

CHANGES IN THE BREEDING STATUS OF CERTAIN PENNSYLVANIA BIRDS

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A number of avian species have undergone dramatic breeding changes in distribution over the last one hundred years. The intent of this article is to provide an overview of distributional changes documented by the most prominent publications on Pennsylvania ornithology. The article does not include all species experiencing range changes, but rather it represents a sampling of well documented cases. The earliest source used is Benjamin H. Warren's *Birds of Pennsylvania* (1890), and the most recent is data collected by the Pennsylvania Breeding Bird Atlas (PBBA) during 1983-85. Other primary sources are listed in the Literature Cited.

Although detailed explanations for trends will be different for each species and may not even be known, broad generalizations can account for some of the changes experienced in Pennsylvania during the last one hundred years. Most of these influences on the environment are well known and documented elsewhere. They include widespread deforestation in the late 19th and early 20th centuries, industrialization and cultivation of much of the state's open land, and strip mining.

SPECIES ACCOUNTS

CANADA GOOSE (*Branta canadensis*)

Expanding. This species has undergone a dramatic man-assisted increase. Captive individuals were introduced at several locations in the state during the past century, including Lake Ontelaunee and Pymatuning Reservoir. It appears that the breeding population now present throughout the state has arrived only in recent years, as Wood (1979) mentions only north-western Pennsylvania as its primary breeding range.

WOOD DUCK (*Aix sponsa*)

Expanding. This species is actually returning to its original range. The Wood Duck was nearly eradicated from the state as a breeder by 1900, and Harlow (1913) reports it as nearly extinct. Overhunting was the most likely factor in its decline, although Todd blamed "encroachments of civilization". Its population had rebounded by the 1950's when Poole stated that it was present throughout Pennsylvania. The Wood Duck, although not abundant, now can be found as a nesting bird throughout the state, wherever wooded streams and ponds remain.

MALLARD (*Anas platyrhynchos*)

Expanding. One would hardly guess that the Mallard was primarily a migrant through Pennsylvania in the 19th century. Poole states that in Audubon's time (early 1800's) Mallards "probably" nested in eastern Pennsylvania. Amazingly, the first confirmed nesting was in Crawford County

in 1898. It was scarce in the state until the 1920's, when it was introduced as a nesting bird. By the middle of the 20th century the Mallard was common throughout the state, as it remains today.

COMMON MERGANSER (*Mergus merganser*)

Expanding. Although the Common Merganser's breeding range was not easily defined because of the presence of some non-breeding summer birds, it was certainly a rare summer resident in the last century. Breeding individuals apparently became even less common at the turn of the century. As recently as 1979 Wood considered it a breeder only in a few counties in the far northern part of the state. PBBA participants have since found young birds as far south as Sunbury on the Susquehanna drainage, Stroudsburg on the Delaware, and Venango County on the Allegheny River. This bird now breeds in most northern Pennsylvania rivers large enough to sustain it.

BLACK VULTURE (*Coragyps atratus*)

Expanding. Warren (1890) reported the Black Vulture only as a straggler. The first breeding report in the state was at Gettysburg in 1952 (Poole), and since that time the Black Vulture has steadily expanded its breeding range. (The Turkey Vulture experienced a similar, although earlier, expansion). Atlas Project workers have found nesting Black Vultures as far north as northern Huntingdon County and as far east as Berks County. A corresponding expansion has not occurred in southwestern Pennsylvania.

PEREGRINE FALCON (*Falco peregrinus*)

Declining. The decline of the Peregrine is well known. Historically it was never a common breeder in the state, but it did occur along the major river systems and in Philadelphia. Approximately 34 nesting sites have been documented, the last being occupied in 1952 (Wood). The Peregrine Fund has been dramatically successful in re-establishing this species into eastern North America although not yet as a breeder in Pennsylvania. Successful breeding has occurred on bridges over the Delaware River south of Philadelphia, and it is to be hoped that this species will in the near future again be a nester in this state.

NORTHERN SAW-WHET OWL (*Aegolius acadicus*)

No trend. This species has never been a common breeder, but Atlas Project participants have discovered it in several previously unreported locations. Earlier reports indicated the bird as rare to occasional. Most likely this bird declined during the cutting of the primeval forest over a hundred years ago. As with other owls (notably the Long-eared), it is easily overlooked. Atlas participants discovered the Saw-whet in Bucks, Berks, and Fayette Counties as well as in expected northern counties where it is regular but uncommon.

CHUCK-WILL'S-WIDOW (*Caprimulgus carolinensis*)

Expanding. The Chuck-will's-widow is undergoing an expansion along the Atlantic coast and has just reached Pennsylvania in recent years. Wood (1979) reported only four occurrences of this species in the state. Earlier reporters (Warren) considered the northern limit of its breeding range to be the Carolinas. The first territorial birds in Pennsylvania were discovered in 1985, one in Franklin County and two (remarkably) in Armstrong County, northeast of Pittsburgh. While the Whip-poor-will appears to be declining, the Chuck's is expanding northward.

RED-BELLIED WOODPECKER (*Melanerpes carolinus*)

Expanding. This species has undergone one of the most remarkable expansions in the last century. It was a rare breeder in the southern tier counties at the end of the 1800's. Todd (1940) recognized it as fairly common in the southern counties but as an invader in recent years. By the time of Wood's publication (1979) the Red-bellied Woodpecker was a familiar resident in much of the state with the possible exception of the higher elevations. Now, the Red-bellied Woodpecker is reported from over a third of all Atlas blocks and from all but the mountainous north central counties.

OLIVE-SIDED FLYCATCHER (*Contopus borealis*)

Declining. Although never a common breeder, this northern species was listed as "rather common" near Lopez, Sullivan County, by Stone (1900) and "well known in Warren and surrounding counties" by Todd (1940). It was also reported to breed occasionally in the Poconos in the 1950's (Street). The most recent information indicates that it is now a very rare breeder, if at all. No confirmed nestings have been received by the Atlas project to date. Poole suggested that the species declined in a number of localities with the cutting of the primeval forest.

YELLOW-BELLIED FLYCATCHER (*Empidonax flaviventris*)

The status of this species somewhat parallels that of the Olive-sided Flycatcher. This species was noted as far south as Berks and Philadelphia Counties by Warren but had receded to the north by the middle of this century (Poole). Presently it is one of the rarest nesting Pennsylvania birds, confirmed in only one location by the Atlas.

BEWICK'S WREN (*Thryomanes bewickii*)

Declining. At one time this was an uncommon breeder in southern Pennsylvania. It reached as far north as Centre County (Warren, Todd). It was thought to be on the increase in the early 1900's (Todd), and the species occasionally occurred even in southeastern Pennsylvania (Poole). But the bird has not been reported as a breeder since a Greene County record in the 1970's. The Bewick's Wren has declined over much of its range, and it is even declining in the heart of its range in Missouri (M. Robbins, pers. comm.).

GOLDEN-CROWNED KINGLET (*Regulus satrapa*)

Expanding. It is not totally clear whether this species is expanding or just being discovered. This kinglet is utilizing stands of conifers planted throughout the state. Now, it has been found as far south as Berks County in the east and Indiana County in the west.

NORTHERN MOCKINGBIRD (*Mimus polyglottos*)

Expanding. One of the most dramatic natural expansions is that of the Mockingbird. It was a rare summer resident, with a "few breed(ing)" in southeastern Pennsylvania at the turn of the century. By 1940 it frequently nested in southwestern Pennsylvania and was expanding northward along the Ohio River drainage. The first nesting in Reading, Berks County, was in 1937. Now, the Mockingbird is reported in over a third of Atlas blocks, being fairly common in all but the northwesternmost counties. The expansion can be partly attributed to the planting of multiflora rose.

YELLOW-RUMPED (Myrtle) WARBLER (*Dendroica coronata*)

Expanding. One of the most common migrant warblers, the Yellow-rumped increasingly occurs as a breeding bird in the state's northern mixed woodlands. Warren postulated that it bred sparingly in higher elevations. Poole and Todd, both more conservative reporters, listed it only in Monroe County and not in northwestern Pennsylvania. Wood listed Monroe and "perhaps other" northern counties. Now, birders in the northern tier are finding Yellow-rumped Warblers in all northern counties west to and including Warren County.

YELLOW-THROATED WARBLER (*Dendroica dominica*)

Expanding. This is a newcomer in the last century as a breeding bird. One hundred years ago it was a very rare summer visitor, possibly breeding (Warren). Poole also considered it very rare and restricted to the lower Delaware. Todd casually mentions this bird, but it is now regular, although uncommon, as far north as Lawrence County. This expansion appears to have been very recent, since Wood does not mention the species in the west. Currently the Yellow-throated Warbler is found locally in southwestern and southeastern Pennsylvania.

NORTHERN CARDINAL (*Cardinalis cardinalis*)

Expanding. Cardinals were common residents of southern Pennsylvania at the turn of the century but did not extend north of Harrisburg until early in the 1900's. The first nesting in Warren County (bordering New York in the western part of the state) was in 1933 (Todd) and in Tioga County, in north central Pennsylvania, in 1947 (Poole). By the time of the Atlas Project, Cardinals were reported from nearly 90% of Atlas blocks, making it one of the top ten species reported in the state.

DICKCISSEL (*Spiza americana*)

Declining. This bird had declined by the time the best records were available, and so it is not completely certain how common this open country

bird was in primeval Pennsylvania. It is clear that it was "tolerably common" (Harlow) at the turn of the century in the southern counties, but by 1940 it had virtually disappeared from the Atlantic coast and was losing ground west of the Appalachians (Todd). Not a single breeding pair was found from the 1950's until 1983. Individual nestings have since been reported in Franklin, Adams, and Clarion Counties by the Atlas Project. Like many grassland species, this bird is particularly vulnerable to hay harvesting.

HOUSE FINCH (*Carpodacus mexicanus*)

Expanding. Introduced into the East in 1940 (Poole), this species has undergone an explosive increase. The first reported Pennsylvania nesting was in Montgomery County in 1955. The first nesting in Erie County was in 1977. Presently, the House Finch can be found near most human habitation and is reported in over half of all Atlas blocks.

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