbeak** was reported from only *Clarion* and *Wyoming*, both one-time sightings.

There were 199 species reported this quarter, way up from the 179 reported in the same quarter last year. We received partial or complete reports from 54 counties.

Thanks again to our hard-working county compilers! ★

Frank & Barb Haas

Birds of Note - January through March 1998

(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 details" means no <u>description of the bird</u> was submitted.

- **Red-throated Loon** *Erie:* 4 on 1/2 at Presque Isle S.P. (Jerry McWilliams); *York:* 1 on 1/28 at Codorus S.P. (Peter Robinson).
- Red-necked Grebe Chester: 2 on 2/1 at Marsh Creek S.P. (Barry Blust); Clarion: 1 on 3/7 at Kahle L. (John Fedak); Erie: 2 on 1/25 at Presque Isle S.P. (Jerry McWilliams); Tioga: 1 on 3/24 at Cowanesque L.(Joanna Stickler) and 2 on 3/29 at Hills Creek S.P. (Larry & Arlene Brown).
- Eared Grebe Chester: 1 on 3/14 at Marsh Creek S.P. (Grier Saunders no details); Clarion: 1 on 3/24 at Kahle L. (John Fedak).
- <u>Band-rumped Storm-Petrel</u> Erie: A dead bird found on the beach at the mouth of Walnut Creek on 2/24 turned out to be this species. Once confirmed, this would be the first documented record for the state. More details will be published in our next issue.
- Am. White Pelican Erie: 1 on 3/22-27 at Presque Isle S.P. (Dave Darney, Debbie Yovanovich);
- White Pelican sp. Butler: 1 on 3/14 at Moraine S.P. was probably an American, but was seen too briefly to eliminate Eastern (Mark Williams).
- Great Cormorant Delaware: Present to 2/19 at Marcus Hook (Al Guarente); Philadelphia: Present up to 3/27 with 42 on 1/10 along the Delaware River (m. obs.).
- Am. Bittern Cumberland: 1 on 1/3 at the Huntsdale Fish Hatchery was a rare winter record. (Ramsay Koury).
- **Snowy Egret** *Beaver*: 1 on 3/25 at the Beaver River was very early (Scott Kinzey).
- Black-crowned Night-Heron Cumberland: Present from 3/31 at West Fairview (Deuane Hoffman); Indiana: 2 on 2/4 at Blue Spruce County Park (Margaret Buckwalter, Mike Leahy); Lancaster: 2 on 3/28 at Eden Rd. (Bruce Carl); Philadelphia: Present all quarter with 4 on 1/10.
- Glossy Ibis Northampton: 1 on 3/30 at Green Pond was early (Joe Zajecek).
- Trumpeter Swan Westmoreland: 6 on 1/26 at Trout Run Res. (Bob Leberman, m. obs.).
- <u>Pink-footed Goose</u> Berks: 1 on 3/7 to 3/22 at L. Ontelaunee was likely the same bird as last year (Rudy Keller, Katrina Knight).
- Gr. White-fronted Goose Bucks: 1 on 1/3 to 2/28 at Peace Valley Park (August & Judy Mirabella); Franklin: 1 on 3/10 at Shook's Pond (Dale Gearhart); Montgomery: 1 on 1/17-19 at Green Lane Res. (August & Judy Mirabella, George Franchois, Paul & Anita Guris).
- Ross' Goose Berks: 1 on 3/4 at L. Ontelaunee (Ken

- Rieker); Chester: 2 on 3/25 near Oxford (no details); Lancaster/Lebanon: 1 to 4 from 1/17 to 3/22 at Middle Creek WMA (m. obs.); Lehigh: 3 on 1/13 at Fogelsville included 1 blue-morph (Jason Horn, Rick Wiltraut); Northampton: 1 blue-morph on 1/21 at Nazareth (Rick Wiltraut).
- **Brant** *Berks:* 1 on 1/24-3/22 at Oley was an unusual wintering record (Rudy Keller); *Bucks:* 1 on 1/17 at Peace Valley Park (Ron French).
- Barnacle Goose Berks: 1 on 2/14 at Hereford (Rick Wiltraut); Bucks: 5 on 1/10-11 at Peace Valley Park and several nearby ponds was the second county record (m. obs.) Montgomery: 4 on 2/15 at Green Lane Res. (August & Judy Mirabella).
- Canada (Richardson's) Goose Lancaster: 1 from January through the quarter at Middle Creek WMA; Northampton: 1 on 1/21 at Nazareth (Rick Wiltraut).
- Eurasian Wigeon Butler: 1 on 3/14-23 at Moraine S.P. (Mark Williams); Jefferson: 1 on 3/2-7 at Kahle L. (John Fedak, Lisa Swackhamer); York: 1 on 2/26-3/1 at Long Arm Dam (Carl Garner).
- <u>Com. Eider</u> Berks: 1 on 3/12 at L. Ontelaunee would be a first state record if accepted by PORC (Rudy Keller, Katrina Knight).
- Black Scoter Butler: 4 on 3/14 at Moraine S.P. (Gene Wilhelm); Delaware: 6 on 2/7 at Marcus Hook (Sheryl Johnson); Erie: Present all quarter (Jerry McWilliams); Luzerne: 1 on 1/2-9 at Harvey's Lake (Rick Koval, Jim Hoyson).
- Surf Scoter Carbon: 1 on 2/7 at Beltzville S.P. (David Hawk); Erie: Present part of the quarter (Jerry McWilliams); Luzerne: 1 on 1/2--9 at Harvey's Lake (Rick Koval, Jim Hoyson).
- White-winged Scoter Butler: 2 on 3/16 at Moraine S.P. (Shirley McCarl, Gene Wilhelm); Erie: 8 on 1/31 at Presque Isle S.P. (Jerry McWilliams); Jefferson: 1 on 3/23-27 at Kahle L. (Pat McElheny et al.)
- Virginia Rail Lawrence: 1 on 3/26 at Plain Grove was early (Linda Wagner, Suzanne Butcher); Mercer: 2 on 3/27 at Pennsy Swamp (Debbie Yovanovich); Tioga: 1 on 3/29 at the Muck (Bob Ross).
- Sora Clarion: 1 on 3/25 at Beaver Creek (John Fedak).Com. Moorhen Philadelphia: 1 on 3/3 at the sewage treatment plant was early (John Miller).
- Sandhill Crane Clarion/Venango: 1 on 3/4-5 at Kahle L. (m. obs.): Crawford: 7 on 3/1 at Geneva Marsh (Dave Darney); Erie: 2 on 3/27 at Presque Isle S.P. (Greg Cook); Lawrence: Present from 3/20 at Plain Grove (Linda Wagner); Mercer: 17 on 2/1-3/3 north of Sharon (no observer name reported).
- Greater Yellowlegs Crawford: 6 on 3/28 at Miller Pond (Isaac Field, Jim Barker); Cumberland: Three present from 3/28 at Mud Level Rd. (Don Henise); Delaware: 5 on 3/29 at Darby Creek (Nick

- Pulcinella); Philadelphia: 1 on 3/31 at Tinicum.
- Lesser Yellowlegs Bucks: 1 on 3/2 at Bedminster was early (Steve Farbotnik); Butler: 4 on 3/7 at Moraine S.P. was early (Bob Machesney); Cumberland: Present from 3/28 at Mud Level Rd. (Don Henise); Lancaster: 1 on 2/7 in the Amish farm area (Clyde McMillan-Gamber, Jeff Hoppes); Philadelphia: 4 present up to 1/10 at the Army Corps area were late (Chris Walters, Mike Logan).
- **Pectoral Sandpiper** *Cumberland:* Present from 3/28(5) at Mud Level Rd. (Don Henise); *Luzerne:* 10 on 3/29 at Plymouth (Rick Koval, Jim Hoyson, Jim Shoemaker); *Somerset:* 1 on 3/30 at Roxbury (Jeff Payne).
- **Dunlin** *Erie*: Present up to 1/3 at Presque Isle S.P. (Jerry McWilliams);
- **Laughing Gull** *Delaware:* present from 3/29 with 18 on 3/30 along the Delaware River (Al Guarente, Jim Lockyer).
- Little Gull Erie: As many as 3 present up to 3/15 at Presque Isle S.P. (Don Snyder);
- <u>Mew Gull</u> Lebanon: 1 on 1/1 at Memorial Lake S.P. was a 1st county record (Randy Miller, Bruce Weaver).
- <u>Thayer's Gull</u> Erie: Several present up to 2/13 at Presque Isle S.P. (Jerry McWilliams); Lebanon: 1 on 1/2-18 at Memorial Lake S.P. was a 1st county record (Deuane Hoffman, Jonathon Heller, Randy Miller).
- Rufous Hummingbird Westmoreland: the bird reported last quarter remained through this quarter near Delmont (m. obs.).
- Say's Phoebe Cumberland: 1 present from 1/3 through the quarter near Newville (m. obs.).
- Purple Martin Crawford: 1 on 3/28 at the Pymatuning Goose Management Area (Isaac Field, Jim Barker); Cumberland: Present from 3/28(3) at Walnut Bottom (Don Henise); Greene: 1 on 3/26 at Bell's yard (Ralph Bell).
- **Barn Swallow** *Franklin:* 1 on 3/19 at Lemar Rd. was early (Dale Gearhart); *Mifflin:* 7 on 3/19 were early (Margaret Kenepp).
- House Wren Beaver: 1 on 2/3 at Bradys Run Park was a good "winter" record (Jim Barker); Cumberland: 1 on 1/3 at Big Spring (Deuane Hoffman); Mifflin: 1 on 3/29 at Lewistown (Donald Kauffman); Philadelphia: 1 on 3/31 at E. Mt. Airy (George Armistead).
- Marsh Wren Tioga: 1 on 3/29 at the Muck (Bob Ross). Blue-gray Gnatcatcher Fulton: 1 on 3/31 at Redbud Natural Area was early (Dan Snell); Lebanon: 1 on 3/29 at SGL 145 was early (Randy Miller); Westmoreland: 1 on 3/31 at Powdermill Nature Reserve (Bob Leberman, Bob Mulvihill).
- Varied Thrush Allegheny: 1 from last week of Jan. through the quarter at Churchill was a first county record (Dino Ciabattoni et al.).
- Loggerhead Shrike Adams: Present all quarter with 2 on 2/18; Westmoreland: 1 on 3/25 at Donegal L. (Bob Leberman).

- Blue-headed Vireo Philadelphia: 1 on 3/7 at the Upper Wissahickon was early (Ted Floyd); Somerset: 1 on 3/30 at Payne's place (Jeff Payne); Westmoreland: 1 on 3/31 at Powdermill Nature Reserve (Bob Leberman).
- Orange-crowned Warbler Montgomery: 1 on 1/4-2/14 at a Towamencin Twp. Feeder (August & Judy Mirabella, et al.)
- Nashville Warbler Montgomery: 1 present the entire quarter in Huntingdon Valley (Paul Strickler).
- Yellow Warbler Dauphin: 1 on 3/27 at Harrisburg was early (Scott Bills); Philadelphia: 1 on 1/11 at the Sewage Treatment Plant was late (Louis Bevier).
- **Black-throated Blue Warbler** *Bedford*: 2 on 3/26 at Beldon were early (Rosie McGinnett).
- <u>Townsend's Warbler</u> Luzerne: the bird found in December in Drums remained until late March.
- **Prairie Warbler** *Montgomery:* 1 on 3/30 at Evansburg S.P. (Scott McConnell).
- Palm Warbler Bucks: 1 on 3/31 at Peace Valley Park (George Hoffman); Lawrence: 2 on 3/29 at the Copper Rd. Wetland was early (Barb & George Dean); Philadelphia: 2 present up to 1/10.
- Worm-eating Warbler Clarion: 1 on 3/29 at Limestone Twp. was early (John Williams).
- Ovenbird Berks: 1 first reported on 1/17 near Elverson stayed through the quarter (Gail & Richard Pfaehler); Luzerne: 1 first reported on 2/8 at Shavertown remained through the quarter (Jim Hoyson).
- No. Waterthrush *Butler:* 1 on 3/27 at Slippery Rock was early (Gene Wilhelm).
- Com. Yellowthroat Berks: 1 on 1/3 at Peters Creek (Matt Spence); Cumberland: 1 on 1/3 at Big Spring (Deuane Hoffman); Philadelphia: Present all quarter.
- Wilson's Warbler *Philadelphia*: 1 on 1/10 at Tinicum (John Miller).
- Vesper Sparrow Fulton: 1 on 3/27 at Union Twp. (Dan Snell).
- **Brewer's Blackbird** Lebanon: 1 on 2/9 at Annville was a 1st county record (Randy Miller).
- **Baltimore Oriole** *Montgomery:* 1 on 2/6 through the quarter in Norristown (Stephanie Giovannini, Edith Parnum)
- <u>Pine Grosbeak</u> Clarion: 3 on 1/25 at Cook Forest S.P. (Mike Fialkovich); Wyoming: 1 on 2/2 at Lemon Twp. (Bill Reid).
- Hoary Redpoll Clarion: 1 on 1/25 at Mt. Zion (Mike Fialkovich, John Fedak). ⊁

Local Notes

Allegheny County

Great Blue Heron returned to one (Bell Acres) of two known rookeries in the county 2/1 (S Mutz, P Brown). A flock of Snow Geese were observed flying over Beechwood Farms in Fox Chapel 3/25 (S Ibershof). This species is rarely reported in the county. A N. Shoveler was discovered in the unlikely location of a small pond behind a shopping center in Harmar Twp on 3/22 (S Kinzey).

A Bonaparte's Gull was seen 1/1 on the Ohio R. (C Tague). This species is rarely reported here. The Merlin roost continued at Schenley Park (SP) throughout the quarter (B Hintze et al.).

The biggest news of the quarter was a <u>Varied Thrush</u> visiting a feeder in Churchill. It was first seen by the homeowner the last week of Jan., and remained through the end of the quarter and was seen by m.ob. (D Ciabattoni et al.). A written description has been sent to PORC. Thanks to everyone who visited for following the homeowner's instructions on when to visit and where to stand in the yard. There were no complaints from the homeowner. This was a 1st Co. record.

Chipping Sparrow returned (earlier than usual) on 3/29 (P Hess, J Valimont). A few northern finches were here. C. Redpoll were reported sporadically from SP and Frick Park during Jan. and Feb. The largest flock was a group of 25 at SP 1/23 (BH). A single Pine Siskin visited a feeder in Sewickley 2/5 (C McCullough). A flock of Red Crossbill stopped to feed briefly in a yard in Shaler Twp but did not remain in the area (fide J Hoffmann).

Armstrong County

Highlights included a nice variety of waterfowl at Keystone Res., a **Short-eared Owl** at Elders Ridge 1/11 (D &M Cunkelman et al), and a flock of 450 **Horned Lark** near New Bethlehem 1/1 (DC, B Reddinger). The only **crossbill** reports were those found by J Fedak near New Bethlehem 2/16.

Beaver County

A **Snowy Egret** was seen along the lower Beaver R. on 3/25 (S Kinzey). It was not seen subsequently. Bruce Kiester observed a **Broad-winged Hawk** in N. Sewickly Twp on 2/1.

Bedford County

Carolina Wrens were reported 2/22 by Mike and Laura Jackson and Rosie McGinnett in Beldon. Rosie reported 18 N. Cardinals on her feeder on 2/13. Mike Jackson reports watching as many as 50 Wild Turkeys around his home all quarter. One gobbler pecked at his basement window.

Berks County

At the Oley heronry, 23 **Great Blue** were adding to their stick nests with much courting and croaking 3/22 (R Keller). The county's *first wintering* **Great Egret**, discovered on the Elverson CBC, was last seen 2/14 (K Lebo). A *Pink-footed Goose*, first reported at L. Ontelaunee (LO) 3/7 (RK), was last seen there 3/22 (K

Knight). When not out feeding with **Snow Geese** it mostly stayed in the water or on the lawns near the dam, allowing easy, close looks by many regional and out-of-state birders from as far away as Florida. Probably this was the same bird seen last spring at Gotwals pond, Oley. Interestingly, another Pink-footed Goose was seen in Connecticut starting a few days before the local bird left.

Spectacular flocks of Snow Geese again lingered for months, starting with about 3000 at LO 1/10 (RK) and building to 25,000 (100 "blues") 3/2 (KK). Not only were they a grand sight, but also interesting in the size variation between Greater and Lesser Snows, and in both size and color variation among the "Blues." A **Ross' Goose** in the flock 3/4 was described by K Reiker. A **Brant** (eastern type) was at Gotwals pond 1/24, and maybe the same bird nearby with Canadas 3/13-22 (RK). A small-race **Canada Goose** with the breast almost as dark as the neck and with no white band separating the two was at LO 1/22 (KK). Another, colored like the larger Canadas, was there 3/7-22 (RK, KK, M Spence).

Mallard X Black hybrids seen included 2 near Oley 1/18 (RK), 1 at LO 2/26 (KK) and 1 paired with a ♀ Black at LO 3/26 (MS). For several weeks there was again a good showing of Canvasback in the Grace Mine pond/ GML area (97 on 3/5-KK). Single Redhead were at GML 3/9 (KL) and Bernville 3/25 (J Eckert).

As last year, poultry slaughterhouse waste spread on a field near Oley fed scavengers all winter, including highs of 7 Black and 38 Turkey vultures 1/17, and 39 Red-tails 1/18 (RK). It's encouraging that this quarter there were 8 different reports of Bald Eagle, too many to list individually. Not long ago, every report away from the hawk lookouts seemed noteworthy. A Merlin was near Blue Marsh L. (BLM) 2/9 (KK). On the same day, a Peregrine Falcon perched on the Berks Co. Services Center in Reading (BU), from which birds were hacked in the past. Single Ls. Black-backed Gull were at LO 1/4,26 & 2/15 (KK, MS, M Wlasniewski), single Iceland 1/17,25 (RK, KK).

As last year, MS found an early (or surviving?) E. Phoebe, this time on 3/8. An Am. Pipit flew over LO 1/24 (RK). An Ovenbird (ph. R Pfaehler) visited Gail and Rich Pfaehler's feeder near Elverson 1/17 (fide B Cook). See A Century of Bird Life In Berks County, Pennsylvania for 2 previous Dec.-Jan. records. A Brown Thrasher near Leesport (D Kendall) and Louisiana Waterthrush at Hay Cr. and Baldy Hill, District Twp. (MS, C Elwell) 3/31 were record early arrivals.

Just when it seemed that the largest crossbill invasion since the early 1970s was over, K Grim found a flock of **Red Crossbill** on 1/31 wintering in scrub pines next to a remote parking lot of SGL-110 near Auburn. The high count in this grove was 52 Reds 2/8 (KG, MW), with numbers slowly dwindling through March. Among the Reds 3/15 were 8 **White-winged Crossbill** (RK). Occasionally White-winged males displaced male Reds from cones. Side-by-side comparison as both males briefly clung to a cone showed that the Red Crossbill type wintering here was slightly but distinctly smaller than White-winged Crossbills

(RK). There were only 2 reports of Red Crossbill and none of White-winged south of the Kittatinny Ridge. High counts of **C. Redpoll** were 75 at HMS 1/25 (M Monroe), 13 at Shartlesville 1/31 (KG) and 12 at the Boyertown Res. 2/15 (RK), the latter being the only report south of the Kittatinny Ridge. **Purple Finch** and **Pine Siskin**, like **Red-breasted Nuthatch** were widely scattered in small numbers, the finches mostly at feeders.

Bradford County

We had a "blue" **Snow Goose** on 2/11 and 3 on 3/25,28 (R Young, B Reid). It was in general a poor season for ducks.

Two **Golden Eagle** reports: 1 at Pisgah County Park 1/5-6 (C Fox) and an imm. at New Era 3/24 (T Gerlach).

Bucks County

Highlights: A **Gr. White-fronted Goose** at Peace Valley (PV) on 1/3 (A Mirabella, 2/1 (T Wurtenberger), and 2/28 (A & J Mirabella). Five **Barnacle Geese** were reported at PV, Pine Run, and several local ponds from 1/10 on in Jan. (S Smith, K Reiker+). This was the 2nd Co. record. **Osprey** returned to the nest site on the Delaware R. at the lower end of the county for the second year on 3/25 (E Fingerhood).

Other highlights: 5 **Tundra Swan** were at PV on 1/17 (JM) and 20 more on 3/8 (TW). A **Brant** was at PV on 1/17 (R French). A **Redhead** and an **Oldsquaw** were at PV on 3/21 (RF). A **Red-breasted Merganser** was at PV on 3/22 (AM).

An imm. N. Goshawk was at Chalfont on 3/15 (RF). A Merlin was at PV on 1/3 (AM). A Ruffed Grouse was at Revere on 2/12 (D Farbotnik). An early Ls. Yellowlegs was reported in Bedminster on 3/2 (S Farbotnik). C. Snipe were at PV 3/8 (R Hendrick) and Pine Run 3/14 (KR). Am. Woodcock were in a number of locations starting on 2/11 at Revere (DF).

Iceland Gull were reported from 1/2 to 3/22 at Churchville and at PV (A Binns, AM, KR). The Barred Owl was at Chalfont from 1/11 at least to 3/7 (RF). The 4 Long-eared Owl reported last quarter at PV, stayed until 3/28. A Red-headed Woodpecker remained all quarter at Revere (SF). Yellow-bellied Sapsucker were at Yardley on 2/3 and Five Mile Woods on 2/22 (D Long). Pileated Woodpecker were reported in Buckingham from 1/3 to 2/2 (J Stroup) and on 1/10 at Revere (SF).

A Pine Warbler was at PV on 3/31 on (G Hoffman). A Snow Bunting was at Nockamixon SP on 1/19 (SF). A Rusty Blackbird was at PV on 3/9 (C Crunkleton).

EXOTIC: A **Bar-headed Goose** topped the list when 1 was at PV 1/12-1/15 (CC) (ph. and † attached); it was seen at several other locations, the latest report was at Chalfont on 3/15 (RF).

Butler County

The quarter's two best birds, a **white pelican sp.** and a **Eur Wigeon**, were both found 3/14 at L. Arthur (LA) (M Williams). The pelican, almost surely an Am. White, was observed only briefly in flight and not distinguished from Eastern White, a remotely possible escape. The wigeon, 4th Co. record, remained into early April and was seen by many observers.

Major **Tundra Swan** passages featured "hundreds"

2/28-3/1 (R Gerrish, S Gerrish, G Wilhelm) and "thousands" 3/7-8 (GW). Very high max. of 535 Canvasback, 333 Redhead, 750 Ring-necked Duck, 1000 Ls. Scaup, and 1000 Ruddy Duck appeared at LA (GW), where good waterfowl included up to 15 Oldsquaw (GW et al.), 4 Black Scoter (GW), and 2 White-winged Scoter (S McCarl, GW).

Incubation began by early March at the Glades **Bald Eagle** nest (v.o.), and an ad. was at L. Arthur 3/15-17 (m.ob.). 14 **Sandhill Crane** passed over N. Liberty 3/21 (GW) and 1-2 were at Glades the same day (D Darney, D Yovanovich). **C. Snipe** was winnowing 3/28 at Glades, a probable nesting location last year (S Butcher, R Crawford). GW found a **Brown Creeper** pair nest-building at Slippery Rock (SR) in late March (the Atlas had only 2 county breeding confirmations).

An odd assortment of species arrived early, from slightly to amazingly so: **Turkey Vulture** 2/1 at Glades (SB, RC); **Killdeer** 2/1 at Glades (SB, RC); **Ls. Yellowlegs** 3/7 at LA (B Machesney), a record early date for the county; **N. Waterthrush** 3/27 at SR (GW), which would be early even for Louisiana; **E. Towhee** 3/21 at Butler (MW), and 2 **Chipping Sparrow** 3/27 at SR (GW).

Northern finches made a scattered appearance. Up to 7 **Purple Finch** migrants stopped at Middle Lancaster in March (F Lochner). First crossbills noted were 10 **Red** and 53 **White-winged** 2/6 at Camp Crestfield (GW), mixed flocks regularly passed northward over the SR area through 2/26 (GW), and 12 White-winged 3/29 at Butler (K Crosbie) were the last report. **C. Redpoll** were found twice: 150 at Allegheny Twp 2/1 (BM) and 8 at Middle Lancaster 3/20 (FL). 28 **Pine Siskin** at Camp Crestfield 2/17 (SB, RC) led very few reports, and the only **Evening Grosbeak** location was a feeder near Moraine SP, where up to 9 were present all quarter (S Rogers, *fide* MW).

Sadly I report the death on Feb. 11 of Marguerite Geibel, an important observer in Butler Co. for four decades with countless significant records to her credit. To many of us, Marguerite was a charming birding companion whose joy in anything unexpected or beautiful was infectious. For that, much more than for her bird records themselves, we shall miss her.

Cambria County

Dave Gobert sent along these comments: Prince Gallitzin SP was open all winter. A Yellow-bellied Sapsucker wintered at my feeder for the first time and Carolina Wren and Red-bellied Woodpecker for the first time since 1994. Depending on the weather, larks, longspurs, and buntings were sporadic. By the end of the quarter I still had not had a Fox Sparrow at my feeders, where I usually have half a dozen.

Chester County

Very few reports. The "Oregon" Junco that was reported coming to a feeder in early Dec 1997 at Camp Saginaw was reported on the Phila. Rare Bird Alert to have been seen again on 1/18 and then later in Jan. Details were not available.

An **Eared Grebe** was at Marsh Creek SP 3/11 (G Saunders, no details). A **Glaucous Gull** was a Struble L. on 3/11 (GS). Two **Ross' Geese** were reported on the RBA as seen near Oxford on 3/25, but no details provided.

Clarion County

Long-eared Owl. A new roost was discovered by John Fedak in a Red Pine plantation at Mt. Zion that contained 2 owls. By 2/2, 2 the population had built up to 8 and then it dwindled until the last 2 owls were reported on 3/11.

The crossbill invasion is covered elsewhere this issue but this compiler wishes to express her thanks to Mike Leahy who acted as unofficial host at the Log Cabin parking lot in Cook Forest SP for many days. The invasion was a great vindication of "old-growth forest" and its ability to feed the horde of winter finches. The Park administration also appreciated the surprising number of winter visitors—the human ones. The interest of the park maintenance crews in the birds is still paying off as they report the crossbills being seen now in May.

C. Redpoll. The large (500+) flocks of redpolls at MZ that were first found 1/25 by John Fedak and many other observers contained one <u>Hoary</u> <u>Redpoll</u>, a 1st for the county. The birds apparently were eating tamarack seeds.

Clearfield County

A trip to Parker Dam SP and DuBois Res. on 3/31 included: Pied-billed Grebe, Canada Goose, Am. Wigeon, Red-breasted Merganser, Ruddy Duck, Turkey Vulture, Ruffed Grouse, Killdeer, Belted Kingfisher, Yellow-bellied Sapsucker, N. Flicker, E. Phoebe, Tree Swallow, Blue Jay, Am. Crow, Black-capped Chickadee, White-breasted Nuthatch, Brown Creeper, Golden-crowned Kinglet, E. Bluebird, Am. Robin, Pine Warbler, Chipping Sparrow, Song Sparrow, Dark-eyed Junco, Red-winged Blackbird, C. Grackle, Brown-headed Cowbird, Purple Finch, Red Crossbill (3 at PDSP), Pine Siskin, Am. Goldfinch.

Clinton County

There was a large migration of **Tundra Swan** over Swissdale on 2/28. **Red Crossbill**: The only crossbills reported were a group of about 6-8 In the Lock Haven area on 3/4, two of which were seen well enough to be identified as Red Crossbills (W Laubscher).

Columbia County

Most of the quarter was relatively mild and damp with essentially none of those vigorous snow storms that bring significant feeder fall-outs.

Pine Siskin, Evening Grosbeak (2-20), an early morning White-winged Crossbill on 2/15, and a Shorteared Owl (1/25-2/6) were in the Rhorsburg area (D Gross).

Young's Pond had 150 **Snow Geese** for a week or so in late March, but about 20-25 Tundra Swan in a nearby *Luzerne* pond apparently did not cross the county line (S Killam)

That good timing can be critical to good birding is well exemplified by the following. Alan Gregory visited Scotch Run Res. on 3/3, a drizzling cloudy afternoon. Present were 3 Pied-billed Grebe, 1 Horned Grebe, 4 Great Blue Heron, 35 Tundra Swan, 45 Snow Goose, 3 Wood Duck, 12 N. Pintail, 2 Am. Wigeon, 1 Canvasback, 50 Bufflehead, 2 Hooded Merganser, 2 C. Merganser, 3 Am. Coot, 1 C. Snipe, 2 Belted Kingfisher, 1 Red-shouldered Hawk, and 4 Rusty Blackbird. The following morning (after an evening frontal passage) only

2 Canada Goose were present (SK).

Crawford County

The open water provided excellent waterfowl numbers and variety. A **Snowy Owl** was in my backyard at Sager Hill on 3/7 as it was harassed by crows and jays.

We also had **Red** and **White-winged crossbills, C. Redpoll, Pine Siskin**, and **Evening Grosbeak** during this winter finch invasion year.

Cumberland County

Two reasons for excitement this quarter. First and foremost is the <u>Say's Phoebe</u> found on the Newvill CBC 1/3. It was found on the Weaver farm near Newville. Initially identified as a W. Kingbird, the next day it was confirmed as a Say's Phoebe. This was a I^{st} Co. record and may be the longest-staying record for this species. It was still being seen in April. I would also like to thank the Weaver family for being such wonderful hosts. They were very helpful, friendly, and patient with the many visitors they received over the months. Also deserving of big thanks are Don and Robyn Henise, who did a wonderful job keeping tabs on the bird and deeping us all posted on its whereabouts.

The second bit of excitement came from the visit of **crossbills**. Both species were found in many places. The highest number came from the hemlock-filled hollows in South Mt. This invasion was labeled as a "superflight" and super it was. I have never witnessed anything like it and am sure it will be long time before it happens again.

Dauphin County

Both **Red** and **White-winged crossbills** frequented the county all quarter. Flocks of 30+ of both species were frequently reported from Clarks Valley and by mid-March Red Crossbills were visiting feeders near Carsonville (J & J Funck) and both spp. were showing up on the grounds of Hotel Hershey (J Renninger). **Evening Grosbeak** were the first of the "winter finches" to depart with the last observation coming from Powells Valley 1/28 (J&JF). More than 200 **C. Redpoll** were discovered along Roberts Valley Rd, Blue Mt. 3/13 (GR) and **Purple Finch** and **Pine Siskin** were reported all quarter.

The **Peregrine Falcons** returned to their nesting ledges on the Rachael Carson Office Bldg in downtown Harrisburg where many enjoyed Internet viewing via web site: http://www.dep.state.pa.us/with updated photos of the nesting platform every five minutes. The nesting pair of **Bald Eagle** returned to their sycamore tree on Haldeman I. for the 9th consecutive year and have been averaging two fledglings per year during the 1990s. **Long-eared Owl** were reported from two locations north of Hershey and remained at one roost into March.

The first **Bonaparte's Gull** of the season was observed over the Susquehanna from W. Fairview 3/13 (G Randolph) and a **Ls. Black-backed Gull** was reported by members of the Ned Smith Society near Millersburg 3/15. An unusually early **Yellow Warbler** was discovered near the Game Commission headquarters on Elmerton Ave., Harrisburg <u>3/27</u> (S Bills) but with temperatures in the upper 80s it is no wonder it was a little confused.

Delaware County

There was no major freeze of any lakes or marshes and the wild food crop was good. This combination of factors allowed for a few half-hardy species, **Gray Catbird**, **E. Phoebe** and **Pine Warbler** to remain throughout the quarter.

Once again both cormorant spp. could be found along the Delaware R. most of the quarter. A large movement of Snow Geese occurred on 3/19 when over 1200 were noted over Ridley Creek SP (RCSP) (S Conant). Waterfowl numbers in general were above average with a good diversity of species. One-two Canvasback were present at Earle's Lake (J Lockyer), 2 Oldsquaw were at Springton Res. (SR) (S Johnson) on 2/7 and 6 Black Scoter were at Marcus Hook (MH)on the same date (SJ). C. Merganser peaked at 139 on 1/8 at SR (A Guarente). Red-breasted Merganser were found at both MH 2/22 (SJ) and Essington 3/21 (N Pulcinella). Black Vulture numbers continue to increase steadily in the county. A count of 24 at RCSP 2/21(AG) was a record high. Two ad. Bald Eagle were present at SR throughout the quarter (SJ, NP). One-two N. Goshawk were seen sporadically in Media throughout the quarter (JL, D McGovern). A first-winter Glaucous Gull was at SR 1/4 (NP).

Barred Owl, a species whose status in the county is not well understood, was heard 1/3 in Media (S Edwards). Sixteen **Horned Lark** at the Phila. Airport 1/1 was a good find (AG) as habitat for this species continues to shrink. Two N. Rough-winged Swallow at SR on 3/28 (M Guenther) established a new early spring arrival date. The large numbers of Red-breasted Nuthatch that began arriving way back in late August continued throughout the quarter with daily counts of 15+ at Tyler Arboretum (TY). **Gray Catbird** were evident all quarter with a high count of four 2/14 at RCSP (AG). Two Pine Warblers were present all quarter at TY). Red Crossbill, which had arrived in mid- Dec, were found through mid-Jan at TY with a high count of 29 on 1/11 (NP). This flock could not be located thereafter, but another flock of 15 was located at RCSP on 3/7 (F Hohenleitner).

By the end of the quarter early mutants such as Great Egret, Blue-winged Teal, Osprey, Gr. Yellowlegs, Laughing Gull, Tree Swallow and Louisiana Waterthrush had returned. A total of 114 spp. was recorded for the quarter.

Elk County

Frank Hughes found Horned Lark, White-throated Sparrow, C. Redpoll, Pine Siskin, and Evening Grosbeak in the Montmorenci area 3/5. And Goldencrowned Kinglet, White-throated Sparrow, C. Redpoll, Pine Siskin, and Evening Grosbeak in Brush Hollow on 3/20-22.

Erie County

This was the first winter in memory that Presque Isle Bay did not freeze. Open water allowed many species of water birds to remain through the winter including: C. Loon, Horned Grebe, Double-crested Cormorant and greater than normal numbers of waterfowl and Am. Coot.

Besides the usual rare gulls that appear annually at PI, two were most notable. A probable Ls. Black-backed X Herring in Basic I plumage was in the bay on 1/31. It

was as large as a Herring Gull with a solid dark tail, but had all dark primaries, secondaries and greater coverts, typical of Basic I plumaged Ls. Black-backed Gulls. In the past two or three years at least three dark-mantled Herring Gulls have been observed at Gull Point. There are many subspecies of Herring Gulls throughout the northern hemisphere, but separating the different forms is difficult of not impossible in the field. This may or may not have been a subspecies other than *smithsonianus*. None of the birds showed a combination of characteristics of two different species that would indicate hybridization. Regardless of what these birds were the bird in the photograph shows a mantle color darker than any normal smithsonianus.

One of the most outstanding finds ever in Erie County was made on 24 February 1998, when a storm-petrel was discovered along the beach at the mouth of Walnut Creek. The remains of this bird were given to Jean Stull Cunningham who tentatively identified it as a Band-rumped Storm-Petrel. She passed the bird onto Jerry McWilliams who took the bird to the Carnegie Museum of Natural History to compare it with skins. Dr. Kenneth Parkes assisted Jerry in identifying the bird. They concluded that the bird was indeed a Band-rumped Storm-Petrel. Jerry contacted a seabird expert, Ned Brinkley, for more information on inland storm-petrels. Ned suggested that the bird be sent to Dr. David Lee for further analysis. Dr. Lee is a well-known storm-petrel expert at the North Carolina State Museum of Natural Sciences. Identification from Dr. Lee should be received shortly. There will be more on this storm-petrel in a forthcoming article by Jerry in *Pa. Birds*.

Fayette County

Waterfowl highlights: 6 **Redhead** at Deer L. 2/20 (M McConaughy), 13 **Red-breasted Merganser** 2/22 (W&D Shaffer), and 2 **N. Shoveler** at Jacob's Creek L. 3/30 (M Fialkovich).

N. Flicker remained in the county during the quarter (MM). Both chickadee spp. were reported with the Black-capped restricted to the higher elevations in the county. A Hermit Thrush was found at Ohiopyle State Park (OSP) 2/7 (A Clark). A Louisiana Waterthrush on 3/29 at OSP arrived on a very early date (B Mulvihill).

Two **Fox Sparrow** were visiting a feeder the week of 3/16 in the Ohiopyle area (O Scarlett). The only northern finches reported were **Evening Grosbeak** visiting a feeder in Farmington (WS).

Huntingdon County

Dave Brandes's part-time spring hawk watch on Tussey Mt. (*Hunt./Centre* border) recorded 94 **Golden Eagle** this spring, including 20 on 3/6. A single **Redheaded Woodpecker** over-wintered near McAlevy's Fort, same location as last year. A few unusual species recorded in Jan. or Feb. included **E Phoebe**, **E. Towhee**, and **Fox Sparrow**.

A few first dates of migrants: **Am. Woodcock** 3/1, E. Phoebe 3/13, **Tree Swallow** 3/23, and **Pine Warbler** 3/26.

Winter finches were recorded here as elsewhere, with especially large numbers of **C. Redpoll** (a flock of perhaps 5000 flew over Tussey Mt. 3/7) and **Pine Siskin** by the hundreds at our feeders. Around the end of the quarter,

some siskins at our feeder were ill and a few dead were found, presumably from salmonella. One lethargic siskin was dispatched by a few pecks from a grackle which then picked up the siskin and flew off.

Fulton County

Power birder John Fedak located a of Oldsquaw at Meadow Grounds L. 1/13. In late March a Forest Service employee on Sideling Hill discovered a disabled ad. Bald Eagle. The bird could only fly short distances before "grounding." The eagle was later captured, photographed (newspaper front page), and sent to Shavers Creek Environ. Center for rehabilitation (Fulton County News).

From the records reported, the finch invasion seemed mild in comparison to other Pa. Areas. Harrisonville hosted several **Purple Finch** (M Newell), **Pine Siskin** flocks lingered in the mid to north end of the county (D Snell), and a lone **C. Redpoll** visited a Wells Tannery feeder for two days (D Purnell).

Indiana County

Except for the occurrence of both crossbills species, the quarter was rather uneventful with a few unusual sightings. Two Black-crowned Night-Heron were spotted at Blue Spruce Co. Park (BS) by Margaret Buckwalter and Mike Leahy 2/4, the evening of our Feb. Todd Bird Club meeting. Open water at Yellow Creek SP (YC) throughout the quarter yielded a few wintering ducks and others that appeared for a day or two before leaving. Once again this spring, waterfowl used YC as an important stopover; the large flocks of 230 Redhead 3/30 at YC (G Lamer) and 505 Ls. Scaup on 3/14 (L Carnahan, GL, G Syster) were unprecedented. Am. Coot numbers had built to 789 by the end of the quarter. Gray Catbird lingered at YC through 1/6 (M Higbee, GL, GS) but could not be relocated thereafter.

With the mild winter and the abundant supply of poison ivy berries, more than the usual number of **Yellow-rumped Warbler** wintered in our county with a nice count of 10 near Shelocta (MH, R Higbee). By the quarter's end, the only returning warblers were **Pine** and **Louisiana Waterthrush**. Crossbills were reported twice, with both reports at YC; on 3/28 a flock of 41 **Red Crossbill** flew over the park office (D Darney, S Graff, C Guba, F McGuire, D Yovanovich) while the previous Sat., 3/21, 13 **White-winged Crossbill** were seen in the hemlocks at the boat launch (LC, SG, Shirley Graff, GS).

Although we have a lot of conifers here in Indiana, few had produced cones, so the crossbills did not linger. C. Redpoll were found in small numbers only at YC, Iindiana, and Nolo, with the largest flock of 28 at YC 1/20 (MH, GL, L Wagner).

Jefferson County

Migration was sure unpredictable with a good waterfowl push on 3/2 and 3/26. A Eur. Wigeon was seen at Kyle L. on 3/2, then relocated 3/7. A large concentration of gulls pushed through on 3/2: including 1 Glaucous, 3 Ls. Black-backed, and Great Black-backed. Pat McElhenny located a White-winged Scoter on 3/23 that stayed until 3/27.

Killdeer were first seen 2/26. C. Redpoll were last reported on 1/28, but Pine Siskin and both crossbill were

reported until the first week of March. Rusty and Redwinged blackbirds and C. Grackle were seen 2/26. A N. Shrike was found on Ridge Rd on 1/27. An imm. Golden Eagle was found by Lisa Swackhamer on 1/17.

Juniata County

It was rather uneventful, especially the waterfowl migration, due, we feel, to no ice on the river or ponds. Was the **Chipping Sparrow** on 1/26 early or late??

Highlight was the 10 **Long-eared Owl** at two locations (m.ob.). Also the 6 **Barn Owl** at three different locations were nice to see!

Large flocks of robins and blackbirds were seen most of the quarter. Last, but not least, were both species of **crossbills** seen all quarter.

Note: On 2/28 we had *tens of thousands* of **Canada Geese** and **Tundra Swan** migrating north from one horizon to the other. Was this a widespread movement on the date?

The Webbs of Havre de Grace, Md. spent a long March weekend in the area. The following is their report from the Internet.

On 3/26 at E. Waterford: 1 imm. **Tundra Swan**. On 3/27 we canoed the Juniata R. and had 1 imm. **Bald Eagle** and a & **Oldsquaw** at Mifflin. At Thompsontown: 12 **Redbreasted Merganser**, 6 **Ring-necked Duck**, 3 **Am. Wigeon**, 1 **Ls. Scaup**, 1 **Bufflehead**, and a **Black Vulture**.

On 3/28 at McCullochs Mills: 15 Wild Turkey, 2 Am. Woodcock (peenting at the B&B), 1 E. Screech-Owl (responded to my wife's imitation and perched 20' away), and 20 Rusty Blackbird.

On 3/29: 3 Black Vulture, 1 Tundra Swan, 2 N. Bobwhite, 1 Chipping Sparrow, and 10 Pine Siskin.

Lancaster County

From 1-4 **Ross' Geese** were at Middle Creek WMA between 1/17 and 3/22 (T Garner, D Garner, H Morrin, A Mack, R Miller, B Carl, G Berkey). The very small Richardson's race of **Canada Goose** (B. C. hutchinsii) was at MC WMA from Jan. to end of quarter.

EXOTIC: A Mandarin Duck was in the Manheim area all quarter (BC et al.).

Lawrence County

Many of these reports reflect the extremely mild quarter. Seven **Double-crested Cormorant** flew over New Castle (NC) 1/3 (B&G Dean). All three **Great Blue Heron** rookeries showed activity. One **Great Egret** was at Black Swamp 3/26 (L Wagner, S Butcher). Surprising to see no **Canada Goose** goslings by 3/31. More **Redshouldered Hawk** reports than have been in any previous quarter in 15 years. Five were at NC 3/7 and another on 3/29 (BD, GD). We had <u>no</u> Rough-legged Hawk report. **Virginia Rail** were heard at Plain Grove (PG) on the early date 3/26 (LW, SB). A **Sandhill Crane** was at PG 3/20 (LW). **C. Snipe** were winnowing at two locations on 3/27. Nancy Rodgers reported first **Am Woodcock** "peenting" on 3/12 at PG. **Ring-billed** and **Herring gulls** remained in good numbers due to mild weather and open water.

1-3 **Short-eared Owl** were at the Volant strips (v.o.). There were 13 **Am. Pipit** at Bessemer on 3/14, early but our highest number was only 30 on 3/28.

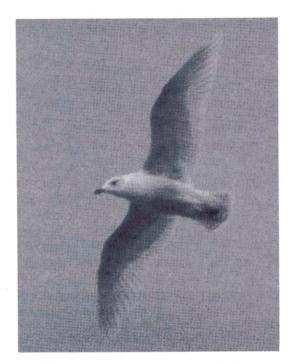
PHOTOGRAPHIC HIGHLIGHTS



Dark Mantled Herring Gull, Presque Isle S.P., Ene, 3/28/1998. Photo by Jerry McWilliams.



Little Gull, Presque Isle S.P., *Erie*, 1/29/1998. Photo by Rick Wiltraut.



Iceland Gull, Cowanesque Lake, *Tioga*, 1/13/1998. Photo by Rick Wiltraut.



Glossy Ibis, Green Pond, Northampton, 3/30/1998. Photo by Rick Wiltraut.



Say's Phoebe, North Newton Twp., *Cumberland*, 1/4/1998. Photo by Don Henise.



Barnacle Goose, Hereford, *Berks*, 2/14/1998. Photo by Rick Wiltraut.



Canada Goose (small race), Nazareth, *Northampton*, 1/21/1998. Photo by Rick Wiltraut.



Red Crossbill, Carsonville, *Dauphin*, 3/22/1998. Photo by Jim Furck.



White-winged Crossbill, Cook Forest S.P., *Clarion* January 1998. Photo by John Fedak.



White-winged Crossbills, Cook Forest S.P., Clarion January 1998. Photo by John Fedak.



Red Crossbill (w/Pine Siskins), Cook Forest S.P., Clarion, January 1998. Photo by John Fedak.

The biggest surprise was 2 **Palm Warbler** found with 7 **Yellow-rumped Warbler** on the early date of 3/29 at Copper Rd. wetland, New Castle (BD, GD). We had 3 **Lapland Longspur** on 3/14 at Bessemer and extreme *low* numbers of **Snow Bunting**; 4 on 1/1 and 16 on 1/3 at Bessemer (BD, GD).

Lebanon County

A Ross' Goose on the Lebanon side of Middle Creek WMA provided the 7^{th} Co. record.

Gulls continued at Memorial L. Highlights: a 1st winter <u>Mew</u> (Common) <u>Gull</u> on 1/1 (R Miller, B Weaver). Thayer's, both 1st winter, appeared on ½ (D Hoffman, J Heller) and 1/18 (RM). Heller reported a 2nd winter **Iceland**. That gave us 8 different Iceland Gulls. On 1/2 a 1st winter **Glaucous Gull** showed up (DH,JH). It was seen again only on 1/3 (m.ob.). Herring Gull also roosted on the lake until 2/14; the high number was 500 on 1/18.

The other highlight was a I^{st} Co. record of **Brewer's Blackbird** seen with starlings on 2/9 in Annville at a feeder. The feeder was empty on 2/10 and other dates, so empty of birds as well.

Lehigh County

About the only good birds that I am aware of was a flock of 10-12 **Red Crossbill** in a small grove of pines surrounding a house near Breigningsville. They were seen by Peter Saenger on 3/24 early in the morning, but were gone later that day. 3 **Ross' Geese** were carefully studied at Fogelsville on 1/13 including one blue-phase Ross' (J Horn, R Wiltraut).

Luzerne County

I would like to thank everyone who contributed sighting data on the <u>Townsend's Warbler</u>. The bird remained at the Drums location into late March. Duck species were not as abundant compared to last year. A Surf Scoter was at Harveys Lake 1/2 (J Horn, R Koval). An early Blue-winged Teal 3/10 at Plains Flats (RK). Autumn Pfieffer had reported an early Turkey Vulture at Hobbie 2/11. A Merlin was seen at Ricketts Glen 3/25 (D Gross). This falcon is a rare spring migrant in *Luzerne*. A Peregrine Falcon was observed chasing Mallards on the Susquehanna R. near Wilkes-Barre (E Stull) early Jan. To the delight of all a pair has established this area as home and were observed mating. The female is an immature bird and if all goes well, we should have nesting Peregrines next spring.

Very early **Pectoral Sandpiper** were seen at Plymouth 3/29 (J Shoemaker, JH, RK). **Long-eared Owl** remained most of the quarter at Plains. A late **Ruby-crowned Kinglet** was seen at Francis Slocum SP (FS) 1/19 (JS). A confirmed **N. Shrike** at Briggsville made a brief visit 1/1 (S Killam, DG). Not only the Townsend's wintered at a feeder, but an **Ovenbird** was discovered at the feeding station of John Heughes on 2/8 at Shavertown and remained there the rest of the quarter. A late **Savannah Sparrow** 1/31 (RK) was seen at the former east-side landfill.

An E. Meadowlark was reported at FS 2/26 (DG). Winter finches were reported throughout. Good numbers of White-winged and Red crossbills, Pine Siskin, and Evening Grosbeak were being closely observed by Gross

at Ricketts Glenn SP This area was the most reliable spot for crossbill species. Bill Reid reported an <u>Iceland Gull</u> on 1/4 at Plains on the Susquehanna R. for on the 2^{nd} Co. record.

EXOTIC: As .many as three **Eur. Goldfinch** were reported at a feeder at Chase on 2/11. This was confirmed by Horn as he was able to find 1 on 2/14. With the major finch invasion, were these of wild origin?

Lycoming County

On 2/5/98, a or Peregrine Falcon was first observed in Williamsport (C Schwarz). It was then seen by several observers throughout Feb. Then in March this ad. male was observed in the presence of a imm. female. The pair was seen frequently in the vicinity of the Genetti Hotel. The male formed a scrape in the hack box which remained on the roof of the hotel from the Lycoming Audubon's reintroduction program. Copulation was observed on several occasions, but due to the female's immaturity no eggs were laid. It was determined from the leg bands of the male that he was a bird which had been received from Zoo America, Hershey, and was hacked out by Lycoming Audubon in 6/96. He also appeared in 1997 and helped to raise the chicks of that year. The female has no leg bands and therefore is believed to be a "wild" peregrine. We hope the pair will remain in the area and attempt to nest in 1999; this would be a remarkable achievement in Lycoming Audubon's reintroduction program.

It was also a remarkable quarter for irruptive winter finches/wanderers. A very high number (±40) of Red**breasted Nuthatch** was seen in Jersey Shore most of the quarter (1/3-3/17). Reports were scattered for this species for the remainder of the county. Both **Red** and **White**winged crossbills were observed in eastern Lycoming on 2/1 (J Fedak). Red Crossbill were also observed in western Lycoming (Jersey Shore) from 3/23-25 by several observers (D Rockey, S Rockey; P Schwalbe, G Schwalbe). Searches were made however no other sighting of crossbills was reported. The only report received for C. Redpoll was on 2/1, a flock which was seen with the crossbills east of Lairdsville (JF). Pine Siskin were seen all quarter, with numbers from several to 100+ reported. Evening Grosbeak were reported through most of the quarter (1/22-3/20), although reports were scattered and numbers relatively small.

McKean County

Many of our local reservoirs did not freeze until mid-Jan. This afforded us better opportunities to observer waterfowl other than in the Kinzua Res. At Gilbert Res. On 1/17-18 were 4 Oldsquaw and 9 Bufflehead. Periodically in Sugar Bay up to as many as 8 Bald Eagle (3 ad., 5 imm.) Were seen feeding along SR 321 and sitting on the ice or in trees. This has been commonplace at Sugar Bay. Am. Tree Sparrow, Red-breasted Nuthatch, Pine Siskin (not as common as in previous years) and Evening Grosbeak frequented the feeders at Gilbert Lane (GL) all quarter and sporadic observations of Carolina Wren and very few (no more than 4 at a time) C. Redpoll. C. Merganser are now permanent residents and were observed all quarter.

The end of Feb. definitely set the stage for the banner year of migrating **Tundra Swan** in the Bradford area. The

extremely mild temperatures brought an onslaught of swan migration on 2/28, with three separate flocks of 300, 225, and 500 individuals. Strung across the rarely blue skies of Bradford. Other flocks were heard throughout the evening hours. This was the most spectacular year for shear numbers of migrant Tundras I have ever observed in 20+ years of birding in *McKean*. **Snow Bunting** (5) were seen 2/19 on the *Warren/McKean* line across from the Willow Bay (WB) boat launch.

Throughout March many of our winter visitors remained and breeders and spring migrants passed through. For example, I had never seen Evening Grosbeaks and Hermit Thrush on the same day here; the thrush was singing on 3/27. First C. Grackle (3) on 3/3 at Willow Bay swamp; in Derrick City (DC) were 16 birds on 3/16 (S Graff). Had 17 Cedar Waxwing along SR 346 near the Corydon/Bradford Twp line and first first Red-winged Blackbird in DC on 3/16 (SG). There were 34 Tundra Swan at WB 3/6. Red-breasted Nuthatches were still in the area and on 3/9 Evening Grosbeaks appeared again in good numbers. On 3/10 Golden-crowned Kinglet were singing in the Marilla watershed Red Pines, and had first N. Flicker. On 3/12 had 13 Turkey Vulture soaring along SR 59 near Morrison Run. Field Sparrow arrived 3/13 in DC (SH Graff). From 2-4 C. Redpoll were in DC 3/14-17 (SHG, SG). Am. Robin and Eur. Starling apeeared in flocks 3/17. Nine C. Loon were at WB 3/20. An E. Meadowlark was on the dam breast at GL. Red-breasted Merganser were in DC 3/29 (SHG).

Mercer County

How gratifying it is to report sightings of **Bald Eagle**: one present all quarter at L. Latonka, one at SRR 2/9, and 1 ad. and 1 imm. on the ice at Kilgore Rd 3/14.

A pair of **Red-shouldered Hawk** were seen displaying at Hermitage (HM) 2/20, which was about two weeks early. It was 60°! A great find was the 2 **N. Goshawk** and 1 **Peregrine Falcon** headed north over Grove City on 3/1 (R Stringer). A disturbing find by the Troyer family was a dead **Long-eared Owl** 1/4. They reported the wing was badly mangled and a spent shell was found close by.

Yellow-bellied Sapsucker was early: 1 was seen 3/28 on Skunk Run Rd. Except for 1 on time at Limber Rd, E. Phoebe was late by 8 days at its usual haunts at HM, arriving 3/26. N. Mockingbird is uncommon here, so 3 at "John's Ponds" 3/29 was noteworthy.

We had our best appearance in years of winter finches with 200+ C. Redpoll 1/6 on Williamson Rd.(Troyer family), and both Pine Siskin and Evening Grosbeak made a decent showing all quarter.

More Sandhill Cranes in Western Pa! Mary Jane Seipler received a report of 17 Sandhills in a stubble corn field n. of Sharon from 2/1–3/3. Upon contacting the observer (who very much desires her name and the site to remain unknown), the following facts were obtained: 17 were there last winter also, they were observed dancing, giving the characteristic calls and photographed with a zoom lens.

And finally a behavior observation: On 3/23, a fresh window-killed **Tufted Titmouse** was vigorously pecked on the head about 12 times by its mate(?). The dead bird was on its belly, and the live bird perched on the dead bird's

back to deliver the pecks. The performance was repeated once, after a brief fly away pause. Maybe it was just curiosity.

Mifflin County

This first quarter was filled with pleasant surprises. On 1/1, as Gloria Bickel returned from a CBC run, she saw 300+ Horned Lark in a nearby snowy, manured field. They stayed for several days. Migrating waterfowl and gulls were plentiful on the Juniata R., especially above Ryde on the Wharton Rd. Here, as usual each Jan through Feb, Ron and Jenny Singer find the Black Vulture roost just across the river. They sit in the trees in snowy weather, but usually left to feed during the day and it was quite a sight to watch the 74 come back to the roost for the night. They have a great food supply in the area as we have a chicken farm and also a turkey farm nearby. During this quarter several Bald Eagle were observed near Newton Hamilton, along the Juniata R. In late Feb we had 22 Am Robin spend several days in our backyard scavenging up the birdseed and eating the apples and fruit which we supplied.

The influx of **Pine Siskin, Evening Grosbeak** and **C. Redpoll** were greatly enjoyed at feeders and the crossbills kept the internet busy with sightings. Gloria and I traveled to *Perry* and to *Juniata* and then to Cook Forest SP to see the crossbills. It was so exciting. I finally realized that if they were all about, perhaps we had some in *Mifflin*. I checked every evergreen top from my house to the CCC camp of the 1930s. Just at the site of the CCC cabins, I heard the first crossbills and then farther into the Camp area I successfully put *Mifflin* on the crossbill list

Dr and Mrs Dan Creighton of Lewistown and several Towpath members put up 22 new bluebird boxes at the Lewistown Country Club and they are being monitored. We are anxiously waiting the results of this project for the season.

Montgomery County

The first quarter of 1998 brought unusually mild weather and birding was fairly ordinary. Waterfowl numbers were especially low, likely due to long periods of fair weather. The first **C. Loon** was reported 3/27 (K Stagl), and only small numbers (1-2) **Horned Grebe** were reported. Waterfowl highlights [all Green Lane Res. (GLR) unless noted otherwise) included 23 **Tundra Swan** on 1/11; roughly 1000 **Snow Geese** over Upper Gwynedd Twp on 3/30; (A&J Mirabella, GA Franchois); 4 **Barnacle Geese** (GAF) 2/15; a **White-fronted Goose** 1/17-19 (AJM, GAF); single **Canvasback** 1/10,24 (GAF, AJM, P&A Guris); 1 **Redhead** at Upper Perkiomen Park 1/4-27 (K Crilley, PAG, GAF); and a **Red-breasted Merganser 3**/3 (KC).

An early **Osprey** was at Ft. Washington SP (FW) 3/25, and a sub-adult **Bald Eagle** lingered at GLR until 2/26 (GAF). Single **N. Goshawk** were at GLR 2/28 and 3/9 (GAF, JT Horn) and at FW 3/26 (B&N Murphy). **Merlin** were reported at UPP on 2/6 and at GLR 3/7 (GAF).

Gull highlights were few, but included 2 Ls. Blackbacked and an Iceland at GLR on 1/4 (KC), and a Bonaparte's at GLR on 2/22 (GAF).

Up to 4 Long-eared Owl were in Worcester Twp until 3/1 (S McConnell) and a Short-eared wasat Church

Rd, GLR 2/15 (AJM). **Yellow-bellied Sapsucker** and **Redbreasted Nuthatch** were present all quarter at Unami Creek Valley (UCV), UPP and FW (GAF, BNM, R Grubb).

Warbler reports were impressive with 5 spp. reported. Most noteworthy of these were an **Orange-crowned** at a Towamencin Twp feeder 1/4–2/14 (AJM, R Wiltraut, JH) and a **Nashville** that wintered at a Huntingdon Valley feeder (last seen 4/15, ph. P Strickler).

A single Rusty Blackbird was reported from Valley Forge Park 2/21 (SM), and a Baltimore Oriole was at a Norristown feeder 2/6–4/ 5 (S Giovannius, E Parnum). While crossbills seemed to avoid the county completely, we did manage a few winter finches in w. *Montgomery*. 50+ Purple Finch were at a feeder near UPP 1/10 (PAG) and smaller numbers were found all quarter at UPP and UCV (RG, KC). A C. Redpoll was at a UCV feeder 1/31, and 35 Pine Siskin were there 2/7 (KC). Varying numbers of siskins were at our UCV feeders through the quarter, consuming about five pounds of Niger seed per week. (Maybe good birds do come at a price...).

Northampton County

An early warm front on 3/30 (82°F) brought a record **Glossy Ibis** to the flooded Green Pond (J Zajecek et al., ph R Wiltraut). **Snow Geese** arrived early in Nazareth 1/21 (10,000) including one blue-phase **Ross' Goose** and a small race of the Canada Goose (RW). The Ross' Goose was a 2nd Co. record. The dark morph **Red-tailed Hawk** was seen again at Martins Creek PP&L plant 3/14 (S Boyce, RW). An **Iceland Gull** at the MC flyash ponds 3/8 (RW) was a 2nd Co. record and <u>4</u> **Ls. Black-backed Gull** there on 3/11 was a county high (RW). An early **N. Rough-winged Swallow** was at Jacobsburg 3/31 (RW).

Perry County

Biggest news of the quarter was the impressive "winter finch" invasion. Most notable was the awesome numbers of **crossbills**. Both spp. were easy to find at numerous places in the Tuscarora SF located in the w. end of the co. One frequently visited site was a gasline cut along Laurel Run Rd. Countless visits by folks from far and wid all quarter provided plenty of records. Rarely did the observers leave unhappy.

In addition to the crossbill all the coverage in area led to sightings of Evening Grosbeak, Pine Siskin, and C. Redpoll. One chilly morning while visiting an area, a most-welcomed bird knifed across the valley sending the finches into panic...an ad. N. Goshawk. Rarely is this bird seen in the co. away from the hawk watches.

This winter was an exciting one. Don't be disappointed next year, I am sure we will have to wait a while before this event happens again!

The Webbs of Havre de Grace, Md., visited Little Buffalo SP on 3/29. They had 1 Horned Grebe, 8 Ringnecked Duck, 1 & Red-breasted Merganser, and a N. Rough-winged Swallow (early?).

Philadelphia County

We recorded 129 spp. The highlight was the 1/10 Midwinter Bird Census (MBC), during which we recorded an outstanding 108 species — all in one day, and all within the city boundaries.

Great Cormorant max. was 42 on the MBC.

Lingering herons on the MBC included 3 **Great Egret** and 4 **Black-crowned Night-Heron**. Noteworthy Anatidae included: 8000 **Snow Goose** near Tinicum (TI) 3/25 (J Miller), 370 **Canvasback** at East Park Res. EP) 1/10 (D Cutler), 2 **Redhead** at EP until 2/18 (K Russell et al.), and 1 **Gr.Scaup** at EP 1/10 (DC).

Best among 14 species of raptors were: 4 Black Vulture on the MBC, 1 N. Goshawk at EP 1/10 (DC), Rough-legged Hawk at the Schuylkill Center (SC) 2/5 (C McCabe) and near TI 3/7 (T Floyd), and Merlin at 5 locations (v.o.). C. Moorhen had returned to the Southwest Sewage Treatment Plant (ST) by 3/3 (JM). Notable among 5 shorebird species were 4 Ls. Yellowlegs in the Army Corps Area (AC) on 1/10 (M Logan, C Walters). Iceland Gull was a nice find near the Delaware R. (DR) 3/19 (C Hetzel).

Good owls included: <u>Barn Owl</u> near the Sun Oil Pond (SO) 2/7 (TF, P Nicolaides), <u>Snowy</u> <u>Owl</u> in Center City (CC) 2/23 (m.ob.), <u>Barred Owl</u> at TI until 1/10 (D. McGovern et al.), and **N. Saw-whet Owl** at TI until 1/11 (TF, W Moody).

Tree Swallow returned to TI on 3/1 (TF, K Sochi), and N. Rough-winged Swallow returned to Shawmont (SH) on 3/27 (J Stepenaskie). A House Wren at E. Mount Airy (EM) 3/31 (G Armistead) was early. An Am. Pipit was at the Northeast Airport (NA) 1/10 (TF).

A **Blue-headed Vireo** along the Upper Wissahickon (UW) <u>3/7</u> (TF) was unseasonal. Best among 6 warbler species were: <u>Yellow</u> at ST until 1/11 (L Bevier) and <u>Wilson's</u> at TI until 1/10 (*fide* JM). A flock of 5 **Snow Bunting** were at EP 1/10 (DC). Winter finches, all along or near the UW, included 4 **Purple Finch** 1/10 (CH), 3 <u>Red Crossbill</u> 2/1 (S McConnell), 1 <u>White-winged Crossbill</u> 1/10 (D Belford), and 1 **Pine Siskin** all quarter (v.o.)

Schuylkill County

We had 105 spp., as well as one sub-species. The county's first ever Osprey platforms were erected at both the Landingville Dam and the SGL-106 pond area near Drehersville on 3/24 and 3/30 respectively. Hawk Mountain Sanctuary, the Pennsylvania Power & Light Co., the Wildlands Conservancy, the Pennsylvania Game Commission, and students from Pottsville and Blue Mountain Schools Districts were all responsible for the successful completion of this project.

With the continuing finch irruption throughout the quarter, the Auburn side of SGL-110 became to be known as "crossbillville". Numerous birders from throughout e. Pa. came to the gamelands to observe the numerous Red Crossbill being seen there on a regular basis in the Virginia Pines. A quarterly account of the crossbills was recorded by T Clauser, K Grim, R Keller, M Wlasniewski, J & H. Silagy, et al. The homelands parking lot area, across from the Stony Creek, is where the majority of the crossbills were observed, and an account of those sightings can be seen in the *Berks* report, as the area is just over the Schuylkill line. There were a few White-winged Crossbill also seen at SGL-110, however most sightings in the county of this species were reported from the Owl Creek watershed near South Tamaqua. The Owl Creek area also produced 3 Evening Grosbeak 3/7 (RK).

A probable "wintering" **E. Towhee** was heard calling at the SGL-110, Stony Creek area, on 3/5 (TC). An **E.**

Phoebe turned up unexpectedly at the Wood Duck trail of the Landingville Dam (LVD) on 1/13 (TC). A partial albino C. Grackle was seen in Schuylkill Haven on 3/16 (B Jucker). An Oregon (pink-sided) Junco was closely observed at Tuscarora SP (TSP) 1/16 (D. Kruel). A Snowy Owl was reported to have been seen flying over farmland near the village of Rock on 1/26. This was the second Snowy Owl in the co. in the last two months. A most unusual report of 11 Black Vulture came in from the Pottsville area, by a very reliable birder, on 1/20 (A Liebner). 3 Red-breasted Merganser were at the Lebanon Res. near the village of Suedberg on 3/24 (DK).

Note: The new Schuylkill County checklist is available at no cost and may be obtained by calling Tom Clauser at 717-622-1818, or at either Hawk Mountain Sanctuary or the Schuylkill Conservation District Office.

Somerset County

The warm winter and early spring allowed for a nice mid-winter sampling of waterfowl, but a lackluster (and early) migration. Turkey Vulture was early on 2/11 (J Payne). N. Goshawk was nice on 2/15 (JP et al.). An albino Red-tailed Hawk was noted near Kingwood in early Feb. (E&M Watko). Albinism in Red-tails has repeated itself there. A waterlogged Golden Eagle was captured on 1/8 by the PCG (D Jenkins, A Marich) and taken to a rehab facility in Armstrong where it promptly escaped and was noted back on it's wintering grounds by the month's end. **Pectoral Sandpiper** was early on 3/30 (JP). Long-eared 0wl was heard calling at Payne's Place on 3/27 (JP,LP). Tree Swallow and Blue-headed Vireo were back on 3/26 and 3/30 respectively. One hundred **Snow Bunting** showed face for a CBC (JP,LP). Nicest of all were the crossbills which were present for the first time in a good while in Salisbury and the Mt Davis area White-winged Crossbill far outnumbered the Red Crossbill with estimates on some days reaching well above 100 birds total.. C. Redpoll, Pine Siskin, and Evening Grosbeak were all noted at Payne's Place; with siskins in Markleton on 3/26 (AM).

Sullivan County

A very mild winter (temperature and precipitation) and a great invasion of northern finches were the hallmarks of the quarter.

Great Blue Heron remained virtually all quarter, as area streams never froze, while lakes and ponds remained opened 90% of the time (v.o.). An ad. Bald Eagle made a brief stop at a Hills Grove pond on 3/7 (Donna Long).

Several species arrived earlier, apparently due to the mild weather. Notable example was a **Chipping Sparrow** on 3/8 in Dushore (Mary Lou Shaffer).

The winter finch invasion was the big story. **Evening Grosbeak** were present most of the quarter, but surprisingly observers had them in extremes. Feeders at Worlds End SP tallied not a single bird all quarter, but other feeders only a few miles distant had dozens (v.o.). Both crossbills were reported during the latter half of the quarter, with up to 60 **White-winged** on 3/4 at Worlds End SP (Nick Kerlin). **C. Redpoll** and **Pine Siskin** were also present in low numbers and scattered locations (v.o.).

Susquehanna County

Birds of note included: In Rush Twp, 1 **Turkey Vulture**; a **Sharp-shinned Hawk**; and an **E. Meadowlark** on 3/28 (W Reid). There were 8 **Am. Tree Sparrow** in Springville Twp 2/4 and 50 **Evening Grosbeak** in New Milford 1/3 (WR).

Tioga County

A great migration day occurred on 2/28. The sky was filled with Canada Geese, Snow Geese, and mixed blackbird flocks. We have a new breeding pair of Bald Eagle, which were observed building anest on the mountainside n.w. of Hammond L. The Grand Canyon pair began sitting on the nest the first week of March and hatched two eaglets on 4/1.

An **Iceland Gull** at Cowanesque L. on 1/12-13 was probably a 1st Co. record (A Brown, J Stickler, m.ob.).

Venango County

Good waterfowl numbers were recorded at Kahle L (KL) and Justus L., with at total of 24 spp. **C. Loon** and **Blue-winged Teal** had not arrived by the end of the quarter. Two ad. **Bald Eagle** built a nest near Oleopolis but did not nest. They remained in the area throughout the quarter, continuing to visit the nest site. We hope next Feb. to report the first successful nesting in the county. The only **N. Goshawk** sighting was over Oil City on 2/15 (R States). A partial albino **Red-tailed Hawk** was seen 3/7 near Van (RS, G Edwards, J Stanley). Only a few of the tail feathers had color; the rest of the bird was white. There was no Rough-legged Hawk sightings.

The 2nd Co. record Sandhill Crane visited a corn-stubble field near KL 3/4-5 (GE, D Edwards). The only Saw-whet Owl was recorded at Buttermilk Hill Nature Sanctuary 3/25 (JS, K Goodblood). The first successful C. **Raven** nest that we have confirmed was found 3/31 thanks to a report by C Rogers. Red-breasted Nuthatch numbers were at an all-time high. A single Hermit Thrush was seen 1/4 (G Wilhelm). GW also reported the only Yellowrumped Warbler on 1/4.Louisiana Waterthrush arrived <u>3/29</u>, five days earlier than our previous record (JS, KG). The winter finches were the star attractions with Pine Siskin and C. Redpoll numbers the highest ever. At least 675 White-winged Crossbill were counted throughout the county on 1/25 (D Edwards, GE, JS, RS). The 1st Co. record **Red Crossbill** on 1/10, was followed by another 15 sightings.

Warren County

Wintering **Great Blue Heron** were seen 1/4-6 near N. Warren (J Palmer) and 2/3 at Kinzua Dam (KD), (TG). There was a notable lack of migrating ducks this spring, especially puddle ducks. Worth noting were 2 **Oldsquaw** at Starbrick (ST) on 3/29 (B Hill). High counts of **Bald Eagle** were 7-11 from Warren to KD (C&M Neel) and 8 at KD on 1/26 (J&P King). There wee 2 **Rough-legged Hawk** near Lander 1/17 and 3 in the same area 1/24 (K Confer, B Highhouse).

A C. Snipe was at Akeley Swamp 3/28 (Bhl). Two Great Horned Owl were at the Buckaloons Rec. Area (BRA) near Irvine 2/2, where they nested last year (J Schultz).

A Belted Kingfisher was seen at Althom 1/10 (T

Grisez, BHh, D Watts). There were reports of **Red-bellied Woodpecker** from five locations in Jan. **Yellow-bellied Sapsuckers** are usually very rare in winter, 1-3 were at Saybrook (SA) feeders from 1/2 at least through Feb. (CMN).

There were 20 **Horned Lark** n.w. of Youngsville 1/26 and 22 on Yankee Bush Rd (YBR) 1/31 (B Watts, DW). An **E. Bluebirds** was near Tidioute (TI) 2/28 (JK). The only **N. Shrike** report was of 1 at Akeley Swamp 3/22 (Bhl, Q Strandburg).

Single Yellow-rumped Warbler were seen ear Warren 1/1 and at BRA 3/29 (BHl). There were 90 Snow Bunting n. of Lander 1/24 and 40+ on YBR 1/31 (BW, DW). C. Redpoll reports include 3-18 at SA from 1/13-25 (CMN), 21 at ST (JS), and 3 at Warren 1/25 (DW), 30 at Sheffield 3/13 (BW), and through March with a max. of 150 at SA (CMN). Pine Siskin were at SA all quarter, except the first half of Jan., with a max of 20 in Jan. and 30-35 in Feb (CMN). There were 40 Evening Grosbeak at TI 1/10 (TG, BHh, DW), at SA through March (CMN), and in ST, Barnes, and Warren in March.

EXOTIC: A **Ringed Turtle-Dove** was at Saybrook 1/7-8 (CMN, TG).

Westmoreland County

Six **Trumpeter Swan** (4 ad. and 2 imm.) were found on Trout Run Res. near Ligonier 1/26 by Bob Leberman; later that day the birds were confirmed by Bob Mulvihill, Bob Shaw, Carroll Labarthe and Mike and Evaleen Watko. All six birds appeared to be unmarked and unbanded. There were also more than the usual number of mid-winter **Tundra Swan** reports, including a flock of 15 at Derry L. 1/21-22 and 115 there on 2/28 (Dennis Lauffer). A count of 15 **Gr. Scaup** at Derry L. on 3/14 (D. Byers) was unusually high for the area. An **Oldsquaw** at Derry on 1/19 was an exceptional winter report for this county (DL).

What may have been the first mid-winter record of a Merlin for Westmoreland Co. was made by Don Koch along the Monongahela R. near W. Newton on 2/16. Two Am. Woodcock had returned to the Loyalhanna Res. area by 2/11 (DL). The Rufous Hummingbird, first reported on in our fall review, was still coming to a feeder at the home of Joanne Madden, near Delmont, throughout this period (m.ob.). An E. Phoebe found just northwest of Ligonier on 1/4 (Mulvihill) was only the second winter record for the Ligonier Valley. The first Blue-gray Gnatcatcher had returned to PNR by 3/31-a record early date there (RSM, RCL). A flock of 75 Am. Pipit was found at Crabtree on 3/28 (DL). Leberman carefully identified a Loggerhead Shrike near Donegal L. 3/25.

A Louisiana Waterthrush had returned to PNR by 3/27; record early there (RCL, RSM). The only report of White-winged Crosshill was of 3 on the Rector CBC 1/4 (Bob Shaw, Dave Krueger). There was a good scattering of C. Redpoll; 35 were listed on the Rector CBC on 1/4, and Leberman saw a flock of 40+ north of Ligonier 1/12; smaller groups were later reported at Powdermill and at several feeding stations elsewhere around the county (v.o.). Evening Grosbeak were widespread, but their numbers low; flocks seldom exceeding 6 birds.

Wyoming County

Latest fall dates for **Pied-billed Grebe** and **Bufflehead** were 1/13 and 1/14; earliest spring dates were 3/3 and 2/23 respectively. Due to the mild winter and the water-circulating pumps around docks, 3 **Am. Coot** spent the entire winter at L. Carey...perhaps for the first time ever. A $4^{\rm th}$ coot

arrive 3/26.

A Pine Grosbeak was heard flying over in Lemon Twp on 2/2 (WR).

York County

A Red-throated Loon was at Codorus SP (CSP) on 1/28 (P Robinson). A Eur. Wigeon was at Long Arm Dam 2/26–3/1 (C Garner et al.). A very good quarter for Red-breasted Merganser. A Golden Eagle was seen near Ski Roundtop 3/3 (J Pheasant). A Great Black-backed Gull was at CSP on 2/14 (T Simmons).

Three different **N. Saw-whet Owl** in Jan: 1 at Sheppard Myers Dam (K Lippy); 1 admitted to York Wildcare on 1/7 and released within a week (*Lancaster* Bird Club); and a dead one brought to Nixon Co. Park 2/10.

An E. Phoebe was seen between Codorus Furnace and Gut Rd on 1/1 (J&J Prescott). Three Red Crossbill at Sheppard Myers Dam on 1/4 (J Wentz).

We wish to acknowledge the followig individuals and organizations for supporting **PENNSYLVANIA BIRDS** through additional gifts.

CHARLES E. ALEXANDER MD RALPH BELL GLORIA BICKEL NICK BOLGIANO **ROSANN BONGEY*** BRUCE A. CARL SKIP CONANT RUTH CRAWFORD NANCY L. DENNIS JANE DOWNING* MRS. MARY ANN DUNMIRE GARY E. EDWARDS WESLEY EGLI MICHAEL P. FIALKOVICH **EVELYN AND MIKE FOWLES** RANDOLPH W. & SARAH H. GERRISH JR. DAVID A. GOBERT KERRY A. GRIM **DOUG GROSS** ROBERT P. HILTON FRANK HOHENLEITNER RUDOLPH KELLER H. SCOTT KILLAM SCOTT KINZEY CANDY KRENZER WAYNE LAUBSCHER HAROLD H. LEBO LARRY LLOYD STEPHEN J. MALLANSON JR. ROBERT W. MARTIN JR. WILLIAM L. MCLEAN III DORIS MCGOVERN JERRY MCWILLIAMS* MARTIN PAGE PETER ROBINSON STEVEN J. SANTNER MICHAEL & JANET SLATER RICHARD L. TIMM JR. WILLIAM UHRICH WEST CHESTER BIRD CLUB* GENE WILHELM PH D MATT AND TONI WLASNIEWSKI **ELEANOR WOLF** DAVID C. WOLFE WYNCOTE AUDUBON SOCIETY*

*Designates Patron (contribution of \$50.00 or more)

Seasonal Occurrence Tables - January through March 1998

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 <u>almost</u> 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:

 $A = \text{Present } \underline{All}$ 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 <u>Resident. This species</u> breeds and is present <u>year round</u> 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.

 \neg **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.

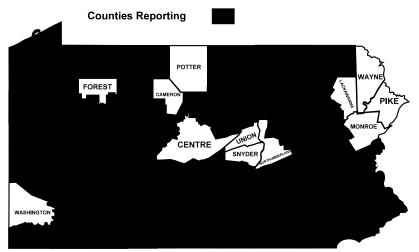
5/6- means the species was first seen on 5/6 and remained the rest of the quarter.

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 - JANUARY TO MARCH 1998



	ADAMS	ALLEGHENY	ARMSTRONG	BEAVER	BEDFORD	BERKS	BRADFORD	BUCKS	BUTLER	CAMBRIA	CARBON
LOON, COMMON		1/1			3/27(8)			3/22	3/25→	3/21→	1/1
GREBE, PIED-BILLED		1/20	2/7→	3/1	3/28(15)	A-3/9(25)		3/28	3/1⊅	3/15→	1/1
HORNED	3/27(3)		2/25→			3/24-29		2/21	2/28-3/15(11)→	3/27(3)→	3/14→
CORMORANT, DOUBLE-CRESTED		Α				3/29		A	3/28		
HERON, GREAT BLUE	_	R-2/21(19)	A-3/27(5)		œ	~	۷	œ	¥	٧	⋖
EGRET, GREAT						→2/14L					
SWAN, IONDRA	2/28(300+-)		2/27-3/6(183)		3/3(63)	1/3-19(150)-3/15	2/.78	1/1/-3/8(20)	2/28-3//(1000+)-15	3/6-15(248)→	3/20(4)
MOIE SNOW		2/0E				A-2/2/25000)	2/11_2/2E/EE/\\ 28	A 2/04/250±1		€ ,	
CONT.		C 2/C	B-1/3/354)	. α	P-3/28/127)	A-3/2(23000) P	R-1/9/650)	A-0/24(3304)	P-3/16/161)	. 0	. α
עמעאיי אטוום		۵ ک	2/22-3/24/	۷ ⊲	3/26/14)	1 /~	3/4 1	∠ Ω	3/1-15/28) 1	3/15/8)‡	1 1/8
TEAL, GREEN-WINGED	3/15(6)	٠ ١	± 25-0/21 (22) · · · · · · · · · · · · · · · · · ·	ς ,	(+1)07/0	2/9-3/9(6)→	3/26→	1/18-3/14	2/15-3/16(16)	3/26(9)	5 ,
DUCK, AMERICAN BLACK	3/29(12)	R-1/21(6)	1/10(18)→	∢		1/3-17(300)→	A-2/11(60)	~	2/8-28(49)-3/25	1/14-24(39)-3/26	1/25→
MALLARD	_	<u>~</u>	R-1/1(92)	œ		∝	R-2/11(60)	∝	R-3/1(142)	<u>~</u>	œ
PINTAIL, NORTHERN	3/5-29(5)					1/17-2/22(67)-3/18		1/18-3/16	2/15-3/14(13)-21		3/22→
TEAL, BLUE-WINGED		- 00,0	-			3/29		- 0	3/14→		
OARWALL		3/77	3/2/(12)			87/5-97/2		3/70	3/14(7)-23	(02) 72/2	, ,
GADWALL	2/40 06/6)		3/2		00/0	A-3/7(57)	2(44/44) 26	A C C C C C C C C C C C C C C C C C C C	3/1-22(14)	1/14-3/15(19)	3/29
WIGEON, AMERICAN	(c)cz-61/6		2,0		9/70	A-3/26(6U)	3/11(14)-20	4/18/2/22	3/1-14(46)-29	3/13(50)	3/14(3)
CANVASBACK BEDHEAD		3/15	3/3			3/9-25		3/24	2/0-3/14(333H)-13 3/14/333H)-25	3/17(8)-18	1/23/3/1
DUCK RING-NECKED	3/15-29(26)	3/15-19	1/25-2/7(67)	3/8	3/31(4)	1/3-3/28(100)	3/6-28(47)→	A	1/24-3/14(750H)→	3/15(54)→	(0)07/1
SCAUP, GREATER	()	13/8	(;))		1/17-3/17(12)-28	/ :: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	: .	3/14-22(43)→		1/25→
LESSER	3/27(5)	3/15-19(8)	2/27(39)	1/1	3/28(5)	1/4-3/30(36)	3/11-28(22)→	٧	3/14(1000H)→	3/15-17(18)-20	1/25→
OLDSQUAW						3/18		3/21	3/15(15)-28		
GOLDENEYE, COMMON			3/1(7)-3			1/24-2/27	3/28	2/14	2/8-3/22(16)-25	3/15(3)	1/11(5)
BUFFLEHEAD	•	→2/2(7)-4	2/22-3/7(6)→	3/29(8)	3/27(3)	1/31-3/14(12)-28	3/25	3/13→	2/28-3/16(89)→	3/15-20(35)→	1/23→
MERGANSER, HOODED	3/19	→2/20-3/25	1/1-3/13(11)→			1/17-2/6(10)-3/24	3/15-23(4)→	∢ (2/28-3/16(32)→	1/24-3/15(17)→	∢ •
COMMON PER BETABLE	2/18(4)	. 00/0	2/1-22(30)-3/1	3/19		A-2/15(1860)	K-1/9(98) 2/1	Υ ά	2/8-3/16(6) →	04/40	∢
KED-BKEASTED	-	3/27	2/20-3/27(33)			3/1-29	3/1	3/22	2/28-3/15(240)→	3/15-24(40)→	- 1/7
VIII TIIRE BIACK	, α		c/c -		3/25(3)	R-1/17(7)		o/0	Z/0-3/14(100011)1	3/13(20)	<u> </u>
TURKEY	∠ ∝	3/8	2/22-3/20(4)→	3/19	3/1-25(74)→	R-1/17(38)	3/2E→	. ∝	2/1E-3/17(8)→	3/18(3)→	1/29(11)→
OSPREY			-	3/1-10	(: ·)	3/28E→		3/23	(-)	(-)	3/27→
EAGLE, BALD						A-1/25(3)	2/15-3/1(3)→	6/2	œ		
HARRIER, NORTHERN	,	A-1/20(3)	1/11-2/2	,	1/14		A	1/11		3/15-18	3/8↑
HAWK, SHARP-SHINNED	~	œ	~		3/28(7)	~	∝	~	A	∝	∢
COOPER'S	•	~	~			∝	∝	~	A	∝	∢
GOSHAWK, NORTHERN						3/28	3/27	3/15			
HAWK, RED-SHOULDERED		3/1↑		1/3		V		1/11-2/22	5/8→	3/18-26	
BROAD-WINGED RED-TAII ED	, α	, α	, œ	<u>3</u>	3/22 B	- R-1/18(39)	, α	, α	, α	, œ	, α
ROLIGH-I EGGED	1	<u> </u>	٤ ،	٠ :	٤,	1/3	1 A	<u> </u>	٤,	<u> </u>	<u> </u>
KESTREL AMERICAN	~	<u>~</u>	<u>~</u>	<u>~</u>	<u>~</u>	2	: œ	<u>~</u>	C	<u>~</u>	<u>~</u>
MERLIN	ź ,	A-3/25(3)	3/26	٤,	٤,	' '	٤,	1/3	: ,	٤,	٤,
FALCON, PEREGRINE		œ				2/19					
BOBWHITE, NORTHERN				,				~			
COOT, AMERICAN		A-3/15(18)	A-3/27(93)	∢		A-2/27(80)		1/18(15+)	3/1-15(250)→	1/14-3/18(61)→	A-3/20(11)
KILLDEER		2/15→	2/20-3/15(4)→	2/22→	2/18→	~ 0	3/2→	Z 0	2/1E-3/14(11)→	3/11→	2/12(3)→
WOODCOCK AMERICAN	3/25(26) 3/15 1	140/0	1,48		1, %	2/8	1 2 2	3/8-14	3/28 +	101/8	1(8)1/6
MOODCOCK, AMERICAN	0/101	1/1	0/104		1 10	2/21-3/1(0) -	3/2-1	7	3/15(4)	0/101	(o) / (c)
RING-BILLED	1/10(63)	A-1/20(200+)	2/2-27(81)→	4		A-3/5(1200)	۷	∢	A-3/15(210)	1/14→	∢
HERRING		A-3/14(14)	2/2	Α	3/28(12)	A	→ 2/11	A	A-3/15(6)		A
ICELAND						1/17-25		∢			
LESSER BLACK-BACKED					,	1/4-2/15		1/18			,
GREA! BLAUN-DAUNEU				,		→ 2/0(0)-3/2 1		1			

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	ADAMS	ALLEGHENY	ARMSTRONG	BEAVER	BEDFORD	BERKS	BRADFORD	BUCKS	BUTLER	CAMBRIA	CARBON
OWL, BARN	œ					~		~			
BARRED	œ	∝	∝		∝	∝	~	œ	œ	~	~
LONG-EARED		•		•				→3/28(4)			
SHORT-EARED		A-2/14(5)	1/11				1/3				
NORTHERN SAW-WHET								œ			
WOODPECKER, RED-HEADED	œ					œ		œ	3/24		
SAPSUCKER, YELLOW-BELLIED	1/18	∢ :	1/11	. 1				→2/22	3/17	∢ :	3/19
FLICKER, NORTHERN	- 20/0	R-1/20(4)	R-2/2(3)	٦ . روز	٦. رون	د د د د	<u>د</u> د	∝ <	A 2(25(4) .	م	R
PHOEBE, EASTERN	3/2/ →	3/22+	3/20+	3/201	3/26→	3/84	3/2	∡	3/25(4)→	3/29+	3/2/1
LAKK, HOKNED		¥	A-1/1(450)			A-1/18(150)	¥		3/28	A-3/14(300)	
SWALLOW, TREE	3/29(11)→		3/27→		3/26↓	3/25↓		3/26→	3/28↑	3/27(5)→	3/27(5)→
NOR! HERN ROUGH-WINGED						3/31		. (3/29→
CROW, FISH						œ		œ			3/1↑
RAVEN, COMMON					œ		~			œ	
CHICKADEE, BLACK-CAPPED		œ	œ	œ	~	œ	~	œ	œ	œ	œ
CAROLINA	œ	œ		œ		œ		œ			
NUTHATCH, RED-BREASTED	1/11(3)	⋖	1/4			œ		⋖	٧	3/14	2/7(3)
CREEPER, BROWN		V	~	2/8	2/22	≃	~	~	∀		1/21
WREN, WINTER		ď	1/10					42/14			
KINGLET, GOLDEN-CROWNED		A-1/20(7)	A-3/3(3)	1/3		œ	A	⋖	A	1/14	1/28(3)
RUBY-CROWNED		3/31		3/31		¥					3/28(4)
THRUSH, HERMIT		A	3/20			A		A	3/17		
ROBIN, AMERICAN	~	V	R-3/3(24)	~	~	~	A	~	A-3/14(134)	~	~
CATBIRD, GRAY								3/14→			
THRASHER BROWN					3/31	3/31E→		3/30↑			
PIPIT AMERICAN						1/24	3/11	1/2	3/15-28(20)		
SHRIKE NORTHERN			2/2				5 ,	1 .	(0-1)0-1 (1-0)	3/18	
MARPIER VELLOW BLIMBED			1/42	. <					06/6	2	
WARBLER, TELLOW-ROIMPED		Į.	21/1	Į.	000			¥ 0	3/72		. 00,0
WATEBILE LOUISIANA					3/29	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		3/31			3/28
WATER I HRUSH, LOUISIANA						3/31⊏→					
TOWHEE, EASTERN		3/29↑	∢	3/24→	3/28→	3/15→			3/21↑		
SPARROW, AMERICAN TREE	→1/31(21)	A-1/20(22)	→2/7(25)-3/21	1/3	1/20	→1/3(30)-18	¥	13/22	A-3/15(16)	⋖	1 1/1(8)
CHIPPING		3/29→	3/28→	2/22	3/28	3/28→		3/30↑	3/27→		
FIELD		JAN-3/29(8)→	3/20↑	3/29	3/30→	A		œ	3/27→		
SAVANNAH							3/28→	~			
FOX		3/15-28(6)→	3/1-17		3/8-28	1/10-3/28(9)→		42/28	3/14(4)-22		3/14(5)
SWAMP			3/7		,	~		∝		~	
WHITE-THROATED	A-1/18(29)	⋖	A-3/13(6)	V		∢	_	⋖	A		⋖
WHITE-CROWNED	1/18(6)	2/8			3/27	1/18-3/22		⋖			3/22
JUNCO, DARK-EYED	ď	A	A-3/21(52)	43/26		A	œ	A	A	⋖	A
LONGSPUR, LAPLAND						3/22				2/8	
BUNTING, SNOW								1/19		2/8(5)	
BLACKBIRD, RED-WINGED	1/18(4)	2/26→	2/22-3/7(34)→	2/13(3)	2/27-3/12(27)→	A	2/21E→	≃	2/28→	3/10→	1/30
MEADOWLARK, EASTERN		2/14(4)→	2/2-7(20)→	3/22	3/28	R-1/18(14)	3/17→	∝	2/28→	3/18→	3/6(3)
BLACKBIRD, RUSTY						3/29(6)		3/9	3/14-26		3/29
GRACKI F. COMMON		2/20↑	2/21-22(65)→	2/15	3/20-21(85)→	A-2/8(15000)	3/3	~	2/28(3)+	3/10(21)+	3/1(20)
COWBIRD BROWN-HEADED		ì i •	3/2-7(3)↓	5/6	1/25	R-2/1(300)		: 02	3/14↓	3/15(5) 🛨	3/6(11)
FINCH. PURPLE		3/29↑	A-3/27(8)	1/31-3/28	3/29(3)	A-3/31(5)	3/28(4)	: 22	A-3/19(7)	3/12→	3/31(7)
LECTRONICAL DEL		96/6	2/10/8)		(2)	1/9.2/8/52)→	3/20(6)	: .	2/6/10)	1/24/3)	
WHITE WINGED	1/0 12/20)	02/2	2/10(0)		1	1/3-2/0(32)	0,50(0)		2/6(52) 2/20	1/24(3)	
REDPOIL COMMON	(02)01-6/1	1/17-23(25)-2/8		1/11(15)		1/4-2/10(10)-3/21 1/25(75)-3/31	1/17-3/14(40)-23		2/1(150H)-3/20	-	
SISKIN PINE	A-3/2/70±-\	2/15		(21)	1/20-3/29	Δ-1/25(55)	CT (01)1100 11111		2/17/28\-3/11	1/24	
GROSBEAK, EVENING	P(37)	2 7			2/16(23)→	- 1/23(33)			A-MAR(9)	3/5(18)	3/31
	,				()					,	

ERIE	c	L ·	∢ '	V	ď	Y		A	3/24	. α	7,7	1/6	∢	∢	۵		3/2→	A	Δ. «	₹ <	(<	(⊲	(∢	< <	4	Ą	<u> </u>	∢ «	τ α	- 1	3/6→	3/31→	∢ (ν α	ć œ	: ,	۵	3/25E→	מענ	L.	, 22	1/3-3/26		1	∢	3/28→		, <	∢ ∢	٨	
DELAWARE	. 00/0	3/23	A-1/13(12)	2/27→	A-3/1(6)	<u>د</u> و	3/29	1/31(1)-3/7 p	X 2/10/1200	A-3/19(1200)	2/16 2/20(5)	Z/16-3/29(5)→ A-3/29(202)	()	~	A-3/21(8)	3/29	A-1/1(7)	3/12	1/1-2/27(7)	₹ .	Δ-1/13(13)	3/26	07/0	7/2	→2/15	A-2/24(15)	→1/4(10)-3/12	A-1/8(139)	A-2/21(51)	R-2/21(24)		3/25→	1/31-2/7	4 <	ς α	: ∢	3/6-7(3)-24	. (χ ,	1/2	. œ	:: ∢	~		A-1/18(18)	2	3/17-29(12)→	Α	_ ਨੇ ଏ	<	
DAUPHIN	. 0070	3/30	n .	2/26→	3/26→	π 2001	3/2/ +	2/16-3/21(400+)→	3/31	3/10-21 P	7 20 20 20 20 20 20 20 20 20 20 20 20 20	↓1/3,2/28↓ A	· œ	~	2/14→	3/27→	3/21→	A	2/23→	3/31(4)	2/2 12 13 13	3/1×	3/3	3/26(3)→	<	A	2/1↑	A 2/c	7\2/1 D	. 🕰	. «		R-3/21(3)	₹ 0	2 مح	٤,	œ	. (¥		. 02		~		۷	2/16→	10,0	2/27→	† 20 8	3/2↑	
CUMBERLAND	. 0770	3/18	3/18	3/18→	i '	A o	3/28	2/26(52) →	ָר ב	. α	∠ <	∢ Δ.	. «	~	3/15(10)→	3/15(4)→		¥	Д (2)	3/18(3)	L 0	_ 0			Þ	A	∢ ·	A		⋖	: ∢	3/18→	, <	₹ 0	۷ مد	٠.		3/31	A v	5/1	. 🗠				1/3	∢ (a . (д. 6	† 87/8 V	∢	
CRAWFORD			1/3(4)	3/21-28(5)	3/22	œ		A-3/1(80)	¥ 7	1/3 P-1/3/16 230)	2(16,230)	2/15+3/28(17)	R-1/17(20)	R-1/3(1043)	1/3-2/15(25)	3/28→	2/15(3)-3/1	1/3-3/15(19)	→3/15(303)	1/3(8)	1 3/21(13)	1/3/3)	1,3(3) 1,3/28(231)	3/28	→2/7(35)	→3/28(84)	→2/15(11)	→2/22(300)	3/28(7)	(1)27()	3/21L→		R(5)	צ ם	۷ ۲	3/22	œ	, (4(24(2)	1/24(3)	3,5 2	3/7			1/10(407)	3/22(15)→			- A-3/7(925)	A-3/7(30)	
COLUMBIA			3/3(3)↑	3/3≠		ĸ		3/3(35)	2/2 27/460)	3/3-27(150) P	۵ ک	צ,	~	~	3/3(12)				2/18-3/3	3/3	3/10/50)	(00)01 /0	3/19			3/3(50)	∢ :	۲ ، ن ک	3/23		∢			. 0	۷ ۲	٤,	3/3	. (¥		, 🗠				۵	. 0	3/3	5/26→	- A-3/25(25)		
CLINTON			1/14-29(3)→		3/31	ĸ		7/24-3/15(2/)→		, α	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3/2-10(14)	A-3/5(60)→	R-3/5(4)	3/29(6)				3/22	3/24	3/24-25/22)-30	00-(22)02-43/0	3/26		1/19-21(7)→		2/26(3)→	1/12-27(13)→	3/31(3)		2/26→		1/25	7/7	3/15	<u>?</u>		. (¥		, 02					3/2-3(4)→			2/24-3/2(20)→		
CLARION		. !	3/74	3/7-20(4)→		3/1		2/27-3/1(200)-18	, c	3/ I-24 R-3/24/319)	2/24 2/24(313)	2/21-3/24(42)→ 3/24(4)	3/15(8)-17	~	3/11-24(5)	3/24-25	3/11(5)→	3/6-11(6)	3/6(6)→	2/19-3/24(31)	3/5-20(75)	2/21-3/15/20)-25	2/21-3/24(330)→	2/22-3/11(7)	2/21-3/24(28)-25	2/21-3/24(61)→	3/6-24(45)→	1/31-3/21(17)→	3/17(5) \$		2/20→		3/24	צ ם	۷ 02	1/25-2/28	A-3/18(3)	3/31⊅	X 4	71/3-6/1	, 02	1/8-3/17			3/15-24(75)→	2/27-3/22(6)→	3/24	3/1↑	2/22-3/25(42)→		
CHESTER	*	∢ .	∢ :	۵		⋖		3/10(75)	3/13-28	3/24-23(2000) P	2/4/6)	3/1(5)	2/1	~							2/1-3/24/160)	(001)+3/0-1/7	2/24-3/24(40)	3/7	2/1-3/10(5)	2/1-15(3)	3/1(4)	2/6(70)-24	L,	~	: ∝		1/2-3/14	. <	< ∢	: ,	1/17-2/15	, (¥		. 02	: a.		œ	∢	œ			. ∢		
		LOON, COMIMON	GREBE, PIED-BILLED	HORNED	CORMORANT, DOUBLE-CRESTED	HERON, GREAT BLUE	EGKEI, GREAI	SWAN, IONDRA	MOIE STOW	GOOSE, SNOW		DOCK, WOOD TEAL, GREEN-WINGED	DUCK, AMERICAN BLACK	MALLARD	PINTAIL, NORTHERN	TEAL, BLUE-WINGED	SHOVELER, NORTHERN	GADWALL	WIGEON, AMERICAN	CANVASBACK	NEUTICK BING NECKED	SCALIP GREATER	LESSER	OLDSQUAW	GOLDENEYE, COMMON	BUFFLEHEAD	MERGANSER, HOODED	COMMON	RED-BREASTED	VULTURE: BLACK	TURKEY	OSPREY	EAGLE, BALD	HARRIER, NORTHERN	COOPER'S	GOSHAWK, NORTHERN	HAWK, RED-SHOULDERED	BROAD-WINGED	KED-IAILED	ROUGH-LEGGED	KESTREL, AMERICAN	MERLIN	FALCON, PEREGRINE	BOBWHITE, NORTHERN	COOT, AMERICAN	KILLDEER	SNIPE, COMMON	WOODCOCK, AMERICAN	GULL, BOINAPARTES RING-BILLED	HERRING	

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	CHESTER	CLARION	CLINTON	COLUMBIA	CRAWFORD	CUMBERLAND	DAUPHIN	DELAWARE	ERIE
GLAUCOUS	3/11							1/4	3/7-22
GREAT BLACK-BACKED OWL, BARN	3/20			, Œ		∢ ⊻	∢ ₩	۷,	۷,
SNOWY					3/7				2/7
BARRED	<u>د</u> ،	R 1/28-2/22(8)-3/11	œ ,	۳.	۳ ،	R 7	2 1 2 2 1	1/3	۷.
SHORT-EARED		→3/23(4)		1/25-2/6		1/3	\n. a.		
NORTHERN SAW-WHET					, (1/3			3/26-29
WOODPECKER, RED-HEADED					¥	Y <	. <	90/01	A W
SAPSOCNER, TELLOW-BELLIED FLICKER NORTHERN	L 00	11/7-11/1	R-1/22(13)	, α		τ ω	τ ω	97/50	MAK 1
PHOEBE, EASTERN	3/6	2/27→	3/26	3/26→	3/28→	↑ ↓1/3(3)	2/27→	¥ 4	٤,
LARK, HORNED		1/17-25(200+)→	A-1/12(55)	œ	1/3(6)	A-1/3(678)	A	1/1(16)	
SWALLOW, TREE				3/26→	3/21→	3/18→	3/15→	3/10-29(30)→	
NOKTHERN KOUGH-WINGED			, 0	. 0		3/31	3/30	3/28 1	
RAVEN, COMMON		- R-2/14(5)	LŒ	<u>د</u> مد		د ۵۷	۷ ۲	۰ ک	
CHICKADEE, BLACK-CAPPED		i i : «	: 🗠	: ≃	œ	: ≃	: ≃	2/7	~
CAROLINA	œ					∝	۳	∝	
NUTHATCH, RED-BREASTED	A .	A-1/19(27)		, 0		⋖ <	A-2/27(16)	A-1/4(15)	a . c
WEEPER, BROWN	1/24	104 of		¥ <	1/1/-18(4)-2/22	₹ <	צ ם	A-1/3(3)	L 0
WREIN, WINTER	Δ-1/25/3)	1/31-3//		∢ ,		₹ ⊲	L d	→ 2/22 Δ-3/30(8)	LΩ
RUBY-CROWNED	(6)6711-4	2/27		< <		ς ,	1/10	3/24	2/28
THRUSH, HERMIT		→1/1,3/7			2/9-15	A	~	A	۵
ROBIN, AMERICAN	~	R-2/27(30)	⋖	~		∝	∝	~	ď
CATBIRD, GRAY						→1/3(3)	11/3	A-2/14(4)	1/3
THRASHER, BROWN	1/22	- 0				1/3		3/31↑	ط و
PIPII, AMERICAN		3/22(50)-23	3/31	1	1/40 2/52	3/28(200)→	•		3/22(6) 4/2 EEB
WAPBLEP VELLOW-PLIMBED	. 4	L 4	Δ-3/2/6)		1/10-2/22 A-1/18/25)	Δ-1/3(132)	. <	Δ-1/11(Λ)	1/3-1EB
WANBLEN, TELEOW-NOMPED	ζ,	ζ,	A-3/2(0)		4-1/10(43)	A-1/3(132) -	ζ,	A-1/11(4)	ζ,
WATERTHRUSH, LOUISIANA			•					3/31→	
TOWHEE, EASTERN	3/7→			A	A	1/3	2/27→	œ	<u>a</u>
SPARROW, AMERICAN TREE		→1/25(18)-3/24	A-1/24(18)	4	A-2/15(54)	۷	→2/28	→2/28	
CHIPPING			3/31+	3/29E→		3/31↑	3/30↑	3/27→	
FIELD	¥.		3/31	3/27 →	o <u>~</u> o	∢ <	3/4↑	Ľ,	
CACALITATION OF THE PROPERTY O	2/14	3/11-25		2/21→	3/29	A-1/3(3)	1/10-3/17	- 13/29	3/29→
SWAMP		2/5→	œ	4	A	¥	1/10	~	MAR→
WHITE-THROATED	∢ .	A-3/25(14)	∢ .	∢ .	œ	⋖ <	⋖ <	× 1	V
ILINGO DARK-FYED	- ⋖	R-1/25(30)	. 22	. 02	- A	< ⋖	< ⋖	A-1/11(50)	4
LONGSPUR. LAPLAND	٠,	1/24-25(6)	٤,	٤,	ξ.	3/28(9)	ξ,	(20)	2/10
BUNTING, SNOW		1/24(200)-3/4			1/31(4)	<u></u>	△		: i
BLACKBIRD, RED-WINGED	2/8→	A-3/15(2000)	1/12-24(45)→	2/19(3)→	R-3/7(3000)	۵	2/8≠	2	4
MEADOWLARK, EASTERN		3/7-15(14)→	A-3/24(10)		œ	A	→1/1,MAR→		MAR→
BLACKBIRD, RUSTY		2/21(45)	. :	3/3(4)	2/22(3)				MAR→
GRACKLE, COMMON	× 0	↑ \$7/Z	↑ 57.78 7.780		Y 0	±(/)/1/(/)	5/10↑	K-2//(2000)	J (
COWBINE, BROWIN-HEADED FINCH, PURPLE	۷ ۵	2 22	06/20	۷,	۷,	< <	۷ ح	A-1/3(3)	L ,
CROSSBILL, RED		A-1/24(1000)	3/4		1/17(25)	A-3/18(57)	A-2/27(35+)	→1/11(29)-3/7	
WHITE-WINGED	1/24	A-1/31(1500)		2/15	2/13(5)	< <	A-3/7(30+)		
REDPOLL, COMMON		A-1/25(500)			1/31(30)-2/21	Д	A-3/13(200+)		1/19(6)-25
SISKIN, PINE		A-2/14(300)	2/20(75)→	V.	1/18(6)-3/28	V ·	A-1/10(75+)		⋖
GROSBEAR, EVEINING		A-1/18(200)	1/3(8)	A(20)	1/31(23)-2/23	A-3/18(32)	1/13(32)-28		

	FAYETTE	FRANKLIN	FULTON	GREENE	HUNTINGDON	INDIANA	JEFFERSON	JUNIATA	LANCASTER
LOON, COMMON			3/25→						→3/7
GREBE, PIED-BILLED		3/6			A	A-3/31(9)	3/2-26(3)→		r
HORNED	2/22		3/23→			1/15-3/24(12)→	3/7-26(17)→		-
CORMORANI, DOUBLE-CRESIED HERON GREAT BILLE	, α	. 4	. 4		. 4	3/31(4)→	- 3/2€	. 4	1/18
EGRET, GREAT	٤,	ς ,	ζ,		ς ,	3/31		ς ,	ζ.
SWAN, TUNDRA		1/26-3/10913)	3/6(73)		2/26-3/18	1/6-2/28(76)-3/24	2/28-3/2(575)	2/18(1000+)	→2/28(3000)-3/7
MUTE			3/17-24				2/16-3/2		
GOOSE, SNOW						1/14-2/28(65)	(1)	2/28(500+)-3/22	A-2/28(50000+)
CANADA	Υ Δ	ж 3/ж	K-1/13(13) 3/1 ↓	K-3/9(64)	√,28 †	K-1/31(497) 1/17-3/27(8) →	K-3/2(74) 2/26-3/25/0) →	1 % ~	3/6-7/3/ 1
TEAL GREEN-WINGED	، ک	1/27(15)-3/29	<u>1</u>		3/14	2/28-3/31(11) →	3/15	1/11	3/7
DUCK, AMERICAN BLACK	~	1/27	1/13→		A	1/6-19(150)→	2/26-3/31	A	A
MALLARD	œ	œ	R-1/13(11)	œ	œ	A-1/19(250)	œ	∝	∝
PINTAIL, NORTHERN		1/21	3/3			1/6-2/28(45)-3/24	3/2(6)		2/22-3/7(10)
TEAL, BLUE-WINGED								3/15	
SHOVELEK, NOKTHEKN	3/30	3/26				3/4-27(6)	3/7-26(3)		→1/4(35)-3/7
GADWALL MIOTON AMTRICAN		3/1(4)	3/24		2/44 44/6)	1/20(12)→	2/26	2/15(5)	2/28-3//(10)
VIGEON, AMERICAN		3/21-30	3/24(5)		3/11-14(0)	2/18-3/20(33) 1	3/23/4)	7/2(0)	2/22(3)7
REDHEAD	2/20(6)	3/2				3/3-14(1) -	3/2-15(5)→		
DUCK RING-NECKED	(2)21/1	3/2(7)-29	3/5-22(4)		2/21-3/18(62)→	2/16-3/21(137)→	3/2-26(148)→	1/18(4)	A-2/22(25)
SCAUP, GREATER	2/20(6)	- () -	3/6-10(5)		()	1/14-2/28(7)	3/2-26(12)→		()
LESSER	2/20(14)	2/8-3/10(10)-31	3/13-16(10)		3/14-20(15)→	2/15-3/14(505)→	2/27-3/26(31)→	2/28(6)	2/22(11)
OLDSQUAW			1/13		3/28→	1/31-3/28(16)→	2/28(3)-3/21	2/28	
GOLDENEYE, COMMON		2/28				→2/3(5)	2/28→	A	
BUFFLEHEAD		3/10-30	3/6→		¥	A-3/17(44)	2/27-3/26(34)→	A	3/6-7
MERGANSER, HOODED	2/20(3)→	3/6-28(5)-30	3/5-24		3/1	2/5-3/17(24)→	3/2-26(11)→		13/7
COMMON			3/25+		A	2/21(37)→	1/17+	A	A-3/27(80)
KED-BREASIED	2/22(13)	3/29(3)	3/3-16(15)		↑LZ/Z	1/19-3/2/(241)→ 0.77/33	3/2-26(15)→		3/14
DUCK, RUDDY		3/29-31	, Ω		, <	A-3//(1/)	3/2↑	. <	2/22-3/7(60)
VOLIONE, BEACK		A A	1/10.2/1	3/17	< ⊲	3/2-28(7)→	2/27→	(∢	. <
OSPREY		3/29→	. 150	:		(1)	i .	3/8↑	
EAGLE, BALD			MAR		¥			3/30	∝
HARRIER, NORTHERN						2/10-3/20	∝	3/15→	
HAWK, SHARP-SHINNED	œ	¥	œ	œ	œ	~	œ	A	∢
COOPER'S	œ	⋖	œ	œ	∝ 1	<u>د</u> :	<u>د</u> ا	¥	œ
GOSHAWK, NORTHERN					x (3/31	2/27		
HAWK, KED-SHOULDEKED	~ (~ (χ	3/2	3/15 +	- 07/44)
ROUGH-LEGGED	، ک	۷ ،	۷.	۷,	۰ ک	۷,	1/27	1/3-3/15	N-2//(11) ↓2/7
EAGLE, GOLDEN					A-3/6(20)		1/17	3/22	
KESTREL, AMERICAN	œ	œ	∝	œ	œ	~	œ	∝	∝
MERLIN						3/24	1/9	FEB	
BOBWHITE, NORTHERN		œ							
COOT, AMERICAN	2/20	3/31	•	•	1/1	A-3/28(789)	3/15(15)→		_
KILLDEER		A	2/19(3)→	2/11→	¥	2/14-3/28(6)→	2/26→	⋖・	<u>د</u> ۱
SNIPE, COMMON		. 0	- (F) 00 F0) 0				. 0	A 20	٦ . ور
WOODCOCK, AMERICAN		3/201	3/24-29(1)		<u>را ۲</u>	2/20 4	3/24	<u>f</u> _/s	↑ 87/7
PING-BILLED	(7)06/6	2/28-3/17/26)-27	1/10/11)		٧	0,31(14)	3/2/275)→	. 4	
HERRING.	2/20(4)	12-(02)11(0-02/2	-(11)61/1		ζ,	A-3/10(52) 3/10-31	3/2(25)→	2/20	(∢
LESSER BLACK-BACKED					1		3/2(3)	} !	2/22
GLAUCOUS							3/2		3/22
GREAT BLACK-BACKED							3/2(3)		A
OWL, BARN		<u>«</u>	∝					œ	

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~	~	2	м.	~	x	R	2	2	œ
, ,			: , ,	: , ,	٠, ,	: , ,	2/28 →1/27(4)	:∢,	: , ,
		, 0			, <	3/28		•	
	2/22	±3/31			ζ,	1/14	. ~		1/2
	۷	¥	œ	œ	œ	A-3/28(8)	3/2→	œ	œ
		3/30↑	3/24→	3/8↑	3/13→	3/19-31(10)→	, ,	3/15↓	3/27(6)→
		3/05_06(5)-34	צ ,	1/20/8	186/8	A-1/16(Z1U)	צ י	₹ .	R-2//(200+)
•	,	A A	3/20→		3/19→			3/8(4)→	œ
-	œ	œ	œ	A	œ	м.	œ	œ	
	œ	œι	œ	, (œ	R-1/31(23)	œ	œ	<u>د</u> ر
	Y	1/24	•	צ ו	, Δ	A_2/7(2)	(8)24/1	, <	Y,
ľ		1/24	~		۰ د	A-2/16(3)	(c)	< ex	~
			3/30		œ	1/15→		< <	
•	1/14-2/22	1/24			×	A-3/14(9)	→1/17(7)-3/26	· œ	۵
						1/20		3/1	
. 1	2/7(3)				∢	1/21-3/21	1/17	¥	۵
		~	~	~	~	R-3/10(101)	~	~	~
•						11/6			
•		3/30						¥	
							1/27		
	1/14-21				3/20↑	A-2/21(10)		2/1	⋖
•					3/26→	3/26→			
	3/29↑		3/30↑	•		3/28			
•				∢	∢ '	2/28→		3/15→	
	1/14		2/19(3)-3/31		∢	→2/28(40)-3/24	→ 1/17(4)	→3/2(4)	42/28
1		3/30↑	3/27(3)→	3/28↑	3/30↑	3/28↑	3/26→	1/26	3/29↑
		3/29↑	œ	3/28↑	⋖	A-2/1(16)		∢ '	œ
		3/31↑						1 3/8	œ
	3/21	3/20			2/16→	3/10-13		3/1	
•					3/13≠	3/20-31(5)→	3/26→		∢ ·
		∢ ,	∢ ,			A-1/20(24) -	- 1/17	A 1/24↓	∢ 凸
		A	A		<u>~</u>	A-3/12(76)	~	A	¥
		A	2/19-3/17(75)→	2/23→	2/18→	1/26-3/3(100)→	2/26-3/2(300)→	1/18↓	
.,	3/20→	2/27(8)→	R-1/27(7)	2/11→		2/28-3/18(3)→		∢	
ľ		3/27				3/31	2/26-3/2(45)	1/18→	
. 4	2/22(21)	2/10→	2/21-3/3(200)→	2/26→	2/19→	2/26-3/7(20)→	2/26-3/2(65)→	1/11(15)→	œ
•	,	V	3/27→	3/25→		3/20-29(6)→		< <	œ
.,,	3/21		A-3/18(4)		A	R-3/10(9)	~	A	→3/27
					<	3/28(41)	A-1/18(500)	∢	
					A(50)	3/21(13)	→1/18(600)-3/7	< <	
ľ			FEB		A-3/7(4000)	1/6-20(28)-24	→1/17(9)-29		
			1/4-2/19(35)→		A(500)	A-1/26(30)	→ 1/26(40)-3/2	∢	

LAWRENCE	LEBANON	LUZERNE	LYCOMING	MERCER -	MIFFLIN	MONTGOMERY 3/27→	MONTOUR	948RY 3/31→
		A 3/22(3)↓	3/28-29 3/28-29(13)	1/27→		3/7→ 2/18-3/27	3/28 2/27-3/14(3)→	3/18 +
۵ ۵		, œ	3/20→ A	, د	, œ	- 4	, 4	3/31↓ A
3/26 - 1/28-3/17(15)-29 →3/7(1500) 	(6)		- 3/14(46)	- 1/27-3/1(65)-3 2/26-3/14		- 1/4-11(23)-2/27 -	- 1/25-3/15(93)-27 -	
A-3/7(50000) R	<u> </u>	, œ	, œ	1/6 R	- R-3/16(121)	1/17-3/30(1000+)→ R	2/20-3/22(2000)→ R-2/7(700)	. «
3/7↓		R 2/28 ↓	3/28(4)→ 3/28(7)→	3/5-31(10)→ 2/9-3/14(8)	R-3/16(5) -	1/24-3/30(4)→ 3/25-28(10)→	3/14(6)→ -	Δ,
CC CC		∢ ₩	2/16(4) B	1/19(10)-3/14 R	A-3/16(3) R	A-1/24(119) R	A-2/7(250) B	∢ ₩
: ₾		3/10(22)→	٤ ،	2/9-3/14	٤.,	 →3/16	2/2	٤,
, ∢		3/10€→		3/20-28 3/14(5)-24		- → 3/28	3/29(3).	
		3/10→		1/24(4)-3/14		A-1/24(6)		۵
		3/2↓	2/28(3)-3/29	3/14-31(17)		2/14-3/9(6)-28 1/10-24	2/7-3/14(22)-29	۰.
		-		3/14(25)-28	3/2(6)	1/4-27		
1/1-3/21(250+)→ A		С⊲	2/28-3/28(79)-29	2/26-3/14(100+)-30 3/6-20/7)	3/16(9)	2/22-3/9(37)	2/22-3/14(200+)→	3/18-29(8)→
		3/8↑	3/28(32)-29	3/1-14(35)-24		3/11-28	3/14(18)	
			3/28-29	3/24(10)				
		∢ ∢	- 3/14-28(25)-29	2/15→ 1/28-3/30(10)	2/15(31)→ 2/15(11)→	→3/16 A-3/28(13)	- →2/7(6)	۷ ۷
- 1/3		< ₩	2/22-3/28(14)-29 R-3/28(16)	1/31-3/15(30)-20	2/28(18)	→1/27(26)-3/28	2/6-3/17(20)→	۰ ۵
2 ,		3/14E(3)	3/29	2/9-3/24(200)-30		3/3	2/2-3/20	3/29
, α				1/6-3/28(35)→	- 0-2/11(18)	→3/7(5)	3/12-29	۵.⊲
د م <i>د</i>		2/11E→	3/1-2(36)→	3/1	A-1/7(23)	۷ د د	- 5/8→	(∢
، ۵		، ۵	007	, <		3/25→	•	3/30↑
τ <u>></u>		тФ	1/28 → 1/29	8/1	2/11-3/2	1/1/-2/26 →3/18	- 1 3/2	L,
C		C	~ 1	∝ :	C	∢ :	∢ .	∢ .
⊻ ፫		Y (Y	~ ,	χ _γ .	Υ,	R 2/28-3/26	∢ ,	A 3/22
œ		ĸ		R-3/1(5)		œ		- 0
, ∝		, ∝	, œ	, ∝	, ∝	, ∝	, œ	↑ %30 ~
œ		~ ;	œ	œ	œ	C .	œ	~
3/11		3/25 A	2/5→	3/1		2/6-3//		
∢ :		4	3/29	1/6-3/14(75+)-20	. !	∢ .	→3/29	
۲.		2/28↑	2/22→	2/8-3/28(10)→ 3/14-22(3)	R-3/16(14) -	A 3/29	3/1↑	∝ ,
2/15E→		3/1→	2/23→	3/1-15(10)→			3/20→	d
۰ ۵		۰ ۵	2/16	. «	3/17(8)	2/22	. 4	3/30(5)→ A
→1/18(450)-2/14	4	ς Δ.	21.77	2/9-27(25)-3/30	3/2(4)		ζ.	< ∢
↓1/1(7)		1/4	•			1/4	1	
→1/1(4)-18						1/4-2/2		
1/2-3 →1/3(25)						1/4-3/8		. «
			œ			•		

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	LAWRENCE	LEBANON	LUZERNE	LYCOMING	MERCER	MIFFLIN	MONTGOMERY	MONTOUR	PERRY
BARRED	~	~	2	~	2	~	~		~
LONG-EARED	: .	: .	: ∢		: .		- 	2/7(9)-3/9	
SHORT-EARED	4						2/15		
NORTHERN SAW-WHET				œ			ı		
SAPSUCKER, YELLOW-BELLIED	, .	1/3			3/28E→	. 1	Y 1	. 1	∢ :
FLICKER, NORTHERN	A	Υ,	r		Y	x i	٦ . آ	Z į	Y 3
PHOEBE, EASTERN	3/201	1/25E→	. (1,28	3/20-28(10)→	3/6	2/2/→	↑/Z/ /	3/18↑
LARK, HORNED	R-1/1(550+)	ر مريو مريو	¥	100/0	A-3/14(75)	A-1/1(300)	- - - - - - - - - -	A (2)	A 0.0
NOBTHEDN BOLIGH WINGED	3/2/1	3/201		3/201	3/2/ 1	3/2/1	3/381	3/2/1	100/6
CROW FISH		, α	, α	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			0/20-1 A	, α	3/23-1 A
RAVEN, COMMON		: œ	: œ	o i œ		~	: 1	: .	. ~
CHICKADEE, BLACK-CAPPED	œ	: œ	: œ	· œ	C	· œ	~	œ	. ~
CAROLINA		∝					~		<u>a</u>
NUTHATCH, RED-BREASTED		۵	~	A-1/25(40+)	∢	3/11		•	⋖
CREEPER, BROWN	¥	~	۳	~	A	3/11	A		A
WREN, WINTER		∝	~		1/9-3/28	3/16→			A
KINGLET, GOLDEN-CROWNED	3/5	œ	∝		4		3/26		A
RUBY-CROWNED		A	1/1L			3/15(3)	,		A
THRUSH, HERMIT		œ			3/29→		3/21-31		A
ROBIN, AMERICAN	œ	∝	∝	∝	R-1/28(5)	R-3/16(8)	~	œ	∝
CATBIRD, GRAY		A				2/16→			
THRASHER, BROWN					3/29→		3/31→	3/14↓	
PIPIT, AMERICAN	3/14E-28(30L)				3/15-28(40)	•	1		
SHRIKE, NORTHERN			1/1				1		
WARBLER, YELLOW-RUMPED	3/29(7)→		∢			3/8↑	∢		A
PINE			3/28→				2/10→		
WATERTHRUSH, LOUISIANA					3/29→		1		
TOWHEE, EASTERN	3/21→	œ			1/12→	3/26→	•		3/18→
SPARROW, AMERICAN TREE	A-3/7(27L)	1/3	V	1/1	A=1/8(50+)	13/14	+3/12	A-2/12(6)	A
CHIPPING	3/29↑			3/31↑	3/29→	3/27→			3/30↑
FIELD	⋖	œ (<u>د</u> :	3/28↑	2/26→		⋖	2/13→	⋖
SAVANNAH		Y	1/31		3/15→				
FOX	3/28-29	3/28(3)		3/2-21	3/15-26	•	3/18-26	•	
SWAMP WHITE-THROATED	∠ ⊲	∠ ⊲	∠ Ω	Y 4	A-1/3(4)	Δ-2/28/10)	- A-2/15(60+)	Δ-2/24(7)	. 4
WHITE-CROWNED	2/8	V 4	1/13		(6:)::/2 -	A-3/6(6)	3/25	\(\frac{1}{2}\)	V 4
INCO DARK-FYED) A	ς Ω:	2 00	· œ	A-2/25(29)	A-2/16(26)	A-1/16(40+)	A-2/25(18)	(∢
LONGSPUR, LAPLAND	3/14L(3)	: .	: .	: .	()	()-\): i : -		(5.)	
BUNTING, SNOW	1/1-3(16L)			JAN					
BLACKBIRD, RED-WINGED	2/25(10)→	∝		2/2→	1/5(31)→	3/16(23)→	∢	1/12→	2/17(3)→
MEADOWLARK, EASTERN	3/5(3)→	œ	2/26E→		3/1↑	A-3/6(7)	A-2/14(7)	3/29→	
BLACKBIRD, RUSTY	3/5(18)-29	1/11(3)			3/2-28(20)-31		2/21		
GRACKLE, COMMON	2/27(400+)→	∝	2/11→	A	2/22→		∢	2/13→	2/17(7)→
COWBIRD, BROWN-HEADED	3/26(3)→	œ	A	2/10→	1/5(3)→	A-2/26(6)	3/17→		2/20→
FINCH, PURPLE	1/17-3/27	¥	œ	3/31↑	1/30→	A	A-1/10(50+)	1/12	4
CROSSBILL, RED			∢ •	2/1-3/23(25+)-25	1	3/14(9)		3/15(12)	A-3/8(37)
WHITE-WINGED		1 /18(3)	∢ •	2/1(30+)		3/14(14)			A-3/22(100+)
REDPOLL, COMMON			∢ <	2/1(35+)	1/6(200+)-3/5	2/18(7)	1/31		3/22(15)
SISKIN, PINE GROSREAK EVENING		, д	∢ ∢	A-2/21 (120+) 1/22(25)-3/20	1/9-2/20(8)→ 1/22(20)	2/24(11)	A-2/23(33)		A-3/8(75+) A-3/22(20+)
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	PHILADELPHIA	SCHUYLKILL	SOMERSET	SULLIVAN	TIOGA	VENANGO	WESTMORELAND	WYOMING	YORK
LOON, COMMON GREBE, PIED-BILLED	3/23→ →1/10(10)	3/25 3/16-24	1/1		2/21 3/20-29(3).	. 4	3/28→ A-1/2(3)	- →1/13,3/3→	3/25→ A
HORNED	1/10→		3/6-15(3)		1/9-3/29(4)	3/6→	1/18-3/30(4)→		2/26
HERON, GREAT BLUE	A-1/10(16) A-1/10(27)	. 4		, 4	. 4	, œ	, œ	, 4	, œ
SWAN TINDRA		3/9(5)	3/1-15(20)		2/18-28(75)-3/27	- A-3/16/200+)	1/1-3/1(150)		13/21
MUTE	œ	(i)	(52)		- 120 (01)01			A	A
GOOSE, SNOW	1/10-3/25(8000)	A-3/7(1419)			2/21-28(310)-3/24			3/24→	1/27-28(400)
CANADA	R-1/10(3477)	CC (R-1/1(453)	R-2/28(200)	R-2/28(18200+)	Z ,	R-2/8(300)	R-1/15(600)	CC (
TEAL, GREEN-WINGED	3/1(10) 1 A-1/10(32)	R 3/17(5)	A-3/7(7) 3/14(4)		3/26(6) 🛨	1/9-3/29	2/22(4) → A	3/21 +	R 2/7(20)-3/25
DUCK, AMERICAN BLACK	A-1/10(220)	A-1/27(60)	A-1/4(20)		A-2/28(20)	A	A-1/3(75)	→1/10(60)-3/28	2
MALLARD	R-1/10(1131)	~	R-1/4(100)	3/7(6)→	A-2/21(52)	~	R-2/1(400)	R-2/9(200)	∝
PINTAIL, NORTHERN	A-1/10(9)	→3/20			2/22(4)→	1/18-3/20	A	1/30-3/13	2/14→
SHOVELER, NORTHERN	Z/ 18E↓ ↓1/10(28)-3/7		3/14940)			3/20↑	3/2/(4) 1/1		3/16 3/17-21
GADWALL	→1/10(15)-2/7		1/1		2/21-3/15	3/20→	2/1(4)→		2/21(12)→
WIGEON, AMERICAN	→1/10(5)-2/18	1/31-3/27(7)	2/13-3/14(10)		3/10-24(24)→	3/6→	A-3/13(15)	1/13-3/12(3)-13	→3/25
CANVASBACK	→1/10(370)-2/18 →2/18		→3/14(12)		- 2/26 92/2	3/15→	1/15-3/14(7)→ 1/26→	•	3/11-21
DUCK RING-NECKED	→2/18 →1/10(6)-2/18	- →1/3.3/17(98)-27	1/1-3/14/14)	3/7(6)→	3/20-27(3)	3/6	A-3/13/30)	2/1-3/13(40)→	13/27
SCAUP, GREATER	1/10 ↓ 1/10	i= (22) :: : : : : -	1/1	(2)	3/13-26(50)	3/17-25	1/18-3/14(15)	3/26(3)→	2/27(6)
LESSER	→3/27	3/21-25	3/6-14(109)	3/24→	2/21-3/26(100)	3/7→	1/19→	3/12-26(14)	2/26-3/17(24)-27
OLDSQUAW					3/29(4)	3/14→	1/19(4)		1/4
GOLDENEYE, COMMON	1/10	2/17-3/19	3/14		- 4 (40 0,00,00)	∢ <	1/3	1/12(4)	3/16(8)
MERGANSER HOODED	1 //10(33)-3// 1 //10(11)-3/7	3/20-29	1/25-3/15/19)	3/1	1/18-3/23(22) 2/22-28/20) →	3/11	A-3/16(10)	3/12-16(22)-17	2/20-3/17
COMMON	→2/7(110)-3/7	1/31-3/16/16)-31		3/7(25)↓	A-2/28(3000)	5 2	1/18-28(6)	8-3/16(67)	13/4
RED-BREASTED	3/21	3/24	2/20(7)	()-1	2/21(22)-3/25	3/20↑	1/19		1/29-3/4(44)-27
DUCK, RUDDY	A-1/10(195)				2/21(10)→	3/17→	<		2/2-25
VULTURE, BLACK	1/10(4)	1/20-2/11(11)→							α (
IORKEY	A-1/10(21)	1/31-2/21(17)→	Z/11-3/Z0(10)→	3/6+	3/2-20(9)→	3/64	2/24-3/25(40)→	3/4→	٠,٥٥,٠
OSPRET EAGLE: BALD	3/26 1	1/1-3/20		3/7	5/28 → 62/10 →	. ∢	3/2/ 1		1 1966
HARRIER, NORTHERN	13/15	1/24-31	~		A	< <	~	2/4→	1/11-3/7
HAWK, SHARP-SHINNED	R-1/10(18)	~	~	~	~	~	~	~	A
COOPER'S	R-1/10(4)	œ	œ	œ	œ	œ	œ	œ	∢
GOSHAWK, NORTHERN		œ (2/15	œ	2/18-3/4	2/15	, (, (
HAWK, KED-SHOULDEKED BBOAD-WINGED	3/7	¥,			12/8	∢ .	¥ ,	1/20-3/12	¥,
RED-TAILED	R-1/10(45)	~	œ	œ	5 œ	œ	~	~	œ
ROUGH-LEGGED	13/7			1/20	→2/20			+3/21	
EAGLE, GOLDEN	. !		1/8-31						3/3
KESTREL, AMERICAN	R-1/10(11)	¥	¥	¥	× 000	¥	Α	¥	Y <
MEKLIN	1/10(3)-3/15 B				3/22		2/16		⋖
PALCON, PEREGRINE BORWHITE NORTHERN	צ ,	, α			3/15				, α
COOT AMERICAN	A-1/10(19)	3/30	1/1(18)		3/24→	3/7	1/1(30)+	٠ ۵	A-3/27(550)
KILLDEER	A-2/7(50)	1/31-3/21(6)→	2/27→	2/28→	2/27→	3/5→	R-3/14(12)	3/28→	R (555, (555,)
SNIPE, COMMON	→1/10(3)	1/31	3/30→		3/26→		2/5→		3/7→
WOODCOCK, AMERICAN	1/11	2/13-3/23(10)→	3/25→	3/27→	3/22(4)→	3/13→	2/11→	3/9↑	2/14→
GULL, BONAPARTE'S PING-BILLED	A-1/10/5020\	- 0000/0/6/7	1(4),		A-2/24/E0±1	1/0-3/26	1/19-3/26(4)→ 1/5-19(115) +	1/48/6)	. <
HERRING	A-1/10(686)	A-2/7(45)	. (**)		2/21(8)-3/26	1/1	1/18	1/5-3/12(5)-16	
ICELAND	3/19				1/12-13				
GREAT BLACK-BACKED	A-1/10(139)								→2/14

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WYOMING	2		œ			- +2/16	~			3/28→ →1/1,3/6→	75)	3/12E→ 3/25→		3/19↓	<u>«</u>	R	~	A	Α Α	- 1/10	A	4	6/2↑	i c			3/6	₹				→3/16(10) →2/22	- 3/29→	~		3/16-20 →2/27	· ·	A		A A		1/19-26(400)-2/2	3/4↓	· ·		3/2→ R	<u>†</u>	3/29→ P	- 1/4(3)		2/3-3/20(20)	1/24_27/55\1
WESTMORELAND	<u>~</u>		œ					A-1/4(6)	œ	1/4→	A-2/15(183)	3/27(15)→			~	~	~	¥	R-1/4(37)	<	A-1/4(117)	, 4	∶ ∢	: œ		1/30↑	3/22-28(75)→	A-1/26(20+)		3/27→	R-1/26(5)	A-1/4(251)	3/28→	۷	3/27→	2/28→	∢	A	A-1/22(6)	œ			A-1/4(70	4	A-1/31(50+)	1/25→	A-1/23(50)	R-1/25(18)		1/4(3)	1/4-12(40+)→	Δ-1//(71)
VENANGO			œ		1/11-2/25	3/25		1/10↑	œ	3/25→	A	3/29↑			3/31	~		A	~	<	A		1/4	· œ		,	3/21(20±)-22	1/4		3/29↑	3/29→	۷		Α		3/29	1/14	⋖		œ			2/23→	1/11 🕇		۷	2/8→	œ	1/10-2/21(15)	A-1/25(675±)	→1/22(300±)-3/22	V 2/4/200.1
TIOGA		1/24-3/26	∝			ď		3/29	∢	3/27→		3/28→			~	ď		A-2/28(12)	~		∢			R-3/21(15+)								A-3/30(50)		Α	3/28→	3/7-24		⋖		R-1/24(50+)	10,10,1	1/2/(45)	2/16-28(1000+)→	3/27→		1/23-2/28(220+)→	$2/25-3/24(7) \rightarrow$	٨		1/2(9)	A-3/30(14)	(11)10 110
SULLIVAN			œ					2/24→	3/29→	3/20→					~	œ		~	~		<u>~</u>		3/28↑	2/27(4)→								∢	3/8E↑			3/27		œ		œ			2/28(150)→		2/26(30)	2/28(20)→		œ	3/1-25	3/2-4(60)	1/20(20)-3/23	
SOMERSET			œ	3/27				1/23		3/27→	œ	3/26→			<u>~</u>	œ		⋖	~		→3/26(4)			A-1/4(3)								1/4				3/2		∢		⋖	-	1/4(100±)	2/13→	1/4-2/8(16)→		2/20(100+)→		3/27	→1/14(12)	→ 1/20(100+)	1/30-2/3(35)	00,0
SCHUYLKILL	~	1/26	œ	œ		œ		1/10,3/27	œ	→1/13L,3/30→	1	3/27→	3/31→	4	~	œ		A-3/7(10)	~	1/3-3/20	A-1/31(20)	2/21-3/28(12)	1/20-3/16	. ~	→1/10(3),3/29→			A-3/7(60)	3/29-31(5)→		3/5E→	13/17	3/29→	٨		3/6-31	→ 1/2,3/30 →	⋖		۷			A-2/18(500)	3/10↑	1/17,3/27	2/9-3/16	2/28-3/7	A-2/3(25)	1/20-2/11(35)-3/7	1/13-3/20(15)-28	A-1/25(75)	100110011
PHILADELPHIA	~	2/23	1/10			1/11		A-1/10(13)	R-1/10(66)	→1/10,3/7→	i	3/1↑	3/29→	A-1/10(63)		1,3/1	R-1/10(528)	→1/10(7)-2/7	A-1/10(21)	A-1/10(15)	A-1/10(13)	A-1/10(4)	A-1/10(4)	R-1/10(1411)	11/10		1/10	A-1/10(17)	3/28		A-1/10(7)	A-1/10(39)		A-1/10(21)	1/10	1/10(5)	A-1/10(33)	A-1/10(2000)	1/10(5)	A-1/10(917)		1/10(5)	A-1/10(297)	→ 3/7(4)	A-3/15(25)	R-1/10(826)	R-1/10(337)	1 /10(4)	2/1(3)	1/10		
	OWL. BABN	SNOWY	BARRED	LONG-EARED	SHORT-EARED	NORTHERN SAW-WHET	WOODPECKER, RED-HEADED	SAPSUCKER, YELLOW-BELLIED	FLICKER, NORTHERN	PHOEBE, EASTERN	LARK, HORNED	SWALLOW, TREE	NORTHERN ROUGH-WINGED	CROW, FISH	RAVEN, COMMON	CHICKADEE, BLACK-CAPPED	CAROLINA	NUTHATCH, RED-BREASTED	CREEPER, BROWN	WREN, WINTER	KINGLET, GOLDEN-CROWNED	RUBY-CROWNED	THRUSH, HERMIT	ROBIN, AMERICAN	CATBIRD, GRAY	THRASHER, BROWN	PIPIT, AMERICAN	WARBLER, YELLOW-RUMPED	PINE	WATERTHRUSH, LOUISIANA	TOWHEE, EASTERN	SPARROW, AMERICAN TREE	CHIPPING	FIELD	SAVANNAH	FOX	SWAMP	WHITE-THROATED	WHII E-CROWNED	JUNCO, DARK-EYED	LONGSPUR, LAPLAND	BUNING, SNOW	BLACKBIRD, RED-WINGED	MEADOWLARK, EASTERN	BLACKBIRD, RUSTY	GRACKLE, COMMON	COWBIRD, BROWN-HEADED	FINCH, PURPLE	CROSSBILL, RED	WHITE-WINGED	REDPOLL, COMMON	LINIC INDICIO

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