



**BUCKS COUNTY, PA.**

LST-54

## BIRDS OF BUCKS COUNTY, PENNSYLVANIA

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Comparatively few references concerning Bucks County, Pennsylvania, appear in ornithological literature. This seems unusual, for Bucks County—with more than average natural advantages to bird life, and lying adjacent to Philadelphia, the heart of early activity in American ornithology—was one of the first areas in the region to be colonized, and was quite accessible even to the rugged country around Nockamixon and the Rockhills. We know that men like Nuttall, Michaux, the Bartrams and others moved about the area on botanical searches, while Rafinesque wrote of the Nockamixon cliffs. It appears probable that field ornithologists of the eighteenth and early nineteenth centuries would have collected north along the Delaware at least to the “falls.” There is little supporting evidence, however.

Considering its close geographical and biological relationship to the better-reported neighboring areas to the south and east, Bucks County always must have been good bird country. It is so today, for specialist or for backyard bird student. Although today's avifauna may suffer by numerical comparison with the vast flocks of game and water birds of colonial Pennsbury Manor days, it surely equals or exceeds those days in variety of species.

It was a strangely different country in the seventeenth century compared to the present. The original forest, as in all of southeastern Pennsylvania outside of the settlements, was relieved only by the rivers, creeks, marshes, and a few “Indian Fields” sparsely scattered along the stream valleys. Heavy woods were everywhere. William Markham, Penn's young cousin and deputy who purchased the land below the Falls of the Delaware for the Proprietor's manor house, complained of the woods. But in a letter to his wife in 1681 he also wrote: “In the Winter there is plenty of wild fowl of all sorts. Partridges I am cloyed with; we catch them by hundreds at a time. In the fall of the leaf . . . here are abundance of Wild Turkeys, which are mighty easy to be Shot; Duck, Mallard, Geese and Swans, in abundance wild . . .” William Penn, too, wrote of “pheasants, heath-birds, pigeons and partridges in abundance . . . swan; goose, white and gray; brands (*sic*), ducks, teal, also the snipe and curlew, and that in great numbers . . .”

Early references to birds other than wild fowl are scarce or lacking, but the hawks, owls and passerines must have been relatively abundant. Small

birds undoubtedly thrived where natural openings, burns and blow-downs permitted a variety of edge effects and shrubby growth. The marshes, too, probably supported numbers of the lesser kinds.

Following the upsurge of interest in the natural sciences in the early 1800's when Philadelphia attracted many field and museum ornithologists, Bucks County began to receive occasional mention in the literature. By the second half of the century, field ornithology had become both a pastime and vocation for many persons. The more literate published their discoveries. Turnbull (1869) and Gentry (1876) each include one or more observations from this area. Also in 1876, Dr. Joseph Thomas of Quakertown (no relation to the writer) compiled a list of birds for General William Davis' "History of Bucks County." In 1880, S. Edward Paschall of Doylestown furnished considerable local material for Dr. Warren's report of the State birds.

Lists and records of County birds made their appearance in ornithological publications in the eighties, and from the inception of the Delaware Valley Ornithological Club in 1890, contributions from Bucks were included annually in the proceedings of the organization. Among the local observers in the early 1900's were Thomas Keim of Bristol, Henry Fowler of Holmesburg (later of Langhorne), Jesse Packer of Newtown, Richard Miller of Frankford, and others active in the Club. Today, resident members of the D.V.O.C. still report on birds of the region and maintain contact with individuals throughout the County who band, feed, develop sanctuaries, or who simply list and report the birds observed.

In 1937, there was published an annotated list of the birds of the County by the late George MacReynolds, a corresponding member of the D.V.O.C. Issued as a pamphlet by the Bucks County Historical Society, the list was quite comprehensive and represented many years of personal field work. Although it contains a number of unqualified statements, it is the only workable list of this region ever published. It is particularly valuable in noting the changes in local bird life since Dr. Thomas' day.

Bird life experienced a great disturbance in the transition of the area from climax forest to cleared agricultural lands; and now another change is taking place. The industrial and suburban pressures being exerted throughout the whole lower half of the County are leaving their marks on our bird population. It seems to be a good time to review the current situation and count the blessings of the Bucks County bird student.

Bucks County, roughly rectangular, lies in the southeastern corner of Pennsylvania northeast of Philadelphia, and embraces about 610 square miles of countryside. Its extreme length, southeast to northwest, is approximately

40 miles. The Delaware River flanks two sides for nearly 70 miles, from the steep hills of Durham in the northeast to the mouth of the Poquessing at Andalusia in the south. The tidewater limit is at Morrisville. The topography of the County is characterized largely by the rolling, westerly-rising hills of the Piedmont plateau. The elevation varies from sea level at the river bottomlands to 160 feet where the coastal plain meets the Piedmont on the Langhorne ridge, and to the high ridges and eminences at the northern end which rise to nearly 1000 feet. The Appalachian Mountain system enters the area where the Northampton County's South Mountain extends into Durham and Springfield townships.

Although basically a region of deciduous forest, hemlock is common in the ravines and on the damp northern slopes. There are also a few remnants of the once fairly common stands of pine. Red cedar is not uncommon locally throughout the Piedmont section, rhododendron carpets large areas on the steep slopes along the Delaware north of New Hope, and laurel grows locally in several middle and upper county rocky thickets. The woodlands are principally of the oak-hickory type, with beech, red maple, tulip tree, white ash, cherry, black walnut, elm and sycamore also common. On the coastal plain there is still some second-growth sweet gum and swamp white oak where housing developments have not yet uprooted it. The understory of the woods is composed mainly of dogwood, hornbeam, witch-hazel, viburnum, blueberry, catbriar (smilax), and Virginia creeper (ampelopsis). Poison-ivy, sumac, brambles, and the fast-spreading Japanese honeysuckle are rampant in many bush-grown fields and hedge-rows.

The marshes and wet meadows support the usual cat-tails, calamus, sedges and rushes, alder, kinnikinnick, elderberry, buttonbush, pepperbush, and shrub willows. Pasture land, old fields and open woods are common, especially in the northern half of the County. Agricultural practice is diverse, permitting the bird population wide foraging possibilities: pheasants among the corn shocks; upland plover in the potato fields; killdeer and horned lark in the short grass pastures; flycatchers and bluebirds in the orchards; sparrows and starlings in the truck patches; swallows over the grain fields, and so on.

Following the settler's axe, colonial expansion removed all but approximately 125 square miles of the original forest. Today there is about this amount of land still left to woods, waters, pasture land and industrial and residential occupation. Secondary woodlands and brush alone now probably cover not over 12 percent of the County. The population of close to 150,000 is still predominantly rural in character. Ornithological matters here are in a currently healthy state due largely to the scattered patches of forest and brush

land, the increasing hedge and edge growths about the old farms, the still wild and timbered creek valleys, the recently created lakes and reservoirs, and the generally sympathetic attitude of country residents toward bird life.

Within this area of widely varying topography and cover, Bucks County offers sanctuary to perhaps a hundred breeding species of birds, and to well over a hundred regular transients and visitors. The Atlantic water fowl flyway traverses the whole of the region, although few big flights cross the borders, while the valley of the Delaware serves as a major tributary to the coastal migratory route of the smaller birds. The lesser valleys which cut into the terrain in several directions, and which carry the imaginatively-named creeks (Neshaminy, Tohickon, Paunacussing, Tinicum, Unami and others), furnish minor routes for the spring and fall movements of local and transient birds.

The avifauna of Bucks County does not fit neatly into any zoogeographical pigeon-hole. The region is predominantly in the Carolinian Life Zone, with emphasis on the Alleghanian in the upper end of the County. Under the newer concept of biotic communities the area as a one-time climax community has been and is being so disturbed by human occupation that it has become a fluent series of so-called "successional bird communities." In the lower part of the County the changes are particularly rapid; in the Levittown section there are several square miles without bird cover except for a few dooryard plantings where a chipmunk or a song sparrow might find shelter. There are thousands of television aerials, however, to accommodate resting starlings.

If, as Preston (1948) finds, the average farm in the East has two and a quarter birds per acre, and the average second-growth deciduous woodland has four birds per acre, Bucks County then has a rather high avian population density. Our experience is insufficient to have competent County-wide figures, but I feel that the area as a whole will exceed the quoted average.

The various bird communities here have much to offer the ornithologist. The creek valleys and the river and canal banks are especially productive. Good lists can also be built up at the marshes and the number of farms which are slowly reverting to grass and brush. Most of the higher hills in the upper half are good hawk look-outs in season. For water birds and shore birds, the Pennsbury Manor area is one of the best, although the advent of the steel mill nearby and the inevitable harassment of wild life which accompanies an increase in human population will probably discourage many visiting and resident birds.

The Ironworks Creek Reservoir of the Philadelphia Suburban Water Company at Churchville is inland about ten miles from the river; although

in existence only since 1940, a surprising number of birds have been recorded on, over, and along its waters. Little Lake Warren in the rugged northeastern corner of the County is surrounded by the protected acreage of the State Game Commission; a semi-sanctuary, it attracts a number of interesting species, including the breeding Wood Duck, Ruffed Grouse and Woodcock. Waves of migrants also have been observed following this headwaters valley of the Tinicum Creek on early May mornings.

In times of northeast storms which coincide with the coastal migration, Bucks County is close enough to the Atlantic to offer a bonus in the way of wind-blown sandpipers and plovers, and an occasional pelagic bird or other extra-limital species.

There are a number of potentially rewarding spots in the County which have not been thoroughly investigated by ornithologists. Information is missing also along several specific lines of bird study. Breeding records, for instance, are wanted for a number of species. Do the Black-capped and the Carolina Chickadees overlap here in their breeding territories? Are the Red-bellied Woodpecker and the Dickcissel commoner than the records show? Is the Cerulean Warbler spreading beyond the known breeding territory of Bowman's Hill? How widespread is the nesting of the Prairie-horned Lark? The Upland Plover? Studies of local life histories, population densities, and bird ecology in Bucks County are completely lacking. The field for research here is wide, varied and scarcely touched. We need work done beyond the relatively unimportant listing of migrants and the marking down of a rare vagrant.

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#### SUMMARY OF RECORDED SPECIES

The list of birds which follows was prepared from my own records of the past sixteen years, augmented generously by gleanings from the published and verbal reports of members of the Delaware Valley Ornithological Club since 1890; by reports from the Neshaminy Valley Nature Club; by items from Dr. Joseph Thomas (1876), MacReynolds (1937), and from the occasional references in Turnbull (1869), Gentry (1876), Warren (1890), Stone (1894), and Poole (1930). Detailed literary sources and a list of individuals who have been especially cooperative in making their notes and observations available are noted at the end of the list.

Although the majority of the birds listed here are from sight records, each unusual report has been investigated and carefully screened. Several reports have been omitted for lack of unquestionable proof. "DVOC" and "NVNC" after a parenthesized source name refer to a report of a member of

the respective organization: Delaware Valley Ornithological Club and Neshaminy Valley Nature Club.

As this may be considered a preliminary list, I have kept the annotations at a bare minimum. Correspondence and constructive criticism will be welcomed regarding any species.

Both English and scientific names follow those of the 1931 A.O.U. Check List and its supplements.

In using the traditional terms to denote the numerical and residential status of a species, I have encountered the usual difficulty with those birds which fall under several categories as the seasons progress, and with the general vagaries of a non-static bird world. Bucks County is a large county and the common bird at Bristol may never be seen at Quakertown, and the common nester at Applebachsville may be a distinct rarity at Southampton and Yardley. With a bow, therefore, to Ludlow Griscom (1949, pp. 101 and 165) I endeavor to conform to a broad definitive pattern as follows:

Resident: Present throughout the year as a species.

Breeder: A more accurate term than "summer resident."

Transient: Passing through on spring or fall migration.

Migrant: Any bird transferring from one part of the country to another, including the regular north-south movements (transients), the summer wanderings of the herons, and the seasonal dispersal of certain northern and pelagic species.

Wintering regularly: Present every winter throughout the season.

Wintering irregularly: Present for brief parts of the winter only.

Vagrant, Casual: Chiefly migrants somewhat out of normal range.

Vagrant, Rare: Stray or storm-blown migrants well out of normal range.

The next three terms are variable and relative categories and are used herein advisedly.

Common: An average over several years of six or more individuals of a species seen in a day in favorable nesting territory; or a like number seen annually on migration.

Abundant: An average of fifty or more individuals in a day in favorable territory.

Rare: Averaging a pair or two breeding in an area; or a transient not found annually by capable observers.

COMMON LOON, *Gavia immer*. Fairly common transient, late October into December; April and May.

RED-THROATED LOON, *Gavia stellata*. Casual vagrant. Recent record: Pennsbury, March 15, 1942 (Yoder, DVOC).

HOLBOELL'S GREBE, *Colymbus grisegena*. Casual vagrant. Pennsbury, March 1943 (Kramer, DVOC); Churchville, March-April 1948, November 1949 (L. S. T.).

HORNED GREBE, *Colymbus auritus*. Fairly common transient.

PIED-BILLED GREBE, *Podilymbus podiceps*. Common transient, and occasional breeder and irregular in winter (R. Miller).

GANNET, *Morus bassanus*. Rare vagrant. One record: July 1921 (Green, 1926).

EUROPEAN CORMORANT, *Phalacrocorax carbo*. Rare vagrant. One record: Pennsbury, October 25, 1942 (J. Wright, DVOC).

DOUBLE-CRESTED CORMORANT, *Phalacrocorax auritus*. Rare transient. Seen at Churchville and Pennsbury a few times in May and October.

GREAT BLUE HERON, *Ardea herodias*. Recorded every month; common spring and fall. No nest records known.

AMERICAN EGRET, *Casmerodius albus*. Often common summer visitor, June through September. A few May and late fall records.

SNOWY EGRET, *Leucophoyx thula*. Rare summer visitor, becoming more common. Few authentic records.

LITTLE BLUE HERON, *Florida caerulea*. Uncommon summer visitor, July through September.

GREEN HERON, *Butorides virescens*. Fairly common breeder and transient.

BLACK-CROWNED NIGHT HERON, *Nycticorax nycticorax*. Fairly common migrant and local breeder. At least one known colony. Occasionally winters.

YELLOW-CROWNED NIGHT HERON, *Nyctanassa violacea*. Rare vagrant. One record: Treasure Island, April 10-30, 1932 (Sparmaker and Brady, DVOC). note: Treasure Island, although politically a part of New Jersey, is separated from Pennsylvania by less than two hundred feet of water.

AMERICAN BITTERN, *Botaurus lentiginosus*. Uncommon transient. Possibly rare breeder.

LEAST BITTERN, *Ixobrychus exilis*. Uncommon transient and local breeder.

FLAMINGO, *Phoenicopterus ruber*. An exotic escapee or a most unusual vagrant. In late July 1949, two full-grown, highly colored Flamingos appeared at the farm pond of a Dr. Ruch near the community of Keller's Church in the upper part of the County. On the 27th, Roy W. Trexler of the Penn. Game Commission visited the spot. In a letter to me (Jan. 2, 1953) Mr. Trexler said that the birds were there for several days before one disappeared; after a few more days the second bird failed to return to its daily feeding station. He further wrote: "I took many pictures . . . At night the birds flew to a roosting place and would return the next day. They fed in the pond or adjacent stream . . . I had seen (flamingos) by the hundreds in Florida and . . . I felt certain it must be wild . . . way out of its general habitat . . ."

WHISTLING SWAN, *Olor columbianus*. Casual transient. Three recent records at Churchville.

CANADA GOOSE, *Branta canadensis*. Common transient. Semi-feral birds known to breed occasionally: Churchville, April 1953 (L. S. T.).

BRANT, *Branta bernicla*. Casual vagrant. (Fowler, 1902; Warren, 1890).

SNOW GOOSE, *Chen hyperborea*. Casual vagrant. Recent record: Carversville, October 1952 (Gantz).

BLUE GOOSE, *Chen caerulescens*. Rare vagrant. Seven birds at Churchville, March 14, 21, 1954 (Reynolds, Sehl, et al, DVOC).

EGYPTIAN GOOSE, *Alopochen aegyptiacus*. Certainly an escapee; one bird at Pennsbury, October 14, 1951 (H. Cutler, DVOC).

MALLARD, *Anas platyrhynchos*. Common transient. A few breed each year at favored localities. Year-round resident in open winters.

BLACK DUCK, *Anas rubripes*. Common transient and local breeder. Often seen through winter.

GADWALL, *Anas strepera*. Casual vagrant, occurring almost annually at Pennsbury (R. Miller, DVOC). Bristol (Fowler, 1903); Pennsbury, February 25, April 30, 1939 (Reimann, Abbott, Yoder, DVOC), 1944 (Finkel, DVOC); Churchville, March 21, 1954 (Sterner, Sehl, Reynolds).

EUROPEAN WIDGEON, *Mareca penelope*. Rare vagrant. Reported occasionally from Pennsbury.

BALDPATE, *Mareca americana*. Common transient; regular in winter.

PINTAIL, *Anas acuta*. Common transient and late winter visitor.

EUROPEAN TEAL, *Anas crecca*. Rare vagrant. Possible records at Pennsbury, but none noted in records available.

GREEN-WINGED TEAL, *Anas carolinensis*. Fairly common transient.

BLUE-WINGED TEAL, *Anas discors*. Rather uncommon transient and possible breeder.

SHOVELER, *Spatula clypeata*. Rare transient, but apparently on increase. Several records at Pennsbury and Churchville. Rare in 1903 (Fowler, 1903); "not here" (MacReynolds, 1937).

WOOD DUCK, *Aix sponsa*. Uncommon transient and breeder.

REDHEAD, *Aythya americana*. Uncommon transient; occasional in winter.

RING-NECKED DUCK, *Aythya collaris*. Not uncommon transient.

CANVASBACK, *Aythya valisineria*. Uncommon to rare transient and winter visitor.

GREATER SCAUP DUCK, *Aythya marila*. Rare transient.

LESSER SCAUP DUCK, *Aythya affinis*. Uncommon transient. Occasional in winter. Appears regularly in October and April at Churchville and Pennsbury.

GOLDENEYE, *Bucephala clangula*. Uncommon but regular transient. Occasional in winter.

BUFFLEHEAD, *Bucephala albeola*. Uncommon transient and winter visitor.

OLDSQUAW, *Clangula hyemalis*. Uncommon to rare transient; irregular in winter and early spring.

KING EIDER, *Somateria spectabilis*. Specimen (Female) in Academy of Natural Sciences collected by J. C. Johnston on Delaware River near Burlington, N. J., opposite Bristol, Pa. on November 19, 1942.

WHITE-WINGED SCOTER, *Melanitta deglandi*. Rare transient. Churchville, April 28 and May 16, 1950 (L. S. T.); May 18, 1952 (Herzog); four birds, May 4, 1954 (Herzog and L. S. T.).

AMERICAN SCOTER, *Oidemia nigra*. Rare vagrant. One record: Nine birds at Beverly, N. J. opposite Croydon, December 13, 1936 (J. F. Street, Cassinia 1937).

RUDDY DUCK, *Oxyura jamaicensis*. Common transient, especially in October.

HOODED MERGANSER, *Lophodytes cucullatus*. Uncommon transient.

AMERICAN MERGANSER, *Mergus merganser*. Common winter resident and transient.

RED-BREASTED MERGANSER, *Mergus serrator*. Rare spring transient and irregular in winter.

TURKEY VULTURE, *Cathartes aura*. Locally common breeder, and recorded in some numbers every month; most common spring and fall.

GOSHAWK, *Accipiter gentilis*. Very rare winter vagrant.

SHARP-SHINNED HAWK, *Accipiter striatus*. Fairly common summer resident, especially in the upper end.

COOPER'S HAWK, *Accipiter cooperii*. Fairly common resident.

RED-TAILED HAWK, *Buteo jamaicensis*. Winters regularly and is common transient. Although probably once a permanent resident, no breeding records available.

RED-SHOULDERED HAWK, *Buteo lineatus*. Uncommon breeder. Occasional in winter.

BROAD-WINGED HAWK, *Buteo platypterus*. Common transient and breeder.

ROUGH-LEGGED HAWK, *Buteo lagopus*. Casual vagrant. Recent records: Furlong, November 14, 1948 (J. Gillen, DVOC); Pennsbury, October 29, 1938 and Hulmeville, January 1950 (R. Miller, DVOC).

GOLDEN EAGLE, *Aquila chrysaetos*. Casual vagrant in middle and upper parts of county.

BALD EAGLE, *Haliaeetus leucocephalus*. Uncommon visitor, September to May, along river and lakes.

MARSH HAWK, *Circus cyaneus*. Not uncommon from late August into May. Possible breeder. Rare in winter.

OSPREY, *Pandion haliaetus*. Uncommon transient. Once bred here.

DUCK HAWK, *Falco peregrinus*. Rather rare transient. One time breeder.

PIGEON HAWK, *Falco columbarius*. Uncommon transient.

SPARROW HAWK, *Falco sparverius*. Common resident.

RUFFED GROUSE, *Bonasa umbellus*. Not uncommon resident in upper end.

PRAIRIE CHICKEN, *Tympanuchus cupido*. Once abundant. Extirpated probably before 1860.

EUROPEAN PARTRIDGE, *Perdix perdix*. The Hun was introduced about 1912, but the introduction was not successful.

BOBWHITE, *Colinus virginianus*. Uncommon resident at present.

TEXAS BOBWHITE, *C. v. texanus*. Introduced early 1900's. Now gone (Mac-Reynolds, 1937).

RING-NECKED PHEASANT, *Phasianus colchicus*. The Ring-neck has been a common resident since its introduction here in 1915.

WILD TURKEY, *Meleagris gallopavo*. Once common resident. Extirpated prior to 1869 (Turnbull, 1869). A few wild birds, possibly game farm hybrids, now known to be in upper end. Several pairs released by the Game Commission in the Haycock area several years ago.

KING RAIL, *Rallus elegans*. Uncommon transient and once occasional breeder. No recent records of nests.

VIRGINIA RAIL, *Rallus limicola*. Uncommon transient and breeder.

SORA, *Porzana carolina*. Uncommon breeder in lower end, and possibly at Lake Warren. Commoner migrant than preceding though far from plentiful, as in former years.

YELLOW RAIL, *Coturnicops noveboracensis*. Very rare transient. Recent record: Lake Warren, May 14, 1950 (Brady, R. and L. Thomas).

PURPLE GALLINULE, *Porphyryla martinica*. Rare vagrant. One recent record: George School, May 7, 1951 (Page, et al).

FLORIDA GALLINULE, *Gallinula chloropus*. Uncommon breeder. Recent record: Lake Warren, May 1953 (Reimann, DVOC).

AMERICAN COOT, *Fulica americana*. Fairly common transient. Winters irregularly.

SEMI-PALMATED PLOVER, *Charadrius semipalmatus*. Uncommon transient.

KILLDEER, *Charadrius vociferus*. Common breeder. Regular in mild winters.

AMERICAN GOLDEN PLOVER, *Pluvialis dominica*. Rare vagrant. Some recent records: Pennsbury, September 6, 1948 (R. Miller, DVOC); Churchville, September 13, 1949 (L. S. T.).

BLACK-BELLIED PLOVER, *Squatarola squatarola*. Casual vagrant. Regular fall visitor in recent years.

AMERICAN WOODCOCK, *Philohela minor*. Uncommon transient and local breeder.

WILSON'S SNIBE, *Capella gallinago*. Rather uncommon transient. Rare in winter.

HUDSONIAN CURLEW, *Numenius phaeopus*. Casual vagrant. One record: Wycombe, April 1937 (MacReynolds, 1937).

UPLAND PLOVER, *Bartramia longicauda*. Local breeder. Uncommon migrant.

SPOTTED SANDPIPER, *Actitis macularia*. Common transient and breeder.

SOLITARY SANDPIPER, *Tringa solitaria*. Uncommon transient.

GREATER YELLOWLEGS, *Totanus melanoleucus*. Common transient.

LESSER YELLOWLEGS, *Totanus flavipes*. Not quite as common as its taller relative. This is the opposite of Richard Miller's observations in the Philadelphia area.

KNOT, *Calidris canutus*. Rare vagrant. One record: Churchville, September 1953 (Herzog, DVOC).

PECTORAL SANDPIPER, *Erolia melanotos*. Fairly common transient.

WHITE-RUMPED SANDPIPER, *Erolia fuscicollis*. Occasional transient.

BAIRD'S SANDPIPER, *Erolia bairdii*. Rare vagrant. One record: Churchville, September 10, 1949 (reported by several persons).

LEAST SANDPIPER, *Erolia minutilla*. Uncommon transient.

RED-BACKED SANDPIPER, *Erolia alpina*. Occasional transient.

DOWITCHER, *Limnodromus griseus*. Uncommon transient.

STILT SANDPIPER, *Micropalama himantopus*. Casual vagrant. Recent records: Churchville, September 11, 1949 (L. S. T.); Pennsbury, October 22, 29, 1950 (Reynolds and Sehl, DVOC).

SEMPALMATED SANDPIPER, *Ereunetes pusillus*. Fairly common migrant.

WESTERN SANDPIPER, *Ereunetes mauri*. Rare vagrant. Churchville, September 1949 (L. S. T.).

RUFF, *Philomachus pugnax*. Very rare vagrant. One record: Churchville, August 30, 1951 (L. and E. Thomas and A. Gilmour, Jr., Cassinia 1951-1952).

SANDERLING, *Crocethia alba*. Casual transient along the river.

AMERICAN AVOCET, *Recurvirostra americana*. Rare vagrant. One record: Churchville, September 6-30, 1949 (L. and R. Thomas, Cassinia 1949-50).

RED PHALAROPE, *Phalaropus fulicarius*. Rare vagrant. One record: George School, December 15, 1918 Cocks and Raymond. (Stone, 1919).

NORTHERN PHALAROPE, *Lobipes lobatus*. Casual vagrant. Recent records: Churchville, September 26, 28, 1949 Sehl, DVOC); September 16, 1953 (Brady, NVNC).

POMARINE JAEGER, *Stercorarius pomarinus*. Rare vagrant. One record: Andalusia, October 1898 VanSciver. (Fowler, 1903).

GREAT BLACK-BACKED GULL, *Larus marinus*. Rare winter visitor. Pennsbury, March 7, 1942 (Cadbury, DVOC).

HERRING GULL, *Larus argentatus*. Winters regularly along the river and on the larger lakes.

RING-BILLED GULL, *Larus delawarensis*. Uncommon winter resident. Some spring records.

LAUGHING GULL, *Larus atricilla*. Occasional transient along river.

BONAPARTE'S GULL, *Larus philadelphia*. Uncommon transient. Regular in April at Pennsbury, Churchville, and along river.

FORSTERS TERN, *Sterna forsteri*. It is probable that a few of the migrant terns reported as *hirundo* are really *forsteri*. Recent record: Churchville, Oct. 16, 1954 (W. Reynolds, DVOC)

COMMON TERN, *Sterna hirundo*. Casual transient, usually one or two birds; a flock of 75 once counted at Churchville (L. S. T.).

CASPIAN TERN, *Hydroprogne caspia*. Rare vagrant. Pennsbury, April 27, 1952 (Sehl, Reynolds, H. Cutler, DVOC). One adult, one immature at Churchville, Aug. 21, 1954 (Herzog, L. Thomas).

BLACK TERN, *Chlidonias niger*. Rather uncommon transient. Regular at Churchville first week of May.

BRUNNICH'S MURRE, *Uria lomvia*. Rare vagrant. Known records: December 15-16, 1896 (J. H. Reed, See Auk 1897, p. 202; and Fowler, 1903).

DOVEKIE, *Plautus alle*. Rare vagrant. Two birds blown down at Newtown, November 1932 (MacReynolds, 1937).

ROCK DOVE, *Columba livia*. Common resident.

MOURNING DOVE, *Zenaidura macroura*. Common resident and transient.

PASSENGER PIGEON, *Ectopistes canadensis*. Extinct transient and occasional breeder. Last pigeon here, 1890 (Hall, 1916).

YELLOW-BILLED CUCKOO, *Coccyzus americanus*. Common breeder and migrant.

BLACK-BILLED CUCKOO, *Coccyzus erythrophthalmus*. Common transient, less common breeder.

BARN OWL, *Tyto alba*. Common resident locally.

SCREECH OWL, *Otus asio*. Common resident throughout county.

GREAT HORNED OWL, *Bubo virginianus*. Uncommon resident, although more prevalent than most people realize.

SNOWY OWL, *Nyctea scandiaca*. Rare winter vagrant.

BARRED OWL, *Strix varia*. Rare resident. Reported at Feasterville, February 1953 (Reynolds, Sehl, Sterner, DVOC).

LONG-EARED OWL, *Asio otus*. Uncommon resident.

SHORT-EARED OWL, *Asio flammeus*. Casual vagrant. A bird shot at Newtown, February 1, 1922 (Packer, DVOC); two at Churchville, December 31, 1949 and January 22 and March 4, 1950 (Herzog, McIlvain, L. S. T.) A roost reported at Eureka about ten years ago (R. Miller).

SAW-WHET OWL, *Aegolius acadicus*. Rare transient and winter visitor. Might be commoner than records show.

WHIP-POOR-WILL, *Caprimulgus vociferus*. Uncommon transient and possibly breeder in upper end.

NIGHTHAWK, *Chordeiles minor*. Fairly common transient and uncommon breeder.

CHIMNEY SWIFT, *Chaetura pelagica*. Very common breeder and common transient.

RUBY-THROATED HUMMINGBIRD, *Archilochus colubris*. Common resident and transient.

BELTED KINGFISHER, *Megaceryle alcyon*. Common breeder. A few winter.

FLICKER, *Colaptes auratus*. Common breeder and transient; often seen in winter.

PILEATED WOODPECKER, *Dryocopus pileatus*. Rare resident. Evidence of breeding in upper end (Miller, Reimann, 1953; Brady, Thomas, McIlvain, 1954).

RED-BELLIED WOODPECKER, *Centurus carolinus*. Casual vagrant. Attempt at nest, George School, May 21-30, 1950 (Carson, Page, Forman). A bird at feeder, Center Bridge, November 1953 (Hartman).

RED-HEADED WOODPECKER, *Melanerpes erythrocephalus*. Formerly common, very rare now. Possible breeder. Its decrease coincided directly with advent of starling (R. Miller).

YELLOW-BELLIED SAPSUCKER, *Sphyrapicus varius*. Uncommon transient.

HAIRY WOODPECKER, *Dendrocopos villosus*. Fairly common resident.

DOWNY WOODPECKER, *Dendrocopos pubescens*. Common resident. Often very common in winter.

KINGBIRD, *Tyrannus tyrannus*. Common breeder and transient.

CRESTED FLYCATCHER, *Myiarchus crinitus*. Common breeder and transient.

PHOEBE, *Sayornis phoebe*. Common breeder and transient.

YELLOW-BELLIED FLYCATCHER, *Empidonax flaviventris*. Rare transient.

ACADIAN FLYCATCHER, *Empidonax virescens*. Uncommon transient and rare breeder.

ALDER FLYCATCHER, *Empidonax traillii*. Uncommon transient. Probably uncommon breeder. Has been seen and heard throughout nesting season at Churchville.

LEAST FLYCATCHER, *Empidonax minimus*. Common local transient; some years uncommon. Possible breeder, but no recent records known.

WOOD PEWEE, *Contopus virens*. Common transient and breeder.

OLIVE-SIDED FLYCATCHER, *Nuttallornis borealis*. Rare transient. Newtown, May 21, 1951 (Cushman and Brady).

HORNED LARK, *Eremophila alpestris*. Winters regularly in small to very large flocks (*E. a. alpestris*). Uncommon breeder (*E. a. praticola*). Young with parents, Richboro, June 10, 1952 (L. S. T.).

TREE SWALLOW, *Iridoprocne bicolor*. Common to abundant transient. Known to breed at Pennsbury (R. Miller).

BANK SWALLOW, *Riparia riparia*. Rare transient and probable breeder

ROUGH-WINGED SWALLOW, *Stelgidopteryx ruficollis*. Fairly common breeder and often very common transient.

BARN SWALLOW, *Hirundo rustica*. Abundant breeder and transient.

CLIFF SWALLOW, *Petrochelidon pyrrhonota*. Uncommon transient. Regular at Churchville in early May. A record from New Hope, April 5, 1932 (Cox, Cassinia 1932). MacReynolds in 1937 has it abandoning county entirely even as migrant. No known recent breeding records.

PURPLE MARTIN, *Progne subis*. Common breeder locally.

BLUE JAY, *Cyanocitta cristata*. Common resident and uncommon migrant.

AMERICAN CROW, *Corvus brachyrhynchos*. A common, often abundant resident. Less evident in the lower end as the old farm acreages dissolve under real estate pressure, and "vermin" persecution increases with more gunners moving in. A few scattered transitory roosts still exist up-country, but there is nothing now like the old roosts described by writers in the past. (Cf. Coggins in Cassinia 1903 and Morris and Shryock in Cassinia 1909). In the winter of 1947-1948, I traced cross-county lines of flight to a roost of several thousand crows on the Neshaminy near Swamp Road west of Newtown. This roost disappeared; the crow hunters were active.

FISH CROW, *Corvus ossifragus*. Uncommon breeder and permanent resident on the coastal plain and along the river.

BLACK-CAPPED CHICKADEE, *Parus atricapillus*. Regular in winter. Breeds in upper end.

CAROLINA CHICKADEE, *Parus carolinensis*. Uncommon resident. Nest, birds and eggs found at Ringing Rocks near Upper Black Eddy, June 1922 Packer. (MacReynolds 1937.)

TUFTED TITMOUSE, *Parus bicolor*. Common resident.

WHITE-BREASTED NUTHATCH, *Sitta carolinensis*. Common resident.

RED-BREASTED NUTHATCH, *Sitta canadensis*. Uncommon to rare transient and winter resident.

BROWN CREEPER, *Certhia familiaris*. Fairly common transient and winter resident.

HOUSE WREN, *Troglodytes aedon*. Very common breeder and transient. Occasionally a bird remains over winter.

WINTER WREN, *Troglodytes troglodytes*. Uncommon transient and rather rare winter resident.

BEWICK'S WREN, *Thryomanes bewickii*. Rare vagrant. One known record: July 20-August 20, 1916 (MacReynolds, 1937).

CAROLINA WREN, *Thryothorus ludovicianus*. Fairly common breeder and winter resident.

LONG-BILLED MARSH WREN, *Telmatodytes palustris*. Fairly common breeder in cat-tail marshes in lower end; uncommon elsewhere.

SHORT-BILLED MARSH WREN, *Cistothorus platensis*. Very rare. Doubtful breeder. (Warren, 1890; Stone, 1894).

MOCKINGBIRD, *Mimus polyglottos*. Irregular year-around visitor, becoming a fairly common breeder in some localities in the lower part of the county.

- CATBIRD, *Dumetella carolinensis*. Common transient and breeder. A few winter records.
- BROWN THRASHER, *Toxostoma rufum*. Common transient and breeder.
- ROBIN, *Turdus migratorius*. Abundant breeder and transient. A few winter.
- WOOD THRUSH, *Hylocichla mustelina*. Common transient and breeder.
- HERMIT THRUSH, *Hylocichla guttata*. Common transient.
- OLIVE-BACKED THRUSH, *Hylocichla ustulata*. Fairly common transient.
- GRAY-CHEEKED THRUSH, *Hylocichla minima*. Uncommon transient. (MacReynolds, 1937, lists Bicknell's Thrush, *H. m. minima*, as an extremely rare transient, with one date: May 21, 1916. He does not state whether the bird was collected.)
- VEERY, *Hylocichla fuscescens*. Common transient and local breeder.
- BLUEBIRD, *Sialia sialis*. Locally common breeder and common transient; less common in winter.
- BLUE-GRAY GNATCATCHER, *Polioptila caerulea*. Rare breeder and uncommon transient.
- GOLDEN-CROWNED KINGLET, *Regulus satrapa*. Common transient and uncommon winter resident.
- RUBY-CROWNED KINGLET, *Regulus calendula*. Fairly common transient; rare in winter.
- AMERICAN PIPIT, *Anthus spinoletta*. Common transient throughout late fall and from late winter into spring, in large flocks.
- CEDAR WAXWING, *Bombycilla cedrorum*. Irregular. May be seen at any time through year. Richard Miller calls it a common breeder some years.
- NORTHERN SHRIKE, *Lanius borealis*. Rare winter visitor.
- MIGRANT SHRIKE, *Lanius ludovicianus*. Uncommon transient and winter visitor.
- STARLING, *Sturnus vulgaris*. Abundant resident since 1909, when it was first observed at Pennsbury (Baily, DVOC), at Doylestown (MacReynolds) and at Newtown (Packer, DVOC). First nesting record, Andalusia, 1911 (Miller, DVOC); in Doylestown in 1912 (MacReynolds, 1937).
- WHITE-EYED VIREO, *Vireo griseus*. Uncommon transient and common local breeder.

YELLOW-THROATED VIREO, *Vireo flavifrons*. Fairly common transient and uncommon breeder.

BLUE-HEADED VIREO, *Vireo solitarius*. Uncommon transient.

RED-EYED VIREO, *Vireo olivaceus*. Abundant transient and breeder.

PHILADELPHIA VIREO, *Vireo philadelphicus*. Rare transient according to available records. John McIlvain saw and heard six birds at close range at Langhorne, May 15, 1953. Other records scarce.

WARBLING VIREO, *Vireo gilvus*. Not uncommon transient and common local breeder.

BLACK AND WHITE WARBLER, *Mniotilta varia*. Very common transient. Uncommon to rare breeder locally along upper river.

PROTHONOTARY WARBLER, *Protonotaria citrea*. Casual vagrant. Two recent records: Pennsbury, May 5, 1949 (Reynolds, DVOC); George School, May 1951 (Page, et al).

WORM-EATING WARBLER, *Helmitheros vermivorus*. Uncommon breeder, found mostly in upper end, particularly along the Delaware; fairly common transient.

GOLDEN-WINGED WARBLER, *Vermivora chrysoptera*. Rare transient. May nest in upper end.

BLUE-WINGED WARBLER, *Vermivora pinus*. Common transient. Locally common to rare breeder.

TENNESSEE WARBLER, *Vermivora peregrina*. Rare transient; occasionally fairly common.

ORANGE-CROWNED WARBLER, *Vermivora celata*. Very rare transient. Turnbull (1869) writes of a bird collected by Chris Wood on November 2, 1867. Several recent sight records known.

NASHVILLE WARBLER, *Vermivora ruficapilla*. Uncommon transient.

PARULA WARBLER, *Parula americana*. Common transient and rare breeder. Nests some years at Bowman's Hill.

YELLOW WARBLER, *Dendroica petechia*. Common to very common breeder and transient.

MAGNOLIA WARBLER, *Dendroica magnolia*. Common transient.

CAPE MAY WARBLER, *Dendroica tigrina*. Irregular and often rare transient in spring; sometimes common in fall.

BLACK-THROATED BLUE WARBLER, *Dendroica caerulesens*. Common migrant.

MYRTLE WARBLER, *Dendroica coronata*. Very common transient. Often winters.

BLACK-THROATED GREEN WARBLER, *Dendroica virens*. Common transient.

CERULEAN WARBLER, *Dendroica cerulea*. Rare breeder, nesting in the county at least since 1948. Bowman's Hill, 1948. Center Bridge, May 1954, a nest being built (Hartman).

BLACKBURNIAN WARBLER, *Dendroica fusca*. Fairly common transient.

YELLOW-THROATED WARBLER, *Dendroica dominica*. Bowman's Hill, May 1954 (Wyckoff).

CHESTNUT-SIDED WARBLER, *Dendroica pensylvanica*. Common transient. Locally common breeder in upper end.

BAY-BREASTED WARBLER, *Dendroica castanea*. Uncommon transient.

BLACK-POLL WARBLER, *Dendroica striata*. Common to abundant transient.

PINE WARBLER, *Dendroica pinus*. Rather uncommon transient.

PRAIRIE WARBLER, *Dendroica discolor*. Rather rare transient. Rare breeder, Bowman's Hill (Wyckoff and Bond).

PALM WARBLER, *Dendroica palmarum*. Common migrant.

OVENBIRD, *Seiurus aurocapillus*. Very common breeder and transient.

NORTHERN WATER-THRUSH, *Seiurus noveboracensis*. Uncommon transient.

LOUISIANA WATER-THRUSH, *Seiurus motacilla*. Not uncommon local breeder and transient.

KENTUCKY WARBLER, *Oporornis formosus*. Fairly common transient and uncommon breeder.

CONNECTICUT WARBLER, *Oporornis agilis*. Rare transient (MacReynolds 1937).

MOURNING WARBLER, *Oporornis philadelphia*. Rare or casual vagrant. Buckingham, May 19, 1916 (Cox, Cassinia 1916).

YELLOW-THROAT, *Geothlypis trichas*. Very common breeder and transient.

YELLOW-BREASTED CHAT, *Icteria virens*. Common breeder and transient.

HOODED WARBLER, *Wilsonia citrina*. Uncommon transient. Possible breeder.

WILSON'S WARBLER, *Wilsonia pusilla*. Rare transient. Several records since 1902, from Newtown, Doylestown, Buckingham and Churchville.

CANADA WARBLER, *Wilsonia canadensis*. Fairly common transient..

REDSTART, *Setophaga ruticilla*. Very common transient. Locally uncommon breeder. Nests at Bowman's Hill and north along river.

ENGLISH SPARROW, *Passer domesticus*. Abundant resident. Its reported decrease in recent years has become debatable.

BOBOLINK, *Dolichonyx oryzivorus*. Uncommon breeder locally; often abundant transient, especially in fall.

MEADOWLARK, *Sturnella magna*. Very common breeder and migrant, with some birds wintering.

WESTERN MEADOWLARK, *Sturnella neglecta*. One bird heard and seen, Johnsville June 4-11, 1954 (Reynard and others, DVOC).

REDWING, *Agelaius phoeniceus*. Very common breeder and migrant.

ORCHARD ORIOLE, *Icterus spurius*. Fairly common breeder and transient.

BALTIMORE ORIOLE, *Icterus galbula*. Common breeder and transient.

RUSTY BLACKBIRD, *Euphagus carolinus*. Small flocks or individuals reported on migration. Records scarce. Richard Miller reports it as a common transient in fall locally.

GRACKLE, *Quiscalus quiscula*. Abundant resident. Not always common in mid-winter.

COWBIRD, *Molothrus ater*. Common breeder, and often very common transient.

SCARLET TANAGER, *Piranga olivacea*. Common breeder, especially in the upper end. Common transient.

SUMMER TANAGER, *Piranga rubra*. Casual vagrant. Two records in 1952: Richboro, May 4th (NVNC); Emilie, May 8th (Maphis).

CARDINAL, *Richmondia cardinalis*. Common resident.

CRESTED CARDINAL, *Paroaria coronata*. Exotic, presumed escapees gone feral. First seen in June 1953 by Dr. Perry Bond at Ingham's Spring. In late August, three adults and two fledglings, the young being fed (Pauline Buckingham for Charles Rogers). In September and late November the birds were still in area (L. S. T.).

ROSE-BREADED GROSBEAK, *Pheucticus ludovicianus*. Fairly common transient and uncommon breeder. Has nested as far south in county as Eddington in 1912 (Miller, DVOC), and Parkland (Butler, McIlvain, L. S. T., 1951).

BLUE GROSBEAK, *Guiraca caerulea*. Casual vagrant. Five birds, Doylestown, May 6, 1933 (MacReynolds, 1937); one at Rushland in May 1947 (L. S. T.).

INDIGO BUNTING, *Passerina cyanea*. Common breeder and transient.

DICKCISSEL, *Spiza americana*. One-time resident, now casual vagrant. Disappeared from Bucks County in the 1880's. Reported since by Packer at Newtown in 1932, and by Page and Forman at George School on May 20, 1951. Several recent records just outside our borders.

EVENING GROSBEAK, *Hesperiphona vespertina*. Casual and irregular vagrant.

PURPLE FINCH, *Carpodacus purpureus*. Often common transient and rare winter visitor.

PINE GROSBEAK, *Pinicola enucleator*. Rare vagrant. Bowman's Hill, March 27, 1953 (Jenkins for Platt, DVOG).

REDPOLL, *Acanthis flammea*. Casual vagrant.

PINE SISKIN, *Spinus pinus*. Irregular winter visitor. Sometimes seen in mid-spring.

GOLDFINCH, *Spinus tristis*. Common to abundant breeder, and fairly common through winter.

RED CROSSBILL, *Loxia curvirostra*. Rare vagrant.

WHITE-WINGED CROSSBILL, *Loxia leucoptera*. Rare vagrant. No recent records.

EASTERN TOWHEE, *Pipilo erythrophthalmus*. Common breeder and migrant.

SPOTTED TOWHEE, *Pipilo e. maculatus*. Rare vagrant. One report: Carversville, 1948: Hargens and Becker (Gantz).

SAVANNAH SPARROW, *Passerculus sandwichensis*. Fairly common transient. May breed locally.

GRASSHOPPER SPARROW, *Ammodramus savannarum*. Common breeder and migrant.

HENSLow's SPARROW, *Passerherbulus henslowii*. Uncommon transient. May breed sparingly.

VESPER SPARROW, *Poecetes gramineus*. Fairly common breeder and transient. Less common than in former years.

SLATE-COLORED JUNCO, *Junco hyemalis*. Common to abundant regularly in winter.

OREGON JUNCO, *Junco oreganus*. Rare vagrant. Convincing report from Newtown, January 1954 (Cushman).

TREE SPARROW, *Spizella arborea*. Common through winter. Species is decreasing.

CHIPPING SPARROW, *Spizella passerina*. Very common breeder and migrant.

FIELD SPARROW, *Spizella pusilla*. Very common breeder and migrant.

WHITE-CROWNED SPARROW, *Zonotrichia leucophrys*. Rare transient.

WHITE-THROATED SPARROW, *Zonotrichia albicollis*. Very common transient, and often common in winter.

FOX SPARROW, *Passerella iliaca*. Fairly common transient.

LINCOLN'S SPARROW, *Melospiza lincolni*. Rare transient. Few records.

SWAMP SPARROW, *Melospiza georgiana*. Locally common breeder and transient.

SONG SPARROW, *Melospiza melodia*. Abundant breeder, common migrant, and present throughout winter.

LAPLAND LONGSPUR, *Calcarius lapponicus*. Rare vagrant. Churchville, December 2, 1951 (Page and Forman); Pennsbury, March 7, 1954 (Sehl, DVOC).

SNOW BUNTING, *Plectrophenax nivalis*. Winters irregularly. Small flocks at Churchville every winter recently.

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