

BIRDS OF THE POCONO MOUNTAINS, PENNSYLVANIA

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The Pocono Mountain area of northeastern Pennsylvania, because of its proximity to the metropolitan centers of Philadelphia and New York, has long held attraction for the ornithologist. The broad east-west plateau, situated mainly in Monroe and Pike Counties, is the nearest region to these centers in which a substantial Canadian Zone flora and fauna exist. The lumberman's axe, forest fires, and the inevitable results of an expanding population have reduced the Canadian element appreciably during the last century, but enough still exists to furnish a most interesting study area within a hundred miles of Philadelphia and New York. The area under discussion includes the whole of Monroe and Pike Counties, the southern segment of Wayne County between Gouldsboro and Lake Wallenpaupack, and a small portion of Carbon County immediately west of the Monroe County line.

The plateau is a relatively flat expanse ranging in altitude from some 1600 feet in the western portion to slightly more than 2000 feet at the headwaters of the Lehigh River. Occasional protuberances such as Pimple Hill (2215), Locust Ridge (2200) and Big Pocono (2131) are higher. On the northern edge of the region the mountains blend into other ridges of the Alleghenies beyond; indeed it is hard to define exactly where the Poconos stop and the others commence. On the south, however, a steep escarpment, known as the Pocono front, separates the plateau proper from the foothills and valleys between it and the Blue or Kittatinny Mountain, the backbone of the Blue Ridge, which is the southern border of Monroe County. The eastern side of the escarpment is more irregular, presenting the impression of a much more mountainous area, and the mountain streams have cut numerous scenic waterfalls on their tumbling way to the Delaware. The western portion of the region is drained by the Lehigh and its tributaries. Lakes, both natural and artificial, dot the area, particularly in the eastern portions. The largest artificial lake in Pennsylvania, Lake Wallenpaupack, extends for some 15 miles along the Pike-Wayne County border.

It is from Blakeslee eastward through Mt. Pocono and Tobyhanna to La Anna (or Laanna) and South Sterling that the Canadian characteristics predominate. The greatest portion of the region, however, is Alleghanian, while the valley immediately north of the Blue Mountain and the Delaware River valley evince decidedly Carolinian aspects. Over three-quarters of the

area is still forested, although most is second-growth, and but a few isolated remnants of anything approximating the original forest remain. The two regions in which the most comprehensive field work has been accomplished are those around Pocono Lake and La Anna, where the coniferous forests have provided a suitable habitat for the more boreal species. Wayne, Pike and Monroe Counties meet near La Anna in the heart of what was called the "Primeval Forest" fifty years ago, and it is impossible accurately to place many of the early published records from here into a specific county, the boundaries were so poorly known. Many of the Pike County records, for example, now appear to have actually been from Monroe. The "Primeval Forest" is only a memory, but parts of the dense spruce swamps still exist around Pocono Lake. A vast area to the south of these regions, including much of the plateau and the Pocono front, is covered by scrub oak. The woodlands of eastern Pike County and the southern border of Monroe are primarily deciduous.

Much still remains to be studied in the Poconos, for the area is ever changing. Some northern species such as the Sapsucker, Yellow-bellied Flycatcher and Olive-backed Thrush appear to have withdrawn while others like the Saw-whet Owl and Myrtle Warbler have come in. The Red-breasted Nuthatch and Brown Creeper have increased appreciably in recent years. Such Carolinian species as the Hooded and Kentucky Warbler are found side by side with the Canada and Blackburnian in the valley of the Aquashicola Creek. More species of waterfowl undoubtedly pass through the region than this list indicates, and migrating hawk records are scarce because of a lack of observers along the Blue Mountain. Rails are almost unknown, yet diligent search in the few scattered marshes should bring results. Shorebirds will be added to the list with more coverage of exposed mud flats which occasionally result in periods of low water. In August, 1955, when the flood waters from hurricane "Diane" burst the dam at Pocono Lake, shorebirds immediately utilized the resulting exposed lake bottom.

Two events, one past and one projected, may have a profound effect on the bird life. The floods from "Diane" drastically altered the character of many streams, scouring the banks and denuding large areas of vegetation. Some changes in bird populations are inevitable. As to the future, the projected dam of the Bethlehem Water Authority at Long Pond to divert flood waters from the Lower Tunkhannock to the Wild Creek watershed may mean the end of the Short-billed Marsh Wren colony there and affect other marsh species as well.

EARLY ORNITHOLOGY

Alexander Wilson passed through the Poconos on a walking trip to Niagara Falls in 1804 and made other collecting trips to the region, much of

which was then known as the "Great Pine Swamp." He cites the "gloomy recesses of that extensive and desolate morass." At least two of the species depicted in his plates were collected here, the White-winged Crossbill and the White-crowned Sparrow. It appears from Wilson's (1811) description and Audubon's (1831) that the Great Pine Swamp comprised an area which included the Lehigh River basin from its headquarters to the vicinity of White Haven, and its tributaries, the Tobyhanna, Tunkhannock and Lower Tunkhannock.

Audubon visited the region in 1829, making his headquarters in the home of one Jediah Irish on the Lehigh River, probably, from his description, not very far from Stoddartsville. "The Lehigh about this place forms numerous short turns between the mountains, and affords frequent falls." The character of the country at that time is well illustrated by his description of crossing the plateau. "We wended round many a mountain, and at last crossed the highest . . . We now rattled down a steep declivity, edged on one side by almost perpendicular rocks, and on the other by a noisy stream, which seemed grumbling at the approach of strangers. The ground was so overgrown by laurels and tall pines of different kinds, that the whole presented only a mass of darkness."

Audubon devotes an entire chapter in his *Ornithological Biography* to this visit. "I spent six weeks in the Great Pine Forest—Swamp it cannot be called—where I made many a drawing." He found two species here which have not been recorded since: the Arctic Three-toed Woodpecker and the Short-eared Owl, the latter nesting. He commented upon leaving the region that he "felt amazed that such a place as the Great Pine Forest should be so little known to the Philadelphians, scarcely any of whom could direct me towards it."

Prince Maximilian of Wied-Neuwied came here in 1832, traveling from Bethlehem to the Delaware Water Gap on August 23rd, and spending a week between there and Stoddartsville. From the Water Gap the party went westward along Cherry Creek, passing through an area "where an unbroken tract of dark forests covers the whole wilderness" into the scrub oak lands beyond, where the pines have "perished in the fires, with which the settlers have, in the most unwarrantable manner, without any necessity whatsoever, destroyed these primeval forests." After several times crossing and recrossing the Poko-bochko Creek, "the banks of which are agreeably bordered with thickets of alder, birch, willow-leaved spirea, and the *Lobelia cardinalis*," they turned northward, stopping for dinner at an inn whose proprietor was named Meerwein, and this may be the location of the present village of Merwinsburg. Here he found the Prairie Chickens to be abundant game. They proceeded up over the Pocono front to Long Pond on the 26th and found it more

interesting botanically than ornithologically. The 28th brought them to the banks of the Tobyhanna at a point which cannot be far from Pocono Lake Preserve today, "so lonely, wild and grand, that we immediately took our fowling-pieces to ramble about." They moved on to Stoddartsville the following day, en route to Wilkes-Barre.

"The Tobihanna . . . is a pretty considerable stream, and the surrounding scenery is extremely picturesque. It is enclosed in rather high banks, overhung with fine, dark, primeval forests of Canadian pine trees, here called spruce fir, mixed with isolated trees of various kinds, and with a very close underwood of colossal *Rhododendron maximum*, thicker than a man's arm, whose dense masses of foliage, with their dark green, laurel-like leaves, hang down over the water. . . The black forest of gigantic firs, crowded together, rises in awful gloom, here and there relieved by the light green foliage of other trees. These majestic pines have hitherto been visited by only a few settlers, and have escaped the great conflagrations which have deprived the skirts of these wooded mountains of part of their lofty stems."

There was little ornithological activity between these early explorations and the latter few years of the century. Turnbull (1869) made but little mention of the Poconos. The pages of *Forest and Stream* give occasional mention of the status of game birds in the popular hunting region around Blooming Grove. Warren (1890) lists three contributors from the area: Rev. A. H. Gerner, of Sing Sing, N. Y., who submitted a list of species observed near Milford; Justin Nelis, of Dingman's Ferry; and Edmund Ricksecker, of Nazareth. Their observations must have been very superficial, for Warren seldom mentions the region, and then usually to cite the earlier records of Wilson and Audubon.

FROM 1890 TO THE PRESENT

Ornithological journals in the 1890s began to reflect the quickened interest in the Poconos as an area in which Canadian zone species could be found nesting. Oologists in particular found the region a challenge. Witmer Stone's (1891) comprehensive study of Harvey's Lake, while beyond the limits of this region, and his report of Stewardson Brown's observations at Tobyhanna in 1893 spurred others in the young Delaware Valley Ornithological Club into visiting the Poconos. In the same period, Herbert Wheaton Congdon of New Brighton, N. Y. was reporting in the *Auk* and the *Ornithologist and Oologist* on his findings in Pike County, with headquarters at Dingman's Ferry. Harry K. Jamison of Manayunk, a promising young ornithologist and egg collector, worked in the Tobyhanna area in 1890 and 1891, keeping accurate notebooks. He died of tuberculosis the following April, aged 26.

In the D. V. O. C. minutes for April 20, 1905 we find that "the mountain region lying between the summit of the Alleghenies and the Blue Ridge, as it is but little known, was commended to notice as a field for exploration and study" by Witmer Stone.

The development of Buck Hill Falls, Pocono Manor and Pocono Lake Preserve as Quaker summer colonies at this period was immediately reflected in increasing mention of the birds of the region in the pages of *Cassinia*, the journal of the D. V. O. C. Cornelius Weygandt, who summered at Buck Hill, contributed four articles on that region between 1905 and 1914. John D. Carter, who visited the young colony at Pocono Lake in 1904 and built a cottage there in 1911, was author of three articles on the summer birds between 1904 and 1917. William L. Baily spent both summer and winter days at Pocono Manor and contributed a paper on the winter birds in 1906. He was a frequent visitor to the Preserve on nest finding expeditions and wrote several short notes for the *Auk*. Carter and Baily were often accompanied by other members of the club, notably Stone, George H. Stuart, 3rd, and J. Fletcher Street. The latter wrote a paper on the nesting birds of Pocono Lake in 1915. He bought a cottage there in 1922, and this writer's Pocono indoctrination commenced at that time.

E. Seymour Woodruff wrote on the birds of Milford in 1905, and Richard C. Harlow spoke before the club that fall on his recent trip to Pike County. After several subsequent trips to the region around La Anna in this period, he built a summer home there in which he still resides. He has published many of his findings in the *Oologist*, *Cassinia* and the *Auk*.

Richard F. Miller has often visited the Poconos, and his bibliography lists nine titles on his findings of nests and eggs. James R. Gillin was another frequent egg collector, principally around La Anna. As an example of his prowess, in one short two-week period, May 26-June 10, 1923, he found, accompanied by James Bond the second week, 102 nests of 32 species. Bond's interest in the warblers has taken him frequently to La Anna in the breeding season. Thomas D. Burleigh and Albert T. McGrew accompanied Miller and Harlow on a nest finding trip in 1917 and published their findings.

The most comprehensive nest finding has been done by Carter, Gillin, Harlow and Miller. Their notes have been invaluable sources of information. Carter did not keep a detailed journal. His data have come from his published observations, examination of his nest collection at the Westtown School and from a list which he furnished me some twenty years ago giving the status of the birds around Pocono Lake as he had found them. Unfortunately, only a small portion of Gillin's notes seem to be in existence today. Miller kept meticulous notes and has kindly given me a wealth of information on the

many nests which he has examined in the Poconos. He has also furnished information from the notes of Jamison and Baily.

Much information for the Pocono Lake area has been taken from the journals of Fletcher Street and the writer, both of whom have kept daily records covering their field work. It is from a chart commenced by Fletcher Street and continued by the writer and Egbert S. Cary that the arrival, departure and song dates for Pocono Lake in the annotated list are taken. They are admittedly incomplete. Jesse B. Warriner came to Pocono Lake Preserve in 1944 and has contributed many observations. This is the Warriner referred to in the annotated list unless other initials are given.

Away from the two main centers of concentrated observations, Pocono Lake and La Anna, on which so much of the paper is based, valuable information has been furnished by many individuals to whom thanks are due. They include William Ely Roberts, who has summered at Tobyhanna for many years; Edwin B. Bartram of Bushkill; Earl L. Poole of the Reading Public Museum, who worked in the area around McMichaels in June 1946 to 1949; William C. Grimm of Georgetown, S. C., who with Mark L. Rutledge spent the period 1948-1950 in the region conducting field studies for the Carnegie Museum; Francis J. Trembly of Lehigh University, who has spent many summers doing fish work on Pocono lakes and streams; Game Protectors Albert J. Kriefski of Blooming Grove and John H. Lohmann of Milford, who have been most cooperative in furnishing much useful information, particularly on the game birds and waterfowl; Thomas H. Knepp and Fred G. Smith, Jr., of Stroudsburg, who have contributed data from that region; and the many members of the D. V. O. C. who were most cooperative in conducting breeding bird censuses in Pike and eastern Monroe Counties in 1951 and 1952. It is impossible to list everyone who has contributed. Their efforts nevertheless are greatly appreciated.

There has been a gratifying increase in winter records in the past ten years. Members of the D. V. O. C., including the writer, have made winter visits with increasing frequency. Cary, living the year around at Pocono Lake Preserve, has added much to our knowledge of the winter bird populations. Clarence Bonser, the warden there, and Nelson E. Miller, the manager, have submitted many records, particularly of migratory waterfowl. Grimm and Rutledge spent two winters with headquarters at Pocono Lake. Warriner, being here from early April to late October, has also accumulated records beyond the usual summer season. Kriefski and Lohmann have added data from their parts of Pike County and Bartram from Bushkill.

It is impossible to express properly the debt of gratitude which the writer owes Dick Harlow for his part in the preparation of this study. It took him many solid weeks of hard labor, against doctor's orders, to condense his notes

from over fifty years of field work into the data which he has furnished. Without his contributions the paper would indeed be incomplete, and one has but to note his nesting data in the annotated list which follows to realize the immensity of his contribution. Because of the breadth of his studies, with average dates and clutch size for so many nests, the writer has deleted specific mention of many of the other nest records he has gathered and would otherwise have used.

ANNOTATED LIST

Any report such as this, which includes sight records, may be subject to the criticism that such records have little value. No appreciable collecting has been done in the Poconos, however, and the writer feels that the exclusion of sight records would make it impossible to accomplish the purpose of this study—the amassing of all known data for the region under one cover so that others may know what has been found and what is still to be looked for, what is rare and what is common. Reports have been carefully weighed, and many have been rejected. There may be an occasional misidentification, and there may be unjust omissions. In such a report as this both are inevitable. No state records are involved in the previously unpublished sight records included here.

The vernacular and scientific names in the following list are with few exceptions those of the American Ornithologists' Union *Check-List of North American Birds* (4th ed., 1931, and supplements).

COMMON LOON. *Gavia immer*.

Common spring and fall migrant, visiting the larger lakes and ponds. Extreme recorded dates on Pocono Lake are March 22-December 9. Considerable concentrations may appear when unfavorable weather precludes further migratory movements. Warriner reported such a gathering on Pocono Lake on April 18, 1953, when over 250 Loons were noted among the thousand or more waterfowl which rested there.

There are three nesting reports. Harlow (1908) recorded the nesting of a pair "on a large lake near Bushkill, Monroe County" in that year and has subsequently told me that the actual nesting site was Long Pond. Competition among oologists was such that published records often sidestepped exact locations. The nest, discovered by a Charles Homan, contained 2 eggs, and the young hatched successfully but disappeared shortly thereafter. The parents were still on the pond on July 26, the date upon which the record was submitted. Clarence Bonser informs me that a pair bred at the upper end of Pocono Lake about nine years ago. He observed the adults and young on many occasions while pursuing his duties as a warden. Adult birds have several years been noted in July, and a single individual at least remained all summer in 1953. Twice in August I heard it calling in the early morning

hours. On July 17, 1955, David Leas found a nest with two eggs on a small island in Pocono Lake. With the mid-August catastrophe to the lake, it seems most improbable that the nesting could have had a successful conclusion.

RED-NECKED GREBE. *Colymbus grisegena*.

A dead bird, previously shot, was picked up by Mark Rutledge at Stillwater Lake, Monroe County, in February, 1950. The specimen is now mounted and on display at the Pennsylvania Game Commission Museum at Pymatuning. Joseph Cadbury and John Emlen also noted one on February 22, 1931 at Pocono Lake, swimming in the open water created by ice-cutting operations, and Evarts Loomis, Jr., found one there on February 16, 1930.

HORNED GREBE. *Colymbus auritus*.

Uncommon, but probably a fairly regular spring and fall migrant on the larger bodies of water. Lohmann has noted them in Pike County along the Delaware. Cary observed one on May 2 and 3, 1950 on Pocono Lake. Wariner notes them as being occasional there. Grimm and Rutledge found them in the same region, and F. V. Hebard and the writer saw 2 on Stillwater Lake on November 4, 1952. Mr. and Mrs. F. P. Corbett found "a few" near the north end of Lake Wallenpaupack on April 8, 1946.

PIED-BILLED GREBE. *Podilymbus podiceps*.

Occurs both as a migrant and summer resident. Spring dates at Pocono Lake are between April 2 and May 10; fall dates are September 15-November 6. Occasional in summer. Cary found as many as 6 in the period April 3-11, 1954, and the writer found 5 on October 11, 1953. Miller and Reimann found a nest in a lake at Mountainhome, Monroe County, on May 30, 1939. It was unconcealed and situated a few rods from shore and a highway, probably attached to submerged plants. It was not examined, persons being nearby, but one adult was observed in the vicinity. Lohmann finds them regular residents in some of the swamps and beaver dams of Pike County. J. L. Edwards and the writer heard one in its courtship call at Saw Creek Pond on May 12, 1951. Harlow reported one shot at La Anna on October 29, 1906.

DOUBLE-CRESTED CORMORANT. *Phalacrocorax auritus*.

One was noted well by Harry Jopson on August 10, 1953 as it flew over Pocono Lake. Lohmann has written, "We have records of Cormorants being killed on the Delaware after a heavy storm about forty years ago."

GREAT BLUE HERON. *Ardea herodias*.

Regular in summer in suitable areas throughout the Pocono region, but I have no actual nest records. Usually seen in ones or twos. Trembly believes they nest in the vicinity of Stillwater Lake. They are regular at Long Pond, and Lohmann reports that they nest in his Pike County area. Harlow has no

record of their nesting in the La Anna area during the last 25 years. He sees them every year, singly or in twos. He comments: "Knowing their wandering habits and the distance one often sees them from their rookery, I would discount reports of their breeding until I had personally seen the nests."

AMERICAN EGRET. *Casmerodius albus*.

Very irregular late summer visitor. In years of large northward post-nesting flights, the Egret appears from late July to early September. Carter (1917) reported that 3 spent several weeks at Pocono Lake in 1916, and one was present for a few days in 1917. H. R. Carey (1929) noted 2 there from August 1 to 11, 1929. We have several records for the early 1930s and again in 1940 and 1941. Warriner and Emlen noted one or two throughout August, 1948. Harlow saw them several times in August, 1950, at a small lake north of Stroudsburg. Bartram notes them occasionally along the shores of the Delaware near Bushkill in late July and August.

LITTLE BLUE HERON. *Florida caerulea*.

Like the Egret, an irregular late summer wanderer. They have appeared at Pocono Lake on a few occasions in late summer in white immature plumage. I saw one along the Delaware in late August, 1932, near the Water Gap.

GREEN HERON. *Butorides virescens*.

The commonest breeding heron of the Poconos. We find them at Pocono Lake from mid-May into September. Widely recorded in both counties, from around both the high mountain lakes of the plateau and the streams of the lowlands. Congdon (1893) found them common on islands in the Delaware. I have seen several nests, usually in evergreens near the lake, but have never examined any while in use. Harlow considers them rare and irregular around La Anna and Plateau Lake. Most nests noted by him have been in old gnarled apple orchards within 100 yards of the water.

BLACK-CROWNED NIGHT HERON. *Nycticorax nycticorax*.

Regular summer resident, but nowhere common. Lohmann reports that they nest in his Pike County area. I have never found a nest, but we often see immature birds from July to September on the shores of Pocono Lake. These immatures may be wanderers. Harlow finds them rare and irregular in his area. They may nest around Tobyhanna, where Roberts sees them quite regularly.

AMERICAN BITTERN. *Botaurus lentiginosus*.

Uncommon, but apparently breeding in suitable areas. I have flushed them from the grasses along the border of the stream at Long Pond on five occasions—July 17, 1948, June 21, 1952 (with C. C. Ross and Trembly), May 16 and July 5, 1954, and May 15, 1955 (with P. A. Livingston). Justin Wil-

liams saw one here on September 16, 1939. Grimm and Rutledge noted it during their surveys. The Warriners found one at Pocono Lake in 1947, and Stanley Bright and Warriner saw one there on August 13, 1951. They have also seen Bitterns at McMichaels. Knepp has found them around Stroudsburg. Harlow has seen them rarely in the La Anna area, and Roberts saw one on August 28 and 31, 1955 at Tobyhanna on the bank of the old stream channel at Mill Pond No. 1, the dam having gone out after hurricane "Diane".

LEAST BITTERN. *Ixobrychus exilis*.

One was seen by Warriner at Kitchen's Pond, Pocono Lake, in late May, 1955.

WHISTLING SWAN. *Olor columbianus*.

Cary saw one on Pocono Lake on November 24, 1947. He also reports a flock of about 50 some years ago in the fall. Bonser has also noted them here. Cary found 3 on April 3-4, 1954, and Nelson Miller saw 3, probably the same birds, from April 9 to 12.

CANADA GOOSE. *Branta canadensis*.

Common spring and fall migrant, often stopping off on the lakes and rivers. Bonser, Cary, Nelson Miller and Warriner note them frequently on Pocono Lake, where I heard a flock going overhead on October 11, 1952. Harlow saw a flock of about 150 going north over La Anna on April 18, 1954. A lone bird remained on Pocono Lake from July 10, 1954 or earlier until September. If detained there by injury, it apparently recovered, for Bonser reported that it eventually flew away.

BRANT. *Branta bernicla*.

Noted rarely in the fall. Trembly observed 6 on Pocono Lake in the first week of October, 1950. One was sick. Warriner noted a flock of 15 alighting on the lake near dusk on October 6, 1951, and they were subsequently seen by several persons who reported their presence to the writer. William Daub photographed them. Kriefski has recorded them on Lake Wallenpaupack in the fall.

BLUE GOOSE. *Chen caerulescens*.

Kriefski reports that Blue Geese have occasionally been seen at Lake Wallenpaupack in the fall on migration. Unfortunately, he gives no actual dates.

MALLARD. *Anas platyrhynchos*.

Lohmann and Kriefski report that some Mallards nest on the lakes and beaver dams in Pike County. Edwards and the writer noted a drake on Saw Creek Pond on May 12, 1951. Harlow has seen females with broods of young

in Monroe County, 2 or 3 miles east of La Anna on beaver ponds. They disappeared, as did the ponds, in the early forties. He also found several pairs about the Black Ash Swamp. Trembly found a pair nesting on Stitzer's Run Pond, Monroe County, in 1951. Warriner found them with young at Pocono Lake in mid-June, 1955 and has seen Mallards on the lake into November. I have seen them at Long Pond in July.

BLACK DUCK. *Anas rubripes*.

The commonest breeding duck in the region. Lohmann and Kriefski find it breeding commonly in Pike County, both in the lakes and beaver ponds and along the Delaware. In Harlow's experience in his area their fortunes follow those of the beaver dams. When the dams are full, the Black Duck nests regularly and commonly; when they go out, the ducks disappear. He has seen numerous birds with young in the last 20 years but fewer of them recently. Ross, Trembly and the writer noted at least 6 pairs with young on Long Pond on June 21, 1952 and 5 adults and 1 young at Goose Pond the following day. I have often seen young at the upper end of Pocono Lake. Carter found none 20 or 30 years ago. We have records of migrant Black Ducks at Pocono Lake from early March into November. Hebard and the writer saw 17 on Pocono Lake and 10 on Stillwater Lake on November 4, 1952.

PINTAIL. *Anas acuta*.

Warriner and the writer saw 4 on Pocono Lake on October 11, 1952. They have also been found by Grimm and Rutledge in the same area and by Knepp near Stroudsburg.

GREEN-WINGED TEAL. *Anas carolinensis*.

Clarence Bonser reports having seen this species several times at Pocono Lake, both in spring and fall. On one occasion, he picked up a dead bird which had struck a telephone wire. Knepp has seen them near Stroudsburg.

BLUE-WINGED TEAL. *Anas discors*.

Uncommon spring and fall migrant and occasional breeder. F. B. Warriner noted a female on Tobyhanna Creek at the entrance to Pocono Lake on June 10, 1952, and Clarence Bonser confirmed later that they nested at the head of the lake. He observed the female and young. Harlow recorded a mated pair on a small pond in La Anna from mid-April until June 1, 1941. Kriefski has noted them in Pike County, Grimm and Rutledge in the Pocono Lake area, and Knepp near Stroudsburg. The writer watched 5 on August 31, 1955, in the stream which so recently was Pocono Lake.

BALDPATE. *Mareca americana*.

Nelson Miller saw several on March 26 and Cary 8-12 on April 11, 1954 on Pocono Lake. Grimm and Rutledge have also recorded them on or near Pocono Lake and Knepp from the Stroudsburg area.

WOOD DUCK. *Aix sponsa*.

A scattered breeder in both counties, apparently increasing. They have been seen throughout the area with observations from late March to November. Lohmann reports that they nest in his area. Harlow considers their status similar to the Black Duck around La Anna, dependent upon the beaver dams. He has seen 5 nesting holes from which young were brought forth. Observations in the Pocono region during nesting season have been area wide. Carter (1917) commented that this was the only one of its family recorded as a summer resident in the Pocono Lake area, although he had not himself found nests or broods. It is surprising that he found no Black Ducks, which seem the commoner of the two today. J. F. Street and George Stuart found 3 young at the Trout Dam, near Pocono Lake, on June 8, 1935. Edward J. Reimann and Miller noted 6 individuals at Round Meadow, Plateau Lake, on June 2, 1939. Ross, Trembly and the writer flushed a female with 2 young at Long Pond on June 21, 1952 and found a female at Goose Pond the next day. The writer found a family of 7 in a pond along the Aquashicola Creek near Kunkletown on July 20, 1954, and David Leas and the writer found two broods, a total of 12 individuals, at Brady's Pond on July 24 that year. Bartram sees them in October and November along the Little Bushkill Creek, and I noted a flock of 22 flying up Pocono Lake on October 16, 1949, the largest gathering of Wood Ducks I have seen in a single flock.

REDHEAD. *Aythya americana*.

Kriefski reports Redheads from the larger lakes in the fall. They are probably more regularly seen on Wallenpaupack than on any other bodies of water. Grimm and Rutledge have seen them in the Pocono Lake area.

RING-NECKED DUCK. *Aythya collaris*.

Nelson Miller saw several on March 28, 1954. Cary saw 2 on March 7, "considerable numbers" on April 3 and 4, and 8 to 12 on April 11, 1954.

CANVASBACK. *Aythya valisineria*.

Clarence Bonser reported a flock on Pocono Lake around March 1, 1954. Cary saw a single individual on April 3 and 4, 1954.

LESSER SCAUP. *Aythya affinis*.

All Scaups which have been positively identified as to species have proven to be Lesser. Future observations should show Greater Scaups (*A. marila*) also to be occasional migrants through this area. Lohmann has observed a few Scaups on the Delaware River, and Kriefski on the larger lakes of northern Pike County in the fall. Carter recorded a Lesser Scaup in June, 1918 at Pocono Lake, a remarkable record. Warriner found single individuals on October 28, 1950 and October 7, 1952, and Hebard and the writer saw one there on November 4, 1952. Cary and the writer saw one on May 16, 1954 on a pond

near Locust Ridge. Grimm and Rutledge have also noted Scaups in this area. Mr. and Mrs. F. P. Corbett saw several Scaups on Lake Wallenpaupack on April 8, 1946 which were not identified as to species.

AMERICAN GOLDEN-EYE. *Bucephala clangula*.

Mr. and Mrs. Corbett noted several at the north end of Lake Wallenpaupack on April 8, 1946. The writer saw one on Pocono Lake on September 18, 1949. Lohmann sees a few on the river, and Kriefski finds them in the fall on the larger lakes. Also seen by Grimm and Rutledge.

BARROW'S GOLDEN-EYE. *Bucephala islandica*.

On a cold and snowy April 8, 1946, Mr. and Mrs. Corbett watched a male Barrow's Golden-eye near the north end of Lake Wallenpaupack among the American Golden-eyes reported above. They had an excellent view and studied it carefully for some time from 150 feet away. They are positive of their identification.

BUFFLEHEAD. *Bucephala albeola*.

The Corbetts saw several on their April 8, 1946 visit to Lake Wallenpaupack. Cary and the writer saw 2 on November 12, 1951, Hebard and the writer saw 5 on November 4, 1952, and Cary reported several on April 3 and 4, 1954, all on Pocono Lake. Grimm and Rutledge also recorded them.

OLD SQUAW. *Clangula hyemalis*.

Warriner noted Old Squaws on Pocono Lake on October 19, 1951. Miller reported several there on March 26, 1954, and Bonser has shot them after fall storms.

WHITE-WINGED SCOTER. *Melanitta deglandi*.

Bonser reports that they have once or twice come into Pocono Lake after severe fall storms. He once shot one and prepared it for the table but declares never again!

RUDDY DUCK. *Oxyura jamaicensis*.

Noted in both spring and fall at Pocono Lake. Warriner recorded them on May 6, 1950 and October 11, 1952. The writer saw 2 there on the latter date. Kriefski reports that they rest on the larger lakes during fall migration from about November until the freeze up. Charles J. Pennock reported finding one near Buck Hill Falls during the period May 11-22, 1922.

HOODED MERGANSER. *Lophodytes cucullatus*.

There are several records from Pocono Lake. Cadbury and Emlen saw one in October of 1930 or 1931; Cary saw one on March 13, 1951, 6 on March 7, 1954 and several the following April 3 and 4; and Hebard and the writer noted 2 on November 4, 1952. Harlow has not seen them in the La Anna area. Lohmann has seen a few in Pike County and Knepp in southeastern Monroe.

AMERICAN MERGANSER. *Mergus merganser*.

Today this species seems to be a spring and fall transient and a winter inhabitant of some of the open waters. I have found it in February along the Tobyhanna Creek and at the upper end of Pocono Lake, where the Tobyhanna and the Upper Tunkhannock enter the lake and keep small areas ice free at times. Cary often finds them in winter where open water prevails, and Lohmann notes a few on the Delaware. Flocks of 50 and more were noted by Cary and Miller in March and April, 1954 on Pocono Lake.

Formerly, however, the Merganser bred on Pocono Lake, and a female and her brood of ducklings were a familiar sight for several years in the thirties. The last such family I saw was on July 10, 1936, with Arthur Emlen. J. F. Street and Julian Hill found a mother with 7 young on June 25 and 26, 1938, and none have been reported since. Perhaps the increase in outboard motors is responsible for Mergansers no longer nesting at Pocono Lake, yet, like the Loons, they should still be searched for on the wilder lakes and ponds and may still possibly breed within the area.

RED-BREASTED MERGANSER. *Mergus serrator*.

Cary found several of this species amid the concentration of ducks on Pocono Lake on April 3 and 4, 1954. Grimm and Rutledge have also recorded them from the Pocono Lake area.

TURKEY VULTURE. *Cathartes aura*.

Vultures have become increasingly common in the summer months as compared with twenty years ago. A rarity then, they are now regularly seen throughout the area. We have Pocono Lake records from March 5 to October 7, and migrants undoubtedly pass down the ridges later in the fall than these records indicate. Harlow has seen as many as 40 perched about a slaughter house near La Anna in July and August. I know of no actual nests being discovered, but Trembly believes that they nest along the Pocono front north of McMichaels.

GOSHAWK. *Accipiter gentilis*.

Audubon (1834) found Goshawks breeding in the Great Pine Swamp. Their rediscovery as a breeding bird in the Poconos is of relatively recent occurrence. Harlow (1918) reported that it "apparently does not breed on the Pocono plateau." In 1951, however, he reports it "a regular breeder in Wayne, Monroe and Pike Counties in the section of which La Anna is the center." They appeared as nesting birds in 1932 and for 15 years thereafter were regular breeders until they were either shot, trapped, or their chosen woods destroyed. While he has not searched for the nest in recent years, Harlow noted Goshawks two summers ago. Lohmann reports that the species nests sparingly in the high ridges along the Lackawaxen River. He states in 1952, "A Mr. Norman Erickson, who was working with me on the rabies

control program, shot a nesting female after she made a couple of passes at him, in one case knocking off his cap."

A Goshawk nest in the Westtown School collection of John Carter bears the inscription, "Nest from the Pocono Mts. Presented by J. R. Gillin." No date is given, and the eggs are not from the same nest which is on exhibit. Krieffski reports that the Goshawk is found rarely in some parts of his Pike County region. It has never been the writer's fortune to find this species in the Pocono Lake area, but Thomas Gilliard believes they may nest near Stillwater Lake.

Harlow comments as follows: "They must have and insist on large wooded tracts; apparently they want forests that are from two to six miles in expanse. They do not insist on the large primeval woods, as there were far more of these left in 1917 than there were in 1935 or 1940. To the best of my knowledge, all the existing sets and nests came from nests found by myself. I took Jim Gillin to a nest, 25 feet up in a 14" beech on April 24, 1935. It held 3 eggs, which Jim collected. They were at least 12 days incubated (eggs are laid every second day). Jim told me Carter wished a nest for the Westtown School collection. It is my belief that this is the nest in your notes. During the above era, altogether, I had records of 7 pairs. I knew of 3 other pairs being destroyed by lumbermen and saw the young (both dead and alive) and saw dead parent birds which were trapped on the nests. Total sets of eggs examined and collected—15; 6 sets of 3, 9 sets of 2. One of these pairs laid spotted eggs each year. Nest building varies according to severity of weather. Average date for nest building: March 14-25. Average date for fresh eggs: April 6. Latest date for first eggs: April 30 (incubated). Latest date for second set: June 16 (far incubated and not collected)."

The species occurs sporadically in migration. The records of the Pennsylvania Game Commission of bounty payments for the period 1930-1951 indicate clearly their years of relative scarcity and abundance. The fall of 1954 produced another excellent Goshawk flight in eastern Pennsylvania after many lean years.

| Year | Monroe | Pike | State | Year | Monroe | Pike | State |
|---------|--------|------|-------|---------|--------|------|-------|
| 1930-31 | — | 3 | 28 | 1941-42 | 2 | — | 29 |
| 1931-32 | — | 1 | 46 | 1942-43 | 1 | — | 15 |
| 1932-33 | 1 | 2 | 64 | 1943-44 | 1 | — | 60 |
| 1933-34 | — | 3 | 68 | 1944-45 | 1 | 11 | 23 |
| 1934-35 | 10 | 9 | 172 | 1945-46 | 6 | 5 | 118 |
| 1935-36 | 29 | 22 | 701 | 1946-47 | 1 | 1 | 70 |
| 1936-37 | 44 | 25 | 1080 | 1947-48 | — | — | 22 |
| 1937-38 | 9 | 7 | 144 | 1948-49 | 2 | — | 23 |
| 1938-39 | 3 | 1 | 52 | 1949-50 | 2 | — | 44 |
| 1939-40 | — | 1 | 82 | 1950-51 | 3 | 2 | 32 |
| 1940-41 | — | 1 | 31 | | | | |

SHARP-SHINNED HAWK. *Accipiter striatus*.

A summer resident of the plateau, the commonest nesting Accipiter. Sharp-shins migrate southwestward along the Blue Ridge from September into November. There are many nest records from both Pocono Lake and La Anna. Harlow's data on 61 first sets around La Anna list 28 sets of 4, 29 of 5, and 4 of 6 eggs. His average date for completion is May 25.

COOPER'S HAWK. *Accipiter cooperi*.

Rarer than its smaller cousin, the Sharp-shinned, on the plateau. While we have no nesting records from the Delaware River valley, I suspect it may be found to be commoner there. We have occasional records at Pocono Lake from February 1 to October 8 but have never discovered a nest. I encountered a family of 4 at Long Pond on August 1, 1933, an indication that a pair probably nested in that vicinity. The Cooper's Hawk also migrates along the ridges in the fall.

Harlow (1915a) reported that in six years of field trips into Pike County he saw the species but twice, finding a nest containing 4 eggs on May 17, 1913, seventy feet up in a yellow birch; this appears to be the first nesting record for the county. Burleigh discovered another nest on June 6, 1917 at nearby South Sterling, which also contained 4 eggs. Miller examined the same nest on June 13, and it contained newly hatched young. Harlow considers it a regular but not common breeder in the La Anna area today and has found a total of 12 nests, 4 with 5 and 8 with 4 eggs. His average date for completion of first sets is May 16. Baily's notes record a newly-completed nest he found at Mt. Pocono on April 27, 1907.

RED-TAILED HAWK. *Buteo jamaicensis*.

A rare nester today, formerly less scarce. Harlow (1906c) considered the Red-tail more common than the Red-shouldered and commented that he had found several nests far up in hemlocks. He writes (1915b) that they nest only in a few favored places. He now has no definite nesting record for the last 30 years. The birds were noisy, and nearly all of the females were shot on the nests. He found 5 nests prior to 1916. He considers it one of the rarest hawks in the La Anna area now. Grimm and Rutledge have found it nesting in the Pocono Lake area. I have but a few scattered observations from there, January 6 to November 5. Kriefski reports that they nest in limited numbers in northern Pike County.

RED-SHOULDERED HAWK. *Buteo lineatus*.

Perhaps the commonest of the Buteos in the Poconos, breeding in moderate numbers throughout the wooded regions, especially on the plateau. I have no winter records. Harlow's data on 62 nests lists one set of 4, 35 of 3, and 26 of 2 eggs. Average date for completion of first sets is April 21.

BROAD-WINGED HAWK. *Buteo platypterus*.

Summer resident, and spring and fall transient, being seen most commonly while migrating in September. I noted 68 over Pocono Lake on the morning of September 20, 1952, and Livingston and I recorded 33 the following morning. The main flights may probably be best observed from along the Blue Ridge at the southern border of Monroe County. Broun (1939) records that a Broad-wing banded at Huntington, Mass., on July 5, 1920, was recovered at Thornhurst, just over the Monroe County line in Lackawanna County, on August 18, 1927.

Bartram reports them frequent along the upper reaches of the Little Bushkill during the nesting season at an elevation of about 1,000 feet. Poole has found them at McMichaels in June, and we note them at Pocono Lake throughout the summer months. Grimm and Rutledge found them nesting. Robert Haines and others saw Broad-wings at Saw Creek and High and Low Knobs in mid-June, 1951, and Reimann's group found them at Plateau Lake on May 30 and at the foot of Bush Mountain on June 1 and 3, 1951. A set of 2 eggs in the J. P. Norris collection was taken on June 6, 1885. Harlow considers them scarce but regular breeders around La Anna and has found 18 nests within 5 miles of there in the 3 counties, 11 sets of 2 and 7 of 3 eggs. Average date for first sets, May 14.

AMERICAN ROUGH-LEGGED HAWK. *Buteo lagopus*.

Wartiner noted one near Pocono Lake on October 2, 1948, and Trembly reports that he has seen this species over the barrens in Monroe County in winter.

GOLDEN EAGLE. *Aquila chrysaetos*.

There are two records for Monroe County from Fox Gap on the Blue Ridge, one by Richard Pough on October 11, 1936 and one by the writer on November 12, 1951. Frequent late fall observations along the ridge from New Jersey, above the Water Gap, and at Hawk Mountain to the west indicate that the ridge throughout its length in Monroe County is a regular migration route.

BALD EAGLE. *Haliaeetus leucocephalus*.

The Bald Eagle may nest in the region, but there are no positive data. Bartram reports them occasionally throughout the year along the Delaware near Bushkill but more frequent in summer. He believes they may nest near Hogback, a limestone escarpment forming the big bend in the river below Bushkill. Lohmann reports that they nest in his Pike County area and are frequently seen along the Delaware, where he believes they nest, as he has frequently studied the young in the fall. I have heard of a nest in the Porter's Lake region, and Trembly found Eagles still present in that vicinity during

the summer of 1954 and thinks they nest somewhere along the Bushkill below Porter's Lake. We have often seen them at Pocono Lake, and Trembly noted one so persistently at Stillwater Lake during the summer of 1951 that he suspected a nest nearby. Our Pocono Lake records are from March 10 to October 20.

Earlier reports indicate that Eagles have decreased markedly in recent years. Congdon (1893) found them "fairly common" in Pike County, "two pairs being within five miles, and the young also strung around everywhere." Harlow (1906c) reported that, although local, they were not rare and usually seen along the borders of the ice lakes. He later reported (1918) that probably a pair or two still breeds in the wild lake country of Pike, Wayne and Monroe Counties, where he still saw them frequently. He still sees a few, usually singly, 2 or 3 times a summer. He believes that the ones we see now are nearly all stragglers and not breeding birds.

MARSH HAWK. *Circus cyaneus*.

Breeds locally in a few suitable localities. A few Marsh Hawks winter on the plateau. I have seen a pair each time I have thoroughly covered the Long Pond area, and Carter found a nest there in 1916 with 4 eggs and another in 1917 with 4 young. Harlow has one nesting record from the Cranberry Bog near Mt. Pocono, also with 4 eggs. Poole and Bright found a Marsh Hawk at McMichaels on June 11, 1947. I have seen it at Brady's Pond in July, and Kriefski reports that they breed in limited numbers in his section of Pike County.

OSPREY. *Pandion haliaetus*.

Regularly noted at Pocono Lake from April 5 to October 22, but I have no nesting data for either county. Cary found an immature Osprey barely able to fly at Pocono Lake in the summer of 1946, which would indicate that a nesting was probably accomplished nearby. They are also seen along the Delaware in summer. Harlow tells me that he has run down at least 20 Osprey and Eagle nest reports on various lakes and along the upper Delaware, and all were phantoms.

PEREGRINE FALCON. *Falco peregrinus*.

The Carter collection contains a set of 3 eggs taken from a cliff at the Delaware Water Gap by J. R. Gillin on April 6, 1928. I believe there is still an eyrie in this vicinity. Lohmann reports that a pair nested until a few years ago on the cliffs between Raymondskill and Matamoras. Miller found a fledgling and an adult at Mt. Minsi on May 27, 1939. Warriner has noted this species twice at Pocono Lake, July 24, 1948 and June 10, 1951, and Trembly saw an immature over Stillwater Lake on August 12, 1952. Harlow knows of 6 eyries still functioning today in the same general vicinities where he and

Gillin used to find them annually some 25 years ago. His data cover 65 nests from 1891 to 1932. There were 6 sets of 5, 34 of 4 and 25 of 3 eggs. The dates for completion of first sets vary greatly with the weather and may be from mid-March to April 7.

PIGEON HAWK. *Falco columbarius*.

J. F. Street and Cole B. Price saw one at the Lakeville, Wayne County, sanctuary of the Scranton Bird Club on September 10, 1938. Lakeville is a few miles northwest of Lake Wallenpaupack. This species should be looked for during the fall migration.

SPARROW HAWK. *Falco sparverius*.

A scattered summer resident, especially in the more cultivated lowlands. I have no nest records, although Grimm reports that he and Rutledge found the nest in Monroe County. Harlow has never found it nesting within 5 miles of La Anna. Infrequently seen around Pocono Lake except during spring and fall migration.

RUFFED GROUSE. *Bonasa umbellus*.

A permanent resident whose numbers fluctuate from year to year in cycles. Common around Pocono Lake but much less common now at La Anna than 25 years ago. Grouse seemed particularly plentiful in 1953 and 1954 at Pocono Lake. Egg dates for complete sets at Pocono Lake have ranged from May 25 to June 24. A hen with young chicks was found on May 30, 1925 by Carter, Stuart, J. F. Street and others, which indicates a considerably earlier nesting start. Harlow's average date for first set completion at La Anna, based on 37 nests, is May 20. The average set is 10 eggs.

PRAIRIE CHICKEN. *Tympanuchus cupido*.

The scrubby barrens of the Pocono front were among the last breeding grounds of the Prairie Chicken or Heath Hen in the eastern states. Alexander Wilson (1811) found them on Big Pocono, "a small spur of the Blue Ridge and one of the few places in Pennsylvania frequented by *Tetrao cupido*, or pinnated grouse." Baird (1860) reported them "very sparingly," and Turnbull (1869) found them "Now very rare. A few are still met with in Monroe and Northampton Counties, Pennsylvania, where I have shot the species." Poole (1949) has compared Pennsylvania skins with both the typical western *T. c. pinnatus* and the Heath Hen of Martha's Vineyard, *T. c. cupido*, and finds that they more closely approximate the western race than the eastern.

In early times, the birds were more prevalent. Prince Maximilian of Wied, after his 1832 travels, wrote (1858): "In the Alleghany Mountains, on the Pokono, in Pennsylvania, they should be found also, but not everywhere, only on certain places and not numerous. In winter they come close to the farmhouses and sit even upon the roofs of the homes. They are caught in

great numbers with traps into which maize is poured. They become very easily tame. The hunters often travel from far away to hunt these birds, which are called Grouse." Poole informs me that three Mt. Pocono specimens obtained from Samuel Rhoads are now in the possession of Colonel Henry W. Shoemaker at McElhatten.

BOB-WHITE. *Colinus virginianus.*

This species has had its ups and downs in the Poconos, and is presently scarce, especially on the plateau. Lohmann's comments in 1952 quite aptly describe the present status, not only in his section of Pike County, but for the entire Pocono area. "We have a few native quail; they are very scarce now, but about thirty or forty years ago we used to have a lot of them. However, a few coveys still persist along the Delaware River flats." Poole, Bright, and others recorded them at McMichaels in June 1947, 1948 and 1949, and I saw one near Kresgeville in 1953, in the same general area, but reports from the plateau are scarce. Twenty years ago Quail were present at Pocono Lake and reported quite common near the village. They soon disappeared. Reimann heard one calling at Mountainhome on May 30, 1939 and another at La Anna a few days later. Kriefski reports none present in the Blooming Grove area. Harlow reports that one or two pairs bred around La Anna twenty-five years ago but are now gone. Carter (1917) had only one or two records at Pocono Lake up to that time and considered it a mere straggler. Baily (1906), reporting upon a winter visit to Mt. Pocono during the season of 1904-1905, describes well the conditions which have contributed to such irregularity in the Bob-white's occurrence, that winter being so severe and snowy that most of the birds were wiped out. "In the following spring many frozen birds were found, whole coveys in several instances being discovered huddled together under fences or tangled brush. I was told that one farmer picked up twenty-eight. During the next spring and summer the voice of the Bob-white was silent, and not a bird was left in the region."

RING-NECKED PHEASANT. *Phasianus colchicus.*

Fairly abundant in the lowlands but rare on the plateau. In Pike County, Kriefski reports that they do not take hold in the Blooming Grove area, even though they are stocked from time to time. He believes that lack of suitable food and cover are responsible. In the southeastern part of the county, Lohmann says they have a foothold, although very limited shooting stock, and believes they will eventually increase as long as the river flats are being farmed heavily. In Monroe County, the same pattern holds true, more birds being found in the valleys. We have few records for the Pocono Lake region. Carter (1917) had found it but a few times. In recent years it has increased somewhat, and I was told that Pheasants were quite abundant around the village of Pocono Lake in 1953. I found a hen with a brood of young at Long

Pond on August 27, 1953 and have subsequently seen Pheasants there in the last two summers. Stocking by the Split Rock Club could be responsible for the Long Pond colony.

WILD TURKEY. *Meleagris gallopavo*.

After an absence of nearly a hundred years, this fine game bird is, through stocking, again becoming a part of the Pocono avifauna. I saw my first one on May 13, 1951, with Cary and J. L. Edwards, between Locust Ridge and Stoddartsville, and Warriner reported seeing them often that summer. Grimm and Rutledge found them nesting. I am told by native residents that the species was increasingly common in 1953 in the area between Pocono Pines and Pocono Manor. Kriefski reports that they are not doing too well in his area, although there are some flocks. Lohmann calls them a stocking proposition, blaming the prevalence of raccoons for the small numbers of young which are being observed.

SORA. *Porzana carolina*.

Mrs. David P. Leas shot a Sora along the Tobyhanna near Blakeslee on October 9, 1954. Stone (1894b) stated that it breeds in the "northern counties" of Pennsylvania.

FLORIDA GALLINULE. *Gallinula chloropus*.

Thomas Knepp has written that he found it once at Reeder's Lake, Monroe County, on May 17, 1947.

COOT. *Fulica americana*.

Rare, both as a breeder and spring and fall migrant. Warriner has April 21, October 7 and November 7 records for Pocono Lake. Cary reported one on Pocono Lake April 5-7, 1954. Grimm and Rutledge found them nesting. Lohmann writes: "It was about five years ago, on Peck's Pond, along in the heavy grass growth on the edge of the East Branch Channel, that I observed a female Coot with 4 young. As for nests, I have never looked for them nor observed any. Peck's Pond is a large shallow lake with many indentations, marshy, and an excellent place for ducks to breed."

SEMIPALMATED PLOVER. *Charadrius semipalmatus*.

Noted but once prior to 1955, Cary finding several in October, 1947 on the mud flats exposed near the upper end of Pocono Lake upon lowering of the lake level for dam repairs, and Warriner seeing 6 along the shore near his cottage at the same time. The shorebird bonanza which followed the loss of Pocono Lake included 16 of this species on August 22, 1955. None was present the next day but they were observed almost daily thereafter until September 5 in numbers from one to 10 with 10 on the last 2 days. I found none the next weekend.

KILLDEER. *Charadrius vociferus.*

The Killdeer is rare on the plateau but no doubt breeds sparingly here and more commonly in the more cultivated foothills. Grimm and Rutledge found a nest on their surveys. Harlow once saw them with young in the breeding season on hills above Newfoundland, Wayne County, within 5 miles of La Anna. Chandler Ross and Edward Altemus reported that 2 pairs they encountered at Decker Swamp on June 9, 1951 acted as though nesting. Killdeers are present in increased numbers during the fall migration, and I have seen flocks of 8 or more along the shores of Pocono Lake and Lake Wallenpaupack in October during years of low water. I found them regularly on the Pocono Lake flats from August 22 to September 5, 1955 in numbers averaging about 10, with 15 on September 1 and 20 on September 5. Only 1 bird was present on the weekend of September 10-11, but 15 were there on that of October 1-2.

BLACK-BELLIED PLOVER. *Squatarola squatarola.*

Another species which will be found only in times of low water. Trembly saw one at Pocono Lake during the first week of October, 1948; Warriner recorded another there on October 24, 1948; the writer saw one with a mixed flock of shorebirds on a mud flat in Lake Wallenpaupack, near Hawley, on October 11, 1953.

RUDDY TURNSTONE. *Arenaria interpres.*

One was observed sitting on the end of a dock at Pocono Lake by Mrs. Henry N. Paul, Jr., on May 29, 1954.

WOODCOCK. *Philohela minor.*

A regular though not abundant summer resident at Pocono Lake. Commonest on fall migration. Records here range from March 15 to November 14. Harlow considers them common in swampy, brushy fields about La Anna. Miller and Reimann found a nest containing one egg in a low pine plantation at Plateau Lake on May 30, 1939. Grimm and Rutledge have found the nest near Pocono Lake. Harlow has found one nest in the Cranberry Swamp near Mt. Pocono and 16 around La Anna, mostly in the town. All clutches were of 4 eggs. The average date for completion of first sets was April 10.

WILSON'S SNIPE. *Capella gallinago.*

I have no records from the Pocono Lake district. Lohmann reports seeing them often along the Shohola Creek bottoms early in the fall, Knepp has found them near Stroudsburg, and Cole B. Price and J. F. Street noted one at Lakeville, Wayne County, on September 10, 1938. Harlow reports that he has never found Snipe in his area, but the possibility of finding them breeding in the Poconos is one which should not be overlooked. Stone (1894) said that the Snipe breeds occasionally in northeastern Pennsylvania.

SPOTTED SANDPIPER. *Actitis macularia*.

Summer resident, May through September. An extreme date is the observation of one at Lake Wallenpaupack on October 10, 1953. Poole and Bright noted adults with young at McMichaels on June 13, 1946. Carter and the writer found them with young not over two days old at Stillwater Lake on June 28, 1933. In the La Anna area, Harlow finds it a reasonably common breeder along the Wallenpaupack Creek and also sees it about small ponds, ice lakes and at Plateau Lake. His data on 13 nests, found within 5 miles of La Anna, show June 2 as the average date for completion of first sets and 4 as the average set of eggs.

SOLITARY SANDPIPER. *Tringa solitaria*.

Spring and fall migrant. Their status in the breeding season is controversial. Wilson (1813) reported that "they regularly breed on Pocano Mountain, between Easton and Wilkes-Barre, in Pennsylvania, arriving there early in May, and departing in September." His type specimen was procured here. Weygandt (1905) reported finding them at Levis Falls, beyond Dutch Mill, and at Gravel's Swamp. "It was not until Mr. Stone came up for a day in August that I learned that they nested in trees." Harlow (1906c) tells of seeing a pair with 3 young in the summer of 1905 in August. "It was in the deepest part of the forest, where the stream tumbled mostly over a sort of log jam. I could scarcely convince myself that these birds had nested in Pennsylvania, but the size of the young precluded any question of protracted flight, so that I was forced to believe that the parents had been unfortunate in their first attempt at rearing young, and these were the result of a second effort. After a scramble over the logs and stones, I succeeded in catching one of the young, and having inspected it, released it. In the meantime the parents showed but little concern over my action, though one, probably the male, silently flew several times about me. The rest of the young had hidden among the logs, and upon releasing my captive he rushed out into deep water and proceeded to *swim* for the logs. The current was too strong, however, and took him past and on downstream. I was just becoming apprehensive as to his safety, when he climbed upon a stone and bowed in his best form." Todd (1940) comments upon several similar records of his from the western part of the state which, while probable, are not conclusive enough for the positive listing of this species as a breeding bird of Pennsylvania. He calls for the actual finding of a nest or unfledged young as undisputable proof. Here is another challenge for the ornithologist in the Poconos.

Solitary Sandpipers were present almost daily during the period August 22 to September 5, 1955 at Pocono Lake, usually 1 or 2, with 4 being the greatest number noted.

GREATER YELLOW-LEGS. *Totanus melanoleucus*.

All records for this species are fall migration records from Pocono Lake in times of low water. The writer noted 4 on October 13, 1947. Warriner saw one on August 12, 1949. Jopson and the writer saw several on August 31, 1953, and the writer saw 2 on September 4, 1953. Greater Yellow-legs were present on the exposed lake bottom on all but one day in which observations were made during the period August 22 to September 5, 1955 in small numbers, the greatest number being 10 on September 5. There were 9 on September 10, 4 on September 11, 2 on October 1 and 2 on October 2.

LESSER YELLOW-LEGS. *Totanus flavipes*.

A few scattered records previous to 1955, similar to the preceding species except for one spring migration observation, May 29, 1925 by J. F. Street. Seen August 31, 1953 by Jopson, September 20, 1949 and September 27, 1947 by Warriner, and October 13, 1947 by the writer, all at Pocono Lake. This was the most abundant species in 1955 on the lake bottom in late August and early September. One or 2 were seen from August 22 to 27, and 4 appeared on August 31, over 20 September 1, 4 on the 2nd, over 40 on the 3rd, 15 on the 4th and 12 on the 5th. There were 6 on September 10 and 8 the following day.

PECTORAL SANDPIPER. *Erolia melanotos*.

Twice at times of low water in the fall I have found groups of Pectorals prior to this year. On October 13, 1947, when Pocono Lake was half drained, I found 10. On October 11, 1953, I found 14 in a mixed flock of shorebirds at Lake Wallenpaupack, just west of Hawley. The Pocono Lake flats in 1955 produced 7, 6, 10, 4, and 8, respectively, on August 23-27, with one or two on September 3, 4, 5 and 11.

WHITE-RUMPED SANDPIPER. *Erolia fuscicollis*.

Two records in 1953 comprise the only observations previous to this year, one seen August 29 at Pocono Lake and 3 seen October 11 at Lake Wallenpaupack, both by the writer. 1955 brought 5 on August 27 and 31, and one on August 28 and September 1.

BAIRD'S SANDPIPER. *Erolia bairdii*.

I observed one carefully in company with Semipalmated Plovers at Pocono Lake on September 3, 1955.

LEAST SANDPIPER. *Erolia minutilla*.

Carter told me that he saw them "once or twice" during spring migration at Pocono Lake. He gave no dates. The 1955 draining of the lake brought 2 on August 24 and one on August 31.

RED-BACKED SANDPIPER. *Erolia alpina*.

Recorded twice by the writer, one at Pocono Lake on October 13, 1947 and 8 at Lake Wallenpaupack on October 11, 1953.

SHORT-BILLED DOWITCHER. *Limnodromus griseus*.

Single Dowitchers, representing at least 2 different individuals, were seen by the writer and others on the Pocono Lake flats on August 24 and 31, and September 1, 2, 4 and 5, 1955.

STILT SANDPIPER. *Micropalama himantopus*.

The writer found one on August 31, and David Leas and the writer saw 2 on September 1, 1955 on the Pocono Lake flats.

SEMIPALMATED SANDPIPER. *Ereunetes pusillus*.

I found one among the shorebirds at Lake Wallenpaupack on October 11, 1953, and Grimm and Rutledge have also recorded it in the Pocono Lake region. In 1955, the mud flats there produced 2 on August 22, a high count of 17 on the 24th, and scattered numbers from one to 5 through September 11, when 2 were observed.

WESTERN SANDPIPER. *Ereunetes mauri*.

I found one Western feeding with Semipalmated Plovers on the Pocono Lake flats on August 27, 1955. It was a long-billed bird, and, with the size comparison, I felt positive of the identification.

SANDERLING. *Crocethia alba*.

My only record prior to 1955 is my observation of one at Lake Wallenpaupack on October 11, 1953. Two birds were present on the Pocono Lake flats on September 3 and 4, 1955 and were noted by the writer, Jopson, Cary and others.

WILSON'S PHALAROPE. *Steganopus tricolor*.

One record, that of Carter at Pocono Lake. He noted one in the summer of 1913. I have been unable to find the exact date.

HERRING GULL. *Larus argentatus*.

Bartram reports them as infrequent visitors along the Delaware River, finding them only abundant for short periods when the river is in flood and full of debris in the spring. We have a few scattered Pocono Lake records from mid-March to late November. Warriner has noted them occasionally after storms, mainly in August. The most recent record is 2 noted by Cary on April 3 and 4, 1954.

RING-BILLED GULL. *Larus delawarensis*.

Scattered records at Pocono Lake, mid-March to September 2. They are

more frequently observed than the Herring Gull. A flock of 50-55 appeared over the lake on August 15, 1953, the day after a coastal hurricane, and were noted by the Jopsons and the writer. Julian K. Potter saw 2 at Twin Lake, Pike County, between June 28-July 5, 1952.

LAUGHING GULL. *Larus atricilla*.

Trembly saw a Laughing Gull on Pocono Lake on April 27, 1952.

BONAPARTE'S GULL. *Larus philadelphia*.

Warriner noted a flock of 6 at Pocono Lake on April 20, 1955. They stayed around the lake for most of the day.

COMMON TERN. *Sterna hirundo*.

Two were observed on Pocono Lake on August 10, 1952 by Bright, Trembly and Warriner. Trembly saw 2 the following day at Wernetts, perhaps the same individuals. Wernetts is an old broken down pond on Route 903, about 5 miles west of the junction with Route 115, and is a good birding area. Dr. Louis Sterner saw 2 terns on Lake Wallenpaupack on October 10, 1953 from a distance, and they were either Common or Forster's (*S. forsteri*). The latter is the more probable in October.

CASPIAN TERN. *Hydroprogne caspia*.

Two Pocono Lake records. J. F. Street observed 3 on September 15, 1934. They were first seen resting upon a small island and later observed flying about. Harry Jopson saw one on August 15, 1955, two days after the fringe of hurricane "Connie" passed through.

BLACK TERN. *Chlidonias niger*.

We have one spring and two fall migration records, 4 flying about Saw Creek Pond seen by Edwards and the writer on May 12, 1951, and single individuals seen by J. F. Street at Pocono Lake on July 28 and August 25, 1934.

DOVEKIE. *Plautus alle*.

The storm of late November 1950, which brought so many Dovekies inland, carried at least one as far as Monroe County. James Gillin reported that a friend of his picked one up alive in the woods on November 29 in the "Pocono Mountains, Monroe County."

MOURNING DOVE. *Zenaidura macroura*.

Doves are widely distributed throughout the region in limited numbers. Extreme dates at Pocono Lake and vicinity are March 8 and October 7. Reimann and Miller found a nest with 2 eggs at Plateau Lake on June 2, 1939. Harlow has but 6 nests in the La Anna area in 50 years, all with 2 eggs and an average date of May 24. He believes this date should be considerably

earlier, perhaps averaging around the last days of April, were nest hunting in the region being carried out at this time as much as it is a month later.

PASSENGER PIGEON. *Ectopistes migratorius*.

Extinct. As late as 1869, Turnbull called the species plentiful in eastern Pennsylvania, but "more frequent in Spring and Autumn, when it congregates in large flocks." Harlow (1918) reported on his inquiries in Pike and Wayne Counties, which brought forth the information that the last breeding in the beech woods there occurred in the late seventies. Harlow's mother-in-law, Mrs. Amanda Gilpin, who came to La Anna in 1854, later told him that the last big nesting at La Anna was in the late seventies, but pigeons still came as late as the early eighties. When they arrived, the relatives in Philadelphia were notified by mail and would come up for a pigeon shoot. The last one she remembered clearly was in the early eighties when four men returned to the house, each with a rope hanging around his neck and over his shoulders, the rope hidden by pigeons, clear to the ground from both shoulders. They stayed for several days with the scene being repeated daily.

The depletion was rapid thereafter, for Stone (1918) reported that a pigeon shot by George H. Stuart at Canadensis, Monroe County, on October 2, 1895, was the last one shot, insofar as he was aware, in eastern Pennsylvania. Albert Whitaker, at a D. V. O. C. meeting in January, 1899, said that he had reliable information on the shooting of two birds by a Frank Butterworth in Wayne County on November 2, 1898, but this report was never verified. Monroe County, therefore, has the distinction, if it may be called that, of yielding the last specimen taken in the eastern part of the state.

YELLOW-BILLED CUCKOO. *Coccyzus americanus*.

Uncommon summer resident throughout the area. Grimm and Rutledge have found it nesting, but I have no further data. Harlow has not found the nest at La Anna. Walter Corson saw 6 near Greentown, Wayne County, on July 5, 1954. Our scattered Pocono Lake records are from late May to early August. I suspect that this species may be found to be commoner in the more open lowlands.

BLACK-BILLED CUCKOO. *Coccyzus erythrophthalmus*.

Summer resident and considerably more common on the plateau than the Yellow-billed. Miller found a nest at La Anna on June 6, 1918 which contained 3 fresh eggs. Another, found by Miller and Reimann at Plateau Lake on June 2, 1939, contained 2 eggs. Harlow has found 33 nests around La Anna, often in his own garden. They included one set of 6, one of 5, 4 of 4, 18 of 3, and 9 of 2 eggs. He estimates the average date for completion of first sets as June 5. Bond and Gillin found 2 nests at La Anna on June 7, 1923, each with 3 eggs. Roberts has seen this species at Tobyhanna until September 1.

BARN OWL. *Tyto alba*.

We have no reports of Barn Owls from the Pocono Lake or La Anna regions, and Kriefski finds none in upper Pike County. Lohmann, however, does find them in his Pike County area, chiefly along the river flats in the areas of more intense cultivation.

SCREECH OWL. *Otus asio*.

Widely distributed, being commoner in the valleys than on the plateau, where woodlands predominate. Harlow has never found more than one pair each year at La Anna, and in many years they are absent. In 1953, a pair brought their brood of 3 young repeatedly to a neighbor's window, where they caught bugs on the screen as long as the lights remained on in the night. They are similarly rare in the Pocono Lake area. D. V. O. C. members picked up a dead one on the road at Pocono Pines on a January 30, 1955 field trip. They saw one the day before at Saylorsburg. Lohmann and Bartram find them along the Delaware River in Pike County.

GREAT HORNED OWL. *Bubo virginianus*.

Harlow (1906c) considered this species the best known owl in the region. Today he seldom hears them, persecution having taken its toll. They nested in old nests of the Goshawk, Red-shouldered Hawk or (less commonly) in natural cavities. Of 7 nests found, one held 3 and 6 held one egg. Average date for completion of sets is February 28. Grimm and Rutledge have found them nesting near Pocono Lake, and Bartram believes they nest in the virgin hemlock woods on Hogback, below Bushkill. Our experience at Pocono Lake has always been that this species was much less often noted than the Barred Owl. Bounty payments indicate a slightly higher toll in Pike County than in Monroe. Payments were as follows:

| Year | Monroe | Pike | State | Year | Monroe | Pike | State |
|---------|--------|------|-------|---------|--------|------|-------|
| 1938-39 | 10 | 15 | 1,046 | 1948-49 | 11 | 13 | 1,836 |
| 1944-45 | 10 | 11 | 643 | 1949-50 | 17 | 22 | 1,942 |
| 1945-46 | 17 | 17 | 1,291 | 1950-51 | 18 | 5 | 1,477 |
| 1946-47 | 20 | 20 | 1,464 | 1951-52 | 15 | 15 | 1,714 |
| 1947-48 | 6 | 13 | 1,429 | | | | |

SNOWY OWL. *Nyctea scandiaca*.

Irregular rare winter visitant. Lohmann reports that a great flight occurred in 1925, and that nearly every other winter someone comes into his office to report a Snowy Owl. Warriner saw one near Pocono Lake on November 10, 1951 which was subsequently shot. Cary and Grimm saw one at Pocono Lake on December 14, 1950 at the head of the lake and later in the day at Wagner's.

BARRED OWL. *Strix varia*.

The most frequently heard owl in the forests around Pocono Lake. Curiously enough, I have not heard any in the past three summers. It is commoner today in the La Anna area than it was 30 years ago, and Harlow now finds them much more abundant than the Great-horned. He has furnished data on 21 nests, many chopped down by lumbermen. There were 9 sets of 3 and 12 of 2 eggs. The average completion date was March 17.

LONG-EARED OWL. *Asio otus*.

One was observed at Pocono Lake on July 4, 11 and 14, 1933 by J. F. Street and the writer, and there is one fall record there by J. F. Street on an October 8, year unknown. The Naturalists' Field Club of the University of Pennsylvania captured one alive at Merwinsburg on April 1, 1923. Intensive search should reveal that this species is more numerous than our records indicate.

SHORT-EARED OWL. *Asio flammeus*.

I have found no definite observation since that of Audubon (1840), who described the finding of a nest on June 17 somewhere in the Great Pine Forest. Long Pond would be the most probable site, but this is pure conjecture. The nest contained 4 eggs. "It was placed under a low bush, and covered over by tall grass, through which a path had been made by the bird. It was formed of dry grass, raked together in a slovenly manner, and quite flat, but covering a large space, on one side of which were found many pellets and two field mice . . . I should have never discovered their nest had not the sitting bird made a noise by clicking its bill as I was passing close by." This species should be looked for during the winter months.

SAW-WHET OWL. *Aegolius acadicus*.

Neither Carter nor Harlow met with this species in the Poconos during the breeding season. Until recently two migration records were the only reports. Harlow recorded one shot in Pike County on November 1, 1906, and Lohmann found one perched in a hemlock in the Hobday Road country about twenty or so years ago. In the summer of 1950 I was told by Bonser, Cary and Nelson Miller that they had heard Saw-whet Owls calling in at least two locations around Pocono Lake during May, and they again reported their presence the following spring. On the evening of June 28, 1952, I was attracted by a strange note near my cottage, and I found the author, which was perched nearby, to be this species. Two others were calling within a hundred yards, undoubtedly a family group, and they remained about the cottage until early morning. I again heard a Saw-whet Owl, this time giving its usual spring call, from across the lake on the night of June 6, 1953.

WHIP-POOR-WILL. *Caprimulgus vociferus*.

Summer resident throughout the region wherever the second growth or barrens provide suitable habitat. Bartram hears them frequently near Bushkill upon their spring arrival, and D. V. O. C. surveyors found them along the Bushkill in June, 1951. Trembly finds them along the north slope of the Blue Ridge, and Poole and Bright have recorded them regularly near McMichaels. Formerly common at Pocono Lake, the maturing of the timber has overgrown their habitat there. They are found at nearby Long Pond, however, and throughout the barrens beyond. Baily, Carter, Stuart, and J. F. Street flushed one from its nest on the ground at Pocono Lake on June 13, 1915. It contained 2 eggs. Harlow has found 11 nests in the La Anna area, all with 2 eggs or young. His average date is June 8. Here, too, ecology determines their year-to-year abundance. An area in which there were 6 pairs 10 years ago now has none. But other areas, now the proper composition, will have birds.

NIGHTHAWK. *Chordeiles minor*.

Summer resident, arriving in May. The fall migration, usually at its peak in late August, is often spectacular. Woodruff (1905) found them common at Milford and described "a marvelous flight of these birds (which) passed over the camp between 3:30 and 6:30 on the afternoon of August 30, coming up from the Delaware Valley flying due west." John Emlen noted a big migration over Pocono Lake about August 25, 1947, and Jopson and the writer have seen flocks of 10 to 50 or more going over in late August and early September. Miller found a new nest at South Sterling on June 2, 1927 which was not afterwards revisited. Grimm and Rutledge, and Carter have found it nesting near Pocono Lake. Hebard found a nest on the ground, in cinders, within a few feet of an East Stroudsburg factory on July 13, 1942. It contained 2 eggs. Harlow calls them regular but never very common near La Anna. He has data on 5 nests found on large hilltop boulders or on patches of gravel or cinders. All contained 2 eggs, and the average date was June 12.

CHIMNEY SWIFT. *Chaetura pelagica*.

Summer resident, late April to late September. One of the major fall roosting sites in the area is the chimney of the Post Office at Stroudsburg. Here, on September 6, 1953, I watched several thousands Swifts milling about overhead and dropping in for the night. In some instances the Swifts have utilized the inside walls of buildings for their nesting sites in lieu of their usual chimneys. Congdon (1893) mentions finding them in great numbers in many deserted houses, and Carter (1917) describes their nesting on the inside walls of barns, suggesting that there were not enough chimneys to meet the demand. Harlow reports that they have nested half a dozen times on the interior of a large fire screen in front of their La Anna fireplace when the house was vacant. He, too, has seen nests inside barns. He has furnished data

on 26 nests, 4 in bare standing chimneys, 2 in barns, 14 in chimneys, and 6 on his fire screen. Three nests contained sets of 5, 19 of 4, and 4 of 3 eggs. The average date for completion of first sets is June 6.

RUBY-THROATED HUMMINGBIRD. *Archilochus colubris.*

Summer resident throughout the region, early May to mid-September. Burleigh (1927) listed 5 nests found during the period June 4-14, 1917, near La Anna. It has nested in Harlow's yard for the past 25 years. He has data on 41 nests, all with 2 eggs or young. His average date for completion of first sets is June 6. I observed a late nest at Pocono Lake in 1953. Cary found it in a hemlock near his cottage, and the last young did not leave the nest until August 9. They nested in the same tree the next year. The Carys observed an odd sight in the first week of May, 1954, when a snowstorm coated their trees with a mass of wet, sticky snow, and the newly arrived Hummingbirds were feeding at the feeders in the midst of this strange, white environment.

BELTED KINGFISHER. *Megaceryle alcyon.*

Regular though not common from early April to late October, and occasional in winter. Baily (1906) twice noted them in winter near Mt. Pocono. He found one on November 26, 1903, a day of 6 degree temperature with 6 inches of ice on a lake, perched over an open pool below a waterfall. The following March 25 he again found a Kingfisher at the same spot. He reported another wintering, at a D. V. O. C. meeting December 15, 1915. Miller found a nest at La Anna on May 16, 1918 with 4 highly incubated eggs. I have never dug into the gravel banks to determine the status of the many occupied holes I have seen at Pocono Lake. Harlow has examined 37 nests around La Anna with many more seen. 21 nests contained sets of 7, 9 sets of 6, 5 sets of 5 and 2 sets of 4 eggs. The average date for completion of first sets is May 12.

YELLOW-SHAFTED FLICKER. *Colaptes auratus.*

Common summer resident, March through October, occasional in winter. The commonest woodpecker of the region, being found in practically all localities. Harlow has seen 52 nests around La Anna from 3 to 75 feet up. One contained 11 eggs, 2 had 9, 7 had 8, 36 had 7, and 6 had 6. The average date for completion of first sets is May 18.

PILEATED WOODPECKER. *Dryocopus pileatus.*

Widely distributed across the plateau and probably along the Blue Mountain, increasing in recent years. Harlow (1918) found a nest near La Anna in Monroe County on May 18, 1913 which contained 4 half incubated eggs. Carter (1917) mentioned seeing their cuttings several times around Pocono Lake. His first nest, however, was not found until June 21, 1933. The last of the young flew off as we approached it the following day. A year later, on June 3, 1934, Carter and J. F. Street found another nest 50

feet up in a dead maple in a pasture near Pocono Lake. The young were looking out of the hole on June 15, so the eggs were probably laid by mid-May. On May 19, 1935, Carter and J. H. Buckalew took a set of eggs from 45 feet up in a rotten maple near the locality of the 1933 nest. Harlow has found 17 nests in the La Anna area, mostly between 1918 and 1942. Of these, 10 had 4 eggs or young, and 7 had 3. His average completion date for sets is May 12. On May 26, 1946, W. W. Lukens, Jr. and the writer found a nest high in a dead maple near the village of Pocono Lake, the hole plainly visible from the highway. The female was incubating. Cary discovered a nest, again in a maple, on the Woodring property at Pocono Lake Preserve on June 9, 1952. The young had left when I saw it the latter part of the month.

RED-HEADED WOODPECKER. *Melanerpes erythrocephalus*.

There are few records for the Poconos. H. K. Jamison recorded in his notes seeing it at Tobyhanna on June 4, 1891. Carter found one at Pocono Summit on May 25 and one at Mt. Pocono on May 28, 1919. Harlow (1918) reported that it bred rarely in Pike County, and Miller tells of seeing numbers about La Anna on May 24, 25 and 26, 1917, with 15 on the 25th, in apple orchards. "They were late transients, as the spring that year was very wet, cold and backward. They excited the natives, who never before had seen them." Bartram writes that he has seen them twice near Bushkill in recent years for a few days in May, and Harlow tells me that he has not seen it in the La Anna sector since 1918, and then only as a migrant.

YELLOW-BELLIED SAPSUCKER. *Sphyrapicus varius*.

Spring and fall migrant, noted most commonly in September and early October. It formerly bred on the plateau, but we have no recent records. Bartram had one at his feeder at Bushkill during the winters of 1950-1951 and 1951-1952, an unusual occurrence. The Sapsucker disappeared from the Pocono Lake region as a summer resident about 30 years ago. Carter (1906), Stone, Evans and Baily found a nest during the period June 16-18, 1906 at Pocono Lake which contained eggs. A nest the previous year contained young. Harlow (1918) reported another nest from Pocono Lake, found June 17, 1908, with the set not yet completed. Carter and Stuart found adults feeding their young at the head of the lake on June 16, 1915. The only recorded nest from the La Anna area, reported both by Harlow (1918) and Burleigh (1927), was found by Harlow near South Sterling in Wayne County, about 2 miles from the Monroe County line. He found it being built June 1, 1917 and visited it with Burleigh on June 11, at which time it contained 4 eggs about 3 days along in incubation. The hole was 60 feet up in the trunk of a dead sugar maple.

HAIRY WOODPECKER. *Dendrocopos villosus*.

Widely distributed permanent resident throughout forested areas. While

nests have been found by many, Harlow's data for 29 nests in the La Anna section is representative. They ranged from 9 feet in an apple tree in his yard to 75 feet in the top of a dead sugar maple. While he collected no sets of eggs, the dates upon which the broods left the nests, all with 4 or 5 young, indicates an average time for the completion of first sets would be between May 5 and 10.

DOWNY WOODPECKER. *Dendrocopos pubescens.*

Much less common than the Hairy. It occurs widely over the region, nevertheless, frequenting the less dense woodlands and the farms. Cary has recorded them regularly the year around at his feeder at Pocono Lake. J. F. Street and Stuart found one nesting there on May 30, 1937. Harlow has found 11 nests since 1918 around La Anna but examined none of them. They are setting, however, by May 18.

ARCTIC THREE-TOED WOODPECKER. *Picoides arcticus.*

Turnbull (1869) remarked that "this species is occasionally seen in the northern counties of Pennsylvania. Audubon met with it in the forests of the Pocono Mountains." Audubon (1834) reports finding "a few." There are no modern records which can be substantiated.

EASTERN KINGBIRD. *Tyrannus tyrannus.*

Very common summer resident in open farming country, especially in old apple orchards. Reimann found a new nest at Gates Meadow on May 27, 1951, which was on a cross-bar of a high tension line 90 feet from the ground, a remarkable height. Carter (1906), Baily, Evans, and Stone found a nest with 4 eggs at Pocono Lake on June 15, 1906. Carter and the writer found 2 in the tops of stumps in Stillwater Lake on June 28, 1933, one with 3 fresh eggs and the other with 3 well-feathered young. Carter found a nest in an apple tree at Pocono Lake with 3 eggs on July 2, 1927. Miller found a nest at La Anna with 2 eggs on June 4, 1918. Bond and Gillin found one there with 3 eggs on June 9, 1923. Harlow has found 27, 6 with 4 eggs, 17 with 3 and 4 with 2. The average completion date is June 9.

CRESTED FLYCATCHER. *Myiarchus crinitus.*

Summer resident. More common at lower elevations than on the plateau. Poole found them regular in June around McMichaels. All parties on the D. V. O. C. Pike County surveys of May and June, 1951 recorded this species, but not abundantly. Our Pocono Lake records are very scattered. Harlow calls them regular though not abundant around La Anna, being found in the open farming country and rarely in clearings. He has examined 11 nests and has seen that many more. Sets were 7 of 5, 3 of 4 and one of 6. The average completion date is June 7.

EASTERN PHOEBE. *Sayornis phoebe*.

Abundant summer resident. Pocono Lake dates are March 17-October 22. Nearly every suitable bridge and many an old shed or cabin porch has its Phoebe's nest. Harlow has data on 187 nests. The average set is 5 eggs, with variations of 3 to 6. His average date for 132 first sets completed is May 9.

YELLOW-BELLIED FLYCATCHER. *Empidonax flaviventris*.

Another species, like the Sapsucker, which seems to have withdrawn northward in recent years. A former breeder at Pocono Lake and La Anna, it has not been found except during migration for many years. Three nests were found in 1915 at Pocono Lake. Stuart and J. F. Street (1915) found one with 4 eggs in the side of a raised sphagnum mound on June 26. Bailey (1916b) found a nest on July 17 which contained 3 young about 2 days old and another on the 19th, also with young. A nest with 4 eggs, which he found on June 23, 1907 and photographed, was originally thought to be that of a Nashville Warbler. He later decided that it had been this species. Carter found a nest with 4 eggs on June 25, 1923. Harlow found Yellow-bellied Flycatchers, 2 or 3 pairs to a bog, in 3 sphagnum bogs around La Anna for at least 2 years in the early thirties, but the bogs were subsequently destroyed.

ACADIAN FLYCATCHER. *Empidonax virescens*.

Congdon (1893) reported finding the Acadian Flycatcher "fairly common" near Bushkill. There are no modern records, and the above must be treated with reserve.

TRAIL FLYCATCHER. *Empidonax traillii*.

Summer resident in a few suitable localities. On July 17, 1915, Baily (1916a) found a nest with 3 eggs at Pocono Lake, perhaps the first record for the state. Carter had previously found an empty nest on June 12; it contained one egg on the 14th but was later destroyed. Another nest was found in 1916. Carter found one with 4 eggs on June 26, 1925. I have occasionally noted them at the upper end of Pocono Lake. In Pike County, Woodruff (1905) reported them rare, 2 or 3 having been seen along the shores of Sawkill Pond. Harlow has not found it breeding around La Anna. The floating islands of stunted spruce, tamarack and sphagnum at Goose Pond support a colony of Traill Flycatchers. Trembly, Ross and the writer noted 4 there on June 22, 1952 and 6 along the shores of Long Pond the previous day. They should be found in many suitable boggy areas throughout the area.

LEAST FLYCATCHER. *Empidonax minimus*.

A very common summer resident everywhere except in the forests, and especially numerous in the orchards. Pocono Lake dates are from May 3 to early September. Reimann found a nest under construction 30 feet up in a black locust in Wolf Swamp on May 27, 1951. The writer watched one being

built 25 feet up in the fork of a shadbush behind his cottage at Pocono Lake on May 31, 1952. Carter collected a nest with 3 eggs from 18 feet in a small maple at Pocono Manor on June 13, 1925 which had been found by Baily. Carter and the writer found one with 2 eggs 25 feet up in a gray birch on June 23, 1933 at Pocono Lake. Harlow's nests around La Anna have ranged from 7 to 80 feet in height, average 25 feet. He has found 33 sets of 4 and 16 of 3 eggs. Average date for completion of first sets is June 8.

WOOD PEWEE. *Contopus virens*.

Summer resident, mid-May to mid-September. Not common, but found throughout the area. Jamison's notes record a nest he found at Delaware Water Gap with 2 eggs, incubation well advanced, on July 4, 1890. Congdon (1893) found it nesting near Bushkill. Grimm and Rutledge have found it nesting near Pocono Lake. Harlow has found but 9 nests, 4 with 3 and 5 with 2 eggs. His average date for first set completion is June 16. It has nested in his yard.

OLIVE-SIDED FLYCATCHER. *Nuttallornis borealis*.

Possible summer resident. Oologists have long searched for the nest in the Poconos, but without success. Harlow tells me that it has not been noted at La Anna since the primeval forests were cut down over 25 years ago. The closest thing to an actual nest discovery was his observation on August 20, 1905 of a family of parents and 3 young. "The latter, though fully able to fly, continually followed the old ones about the hemolcks with drooping wings and expanded tails, frequently uttering their 'que-e' and begging for food." Harlow believes they bred each year from 1904 to 1910 in Monroe County within a mile of La Anna. He suggests that if ever found now, it will only be in areas where the old spruce has been preserved, as it has at Pocono Lake.

The periodic observations of the species during the summer months lends substance to the belief that they occasionally breed. Harrower (1908) noted one on June 17, 1908 in the "Primeval Forest" of Pike County near La Anna. Carter and J. F. Street used to find it more or less regularly in a tamarack swamp at Pocono Lake until about 20 years ago. Lukens and the writer noted one on May 26, 1946 and another on August 16, 1947 at Pocono Lake. J. F. Street and the writer saw one on July 16, 1933 in another Pocono Lake boggy area. The nest was the object of a 3-day search by Carter, Stone, Baily and Evans in June, 1906. This species is one of the interesting problems of the area.

HORNED LARK. *Eremophila alpestris*.

The earliest Pocono nester among the passerine birds. Carter (1926) discovered the first nest for the region on March 20, 1927 in a field of wheat-stubble at Bartonsville. It contained 3 eggs. James Gillin took a set of 5 eggs from a Bartonsville nest on April 20, 1930 which Harlow had found on the

12th. Trembly discovered a nest in July, 1944 along route 115, just north of the Pocono front, on the shoulder of the highway within 2 feet of the concrete! Harlow reports that they breed regularly but very locally on the cultivated hilltops near La Anna. Long Pond is good Prairie Horned Lark country, and there are many records from the fields there, not only throughout the summer but also in February, when I have twice seen them. Those observed in February appear to be the same race as the summer residents. Baily (1906) found a few in February, 1905 near Mt. Pocono. They "confined their feeding ground to roads, walking along the sleigh tracks and hopping in and out of the hoof marks."

TREE SWALLOW. *Iridoprocne bicolor.*

Abundant summer resident, arriving at the lakes and ponds in early April and departing mainly throughout August. Weygandt (1905) found them at Gravel's Swamp on September 6, and Sterner noted 3 at Greentown on October 10, 1953, the latest record we have. Dead stubs are the commonest nesting sites. Seven nests examined by Carter and the writer between June 23 and 28, 1933 contained young. Reimann found young being fed in a nest at Wolf Swamp on May 27, 1951. Of 17 nests Harlow has examined from around La Anna, 5 contained sets of 6, 9 of 5 and 3 of 4 eggs. The average date for completion of first sets is May 28.

BANK SWALLOW. *Riparia riparia.*

Local summer resident. Records from the plateau are scarce. Woodruff (1905) noted a few about Sawkill Pond, and we have seen an occasional bird over Pocono and Stillwater Lakes. Harlow has found repeated small colonies of from 10 to 25 pairs nesting in gravel pits between East Stroudsburg and the Analomink area, and Knepp and Smith also report a colony from a gravel pit at Stroudsburg. Livingston and the writer found a colony in the west bank of the Delaware north of Shawnee on May 15, 1955. Two large colonies, estimated at 500 or more nesting holes each, were visited on May 31, 1954 at Milford by Manners, Fries and others, and Roberts saw a large colony there as early as 1931.

ROUGH-WINGED SWALLOW. *Stelgidopteryx ruficollis.*

Summer resident, common along the Delaware and rare on the plateau. There are but a few scattered observations of this species at Pocono Lake. Harlow has several nest records from the La Anna sector, always in old Kingfisher nests. Two nests held 6 eggs, 2 held 7 eggs, and one had 7 young. The average set completion date was May 28. Miller (1930) discovered a nest at South Sterling, Wayne County, on June 26, 1927 which contained 3 eggs. It, too, was in an old partially excavated Kingfisher burrow. At the Delaware Water Gap, where the bird nests commonly, Miller found a nest on May 25,

1938 with 7 highly incubated eggs and another on June 15, 1941 with 6. Harlow found a nest containing 7 eggs at Stroudsburg as early as 1908.

BARN SWALLOW. *Hirundo rustica.*

Abundant summer resident, nesting in barns, sheds, boat houses and similar outbuildings throughout the area. Pocono Lake dates are from late April through August. Harlow's notes on over 200 nests show an average of 5 eggs, extremes 3 to 6, and May 25 as the average completion date for first sets.

CLIFF SWALLOW. *Petrochelidon pyrrhonota.*

Common summer resident, early May to late August. They congregate in early August for the fall migration. J. F. Street noted a flock of 100 or more over Pocono Lake on August 25, 1934. The writer found over 150 on telephone wires alongside a farm pond at Effort on August 24, 1953. They nest in colonies throughout the region, affixing their mud nests under the eaves of barns and other suitable buildings. The huge ice houses at Pocono and Stillwater Lakes, long since torn down with the advent of more economical mechanical ice-making, used to provide nest sites for tremendous numbers. Carter and the writer counted 135 nests at the Stillwater ice house on June 28, 1933, all containing young. Curious variations have taken place in successive years. J. F. Street counted 350 nests on the Pocono Lake ice houses in June, 1937; a year later there were but 175. Weygandt found a barn which accommodated 51 nests in 1905 and had only 3 in 1909. Today, with the big ice houses gone, lesser colonies occupy the eaves of barns and sheds. Total numbers, I believe, are well below the peak years of the past. Harlow (1918) considered the average nest date for full sets to be June 4 and still does. He points out, however, that a wet season may cause a delay. His data on over 200 nests show an average set to be 4 with variations of 3 (common) and 5 (in most years unusual). He concurs in finding them much more local and less abundant than they were in the past.

PURPLE MARTIN. *Progne subis.*

Local summer resident, where nesting boxes have been provided, mid-April to mid-August. They are seldom noted on the plateau, and I know of no colonies there. The colony at Saylorburg is perhaps the largest in the Pocono area, comprising several hundred birds. There are colonies in Stroudsburg, East Stroudsburg, Gilbert, Kresgeville and Snydersville, and Bartram writes that a small colony of about 15 individuals occupies a house in Bushkill. While he has not examined any nests in this area, Harlow estimates from watching nest-building in Stroudsburg around the third week of May that incubation commences within 2 or 3 days of June. It may start sooner in early arrival years.

BLUE JAY. *Cyanocitta cristata*.

Common permanent resident, most numerous during the fall migration in late September and early October. Harlow has examined 17 nests around La Anna, 11 with sets of 5, one with 6 and 5 with 4 eggs. The average completion date is May 12.

RAVEN. *Corvus corax*.

Weygandt (1905) cites a report that a Raven was caught at Newfoundland in the winter of 1898. The bird, "a big crow with heavy feathers on his neck that some said was a raven," was kept in captivity for some time. Harlow (1906c) recorded hearing the note of a Raven in Pike County. He (1910) reported noting 2 at close range in southwestern Pike on August 12, 1909 and removed his earlier record to doubtful status. Trembly noted 3 Ravens along the Pocono front due north of McMichaels in June, 1946. They were soaring together in a thermal current rising up from the face of the front. As the area is wild and rocky and quite suitable for nesting, they should be searched for. Fall records at Hawk Mountain would seem to indicate that an occasional Raven migrates southwest along the Blue Mountain through Monroe County.

COMMON CROW. *Corvus brachyrhynchos*.

A regular permanent resident, yet not common in numbers. Harlow has examined 10 nests, 7 with 5 eggs or young and 3 with 4 eggs. The average completion date for normal sets is April 20.

BLACK-CAPPED CHICKADEE. *Parus atricapillus*.

Common permanent resident and the most abundant winter species on the plateau. We have recorded it in "song" at Pocono Lake in every month of the year but infrequently after September and only once in November and December. Jamison's notes contain an interesting observation from Tobyhanna. On June 6, 1891 he found a nest containing earlier eggs of the same year with a new nest built over them holding 6 eggs. Pocono Lake nests include one found by Carter, Stuart, J. F. Street and others on May 31, 1925 with 5 eggs; one by Miller and Reimann on June 4, 1939 with 6 eggs; one by Carter on June 15, 1924 with 5 eggs, another by Carter on June 19, 1933 with young; and one with young, by J. F. Street on June 15, 1935. Miller and Reimann found a nest at Buck Hill Falls with 7 eggs on May 30, 1939. Harlow has found 9 nests in his yard and 11 additional ones in his area. Of 11 examined, 9 had 7 eggs and 2 had 6. He gives May 13 as the average date for completion of normal first sets.

BROWN-CAPPED CHICKADEE. *Parus hudsonicus*.

In June, 1917, following a winter invasion by this species from the north, 2 birds were found near Pocono Lake and 2 near La Anna, raising hopes that they might nest. The search proved unsuccessful. On June 3 Harlow, Bur-

leigh, Miller and McGrew found their birds in the Cranberry Swamp in Monroe County, between La Anna and Mt. Pocono. They are erroneously reported in the literature as being in Pike County. Burleigh (1927) commented: "There seemed little doubt but that the birds intended to breed in this tamarack swamp. The situation in which they were found was typical of that much farther north, being indeed a northern muskeg in every sense of the word, with lichen covered tamarack, deep beds of sphagnum moss and scattered pools." Harlow examined the swamp once a week for the next month but never saw them again. He attributes their lingering so late to the very wet spring that year which delayed nearly all nesting by two weeks or so. J. F. Street (1918) found his pair at Adam's Swamp, Pocono Lake, on June 17 and watched them again the next day. The location was at the edge of a sphagnum swamp and a dense grove of dwarf spruces. While the birds seemed interested in an old stump, there was no evidence that they had nested or intended to nest. Carter investigated a week later and was able to find but one bird.

Bartram had a Brown-capped Chickadee wintering at Bushkill during the winter of 1951-1952. He observed it a number of times between late December and February among the Black-caps at his feeder. On January 30, 1955, members of the D. V. O. C. on a Pocono field trip saw one at the Sterling Wagner's feeder near Pocono Lake, and Mrs. Wagner reported that another was frequenting a feeder in Pocono Lake village, several miles away. Mrs. Wagner informed me later that her bird left soon after this date.

TUFTED TITMOUSE. *Parus bicolor*.

Rare straggler on the plateau, but it breeds in limited numbers along the southern edge of Monroe County and in the Delaware River valley. I have noted them just north of the Blue Ridge at Wind Gap and found a family of 5 between Little Gap and Gilbert on July 20, 1954. Knepp and Smith find them at Stroudsburg and report that they nest there. Bartram considers them permanent residents at Bushkill. While he has not actually seen them during the summer, several pairs have used his feeder every winter for the past several years. We have but 3 records for the Pocono Lake region and Harlow one for La Anna.

WHITE-BREADED NUTHATCH. *Sitta carolinensis*.

Widely distributed permanent resident. We do not find them common in the Pocono Lake region although regular. Cary has had them daily at his feeder during the winter months, as have the Wagners. Baily (1906) noted several during his winter stay at Mt. Pocono, February 18-24, 1905. Nest records are scarce. Grimm and Rutledge have found the nest. In Harlow's collecting days he found but 7 nests in the La Anna area, 6 with 7 eggs and one not examined. In addition, a pair has nested near or in his yard for the

past 10 years. He gives May 8 as the average date for completion of normal first sets. One nest, May 18, 1913, was in the same tree as that of a Pileated Woodpecker.

RED-BREASTED NUTHATCH. *Sitta canadensis*.

Rare summer resident at Pocono Lake; a few winter. Cary has had them at his feeder throughout the winter months. We noted 2 at the Wagner's feeder on January 30, 1955. They are seen throughout the region in considerable numbers during the fall migration in September and October, numbers varying greatly from year to year. Summer records in Pike County are more scarce. Harlow (1918) reported that the species remained in Pike County in 1917 until June 9 but did not breed. He has never found the nest at La Anna. Reimann saw one at Peck's Pond on May 27, 1951. Both of these dates are late enough to have been possible breeders, Carter culminated years of search on May 17, 1941 when he and his son, John H. Carter, collected a nest at Pocono Lake from 32 feet up in a partially dead aspen stub. It contained 7 eggs. On May 16, 1954, Cary showed me a pair at their nesting hole about 20 feet up in a dead stub outside his cabin, the second record for the area. That year brought a marked increase in the numbers of this species observed around Pocono Lake after many years of scarcity and apparent almost total absence. On several July days I heard 3 or 4 individuals calling from scattered separate locations. Harlow and I watched a family group of 4 or 5 on July 19 in a spruce swamp at Pocono Lake. They were present again in 1955 in numbers comparable to the year before, and Cary again noted a pair near his cottage but did not find the nest. Their return in numbers is a most welcome occurrence.

BROWN CREEPER. *Certhia familiaris*.

Permanent resident on the plateau. It breeds sparingly at Pocono Lake but apparently with increasing regularity. Carter (1917) reported that Baily had recorded it at Pocono Lake but that he, in several summers there, had not met with it. He considered it "noteworthy" when he saw it during the breeding season in 1921. On May 23, 1923, he saw an adult feeding full grown young, and he collected an empty nest on May 17, 1941. On June 25 and 26, 1949, an adult was feeding young at my cottage, and, on June 28, 1953, I found a nest 12 feet up under the loose bark of a dead white pine a few yards from the back door. It contained young. I have seen Creepers quite regularly during the past three summers and heard them in song. Reimann and Miller saw one at Gates Meadow, Pike County, carrying nesting material on May 27, 1951. Walter Corson found 2 near Greentown on July 5, 1954.

HOUSE WREN. *Troglodytes aedon*.

Extremely common summer resident throughout, from late April to September and occasional into early October. Has been recorded in song almost

daily to August 2 at Pocono Lake. Harlow's nesting data from well over 200 nests shows June 6 as the average date for the completion of first sets. They regularly raise two broods and sometimes three. The average set for the first laying is 7 with variations of 5, 6 and (less commonly) 8. Later sets contain a larger percentage of 6.

WINTER WREN. *Troglodytes troglodytes*.

Spring and fall transient, especially frequent in October, and occasional in winter. It formerly bred sparingly near La Anna and may still breed locally, as Trembly found a family group at Buck Hill Falls during the first week of August, 1952, but there are no recent nest records. Audubon (1838) found a nest with 6 eggs. An early record is the observation of this species at Tobyhanna by Stewardson Brown on July 24, 1893. Harrower (1909) reported finding two broods of Winter Wrens in the "Primeval Forest, Pike County, along Wallenpaupack Creek" on June 17, 1909. This forest, within two miles of La Anna, was Harlow's best hunting ground as well, and he has found 9 occupied nests, most of them on the Monroe County side, 2 with 5 eggs, 3 with 4 eggs, one with 5 young, and 3 with 4 young. The average completion date was May 25. Harlow calls their status solely one of ecology. When the primeval forest went, he still found them sparingly for another 20 years in small pockets of hemlock-wooded swamps. Miller found an empty nest at La Anna on May 30, 1917 in the roots of a fallen tree 6 feet from the ground. Carter (1917) considered this species "irregular or local," having recorded it but a few times near Pocono Lake. I saw and heard one there on May 31, 1952 and hoped it might be found breeding, but it was not observed again. The absence of the Winter Wren as a breeder at Pocono Lake, where the country seems admirably suited, is curious. On October 11, 1952, I saw at least 5 along the lake shore. Bartram writes that he notes them infrequently along creeks and swale edges above Bushkill from November on through the winter, always at higher elevations of 1,000 feet or more.

CAROLINA WREN. *Thryothorus ludovicianus*.

Irregular permanent resident, apparently on the increase. Carter (1917) had recorded it but once at Pocono Lake. J. F. Street and the writer found a pair there on July 14, 1933, and they were still present on August 1. In 1952 I noted a pair at my cottage from August 14 to September 20 and two more across the lake on the latter date. Cary had a wintering bird at his feeder from December 18, 1950 to February 20, 1951, when it was apparently destroyed by a cat. Bartram saw and heard one singing in February several winters ago, his first and only record for Bushkill. Harlow has heard them several times along the Delaware River between Shawnee and Milford. Grimm considered them permanent residents in the river valley and rare wanderers on the plateau. Carolina Wrens were again noted at my cottage in the sum-

mers of 1954 and 1955, and a pair nested in the Wagner's barn near Pocono Lake these same years. Both nests were on a window sill behind stacked panes of glass, the opposite corners of the window being used in the different years. Young left the 1954 nest on July 16, and Livingston and the writer flushed the incubating female on May 15, 1955. The wrens repeatedly visited the Wagner's feeder during the winter of 1954-1955.

LONG-BILLED MARSH WREN. *Telmatodytes palustris*.

Julian Potter noted one on June 14 or 15, 1915 at Lord's Valley, the only record I have found for the area.

SHORT-BILLED MARSH WREN. *Cistothorus platensis*.

On August 1, 1933, I heard a Short-billed Marsh Wren singing at Long Pond, the first recorded observation for the region. On July 17, 1948, Theodore Dehne and I heard another at the same location and on July 24 found 2 singing males several miles up-stream from where the previous week's bird was heard. These records indicate that a small breeding colony inhabits this very suitable area and has perhaps been present there for over 20 years.

MOCKINGBIRD. *Mimus polyglottos*.

Congdon (1895) reported one on June 26, 1894 from near Dingman's Ferry, "a rare but regular visitor after the nesting season." Bartram (1922b) recorded one at Bushkill during the first week of May, 1921, in full song. Fred Smith reported finding one at Stroudsburg in 1952, and Frederick Hebard heard one in song near the Stroudsburg station on May 4, 1955. Morgan Hebard, Jr. saw one at Shawnee on April 30, 1955.

CATBIRD. *Dumetella carolinensis*.

Common summer resident throughout, late April to September, with scattered records in October and one at Pocono Lake as late as November 4. Song dates at Pocono Lake are May 3 to August 1. Harlow's records on 63 nests show sets usually 4, sometimes 3 or 5, with June 6 as average completion date for first sets.

BROWN THRASHER. *Toxostoma rufum*.

A common summer resident in scrub country throughout the Pocono region. Pocono Lake dates are April 25 to September 20. Carter (1917) reported that 1 or 2 nests had been found. Grimm and Rutledge have also found the nest. H. K. Jamison records one in his journals which he found at Tobyhanna on June 4, 1891. It contained 4 eggs. Harlow has found 5 nests, all with 4 eggs, and gives June 5 as the average date for first sets.

ROBIN. *Turdus migratorius*.

Probably the commonest species in the region. Recorded regularly at

Pocono Lake February 16 to November 8, with one January and three late November records. Song dates are March 24 to August 17. Nests have been discovered in every conceivable location and elevation, and I found one situated upon the ground. Harlow has examined over 600 nests. Most contained 4 eggs. Sets of 3 were not uncommon, 2 were rare, and he found one set of 5. He gives April 20 as average for the completion of first sets and June 1 for second sets.

WOOD THRUSH. *Hylocichla mustelina*.

Summer resident. Pocono Lake dates are May 1 to September 21. Song to July 17. Less frequent at Pocono Lake than anywhere else on the plateau, but they have increased markedly in recent years. Carter (1917) considered it so infrequent that it might almost be called a straggler. His report in 1919 that one summered at Pocono Lake was noteworthy. Today, while not common, they are regularly found. Woodruff (1905) found them uncommon near Milford, "though often heard singing near the camp early in July." They are abundant at La Anna and Buck Hill Falls. D. V. O. C. survey teams reported them from a wide number of Pike County locations in May and June, 1951. Harlow reports that one or two pairs have nested in his yard at La Anna for the past 25 years. He has data on 133 nests with 5 sets of 2, 27 sets of 3, 3 sets of 5 and 98 sets of 4 eggs. He gives June 5 as the average date for first sets. I have found but one nest at Pocono Lake. It contained young on July 13, 1954.

HERMIT THRUSH. *Hylocichla guttata*.

Summer resident on the plateau in heavily forested regions, early April to mid-October and occasionally into early November. Song dates at Pocono Lake are April 13 to August 17. Hermit Thrushes are commonest around Pocono Lake. Formerly rare elsewhere, they have been on the increase in recent years and can now be found in many of the higher portions of the plateau. The excursions from Buck Hill Falls to Pocono Lake in the early part of the century to hear the Hermit Thrush singing are no longer necessary. Trembly believes the maturing of the second growth forest is responsible for the spread. Curiously enough, Alexander Wilson did not find this species in the Poconos. Harlow (1906c) found it absent that year although noted rarely in 1905. They have become common in the La Anna area in the past 25 years. He has found 15 nests there, 9 with sets of 4 and 6 with 3 eggs. His average completion date for first sets is June 10. Nests with fresh eggs have been found at Pocono Lake between May 20 and August 10.

OLIVE-BACKED THRUSH. *Hylocichla ustulata*.

Formerly a rare summer resident on the plateau. While not reported in recent summers, they should be looked for. Scattered records at Pocono Lake

are from May 13 to September 24. Until 20 years ago a pair or two could be found in a dense spruce and rhododendron swamp at Pocono Lake. Carter and J. F. Street found a nest there with 3 eggs on July 4, 1923. Harlow (1918) reported finding this species summering in Pike and Monroe Counties, with a set of 4 eggs being taken from a nest in the latter. This nest was in a spruce and rhododendron swamp near Mt. Pocono. He has no positive nesting record for the La Anna area. Burleigh (1917) commented that his group found one bird on May 23 deep in the woods, and Miller found a nest that day 6 feet from the ground in a hemlock which they attributed to this species. On the evening of September 21, 1952, a notable thrush migration occurred over the mid-Atlantic states, and Livingston and the writer heard countless Olive-backed Thrushes going overhead at Pocono Lake.

GRAY-CHEEKED THRUSH. *Hyalocichla minima*.

Uncommon spring and fall migrant. There are two spring records from Pocono Lake, May 13 and 18. Livingston and the writer noted one there on September 21, 1952, and Warriner has twice recorded it during the fall migration.

VEERY. *Hyalocichla fuscescens*.

Common summer resident. Dates at Pocono Lake are May 9 to September 13. Song dates at Pocono Lake are May 15 to July 26. Like the Hermit, this species has increased during the last half century. Woodruff (1905) found them rare in Pike County, finding them only in Gregory Swamp and Sawkill Pond. Harlow (1906c) found them absent that year after seeing a few the year before. Miller found them rare in 1917 near La Anna. Carter, however, called them "abundant" at Pocono Lake that year. Roberts noted several pairs on the island at the Delaware Water Gap in 1922 and believed them to be nesting. Veeries have become abundant at La Anna in the last 30 years. D. V. O. C. parties found them widely distributed throughout Pike County in 1951, and Poole and Bright found them common in the McMichaels region in 1946 to 1948. Veeries today will be found anywhere in the area where large masses of rhododendron abound in swamps and creek bottoms and along the lake shores. While there are many nest records from Pocono Lake, Buck Hill Falls and La Anna, Harlow's data on 95 nests from the latter area summarizes well their breeding on the plateau. He found 72 sets of 4, the remainder either 3 or 5 eggs. Nests were found both on the ground and in the forks of bushes up to 5 feet from the ground. Average date for completion of first sets was June 1.

EASTERN BLUEBIRD. *Sialia sialis*.

Regular but not abundant summer resident on the plateau. More common in the lowlands near the southern borders of the area where open country and orchards afford more numerous nesting sites. Extreme dates at Pocono

Lake are February 18 to October 16. Bluebirds should occasionally be seen in winter, particularly in the lowlands. Harlow's data on 25 nests show 18 nests with 5, 6 with 4, and one with 6 eggs. He gives May 6 as the average date for completion of first sets.

BLUE-GRAY GNATCATCHER. *Polioptila caerulea*.

Rare straggler on the plateau. Cary found a pair at Pocono Lake on May 11, 1947. The writer watched them on May 31, in the vain hope of discovering a nest, and Cary last noted them on June 13. Fred Smith reported finding one at Stroudsburg in 1952, and Livingston and the writer found a pair at Shawnee on May 15, 1955. Their presence in the Delaware River valley may be another indication of the northward movement of this typically Carolinian species.

GOLDEN-CROWNED KINGLET. *Regulus satrapa*.

Summer resident locally around Pocono Lake, where it occurs in considerable numbers. They winter in dense evergreen stands throughout the region. In Pike County, in the area around La Anna, Harlow (1906c) found 2 or 3 pairs "in a single clump of giant hemlocks." No nests were discovered. They disappeared from there with the primeval forests, some 25 years ago. That this species should breed so locally in the Poconos is one of the interesting features of the region's ornithology. Carter (1917) found his first nest in late June, 1916. The set of 8 eggs was completed about July 4. He found another nest in June, 1918. Another found May 26, 1923 contained 5 eggs. J. F. Street and Stuart found a nest 10 feet up on the outlying branch of a spruce on June 3, 1934 which had been rifled, probably by a Blue Jay, as Grouse feathers, with which it had been lined, were all about the branches. Carter considered May 25 as the average nest date and said that 2 broods may be raised. He once found an unfinished nest in early July. Song dates at Pocono Lake are March 18 to August 4.

RUBY-CROWNED KINGLET. *Regulus calendula*.

Spring and fall migrant, early April to mid-May, and mid-September to early November. A singing male remained at Pocono Lake from June 17 to 29, 1933 and was watched diligently by Carter and the writer in hopes that it might be breeding, but to no avail. Miller, Burleigh, McGrew and Harlow found one as late as June 2, 1917 at South Sterling, but both migration and nesting were delayed by a rainy late spring that year. A late fall observation was that of Baily at Mt. Pocono, who observed a male on November 24-25, 1906. This species occasionally sings during its fall migration and has been heard at Pocono Lake as late as October 13.

WATER PIPIT. *Anthus spinoletta*.

Spring and fall migrant. Cary found a field full of Pipits at Pocono

Lake on March 31, 1951, and Warriner also has one late March record. Gillin saw 5 at South Sterling on April 17, 1928. The writer heard one flying over his cottage on October 2, 1955. Pipits no doubt occur more frequently than these records indicate and should be watched for, especially in March and November.

CEDAR WAXWING. *Bombycilla cedrorum*.

Common summer resident from mid-May to mid-October. Once recorded at Pocono Lake on October 27. It should occasionally be found outside the above extreme dates. A late nester, we have nesting dates from June to early September. Harlow (1906) reported that practically every orchard around La Anna had a pair or more, and that all began building on or about June 10. Jamison's notes include 2 nests from Tobyhanna found July 5, 1890. One contained 4 eggs, the other one young. Late nests include one found by the writer being built in a maple at Pocono Lake on August 22, 1952 and one found by George Beatty at Mt. Pocono on September 3, 1927 which contained young about 2 days old. Harlow has found 5 nests at which the female had hung herself and choked to death in string which she was using for building. He has found 39 sets of 5 eggs and 32 of 4. The average date for completion of first sets is June 25.

LOGGERHEAD SHRIKE. *Lanius ludovicianus*.

We have but a few scattered spring and summer records. Carter told me that he saw it on "one or two occasions late in the season." Grimm and Rutledge also found it. The Warriners have found it several times near Wernett's and once at Pocono Lake. Their dates, all for single individuals, are April 7 and 22, May 28, August 17 and September 18. Weygandt noted a shrike, probably this species, at Buck Hill Falls during the period from August 8-16, 1905. Gillin found one on April 2, 1939 west of Stroudsburg.

STARLING. *Sturnus vulgaris*.

It was noteworthy in 1917 when Miller, Burleigh, McGrew and Harlow found 2 Starlings during the nesting season, one at Newfoundland on May 25 and one at Cresco on May 23. Their increase was rapid, however, and within 10 years this species was nesting in every conceivable nesting site in the region, in competition with many of the former occupants of these nesting holes. Reyar and Gillin found a nest at La Anna with 5 eggs on May 29, 1923. Of nests found by Carter and the writer at Pocono Lake in 1933, one found June 23 contained 3 eggs and another had young, while 3 found June 23 all contained young. That same year, however, young Starlings were already gathering in flocks by June 20, indicating the successful completion of first nestings well before this time. Harlow considers the average date for completions of first sets to be May 7. They are still abundant in the La Anna area, having almost driven out the Bluebird. Starlings today, while numerous,

do not seem to be quite as abundant as they were at the climax period of their push through the region.

WHITE-EYED VIREO. *Vireo griseus*.

A rare summer straggler which may possibly be found nesting in the region. I heard a singing male at Long Pond on August 27, 1953. Carter had "one occurrence near Stillwater Lake," and Bartram has recorded it from Bushkill.

YELLOW-THROATED VIREO. *Vireo flavifrons*.

Of rare occurrence in summer. Reimann and Miller saw one at La Anna on June 3, 1939, and Harlow found it rare there in the early days. J. F. Street had three Pocono Lake observations: May 9, June 5 and 20. The one seen on May 9, 1931 may have been a migrant, but the other dates indicate that this species may breed in the region. Warriner and Maurice Broun found one at Pocono Lake on June 5, 1951. Woodruff (1905) reported seeing one on August 20, 1905 at Sawkill Pond. Livingston and the writer found 2 in the Delaware River valley near Shawnee on May 15, 1955, and it is in this area that they most probably nest.

SOLITARY VIREO. *Vireo solitarius*.

Common summer resident in the hemlock forests of the plateau, April 20 to mid-October. While song tapers off in late July, it is occasionally heard during the entire period when the species is with us. Of 12 nests at Pocono Lake, all in hemlocks, egg dates range from May 30 to June 29. One found with young on May 30, 1947 indicates egg laying around mid-May. Harlow considers June 5 as the average date for complete first sets. He has found 37 nests in hemlocks, 4 in rhododendron, one in a yellow birch, one in a sugar maple and one in a striped maple. One nest contained 2 eggs, 4 had 3 and 39 had 4. Jamison recorded one in his notes found July 4, 1890 at the Water Gap with 3 large young. This species is, according to Harlow, the chief victim of the Cowbird at La Anna.

RED-EYED VIREO. *Vireo olivaceus*.

One of the commonest summer residents. Pocono Lake dates are May 14 to September 18. Song, almost daily, May 14 to August 28, although less pronounced in August. Carter found a nest with 4 eggs at Pocono Lake on June 22, 1924. Miller found new nests at South Sterling on June 17 and 21 and one with 4 eggs on June 19, 1918. Gillin and Bond found 2 nests at La Anna, June 6 and 7, 1923, each with 4 young. Harlow considers June 7 as the average date for first set completion. He has records of 33 sets of 4 and 7 sets of 3 eggs. Jamison found a nest at Newfoundland on June 10, 1891 with 3 new young.

WARBLING VIREO. *Vireo gilvus*.

While we have but one nesting record, that of Kohler (1915), who found a nest at Milford on June 11, 1911 with 3 eggs and one of a Cowbird, and observations have been relatively few, it no doubt nests regularly in the lowlands along the southern borders of the area. Harlow noted it in song at Stroudsburg in June and July, 1951. Livingston and the writer heard one singing at Delaware Water Gap on May 15, 1955, and Edwards and the writer heard one along the Delaware north of Shawnee on May 13, 1951. Sehl and Reynolds found one on route 209, between Bushkill and Stroudsburg, on June 23, 1951. Poole, Bright, Randolph and Warriner recorded it at McMichaels on June 10, 1949. Congdon (1893) found them common at Bushkill. They are rare on the plateau. Harlow found it in the village at La Anna in 1905. J. F. Street found single individuals at Pocono Lake on May 30, 1924 and May 30, 1932, and Warriner has seen it occasionally in May and once in July. Walter Corson found 2 near Greentown on July 5, 1954.

BLACK-AND-WHITE WARBLER. *Mniotilta varia*.

Relatively common summer resident. Extreme recorded dates at Pocono Lake are April 29 and September 29. Song dates are April 30 to August 27. Found in low woodlands, nesting usually on the ground. Woodruff (1905) considered it the commonest of the warblers near Milford. Harlow (1914b) reported finding a nest with 4 full fledged young at La Anna on June 2, 1913, and commented that "the set in this instance must have been completed by May 12, and as several other nests found about June 6th have held young, it can be seen that the Black-and-White is an early nester, usually having complete sets by May 20." A set in the J. P. Norris collection was taken on June 4, 1892. Carter found a nest with 4 eggs at Pocono Lake on July 3, 1923, probably a second attempt. Harlow now considers May 26 as the average date for completion of normal first sets. He has found 29 nests in the La Anna area. Most were near the tops of banks or in upturned roots, but two were 4 or 5 feet above the ground, one in a rotted-out natural cavity of a dead hemlock tree and one in a crevice of a stump. Sets included 21 of 5, one of 6 and 7 of 4 eggs.

WORM-EATING WARBLER. *Helmitheros vermivorus*.

While there are few observations they indicate probable breeding. Woodruff (1905) found one on July 28, 2 on July 29 and one on August 13 near Milford. Dr. J. Harold Austin and his son, John, on June 11, 1951, heard one singing along the Delaware north of Milford. Sehl and Reynolds saw 2 on June 10 and 3 on June 23, 1951 along the river road north of the Water Gap. There are two Pocono Lake records: one on August 16, 1949 by John S. Warriner and one on May 22, 1952 by J. B. Warriner.

GOLDEN-WINGED WARBLER. *Vermivora chrysoptera*.

Harlow's (1918) comment that it is a "regular but very local breeder in Pike, Monroe and Wayne Counties" is still true today for the plateau area, but this species is apparently breeding over much of the southern part of the area, as it has been recorded from many localities in the breeding season. We have but three records for the Pocono Lake region, May 29, 1939 by J. F. and P. B. Street; 3 on June 25, 1929, J. F. Street; and August 1, 1942, J. F. Street. It is found more frequently near Pocono Manor and on the oak-covered slopes to the south. D. V. O. C. parties found them in 5 Pike County locations in June, 1951, the greatest number, 7, being seen by the Austins, in the northeastern corner of the county. Woodruff (1905) found them fairly common in the scrub oaks around Milford. Poole and Bright found the species around McMichaels in June, 1948 and 1949, and I have found several singing in southwestern Monroe along the Aquashicola Creek in mid-May, 1954 and 1955. Schl and Reynolds found 2 on June 10 and one on June 23, 1951 along the river road north of the Water Gap, and I have also heard them there twice in May. Ross and Altemus found one at Leavitt Brook, near Sky Top, on June 10, 1951. Harlow found 4 nests in the La Anna area, all in the late 1920's when the cut-over slashing was just the right height. One nest held 5 half-grown young on June 15, the others held 5, 5, and 4 eggs. Gillin also took another set from this area. The average date for completion of sets, excluding the nest with young, was June 4.

BLUE-WINGED WARBLER. *Vermivora pinus*.

There is no nest record for this species, but it should be found along the southern edge of the area or along the Delaware River, where the birds have been noted. Edwards and the writer saw a Blue-winged Warbler at Shawnee on May 13, 1951. Schl and Reynolds found one there on June 23, 1951 and another a few miles to the north. Livingston and the writer found another along the river near Shawnee on May 15, 1955 and saw at least 4 along the Aquashicola Creek in southwestern Monroe County.

BREWSTER'S WARBLER. *Vermivora chrysoptera x pinus*.

Known from two observations. Stuart (1918) reports on one being observed at Pocono Lake by Baily, Carter, Scoville, J. F. Street and himself on May 20, 1916. Street, in his journals, gives the date as May 21. Paff (1933) reports on finding a male Golden-winged mated with a female Brewster's in the Poconos. He gives no date or exact location.

TENNESSEE WARBLER. *Vermivora peregrina*.

Rare spring and fall migrant, probably more frequent than the few records, all from Monroe County, indicate. Baily, Carter, Stuart and J. F. Street noted it at Pocono Lake on May 20, 1916. Baily saw one at Mt. Pocono

on May 20, 1917. Carter found one at Pocono Lake on May 26, 1919, and the writer found 3 in a band of migrating warblers there on September 20, 1952.

NASHVILLE WARBLER. *Vermivora ruficapilla*.

Rather rare summer resident, but regularly found on the plateau where suitable habitat occurs. Earliest arrival date at Pocono Lake is May 1. Partial clearings studded with small gray birches and carpeted with mounds of sphagnum moss or cranberry and sphagnum bogs are their nesting sites. Congdon (1895) found a nest at Dingman's Ferry with 4 eggs at an elevation of 1175 feet on June 21, 1894. Woodruff (1905) noted this species 5 times between July 21 and September 3, 1905. Carter found a nest with one egg at Pocono Lake on May 26, 1919: it contained 4 on the 29th. He found another there with 4 eggs on June 4, 1922. Harlow found nests at Pocono Lake on June 18, 1907 with 2 eggs and June 27, 1914 with 4. He and Miller found one at Tobyhanna Forks with 4 eggs on May 29, 1927. Harlow has seen 9 nests with sets of 5 and 3 with 4 eggs, all in Monroe County. The average date for completion of first sets was June 3.

PARULA WARBLER. *Parula americana*.

Rare summer resident on the plateau, more frequent in migration. We have few recent summer records. Warriner saw one at Pocono Lake on May 26, 1951, perhaps a late migrant. Sehl and Reynolds found two near the Minisink Hills Country Club on June 10, 1951, and Frederick Ulmer heard one in song along the Brodhead Creek 4 miles south of Canadensis on June 20, 1954. I have not seen the Parula at Pocono Lake in recent summers nor has Harlow at La Anna. Reports from earlier years are much more prevalent. Congdon (1895) found them breeding abundantly near Dingman's Ferry. Weygandt (1905) found several at Buck Hill Falls. Woodruff (1905) noted them on several occasions in Pike County between July 9 and August 20. J. F. Street (1915) considered them "comparatively common" at Pocono Lake on June 12, and Carter (1917) reported hearing them there "frequently". He states that Stuart "discovered a nest frailly made of dry grass stems, among the twigs pendant below the bough of a spruce." He unfortunately does not give the date. The latest fall record is October 6, 1934 by J. F. Street. Song period at Pocono Lake was May 5 to July 5.

YELLOW WARBLER. *Dendroica petechia*.

Fairly common summer resident in the open cultivated areas and orchards, not being found on those parts of the plateau which are still forested or covered with scrub oak. The earliest recorded arrival at Pocono Lake is April 25. Departure data are lacking, although this species is known to be an early migrant. In spite of its relative abundance, there are few nest records. Miller found one at South Sterling with 5 eggs on June 16, 1917. Kohler (1915) cites several occurrences of parasitism by Cowbirds in Yellow

Warbler nests at Delaware Water Gap, these nests having been found with Cowbird eggs on June 12, 1904, June 18, 1909 and twice on June 12, 1912. Gillin and Bond found several pairs which they assumed to be nesting around the village of La Anna on June 23, 1923, and Harlow reports that they nest there every year. He has found 11 nests, 6 with sets of 5, 4 with 4 and one of 3 eggs. The average date for first sets was June 8.

MAGNOLIA WARBLER. *Dendroica magnolia*.

Common summer resident of the coniferous areas, from Pocono Lake northeastward to Lake Wallenpaupack. Extreme dates at Pocono Lake are April 30 and October 7. Song dates are April 30 to August 10, with abbreviated song twice heard in September. Harlow (1906c) considered it the most abundant warbler of the hemlock forests around La Anna, and he still finds them common now. Carter (1917) called it the "most abundant of its genus" around Pocono Lake, and this statement is still true today. It is not common in southeastern Pike County away from the evergreen stands. Woodruff (1905) found them resident but uncommon at Milford. Nests, usually low in conifers and preferably spruce, and occasionally in rhododendron, have been found in numbers too numerous to mention individually. Harlow has records on over 200. The average set is 4 eggs, 5 per cent having 5 and 10 per cent having 3. His average date for completion of first sets is June 4. Magnolias are frequently parasitized by the Cowbird. I watched a pair feeding a young Cowbird twice their size at Pocono Lake on July 9, 1954.

CAPE MAY WARBLER. *Dendroica tigrina*.

Lack of observers during the migration seasons must be responsible for the absence of records, for this species should be a regular, if rare, spring and fall transient. J. B. Warriner and Augustus Cobb saw one at McMichaels on May 18, 1952, and I saw one at Pocono Lake on September 6, 1954. Grimm and Rutledge have also seen it, but I do not have their dates.

BLACK-THROATED BLUE WARBLER. *Dendroica caerulescens*.

The commonest summer resident wherever rhododendron thickets predominate. Not abundant elsewhere. Extreme dates at Pocono Lake are May 3 and October 8. Song dates are May 3 to August 4, and once on September 26. Of 75 nests seen by Miller, approximately 90 per cent were in rhododendron between one and 3 feet from the ground. He considers the average date to be May 30. Harlow, with data on over 500 nests, estimates 70 per cent as occurring in rhododendron, 10 per cent in mountain laurel, 10 per cent in small hemlocks, and 10 per cent in deciduous bushes, especially *Viburnum*. Eggs were 4 in number in some 70 per cent of the nests, 5 in 5 per cent, and 3 in 25 per cent. His average date is also May 20.

MYRTLE WARBLER. *Dendroica coronata*.

Local summer resident, first found breeding in the area at Pocono Lake

in 1949, an extension of range south from the Catskills. Occasional in winter. Migrants pass through the region from mid-April to about May 20 in the spring and are most numerous in the fall from mid-September to early October. Cary had wintering Myrtles at Pocono Lake from January 17 to March 29, 1950, and Bartram found them at Bushkill during the winter of 1951-1952. Cary discovered the first nest for the state on June 15, 1949. The female was feeding 3 young in a nest on a spruce bough 12 feet from the ground; we had noted a female on May 13 carrying nesting material near the dam at Pocono Lake Preserve, and it was within 100 yards of this observation that he found the nest. I found another nest on June 27 that year being constructed in a tall white pine outside my cottage. It was fully 40 feet up. The species appears to be increasing and spreading. Trembly and the writer found them at Pocono Pines and Stillwater Lake in 1952, Ross and Altemus encountered singing males in three localities in northern Pike County on June 9 and 10, 1951, and Frederick Ulmer found one singing along the Brodhead, 4 miles south of Canadensis, on June 2, 1954. Harlow has not found them at La Anna. Song dates at Pocono Lake are April 23 to July 27.

BLACK-THROATED GREEN WARBLER. *Dendroica virens.*

Common summer resident where evergreens predominate on the plateau. I consider it second in abundance to the Magnolia among the warblers in the Pocono Lake region. Extreme dates there are April 23 and October 13. Song dates are April 23 to late July and occasionally in August and September. Harlow finds them less common around La Anna, particularly since the cutting of the hemlocks and spruce about 1935. Burleigh (1927) considered them "fairly plentiful" there. Woodruff (1905) called them a scarce summer resident around Milford but abundant as a fall migrant after August 26. Poole observed them at McMichaels in June, 1948 and 1949. Carter considered June 10 as the average egg date at Pocono Lake. Second sets have often been found there in early July. A nest I found on July 5, 1954 contained two eggs of the parents and one of a Cowbird. Harlow has found 15 sets of 4 and one of 5 eggs in the La Anna area. His average date for first sets is June 3.

CERULEAN WARBLER. *Dendroica cerulea.*

Cary saw one at Pocono Lake on May 2, 1951 and heard it sing. He reported observing it under good conditions and checking carefully all the pertinent field marks. The recent spread of the Cerulean along the Delaware in Bucks County north of Morrisville makes it possible that this species will be found nesting along the river in this area.

BLACKBURNIAN WARBLER. *Dendroica fusca.*

Common on the plateau in mature evergreen woodlands. Probably most numerous today at Pocono Lake, where I consider it the third commonest warbler. Dates there are May 1 to October 6, with song regular from May 1

to July 28 and sporadic thereafter to September. Decimation of the prime forests around La Anna has cut into the Blackburnian's abundance there as compared with half a century ago, but it is still a common species where suitable habitat is found. The inconspicuous nest, usually high in an evergreen, was long an oologist's prize find. Lawrence (1887) reported finding a nest with one egg and 4 young on June 9, 1887 "in the mountains of Pike County." Woodruff (1905) found Blackburnians fairly common in pitch pine forest near Milford. Harrower (1909, 1910) reported on his searches in the primeval forest area, finding 2 nests with young and finally, on June 13, 1910, one with a set of 4 eggs. Nests at Pocono Lake have been found by Carter, Miller and the writer. Carter considered June 10 as the average egg date. Miller has also found nests at South Sterling and Greentown. Harlow has found 21 nests in his area from 6 to 80 feet up. There were 4 sets of 5, 15 of 4 and 2 of 3 eggs. His average completion date for sets is June 1. Livingston and the writer watched a nest being constructed high in a hemlock along the Aquashicola Creek in southwestern Monroe County on May 15, 1955.

CHESTNUT-SIDED WARBLER. *Dendroica pensylvanica*.

A widely distributed summer resident in low second growth. Pocono Lake dates are May 1 to September 24. Song dates are May 3 to July 17 and one on August 27. I find them particularly common in the scrub country south of Long Pond. Jamison records a nest he found at Tobyhanna with 3 eggs on June 8, 1891. Carter considered June 12 as the average date for sets at Pocono Lake. Harlow found 3 nests there on June 17, 1907, all with 4 eggs. Gillin and Reyar found nests at La Anna on May 27 and 29, 1923, each with 4 warbler and one Cowbird egg. A nest they found on June 2 contained 5 eggs. Gillin and Bond found 8 nests, all with 4 eggs, the following week. Harlow has found 3 nests with 5 eggs, 58 with 4 and 6 with 3 in the La Anna area. His average date for first set completion is June 3.

BAY-BREASTED WARBLER. *Dendroica castanea*.

Uncommon spring and fall migrant. Scattered spring observations at Pocono Lake by Carter, Cary, Warriner and the Streets are from May 5 to June 1. They have been noted there twice in late August and occasionally in September to the 24th. I found 6 on September 20, 1952, the largest number of individuals seen. Woodruff (1905) recorded seeing one on August 21 and 3 on September 3 near Milford.

BLACK-POLLED WARBLER. *Dendroica striata*.

Regular but uncommon spring and fall migrant, being the last of the spring warblers to pass through. Spring dates are from May 8 to June 3, Black-polls being commonest during the latter part of May. Fall dates are September 22 to October 13, all being Pocono Lake observations.

PINE WARBLER. *Dendroica pinus*.

Summer resident, breeding very locally in suitable groves of pitch pine. Woodruff (1905) found them common near Milford in burnt-over pitch pine forests. Harlow (1906c) met with them frequently near La Anna, but he now reports that he has seen none there for over 30 years. Carter (1917) mentioned but one or two records from near Pocono Lake and left the breeding status uncertain. He later found them during the breeding season both at Long Pond and at Pocono Summit. I still find a few pairs at Long Pond. A D. V. O. C. party recorded several along the Bushkill and one at Peck's Pond on June 17, 1951. Ross, Trembly and the writer found several singing males at Goose Pond on June 22, 1952. Sehl and Reynolds found 3 along route 209 between Bushkill and Stroudsburg on May 23, 1951. While I have no actual nest records, the species undoubtedly breeds sparingly. Our few scattered records from the Pocono Lake area from May 19 to September 22 do not accurately reflect the true arrival and departure dates. Arrival is probably in late April.

PRAIRIE WARBLER. *Dendroica discolor*.

J. F. Street found one at Pocono Lake on September 5, 1942. J. S. Warriner saw one there on July 11, 1947. The writer heard one in song on the barrens along route 115 just south of Pimple Hill on June 21, 1952. The country here is admirably suited for breeding. Subsequent visits to the same area on May 16, 1954, July 5, 1954 and May 15, 1955 produced Prairie Warblers each time, 4 males and one female being noted on one of these occasions.

PALM WARBLER. *Dendroica palmarum*.

Spring and fall migrant, no doubt more regular than the few records indicate. Cary has seen them at Pocono Lake between April 26 and May 13. Warriner noted one at McMichaels on May 2, 1950. J. F. Street found one on October 7, 1933 at Pocono Lake, and I saw one there on October 2, 1955. Grimm and Rutledge have also found them in this area and Knepp near Stroudsburg.

OVENBIRD. *Seiurus aurocapillus*.

Common woodland summer resident at all elevations. Extreme dates at Pocono Lake are May 2 and September 21. Song dates are May 2 to July 22, then occasionally to September 9. Miller found a nest with 5 eggs at Blooming Grove on May 27, 1951. Reimann (1939) found one with 4 eggs at Bush Mountain on May 29, 1939. Gillin and Reyar found a nest with 5 eggs at La Anna on June 2, 1923, and Gillin and Bond found another being constructed on June 7 which contained 5 eggs on the 14th. Harlow has found 28 nests around La Anna, 20 with 5 eggs, 7 with 4 and one with 3. His average date for first sets is June 1.

NORTHERN WATERTHRUSH. *Seiurus noveboracensis*.

A regular but not numerous summer resident on the plateau in those scattered swampy areas deep in the forest where it finds nesting sites in the upturned roots of fallen trees or in decaying mossy logs and stumps. The casual observer would seldom encounter it, for it does not frequent the running streams which are the habitat of the following species. Extreme dates at Pocono Lake are May 2 and September 29. Song dates, too infrequently recorded to be typical, are May 13 to July 11. Nests have been found at La Anna, South Sterling, Greentown, Buck Hill Falls and Pocono Lake. Miller reported a nest from South Sterling which contained 4 half grown young on June 1, 1918. Gillin and Reyar found 2 sets of 4 and 2 of 5 eggs at La Anna between May 26 and 29, 1923. Gillin and Bond found 4 sets of 4, one of 5 and one of 2 between June 3 and 9 that same year, all placed in upturned roots. Harlow has examined 73 nests in the La Anna area, 13 containing 5 eggs, 54 having 4 and 6 having 3. His average date for completion of normal sets is May 26.

LOUISIANA WATERTHRUSH. *Seiurus motacilla*.

Summer resident along running streams throughout the area except in the Pocono Lake region, where it has never been found. I therefore have no Pocono arrival data, although this is one of the earliest warblers to arrive. Woodruff (1905) found them not common around Milford. Weygandt (1905) found a nest with 5 young at Buck Hill Falls. They left the nest on June 25, and he heard the male in song until July 20. Miller reported 2 nests with 6 eggs, May 28, 1927 at La Anna and June 1, 1927 at South Sterling. He found another South Sterling nest on June 1, 1927 with 5 young. A set of eggs in the J. P. Norris collection was taken in Monroe County on June 23, 1888. I have found this species common along the Aquashicola Creek in southern Monroe. Gillin and Reyar found a nest at La Anna on June 1, 1923 with 5 eggs, and Gillin and Bond found another with 4 on June 9. Harlow has examined 36 nests in that area, 5 with 6 eggs, 24 with 5 and 7 with 4. His average completion date is May 25.

KENTUCKY WARBLER. *Oporornis formosus*.

Two males were heard singing in the woods along the Aquashicola Creek in the valley east of Little Gap on May 15, 1955 by Livingston and the writer. The singing birds were over a mile apart. I know of no other records for the region.

CONNECTICUT WARBLER. *Oporornis agilis*.

I noted one once during fall migration near my cottage at Pocono Lake on September 16, 1933. Baily collected one at Mt. Pocono in September, 1911.

MOURNING WARBLER. *Oporornis philadelphia*.

Rare summer resident in the area around La Anna. Harrower (1910) noted a singing male at La Anna on June 16, 1909. Burleigh (1927) reported that his group saw one there on June 9, 1917. Miller found a nest at South Sterling on June 11, 1918 which contained 2 nestlings and one infertile egg. Harlow noted them for 25 years, never finding over one or two pairs, in clearings in the heavy forest in Monroe County a mile or two east of La Anna. One set of 4 eggs was taken here, obviously a second set, on July 3, 1938. He had previously seen at least 3 broods of young with the parents. Bond, in his 1923 notes, commented that "one or two pairs nested in Levin's Slashing, and Jim Gillin found the bird breeding in another slashing near Gallagher's Swamp." Woodruff (1905) reported seeing the species on July 8 and 14 near Milford, both observations being females. They were seen on a few occasions in a slashing near Pocono Lake some 20-25 years ago by Carter and J. F. Street who suspected that the birds were breeding but could find no nests.

COMMON YELLOWTHROAT. *Geothlypis trichas*.

A common summer resident of wet and brushy areas throughout the region. Extreme dates at Pocono Lake are May 8 and October 17. It probably will be found at least a week earlier. Song dates are May 8 to July 26, and occasionally to August 27. Gillin and Reyar found a nest at La Anna on June 1, 1923 with 5 eggs. Harlow has found 4 with 5 eggs, 19 with 4, and 3 with 3. His average date for completion of first sets is May 31.

YELLOW-BREASTED CHAT. *Icteria virens*.

Fairly common summer resident in the lowlands. Its status on the plateau is uncertain. Poole and others found the Chat common around McMichaels in June 1947 and 1949. I found several in southwestern Monroe County in the valley east of Little Gap in May and July, 1954, and Livingston and I found at least 10 singing males in this area on May 15, 1955 and 2 along the Delaware River near Shawnee. Reports from the plateau are scarce. Harlow has met with them only occasionally. Carter (1917) reported hearing them occasionally early in the season but had no nesting record. Bond's notes for 1923 include the comment that "Gillin heard and saw one in the slashing near Gallagher's Swamp" sometime after June 10. H. K. Jamison observed one singing at Tobyhanna on July 4, 1890. Warriner saw one near Pocono Lake on July 30, 1952.

HOODED WARBLER. *Wilsonia citrina*.

Found in summer along the southern borders of the area and occasionally along some of the streams which push up into the plateau. Woodruff (1905) found an adult male on August 3 and a female on August 13 in a spruce near Big Brink Pond, Pike County. Weygandt (1905) found a few in low second

growth along the upper waters of the Bushkill. Marx (1912) noted a male in "rather dense woodland on the northern slope of Mt. Minsi" on July 5, 1909 which acted as though nesting. Bartram sees them occasionally while trout fishing along the Little Bushkill. I heard one singing at Ross Common, just north of the Wind Gap, on June 21, 1952, and Trembly tells me he has often noted them there. Sehl and Reynolds found a male both on June 10 and 23, 1951 along route 402 between Marshall's Creek and the Pike County line. Livingston and I heard 4 singing along the Aquashicola Creek on May 15, 1955, and it is in this valley just north of the Blue Mountain that they seem to be most regularly established.

WILSON'S WARBLER. *Wilsonia pusilla*.

Rare spring and fall migrant, known from the following records: Woodruff (1905), an adult male near Milford on September 5, 1905; J. S. Warriner, Pocono Lake, May 19, 1949; J. B. Warriner, Pocono Lake, May 22, 1952; Knepp, seen at Stroudsburg on two or three occasions; and the writer, an adult male at Pocono Lake on September 20, 1952.

CANADA WARBLER. *Wilsonia canadensis*.

This species is an abundant summer resident along laurel and rhododendron bordered streams. Most of this typical habitat is found on the plateau, but where it extends into the valleys, the Canada will also be found. Poole and others found them at McMichaels in June, 1946 and 1948, and I have seen them along the Aquashicola Creek. Congdon (1895) found a nest with 4 eggs on June 14, 1894 near Dingman's Ferry. Lawrence (1887) found a nest "in the mountains of Pike County" on June 9, 1887 with 4 young and one unhatched egg. Harlow (1906c) reported that the species "literally abounds in low laurel thickets along the streams" near La Anna. They are still very common there, and he has seen 47 nests, 28 with 5 eggs, 16 with 4 and 3 with 3. His average date for completion of first sets is June 3. His earliest set was May 26. Miller has seen 14 nests in the same general area, 10 with 5, 2 with 4 and 2 with one egg. Carter considered the average date to be June 10 at Pocono Lake, but his conclusion was based on fewer sets. Extreme dates of occurrence at Pocono Lake are May 6 and September 6, with song from May to August 29.

AMERICAN REDSTART. *Setophaga ruticilla*.

Widely distributed summer resident throughout the region. Carter (1917) reported them numerous in the valley near Stroudsburg but seldom seen on the plateau. This is not the case today, for they are common in many plateau locations. D. V. O. C. observers found them abundant at widely scattered Pike County localities in 1951, and they are common at Pocono Lake. Poole and others found them common at McMichaels in 1946, 1947

and 1949. Nests have been reported from Pocono Lake, Stoddartsville, Greentown, La Anna, South Sterling and Buck Hill Falls. Harlow has seen 23, 2 with 5 eggs, 16 with 4 and 5 with 3. He considers June 1 the average date for first sets. His earliest nest was May 25. Miller has seen 7 nests with eggs, 4 with 4 and 3 with 3. A nest near my cottage contained young on July 4, 1954. Extreme recorded dates at Pocono Lake are May 4 and September 20. Song dates are May 4 to September 6.

HOUSE SPARROW. *Passer domesticus*.

Found in all inhabited areas, but relatively uncommon on the plateau. It is interesting that Carter (1917) had not noted any around Pocono Lake, although he commented that Baily had found a few at Pocono Manor. Harlow reports that they breed in several barns near La Anna, sets ranging from 3 to 6 in number, mostly 5. His average date is May 24.

BOBOLINK. *Dolichonyx oryzivorus*.

Breeds sparingly in small, scattered colonies, but we have no nest records. Extreme dates recorded at Pocono Lake are May 15 to September 5. Harlow reports that they breed irregularly at Canadensis and much more commonly on the hillside meadows towards Skytop. They have nested regularly in certain fields around Newfoundland for the past 50 years, as evidenced by singing males, parents copulating, and young being fed, but he has never searched for the nest. The same is true around Long Pond, where we note them regularly in small numbers during the breeding season. Reimann (1939) observed 2 birds near Canadensis, where they appeared to be breeding in a meadow. Ross and Altemus noted one and the Austins 6 in northern Pike County in mid-June, 1951. I have also seen them in May in the valley west of the Water Gap. Woodruff (1905) noted a small flock, probably migrants, near Milford on August 23, and we have heard them flying over Pocono Lake in late August and early September.

EASTERN MEADOWLARK. *Sturnella magna*.

Summer resident in scattered open locations, commoner in the lowlands than on the plateau. The average arrival date is mid-March, but they have been noted in winter on a few occasions. Two birds remained all winter for two years in the early thirties at La Anna, where Harlow tells of their going into a barn for shelter when it was extremely cold. Cary has also noted them at Pocono Lake in winter. Harlow has found but 5 nests, only one of which can be attributed to a normal first laying. It was found at La Anna on May 16, 1949 and held 5 eggs. His others were all found in early July while haying and contained 5, 5, 4 and 4 eggs.

RED-WINGED BLACKBIRD. *Agelaius phoeniceus*.

While they are not abundant, each suitable area of open swampland or

marsh has its Redwing population. Recorded dates at Pocono Lake are from March 12 to October 4. Song dates are March 22 to July 24. Nest data are scarce, another example of a species being so well known that it has not seemed important to search for nests in this area or to record them. Harlow has found 2 nests near Tobyhanna, one at Newfoundland and 2 at German Valley. All held 4 eggs, and dates ranged from May 30 to June 15. Carter (1917) commented: "At Long Pond and one other locality, I have heard them utter a note so different from any which I ever heard elsewhere that at first I could make no guess as to its source. Is this an indication of a difference which might be magnified into the basis for a geographical race?" Curiously enough, 35 or so years later, the Redwings at Long Pond still sing their unusual song, as puzzling to me when I first heard it as it was to Carter, and I have but once heard the familiar "Kon-ka-ree" song there.

ORCHARD ORIOLE. *Icterus spurius*.

Summer resident in scattered locations, particularly along the southern and eastern edges of the territory. Congdon (1893) reported finding a nest in eastern Pike County, the only nest record. He found but a few of this species. Bartram considers it an infrequent summer resident near Bushkill. Poole and others found one or more at McMichaels Creek on June 13, 1946 and again on June 12, 1947. Reimann (1939) found a male and 3 females at Mountain-home on May 30, 1939 and another bird at Pocono Heights the next day. Ross found a singing male at Hemlock Grove on June 9 and 10, 1951 and again on May 31, 1952. Edwards and the writer found one in song at Delaware Water Gap on May 13, 1951. J. F. Street has noted them twice near the village of Pocono Lake, June 5, 1920 and May 30, 1932.

BALTIMORE ORIOLE. *Icterus galbula*.

Common summer resident about the orchards and villages. May 6 is the earliest recorded date at Pocono Lake, and departure dates have not been adequately determined. Bartram reports that they nest each summer in the maples and elms throughout the village of Bushkill. Five nests were found by Burleigh, Harlow, McGrew and Miller at La Anna and South Sterling from June 8 to 17, 1917 containing 3 to 5 eggs. Harlow has seen over 70 nests in use and examined 32, one with 6, 23 with 5 and 8 with 4 eggs. His average date for completion of first sets is June 2.

RUSTY BLACKBIRD. *Euphagus carolinus*.

Spring and fall migrant. They have been recorded in February, March and April at Pocono Lake by Cary, Warriner, Grimm and Rutledge in numbers up to a dozen or 20. They have been seen there in the fall between October 7 and November 2 by J. F. Street and Warriner. The writer found 8 along the swampy border of Pickerel Pond in Pike County on October 11, 1953.

COMMON GRACKLE. *Quiscalus quiscula*.

Summer resident, March to November. They are commonest during migration, large flocks passing through. I know of no large nesting colonies. Extreme recorded dates at Pocono Lake are March 6 to November 4. Grackles were more abundant at Pocono Lake, Stillwater Lake and the other ice ponds in the early days when these lakes and ponds still contained quantities of dead stubs resulting from the flooding, their cavities affording nest sites. Carter (1917) found only one nest out of 50 or so which he examined to be in other than a cavity of a dead stub over the water. Of 8 nests I examined in stubs at Pocono Lake on June 23, 1933, one contained 3 eggs, probably a second brood, and 7 were empty, the young already being fed in the woods nearby. A nest found by Carter, Baily, Stuart and J. F. Street there on May 21, 1916 contained 5 eggs. Poole and others found Grackles scarce at McMichaels in 1948 and 1949. Various D. V. O. C. parties saw one to 3 individuals in scattered Pike County localities in 1951. Harlow found small colonies of from 3 to 6 pairs in the ice dams around Tobyhanna in the early years of the century. Traveling from Saylorsburg towards the Wind Gap in the late afternoon on October 11, 1953, I saw many flocks of Grackles and Starlings passing overhead and flying through the gap to the south. I found a roost in the town of Wind Gap, just below the ridge, which contained an estimated 10,000 birds. Grackles predominated, but Cowbirds and Starlings were also abundant. Steady streams of birds were flying in from the west along the southern edge of the Blue Mountain, and these represented a considerably larger proportion of the total roosting population than those coming down from Monroe County through the gap.

BROWN-HEADED COWBIRD. *Molothrus ater*.

Widely distributed summer resident, March to October. Earliest reported arrival at Pocono Lake is March 26. Fall data are incomplete. Cowbirds have apparently increased considerably in abundance on the plateau in the last half century as the forests have been cut back. Harlow (1906c) found but 3 individuals on two spring trips to La Anna in different years. Carter (1917) had never found them at Pocono Lake nor seen any Cowbird eggs in nests although Baily had reported them occasional at Pocono Manor. Today they are regular, though uncommon, at both Pocono Lake and La Anna. Poole found them common at McMichaels in 1946 to 1949, and D. V. O. C. parties found them in several Pike County locations in 1951. Eggs or young of the Cowbird have been recorded in nests of the following species in this region: Phoebe, Solitary Vireo, Red-eyed Vireo, Warbling Vireo, Yellow Warbler, Magnolia Warbler, Black-throated Blue Warbler, Black-throated Green Warbler, Chestnut-sided Warbler, Northern Waterthrush, Louisiana Waterthrush, Redstart, Scarlet Tanager, White-throated Sparrow and Song Sparrow.

SCARLET TANAGER. *Piranga olivacea*.

Summer resident in deciduous woodlands and hemlock. Extreme recorded dates at Pocono Lake are May 2 and September 26. Last song date is August 4. Miller found nests with 3 and 4 eggs at La Anna on June 4, 1918 and new nests at South Sterling on June 5 and 6, 1927. Harrower (1909) found a nest with 4 eggs 40 feet high in a hemlock in the "primeval forest" east of La Anna June 17, 1909. Harlow (1914a) reported the following interesting observations, probably of the same pair: nest with 4 eggs, July 10, 1909; another nest being built nearby, July 21; completed July 27; one egg July 29 and 5 on August 4. Harlow has examined 27 nests in the area: 16 held 4 eggs, one held 5, and 10 held 3. He gives June 5 as the average date for completion of normal first sets.

CARDINAL. *Richmondia cardinalis*.

This species appears to be a recent arrival in the lower portions of the two counties, where it seems to be well established and on the increase. Bartram reports that they have become regular permanent residents at Bushkill within the past 7 or 8 years where they were seldom seen before. A D. V. O. C. group heard a singing male along the Bushkill Creek on June 17, 1951. J. L. Edwards and the writer saw a pair along the river north of Shawnee on May 13 of that year. Knepp reports them "rather common" at Stroudsburg, and Harlow has also heard them several times since 1950. Sehl and Reynolds found 2 pairs along the river road between the Water Gap and route 209 in June, 1951. Darby, Livingston and the writer saw a female between Sciota and Reeders on February 23, 1953, the farthest up into the foothills that I have encountered a Cardinal. I also found them in southwestern Monroe, along the Aquashicola Creek, in mid-May, 1954 and 1955.

ROSE-BREADED GROSBEAK. *Pheucticus ludovicianus*.

Summer resident in deciduous second growth woodlands of the plateau, where its distribution needs further study. We find them relatively abundant around Pocono Lake (May 2 to September 21; song to July 27), and Reimann (1939) reported them common in all locations visited that year. D. V. O. C. survey teams, however, found practically none on their 1951 Pike County trips, a single singing male noted by Ross and Altemus at Leavitt Brook being the only observation. In 1952, they found a nest under construction on June 10 and completed the following week on route 390 near the Bruce Lake Wilderness Area. Trembly believes them on the increase. Harlow reports little change in abundance in the La Anna area over the last 50 years. He has examined 17 nests there with one set of 5, 10 of 4 and 6 of 3 eggs. His average date for completion of first normal sets is June 5. Carter found a nest with 4 eggs 20 feet up in a spruce at Pocono Lake on June 18, 1924.

INDIGO BUNTING. *Passerina cyanea*.

Summer resident in brushy areas and along woodland edges. Least common at Pocono Lake, where heavy woods predominate. Reimann (1939) considered them common in suitable habitat, and D. V. O. C. observers found them in many Pike County locations, being most abundant in northeastern Pike, where the Austins counted 24 on June 11 and 12, 1951. Poole noted several at McMichaels, and the writer has found them to be common in southern Monroe. Scattered observations at Pocono Lake are from May 5 to July 22. Indigo Buntings should be found in the Pocono region, however, until late September and occasionally be heard in song then. Miller found a newly constructed nest at La Anna on June 18, 1917. Gillin and Bond found 5 nests there in 1923, one on June 5 with 4 eggs, one on June 6 with 4, and 3 on June 7 with 4, 2 and 1. Harlow considers them a fairly common breeder and has furnished data on 27 nests: 17 with 4, 8 with 3, and 2 with 2 eggs. His average date for first clutch completion is June 5.

EVENING GROSBEAK. *Hesperiphona vespertina*.

Irregular winter visitors, more frequent in recent years. Two mounted specimens, shot from a flock of 15-20 near La Anna during the winter of 1889-1890, were purchased by Harlow. He reports seeing one at South Sterling during December, 1909. Herbert W. Westwood (1922) recorded several observations from Stroudsburg. He noted 30 on April 22, 1919 and 15 on April 26, the latter group feeding on the seeds of box elders. None appeared in 1920. He found a flock of about 30 in 1921, noting them December 13, 14 and 29. Bartram (1922a) saw 15-20 at Bushkill on December 17, 1921, and the same number at Coolbaugh, 5 miles away, January 10, 1922. "In previous years they have frequented the large shade trees in the village for weeks at a time."

A notable increase in both numbers and regularity has occurred in the past five years. On March 25, 1950, Harlow saw a flock of 16 at Stroudsburg and was told they had been present all winter. The following day, at La Anna, he saw a similar number, and they too had been present throughout the winter. The winters of 1951-1952 and 1954-1955 brought large invasions. Cary found a flock of 50 at Pocono Lake village on November 4, 1951, where they remained regularly through the winter. I saw them at Pocono Pines on November 12, and Cary saw 50 at Tobyhanna on November 13. The last spring observation at Pocono Lake was April 29, 1952. Harlow had reports of their presence at La Anna throughout the winter of 1951-1952 but of none the following two years. Bartram writes that he saw none in the fall of 1952 but found flocks of 15 or 20 nearly every winter for several years prior to that. A D. V. O. C. group noted 100 or more at Pocono Lake and Pocono Pines, some feeding on sumac and others at a feeder, on January 30, 1955, and a few

birds were still reported present the first week of May. Hebard reported 50 at a feeder near Stroudsburg on February 22, 1955.

PURPLE FINCH. *Carpodacus purpureus*.

Abundant local summer resident, particularly around Pocono Lake, where it has always been found. Apparently it is becoming commoner eastward into Pike County, where formerly rare. Roberts found them nesting at Tobyhanna from 1951-1954, usually in blue spruces around his cabin. Reimann (1939) found them at Pocono Heights and Plateau Lake. D. V. O. C. parties found them in 7 localities in north and central Pike County in 1951. Trembly believes they nested at Stillwater Lake that year. Poole and others found a singing male just north of McMichaels at the foot of the Pocono front in June, 1949. Perhaps the first set of eggs taken in Monroe County was collected by H. K. Jamison at Tobyhanna, when he collected a set of 5 on June 5, 1891. Harlow (1906) found them common at La Anna in 1905 but only saw one or 2 the following year. He reported (1918) that of 3 nests found in Monroe County between June 9 and 16, 1918, one contained 4 half fledged young and 2 were just being completed. He had found but one nest in Pike County. Most nest records are from Pocono Lake. Carter (1906), Baily, Stone and Evans found one being built at the top of a spruce on June 15, 1906. It contained one egg on the 18th. Another nest found on the 18th contained 4 eggs. One found by Stuart, J. F. Street (1915), Carter and Baily on June 13, 1915 contained 2 eggs. Carter found a nest with 4 eggs on July 4, 1926. They nest commonly in the spruces around the office at Pocono Lake Preserve. Grimm (1953) found a nest with 4 well-fledged young in a blue spruce at Pocono Lake village on June 25, 1951. Recorded observations at Pocono Lake are from February 2 to October 18. Song dates are April 6 to July 41, then sporadically in August. Purple Finches occasionally winter. Baily (1906) noted them at Mt. Pocono on November 24-25, 1906. Bartram wrote that they were frequent at Bushkill during the winters of 1951-2 and 1952-3. He never sees them during the summer and doubts if they nest locally.

PINE GROSBEEK. *Pinicola enucleator*.

Rare and very irregular winter visitors. Baily (1906) noted one at Pocono Manor November 15, 1903 and flocks at Mt. Pocono in pitch pines on November 24 or 25, 1906. Loomis saw 21 at Pocono Lake on February 16, 1930, and Joseph Cadbury and John Emlen saw 6 there in February, 1931. Reimann saw 3 at Pocono Manor on February 7, 1946. Grimm saw small numbers during the winter of 1949-50. Cary found several at Pocono Lake on November 5, 1951, and showed me one on the 12th. He saw them irregularly until March 29, 1952. Harlow received reports of them being at feeding stations at La Anna that same winter. A flock of about 20 were observed by a D. V. O. C. field trip along the stream below Pocono Lake on January 30, 1955.

REDPOLL. *Acanthis flammea*.

Irregular winter visitant, occurring in large flocks during invasion years. Baily reported them at Mt. Pocono on March 28, 1909. Loomis saw 14 at Pocono Lake on February 16, 1930, and Emlen and Cadbury saw numbers in February, 1931. Fries, Manners, William Middleton and Miller saw a large flock in a field near Effort on February 9, 1946.

Seeing a flock of some 500 or more in a field near Long Pond with W. W. Lukens, Jr. on February 1, 1947, was a memorable experience. I quote from my notes: "They are tame, and their constant moving about is not due to alarm at our approach but rather to a certain restless urge to be ever on the move. We get quite close to them at times as they pause for a moment to feed in the stubble. One moment they seem drab; then, as they face the sun, they are brilliant with their fiery red patches. Particularly is this true as they fly past us and wheel into a position where the sun is for an instant reflected in a breath-taking spectacle of hundreds of simultaneous red reflections. They are ever vocal, twittering in a cheerful excited manner. Seldom does the flock rest for more than a few seconds. Individuals remain stationary longer, but the flock movement as a whole never stops. Birds arise from the rear and fly over their companions to the front and drop again much in the manner of a feeding flock of blackbirds, and this restless agitation goes on and on. Finally, the birds rise sharply in one great cloud, and we note a Cooper's Hawk pursuing them. His effort is unsuccessful, and they rise above him and disappear into the distance."

We heard occasional Redpolls overhead the next day, but not in the previous day's numbers. Cary found them until March 4. I noted 2 Redpolls feeding in a gray birch at Pocono Lake on February 14, 1953. On February 23, Darby, Livingston and I met two flocks, one of 43 along the border of a pond at Reeder's and another of 200-250 in a field west of McMichaels. There are no fall or early winter records.

PINE SISKIN. *Spinus pinus*.

A very irregular wanderer which may appear at any season of the year, although mainly seen in winter or spring. Harlow (1950) has described in detail the great nesting season of April, 1925, when nests were literally everywhere. They were found at Cresco, La Anna, South Sterling and Gouldsboro between April 9 and 15, ranging from nests under construction to those containing 3 eggs. His conclusions bear repeating here: "There is abundant evidence that these birds, and their relatives, the Crossbills, have no definite breeding ranges. . . . There is one other interesting point. One can definitely discount summer records as proving breeding, unless for some reason the nesting season has been prolonged. The one great jamboree over, the balance of the year is spent in wandering. During the month of April, the Poconos

were swarming with Siskins. During the last week of May, only a few individuals remained, and by the middle of June the last of the rear guard were but a memory."

That great nesting constitutes our only breeding record for the Poconos. Trembley believes they may have nested at Stillwater Lake in the summer of 1952. Baily saw one at Henryville on May 29, 1904. Ross and the writer noted 6 on May 28 and 4 on May 29, 1949 at Pocono Lake. Carter found one there in late June, 1923. Cary saw a flock of 25 at Pocono Lake on February 1, 1953 and another March 7, 1954. We also have a mid-January and a mid-October record from Pocono Lake. The D. V. O. C. field trip to the Poconos on January 30, 1955, found a flock of 20 in the alders along a pond at Reeders.

COMMON GOLDFINCH. *Spinus tristis*.

Summer resident and occasional throughout the year. Recorded song dates at Pocono Lake are April 30 to August 24. On the 1951 D. V. O. C. surveys, Goldfinches were most numerous in northeastern Pike County, where the Austins recorded 25. Bartram has found them nesting at Bushkill and Grimm and Rutledge near Pocono Lake, but I have no dates. Harlow has found them to be a very common breeder in yards, cemeteries and along the roads of the La Anna area, increasingly so today as compared with 50 years ago. Of 52 nests which he has examined, 2 contained 6 eggs, 37 had 5, 10 had 4, and 3 (late nests) had 3. His average date for completion of normal first sets is July 26.

RED CROSSBILL. *Loxia curvirostra*.

Rare and irregular visitant, usually in the winter months but occasionally in summer. They have never been found nesting here, but their erratic movements make it ever a possibility. Alexander Wilson (1811) never met with them in summer "tho I lately took a journey to the Great Pine swamp beyond Pocano mountain, in Northampton county, Pennsylvania, in the month of May, expressly for that purpose; and ransacked for six or seven days the gloomy recesses of that extensive and desolate morass, without being able to discover a single Crossbill. In fall, however, as well as in winter and spring, this tract appears to be their favorite rendezvous; particularly about the headwaters of the Lehigh, the banks of the Tobyhanna, Tunkhannock, and Bear Creek, where I have myself killed them at all seasons. Then they appear in large flocks, . . ." Stone (1894) commented that Stewardson Brown observed a large flock at Tobyhanna on or about July 24, 1893. The year 1906 was a good one for Crossbills. Harlow (1906c) saw a flock of 30, containing both adults and immatures, the latter predominating, perched in walnut trees at La Anna on June 15. Carter saw flocks at Pocono Lake late in the summer, and Baily noted some at Mt. Pocono on November 24 or 25. Carter (1917) reported them fairly numerous during one or two summers several years ago

and not seen since. Perhaps he was referring to 1906. I know of no summer records in more recent times. Cary saw 4 or 5 drinking in the road at Pocono Summit on December 12, 1951. One was hit by a car and injured. Cary took it home, and it lived until the 22nd. The skin is now in the possession of W. W. Lukens, Jr. It proved to be *L. c. minor* (the *neogaea* of Griscom). Cary saw occasional Crossbills as late as March 2 the following year.

WHITE-WINGED CROSSBILL. *Loxia leucoptera*.

Very rare and irregular in winter. Wilson's (1811) plate depicts a White-winged Crossbill that "was shot in the neighbourhood of the Great Pine Swamp, in the month of September, by my friend Mr. Ainsley, a German naturalist, collector in this country for the Emperor of Austria." Loomis found 6 at Pocono Lake on February 16, 1930, and Jopson and Hyatt saw one on February 21, 1931. The writer found 2 there feeding on spruce cones on February 14, 1953, the year of the great invasion of the middle Atlantic states.

EASTERN TOWHEE. *Pipilo erythrophthalmus*.

A common summer resident throughout the region, but particularly in the scrub country which characterizes so much of the Pocono front, where I would deem it the most numerous species. Woodruff (1905) found them most abundant, especially in the scrub lands. Carter (1917) considered them perhaps the most abundant bird on the plateau, a distinction which I believe belongs to the Robin today. Extreme dates at Pocono Lake are April 23 and October 18, with song from May 4 to August 1, but Harlow writes of observing a male near a lumber camp at La Anna daily from January 9 to 15, 1912, and the temperature reached 10 degrees below zero several times! Harlow has examined 24 nests, one with 5 eggs, 16 with 4 and 7 with 3. His dates are very varied "because the casualties are high in the early nests." His average date for first set completion is May 29, yet he has found nests with young as late as August 20. Other nests: May 29, 1927, 4 eggs, Tobyhanna Forks, Miller; June 4, 1927, one young, South Sterling, Miller; June 14, 1915, nest with young in sphagnum moss at Pocono Lake, Hughes; and June 18, 1924, 4 eggs at Pocono Lake, Carter.

SAVANNAH SPARROW. *Passerculus sandwichensis*.

Apparently a summer resident in scattered suitable fields, but we have no nest data. Congdon (1893) found them common in summer near Bushkill. Bartram sees them occasionally there during migration, but has not found them during the breeding season. Harlow (1906) found some in upland pastures near La Anna, "evidently nesting in small numbers," and he reports to me that, although he has not looked for them for years, they formerly bred on the sparse field on the top of the ridge known as Cyclone Hill, South Sterling, and on the one known as Gilpin's Hill, La Anna. Carter (1917) had

found them at a few locations, notably Long Pond. G. Ruhland Rebmann and J. F. Street heard them singing in a grassy field at Long Pond on July 16, 1941, and Livingston and the writer found one there on May 15, 1955. Reimann (1939) observed one at Pocono Heights on May 31, 1939. Ross found them at scattered Pike County locations on June 9 and 10, 1951.

GRASSHOPPER SPARROW. *Ammodramus savannarum*.

Summer resident in open fields, but, as in the previous species, data are incomplete. Congdon (1893) found them common in Pike County near Bushkill. Woodruff (1905) found them common in the Delaware Valley and occasionally in large clearings elsewhere. Carter (1917) met with them "occasionally." Harlow (1918) reported noting this species in summer for the first time in Wayne and Pike counties in 1917, one pair in each. Rebmann and J. F. Street found them in a field at Long Pond on July 6, 1941. Poole and others recorded them at McMichaels on June 10-11, 1949. The Austins found one in northeastern Pike County on June 11 or 12, 1951. I have recorded them at Long Pond the last two summers and twice along the southern edges of Monroe County, near Gilbert and west of Water Gap.

HENSLOW'S SPARROW. *Passerherbulus henslowii*.

Irregular summer resident in suitable fields in small colonies which move elsewhere when the character of the field changes. Baily (1904) and Serrill found at least 2 pairs "in a field well up on the mountain just above Henryville, acting as usual and uttering their 'che-ticks' from time to time" on May 29, 1904. Reimann (1939) heard 5 singing at Pocono Heights on May 31, 1939. Rebmann and J. F. Street saw them in a field at Long Pond on July 6, 1941. Poole and Bright saw and heard one at McMichaels on June 13, 1946, and Poole and others saw them again in June, 1949. Grimm writes that Henslow's Sparrows were evidently breeding in the fields west of Pocono Lake in 1949, and Cary, Ross and I found a colony in the same fields on May 28 of that year. I discovered a large colony in a field on a hillside south of Saylorburg on June 18, 1951. Neither of the latter two colonies were in existence in 1952, the fields having been plowed. I heard Henslow's in two Monroe County locations in 1954, at Pocono Lake and near Gilbert but could find none in 1955.

Harlow found several small colonies of 3 to 6 pairs along the old dirt road between Newfoundland and Sterling, Wayne County, for many years but has not investigated this area for the last dozen years or so. They also appeared regularly from about 1935 to 1947 in fields below his La Anna home until the brush grew higher and they left. No nests were examined, breeding being evidenced by the feeding of young, and we have no egg data.

VESPER SPARROW. *Poæcetes gramineus*.

Summer resident of extensive fields throughout the area. Woodruff

(1905) found them fairly common near Millford. Bartram rarely sees them at Bushkill but suspects they occur more frequently in the open fields of the higher back country. Poole and others found them at McMichaels in June, 1947, 1948 and 1949. Rebmann and J. F. Street heard them singing near Long Pond on July 6, 1941, and I heard 4 singing there July 5, 1954. On May 15, 1955, Livingston and I met them here again. I found several in southwestern Monroe, east of Little Gap, on May 16, 1954. Warriner has noted them often on the plateau. Carter found a nest with 4 eggs near Pocono Lake on May 24, 1923. Grimm and Rutledge have also found it nesting. On October 11, 1953, I noted 2 at Pocono Lake and 4 at Peck's Pond, the latest dates reported. Both arrival and departure data are incomplete.

Harlow considers them regular but not common in the La Anna area. He has data on 7 nests but has never hunted for them. All contained 4 eggs, and his average date for set completion is May 20.

SLATE-COLORED JUNCO. *Junco hyemalis*.

Summer resident at Pocono Lake, where it is fairly common, and eastward to the highest portions of Pike County, where much less abundant. Winters throughout the region. It has been recorded almost daily all year at Pocono Lake. Song dates are March 9 to September 7. Harlow (1906) found them "particularly common" at La Anna, breeding chiefly along trails and pathways. Today, with so much of the original forest gone, they are scarce. He has examined 19 nests, all in the first half of the century, 2 with 5 eggs, 13 with 4, and 4 with 3. He gives May 20 as the average date for completion of first sets. Our experience at Pocono Lake with more than 50 nests would indicate a later average date than Harlow's, but he points out, and correctly, that this results from more ornithological work having been done at Pocono Lake in June than in May. The occasional July nests probably represent second broods. My latest nest is one found August 6, 1955 at Pocono Lake with 3 half-grown young. An interesting nest site was under the eaves of our cabin porch, 12 feet above the ground. Here the parents were feeding young on May 30, 1937. A nest found by Carter and the writer on June 21, 1933 contained 5 young. Of historical interest are H. K. Jamison's observations, as recorded in his journal, of seeing Juncos feeding young at Tobyhanna on June 5 and finding a new nest on June 11, 1891.

TREE SPARROW. *Spizella arborea*.

Winter resident throughout the area. Records at Pocono Lake, too few to be conclusive, are between November 18 and March 22. Bartram finds them at Bushkill during the winter, and Knepp reports them "rather common" around Stroudsburg.

CHIPPING SPARROW. *Spizella passerina*.

Common summer resident throughout. Extreme recorded dates at Pocono

Lake are April 15 and November 17. Average departure date is probably late October. Song dates are April 23 to August 10. A nest found by Miller at Plateau Lake on May 30, 1939, contained 5 eggs, the second clutch of 5 he had found in 42 years. Harlow has examined 63 nests in the La Anna area, 4 had 5 eggs, 42 has 4, and 17 had 3. His average date for completion of normal first sets is May 26.

FIELD SPARROW. *Spizella pusilla*.

Common summer resident in open situations. Woodruff (1905) considered it the most abundant species around Milford. Extreme dates at Pocono Lake are April 10 and October 13; song dates are April 29 to July 30, but Field Sparrows can undoubtedly be found both earlier and later than these records indicate. Carter found a nest with 4 eggs near Pocono Lake on May 24, 1923. Reimann and Miller found one with 4 young at Mountainhome on May 30, 1939. Miller saw 2 nests at South Sterling in 1927: May 29 with 3 eggs and June 5 with 4. Gillin and Bond found 2 nests at La Anna on June 7, 1923, containing 4 eggs and one egg. Jamison recorded 2 nests at Tobyhanna in his early journals, July 4, 1890 with one young and 2 eggs, and July 5, 1891 with 4 eggs. Harlow has found 31 nests around La Anna, with 24 sets of 4, one of 5, and 6 of 3 eggs. His average completion date for first sets is May 29.

WHITE-CROWNED SPARROW. *Zonotrichia leucophrys*.

Uncommon spring and fall migrant. Wilson (1811) relates that the male in his plate "was shot in the Great Pine swamp, in the month of May." Bartram sees them every year at Bushkill during both spring and fall migration but more commonly in the spring. Cary has noted them at Pocono Lake between April 26 and May 15. Cary, Edwards and the writer saw 5 there on May 13, 1951. J. F. Street saw one at Pocono Lake on October 12, 1940, his first Pocono record. The writer found one at Peck's Pond on October 11, 1953 and 2 in southwestern Monroe east of Little Gap on May 16, 1954. John Dornan had a pair at his cottage at Mountainhome from March 15 to June 12, 1955.

WHITE-THROATED SPARROW. *Zonotrichia albicollis*.

Relatively abundant summer resident around Pocono Lake in moist woods and sphagnum bogs. Harlow states that it has been noted rarely in bogs in the La Anna region and was believed to nest, but he has no definite records. He found them for several years in sphagnum bogs in Pike County between Greentown and Milford and heard one singing in the Cranberry Bog near Mt. Pocono throughout one June. Recorded dates at Pocono Lake are April 19 to November 11; song dates are April 23 to August 8 and sporadically to October 7. May regularly winter in the lower sections of the area, as a D. V. O. C. group found several near Effort on February 9, 1946.

It was a memorable report when Stone (1894) announced that Stewardson Brown was positive he heard one singing at Tobyhanna on July 24, 1893. "As Mr. Brown is thoroughly acquainted with this bird, he could hardly have been mistaken, but it is unfortunate that he was unable to secure a specimen, as this is, so far as I am aware, the first record of the occurrence of this species in Pennsylvania in the breeding season."

A few years later, when Pocono Lake became known ornithologically, the White-throat was found breeding. Carter (1906), Baily, Stone and Evans found a nest there during the period June 16-18, 1906 which contained 4 eggs and a young Cowbird. This, apparently, is the first nesting record for the state. Baily found another nest at Pocono Lake on June 20, 1907 with 4 eggs, Carter, Stuart, J. F. Street (1915) and Baily found one with 4 eggs on June 12, 1915, and Hughes found one two days later, also with 4 eggs. Carter found one at Tobyhanna on May 28, 1919, and it contained 4 eggs.

FOX SPARROW. *Passerella iliaca*.

Spring and fall migrant. Pocono Lake dates are March 11 to April 19 and October 13 to November 16. Observed there by Cary, Grimm, Rutledge and Warriner.

SWAMP SPARROW. *Melospiza georgiana*.

Summer resident. Arrival and departure data are insufficient. Swamp Sparrows may occasionally winter in the lowlands, but our records do not indicate it. Woodruff (1905) found them rare; he discovered a small colony about Sawkill Pond. Carter (1917) commented that they inhabit the same infrequent marshes as the Redwing, and today we find them wherever such swamps or marshes occur. In Monroe County, Ross, Trembly and the writer found them at Pocono Lake, Long Pond and Stillwater on June 21, 1952, and a large colony was present at Goose Pond, on the Monroe-Pike border the following day. D. V. O. C. survey parties found them in small numbers at many suitable Pike County localities in May and June, 1951. I found 3 at Decker Marsh, south of Lake Wallenpaupack, on October 11, 1953. Grimm and Rutledge have found them nesting, but I have no dates.

SONG SPARROW. *Melospiza melodia*.

Abundant summer resident throughout the area. While most abundant from March to November, a few winter, even on the plateau. Lukens and the writer saw one at Pocono Lake on February 2, 1947, and Baily (1906) saw 4 at Mt. Pocono between February 18 and 24, 1905. Song dates at Pocono Lake are March 10 to August 18 regularly, then occasionally in September and October. Harlow has furnished data on some 200 nests. Ninety per cent contained 4 or 5 eggs, and the rest 3. Song Sparrows raise 2 and sometimes 3 broods, the first nest usually on the ground and later ones often

elevated. The average date for completion of first sets is May 28.

SNOW BUNTING. *Plectrophenax nivalis*.

Occasional in winter. Extreme dates at Pocono Lake are October 29 and March 25. Baily (1906) recorded seeing 3 flocks of 5-15 individuals at Mt. Pocono between February 18 and 24, 1905. Harlow found one near La Anna on January 9, 1912. Cary saw some near Pocono Lake on October 29, 1948 and for several days thereafter. Grimm reported seeing small flocks of perhaps 15-20 along the road between Pocono Pines and Pocono Summit during the winter of 1949-1950 and once or twice in his yard at Pocono Lake. Warriner reported a flock of 20 along route 903 near Albrightsville in eastern Carbon County on March 25, 1950. Clarence Bonser saw a flock of about 25 at Pocono Lake early in February, 1953, and David Leas saw 15 at Wagner's, near Pocono Lake, on November 10, 1954.

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The bibliography which follows is not intended to be a complete list of references but is believed to include substantially all material which would have any major bearing upon a discussion of the distribution and nesting of birds in the Pocono region. Examination of a partial file of *Forest and Stream* revealed several references to the relative abundance or scarcity of game birds, usually signed with a pseudonym, and these are not included. Many observations on the status of the game birds may also be found in the *Pennsylvania Game News*. Much has been taken from the pages of *Cassinia*, both from the Abstracts of Proceedings and the local notes sections, and these have not been individually chronicled in the bibliography. Only one edition of a book is listed if other editions contain identical or substantially identical information.

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