The REDSTART

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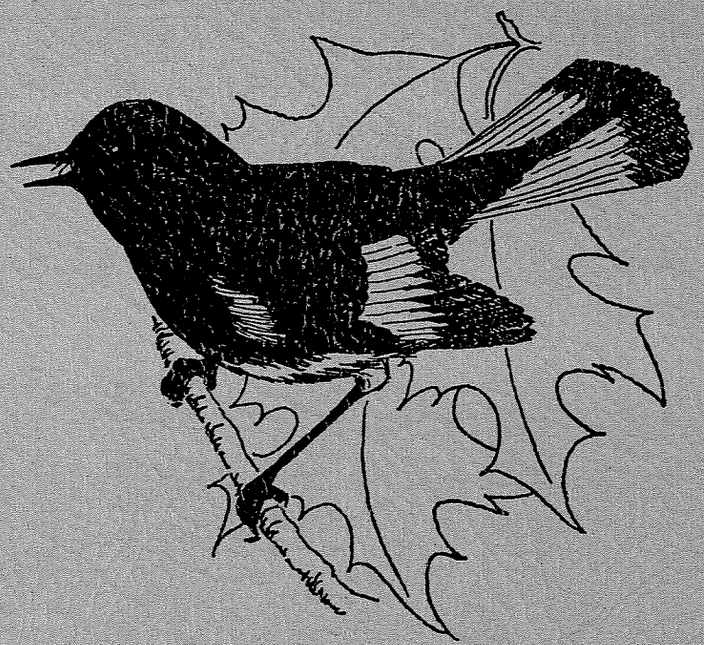

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AREA SURVEY FOR THE 1967 FORAY

George Koch

The 1967 Foray worked the usual 705 square miles which were distributed among four counties as follows: Hampshire 410, Mineral 195, Hardy 90, and Grant 10. The boundaries of the area were, from Keyser down the Potomac River to Okonoko, by roads to Points, Slanesville and Ice Mountain, up North River to Rio, by roads to Fabius, 2 miles north of Moorefield to Old Fields, to Williamsport, down Patterson Creek to Burlington, and with U. S. 220 back to Keyser.

We were comfortably quartered and well fed at the Peterkin Conference Center, nestled between ridges near the mouth of Mill Run about 3 miles south of Romney. The camp is owned and operated by the Episcopal Church.

Except for the immediate vicinity of Keyser, W. Va. and Cumberland, Md., the area is entirely agricultural. The land itself is a study of contrasts. Rich level bottom land flanked by shale hillsides whose forest growth is stunted by thin soil and lack of water. These trees mature and are often infected by disease before reaching sawlog size. For this reason much of the forests are harvested for pulpwood. The pastureland follows the same pattern and many of the hillside pastures are brushy and full of small trees. Farm crops, livestock, apples and pulpwood provide the bulk of the area's income although some lumber is produced and a few quarries are operated. There are several vacation cabins along the Potomac and South Branch Rivers.

Official figures on the usage of the area are not available but our estimate of the breakdown in square miles is: cropland 60, pastureland 140, orchards 10, and forests 495. All of the area is privately owned except the Nathaniel Mountain and the Short Mountain State Public Hunting Areas which total 21 square miles, only 3% of the area.

The entire working area is in the Ridge and Valley Physiographic Province where the strata are folded into mountain ranges. The most prominent stratum is the Oriskany sandstone, folded like a piece of ribbon candy, outcropping on every mountain range, whose anticlines form mountain tops and synclines pave many of the stream beds such as the Trough of the South Branch river.

The rock outcrops are of the Devonian Geologic Period. Below the Oriskany sandstone are the Helderberg Series limestones, cherts, and shales. Above it are similar formations of the Middle Devonian Period. All of these outcrop east of the South Branch river where the strata are much folded and crushed. To the west the same folds are higher and less frequent with the Chemung shales, the youngest rocks of the area, outcropping around Patterson creek. Some of the decomposed limestones and soft shales have formed rich agricultural soils but most of the outcrops were cherts, sandstones, and hard shales which decomposed slowly into rather sterile soils that washed off the hillsides into the valleys or down the streams almost as fast as they formed.

The Potomac river at Okonoko is 500 feet above sea level. The highest spot is the knoll where Nathaniel and South Branch Mountains join. About 95% of the area is less than 2000 feet. West of the South Branch river are low mountains to 2000 feet and wide valleys to 800 feet. To the east are slightly higher mountains, some plateau land at about 1200 feet with narrower valleys between the mountains.

The climate is mild but the rainfall is light, about 36 inches per year at Springfield and 33 inches near Moorefield. The mountain tops are remarkably free from late spring frosts. To insure a crop almost every year the orchards are located along the ridges. When mowed in June and the hay spread around the trees as a heavy mulch to compensate for thin soil and lack of rainfall the orchards produce an average yield of excellent quality fruit.

BREEDING BIRD POPULATION STUDIES AT 1967 FORAY

George Koch

We usually try to choose study plots in habitats that represent as much of the working area as possible. When they are located where the vegetation is uniform the results can be prorated over the entire acreage of that specific habitat. We changed our procedure this year partly from choice and partly from necessity.

The woodlands of the area were quite variable. They varied with the elevation, with each change of slope or exposure, and with the time elapsed since a harvest of pulpwood or saw timber. The valley pastures were level and clean but many of the rolling and hill pastures were brushy and as changeable as the woodlands. This variation indicated the need for many study plots and at the same time made it difficult to find uniform habitats large enough to census. The camp operated on daylight-saving time which reduced our usual working time by one hour each morning and limited the distance we could travel. We had sufficient personnel for only four studies.

For the first time in many years there were commercial orchards in a Foray area. There was also a stand of almost 100% small pine available. We had often speculated on whether such habitats contained any bird life but had had no previous opportunity to study them. We located a study plot in each although they represented a very small percentage of the area. For a control plot we chose the Pine-Oak-Hickory as typical of extensive acreage not only for the species and size of trees but also for the thin shaly soil predominant in the upland sections of the area. The Apple Orchard and the Pure Pine were also on this type of soil. For further contrast we located the Mixed Deciduous Woods along a creek bottom as the most luxuriant forest growth that the area afforded.

Study Plot	Percentage of Area Represented	Species	Males per 100 Acres
Pine-Oak-Hickory	15	16	137
Apple Orchard	1	11	73
Mixed Deciduous	0.25	11	193
Pure Pine	Negligible	6	70

The contrast between the studies was not as great as we had expected. However, they did tend to confirm an opinion formed during the week that the bird population of the region was normally rather low. Whether or not this apparent low population might be due to bird inactivity caused by the change from cool spring weather to the abnormally hot Foray week may have to be resolved at a future Foray.

Mixed Pine-Oak-Hickory Forest on Shale Ridge

LOCATION: 5.5 airline miles southwest of Romney, Hampshire County, W. Va. on County Route 8 near Breakneck Curve; 39° 16' 28" N, 78° 48' 29" W, Keyser, W. Va., 15' Quadrangle, U.S.G.S.

SIZE: 15 acres (rectangular, 330 by 1980 feet, measured).

TOPOGRAPHY: Undulating between 900 and 950 feet in elevation with the center line generally following a path or overgrown road on the western side of a fairly broad ridge. Secondary Route 8 ran within about 800 feet of the western edge of the area.

PLANT COVER: Forest cover, open with an understory of shrubs averaging 8 feet in height and sparse ground cover on generally shaly soil; this represents typical woodlands found on the thin shaly soil of Hampshire County. Trees average about 30-35 feet in height and from 4 to 12 inches, DBH; 30% Oak: Red (*Quercus rubra*), Black (*Q. velutina*), White (*Q. alba*), and Chestnut (*Q. prinus*); 30% Hickory: Shagbark (*Carya ovata*) and Mockernut (*C. tomentosa*); 30% Pine: Scrub (*Pinus virginiana*) and Table Mountain (*P. pungens*); 5% Elm: American (*Ulmus americana*); 5% Miscellaneous consisting of Redbud (*Cercis canadensis*), Persimmon (*Diospyros virginiana*). The sparse understory consisted of young saplings of the cover trees, plus Grape (*Vitis sp.*) and Hawthorn (*Crataegus sp.*). The ground cover was composed of Fragrant Sumac (*Rhus aromatica*), Huckleberry (*Gaylussacia sp.*), Pussytoes (*Antennaria virginica*), Birdfoot Violet (*Viola pedata*), and moss species such as Leucobryum and Polytrichum.

COVERAGE: June 11, 12, and 13, 1967; hours visited between 5:20 and 8:00 A. M., totaling 29 man-hours.

Species	Census: Territorial Males	Males per 100 Acres
Pine Warbler	4	27.0
Red-eyed Vireo	2.5	16.7
Black-capped Chickadee	2	13.4
Cardinal	2	13.4
Downy Woodpecker	1.5	10.0
E. Wood Pewee	1.5	10.0
Tufted Titmouse	1.5	10.0
White-breasted Nuthatch	1	6.7
Blue-gray Gnatcatcher	1	6.7
Indigo Bunting	1	6.7
Rufous-sided Towhee	1	6.7
Yellow-billed Cuckoo	0.5	3.4
Red-bellied Woodpecker	0.5	3.4
Scarlet Tanager	0.5	3.4
Pileated Woodpecker	+	-
American Crow	+	-
TOTALS: 16 Species	20.5	137.5

\+ Either less than 0.5 or territory is larger than plot.

VISITORS: Yellow-throated Vireo, Brown-headed Cowbird, Am. Goldfinch, and Prairie Warbler.

REMARKS: The nest of the Black-capped Chickadee with 4 young was located two feet above ground in a hollow, living, 4-inch hickory tree. The adults were netted, measured, and banded.

CENSUS TAKERS: Kenneth H. Anderson, assisted by Sylvia Reebel, Trecla Deterick, Maxine Thacker, Dorothy Caperton, Maxine Kiff, William Athey, and Juanita Slater.

Commercial Apple Orchard

LOCATION: Starts 2.25 miles due east of the Courthouse at Romney, West Virginia, and extends southwest; latitude 39° 20' 31" N, longitude 78° 47' 56" W, Hanging Rock Quadrangle, U.S.G.S.

SIZE: 15 acres (rectangular, 110 x 660 yards, measured).

TOPOGRAPHY: Mountain top, fairly flat at elevation 1450 feet.

PLANT COVER: An apple (*Pyrus malus*) orchard on shaly soil with rows east and west across the level area but only a few yards down the slope. The trees are mature except where diseased trees have been replaced. This replacement is a continuous process to keep the orchard at maximum production. Typical of thousands of acres of mountain top orchards in the Eastern Panhandle of West Virginia and in neighboring states, it was sprayed heavily in the spring and mowed in June with most of the hay used as mulch around the trees. As is fitting the dominant ground cover is Orchard Grass (*Dactylis glomerata*). Other plants present in smaller amounts are Kentucky Bluegrass (*Poa pratensis*), Smooth Brome Grass (*Bromus inermis*), Tall Oat-grass (*Arrhenatherum elatius*), Meadow Fescue (*Festuca elatior*), Yellow Hop Clover (*Trifolium agrarium*), and Poison Ivy (*Rhus radicans*).

EDGE: The orchard extends beyond the area limits on all sides. Some of the northwest edge had not yet been mowed.

COVERAGE: June 11-14, 1967. Ten trips were made through the area at daylight and late morning. Total party hours, 13.

Species	Census: Territorial Males	Males per 100 Acres
Indigo Bunting	3	20
Grasshopper Sparrow	2	13.3
Vesper Sparrow	2	13.3
Field Sparrow	1	6.7
Eastern Meadowlark	1	6.7
Chipping Sparrow	1	6.7
Mockingbird	1	6.7
Yellow-billed Cuckoo	+	+
Bobwhite	+	+
Common Nighthawk	+	+
Brown-headed Cowbird	+	+
Totals: 11 Species	11 territorial males	73.4 males per 100 acres

VISITORS: Am. Goldfinch, Blue Jay, Red-winged Blackbird, Brown Thrasher, Mourning Dove, Tufted Titmouse.

REMARKS: Factors contributing to the expected low population were lack of insects due to spraying, abandoned nests because of mowing and absence of shrubbery. The trees are open-crowned with low branches but the branches are thinned out to expose the low fruit to sunlight.

CENSUS TAKERS: Virginia B. Olsen and George Koch assisted by Tom Olsen, Rick Bennett, Joyce Koch and Eugene Hutton.

Mixed Deciduous Woods

LOCATION: The Mill Run Study Area is located eight-tenths of a mile southeast of Peterkin Conference Center, which is approximately four air miles south south-east of Romney, West Virginia.

SIZE: 15 acres (rectangular, 110 x 660 yards, measured)

TOPOGRAPHY: The Mill Run Study Area extends in a northwest-southeast direction at an elevation of about 850 ft. The area is part of a larger hollow following Mill Run toward Nathaniel Mountain. Mill Run generally intersects the edge of the study area, although it could not be heard or seen.

PLANT COVER: This is an Oak (*Quercus alba*) 50%, Hickory (*Carya ovata*) 30% association, with the remaining 20% being made up of Red Maple (*Acer rubrum*), Scarlet Oak (*Quercus coccinea*), Chestnut Oak (*Quercus montana*), White Basswood (*Tilia heterophylla*), Black Locust (*Robinia pseudo-acacia*), and Slippery Elm (*Ulmus rubra*). The forest crown is closed and is predominately second growth, pole sized trees 6 to 10 feet apart, with a few reaching 12 inches DBH and 40 to 50 feet in height. Throughout the area one can usually see a tree of Scrub Pine (*Pinus virginiana*) and near the beginning of the area there is a grove of Black Walnut trees (*Juglans nigra*) covering about 1/2 acre.

The understory is composed of Hackberry (*Celtis occidentalis*), American Hornbean (*Carpinus caroliniana*), Hop hornbean (*Ostrya virginiana*), Flowering Dogwood (*Cornus florida*), Redbud (*Cercis canadensis*), Sassafras (*Sassafras albidum*), Mapleleaf Viburnum (*Virburnum acerifolium*), Service Berry (*Amelanchier species*), Scrub Oak (*Quercus ilicifolia*) and Witch Hazel (*Hamamelis Virginiana*).

The forest floor is partially covered with dry leaves of past seasons, mosses (Leucobryum and Dicranum species), lichens (Cladonia species), and scattered herbs of the following species: Alumroot (*Heuchera americana*), Cleavers Bedstraw (*Galium aparine*), Dittany (*Cunila organoides*), Wild Stonecrop (*Sedum ternatum*), Venus' Looking Glass (*Specularia perfoliata*), Common Greenbrier (*Smilax rotundifolia*), Poverty Grass (*Danthonia spicata*), Spiked Lobelia (*Lobelia spicata*), Rattlesnake-weed (*Hieracium venosum*) and Plantain-leaf Pussytoes (*Antennaria plantaginifolia*).

Plant nomenclature taken from *Flora of West Virginia* by Strausbaugh and Core.

COVERAGE: June 11-15. Trips were made to the area at daylight, during the day, and after nightfall. The area was surveyed fourteen times using 33 man hours.

Census:

Species	Territorial Males	Males per 100 Acres
Wood Thrush	7	47
Red-eyed Vireo	7	47
Acadian Flycatcher	3	20
Ovenbird	2.5	17
Whip-poor-will	2	13
Scarlet Tanager	2	13
Yellow-billed Cuckoo	1.5	10
Parula Warbler	1.5	10
Louisiana Waterthrush	1.5	10
Tufted Titmouse	.5	3
Rufous-sided Towhee	.5	3
Totals: 11 species	29.0	193

VISITORS: Ruffed Grouse, Pileated Woodpecker, Red-bellied Woodpecker, Great Crested Flycatcher, Eastern Wood Pewee, Blue Jay, Common Crow, Blue-gray Gnatcatcher, Worm-eating Warbler, Pine Warbler, Yellow-breasted Chat, Brown-headed Cowbird (probably breeding) Indigo Bunting, American Goldfinch.

REMARKS: The writer was impressed with the number of "visiting" species plus the fact that both Golden-winged and Cerulean Warblers were observed just outside, but not on the study area. A Hooded Warbler was netted within 150 feet of the study area. This species was not heard to sing during any of the surveys. These observations suggest that the study was made during the post-nesting period of several species.

Census takers: S. T. Brooks, E. E. Hutton, G. Koch, assisted by B. Burtt, E. R. Chandler, H. Cernicek, M. Kiff, G. S. Newcomer, J. Slater, J. B. Yoder.

Twenty Year Old Scrub Pine on Shale Soil

LOCATION: 5 1/2 miles SSW of U. S. Route 50 on County Road 8 which primarily follows the eastern bank of the South Branch of the Potomac river and intersects U.S. Route 50 about 2 miles west of Romney, Hampshire County, West Va. Co-ordinates, 39° 16' 12" N, 78° 42' 45" W.

SIZE: Ten acres (rectangular, 110 x 440 yards, measured).

TOPOGRAPHY: The center line is central through a stand of pines, growing on the top of a hill of DeKalb shaly silt loam soil. The hill is about level laterally for a width of about 200 yards and breaks rather steeply with a drop of about 75 feet for the next 100 yards on both sides, and slopes NNE about 75 feet longitudinally following the center line. Elevation 800 to 875 feet.

PLANT COVER: A self-seeded field of scrub pines, 90% being Virginia Pine (*Pinus virginiana*), ranging from 4 to 12 inches DBH and densely spaced, having about 20 trees each 100 square feet, the other 10% about equal amounts of Red Cedar (*Juniperus virginiana*), Sugar Maple (*Acer saccharum*), Black Gum (*Nyssa sylvatica*), Persimmon (*Diospyros virginiana*), and White Oak (*Quercus alba*), ranging from 2 to 14 inches DBH. Ground cover is rather sparse, pine needles cover about 80% of the ground with the other 20% sparsely covered with Virginia Creeper (*Parthenocissus quinquefolia*), Poison Ivy (*Rhus radicans*), Rough Cinquefoil (*Potentilla norvegica*), Woodland Strawberry (*Fragaria vesca americana*) and seedlings of the above mentioned trees.

EDGE: The western edge is similar habitat for about 75 yards on the southern section and tapering to about 400 yards at the northern section. This western edge borders on County Road 8 with farm fields to the west of the road. The remaining 3 edges are mostly second growth Oak-Hickory hardwoods. Near the center of the tract longitudinally the Pines are just 110 yards wide, this hour-glass effect seemed to account for the Cardinal and Great Crested Flycatcher territories.

COVERAGE: 14 trips, from 5:20 to 7:50 A. M. (EDT) on June 11, 12, and 16, 1967. Total manhours, 17 1/2.

VISITORS: Blue Jay, Am. Goldfinch, Yellow-shafted Flicker, and Common Grackle.

REMARKS: The Grackles were roosting in the southern end of the area. About 5:30 each morning about 400 to 500 Grackles would take off with a loud sound of beating wings. This flight would last about 5 minutes. For several years we have endeavored to run a breeding bird census in a pure pine stand. This 10 acre plot on shale ground was the largest we could find that was suitable to census. In this area we found 3 abandoned nests of the Common Crow, built this season and it was assumed that broods fledged prior to the census. There were several young crows nearby, but none were found on the area during the census.

Census:

Species	Territorial Males	Males per 100 Acres
Chickadee	3	30
Cardinal	2	20
Mourning Dove	1	10
Prairie Warbler	1	10
Yellow-billed Cuckoo	+	+
Great Crested Flycatcher	+	+
Red-eyed Vireo	+	+

Totals: 7 Species 7 territorial males 70 males per 100 acres.

CENSUS TAKERS: Richard Anderson, Clark Miller (Compiler), Tresa Miller, Katherine Sigel and Maxine Thacker.

CLIMATIC REPORT FOR THE 1967 FORAY

Date	*Time*	*Temp. °F*	*Rel. Hum.*	*Notes*
Saturday, June 10	12:00 N	82	50%	Clear
	6:00 pm	80	50%	Clear
Sunday, June 11	6:00 am	62		Sunny
	12:00 N	85	30%	Mostly sunny
	6:00 pm	85	30%	A few clouds
Monday, June 12	6:00 am	53	70%	Clear, still
	12:00 N	92	22%	Clear, calm
	6:00 pm	85	22%	Clear, slight breeze
Tuesday, June 13	6:00 am	52	70%	Clear, calm
	12:00 N	85	32%	Clear, light breeze
	6:00 pm	87	23%	Clear, light breeze
Wednesday, June 14	6:00 am	60	72%	Cloudy—calm
	12:00 N			Haze
	6:00 pm	83	40%	Partly cloudy, light breeze
Thursday, June 15	6:00 am	60	70%	Light fog, no breeze
	12:00 N	90	30%	Clear, no breeze
	6:00 pm	88	30%	Partly cloudy, no breeze
Friday, June 16	6:00 am	60	70%	Mist, no breeze
	12:00 N	86	35%	Clear, slight breeze
	6:00 pm	89	27%	Clear, calm
Saturday, June 17	6:00 am	65	80%	Cloudy, light shower
	12:00 N	88	55%	Cloudy
	6:00 pm	78	40%	Partly cloudy, thunder, but no rain
Sunday, June 18	6:00 am	61	70%	Light overcast

THE FORAY BIRD, 1967: THE BLUE GROSBEAK

Anne Shreve

One way to start a week at Foray is to get into the car and just go birding to get the feel of the territory before the strenuous days of banding, population studies and nest-hunting. Thus, Connie Katholi, Virginia Olsen, Jack Linehan, John Morgan and I were driving along route 28 toward Moorefield, about 13 miles from camp, calling out names of birds as we saw or heard them.

A dark, tanager-sized bird sat on a wire on the left side, about eighteen feet from the road. Connie and I drawled out, with a hint of boredom, "Cowbird . . ." It turned and looked at us as if resenting this allusion. Jack straightened to attention, "No, look at that bill. It's a female grosbeak!" As we tumbled from the car, the golden brown face and matching wing bars showed in the sunlight. Instead of the taupe cowbird-color, her body was deep, sepia-mahogany. Then, as if on cue, a dark, sapphire-blue male came up from the brush and perched alongside her on the utility wire. Both chipped uneasily and raised heavy, rounded crests. How many times had we read that a blue grosbeak could easily be mistaken for a cowbird. Even Chapman, in his ancient bird guide, cautions us about the similarity. We couldn't believe that we had erred. How many others had we passed up as cowbirds, possibly even at home in the Kanawha Valley where there is no record of one.

There were two reasons for choosing the Blue Grosbeak for this year's Foray Bird. It holds a mystical fascination for many bird-watchers, even where it is a common species, and it has an unaccountably odd distribution in West Virginia. A look at the range map offers no clue as to why it occurs commonly east of the Appalachians, but rarely, or not at all, to the west. Typical Blue Grosbeak habitats identical (to human senses) in vegetation, elevation, latitude, topography, moisture and associated species are found in many places in the state, but few house our elusive bird.

Getting back to the nagging question of whether *Guiraca caerulea* is really so rare here, or just overlooked, we must consider its very elusive behavior. It does not commonly perch on a dead snag as the indigo does, but flies deep within the foliage of a large tree where it is apt to sit motionless for twenty or thirty minutes. Its song adds to the possibility of missing it. Birders who readily pick up odd sparrow and faint warbler songs are likely to miss the Blue Grosbeak's. It is soft, slightly ventriloquial and often mistakenly thought to be quite distant. Its chip note is easily heard but so like an Indigo Bunting's that it may be dismissed as that species. The Foray Bird contributors describe the song as resembling a Purple Finch, a Rose-breasted Grosbeak, an Orchard Oriole and a Scarlet Tanager. George Newcomer came to Foray equipped with a portable tape recorder and a well-organized selection from Peterson's bird record. The possibility of another grosbeak territory on Beaver Run Road was established when a male flew toward the recorder, from about a quarter of a mile away, as the tape played a Blue Grosbeak song.

Ralph Bell summed up the typical West Virginia, Blue Grosbeak habitat this way: "They evidently do not prefer either a well-managed farm (clean fence rows, excellent crops, etc.) nor one that is completely abandoned. They seem to require the in-between stage with some scattered trees and clumps of sprouts caused by cutting of young trees. Whether roadsides are preferred or not is a big question as no real field work was done away from roads. Hickory sprouts were evident." Notes from Virginia Olsen, John Morgan, Chuck Conrad, Connie Katholi and Jack Linehan agreed that the main vegetation consisted of hickory sprouts, American hazelnut, blackberry, Virginia pine, Black locust and white oak. Both territories consisted of about 50% grass and 50% trees and shrubs.

The nest in the route 28 territory, contained two young birds and three eggs. It was made

of woven grasses and sheep's wool, and was suspended in a hazel-nut tangle about three feet from the ground. The two nestlings were banded by Connie on the last day of Foray. The three eggs were still unhatched. Associated species of birds were Indigo Bunting, Eastern Kingbird, Chipping Sparrow, Field Sparrow, Cedar Waxwing, Common Grackle, Baltimore Oriole, Redwing Blackbird, Brown-headed Cowbird and Dickcissel, in that order of prevalence.

P. O. Box 311, St. Albans, W. Va. 25177

BANDING REPORT—FORAY 1967

Constance Katholi

Banding activities during the 1967 Foray at Peterkin Conference Center, Romney, W. Va., provided support for several different Foray studies.

The camp was situated in the narrow valley of Mill Run at an elevation of 750 ft. The surrounding hillsides supported a rather sparse growth of mixed deciduous trees and a relatively open understory. The ground was shale with little accummulation of top-soil. For the basic project, that of sampling the breeding population in the camp area, fourteen nets were set one half mile up the run from camp. Three slightly different locations were chosen: 1. on the dry hillside, 2. along the creek bank, and 3. in an overgrown clearing of waist-high shrubs and weeds. The weather was exceptionally hot and dry all week, but the early mornings were cool and foggy. The nets were operated on three days from dawn to 10 o'clock, and on one day until late afternoon, for a total of approximately 180 net hours.

Birds were not numerous, but the catch was normal for the time of year. It appeared that the habitat was occupied by relatively few breeding pairs, as is characteristic of this sparse vegetation. The species taken were those representative of the habitat and corresponded largely to those heard singing. An exception to this was the appearance in the net of a male Hooded Warbler, representing a species which was not heard singing. Campers were invited to visit the net lanes for demonstrations at any time. These sessions were, however, poorly attended by visitors, either because of the (relatively) inconvenient net location, in combination with hot weather lethargy, or because most of the campers this year were already cognizant of banding techniques and practices.

Other Foray studies which were assisted by banding are as follows:

a. Two Broadwing Hawk nestlings were banded in connection with Dr. Benjamin Burtt's lecture and practical demonstration on obtaining hawks from the nest for banding.
b. A breeding pair of chickadees was netted at the nest hole on the Breakneck Curve study area. The birds were thought to be Black-capped Chickadees, but the tail and wing measurements, by which the two species can usually be separated, were only suggestive of Black-capped. Extreme feather wear, common during this breeding pre-molt period sometimes makes measurements unreliable.
c. Four Red-winged Blackbird nestlings were banded in support of a nation-wide cooperative Red-winged Blackbird nestling banding project conducted by the Bureau of Sport Fisheries and Wildlife.
d. Two Blue Grosbeak nestlings were banded in connection with the "Foray Bird" Study.
e. A sampling of a different habitat was made at the camp of Mr. and Mrs. Eugene Ailes on the South Branch opposite "The Rocks". The appearance there of a Blue Grosbeak two weeks before provided an incentive for the trip. Nets were set across the approaches to a spring which flowed through the grassy lawn under heavy shade trees. One net was set high in a large elm on the bank of the river.

The Foray banders enjoyed as always the opportunity to study some species not readily available in their home areas and to exchange information generally. Attached is the list of species taken during the week and the number of individuals of each, for a total of 46 individuals of 23 species. Sincere thanks are extended to Clark Miller, Jack Linehan, Anne Shreve, Maxine Kiff and Ralph Bell for their generous assistance, with special recognition to David De Garmo for his enthusiastic help.

Broadwing Hawk, 2; Yellow-billed Cuckoo, 1; Great Crested Flycatcher, 1; Eastern Phoebe, 3; Acadian Flycatcher, 1; Eastern Wood Pewee, 1; Black-capped Chickadee, 2; Tufted Titmouse, 1; Catbird, 1; Brown Thrasher, 1; Wood Thrush, 5; Red-eyed Vireo, 1; Louisiana Waterthrush, 4; Yellow-breasted Chat, 2; Hooded Warbler,1; Red-winged Blackbird, 4; Brown-headed Cowbird, 2; Scarlet Tanager,1; Cardinal, 2; Blue Grosbeak, 2; Indigo Bunting,4; American Goldfinch, 2; Song Sparrow, 2.

930 Woodland Ave., South Charleston, W. Va.

FUNGI AT 1967 FORAY

Elmer George Worthley

Polyporus roseus
Polyporus cinnabarmus
Polyporus bramalis
Polyporus pergaminus
Polyporus versicolor
Polyporus hirsuta
Polyporus dichrons
Polyporus condhifer

Hymenochaete rubiginosa
Fomes appknatus
Fomes annosus
Fomes rimosus

Collybia platyphylla
Coprinus atramentarus
Coprinus micaceous

Favolus hexagonaptera
Lepiota americana
Ganoderma lucidum
Guliho drpyivs
Schizophyllum commune.

LICHENS AND LIVERWORTS AT 1967 FORAY

Elmer George Worthley

Conocephalum conicum
Scapania nemorosa
Anthoceros laevigata
Ptilidium pulcherrimum
Nowellia curvifolia
Lophocolea heterophylla
Pillia epiphylla
Odontoschizma prostratum
Frullania eboracensis

Umbillacaria dillenii
Permatocarpon pustulata rivulare
Parmelia cilita
Parmelia caperata
Parmelia rudicta

Cladonia coniocrea
Cladonia cristata
Cladonia subtenius
Cladonia sylvalica

Cetraria islandica
Candelaria concolor
Crocynia zonata

FERNS AND FERN ALLIES AT THE 1967 FORAY

Elmer George Worthley

Equisetaceae
Field Horsetail *Equisetum arvense*
Scouring rush *Equisetum hiemale*
Selaginellaceae
Selaginella rupestris
Lycopodiaceae
Tree Club Moss *Lycopodium obscurum* var. *dendroideum*
Shining Club Moss *Lycopodium lucidulum*
Ground Pine *Lycopodium complanatum* var. *flabelliforme*
Osmundaceae
Royal Fern *Osmunda regalis.*
Interrupted fern *Osmunda claytoniana.*
Cinnamon fern *Osmunda cinnamomea.*
Polypodiaceae
Cut-leaved Grape fern *Botrychium dissectum.*
Rattlesnake fern *Botrychium virginianum.*
Blunt-lobed woodsia *Woodsia obtusa.*
Fragile fern *Crystopteris fragilis.*
Bublet bladder fern *Crystopteris bulbifera.*
Sensitive fern. *Onaclea sensibilis.*
New York fern *Dryopteris noveboracensis.*
Spinulose shield fern *Dryopteris spinulose* var. *intermedia.*
Marginal shield fern *Dryopteris marginalis.*
Marsh fern *Dryopteris thelypteris disjuncta.*
Christmas fern *Polystichum acrostichoides.*
Hay scented fern *Dennstaedtia puntilobula.*
Silvery spleenwort *Athyrium thelypterioides.*
Northern lady fern *Athyrium Felix femina.*
Walking fern *Camptosorus rhizophyllus.*
Wall rue *Asplenium cryptolepis.*
Little Ebony spleenwort *Asplenium resiliens.*
Maidenhair spleenwort *Asplenium trichomanes.*
Ebony spleenwort *Asplenium platyneuron.*
Maidenhair fern *Adiantum pedatum.*
Bracken *Pteridium aquilinum.*
Common polypody *Polypodium virginianum.*
Purple Cliffbrake *Pellea atropurpurea.*
Hairy lipfern *Cheilanthes lanosa.*
Lady fern *Anthyrium angustum* var. *f. rubellum.*
Woodsia appalachia.

Bonita Avenue, Owings Mills, Maryland

TREES OF HAMPSHIRE COUNTY

Maxine Thacker

The following list of trees was recorded in Hampshire County during the 1967 Foray of the Brooks Bird Club. The assistance of Floyd Bartley, Gene Hutton, Katherine Sigel, Roland Cowger, and others is appreciated. The arrangement follows that of "West Virginia Trees" by A. B. Brooks.

PINACEAE	PINE FAMILY
Pinus strobus L.	White Pine
Pinus pungens Lamb.	Table Mountain Pine
Pinus echinata Mill.	Yellow Pine
Pinus virginiana Mill.	Scrub Pine
Tsuga canadensis (L.) Carr.	Hemlock
Juniperus virginiana L.	Red Cedar
SALICACEAE	WILLOW FAMILY
Salix nigra Marsh.	Black Willow
Populus grandidentata Michx.	Large-toothed Aspen
Populus alba L.	White Poplar
Populus deltoides Marsh.	Cottonwood
JUGLANDACEAE	WALNUT FAMILY
Juglans cinerea L.	White Walnut; Butternut
Juglans nigra L.	Black Walnut
Carya alba (L.) K. Koch.	Mockernut Hickory
Carya ovata (MILL.) K. Koch.	Shell-bark Hickory
Carya cordiformis (Wang.) K.Koch	Bitternut Hickory
BETULACEAE	BIRCH FAMILY
Ostrya virginiana (Mill.) K. Koch.	Hop Hornbeam; Ironwood
Carpinus caroliniana Walt.	American Hornbeam
Betula lenta L.	Black Birch
Betula lutea Michx.	Yellow Birch
Betula nigra L.	Red (River) Birch
FAGACEAE	BEECH FAMILY
Fagus grandiflora Ehr.	Beech
Castenea dentata (Marsh.) Borkh.	Chestnut
Quercus alba L.	White Oak
Quercus Muhlenbergii Engelm.	Yellow Oak
Quercus prinus L.	Chestnut Oak
Quercus rubra L.	Red Oak
Quercus coccinea Muench.	Scarlet Oak
Quercus velutina Lam.	Black Oak
URTICACEAE	NETTLE FAMILY
Ulmus fulva Michx.	Slippery Elm
Ulmus americana L.	American Elm
Celtis occidentalis L.	Hackberry
Celtis tenuifolia Nutt.	Dwarf Hackberry
MAGNOLIACEAE	MAGNOLIA FAMILY
Magnolia acuminata L.	Cucumber Tree
Liriodendron tulipifera L.	Tulip Tree

PLATANACEAE	PLANE TREE FAMILY
Platanus occidentalis L.	Sycamore
ROSACEAE	ROSE FAMILY
Amelanchier canadensis (L.) Medic.	Service
Prunus serotina Ehr.	Black Cherry
Prunus pennsylvanica L.f.	Red(Fire,Bird) Cherry
LEGUMINOSAE	PULSE FAMILY
Robinia pseudo-acacia L.	Common Locust
Gleditsia triacanthos L.	Honey Locust
ACERACEAE	MAPLE FAMILY
Acer saccharum Marsh.	Sugar Maple
Acer saccharum nigrum(Michx.f.)Britt.	Black Sugar Maple
Acer saccharinumL.	Silver Maple
Acer rubrum L.	Red Maple
Acer negundo L.	Box Elder
Acer rubrum trifolium	Red Maple variety (?)
TILIACEAE	LINDEN FAMILY
Tilia americana L.	American Basswood
Tilia heterophylla Vent.	White Basswood
CORNACEAE	DOGWOOD FAMILY
Cornus florida L.	Flowering Dogwood
Nyssa sylvatica Marsh.	Black Gum
ERICACEAE	HEATH FAMILY
Oxydendrum arboreum (L.) D.C.	Sourwood
EBENACEAE	EBONY FAMILY
Diospyros virginiana L.	Persimmon
OLEACEAE	OLIVE FAMILY
Fraxinus americana L.	White Ash

DuPont High School, Belle, West Virginia

SHRUBS OF HAMPSHIRE COUNTY

Maxine Thacker

This list includes the shrubs which were seen within the area of the 1967 Foray in Hampshire County, West Virginia. The assistance of Gene Hutton, Floyd Bartley, Roland Cowger, Elmer Worthley, Katherine Sigel, Betty Fisher and others is appreciated. The listing follows that of "Shrubs of West Virginia" by Nelle Ammons.

LILACEAE	LILY FAMILY
Smilax rotundifolia L.	Common Greenbrier
Smilax glauca Walt.	Greenbrier
SALICACEAE	WILLOW FAMILY
Salix sp.	Willow
BETULACEAE	BIRCH FAMILY
Corylus americana Walt.	Common Hazelnut
FAGACEAE	BEECH FAMILY
Quercus ilicifolia Wang.	Scrub Oak

SANTALACEAE	SANDALWOOD FAMILY
Pyrularia pubera Michx.	Buffalonut
ARISTILOCHIACEAE	BIRTHWORT FAMILY
Aristilochia macrophylla Lam.	Dutchman's Pipe
RANUNCULACEAE	CROWFOOT FAMILY
Clematis virginianaL.	Virgin's Bower
Clematis albicoma Wherry	White-haired Leather-flower
MENISPERMACEAE	MOONSEED FAMILY
Menispermum canadense L.	Moonseed
ANONACEAE	CUSTARD APPLE FAMILY
Asimina triloba Dual.	Pawpaw
LAURACEAE	LAUREL FAMILY
Lindera benzoin (L.) Blume.	Spicebush
Sassafras albidum (Nutt.) Nees	Sassafras
SAXIFRAGACEAE	SAXIFRAGE FAMILY
Hydrangea arborescens L.	Wild Hydrangea
HAMAMELIDACEAE	WITCH HAZEL FAMILY
Hamamelis virginiana L.	Witch Hazel
GROSSULARIACEAE	GOOSEBERRY FAMILY
Ribes glandulosum Grauer	Skunk Currant
ROSACEAE	ROSE FAMILY
Physocarpus opulifolius (L.)Maxim.	Ninebark
Crataegus sp.	Hawthorns
Malus coronaria (L.) Mill.	Wild Crab
Rubus odoratus L.	Purple-flowering Raspberry
Rubus phoenicolasius	
Rubus occidentalis L.	Black Raspberry
Rubus flagellaris Willd.	
Rubus procumbens Muhl.	Common Dewberry
Rubus hispidus L.	
Rubus allegheniensis Porter	Common Blackberry
Rosa carolina L.	Pasture Rose
Rosa multiflora Thun.	Multiflora Rose
LEGUMINOSAE	PULSE FAMILY
Cercis canadensis L.	Redbud
RUTACEAE	RUE FAMILY
Ptelea trifoliata L.	Hop-tree
SIMAROUBACEAE	AILANTHUS FAMILY
Ailanthus altissima Mill.	Ailanthus
ANACARDIACEAE	SUMAC FAMILY
Rhus copallina L.	Dwarf Sumac
Rhus typhina L.	Staghorn Sumac
Rhus glabra L.	Smooth Sumac
Rhus aromatica Ait.	Fragrant Sumac
Rhus radicans L.	Poison Ivy
ILICACEAE	HOLLY FAMILY
Ilex verticillata	Winterberry; Black Alder
CELASTRACEAE	STAFF-TREE FAMILY
Pachystima Canbyi A. Gray	Canby's Mountain Lover

STAPHYLEACEAE	BLADDER-NUT FAMILY
Staphylea trifolia L.	American Bladder-nut
ACERACEAE	MAPLE FAMILY
Acer pennsylvanicum L.	Striped Maple
Acer spicatum Lam.	Mountain Maple
RHAMNACEAE	BUCKHORN FAMILY
Ceanothus americanus L.	New Jersey Tea
VITACEAE	GRAPE FAMILY
Vitis sp.	Wild Grapes
Parthenocissus quinquefolia Michx.	Virginia Creeper
CORNACEAE	DOGWOOD FAMILY
Cornus Amomum Mill.	Silky Cornel; Kinnikinnik
Cornus stolonifera Michx.	Red Osier Dogwood
Cornus canadensis L.	Dwarf Cornel
ERICACEAE	HEATH FAMILY
Menziesia pilosa(Michs.) Pers.	Allegheny Menziesia
Chimaphlia umbellata(L.) Nutt.	Pipsissewa; Wintergreen
Chimaphila maculata(L.) Pursh.	Spotted Wintergreen
Rhododendron maximum L.	Rhododendron
Rhododendron calendulaceum (Michx.) Torr.	Flame Azalea
Rhododendron nudiflorum (L.)Torr.	Pink Azalea
Kalmia latifolia L.	Mountain Laurel
Lyonia ligustrina (L.) D.C.	Maleberry
Oxydendrum arboreum(L.) D.C.	Sourwood
Epigaea repens L.	Trailing Arbutus
Gaultheria procumbens L.	Wintergreen; Teaberry
Vaccinium stamineumL.	Buckberry
Vaccinium sp.	Blueberry
Gaylussacia sp.	Huckleberry
OLEACEAE	OLIVE FAMILY
Chionanthus virginica L.	Fringetree
RUBIACEAE	MADDER FAMILY
Mitchella repens L.	Partridgeberry
CAPRIFOLIACEAE	HONEYSUCKLE FAMILY
Sambucus canadensis L.	Common Elder
Viburnum acerifolium L.	Maple-leaved Viburnum
Viburnum dentatun L.	Arrow-wood
Viburnum prunifolium L.	Black Haw
Viburnum cassinoides L.	Wild Raisin
Lonicera japonica Thunb.	Japanese Honeysuckle
Diervilla lonicera Mill.	Bush Honeysuckle

DuPont High School, Belle, West Virginia

MOSSES OF WEST VIRGINIA—THE 1967 FORAY LIST

Harold E. Burtt

The bryologists at the 1967 Foray in Hampshire County were Floyd Bartley, Dr. Elizabeth Fisher, Dr. Eugene Hutton, Jr. and the writer. As usual some species were identified in the field and some at conferences in camp. For the remainder we worked at home with our individual microscopes and pooled our results in correspondence.

As indicated in our 1966 report Crum, Steere and Anderson have published recently a list of the mosses of North America which resolves many of the conflicts in taxonomy. We followed their terminology last year and do so in the present report. We continue to list families in the sequence given by Brotherus but the genera alphabetically under the appropriate family. In many instances we have indicated alternative species names for the benefit of readers familiar only with the older notations.

In our 1966 report we tabulated results for the six years 1960-1966 omitting the Mountain Lake data (1965) which did not contribute to the list for West Virginia. The following table gives only the species collected in 1967. It does not seem necessary to publish the complete tabulations for all the forays every year. Any trends may be noted by comparing the present report with the 1966 tabulation.

In Hampshire County this year we collected 112 species in 59 genera. This is comparable with the 115 species in 1964 and the 120 species in 1966. It would seem that similar performance can be expected at future Forays now that personnel has stabilized at four bryologists.

We added 19 species to the West Virginia list bringing the total up to 225. These additions to the state list are starred in the table. Some of these are not particularly novel as they occur in neighboring Ohio or Pennsylvania. However a few are more exciting.

The outstanding bryological "find" of this or any Foray was a specimen of *Tortula propagulosa* Sharp, collected by Betty Fisher. The identification was confirmed by Dr. W. C. Steere who characterized it as "a new record for an extremely rare species". Grout indicates that it is "known only from Knoxville, Tennessee—the type locality".

Leptodictyum vacillans according to Grout is "a sub-Alpine species of the New England mountains" and thus unusual for our area and altitude. *Sphagnum tenerum* is not found in neighboring states. *Climacium dendroides* is somewhat more northern although collected in one Ohio county. *Pterigynandrum filiforme* is not found in Ohio or western Pennsylvania although reported from eastern Pennsylvania. *Aulacomnium androgynum* is not found in neighboring states and is generally western.

In contrast to the new and rare there are some species that we have collected on every foray,—19 of them. These are well known species found almost everywhere. They include 3 *anomodons*, 2 *mniums* and 2 *atrichums* but it is not worthwhile to ennumerate them in detail.

As a result of the 7 Forays we now have a state list of 225 species. Judging from neighboring regions we may expect substantial additions in the years to come. In Ohio Giesy lists 331 species and for Western Pennsylvania Jennings gives 319. We have work to do. The Brooks Bird Club appears to be the only agency concerned at present with the bryology of West Virginia.

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SPHAGNACEAE
- **Sphagnum cuspidatum*
- **Sphagnum recurvum*
- **Sphagnum tenerum*

FISSIDENTACEAE
- *Fissidens minutulus*
- *Fissidens osmundioides*

DITRICHACEAE
- *Ceratodon purpureus*
- *Ditrichum lineare*
- *Ditrichum pallidum*

DICRANACEAE
- *Dicranella heteromalla*
- *Dicranum flagellare*
- *Dicranum fulvum*
- *Dicranum montanum*
- **Dicranum muehlenbeckii*
- *Dicranum sabuletorum*, alt: *D. condensatum*
- *Dicranum scoparium*
- *Dicranum spurium*
- *Dicranum undulatum*, alt: *D. rugosum*

LEUCOBRYACEAE
- *Leucobryum glaucum*

POTTIACEAE
- *Barbula fallax*
- *Barbula unguiculata*
- *Desmatodon obtusifolius*, alt: *D. arenaceus*
- *Tortella humilis*, alt: *T. caespitosa*
- *Tortella tortuosa*
- *Tortula papillosa*, alt: *Tortella papillosa*
- **Tortula propagulosa*
- *Weissia controversa*, alt: *W. viridula*

GRIMMIACEAE
- *Grimmia apocarpa*
- **Grimmia laevigata*, alt: *G. leucophaea*
- *Grimmia unicolor*

FUNARIACEAE
- *Funaria hygrometrica*

TETRAPHIDACEAE
- *Tetraphis pellucida*

BRYACEAE
- *Bryum caespiticium*
- *Bryum pseudotriquetrum*, alt: *B. bimum*
- **Pohlia cruda*
- *Pohlia nutans*

MNIACEAE
- *Mnium affine*, alt: *M. affine* var. *ciliare* or *M. affine* var. *rugicum*
- *Mnium cuspidatum*
- *Mnium drummondii*
- **Mnium marginatum*, alt: *M. serratum*
- *Mnium punctatum*
- *Mnium punctatum* var. *elatum*

AULACOMNIACEAE
- **Aulacomnium androgynum*
- *Aulacomnium heterostichum*
- *Aulacomnium palustre*

BARTRAMIACEAE
- *Bartramia pomiformis*
- *Philonotis fontana*
- *Philonotis marchica*

ORTHOTRICHACEAE
- *Orthotrichum ohioense*
- **Orthotrichum pumilum*
- *Orthotrichum strangulatum*
- *Ulota hutchinsiae*, alt: *U. americana*

FONTINALACEAE
- *Fontinalis dalecarlica*

CLIMACIACEAE
- *Climacium americanum*
- *Climacium americanum* var. *kindbergii*
- **Climacium dendroides*

HEDWIGIACEAE
- *Hedwigia ciliata*
- **Hedwigia ciliata* var. *viridis*

LEUCODONTACEAE
- **Leucodon sciuroides*

THELIACEAE
- *Thelia asprella*
- *Thelia lescurii*

LESKEACEAE
- *Leskea gracilescens*
- *Leskea obscura*
- *Leskeella nervosa*, alt: *Leskea nervosa*
- **Lindbergia brachyptera*

THUIDIACEAE
- *Anomodon attenuatus*
- *Anomodon minor*
- *Anomodon rostratus*
- **Haplohymenium triste*, alt: *Anomodon tristis*
- *Helodium paludosum*, alt: *Thuidium paludosum*
- *Thuidium delicatulum*
- *Thuidium recognitum*

AMBLYSTEGIACEAE
- *Amblystegium serpens*
- *Campylium chrysophyllum*
- *Campylium hispidulum*
- *Hygroamblystegium fluviatile*
- **Hygrohypnum dilatatum*
- **Leptodictyum vacillans*, alt: *Amblystegium vacillans*
- *Sciaromium lescurii*

BRACHYTHECIACEAE
- *Brachythecium oxycladon*
- *Brachythecium rivulare*
- *Brachythecium rutabulum*
- **Bryhnia graminicolor*
- *Cirriphyllum illecebrum*, alt: *C. boscii*
- *Eurhynchium hians*
- *Eurhynchium riparioides*, alt: *E. rusciforme*

ENTODONTACEAE
- *Entodon cladorrhizans*
- *Entodon seductrix*
- *Pleurozium schreberi*, alt: *Callier-gonella schreberi*
- **Pterigynandrum filiforme*

PLAGIOTHECIACEAE
- *Plagiothecium denticulatum*

SEMATOPHYLLACEAE
- *Sematophyllum carolinianum*, alt: *Rhaphidostegium carolinianum*

HYPNACEAE
- *Homomallium adnatum*, alt: *Amblystegiella adnata*
- *Hypnum cupressiforme*
- *Hypnum curvifolium*
- *Hypnum fertile*
- *Hypnum imponens*
- *Hypnum lindbergii*, alt: *H. patientiae*
- *Hypnum pallescens*, alt: *H. reptile*
- *Hypnum pratense*
- *Isopterygium micans*, alt: *Plagiothecium micans*
- *Isopterygium muellerianum*, alt: *Plagiothecium muellerinum*
- *Platygyrium repens*

RHYTIDIACEAE
- *Rhytidium rugosum*

HYLOCOMIACEAE
- *Hylocomium umbratum*

DIPHYSCIACEAE
- *Diphyscium foliosum*, alt: *Webera sessilis*

POLYTRICHACEAE
- *Atrichum angustatum*
- *Atrichum undulatum*
- *Polytrichum commune*
- *Polytrichum juniperinum*
- *Polytrichum juniperinum* var. *gracilius*, alt: *P. alpestre* or *P. strictum*
- *Polytrichum ohioense*
- *Polytrichum piliferum*

2163 North Starr Ave., Columbus, Ohio

MAMMAL SURVEY FOR THE 1967 FORAY

John W. Morgan

Judging from the trapping program and observations made at this year's foray, there was a poor population of small mammals (mice, shrews, etc.) on the areas we studied. I believe there were several reasons for this, one being the poor quality of some of the soil. The Shale Barrens offer little in the way of plant or insect life to attract these small mammals. Another factor was the spraying of the soil in the orchards with poisons to kill off and keep out the subterrestrial mice and shrews. Larger mammals seemed to be quite abundant through-out this area.

Those who helped in this year's mammal survey were Ricky Bennett, Ruth Burtt, David and Peter DeGarmo, and Nelson Llewellyn.

1967 Foray Mammal Check List

Order: *Marsupialia* (Marsupials)
Family: *Didelphidae* (Opossums)
1. Virginia Opossum *(Didelphis virginiana).* Quite common through-out the area. Several road kills reported by the campers.

Order: *Insectivora* (Moles and Shrews)
Family: *Talpidae* (Moles)
1. Eastern Mole *(Scalopus aquaticus).* Norris Gluck observed one crossing the road between Junction and Headsville.

Family: *Soricidae* (Shrews)
1. Short-tailed Shrew *(Blarina brevicauda).* One was found dead in the yard of the Williams' Farm by Sylvia Reebel.

Order: *Carvivora* (Carnivorous Mammals)
Family: *Procyonidae* (Raccoons)
1. Eastern Raccoon *(Procyon lotor).* Very abundant, tracks found along most waterways through-out the area.

Family: *Mustelidae* (Weasels, Skunks, etc.)
1. Eastern Skunk *(Mephitis mephitis).* Several observed in area. Nelson Llewellyn reported having one walk to within three feet of him.

Family: *Canidae* (Foxes and Wolves)
1. Eastern Red Fox *(Vulpes fulva).* Seemed to be quite abundant in this area. Pat Murphy heard one barking above camp one night and Bob Murphy saw one cross the road leading from camp to Route 50. I found tracks of this species at several of the study areas while setting traps.

Family: *Felidae* (Cats)
1. Eastern Bobcat *(Lynx rufus).* This species is rather rare in this area. I checked many dusty roads for tracks, but the only sign of this species were some scats discovered by Pat Murphy on Short Mountain.

Order: *Rodentia* (Rodents)
Family: *Sciuridae* (Squirrels)
1. Southern Woodchuck *(Marmota monax).* Abundant through-out the farming area, many sight records reported.
2. Eastern Chipmunk *(Tamias striatus).* Fairly common, some found in almost every wooded section.
3. Red Squirrel *(Tamiasciurus hudsonicus).* Not overly abundant. Dick Anderson reported seeing one on the study area behind camp.
4. Gray Squirrel *(Sciurus carolinensis).* Reported seen commonly by many campers.
5. Western Fox Squirrel *(Sciurus niger rufiventer).* Not too common in this area. Ralph Bell spotted one on the Headsville Road.

Family: *Castoridae* (Beavers)
1. Canadian Beaver *(Castor canadensis).* I found a 20 inch Tulip Poplar on Patterson Creek that was cut by this species. Mr. Hott, the Conservation Officer at the Short Mountain State Forest reported that 22 beaver were trapped in his area last winter, the largest weighing 54 lbs.

Family: *Cricetidae* (Native Rats and Mice)
1. Red-backed Mouse *(Clethrionomys gapperi).* One specimen was collected on the study area behind camp.
2. Common Muskrat *(Ondatra zibethica).* I found signs of this mammal along the Potomac River and at the beaver dams at Short Mountain. David Bell saw one in a small stream along the Headsville Road.

Order: *Lagomorpha* (Hares and Rabbits)
Family: *Leporidae*
1. Eastern Cottontail Rabbit *(Sylvilagus floridanus).* Abundant through-out the area. Many were seen at the orchard study area.

Order: *Artidoactyla* (Even-toed Hoofed Mammals)
Family: *Cervidae* (Deer)
1. White-tailed Deer *(Odocoileus virginianus).* Quite abundant. The Conservation Officers reported picking up many road kills of this species.

RD. #2 Box 315, Charleroi, Penna.

ROUTE TRANSECTS to COUNT FORAY BIRDS

John T. Linehan

An adequate census of birds within a large study area such as the approximately 30-mile diameter Foray area will probably always be an elusive objective. However, the use of road transects, if properly interpreted, might provide a valuable additional tool to bring us closer to that end.

Variation Studies

The 25-mile transects (see Hall, 1967, and Robbins, 1967) were not designed for intensive census of a restricted area, hence some thought, preparation and initial studies were necessary to determine the feasibility of adapting this field technique to a different use. To this end, six campers at the 1966 Foray engaged in a number of "observer comparison tests" to explore sources of variation that might be important in this use of the survey method, (see Table 1). The route surveys made at the Peterkin Foray area in 1967 were each duplicated to provide another measure of variation. Most of the same persons were involved both years, so "within station" differences could be compared with route differences.

Analyses of these data suggest that the so-called observer bias might be a misnomer, because many of the differences ascribed to observer bias would in reality occur if the same person were able to take two counts at the same place and same time. Such things as the direction one turns his head, the period during the 3-minute count when he is recording data, his having stepped to the front or to the rear of the car to take the count—these things together with his periods of concentrating on one or another sound will determine in large

measure which of the distant or indistinct calls are recorded. These factors are unrelated to his ability, yet they show up as "observer differences" in some comparisons, as in Table 1. Such variations level out in the course of 50 stops: for example, 5 out of 20 indistinct Indigo Bunting calls might be recorded by one person, and a completely different 5, but still just 5, out of the same 20 calls by a companion duplicating the route. Table 1 demonstrates that not all birds visible and not all birds calling in the vicinity of a stop are recorded. Some individuals of even the most obvious and common species are not recorded. Four of the observers, A,B,C and D, had prior experience in making breeding bird surveys at the time of these tests.

Basis For Surveys

The underlying basis of a survey is the relationship between birds counted and birds present in the survey area. This ratio of birds counted to birds present varies from one species to another, but for a given species it is relatively constant from one survey route to another, and from one time to another on the same route. If we can depend on each Mockingbird counted to represent a constant number present, we can derive certain information, even if we do not know what number of Mockingbirds in the survey area the counted bird represents. Several 3-minute counts in and near a well censused area were made in Delaware and the ratio of birds counted to birds known to be present was calculated. With this ratio, the data from survey routes in the State were expanded and a rough estimate was derived of the total number of birds of a few species for the State of Delaware (Linehan, 1966). The determination of such ratios for certain species on Foray study areas might be a future objective, but for the present the survey routes can be used to answer questions dealing with the number of birds by species recorded on routes in the study area compared to those recorded on other routes run in West Virginia, and in the Eastern United States. Changes in numbers can be noted if and when the routes are covered again, and differences between numbers listed in different parts of the study area might be informative.

The 1967 Routes

Although the two routes covered in 1967 were primarily selected and designed for evaluating the feasibility of the technique, a few comparisons seem valid. Table 2 indicates certain similarities and differences between data from the Romney (Peterkin Foray Study Area) routes, and those routes in West Virginia as a whole; comparisons can also be made with the 585 routes run in the Eastern United States. From these data, one might suspect the Romney study area has a greater density of Starlings than the state as a whole (about one third greater density), but that the Starling density was quite comparable to the Eastern U.S. average. In the density of redwings and grackles, Romney resembled the rest of West Virginia, which varied from the Eastern U.S. in having much lower densities. Bobwhite and Mockingbird densities were similar to Eastern U.S., while the state as a whole was very much lower. These comparisons indicate, that in some respects, this study area is more representative of the general character of Eastern U.S. (low elevation, mixed farmland and hardwoods) than is West Virginia generally.

The relation between the *average* number of species recorded per route, 61, and the total number recorded at Foray, 111, is indicative of the coverage obtained with the route survey method, i.e. over one-half the possible species. It is interesting to note that although one stop happened to occur at a place where the Lark Sparrow had been regularly heard, that species was not listed; the fast pace of a survey requires quick identification, possible only with species that are familiar.

Analysis of the duplicated routes shows the best agreement between observers with Barn Swallow, E. Bluebird, Rufous-sided Towhee, and Song Sparrow; good agreement with Yellow-shafted Flicker, Tufted Titmouse, House Sparrow, Indigo Bunting and Chipping

Table 1.

(a) Number of apparent omissions of records by six observers listing birds at four 3-minute stops.

Observers	Open-land Species	Woods Species	Total
A	7	0	7
B	4	6	10
C	3	7	10
D	7	4	11
E			18
F			17

(b) Distribution of omissions among common bird species

Mourning Dove	5	Red-eyed Vireo	3
Bobwhite	4	Yellow-breasted Chat	3
Rufous-sided Towhee	4	Red-winged Blackbird	2
Field Sparrow	4	Cardinal	2
C. Grackle	4	Common Crow	2
Am. Goldfinch	4	Indigo Bunting	1
White-breasted Nuthatch	4	E. Meadowlark	1
Starling	4		

Sparrow; and poorest agreement with Yellow-billed Cuckoo (although good agreement for both cuckoos combined), Yellow-breasted Chat, Common Grackle, and Rock Dove.

Conclusions

Is this route transect method of surveying birds of a Foray study area valid and feasible? I believe the answer is yes on both counts. It appears, further, that the similarity of the method to that used in the National Breeding Bird Surveys permits certain comparisons with the data obtained in larger areas.

A more intensive coverage of the Foray study areas is recommended: an attempt should be made to cover all appropriate roadways within the study areas. A scheme to reduce individual variation between observers while still having the survey reflect one person's observations at each stop was tried in 1967; this refinement seems suitable for coverage of study areas, while maintaining comparability with regular Breeding Bird Survey routes. Strict adherence to detailed instructions is critical for a valid survey. Since several campers have participated already, improved coverage by teams that include an observer experienced with this study area survey method is now possible.

Aside from the importance of the information that might evolve from this survey method, the technique, with its demands for absolute attention and quick decisions constitutes a stimulating field activity that many of us find unparalleled in most other forms of birding. Is it fun??—Yes!

The following participated in one or more surveys: Ralph Bell, Maxine Kiff, Connie Katholi, Jack Linehan, Anne Shreve; participants in the initial tests included the above plus John Morgan and Pat Temple.

Table 2.

Average number of birds recorded per route of the 15 most common birds noted on routes conducted in the Romney study area, 1967 Foray. The average birds per route in West Virginia in 1966 and Eastern United States in 1966 are also shown.

Species	Romney	W. Va.	Eastern U. S.
Starling	86	52	83
C. Grackle	68	65	85
Red-winged Blackbird	46	52	80
Robin	39	38	35
Common Crow	35	33	28
House Sparrow	32	50	82
Chipping Sparrow	32	19	10
E. Meadowlark	29	18	23
Indigo Bunting	24	34	18
Bobwhite	22	13	25
Am. Goldfinch	20	21	9
Barn Swallow	18	19	16
Mockingbird	18	4	17
Field Sparrow	16	12	13
Rufous-sided Towhee	15	16	13
Species (mean per route)	61	55	52
Birds Counted (" ")	767	748	880

Literature Cited

Hall, George A. 1967. The West Virginia Breeding Bird Survey, 1966. *The Redstart* 34: 66.

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HERBACEOUS FLOWERING PLANTS OF HAMPSHIRE COUNTY, W. VA.

Betty Fisher

The following is a list of the herbaceous plants (not including grasses, sedges and rushes) reported in the area covered by the 1967 Foray. Much help with the identifications was given by Floyd Bartley, Pete Gregg, Gene Hutton, Maxine Thacker and Elmer and Jean Worthley. Elmer also submitted a long list of additions.

Common and scientific names and authorities of epitaphs follow Strausbaugh and Core "Flora of West Virginia" 1952-1964. In a few cases synonyms are given where they differ in Gleason and Cronquist "Manual of Vascular Plants of Northeastern United States and Adjacent Canada" 1963.

Those species starred are not listed in Strausbaugh and Core.

TYPHACEAE	CATTAIL FAMILY
Typha latifolia L.	Broad-leaved Cattail
ZOSTERACEAE	PONDWEED FAMILY
Potamogeton pectinatus L.	Sago Pondweed
Potamogeton diversifolius Raf.	Variable Pondweed
Potamogeton nodosus Poir.	Long-leaved Pondweed
ALISMATACEAE	WATER PLANTAIN FAMILY
Alisma subcordatum Raf.	Common Water Plantain
Sagittaria latifolia Willd.	Wapato Duck-potato
HYDROCHARITACEAE	FROG'S BIT FAMILY
Elodea canadensis Michx.	Canada Waterweed
Vallisneria americana Michx.	Eelgrass
ARACEAE	ARUM FAMILY
Arisaema triphyllum (L.) Schott	Jack-in-the-pulpit
Arisaema stewardsonii Britton	Jack-in-the-pulpit
Arisaema dracontium (L.) Schott	Green Dragon
Orontium aquaticum L.	Golden Club
Acorus calamus L.	Calamus
COMMELINACEAE	SPIDERWORT FAMILY
Tradescantia virginiana L.	Spiderwort
Commelina communis L.	Asiatic Day-flower
LILIACEAE	LILY FAMILY
Veratum viride Ait.	False hellebore
Uvularia perfoliata L.	Mealy Bellwort
Uvularia sessilifolia L.	Sessile-leaved Bellwort
Allium spp.	Wild Onions
Lilium philadelphicus L.	Wood Lily
Yucca filamentosa L.	Adam's Needle
Asparagus offincalis L.	Garden Asparagus
Smilacina racemosa (L.) Desf. .	False Solomon's-seal
Maianthemum canadense Desf.	Wild Lily of the Valley
Medeola virginiana L.	Indian Cucumber-root
Polygonatum pubescens (Willd.) Pursh	Downy Solomon's-seal
Smilax herbacea L.	Carrion Flower
DIOSCOREACEAE	YAM FAMILY
Dioscorea villosa L.	Wild Yam
Dioscorea quaternata (Walt.)J.F.Gmel.	Four-leaved Yam

AMARYLLIDACEAE	AMARYLLIS FAMILY
Hypoxis hirsuta (L.) Cov.	Yellow Stargrass
IRIDACEA	IRIS FAMILY
Belamcanda chinensis (L.) DC.	Blackberry Lily
Sisyrinchium angustifolium Mill.	Blue-eyed Grass
Iris verna L.	Dwarf Iris
Iris spp.	Iris
ORCHIDACEAE	ORCHID FAMILY
Cypripedium acaule Ait.	Pink Lady's Slipper
Goodyera pubescens (Willd.)B.Br.	Downy Rattlesnake Plantain
SAURURACEAE	LIZARD'S-TAIL FAMILY
Saururus cernuus L.	Lizard's Tail
CANNABINACEAE	HEMP FAMILY
Humulus lupulus L.	Common Hop
URTICACEAE	NETTLE FAMILY
Urtica dioica L.	Stinging Nettle
Urtica dioca var. *procera* (Muhl.)Wedd.	Stinging Nettle
Laportea canadensis(L.) Wedd.	Wood Nettle
Pilea pumila (L.) Gray	Clearweed
Boehmeria cylindrica (L.) Sw.	False Nettle
Parietaria pensylvanica Muhl.	Penn. Pellitory
SANTALACEAE	SANDALWOOD FAMILY
Comandra umbellata (L.) Nutt.	Bastard Toadflax
ARISTOLOCHIACEAE	BIRTHWORT FAMILY
Asarum canadense L.	Wild Ginger
Aristolochia durior Hill	Pipevine
POLYGONACEAE	BUCKWHEAT FAMILY
Rumex crispus L.	Curly Dock
Rumex obtusifolius L.	Broadleaf Dock
Rumex acetosella L.	Sheep Sorrel
Tovara virginiana)L.) Raf.	Virginia Knotweed
Polygonum aviculare L.	Knotweed
Polygonum tenue Mechx.	Slender Knotweed
*Polygonum pensylvanicum*L.	Penn. Smartweed
Polygonum hydropiper L.	Water Pepper
Polygonum persicaria L.	Lady's Thumb
Polygonum punctatum Ell.	Water Smartweed
Polygonum sagittatum L.	Arrow-leaf Tearthumb
Polygonum arifolium L.	Halberdleaf Tearthumb
Polygonum scandens L.	Climbing False Buckwheat
Polygonum cuspidatum Sieb.& Zucc.	Jap. Knotweed
CHENOPODIACEAE	GOOSEFOOT FAMILY
Chenopodium album L.	Lamb's Quarters
Chenopodium ambrosioides L. var. *anthelminticum* (L.) Grav	Wormseed
AMARANTHACEAE	AMARANTH FAMILY
Amaranthus hybridus L.	Common Pigweed
Amaranthus spinosus L.	Spiny Amaranth
PHYTOLACCACEAE	POKEWEED FAMILY
Phytolacca americana L.	Pokeweed

AIZOACEAE	CARPETWEED FAMILY
Mollugo verticillata L.	Carpetweed
PORTULACACEAE	PURSLANE FAMILY
Portulaca oleraceae L.	Common Purslane
Talinum teretifolium Pursh	Fame-flower
CARYOPHYLLACEAE	PINK FAMILY
Scleranthus annuus L.	Knawel
Paronychia virginica Spreng.	Nailwort
Paronychia fastigata(Raf.)Fernald	Hairy Forked-chickweed
Paronychia canadensis (l.) Wood	Smooth Forked-Chickweed
Arenaria serpyllifolia L.	Thymeleaf Sandwort
Stellaria media (L.) Cyrillo	Common Chickweed
Stellaria pubera Michx.	Great Chickweed
Stellaria graminea L.	Lesser Stickwort
Cerastium vulgatum L.	Common Mouse-ear Chickweed
Cerastium sp. (not blooming)	Mouse-ear Chickweed
Agrostemma githago L.	Corn Cockle
Lychnis alba Mill.	White Campion
Silene cucubalus Wibel.	Bladder Campion
Silene stellata (L.) Ait. f.	Starry Campion
Silene antirrhina L.	Sleepy Catchfly
Silene pensylvanica Michx.(*S.carliniana* Walt.var. *pensylvanica*(Michx.)Fern.)	Wild Pink
Saponaria officinalis L.	Bouncing Bet
Dianthus armeria L.	Deptford Pink
NYMPHAEACEAE	WATERLILY FAMILY
Nuphar advena (Ait.) Ait. f.	Cowlily
RANUNCULACEAE	CROWFOOT FAMILY
Ranunculus allegheniensis Britton	Allegheny Crowfoot
Ranunculus abortvus L.	Kidneyleaf Crowfoot
Ranunculus recurvatus Poir.	Hooked Crowfoot
Ranunculus septentrionalis Poir.	Northern Swamp Buttercup
Thalictrum sp. (not blooming)	Meadowrue
Hepatica americana (DC.) Ker.	Roundlobe Hepatica
Anemone virginiana L.	Thimbleweed
Anemone canadensis L.	Canada Anemone
Anemone quinquefolia L.	Wood Anemone
Clematis viorna L.	Leatherflower
Aquilegia canadensis L.	Wild Columbine
Cimicifuga racemosa (L.) Nutt.	Black Cohosh
BERBERIDACEAE	BARBERRY FAMILY
Podophyllum peltatum L.	May-apple
Jeffersonia diphylla (L.) Pers.	Twinleaf
MENISPERMACEAE	MOONSEED FAMILY
Menispermum canadense L.	Canada Moonseed
PAPAVERACEAE	POPPY FAMILY
Chelidenium majus L.	Celandine
Papaver dubium L.	Poppy
FUMARIACEAE	FUMITORY FAMILY
Corydalis flavula (Raf.) D.C.	Pale Corydalis

Corydalis sempervirens (L.) Pers.	Pink Corydalis
CRUCIFERAE	MUSTARD FAMILY
Draba ramosissima Desv.	Rockwist
Berteroa incana (L.) DC.	Hoary Alyssum
Thlaspi arvense L.	Field Pennycress
Lepidium campestre (L.) R. Br.	Field Cress
Lepidium virginicum L.	Wild Peppergrass
Capsella bursa-pastoris (L.) Medic.	Shepherd's Purse
Camelina microcarpa Andrz.	Small-fruited False-flax
Brassica kaber (DC.) L.C.Wheeler	Charlock
Brassica nigra (L.) Koch	Black Mustard
Brassica rapa L.	Bird's Rape
Alliaria officinalis Andrz.	Garlic Mustard
Sisymbrium officinale (L.) Scop.	Hedge Mustard
Sisymbrium altissimum L.	Tumble Mustard
Hesperis matronalis L.	Dame's Rocket
Barbarea vulgaris R. Br.	Winter Cress
Barbarea verna (Mill.) Asch.	Spring Cress
Cardamine bulbosa (Schreb.) BSP.	Bulbous Cress
**Cardamine parviflora* L.	Bitter Cress
Arabis lyrata L.	Lyreleaf Rockcress
Arabis glabra (L.) Bernh.	Tower Mustard
Arabis laevigata (Muhl.) Poir.	Smooth Rockcress
Arabis canadensis L.	Sicklepod
DROSERACEAE	SUNDEW FAMILY
Drosera rotundifolia L.	Sundew
CRASSULACEAE	ORPINE FAMILY
Sedum ternatum Michx.	Wild Stonecrop
Sedum telephioides Michx.	Wild Liveforever
SAXIFRAGACEAE	SAXIFRAGE FAMILY
Saxifraga virginiensis Michx.	Early Saxifrage
Heuchera villosa Michx.	Hairy Heuchera
Heuchera villosa var. *macrorhiza* (Small) Rosend., Butt & Lak.	"Large-rooted" Heuchera
Heuchera americana L.	Alumroot
**Heuchera americana* L. var. *americana* *(H. curtissi)*	Alumroot
Heucheria pubescens Pursh.	Downy Heucheria
Heucheria longiflora Rydb.	"Long-flowered" Heucheris
Mitella diphylla L.	Bishop's-cap
ROSACEAE	ROSE FAMILY
Aruncus dioicus (Walt.) Fern.	Goatsbeard
Gillenia trifoliata (L.) Moench.	Bowman's Root
Fragaria virginiana Duchesne	Virginia Strawberry
Duchesnea indica (Andr.) Focke	Indian Strawberry
Walsteinia fragarioides (Michx.) Tratt.	Barren Strawberry
Potentilla argentea L.	Silvery Cinquefoil
Potentilla recta L.	Upright Cinquefoil
Potentilla norvegica L.	Rough Cinquefoil
Potentilla simplex Michx.	Common Cinquefoil

Geum canadense Jacq.	White Avens
Agrimonia parviflora Ait.	Small-flowered Agrimony
Sanguisorba canadensis L.	Burnet
LEGUMINOSAE (=FABACEAE)	PULSE FAMILY (BEAN FAMILY)
Cassia nictitans Michx.	Partridge Pea
Baptisia tinctoria (L.) R. Br.	Wild Indigo
Lupinus perennis L.	Wild Lupine
Trifolium arvense L.	Rabbitfoot Clover
Trifolium pratense L.	Red Clover
Trifolium repens L.	White Clover
Trifolium hybridum L.	Alsike Clover
Trifolium procumbens L.	Low Hop Clover
Melilotus officinalis (L.) Lam.	Yellow Sweetclover
Meliotus alba Desr.	White Sweetclover
Medicago lupulina L.	Black Medic
Tephrosis virginiana (L.) Pers. (=*Craccia virginiana*)	Goat's Rue
Desmodium nudiflorum (L.) DC.	Tick-trefoil
Lespedeza procumbens Michx.	Bushclover
Lespedeza repens (L.) Bart.	Bushclover
Lespedeza virginica (L.) Britton	Bushclover
Lespedeza hirta (L.) Hornem.	Bushclover
Lespedeza stipulacea Maxim.	Bushclover
Vicia angustifolia Reichard	Common Vetch
Vicia caroliniana Walt.	Wild Vetch
Apios americana Medic.	Groundnut
Clitoria mariana L.	Butterflypea
OXALIDACEAE	WOOD SORREL FAMILY
Oxalis violacea L.	Violet Wood Sorrel
Oxalis stricta L.	Upright Yellow Wood Sorrel
Oxalis grandis Small	Great Yellow Wood Sorrel
GERANIACEAE	GERANIUM FAMILY
Geranium columbinum L.	Long-stalked Crane's-bill
Geranium carolinianum L.	Carolina Crane's-bill
Geranium molle L.	Dove's-foot Crane's-bill
POLYGALACEAE	MILKWORT FAMILY
Polygala paucifolia Willd.	Gay Wings
Polygala polygama Walt.	Racemed Milkwort
EUPHORBIACEAE	SPURGE FAMILY
Acalypha virginica L.	Va. Three-seeded Mercury
Euphorbia cyparissias L.	Cypress Spurge
Euphorbia commutata Engelm.	Wood Spurge
Euphorbia corollata L.	Flowering Spurge
Euphoria supina Raf.	Prostrate Spurge
Euphorbia maculata L.	Spotted Spurge
BALSAMINACEAE	JEWELWEED FAMILY
Impatiens sp. (not blooming)	Jewelweed
MALVACEAE	MALLOW FAMILY
Malva neglecta Wallr. (*M rotundifolia* of authors nec L.)	Common Mallow

GUTTIFERAE (HYPERICACEAE)	ST. JOHN'S-WORT FAMILY
Hypericum perforatum L.	Common St. John's-wort
Hypericum ellipticum Hook.	Elliptic-leaf St.John'swort
Hypericum mutilum L.	Dwarf St. John's-wort
CISTACEAE	ROCKROSE FAMILY
Helianthemum canadense (L.)Michx.	Frostweed
Lechea sp.	Pinweed
VIOLACEAE	VIOLET FAMILY
Hybanthus concolor (Forster) Spreng. (=*Cubelium concolor* (Forster) Raf.	Green Violet
Viola pedata L.	Bird-foot Violet
Viola cucullata Ait.	Marsh Blue Violet
Viola fimbriatula Sm.	Ovate-leaved Violet
Viola sagittata Ait.	Arrow-leaf Violet
Viola striata Ait.	Striped Violet
Viola conspersa Reichenb.	Am. Dog Violet
Viola rafinesquii Greene	Wild Pansy
CACTACEAE	CACTUS FAMILY
Opuntia humifuga Raf. (=*O. opuntia, O. compressa*)	Prickly-pear
ONAGRACEAE	EVENING-PRIMROSE FAMILY
Ludwigia alternifolia L.	Seedbox
Ludwigia palustris (L.) Ell.	Marsh Purslane
Epilobium coloratum Biehler	Purple-leaved Willow-herb
Oenothera biennis L.	Common Evening-primrose
Oenothera fruticosa L.	Narrow-leaved Sundrops
Oenothera perennis L.	Sundrops
Circaea quadrisulcata var. *canadensis* (L.) Hara	Enchanter's Nightshade
HALORAGIDACEAE	WATER-MILFOIL FAMILY
Myriophyllum heterophyllum Michx.	Water-milfoil
ARALIACEAE	GINSENG FAMILY
Aralia nudicaulis L.	Wild Sarsaparilla
UMBELLIFERAE	CARROT FAMILY
Hydrocotyle americana L.	Am. Water Pennywort
Osmorhiza longistylis (Torr.) DC.	Smooth Sweet Cicely
Conium maculatum L.	Poison Hemlock
Zizia aptera (Gray) Fern.	Golden Alexanders
Cryptotaenia canadensis (L.) DC.	Honewort
Taenidia intgerrima (L.) Drude	Yellow Pimpernel
Thaspium barbinode (Michx.) Nutt.	Hairy-jointed Meadow-parsnip
Oxypolis rigidior (L.) Coult. & Rose	Cowbane
Daucus carota L.	Queen Anne's Lace
PYROLACEAE (Part of Ericaceae)	WINTERGREEN FAMILY (Heath F.)
Pyrola elliptica Nutt.	Shinleaf
PRIMULACEAE	PRIMROSE FAMILY
Lysimachia quadrifolia L.	Whorled Loosestrife
Lysimachia nummularia L.	Moneywort
Anagallis arvensis L.	Common Pimpernel

APOCYNACEAE	DOGBANE FAMILY
Apocynum androsaemifolium L.	Spreading Dogbane
Apocynum cannabinum L.	Indian Hemp
ASCLEPIADACEAE	MILKWEED FAMILY
Asclepias tuberosa L.	Butterfly Weed
Asclepias quadrifolia Jacq.	Four-leaved Milkweed
Asclepias variegata L.	White Milkweed
Asclepias syriaca L.	Common Milkweed
Asclepias verticillata L.	Whorled Milkweed
CONVOLVULACEAE	MORNING-GLORY FAMILY
Ipomoea hederacea (L.) Jacq.	Ivy-leaved Morning-Glory
Ipomoea pandurata (L.) G.F.W.Mey.	Wild Potato Vine
Convolvulus sepium L.	Hedge Bindweed
Convolvulus arvensis L.	Field Bindweed
Cuscuta gronovii Willd.	Common Dodder
POLEMONIACEAE	POLEMONIUM FAMILY
Phlox subulata L.	Mosspink
?*Phlox subulata* var *brittonii* (Small) Wherry (var. *australis* Wherry)	Mosspink
Phlox divaricata L.	Wild Blue Phlox
HYDROPHYLLACEAE	WATERLEAF FAMILY
Hydrophyllum virginianum L.	Virginia Waterleaf
BORAGINACEAE	BORAGE FAMILY
Echium vulgare L.	Viper's Bugloss
Cynoglossum officinale L.	Hound's-tongue
Myosotis laxa Lehm.	Smaller Forget-me-not
VERBENACEAE	VERVAIN FAMILY
Verbena urticaefolia L.(*V.urticifolia*)	White Vervain
LABIATAE	MINT FAMILY
Isanthus brachiatus (L.) BSP.	False Pennyroyal
Scutellaria elliptica Muhl.	Hairy Skullcap
Marrubium vulgare L.	Common Horehound
Nepeta cataria L.	Catnip
Glechoma hederacea L.	Ground-ivy
Prunella vulgaris L.	European Selfheal
Leonurus cardiaca L.	Motherwort
Lamium amplexicaule L.	Henbit
Salvia lyrata L.	Wild Sage
Monarda (fistulosa L. ?, not blooming)	Wild Bergamot
Blephilia ciliata (l.) Benth.	Downy Woodmint
Pycnanthemum (pycnanthemoides (Leav.) Fern. ?(not blooming)	Southern Mountain-mint
Pycnanthemum incanum (L.) Michx.	Hoary Mountain-mint
Cunila origanoides (L.) Britton	Dittany
Lycopus americanus Muhl.	Water Horehound
Collinsonia canadensis L.	Horse-balm
SOLANACEAE	NIGHTSHADE FAMILY
Solanum dulcamara L.	Bittersweet
Solanum nigrum L.	Black Nightshade
Solanum carolinense L.	Horse-nettle

Physalis sp.	Ground-cherry
Datura stramonium L.	Jimson Weed
SCROPHULARIACEAE	FIGWORT FAMILY
Verbascum thapsus L.	Great Mullein
Verbascum blattaria L.	Moth Mullein
Verbascum blattaria f. *albiflora* (Don) House	White-flowered Moth Mullein
Linaria vulgaris Hill.	Butter-and-eggs
Scrophularia marilandica L.	Giant Figwort
Scrophularia lanceolata Pursh (S. *leporella* Bicknell)	Hare Figwort
Chelone glabra L.	Turtlehead
**Penstemon gracilis* Nutt.	Beardtongue
Penstemon digitalis Nutt.	Foxglove Beardtongue
Penstemon canescens Britton	Gray Beardtongue
Penstemon hirsutus (L.) Willd.	Hairy Beardtongue
Gratiola neglecta Torr. (*G.virginiana* authors nec L.)	Clammy Hedge-hyssop
Lindernia dubia (L.) Pennell	False Pimpernel
Veronica serpyllifolia L.	Thyme-leaved Speedwell
Veronica officinalis L.	Common Speedwell
Veronica arvensis L.	Corn Speedwell
Melampyrum linare Desr.	Cow-wheat
Pedicularis canadensis L.	Common Lousewort
OROBANCHACEAE	BROOMRAPE FAMILY
Conopholis americana (L.) Wallr.	Cancerroot
ACANTHACEAE	ACANTHUS FAMILY
Justicia americana (L.) Vahl.	Water-willow
PLANTAGINACEAE	PLANTAIN FAMILY
Plantago rugelii Dcne.	Common Plantain
Plantago lanceolata L.	Buckhorn Plantain
Plantago aristata Michx.	Bracted Plantain
Plantago virginica L.	Dwarf Plantain
RUBIACEAE	MADDER FAMILY
Galium aparine L.	Cleavers
Galium hispidulum Michx.	Bedstraw
Galium circaezans Michx.	Wild Liquorice
Galium lanceolatus Torr.	Lanceleaf Wild Liquorice
Galium boreale L.	Northern Bedstraw
Galium mollugo L.	White Bedstraw
Galium concinnum T.&G.	Shining Bedstraw
Diodia teres Walt.	Rough Buttonweed
Mitchella repens L.	Partridge Berry
Houstonia caerulea L.	Bluets
Houstonia purpurea L.	Large Summer Bluets
Houstonia longifolia Gaertn.	Long-leaved Summer Bluets
CAPRIFOLIACEAE	HONEYSUCKLE FAMILY
Linnaea americana Forbes (*L.borealis* L. var. *longiflora* Torr.)	Twinflower
Triosteum perfoliatum L.	Tinker's Weed

DIPSACACEAE	TEASEL FAMILY
Dipsacus sylvestris Huds.	Common Teasel
CUCURBITACEAE	GOURD FAMILY
Sicyos angulatus L.	One-seeded Bur-cucumber
CAMPANULACEAE	BLUEBELL FAMILY
Specularia perfoliata (L.) A.DC. (*Triodania perfoliata* (L.) Nieul.)	Venus' Looking Glass
Campanula (*?americana* L.not blooming	Tall Bellflower
Campanula aparinoides Pursh.	Marsh Bellflower
LOBELIACEAE	LOBELIA FAMILY
Lobelia cardinalis L.	Cardinal-flower
Lobelia spicata Lam.	Spiked Lobelia
Lobelia inflata L.	Indian Tobacco
COMPOSITAE	COMPOSITE FAMILY
Vernonia sp. (not blooming)	Ironweed
Eupatorium fistulosum Barratt	Common Joe-pye Weed
Eupatorium purpureum L.	Wide-leaved Joe-pye Weed
Eupatorium sessilifolium L.	Upland Boneset
Eupatorium perfoliatum L.	Boneset
Eupatorium rugosum Houtt.	White Snakeroot
Solidago caesia L.	Wreath Goldenrod
Solidago flexicaulis L.	Broadleaf Goldenrod
Solidago juncea Ait.	Early Goldenrod
Solidago (*? harrisii* Steele (*S. boottii* Hook))	Shale-barren Goldenrod
Solidago rugosa Ait.	Wrinkle-leaf Goldenrod
Solidago canadensis L.	Canada Goldenrod
Solidago gigantea Ait.	Late Goldenrod
Solidago graminifolia (L.) Salisb.	Grass-leaved Goldenrod
Aster divaricatus L.	White Wood Aster
Aster (*?schreberi* Nees.)	Schreber's Aster
Aster macrophyllus L.	Bigleaf Aster
Aster cordifolius L.	Blue Wood Aster
Aster puniceus L.	Purplestem Aster
Aster pilosus Willd.	White Heath Aster
Aster simplex Willd.	Panicled Aster
Erigeron pulchellus Michx.	Robin's Plantain
Erigeron philadelphicus L.	Philadelphia Fleabane
Erigeron annuus (L.) Pers.	White-top
Erigeron canadensis L. (*Conyza canadensis* (L.) Cronq.)	Horseweed
Sericocarpus asteroides (L.) BSP.	Toothed White-topped Aster
Anaphalis margaritacea (L.) C.B.Clarke	Pearly Everlasting
Gnaphalium uliginosum L.	Low Cudweed
Ambrosia artemisiifolia L.	Common Ragweed
Antennaria virginica Stebbins	Shale-barren Pussytoes
Antennaria parlinii Fernald	Parlin's Everlasting
Antennaria plantaginifolia (L.)Richards	Plantainleaf Everlasting
Polymnia canadensis L.	White-flowered Leafcup
Polymnia uvedalia L.	Yellow-flowered Leafcup

Chrysogonum virginianum L.	Golden-knees
Parthenium integrifolium L.	American Feverfew
Parthenium hispidum Raf. var. *auriculatum* (Britton) Rollins	Auricled Parthenium
Heliopsis helianthoides (L.) Sweet	Ox-eye
Rudbeckia lacinata L.	Tall Coneflower
Rubeckia hirta L.	Black-eyed Susan
Actinomeris alternifolia (L.) DC. (*Verbesina alternifolia* (L.) Britt.)	Wing-stem
Verbesina occidentalis (L.) Walt.	Small Yellow Crownsbeard
Coreopsis lanceolata L.	Lance-leaved Tickseed
Achillea millefolium L.	Yarrow
Anthemis cotula L.	Dog Fennel
Matricaria matricarioides (Less.)Porter	Pineapple Weed
Chrysanthemum leucanthemum L.	Ox-eye Daisy
Tussilago farara L.	Coltsfoot
Cacalia muhlenbergii (Sch. Bip.) (*C. reniformis* Muhl.)	Great Indian Plantain
Cacalia atriplicifolia L.	Pale Indian Plantain
Senecio aureus L.	Golden Ragwort
Senecio obovatus Muhl.	Squaw-weed
Arctium minus (Hill) Bernh.	Common Burdock
Carduus nutans L.	Musk Thistle
Cirsium vulgare (Savi) Tenore	Common Thistle
Centaurea scabiosa L.	Star Thistle
Cichorium intybus L.	Chicory
Krigia virginica (L.) Willd.	Dwarf Dandylion
Tragopogon porrifolius L.	Purple Goat's Beard
Taraxacum erythrospermum Andrz. (*T. laevigatum* (Willd.) DC.	Red-seeded Dandelion
Taraxacum officinale Weber.	Common Dandylion
Lactuca scariola L.	Prickly Lettuce
Lactuca canadensis L.	Wild Lettuce
Crepis pulchra L.	Small-flowered Hawksbeard
Prenanthes serpentaria Pursh.	Rattlesnake-root
Prenanthes trifoliata (Cass.) Fernald	Lion's Foot
Hieracium pratense Tausch.	Field Hawkweed
Hieracium venosum L.	Rattlesnake-weed

4204 Somerset Place, Baltimore, Maryland

BREEDING BIRD RECORDS FOR THE 1967 FORAY

Norris Gluck

The breeding records reported here are based, as usual, on observations of active nests found in the nesting contest and of birds feeding young, out of nest. The 1967 Contest produced 252 breeding records for 64 species. From the standpoint of total observations, this was one of the poorest years in the past ten. The number of nesting species, however, compared favorably with previous years. No attempt will be made to explain the reasons for these results and since this was the first foray in Hampshire County, no comparison can be made with previous results there.

There is always the desire or temptation to examine or analyze the quantitative data for a period of years so we have extended the ten-year table presented by Dr. Burtt in his 1962 Foray Report, to include the five-year period 1963-67. This gives a continuous picture for 15 years and, together with the long-time tabulation by Glen Phillips in the *REDSTART*, 28, 102(1961), we have an excellent picture of breeding observations back to 1940, a period of twenty-eight years.

The scientific aspects of the nesting contest have been very ably discussed previously, by Dr. Burtt in the *REDSTART*, 30, 38(1963); in the 1963 Brooks Bird Club Foray Report (Pendleton Co.) and by Dr. Hall in the 1957 Brooks Bird Club Foray Report (Cacapon State Park). It was the consensus of these writers that the contest is not designed as a scientific study and, without considerable refinement, should not be used to draw scientific conclusions.

Therefore we will confine our remarks to certain historical and statistical items which have come to light as we reviewed the data for the past 28 years.

Based on the past five year results, a typical or average foray would produce approximately 388 breeding records for an average of 67 species. Each year, seven species would furnish approximately 44% of total breeding records and an additional three species would raise the percentage to 54 of the total; one breeding record out of every nine would be a Robin. Of the total species identified during the Foray, breeding records would be reported for approximately 56 per cent and approximately 60 per cent of the contestants would report breeding observations. (NOTE: Phillips reported at the end of 1960 that of 170 species of birds identified during all forays up to that time, breeding records had been reported for 122 or 71.8 per cent.)

The following are some facts we have noted in reviewing the reports of breeding records for the past 28 forays:

a. The 1967 Foray produced (1) the first breeding record for Ring-necked Pheasant since 1944 (Hancock Co.) and (2) the first breeding record ever reported for the Lark Sparrow (young out-of-nest).

b. Rare breeding observations—During the past 28 years *not one* Black or Turkey Vulture, Red-shouldered Hawk, Bobolink or Dickcissel breeding record; not one Pine Warbler nest (only three young out-of nest reports, 1952,'55,'57). *Only one nest* has been reported for each of the following: Cooper's Hawk (Camp Kidd, 1960), Sharp-shinned Hawk (Thornwood, 1953), Red-tailed Hawk (Pendleton Co., 1963), Peregrine Falcon (Berkeley Co., 1949), Wild Turkey (Lost River, p941), Magpie (Camp Kidd, 1960), Red-breasted Nuthatch (Thornwood, 1953), Henslow's Sparrow (Bruceton Mill, 1962), Raven (Pendleton Co., 1963). *Two* Yellow-bellied Sapsucker nests were reported at Watoga, 1946 and two Hermit Thrush nests (Thornwood, 1953); only three Warbling Vireos (Camp Caesar, 1956, Wetzel Co., 1961, Peterkin, 1967). It took 25 years to find a Sparrow Hawk nest (Thornwood, 1964). It was 24 years before a Bank Swallow breeding record was reported (Pendleton Co., 1963) and it took the same same number of years to find a

Winter Wren (Pendleton Co., 1963). It was 22 years before the first Cerulean Warbler nest was reported (Wetzel Co., 1961). In the first 21 years, one Pileated Woodpecker nest was reported (Mt. Lake, 1959) and only one Red-bellied Woodpecker (Camp Ann Bailey, 1950). Only one Purple Finch in past 16 years (Thornwood, 1964); one Magnolia Warbler in past 19 years (Thornwood, 1953); not a Chimney Swift in past 10 years; one Woodcock in past 10 years (Wetzel co., 1961) and only three in past 28 years.

c. At Camp Caesar, 1947, 23 Red-winged Blackbird nests and 17 Red-eyed Vireo nests were reported; in 1961 (Wetzel Co.) 14 Cowbird breeding records were reported.

In addition to the usual presentation of an annotated list of breeding birds, a table has been prepared to show the contents of nests, by species. This table may reveal another variable which tends to affect the nest finding performance.

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BREAKDOWN OF BREEDING RECORDS ACCORDING TO CONTENT OR STATUS OF NEST

	Total Nests	Young	Eggs	Young & Eggs	On Nest	Building	Young Out
1. Broad-winged Hawk	2	2					
2. Sparrow Hawk	1						1
3. Ruffed Grouse	2						2
4. Bobwhite	1						1
5. Ring-necked Pheasant	1						1
6. Killdeer	3						3
7. Spotted Sandpiper	1						1
8. Mourning Dove	1		1				
9. Yellow-billed Cickoo	3		2			1	
10. Black-billed Cuckoo	1	1					
11. Whip-poor-will	1	1					
12. Ruby-throated Hum'ingb'd	1					1	
13. Belted Kingfisher	1	1					
14. Yellow-shafted Flicker	7	2			4		1
15. Pileated Woodpecker	1	1					
16. Red-headed Woodpecker	1	1					
17. Hairy Woodpecker	1						1
18. Downy Woodpecker	2	2					
19. Eastern Kingbird	9	1	5		2	1	
20. Great-crested Flycatcher	2	2					
21. Eastern Phoebe	22	9	11		1	1	
22. Acadian Flycatcher	3		1		2		
23. Least Flycatcher	1				1		
24. Wood Pewee	2	1			1		
25. Horned Lark	1						1
26. Bank Swallow	3	3					
27. Rough-winged Swallow	5	5					
28. Barn Swallow	13	4	8			1	
29. Cliff Swallow	4	3				1	
30. Black-capped Chickadee	1	1					
31. Tufted Titmouse	1						1
32. House Wren	3	2	1				
33. Mockingbird	4	1	2	1			
34. Catbird	7	2	3	2			
35. Brown Thrasher	5		5				
36. Robin	20	7	11	1	1		
37. Wood Thrush	3		1		1		1
38. Eastern Bluebird	9	4	2		1		2
39. Blue-gray Gnatcatcher	3	1	1				1
40. Cedar Waxwing	6		4		1		1
41. Loggerhead Shrike	1						1
42. Starling	6	5	1				
43. Yellow-throated Vireo	1		1				
44. Red-eyed Vireo	1		1				
45. Warbling Vireo	1		1				
46. Parula Warbler	1	1					
47. Yellow Warbler	2	1	1				
48. Louisiana Waterthrush	1						1
49. Yellow-breasted Chat	2		1				1
50. House Sparrow	10	6	3			1	
51. Eastern Meadowlark	2	1	1				
52. Red-winged Blackbird	6*	1	3			1	
53. Orchard Oriole	3	2					1
54. Baltimore Oriole	15	8	2		1	3	1
55. Common Grackle	6	5					1
56. Brown-headed Cowbird	4		4				
57. Cardinal	2	1	1				
58. Blue Grosbeak	1			1			
59. Indigo Bunting	2	1	1				
60. Rufus-sided Towhee	1		1				
61. Lark Sparrow	1						1
62. Chipping Sparrow	19	4	6	1	1	3	4
63. Field Sparrow	5	1	2				2
64. Song Sparrow	1	1					
TOTAL	252*	95	88	6	17	14	31
PER CENT	100	38	35	2	7	6	12

* One breeding record did not show contents of nest

ANNOTATED LIST OF BREEDING BIRDS FOR THE 1967 FORAY

Species	Obs.	Contents	Site	Hbt.	Hgt.	Altd.	Comments
1. Broad-winged Hawk	BB	2-Y	5	8	75	800	Camp
2. Broad-winged Hawk	BB	1-Y	5	9	28	1200	Romney
1. Sparrow Hawk	GK	2-Out				950	Knobly Rd.
1. Ruffed Grouse	PC	Out	1	9	-		4 mi.S.Romney
2. Ruffed Grouse	SB	Out	1	9	-		4 mi.S.Romney
1. Bobwhite	MM	5-Out	1	8	-	800	Camp
1. Ring-necked Pheasant	PC	Out	1	12	-		Purgitsville
1. Killdeer	SR	Out	1	14	-	1250	Reeses Mill
2. Killdeer	VO	1-Out	1	13	-	800	Beaver Run
3. Killdeer	RKB	2-Out	1	14	-	600	Rt 5-Three Churches
1. Spotted Sandpiper	JM	2-Out	1	16	-	750	Patterson Cr. Brdg.
1. Mourning Dove	VO	2-E	6	9	12	600	Rt 1 - River
1. Yellow-billed Cuckoo	CO	E	5	9	6	800	Camp
2. Yellow-billed Cuckoo	BM	3-E					
3. Yellow-billed Cuckoo	CR	B	5	13	10	800	Rt 28
1. Black-billed Cuckoo	CM	2-Y	5	9	4	850	Camp
1. Whip-poor-will	JM	2-Y	1	9	-	800	1 mi.from Camp
1. Ruby-throated Hummingbird	KC	B	6	8	20	800	Camp
1. Belted Kingfisher	LW	Y	1	14	-		Rada(Cr.bank)
1. Yellow-shafted Flicker	BB	Y	5	13	30	850	Romney
2. Yellow-shafted Flicker	VO	Y	8	3	15	2000	Short Mt.
3. Yellow-shafted Flicker	AR	On Nest	6	3	20	2000	Short Mt.
4. Yellow-shafted Flicker	LD	On Nest	5	8	20	800	Rd near Camp
5. Yellow-shafted Flicker	RKB	On Nest	5	16	17	700	Romney
6. Yellow-shafted Flicker	HD	On Nest	8	8			
7. Yellow-shafted Flicker	SR	Out	13	12	50	1250	Headsville
1. Pileated Woodpecker	LK	Y	8	13	35		Rt 50 & Hoffm'n Rd
1. Red-headed Woodpecker	EG	Y	13	8	30	800	Marlwood Rd
1. Hairy Woodpecker	EG	Out					E. of Keyser
1. Downy Woodpecker	VO	Y	8	9	12	700	S.Br.Cacapon
2. Downy Woodpecker	CK	Y	8	8	15	750	3 mi S. of Romney
1. Eastern Kingbird	CR	Y	5	14	25	1000	Cacapon Valley
2. Eastern Kingbird	VO	E	5	13	25	700	S.Br.Cacapon
3. Eastern Kingbird	VO	E	5	13		800	Rt. 8
4. Eastern Kingbird	RKB	4-E	5	6	17	1500	Nathaniel Mt.
5. Eastern Kingbird	CR	E	5	13	10	1000	Dean Farm
6. Eastern Kingbird	CR	E	5	14	10	1000	Cacapon Valley
7. Eastern Kingbird	G	On Nest	5	13	25	800	Rt 8-5 mi S.Romney
8. Eastern Kingbird	T	On Nest	5	8	45	800	Camp
9. Eastern Kingbird	CK	B	5	12	12	700	Levels
1. Great Crested Flycatcher	RD	Y	5	8	30	800	Camp
2. Great Crested Flycatcher	ED	Y	8	8	10	1000	Knobly Rd.
1. Eastern Phoebe	LW	4-Y	13	14	7	1000	Augusta
2. Eastern Phoebe	ER	4-Y	13	16	7	800	Rts 45 & 50
3. Eastern Phoebe	BK	2-Y	13	16	8	1100	Rt 55

Species	Obs.	Contents	Site	Hbt.	Hgt.	Altd.	Comments
4. Eastern Phoebe	VO	Y	13	16	15	700	Rio
5. Eastern Phoebe	RA	3-Y	9	8	12	700	Little Cacapon Rv.
6. Eastern Phoebe	RKB	3-Y	9	16	4	685	Huntsville
7. Eastern Phoebe	DC	3-Y	9	13	8	750	Rt 50
8. Eastern Phoebe	PM	Y	9				Romney
9. Eastern Phoebe	RD	3-Y	9	16	6	800	Camp
10. Eastern Phoebe	ER	4-E	13		8	700	Rt 50 & Nat'l Mt.rd
11. Eastern Phoebe	ER	5-E	13	16	5	800	Rt 8
12. Eastern Phoebe	ER	E	9	16	12	1500	Three Churches
13. Eastern Phoebe	GK	E	9	8	15	2900	Ranger Cottage
14. Eastern Phoebe	JL	4-E*	12	8	7	800	Romney
15. Eastern Phoebe	AL	3-E	9	16	10	750	Falling Rock Rd.
16. Eastern Phoebe	CC	4-E	13	1	8	900	Knobly Rd.
17. Eastern Phoebe	JS	E	13	16	6	1000	rt 8
18. Eastern Phoebe	RKB	2-E	9	16	4	1000	N. of Huntsville
19. Eastern Phoebe	HW	3-E	9	8	7	800	Romney
20. Eastern Phoebe	RD	E	9	14	20	1000	Nathaniel Mt. Rd.
21. Eastern Phoebe	SB	On Nest	9	8	12	3000	Nathaniel Mt.
22. Eastern Phoebe	RA	B	13	12		750	Reeses Mill
1. Acadian Flycatcher	VO	E	5	9	6	800	Behind Camp
2. Acadian Flycatcher	MT	On Nest	6	9	10	700	Rt 8-7 mi S.Camp
3. Acadian Flycatcher	JW	On Nest	6	9	9	800	Rt 8-11 mi S.Ro'ney
1. Least Flycatcher	HB	On Nest	5	1	50		Harmison Home
1. Wood Pewee	CK	Y	6	8	25	900	Near Br'kneck Rd.
2. Wood Pewee	LK	On Nest	5	13	30	1050	Smith Farm
1. Horned Lark	RA	Out	1	13	-	1300	Rt 5
1. Bank Swallow	VO	Y	12		25	900	Rt 28-3 mi N.R'm'ey
2. Bank Swallow	HG	Y	13		-	800	B'lington-colony 20
3. Bank Swallow	HG	Y	13	16	35	900	Staggs Run-3 nests
1. Rough-winged Swallow	JM	Y	1	12		750	Patterson
2. Rough-winged Swallow	VO	Y	12	13	30	800	Rt 8
3. Rough-winged Swallow	DB	Y	13	13	2	775	Reeses Mill
4. Rough-winged Swallow	JL	Y	12	16	10	600	Keyser
5. Rough-winged Swallow	FB	Y	12	16	20	800	Fox H'low Rd(col'y)
1. Barn Swallow	NG	Y	9	16	10	700	Headsville
2. Barn Swallow	RA	Y	9	12	12	700	Lit.Cacapon Rv.Rd.
3. Barn Swallow	RA	2-Y	9	12	12	700	Little Cacapon Rv.
4. Barn Swallow	RA	2-Y	9	13	7	1300	Rt 5 Romney
5. Barn Swallow	HB	6-E	9	14	7		N. River Rd.
6. Barn Swallow	HG	6-E	9	12	8	1200	Pleasantdale
7. Barn Swallow	CK	4-E	9	12	8	650	S. of Levels
8. Barn Swallow	AL	3-E	9	16	10	750	Falling Rock Rd.
9. Barn Swallow	CC	4-E	9	16	12	900	Rts 45 & 50
10. Barn Swallow	MC	1-E	9	13	12	800	Williams Farm
11. Barn Swallow	MC	E	9	13	14	800	Williams Farm
12. Barn Swallow	RL	E	9	1	9	800	Rt 5-S. Romney
13. Barn Swallow	RB	B	9	16	8	1450	Romney
1. Cliff Swallow	JM	Y	9	12	7	800	N. River(colony)

Species	Obs.	Contents	Site	Hbt.	Hgt.	Altd.	Comments
2. Cliff Swallow	GK	Y	9	12		950	N of Williamsport
3. Cliff Swallow	GK	2-Y	9			1135	Rio
4. Cliff Swallow	RKB	B	9	16	7	600	Levels(colony)
1. Black-capped Chickadee	KA	Y	5	9	2	950	Romney
1. Tufted Titmouse	MT	Out				700	Rt 8-3 1/2 mi S.camp
1. House Wren	LG	Y	11		12	800	Rd near camp
2. House Wren	JM	Y	11	1	8	800	Romney
3. House Wren	MK	5-E	11	16	4	1500	Points
1. Mockingbird	CR	3-Y	3	13	4	1000	Rt 5
2. Mockingbird	CO	3-Y,1-E	3	16	4	1000	Mill Mt.Orchard
3. Mockingbird	VO	3-E	3	12	4	900	Mill Orchard Rd.
4. Mockingbird	CO	E	3	16	7	1000	Mt. Orchard
1. Catbird	DD	Y	3	15			
2. Catbird	KC	Y	6	16	10	800	Camp
3. Catbird	HB	1-Y,2-E	3	1	5		Harmison Home
4. Catbird	DD	1-Y,1-E	6	9	10	750	3 mi S.B'lington
5. Catbird	CO	E	6	7	6	800	Camp
6. Catbird	CO	E	3	16	6	900	Ewer's Orchard
7. Catbird	VO	3-E	3	13		1000	Rt 4
1. Brown Thrasher	VO	4-E	3	13	5	800	Rt 8
2. Brown Thrasher	VO	4-E	3	13	5	800	Rt 8
3. Brown Thrasher	KA	4-E	3	8	4	700	Romney
4. Brown Thrasher	AL	3-E	3	13	4	1000	Rt 8-Smith Farm
5. Brown Thrasher	MC	1-E	3	13	6	800	Williams Farm
1. Robin	DC	Y	5	16	35	800	Williams residence
2. Robin	RM	Y	5	9	20	875	Keyser
3. Robin	BK	2-Y	5	12	25	1500	Branch Mt.
4. Robin	RL	3-Y	9	1	11	800	Rt 50-S.Romney
5. Robin	CO	Y	9	13	35	800	Camp
6. Robin	MC	Y	5	9	45	800	Williams Farm
7. Robin	RA	2-Y	5	13	7	1300	Rt 5 Romney
8. Robin	DD	2-Y,1-E		16	25	750	3 mi S B'lington
9. Robin	CC	4-E	9	16	12	1000	North River Rd.
10. Robin	MMC	E	5	16	15		Fry Farm
11. Robin	VO	E	5	13	25	750	S Br. Cacapon
12. Robin	CO	E	5	13	30	900	Ewers Farm
13. Robin	CO	E	5	13		700	Headsville
14. Robin	CO	E	5	16	10	900	Ewers Orchard
15. Robin	CO	E	5	16	25	800	Camp
16. Robin	KA	E	5	8	25	700	Romney
17. Robin	MC	E	5	9	40	800	Williams Farm
18. Robin	RA	E	5	12	6	700	Headsville
19. Robin	VO	E	5	13	35	800	Rt 8
20. Robin	RKB	On Nest	5	16	40	750	Springfield
1. Wood Thrush	VO	E	5	9	30	800	Behind Camp
2. Wood Thrush	BB	On Nest	5	8	35	1000	Romney
3. Wood Thrush	EC	2-Out	5	8	-	1500	Rt 5-6 mi.Romney

Species	Obs.	Contents	Site	Hbt.	Hgt.	Altd.	Comments
1. Eastern Bluebird	CO	2-Y	10	13	5	800	Camp
2. Eastern Bluebird	MK	Y	10	13	3	650	3 mi N. B'lington
3. Eastern Bluebird	BB	Y	8	3	15	2600	Augusta
4. Eastern Bluebird	JM	Y	10	13	4	1000	2 mi W.H'dsville
5. Eastern Bluebird	MC	4-E	10	13	6	800	Williams Farm
6. Eastern Bluebird	VO	E	10	13	4	800	Rt 8
7. Eastern Bluebird	MK	On Nest	11	16	4	1500	Points
8. Eastern Bluebird	VO	4-Out		13	-	900	Asbury Church
9. Eastern Bluebird	VO	4-Out		13	-	750	S.Br.Cacapon
1. Blue-gray Gnatcatcher	VO	Y	5	9	35	950	Hardy Co.
2. Blue-gray Gnatcatcher	HP	E	5	9	25	800	Mill Run Rd.
3. Blue-gray Gnatcatcher	BR	3-Out	5	9	15	800	Camp
1. Cedar Waxwing	VO	5-E	5	13	4	800	Rt 8 (lambs wool)
2. Cedar Waxwing	CK	E	5	16	18	700	Rt 8 N.Romney
3. Cedar Waxwing	CK	E	6	14	20	1500	McNeill, Hardy Co.
4. Cedar Waxwing	CO	E	3	12	8	800	Camp
5. Cedar Waxwing	JW	On Nest	5	9	20	800	Romney
6. Cedar Waxwing	MK	Out	5	13	40	650	3 mi N.B'lington
1. Loggerhead Shrike	GK	1-Out				950	E. of Trough
1. Starling	MT	Y	9	16	20	1500	Three Churches
2. Starling	SR	Y	13	12	50	700	Headsville
3. Starling	DB	Y	9	16	10	775	Reeses Mill
4. Starling	RKB	Y	5	16	8	685	Huntsville
5. Starling	RD	Y	9	14	20	2500	Nathaniel Mt.Rd.
6. Starling	WW	E	9	8	10	800	Romney
1. Yellow-throated Vireo	RA	E	5	8	45	700	Lt.Cacapon Rv.Rd.
1. Red-eyed Vireo	VO	1-E	5	9	7	700	Behind camp
1. Warbling Vireo	VO	E	5	13		700	Cacapon Rd.
1. Parula Warbler	AS	Y	6	8		850	Romney
1. Yellow Warbler	RD	Y	3	13	8	2500	Nathaniel Mt.Rd.
2. Yellow Warbler	VO	E	5	13		950	Millers Orchard
1. Louisiana Waterthrush	JW	1-Out	13		-	800	Camp
1. Yellow-breasted Chat	RA	2-E	3	8	4	700	Lit.Cacapon Rv.Rd.
2. Yellow-breasted Chat	EH	Out	3	8	-		Moorefield Rd.
1. House Sparrow	MK	Y	9		9	1500	Three Churches
2. House Sparrow	CW	Y	9	16	10	775	Reeses Mill
3. House Sparrow	B	2-Y	9	16		600	Augusta
4. House Sparrow	RB	2-Y	9	16	20	1000	Romney-Orchard
5. House Sparrow	MMC	Y	5	12		1000	E. Keyser
6. House Sparrow	DC	Y	6	16	20		Romney
7. House Sparrow	CO	E	9	16	5	900	Ewers Orchard
8. House Sparrow	CO	E	9	16	6	900	Ewers Orchard
9. House Sparrow	RD	E	9	16	15		Camp
10. House Sparrow	HW	B	9	8	20	800	Romney
1. Eastern Meadowlark	VO	1-Y		6	-	1000	Orchard Stdy.Area
2. Eastern Meadowlark	CS	5-E	2	14	-	900	5 mi S.H'dsville
1. Red-winged Blackbird	VO	4-Y	2	3	1	950	Millers Orchard

Species	Obs.	Contents	Site	Hbt.	Hgt.	Altd.	Comments
2. Red-winged Blackbird	VO	2-E	2	12	1	700	Dickcissel Farm
3. Red-winged Blackbird	VO	1-E	2	3	1	950	Millers Orchard
4. Red-winged Blackbird	VO	3-E	2	3	1	950	Millers Orchard
5. Red-winged Blackbird	RA	B	2	12	1	750	Reeses Mill
6. Red-winged Blackbird	RM		13	12	3	950	E. of Augusta
1. Orchard Oriole	VO	Y	5	16	30	900	Rockoak
2. Orchard Oriole	RA	3-Y	6	12	14	700	Reeses Mill
3. Orchard Oriole	MT	Out	5	13	-	800	Rt 8 S. of camp
1. Baltimore Oriole	LK	Y	5	13	20	1950	Asbury Church
2. Baltimore Oriole	CK	Y	5	16	15	1300	Three Churches
3. Baltimore Oriole	VO	Y	5	13	40	900	Ray Smith Farm
4. Baltimore Oriole	VO	Y	5	13	20	500	Reeses Mill
5. Baltimore Oriole	RA	Y	5	12	60	700	Headsville
6. Baltimore Oriole	CR	Y	5	14	25	700	Salem Church
7. Baltimore Oriole	CO	Y	5	16	20	700	Reeses Mill
8. Baltimore Oriole	CO	Y	5	16	90	800	Camp
9. Baltimore Oriole	CR	E	5	14	40	800	Rt 6
10. Baltimore Oriole	CO	E	5	13	40	900	Ewers Orchard
11. Baltimore Oriole	ES	On Nest	5	1	30	500	Three Churches
12. Baltimore Oriole	MK	B	5	13	30	650	3 mi N. B'lington
13. Baltimore Oriole	AS	B	5	13	30	850	Romney
14. Baltimore Oriole	DC	B	5	8	30	800	Oldtown
15. Baltimore Oriole	RKB	Out	5	16	30	600	Three Churches
1. Common Grackle	NG	Y	5	13	40	1000	Levels
2. Common Grackle	LK	Y	5	16	30	1905	Inkerman
3. Common Grackle	JM	3-Y	6	13	10	800	Ray Smith Farm
4. Common Grackle	DC	Y	6	16	40		Short Mt. Rd.
5. Common Grackle	KA	Y	5	8	30	700	Romney(20-30 n'st)
6. Common Grackle	CO	Out	5		35	900	Ewers Orchard
1. Brown-headed Cowbird	JL	1-E	12	8	7	800	W/3 Phoebe eggs
2. Brown-headed Cowbird	JW	3-E	3	9	4	800	W/2 Ind.B'ting eggs
3. Brown-headed Cowbird	GM	1-E	3	13	2	1200	Chipping Sparrow
4. Brown-headed Cowbird	EH	1-E	1	14	-	800	W/2 R-S Towhee egg
1. Cardinal	MK	2-Y	3	9	5	700	Camp
2. Cardinal	HP	3-E	3	9	7	800	Mill Creek
1. Blue Grosbeak	VO	2-Y,2-E	3	13	4	800	Rt 8
1. Indigo Bunting	JW	4-Y	3	8	2		C & O Canal
2. Indigo Bunting	JW	5-E***	3	9	4	800	8 mi S.Camp
1. Rufus-sided Towhee	EH	3-E*	1	14	-	800	Romney
1. Lark Sparrow	GK	1-Out				900	E. of Keyser
1. Chipping Sparrow	AS	3-Y	3	13	2	800	Rt 8
2. Chipping Sparrow	JS	Y	5	8	25	1000	Camp
3. Chipping Sparrow	AL	1-Y	13	13	3	800	Camp
4. Chipping Sparrow	RA	3-Y	5	12	20	700	Headsville
5. Chipping Sparrow	LK	3-Y,1-E	3	16	18	1250	Rt 5-Levels
6. Chipping Sparrow	GM	1-E*	3	13	2	1200	Romney
7. Chipping Sparrow	GM	1-E	3	13	2	1200	Romney
8. Chipping Sparrow	VO	4-E	3	13	2	800	Rt 8

Species	Obs.	Contents	Site	Hbt.	Hgt.	Altd	Comments
9. Chipping Sparrow	JM	4-E	6	14	8	800	Headsville Rd.
10. Chipping Sparrow	RA	4-E	5	13	4	1300	Rt 5
11. Chipping Sparrow	RKB	3-E	5	13	4	700	W. of Camp
12. Chipping Sparrow	GM	On Nest	5	16	25	800	Romney
13. Chipping Sparrow	AS	B	5	9	12	800	Rt 8
14. Chipping Sparrow	CO	B	3	16	4	1000	Mill Mt.Orchard
15. Chipping Sparrow	AW	B	8	8	25	800	Camp
16. Chipping Sparrow	RA	1-Out	5	8	-	700	Lit. Cacapon Rv.Rd.
17. Chipping Sparrow	DC	Out	5	7	-	800	Camp
18. Chipping Sparrow	MT	Out	3	8	-	1500	Rt 5
19. Chipping Sparrow	MT	Out			-	700	St.Luke Church
1. Field Sparrow	VO	4-Y	3	12	1	950	Rt 8
2. Field Sparrow	GM	4-E****	3	13	2	1200	Romney
3. Field Sparrow	RL	E	10	12	2	750	Rt 6-Trough
4. Field Sparrow	VO	3-Out		12	-	750	S.Br.Cacapon
5. Field Sparrow	RD	3-Out	1	14	-	2900	Nathaniel Mt.Rd.
1. Song Sparrow	VO	1-Y	3	13	1	700	S.Br.Cacapon

LEGEND

OBSERVER (Obs): Kenneth Anderson, KA; Richard Anderson, RA; David Bell, DB; Ralph Bell, RKB; Rick Bennett, RB; Harold Boecher, HB; Florence Branum, FB; Ben Burtt, BB; Miss Ruthie Burtt, B; Dorothy Caperton, DC; Kitty Caperton, KC; Mary Moore Cather, MMC; Pete Chandler, PC; Chuck Conrad, CC; Dorothy Conrad, DC; Mollie Crispens, MC; David DeGarmo, DD; Henry DeGarmo, HD; Libby DeGarmo, LD; Robert DeGarmo, RD; Ethel Durham, ED; Elizabeth Gilman, EG; Norris Gluck, NG; Edna Greg, G; Howard Gregg, HG; Eugene Hutton, EH; Constance Katholi, CK; Ben Kiff, BK; Maxine Kiff, MK; George Koch, GK; Laura Koch, LK; Robert Lightburn, RL; Jack Linehan, JL; Anne Llewellyn, AL; Marie Masteller, MM; Clark Miller, CM; John Morgan, JM; Barry Murphy, BM; Paul Murphy, PM; Robert Murphy, RM; Gladys Murrey, GM; Cheryl Olsen, CO; Virginia Olsen, VO; Herman Postlethwaite, HP; Sylvia Reebel, SR; Esther Reichelderfer, ER; Claude Ross, CR; Art Rybeck, AR; Blanche Rybeck, BR; Chet Shaffer, CS; Anne Shreve, AS; Eleanor Sims, ES; Juanita Slater, JS; Maxine Thacker, T; Marie Trowbridge, MT; Claudia Williams, CW; Leon Wilson, LW; Asa Worthly, AW; Jean Worthly, JW; Heather Worthly, HW; Warva Worthly, WW;

CONTENTS: Y—Young birds in nest; E—Eggs in nest; Out—Young birds observed out of nest. The number of young birds or eggs is shown when available. B—Nest under construction. * Includes one Cowbird egg. *** Includes three Cowbird eggs. **** Nest empty on return visit.

SITE: 1—Ground; 2—Grass or marsh vegetation; 3—Bush; 5—Tree (deciduous); 6—Tree (conifer); 8—Snag; 9—Building; 10—Fence Post; 11—Nest Box; 12—Cliff; 13—Other.

HABITAT (Hbt): 1—Urban; 3—Fresh Marsh; 5—Swamp; 6—Orchard; 7—Woodland (conifer); 8—Woodland (deciduous); 9—Woodland (mixed); 12—Cultivated Field; 13—Uncultivated Field; 14—Grassland; 16—Other.

HEIGHT (Hgt): Number of feet above ground.

ALTITUDE (Altd): Altitude of locality in feet above sea level.

COMMENTS: Locality of nest and other pertinent information.

THE 1967 FORAY BIRD LIST

Ralph K. Bell

The twenty-eighth annual Foray of the Brooks Bird Club was held from Saturday, June 10 to Sunday June 18 at the Peterkin Conference Center near Romney, West Virginia.

Although I was delegated to write up the Camp Bird List, our total of 111 species would not have been reached without the combined efforts of many campers. Several persons, however, made a special effort to check many places in the designated Foray area so that an "evaluation of abundance" could be obtained for most of the species listed here. Special thanks go to the following: Maxine Kiff (assistant compiler of the Camp Bird List), Seal Brooks, Chuck Conrad, Norris Gluck, Connie Katholi, George Koch, Jack Linehan, John Morgan, Pat Murphy and Anne Shreve. Thanks should also be given to George Newcomer for being so helpful with his electronic marvel . . . the pocket-sized tape recorder that could play back pre-recorded songs of many species. The reaction of birds to "playing back" taped songs in the field is something to see and the use of this device will probably increase in the future. Some so-called "rare" species may turn out to be "not so rare" with increased use of this device.

Most of our "working area" (approx. 705 sq. mi.) was located in Hampshire and Mineral Counties, but the northern part of Hardy County was included. Romney, W. Va. was approx. in the center of the area to be checked. The altitude (feet above sea level) was about 500 feet along the Potomac River to 3050 ft. on Nathaniel Mt. Altitudes of other places included in this report are as follows: Three Churches, 600; Headsville, 685; Romney, 700; Keyser, 875; Levels, 1200; Patterson Creek Mt., 2586; Short Mt., 2890.

Since this is the first Foray to be held at this location, no direct comparisons can be made. However, the 1955 Foray was held at Camp Pinnacle in Hardy County, with the center being at the town of Baker. Since Baker is less than 30 miles south of this year's camp (and some of the territories overlap), a list has been compiled showing those birds recorded at one Foray but not at the other.

Recorded in 1955 (Camp Pinnacle), but not in 1967	Recorded in 1967 (Romney), but not in 1955
Great Blue Heron	Screech Owl
Black-cr. Night Heron	Red-headed Woodpecker
Purple Martin	Yellow-bellied Sapsucker
Carolina Chickadee	Traill's Flycatcher
White-eyed Vireo	Tree Swallow
Magnolia Warbler	Brown Creeper
Black-throated Green Warbler	Black-throated Blue Warbler
Blackburnian Warbler	Kentucky Warbler
Chestnut-sided Warbler	Blue Grosbeak
Rose-breasted Grosbeak	Dickcissel
	Lark Sparrow

Something new was added at this year's Foray . . . the Breeding Bird Survey using road transects. Jack Linehan mapped the 2 routes and took care of the details. His report will appear elsewhere in the Foray report. These Breeding Bird Survey routes should help greatly in reaching a decision as to the real abundance of many species, especially the more common ones. While not perfect, the results of a large number of routes should give us a more reliable estimate than the methods used in the past.

It is planned to have more survey routes run at the next Foray. It is hoped that all campers desiring to participate will be able to do so.

George Hall once pointed out that observers tend to list species as common (or uncommon) according with what they are familiar with at home. I find this quite true (and it sure influences my own thoughts on the open country species) but I have tried to check the reports of all observers, the nesting reports and the results of the 2 Breeding Bird Survey Routes.

1. *Green Heron*—Probably fairly common. P. Murphy saw 4 all week, including one flying over "Dickcissel field". J. Morgan reported 2, one on Patterson Creek. C. Conrad saw 2 on the S. Branch of the Potomac River. One noted at a farm pond by M. Kiff and R.Bell near the end of Breeding Bird Survey Route No. 2.

2. *Wood Duck*—J. Morgan saw 5 on the Potomac River. A. Shreve and J. Linehan recorded one at Station 14 on Breeding Bird Survey Route No. 1.

3. *Turkey Vulture*—Uncommon. P. Murphy turned in the best report on this species when she recorded 10 on a 20 mile trip on 12 June.

4. *Black Vulture*—Not common. S. Brooks estimated only one Black Vulture to every 10 Turkey Vultures. He reported one near the Paw Paw Tunnel and one over Nathaniel Mountain. C. Conrad and J. Yoder saw one on Short Mountain.

5. *Sharp-shinned Hawk*—B. and P. Murphy saw one over Route 50 on way to North River.

6. *Cooper's Hawk*—Only one reported.

7. *Red-tailed Hawk*—Not very common. J. Morgan saw 3 or 4 during week and reported scarcity was probably due to the low numbers of small rodents. J. Linehan saw 2 of this species in Mineral County, one near Rio.

8. *Red-shouldered Hawk*—One report. On 17 June L. Wilson found one displayed on a fence post (dead).

9. *Broad-winged Hawk*— J. Linehan considered this species rather common—considering the paucity of small mammals. Many campers had the chance to really observe this bird when B. Burtt put on his superb climbing and hawk banding demonstration at the nest tree beside the campfire circle.

10. *Osprey*—Two reports (1 alive and 1 dead). One observed flying over "Lark Sparrow field" on 15 June by D. Conrad, E. Chandler and E. Hutton. P. Murphy and J. Linehan both reported the freshly killed one impaled on the barn door one-half mile from Rio along Rt. 11.

11. *Sparrow Hawk*—Rare. C. Conrad reported seeing one of this species along Rt. 50.

12. *Ruffed Grouse*—Probably fairly common according to the number of reports. A hen with at least 5 chicks was seen on Short Mountain by B. and P. Murphy, J. Morgan and G. Newcomer on 15 June. A hen with young also reported by S. Brooks and G. Koch on Nathaniel Mountain. Two road kills reported by J. Koch and S. Rybeck.

13. *Bobwhite*—Common. This species was heard on 20 of the 50 stops of the Breeding Bird Survey Route No. 1.

14. *Ring-necked Pheasant*—Rare. S. Brooks and E. Chandler saw one hen near Rada on the west side of the S. Branch of the Potomac River. They reported the bird could have been tame but the nearest house was 500 yards away. J. Linehan commented, "not a limestone area, hence no Pheasants".

15. *Wild Turkey*—Only one report.

16. *Killdeer*—Not very common. A total of 10 were noted on 7 stops on the two Breeding Bird Survey Routes (by one team).

17. *American Woodcock*—F. Bartley and E. Hutton scared up a single during one of their many flower hunting trips.

18. *Spotted Sandpiper*—Not very common. J. Morgan found a pair with 2 young on Patterson Creek. C. Katholi and J. Morgan noted another bird of this species that seemed

to be guarding a nest along the same creek. J. Linehan estimated one pair for every 10 mile of creeks and one pair for every 40 ponds in the area.

19. *Mourning Dove*—Not very common. In fact, J. Linehan considered them scarce. A total of 14 were noted at 11 stops on two Breeding Bird Survey Routes (by one team).

20. *Yellow-billed Cuckoo*—Quite common. Three nests of this species found compared to only one of the Black-billed.

21. *Black-billed Cuckoo*—Plentiful, but not nearly as common as the Yellow-billed. P. Murphy considered this species more common in the South Branch valley than in other parts of the territory.

22. *Screech Owl*—Common, at least around the Peterkin area. J. Linehan reported hearing 4 of this species and S. Brooks had brought in 3 (at different times) in answer to his calls.

23. *Barred Owl*—One record. G. Newcomer's electronic device (tape) really proved its worth here. P. Murphy had seen a Barred Owl fly over the road on a trip to Short Mountain. On the trip back, George turned on his taped recording of this species at the spot. The Barred Owl immediately answered back and continued to do so (after each recording) for perhaps a dozen times.

24. *Whip-poor-will*—Common. J. Linehan reported hearing 12 in 6 miles on Nathaniel Mountain. J. Morgan found a nest with 2 eggs near the banding area and this was one of the highlights of the Foray. The nest contained 2 eggs on 13 June, chicks the next day and the young were able to leave the nest on 16 June.

25. *Nighthawk*—Several were seen and heard each evening in Romney. One was seen over a pond near Keyser on 17 June at 3:30 p.m. (after a storm) by P. Gregg, B. and P. Murphy.

26. *Chimney Swift*—Not very common. Only 8 were noted at 6 stops on the two Breeding Bird Survey Routes (by one team).

27. *Ruby-throated Hummingbird*—All reporters commented on the scarcity of this species. Most saw only 1 or 2 all week. One nest found.

28. *Belted Kingfisher*—Scarce. J. Morgan reported one on Patterson Creek. B. Murphy saw one along North River north of Rt. 50 and one near Rt. 220, south of Keyser. Many campers saw or heard the one along the stream back of camp.

29. *Yellow-shafted Flicker*—Common. There were 31 recorded at 29 stops on the B.B.S. (by one team).

30. *Pileated Woodpecker*—Fairly common as all observers reported seeing several. S. Brooks saw a pair with young in the woods above the Lark Sparrow field.

31. *Red-headed Woodpecker*—Only found at the Beaver Ponds on Short Mountain and reported by P. Gregg, P. Murphy and J. Morgan.

32. *Red-bellied Woodpecker*—Several reports. J. Linehan considered them fairly common south of camp but scarce in Mineral County. There were 4 recorded at 4 stops on the two Breeding Bird Survey Routes (by one team).

33. *Yellow-bellied Sapsucker*—Two reports. One was seen by J. Olsen and P. Chandler. Another noted by J. Linehan along Rt. 8 near the Hardy-Hampshire County line where it was calling and flying around as though there were young or a nest nearby.

34. *Hairy Woodpecker*—Probably not very common. Most reporters saw only one all week. However, J. Linehan reported seeing several and one nest was found.

35. *Downy Woodpecker*—Fairly common. It is probably hard to truly evaluate the populations of both the Downy and Hairy Woodpeckers during June because of the "quiet period" before the young leave the nest.

36. *Eastern Kingbird*—Common in the valleys and most farm land.

37. *Great Crested Flycatcher*—Common to very common (for this species). Nineteen were recorded at 15 stops on the two B.B.S. Routes (by one team).

38. *Eastern Phoebe*—Common and well distributed.

39. *Acadian Flycatcher*—Common in proper habitat.

40. *Traill's Flycatcher*—Only a few were found. At least 2 were heard, by many campers, along the small stream below the Dickcissel field. P. Murphy listed one on a trip to North River. R. Bell heard one at stop 29 on the Breeding Bird Survey Route No. 1.

41. *Least Flycatcher*—Uncommon. C. Katholi and A. Shreve reported one near the "Trough". H. Boecher and J. Morgan each reported hearing one. P. Murphy listed 4, one of them along Rt. 8 and another near Rio.

42. *Eastern Wood Pewee*—Common to very common. J. Linehan considered them not quite as common in Mineral County as in the rest of the area.

43. *Horned Lark*—Although inconspicuous at this time of year, several were noted and one nest was found. A. Shreve heard 8 or 10 during the week and J. Linehan noted this species in several fields. C. Katholi saw an immature on Nathaniel Mountain. Several campers saw the adults and young along Rt. 7 south of Agusta on 12 June.

44. *Tree Swallow*—Rare. P. Murphy, C. Miller and J. Morgan reported this species flying over Beaver ponds on Short Mountain (at least 4 birds seen).

45. *Bank Swallow*—One small colony found along road near Headsville by K. Sigel, P. Murphy, P. Gregg and G. Koch. There was an estimate of 50 holes in bank but only about 5 pairs present.

46. *Rough-winged Swallow*—Several reports and 5 nests found. C. Katholi saw 2 along the river in front of Paul William's home along river road. J. Linehan noted 4 during week. One was recorded at stop 41 on Breeding Bird Survey Route No. 2.

47. *Barn Swallow*—Common.

48. *Cliff Swallow*—Not common. C. Conrad reported 3 of this species at the Walter Frey farm. C. Katholi, A. Shreve, J. Linehan and R. Bell found a pair at the James Swisher farm (B.B.S. Route No. 1). J. Linehan noted them at 2 other barns near Levels. S. Brooks saw a small colony just north of Williamsport along Rt. 220.

49. *Blue Jay*—Probably fairly common. Both P. Murphy and J. Linehan commented that this species was more vocal toward the end of week.

50. *Common Raven*—Several reports. S. Brooks and G. Koch saw one along the western slope of Patterson Creek Mountain and 4 together over Nathaniel Mountain near the Ranger Station. P. Murphy and J. Morgan hear one over woods near the Whip-poor-will nest on 14 June. J. Linehan reported seeing a family group at Rio.

51. *Common Crow*—Considered common to very common by most observers. J. Linehan noted 3 small roosts in area—one along Rt. 8 below camp, one toward Keyser and one down on the South Branch of the Potomac River.

52. *Black-capped Chickadee*—Probably fairly common and there was quite a debate as to whether all were of this species. C. Conrad heard both 2-note and 4-note songs. K. Anderson found a nest on his study area and both adults were netted, banded and measured. The male was a Black-cap for sure with a tail measurement of 59.5 mm and a wing of 61mm. The female had a "Carolina" tail measurement of 54.5mm and a wing measurement of 60mm, but the tail was quite worn and frayed (probably from sitting on the nest).

53. *Tufted Titmouse*—Fairly common to common. Twenty-six of this species recorded at 24 stops on the two routes of the Breeding Bird Survey (by one team).

54. *White-breasted Nuthatch*—Not very common. C. Katholi found them in 2 or 3 locations other than the two B.B.S. routes where 4 were heard at a total of 4 stops.

55. *Brown Creeper*—Rare. J. Morgan saw one on Short Mountain.

56. *House Wren*—Rated uncommon by A. Shreve and C. Conrad while others considered it fairly common. Ten were heard singing at 10 stops on the 2 Breeding Bird Surveys (by one team).

57. *Bewick's Wren*—Fairly common. Most observers considered it more common than the House Wren. P. Murphy listed 12 of this species to only 5 House Wrens. J. Linehan found it more common in the northern part of the area.

58. *Carolina Wren*—Widely distributed but not very many recorded. A total of 7 were noted in 7 locations on the two routes of the Breeding Bird Survey (by one team).

59. *Mockingbird*—Common around farm land. J. Linehan made the comment that this species seemed absent from most home sites in the area. 40 were recorded at 32 stops on both B.B.S. Routes (by one team).

60. *Catbird*—Fairly common. A total of 17 noted at 14 stops on the B.B.S. Routes (by one team).

61. *Brown Thrasher*—Fairly common. J. Linehan commented that this species seemed more common in the southern part of the territory. 14 found at 14 stops on the B.B.S. Routes.

62. *Robin*—Common and well distributed. A total of 88 recorded at 50 stops on the two B.B.S. Routes (by one team).

63. *Wood Thrush*—Fairly common to common. 19 were found at 15 stops on the two B.B.S. Routes.

64. *Bluebird* –Fairly common. Nine nesting records. Two pairs were noted at Woodpecker holes in dead snags over Beaver Ponds on Short Mountain with no open land nearby. J. Morgan commented that the absence of boxes in the area, indicated a general lack of interest in birds by the local residents.

65. *Blue-gray Gnatcatcher*—Common and well distributed. Three nesting records.

66. *Cedar Waxwing*—Fairly common to common. A. Shreve commented on the excellent crop of Service Berry.

67. *Loggerhead Shrike*—A pair was found near Rio by V. Olsen. Two were observed at the G. Smith farm. P. Murphy reported one about a mile down the road from the Ice Mountain "turnoff", but noted this bird might have been out of territory.

68. *Starling*—Common and well distributed. This species was flocking already and J. Linehan reported a flock of at least 150 near camp on 17 June.

69. *Yellow-throated Vireo*—Uncommon, but most observers reported hearing 3 or 4. Five were heard on the two B.B.S. routes.

70. *Red-eyed Vireo*—Fairly common to common. S. Brooks commented that this was the most common breeding bird on the Mill Run Study area.

71. *Warbling Vireo*—Not common. J. Linehan heard 3 in the northern part of the territory. C. Katholi reported one near the bridge on way to Romney and P. Murphy noted 5 during week.

72. *Black-and-white Warbler*—Uncommon. C. Conrad noted one at Paw Paw above the tunnel. A. Shreve reported hearing about 4 of this species. R. Bell saw one near the old Turkey Vulture roost (not far from the Frey farm).

73. *Worm-eating Warbler*—Considered fairly common by S. Brooks. There was at least one noted in the banding area near camp.

74. *Golden-winged Warbler*—Not very common. S. Brooks reported seeing several. C. Katholi saw one up the creek from the banding area and another in the hill section north of Springfield. J. Linehan noted a "few" on Nathaniel Mountain. G. Newcomer called one in close on Short Mountain with his "magic box" tape recorder.

75. *Blue-winged Warbler*—Only 2 reports. P. Murphy noted one singing near the Lark Sparrow Field. A. Shreve, J. Linehan and C. Slater recorded one on Nathaniel Mountain.

76. *Parula Warbler*—Considered fairly common by most observers. One nest found.

77. *Yellow Warbler*—Common. A total of 19 recorded at 15 stops on the two Breeding Bird Survey routes.

78. *Black-throated Blue Warbler*—Only one report. C. Conrad saw and heard one along road to Short Mountain on 12 June.

79. *Cerulean Warbler*—Fairly common to common.

80. *Pine Warbler*—Probably fairly common in proper habitat. Several reports, but some observers are hesitant to comment on this species since the song is so similar to the Worm-eating Warbler and Chipping Sparrow.

81. *Prairie Warbler*—Well distributed but not very common.

82. *Ovenbird*—Not common. C. Conrad reported hearing this species on two occasions. P. Murphy said she heard the most on Short Mountain where 7 were noted on 16 June.

83. *Louisiana Water-thrush*—Considered fairly common by most observers.

84. *Kentucky Warbler*—Only one reported. E. Chandler and S. Brooks found one above the falls near camp (in deciduous woods).

85. *Yellow-throat*—Uncommon. J. Morgan considered them common at Beaver Ponds on Short Mountain. C. Conrad heard this species about 8 times during week.

86. *Yellow-breasted Chat*—Fairly common to common. 34 noted on 24 stops of the two Breeding Bird Survey routes.

87. *Hooded Warbler*—Fairly common on Short Mountain only. The banders caught one male in nets near the Mill Run Study Area and S. Brooks commented that it was never heard singing during the 14 trips through the study area.

88. *Canada Warbler*—Only one report.

89. *American Redstart*—Rather common but localized. Five recorded on Short Mountain on 16 June by R. Bell.

90. *House Sparrow*—Not as common as one would expect of this species. 65 recorded by each team on the two census routes.

91. *Eastern Meadowlark*—Very common. 62 recorded at 46 stops on the two B.B.S. routes (by one team).

92. *Red-winged Blackbird*—Fairly common, but only about one-fourth as common as in the compiler's home territory (southwestern Pa.). 101 recorded in 34 stops on the two survey routes.

93. *Orchard Oriole*—Common around camp, but uncommon elsewhere. 3 nests were found.

94. *Baltimore Oriole*—Fairly common to common. 15 nests were found. 12 recorded on 12 stops of the two survey routes.

95. *Common Grackle*—Very common. 182 recorded at 29 stops on the two survey routes.

96. *Brown-headed Cowbird*—Fairly common. 23 recorded at 16 stops on the two survey routes.

97. *Scarlet Tanager*—Common in most woods. 18 recorded at 16 stops on the two survey routes.

98. *Summer Tanager*—Rare. D. Conrad and C. Miller listed one on high peak west of river due west of camp. Dr. Burtt had a "horizontal" observation from his bed early one morning about mid-week.

99. *Cardinal*—Not very common for this species, however 17 were recorded at 15 stops on the two survey routes.

100. *Blue Grosbeak*—Only found at two locations. C. Katholi noted the first one on an overhead wire while driving south of the "Trough" on 11 June. The nest was found later that evening. The second one was found near the Dickcissel field and put on a fine singing demonstration when G. Newcomer played the Blue Grosbeak song on his tape recorder. The bird was quite disturbed by the apparent presence of another male and even flew up quite close to the observers.

101. *Indigo Bunting*—Common to very common. A total of 48 were noted on 39 stops

of the two survey routes.

102. *Dickcissel*—One of the highlights of the Foray. Found by G. Koch along the road between Junction and Headsville. At least 3 singing males were constantly singing on both sides of the road and practically all campers had an excellent view of them.

103. *American Goldfinch*—Very common. Many small flocks were observed at favored feeding locations.

104. *Rufous-sided Towhee*—Fairly common. Lack of undergrowth probably affected this species. J. Morgan considered it plentiful on Nathaniel Mountain.

105. *Savannah Sparrow*—Rare. P. Murphy listed one of this species and J. Linehan reported hearing two in different locations.

106. *Grasshopper Sparrow*—Common in favored habitat. 31 listed at 22 stops on the two survey routes.

107. *Vesper Sparrow*—Not very common but widely distributed. A total of 7 listed at 7 stops on the two survey routes.

108. *Lark Sparrow*—Probably the biggest sensation of the Foray and G. Koch found this one also. One pair feeding young out of nest in an overgrazed and rocky field in Mineral County. Most campers were successful in seeing them.

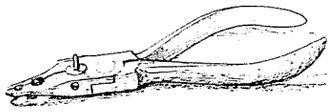
109. *Chipping Sparrow*—Very common. 19 nests found. 67 noted at 40 stops on the two survey routes.

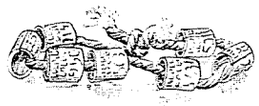
110. *Field Sparrow*—Fairly common to common. 5 nests found. 35 recorded at 30 stops on the 2 survey routes.

111. *Song Sparrow*—Not very common and only one nest reported. What were found were always in the vicinity of water, or not far from it. J. Morgan commented that this species seemed plentiful along Fox Hollow Road. 25 listed at 21 stops on the two Breeding Bird Survey routes (by one team).

R. D. #1, Clarksville, Pa.

The Gathering Cage





Constance Katholi, Editor
930 Woodland Ave.,
South Charleston, W. Va.

The following letters reveal clearly banding conditions for the fall season:

BARNESVILLE, OHIO:

"Birding has been incredibly poor this fall and early winter, with banding to match. I hope to catch something between Christmas and New Year, because my nephew plans to do his term paper for biology on my banding activities. If we have several days of cold and snow the banding business ought to improve." (Editor's Note: And the snow did come!) Mabel Edgerton

ONA, WEST VIRGINIA:

". . .almost no banding this fall. Nets and traps were in operation many days with so few birds per net hour that it is hardly worthwhile. A check recently of all birds seen from my kitchen window, showed all with bands. New ones are just not coming in. I'll have to wait for a snow. Two Mockingbirds, attracted by my berry-ladened holly trees are doing their best to keep ALL other birds away; I may put an 'ad' in the paper, 'Two Mockingbirds FOR SALE,—cheap'!" Maxine Kiff

SOUTH CHARLESTON, WEST VIRGINIA:

A "Homefront O.R." yielded meager results this fall. Five nets were operated (mornings only) on 15 days between Sept. 2 and Oct. 12 for a total catch of 51 new birds of 25 species. Of these only 4 could be considered true (northern-breeding) migrants,—Swainson's Thrush, Blackpoll, Palm and Black-throated Green warblers. Additionally, 26 resident birds of 6 species repeated two or more times,—especially TITMICE! If any conclusions can be drawn from my data,—for example, concerning peak migrations dates,—it would seem that the movement through this area was just beginning to build up in the second week of October—when I had to close up shop to go on vacation! Connie Katholi

WHEELING, WEST VIRGINIA

On September 18, 1967 the Oglebay Park Zoo asked me to band a Great Horned Owl which a farmer had caught in his chicken-coop and presented to the zoo. After banding we took it to a stand of pines on the Serpentine trail for releasing, but it got loose in the car on the side where the windows were closed, and sat looking out of the window as if to say, "How on earth did I get into this situation?" We opened the doors then and he flew up to a dead snag, free at last . . . . .On November 28 I caught and banded a male Common Grackle which was in beautiful spring plumage. It seemed rather late for him to be in the area, and all alone at that. Recently I received from the Banding Office the following information on the Slate-colored Junco which I recovered on April 3, 1967: it had been banded at Long Point, Ontario, in October 25, 1966 by the Ontario Bird Banding Association. Betty Vossler

CLARKSVILLE, PENNA.

For the second year in a row the White-crowned Sparrow migration has been the major event of the fall season. A total of 52 were banded here from October 10 to November 7, of which exactly 50% were adults. The biggest day was October 23 when 12 were banded;

only 3 of these were immatures. On that day a Gambel's White-crown was captured. A picture of this bird was taken because this may prove to be the first record for western Pennsylvania. On November 6 a Gambel's White-crown was recovered in the water-drip trap in the yard. This bird was a return which had been banded at this station on Dec. 5, 1966, (and retrapped two weeks later). Because it was an immature at that time, it was not recognized as the gambelii species. Although it did not repeat again last winter, it probably remained nearby, or it would not have come back this fall. Ralph Bell

WILLOUGHBY, OHIO

There was a very good migration of White-crowned Sparrows through this area this fall—from October 4 through November 7. I banded an even 50, of which 29 (58%) were young of the year, indicating a good nesting season. I identified one as gambelii. White-crowned Sparrows are one of my favorite birds, and I always enjoy seeing them in May and October migrations. In November I saw hundreds of this species accompanied by White-throated Sparrows along the roadside of central Arkansas. Perhaps they were on their way to Texas, but some no doubt winter in Arkansas. White-crowns are good travellers; the only recovery I have had of one of my banded birds was: White-crown #31-118262, banded 5-4-63, which was killed two days later by flying into a window at Tonawanda, N.Y., a distance of 180 miles. (Tonawanda is between Niagara Falls and Buffalo.)

Merit Skaggs

(Editor's Note: Charley Handley took 3 gambelii at Lewisburg, W. Va. in the spring of 1967. (The Redstart, 34, 95). This recurrence of the Gambel's Sparrow should be of interest to all white-crowned banders. Note also the disparity of age groups of White-crowns at the different stations and how one can trace the time of migration through the different states.)

LEWISBURG, WEST VIRGINIA

"A total of 54 species (and sub-species) comprising 1063 individuals were the result of my first year (1967) of banding at "Hartland." The highlights were: 189 Song Sparrows, 130 White-crowns, 275 Grackles, 90 Barn Swallows, 55 Cliff Swallows, 17 Brown Thrashers, 28 Meadowlarks, 39 Savannahs, and lesser numbers of others, of which the single Lark Bunting and the Gambel's Sparrows were of most interest. During this fall's migration 9 of the 10 species banded in October were sparrows, 35 Savannahs, 1 Grasshopper, 6 Vespers, 2 Chipping Sparrows, 14 Fields, 94 White-crowns, 8 White-throats, 6 Lincolns, 7 Swamps, 74 Songs. The last White-crown was handled on Nov. 15, and none have been since. Very few warblers were seen this autumn; those banded were 3 Yellows, 1 Magnolia, 2 Western Palms, 1 Yellow Palm, 1 Kentucky, and 1 Redstart.

"On November 11 in an attempt to net Meadowlarks I set 5 nets in a T-shape pattern in the center of a meadow where there were 25 or 30 of the birds present. "Driving" the birds with the car, I flushed 5 into the nets, but recovered only 2 as the others fluttered out before I could get my hands on them. Continuous high winds during the following week made further attempts impossible; and then, on the day that I had determined to remove the furled nets entirely, company arrived unexpectedly from out-of-town. When some one glanced in the direction of the nets later in the day, 8 steers were in the process of taking down the last net. Several of the poles had been broken off, and others badly bent. Needless to say, the nets were a mess! Previously a dozen or more cows had been pastured in that field, but they had bothered the nets very little. I had not anticipated that they would be replaced by steers which are more curious and aggressive. So, that's that! One way to learn. . . .

"There were three returns of particular interest for the year. The first was a male Cardinal

#572-48386 banded at McClintic on 11-26-66 and retaken here in my yard on 4-2-67. Apparently the bird was a migrant passing through, as I did not take it again. I was not aware that the bird was an unusual return at the time, and could hardly believe it when I posted my returns recently. The second return was the White-crowned sparrow, banded in the fall of 1966, which was recaptured in the spring of 1967, and again this fall. Undoubtedly this bird winters close by, and finding out just WHERE will be a winter project. (I observed no White-crowns in Greenbrier County last winter, but have been told by several people that they had them at their feeders.) The third recovery was a Purple Grackle banded at LaFrance, South Carolina (50 miles from Glenville) on 2-1-62, and trapped and released at Lewisburg on 3-28-67. LaFrance is 250 miles southwest of Lewisburg." Charley Handley

WYNNEWOOD-ST. ALBANS, WEST VIRGINIA

While trapping young jays and thrashers on June 22, 1966, eleven recently-fledged starlings entered the traps which were baited with the dough mixture that is so appealing to immature birds. Starlings are not numerous at our house, but that Spring a brood had hatched in an old sycamore cavity, and another under the eaves of the house, so these birds were probably "locals".

Two starlings from that day's banding met their respective demises only one month, but 650 miles apart. The recovery cards came in the same envelope. One bird had hit a picture window in November, 1966, just two miles from the point of banding; the other was found dead, in January, 1967, near Jackson, Mississippi.

Last winter the natural food supply was practically non-existent, with the situation becoming critical around mid-November. Blue Jays, Towhees, Robins and others, which normally winter here, made a mass exodus. It is likely that our Starlings moved out with them. Anne Shreve

COLUMBUS, OHIO

On two occasions recently, I have had a Kestrel in the large decoy trap. The most plausible explanation is that it entered in order to eat one of the other birds. I did not observe such a performance, although in one instance there was some suspicious coloration on the bill. More interesting to me, however, were some of its other behaviors.

As far as I could observe the Kestrel perched by itself (in the trap) paid little attention to the other birds. It certainly did not pursue or otherwise torment them. Nor did it give its usual scream except when I was handling it myself.

Twice it was in the gathering cage with about thirty other birds, mostly Starlings. Anyone who has had a lot of Starlings in a gathering cage is familiar with how they assemble in one corner in a pile several birds deep. In both instances the Kestrel was at the bottom of the pile and made no effort to force its way to the top although it was big enough to do so.

In the hand the Kestrels' tendency to bite was not outstanding. On my aggressiveness scale each of them rated 4.0 (the scale runs from 1 to 10) whereas the average Grackle or Cowbird rates about 3.0. In the observation cage where I evaluate "complacency" the Kestrels were complacent to a high degree. They spent most of the observation period sitting quietly on the perch or floor whereas some birds change their location every two seconds.

All this suggests that in evaluating bird personality we should avoid being unduly influenced by the predatory behavior of some species. We think of hawks as overly aggressive, vicious, and as "bad guys". My Kestrels did not present such an image at all. I suspect that the experience of a Kestrel when killing a mouse or small bird for food has no more emotional overtones than does the experience of a grackle or cowbird when picking up cracked corn. Both behaviors are routine and "moral" standards should not be invoked. Bird personality is very interesting (to me at least) but we must be objective about it.

Harold E. Burtt

FIELD NOTES

Mrs. Nevada Laitsch, Editor
MC 21, East Liverpool, Ohio

Fall Season:

September 1 to November 30

September was a little "under the weather" both in sunshine and rainfall. Temperatures averaged about 5 degrees below normal. The first real cold snap came on September 25 with frost in many areas. Week-end birders were especially plagued with bad weather. October was mild and very high temperatures were recorded on several days. November brought some cold days, however no bad storms or freezes occurred. The first snow of any consequence came November 30.

The Fall migration was not an easy one to analyze. Several contributors complained that birds were scarce. In certain localities under certain circumstances there was good reason for this conclusion. The flight was later than usual, widely dispersed, and several species showed reluctance to depart. There was an abundance of natural food hence no reason for feeder concentrations.

For the past few years we have leaned heavily on results at the Red Creek banding station on Allegheny Front Mountain, Grant County, West Virginia, where not only banding results were studied but field observations made there were considered. Weather conditions practically blanked out the station this year. We were fortunate to have alert field observers and banders in a widespread area to present a reasonably good picture of the fall flight. Results of a TV tower kill on Coal Mountain near St. Albans, W. Va. were very interesting.

Most unusual was the occurrence of a Frigatebird in Ohio, Hudsonian Godwits in two localities (specimens collected) and the sight record of a Sandhill Crane in the Canaan Valley of West Virginia.

Loons, Grebes and Herons—Common Loons were on Seneca Lake near Barnesville, Ohio from October 28 through November (C&E) and were listed at Lake White, north of Portsmouth, Ohio October 29 (MT). Horned Grebes were at Seneca Lake, Ohio Sept. 19 and thereafter (C&E); a half dozen were on the Kyger Creek power plant ponds near Galipolis, Ohio Oct. 21 (BBC) and 3 were in the same area Oct. 28 (TI). Pied-billed Grebes appeared in normal numbers. A Frigatebird was collected at Clear Creek Reservoir near Mansfield, Ohio on Sept. 30 (HB). Great Blue Herons were still around in several areas until the end of November. Common Egrets were at Seneca Lake, Ohio through Oct. 8 (C&E). A Black-crowned Night Heron was listed at McClintic Wildlife Station, Mason County, W. Va. Sept. 1 (NG) and 3 were found at Seneca Lake, Ohio Oct. 14 (C&E).

Waterfowl—A flock of 41 Whistling Swans was seen at Brockway, Pa. Nov. 12 and another good flock was seen in the same area Nov. 27 (TVS). The Canada Goose flight

appeared very good with big V days October 6,7,8 over most of the region. Reported in fair numbers into late October. The warm mild weather in October was unfavorable to grounding duck flights. Most reporters deplored the low numbers of migratory ducks. From Seneca Lake, Ohio came comment "most species represented but none in good numbers." There were very few on the Kanawha River (NG) and practically none at Morgantown, W. Va. (GAH). The BBC trip to Kyger Creek ponds in Ohio and McClintic Wildlife Station, W. Va. on Oct. 21 produced ten species but none in numbers. Covering the same area Oct. 28 Tom Igou found 14 species but numbers were not impressive.

Vultures and Hawks—A roost of 10 to 15 Turkey Vultures on a power line tower in Marshall County, W. Va. was observed from first of August until Sept. 22 (GP). The hawk flight (if there was one) may have occurred earlier than usual. The biggest day at Hawk Mountain in Pennsylvania occurred Sept. 8. The Charleston, W. Va. people had a count of 773 hawks at the Peter's Mountain station Sept 16-17. 700 of these were Broadwings (NG). There were probably more people than hawks seen on Allegheny Front Mountain during September. Less than 300 hawks were reported at this station (CC). Hall comments that this is the first year he has failed to record a single Sharp-shinned hawk in this locality. Smith found no noteworthy movement of hawks at North Fork Mountain and Reddish Knob, West Virginia. Ospreys were seen at Seneca Lake, Ohio Sept. 20 and several thereafter (C&E). Their numbers appeared down in the Upper Potomac region (JS). A Peregrine Falcon was seen at Apple Grove, Mason County, W. Va. Sept. 28 and one near Galipolis, Ohio Oct. 28 (TI).

Gallinaceous birds—Ruffed Grouse continue to retain good population in Columbiana County, Ohio and adjoining Hancock County, W. Va. (ERC). Numbers were satisfactory in the Wheeling, W. Va. area (GP). However hunters in the eastern panhandle of West Virginia reported a scarcity there.

Cranes—Most unusual but convincing was a report of the sighting of a Sandhill Crane in the Canaan Valley of West Virginia by William Russell of the Fish and Wildlife Service. At the time Mr. Russell was assisting the West Virginia Dept. of Conservation on their Canaan Valley woodcock bag checking program.

Shorebirds—The water level at Seneca Lake, Ohio was too high during the shorebird migration to afford mud flats hence few records came from the Barnesville ladies. The few they found at the Seneca fish hatchery were the usual ones. Miller reported a good flight through the eastern panhandle of West Virginia from July 30 through Oct. 15. There were more Killdeer than usual in this area (CM) and some were heard Nov. 23 in the East Liverpool, Ohio area (NL). Three Ruddy Turnstones were seen at the Kyger Creek power plant ponds near Galipolis, Ohio Oct. 28 (TI). Woodcocks were flushed fairly regularly in Columbiana County, Ohio during September and October (ERC). One was recorded near Phillipi, W. Va. on Nov. 27 (GHB). Common Snipe arrived on their wintering grounds near Martinsburg, W. Va. Nov. 10 and appear plentiful (CM). An Upland Plover was seen in Wayne County, W. Va. Sept 30 (TI). A Dowitcher was listed by BBC at the Kyger Creek ponds Oct. 21 and Igou found one at this location a week later. A Hudsonian Godwit, which appeared to be injured, was seen along W. Va. State Route 2 near Benwood, Marshall County, W. Va. on Sept. 28. The following morning it was picked up dead and turned over to Charles Conrad. This comprises a new record for the state. On Sept. 30 at Hoover Reservoir near Columbus, Ohio 12 of these birds appeared (HB). An Avocet was seen at this same location Oct. 3 and it remained for several days (HB). A Northern Phalarope was found on a fish hatchery pond in Monroe County near Lindside on September 23 (G.Hurley, M.Thacker, B.Greenlee)

Gulls and Tern—A Kittiwake, apparently sick, was observed at close range in Huntington by Sonny Argabrite on October 30. At 20 feet the black legs were readily apparent. (TI).

Doves and Owls—The numbers of Mourning Doves appeared good in Ohio but were considered down in the Wheeling, W. Va. area (GP&CC). Screech Owls were mentioned by several reporters and Great Horned Owls were in at least two locations in Pendleton County, W. Va. (JS).

Nighthawks, Swifts and Hummingbirds—No spectacular flocking of Nighthawks was reported. Average flights were noted in late August and early September. Two good groups moved over Charleston, W. Va. second week of September and on October 9 small groups of Nighthawks and Swifts passed over there (CK). This was the average departure date for Chimney Swifts. Two late Ruby-throated Hummingbirds were seen in Huntington, W. Va. Oct. 4 (TI).

Woodpeckers—Flickers migrated in good numbers over the region. The news continues to be encouraging for Red-headed Woodpeckers. There was a definite increase around Charleston, W. Va. and Columbiana County, Ohio. The earliest date for Yellow-bellied Sapsuckers was Oct. 3 at Charleston, W. Va. (NG).

Flycatchers—The flycatcher flight appeared poor in most places. A fair flight was noted at East Liverpool, Ohio Sept. 12 (NL). A Phoebe was at Kanawha State Forest near Charleston, W. Va. Nov. 28 (NG). 3 Yellow-bellied Flycatchers were banded at the Red Creek station Sept. 21 and a Least Flycatcher banded at Morgantown, W. Va. Sept. 14 comprised Hall's lone record there.

Jays, Ravens and Crows—Blue Jays continue to extend their range and are well established in areas along the Ohio River where they were unknown not long ago. Common Ravens received attention from two reporters. Smith saw a dozen at Panther Knob in Pendleton County, W. Va. Oct. 21 which was the largest number he had seen on any occasion. William Russell commented that he was surprised to see a flock of 20 to 25 playing high over the Canaan Valley on Oct. 15. He was aware that they were there but not in that number. Thousands of Crows may be seen flying across the Ohio River at Wheeling, W. Va. every evening to a roost on the West Virginia side of the river (CC).

Chickadees, Nuthatches, Creepers and Wrens—No southward movement of Black-capped Chickadees was indicated by reports. Red-breasted Nuthatches were very scarce. October 12 was the first date for Brown Creepers when 2 were recorded at Thomas, W. Va. (GHB) and 4 at Huntington, W. Va. (TI). A House Wren's nest containing 5 young was discovered at Clarksville, Pa. on the late date of Sept. 6 (RKB). Carolina Wrens appeared plentiful in most areas. The first one seen in several years at Willoughby, Ohio was noted there Oct. 29 (MS). A Long-billed Marsh Wren was among the TV tower kill on Coal Mountain, W. Va. Oct. 7 (CK).

Mimics—Catbirds did not appear very abundant. However the abundance of fruits and berries gave little reason for movement. 15 dead birds plus a cripple were picked up under the TV tower on Coal Mountain Oct. 7 (CK) and a late one was seen at Thomas, W. Va. Oct. 12 (GHB).

Thrushes—There was no pattern to the Robin flight. They were considered scarce a Morgantown, W. Va. (GAH), normal at Charleston, W. Va. (NG) and one of the best flights in years at East Liverpool, Ohio (NL). The Wood Thrush flight was fair. A tendency to linger was indicated by 20 killed at the TV tower on Coal Mountain Oct. 7 The number of Swainson's Thrush captured at the Red Creek banding station was disappointing compared with other years. Fair numbers were seen in the East Liverpool, Ohio area. 57 dead birds were found under the Coal Mountain TV tower Oct. 7 (CK). One was heard in full song near

Charleston, W. Va. Nov. 3 (NG). 39 Gray-cheeked Thrush were picked up at the Coal Mountain TV tower Oct. 7. This number compared with the 57 Swainson's hints of their secret passage. 2 Veerys were among this kill. Bluebirds generally have made a good comeback. However they continue to be scarce at Willoughby, Ohio (MS).

Kinglets, Pipits, Waxwings and Shrikes—Most reporters mentioned the abundance of both species of Kinglets. Ruby-crowns appeared earlier than usual. One was banded at the Red Creek station Sept. 21. Water Pipits were recorded at Huntington, W. Va. Sept. 25 (TI) and one at Seneca Lake, Ohio Oct. 22 (C&E). Cedar Waxwings numbers still appeared low. Loggerhead Shrikes, which seldom appear in these notes, were reported by several persons. Bell banded one at Clarksville, Pa. Oct. 23; Hall banded one at Morgantown, W. Va. Nov. 15; one was seen near Pt. Pleasant, W. Va. Oct. 28 (TI); seen near Ridgeville, Mineral County, W. Va. Oct. 17 and Nov. 17 (GHB) and their numbers considered normal in Pendleton County, W. Va. (JS).

Vireos—Several reporters commented that vireo numbers were below normal and the flight was definitely later than usual. A White-eyed Vireo was banded at Morgantown, W. Va. Oct. 2 (GAH) and 2 were seen in Huntington, W. Va. Oct. 4 (TI). One was among the Coal Mountain TV tower kill Oct. 7 (CK) as was a Yellow-throated Vireo. A Solitary Vireo was banded at Morgantown, W. Va. on Nov. 4 (GAH). The Red-eyed flight appeared poor and late. 17 of these were casualties at the Coal Mountain TV tower Oct. 7. 9 Philadelphia Vireos were banded at the Red Creek station between Sept. 15 and 30 and 1 was picked up at the Coal Mountain TV tower Oct. 7.

Warblers—Attempting to analyze the warbler flight this Fall would be as perplexing as identifying some of the "confusing fall warblers". 2 Swainson's Warblers were among the birds picked up beneath the Coal Mountain TV tower Oct. 7 (CK). For the second year numbers of Tennessee Warblers appeared lower than usual. Nashville Warblers were in fair numbers and the latest date was Oct. 12 when one was banded at Morgantown, W.Va. (GAH). Late Parula Warblers were listed at Huntington, W. Va. Oct. 4 (TI) and 2 were among the Coal Mountain TV tower kill Oct. 7 (CK). 11 Magnolia Warblers were among this kill. Cape May Warblers appeared in fairly good numbers with two late ones recorded at Huntington, W. Va. Oct. 12(TI). Rather few Black-throated Blues were reported and those were late. 10 of this species were found among the Coal Mountain TV tower kill(CK) Oct. 7 and later yet was one banded at Morgantown, W. Va. Oct. 10 (GAH). Myrtle Warblers staged a very good flight over the entire region peaking around Oct. 26-29. Black-throated Greens lingered well into October with the latest listing Oct. 16 at Morgantown, W. Va. A Yellow-throated Warbler was seen in the Berry Hills section of Charleston, W.Va. Oct. 2 (CK). 4 Chestnut-sided Warblers were among the TV tower kill Oct. 7 and one was listed at Chesapeake, Ohio Oct. 15 (TI). While the Ovenbird flight appeared poor at Morgantown and Red Creek a total of 54 Ovenbirds were casualties at the Coal Mountain TV tower Oct. 7. 6 Northern Waterthrush were found the same day as were 2 late Kentucky Warblers. 3 Connecticuts were among the TV tower kill Oct. 7. 3 were banded at Red Creek and 2 at Morgantown during September. 25 Yellowthroats were mong the TV tower victims along with 7 Hooded, 1 Canada and 10 Redstarts on Oct. 7 (CK). A Yellowthroat showed up at the feeder in East Liverpool, Ohio Nov. 24 (NL).

Blackbirds and Tanagers—Comments from several reporters indicate a slight decline in the blackbird population. 5 Bobolinks were picked up at the Coal Mountain TV tower Oct. 7 (CK). Meadowlarks lingered in the region later than usual. Bell banded 5 at Clarksville, Pa. Nov. 3 and a flock of about 40 was seen in Teays Valley, W. Va. Nov. 27 (CK). Several late September records of Scarlet Tanagers were submitted. 1 was at Morgantown,

W. Va. Oct. 1 (GAH) and surprisingly late were 16 which were included in the Oct. 7 TV tower kill.

Finches and Sparrows—**Rose-breasted Grosbeaks** were seen in Huntington, W. Va. Oct. 4 (TI), banded at Red Creek Oct. 6 and 4 were among the TV tower kill Oct. 7. 9 **Indigo Buntings** were among the birds picked up on the same date. **Dickcissels** were seen in the Charleston, W. Va. area in early November (CK) and appeared at a feeder in another location in Charleston Nov. 9-17. **Purple Finches** were scarce during the period. **Pine Siskins** were found near Brockway, Pa. Nov.11 (VTS). **Goldfinch** appear very plentiful throughout the region. At least 3 flocks of **Red Crossbills** were found in the Brockway, Pa. area on Nov. 11-12 (TVS). Several **Towhees** were found in this same area on this date. There was apparently a good flight of **Savannah Sparrows**. 22 were killed Oct. 7 at the Coal Mountain TV tower. Bell listed his latest banding at Clarksville, Pa. Oct. 13 and they were found in Jackson County, W. Va. Oct. 22 (BBC). 2 **Grasshopper Sparrows** were among the TV tower kill. **Slate-colored Juncos** were about a week late in arriving but numbers appear good. There was a heavy flight of **Chipping** and **Field Sparrows** and banding results indicate a late departure. Nov. 13-14 were last dates at Clarksville, Pa. (RKB). A **Harris Sparrow** appeared at a feeder in Charleston, W. Va. Nov. 5 (CK). **White-crowned Sparrows** appeared on Oct. 4 at Willoughby, Ohio, Clarksville, Pa. and Charleston and Huntington, W. Va. and were in good numbers in most of the region shortly thereafter. A **Gambel's White-crowned Sparrow** was banded at Clarksville, Pa. Oct. 23 (RKB) and one was banded and classified as such at Willoughby, Ohio by Skaggs. The earliest date for **White-throated Sparrows** was Sept. 25 at Clarksville, Pa. (RKB) and numbers seemed good during October. Hall banded 4 **Fox Sparrows** at Morgantown from Oct. 23 to Nov. 16 which he considered unusual for that locality. First arrival was reported at Barnesville, Ohio on Oct. 22 (C&E). There were more reports than usual of **Lincoln Sparrows** from both banders and field observers. Sept. 26 and Oct. 26 were the extreme dates. All contributors commenting on **Song Sparrows** agreed that they had a very good year.

Contributors: Brooks Bird Club (BBC); Ralph K. Bell (RKB); George H. Breiding (GHB); Harold Burtt (HB); Everett R. Chandler (ERC); Charles Conrad (CC); Mary Chapman and Mabel Edgerton (C&E); Norris Gluck (NG); George A. Hall (GAH); Tom Igou (TI); Connie Katholi (CK); Clark Miller (CM); Virginia Olsen (VO); Glen Phillips (GP); Tom and Violet Shields (TVS); Merit Skaggs (MS); John Smith (JS); Marie Trowbridge (MT); and Betty Vossler (BV). Mrs. Nevada Laitsch, MC 21, East Liverpool, Ohio

HUDSONIAN GODWIT IS WEST VIRGINIA RECORD

A bird that was picked up in Marshall County, West Virginia, on Friday, September 29, 1967, and identified as a Hudsonian Godwit, (*Limosa haemastica*), proved to be a State record. Not only that, but it is the first good record supported by a specimen for our whole region. There are two sight records from the Youngstown, Ohio area, and several such reports from the Erie, Pennsylvania area, but no other records or specimens from Western Pennsylvania.

The bird was first sighted on Thursday, September 28, 1967. It was injured and observed limping along the ground between West Virginia State Route 2, and the Ohio River, at the northern edge of Benwood, West Virginia (Marshall County). The bird was seen by John Cole, on his way from work, about 5:15 p.m. At the time, it was raining and smoggy. Upon reaching home, he told Dorothy Broemson and Delores Devaul about it, and they phoned me. From the description given, we decided it was important enough to recover, if possible. Mr. Cole agreed to search for the bird.

On Friday, September 29, Mr. Cole, on his way to work about 12:30 p.m., stopped and recovered the bird, which had travelled about 75 to 100 feet towards the Ohio River, from the spot where it was first sighted. The bird was dead—apparently from a two inch cut across the belly, which allowed part of the intestines to protrude.

On Saturday, September 30, I went out to the Broemson home and identified the bird as a Hudsonian Godwit. John Cole offered to "gut" the bird, and hold it in his freezer. Later, it was shown to Dr. George A. Hall, who confirmed the identification as a Hudsonian Godwit. I turned the specimen over to George, who took it home to make the study skin. However, in preparing the skin, he found it to have an excessive amount of fat, so he took it to Carnegie Museum for additional work. The specimen will be kept at Carnegie Museum.

Charles L. Conrad

Hummingbird Personality

One afternoon in August as I sat on the terrace I witnessed what might have been an incident of interspecific hostile behavior, or possibly was only an optical illusion. From a branch above my head a Wood Pewee darted out after an extremely large passing "insect". The intended victim was not an insect at all, but a Hummingbird which about-faced angrily (if I may be allowed this touch of anthropomorphism) and chased the Pewee back to his perch. Despite appearances, there is the possibility that the Pewee was not "preying" on the Hummingbird, but upon an object (invisible to me) which was in the line of flight of the smaller bird. At the time, my interpretation of the situation struck me as highly ludicrous. Hostility had been triggered in the Hummingbird, however, for it remained in sight for several minutes and attacked first a Gnatcatcher, and then another Hummingbird both of which were foraging in a chestnut oak. Maxine Kiff also observed an exhibition of intraspecific aggressive behavior of Hummingbirds late in summer in a hawthorne tree near her home. I have read that this species is indeed aggressive, but was puzzled about such fierce competition at that time of year.

C. Katholi

As field notes indicated, Spring of 1967 was a season for western strays in West Virginia. Two Gambel's White-crowned sparrows and a Lark Bunting were banded by C. O. Handley in Lewisburg; a Dickcissel showed up on Century Day in Charleston; Bobolinks were unusually plentiful during migration and an abundance of White-crowned and Song Sparrows were noted, particularly by banders. A Harris Sparrow visited Martinsburg and another was observed for several weeks in Charleston. Beginner's luck is an old story, but always so true with birdwatchers. Mr. and Mrs. Stuart Williamson, Jr., who live in the Angel Terrace section of Charleston, were "breakfast-room-window-watchers." Mrs. Williamson signed up for a bird study course offered by the Handlan Chapter of B.B.C. On March 25th she noticed a bird at her feeder that was not in the small field guide supplied with the course. She purchased a larger volume and identified it as a Harris Sparrow. In the not-too-typical manner of beginners, she noted its range and was reluctant to inform her new bird club friends. After watching it for several more days and making notes on its behavior, she did call, much to the delight of fourteen members of the Handlan Chapter who got to see it. It stayed at their feeder until April 8.

Harris sparrows breed in the stunted spruces in northern Canada, and this one seemed to seek out its proper habitat in the Williamson's yard, spending most of its time in a row of little spruces about 75 feet from the house. On April 3, it was caught in a single-cell Potter trap and banded by the writer. Careful examination, with the help of Constance Katholi, indicated that it was a sub-adult male. The black mask was mottled with grayish white at the posterior end of the occiput and on the breast. New feathers were in the sheaths along the sides and on the tibia. The bird was extremely fat, and its general appearance was excellent. Examination of the cloaca, and the fact that it sang repeatedly, indicated it to be a male.

Anne Shreve

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TITLE. The title should be descriptive and concise, preferably containing not more than ten words. Avoid scientific names if possible.

REFERENCES. References should be listed alphabetically by author and referred to in the text by author and year.

TABLES. Keep tables simple and easy to follow so they may be understood without reference to the text.

ILLUSTRATIONS. Illustrations should be suitable for reproduction without retouching. Sharp, glossy prints with good contrast reproduce best. Attach to each a brief legend. Do not write on the back of photographs. Line drawings and diagrams reproduce best if in black ink.

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Authors should strive for continuity of thought and clarity of expression. Some papers may fit the following outline for presentation:

INTRODUCTION. Reasons for conducting the research as well as background material relating what others have done.

DATA. The actual results of the investigation along with the methods used for collecting the data.

CONCLUSIONS. Interpretation of the data.

FUTURE WORK. As a result of the investigation, what work remains to be done.

SUMMARY. For longer articles it is desirable to present a brief summary of the work.

BIBLIOGRAPHY.

Many papers will not fit this type of presentation. Sometimes a simple sequence-of-events arrangement will serve.

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The Brooks Bird Club is a non-profit organization whose objective is to encourage the study and conservation of birds and other phases of natural history. Memberhip includes subscriptions to the REDSTART and MAILBAG and entitles one to all the privileges offered by the Club. Classes of membership are: Student, $2.00; Active, $5.00; Family, $7.00; Sustaining, $10.00; Life, $100. Checks should be written payable to the Brooks Bird Club and mailed to 707 Warwood Avenue, Wheeling, West Virginia.

1968 Calendar of Events

January

Write a letter for MAILBAG . . . . Send to Headquarters
Write a field note for REDSTART . . . 707 Warwood Ave

February

24-25 Mid Winter Meeting . . . . . Wheeling, W. Va.

March

23-24 Field Trip—Spring Hollow . . . . . Columbus, Ohio

April

19-21 Field Trip—Middle Mountain . . . . . Wymer, W. Va.

May

11/12 Century Day Count . . . . . All local groups
24-26 Field trip—Sutton Seekers . . . . Harpers Ferry, W. Va.
29-June 2 Annual Sortie—Handlan Chapter . Cedar Creek State Park

June

1-30 State Breeding Bird Census . . . . . All local groups
8-22 BBC Foray . . . . . Thornwood, W. Va.

July

12-13 Field trip—Lake Terra Alta . . . . . Terra Alta, W. Va.

August

16-18 Field trip—Twin Pines . . . . . Hallsville, Ohio
30-Sept. 2 Field trip—Kumbrabow Forest . . Huttonsville, W. Va.

September

1-30 Operation Bird Banding . . . . . Red Creek
13-15 Hawk Count . . . . . Bear Rocks, W. Va.

October

18-20 Annual Meeting Brooks Bird Club . . . Cedar Lakes, W. Va.

November

16-17 Annual Meeting Executive Comm. . . . Wheeling, W. Va.

December

20-31 Christmas Bird Count . . . . . All local groups

ACTIVITIES OF SPECIAL INTEREST

Jan. 26-28 W. Va. Highlands Conservancy . Blackwater Falls, W. Va.
Apr. 5-7 Annual Meeting—EBBA (BBC Host) . Wheeling, W. Va.
Apr. 27 Webster Co. Nature Day, Camp Caeser . Cowen, W. Va.
May 10-12 Oglebay Bird Weekend . . . . . Wheeling, W. Va.
May 16-19 Annual Wildflower Pilgrimage . Blackwater Falls, W. Va.

SEASONAL FIELD AND BANDING NOTES DUE

March 15 -:- June 15 -:- September 15 -:- December 15

Mail Field Notes to: Nevada Laitch, MC 21, East Liverpool, Ohio 43920

Banding Notes to: Mrs. Constance Katholi, 930 Woodland Ave.
South Charleston, W Va.