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Birds

THE BIRDS OF THE LIGONIER VALLEY //

Robert C. Leberman //



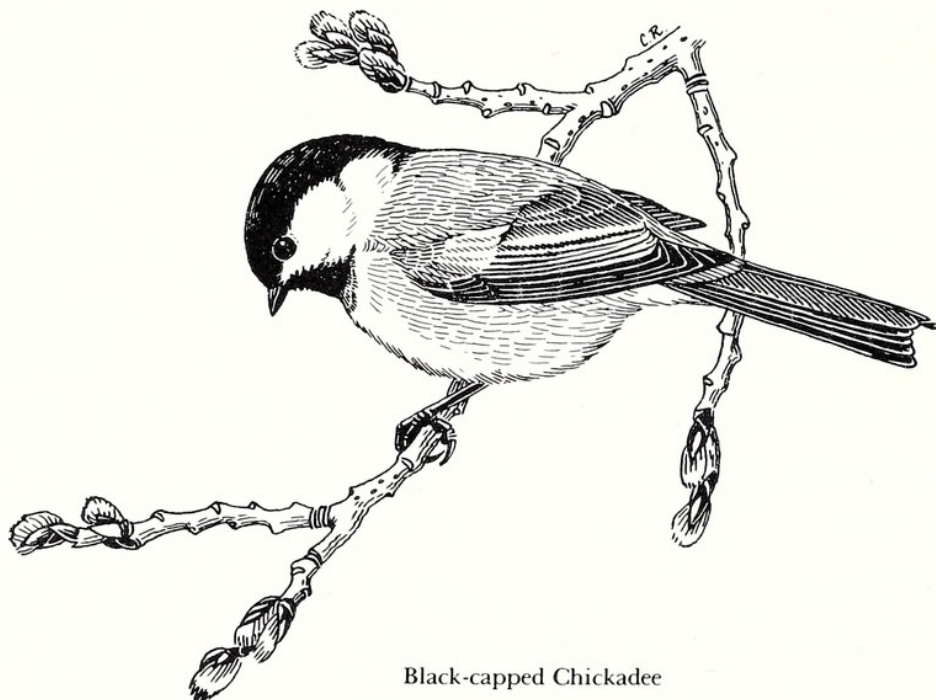
Color Plates by H. Jon Janosik
Line Drawings by Carol H. Rudy

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Black-capped Chickadee

PREFACE

This book is unusual in that all its contributors have been self-taught in their respective professional fields. The author, Robert C. Leberman, has been intensely interested in birds since childhood. With little formal training of any kind, he has become an authority on the birds of western Pennsylvania and a nationally recognized bander. The artists, H. Jon Janosik and Carol Hand Rudy, were educated as biologists, yet after they finished their formal education, they both turned to the painting of birds and other animals instead of pursuing the careers they had originally chosen in medicine and teaching, respectively. As our artists are not as widely known as their talents deserve, it gives us particular pleasure to publish their work for a new audience.

Mr. Leberman was born and raised in Meadville, Pennsylvania. As he grew up, he was fortunate in having areas like Pymatuning Reservoir and Presque Isle nearby, for study of their rich bird life. He began to band birds on his own in 1958 and three years later moved to Powdermill Nature Reserve in the Ligonier Valley to establish the banding program there. In the years since then he has become one of the most adept songbird banders in the United States, skilled in the special techniques involved, and expert in identifying and determining age and sex of the many species he handles each year. His banding expertise has occasionally led him to other parts of the United States, and twice he has been a member of a group that visited Belize (British Honduras) to band and study Central American birds and North American migrants. Mr. Leberman is so interested in his work

that, after a six-day week of banding at Powdermill, he often spends the seventh day watching birds in other parts of the Ligonier Valley. Consequently, much of the material for this book was gathered on his "day off"—devotion, indeed, to a childhood hobby turned profession.

Jon Janosik was born and raised in Connecticut, and at an early age became interested in birds. Now living on a farm in Oregon, he has become a bird artist of great skill, as attested by the color plates in this book. He has had one-man shows in New Orleans, Houston, and Oregon, and has published his drawings and paintings in *The Florida Naturalist* and other magazines, and in the 15th edition of *The Encyclopaedia Britannica*. He has traveled to study birds whenever possible, with periods in Trinidad, Panama, and Mexico, and at sea for many months in both the Atlantic and Pacific, sketching and making field studies of the seabirds that currently are his main interest.

Carol Rudy is originally from Corry, Pennsylvania, where she also benefited from the proximity of the birds at Presque Isle and Pymatuning. She received her Master's degree from Edinboro (Pennsylvania) State College, taught school in Ohio, and now lives on a farm in Wisconsin. She has banded birds since 1964 and has become a highly talented bird artist. Her delightful line drawings have enhanced the pages of many journals, including *Inland Bird Banding News*, for which she currently serves as Illustrations Editor. Most of Mrs. Rudy's formal art is done in water color. She has exhibited her work in several states and throughout Wisconsin.

MARY HEIMERDINGER CLENCH



Black-throated Green Warbler

FOREWORD

Regional bird lists are invariably a summation of the work (and pleasure) of a considerable number of people, both afield and at the desk. One of the most pleasant aspects of completing this manuscript is the opportunity to express my appreciation to friends and associates for their contributions.

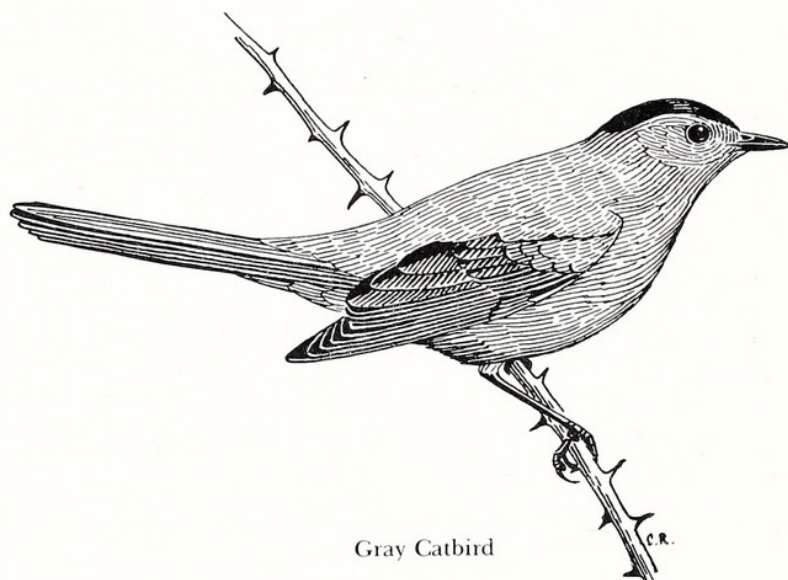
I am primarily indebted to Dr. M. Graham Netting, the recently retired Director of Carnegie Museum of Natural History, for having provided me with the opportunity to work with Ligonier Valley birds, and for encouragement in preparing this publication. Dr. Mary Heimerdinger Clench, Associate Curator of Birds, Carnegie Museum, served variously as editor and advisor, as well as an occasional field associate, and has earned my very special thanks. I have similarly benefited through the interest of Dr. Kenneth C. Parkes, Chief Curator of Life Sciences of the Museum. Thanks are especially due Robert E. Porteous, Managing Editor of the Museum, for final editing and seeing the manuscript through press. H. Jon Janosik did the bird paintings for the color plates with exceptional care and skill. The attractive line drawings are the work of a long-time friend, Carol H. Rudy. The habitat photographs were taken by Vincent Abromitis, Dr. Mary H. Clench, Dr. M. Graham Netting, J. Lewis Scott, and James R. Senior. The map was prepared by Nancy J. Perkins of the Museum's Exhibits Staff. Mrs. Marilyn Niedermeier kindly typed the final draft, and Mrs. Betty Abbott and Mrs. Mabel Matteson assisted in several other ways with the manuscript.

No one has provided more continuous assistance in the field than has A. C. Lloyd, also recently retired from service with the Museum. Mr. Lloyd, over the past 14 years, has volunteered innumerable week ends to the

bird banding program at Powdermill. He has been especially active during spring and fall migration periods, and is responsible for most of the mid-winter banding data. Others who have helped with the banding for extended periods and deserve thanks include John K. Orndorff and Virginia L. and Donald B. Wood. Credit is also due Jack A. Bailey, G. Thomas Bancroft, Mrs. Helen Brownlee, P. N. Crockett, Ms. Barbara Fleming, Mrs. Marie M. Griffin, Albert O. Lenhart, Gilbert O. Lenhart, A. C. Lloyd, Jr., Mrs. Cordelia S. May, Mrs. A. R. Murphy, Mrs. David Seymour, Mrs. Gene Shepard, Dr. Gail Schiffer, Mrs. Helen M. Schmidt, Ms. Miriam Stern, Arthur Thompson, and Dr. David E. Willard for their help—direct or indirect.

In addition to her assistance at Powdermill, Mrs. Helen M. Schmidt has provided information on the occurrence of many birds elsewhere in the Valley. For notes on unusual observations and for arrival and departure dates of various species, I thank Cliff and Randy Stringer. Walter A. Saling, Jr. has provided me with useful information concerning several of the birds of prey in the region. Dan E. Roslund has furnished supplementary notes from Powdermill and elsewhere—especially on the occurrence of certain wintering birds. Mr. and Mrs. John C. Murphy have submitted records of several interesting species. Dennis Smeltzer has provided information on two recent Christmas bird-counts. And although it is impossible to acknowledge the help of everyone who participated in this effort, I should also like to thank Miss Elizabeth S. Abernethy, Mr. and Mrs. Joseph Duval, David B. Freeland, Mrs. Cameron Henry, John T. Galey, Dr. Eleanor Morris, William C. Paxton, Mrs. Florence B. Schell, Mr. and Mrs. Stewart H. Steffey, Mrs. Harriet Stimmel, Joseph and Josh VanBuskirk, and John A. Young for their records.

ROBERT C. LEBERMAN



Gray Catbird

THE BIRDS OF THE LIGONIER VALLEY

INTRODUCTION

THE REGION

The Ligonier Valley lies between Chestnut Ridge and Laurel Hill, the two westernmost ridges of the Allegheny Mountains, in Westmoreland County, southwestern Pennsylvania (see map). These two parallel ridges lie in a diagonal northeast-southwest direction. In this publication, I shall consider the Ligonier Valley as encompassing the broad rolling valley and slopes between these two ancient mountain ridges, along with their respective summits—an area of almost 100 square miles. To the east the Valley limits approximate the Somerset-Westmoreland county line. The limits to the north have been arbitrarily set along a line running three miles north of U.S. Route 30, and those to the south along a line approximately one mile south of state Route 31. The western boundary is Chestnut Ridge. These limits have been adopted primarily because they include the regions of the Valley best known to the author, and from which sufficient ornithological records are now available. (Opinion, naturally, will differ as to the true north-south extent of the region properly to be regarded as the Ligonier Valley.)

On the west, Chestnut Ridge attains an elevation of approximately 2000 feet above sea level—rising somewhat higher south and north of the area. Laurel Hill, marking the eastern boundary, is the higher of the ridges, with much of its crest at about 2600 feet, and a little over 2800 feet in a few places.

The only town of significant size in the Valley is Ligonier, with a (township) population of about 6600.

The northern three-quarters of the Valley is drained by Loyalhanna Creek and its numerous tributaries. West of Ligonier the Loyalhanna cuts through Chestnut Ridge in a 1000-foot-deep gorge or “gap,” eventually joining the Kiskiminetas River at Saltsburg. South of the Pennsylvania Turnpike most of the area is drained by Indian Creek. This stream joins the Youghiogheny River near the town of Indian Creek about ten miles south of the Ligonier Valley. There are no natural lakes or large marshes within the Valley, but a surprising variety of water birds is found at two sizeable impoundments, Donegal Lake and Trout Run Reservoir. There are also many smaller farm ponds and private lakes.

The climate of the Ligonier Valley is characterized by warm summers and cold winters. Prevailing winds are from the west, and between December and early March, winter storms accompanied by strong northwesterly winds occasionally last for several days. The average annual temperature for much of the Valley is about 45° F. Maximum readings normally exceed 90° on fewer than five days each summer. A minimum temperature of 0° or below normally occurs from 4 to 12 days during the winter. The growing season (the time between the last frost of spring and the first frost of autumn) is usually about 150 days. Annual rainfall at Donegal has been re-

ported as 57 inches. The top of Laurel Hill averages 56 inches per year. This rather high rainfall is a result of the prevailing westerly winds being intercepted by the mountain ridges, and the moisture being condensed as precipitation. In comparison, the Pittsburgh area, 50 miles to the west, and those sections of Westmoreland County to the west of Chestnut Ridge, average only about 40 inches of rainfall each year. To the east, at Somerset, rainfall continues high at 52 inches annually. Total snowfall averages 70 inches each winter, and up to 80 inches has been recorded.

Temperate deciduous forest in various stages of succession covers much of the region, especially the mountain ridges. Typical life zones cannot be precisely delineated in this transitional area. Most woodlands covering the lower valley are Carolinian in general nature. They consist of varying combinations of tree species including beech, maples, oaks, hickories, and sassafras. In early stages of succession, old fields are frequently taken over by dense thickets of wild crabapple and hawthorn, or by black locust. Characteristic of (and largely restricted to) these lowland habitats are birds of southern affinities, e.g., Barn Owl, Red-bellied Woodpecker, Acadian Flycatcher, Blue-gray Gnatcatcher, White-eyed Vireo, Prairie and Kentucky warblers, and Yellow-breasted Chat.

With increasing elevation along the mountain slopes, the forest gradually becomes more Canadian. These transitional life zones are often referred to as Alleghanian, with combinations of sugar maple, beech, yellow birch, white pine, hemlock, and chestnut and black oaks. Along the summit of Laurel Hill there are also a few scattered (often boggy) areas that to a degree approach a sub-Canadian zone. These are the local breeding grounds of northern species like Brown Creeper, Winter Wren, Hermit Thrush, Canada Warbler, and Dark-eyed Junco.

BIRD OBSERVATION AREAS

Some of the areas that have received particular attention by local field workers are briefly described below. There are, of course, any number of other spots in the Valley likely to prove attractive to birds. The crest of Chestnut Ridge, for example, has received inadequate attention, as has the valley of Fourmile Run, an especially rich area ornithologically. The local bird student has only to look in his own “backyard” to find species worthy of his attention.

American Legion Pond: A very small, grassy, usually dry, pond on the American Legion's property at the western edge of Ligonier. Occasionally attractive during the spring to Semipalmated Plovers, Killdeer, snipe, and a variety of small sandpipers.

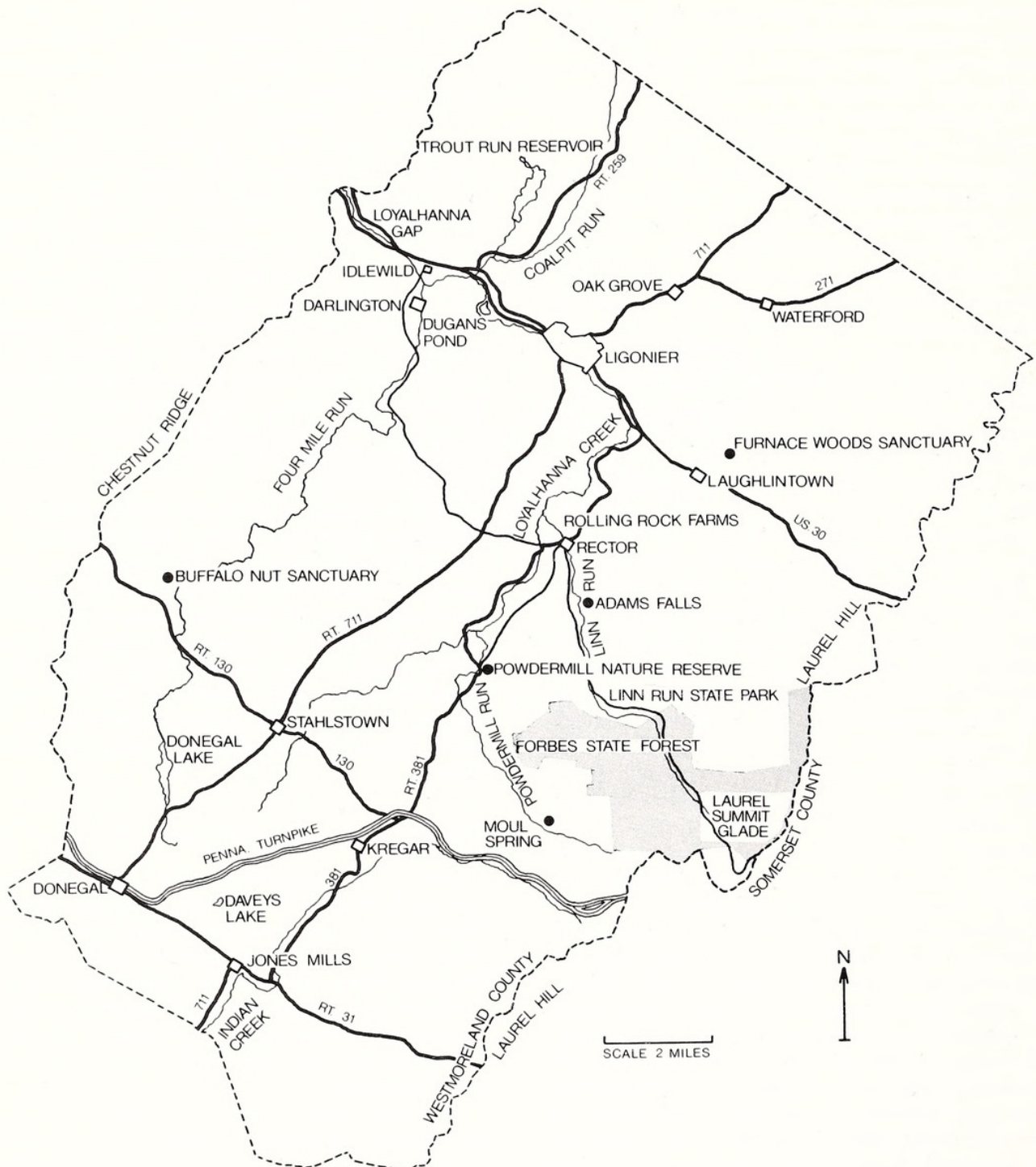
Davey's Lake: A small private fishing pond located about 1.25 miles east of Donegal. In spring this is a good feeding area for migrating waterfowl like American Wigeon, Green-winged and Blue-winged teal, and Hooded Mergansers. Watch also for Great Blue, and Green herons, and occasional shorebirds. Bobolinks nest in nearby fields, as do Savannah and Grasshopper sparrows.

Donegal Lake: A public fishing lake just northwest of state Route 711 about 1.5 miles north of the town of Donegal. Filled during 1968, the shallow 90-acre reservoir is attractive to a wide variety of migrating water birds, including loons, grebes, and ducks. This is the best spot in the region at which to see shorebirds, par-

ticularly during those autumns when the state Fish Commission draws down the water level in an effort to control stunted panfish and nuisance vegetation, thus exposing mud flats.

Dugan's Pond (Ligonier Ice Pond): A large private (posted) pond along U.S. Route 30, approximately one mile west of Ligonier. Often attractive to Whistling Swans in spring, along with a variety of other waterfowl species.

Laurel Hill: The bird life of much of the higher crest of Laurel Hill can be studied from the road that extends south along the mountain ridge from U.S. Route 30. Dry-to-moist second-growth deciduous forest predominates



The Ligonier Valley, Westmoreland County, Pennsylvania

in the area. Among the breeding birds are Red-shouldered and Broad-winged hawks; Black-capped Chickadee; Wood Thrush; Veery; Solitary and Red-eyed vireos; Black-and-white, Black-throated Blue, and Black-throated Green warblers; Ovenbird; American Redstart; Rufous-sided Towhee; and Dark-eyed Junco. Also watch for Common Ravens anywhere along the higher mountain summit.

Laurel Summit Glade (Spruce Flats): An open *Sphagnum-Polytrichum* glade or "bog" in Forbes State Forest, approximately six miles southeast of Rector. The open glade, which developed (Jennings and Avinoff, 1953) after the area was lumbered over, is surrounded by a white pine border, and a number of additional conifers have been planted in reforestation efforts. The botanical associations are exceptionally complex (with both boreal and southern elements) and it is often difficult, if not impossible, to determine whether certain plant species have been introduced or are native to the area. Several northern species of birds nest here that are unknown or very rare elsewhere in the Valley as summer residents, including Brown Creeper, Winter Wren, Hermit Thrush, Canada Warbler, and Purple Finch.

Linn Run State Park (and adjacent division of Forbes State Forest): This area includes the richly forested valley of Linn Run (also spelled Lynn Run on some maps and signs) southeast of Rector. The creek is flanked by rhododendron thickets and hemlock groves along much of its course down from Laurel Summit. Tall deciduous woodlands (often with much tulip poplar in lower sections) dominate the hillsides. Louisiana Waterthrushes are common along Linn Run and its tributaries, as are many other warblers. Solitary Vireos are locally very common. During the winter months watch for northern finches feeding in the hemlocks.

Loyalhanna Gap: This is the deep, narrow, forested valley cut through Chestnut Ridge by Loyalhanna Creek. U.S. Route 30 passes through the gorge, providing easy access. A number of rare and interesting plants of the southern Alleghenies are at or near their northern range extensions here. There are also birds of southern habitats. Watch for Red-bellied Woodpecker, Acadian Flycatcher, Carolina Wren, Mockingbird, and Worm-eating Warbler.

Powdermill Nature Reserve: An 1800-acre reserve and research station of Carnegie Museum of Natural History, Pittsburgh. Powdermill is home base for the author's field work. The Reserve Headquarters are located about three miles south of Rector, at "Crisp," a long-vanished community that is still named on many road maps. Typical of much of the Valley, the Reserve is largely covered by old fields and second-growth deciduous forest in various stages of succession. There are several small ponds (Crisp Pond, the largest, covers 1.25 acres) and a small sweet-flag-cattail marsh (Iron Spring Swamp). To date, a total of 221 different species of birds has been identified at the Reserve.

Trout Run Reservoir (Latrobe Reservoir): Situated just west of state Route 259 about two miles northwest of Ligonier, Trout Run Reservoir, largest of the local lakes, is about three-quarters of a mile long. This is

the best place to see Whistling Swans and deep-water ducks like scaup, Oldsquaws, and scoters. Turkey Vultures are common in summer here, and Ospreys are often seen over the lake during migration. Old fields north of the lake are attractive to White-eyed Vireos, Golden-winged and Prairie warblers, and Indigo Buntings and Field Sparrows. The lake is posted, but most birds can be identified from the road with the aid of binoculars or a spotting scope.

LOCAL BIRD DISTRIBUTION AND RECORDS

Including the extinct Passenger Pigeon, there are now acceptable records for 254 species of birds from the Ligonier Valley. An additional three or four species have been reported, but the author, because of insufficient supporting evidence, has reluctantly had to reject these reports. A regional list like this one is never complete. Birds are highly mobile creatures, and often stray from their usual migratory routes. In addition, the ranges of many species continually change and may extend into, or contract from, a given region. A number of species that have occasionally occurred in nearby areas are likely to appear sooner or later in the Valley, e.g., Red-necked Grebe, Cattle Egret, Black-bellied Plover, Ruddy Turnstone, White-rumped and Western sandpipers, Clay-colored Sparrow, and Lapland Longspur. In the spring of 1975, Swainson's Warbler was discovered (presumably breeding) approximately ten miles south of the Valley, and it is certainly possible that this species might eventually be found within its limits. There are endless other possibilities of less predictable species straying into the Valley from the north, the south, and especially the west.

Considering that the mountains of this region do not attain great heights (especially when compared to the same ridge systems farther south in West Virginia), there is a remarkable degree of altitudinal effect on the distribution of local breeding birds—particularly from base to summit on Laurel Hill. This is amply demonstrated in the species accounts, and noted in some of the remarks above. In addition, there is a certain amount of altitudinal effect on migrants as they move through the Valley. Among nocturnal migrants, for example, several species of warblers (notably Cape May, Black-throated Green, Blackburnian, Bay-breasted, and Black-poll) seem to have a decided affinity for the ridge tops. During periods of peak migration the crests of the mountains may literally swarm with these birds, while at the same time they may be scarce, or certainly much less abundant, in the lowlands. In autumn these species often appear along the ridge tops anywhere from a day or two to as much as a week before they are seen at lower elevations. In contrast, other nocturnal migrants show a decided preference for moving through the lower valleys. This group includes Northern Parula; Cerulean, Chestnut-sided, Connecticut, Hooded and Wilson's warblers; along with the Yellow-breasted Chat; and White-throated, Lincoln's, Song, and Swamp sparrows.

Powdermill observers have noticed a tendency for many of the nocturnal migrants to come to ground in

the morning along the higher slopes of the ridges, and then during the course of the morning, drift down into lower areas to feed. As day breaks, thrushes and sparrows may be first, followed an hour or more later by flycatchers, vireos, and warblers. And while they are moving down into the valley, they may also be generally drifting in a northern or southern direction, depending upon the season.

Among diurnal migrants, Common Flickers, Blue Jays, and Evening Grosbeaks are examples of species that seem to prefer to move along the ridge tops or to follow along the higher slopes of the mountains. Others, like Common Nighthawks, Eastern Kingbirds, all the swallows, Robins, and the blackbirds usually migrate through the lower areas. Generally, it is apparent that many species of birds find the Appalachian Mountain system a convenient migration pathway; yet others doubtless find these same ridges something of a barrier to their movements.

HISTORY OF LOCAL ORNITHOLOGY

Early records of birds from the Ligonier Valley are few. Although settlement of the area began shortly after the middle of the eighteenth century with construction of Fort Ligonier, there seems to be no account of bird life within the region written before 1899. No early documentation was mentioned by W. E. Clyde Todd (1940) who, in researching his monumental *Birds of Western Pennsylvania*, compiled an exhaustive regional bibliography. It is possible, however, that careful search of local historical documents, including newspapers, could still uncover significant early accounts of birds. At Ligonier, archaeologists have recovered bones from refuse deposits dating from the fort's occupancy between 1758 and 1766. As might be expected, the list includes such food species as (wild) Turkey, Ruffed Grouse, Passenger Pigeon, and a duck (Black or Mallard)—plus Common Crow.

In 1899, Samuel Rhoads, who served briefly on the staff of the (then) newly established Carnegie Museum, published the earliest known article concerned with local ornithology. This paper, as Todd (1940:695) noted, was "... a potpourri of ornithological records from various sources ... with virtually nothing to tie them together ..." In it, Rhoads briefly reported on seven species of birds he had recorded from near Laughlintown during the summer of 1898. These included the then rare Pileated Woodpecker, Acadian Flycatcher, Blue-winged and Golden-winged warblers, and the Cerulean Warblers he had discovered nesting in the vicinity of Ligonier.

Even before the appearance of Rhoads' note, Todd had begun a long series of collecting trips and ornithological surveys that eventually became the foundation of his book. Transecting the western half of Pennsylvania, largely on foot, he or one of his associates visited the Ligonier Valley on several occasions. In 1893 Todd (1940:20) sent his friend Edward A. Preble "On foot across Laurel Hill to Laughlintown, by way of Jenners-town, Somerset County" from June 26 through the 29th. From June 29 through July 3 Preble listed 51 species of

birds (including the Red-bellied Woodpecker) along Chestnut Ridge southwest of Idlewild. On June 11, 1898, Todd studied the bird life along the Loyalhanna Gap through Chestnut Ridge, and then, on June 29 and 30, worked his way south along the summit of Chestnut Ridge below the Gap.

Nothing was to be published on Todd's findings for over four decades. Following his brief visits to the area, very little serious attention appears to have been given the Valley's bird life for approximately 30 years. Then from about 1928 through 1930, Reinhold L. Fricke periodically collected birds there for Carnegie Museum. He also wrote short notes describing the occurrence of a number of rarer birds. Most of these appeared in *The Cardinal*, the journal of the Sewickley Valley Audubon Society. This remarkable publication flourished for several years under the editorship of Bayard H. Christy, who was also the author of notes (from various scattered sources) concerning local ornithology. The most interesting regional paper from the *Cardinal* era appeared in 1933. A five-page note by Norman McClintock, it provided detailed accounts of several species he had found in the vicinity of Ligonier between 1930 and 1933, including records of summering Bobolinks, Upland Sandpipers, and Cliff Swallows. Then followed another period of more than 20 years of local inactivity.

By the end of the 1950's the late Dorothy Auerswald, who had actively begun observing birds in the Valley, wrote a few brief notes for the *Bulletin* of the Audubon Society of Western Pennsylvania. Christmas bird-counts for the seasons of 1953 and 1954, taken by John R. Lehman near Stahlstown, appeared in *Audubon Field Notes*.

The first intensive study of the region's birds began in 1956 with the establishment of Powdermill Nature Reserve through a series of gifts to Carnegie Museum by the late Richard King Mellon, Mrs. Mellon, and the late Dr. and Mrs. Alan M. Scaife. Ornithological work started with an inventory of the birds of the property taken by Dr. Kenneth C. Parkes and a few others during brief trips to the new Reserve. The author's own work at Powdermill and with the birds of the Valley, began in June, 1961, when he was employed by the Museum to establish the Reserve's bird-banding program. From 1962 through 1974 he was usually resident at Powdermill from early March through mid-November. In January, 1975, he moved permanently to the Reserve to do banding there on a 12-month schedule. Under his previous schedule, there was a four-month period each winter when he did not record birds in the Valley, and consequently has had to depend solely on the records of other observers for many species that are late fall migrants or winter residents. In general, his local banding work, along with his field observations elsewhere in the Valley, form the backbone of this publication. Annual summaries of the bird-banding program's results have been published in a series of Powdermill Nature Reserve Research Reports.

The present account includes records and observations through the end of 1974. Only major additions (e.g., three new species) during the first half of 1975 and a

few other 1975 records were added to the manuscript after it was completed.

PLAN OF THE SPECIES ACCOUNTS

The individual species accounts document the current status of each species of bird known from the area, as far as the author has been able to determine from his own field work. Published records and reports from contemporary field observers that supplement his own observations have also been included. The nomenclature and order of the species accounts follow the *Check-list of North American Birds* (American Ornithologists' Union, 1957) and its 32nd *Supplement* (1973).

Each account begins with an assessment of the seasonal occurrence of the species. For migrants, normal arrival and departure dates are given, along with exceptional dates, if any. Wherever appropriate, a statement is then provided on the bird's breeding and winter status. Often, maximum counts of birds are noted. These are sometimes actual field counts of individual birds. In other instances estimated numbers seen in a day's field work are used. Daily banding totals represent the maximum number of individuals banded in a single day at Powdermill Nature Reserve, using an average of 25 Japanese mist nets. Such banding totals provide a general index of the relative abundance of a particular species in the area, but of course are not evidence of the exact numbers present. A few birds banded at Powdermill and recovered elsewhere are also mentioned, to indicate where the local birds may go in other seasons. For a number of species, notes are given on banded individuals that have been rehandled at the Reserve, or recovered elsewhere, that have proved to be four years old or older.

All observations are the author's own and were made at Powdermill Nature Reserve unless otherwise credited. Records not made by the author, or made in joint bird-banding work at the Reserve, are credited to the person(s) responsible. The word "with" before another's name indicates that the observation was made while the author was in the other person's company. For example, "(with D. Willard)" denotes that the bird had been seen by both Willard and Leberman at the same time and place. "*Fide*" indicates "on the authority of," and often refers to the record of one person, verified by another. "Feral" is used to describe a population of birds that was once domesticated, but has since returned to a wild or semi-domesticated status. The word "Valley," when capitalized, means "Ligonier Valley"; and Powdermill Nature Reserve is often referred to simply as "Powdermill" or "the Reserve."

Several observers whose names appear frequently in the pages that follow are designated as follows:

ACL—A. C. Lloyd

JKO—John K. Orndorff

DER—Dan E. Roslund

HMS—Helen M. (Mrs. A. W.) Schmidt

CS—Cliff Stringer

RS—Randy Stringer

Terms used to express relative abundance, frequency, and seasonal occurrence are generally those recommended by the New York State Bird Book Committee (Arbib, 1957).

ABUNDANCE SCALE, NON-BREEDING

Abundant: Occurring in such numbers that a competent observer at the appropriate time and place might see or hear more than 500 individuals in a single day.

Very Common: 101-500 in a single day.

Common: 26-100 in a single day.

Fairly Common: 6-25 in a single day.

Uncommon: 1-5 in a single day (no more than 25 per season).

Rare: 1-5 in a single day (no more than 5 per season).

Very Rare: No more than 1 per day (and 1 per season).

ABUNDANCE SCALE, BREEDING

Term	Breeding density	
	Body flicker-size or smaller	Body larger than a flicker
<i>Abundant</i>	1 pair per 1-5 acres	1 pair per 1-25 acres
<i>Very common</i>	1 pair per 6-25 acres	1 pair per 26-125 acres
<i>Common</i>	1 pair per 26-125 acres	1 pair per 126 acres-1 sq. mile
<i>Fairly common</i>	1 pair per 126 acres-1 sq. mile	1 pair per 1 sq. mile-5 sq. miles
<i>Uncommon</i>	1 pair per 1 sq. mile-5 sq. miles	1 pair per 6-25 sq. miles
<i>Rare</i>	1 pair per 6 sq. miles-25 sq. miles	1 pair per 26-125 sq. miles
<i>Very rare</i>	1 pair per 26 sq. miles or more	1 pair per 126 sq. miles or more

FREQUENCY STANDARD

Regular: Recorded every year.

Irregular: Recorded less than once every year, but no less than once in five years.

Occasional: Recorded less than once in five years, but no less than once in ten years, on the average.

Sporadic: Recorded less than once in ten years, but no less than once in twenty years, on the average.

Casual: Recorded less than once in twenty years, on the average.

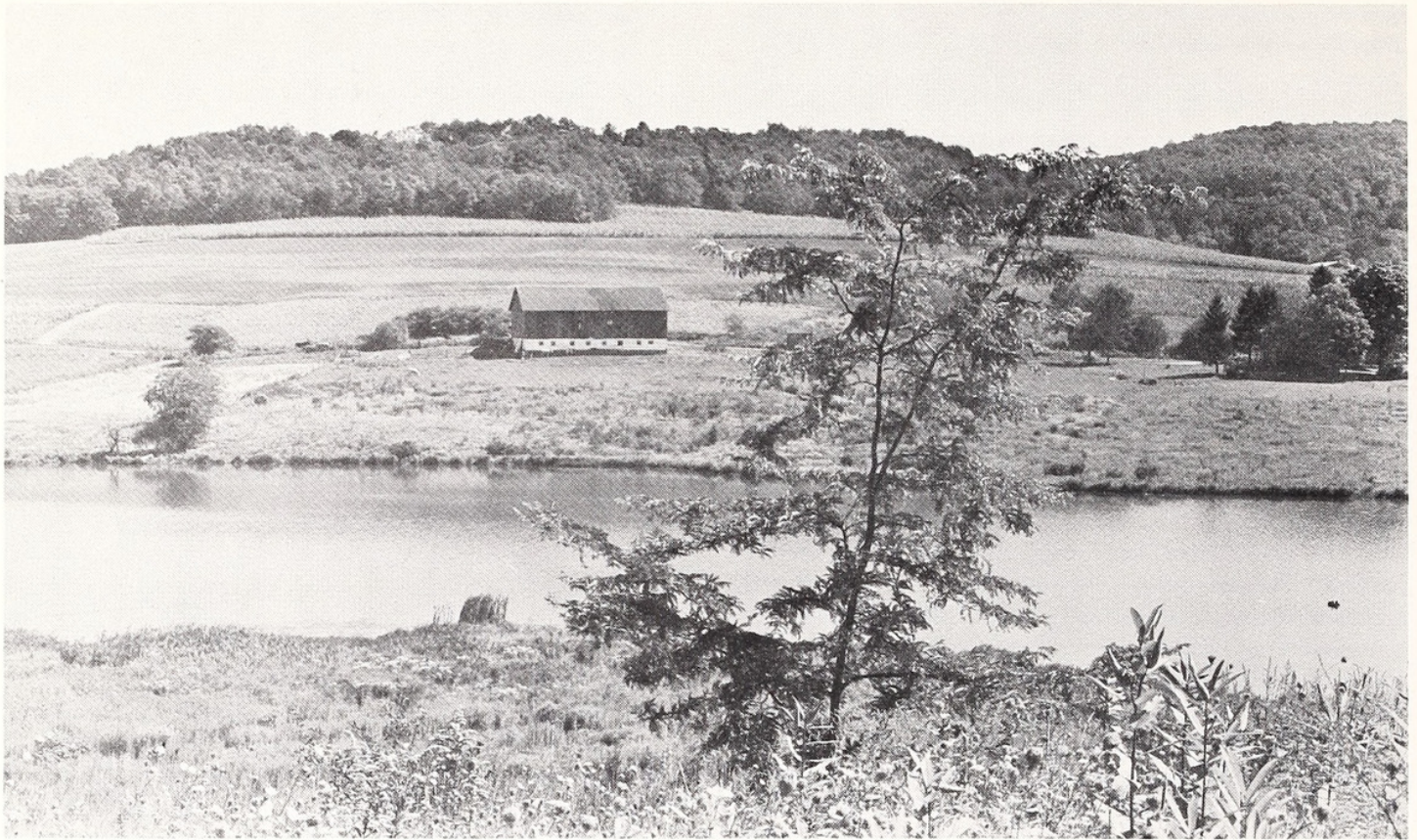
Accidental or *Exotic*: Recorded, but because of its normal range not expected to occur again.

SEASONAL OCCURRENCE

Residents: Breeding species; may occur as summer residents or permanent residents.

Transients: Birds of passage that occur in spring, fall, or both, but do not breed; may occur as spring or fall transients.

Visitants: Non-breeding birds that occur as temporary visitors; may occur as summer or winter visitants, or as vagrant visitants (irregular as to season).



Donegal Lake. A wide variety of water birds stops at this shallow reservoir during migration. Photo by James R. Senior.



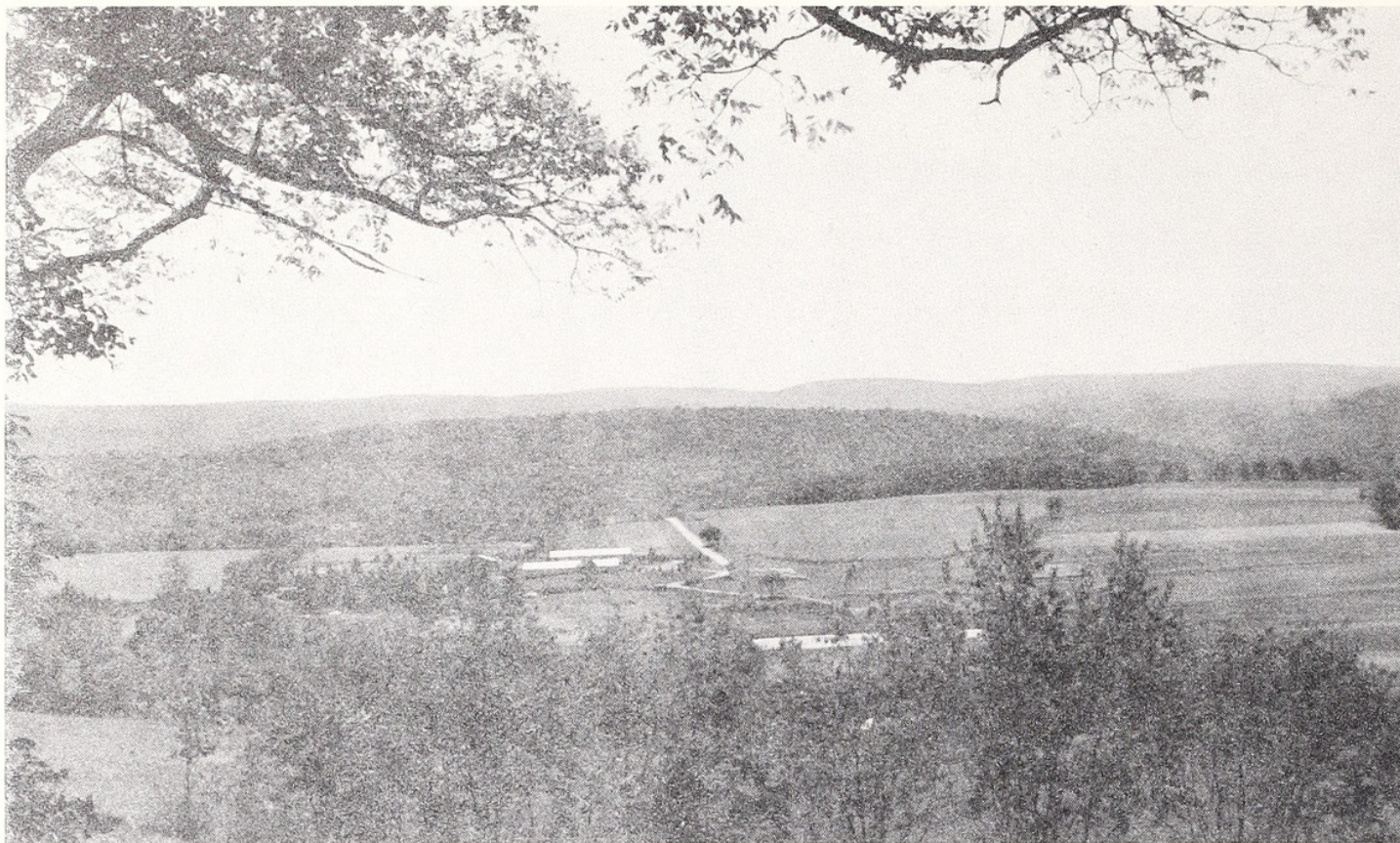
Laurel Hill. The open maple-oak forest on the summit of the mountain. The low ground-cover is primarily laurel and ferns. Photo by Mary H. Clench.



Laurel Summit Glade. The white pine border of this bog is the nesting locality of several northern species of birds that are unknown or very rare in other parts of the Ligonier Valley. Photo by Mary H. Clench.



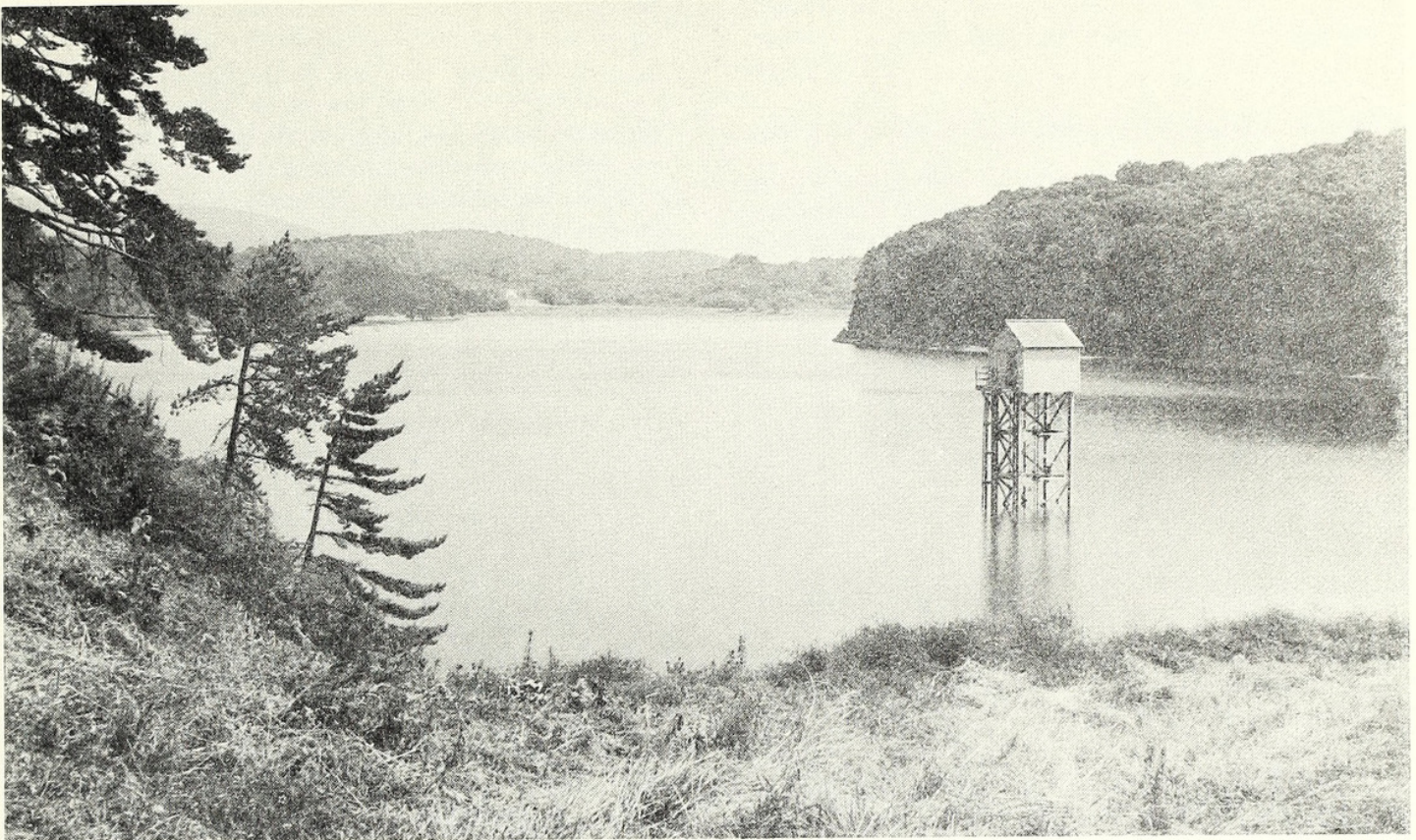
Linn Run, Linn Run State Park. This stream is flanked by hemlock groves and rhododendron thickets, attractive habitat for many species of birds. Photo by James R. Senior.



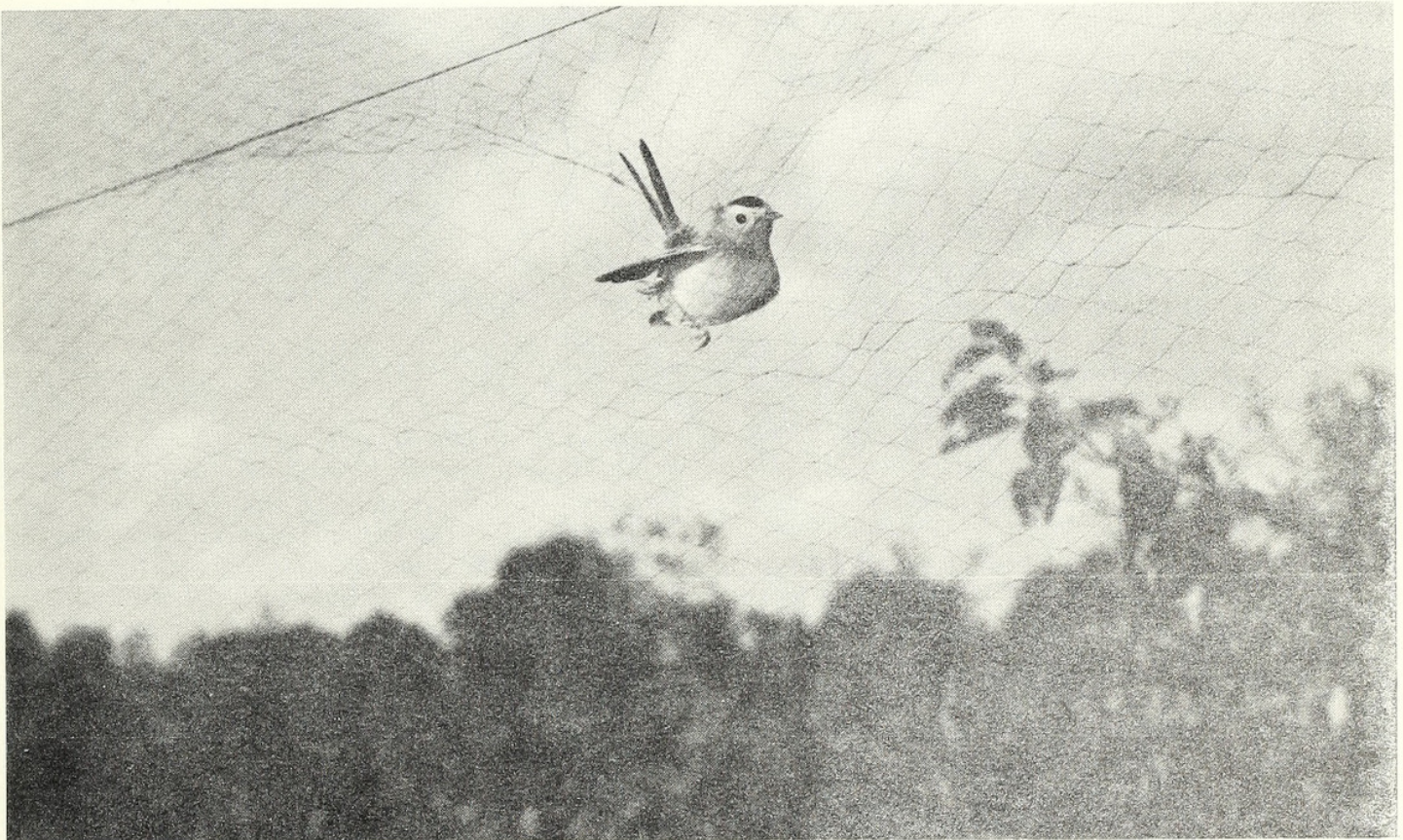
The central Ligonier Valley. The forested hills in the background are part of Powdermill Nature Reserve. In the middle ground are buildings and fields of the Southwestern Field Research Laboratory of Pennsylvania State University. Photo by J. Lewis Scott.



Powdermill Nature Reserve, Crisp Pond. The captive family of Canada Geese often attracts other waterfowl to this small lake. Photo by Mary H. Clench.



Trout Run Reservoir, a favorite resting area for migrating loons, swans, and diving ducks. Photo by Vincent J. Abromitis.



A Wilson's Warbler netted at Powdermill Nature Reserve. The Reserve's banding program has provided valuable information on the birds of the Ligonier Valley. Photo by M. Graham Netting.

SPECIES ACCOUNTS

COMMON LOON

Gavia immer

Regular, uncommon transient in spring and fall on larger lakes; rare and infrequent on smaller farm ponds. The earliest spring record is of an individual at Trout Run Reservoir March 22, 1969. Most birds pass through the Valley during the second half of April and the first week of May, and are usually observed as individuals or in small groups of two to four birds. The maximum count at this season is nine at Donegal Lake on April 20, 1972. Late spring records include one at Donegal May 20 (1971), and two at Trout Run May 23 (1972). Fall arrivals have been noted at Trout Run as early as September 28 (in both 1970 and 1971), with peak numbers during the first half of November. My highest count is 19 on Trout Run on November 7, 1974. Stragglers should be expected in early winter as long as the lakes remain ice free. Several years ago a loon was reported (Eleanor Morris) to have lingered on a small pond near Jones Mills into early January.

RED-THROATED LOON

Gavia stellata

Very rare transient. Recorded thus far only at Donegal Lake, where I saw one April 3, 1972, and two on November 9 of the same year.

HORNED GREBE

Podiceps auritus

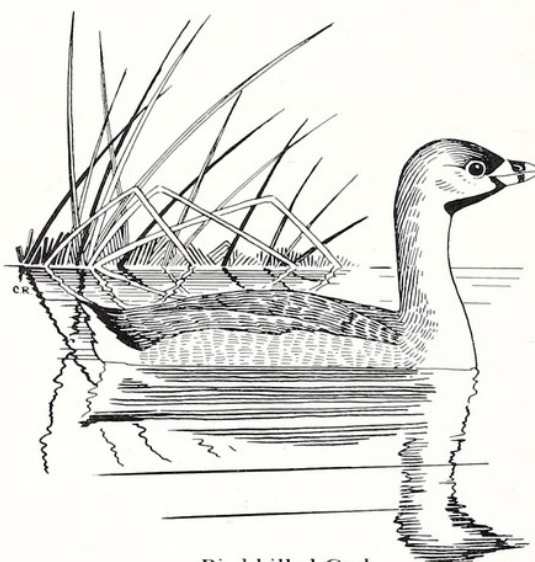
Usually an uncommon but regular transient in spring and fall on small farm ponds as well as the larger lakes. Early arrivals in 1972 include individuals at Trout Run Reservoir March 8, and Donegal Lake March 13. Peak numbers usually occur in late March and the first two weeks of April. Maximum counts are 40 at Trout Run on April 5, 1973; 24 on April 10, 1972 (ten on Trout Run and 14 at Donegal); 15 at Trout Run on April 6, 1972; and 18 at Donegal on April 4, 1973. Late spring dates include singles at Donegal April 24 (1972, CS), and Trout Run on May 10 (1971). In the autumn, when the birds are perhaps a little less frequent than in spring, early arrival dates are October 10 (1968) at Donegal, and October 11 (1965, with Ronald F. Leberman) at Trout Run. I have seen four grebes at Donegal as late as November 13 (1970). During mild winters they should be watched for as long as the lakes remain open.

PIED-BILLED GREBE

Podilymbus podiceps

Regular, fairly common transient; one breeding record. The first migrants usually appear soon after the local ponds and lakes begin to open with the spring thaw. The earliest arrival date is for three birds (Carl and Dorothy Auerswald) west of Ligonier at Dugan's Pond on March 8 (1961). I saw three at Donegal Lake on March 13 (1972). Most migrants pass through the Valley in April, and although usually observed as individuals or in small groups at this time, as many as ten have been seen at Donegal (April 13, 1970) in a

single flock. At least one pair nested at Donegal Lake in 1968, and five young hatched from that nest on June 3. This was apparently the first breeding record for the Valley. The lack of subsequent breeding records at Donegal is probably attributable to disturbance by fishermen. An unusually early migrant (or a local bird) was found on August 2 (1970) at Jones Mills (Betty Abernethy), and the first migrant was at Donegal on September 11 (in 1972). By the first week of October they are usually fairly common throughout the area. Autumn peaks include 32 birds at Donegal on November 6, 1970, and 17 at Davey's Lake on November 9, 1972. During milder seasons this grebe should be expected to linger in the area into early winter. Exact departure dates are not available, although one was seen at Donegal as late as November 24 (1972, CS).



Pied-billed Grebe

DOUBLE-CRESTED CORMORANT

Phalacrocorax auritus

Sporadic visitant in southwestern Pennsylvania, for which there is but one local record. The bird, collected from a pond in the Rolling Rock area on or about June 5, 1964, was given to Carnegie Museum by Mrs. Wesley Henry. It proved to be in first-year plumage.

GREAT BLUE HERON

Ardea herodias

Regular, uncommon transient in spring and fall; regular, non-breeding summer visitant; irregular, usually a very rare winter resident. The first migrants return in late March or early April, with arrivals reported on March 25 (1965); March 29 (1970); and April 2 (1962). By the second week of April sightings are frequent, both at the larger lakes and at small farm ponds. Observations at this and other seasons are usually of solitary

birds—rarely of pairs or small groups. By early May most migrants have already passed through the Valley. From then through June and July sightings are scattered and may be of wandering birds from farther south. Migrants again begin to appear regularly about the first week of August, and numbers remain quite constant through mid-November. An occasional heron may linger through the winter, as long as there is sufficient open water. Dan E. Roslund has seen individuals at Powdermill on December 4-5 (1967); December 20 (1972); and January 4 (1974). Another was found near Stahlstown by Joseph VanBuskirk on January 2 (1971), and several reports came from the Ligonier area during the winter of 1974-1975.

GREEN HERON

Butorides virescens

Regular, uncommon transient; fairly common summer resident. This heron is most often seen along the larger lakes and streams, but it also frequents the numerous smaller ponds and creeks throughout the Valley. The first birds appear sometime after mid-April. The average arrival date for ten years of record is April 22, while early dates include April 18 (1964); April 19 (1963); and April 20 (in 1971 and 1972). In 1962 the first Green Heron was not found until May 3. A sizeable breeding population makes it impossible to determine just when the first true autumn migrants appear, but apparently the majority of birds passes through this region in September. They are scarce by early October, late dates being October 5 (1970), and October 12 (1969).

LITTLE BLUE HERON

Florida caerulea

Casual, rare summer visitant. Fricke (1930b) has furnished the only local records of this species. On July 19, 1930, while visiting the Duquesne Boy Scout Camp near Rector, he observed an immature Little Blue Heron along Loyalhanna Creek. The next afternoon Fricke saw three fly over the camp, and on the same evening he again identified a flock of nine young birds overhead.

GREAT EGRET

Casmerodius albus

To date the Great Egret (formerly Common, or American Egret) has been recorded only as a casual spring transient in the Ligonier Valley. An individual was seen by about a dozen observers at Powdermill on April 6, 1975, and what may have been the same bird was later found at Donegal Lake from April 11 through at least April 18. It is to be expected as a wanderer from the south in late summer and early fall.

BLACK-CROWNED NIGHT HERON

Nycticorax nycticorax

Irregular, very rare summer and autumn visitant. Todd (1940) credits a June 26, 1898 observation of a Black-crowned Night Heron at Laughlintown to Samuel N. Rhoads. The only recent records are of individuals

seen flying over Powdermill on June 19, 1970; September 18, 1969; September 30, 1972; and October 1 and 9 in 1974.

YELLOW-CROWNED NIGHT HERON

Nyctanassa violacea

There is but a single record for the Yellow-crowned Night Heron for the Ligonier Valley: an adult I observed near Crisp Pond at Powdermill on May 14, 1965.

LEAST BITTERN

Ixobrychus exilis

The only local record of the Least Bittern is of one seen by Cliff and Randy Stringer along the edge of Crisp Pond at Powdermill on the morning of May 10, 1971. I was able to locate the bird in the same area that evening, and banded it the next day. It was last observed on the 12th.

AMERICAN BITTERN

Botaurus lentiginosus

Regular, uncommon transient, found in small marshy or other wet areas in both spring and fall. Early arrival dates include April 4 (1962), and April 7 (1969, G. and A. Lenhart) at Powdermill; and April 7 (1972) at Donegal Lake (J. A. Young). Apparently most migrants pass through the region during the first week of May, and my latest spring date is May 16 (1969). Most American Bitterns have been observed in lowland sections of the Valley, but one was seen near Laurel Summit Glade (with CS and RS) on May 10, 1971. The autumn flight is under way by mid-September (with one 1971 record at Powdermill on September 14), and continues through early November: at the Reserve as late as November 4 (1967), and just north of Powdermill (*vide* W. C. Paxton, Jr.) November 5 (1960).

MUTE SWAN

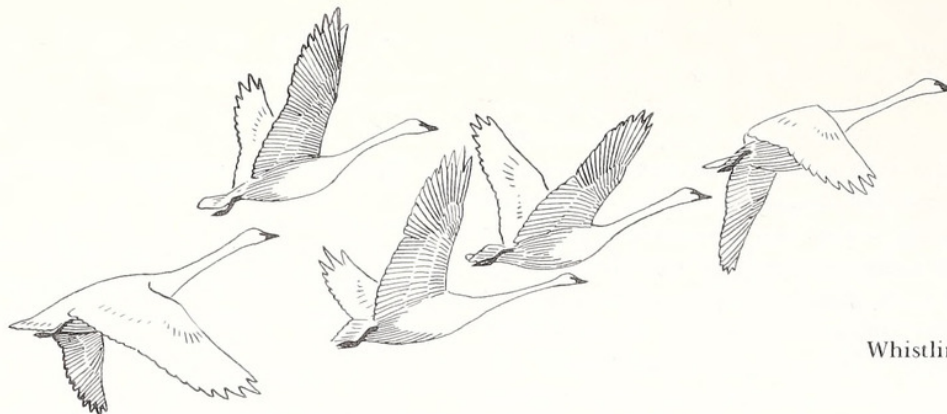
Cygnus olor

Apparently the Mute Swan is a very rare or perhaps only casual transient in the Ligonier Valley in a feral state. The presence of domesticated swans on several private lakes and ponds within the region make it virtually impossible to detect genuinely feral birds. A free flying individual, however, was found by George and Maxine Roland at Donegal Lake on April 27, 1975. Over the next few days this swan was also seen by others. All earlier local reports appear to be of known domestic Mute Swans or of birds of even more uncertain status. Perhaps the status of any single bird seen in the mountains of southwestern Pennsylvania is questionable.

WHISTLING SWAN

Olor columbianus

Regular and sometimes very common transient in spring and fall; sporadic winter visitant. The earliest spring report is of 75 swans at Trout Run Reservoir on February 27 (1971, Mrs. Alex Simkovitch). Fifteen were at Donegal Lake on March 1 (1974), and three appeared there on March 8 (1972). By the end of



Whistling Swans

March the birds are fairly common, and the migration is virtually completed by early April. In 1972, however, a single swan lingered in the Powdermill Nature Reserve area from April 10 through the 17th. My earliest fall record is of 25 flying over Powdermill on October 19, 1972. The majority of the birds migrate through the Valley during the first half of November. Peak Powdermill counts in 1966 included 200 on November 11 and 250 on the 13th (various observers). A rather late individual was reported at Trout Run on November 26 (1972) by Mr. and Mrs. Cameron Henry, and 16 were at Donegal on December 15 (1974, D. Smeltzer, Virginia Johnson). Mid-winter records include one on Loyalhanna Creek at Ligonier on January 8 (1970, DER), and 45 flying high over Powdermill on the 10th (DER).

CANADA GOOSE

Branta canadensis

Regular, fairly common spring migrant; very common fall migrant; a few semidomestic-feral birds are permanent residents. Extreme dates for arrival and departure of true migrants are difficult to establish because of the presence of the resident birds. Substantial overhead flights in late February undoubtedly represent early migrants, and the spring peak occurs during mid- or late March. Some migrants may linger in the Valley through at least mid-April. I have few detailed counts of spring migrants, but flocks of more than 25 birds are unusual at this season. The highest count from Powdermill is 24 birds on Crisp Pond March 21, 1969. Migrating geese are much more commonly observed in the fall, with large flocks passing over Powdermill at night as early as September 27-28 (in 1972). The flight usually continues to be heavy throughout October and into early November. The size of the nocturnal flights is difficult to determine, but as many as 200 to 300 Canadas per day are often seen overhead during daylight hours in October. Mr. and Mrs. Cameron Henry report 12 still on Trout Run Reservoir on November 26 (1972), and 50 on January 6 (1974).

There is one record of *B. c. hutchinsii*, "Hutchins' Goose," a very small arctic-breeding race of the Canada, from Powdermill. The bird was found on Crisp Pond (M. H. Clench, JKO, and I) on October 9, 1969, and remained there through November 6. It was seen and photographed by many observers. *B. c. interior* is the race of Canada Goose normally found in western Pennsylvania.

SNOW GOOSE

Chen caerulescens

Occasional rare fall transient. An immature in the dark (blue) color phase was found on a small farm pond near Powdermill on October 22, 1960 (W. C. Paxton, Jr.) and was later killed by a local hunter. A flock observed by Lorraine Felty and Walter Boyer in a field near Donegal on October 23-24, 1969, contained 16 birds in the dark phase, and a single bird in light (white) plumage.

MALLARD

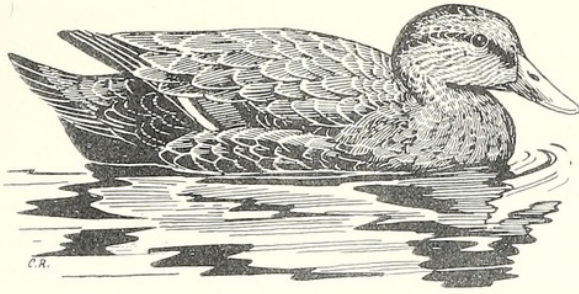
Anas platyrhynchos

Regular, common transient in spring and fall; regular, common summer resident; regular, very common (occasionally abundant) winter resident. The presence of a large resident semidomestic-feral population of Mallards in the Ligonier area makes it difficult to distinguish the migratory populations also frequenting the region. There appears to be a decided increase in numbers by early March, and the majority of spring transients seem to move through the Valley during that month. The locally breeding birds are again supplemented by a sizeable flight of migrants in autumn, perhaps peaking in November, then numbers often build up considerably during milder winters. At Powdermill, wintering Mallards on Crisp Pond (being fed artificially) have occasionally been estimated in excess of 200. However, the largest count yet reported from the area is of about 550 on the ice at Trout Run Reservoir (Mr. and Mrs. Cameron Henry) on January 6, 1974.

BLACK DUCK

Anas rubripes

Regular, usually fairly common transient in spring and fall; uncommon summer resident; regular, uncommon winter resident. The first migrants normally appear early in March, and small flocks are frequent by mid-month. The flight continues through late April or early May. High spring counts at Trout Run Reservoir include 30 on March 2, 1974; 15 on March 12, 1961 (Dorothy Auerswald, Cora Williams); 28 on March 21, 1971; and 15 on March 26, 1973 (with HMS). A few birds apparently remain to nest near Trout Run and Donegal Lake, and there are occasional summer records from elsewhere in the region. Black Ducks again appear in the Valley in numbers by early October, and are mostly gone by early December. The highest autumn count is of only 12 at Trout Run on November 26, 1972 (Mr. and Mrs. Cam-



Black Duck

eron Henry). A few Black Ducks normally remain in winter where there is sufficient open water, and some individuals may be permanent year-around residents. There are scattered reports of hybrids between Mallards and Black Ducks during both spring and fall, and I found such a hybrid mated to a female Mallard at Donegal Lake a few summers ago.

GADWALL

Anas strepera

Regular, uncommon transient in spring; apparently irregular and very rare in fall; rare and sporadic early summer visitant. The earliest spring record is of one Gadwall at Donegal Lake on March 9 (1971); other first dates from Donegal are March 16 (in 1964 and in 1971). The best count, also from Donegal, is six on April 15, 1968. By the end of April the migration is completed, and last dates include April 24 (in 1969 and 1972) at Donegal, and April 30 (1973) at Powdermill. A vagrant (or late straggler?) found on Crisp Pond at Powdermill June 3 (1964), represents the only local summer record, and my only autumn observation of the Gadwall is of one seen on Crisp Pond on September 22 (1972).

PINTAIL

Anas acuta

Regular, uncommon spring transient; irregular and apparently rare fall transient. Surprisingly scarce. To date all local spring observations have been from the month of March, and are of no more than three individuals per sighting. Joseph VanBuskirk noted the first migrant of the season on March 8 (1969), and in 1971 the Pintail first appeared at Powdermill on the 11th (DER). Last spring dates from Donegal Lake include two on March 26 (1973) and two on March 27 (1970). Autumn records are even fewer, and range from a female that spent the first week of September at Powdermill in 1970, to one seen at the Reserve on October 25, 1969 (with Wm. McVaugh).

GREEN-WINGED TEAL

Anas crecca

Regular, usually uncommon transient in spring and fall. The first Green-wings usually arrive on area lakes and ponds about mid-March. First dates include one bird at Trout Run Reservoir on March 12 (1961, Cora Williams, Dorothy Auerswald), and two at Donegal Lake March 15 (1972). In spring they are seldom seen in flocks of any size. Numbers remain fairly constant through late March and the first three weeks of April. My best spring count is seven at Donegal on April 22, 1971. By the end of April the birds are scarce. The latest

record is of two at Donegal on April 27 (1972). The earliest fall arrival was seen on August 7 (1969) at Powdermill. Two other first autumn records at the Reserve are for August 17 (in both 1970 and 1972). A peak is usually reached at about mid-November, and the maximum count at Powdermill was 13 on November 13, 1966. December observations are too few to indicate the normal departure date, but undoubtedly a few birds occasionally linger on local lakes through at least mid-month.

BLUE-WINGED TEAL

Anas discors

Regular, fairly common transient in spring and fall on ponds and lakes throughout the Ligonier Valley. Early arrival dates for the Blue-winged Teal include three at Davey's Lake on March 9 (1972) and one at Donegal Lake on March 13 (1970), but during many seasons the first arrivals do not appear before the first week of April. The flight continues through most of April, and some maximum spring counts from Donegal Lake are of 13 on April 22, 1970; 14 on April 11, 1973; and 14 on April 20, 1972. Numbers decline gradually through the first half of May, and the latest spring record is of two at Powdermill on May 22 (1971). The first fall migrant appeared at Powdermill on July 27 (1973). Other first dates are of six at Donegal (with JKO) on August 1 (1968), and one at Powdermill on August 4 (1972). Blue-winged Teal are normally fairly numerous from about mid-August through early October. High fall counts at Powdermill are of 16 on Crisp Pond on August 23, 1965; 19 on October 6, 1973; and 20 on October 3, 1970. Latest fall records for Powdermill are October 22 (1965) and October 26 (1963). At Donegal Lake the latest observation (CS) is October 30 (1968).

AMERICAN WIGEON

Anas americana

Regular, fairly common transient in spring and fall on regional lakes and large farm ponds. Two wigeons had returned to Powdermill as early as February 18 (1975). Other early arrivals include one at Powdermill on March 8 (1964, ACL), and seven at Donegal Lake on March 9 (1972). By mid-March, wigeons are normally widespread. The flight peaks during the second half of the month, and the maximum count has been 20 at Donegal on March 21, 1969. There are numerous April records, although by the end of the month the species is scarce. Some last-seen spring dates at Donegal are April 22 (1970), and April 30 (1969); and at Powdermill, April 22 (1971, DER), and April 30 (1973). The earliest autumn record is from Trout Run Reservoir on September 17 (1970). By early October the flight is normally well under way. At this season wigeons are usually seen as individuals or in small groups of fewer than a dozen birds. An exception is of a flock of 45 observed at Trout Run on October 7, 1971. My latest sightings are for mid-November. Undoubtedly a few birds linger into early winter whenever there is sufficient open water.

NORTHERN SHOVELER

Anas clypeata

Irregular transient, rare in spring and very rare in fall.

The earliest arrival record for the Northern Shoveler is of one at Donegal Lake on March 14 (1973, CS). There is a scattering of records (usually of only one or two birds) from late March through most of April. The latest spring observation is from Donegal on April 27 (1972). I have found the species in the fall on only two occasions: individuals seen at Powdermill on September 9, 1970, and October 7, 1971.

WOOD DUCK

Aix sponsa

Regular, fairly common transient in spring and fall; rather common summer resident; irregular, rare winter resident. Spring arrivals usually appear at Powdermill during the second half of March. First dates include March 16 (1964 and 1972), March 19 (1965), March 21 (1970), and March 22 (1969). By early April, Wood Ducks are widely distributed throughout the Valley and flocks of up to ten individuals are not especially unusual. My highest spring count from Powdermill is of 23 on Crisp Pond April 7, 1972. During the nesting season the birds are most frequently found along woodland streams and on small ponds. The first young are out of the nest in late May. I saw a female with at least 15 recently hatched young on Donegal Lake on May 25, 1970. The fall migration appears to peak in September. Records include 18 Wood Ducks on Crisp Pond on September 6, 1971, and 16 males there September 27, 1965. The birds continue to be seen regularly through October and into early November. In 1972, five were still on Davey's Lake on November 9. Mr. and Mrs. Stewart Steffey report that two Wood Ducks remained on a pond at Rolling Rock during the entire winter of 1970-71. Three were seen on Crisp Pond (DER) February 26 (1971).

REDHEAD

Aythya americana

Usually uncommon but regular transient in spring and fall. This is normally a bird of the larger lakes and ponds, appearing shortly after the spring thaw in March. My earliest record is of three at Donegal Lake on March 9 (1972), and it has been found on Trout Run Reservoir as early as March 12 (1961, Mr. and Mrs. W. R. Williams, Carl and Dorothy Auerswald). One was on Crisp Pond at Powdermill on March 15 (1967), and in 1972 Redheads also arrived at Donegal on March 15. Peak numbers in spring include five at Powdermill on March 21, 1968; ten at Trout Run on March 18, 1972; and 18 at Trout Run on April 1, 1974. In the fall I have found the species only during the first half of November. Arrival dates include one bird at Donegal on November 5 (1970), and one on Crisp Pond November 7 (1971). No wintering birds have yet been reported from the region, although they should be looked for as late in the season as there are extensive areas of open water.

RING-NECKED DUCK

Aythya collaris

Regular, often common spring transient; regular uncommon (occasionally fairly common) fall transient. The spring migration usually gets under way during the first half of March. Carl and Dorothy Auerswald noted

the first two migrants at Dugan's Pond on March 8 (1961). I found two at Donegal Lake on March 8 (1972), and ten at Donegal on March 15 (1971). Maximum spring counts are 35 on April 6, 1972, at Trout Run Reservoir, and 32 at Donegal on April 9, 1971. The birds are usually scarce by the second week of April. One was on Donegal Lake on April 7, 1969, and ten were there on April 10, 1970. According to Todd (1940), Ruth Trimble reported the species as late as April 21 (1935) near Darlington. Autumn arrival dates at Donegal include September 28 (1972) and October 5 (1970). Maximum numbers appear to move through the area during the first half of November. My highest count is nine at Powdermill on November 12, 1970. No significant last dates are available, but when the lakes remain ice-free, Ring-necks should be looked for through early December.

CANVASBACK

Aythya valisineria

Regular, fairly common transient in spring and fall; rare and irregular by mid-winter. Canvasbacks normally first appear on the larger lakes and ponds during the second week of March. The earliest date is March 9 (1972). My best spring count is of 17 at Powdermill on March 21, 1968, but resting flocks commonly are of no more than a half-dozen individuals. Late records are of six at Trout Run Reservoir on April 3 (1972), and six on Donegal Lake April 5 (1971). A few birds appear in the region in October (October 7, in 1971, represents the earliest arrival at Powdermill), and the fall peak is normally during the first half of November. Eleven were on Donegal Lake on November 12 (1970). In seasons when there is open water, a few Canvasbacks may winter. One remained at Powdermill on January 20 through March 10 in 1973 (DER), and 15 were listed from the Valley in an unpublished Christmas count on December 30, 1973 (*vide* D. Smeltzer).

GREATER SCAUP

Aythya marila

Irregular, apparently rather rare spring transient. My only satisfactory records are from Donegal Lake: two on April 1, 1971, and seven on April 5, 1973. However, the Greater Scaup may occur more frequently than these few records indicate. Almost certainly a few of the scaup that remain unidentified on the local lakes represent this species.

LESSER SCAUP

Aythya affinis

Regular, common to very common spring transient; regular, common fall transient. This is among the more numerous of the migratory ducks passing through the region. On February 18, 1974, three very early Lesser Scaup arrived at Powdermill (DER). In other years the first spring transients have appeared at Trout Run Reservoir on March 12 (1961, C. Williams, D. Auerswald), and on March 13 (in 1972). The species is usually common throughout the area by mid-month. Maximum spring counts at Donegal Lake are of 72 on April 1, 1969, and 95 on April 11-12, 1973. For Trout Run the best counts are 80 on April 20, 1970, and 125 on

April 6, 1972. There are a few Lesser Scaup records through the first half of May: May 11 (1972) at Donegal; and May 13 (1971) and May 15 (1967) from Trout Run. The latest spring record is of a straggler on Trout Run on June 1 (1972). An early fall female was seen on Crisp Pond at Powdermill on October 14 (1965), but November is the month of peak autumn migration. High fall counts include 35 at Trout Run on November 5, 1970, and 45 at Donegal on November 5, 1970. Undoubtedly a few individuals linger in the region through at least early winter.

COMMON GOLDENEYE

Bucephala clangula

Regular, usually fairly common transient in spring; uncommon in fall. Future field work will likely reveal the Common Goldeneye to be an occasional winter visitant in the Ligonier Valley, but all available records are of migrants. My earliest record is of a bird at Trout Run Reservoir on March 13 (1972), but most spring observations fall between the third week of March and the first week of April. Latest spring dates from Donegal Lake are April 10 (1972) and April 14 (1973). Six birds were seen on the latter date, my best count for the season. In autumn, the earliest I have noted goldeneyes is October 30 (1963), at Powdermill. Although most fall records are from November, a few birds almost certainly linger well into December when open water is available.

BUFFLEHEAD

Bucephala albeola

Regular, usually fairly common transient in both spring and fall; one winter record. Buffleheads normally return to area lakes and ponds about mid-March. Arrival dates at Donegal Lake include March 13 (1972, CS), and March 18 (1971). The flight continues strong through the first three weeks of April, when peak numbers at Donegal were 12 on April 11, 1968, and 30 on April 18, 1972. The latest spring record at Powdermill is April 24 (1964). Two were seen at Donegal on April 27 (1972). The earliest fall observation is of a female at Powdermill on October 16 (1970). After the first birds appear, the population rapidly reaches a peak: highest autumn counts at Donegal are of 20 on October 19, 1972, and 21 on November 5, 1970. Migration continues through the remainder of November, and many birds probably linger in the area well into December. One Bufflehead was listed from the Valley on an unpublished Christmas census (D. Smeltzer) centered at Rector on December 30 (1973).

OLDSQUAW

Clangula hyemalis

Irregular, fairly common spring transient; usually uncommon in fall; one winter observation. Normally the Oldsquaw is found only on the larger lakes and ponds within the region. The earliest spring record is on March 24 (1973), when Townsend Treese saw one at Donegal Lake. Other first arrivals include eight at Donegal and 12 at Trout Run Reservoir on April 1 (1968). The highest count for Donegal is 25 on April 4, 1972 (CS). The spring flight is of short duration, and my latest record is for two birds at Donegal on April 11 (1973). In the fall,

Oldsquaws have appeared on Donegal Lake as early as October 19 (1972, nine birds), but mid-November is apparently the period of peak movement. A few birds might be expected to occur in the area through early December. The only winter record thus far is of one seen at Trout Run by Mr. and Mrs. Cameron Henry on January 4 (1974).

WHITE-WINGED SCOTER

Melanitta deglandi

Irregular, rare spring transient; occasional in autumn. Normally found only on the largest lakes. All of the very few spring observations of the White-winged Scoter are for the month of April. The earliest records are of one bird at Donegal Lake, and four at Trout Run Reservoir on April 5 (1973). The latest spring record is of two on Donegal Lake on April 15 (1968). The only fall records are of 12 at Donegal Lake on October 19 (1972), and (with HMS) of two that were seen on Crisp Pond at Powdermill after a severe snowstorm on November 12 (1968).

SURF SCOTER

Melanitta perspicillata

Rare anywhere in southwestern Pennsylvania. The only local record is of one bird seen with Ronald F. Leberman at Trout Run Reservoir on October 11, 1965.

BLACK SCOTER

Melanitta nigra

One fall record. A female Black Scoter was carefully studied at close range on Trout Run Reservoir on November 5, 1970. This is one of only two or three records of the species from all of southwestern Pennsylvania.

RUDDY DUCK

Oxyura jamaicensis

Regular transient, sometimes common in spring; fairly common in fall. The earliest spring records of Ruddy Ducks are from Donegal Lake on March 16 (1972) and March 18 (1971). By the last week of March the birds are frequently seen, and the population usually remains quite constant through the third week of April. Maximum April counts (from Donegal) are 21 on April 24, 1969; 24 on April 12, 1973; and 55 on April 11, 1968. Late dates at this season include two birds at Powdermill on April 22 (1970), and six at Donegal on the 24th. An exceptionally late straggler was at Powdermill between May 26 and 30 in 1968 (with ACL). Fall arrivals have been noted as early as October 2 (1972), and October 5 (1970) at Donegal, and October 7 (1971) at Trout Run Reservoir. The species is usually fairly common from mid-October through most of November. High fall counts from Donegal are of 15 birds on October 19, 1972, and 14 on November 11, 1971. Dennis Smeltzer and Virginia Johnson saw a late Ruddy at Donegal on December 15 (1974).

HOODED MERGANSER

Lophodytes cucullatus

Regular, fairly common spring transient; uncommon in fall. Hooded Mergansers normally appear on area lakes and ponds as soon as there is open water. The earliest

date seems to be from Dugan's Pond just west of Ligonier on March 8 (1961, Carl and Dorothy Auerswald). Other early records are of five birds at Donegal Lake on March 16 (1972), four at Powdermill March 18 (1963), and one at Donegal March 20 (1969). Peak numbers usually occur in early April, when counts at Donegal Lake have included 12 on April 9, 1970; 15 on April 7, 1969; and 20 on April 3, 1972. By early May, most migrants have already passed through the Valley, but two late birds were still at Donegal on May 6 (1971). Several females observed on Donegal Lake in early June (1968) may have been lingering, non-breeding birds, but the species may also occasionally nest. Four immature (flying) mergansers were seen at Powdermill on June 12 (1974). Fall migrants have been noted as early as September 30 (1973), but there is only a scattering of records before early November, when my highest count is of eight birds at Donegal on November 5 (1973). Although winter records are still lacking, a few Hooded Mergansers may be expected to occur on area lakes through most of December.

COMMON MERGANSER

Mergus merganser

A female found on Trout Run Reservoir on April 16, 1972, seems to be the only record for the Ligonier Valley. It is likely that future field work will show that the Common Merganser is not as rare as it now appears to be, and that it may well occur in winter.

RED-BREASTED MERGANSER

Mergus serrator

Regular, fairly common spring transient; one fall record. The earliest spring record on file is of two birds at Donegal Lake on March 13 (1972). Red-breasted Mergansers are usually present on all the larger lakes by the third week of March. They seem to avoid streams and the smaller farm ponds. High spring counts for Trout Run Reservoir are 17 on April 2, 1973, and 19 on April 20, 1972. My maximum count at Donegal Lake is 37 on March 21, 1969. Numbers are usually high through April, then drop off rapidly in early May. Latest spring dates include one bird at Powdermill on May 6 (1968), one at Trout Run May 8 (1972, with CS and RS); and two at Trout Run on May 10 (1971). There is a curious dearth of fall observations, aside from the bird that Cliff Stringer saw at Donegal on November 24, 1972. Further field work should better indicate the species' status at this season and in early winter.

TURKEY VULTURE

Cathartes aura

Regular, fairly common transient in spring and fall; regular, uncommon, and local summer resident. Turkey Vultures first appear in the Ligonier area in mid- or late March. I noted the first arrival at Donegal Lake on March 13 (1972). First spring dates at Powdermill include March 20 (1973), March 22 (1971), and March 24 (1969). Migrants are usually fairly common by early April. For reasons not fully understood, vultures are more frequently seen just to the north of Ligonier (especially during the breeding season) than to the south. The Trout Run Reservoir area usually holds the largest con-

centrations: I counted ten there on April 22, 1971. Most autumn migrants move through the Valley during September and the first half of October. At this season high counts include six near Donegal on September 28, 1970, and five at Powdermill October 10, 1972. An immature lingered at Powdermill through November 9 (in 1973).



Turkey Vultures

GOSHAWK

Accipiter gentilis

Irregular, rare transient in spring and fall; rare winter visitant. Flights of this northern species have occasionally reached as far south as the Ligonier Valley. After the invasion winter of 1962-63, single birds were seen at Powdermill on April 6 and 17. No additional Goshawks were recorded until the winter of 1968-69, when W. A. Saling, Jr. frequently observed one near Rector. An immature bird was captured and banded near Powdermill after it had flown through a cabin window on November 1, 1969. Saling again noted one regularly at Rector during that winter. More recently, a Goshawk was seen at Trout Run Reservoir by George Malosh on December 15, 1974, and one was at Powdermill through much of January and February, 1975.

SHARP-SHINNED HAWK

Accipiter striatus

Regular, usually uncommon transient in spring and fall; regular, uncommon summer resident; irregular, rare-to-uncommon winter resident. Although I have never observed a spring concentration of migrants along Chestnut Ridge or Laurel Hill, an increase in the local Sharp-shin population is usually apparent by late March, and numbers peak during the second half of April. Nests have been found at Powdermill and on the summit of Laurel Hill in late May and early June, and the species

undoubtedly breeds elsewhere in the Valley where suitable conifers are available for nesting sites. Fall migrants are most numerous in September and October, and a few birds apparently still pass through in November. The size of the wintering population varies considerably from year to year. At least one Sharp-shin normally winters at Powdermill each season, but it is never a common species at any time of year.

COOPER'S HAWK

Accipiter cooperii

Regular, uncommon permanent resident. Cooper's Hawks probably nest throughout the Ligonier Valley wherever there are extensive wooded tracts. Numbers appear to be declining, perhaps, in part, the result of long-term exposure to pesticides. The local population is supplemented by small numbers of transients in March and April, and again in October and November. A few migrants from farther north may also spend the winter within the area. This species is shy, and it is unusual to see more than one or two Cooper's Hawks in a day's field work.

RED-TAILED HAWK

Buteo jamaicensis

Regular, fairly common transient and summer resident; uncommon winter resident. The Red-tail is the large hawk frequently seen soaring high over open fields, small woodlots, and farmlands throughout the area. Breeding birds are more often found at lower elevations, but migrants and wintering birds wander widely and are often seen on the ridge tops. There is some evidence of an autumn flight along the crest of Laurel Hill in October, but more observations are needed to determine the extent of this movement.

RED-SHOULDERED HAWK

Buteo lineatus

Uncommon but regular transient in spring and fall; uncommon and very localized summer resident; wintering status poorly documented. By late March resident birds have usually returned. I saw the first arrivals on March 17 (1973) and March 23 (1969). In contrast to the previous species, the Red-shouldered Hawk is a bird of the wilder, more extensive woodlands and is thus more localized in its breeding distribution. I found a nest situated high in a white oak tree not far from the Headquarters building at Powdermill in mid-April 1972, and summering birds have often been seen flying over the Laurel Summit Glade. Todd (1940) notes that S. N. Rhoads found this species on Laurel Hill above Laughlinton in June and July—probably just before the turn of the century—when it may have been much more common. I have regularly seen Red-shoulders at Powdermill through mid-November. They may also be expected to winter irregularly, as they did during the 1974-1975 season, but no specific dates are available from earlier years.

BROAD-WINGED HAWK

Buteo platypterus

Regular, fairly common transient in spring and fall; common summer resident. Six spring arrival dates from

Powdermill range from April 16 (1969) to April 24 (1970). The average is April 19. This is unquestionably the most common bird of prey breeding in the Ligonier Valley. Broad-wings nest in a variety of habitats ranging from small woodlots in the lower elevations to the extensive forested areas of Chestnut Ridge and Laurel Hill. It is a particularly common bird in summer in Linn Run State Park, where I have often seen a half-dozen pairs along the road to the summit. The autumn migration appears to be well under way by early August, when small groups (usually fewer than ten birds) are occasionally seen drifting south. Nothing, however, has been observed locally to compare to the massive flights of this species reported along some of the ridges in eastern Pennsylvania. Although the birds are largely gone by late September, pertinent last-seen dates are unavailable. During the spring flights Broad-wings feed heavily about many of the smaller ponds and marshes on breeding American Toads.



Broad-winged Hawk

ROUGH-LEGGED HAWK

Buteo lagopus

To date, there has not been enough midwinter field work to determine how often the Rough-legged Hawk reaches the Ligonier Valley. It is probably an irregular, very rare transient and winter visitant. Walter A. Saling, Jr. has reported seeing a bird of this species between Donegal and Stahlstown late in September 1968. Joseph VanBuskirk saw a wintering Rough-leg near Stahlstown on January 2, 1971, and another was found three miles south of Ligonier on January 21, 1975 (HMS).

GOLDEN EAGLE

Aquila chrysaetos

Irregular (perhaps only occasional), rare-to-very-rare transient in spring and fall. I have two spring records of migrant Golden Eagles from the region. The first is of a bird seen flying high over Powdermill on April 3, 1962. The second was sighted when it flew very low over Route 130, about a mile east of Stahlstown, on March 18, 1969. W. A. Saling, Jr. provides the only fall observation: during October 1967, he watched two Golden Eagles fly-

ing from the vicinity of the Linn Run division of Forbes State Forest toward Powdermill.

BALD EAGLE

Haliaeetus leucocephalus

Now apparently only a casual, very rare transient; perhaps formerly more frequent. Boulton (1928:196) notes "... On March 11, also, an adult Bald Eagle was seen by Mr. Clement near Ligonier, cruising northward." My only record (with ACL) is of an immature that we saw flying low over the Headquarters area at Powdermill on October 29, 1961. A few of the older residents of the Valley occasionally have mentioned (in conversation) having seen Bald Eagles in the Ligonier area, but specific records are lacking.

MARSH HAWK

Circus cyaneus

Irregular transient, rare in spring and uncommon in fall; occasional (?) rare winter resident. This species is usually seen flying low over open farm country in the lower sections of the Valley. Exact spring arrival dates have not been recorded, but by mid-March a few birds are occasionally noted, and the flight continues through at least the first half of April. In fall a few Marsh Hawks are found by mid-September, but the peak of the autumn flight occurs during the month of October. More field work is needed to determine how often Marsh Hawks remain in the Ligonier area. At least one bird wintered just south of Ligonier during the 1971-72 season (J. C. Murphy *et al.*). No nesting records have come to my attention.

OSPREY

Pandion haliaetus

Regular, uncommon transient in spring and fall. Ospreys are usually seen individually or in pairs over the larger lakes and ponds. The earliest spring records are from Donegal Lake on April 13 (1970) and April 15 (1971), and (two) from Powdermill on April 19 (1970). The spring peak is usually reached during the last ten days of April, then numbers gradually decline during the first half of May. The latest record at this season is from Trout Run Reservoir on May 23 (1972). The earliest autumn migrant was seen at Powdermill on September 2 (1964), but it is normally the last week of that month before Ospreys can be expected with much frequency. The birds are regularly observed through the first week of October. In 1970, an Osprey (almost certainly the same individual) lingered at Powdermill from October 6 through the 29th. My maximum count at Powdermill is of five seen circling overhead at one time on October 7, 1967.

PEREGRINE FALCON

Falco peregrinus

Casual, very rare spring transient. There is only one acceptable modern record of the Peregrine Falcon from the region: a bird carefully observed by Mrs. H. M. Schmidt on April 10, 1974, about three miles south of Ligonier as it hunted over an open area near her home. Now extinct as a breeding bird in the eastern United

States, the Peregrine almost certainly occurred in the Valley with greater frequency in the past.

MERLIN

Falco columbarius

Very rare transient; perhaps only sporadic in spring, and irregular in autumn. To date, all the local Merlin records have been from Powdermill Nature Reserve. The single spring sighting is of a bird at Headquarters on March 22 (1973). Autumn migrants have been found on September 13 (1965), October 3 (1970), and October 5 (1962).

AMERICAN KESTREL

Falco sparverius

Regular, usually uncommon transient in spring and fall; regular, locally fairly common summer resident; regular, rare-to-uncommon winter resident. Beginning in early March, the small resident population is noticeably supplemented by a spring flight, which apparently continues into at least mid-April. Breeding birds then are widespread in the more open sections of farmland throughout the Valley, although they are most common at low elevations. The autumn flight apparently is under way from September through much of November. During both this and the spring flight, a large percentage of the birds appears to move along the crest of Laurel Hill. Much more attention, however, must be given this falcon (and the other local hawk species) before a clear picture of local movements can be obtained.

RUFFED GROUSE

Bonasa umbellus

Fairly common permanent resident. The Ruffed Grouse is a game species characteristic at all elevations in the Ligonier Valley, wherever suitable wooded habitat is found. Apparently there are no seasonal movements, but numbers do fluctuate greatly from year to year, and over long-term cycles. During late May and early June, females with broods of young are frequently encountered in area forests.

BOBWHITE

Colinus virginianus

Introduced; usually a rather rare and local permanent resident. Until recently, Bobwhite populations were commonly maintained by government stocking efforts, but all such releases apparently are now private. Few stocked birds from the southern United States are hardy enough to survive the severe winters of this region and it seems unlikely that a purely wild population could maintain itself for very long. The birds do not migrate.

RING-NECKED PHEASANT

Phasianus colchicus

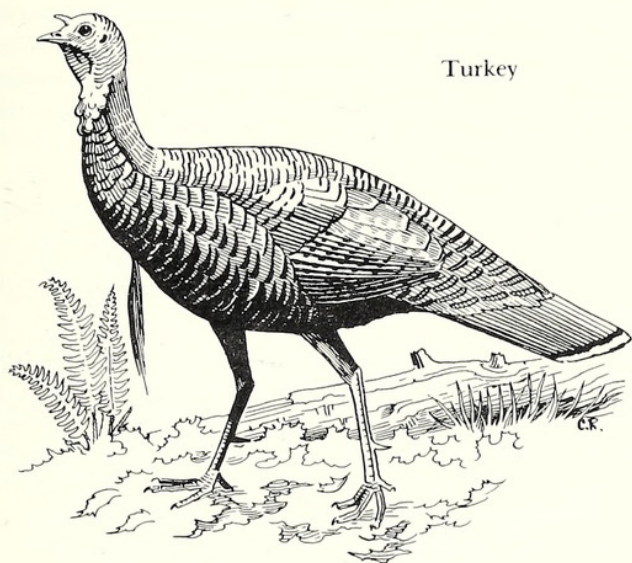
Introduced; common, permanent resident. Pheasants are found in cultivated areas, and less frequently in low brushy sections. The local population of this Old World species is maintained for hunting, through regular restocking, by the Pennsylvania Game Commission and private groups. The Ring-neck winters poorly in the Ligonier area, and it is unlikely that the species could

maintain itself for more than a few seasons were it not for constant restocking and providing of winter food.

TURKEY

Meleagris gallopavo

Regular, fairly common to common permanent resident. A favorite game bird of local hunters, this native species ranges throughout the Ligonier Valley in suitable wooded habitat. Now maintained by restocking from time to time, the original wild stock apparently persisted on Laurel Hill and Chestnut Ridge long after the species had disappeared from many other parts of the state. Following the breeding season, Turkeys are often reported in flocks of 40 or more individuals. The birds that survive the hunting season winter very well within the Valley; they are non-migratory.



Turkey

KING RAIL

Rallus elegans

There is only one record. According to Fricke (1930a), a King Rail was shot near the Rolling Rock Club property near Rector on November 6, 1929 by Wolfgang Zogleman. The bird, a male, was sent to Mr. Fricke to be mounted.

VIRGINIA RAIL

Rallus limicola

Irregular, rare spring and fall transient; occasional in summer. The earliest local arrival date is April 18 (1971). I have a few records, from that date through the first week of May, from small marshy areas and wet hedgerows at Powdermill. In 1964 one or more birds spent the entire summer in the Iron Spring Swamp at Powdermill, although breeding was not proved. A Virginia Rail seen at the Reserve on August 15, 1969, may have been an early fall migrant. The only other autumn records are of one bird seen at Powdermill on October 9, 1970, and another found dead on the highway south of Pleasant Grove on November 5, 1970.

SORA

Porzana carolina

Regular, uncommon transient in spring and fall; irregular, very rare summer resident. This is the species of

rail most frequently seen in the Ligonier Valley, usually in the small and scattered marshy areas. It is also occasionally found in wet fields or in hedgerows, and has even been noted (C. Nicolls) in Laurel Summit Glade. First spring migrant dates at Powdermill are April 10 (1964) and April 17 (1971). Small numbers have been noted through early May, and an apparent migrant was still at Donegal Lake on May 11 (1970). The only definite breeding record is from Powdermill, where I saw a family group in Iron Spring Swamp on June 16, 1965. The fall flight is apparently under way by mid-August. At Powdermill, Soras have been seen as early as August 14 (1971, with ACL), and August 21 (1964). Betty Abernethy found a dead Sora on the road one mile south of Rector on August 30 (1969). The height of the autumn flight usually occurs during the first half of September, and a few birds apparently linger in the region well into October. Fricke (*vide* Todd, 1940) reported a straggler near Rector as late as November 2 (1927).

YELLOW RAIL

Coturnicops noveboracensis

One record. Parkes (1960) reports that a Yellow Rail was found dead in the lattice work of a steel tower on Laurel Hill just south of Route 30 early in November, 1959. The specimen, which was turned over to the Pennsylvania Game Commission, is now in Carnegie Museum of Natural History.

BLACK RAIL

Laterallus jamaicensis

The only southwestern Pennsylvania record of the Black Rail is based on an individual seen and heard in Iron Spring Swamp at Powdermill between May 23 and June 21, 1967 (with HMS). A 20-minute recording of the bird's calls has been deposited with the Library of Natural Sounds at Cornell University.

COMMON GALLINULE

Gallinula chloropus

Occasional, very rare transient in spring and fall. There are only two records for the Common Gallinule from within the region. I saw an individual at Davey's Lake on May 11, 1971, and on October 11, 1969, one was found near Donegal Lake by David B. Freeland.

AMERICAN COOT

Fulica americana

Regular transient, fairly common in spring; often very common in fall. Spring arrival dates for coots have varied greatly from year to year. My earliest is of 30 birds at Trout Run Reservoir on March 2 (1974), but in some springs the first migrant was not noted before early April. At this season they are often found in small flocks of up to 25 birds. Most coots move through the area during April, but a few linger into early May. At Donegal Lake, last-seen dates include May 8 (1972) and May 20 (1971). The earliest fall record is from Powdermill, where a coot was seen August 1 (1973, DER), but normally they do not return for another two months. Typical arrival dates are October 2 (1972) and October 3 (1970) at Donegal, and October 7 (1971) at Trout Run. A

few large flocks have been observed at Trout Run in autumn, including 350 on November 9, 1962, building up (Mr. and Mrs. Cameron Henry) to 375 by the 26th. A few birds remain in the area through at least mid-December, when the Henrys saw one at Trout Run in 1973.

SEMI PALMATED PLOVER

Charadrius semipalmatus

Irregular, usually rare spring transient. To date, the Semipalmated Plover has been found in the Ligonier Valley only during a very short period in May. The earliest arrival date is May 8 (1972), when four were observed (with CS) at the American Legion Pond just west of Ligonier, and two were at Davey's Lake east of Donegal. These birds also represent the maximum counts for the region. Last-seen dates include May 16 (1972) at Ligonier (CS, RS), and May 17 (1971) at Donegal Lake.

KILLDEER

Charadrius vociferus

Regular transient, common in spring; common to very common in fall; regular, fairly common summer resident; irregular, usually rare winter resident. The first returning Killdeers usually reach this region late in February or during the first half of March. In 1973 the first bird was seen at Powdermill on February 27 (DER). Carl and Dorothy Auerswald found five at Ligonier on March 1 (1961). In 1969, an exceptionally late season, none were seen until March 21, when one was at Donegal Lake. In April and May, breeding birds can be found in open fields virtually throughout the Valley. By July and August Killdeers are flocking: 45 were noted at Trout Run Reservoir on August 12, 1968. Peak autumn counts include 150+ at Trout Run October 11, 1965 (with Ronald F. Leberman), and 100+ in the same area November 4, 1968. The birds are quite common through most of November, but usually infrequent by December. There are a few winter records for the Valley. As long ago as the winter of 1931-32, McClintock (1933) wrote of seeing a flock throughout the season just south of Ligonier. Six were found on January 1, 1971, at Donegal Lake (CS); a few were reported off and on later that winter near Ligonier and at Powdermill (DER); and two were reported south of Ligonier on January 31, 1972 (J. C. Murphy, *et al.*).

AMERICAN GOLDEN PLOVER *Pluvialis dominica*

This is a casual, very rare bird anywhere in southwestern Pennsylvania. The only local record is of four I watched feeding on mudflats at Donegal Lake on September 26 and 27, 1973. The water level of the lake had been lowered that autumn by the Pennsylvania Fish Commission, offering an excellent feeding area for many species of shorebirds.

AMERICAN WOODCOCK

Philohela minor

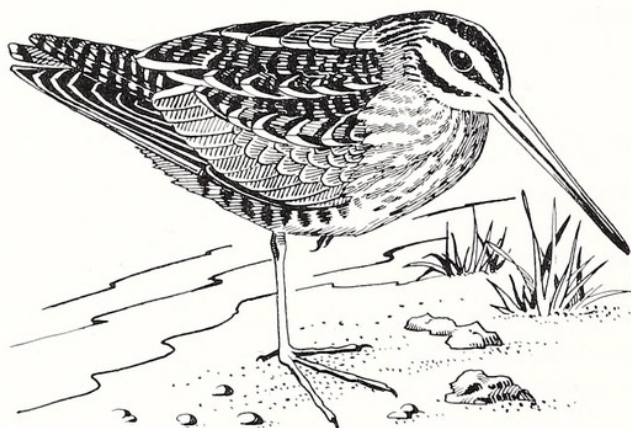
Regular, fairly common spring and fall transient; locally abundant summer resident. The woodcock is among the earliest of migratory birds to return to the

Ligonier area in spring. First-seen dates at Powdermill include March 1 (1973, DER); March 2 (1965, DER); March 4 (1967, ACL); March 9 (1969); and March 10 [in 1970 (JKO) and 1971 (DER)]. By the end of the month the species is at peak numbers, and displaying birds can be seen and heard over brushy fields throughout the Valley. In suitable habitat the woodcock is fairly abundant during the breeding season. Five to seven pairs, for example, usually nest in the immediate vicinity of the Headquarters building at Powdermill. Considerable migratory activity is apparent by early September. Maximum numbers are usually seen at the end of September and during the first half of October, but A. C. Lloyd and I flushed 15 from a single wet field (approximately two acres) north of Crisp Pond as late as November 11 (1968). A few individuals probably linger in the region through the end of November. A bird banded at Powdermill on July 7, 1962, was shot by a hunter at Greene, New York, on October 12, 1964, and another banded on October 16, 1971, was shot near Roaring Branch, Tioga County, Pennsylvania, on October 19, 1974.

COMMON SNIBE

Capella gallinago

Regular, uncommon spring and fall transient. Found in wet areas throughout the Valley, snipe are usually seen singly or in small flocks of less than a half-dozen birds. Spring migration normally gets under way during the second half of March, and early arrival dates at Powdermill include March 17 (1971) and March 21 (1963). By early May the birds are gone. My earliest autumn record is of one snipe near Crisp Pond at Powdermill on September 2 (1969). The peak of the fall flight is reached during late September and early October. A few remain in the area through November and into mid-December.



Common Snipe

UPLAND SANDPIPER

Bartramia longicauda

Rare and extremely local spring transient and summer resident; population size variable. The first arrivals are usually found during the second half of April. First dates

(about three miles south of Ligonier) include April 17 (1964, ACL), April 23 (1965), and April 25 (1967, HMS). McClintock (1933) seems to be the first to have reported Upland Sandpipers (formerly called Upland Plovers) from this area, when he observed several birds about a mile south of Ligonier during the summer of 1932. In recent years observations have been extremely irregular and usually of single birds, but eight to ten years ago several pairs could frequently be seen in the large open fields along Route 711 south of Ligonier. No fall departure dates are available locally. The birds probably leave in late August.

SPOTTED SANDPIPER

Actitis macularia

Regular, fairly common transient in spring and fall; regular, rather common summer resident about larger lakes and ponds; uncommon summer resident at smaller farm ponds and sluggish streams. The first spring migrants normally arrive shortly after mid-April. Some first dates at Powdermill's Crisp Pond are April 15 (1964); April 17 (1970); April 18 (1963); and April 19 (1972). In several late springs the birds did not appear before April 23 (1962) and April 26 (1967). Peak numbers usually are observed during the first half of May, when as many as six have been counted at Crisp Pond (May 6, 1971). Fall migrants have supplemented the local population by early July, and the southward flight continues in fairly good volume through early September. My latest record is of an individual at Trout Run Reservoir on September 14 (1972).



Spotted Sandpiper

SOLITARY SANDPIPER

Tringa solitaria

Regular, uncommon spring and fall transient. Next to the Spotted, this is the sandpiper most likely to be seen in the Ligonier Valley. It is sometimes found in flooded fields and on smaller farm ponds as well as on the larger lakes of the lowlands. I have also watched Solitary Sandpipers feeding in *Sphagnum*-edged ditches

along the border of Laurel Summit Glade at about 2700 feet. The spring migration gets under way after the middle of April, with early arrivals seen at Powdermill on April 18 (1963), April 19 (1964), and (two) at Donegal Lake on April 28 (1969). The peak of the spring flight normally occurs during the first week of May, and last-seen dates include birds at Powdermill on May 15 (1963) and May 21 (1962). Autumn migrants have arrived as early as July 15 (1971). By mid-August the birds are usually widely distributed in the area, but the peak of the fall flight does not occur until September. Latest dates include individuals at Powdermill on October 3 (1970) and at Ligonier on October 18 (1971). Solitary Sandpipers are usually observed as single birds or in pairs, and I have never seen more than three individuals together in a given area.

WILLET

Catoptrophorus semipalmatus

The only record of the Willet from anywhere in this general region is of two birds I carefully studied at close range at Donegal Lake on April 24, 1972.

GREATER YELLOWLEGS

Tringa melanoleuca

Regular, usually uncommon transient in spring and fall. Most frequently observed at the larger lakes and ponds. The spring flight usually begins toward the middle of April. The first migrants arrived at Donegal Lake on April 11 (1971, two), and April 15 (1969, three). My latest spring record is of two at Crisp Pond, Powdermill, on May 30 (1962). Fall migrants have not been recorded locally before early October. First autumn dates include seven birds at Donegal on October 7 (1972), one at Crisp Pond on the same date in 1964, and one at Donegal on October 11 (1969, D. B. Freeland). My highest count is of 14 at Donegal on October 28, 1968. Stragglers remain in the area through at least mid-November (November 14, 1972, Donegal Lake).

LESSER YELLOWLEGS

Tringa flavipes

Regular, uncommon transient in spring; irregular, and usually rare in fall. Generally less frequent in this area than the Greater Yellowlegs, although more likely to be found about smaller farm ponds and (in spring) in flooded fields. Arrival dates include April 11 (1971) and April 15 (1970) at Donegal Lake, and April 13 (1964) at Powdermill. My highest count is of six birds at Donegal Lake on May 14, 1969. The latest spring record, also from Donegal, is May 15 (1968). The earliest autumn date is of one seen at Powdermill Farm, just west of Powdermill Nature Reserve, on August 4 (1970, RS). Ronald F. Leberman and I observed a late migrant at Crisp Pond, Powdermill, on November 16 (1969).

SANDERLING

Calidris alba

The only local record is of an individual I found on mudflats at Donegal Lake on November 6 and 7, 1972. This is a rare bird anywhere in western Pennsylvania away from Lake Erie.

SEMIPALMATED SANDPIPER

Calidris pusilla

Irregular, uncommon transient in spring and fall. To date there are only two regional spring records of this small and inconspicuous shorebird. Six were at Donegal Lake on May 9, 1969, and I found two at the American Legion Pond west of Ligonier on May 11, 1972. Autumn observations, also restricted to two records, are of eight birds on August 27, 1973, at Trout Run Reservoir, and one at Powdermill (with Donald Thompson) September 5, 1964. Further field work may well show this to be a more frequent migrant in the area than available records now indicate.

PECTORAL SANDPIPER

Calidris melanotos

Regular, often fairly common transient in spring and fall. The Pectoral is occasionally found on small temporary ponds and flooded fields, as well as about the larger lakes. First spring dates include two birds at Donegal Lake on April 1 (1971) and one at Davey's Lake April 3 (1972). My highest spring count is 18 at Donegal Lake on April 5, 1971. Late spring dates include a bird at Donegal May 14 (1970) and one at Powdermill on May 14 (1962). This is among the first of the northern shorebirds to return in the fall, and has been noted at Donegal as early as July 11 (1968, with HMS), and at Powdermill July 21 (1973). An especially good fall count is of 12 at Donegal on September 19, 1973 (Tom Bancroft, Frank Bell). The latest-seen record is of one at the same lake on October 29 (1973).

BAIRD'S SANDPIPER

Calidris bairdii

On September 20, 1971, David B. Freeland discovered a single bird feeding along the edge of Donegal Lake. This represents the only Valley record of Baird's Sandpiper, a species that is unusual anywhere in southwestern Pennsylvania.

LEAST SANDPIPER

Calidris minutilla

Irregular, occasionally fairly common spring transient; irregular, and apparently rare in fall. All local spring observations to date have been from the month of May. Records range from an early May 8 for Donegal Lake in 1969 and 1972, to as late as May 25 (1971, Donegal). The best spring count is also the earliest: nine Least Sandpipers were at Donegal on May 8 (1969). Todd (1940) notes that George M. Sutton saw one bird at Rolling Rock Club near Rector on July 27 (1922), and this remains the earliest fall record. My latest-date sighting is of one at Donegal Lake October 11 (1973).

DUNLIN

Calidris alpina

Irregular, usually uncommon transient in late fall. To date the Dunlin has been recorded in the Ligonier Valley only during the month of October; and with the exception of a single bird found at Powdermill on October 20, 1974, all records have been from either Donegal Lake or Trout Run Reservoir. The earliest observations are of single birds at Donegal on October 11 in 1969 and in

1973. The best count (also from Donegal) is of 41 birds on October 30, 1972. The latter is also the latest date of record.

STILT SANDPIPER

Micropalama himantopus

The only record of the Stilt Sandpiper in this general region is of three I carefully studied at Trout Run Reservoir July 30, 1973. This is a rare species anywhere in southwestern Pennsylvania.

HERRING GULL

Larus argentatus

Irregular, uncommon spring transient; no fall or winter records. Usually seen as single individuals on the larger lakes, and more rarely in small flocks on newly plowed fields. By far the greater percentage of the local records are from Donegal Lake, where Cliff Stringer has seen the first migrant as early as March 4 (1970). A peak is normally reached sometime during the first half of April, and my latest-seen record is of one at Donegal on April 29 (1971). As yet there are no autumn or winter records of the Herring Gull. Future observations, however, will probably indicate that the species does at least occasionally occur in the Ligonier Valley during fall and winter.

RING-BILLED GULL

Larus delawarensis

Regular, fairly common to common spring transient; occasional, usually uncommon transient in fall. The Ring-billed is the gull most often seen in the Ligonier Valley, both at the local lakes and on freshly plowed fields. In 1971 the first migrant was reported (CS) from Donegal Lake on February 25. Other arrival dates there are March 13 (1972) and March 17 (1969). The flight then continues through late March, April, and into early May. Some high spring counts include 37 gulls seen feeding in a large field southeast of Rector on March 21, 1968; 50 at Donegal Lake on April 15, 1970 (J. A. Young); and 73 at Donegal on May 10, 1973. The latest spring sighting (from Donegal) is May 20 (1971, with CS). In autumn the flight is not as strong, and first arrivals (Donegal) have not been reported before October 26 (1971). My highest count at this season is of seven at Donegal on November 13, 1970. Significant last dates are not available, but in some years a few birds must linger well into late fall or early winter. Strays should also be watched for during the summer months.

BONAPARTE'S GULL

Larus philadelphia

Regular, fairly common transient in spring; occasional, rare fall transient. Most often found at Donegal Lake and Trout Run Reservoir; rare on large ponds. The spring flight is normally of short duration. Arrival dates include single birds at Powdermill on April 2 (1971) and at Donegal on April 3 (1969) and April 4 (in 1972 and 1973). Maximum counts at Donegal are of 60 birds on April 12, and 50 on April 16 in 1971. By early May Bonaparte's Gulls are scarce, and my latest-seen record is of two at Donegal on May 6 (1971). To date there are only four autumn records from within the region: I saw a Bona-

parte's at Donegal Lake on October 7, 1974; two were there on October 31, 1973; one was at Trout Run on November 9, 1972; and one (DER) was at Powdermill on December 16, 1973.

COMMON TERN

Sterna hirundo

Apparently regular, usually rare transient in spring; irregular, rare transient in fall. The earliest spring records of the Common Tern are from Donegal Lake on April 15 (1970 and 1971) and April 24 (1972). The peak of the flight normally occurs during the first two weeks of May, but the largest single count (125 birds flying overhead) is from Powdermill on May 18, 1968 (with ACL). This is also the latest spring observation. There are very few autumn sightings: one at Powdermill in "early July" in 1964; four at Donegal on September 22, 1974 (George and Maxine Roland); and late individuals at Powdermill on October 23, 1966, and October 27, 1965.

CASPIAN TERN

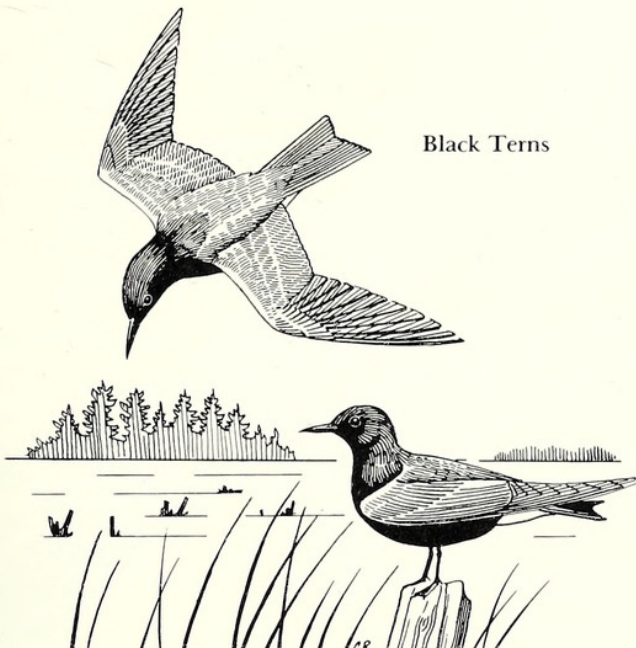
Hydroprogne caspia

The only regional record of the Caspian Tern is from Donegal Lake, where one was seen on September 23, 1974 (with HMS).

BLACK TERN

Chlidonias niger

Irregular, uncommon to fairly common spring transient; casual summer visitant; no fall records. After the initial flooding of Donegal Lake, several Black Terns frequented the area from mid-June through early August, 1968, but there was no proof that these birds attempted to nest. Except for the above records, all other local observations are from the month of May. The earliest arrival record at Donegal is of six terns on May 5 (1968). The migratory peak is usually about the second week of May. Last-seen dates (at Powdermill) are May 16 (1967) and May 27 (1968).



Black Terns

MOURNING DOVE

Zenaida macroura

Regular, common to very common transient in spring and fall; regular, very common summer resident; regular, fairly common to very common winter resident. This is a well-known bird of farmlands and open areas throughout the Valley. Large numbers occasionally winter in cornfields and at feeding stations, and I have reports of counts sometimes in excess of 200 doves at a feeding station southwest of Rector. The large resident population often makes it difficult to determine exactly when the first migrants appear, but by early March, spring transients are clearly in evidence. Following the breeding season, numbers remain high and the fall migration may peak sometime in September or October. Mourning Doves are not particularly popular with local hunters, which probably contributes significantly to the large winter populations. The species certainly has become more common in recent years, but I have no specific figures on the amount of this increase.



Mourning Dove

PASSENGER PIGEON

Ectopistes migratorius

Extinct. Judging from the available documentation from nearby areas (e.g. Todd, 1940), it can be assumed that Passenger Pigeons were once abundant spring and fall transients through the Ligonier Valley, and the possibility that they occasionally may have bred and wintered locally cannot be ruled out. The only specific record available, however, is archaeological. John E. Guilday of Carnegie Museum of Natural History advises me that skeletal remains of two individual pigeons have been unearthed from refuse deposits at the site of Fort Ligonier. These deposits date from the time of the Fort's occupancy between 1758 and 1766. As the species did not become extinct until the turn of the present century, it is still possible that a few older residents may know of specific Valley records of the Passenger Pigeon. I would be interested in receiving any definite information.

YELLOW-BILLED CUCKOO *Coccyzus americanus*

Regular, usually fairly common transient in spring and fall; regular, varying from fairly common to common in summer. The first Yellow-billed Cuckoos usually appear in the area sometime during the second week of May. First records are May 7 (1964), May 9 (1969), and May 12 (in 1968 and 1973). The spring peak normally is not reached before the last week of the month, and a few cuckoos still appear to be migrating through the region early in June. During some years Yellow-bills have been difficult to locate, and in other seasons they have been seen virtually everywhere in the Valley, at all elevations. Their populations are closely tied to the cycles of their major food source, tent caterpillars. Fall migrants apparently begin to arrive by late August. Numbers then gradually increase until the flight peaks sometime after mid-September. October birds are scarce, although occasionally there are a few late migrants after the third week of the month. Late dates include October 21 (1961), October 25 (1970), and October 26 (1973).

BLACK-BILLED CUCKOO *Coccyzus erythrophthalmus*

Regular transient, usually fairly common in both spring and fall; regular, often common summer resident throughout the Valley. Frequently prefers brushy lowland thickets; often nests in small hawthorn trees. An early Black-billed Cuckoo was recorded on May 3 (1972), but normally the birds are not found until later. The first individuals were noted on May 10 (in 1969 and 1970), May 11 (1963), and May 12 (in 1962 and 1968). As with Yellow-bills, Black-bills are seldom common before the last week of May, when the flight appears to peak. Many local birds are still nesting in late July and early August. Todd (1940) for example, notes that in 1925, E. G. Holt found a bird at Rector still incubating a set of eggs as late as July 30. Migrants appear in some numbers by late August, and the autumn flight usually peaks by mid-September. There are scattered records of Black-bills during the first week or so of October during most seasons. Late records include October 14 (1963), October 19 (1972), and October 24 (1970, with D. Willard).

BARN OWL *Tyto alba*

Regular, probably uncommon permanent resident; possible migrant. Found both in farming country and forested areas. At Powdermill, Barn Owls occasionally are seen or heard in the lowlands during the summer months, and in 1967 they were found on a forested slope near Moul Spring (JKO) not far from the headwaters of Powdermill Run. Walter A. Saling, Jr. considers the species rather common in the Valley, and reports having seen Barn Owls on several occasions along Route 381 at Rolling Rock Farms. Further observations will be needed before the local status of this species can be accurately determined. A portion of the breeding population may leave the Valley during winter, and possibly some local records refer to migrant individuals from farther north.

SCREECH OWL *Otus asio*

Regular, common permanent resident. This small but vocal bird is by far the most frequently seen owl in the region. Screech Owls are found in a variety of habitats in forest, farming sections, and even residential areas throughout the Valley. This species has no apparent migratory movement through the area.

GREAT HORNED OWL *Bubo virginianus*

Permanent resident, usually found in the more mature woodlands throughout the Ligonier Valley, although it is seemingly uncommon and not often seen or heard. For many years this species was on the state's bounty list and was widely persecuted. Now with legal protection and a better informed public, it can be hoped that regional populations will increase. Apparently there are no migratory movements through the area.

SNOWY OWL *Nyctea scandiaca*

Occasional, usually very rare winter vagrant. The only detailed records of the Snowy Owl from the Valley that I have been able to locate are of an individual shot by Willis McDowell, two miles northeast of Ligonier on November 15, 1926, and of a second bird shot at Donegal that same winter (Christy, 1927). Conversations with a number of local residents, however, indicate that the species has been seen infrequently during several winters in recent years. Exact dates and details are not available.

BARRED OWL *Strix varia*

Regular, fairly common (non-migratory) permanent resident. This is the large owl most frequently seen in the region. It is well distributed in thickly forested areas throughout the Ligonier Valley. One or two pairs, for example, nest each spring at Powdermill (I watched a family group of four Barred Owls at the Reserve on June 15, 1970), and it is often seen along Linn Run in Forbes State Forest.

LONG-EARED OWL *Asio otus*

Exact status uncertain; probably a very rare permanent resident. There is only one local record for the Long-eared Owl: David B. Freeland heard a bird calling on Laurel Summit near Laurel Hill Village on the evening of March 19, 1974. This owl should be watched for, especially in thick conifer plantings.

SHORT-EARED OWL *Asio flammeus*

Apparently this owl is only a casual transient or visitant in the Ligonier Valley; there are no recent reports. The only definite record is of a crippled bird found by W. H. Shrawder at Ligonier on October 4, 1924 (Sutton, 1924).

SAW-WHET OWL *Aegolius acadicus*

Occasional, very rare spring transient; irregular, rare fall transient. To date there are only two local



spring records of the Saw-whet Owl: one banded at Powdermill on March 31, 1969, and another on April 3, 1966. Although definite records are lacking, this certainly is a potential breeding species within the Valley—especially along the crest of Laurel Hill. In 1973, David E. Willard banded a Saw-whet in the white pine border of Laurel Summit Glade on September 19 (a suspiciously early date for a migrant), and one was found at Powdermill Headquarters as early as September 26 (1964). Seven additional autumn records are of owls banded at Powdermill between October 28 (1962) and November 11 (1968). There are no winter observations at present, but future field work may indicate the species is at least sporadic at that season.



Saw-whet Owl

COMMON NIGHTHAWK

Chordeiles minor

Regular, uncommon spring transient; very common (occasionally abundant) fall transient; local uncommon summer resident. Some arrival dates in the spring are May 14 (1962), May 15 (1969), and May 17 (1964). I have watched nighthawks in June and July as they hunted for insects over the business district in Ligonier. They undoubtedly nest on several of the flat gravel-covered roofs there. The fall migration begins in early August. During this season the birds are often recorded in large numbers, with occasional flights involving several hundred birds. Some maximum counts are: 548 observed flying over Powdermill in approximately one hour's time on the evening of August 27, 1961; 400 on August 27, 1965; and 300 on August 29, 1963. The migration is usually over by mid-September. Anthony G. Netting noted one on September 18 (1960). I saw two on the unusually late date of October 2 (1961).

WHIP-POOR-WILL

Caprimulgus vociferus

Rather rare, probably regular transient and summer resident. Until four or five years ago the Whip-poor-will was recorded as a fairly common nesting species in the region, and a common migrant. Since then there has been a drastic decline in numbers seen and heard, not only at Powdermill, but (to judge from the comments of a number of life-long local residents) throughout the Valley. The first spring migrants arrive at the end of April or early in May. Typical first dates include April 30 (1962), May 1 (1969, DER), and May 3 (1963). An unusually early bird was heard at Powdermill on April 16 (1974). By the end of August the fall flight appears to be well under way, and Whip-poor-wills have been banded as late as September 25 (1964, two birds). An individual banded as an adult at the Reserve on May 15, 1962, was rehandled there May 15, 1965, and hence was at least four years old. This bird currently holds the age record for the species (Kennard, 1975).

CHIMNEY SWIFT

Chaetura pelagica

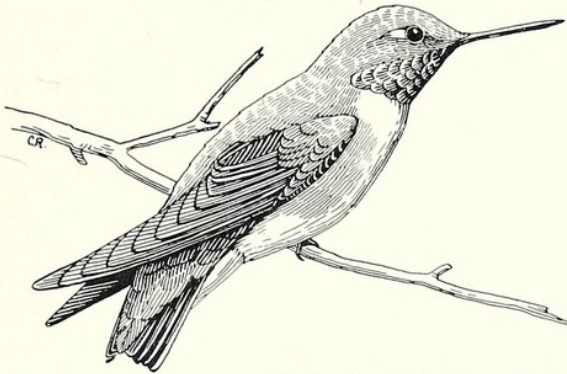
Regular transient, common in spring; sometimes very common or even abundant in fall; regular and locally very common breeding species. Arrival dates include April 21 (1964 and 1970, Powdermill); April 23 (1973, Ligonier); and April 28 (1969, Stahlstown, with HMS). Flocks of 20 to 50 birds are occasionally seen at this season, especially in Ligonier. The largest breeding concentrations are also found within Ligonier Borough, where the maximum number of potential breeding sites is available. A few birds also nest in chimneys in rural areas. The fall migration appears to peak during the first half of September. On September 11, 1973, I saw a flock (estimated to be at least 500) of roosting swifts entering the chimney at the Pennsylvania National Guard Armory building in Ligonier within a ten-minute period. The latest date at Powdermill is October 1 (1970). An adult swift banded on June 12, 1963, was retrapped at the Reserve on June 19, 1966—minimum age, four years.

RUBY-THROATED HUMMINGBIRD

Archilochus colubris

Regular, fairly common to common transient in both spring and fall; regular, very common summer resident throughout the Valley. The first hummingbird of the season usually appears in late April or very early May. Some arrival dates are April 25 (1964), April 27 (1969, Kregar, Mrs. Harriet Stimmel), April 28 (1970), April 30 (1962, DER), and May 2 (1972, DER). However, in the cold wet spring of 1971, the first bird was not found until May 10. Maximum spring banding totals include six on May 21, 1966, and 11 on May 21, 1967. The autumn flight is well under way by the last week of July, but does not reach a peak before late August or early September. Maximum banding totals in 1963 (an especially good season) included 25 birds on August 21; 23 on August 30; and 28 on September 6. The population remains high through

mid-September, but toward the end of the month the birds become scarce. A late banding date is September 30 (1971), and I saw the last individual in the field on October 2 (1968). An adult banded at Powdermill on May 26, 1967, was last handled there on July 16, 1970, at the minimum age of four years.



Ruby-throated Hummingbird

BELTED KINGFISHER

Megasceryle alcyon

Regular, fairly common transient in spring and fall; regular, fairly common summer resident in suitable habitats; irregular, rare winter resident when there is sufficient open water. The small wintering population makes it difficult to determine exactly when spring migrants first appear in the Valley, but in most seasons Belted Kingfishers are fairly common shortly after mid-March. Numbers remain quite constant through the summer and autumn months. The species normally becomes scarce again sometime during late November or early December. Except during the breeding season, the birds are usually seen only as individuals, and never in flocks.

COMMON FLICKER

Colaptes auratus

Regular, common spring transient; common to very common in fall; common summer resident; irregular, usually rare winter resident. The spring migration normally begins shortly after mid-March, and by the last week of the month flickers are common. April, however, is the month of heaviest movement, and peak numbers usually pass through during the third or fourth week. The birds nest throughout the Valley, wherever large trees (or, occasionally, buildings) can be found for nesting sites. The local breeding population makes it difficult to detect exactly when the first fall migrants appear, but certainly considerable movement is under way by late August. The fall peak occurs during the last half of September, and numbers then decline slowly through October and November. Although migrants are widely distributed in autumn, it does appear that many of the birds move southward along or near the ridge tops. Loose flocks of 25 or more birds are often seen at these higher elevations. By early December flickers are scarce, but during at least most seasons a few scattered individuals remain to winter.

A bird banded at Powdermill on September 13, 1964, was found on November 18, 1966, near Dothan, Alabama.

PILEATED WOODPECKER

Dryocopus pileatus

Regular, common permanent resident; no apparent seasonal movements. According to the literature, populations of Pileated Woodpeckers are now higher than they were at the turn of the century. Rhoads (1899: 311), in a paper on some of the rarer birds of western Pennsylvania, noted that the species was: "Rare, even in the wilder mountain regions, perhaps owing to the almost complete destruction of dense virgin timber. I heard only one near Laughlintown, Westmoreland Co., during a month's stay." The birds now seem to have adapted themselves to second-growth woodlands, and given at least legal protection from indiscriminate gunners, are now frequent throughout the Valley. There are, for example, usually at least three or four pairs nesting annually within the 1800-acre Powdermill tract. I also often find them in and around the village of Rector, in Forbes State Forest, and near Trout Run Reservoir.

RED-BELLIED WOODPECKER

Centurus carolinus

Irregular, rare to uncommon permanent resident. The Ligonier Valley is near the northern edge of this woodpecker's range in the western Pennsylvania mountains, and the local population fluctuates greatly from year to year. It is by no means, however, a newcomer to the area. Todd (1940) notes that Edward A. Preble found the species breeding near Idlewild. Presumably this record was established on a collecting trip Preble made through the area between June 29 and July 3, 1893. I did not find the species at Powdermill between 1961 and 1966, but a few were noted in 1967, and they have been seen annually ever since, although numbers may again be declining. Red-bellies have been found regularly near Rector during the past few years (Stewart H. Steffey), and there are other scattered records from the lower parts of the Valley. An individual found in the Laurel Summit Glade on July 28, 1970 (RS), however, would certainly seem to have been out of its element. The species must be rare on the local ridge-tops at any season.

RED-HEADED WOODPECKER

Melanerpes erythrocephalus

Regular, usually rare transient in spring and fall; irregular, very rare summer resident (perhaps formerly more common); occasional, very rare winter resident. The first Red-headed Woodpeckers normally appear in this region early in May. Three were seen by A. C. Twomey at Powdermill on May 2, 1970. By the second week of the month there is usually a sizeable scattering of records from lowland sections of the Valley. Autumn observations are predominantly from September, but two were seen at Rector on October 19 (1973, HMS). Winter records are few: One frequented a feeding sta-

tion at Powdermill from December 24, 1966, through January, 1967; and a bird observed about two miles north of Ligonier on April 3, 1972, was more likely a wintering bird than an early migrant.



Red-bellied Woodpecker

YELLOW-BELLIED SAPSUCKER

Sphyrapicus varius

Regular, usually fairly common transient in spring and fall; irregular, rare winter resident. The end of March is the normal arrival time for Yellow-bellied Sapsuckers. Early dates include March 29 (in 1964 and 1968) and March 30 (1963). A spring peak is reached about the first week of April, after which numbers gradually decline, and the flight is completed by late April or early May. The latest banding date at Powdermill is May 3 (1972). Autumn migrants first appear during the second half of September. Arrivals have been noted on September 19, 1973; September 21, 1968; and September 23 in 1971 and 1972. During both the spring and fall movements, sapsuckers are usually seen singly, and a good day's count seldom exceeds a dozen birds. During most winters, at least one bird has been reported locally, usually associated with a feeding station. Mrs. Harriet Stimmel has seen the species near Jones Mills in winter; single sapsuckers have wintered at Powdermill in about half of the years since 1960; and Mr. and Mrs. Townsend Treese observed two, west of Stahlstown, from January through February 14 (1971).

HAIRY WOODPECKER

Dendrocopos villosus

Regular, generally common permanent resident. Although widely distributed in wood lots throughout the Valley, the Hairy Woodpecker is especially frequent in extensive, more mature forests along the slopes of Chestnut Ridge and Laurel Hill. In winter it often comes to feeding stations, along with the smaller Downy Woodpecker. Apparently there is no seasonal movement with-

in the local population except for some local wandering. An adult banded at Powdermill on June 6, 1962, was retrapped on February 24, 1968, at the minimum age of six and one-half years.

DOWNY WOODPECKER

Dendrocopos pubescens

Regular, very common permanent resident. At all seasons this is the commonest woodpecker in woodlands and hedgerows throughout the Ligonier Valley. It is also one of the most characteristic visitors to the suet provided at feeding stations in the winter. No seasonal movements have been detected within the local population, although Downy Woodpeckers often associate closely with roaming flocks of other species—both migrants and wintering birds. The oldest Downy Woodpecker thus far recorded at Powdermill is a bird originally banded as an adult on June 16, 1963, and last rehanded on March 22, 1970—at a minimum age of almost eight years.

EASTERN KINGBIRD

Tyrannus tyrannus

Regular, fairly common transient in spring and fall; fairly common summer resident in open areas throughout the Valley, although apparently decreasing as a breeding species in recent years. Two spring arrival records of April 24 (1965) and April 27 (1966) are extremely early. May arrival is usual. In 1963, kingbirds returned to Powdermill on May 4; the first near Donegal on May 4 (1969, CS); at Ligonier on May 4 (1970); and at Powdermill on May 5, 1968. During the second and third weeks of May, flocks of up to eight or nine birds are often observed. The fall movement of kingbirds is noticeable by early August, and during the second half of the month the autumn migration is at a peak. At this season, however, flocks of more than three or four individuals are rare. The last birds are usually seen sometime during the first week of September. Late banding dates are September 5, 1965; September 7, 1962, and 1964; and an exceptionally late straggler was captured on September 30, 1970.

WESTERN KINGBIRD

Tyrannus verticalis

One seen in the Headquarters area at Powdermill Nature Reserve on September 17, 1961 (with Anthony G. Netting and Jane Netting Huff), is apparently the only record of this western species, a stray in southwestern Pennsylvania.

SCISSOR-TAILED FLYCATCHER

Muscivora forficata

The only local observation of this southwestern species (and the fourth Pennsylvania record) is of one seen along Stonylonesome Road just east of Stahlstown, by Cliff and Randy Stringer on June 18, 1970.

GREAT CRESTED FLYCATCHER

Myiarchus crinitus

Regular transient, common in spring, uncommon in fall; fairly common summer resident throughout the area. The first spring migrants appear during the last few days of April or more commonly in early May. My earliest-seen record is of one at Powdermill on April 26 (1970). In 1969 one was seen three miles south of Ligonier on April 28 (HMS), and one was noted near Laurel Summit Glade on April 30 (1963). In 1962 and 1965 the first Great Crested Flycatcher was not observed until May 6. My latest arrival date is May 11 (1971). Although this flycatcher is not normally seen in flocks, a bird watcher traveling about the Valley could probably find two or three dozen birds in a day's observations during the second and third weeks of May. In summer it is resident in wooded areas, nesting in tree holes (an unusual habit for a flycatcher). Most autumn migrants pass through the region in August, although a few remain into September. Typical last banding dates include September 8 (1972), September 9 (1971), and September 13 (1969), but lingering individuals have been banded as late as September 23 (1967) and September 27 (1975).

EASTERN PHOEBE

Sayornis phoebe

Regular, common transient in spring and fall; very common summer resident where suitable nesting sites are available. Phoebes are the hardiest of our flycatchers, being absent from the Ligonier Valley for only about four months of the year. They normally return to this region in mid-March. Arrival dates include March 14 (1967), March 16 (in 1966, 1968, and 1973), and March 18 (1969). In 1965, when weather conditions were severe, the first arrival was not recorded until March 26, and again, in 1970, the first bird was not seen until March 28. Usually observed as individuals or in pairs, the maximum number of phoebes banded in a single day in spring is five, on March 29, 1969. Peak numbers of migrants usually occur during the first week of April. Nesting begins in late April or early May, often under building eaves or bridges. By June and July many young are moving about the area. True fall migration apparently does not begin before August. Peak numbers pass through the Valley during the second half of September and the first half of October, when 40 or 50 birds might be found in a day's field work. The maximum daily fall banding total at Powdermill is ten, on October 2, 1971. By mid-October numbers have diminished, with a few individuals remaining into November. Some last-seen dates are November 3 (1970), November 11 (1972), and November 24 (1968, ACL). An immature banded at the Reserve on July 18, 1973, was caught by a cat on December 24, 1974, at Stinking Creek, near Mills, Knox County, Kentucky. An adult banded at Powdermill on September 26, 1968, was captured and released near Bedford, Pennsylvania, on March 29, 1970, when it would have been at least three years old. Another adult banded on April 12, 1968, was recaptured

at the Reserve on April 13, 1971, at the minimum age of four years.

YELLOW-BELLIED FLYCATCHER

Empidonax flaviventris

Inconspicuous, but regular, fairly common transient in spring and fall throughout the Ligonier Valley. The earliest spring arrival date for the Yellow-bellied Flycatcher is May 10 (1964). Other first dates are May 13 (1967), May 15 (1968), and May 16 (in 1963, 1970, and 1971). A seasonal peak is normally reached sometime during the last third of the month, when maximum banding totals at Powdermill have included 11 on May 22, 1966, and 12 on May 28, 1967. Migrants are usually scarce by the first of June. Late dates are June 2 (1966), June 3 (1969), June 7 (in 1962 and 1970), and June 12 (1971, banded). Occasionally the first autumn migrants have appeared during the last half of July. One was captured at Powdermill on July 22, 1962, and I banded another on July 24, 1963. Other early migrants have been recorded on August 7 (in 1968 and 1970), August 9 (1969), and August 11 (in 1964, 1966, and 1971). It is often mid-August, however, before the species is found with any degree of frequency. Numbers are normally high from the last few days of August through the entire month of September, then the movement declines sharply during the first week of October. Last-seen dates include October 9 (1971), October 10 (1970), and October 12 (1967). Stragglers were banded on October 28 (in 1972 and 1974) and October 30 (1966).

ACADIAN FLYCATCHER

Empidonax virescens

Regular, fairly common transient in spring and fall; regular, common summer resident. The Acadian, the most common breeding *Empidonax* species in the Valley, is found in mature woodlands throughout the lower elevations. It is a characteristic breeding bird along Linn Run near Rector, and Todd (1940) notes "... Nowhere have I seen it more numerous than along the gap of Chestnut Ridge through which Loyallhanna Creek flows." The earliest recorded arrival date is May 10 (in 1970 and 1973). Other first dates are May 13 (1966) and May 15 (1968). Autumn migrants are fairly common by the second half of August, the numbers gradually diminishing through the month of September. The latest-seen records are of birds banded at Powdermill on October 2 (1971), October 5 (1974), and October 7 (1973).

WILLOW FLYCATCHER AND
ALDER FLYCATCHER*Empidonax traillii* and *Empidonax alnorum*

Until recently *Empidonax traillii* and *E. alnorum* were considered two different "song forms" of a single species, the "Traill's Flycatcher." For this reason, and because it is virtually impossible to separate the two species by plumage (nor do the birds sing in a bander's hand), most of the local records of the two species have been, and must still be, treated simply as "Traill's

Flycatchers." Much more field work will be required to determine the precise status of the two species in the Ligonier Valley.

The Willow Flycatcher (which sings the "fitz-bew" song) breeds along many of the shrub-bordered streams and wet hedgerows in lower sections. It has nested irregularly at Powdermill, and I have also noted it in summer along Loyalhanna Creek near Rector, along Four-mile Run near Stahlstown, and along Coalpit Run near Ligonier. This flycatcher may well be something of a newcomer to the Valley as a breeding species. It has made a marked range extension in southwestern Pennsylvania in the last 30 years or so, and is not included in any of the older lists of local nesting species. I have not yet recorded the Alder Flycatcher ("fee-be-o" song) in summer. If it breeds anywhere within the region it is probably restricted to the summit of Laurel Hill. I cannot determine at this time which of the two species is the more frequent as a transient, or whether there are major differences in their migration patterns. Judging from singing birds, both forms seem to be regular and apparently fairly common in spring. "Traill's Flycatchers" have been banded at Powdermill as early as May 8 (1963) and May 9 (1962). Normally, however, it is mid-month before the birds are at all frequent. Maximum spring banding totals are 11 on May 18, 1963, and 14 on May 27, 1973. Transients are apparently gone after the first few days of June. The summering population of Willow Flycatchers makes it difficult to determine exactly when the first migrants of either species arrive in the fall, but a sizeable flight is obvious by early August. Maximum autumn banding totals are of six birds on August 24, 1967, and seven on August 27, 1972. The flycatchers are uncommon but well distributed through September, and only stragglers have been noted by early October. Late dates are October 2 (1965), October 3 (1963), and October 11 (1968). A Traill's Flycatcher (probably Alder?) banded as an immature at Powdermill on August 26, 1966, was trapped and released at Whitefish Point, Michigan, on June 5, 1969. Another bird (species?) which had been captured at the Reserve on September 12, 1971 as an immature, was caught and released in Belize City, Belize (formerly British Honduras), on October 8—less than a month later and the first record of a "Traill's" for that country!

LEAST FLYCATCHER

Empidonax minimus

Regular, common transient in spring and fall; regular, local, uncommon to fairly common summer resident. As a migrant, this is by far the most frequently observed *Empidonax* flycatcher in the Ligonier Valley. The first spring birds have returned as early as April 22 (1964) and April 23 (1965). Other more typical first dates include April 28 (1970); April 29 in 1966 and 1969; April 30 (1968); and May 1 in 1962 and 1973. The peak of the spring flight occurs about mid-May, when maximum banding totals have been 11 on May 14, 1966, and May 18, 1963; 13 on May 12, 1967; and 15 on May 13, 1962. Numbers begin to decline by late May. Latest dates for (apparent) migrants are May 28

in 1965 and 1972; May 30 in 1966, 1970, and 1971; June 1 in 1968 and 1973; and June 3 in 1967. Least Flycatchers banded at Powdermill after the first week of June are almost certainly local breeding birds, although the species is somewhat irregular there in summer. Breeding Least Flycatchers have also been seen in Linn Run State Park, and at Rector, where W. O. Robinson noted a few birds on June 7, 1972. Undoubtedly they nest elsewhere in the lower valley as well, although specific records are lacking. I have not yet found the species on the top of Laurel Hill or on the crest of Chestnut Ridge in summer. Considerable movement is evident by mid-July, and Least Flycatchers are again common transients during all of August. Peak numbers are normally banded during the last few days of that month or in early September. Maximum fall banding totals include 12 on August 30 and September 5 in 1968; 13 on August 25, 1973, and 13 on September 4 in 1971; 14 on September 1, 1972; and 20 on September 6, 1973. The flight continues to be strong through the first three weeks of September, but numbers decline sharply thereafter. Only a few Least Flycatchers remain in the area to the end of the month and into October. Late banding dates at Powdermill are October 10 (1970); October 14 in 1962 and 1966; October 15 (1972); and an extremely late straggler on October 26 (1967).

EASTERN WOOD PEWEE

Contopus virens

Regular, fairly common transient in spring and fall; regular locally fairly common summer resident in deciduous woodlands throughout the area. Early arrival dates for the Eastern Wood Pewee include May 10 (1969); May 12 in 1964, 1971, and 1973; and May 13 (1967). In some seasons, however, they are late in returning; not until May 21 in 1972. The spring peak usually does not occur before the last week of May, and apparent migrants are found into early June. There is some (local?) movement by late July, and the autumn migration is well under way by the first week of August. It is usually sometime during very late August or the first half of September before the flight reaches a peak. Maximum banding totals at Powdermill are nine birds each day on September 3, 1969, and September 12, 1972, and ten on September 9, 1967. Numbers of migrants remain high through the end of September, and then rapidly decline. Late dates for this species are October 8 (1967) and October 13 and 17 in 1965. An adult pewee banded at Powdermill on July 11, 1964, and rehandled on May 23, 1970, holds the species age record of seven years (minimum).

OLIVE-SIDED FLYCATCHER *Nuttallornis borealis*

Transient, irregular and usually rare in spring; regular but uncommon in fall. Although migrant Olive-sided Flycatchers have been found in a variety of habitats throughout most of the Ligonier Valley, the majority of my records are from the brushy hedgerows around Crisp Pond at Powdermill and from the white pine

border of Laurel Summit Glade. They are usually seen as individuals or (rarely) in groups of two or three in both spring and fall, and I have never found more than four or five of the flycatchers during a day's field work. My earliest record in the spring is May 9 (1969). The birds, however, usually do not appear until later in the season. Additional first dates include May 15 (1972) and May 21 (1967). The spring flight is usually of short duration, and some late dates are May 27 (1972), May 28 (1967), and May 29 (1966). The fall flight is more prolonged. The first migrant was found on August 11, 1974, with other fall arrival dates of August 17, 1973; August 19, 1972; August 21, 1964; August 23, 1963; and August 24 in 1965, 1966, and 1968. The flight continues strongly through the first three weeks of September. Last dates include September 25 (1965), September 29 (1962), and October 1 (1966).

HORNED LARK

Exemophila alpestris

Regular, fairly common transient in spring and fall; regular, usually uncommon summer resident; regular (?), fairly common winter resident. By mid-February the small wintering population has usually been supplemented by migrant birds. This is a very early nesting species, and it is often difficult to distinguish among breeding individuals and migrants by early March. A nesting pair or two may inhabit almost any large open field in the region. I have located Horned Larks most frequently in and around the large gravel parking lot at Donegal Lake, and in the short-grass fields at the Pennsylvania State University grassland research farm south of Rector. Timing of the first autumn migrants into the area is in need of further study. The flight certainly continues well into November.

TREE SWALLOW

Iridoprocne bicolor

Regular transient, very common in spring, uncommon in fall; sporadic (?), apparently very rare summer resident. The first Tree Swallows often appear before the ice is completely off regional lakes and ponds. Arrival dates include March 23 (1968); March 26 (1969); March 30 in 1970 and 1973; and April 1 (1971). Not until the second half of April, however, do peak numbers pass through the area. Some maximum counts (all from Donegal Lake) in 1971 are 350 on April 15, 300 on April 22, 400 on April 26, and about 250 on April 30, 1969. Most of the migrants have moved on after the third week of May, and by month's end they are rare. Future field work may very well show the species to be a more frequent breeder than the single available record would indicate: on June 17, 1968 J. K. Orndorff and I saw a bird entering a nest in a hole in a utility pole on the edge of Donegal Lake. The autumn flight is inconspicuous, and I have never found large concentrations of migrating Tree Swallows anywhere in the Valley at that season. Most of the birds that pass through the area do so during August and September (five were at Donegal on September 20, 1973). The latest date at Powdermill is October 21 (1975); one was at Donegal Lake on October 31

(1973); and another lingered there until November 5 (1970).

BANK SWALLOW

Riparia riparia

Regular, common to very common transient in spring; perhaps only sporadic in fall. The earliest recorded migrant was found at Powdermill on April 9 (1965), but normally it is mid-April or later before the Bank Swallow arrives in the Ligonier Valley. Additional first dates are April 15 (1971, Donegal Lake); April 17 (1963, Powdermill); and April 20 (1972, Donegal). Flocks usually do not exceed a dozen birds, but in 1969, high counts at Donegal included 25 on April 24, and 150 on the 30th. Eleven were banded at Powdermill on May 15, 1963. Migrants are regularly seen through the first three weeks of May, but numbers drop rapidly thereafter. The latest spring record is of three at Powdermill on May 25, 1973. The only autumn observation of Bank Swallows concerns a flock of 100+ that flew to an apparent roost near the edge of Crisp Pond at Powdermill on August 16, 1973. More attention should be given late summer and fall flights of all species of swallows locally. Banding recoveries might prove that many of the birds migrating through this region in the spring return south via the Atlantic coast in fall.

ROUGH-WINGED SWALLOW

Stelgidopteryx ruficollis

Regular, fairly common (rarely very common) transient in spring; apparently an irregular and rare fall transient; regular, usually rare summer resident. The earliest Rough-wing record in spring is of a bird seen at Powdermill on April 12 (1965). Other arrival dates include April 17 in 1963 (Powdermill) and 1970 (Donegal Lake); and April 22 at Donegal in 1969 and 1971. Flocks are usually of less than 20 birds, but an exceptional concentration of 350+ occurred at Donegal on April 30, 1969. Rough-wings continue to be seen through the month of May, and a few migrants also apparently linger into early June. Mid-June records from Donegal, Powdermill, and Ligonier probably are of breeding birds, although I have never located a nest in the Valley. Birds seen in scattered July and August observations are almost surely migrants. Three Rough-winged Swallows found circling over Crisp Pond at Powdermill on September 26 (1971), were exceptionally late stragglers.

BARN SWALLOW

Hirundo rustica

Regular transient, common to abundant in spring; fairly common in fall; locally abundant summer resident in farming areas throughout the Valley. Barn Swallows normally appear sometime during the first ten days of April. Arrival dates include April 2 (1973, Donegal Lake, with HMS); April 3 (1969, Powdermill); April 4 (1970, Donegal, CS); and April 5 (1968, Rector). Numbers usually peak by late April, and my maximum count is 1000+ at Donegal Lake on April 30, 1969. Counts of one or two hundred Barn Swallows in a day's

field work in the Valley are not unusual in late April and through most of May. At Powdermill high banding totals include 19 on May 24, 1968; 21 on May 15, 1963; and 27 on May 1, 1964. Fall migratory flocks are evident by late July, but the peak of the flight appears to be in August. My best autumn count is 25 at Donegal Lake on August 24, 1970. Numbers decline sharply after early September. Late dates are of three birds at Powdermill on September 20 (1969), six at Donegal on September 20 (1973), one at Powdermill October 18 (1975), and a very late straggler that flew over Crisp Pond at the Reserve on October 27 (1971). A Barn Swallow banded at the Reserve on May 31, 1963, was recaptured there on April 28, 1966 (it was at least four years old).

CLIFF SWALLOW

Petrochelidon pyrrhonota

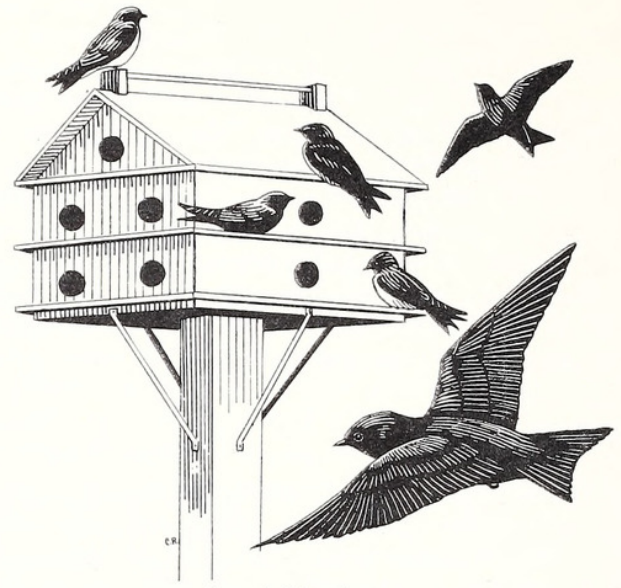
Regular transient, fairly common in spring; often common in fall; very localized but sometimes common summer resident. Cliff Swallows normally first appear sometime during the second half of April. First spring dates at Donegal Lake include April 15 (1969), April 20 (1972), and April 22 (1971). The earliest Powdermill record is April 18 (1965). Small migratory flocks, usually consisting of fewer than two dozen individuals, are seen through most of May. To date I have not found many nesting colonies of Cliff Swallows in our area, and none are definitely known to have nested anywhere within the region before the construction of Donegal Lake. Twenty-five to 30 pairs have occupied a large barn near the parking lot at Donegal Lake in recent summers. In 1970, Cliff Swallows attempted to nest under the eaves of a house in the same area, but the nests were torn down by the residents of the home. In 1972, a sizeable colony was located in a barn about two miles south of Stahlstown (exact number of pairs not determined). The birds did not return to the site in 1973. Some fairly large pre-migratory gatherings have been located within the region. These include 50 birds at Davey's Lake on August 26, 1971; 85 at Donegal on August 10, 1972; and 100+ at Stahlstown on August 2, 1971. The latest fall record is of two Cliff Swallows at Powdermill September 18 (1971).

PURPLE MARTIN

Progne subis

Regular transient, sometimes common in spring; fairly common in very early fall; locally common summer resident. Martin boxes have long been a special feature in Ligonier, where the only significant colonies within the Valley are located. A series of unseasonably cold and wet springs, however, has drastically diminished the breeding population in recent years. The effects of Hurricane Agnes in June, 1972, were particularly devastating. Two spring arrival dates for Ligonier are April 2 (1967, HMS), and April 8 (1965, Joseph Duval). At Powdermill, where the species does not nest, the earliest dates of return are March 27 (1964), April 2 (1965, six days earlier than in Ligonier that same year); and April 7 (1970). Significant summer and autumn counts are not available. Three Purple Martins were seen at Done-

gal Lake on August 14, 1970 (RS), and four at Powdermill on August 16, 1974 (with Mary Leberman). I have no departure dates from Ligonier.



Purple Martins

BLUE JAY

Cyanocitta cristata

Regular transient, common to very common in both spring and fall; regular, fairly common summer resident; regular, often very common winter resident. About mid-April there is a decided increase in the local jay population, when it is supplemented by large numbers of migrants. The movement then continues through mid-May. The spring migrants frequently are seen flying northward in loosely organized flocks of from only a few to as many as 30 or 40 individuals. At peak migration these flocks, comprising many hundreds of birds, may pass through the Valley continuously during most of the day. Maximum banding totals usually occur during the first 10 days of May. In 1971, 19 were banded on May 1, 33 on May 7, and 31 on May 8. September is the month of peak migration in autumn, when again, small flocks may drift through the Valley all day long. In some years the fall flight continues well into early winter. In mid-winter the species is a common resident. Up to 100 jays have been known to frequent the feeding station at Powdermill (DER), and A. C. Lloyd banded 19 at the Reserve on January 4, 1970. The oldest locally recorded jay is a bird banded on February 9, 1964, and recaptured February 2, 1969, at least five and one-half years old.

COMMON RAVEN

Corvus corax

Regular, very rare permanent resident, perhaps increasing in recent years. Ravens are most often seen on the summit of Laurel Hill, although occasionally they wander down into the valley. The best area to look for them is Forbes State Forest south of Rector. The birds wander irregularly to the Powdermill area, usually in October. Mrs. H. M. Schmidt once found a Common

Raven about two miles north of Ligonier (along Route 711), and there are a few recent reports from Laughlinton. No records are available from Chestnut Ridge, but it seems likely that the birds may at least occasionally occur there. The extent of seasonal movements within the region, if any, is unknown.

COMMON CROW *Corvus brachyrhynchos*

Regular, often very common transient in spring and fall; regular, common summer resident; probably regular, uncommon to very common winter resident throughout the Valley. From late February through March, and from late September through November, large numbers of crows migrate through the area. Available maximum counts from both seasons are of 200 or fewer birds, but undoubtedly larger flocks occasionally occur. Two winter counts are of 150+ about two miles south of Ligonier on January 25, 1974, and 57 on a Christmas bird-census centered at Rector on December 30, 1973.

BLACK-CAPPED CHICKADEE *Parus atricapillus*

Common permanent resident; irregularly occurs as a spring transient and in some years is a very common (occasionally abundant) fall transient; very common in winters following major fall flights. Black-capped Chickadees are found nesting in the Ligonier Valley at all elevations, wherever suitable woodlots occur. The resident population is supplemented during some autumns by heavy flights of more northerly, predominantly immature, birds. Such flights have been recorded in this region during the winters of 1963-64, 1965-66, 1966-67, 1968-69, 1969-70, and 1975-76. During a migration year most of the birds appear in October, when hundreds can sometimes be seen in a single day. Maximum banding totals at Powdermill have included 43 on October 29, 1965; 55 on October 19, 1969; and 61 on October 23, 1966. In the spring following such autumn flights there is an obvious increase of north-bound birds in April. Spring banding totals for 1969 included 19 birds on April 12, and 14 on April 16. Chickadees banded at Powdermill during these irregular migrations have been recovered in Greenbush, Maine; Hancock, New York; and Elkview and Morgantown, West Virginia. One banded at State College, Pennsylvania, in November, 1969, was captured at Powdermill in April, 1970. The individuals that are resident at the Reserve are often caught repeatedly in our nets. The oldest chickadees recorded so far are a bird originally banded on July 9, 1964, and last renetted on October 30, 1971, at the age of at least seven and one-half years; and another banded as an immature on November 6, 1966, and last rehandled on January 10, 1975, almost nine years old.

CAROLINA CHICKADEE *Parus carolinensis*

Rare and irregular from late fall through early spring; casual in July (total of eight autumn and four spring records). The Carolina Chickadee was first reported

from the Ligonier Valley in October, 1966, when four were banded at Powdermill during a heavy migration of Black-capped Chickadees (Parkes, 1966). Since then Carolinas have been netted in the falls of 1967, 1969, and 1971, as well as in the springs of 1967 and 1969. Probably most of those captured locally have been birds wandering beyond their normal range (all autumn birds have been immature) and later caught up in the movements of Black-capped Chickadees. As yet, there is no conclusive evidence that Carolinas nest anywhere within the area. Our single summer record is of a young bird banded on July 23, 1967, and recaptured on September 4, a suspiciously early bird (locally hatched?) that lingered longer in the area than would be expected of a chickadee that was wandering. The earliest fall date of capture is October 7 (1969). At Powdermill the latest spring record is April 11 (1969). Mrs. H. M. Schmidt reported a Carolina at a feeder three miles south of Ligonier on April 14 (1967)—the only regional record of the species away from Powdermill. The mid-winter status is uncertain, although at least one individual is believed to have wintered at Powdermill during the 1966-67 season.

BOREAL CHICKADEE *Parus hudsonicus*

The only local records of the Boreal Chickadee are of individuals banded at Powdermill on October 26, 1969, and November 8, 1975. These birds were part of unusually extensive southward invasions of the species. During the winter of 1969-70 at least two additional birds were seen in western Pennsylvania (in Allegheny and Butler counties), and the first records for West Virginia (Morgantown) were established (Hall, 1970). In the fall of 1975 a second bird was also reported just to the west of our region, near Latrobe.

TUFTED TITMOUSE *Parus bicolor*

Regular, fairly common permanent resident. Although less frequent at higher elevations, the Tufted Titmouse is found throughout the Valley. In late summer and fall the birds are occasionally seen wandering through wooded areas in family groups of as many as seven or eight birds, but are more often observed singly or in pairs. Titmice are among the best-known visitors to area feeding stations. From banding records at Powdermill we know that as many as 25 or 30 individuals frequent the Headquarters feeders during the winter months, but they are seldom seen in groups of more than a few birds at a time. The maximum daily banding total is 13, on January 3, 1970 (ACL). With this attraction to feeders and consequent repeated rehandling of resident individuals, we now have many records of old birds—including one that was first banded as an immature on July 8, 1966, and retrapped through December 6, 1975, at least nine and one-half years old; and two or more other titmice that have been recorded as nine years old.

WHITE-BREASTED NUTHATCH *Sitta carolinensis*

Regular, common permanent resident throughout the

Ligonier Valley; nests at all elevations. This is another species commonly attracted to winter feeding stations, although it is seldom seen in groups of more than a few individuals. White-breasted Nuthatches are often found associated with flocks of other wintering birds like Downy Woodpeckers, Tufted Titmice, Black-capped Chickadees, and Golden-crowned Kinglets, in wooded areas. Annual banding totals at Powdermill never have exceeded 30, and there is no evidence of a migratory movement in the local population. The oldest-known nuthatch at the Reserve is one banded on November 23, 1963, and last rehandled on June 28, 1970, at least seven years old.

RED-BREASTED NUTHATCH *Sitta canadensis*

Regular, uncommon, occasionally fairly common migrant in spring and fall; irregular and usually rare winter resident; one summer record. During some autumns the Red-breasted Nuthatch migrates southward in numbers, and may be rather common locally in pine and spruce plantings. This is particularly true in the Laurel Summit Glade area, where a few individuals usually can be located even in a non-flight year. Early arrival dates include August 30 (1971), on Laurel Hill (with CS); September 12 (1965); and September 15 (1968, ACL, DER). Maximum counts from late September through November may be as high as 15 to 20 birds in the Laurel Hill area. Mid-winter observations are usually of individual nuthatches, or of groups of two or three. Numbers improve by late March, when the birds begin their spring migration. A few linger into May. My latest date at Powdermill is May 11 (1966). The Red-breasted Nuthatch has not yet definitely been recorded as breeding anywhere in the Valley, but one seen on July 28, 1970 (RS) near the Laurel Summit Glade (where conditions seem suitable) is early for a migrant.

BROWN CREEPER *Certhia familiaris*

Regular, fairly common spring and fall migrant; locally uncommon to fairly common in summer; uncommon winter resident. Because of a small wintering population it is difficult to know exactly when the first spring migrants appear in the Valley. Banding records indicate a noticeable movement of creepers by the last week in March. Peak numbers are usually found during the first half of April, and a few migrants are still in the area through the second week of May. The Brown Creeper is a fairly common breeding species at the higher elevations of Laurel Hill, and two or three pairs have been located annually at the edge of Laurel Summit Glade. On Chestnut Ridge and in the lower valley areas, the species must be considered a very localized, and decidedly uncommon, nesting bird. Summering birds have been seen or banded at Powdermill in 1961, 1968, and 1971. Fall migrants usually begin to appear at the lower elevations after mid-September. Early banding dates include September 19 in 1965 and 1969; September 20 (1970); and September 22 (1972). Maximum numbers usually appear during the second half of

October. During most seasons, but especially in mid-winter, the birds are usually seen only as individuals or in pairs.

HOUSE WREN

Troglodytes aedon

Regular, common spring and fall transient; very common summer resident. An extremely early House Wren was recorded at Powdermill on April 9 (1967, ACL), but ordinarily the first arrivals do not appear until after mid-month: April 16 (1965); April 19, in 1963 and 1971; and April 22 (1970). A seven-year average is April 19. The peak of spring migration normally occurs during the first week of May, and by mid-May local breeding is well under way. There is much short-distance wandering by the summer population in July and August, but true fall migration probably does not begin before early September. Maximum banding totals include 11 on September 14, 1968, and 14 on September 24, 1967. The autumn flight tapers off rapidly in October and by mid-month, House Wrens are decidedly scarce. Some last-seen dates include October 21 (1967), October 23 (1971), October 28 (1962), and an unusually late bird at Powdermill on November 11 (1972). A wren banded at Powdermill on April 24, 1971, was killed by a cat in Detroit, Michigan, on April 21, 1973. The Reserve age record for a House Wren is four years: an adult banded on May 8, 1965, and last renetted on May 10, 1968.

WINTER WREN

Troglodytes troglodytes

Regular, uncommon spring and fairly common fall transient; apparently a rare summer resident; usually a rare winter resident. The first migrants appear in late March or early April. By mid-April the spring flight is at its peak, and by the end of the month the birds are scarce. Last-seen dates at this season include April 29 (1971), April 30 (1968), and May 2 (1971). In fall our earliest banding date at Powdermill is September 19, 1970. By the end of September the species is usually fairly common, and the migration peaks about the second or third week of October. Maximum banding totals include five each day on October 10, 1964, and October 13, 1968. On July 28, 1970, Randy Stringer located a Winter Wren not far from the Laurel Summit Glade. The bird was in full song on that date. Again on June 10, 1973, Randy and Cliff Stringer found a singing bird in the same locality. Since then members of the Audubon Society of Western Pennsylvania have found Winter Wrens in that area each summer. These records provide the only evidence of potential breeding in our region. All of the few winter records that have come to my attention have been of single birds reported by observers who probably saw no more than one or two a day. I was fortunate, however, in being able to locate four such individuals in widely scattered areas at Powdermill on January 4, 1976.

BEWICK'S WREN

Thryomanes bewickii

Irregular, very rare transient in spring and fall; casual in late winter. The Ligonier Valley is near the northern

limits of this species' range, and all our local records are of non-breeding individuals. Three spring records from Powdermill range from March 28 in 1969 to April 16 in 1962. Three autumn records fall between September 5 in 1971 and September 29 in 1966. The only other record is of a bird that visited a feeding station near Kregar (Mrs. Harriet Stimmel) during the latter part of the winter of 1964-65.

CAROLINA WREN *Thryothorus ludovicianus*

Irregularly rare to fairly common permanent resident; basically a species of southern affinities. The local population of Carolina Wrens fluctuates considerably in size, and in years with mild winters, when the birds are able to find adequate food and shelter, the population builds up. During these periods the species is common, especially around buildings in wooded areas in the lower valleys. Following a series of severe winters, Carolinas suffer a drastic decline in numbers, and few if any birds can be found. They will, however, come to winter feeding stations, particularly for suet, and thus can be helped through periods of hard weather. There is also some evidence to suggest that our local population may be supplemented in late July and early August by individuals (mostly immature birds) moving in from outside the region. When the population is high, Carolina Wrens may range widely throughout the Valley. This was particularly true in the summer of 1973, when on July 30 I located a pair with newly hatched young in a white pine thicket in the Laurel Summit Glade—a most unlikely breeding locality.



Carolina Wren

LONG-BILLED MARSH WREN

Telmatodytes palustris

Irregular rare transient in spring; regular uncommon fall transient. In the Ligonier Valley this species is usually found in small cattail marshes, but it also oc-

casionally frequents wet hedgerows or, in the autumn, dry weedy fields. All our spring records are from Powdermill, and range from May 8 (1971) to May 23 (1967, HMS). Fall arrival dates include September 10 (1966), September 15 (1967), and September 19 (1971). Maximum numbers appear during the last week of September and the first few days of October, but this is never a common species, and it would be exceptional to see more than one or two individuals in a day's field work, even during the peak of migration. Late dates are October 22 (1963) and October 24 (1970).

SHORT-BILLED MARSH WREN

Cistothorus platensis

Apparently little more than a sporadic spring transient; irregular and rare in fall. The only spring record for the region is of a bird obtained by R. L. Fricke on May 5 (1928). Fricke (1929) notes: "While collecting specimens for the Carnegie Museum . . . at Springer's Farm, adjacent to the Rolling Rock Club, at Rector . . . I took a Short-billed Marsh Wren . . . It scurried out from the road-bed of an abandoned logging railroad running through a marshy meadow in the bottom-land along Loyalhanna Creek." This is an inconspicuous species, and may well be somewhat more frequent during spring migration than this single record indicates. In autumn wrens are occasionally found in cattail marshes in low areas, but they are more often met with in dry, weedy fields. First fall dates at Powdermill include September 8 (1962) and September 12 (1971, ACL). The latest fall date is October 8 (1973). The maximum number reported in a single day is three at Powdermill during late September, 1960 (Netting, 1960) when ". . . on three successive mornings one to three Short-billed Marsh Wrens were observed in a patch of weeds and brush . . ."

MOCKINGBIRD

Mimus polyglottos

Regular, usually rare transient in spring and fall; regular, rare summer and winter resident. The Mockingbird, a newcomer to the Valley, first began to appear with some degree of frequency about 10 to 12 years ago. Although still rare, a few individuals usually can be found within Ligonier Borough at any season. An increase in numbers is often noted in April and early May, when a few birds pass through the Valley. This is probably not a true migration, in the strict sense of the term. Breeding is probably confined to the lower elevations, and most summer reports have been from the general vicinity of Ligonier. A small autumn movement, under way by September, lasts at least through mid-November. Usually Mockingbirds are seen only as individuals or in pairs. A flock of five just west of Ligonier on November 8, 1972 (J. A. Young) is exceptional. Reports of one or two birds wintering at feeding stations are widespread in the region. Multiflora rose hedges are also commonly used for winter food and shelter.

GRAY CATBIRD

Dumetella carolinensis

Regular, common transient in spring and fall; abundant summer resident in thickets throughout the area. Normally the first catbirds appear late in April. Arrival dates include April 22, 1970; April 25, 1964; and April 27 in 1963, 1969, and 1975. Catbirds become common during the first week of May, and peak numbers occur sometime during the second or third week of the month. Maximum spring banding totals at Powdermill are 15 on May 17, 1969; 18 on May 10, 1970; and 19 on May 8, 1966. A large breeding population makes it impossible to determine exactly when the autumn flight starts. Migrants, however, are abundant by the second week of September, and the flight continues to be strong through mid-October. The fall peak usually occurs during the last half of September, with maximum banding totals of 20 to 21 birds a day. Catbirds are scarce by the end of the third week of October. Late dates include October 28 (1961), November 4 (1970), and November 11 (1967). The oldest recorded individual of this species at Powdermill is an adult banded on May 8, 1966, and last rehandled on September 15, 1973, at least seven years old.

BROWN THRASHER

Toxostoma rufum

Regular, fairly common transient in spring and fall; very common summer resident in thickets throughout the Valley; one winter record. Early spring arrival dates include April 8 in 1964 and 1967, April 9 (1970, DER), and April 12 (1968). The average arrival date for a sample of nine years at Powdermill is April 13. The spring flight peaks during the last week of the month. September is the month of maximum autumn migration, and the species is scarce by mid-October. The latest banding date at Powdermill is October 23 (1963). The only winter record of the Brown Thrasher in this region is of one seen occasionally (through February 5) at a feeding station south of Ligonier during the winter of 1968-69 (HMS). An adult banded at the Reserve on April 29, 1969, was found near Marksville, Louisiana, in March, 1970—probably on the wintering grounds. Another thrasher banded as an adult on May 8, 1966, was recovered at Cleveland, Ohio, on August 22, 1972, at least seven years old.

AMERICAN ROBIN

Turdus migratorius

Regular, often abundant transient in spring and fall; locally abundant summer resident; irregular, occasionally fairly common winter resident. Robins have been recorded in the Ligonier area during every month of the year. It is usually early-to-mid-March before they can be considered regular, and early April before they are abundant. The maximum flock size yet reported in spring is of approximately 5000 seen in a field near Ligonier on April 9, 1961, by Keith Doms. In May and June robins are among our most abundant breeding birds, both in town and in rural areas. By late summer, however, many of the local birds have taken to farm fields and forests, and often become scarce in urban

areas during dry weather. Fall migration is well under way by October, when large flocks are often noted. The record count, however, was made on the evening of November 6, 1971, when (with ACL) I estimated a minimum of 20,000 robins flying north over Powdermill, apparently on their way to a roost. During less severe winters robins remain in the region throughout the season. They have frequently been noted at Powdermill from December through February (DER, ACL, *et al.*). Dorothy Auerswald reported one at Ligonier on December 29, 1957, and J. C. Murphy saw 30 near Ligonier on January 25, 1972. Robins banded at Powdermill have been recovered on their wintering grounds in Georgia (2), Mississippi, and Louisiana. One banded as an adult on April 21, 1964, had lived to at least six and one-half years when it was last recaptured at the Reserve on October 19, 1969.

WOOD THRUSH

Hylocichla mustelina

Regular, fairly common transient in spring and fall; very common summer resident. The last week of April is the normal arrival period for Wood Thrushes. First spring dates include April 22 (1970, with JKO), April 24 (1973), April 25 (1967, three miles south of Ligonier, HMS), April 28 in 1964 and 1969, and April 29 (1971). By the second week of May the birds are numerous, and peak banding totals include six on May 9, 1970, and eight on May 10, 1969. Wood Thrushes nest at all elevations throughout the Valley, and in spring and summer their song is one of the most familiar and lovely sounds heard in the forest. The autumn movement is well under way by the last of August, and numbers peak soon after the second week of September. Maximum banding totals include six on September 21, 1966; six on September 23, 1967; and seven on September 15, 1973. The birds are scarce by the first week of October, although stragglers have been recorded as late as October 17 (1970), October 21 (1973), and October 25 (1965). A Wood Thrush banded as an adult on May 31, 1967 was last rehandled on May 8, 1971, at five years of age.

HERMIT THRUSH

Catharus guttatus

Regular, uncommon spring transient; fairly common in fall; locally common summer resident. The earliest arrival record for this region is of a bird seen by Mrs. H. M. Schmidt three miles south of Ligonier on March 31, 1967. Other first spring dates are April 2 (1965) and April 6 (1969). Migration continues through April, although the species is seldom seen in any numbers, and most have gone through by early May. Some last-seen dates are April 29 (1965), April 30 (1972), and May 6 in 1967 and 1973. Todd (1940) wrote: "I have searched for the Hermit Thrush on the summit of Laurel Hill, but have thus far failed to find it . . ." In recent years, however, a nesting colony has become established around the edge of Laurel Summit Glade, and numbers seem to be increasing each year. During the summer of 1973, I estimated a minimum of seven or eight territorial males singing there. I know of no other

breeding locality within the Valley. Away from Laurel Hill, autumn birds first appear any time from mid-September through early October. An unusually early migrant was banded at Powdermill on September 15 (1972). In other years the first fall Hermits were recorded on September 30 in 1964 and 1975, and on October 1 in 1969, 1970, and 1971. The best banding date was October 7, 1973, when 23 were handled at Powdermill. Last-seen dates are November 9 in 1966 and 1968, and November 12 (1967).

SWAINSON'S THRUSH

Catharus ustulatus

Regular, fairly common spring transient; irregular, rare summer visitant; common to very common transient in fall; accidental in winter. The first migrant Swainson's (formerly Olive-backed) Thrush arrives in the Ligonier Valley in very late April or early May. Some first spring dates include April 28 (1973), April 29 (1969), May 3 (1970), and May 4 (1962). By the second week of May the species is frequent. Maximum spring banding totals are 13 on May 10, 1969; 16 on May 10, 1970; and 20 on May 12, 1973. Few birds remain at the end of the month. Last dates include May 28 in 1967 and 1973; May 29 in 1971 and 1972; and June 3 (1968). During recent years a few Swainson's have been captured at Powdermill in late July (July 20, 1969; July 25, 1973; July 26, 1968; and other dates in this month) or in early August. The origin of these birds is not certain. They may be from some nearby, as yet unknown, breeding ground, or they may be early migrants from farther north. All these early birds were adults. One had a brood patch still visible, and several had not yet started their fall molt. Normally, thrushes molt before migrating. By late August, the full thrust of the autumn migration is under way, and Swainson's Thrushes are common by September. Some peak banding totals are 44 on September 24, 1967; 45 on Sep-

tember 25, 1965; and 77 on September 22, 1973. After the first week of October, numbers rapidly decline, although a few have lingered as late as October 14 (1973), October 19 (1975), October 23 (1966), and (a sick bird) November 1 (1970). There is also one winter record: a thrush that spent the season (1964-65) at a feeding station east of Jones Mills (E. Morris, *et al.*). This individual apparently had suffered some sort of injury, and failed to complete its normal migration to South America. Two Swainson's Thrushes banded at Powdermill have been recovered on or near their wintering grounds: one near Bogotá, Colombia, in 1964; and the other in northern Peru sometime in the winter of 1969-70 or 1970-71.

GRAY-CHEEKED THRUSH

Catharus minimus

Regular transient, uncommon in spring, common in fall. In most years only small numbers of Gray-cheeked Thrushes migrate through the Valley in spring. Arrival is normally during the first half of May, with some early dates of May 4 (1972), May 6 (1962), and May 10 (1969). The migration period is relatively brief, for by month's end the birds are again scarce. Last-seen dates include May 29 (1972), May 30 (1973), and May 31 (1970). An exceptionally early fall migrant was banded at Powdermill on August 26, 1963. Usually autumn birds arrive about the second week in September. Some first records are September 7 in 1966 and 1973; September 9 (1962), September 10 (1967), and September 12 in 1965 and 1971. The heaviest fall flight in the Powdermill records was September 25, 1965, when 52 were banded. These numbers are highly unusual, for any daily total over 20 is exceptional. Numbers decline during October, and the species is rare after mid-month. Late dates are October 18 in 1968 and 1973, and October 30 in 1971.

VEERY

Catharus fuscescens

Regular, uncommon transient in spring and fall; locally common summer resident. Early May is the normal arrival time for the Veery. Some first spring dates are May 1 (1964), May 3 (1970), and May 4 (1969). It is seldom, at least at lower elevations, that one sees more than one Veery at a time, and the flight is brief as well as sparse. Last spring dates at Powdermill are May 18 (1968), May 23, (1973), and May 28 (1972). On the summit of Laurel Hill, Veeries are common and widespread breeding birds in damp, mossy woodlands. They have not yet, however, been reported in summer from Chestnut Ridge, nor from anywhere at lower elevations. The species is an early fall migrant, and the first birds (migrants?) have been found at Powdermill as early as July 2 (1965), July 18 (1969), and July 24 (1973). They are then rather evenly, if thinly, distributed at the Reserve through the month of August, and they peak early in September. By mid-September numbers decline rapidly, and last-seen dates include September 22 (1973), September 23 (1967), and September 28 (1968).



Swainson's Thrush

EASTERN BLUEBIRD

Sialia sialis

Regular, uncommon spring transient; fairly common in fall; regular, uncommon to fairly common summer resident; irregular, rare winter resident. The first migrant bluebirds normally are found sometime during March, depending on the severity of the early spring weather. At Stahlstown, Townsend Treese has seen one as early as March 3 (1973). In other years, arrival dates at Powdermill have been on March 17 (1964, 5 birds), and March 20 (1968, 1). Formerly, especially when there was more open farm land, the bluebird must have been a much more common breeding species in the Ligonier area than it is now. It still persists, however, in many sections of the Valley where competition with the Starling and House Sparrow for nest sites is minimal. Wandering flocks of bluebirds frequently are seen from September through mid-November. My best count is of 30 at Powdermill on October 27, 1964. Future field work may very well reveal that a few linger in the area during most mild winters. Joseph VanBuskirk reported a pair near Stahlstown on December 19, 1970, and Mrs. A. R. Murphy saw one near Stahlstown the last week of January, 1974.

BLUE-GRAY GNATCATCHER *Poliioptila caerulea*

Regular, common transient in spring and early fall, common summer resident. The earliest spring record for the gnatcatcher is of a bird seen at Laughlinton by Katherine Hill on April 5, 1973. At Powdermill first dates are April 6 (1974), April 7 (1968), April 12 (1965), and April 14 in 1964 and 1972. Normally the species is common by the last week of April. Migration then peaks during the first week of May, by which time the already-arrived local population has begun nesting. The gnatcatcher is a characteristic breeding bird of the white oak forest at lower elevations throughout the Ligonier Valley, but is much less frequent on the higher ridges. It is an early fall migrant, with a decided movement by mid-July, lasting through the month of August. The birds are scarce by the first week of September, but stragglers have been noted as late as September 14 (1965), and September 21 (1963). A female I banded at Powdermill on May 9, 1969 was killed by a boy with a slingshot in Llano Grande, Jalisco, Mexico, on November 1, 1970. This was the first recovery of a banded Blue-gray Gnatcatcher south of the United States, and it led to the discovery of a possible new migration route or wintering area for the eastern North American subspecies (Parkes and Clench, 1972). Another gnatcatcher, banded as an adult on May 2, 1970, and last rehandled on August 24, 1973, at a minimum of four years old, holds the Reserve age record for this species.

GOLDEN-CROWNED KINGLET *Regulus satrapa*

Regular, fairly common winter resident; common transient. A Golden-crowned Kinglet was observed in the Laurel Summit Glade on September 4, 1962 (CS). Normally the birds appear in very late September or

early October. Additional first fall dates at Powdermill include September 30 (1973), October 2 (1962), October 5 in 1965 and 1968, and October 8 in 1967. The autumn migration, which is variable in timing, usually peaks sometime during the last week of October or first half of November. Some high banding totals at Powdermill are 30 on November 12, 1972; 36 on November 13, 1967; and 40 on October 27, 1965. Numbers then gradually decline, with only a moderate population wintering in the Valley. By early March the population is again supplemented by migrants, and the spring movement reaches a peak in April. The maximum spring banding total is 22 on April 10, 1971. Golden-crowns are usually gone by late April. Last dates include April 21 (1969, Laurel Hill area), and April 29 in 1967 and 1972 at Powdermill. The latest spring record is from Laurel Summit Glade (with CS) on May 10 (1971).

RUBY-CROWNED KINGLET *Regulus calendula*

Regular, very common transient in spring and fall; irregular, very rare winter resident. Spring migrants appear in the Valley in very late March or early April. Some arrival dates at Powdermill are March 30 (1967), March 31 (1968), April 3 (1971), April 4 (1969), and April 5 (1963). Migration is strong through April into early May. Some maximum banding totals for this period include 26 on May 1, 1965, and 29 on April 9, 1967. By mid-May, Ruby-crowned Kinglets are scarce, and the latest spring records are May 14 in 1966, 1969, and 1972, May 17 (1975), May 18 in 1963 and 1967, and May 19 (1973). The first autumn migrants have been recorded as early as September 11 (1966), September 12 (1968), and September 15 in 1967 and 1972. Peak fall movement occurs either in late October or during the first half of November. Some maximum banding totals from Powdermill are 38 kinglets on October 28, 1967; 40 on October 23, 1971; 41 on November 12, 1972; and 119 on October 19, 1975. Numbers decline by late November and the species is rare by December, but occasionally a few individuals attempt to winter within the region. One was reported at a feeding station in Ligonier (C. D. Heintzelman, *vide* D. Auerswald) during the winter of 1957-58; one wintered three miles south of Ligonier in 1967-68 (HMS); and one was seen along Loyalhanna Creek west of Ligonier on February 27, 1971 (A. R. Murphy). Three Ruby-crowned Kinglets were listed on a Christmas bird-count centered at Stahlstown on December 26, 1955, but as no Golden-crowned Kinglets were listed (and the Ruby-crowned Kinglets were not indicated as being unusual), the two species may have been confused.

WATER PIPIT *Anthus spinoletta*

Available records indicate that the Water Pipit is an irregular and usually rare migrant in the Ligonier Valley, but its rarity may be more apparent than real. This is an inconspicuous species, often overlooked by birders. I have only four spring records, all from Powdermill. The earliest is of three pipits on March 25 (1965), and

single birds, seen near Crisp Pond on April 3 (1975, with ACL), April 7 (1973), and May 12 (1963). In the fall, a flock of 21 pipits was flushed from mudflats at Donegal Lake on October 19 (1972), and two were seen there September 26 (1973). This species should be watched for on freshly plowed fields during both the spring and fall flights.

CEDAR WAXWING

Bombycilla cedrorum

Regular transient, usually common in spring and often abundant in late summer and fall; common to very common summer resident; irregular in winter. This is an extremely erratic species, and both its movements and numbers vary considerably from year to year. Migratory flocks arrive at any time during late winter or early spring, but it is usually mid-May before the species is common. At this season individual flocks occasionally contain up to 300 individuals, but smaller flocks (10 to 50 birds) are more common. By late July the birds are again flocking strongly (even before many pairs have completed nesting), and numbers often build up to amazing heights. In early August I have occasionally seen as many as five or six thousand waxwings (my estimate) in a single day's field work. During August and September 1962, over 1,000 were banded at Powdermill. Sizeable flocks are also frequently observed throughout the Valley in October and November. Numbers are usually smaller, and the flocks less frequent, from mid-December on through the remainder of the winter season. Two waxwings banded at Powdermill have been recovered in Mexico during the winter months, and one was found in Guatemala. We also have had reports of locally banded birds recovered in Maine, Michigan (2), Illinois, North Carolina, Georgia, Texas, Louisiana, and Missouri. The North Carolina recovery, a bird five and one-half years old, holds the age record for the species (Kennard, 1975).



Cedar Waxwing

NORTHERN SHRIKE

Lanius excubitor

The only local record of the Northern Shrike is of a bird carefully identified at Powdermill Nature Reserve on January 14, 1974, by Cliff Stringer.

LOGGERHEAD SHRIKE

Lanius ludovicianus

Rare transient; apparently sporadic in spring; occasional in fall. The only spring record for the Loggerhead Shrike is of two, seen two miles west of Stahtstown on March 23, 1969 (CS). I found an exceptionally early fall migrant at Powdermill Farm, just west of Powdermill Nature Reserve, on August 18, 1969. The only other observations are of one or more birds frequenting the Headquarters area at Powdermill off and on during the month of September, 1961.

STARLING

Sturnus vulgaris

Common permanent resident; abundant transient in spring and fall. Starlings are found in the Ligonier Valley at all seasons. There appears to be a sizeable non-migratory resident population that is supplemented by heavy seasonal flights. Migrants first appear about mid-February in open fields and pastures (when the flocks can number in the hundreds, or even thousands), and the movement continues through March. After mid-June the birds again begin to flock and often become pests in Ligonier where they roost in shade trees, usually in company with grackles and blackbirds. In September, 1973, there were at least 2000 Starlings (along with several times as many grackles) roosting at the western end of town. The fall migration is under way by late September, and continues through at least early November. A Christmas bird-count centered at Rector (D. Smeltzer *et al.*) listed 417 Starlings on December 30, 1973, and 729 on December 15, 1974. J. C. Murphy noted a single flock of 200 south of Ligonier on January 4, 1972.

WHITE-EYED VIREO

Vireo griseus

Regular, uncommon transient in spring and fall; uncommon summer resident. The White-eyed Vireo, a relatively southern bird, only recently appeared as a breeding species in the Ligonier Valley. Until about twenty years ago it was considered very rare anywhere in western Pennsylvania. At Powdermill it was first recorded in 1961, and breeding was definitely confirmed there in 1962. An exceptionally early spring migrant was recorded at Powdermill on April 18, 1964. In most years, however, migrants arrive later in April or in early May. Some first dates include April 22 (1972), April 24 (1970), April 29 (1969), and May 3 (1973). Breeding birds occur in a variety of brushy habitats over most of the lower sections of the Valley, but I have not yet found the species in summer on the higher elevations of Chestnut Ridge or Laurel Hill. By the third week of September, most of the White-eyes probably have passed through the region (I have banding records from Powdermill for September 16, 1972, and September 17, 1963). Scattered individuals, how-

ever, occasionally linger (October 7, 1967), and an extremely late bird was banded at the Reserve on November 8 (1967), when there were several inches of snow on the ground.

YELLOW-THROATED VIREO *Vireo flavifrons*

Regular, uncommon transient in spring and fall; fairly common summer resident. The Yellow-throated Vireo nests in the more mature lowland deciduous forests, apparently avoiding the higher ridge tops. Migrants are usually seen only as individuals or in pairs during the spring flight. The first birds of the season normally appear during the last few days of April. Earliest dates on record are April 28 (1969, three miles south of Ligonier, HMS), April 29 (1970), and April 30 (1973). In the fall the birds are rarely seen in the field, but we have scattered banding records from Powdermill through August and September, the latest date being September 30, 1972.

SOLITARY VIREO *Vireo solitarius*

Regular, fairly common spring and fall migrant; locally common in summer. In spring the first migrants normally appear during the last third of April. First-seen dates include April 21 in 1969 (with HMS) and 1970 (with CS) at Laurel Summit Glade, and April 20 (1975), April 23 (1972), and April 26 (1971), at Powdermill. Nesting is largely confined to the higher elevations of Laurel Hill, where the species is tolerant of a variety of forest types. Solitaries are not uncommon in the deciduous forest of the ridge top, but are even more frequent in evergreens. Hemlock is especially favored, and in areas where this tree grows along cool mountain streams and ravines, the Solitary Vireo is also likely to occur. In such situations in Linn Run State Park (especially the Adams Falls area) the species is very common. Kenneth C. Parkes also has found it in summer at Powdermill in the hemlock woods above Calverly Lodge. In late summer, occasional individuals may be found in the deciduous woodlands of the lower valley, but apparently true migrants (which are usually seen as scattered individuals—never in flocks) do not begin to appear until late September. At Powdermill the earliest autumn banding date is September 12 (1964). More typical arrivals are September 21 in 1966 and 1968, September 22 (1970), and September 23 (1965). After mid-October the birds are usually scarce. Late records include October 20 (1971), October 22 (1964), October 26 (1969), and November 8 (1975). A bird banded on November 17 (1973, ACL) must be considered a straggler.

RED-EYED VIREO *Vireo olivaceus*

Regular, very common to abundant spring and fall transient; abundant summer resident. The Red-eyed Vireo is one of the most characteristic breeding birds of the area, inhabiting woodlots and forests at all elevations. April 28 (1970) is the earliest spring arrival on record at Powdermill, but an early May date is usual.

Red-eyes returned on May 4 (1973), May 6 in 1965 and 1966, and May 7 in 1962 and 1964. Peak numbers usually move through the area after mid-month, when maximum banding totals have included 19 on May 21, and 18 on May 22 in 1966. Nesting is well under way in the local breeding population before the last of the migrants have passed through on their way north. Because of the large breeding population, it is impossible to tell just when the first true fall migrants appear, but by the last week of August a substantial movement is obvious. Numbers peak shortly thereafter. High banding totals at this season have included 16 on August 24, 1968; 16 on September 11, 1971; and 24 on September 9, 1973. By the end of September the birds are scarce, and our latest records are for October 11 (1967), October 12 in 1966 and 1968, October 14 (1972), and October 19 (1975). A Red-eyed Vireo banded at Powdermill on May 26, 1963, was found dead in Morgantown, West Virginia, on May 22, 1966. Many of our breeding birds have proved to have long lives, and an adult banded on June 7, 1963, and last rehandled on June 9, 1972, at ten years old, holds the species' age record (Kennard, 1975).

PHILADELPHIA VIREO *Vireo philadelphicus*

Regular transient; usually uncommon in spring; uncommon to fairly common in fall. The first Philadelphia Vireos normally appear in our region the second week of May. Early arrival dates include May 9 (1970), May 11 (1972), and May 13 (1968). Peak numbers appear just after mid-month. Seven were banded May 16, 1970, and six on May 19. A few individuals linger through the end of May (May 28, 1971; May 31, 1967), and the latest spring date is June 1 (1966). Autumn migrants first appear in early September (September 2 in 1962 and 1972; September 4 in 1975; and September 7 in 1967). Peak dates at this season are in mid-month, including a total of seven banded September 16, 1970, and eight on September 15, 1973. By early October, migration is virtually completed, but stragglers have been netted at Powdermill as late as October 10 (1965), and October 14 (1970).

WARBLING VIREO *Vireo gilvus*

Regular rare transient in spring and fall; breeding status uncertain. Whether the local rarity of this species is more apparent than real is yet to be determined. To date it has been identified only as a migrant. The Warbling Vireo should be watched for as a breeding bird, especially in shade trees within the borough of Ligonier—where it has perhaps been overlooked in the summer months. The first spring migrants appear at Powdermill during the first week of May. Earliest arrivals have been on May 1 (1965), May 4 (1964), and May 6 (1972). The northward flight is apparently a short one. The latest birds have been found May 14 (1967) and May 18 (1971). Fall migrants have been banded as early as August 30 (1975), August 31 (1962), September 1 (1963), and September 3 (1969). Late dates are September 26 (1963) and September 28 (1965).



H. Janowski

BLACK-AND-WHITE WARBLER *Mniotilta varia*

Regular transient, common in spring, fairly common in fall. The Black-and-white is also a fairly common summer resident at higher elevations on Chestnut Ridge and Laurel Hill. It nests less commonly, and certainly more locally, at lower elevations within the Valley. In spring the first birds usually appear during the last third of April. Our earliest records are of individuals on April 19 in 1964 and 1970. Other early arrival dates include April 21 (1967, 1969), and April 29 (1972). It appears that by mid-May most of the migrants have already passed through the area, and the local population is well into its breeding season. There is evidence of considerable movement, at least among local birds, by mid-July. The fall migration, which is well under way by early August, continues strongly through mid-September. Last banding dates from Powdermill include September 25 (1969), September 26 (1965), and September 27 (1970). William O. Robinson observed a Black-and-white near Rector as late as October 3 (1971).

PROTHONOTARY WARBLER *Protonotaria citrea*

Occasional, very rare transient in spring. There are two records of spring migrants at Powdermill: a male banded in the yard at Headquarters on April 28, 1966, and a second bird seen along Powdermill Run April 26, 1970 (with ACL, J. A. Young.) A third regional record is of a Prothonotary seen along Linn Run in Forbes State Forest (Mr. and Mrs. Harry Kluesener) during the third week of May, 1970.

WORM-EATING WARBLER *Helmitheros vermivorus*

Regular rare transient in spring and fall; rare and apparently very local summer resident. The earliest arrivals have been recorded during the last few days of April or in early May: April 29, 1964 and 1970; April 30 (1967); and May 2 (1971). Todd (1940) mentions having found the Worm-eating Warbler nesting in the Loyalhanna Gap of Chestnut Ridge—probably three-quarters of a century ago. On May 28, 1970, I found a territorial male on a wooded hillside near Moul Spring at Powdermill Nature Reserve, and W. O. Robinson reported two near Rector on June 7, 1971. This is a secretive species and careful search should reveal its nesting elsewhere in the Ligonier area. The fall flight is well under way by mid-August. The latest banding records are September 6 (1968) and September 10 (1967).

GOLDEN-WINGED WARBLER

Vermivora chrysoptera

Regular, fairly common spring transient, uncommon in fall; regular and locally very common summer resident. Inhabitants of old overgrown fields, Golden-winged Warblers return to the Ligonier Valley in very late April or early May. Arrival dates include April 26 (1964), April 28 (1969), April 30 (1962), and May 2 in

1965 and 1973. Several pairs nest each summer in old fields near Headquarters at Powdermill. I have found the species especially abundant on a hillside along Four-mile Run southwest of Stahlstown, and on the slopes of abandoned fields north and west of Trout Run Reservoir. The autumn flight begins quite early. By mid-July considerable movement is obvious, and the peak usually occurs during the second half of August. After the first week of September the birds are scarce. Last dates include September 9 (1970) and September 10 in 1969 and 1973. A male banded at Powdermill on May 21, 1971 was trapped and released at Greenfield, Indiana, by H. C. West on May 1, 1973. Another adult male, banded at the Reserve on May 19, 1962, and rehandled through May 17, 1968, at least seven years old, holds the species age record (Kennard, 1975).

BLUE-WINGED WARBLER

Vermivora pinus

Regular, uncommon transient in spring and fall; irregular, and seemingly rare summer resident. The Blue-winged Warbler normally arrives in this region sometime during the first week of May. First dates include May 1 (1964), May 2 (1970), May 5 (1967), and May 7 (1972). The peak of the sparse spring flight apparently occurs about the second week of May, and stragglers occasionally are found through the first few days of June. In the Valley the Blue-winged Warbler has been found breeding only at Powdermill, and even there infrequently. I have never seen a mated pair at this season. It may well be that some of the few summering individuals are paired with Golden-winged Warblers. S. N. Rhoads (1899), however, mentions having found two or three breeding pairs in the foothills of Laurel Hill near Laughlintown during the summer of 1898. Careful field work may reveal nesting elsewhere in the area. The autumn migration begins sometime after mid-August. Probable transients have been banded at Powdermill as early as August 23 (1970) and August 26 (1962). They are well distributed from then on through mid-September. Last-seen dates include September 18 (1970), September 21 (1973), and September 25 (1965).

Hybrid Golden-winged X Blue-winged warblers, including the so-called "Lawrence's" and "Brewster's" warblers, have occasionally been banded at Powdermill. A Lawrence's banded on April 30, 1966, was recaptured on May 1 of the same year, when it was seen and photographed by a number of visiting members of the Wilson Ornithological Society. A second Lawrence's Warbler banded on August 11, 1971, returned to Powdermill almost two years later on May 18, 1973. Eight of the Brewster's Warbler type were banded at the Reserve between 1964 and 1965, five of them in May, two in August, and one in September. None of the Brewster's Warblers have ever been rehandled.

TENNESSEE WARBLER

Vermivora peregrina

Transient, regular and common in spring; often very common in fall. Although Tennessee Warblers usually do not appear in any numbers before the end of the

second week of May, occasionally a few arrive in the Ligonier area early in the month. First dates include May 2 (1970), May 6 (1967), and May 7 (1972). Maximum spring banding totals are 29 on May 16, and 33 on May 17, in 1970. Late dates are May 26 (1963); May 27 in 1967, 1969, and 1970; and May 30 (1971). In some years, individuals of this species have appeared at Powdermill exceptionally early in the fall: July 22 (1972), August 1 (1968), August 4 (1974), and August 8 in 1963 and 1971. These birds had not completed their fall molt. Such early arrivals are difficult to explain because warblers do not usually migrate before molting, and the Tennessee is not known to breed anywhere in western Pennsylvania. Normally it is late August or even early September before sizeable flocks appear. The autumn peak usually occurs in mid-September, and maximum banding totals at Powdermill in 1971 include 84 on September 24, 96 on the 18th, and 100 on the 17th. Although numbers decline sharply during the first week of October, a few Tennessees sometimes linger much later. The last banding date is October 23 in 1971 and 1975, but I have sight records at Powdermill from October 30 (1966), and (with CS) November 2 (1968). One banded at Powdermill on September 7, 1968 was netted and released near Jordan Run, West Virginia by Dr. George A. Hall on May 13, 1970.

ORANGE-CROWNED WARBLER *Vermivora celata*

Irregular, usually rare transient in spring; regular but uncommon in fall. Migrants of this inconspicuous species have been seen during fewer than half of the spring seasons during the past twelve years. The earliest record is of one at Powdermill on April 22, 1973. Other first dates are May 2 (1970) and May 5 (1968), but the majority of records fall during the second week of May. Last dates at this season are May 16 (1970), May 18 (1973), and May 22 (1968). In the autumn, first dates include September 24 (1972), September 27 (1963), and September 28 (1965). Numbers then normally peak during the second week of October, and Orange-crowns are scarce by the end of the month. Stragglers have been banded on November 1 in 1970 and 1974, November 9 (1969), and November 13 (1967).

NASHVILLE WARBLER *Vermivora ruficapilla*

Regular, fairly common transient in spring and fall. A late April arrival for Nashvilles is normal. The first bird was recorded on April 21 in 1972, and other early dates include April 24 (1966), April 27 (1969), and April 28 in 1964, 1968, and 1970. Maximum banding totals at this season are 19 on May 7, 1972, and 30 on May 9, 1970. Late records are May 24 (1968), May 26 (1973), and May 29 (1971). Todd (1940) mentions having taken a Nashville Warbler during the breeding season near Kingston at the western end of the Loyalhanna Gap through Chestnut Ridge. There are, however, no nesting records from within the immediate area covered by this report. Some early autumn arrivals

are August 7 (1974), August 19 (1963), August 24 (1973), August 25 (1962), and August 27 (1972). Numbers build rapidly by early September, and the migration continues strong through mid-October. Peak banding totals at this season are 12 on September 24, 1970; 14 on September 25, 1966; and 22 on September 16, 1971. A few birds occasionally linger into November, and the latest records are November 1 (1973), November 3 (1965), November 6 (1974), and November 10 (1972).

NORTHERN PARULA

Parula americana

Regular, fairly common transient in spring and fall; regular, uncommon summer resident. Parulas first appear in the Ligonier Valley after the third week of April. Arrival dates include April 22 (1973), April 24 in 1971 (JKO) and 1972, April 25 (1967, HMS, three miles south of Ligonier), and April 27 (1970), at Rolling Rock Farms. It is usually early May before the species is at all common. In summer the Northern Parula is widely distributed through the lower sections of the Valley wherever hemlocks are common, or in mature spruce plantings, but I have yet to find it breeding on the ridge tops. Apparently the fall flight is under way by late August, but the peak usually is not reached until the last half of September. A few migrants linger into early October. Late dates are October 4 (1960) and October 11 (1970).

YELLOW WARBLER

Dendroica petechia

Regular, fairly common transient in spring; regular, usually uncommon in fall; regular, locally very common summer resident. The earliest local recorded date for the Yellow Warbler is April 18 (1964), but the last week of April is the usual spring arrival time. Additional first-seen dates are April 23 in 1965 and (near Donegal) 1970, April 24 in 1969 (Ligonier) and 1973, and April 27 (1963). The average date of return for seven years of record is April 25. Maximum spring banding totals are nine on May 16, 1967; 11 on May 9, 1970; and 12 on May 15, 1963. Nesting birds can be found anywhere in the Valley where suitable suburban shrubbery, hedgerows, or other thickets are found, but they are rare or absent in more heavily forested sections. The Yellow is among the earliest warblers to begin fall migration, and they are inconspicuous at this season. The flight appears to peak by mid-July. Stragglers are seen fairly regularly through August and into early September. Some late records are September 20 (1970), September 21 (1968), and September 25 (1966, see below). A very late bird was banded at Powdermill on October 1 (1971). The breeding form of Yellow Warbler in this region is *Dendroica petechia aestiva*. It might be expected, from its breeding range in Canada, that *D. p. amnicola* would also occasionally occur during migration, since late-fall specimens collected elsewhere in the northeast have often proved to belong to this form. A bird collected at Powdermill on September 25, 1966 has been assigned by Parkes (1968) to *D. p. rubiginosa*, an Alaskan subspecies that is only casual in the east. So far as we know, the Powdermill specimen represents its north-

easternmost occurrence. The age record for Yellow Warblers at the Reserve is held by an adult banded on June 1, 1967, and last recaptured on May 13, 1973, at least seven years old.

MAGNOLIA WARBLER *Dendroica magnolia*

Regular, common transient, both in spring and fall; regular, locally common summer resident. The earliest arrival date for the Magnolia Warbler at Powdermill is April 30 (1970), but an early May appearance is usual. Other first dates are May 1 (1962), May 5 in 1965 and 1968, and May 7 in 1964 and 1966. The height of the spring flight occurs about the third week in May. Maximum banding totals for that month are 26 on May 16, and 31 on May 17 in 1970; and 27 on May 19, 1973. By the last week of May migrants have about completed their flight, although an occasional straggler lingers into early June. Nesting of the Magnolia is governed in our region by a habitat preference for hemlock thickets. Thus the bird is very locally distributed. It summers in suitable thickets along the top of Laurel Hill and in cool ravines along the western slope of that ridge (e.g. in the Linn Run area, along the headwaters of Powdermill Run, and in cool woodlands near Laughlintown). Usually the autumn flight begins sometime in early or mid-August. Typical dates include August 6 (1966), August 10 (1967), August 15 (1970), and August 16 (1969). The Magnolia is usually among the most common of the migrant warblers in September. Maximum fall banding totals are 42 on September 3, 1972; 44 on September 25, 1965; and 61 on September 22, 1967. The species is scarce by the first week of October, although in 1974 a late bird was banded on October 28. A fall migrant banded at Powdermill on September 13, 1970, was found dead the next spring on May 23, 1971, at Pointe Claire, Quebec. The Reserve age record for Magnolias is held by an adult banded on July 10, 1964, and last recaptured on September 7, 1969, at least six years of age.

CAPE MAY WARBLER *Dendroica tigrina*

Regular, uncommon to fairly common transient in spring; regular, common fall transient. The spring flight of the Cape May Warbler through this region is of short duration. Single birds were banded at Powdermill on May 1 in 1975, and May 2 in 1970, but normally the species does not appear before the second week of the month. Additional first dates include May 7 (1972), May 8 (1966), and May 9 (1973). Late spring dates are May 20 (1973) and May 21 (1970). Normally the fall flight begins sometime during the last few days of August or the first week of September. Unusually early arrivals were banded at Powdermill on August 17 in 1972 and August 20 in 1966, and one was found at Laurel Summit Glade (with CS) on August 26 in 1971. The autumn migration peak is reached sometime during the second half of September, when high banding totals have included 15 on September 21, 1963; 18 on September 21, 1973; and 43 on September 24, 1972. Cape May Warblers are often seen through the first

week of October, and are occasional during the remainder of that month. Last dates include October 12 (1963), October 23 (1966), October 26 (1975), and October 27 (1965). A straggler was observed at Powdermill on November 13 (1968). An immature female banded at the Reserve on September 27, 1972, was found dead at Durham, North Carolina, on October 7 that same year.

BLACK-THROATED BLUE WARBLER

Dendroica caerulescens

Regular, uncommon to fairly common spring and fall transient; regular, locally common summer resident. The first birds appear in late April or early May. Typical arrival dates at Powdermill are April 26 (1970, with ACL) and April 29 (1964). Mrs. H. M. Schmidt has noted Black-throated Blues as early as April 28 (1969) three miles south of Ligonier. It is usually the second week of May before they are seen in any numbers, however, and by the end of the third week migration is usually over. This warbler nests most commonly along the summits of Laurel Hill and Chestnut Ridge. It is also fairly common locally at lower elevations in rhododendron swamps and thickets. Mrs. Harriet Stimmel has found the species nesting along Indian Creek near Kregar. They are common along Linn Run near Rector and probably nest along similar rhododendron-lined streams elsewhere in the lower Valley. A few Black-throated Blues have been found (wandering ?) at Powdermill as early as July 21 (1962), but it is early September before the autumn flight is well under way. Numbers decline rapidly during the first week of October. Late dates include October 10 (1971), October 11 (1970), and October 12 (1967). A. C. Lloyd banded an exceptionally late straggler at Powdermill on November 25 (1972).

YELLOW-RUMPED WARBLER *Dendroica coronata*

Regular, fairly common transient in spring; regular and often very common (occasionally abundant) in fall. The first Yellow-rumped Warblers usually appear in this region in mid-April. Arrival dates include April 8 (1967), April 14 (1965), April 15 (1972), and April 16 (1971). Normally, the flight peaks during the first week of May, with high banding totals of 24 on May 2, and 15 on May 5, 1970. The species is scarce by mid-May. Last-seen dates are May 16 (1964), May 17 (1969), May 18 (1963), and May 27 (1973). The autumn flight begins about mid-September. In 1968, Mrs. H. M. Schmidt and I found the first autumn-migrant Yellow-rumped Warbler in Laurel Summit Glade on September 16. Some arrival dates at Powdermill are September 16 (1972), September 20 (1973), September 21 (1969), and September 23 in 1966 and 1971. The birds are very common through all of October, with a peak about the third week of the month, when thousands may swarm through the Valley. Some maximum daily banding totals are 71 on October 13, 1962; 72 on October 20, 1967; and 122 on October 6, 1967. Many birds are still in the area through mid-November and presumably

a few linger into at least early winter, although specific records are not yet available. All local records are of the eastern form of the species, *D. c. coronata* (the "Myrtle Warbler"). Individuals banded at Powdermill have been recovered during the winter in Texas, Mississippi, and Florida. Another was found on or near its breeding grounds at Berens River, Manitoba. The Mississippi recovery was of a bird banded as an immature on October 22, 1966, and found on February 22, 1972, at five and one-half years of age—the Reserve's age record for the species.

BLACK-THROATED GREEN WARBLER

Dendroica virens

Regular, usually common transient in spring; regular, common fall transient; regular, locally common summer resident. An early Black-throated Green Warbler was seen three miles south of Ligonier on April 14 (1967, HMS). At Powdermill, first dates include April 17 in 1963 and 1968, April 19 (1964), and April 21 (1970). From a sample of eight years, the average date of return is April 22, and the birds are usually common by the first week of May. Breeding birds are widespread in the area. Although hemlock forests are preferred, the species also nests in a few of the more extensive deciduous woodlands. Probably the Black-throated Green is most common along the summit of Laurel Hill, but it nests on Chestnut Ridge as well, and there are summer records from Powdermill, Stahlstown, Laughlintown, and Linn Run State Park. A few migrants or post-breeding wanderers appear during the last week of July, and transients are irregular through August. It is September, however, before the flight reaches its height. Maximum banding totals include 17 on September 15, 1972, and 20 on September 11, 1971. Most of the birds have gone by the first week of October. Late records include October 10 (1971), October 11 (1967), October 21 (1968), and October 26 (1975).

CERULEAN WARBLER

Dendroica cerulea

Regular, fairly common transient in spring; uncommon in fall; local, fairly common summer resident. Arrival dates at Powdermill include May 2 (1970), May 8 (1972), and May 11 (1962). In 1973 the first individual was seen at Stahlstown on May 3. Although I have never found the Cerulean Warbler in summer on the summit of Laurel Hill, it is a rather characteristic breeding bird of mature deciduous forests on the crest of Chestnut Ridge as well as in much of the lower valley, including Ligonier, Linn Run State Park, Rector, Powdermill, and Stahlstown. The autumn movement is well under way by the second half of July, and continues through August. Last-seen records include September 2 (1967) and September 6 (1973). An immature Cerulean I banded at Powdermill on July 22, 1973, was found less than two months later on September 12 at Tortuguero National Park on the Caribbean coast of Costa Rica. It was the first banded individual of this species ever to be recovered (Clench, 1974).

BLACKBURNIAN WARBLER

Dendroica fusca

Regular, fairly common transient in spring and fall; regular, locally common summer resident. Mrs. H. M. Schmidt has observed the Blackburnian about three miles south of Ligonier as early as April 30 (1969). Normally the species first appears early in May. Some arrival dates at Powdermill are April 30 (1975), May 4 (1964), and May 5 (1970). Three were found at Linn Run State Park as early as May 7 (1973). The local breeding distribution appears to be spotty. Nesting Blackburnians are locally common in mature forests on both Chestnut Ridge and Laurel Hill. They are especially frequent in the Linn Run valley, and at Powdermill they are fairly common in a low wet woods along Laurel Run. A few warblers are found wandering through the lower valleys by the first of August. It is usually mid-month or after, however, before migrants are at all common. Numbers peak during the first half of September. Late banding dates are September 25 (1966) and September 27 (1972). The latest sight record (David Willard) at Powdermill is October 10 (1971).

YELLOW-THROATED WARBLER

Dendroica dominica

Rare in spring and summer. The Yellow-throated Warbler was unknown in the Ligonier Valley before the spring of 1974. It was first recorded about four miles south of Ligonier on May 5, when a bird was seen and photographed by Josh VanBuskirk and Walter Schrad-ing. I was able to find (with HMS and CS) what was undoubtedly the same individual on May 6. A probable second bird was observed at Powdermill on May 26 by VanBuskirk and me. This second individual remained at the Reserve for at least two weeks, and was seen or heard by several other people. Two months later an immature bird (of local origin?) was banded at Powdermill on July 25. This bird was clearly referable to the western subspecies *D. d. albilora*—the "Sycamore Warbler." In the summer of 1975, at least two singing males were found at Powdermill (with M. C. McKittrick).

CHESTNUT-SIDED WARBLER

Dendroica pensylvanica

Regular, fairly common transient in spring and fall; regular, fairly common summer resident. This warbler arrives in the Ligonier Valley sometime very late in April or during the first week of May. First dates include April 29 (1964), May 2 in 1967 and 1970, May 4 (1962), and May 5 (1973). By the second week of May the species is usually fairly numerous (the highest spring banding total was eight on May 9, 1970). The flight continues through the last week of May, and in some seasons a few birds still seem to be migrating during the first few days of June. Nesting in this region appears to be governed more by the availability of deciduous brushy habitat than by elevation. At Powdermill, Chestnut-sided Warblers are most frequent in the scrubby vegetation in and about spoil banks of aban-

doned strip mines. There appears to be considerable wandering among local birds by early August, and the first migrants may appear by mid-month. The autumn flight is evenly distributed through most of September. Maximum banding totals at this season include eight on September 8, 1973; nine on September 3, 1972; and ten on September 11, 1971. Late records are October 2 (1966), October 4 in 1970 and 1973, October 6 (1974), and October 7 (1975).

BAY-BREASTED WARBLER *Dendroica castanea*

Regular, fairly common transient in spring and fall. The spring flight of the Bay-breasted Warbler through the Valley is short. Arrival dates at Powdermill include May 2 in 1968 and 1970. The first bird was seen in 1972 at Stahlstown on May 8. Late spring dates are May 27 in 1963 and 1973. In autumn, when the migration is somewhat more prolonged than in spring, the first birds often appear by late August or very early in September. Some first dates are August 25 (1972), August 26 (1971, Laurel Summit Glade), September 2 in 1968 and 1970, and September 3 (1962). The peak normally occurs about the third week of September. Maximum banding totals in 1971 are 14 on both September 11 and 18, and 15 on the 16th. Numbers normally remain rather high until the end of the month. Last-seen dates include October 2 (1966), October 3 (1970), and October 4 (1964).

BLACKPOLL WARBLER *Dendroica striata*

Regular transient, at times fairly common in spring; common to very common in fall. The Blackpoll is usually among the later warblers to appear in spring. Some early first dates are May 12 (1973), May 13 (1962), and May 15 (1970). A few migrants linger into the next month, when late dates have been June 1 (1967), June 2 (1968), and June 3 (1966). Autumn transients are seldom numerous before the second week of September, but they have occasionally been noted as early as August 20 (1963) and August 29 (1962). Maximum banding counts are 14 on October 1, 1966, and 15 on the following day. Usually peak numbers occur sometime during the second half of September, when hundreds of migrants may be seen moving through the treetops along Laurel Hill. Stragglers have been banded at Powdermill as late as October 20 (1967), October 26 (1966 and 1975), and October 31 (1971).

PINE WARBLER *Dendroica pinus*

Irregular, very rare spring transient; irregular, rare fall transient. Only three spring records of the Pine Warbler at Powdermill are available for the region: March 30 (1970, early), April 18 (1965), and April 20 (1975). Five scattered autumn records range from a very early August 3 (1971), to as late as October 7 in 1966.

KIRTLAND'S WARBLER *Dendroica kirtlandii*

There is one record of this endangered species from

our area: I banded an immature Kirtland's Warbler at Powdermill on September 21, 1971, and it was recaptured there on September 26 and October 2. This bird was seen and photographed by a number of observers (including K. C. Parkes, M. H. Clench, V. Wood, and A. C. Lloyd) and one of the photographs appeared on the cover of the November, 1971, issue of *Carnegie Magazine*. The Powdermill record represents the first well-documented occurrence of the species for Pennsylvania, and the first fall migrant ever banded outside of Michigan (where the only known breeding grounds are located). For further details, see Parkes and Leberman (1971), and Clench (1973).

PRAIRIE WARBLER *Dendroica discolor*

Regular, sometimes fairly common transient in spring; uncommon in fall; regular, uncommon summer resident. The earliest record for the Prairie Warbler in spring is April 14 (1967). Additional first-seen dates include April 19 (1964), April 20 (1968 and 1973), April 21 (1965), and April 25 (1970). It is usually the first week of May before the species is widely distributed. As a breeding bird, this is a newcomer to the region, and apparently had not been recorded in the Valley before 1962, when A. C. Lloyd and I found it summering at Powdermill. Since then it has been recorded during the nesting season not only at the Reserve, but also in brushy fields in lowland areas just south of Jones Mills, near Donegal Lake, near Rector, and just north of Trout Run Reservoir. I have not yet, however, found the Prairie breeding at higher elevations along Laurel Hill or Chestnut Ridge. There is no obvious peak to the autumn flight. The birds have been found on scattered dates through August and most of September. Some last-seen dates are September 25 (1965), September 27 (1975), September 30 (1971), and October 1 (1972). An exceptionally late banded bird lingered at Powdermill through October 20 in 1974.

PALM WARBLER *Dendroica palmarum*

Regular transient, uncommon in spring; usually fairly common (occasionally common) in fall. Both subspecies of Palm Warbler migrate through this area. The commoner form locally is *D. p. palmarum* ("Western Palm Warbler"). The more richly colored *D. p. hypochrysea* ("Yellow Palm Warbler") occurs in limited numbers, and has a more prolonged migration period. The earliest spring and latest fall migrants have belonged to this latter race, represented by less than 10% of the Palm Warblers passing through the Valley. Spring vagrants have been recorded as early as April 8 (1969) and April 16 (1972) at Powdermill, and April 14 (1967) near Rector (HMS). Most of the birds, however, do not appear until the last week of April or early May. The spring flight is short, and our latest date at this season is May 11 (1963). An early autumn migrant was netted at Powdermill September 1, 1972, but normally the warblers first appear during the second week of that month, e.g., September 6 (1964), September 8 (1963),

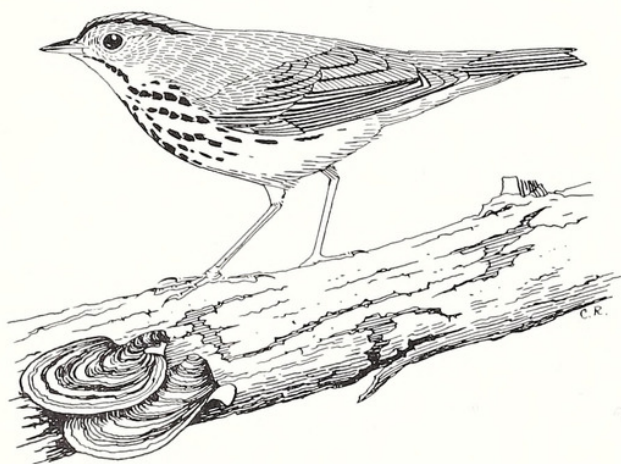


and September 9 in 1967 and 1969. They are infrequent before mid-month. Maximum banding totals include 47 on September 22, 1967, and 52 on October 2, 1965. Most Palm Warblers have passed through this region by the end of October. Migrants have been banded as late as November 4 (1970) and November 5 (1972). I saw a very late straggler at Powdermill November 13 in 1971.

OVENBIRD

Seiurus aurocapillus

Regular, fairly common spring and fall migrant; common summer resident. Ovenbirds usually return by late April, with some early arrival dates of April 25 (1970), April 29 in 1965 and 1969, and April 30 in 1962 and 1972. In some years when the spring weather has been unusually severe, the first migrants may not appear until the first week of May. This is one of the most typical breeding species of regional woodlands, and can be found nesting throughout the Valley. Ovenbirds are especially common in oak-maple forests on top of Laurel Hill, and in the rich deciduous woods on the eastern slope of Chestnut Ridge. By mid-August there is considerable movement of local young, and by the end of the month the first true migrants appear. Migration continues strong through September, dwindling rapidly by the first week of October. Stragglers have been found as late as October 20 (1965), October 25 (1970), and October 29 (1975).



Ovenbird

NORTHERN WATERTHRUSH

Seiurus noveboracensis

Regular, fairly common spring and fall transient. This secretive and usually solitary warbler normally arrives in the Ligonier area after mid-April. First dates include April 19 (1974), April 21 (1972), April 23 (1967), and April 25 in 1964 and 1973. Numbers usually peak just before mid-May, and then observations decline rapidly. The species is rare by the end of the month. Late spring records are May 27 in 1967 and 1973, and May 30 in

1963. Todd (1940), in his distribution map for the Northern Waterthrush, indicated nesting somewhere on Laurel Hill south of Ligonier, but I have been unable to ascertain the basis of the record. Poole's map (1964) designates this record as a presumed, not proved, nesting. Laurel Hill contains areas (e. g., Laurel Summit Glade) that certainly appear suitable for the bird's breeding requirements, and careful field work in the future may yet confirm its presence there as at least an occasional summer resident. Fall migrants have appeared at Powdermill as early as July 24 (1970), August 3 (1974), August 7 (1975), and August 8 (1969). By mid-August the flight is well under way, and the birds are rather evenly distributed through September. By early October these waterthrushes are scarce, but stragglers have been banded on October 16 in 1970 and 1975, October 20 (1969), and October 25 (1971).

LOUISIANA WATERTHRUSH

Seiurus motacilla

Regular, fairly common spring migrant; uncommon autumn migrant; fairly common summer resident. The Louisiana Waterthrush is the first of the wood warblers to return to this region in spring. First-seen dates include April 1 (1963), April 4 in 1964 and 1967, and April 7 in 1962 and 1973. The average arrival date for 12 years of record is April 8, but in 1972 the first individual was not heard until April 15. Almost every swift stream, whether in the lower valleys or near the summits of Laurel Hill or Chestnut Ridge, has one or more pairs of nesting Louisianas along its wooded banks. Certainly this species is one of the more characteristic breeding birds of the region. Nesting is well under way by late April, and after breeding is completed the birds soon disappear. Fall migration apparently has begun by early July, and by mid-August Louisianas are rare. Some last-seen dates are: one bird on August 19 (1967), two (with CS and RS) on August 20 (1969), and an exceptionally late individual that lingered at Powdermill until September 4 (1968). An adult male banded on May 14, 1967, and last recaptured on May 2, 1970, four years old, holds the species' age record (Kennard, 1975).

KENTUCKY WARBLER

Oporornis formosus

Regular, fairly common transient in spring and fall; common (locally very common) summer resident. An unusually early Kentucky Warbler was banded on April 25 (1970), but typically this species first appears in the Ligonier Valley in early May. Arrival dates include May 3 (1962), May 6 (1973), and May 7 (1965). Breeding birds are especially common in thickets in rich bottomland forests, but a few birds are found on and near the ridge tops, wherever the underbrush is heavy. At higher elevations impenetrable greenbrier (*Smilax*) thickets are especially favored. This is among the warblers that are earliest in beginning the fall flight. By late July migration is well under way, and the birds are evenly distributed through August. By early September most Kentucky Warblers have disappeared,



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but a few may linger on past the middle of the month. Last-seen dates include September 12 (1969), September 18 (1965), and September 23 (1971). An immature male that was banded at the Reserve on August 9, 1968, and rehandled through September 2, 1973, at over five years of age may be the oldest known individual of this species.

CONNECTICUT WARBLER *Oporornis agilis*

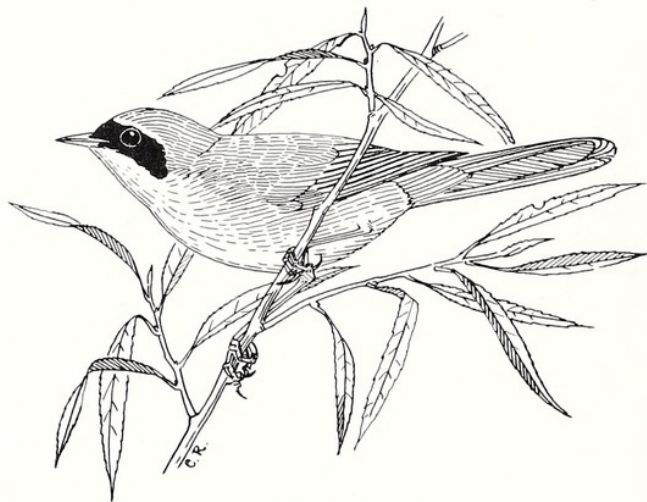
Irregular, rare spring transient; regular, usually uncommon transient in fall. In the spring most Connecticut Warblers migrate northward somewhat farther west than the Ligonier Valley. In only five of the last 12 spring seasons have I found a few birds in the area. The flight of May, 1964, was exceptionally good. Six were banded at Powdermill between a very early May 10 (two birds), and May 28. In other seasons the first movement has not been detected before the third week of May. Last-seen spring dates are during the end of May or in early June (June 2, 1962). The fall flight through this region is much heavier. The birds appear during late August or the first week of September. Some first-seen dates include August 25 (1972), August 28 (1970), August 29 (1971), August 30 (1964), and September 1 (1963). The autumn movement usually peaks near mid-September. Maximum banding totals are five on September 17, 1972, and six on September 11, 1971. The species is frequently found through the first week of October, but then rapidly disappears. The two latest dates at Powdermill are October 13 (1962) and October 19 (1969).

MOURNING WARBLER *Oporornis philadelphia*

Regular, uncommon transient in spring and fall; apparently a regular, rare summer resident. The first spring arrivals are normally found during the first week of May: May 8 (1963), May 11 (1965), May 12 (1967), and May 13 (1970). The heaviest flight usually occurs during the last third of May, when maximum banding totals at Powdermill have included six birds on May 26, 1973, and 17 on May 28, 1968. A few migrants linger into the first week of June, but by this time it is often impossible to separate transients from the small breeding population. In 1899, Rhoads reported: "I found this bird breeding near Laughlintown; several pairs being noted on Laurel Ridge." Apparently Mournings are still there, although perhaps in reduced numbers since cut-over woodlands have regenerated. At Powdermill I have found summering birds on a few occasions, and several years ago a singing male was reported during the summer about a mile north of Stahlstown (C. H. Rudy). Undoubtedly the species breeds elsewhere in the region as well. Autumn migrants begin to appear with regularity about mid-August, and numbers remain constant through September. Usually scarce by early October, Mourning Warblers were last noted on October 10 in 1964, 1971, and 1973; on October 17 in 1965 and 1970; and on October 21, 1967.

COMMON YELLOWTHROAT *Geothlypis trichas*

Regular, very common transient in spring and fall; very common (locally abundant) summer resident. The first yellowthroats are normally found sometime during the last week of April. First spring dates include April 25 in 1964 and 1967, April 28 (1969, near Donegal), April 29 (1972), and April 30 in 1966 and 1970. The birds are common by early May, but the height of the migration often does not occur until after mid-month. Maximum banding totals at this season have included 11 on May 16, 1963; 15 on May 18, 1973; and 16 on May 21, 1971. Yellowthroats nest throughout the Valley, wherever suitable habitat is found, and they are locally as common around wet fields on Laurel Summit as they are in the lowlands. Autumn migration is well under way by the first of September, and the flight reaches a peak during the last half of the month. Maximum banding totals are 28 at Powdermill September 29, 1970; 30 on September 21, 1963; and 78 on September 25, 1965. By the third week of October yellowthroats are uncommon. A few occasionally linger into November, when some last-seen dates are November 7 (1965), November 11 (1967), and November 12 (1972). A very late straggler was seen at Powdermill (CS) on December 18 (1970). A yellowthroat banded at Powdermill on October 1, 1972, was recovered near Havana, Cuba, on January 6, 1973. Another, banded as an adult on June 27, 1961, and last rehandled on August 5, 1967, was at least seven years old. This bird ties the age record for the species (Kennard, 1975).



Common Yellowthroat

YELLOW-BREASTED CHAT *Icteria virens*

Regular, fairly common spring transient; uncommon fall transient; very common summer resident. The first chats often arrive by late April, although during some seasons they do not appear until the first week of May. A sampling of first-seen dates includes April 28 (1970), April 29 (1964), April 30 in 1965 and 1972, and May 1 in 1962 and 1966. The birds are in peak abundance

about the second week of May, and maximum banding totals are seven on May 8, 1966, and nine on May 11, 1963. Chats are widespread and characteristic summer residents in lowland thickets, and a few may nest at scattered localities on the ridge tops as well. The fall flight is early, and at this season the birds are extremely secretive and probably less numerous than in spring. They occur rather constantly through August (usually as individuals), but are normally scarce after the first of September. A few occasionally linger in the area into early October, and some late sightings are for October 3 in 1962 and 1971, October 7 (1972), and October 11 (1968). A chat banded on May 9, 1962, and renetted on July 3, 1967, more than six years old, holds the Reserve age record for the species.

HOODED WARBLER

Wilsonia citrina

Regular, fairly common transient in spring and fall; locally common summer resident. The earliest spring records of the Hooded Warbler are April 27 (1975) and April 28 (1962), but normally the birds appear sometime during the first week of May. Additional first dates are May 2 (1970), May 4 (1969), and May 6 (1966). Hooded Warblers are often common breeding birds in thick underbrush in the more mature woodlands, although numbers do tend to decline somewhat at higher elevations. The autumn migration is well under way by mid-August, and the movement peaks during the first half of September. Hooded Warblers are decidedly uncommon by early October. Late records are October 5 (1969), October 9 (1971), and October 10 (1968). An adult banded on July 14, 1963, and last rehandled on September 4, 1966, over four years of age, is the oldest Hooded thus far recorded at Powdermill.

WILSON'S WARBLER

Wilsonia pusilla

Regular transient, fairly common in both spring and fall. Normal arrival is during the first third of May. Typical dates are May 2 in 1964 and 1967; May 7 in 1965 and 1972; and May 8 in 1966, 1968, and 1973. Peak numbers, however, do not usually appear before mid-month, when maximum banding totals at Powdermill have been 13 each on May 15, 1968, and May 20, 1967; and 22 on May 20, 1964. The migrants have declined by late May, and last-seen spring dates include May 30 (1965), May 31 (1973), June 1 in 1967 and 1968, and June 3 (1971). Fall migrants usually return about the last third of August. Some early arrival dates are August 20 in 1966, 1970, and 1975, August 22 (1972), August 23 (1968), and August 24 in 1965 and 1973. Numbers are usually steady through September, with high banding totals of ten on September 18, 1969, and 16 on September 6, 1968. The species begins to decline rapidly by the first week of October, and the three latest dates of record are October 12 (1965), October 18 (1970), and October 20 (1966).

CANADA WARBLER

Wilsonia canadensis

Regular, fairly common transient in spring and fall;

regular, very localized but fairly common summer resident. April 30 (1966) is the earliest arrival date on record for the Canada Warbler in the Ligonier Valley. Early May appearance is usual, and additional first-seen dates include May 1 (1970), May 5 (1963), and May 6 in 1964 and 1967. Peak spring movements usually occur after mid-May. Maximum banding totals from Powdermill are 15 birds each on May 22, 1966, and May 26, 1973; and 16 each on May 17, 1968, and May 21, 1969. Late migrants have been banded on May 30 in 1963 and 1971; May 31 in 1968 and 1970; June 1 in 1967, 1973, and 1975; and June 2, 1972. Each year there is a small breeding population in and around the Laurel Summit Glade area of Forbes State Forest. If the species nests elsewhere in the Valley, records have not come to my attention. It may breed locally on Chestnut Ridge. By July the warblers are often wandering widely (from local nesting?). The heavy autumn flight, which does not begin until mid-August, continues through mid-September. By the third week of September the birds are scarce, and last-seen dates are September 21 (1971), September 22 in 1967 and 1973, September 27 (1975), and a very late October 3 (1964). A Canada banded at Powdermill on May 18, 1963, was found near Bishopton, Quebec, that same summer.

AMERICAN REDSTART

Setophaga ruticilla

Regular, very common transient in spring and fall; regular, very common summer resident. The American Redstart is certainly among the more widespread and characteristic wood warblers in the Valley, nesting both in lowland areas and along the ridge tops. The first birds normally appear during the last week of April. Arrival dates for Powdermill include April 29 in 1962, 1970, and 1973. Mrs. H. M. Schmidt has seen the species about three miles south of Ligonier as early as April 26 (1967), and April 28 (1969). Redstarts are usually common by the first of May, and their migration continues strong through the remainder of that month. A noticeable increase in banding totals at Pow-



American Redstart

dermill suggests that the fall movement is well under way about the first week of September. Some maximum banding totals are 14 birds each on September 9, 1973, and September 23, 1967; and 19 on September 18, 1971. The movement declines rapidly during the first week of October. Last-seen records are October 6 (1964), October 7 (1967), and October 9 (1971). An adult redstart banded on August 6, 1967, and retagged through July 22, 1970, (at least four years old) holds the Reserve age record for the species.

HOUSE SPARROW

Passer domesticus

Rarely found any great distance from human habitation, the House Sparrow is a regular and very common permanent resident about farms and in residential areas throughout the Ligonier Valley. Flocks of from 25 to 50 birds are frequent, and numbers may build up locally to 200 or more. Apparently there is no seasonal movement within the local population. An adult male banded at Powdermill lived at least seven years: handled from January 28, 1968, through March 15, 1974.

BOBOLINK

Dolichonyx oryzivorus

Regular, common transient in spring, usually uncommon in fall; locally very common summer resident. Normally Bobolinks do not appear in this region until the second week of May: e. g., on May 9 (1972) at Jones Mills. By mid-month they can be found at several localities in the Valley, where they often remain to breed. A few large meadows in the vicinity of Jones Mills and Donegal seem particularly attractive to the species, and I usually find a number summering just west of Powdermill Nature Reserve and at Rolling Rock Farms near Rector. Actual sightings of fall migrants are few, but a flock of 60 or more birds was seen at Powdermill on August 29, 1962. Among the scattered September records is David B. Freeland's report of four near Donegal Lake as late as September 27 (1972).



Bobolink

EASTERN MEADOWLARK

Sturnella magna

Regular, common transient in spring and fall; very common summer resident; irregular, apparently rare winter resident. Normal arrival is about the first week of March. First-seen dates include nine at Oak Grove on March 3 (1961, Carl and Dorothy Auerswald), and three (DER) at Powdermill on March 4 (1971). In the spring of 1969, a late season, the first birds were not listed before March 20. Usually by that date flocks of 20 or more are frequent. Meadowlarks nest in open farmlands throughout the region. Following the breeding season, the birds drift southward without being very conspicuous. A few remain into the winter months, and Christmas bird-counts centered at Stahlstown (J. R. Lehman) listed four meadowlarks on December 26, 1955, and one on December 30, 1956.

RED-WINGED BLACKBIRD

Agelaius phoeniceus

Regular transient, abundant in spring and fall; regular, locally abundant summer resident; irregular, usually uncommon winter resident. Depending on weather conditions, Red-winged Blackbirds begin to appear in the Ligonier area in late February or (usually) sometime during the first half of March. The peak of spring migration may be reached any time during the second half of March or the first two weeks of April, when thousands of birds swarm through the Valley. Spring flocks are often made up of 1500 to 2000 blackbirds—occasionally more. Red-wings nest in marshy areas throughout the region, and they are also one of the characteristic breeding birds of high-grass farmlands. By late August flocks of post-breeding birds are gathering. Roosts of several thousand birds are often found near Ligonier in September, but October is the month of maximum southward movement. Many migrants linger through November, although the birds are scarce by early December. Occasionally a few individuals attempt to winter in the Valley. Small flocks were noted at Powdermill during the winter of 1970-1971, and I observed a group of approximately 50 birds just south of Ligonier on January 24, 1974. A female Red-wing banded at Powdermill on October 28, 1966, was found dead on June 1, 1968, at St. Catharines, Ontario, but none of the Powdermill birds have yet been recovered on the wintering grounds. A male, banded as a one-year-old on April 29, 1962, and last recaptured on May 16, 1973, at 12 years, holds not only the age record for its species at the Reserve, but also the record as the oldest bird of any species listed in the Powdermill banding files.

ORCHARD ORIOLE

Icterus spurius

Irregular, usually rare transient in spring and fall; irregular, rare summer resident. All available records for the Orchard Oriole are from the Powdermill area. Arrival dates include May 4 in 1965 and 1973, May 7 (1971), and May 11 (1963). The spring flight usually continues through at least the third week of the month. There are scattered June records (1962 and 1964), which probably represent local breeding birds, and a

family group was seen during most of July and early August in 1971. August 29 (1972), and September 5 (1971), are our latest dates for this unusually early autumn migrant.

NORTHERN ORIOLE

Icterus galbula

Regular, common spring transient; regular, fairly common summer resident; regular, usually uncommon fall transient; one winter record. The first Northern (Baltimore) Orioles usually appear in the Ligonier Valley during the last few days of April. First-seen dates at Powdermill include April 28 in 1964, 1965 (DER), and 1970; and April 30 in 1962 and 1972. Migration may be delayed until the first week in May in some years. The spring flight reaches its peak by the middle of May, with a few migrants still moving through the Valley during the last week of the month. Breeding birds are most frequent in lowland residential areas, although they are at least occasionally found in suitable situations on the ridge tops. There is considerable movement within the summering population by late June, and migrants apparently arrive about mid-July. The autumn flight is early and less noticeable than the spring migration, with no obvious peak developing. Late banding dates are September 2 (1968) and September 3 (1972). The single winter record is that of a male that spent almost the entire season at a feeding station at Powdermill. First seen on November 30, 1973 (DER), it remained through March 9, 1974. What may have been the same oriole was also seen two or three miles west of the Reserve at a feeder at the home of Mr. and Mrs. L. A. Woods, Jr., on December 3 and January 1 of the same winter. An adult banded on May 22, 1965, and last recaptured on May 31, 1968, at least four years old, holds the Reserve age record for the species.

RUSTY BLACKBIRD

Euphagus carolinus

Regular, common (occasionally very common) transient in spring and fall; irregular, rare-to-common winter resident. Migrant Rusty Blackbirds normally appear in the region about mid-March, although the presence of a few wintering individuals sometimes makes it difficult to determine exactly when the first true transients arrive. Typical first-seen dates (of migrants) include March 11 in 1971 and 1972, March 15 (1969), and March 17 (1970). The spring flight peaks during the second week of April, when maximum banding totals at Powdermill have included eight on April 12, 1969, and nine on April 8, 1967. Late spring banding dates are May 5 (1965), and May 14 (1966). The first autumn transients usually appear during the first half of October. Record dates are October 1 (1964), October 6 (1967), and October 8 (1966). This flight peaks during the last few days of October or the first week of November, and many birds linger on through November and into early December. During most years Rusty Blackbirds do not attempt to winter in the Valley, but a few individuals were noted during the 1964-1965 and 1966-1967 seasons, and approximately 100

remained at Powdermill during the winter of 1973-1974. A blackbird banded at Powdermill on November 3, 1971, was reported as shot (although this is a protected species) in January, 1972, at Hiddenite, North Carolina. Another, banded at the Reserve on October 27, 1967, was shot near Claxton, Georgia, on December 21 of the same year.

COMMON GRACKLE

Quiscalus quiscula

Regular, abundant transient in spring and fall; regular, abundant summer resident, nesting most commonly in residential areas. Arrival dates vary considerably from spring to spring. In 1974, Dan Roslund recorded the first migrant on February 26. They returned to Powdermill on March 1 in 1970 (CS), and not until March 18 in 1969. Flocks of one to two thousand migrants are occasionally seen during the second half of March and in early April. After the nesting season, by mid-August, post-breeding flocks begin to assemble. During the autumn, numbers often build up to nuisance proportions, especially near Ligonier. Approximately 3000 were recorded at Powdermill on October 27, 1968; 20,000 were seen flying to roost west of Ligonier near Long Bridge on September 23, 1972 (J. C. Murphy); and I estimated 40 to 50 thousand roosting on the west side of Ligonier on September 11, 1973. Grackles are uncommon by late November, but a few normally remain in the region through early December. No mid-winter records are available, although the species should be watched for at feeding stations at that season. To date there have been only two out-of-state recoveries of Powdermill-banded grackles. One banded at the Reserve as an immature on July 5, 1971, was shot at Galax, Virginia, on December 31, 1971, and an adult banded on May 31, 1968, was shot at McHenry, Maryland, on June 3, 1972. The latter bird, at least five years old, holds the Reserve age record for grackles.

BROWN-HEADED COWBIRD

Molothrus ater

Regular transient, very common in spring, often abundant in fall; regular, locally common-to-abundant summer resident; irregular, rare (occasionally fairly common) winter resident. During many seasons, wintering individuals make it difficult to determine exactly when the first spring migrants appear, but normally cowbirds are common by mid-March. Numbers then gradually build up until a peak is reached sometime in mid-April. Occasionally flocks of 200-300 birds are found frequenting farmlands at this time. The cowbird is well known as a brood parasite. It does not build a nest of its own, but lays its eggs in the nest of other (usually passerine) species. Common hosts in this region include Eastern Phoebe; Wood Thrush; Red-eyed Vireo; Golden-winged, Yellow, and Kentucky warblers; Common Yellowthroat; American Redstart; Scarlet Tanager; Indigo Bunting; and Chipping, Field, and Song sparrows. In early July, cowbirds again begin to assemble in flocks, and small groups are often seen feeding in open areas. By late summer and early fall they are often abundant, and associate with the great

flocks of grackles, Red-wings, and Starlings that roost in and around Ligonier in the evening. At this time numbers may be in the low thousands. By late November, however, the species is scarce, and the available winter records are usually of flocks of fewer than a dozen birds. A male banded at Powdermill on April 12, 1972, was trapped and released near Gainesville, Florida, on November 10, 1972. A one-year-old adult banded on May 14, 1967, and last recaptured on April 3, 1973, at seven years old, is the oldest cowbird yet recorded at the Reserve.

WESTERN TANAGER

Piranga ludoviciana

Casual stray in the eastern United States; one local record. A Western Tanager was carefully studied by Florence Schell and Robert Little on May 28, 1974, at Carnegie Museum's Buffalo Nut Sanctuary, three miles northwest of Stahlstown. The locality is on the lower slopes of Chestnut Ridge.

SCARLET TANAGER

Piranga olivacea

Regular transient, common in spring and fall; common summer resident. The first birds usually appear in late April (April 30 in 1963 and 1970) or very early May. By the end of the first week of May they are usually common. During mid-May it is often possible to see from 50 to 100 individuals in a single day's field work. Scarlet Tanagers nest in virtually every woodlot and forested area at all elevations throughout the Valley. By mid-July both the adults and young wander widely through the region, making it impossible to detect the arrival of the first true fall migrants, although the flight is conspicuous by mid-August. Banding peaks at Powdermill include 17 on September 11, 1971, and 20 on September 22, 1962. The species remains com-

mon through late September, and a few individuals linger into early October. October 11 (in both 1967 and 1970) is the latest local date.

SUMMER TANAGER

Piranga rubra

Irregular, rare spring visitant. At Powdermill the only (four) records of the Summer Tanager range between April 30, 1969, and May 26, 1973. Elsewhere a bird was seen by J. A. Young just north of Ligonier sometime during May of 1969, and another was reported three miles south of Ligonier on May 3, 1975 (HMS). There is no evidence that this southern species ever remains to breed in the Valley.

CARDINAL

Cardinalis cardinalis

Regular, very common permanent resident. The Cardinal is one of the characteristic breeding birds in the Ligonier Valley, occurring virtually throughout the area in woodland, farm, and urban situations. In winter, when the species apparently wanders widely, Cardinals are among the most frequent visitors at feeding stations (especially those stocked with corn and sunflower seeds). Winter flocks of up to 100 or even more are not unusual. Maximum daily banding totals at Powdermill include 23 on March 9, 1963; 26 on March 5, 1972; and 32 (ACL) on January 3, 1970. Ninety-seven were listed on a Christmas count centered at Rector on December 30, 1973 (D. Smeltzer, *et al.*). The age record for Cardinals at Powdermill is held by an adult banded on January 27, 1962, and rehandled through March 22, 1970, when at least nine years old.

ROSE-BREADED GROSBEAK

Pheucticus ludovicianus

Regular transient, common in spring and fall; rare and apparently irregular summer resident; casual in winter. A female Rose-breasted Grosbeak seen at Powdermill on April 21 (1970) represents the earliest local record. A late April arrival is usual. In 1973, the first grosbeak was noted on April 27, and in 1969, the first was seen three miles south of Ligonier (HMS) on April 28. In a few springs when the weather has been uncommonly severe, appearance has been delayed until the first week of May. The spring peak normally is reached about the second week of May, and migration is virtually over by the last week of the month. Some high banding totals include ten birds on May 12, 1972, and 22 on May 11, 1973. In most years, a few grosbeaks remain to breed in the lowland woods, and this nesting population may have been increasing in the last few seasons. Autumn migrants begin to appear by mid-July and become more and more frequent through August. The seasonal peak normally occurs during the second or third week of September. High banding totals have included nine birds on September 14, 1973, and ten on September 27, 1970. The birds become scarcer the last few days of September, and by the first week of October migration is largely over. Late dates are October 7 in 1965 and 1966; October 9 in 1969 and 1973; and



Scarlet Tanager

October 13 in 1968. A casual stray, an immature male, was photographed at a feeder at Powdermill on December 20 (1975) by Dr. and Mrs. M. Graham Netting. A grosbeak banded at Powdermill as a one-year-old male on May 22, 1971, was reported shot near Urrao, Antioquia, Colombia, South America, on February 7, 1972. This is near the southern limit of the species' wintering range. Another grosbeak, banded when at least two years old on May 3, 1970, was recaptured at the Reserve on May 11, 1973, when at least five years old.



Rose-breasted Grosbeak

BLUE GROSBEAK

Guiraca caerulea

One record. A female Blue Grosbeak was carefully observed by Josh and Joseph VanBuskirk on May 25 and 26, 1974. The bird was seen in a pine planting about four miles south of Ligonier along Route 711. Western Pennsylvania is north of the usual range of the species.

INDIGO BUNTING

Passerina cyanea

Regular, common transient in spring and fall; very common summer resident. Indigo Buntings appear in the Ligonier Valley by the last of April or early May. Some first-seen dates are April 28 in 1964 and 1969; April 30 in 1972 and 1975; May 2 in 1965 and 1970; and May 5 (1962). The species is usually common by the second week of May. Indigo Buntings must certainly qualify as one of the more characteristic breeding birds of brushy fields and woodland edges in this region. They nest in such habitats throughout the Valley. The large summering population makes it difficult to determine exactly when the fall migration begins. Apparently there is massive movement by early September, and numbers peak during the second half of the month. The birds are still common the first week of October, but then numbers fall off rapidly the second week of the month, and the species is rarely recorded after the 15th. Late dates include October 17 (1972), and Octo-

ber 25 in 1969 and 1971. A straggler was banded at Powdermill on November 3 (1962). An adult female banded on May 25, 1962, and rehandled through July 16, 1969, holds the species age record of eight years (Kennard, 1975).

DICKCISSEL

Spiza americana

Anthony G. Netting (1960) has published what appears to be the only record of this species from the region. He reports seeing a Dickcissel in a brush row separating two old fields at Powdermill on September 20, 1960.

EVENING GROSBEAK

Hesperiphona vespertina

Irregular, sometimes very common winter visitant and spring and fall migrant. Originally a western species, the Evening Grosbeak first began appearing in Pennsylvania about the turn of the century. Since that time its southward flights have increased in regularity and it now appears to be established as a regular winter visitor. I can find no record of when the species first appeared locally, but since the banding program began at Powdermill, we have recorded significant flights in the winters of 1961-1962, 1963-1964, 1965-1966, 1968-1969, 1969-1970, 1971-1972, and each winter thereafter, through 1975-1976. During a flight year the first birds have usually been recorded by October or early November. A sample of arrival dates includes October 9 (1961, 50 birds), October 18 (1965), October 25 (1972), November 1 (1968), and November 4 (1969). Numbers build up rapidly after mid-December, when flocks of 200-300 birds have often been seen at one time at area feeding stations. However, the individual birds seem to be ever on the move during this season. Banding has shown that although the size of a flock visiting a feeder may seem to remain rather stable for a period of several weeks, most of the birds rarely stay in



Evening Grosbeak (female)

the area for more than a few days, and are constantly moving on, to be replaced by other wandering or migrating individuals. This mobile population normally continues high through April, and a few birds linger into May. A sample of late departure dates includes May 18 (1969), May 20 (1972), and May 21 (1973, DER). Two Evening Grosbeaks, one banded at the Reserve on March 20, 1966, and retrapped at Mountain Lake Park, Maryland, on January 29, 1972, and another banded at Etna, New York, on January 31, 1956, and retrapped at Powdermill on February 24, 1962, share the Reserve age record of six and one-half years for this species.

PURPLE FINCH

Carpodacus purpureus

Regular, often common transient in spring and fall; irregular, rather uncommon summer resident; irregular, fairly common winter resident. Because Purple Finches may winter in the region in considerable numbers, it is often difficult to differentiate between wandering winter flocks and the first true migratory birds. Normally the species seems to be moving northward by early March, and by April the flight is often heavy. Dorothy Auerswald reported a flock of 100 near Ligonier on April 11, 1961, and in 1973, groups of 100-300 were found about a feeding station at Powdermill all through the month of April (102 were banded on April 24 alone). In May, numbers gradually decline until the birds are scarce by month's end. In some summer seasons a few Purple Finches have been found nesting in conifers bordering the Laurel Summit Glade. At lower elevations they occasionally nest in older ornamental evergreen trees, or in coniferous plantations. With more such plantings now maturing within the area, the breeding finch population seems to be on the upswing. In autumn, flocks begin to appear in the region about mid-September. The migration peaks in October when, in especially heavy flight years, flocks may again contain up to 300 birds. Numbers usually decline during November, and by early December the local population probably consists mainly of wintering individuals. A Purple Finch banded at Powdermill on April 15, 1972, was recovered near Mt. Juliet, Tennessee, on January 9, 1973. Birds have also been trapped at the Reserve that had previously been banded in New Hampshire, Maryland, Tennessee, Arkansas, and North Carolina.

HOUSE FINCH

Carpodacus mexicanus

Introduced on Long Island, New York, about 35 years ago, the House Finch multiplied rapidly and spread north and south on the Atlantic seaboard. As was true of the House Sparrow and the Starling many years ago, the Appalachians acted as a temporary barrier. By the beginning of the 1970's, the species had begun to establish itself between and beyond the Pennsylvania mountains. Since 1973 the species has appeared as a fairly common winter visitor at feeding stations just to the west of the Valley at Greensburg, where it was also found breeding (Smeltzer, pers. comm.) in 1975. It was first reported at Latrobe, on the

western slopes of Chestnut Ridge, during the winter of 1974-1975. At this writing (June, 1975), the only record for the Ligonier Valley proper is of two females I banded at Powdermill on April 24, 1975. It seems likely, however, that the House Finch eventually will become a prominent feature of the regional avifauna.

PINE GROSBEAK

Pinicola enucleator

The Pine Grosbeak apparently is only a sporadic winter visitant to the Ligonier Valley. A few birds were reported in the Rector area in the mid-1960's, but detailed information is not available. Dan E. Roslund reported one on December 19, 1972, at a feeding station at Powdermill. That same winter, for six or seven weeks in February and March, John Galey observed a flock of 40 to 50 grosbeaks in a Norway spruce planting on Laurel Hill, a few miles east of Jones Mills.

COMMON REDPOLL

Acanthis flammea

Irregular, usually rare (occasionally fairly common) winter visitant. One or more Common Redpolls have been recorded in the Valley during the winters of 1968-1969, 1969-1970, 1971-1972, and 1973-1974. The winter of 1971-1972 saw an exceptionally heavy flight, and the birds were found at many local feeding stations—often in flocks of 20 or more individuals. The earliest arrival recorded is November 9 (1968). Peak numbers have usually been seen in March. Late dates include April 9 (1972, at Powdermill) and April 12 (1974, Harriet Stimmel, near Kregar).



Common Redpoll

PINE SISKIN

Spinus pinus

Irregular, rare-to-common winter visitant. Pine Siskins have appeared at Powdermill as early as September 10 (1971), but an early October arrival is usual, e.g., October 1 (1972) and October 6 (1973). Flocks numbering 25 or 30 birds are not unusual by mid-month, and 50 were seen near Trout Run Reservoir as early as

October 19 in 1972. During heavy flight years, siskins become common visitors to area feeding stations, where they often associate closely with flocks of goldfinches. The population usually peaks in March, although the birds may remain common well into April. Only a few individuals normally linger in the Valley into May, when last-seen dates include May 18 (1966), May 20 (1973), and May 23 (1972).

AMERICAN GOLDFINCH

Spinus tristis

Regular, very common transient in spring and fall; regular, very common summer resident; regular, uncommon-to-common winter visitant. The spring migration of the American Goldfinch is erratic. The flight is usually apparent by late March, and peak numbers may occur any time in April or during the first half of May. Maximum daily banding totals at Powdermill for this season are 32 on April 14, 1971; 36 on May 8, 1971; and 40 on May 11, 1969. I have occasionally seen flocks of 200 or more goldfinches in mid-April when they were often associated with migrating flocks of Purple Finches. Goldfinches nest in a variety of habitats like woodland borders, hedgerows, old fields, and suburban yards throughout the Valley, but not in the more dense, mature forests. They are late breeders, nesting through July and August, and into early September. After the nesting season, goldfinches wander widely through the area. The autumn migration, however, is well under way by mid-August (while some birds are still nesting), and is an exceptionally protracted flight. High autumn banding totals include 46 on November 9, 1969; 72 on November 6, 1966; and 73 on November 12, 1966. Winter numbers vary considerably from season to season. During some years the birds are scarce and difficult to locate. During others they may flock to virtually all the local feeding stations. A male goldfinch banded at Powdermill in October, 1968, was found at Robertsville, New Brunswick, in July, 1969. Another banded in November, 1968, was found at Blenheim, Ontario, in May, 1969. A third bird, an immature that had been banded at the Reserve in September, 1964, was found, probably on its wintering grounds, near Martin, Georgia, in February, 1969. An adult male banded on September 2, 1962, and last rehandled on exactly the same date in 1968 at an age of at least seven years, holds the Reserve age record for goldfinches.

RED CROSSBILL

Loxia curvirostra

The only available local records are furnished by Cliff Stringer, who saw 15 Red Crossbills in the Laurel Summit Glade area on October 23, 1972, and later found 12 there on the 31st.

WHITE-WINGED CROSSBILL

Loxia leucoptera

Irregular, usually rare winter resident. The White-winged Crossbill is sometimes found in ornamental spruce plantings in the Valley, probably because natural stands of conifers are scarce in this region. The earliest local date is December 16 (1972), when six

birds were seen at Rector (Mrs. A. R. Murphy). There is also a scattering of January records from the Powdermill-Rector area that same winter. I saw a single White-wing at Powdermill on March 30, 1970. My latest date there is of two on April 19 (1964).



White-winged Crossbill

RUFIOUS-SIDED TOWHEE *Pipilo erythrophthalmus*

Regular, common transient in spring and fall; regular, locally very common summer resident; irregular, usually rare winter resident. Although a few wintering birds often make it difficult to determine exactly when the first spring migrants arrive, there is usually a decided increase in towhee numbers by late March. By the second week of April, the birds are common. Towhees nest in brushy thickets at all elevations throughout the Valley, but populations seem highest in thinly wooded areas on the summits of both Chestnut Ridge and Laurel Hill. This is one of the most common and characteristic summer birds about the drier edges of the Laurel Summit Glade. Although considerable movement of towhees is apparent by mid-August, these may be largely local (wandering) birds. It is mid-September before migrants appear in numbers, with the height of the flight occurring during the first half of October. Maximum daily banding totals at Powdermill include nine on October 14, 1967, and ten each day on October 5 and October 11 in 1969. After mid-October numbers gradually decrease, and by the first week of November the birds are normally scarce. During most seasons, however, a few individuals attempt to winter, and some may survive the entire season (usually near a well-stocked feeding station). *P. e. erythrophthalmus* is the race of towhee normally found in our region. An immature male collected at Powdermill on November 12, 1966, and an immature female on October 16, 1975, have been identified by Parkes (1968 and pers. comm.) as *P. e. arcticus*—one of the western "Spotted Towhee" group of subspecies, found only casually in the East. An immature towhee banded on September 12, 1964, and

recaptured through November 3, 1971, seven and one-half years old, holds the Reserve age record for the species.

SAVANNAH SPARROW *Passerculus sandwichensis*

Regular transient, fairly common in spring and fall; regular, locally abundant summer resident. Often the first Savannah Sparrows arrive in the Valley just after mid-March. First-seen dates include March 16 (1967), March 17 (1970), and March 18 (1973). By the last week of the month the species is generally widespread, becoming fairly common by the first week of April. If overtaken by a severe snowstorm, early migrants may appear at feeding stations (Powdermill) and in wet seepage areas. Normally at this season, as well as in summer, they are found in the larger open fields and meadows, or are seen feeding along pond and lake shores. Breeding Savannah Sparrows occur most commonly in lowland, extensively agricultural areas, but they also nest in some of the larger clearings on Chestnut Ridge and Laurel Hill. Autumn migration peaks during the second half of September, although the sparrows are frequent through mid-October. Stragglers have been found at Powdermill as late as October 25 (1972), October 26 (1962), and October 27 (1965).

GRASSHOPPER SPARROW

Ammodramus savannarum

Regular, generally uncommon transient in spring and fall; regular, locally common summer resident. The Grasshopper Sparrow frequents large hayfields and extensive open weedy areas throughout much of the Ligonier Valley. Arrival records include April 17 (1963) and May 1 (1964) at Powdermill, and April 28 (1969) at Stahlstown. Maximum numbers appear to pass through the region during the first half of May. By early August there seems to be considerable local wandering by summering birds and their young. As this is an inconspicuous species, the autumn flight is difficult to detect. The peak of the migration apparently occurs during the second half of September, although the birds are still frequent during the first half of October. Last-seen dates include October 21 (1973) and October 26 (1962).

HENSLOW'S SPARROW *Ammodramus henslowii*

Probably regular, usually rare transient in spring and fall; apparently irregular, rare and extremely localized summer resident. Henslow's Sparrow was unknown in the Ligonier Valley until May of 1959, when K. C. Parkes and others located a colony of at least five nesting pairs at Powdermill. On May 30 of that year Mrs. H. M. Schmidt found a nest containing five eggs in an old field near the Reserve Headquarters building. The Powdermill colony continued through 1961, but no nesting birds have been found there since. The area was not disturbed, but normal old-field succession probably produced conditions the birds could no longer tolerate. More recently I located a small breeding colony along Route 381 near Kregar (now also vacated).

Another small colony of Henslow's bred in a dry field one mile northwest of Ligonier until about 1970, when the old field was plowed by the landowner. Careful search may, in the future, uncover new colonies in wet meadows and abandoned fields, but I have been unable to locate any breeding birds within the limits of this region since 1970. The earliest arrival on record for Powdermill is April 26 (1962). Certainly the species has normally returned to the area by the first week of May, but valid spring dates are not available for other years. Banding data from Powdermill suggest that fall migrants may be on the move by late August (an early fall capture was August 24 in 1968), but the peak may not occur before the last week of September or the first week of October. Late banding dates are October 14 (1962), and October 20 (1965).

SHARP-TAILED SPARROW *Ammodramus caudacuta*

A Sharp-tailed Sparrow collected along the edge of a weedy field at Powdermill on October 3, 1972, represents the only undisputed occurrence of this species in southwestern Pennsylvania. The specimen, now in Carnegie Museum, is referable to the James Bay race, *A. c. altera* (K. C. Parkes, pers. comm.).

VESPER SPARROW

Pooecetes gramineus

Regular, fairly common transient in spring and fall; regular, locally common summer resident. The earliest arrival date at Powdermill is March 19 (1973). Normally the first Vesper Sparrows appear during the last week of the month (e. g., March 24 in 1968, March 25 in 1966, and March 31 in 1963). The species is usually fairly common by the first week of April, when small flocks (up to six birds) are seen in open areas. By the first week of May, nesting is well under way in drier upland pastures, fields, and hedgerows. Just when the first true migrants appear in autumn is difficult to determine. By the first week of September there is a noticeable movement of Vesper Sparrows, but maximum numbers do not seem to pass through this region before late September or the first half of October. My latest record is October 30 (1964). A few individuals probably linger in the Valley into early November.

DARK-EYED JUNCO

Junco hyemalis

Regular, very common (occasionally abundant) transient in spring and fall; regular, locally very common summer resident; regular, common winter resident. At all elevations the junco is among the most frequently observed wintering birds in the Ligonier Valley. Wandering mid-winter flocks are often made up of several dozen birds, and during periods of especially severe weather, 100 or more are not uncommon at area feeding stations. Migrants begin to appear in large numbers by the last third of March. Counts of 200-500 in a day's field work are frequent at this season, and 1000 or more are occasionally seen. Peak banding totals in spring include 115 on March 31, 1964; and 125 on March 29, and 196 on April 5 in 1969. Late spring dates at Powdermill,

H. von Javosik



where the species does not nest, are May 6 (1973), and May 7 (1971). Although I have no records of the junco nesting along the top of Chestnut Ridge, this is certainly a characteristic breeding species at a number of points on Laurel Hill. It is especially common along the edge of Laurel Summit Glade. Autumn migrants first appear in the lowlands during the second half of September. The earliest date at Powdermill is September 23 (1962), but the birds are seldom common before the second week of October. The peak of the fall flight occurs from mid-October through mid-November, when flocks of juncos drift southward throughout the Valley. Maximum fall banding totals are 80 on October 28, and 72 on November 3, 1973.

In this region the subspecies composition of the junco population is complex (see Plate 5). Most of the wintering birds are typical of the northern form, the "Slate-colored Junco," that breeds from northern New York to the interior of Alaska. There are several records (ranging in dates between December 21, 1968 and April 15, 1970) of so-called "Oregon Juncos," formerly considered to be a separate species, *Junco oreganus*. None have been collected in our area, but specimens from elsewhere in the northeast have generally been referred to the strongly migratory subspecies *Junco hyemalis* (formerly *oreganus*) *montanus* of the northern Rocky Mountains. Rather commonly seen in our area, especially in March, is another form that may sometimes constitute as much as 20% of the migrating or wintering population. These juncos are a rather variable array of intermediates between the "Slate-colored" and the "Oregon" coloration. They may come either from areas where these two kinds of juncos meet and interbreed (which is why they are no longer considered separate species), or from an area in western Canada where a more or less stable population of intermediate juncos has been described as the subspecies *J. h. cismontanus*. The breeding junco of the southern Appalachians, *J. h. carolinensis*, is larger than *J. h. hyemalis*, has a bluish rather than a pinkish bill, and males are more uniformly gray rather than more blackish on the head, as in *hyemalis*. The breeding population of Laurel Hill is intermediate between *hyemalis* and *carolinensis*, with many individuals virtually typical of the southern mountain race. These birds are seldom found away from their mountain-top nesting grounds. At Powdermill I have observed birds from this local breeding population on only two or three occasions in early autumn. The local juncos apparently migrate along the ridge tops and rarely appear at lower elevations. There is no evidence that this breeding population ever attempts to winter within the Valley. The birds nesting on Laurel Hill usually do not return to the breeding grounds until early April.

Juncos banded at Powdermill have been found in various parts of western Pennsylvania, West Virginia, and Virginia. One banded at the Reserve on November 12, 1966, was trapped and released at Island Lake, Manitoba, Canada, on September 26, 1967. An adult banded on March 23, 1967, was last rehandled at Powdermill on March 30, 1974, at the age of almost eight

years—the Reserve record. This last bird is an excellent example of the tendency of some species to winter in the same location in successive years, even though they may breed thousands of miles away.

TREE SPARROW

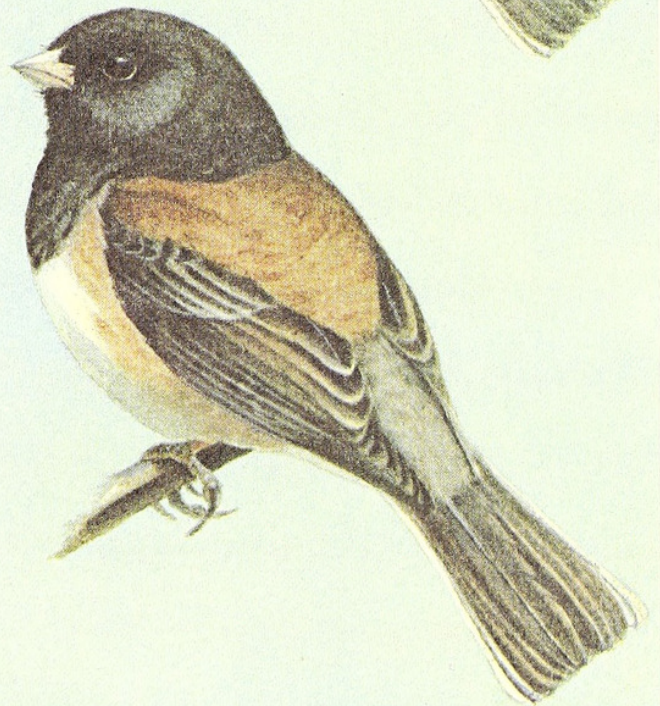
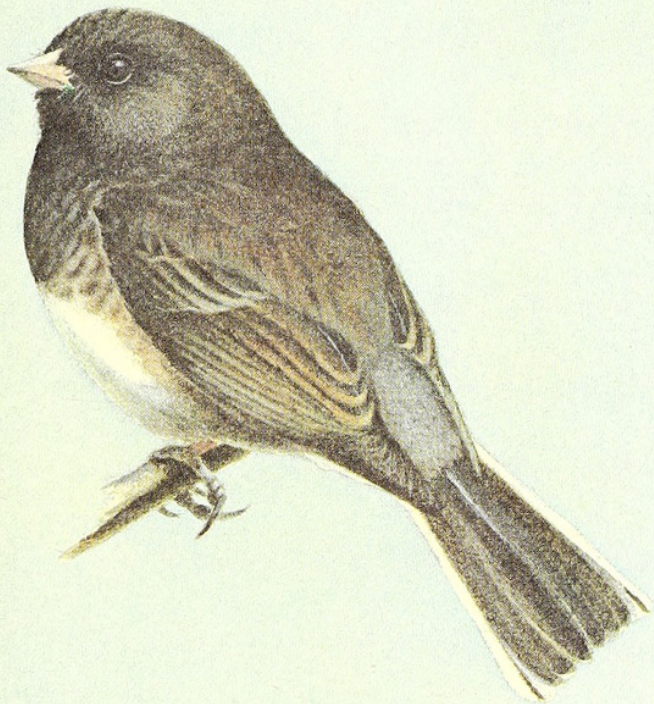
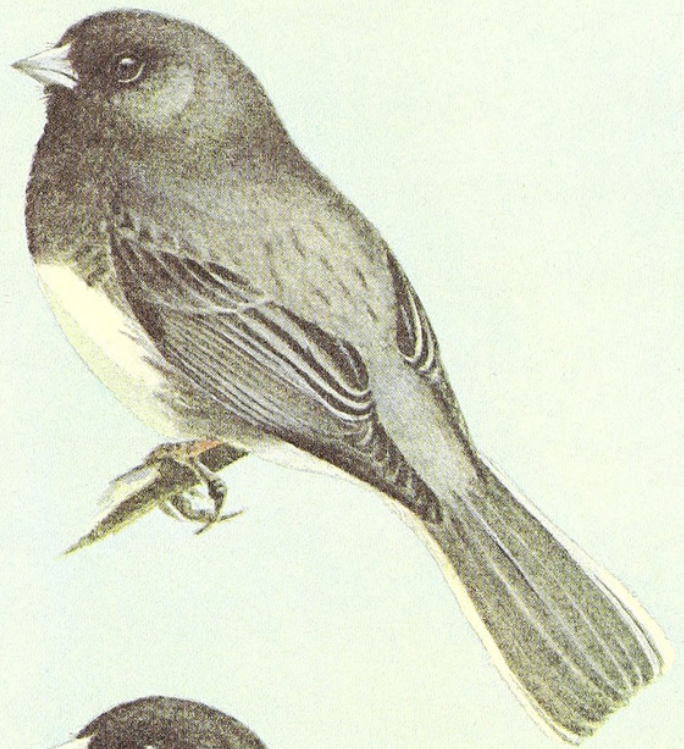
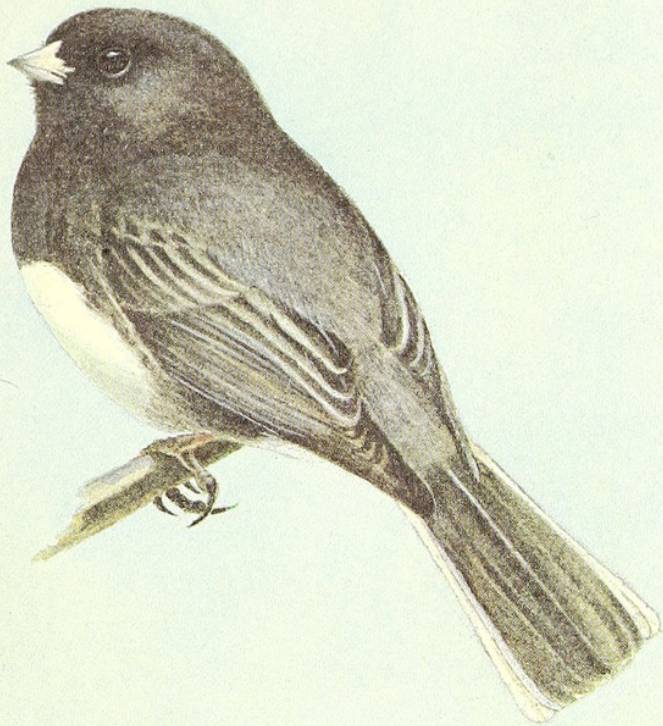
Spizella arborea

Regular, very common winter visitant. The first Tree Sparrows normally appear in the Ligonier Valley during the last few days of October. First seen dates at Powdermill include October 22 (1974), October 29 (1965), October 30 in 1966 and 1973, and October 31 in 1967 and 1968. The population then builds rapidly during November, and Tree Sparrows become one of the most frequently observed small birds of open fields and hedgerows, and at feeding stations, throughout the winter. High banding totals in 1968 include 56 on January 20, and 47 on January 28 (ACL). The species remains common through March, but then rapidly migrates from the region after the first week of April. Late dates include April 11 (1972), April 22 (1970), and an exceptional straggler seen at Powdermill (DER) on May 6 (1968). Another of the species that shows strong attachment to its wintering grounds, individual Tree Sparrows appear year after year at Powdermill. The oldest thus far recorded there is a bird first banded on February 8, 1964, and last rehandled when at least seven and one-half years old, on February 10, 1971.

CHIPPING SPARROW

Spizella passerina

Regular, transient, common in spring and fall; regular, very common (locally abundant) summer resident; sporadic, very rare winter vagrant. In summer, Chipping Sparrows are among the most familiar dooryard birds in the Valley. They are especially numerous in suburban yards and gardens, but also nest in small city lots in Ligonier, about farms, and in such remote areas as along the margin of the open bog at Laurel Summit Glade. The earliest date of arrival at Powdermill is March 21 (1971). Typically, Chipping Sparrows return during the last few days of March or early in April. Additional first-seen dates include March 29 (1969), April 1 (1967), April 3 (1963), and April 4 (1962). The spring flight peaks sometime during the last third of April or the first week of May. Maximum spring banding totals at Powdermill are 17 on May 2, 1970, and 13 on May 3, 1973. Significant numbers of autumn migrants begin to appear by early September, and the flight reaches a peak about mid-October. I counted 40 Chipping Sparrows in a single flock at Donegal Lake on October 10, 1972. High banding totals include 21 on October 16, 1965, and 28 on October 18, 1968. Numbers decline rapidly during the last week of October, and by the first week of November the species is scarce. Late dates are November 12 (1966), November 19 (1967), and November 23 (1964). In 1972 a single individual lingered through December 23 (K. C. Parkes, ACL). An immature Chipping Sparrow banded at Powdermill on September 18, 1965 and last recaptured on May 5, 1972, at seven years old, holds the Reserve age record for this species.



H. San Jose

FIELD SPARROW

Spizella pusilla

Regular transient, common in spring and often very common in fall; regular, locally abundant summer resident; irregular, usually rare winter resident. Although a few migrants often appear in this region during the last third of March, it is normally the last week of that month before Field Sparrows become common, and mid-April before the peak of the spring flight occurs. High banding totals at Powdermill include 19 on April 11, 1969, and 43 on April 16, 1972. By early May this is one of the characteristic breeding birds of old fields and weedy thickets throughout the Valley. Considerable local wandering is noticeable within the summering population during August and September, but apparently there is little real autumn migratory activity before the first week of October. Numbers peak about mid-month, e. g., maximum banding totals are 47 on October 13, 1968; 51 on October 17, 1970; and 110 on October 16, 1965. Migrants are again scarce by mid-November, although a small population normally remains through at least early December. During many seasons a few individuals attempt to winter in the area. A. C. Lloyd and K. C. Parkes have banded wintering birds at Powdermill as late as January in 1968, 1971, and 1972, and in February in 1969. One Field Sparrow banded as an immature at Powdermill on September 1, 1968, was trapped and released at Capon Bridge, West Virginia, on May 6, 1971. Another banded as an adult on August 25, 1961, and rehandled through May 3, 1967, when at least seven years old, is the oldest Field Sparrow on record (Kennard, 1975).

WHITE-CROWNED SPARROW

Zonotrichia leucophrys

Regular transient, often fairly common in both spring and fall. The earliest date on which I have recorded the White-crowned Sparrow is April 24 (1967), but more often it is the first week of May before the species appears in the Valley. Additional first-seen dates are: April 29 (1974), May 1 (1973), May 3 (1965, DER), and May 7 (1962). After the first arrival, numbers build rapidly, and the spring flight normally peaks just before mid-May. In 1967, high totals of 17 birds were banded at Powdermill on May 9, and 11 on May 12. The spring flight is not prolonged, and last-seen dates include May 25 (1968) and May 27 (1973). The autumn flight is under way by late September or early October. My earliest fall record is September 29 (1968). The peak of this migration usually occurs about mid-October. Ten White-crowns were banded on October 17, 1970. Two dozen birds is a good day's field total in this region. Numbers decline rapidly after the first week of November, although a few individuals linger through the end of the month. Perhaps an occasional bird may attempt to winter, but specific records are not available. A sparrow collected at Powdermill on November 4, 1972, proved to represent a western subspecies of the White-crowned, *Z. l. gambelii*. An immature bird banded at Powdermill on November 8, 1969, was shot at Cleveland, Mississippi, probably on or near its wintering

grounds, on April 4, 1970.

WHITE-THROATED SPARROW

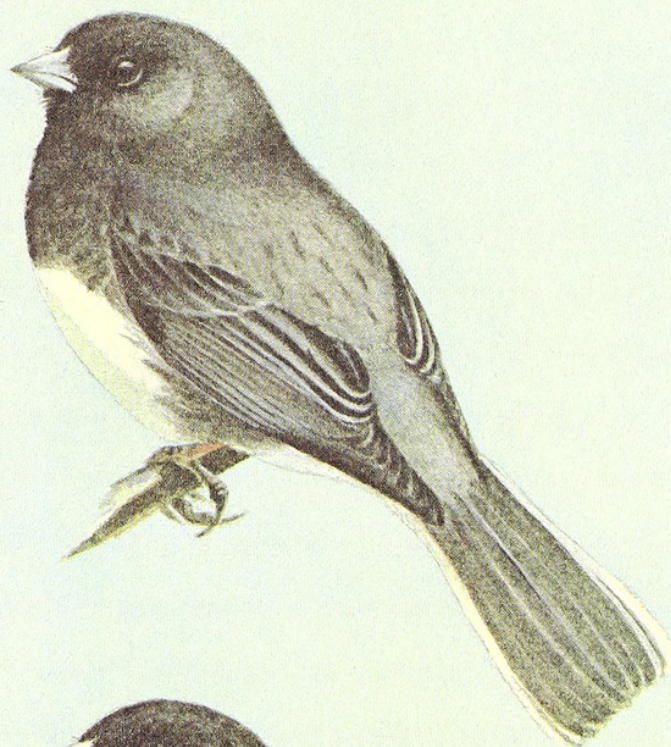
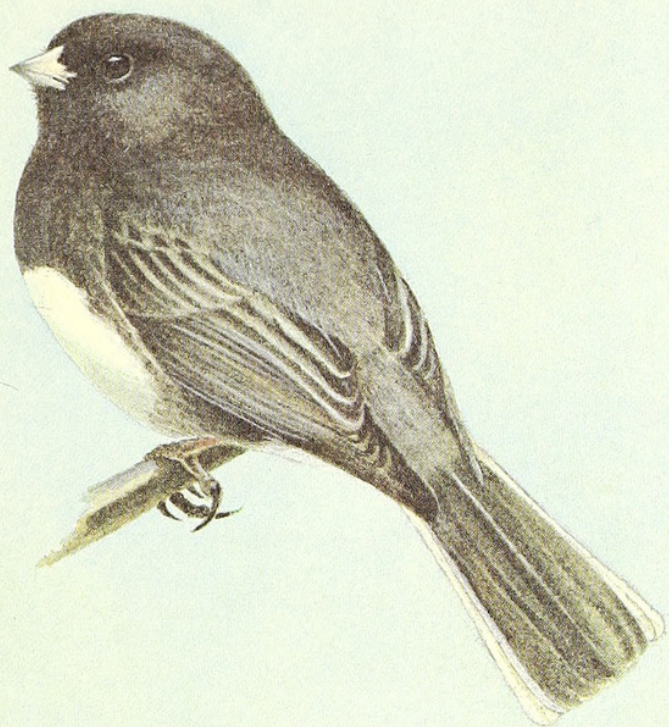
Zonotrichia albicollis

Regular transient, very common in both spring and fall; sporadic, very rare summer visitant; irregular, rare to uncommon winter resident. The presence of a small wintering population of White-throated Sparrows frequently makes it difficult to determine exactly when the first true spring migrants appear, but a substantial increase in numbers is usually obvious by the third week of April. By the end of April or during the first few days of May, the migration is at its peak. The spring flight is not as heavy as the fall flight, but it is not unusual to observe a few hundred birds in a day's field work in late April or early May. Maximum banding totals are 10 on April 29, 1967, and May 2, 1970; 15 on April 30, 1967; and 20 on May 10, 1974. The species is scarce by the last week of May. The latest spring banding date is May 28 (1966). This sparrow is not known to nest anywhere in southwestern Pennsylvania, and two July records of adults at Powdermill probably represent non-breeding visitants, or individuals that began their migration before undergoing their post-breeding molt. Our earliest fall migrant was recorded at Powdermill on September 3, 1964. Not until the last half of September, however, do the birds regularly appear, and they are not common before early October. A peak is reached in mid-October, and migrants remain very common (occasionally abundant) through the end of the month. Maximum banding totals for this season are 52 on October 11, 1972, and 67 on October 16, 1965. Numbers then slowly decline through November, until the species is scarce by the first of December. During some winters White-throated Sparrows have been unreported from the Ligonier Valley, but in recent years there has been an increasing tendency for a small population to remain through the winter. When present, they have often been regular visitors at area bird-feeding stations. A. C. Lloyd, for example, banded six at a feeding station at Powdermill on January 9, 1972. There are two recoveries of locally banded birds. A White-throat trapped and released at the Reserve on April 19, 1967, was found dead during the spring of 1968 near Marion, North Carolina, and an immature banded on October 6, 1971, was found dead at Cairo, Illinois, in May of 1973.

FOX SPARROW

Passerella iliaca

Fairly common regular transient; irregular, usually rather rare, winter resident. Because a few Fox Sparrows occasionally winter in the Ligonier Valley, it is difficult to detect the first true spring migrants that move into the region. In some seasons there is an increase in the number of birds frequenting feeding stations by the first week of March, and usually they are fairly common shortly after mid-month. The peak of the northward flight normally occurs in late March or very early in April. Maximum numbers banded at Powdermill at this season include 11 on both March 29, 1970 and April 4, 1964. By mid-April the migration is virtually



H. San Jose

FIELD SPARROW

Spizella pusilla

Regular transient, common in spring and often very common in fall; regular, locally abundant summer resident; irregular, usually rare winter resident. Although a few migrants often appear in this region during the last third of March, it is normally the last week of that month before Field Sparrows become common, and mid-April before the peak of the spring flight occurs. High banding totals at Powdermill include 19 on April 11, 1969, and 43 on April 16, 1972. By early May this is one of the characteristic breeding birds of old fields and weedy thickets throughout the Valley. Considerable local wandering is noticeable within the summering population during August and September, but apparently there is little real autumn migratory activity before the first week of October. Numbers peak about mid-month, e. g., maximum banding totals are 47 on October 13, 1968; 51 on October 17, 1970; and 110 on October 16, 1965. Migrants are again scarce by mid-November, although a small population normally remains through at least early December. During many seasons a few individuals attempt to winter in the area. A. C. Lloyd and K. C. Parkes have banded wintering birds at Powdermill as late as January in 1968, 1971, and 1972, and in February in 1969. One Field Sparrow banded as an immature at Powdermill on September 1, 1968, was trapped and released at Capon Bridge, West Virginia, on May 6, 1971. Another banded as an adult on August 25, 1961, and rehandled through May 3, 1967, when at least seven years old, is the oldest Field Sparrow on record (Kennard, 1975).

WHITE-CROWNED SPARROW

Zonotrichia leucophrys

Regular transient, often fairly common in both spring and fall. The earliest date on which I have recorded the White-crowned Sparrow is April 24 (1967), but more often it is the first week of May before the species appears in the Valley. Additional first-seen dates are: April 29 (1974), May 1 (1973), May 3 (1965, DER), and May 7 (1962). After the first arrival, numbers build rapidly, and the spring flight normally peaks just before mid-May. In 1967, high totals of 17 birds were banded at Powdermill on May 9, and 11 on May 12. The spring flight is not prolonged, and last-seen dates include May 25 (1968) and May 27 (1973). The autumn flight is under way by late September or early October. My earliest fall record is September 29 (1968). The peak of this migration usually occurs about mid-October. Ten White-crowns were banded on October 17, 1970. Two dozen birds is a good day's field total in this region. Numbers decline rapidly after the first week of November, although a few individuals linger through the end of the month. Perhaps an occasional bird may attempt to winter, but specific records are not available. A sparrow collected at Powdermill on November 4, 1972, proved to represent a western subspecies of the White-crowned, *Z. l. gambelii*. An immature bird banded at Powdermill on November 8, 1969, was shot at Cleveland, Mississippi, probably on or near its wintering

grounds, on April 4, 1970.

WHITE-THROATED SPARROW

Zonotrichia albicollis

Regular transient, very common in both spring and fall; sporadic, very rare summer visitant; irregular, rare to uncommon winter resident. The presence of a small wintering population of White-throated Sparrows frequently makes it difficult to determine exactly when the first true spring migrants appear, but a substantial increase in numbers is usually obvious by the third week of April. By the end of April or during the first few days of May, the migration is at its peak. The spring flight is not as heavy as the fall flight, but it is not unusual to observe a few hundred birds in a day's field work in late April or early May. Maximum banding totals are 10 on April 29, 1967, and May 2, 1970; 15 on April 30, 1967; and 20 on May 10, 1974. The species is scarce by the last week of May. The latest spring banding date is May 28 (1966). This sparrow is not known to nest anywhere in southwestern Pennsylvania, and two July records of adults at Powdermill probably represent non-breeding visitants, or individuals that began their migration before undergoing their post-breeding molt. Our earliest fall migrant was recorded at Powdermill on September 3, 1964. Not until the last half of September, however, do the birds regularly appear, and they are not common before early October. A peak is reached in mid-October, and migrants remain very common (occasionally abundant) through the end of the month. Maximum banding totals for this season are 52 on October 11, 1972, and 67 on October 16, 1965. Numbers then slowly decline through November, until the species is scarce by the first of December. During some winters White-throated Sparrows have been unreported from the Ligonier Valley, but in recent years there has been an increasing tendency for a small population to remain through the winter. When present, they have often been regular visitors at area bird-feeding stations. A. C. Lloyd, for example, banded six at a feeding station at Powdermill on January 9, 1972. There are two recoveries of locally banded birds. A White-throat trapped and released at the Reserve on April 19, 1967, was found dead during the spring of 1968 near Marion, North Carolina, and an immature banded on October 6, 1971, was found dead at Cairo, Illinois, in May of 1973.

FOX SPARROW

Passerella iliaca

Fairly common regular transient; irregular, usually rather rare, winter resident. Because a few Fox Sparrows occasionally winter in the Ligonier Valley, it is difficult to detect the first true spring migrants that move into the region. In some seasons there is an increase in the number of birds frequenting feeding stations by the first week of March, and usually they are fairly common shortly after mid-month. The peak of the northward flight normally occurs in late March or very early in April. Maximum numbers banded at Powdermill at this season include 11 on both March 29, 1970 and April 4, 1964. By mid-April the migration is virtually

completed. Extreme late dates in spring are April 21 (1972), April 22 (1965), and April 24 (1971). Autumn arrival dates include October 1 (1970), October 9 (1969), and October 10 in 1963, 1964, and 1972. Maximum density normally occurs between the last week of October and the first half of November. Sizeable banding totals include eight Fox Sparrows on November 8, 1969, and nine as late as November 28, 1970. In some seasons when the flight is particularly heavy, an experienced field observer could probably count 25 to 100 birds in a single day's bird watching in early November. A good spring flight might comprise 15 to 30 individuals.

LINCOLN'S SPARROW

Melospiza lincolni

Regular, uncommon transient in spring; fairly common fall migrant; very rare and sporadic summer visitor; casual winter resident. Some early spring arrival dates are April 30 (1964), May 1 (1965), and May 2 (1972). The flight peaks during the second or third week of May. Spring departure dates include May 28 in 1967 and 1972, June 1 in 1968, June 6 in 1969, and June 7 in 1975. Individual Lincoln's Sparrows at Powdermill on August 3 (1962, ACL) and August 7 (1963) were probably just casual strays. The species is not known to nest any nearer our area than central Michigan and northern New York. In 1968 and 1975 the first fall transients were found on August 29. Normal arrival dates are September 3 (1962), September 7 (1964), and September 8 (1967 and 1972). The autumn flight peaks during early October, and maximum numbers banded include 14 on October 1, 1972, and 17 on October 7, 1967. The fall flight is virtually completed by the end of October, although a few individuals may lag into the second week of November. An apparently wintering bird was banded on December 2, 1962 (ACL), and one successfully survived the winter of 1964-65 at a Powdermill feeding station. A Lincoln's Sparrow I banded at Powdermill on May 15, 1968, was recovered in Massachusetts on May 17. Evidence (Clench, 1968) suggests that the flight of 350 miles was made in a single night.

SWAMP SPARROW

Melospiza georgiana

Fairly common spring transient; common fall transient; rather rare summer resident; irregular rare winter resident. The spring flight is normally under way by the second half of March, with early arrivals recorded at Powdermill on March 17 (1970), March 23 (1968), and March 26 in 1966 and 1967. The spring migration is prolonged. Peak passage occurs during the last week of April or the first week of May (highest spring banding totals are nine on April 25, 1967, and 11 on April 29, 1972), and a few migrants do not depart before the third week of May. Breeding birds have been found in

Iron Spring Swamp at Powdermill during three or four of the last twelve summers. Suitable habitat, however, is scarce in the Ligonier Valley. Although I have not positively located nesting birds away from the Reserve, they should be looked for at Donegal Lake and other wetland areas. Fall migrants usually appear in mid-September. Some first-seen dates are September 13 (1967), September 14 (1968), and September 16 (1966). The majority of autumn transients are recorded during the first half of October, when banding totals have reached 30 birds on October 7, 1967; 36 on October 16, 1965; and 38 on October 12, 1968. Migration, however, continues to be fairly heavy through the third week of November. At least one bird has been recorded as resident during about half the recent winters. A Swamp Sparrow banded at Powdermill on October 18, 1964, was recovered at East Brunswick, New Jersey, on November 27, 1964, approximately 250 miles east (an unexpected flight direction) of the Reserve (Heimerdinger, 1965).

SONG SPARROW

Melospiza melodia

Regular, very common spring and fall transient; abundant summer resident; usually a fairly common winter resident at lower elevations. Migrants apparently begin to supplement the wintering population of Song Sparrows by late February, and the flight is always well under way by early March. The heaviest flight of spring transients usually occurs after the middle of March. Maximum banding totals for that month are 33 birds on March 26, 1967, and 65 on March 22, 1968. A few migrants apparently are still present by the end of April, when nesting of local residents is well under way. Post-breeding dispersal seems to begin shortly after the first young birds have left the nest, but the peak of the true autumn migration (for both young and adults) is in mid-October. Flight continues past mid-November. Some high banding totals for the fall include 51 on October 17, 1970; 65 on October 12, 1968; and 81 on October 16, 1965. An adult Song Sparrow banded near Brooktondale, New York, by Dr. and Mrs. J. L. Tate, Jr. was netted and released at Powdermill on October 24, 1970, just one day short of a year after it was banded. Another bird, banded (age unknown) at Powdermill on July 27, 1966, was recaptured through April 8, 1973, to establish the Reserve age record for a Song Sparrow: at least seven years.

SNOW BUNTING

Plectrophenax nivalis

Rare and irregular visitant in late fall and winter. Only two local records to date: a single Snow Bunting was seen flying over Crisp Pond at Powdermill on November 12, 1968 (with HMS), and 20 were found south of Ligonier on January 7, 1969 (HMS).



Lincoln's Sparrow

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