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The REDSTART

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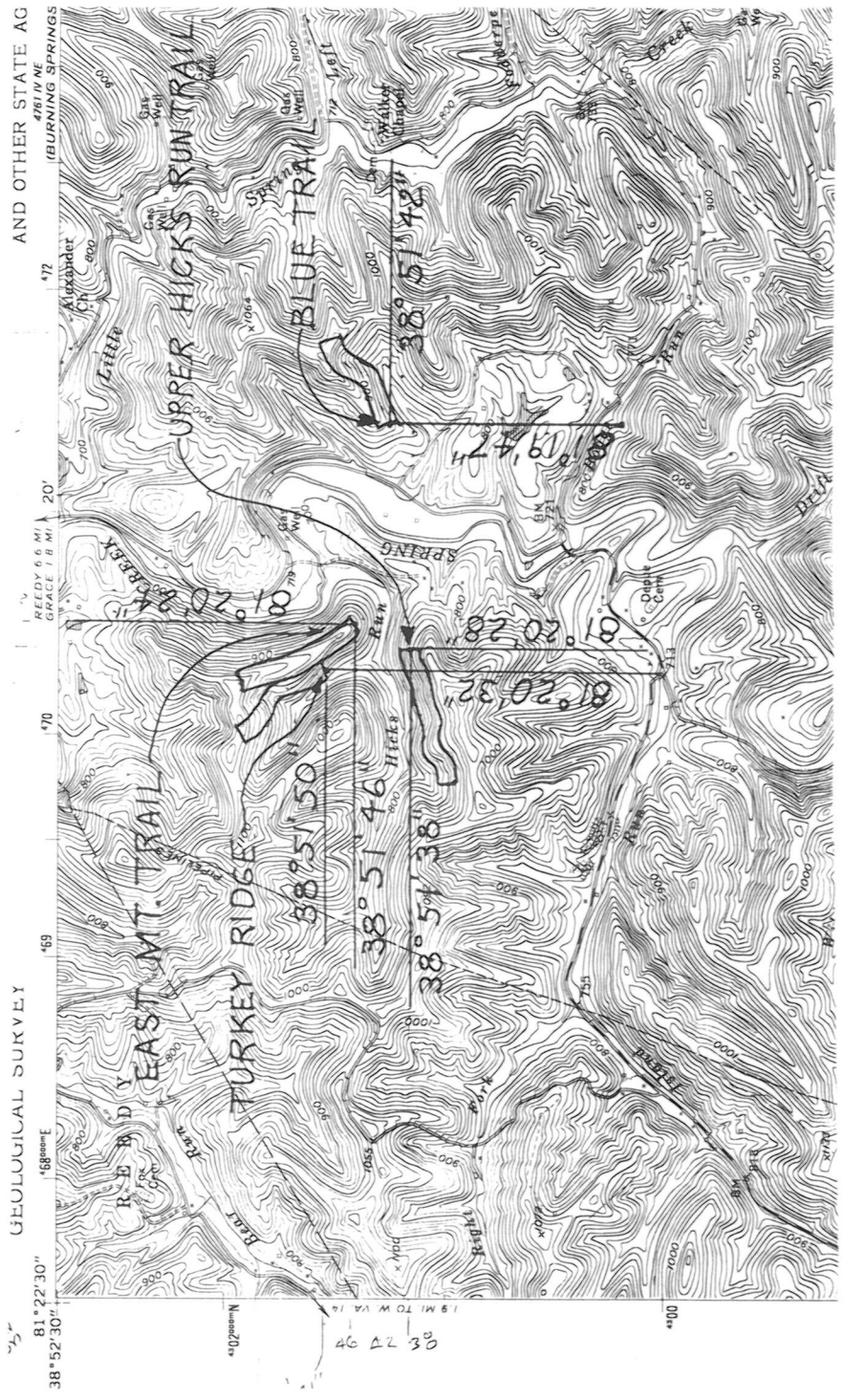
The 1999 Foray Singing Male Population Studies

Greg Eddy

The 60th annual Foray of the Brooks Bird Club was held at the Spring Heights Education Center, Spencer, West Virginia, from June 11 to June 19, 1999. We used the Center as our headquarters and the center of the 15-mile radius area we studied. This area includes nearly all of Roane, the western half of Calhoun, southern Wirt, and eastern Jackson counties. This is the first time we have had a Foray at this location. To the east the area barely touches on the area covered during the 1986 Foray at Glenville, but overlaps a good part of the 1990 Foray held at Ripley. The highest elevations in the area are approximately 1,200 feet and the local relief is 500 to 600 feet.

The Spring Heights facility is located on a large acreage. This made it possible to locate all four of our singing male study plots on the Education Center's property. Three of the plots were located on existing, labeled nature trails: East Mountain Trail, Upper Hick's Run Trail, and Blue Trail.

BLUE TRAIL—Location: West Virginia; Roane County; 4 miles north of Spencer; 38° 51' 42" N, 81° 19' 47" W, Spencer Quadrangle, USGS, extends NE. Continuity: Established 1999. Size: 6.07 ha = 15 acres (rectangular, 110 x 660 yards, measured longitudinally and estimated laterally). Description of plot: A vegetative survey gave the following results. The dominant canopy trees are Black Oak (*Quercus velutina*), Shagbark Hickory (*Carya ovata*), and White Oak (*Q. alba*). Most prominent in the understory are Redbud (*Cercis canadensis*) and canopy seedlings. The ground cover is primarily White Snakeroot (*Eupatorium rugosum*) and fern species. A quantitative survey of the vegetation gave the following results: Trees 3-inches diameter and over, based on three 0.1-acre circular samples, 220/acre; total basal area 87.3 sq. ft./acre. Species comprising 88.3% of the total number of trees: Black Oak 10, 4.5, 20.6, 100; Shagbark Hickory 66.6, 30.3, 20.2, 100; White Oak 10, 4.5, 12.9, 66; Scarlet Oak (*Q. coccinia*), 6.6, 3, 9.9, 33; Pignut Hickory (*C. glabra*), 36.6, 16.6, 8, 100; White Ash (*Fraxinus americana*), 26.6, 12.1, 8, 100; Mockernut Hickory (*C. tomentosa*), 10, 4.5, 2.6, 33; Dead 30, 13.6, 6.1, 100. Figures following each species are number of trees per acre, relative density %, relative dominance %, and relative frequency %. Trees by diameter class: A (3-6 in.) 93.3, 42.4, 9.3, 10.6; B (6-9 in.) 80, 36.3, 24, 27.4; C (9-15 in.) 30, 13.6, 24, 27.4; D (15-21 in.) 16.6, 7.5, 30, 34.3. Figures following each class are number of trees per acre, relative density %, basal area per acre for that class, and relative dominance %. Shrub stems/acre 666; ground cover 53%; canopy cover



Blue Trail Study Plot. Photo by Patricia Temple.

71%; average canopy height 69 ft. (range 62-79). Edge: Similar forest continues in all directions. Topography: The plot lies along a steep south-facing slope. The first half nearly follows the contour of the slope. The second half climbs the steep slope and ends on the top of the hill. Elevation: 850 feet to 1,050 feet. Coverage: June 13 to June 16, 1999. All trips between dawn and 0712 hours. Total party hours: 6.3. Census: Ovenbird, 6 (99, 40); Red-eyed Vireo, 5 (82, 33); Wood Thrush, 3.5 (58, 23); Eastern Wood-Pewee, 2; Acadian Flycatcher, 2; Scarlet Tanager, 2; White-breasted Nuthatch, 1; Worm-eating Warbler, 1. Total: 8 species; 22.5 territorial males (239/sq. km., 96/100 acres). Visitors: Yellow-billed Cuckoo, Red-bellied Woodpecker, Downy Woodpecker, Hairy Woodpecker, Pileated Woodpecker, Great Crested Flycatcher, Tufted Titmouse, Blue-gray Gnatcatcher, American Robin, Northern Cardinal. Remarks: The center line of the study area partly follows the marked Blue Trail of the Spring Heights Education Center and then continues up the hill and across two small ravines. One of the ravines was the territory of the Worm-eating Warbler. No nests were located, but a family of White-breasted Nuthatches was seen on the plot. Mammals seen on the plot included gray squirrel, chipmunk, deer, and raccoon. Census participants: Charlotte Duffield, Cynthia Ellis, Thomas Fox, Wilma Jarrell, Virginia Johnson (compiler), Karl Liske, Shirley Martin, Frederick McCullough, Jane Oswald, Lisa Rayburn, Elizabeth Ritter, Randy Ritter, Judith Ward.

EAST MOUNTAIN TRAIL—Location: West Virginia; Roane County; 4 miles north of Spencer; 38° 51' 46" N, 81° 20' 24" W, Spencer Quadrangle, USGS, extends NW. Continuity: Established 1999. Size: 6.07 ha = 15 acres (rectangular, 110 x 660 yards, measured longitudinally and estimated laterally). Description of plot: A vegetative survey gave the following results. The dominant canopy trees are Red Oak (*Quercus rubra*), White Oak (*Q. alba*), and Scarlet Oak (*Q. coccinia*). Most prominent in the understory are Red Maple (*Acer rubrum*) and White Oak. The ground cover is primarily Huckleberry (*Vaccinium* sp.) and seedlings of the canopy. A quantitative survey of the vegetation gave the following results: Trees 3-inches diameter and over, based on three 0.1-acre circular samples: 197/acre; total basal area 94.3 sq. ft./acre. Species comprising 90.7% of the total number of trees: Red Oak, 23.3, 11.8, 24.3, 100; White Oak 33.3, 16.9, 22.6, 100; Scarlet Oak, 10, 5, 13.7, 33; Red Maple, 53.3, 27.1, 10.9, 100; Virginia Pine (*Pinus virginiana*), 6.6, 3.3, 5.6, 66; Pignut Hickory (*Carya glabra*), 6.6, 3.3, 3.8, 33; Chestnut Oak (*Q. prinus*), 6.6, 3.3, 3.8, 33; Dead, 10, 5, 6, 33. Figures following each species are number of trees per acre, relative density %, relative dominance %, and relative frequency %. Trees by diameter class: A (3-6 in.) 90, 45.7, 9, 9.5; B (6-9 in.) 40, 20.3, 12, 12.7; C (9-15 in.) 46.6, 23.7, 37.3, 39.5; D (15-21 in.) 20, 10.1, 36, 38.1. Figures following each class are number of trees per acre, relative density %, basal area per acre for that class, and relative dominance %. Shrub stems/acre 633; ground cover 29.1%; canopy cover 92.5%; average canopy height 82 ft. (range 70-95). Edge: Similar forest continues in all directions. Elevation: 880 to 1,030 feet. Weather: Cool most mornings and clear to overcast. Coverage: June 12 to June 18, 1999. All trips between 0527 and 0735 hours. Total party hours: 9.5. Census: Eastern Wood-Pewee, 3 (49, 20); Red-eyed Vireo, 3; Blue-gray Gnatcatcher, 2.5; Yellow-throated Vireo, 1.5; Wood Thrush, 1.5; Cerulean Warbler, 1.5; Ovenbird, 1.5; Red-bellied Woodpecker, 1; Yellow-throated Warbler, 1; Hairy Woodpecker, +; Great Crested Flycatcher, +; Tufted Titmouse, +; White-breasted Nuthatch, +; Hooded Warbler, +; Scarlet Tanager, 1+. Total: 15 species; 16.5 territorial males (272/sq. km., 110/100 acres. Visitors: Pileated Woodpecker, Summer Tanager. Remarks: A Blue-gray Gnatcatcher nest was found with a bird on the nest, and a pair of Red-bellied Woodpeckers with two young were often seen on the plot. Census participants: Cynthia Ellis, Mariah Fowler, Sarah Fowler, Zach Fowler, Dawn Fox (compiler), Karl Liske, Elizabeth Ritter, Randy Ritter. Vegetation surveyors: James Bullard, Cynthia Ellis, Karl Liske, Tina Long, Wilma Jarrell, Steven Mace, Carol McCullough, Frederick McCullough, Elizabeth Ritter, Randy Ritter.

East Mountain Trail Study Plot. Photo by Patricia Temple.

TURKEY RIDGE—Location: West Virginia; Roane County; 4 miles N of Spencer; 38° 51' 41" N, 81° 20' 32" W, Spencer Quadrangle, USGS, extends NW. Continuity: Established 1999. Size: 6.07 ha. = 15 acres (rectangular, 110 x 660 yards, measured longitudinally and estimated laterally). Description of plot: A vegetative survey gave the following results. The dominant canopy trees are Scarlet Oak (*Quercus coccinia*), White Oak (*Q. alba*), and Chestnut Oak (*Q. prinus*). Most prominent in the understory are Sugar Maple (*Acer saccharum*) and Red Maple (*A. rubrum*). The ground cover is primarily ferns and grasses. A quantitative survey of the vegetation gave the following results: Trees 3-inches diameter and over, based on three 0.1-acre circular samples: 240/acre; total basal area 119 sq. ft./acre. Species comprising 82.4% of the total number of trees: Scarlet Oak, 13.3, 5.5, 29.4, 66; White Oak, 40, 16.6, 12.8, 66; Chestnut Oak, 13.3, 5.5, 7.5, 66; Red Oak (*Q. rubra*), 10, 4.1, 7.5, 66; Red Maple, 43.3, 18, 7.2, 100; Virginia Pine (*Pinus virginiana*), 10, 4.1, 6.7, 66; Shagbark Hickory (*Carya ovata*), 6.6, 2.7, 5.8, 33; American Beech (*Fagus grandifolia*), 23.3, 9.7, 2.5, 66; Dead 23.3, 9.7, 3, 66. Figures following each species are number of trees per acre, relative density %, relative dominance %, and relative frequency %. Trees by diameter class A (3-6 in.), 120, 50, 12, 10; B (6-9 in.) 60, 25, 18, 15.1; C (9-15 in.) 36.6, 15.2, 29.3, 24.6; D (15-21 in.) 20, 8.3, 36, 30.2; G (33-40 in.) 3.1, 1.3, 23.6, 19.8. Figures following each class are number of trees per acre, relative density %, basal area per acre for that class, and relative dominance %. Shrub stems/acre 533; ground cover 37%; canopy cover 83%; average canopy height 91 ft. (range 86-100). Edge: Similar forest continues in all directions. Topography: The first half of the plot follows a steep southwest-facing slope, and abuts the East Mountain Trail plot. At a ravine the plot turns a little to the right, heads slightly up slope and ends on Turkey Ridge. Elevation of center line: 820 to 1,030 feet. Weather: Mostly calm and clear. Coverage: June 12 to June 18, 1999. All trips between dawn and 0735 hours EDT. Total party hours: 9.6. Census: Red-eyed Vireo, 5 (82, 33); Ovenbird, 4.5 (74, 30); Acadian Flycatcher, 3 (49, 20); Wood Thrush 2.5; Eastern Wood-Pewee, 1.5; Carolina Wren, 1; Blue-gray Gnatcatcher, 1; Red-bellied Woodpecker, +; Downy Woodpecker, +; Northern Flicker, +; Great Crested Flycatcher, +; Yellow-throated Vireo, +; Blue Jay, +; Tufted Titmouse, +; White-breasted Nuthatch, +; Worm-eating Warbler, +; Kentucky Warbler, +; Summer Tanager, +; Scarlet Tanager, +; Northern Cardinal, +. Total: 20 species; 18.5 territorial males (305 sq. km., 123/100 acres). Visitor: Yellow-billed Cuckoo, Ruby-throated Hummingbird, Hairy Woodpecker, Eastern Phoebe, Black-and-white Warbler. Census participants: Garnet Byrne, Janice Emrick (compiler), Scott Emrick, Thomas Fox, Jocelyn Godwin, Mary Groome, Lucas Head, John Jacobs, Ed Johnson, Karl Liske, Martha Manuel, Jane Oswald.

UPPER HICK'S RUN TRAIL—Location: West Virginia; Roane County; 4 miles N of Spencer; 38° 51' 38" N, 81° 20' 28" W, Spencer Quadrangle, USGS, extends west. Continuity: Established 1999. Size: 6.07 ha. = 15 acres (rectangle, 110 x. 600 yards, measured longitudinally and estimated laterally). Description of plot: A vegetative survey gave the following results. The dominant canopy trees are Yellow Poplar (*Liriodendron tulipifera*), White Oak (*Quercus alba*), and Cucumber Magnolia (*Magnolia acuminata*). Most prominent in the understory are Spice Bush (*Lindera benzoin*) and seedlings of the canopy. The ground cover is primarily ferns and grasses. A quantitative survey of the vegetation gave the following results: Trees 3-inches diameter and over, based on three 0.1 acre circular samples: 290/acre; total basal area 126.6 sq. ft./acre. Species comprising 82% of the total number of trees: Yellow Poplar, 13.3, 4.5, 30.5, 66; White Oak, 60, 20.6, 19.2, 66; Cucumber Magnolia, 6.6, 2.2, 12.8, 33; Hickory sp. (*Carya sp.*), 23.3, 8, 6.5, 66; Yellow Buckeye (*Aesculus octandra*), 23.3, 8, 6.5, 100; Sugar Maple (*Acer saccharum*), 36.6, 12.6, 4.4, 66; Black Gum (*Nyssa sylvatica*), 8, 26.6, 4.4, 100; American Elm (*Ulmus americana*), 30, 10.3, 2.8, 66; Black Walnut (*Juglans nigra*), 6.6, 2.2, 2.8, 66; American Beech (*Fagus grandifolia*), 6.6, 2.2, 2.3, 66; Dead, 36.6, 12.6, 4.4, 100. Figures following each species are number of trees per

Turkey Ridge Study Plot. Photo by Patricia Temple.

acre, relative density %, relative dominance %, and relative frequency %. Trees by diameter class A (3-6 in.) 146.6, 50.5, 14.6, 11.5; B (6-9 in.) 83.3, 28.6, 25, 19.7; C (9-15 in.) 50, 17.2, 40, 31.5; D (15-21 in.) 3.3, 1.1, 6, 8.1; E (21-27 in.) 3.3, 1.1, 10, 8.1; H (40+ in.) 3.3, 1.1, 30.6, 24.2. Figures following each class are number of trees per acre, relative density %, basal area per acre for that class, and relative dominance %. Shrub stems/acre 583; ground cover 38.3%; canopy cover 93.3%; average canopy height 82 ft. (range 73-97). Edge: Similar forest continues in all directions. Topography: The plot follows a north-facing slope. Elevation: 900 feet. Coverage: June 12 to June 18, 1999. All trips between dawn and 0700 hours. Total party hours: 8.75. Census: Wood Thrush, 5 (82, 33); Red-eyed Vireo, 4.5 (74, 30); Acadian Flycatcher, 4 (66, 27); Cerulean Warbler, 3.5, (58, 23); Ovenbird, 3 (49, 20); Scarlet Tanager, 1.5; Blue-gray gnatcatcher, 1; American Redstart, 1; Worm-eating Warbler, 0.5; Wild Turkey, +; Yellow-billed Cuckoo, +; Great Horned Owl, +; Whip-poor-will, +; Ruby-throated Hummingbird, +; Red-bellied Woodpecker, +; Downy Woodpecker, +; Northern Flicker, +; Pileated Woodpecker, +; White-breasted Nuthatch, +. Total: 19 species; 23 territorial males (378/sq. km., 153/100 acres). Remarks: Worm-eating Warblers were very hard to hear over noise of the cicadas. Census participants: Greg Eddy, Mariah Fowler, Sarah Fowler, Zach

Fowler, Lucas Head, Tina Long, Cynthia Luntz, Shirley Martin, James Miller, Elizabeth Ritter, Randy Ritter, Juanita Slater (compiler), Philip Wheeler, Jane Whitaker, Carrie Williamson. Vegetation surveyors: Greg Eddy, Mariah Fowler, Sarah Fowler, Zach Fowler, Lucas Head, Juanita Slater, Jane Whitaker.

Upper Hick's Run Trail Study Plot. Photo by Patricia Temple.

13 Aster Dr., Clinton Hills
Triadelphia, WV 26059

The 1999 Foray Bird List

Carol McCullough and Frederick McCullough

The abundance terms used in this report follow:
Very common - Observed in large numbers every day in all appropriate habitats.
Common - Observed in appropriate habitat every day without any special effort.
Uncommon - Observed in appropriate habitat only with a lot of effort.
Rare - Only one or two observed in the entire study region during the study period.

Great Blue Heron—Common.
Green Heron—Uncommon. One was seen near camp. Also seen near Little Kanawha River, at Frozencamp Wildlife Management Area (WMA), and near Harmony.
Turkey Vulture—Common. Seen every day but not in great numbers.
Canada Goose—Common. Seen on most days. Several were seen at Frozencamp WMA.
Wood Duck—Common. Several sightings with young reported.
Black Duck—Rare. A family of ducks was observed near Frozencamp WMA by Carl and Juanita Slater, Joyce Preece, and several scholarship students.
Mallard—Uncommon. Only a few observations. Wilma Jarrell reported two near Frozencamp WMA.
Hooded Merganser—Rare. Thomas Fox saw a female in eclipse plumage in Richardson on West Fork of Little Kanawha River.
Sharp-shinned Hawk—Rare. Reported, but no other information was submitted.
Cooper's Hawk—Rare. Wilma Jarrell reported one near camp
Red-shouldered Hawk—Common. Jane Whitaker heard one at camp. Five were reported on Breeding Bird Survey (BBS) routes.
Broad-winged Hawk—Common. Many were reported including a probable nest in camp.
Red-tailed Hawk—Common.
American Kestrel—Uncommon. Several were reported near Reedy.
Ruffed Grouse—Uncommon. Heard on Johnson Creek Road by Garnet Byrne and Karl Liske. The Emricks flushed one at camp.
Wild Turkey—Common. Several sightings with young reported.
Northern Bobwhite—Rare. Ralph Bell reported one on a BBS route.
Killdeer—Common. Seventeen were reported on BBS routes.
American Woodcock—Common. Edwin Smith and Greg Eddy each reported several.
Rock Dove—Uncommon. Very few reported.

Mourning Dove—Very common. Seen every day. BBS routes yielded 207.
Black-billed Cuckoo—Rare. Jane Whitaker saw one clearly on a BBS route.
Yellow-billed Cuckoo—Common. Jack Linehan remarked they were having a wonderful year eating the periodical cicadas.
Eastern Screech-Owl—Uncommon. Heard near the camp lodges. No special effort was made to find owls.
Great Horned Owl—Uncommon. Jack Linehan and Edwin Smith heard them calling from different areas of the camp.
Barred Owl—Uncommon. Heard at camp by William Beatty and Edwin Smith.
Whip-poor-will—Uncommon. Several were heard at camp including on study plots and also near Joyce Preece's home.
Chimney Swift—Common.
Ruby-throated Hummingbird—Common. Jack Linehan saw five at a feeder.
Belted Kingfisher—Common.
Red-headed Woodpecker—Rare. The only one reported was on a BBS route on County Road 15/8 southwest of Harmony.
Red-bellied Woodpecker—Common. Forty-five were reported on 42 BBS stops.
Downy Woodpecker—Common.
Hairy Woodpecker—Uncommon. Eight were reported on five BBS stops.
Northern Flicker—Common.
Pileated Woodpecker—Common.
Eastern Wood—Pewee—Common.
Acadian Flycatcher—Common. Ninty-four were reported on 80 BBS stops.
Willow Flycatcher—Uncommon. Five were reported on four BBS stops.
Eastern Phoebe—Common.
Great Crested Flycatcher—Common.
Eastern Kingbird—Common.
White-eyed Vireo—Common.
Yellow-throated Vireo—Common.
Warbling Vireo—Uncommon. Most people reported seeing or hearing only a few.
Red-eyed Vireo—Very common.
Blue Jay—Common.
American Crow—Very common.
Common Raven—Rare. Several people observed them on County Road 12 in Calhoun County between Richardson and Rocksdale.
Purple Martin—Rare. Wilma Jarrell reported three in one location.
Tree Swallow—Uncommon. Seven were reported on three BBS stops.
Northern Rough-winged Swallow—Uncommon. Edwin Smith saw two entering a nest near the West Fork of the Little Kanawha River at the mouth of Triplett Run.

Cliff Swallow—Rare. Several people reported seeing them near two nests at the bridge over the Little Kanawha River in Sonoma.
Barn Swallow—Common. Jane Whitaker thought the numbers were low considering the habitat.
Carolina Chickadee—Common.
Tufted Titmouse—Common.
White-breasted Nuthatch—Common.
Carolina Wren—Common.
House Wren—Uncommon. Few birds were reported despite good habitat.
Blue-gray Gnatcatcher—Common.
Eastern Bluebird—Common.
Wood Thrush—Very common.
American Robin—Very common.
Gray Catbird—Common.
Northern Mockingbird—Common.
Brown Thrasher—Common.
European Starling—Common. Many were seen but they were not widespread.
Cedar Waxwing—Uncommon. Only a few scattered reports.
Blue-winged Warbler—Common. Observed daily.
Golden-winged Warbler—Rare. The Eddys, Temples, and Groomes heard one singing on County Road 9/6 South of Creston.
Northern Parula—Uncommon. Only 12 were reported on BBS routes.
Yellow Warbler—Common.
Yellow-throated Warbler—Common. Singing daily in camp.
Pine Warbler—Uncommon. Only a few were observed in limited habitat. Thomas Fox said he easily found them in habitat.
Prairie Warbler—Uncommon. Only a few were reported.
Cerulean Warbler—Common.
Black-and-white Warbler—Uncommon. Except for those on study plots, there were only a few reported.
American Redstart—Common.
Worm-eating Warbler—Uncommon. A few were reported on or near study plots; there were few other reports.
Ovenbird—Common. Heard throughout the territory in appropriate habitat.
Louisiana Waterthrush—Common.
Kentucky Warbler—Uncommon. Only a few reported.
Common Yellowthroat—Common. Jane Whitaker thought its abundance seems to be declining.
Hooded Warbler—Uncommon. Only a few reported.
Yellow-breasted Chat—Common. Widely spread.
Summer Tanager—Common. One easily seen near cottages.

Scarlet Tanager—Common.
Eastern Towhee—Common.
Chipping Sparrow—Common.
Field Sparrow—Common.
Savannah Sparrow—Rare. Found in same fields as the Blue Grosbeak on County Road 14/3 northeast of Reedy.
Song Sparrow—Very common.
Northern Cardinal—Very common.
Blue Grosbeak—Rare. One adult male was seen in the same fields as the Savannah Sparrow.
Indigo Bunting—Very common.
Red-winged Blackbird—Common.
Eastern Meadowlark—Common.
Common Grackle—Common.
Brown-headed Cowbird—Common.
Orchard Oriole—Common.
Baltimore Oriole—Uncommon. Few were reported.
House Finch—Uncommon. Few were reported.
American Goldfinch—Common.
House Sparrow—Uncommon. Few were reported.

Louisiana Waterthrush nest found by Janice Emrick and Mary Groome. Photo by Patricia Temple

1119 Queensbury Street
Pittsburgh, PA 15205

The 1999 Foray Breeding Bird Surveys

Ralph K. Bell, Carol McCullough, and Frederick McCullough

Ninety-two species and 5,566 individual birds were counted at the 362 stops on the Breeding Bird Surveys during the 1999 Brooks Bird Club Foray. The base of the operations was the Spring Heights Education Center near Spencer, West Virginia. It was the first Foray in Roane County and covered parts of Calhoun, Jackson, and Wirt counties.

The teams ran fourteen 10-mile routes involving 280 stops. The teams traveled by automobile and a new route was taken each day. Stops were made every half-mile to record all birds seen and heard in a 3-minute period. Thomas Fox contributed 82 additional stops. He ran two official Fish and Wildlife Service 25-mile Breeding Bird Surveys in the general area and 82 of his stops were within the Foray territory. Table 1 lists the numbers of each bird species recorded and the number of stops at which each was present.

Table 1
Birds Recorded by Species

Species	Numbers	Stops Present
Great Blue Heron	7	5
Green Heron	4	4
Turkey Vulture	20	11
Canada Goose	2	1
Wood Duck	1	1
Cooper's Hawk	3	3
Red-shouldered Hawk	5	5
Broad-winged Hawk	1	1
Red-tailed Hawk	5	5
American Kestrel	1	1
Wild Turkey	1	1
Northern Bobwhite	1	1
Killdeer	17	11
Rock Dove	4	3
Mourning Dove	207	134
Black-billed Cuckoo	1	1
Yellow-billed Cuckoo	65	59
Eastern Screech-Owl	2	2

Species	Numbers	Stops Present
Great Horned Owl	1	1
Chimney Swift	16	9
Ruby-throated Hummingbird	6	6
Belted Kingfisher	17	13
Red-headed Woodpecker	1	1
Red-bellied Woodpecker	45	42
Downy Woodpecker	36	32
Hairy Woodpecker	8	5
Northern Flicker	24	22
Pileated Woodpecker	22	19
Eastern Wood-Pewee	72	67
Acadian Flycatcher	94	80
Willow Flycatcher	5	4
Eastern Phoebe	128	113
Great Crested Flycatcher	22	19
Eastern Kingbird	21	19
White-eyed Vireo	57	49
Yellow-throated Vireo	40	36
Warbling Vireo	12	11
Red-eyed Vireo	237	139
Blue Jay	45	31
American Crow	246	170
Purple Martin	1	1
Tree Swallow	7	3
Northern Rough-winged Swallow	8	3
Cliff Swallow	8	3
Barn Swallow	136	53
Carolina Chickadee	125	95
Tufted Titmouse	155	132
White-breasted Nuthatch	42	39
Carolina Wren	168	151
House Wren	6	6
Blue-gray Gnatcatcher	37	35
Eastern Bluebird	79	63
Wood Thrush	217	151
American Robin	308	156
Gray Catbird	96	84
Northern Mockingbird	51	47
Brown Thrasher	19	18

Species	Numbers	Stops Present
European Starling	234	55
Cedar Waxwing	20	8
Blue-winged Warbler	38	33
Northern Parula	12	12
Yellow Warbler	76	67
Yellow-throated Warbler	34	30
Pine Warbler	6	5
Prairie Warbler	12	11
Cerulean Warbler	26	25
Black-and-white Warbler	19	19
American Redstart	28	22
Worm-eating Warbler	3	3
Ovenbird	83	63
Louisiana Waterthrush	31	26
Kentucky Warbler	17	16
Common Yellowthroat	86	77
Hooded Warbler	8	7
Yellow-breasted Chat	76	68
Summer Tanager	9	9
Scarlet Tanager	75	71
Eastern Towhee	131	116
Chipping Sparrow	134	108
Field Sparrow	80	72
Song Sparrow	282	207
Northern Cardinal	277	211
Indigo Bunting	285	209
Red-winged Blackbird	130	62
Eastern Meadowlark	64	43
Common Grackle	53	27
Brown-headed Cowbird	67	48
Orchard Oriole	69	47
Baltimore Oriole	10	9
House Finch	18	13
American Goldfinch	68	48
House Sparrow	40	12

Table 2 lists the 20 most abundant species found on the 362 three-minute stops within the 1999 Foray territory.

Table 2
Most Abundant Species

Species	Number	% of Total Birds
American Robin	308	5.5
Indigo Bunting	285	5.1
Song Sparrow	282	5.0
Northern Cardinal	277	4.9
American Crow	246	4.4
Red-eyed Vireo	237	4.2
European Starling	234	4.2
Wood Thrush	217	3.8
Mourning Dove	207	3.7
Carolina Wren	168	3.0
Tufted Titmouse	155	2.7
Barn Swallow	136	2.4
Chipping Sparrow	134	2.4
Eastern Towhee	131	2.3
Red-winged Blackbird	130	2.3
Eastern Phoebe	128	2.2
Carolina Chickadee	125	2.2
Gray Catbird	96	1.7
Acadian Flycatcher	94	1.6
Common Yellowthroat	86	1.5

Table 3 lists the most widely distributed species within the Foray area and the number of stops (out of 362) where each species was noted.

Table 3
Most Widely Distributed Species

Species	Stops Present	% of Total Stops
Northern Cardinal	211	58.2
Indigo Bunting	209	57.7
Song Sparrow	207	57.1
American Crow	170	46.9
American Robin	156	43.0
Carolina Wren	151	41.7

Species	Stops Present	% of Total Stops
Wood Thrush	151	41.7
Red-eyed Vireo	139	38.3
Mourning Dove	134	37.0
Tufted Titmouse	132	36.4
Eastern Towhee	116	32.0
Eastern Phoebe	113	31.2
Chipping Sparrow	108	29.8
Carolina Chickadee	95	26.2
Gray Catbird	84	23.2
Acadian Flycatcher	80	22.0
Common Yellowthroat	77	21.2
Field Sparrow	72	19.8
Yellow-breasted Chat	68	18.7
Eastern Wood-Pewee	67	18.5

The following people participated in one or more of the surveys: Ralph Bell, Garnet Byrne, Kenneth Cronenberger, Virginia Cronenberger, Charlotte Duffield, Greg Eddy, Janice Emrick, Scott Emrick, Mariah Fowler, Sarah Fowler, Zach Fowler, Dawn Fox, John Fox, Matthew Fox, Thomas Fox, Mary Groome, Lucas Head, Wilma Jarrell, Judith Knorr, Jack Linehan, Karl Liske, Carol McCullough, Frederick McCullough, James Miller, Loretta Mullens, Jane Oswald, Joyce Preece, Laura Rayburn, Lisa Rayburn, Darlene Raymond, Joan Raymond, Elizabeth Ritter, Randy Ritter, David Schroeder, Carl Slater, Judith Ward, June Wheeler, Jane Whitaker, and Carrie Williamson.

RD 1, Box 229
Clarksville, PA 15322

1119 Queensbury Street
Pittsburgh, PA 15205

Butterflies and Moths of the 1999 Foray

Virginia Johnson

Butterflies

Pipevine Swallowtail	*Battus philenor*
Zebra Swallowtail	*Eurytides marcellus*
Black Swallowtail	*Papilio polyxenes asterius*
Spicebush Swallowtail	*Papilio troilus troilus*
Eastern Tiger Swallowtail	*Papilio glaucus*
Cabbage White	*Pieris rapae*
Clouded Sulphur	*Colias philodice philodice*
Orange Sulphur	*Colias eurytheme*
Eastern Tailed-Blue	*Everes comyntas comyntas*
Spring Azure	*Celastrina ladon ladon*
Great Spangled Fritillary	*Speyeria cybele cybele*
Meadow Fritillary	*Boloria bellona bellona*
Silvery Checkerspot	*Chlosyne nycteis nycteis*
Pearl Crescent	*Phyciodes tharos*
Anglewing sp.	*Polygonia sp.*
Common Buckeye	*Junonia coenia*
Red-spotted Purple	*Limenitis arthemis astyanax*
Little Wood Satyr	*Megisto cymela*
Common Wood Nymph	*Cercyonis pegala pegala*
Silver-spotted Skipper	*Epargyreus clarus*
Peck's Skipper	*Polites peckius*
Little Glassywing	*Pompeius verna verna*

Moths

Hog/Virginia Creeper Sphinx	*Darapsa myron*
Rosy Maple Moth	*Dryocampa rubincunda*
Polyphemus Moth	*Antheraea polyphemus*
Luna Moth	*Actias luna*
Io Moth	*Automeris io*
Cecropia Moth	*Hyalophora cecropia*
Arge Moth	*Grammia arge*
Harnessed Moth	*Apantesis phalerata*

Leconte's Haploa	*Haploa lecontei*
Giant Leopard Moth	*Ecpantheria scribonia*
Gray Half-spot	*Nedra ramosula*

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24 Robinson Street
Uniontown, PA 15401

Amphibians and Reptiles of the 1999 Foray

Jane Whitaker

The June 1999 Foray was held at Springs Heights Education Center near Spencer, West Virginia, in Roane County. There had been little rain in the area for about three weeks and the streams were very low. The aquatic salamanders were congregated in the shallow pools remaining in the small streams. Terrestrial salamanders were scarce. Two northern water snakes, *Neodia sipedon sipedon*, were collected with a large seine during a pond study and others were seen during the Foray. Eastern Box Turtles, *Terrapene carolinia carolinia*, were abundant and seen on or near the roads. One group of campers reported removing 10 turtles from roadways on a single excursion.

Three different sizes of tadpoles were observed during the pond study but were not classified. The following amphibians and reptiles were found in Roane County. The Foray territory extended into Calhoun County and specimens observed in that county will be indicated.

CLASS AMPHIBIA

Order Caudata - Salamanders

Red-spotted Newt (*Notophthalmus v. viridescens*) - Common. One was seen near Rocksdale, Calhoun County.

Northern Dusky Salamander (*Desmognathus f. fuscus*) - Common.

Redback Salamander (*Plethodon cinereus*) - Several were found in Spring Creek near camp.

Slimy Salamander (*Plethodon g. glutinosus*) - One was found near camp.

Northern Red Salamander (*Pseudotriton r.* ruber) - One was found along road one mile above the Rocksdale Bridge in Calhoun County.

Northern Two-lined Salamander (*Eurycea b. bislineata*) - Common in creeks near camp.

Longtail Salamander (*Eurycea l. longicauda*) - One found.

Order Salienta - Frogs and Toads

Eastern American Toad (*Bufo a. americana*) - One was found at camp.

Gray Treefrog Complex (*Hyla versicolor-Hyla chrysoscelis*) - One seen at camp.

Bullfrog (*Rana catesbeiana*) - One was seen in pond at camp.

Green Frog (*Rana clamitans melanota*) - Several were heard at ponds at camp.

Wood Frog (*Rana sylvatica*) - One was seen at camp.

Pickerel Frog (*Rana palustris*) - One seen in Spring Creek.

CLASS REPTILIA

Order Testudines - Turtles

Common Snapping Turtle (*Chelydra s. serpintina*) - Common in ponds at camp and area creeks.

Eastern Box turtle (*Terrapene c. carolina*) - Abundant.

Eastern Painted Turtle (*Chrysemys p. picta*) - Seen in pond at camp.

Eastern Spiny Softshell Turtle - (*Trionyx s. spiniferus*) - One seen in the West Fork of the Little Kanawha River at Richardson, Calhoun County.

Order Squamata - Lizards and Snakes

Suborder Sauria - Lizards

Northern Fence Lizard (*Sceloporus undulatus hyacinthinus*) - One seen on abandoned building on camp property.

Skink (*Eumeces* sp.) - Brown head with red on nape was all that was visible. On the Rocksdale bridge at the Calhoun-Roane county line.

Suborder Serpentes - Snakes

Northern Water Snake (*Nerodia s. sipedon*) - Common.

Eastern Garter Snake (*Thamnophis s. sirtalis*) - One found.

Northern Ringneck Snake (*Diadophis punctatus edwardsii*) - Roadkill near camp.

Northern Black Racer (*Coluber c. constrictor*) - Preece farm, Sandyville.

Black Rat Snake (*Elaphe o. obsoleta*) - Road kill near camp.

Special thanks go to the following BBC members who contributed to the above list: William Beatty, Hannah Berisford, Zach Fowler, John Fox, Matthew Fox, Lucas Head, Nicholas Johnson, Karl Liske, Elizabeth Ritter, Randy Ritter, Donald Shearer, and Edwin Smith.

3817 Windom Pl. N.W.
Washington, DC 20016

Mammals at the 1999 Foray

Jane Whitaker

The following mammals were observed at the Roane County Foray held at Spring Heights Education Center in June 1999.

Order Marsupialia

Virginia opossum (*Didelphis virginiana*) - Several road kills were reported.

Order Lagomorpha

Eastern cottontail (*Sylvilagus floridanus*) - Abundant.

Order Rodentia

Eastern Chipmunk (*Tamias striatus*) - Common.

Woodchuck(groundhog) *Marmota monax*) - Common.

Gray Squirrel (*Sciurus carolinensis*) - Several were seen.

Fox Squirrel (*S. niger*) - Few were seen.

Beaver (*Castor canadensis*) - Tracks were seen at the beaver pond on Rt. 42.

Muskrat (*Ondatra zibethicus*) - One was seen.

Order Carnivora

Red Fox (*Vulpes vulpes*) - One road kill.

Raccoon (*Procyon lotor*) - Several road kills. One was seen near camp.

Striped Skunk (*Mephitis mephitis*) - One detected along a road.

Order Artiodactyla

White-tailed deer (*Odocoiles virginianus*) - Abundant.

Bats, moles, and voles were seen but not captured and identified to species. Special thanks to everyone who contributed to this report.

3817 Windom Pl. N. W.
Washington, DC 20016

Ferns and Fern Allies of the 1999 Foray

Dawn A. Fox

Twenty-six ferns and fern allies were identified at the 1999 Foray. Seventeen of the species were found in a lush hollow on the camp property, which included a large naturalized station of *Matteuccia pensylvanica*. Thanks to all who participated in the search.

EQUISETACEAE	HORSETAIL FAMILY
Equisetum arvense	Common Horsetail
LYCOPODIACEAE	CLUBMOSS FAMILY
Lycopodium lucidulum	Shining Clubmoss
Lycopodium flabelliforme	Groundpine
OPHIOGLASSACEAE	ADDER'S TONGUE FAMILY
Botrychium virginianum	Rattlesnake Fern
OSMUNDACEAE	ROYAL FERN FAMILY
Osmunda claytoniana	Interrupted Fern
POLYPODIACEAE	FERN FAMILY
Woodsia obtusa	Blunt-lobed Woodsia
Cystopteris fragisis	Brittle Fern
Matteuccia pensylvanica	Ostrich Fern
Onoclea sensibilis	Sensitive Fern
Thelypteris hexagonoptera	Broad Beech Fern
Thelypteris noveboracensis	New York Fern
Dryopteris goldiana	Goldie's Shield Fern
Dryopteris marginalis	Marginal Shield Fern
Polystichum acrostichoides	Christmas Fern
Polystichum acrostichoides var. *incisum*	Incised Christmas Fern
Dennstaedtia punctilobula	Hay-scented Fern
Athyrium pycnocarpon	Glade Fern
Athyrium thelypterioides	Silvery Athyrium
Athyrium asplenioides	Southern Lady Fern
Camptosorus rhizophyllus	Walking Fern
Asplenium pinnatifidum	Pinnatifid Spleenwort
Asplenium montanum	Mountain Speenwort
Adiantum pedatum	Northern Maidenhair Fern
Pteridium aquilinum	Bracken Fern
Polypodium virginianum	Common Polypody

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HC 89, Box 420
Millstone, WV 25261

Herbaceous Plants of the 1999 Foray

Steven D. Mace and Eleanor Bush

The following herbaceous plants are listed as being noted in Roane, and parts of Wirt, Calhoun, and Jackson counties during the June, 1999 Foray. Some of the plants were in bloom, others recognized for their particular structures. Since weather conditions did not favor the usual blooming, the list lacks many plants that could have been recorded. The summer of 1999 was unusually hot and dry.

Kenneth H. Anderson, William Beatty, Garnet R. Bryne, James Bullard, Greg E. Eddy, Dawn Fox, Thomas R. Fox, Karl Liske, Tina Long, Cynthia Luntz, Mary Moore Rieffenberger, Jane J. Whitaker, and other BBC members contributed to the plant list. Their work is appreciated.

The list is in phylogenetic order as listed in the *Flora of West Virginia* by Strausbaugh and Core, 2nd Edition.

TYPHACEAE	CATTAIL FAMILY
Typha latifolia	Broad-leaved Cattail
GRAMINEAE	GRASS FAMILY
Digitaria sanguinalis	Crabgrass
Phleum pratense	Timothy
Holcus lanatus	Velvet Grass
Dactylis glomerata	Orchard Grass
ARACEAE	ARUM FAMILY
Arisaema triphyllum	Jack-in-the-pulpit
Symplocarpus foetidus	Skunk Cabbage
LILIACEAE	LILY FAMILY
Uvularia perfoliata	Mealy Bellwort
Uvularia grandiflora	Large-flowered Bellwort
Uvularia pudica	Mountain Bellwort
Allium sativum	Garlic
Allium cernuum	Wild Onion
Hemerocallis fulva	Common Day Lily
Hemerocallis americanum	Fawn Lily
Asparagus officinalis	Garden Asparagus
Smilacina racemosa	Plumelily
Medeloa virginiana	Indian Cucumber Root
Polygonatum biflorum	Common Solomon's Seal
Trillium erectum	Ill-scented Trillium
Trillium grandiflorum	Large Flowered Trillium
Smilax rotundifolia	Common Greenbrier
DIOSCOREACEAE	YAM FAMILY
Dioscorea quaternata	Four-leaved Wild Yam
IRIDACEAE	IRIS FAMILY
Sisyrinchium angustifolium	Blue-eyed Grass
Iris cristata	Crested Dwarf Iris
ORCHIDACEAE	ORCHID FAMILY
Goodyera pubescens	Downy Rattlesnake Plantain
URTICACEAE	NETTLE FAMILY
Urtica dioica	Stinging Nettle
Pilea pumila	Clearweed
ARISTOLOCHIACEAE	BIRTHWORT FAMILY
Asarum canadense	Wild Ginger
Asarum virginicum	Coltsfoot Ginger
POLYGONACEAE	BUCKWHEAT FAMILY
Rumex crispus	Curly Dock
Rumex obtusifolius	Broadleaf Dock
Rumex acetosella	Field Sorrel
Polygonum hydropiper	Common Smartweed
Polygonum persicaria	Lady's Thumb
Polygonum cuspidatum	Japanese Knotweed
CHENOPODIACEAE	GOOSEFOOT FAMILY
Chenopodium album	Lamb's Quarters
AMARANTHACEAE	AMARANTH FAMILY
Amaranthus hybridus	Common Pigweed
PHYTOLACCACEAE	POKEWEED FAMILY
Phytolacca americana	Pokeweed

PORTULACACEAE	PURSLANE FAMILY
Portulaca oleracea	Common Purslane
CARYOPHYLLACEAE	PINK FAMILY
Myosoton acquaticum	Giant Chickweed
Stellaria media	Common Chickweed
Stellaria pubera	Great Chickweed
Silene virginica	Fire Pink
Dianthus armeria	Deptford Pink
RANUNCULACEAE	CROWFOOT FAMILY
Ranunculus recurvatus	Hooked Crowfoot
Ranunculus hispidus	Hispid Buttercup
Ranunculus acris	Tall Buttercup
Hepatica americana	Roundlobe Hepatica
Hepatica acutiloba	Sharplobe Hepatica
Clematis virginiana	Virgin's Bower
Aquilegia canadensis	Wild Columbine
Hydrastis canadensis	Goldenseal
BERBERIDACEAE	BARBERRY FAMILY
Podophyllum peltatum	May Apple
Jeffersonia diphylla	Twinleaf
Caulophyllum thalictroides	Blue Cohosh
PAPAVERACEAE	POPPY FAMILY
Sanguinaria canadensis	Bloodroot
FUMARIACEAE	FUMITORY FAMILY
Dicentra cucullaria	Dutchman's Breeches
Dicentra canadensis	Squirrel Corn
CRUCIFERAE	MUSTARD FAMILY
Capsella bursa-pastoris	Shepherd's Purse
Alliaria officinalis	Garlic Mustard
Nasturtium officinale	Watercress
Dentaria diphylla	Two-leaved Toothwort
Arabis lyrata	Lyreleaf Rockcress
CRASSULACEAE	ORPINE FAMILY
Sedum ternatum	Wild Stonecrop

SAXIFRAGACEAE	SAXIFRAGE FAMILY
Tiarella cordifolia	Foamflower
Heuchera americana	Alumroot
ROSACEAE	ROSE FAMILY
Aruncus dioicus	Goatsbeard
Potentilla norvegica	Rough Cinquefoil
Potentilla simplex	Common Cinquefoil
Geum canadense	White Avens
Agrimonia gryposepala	Tall Agrimony
Agrimonia parviflora	Small-flowered Agrimony
LEGUMINOSAE	PULSE FAMILY
Baptisia tinctoria	Wild Indigo
Trifolium pratense	Red Clover
Trifolium repens	White Clover
Trifolium procubens	Low Hop Clover
Melilotus officinalis	Yellow Sweetclover
Melilotus alba	White Sweetclover
Desmodium laevigatum	Sticktights
Apios americana	Groundnut
Strophostyles helvola	Tailing Wild Bean
Clitoria mariana	Butterfly Pea
Amphicarpa bracteata	American Hogpeanut
OXALIDACEAE	WOOD SORREL FAMILY
Oxalis stricta	Upright Yellow Wood Sorrel
Oxalis europaea	European Yellow Wood Sorrel
GERANIACEAE	GERANIUM FAMILY
Geranium maculatum	Wild Cranesbill
POLYGALACEAE	MILKWORT FAMILY
Polygala verticillata	Whorled Milkwort
EUPHORBIACEAE	SPURGE FAMILY
Acalypha rhomboidea	Common Three-seeded Mercury
BALSAMINACEAE	JEWELWEED FAMILY
Impatiens carpensis	Spotted Touch-me-not

GUTTIFERAE	ST. JOHN'S-WORT FAMILY
Hypericum prolificum	Common St. John's-wort
Hypericum punctatum	Dotted St. John's-wort
VIOLACEAE	VIOLET FAMILY
Viola papilionacea	Common Blue Violet
Viola palmata	Palmate-leaf Violet
Viola rotundifolia	Roundleaf Violet
ONAGRACEAE	EVENING PRIMROSE FAMILY
Oenothera biennis	Common Evening-primrose
Oenothera perennis	Sundrops
UMBELLIFERAE	CARROT FAMILY
Sanicula canadensis	Black Snakeroot
Conium maculatum	Poison Hemlock
Cryptotaenia canadensis	Honewort
Heracleum maximum	Cow Parsnip
Daucus carota	Wild Carrot
PYROLACEAE	WINTERGREEN FAMILY
Chimaphila maculata	Spotted Wintergreen
PRIMULACEAE	PRIMROSE FAMILY
Lysimachia quadrifolia	Whorled Loosestrife
Lysimachia nummularia	Moneywort
APOCYNACEAE	DOGBANE FAMILY
Apocynum androsaemifolium	Spreading Dogbane
ASCLEPIADACEAE	MILKWEED FAMILY
Asclepias tuberosa	Butterfly Weed
Asclepias syriaca	Common Milkweed
CONVOLVULACEAE	MORNING-GLORY FAMILY
Convolvulus arvensis	Field Bindweed
POLEMONIACEAE	POLEMONIUM FAMILY
Polemonium reptans	Greek Valerian

HYDROPHYLLACEAE	WATERLEAF FAMILY
Hydrophyllum virginianum	Virginia Waterleaf
BORAGINACEAE	BORAGE FAMILY
Cynoglossum virginianum	Wild Comfrey
LABIATAE	MINT FAMILY
Scutellaria incana	Downy Skullcap
Meehania cordata	Meehania
Glechoma hederacea	Ground Ivy
Prunella vulgaris	European Selfheal
Lamium amplexicaule	Henbit
Salvia lyrata	Wild Sage
Pycnanthemum virginianum	Virginia Mountain-mint
Collinsonia canadensis	Richweed
SCROPHULARIACEAE	FIGWORT FAMILY
Verbascum thapsus	Great Mullein
Verbascum blattaria	Moth Mullein
Penstemon digitalis	Foxglove Beardtongue
Veronica officinalis	Common Speedwell
OROBANCHACEAE	BROOMRAPE FAMILY
Conopholis americana	Cancer Root
PLANTAGINACEAE	PLAINTAIN FAMILY
Plantago rugelii	Common Plantain
Plantago lanceolata	English Plantain
RUBIACEAE	MADDER FAMILY
Galium aparine	Cleavers
Galium circaezans	Wild Liquorice
Mitchella repens	Partridge Berry
Houstonia purpurea	Large Summer Bluets
DIPSACACEAE	TEASEL FAMILY
Dipsacus sylvestris	Common Teasel
COMPOSITAE	COMPOSITE FAMILY
Vernonia noveboracensis	New York Ironweed
Eupatorium fistulosum	Common Joe-pye Weed

Eupatorium rugosum	White Snakeroot
Erigeron pulchellus	Robin's Plantain
Erigeron philadelphicus	Philadelphia Fleabane
Erigeron strigosus	Daisy Fleabane
Ambrosia artemisifolia	Common Ragweed
Rudbeckia hirta	Black-eyed Susan
Coreopsis major	Wood Tickseed
Achillea millefolium	Yarrow
Chrysanthemum leucanthemum	Ox-eye Daisy
Tussilago farfara	Coltsfoot
Senecio aureus	Golden Ragwort
Arctium minus	Common Burdock
Cirsium arvense	Canada Thistle
Cichorium virginica	Chicory
Taraxacum erythrospermum	Red-seeded Dandelion
Taraxacum officinale	Common Dandelion
Lactua canadensis	Wild Lettuce
Prenanthes alba	White Lettuce
Prenanthes trifoliata	Lion's Foot
Prenanthes altissima	Tall White Lettuce
Hieracium aurantiacum	Orange Hawkweed
Hieracium venosum	Rattlesnake-weed

Reference

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P. O. Box 122
New Haven, WV 25265

5 Bush Avenue
Philippi, WV 26416

Trees and Shrubs of the 1999 Foray

Steven D. Mace

The following list is of the trees and shrubs seen and reported during the 1999 Foray. Although many Foray participants contributed in the preparation of this list, especially helpful were Kenneth H. Anderson, William Beatty, Garnet R. Byrne, James Bullard, Eleanor Bush, Greg E. Eddy, Dawn Fox, Thomas R. Fox, Karl Liske, Tina Long, Cynthia Luntz, Mary Moore Reiffenberger, and Jane J. Whitaker.

The list is in phylogenetic order as listed in the *Flora of West Virginia* by Strausbaugh and Core, 2nd Edition.

PINACEAE	PINE FAMILY
Tsuga canadensis	Eastern Hemlock
Pinus strobus	White Pine
Pinus virginiana	Virginia Pine
Pinus rigida	Pitch Pine
Pinus echinata	Shortleaf Pine
CUPRESSACEAE	CYPRESS FAMILY
Juniperus virginiana	Eastern Red Cedar
LILIACEAE	LILY FAMILY
Smilax rotundifolia	Common Greenbrier
Smilax hispida	Hispid Greenbrier
SALICACEAE	WILLOW FAMILY
Salix nigra	Black Willow
Populus grandidentata	Bigtooth Aspen
Populus deltoides	Eastern Cottonwood
JUGLANDACEAE	WALNUT FAMILY
Juglans cinerea	Butternut
Juglans nigra	Black Walnut
Carya cordiformis	Bitternut Hickory
Carya ovata	Shagbark Hickory
Carya tomentosa	Mockernut Hickory
Carya glabra	Pignut Hickory

CORYLACEAE	HAZEL FAMILY
Corylus americana	Hazelnut
Corylus cornuta	Beaked Hazelnut
Ostrya virginiana	Hop Hornbeam
Carpinus caroliniana	American Hornbeam
FAGACEAE	BEECH FAMILY
Fagus grandifolia	American Beech
Castanea dentata	White Chestnut
Quercus alba	White Oak
Quercus stellata	Post Oak
Quercus muehlenbergii	Yellow Oak
Quercus prinus	Chestnut Oak
Quercus rubra	Red Oak
Quercus coccinea	Scarlet Oak
Quercus velutina	Black Oak
ULMACEAE	ELM FAMILY
Ulmus rubra	Slippery Elm
Ulmus americana	American Elm
MORACEAE	MULBERRY FAMILY
Morus rubra	Red Mulberry
Morus alba	White Mulberry
MAGNOLIACEAE	MAGNOLIA FAMILY
Magnolia acuminata	Cucumber Tree
Liriodendron tulipifera	Yellow Poplar
ANNONACEAE	CUSTARD APPLE FAMILY
Asimina triloba	Pawpaw
LAURACEAE	LAUREL FAMILY
Sassafras albidum	Sassafras
Lindera benzoin	Spicebush
SAXIFRAGACEAE	SAXIFRAGE FAMILY
Hydrangea arborescens	Wild Hydrangea
HAMAMELIDACEAE	WITCH-HAZEL FAMILY
Hamamelis virginiana	Witch-hazel

PLATANACEAE	PLANE TREE FAMILY
Platanus occidentalis	Sycamore
ROSACEAE	ROSE FAMILY
Spiraea japonica	Japanese Spiraea
Pyrus malus	Apple
Rubus phoenicolasius	Wineberry
Rosa multiflora	Multiflora Rose
Rosa carolina	Pasture Rose
Prunus serotina	Wild Black Cherry
LEGUMINOSAE	PULSE FAMILY
Cercis canadensis	Redbud
Robina pseudo-acacia	Black Locust
Pueraria lobata	Kudzu Vine
SIMAROUBACEAE	TREE-OF HEAVEN FAMILY
Ailanthus altissima	Tree-of-Heaven
ANACARDIACEAE	CASHEW FAMILY
Rhus typhina	Staghorn Sumac
Rhus glabra	Smooth Sumac
Rhus copallina	Winged Sumac
Rhus radicans	Poison Ivy
CELASTRACEAE	STAFFTREE FAMILY
Euonymus americanus	Strawberry Bush
STAPHYLEACEAE	BLADDERNUT FAMILY
Staphylea trifolia	Bladdernut
ACERACEAE	MAPLE FAMILY
Acer saccharum	Sugar Maple
Acer rubrum	Red Maple
Acer saccharinum	Silver Maple
Acer negundo	Boxelder
HIPPOCASTANACEAE	HORSE-CHESTNUT FAMILY
Aesculus octandra	Yellow Buckeye

TILIACEAE	LINDEN FAMILY
Tilia americana	American Basswood
Tilia heterophylla	White Basswood
THYMELAEACEAE	MEZEREUM FAMILY
Elaeagnus umbellata	Autumn Olive
NYSSACEAE	SOUR GUM FAMILY
Nyssa sylvatica	Black Gum
CORNACEAE	DOGWOOD FAMILY
Cornus florida	Flowering Dogwood
ERICACEAE	HEATH FAMILY
Rhododendron maximum	Rhodendron
Rhododendron calendulaceum	Flame Azalea
Rhododendron nudiflorum	Pink Honeysuckle
Kalmia latifolia	Mountain Laurel
Oxydendron arboreum	Sourwood
Gaultheria procumbens	Teaberry
EBENACEAE	EBONY FAMILY
Diospyros virginiana	Persimmon
OLEACEAE	OLIVE FAMILY
Fraxinus americana	White Ash
Chionanthus virginica	Fringetree
BIGNONIACEAE	BIGNONIA FAMILY
Campsis radicans	Trumpet-creeper
Catalpa bignonioides	Northern Catalpa
CAPRIFOLIACEAE	HONEYSUCKLE FAMILY
Lonicera japonica	Japanese Honeysuckle
Sambucus canadensis	Black Elderberry
Viburnum prunifolium	Black Haw

P. O. Box 122
New Haven, WV 25265

Weather at the 1999 Foray

Fred Temple

Date	Temperature 7:00 a.m.	Temperature 7:00 p.m.	Conditions
June 12	70°F	74°F	Partly cloudy
June 13	68	72	Partly cloudy
June 14	78	88	Rain all day (0.6 in)
June 15	72	86	Cloudy in the morning then clear
June 16	56	71	Partly cloudy in the morning; light shower at 10:30 a.m.; clearing in the afternoon
June 17	57	76	Cloudy
June 18	57		

506 Hazlett Avenue
Wheeling, WV 26003

1999 Foray Participants

Kenneth Anderson, William Beatty, Ralph Bell, Brent Berisford, Hannah Berisford, Frank Berisford, James Bullard, Eleanor Bush, Garnet Byrne, Carolyn Conrad, Dorothy Conrad, Mary Louise Cowen, Kenneth Cronenberger, Virginia Cronenberger, Charlotte Duffield, Greg Eddy, Sharleen Eddy, Cynthia Ellis, Scott Emrick, Janice Emrick, Andrew Emrick, Rachel Emrick, Mariah Fowler, Sarah Fowler, Zach Fowler, Dawn Fox, John Fox, Matthew Fox, Thomas Fox, Rudy Gelis, Jocelyn Godwin, Mary Groome, Michael Groome, Lucas Head, John Jacobs, Wilma Jarrell, Ed Johnson, Donna Johnson, Nicholas Johnson, Virginia Johnson, Drew Jones, Angela Kinder, Grace Kinder, Judith Knorr, John Linehan, Karl Liske, Tina Long, Cynthia Luntz, Steven Mace, Martha Manuel, Shirley Martin, Oran Matthey, Pauline Matthey, Carol McCullough, Frederick McCullough, James Miller, Donna Mitchell, Loretta Mullens, Elizabeth Jane Oswald, Joyce Preece, Laura Rayburn, Lisa Rayburn, Darlene Raymond, Joan Raymond, Mary Moore Rieffenberger, Elizabeth Ritter, Randy Ritter, Kathleen Robbins, Stuart Robbins, David Schroeder, Donald Shearer, Edwin Smith, Margaret Straley, Fred Temple, Patricia Temple, Hugh Troth, Phyllis Troth, Diane Ward, Laura Ward, Judith Ward, Elizabeth Weimer, June Wheeler, Philip Wheeler, Jane Whitaker, and Carrie Williamson.

Foray Participants. Photo by Patricia Temple.

Field Notes
Summer Season
June-August, 1999

James D. Phillips, Editor

The beginning of the season was cool with near normal precipitation. One June morning in Camp Creek State Forest, Mercer County, it was 42° Fahrenheit. Then, temperatures began to rise and everything went dry. Some say that the state experienced the worst drought in 70 years or more. Many areas of suitable aquatic habitat disappeared. The effects of the weather will probably be evident in future "Field Notes." The dry season probably caused some species to begin migration earlier than usual.

Two **Double-crested Cormorants** were seen in Washington County, Ohio, on July 11(MBC), and Harry Slack counted 93 flying past Huntington, Cabell County, on August 29. More **Great Blue Heron** nests were discovered. Thirty nests were found near Buffalo, Putnam County, and 20 near the Roane/Jackson county line(CE). Egg shells and young were found in and around six nests near Pullman, Ritchie County(MS). Elsewhere, this species was noted along the Elk and Kanawha rivers, New and Bluestone rivers(JP), and in Wood(MBC) and Ritchie(VC) counties. On August 21, Slack had an all-time-high count of 75 in Greenbottom Wildlife Management Area, Cabell County. **Great Egrets** were seen from June 22 in Wood County(MBC) to the end of the period in Cabell County(HS). Reports also came from Kanawha(DG) and Preston counties(GF). **Green Herons** were found across the state, although they may have left some areas a little earlier than usual. **Turkey Vultures** seemed to do well across the region, but the only reports of **Black Vultures** came from the southeastern part of the state(JP).

Canada Geese, **Wood Ducks**, and **Mallards** continue to do well. **Blue-winged Teal** were seen in Wood(MBC) and Braxton(HG) counties by the end of the period. Some **Gadwalls** appeared in Mercer and Summers counties after a storm on August 23(JP). **Ospreys** have become a regular addition to our summer list. Two young and three adults were seen on Neale Island in the Ohio River, Wood County, and three birds were seen near Willow Island Dam, Pleasants County(MBC). A partial nest was discovered in August near Sand Creek, Wood County(MBC). There was also a report for this species in Braxton County in August(HG). **Bald Eagles** seem to be doing well in the state. Personnel from the Nongame section of the West Virginia Division of Natural Resources report seven active nests in the state. These nests produced eleven young. Elsewhere, immature birds were seen in Wood(MBC), Summers(SB,JP), and Preston(GF) counties during July and August. **Cooper's Hawks** were seen in Summers(JP), Kanawha(HG), and Monongalia(GB)

counties. George Breiding noted four birds fledged in Marilla Park near Morgantown, Monongalia County. **Sharp-shinned Hawks** were noted from several locations. **Red-shouldered, Broad-winged,** and **Red-tailed hawks** seemed to do well across the region. An early migrant **Golden Eagle** was seen from Hanging Rocks, Monroe County, on August 29(JP). **American Kestrels** were seen in a few locations. The Nongame Wildlife staff reported one young fledged from the **Peregrine Falcon** nest in Grant County.

There were a few more reports than usual for **Ruffed Grouse**, and **Wild Turkeys** continue to thrive. **Northern Bobwhites** were reported from Mercer(AM), Monroe(KS), and Kanawha(DG) counties. An interesting study might be to compare the genes of our Bobwhites with genes of known wild populations and known farm-bred birds to see if ours are native birds. A **Sora** was reported from Washington County, Ohio(MBC), but Harry Slack reported no successful nesting in their usual haunts in Cabell County. Some of the migrant shorebirds began to appear before the end of June. **Greater Yellowlegs** were sighted in Preston(GF) and Mercer(JP) counties on July 2 and August 29 respectively. **Lesser Yellowlegs** were seen from mid-August on in Preston(GF), Mercer(JP), and Cabell(HS) counties. **Solitary Sandpipers** appeared in Preston County on June 29 and remained through the end of the period(GF). This species was seen in Wood(MBC) and Cabell(HS) counties from mid-August to the end of the season. All of the **Spotted Sandpiper** sightings came from July and August. Nearly 100 "peeps" were delivered to a sewage lagoon in Mercer County by a storm on August 22(JP). **Semipalmated, Western, Least,** and **White-rumped sandpipers** were in the group as well as a couple of **Pectoral Sandpipers**. **Least Sandpipers** were reported from July 8(GF) through mid-August(HS) in Preston and Cabell counties. The only report for **Long-billed Dowitcher** came from near Sand Creek, Wood County, from August 14 through 20(MBC). **American Woodcocks** were reported from Kanawha(HG), Roane(DG), Summers(JP), and Upshur(VH) counties during the season. A **Ring-billed Gull** was seen in Huntington, Cabell County(HS), on August 29, and two **Caspian Terns** were found at Sand Creek, Wood County(MBC), the same day.

George Breiding found **Yellow-billed Cuckoos** more noticeable than in the last few years, and he did not find any **Black-billed Cuckoos**. In the southern part of the state, it seemed that you were as likely to find one as the other(JP). No unusual owls were found during the season. **Common Nighthawks** were in Monongalia(SS), Mercer, and Kanawha(JP) counties during the summer. By the end of the period migrants were being seen in Preston(GF) and Kanawha(HG) counties but not in any great numbers. The only reports of **Whip-poor-wills** came from Pocahontas, Wood(GB), Jackson(DG), and Ritchie(VC) counties. **Chimney Swifts** and **Ruby-throated Hummingbirds** seemed to do quite well. **Belted Kingfishers** seemed to do fine despite low water conditions. No **Red-headed**

Woodpeckers were noted, but the other woodpeckers seemed to be in normal numbers. There were mixed feelings about numbers for **Eastern Wood-Pewees** and **Acadian Flycatchers**, but most agreed that **Eastern Phoebes, Great Crested Flycatchers,** and **Eastern Kingbirds** were in good numbers. **Least** and **Willow flycatchers** were only reported from Preston(GF), Summers, and Mercer(JP) counties. The only mention of **Alder Flycatcher** came from Preston County(GF).

No reports were received for **Loggerhead Shrikes**. **White-eyed, Blue-headed, Warbling,** and **Red-eyed vireos** seemed to be in good numbers across the state, although George Breiding felt that **Blue-headed Vireos** may have been in lower numbers in the lower elevations of their range. **Yellow-throated Vireos** were considered to be scarce if mentioned at all. Breiding considered **Common Ravens** to be at a 20-year high in Monongalia and Preston counties. Elsewhere this species was reported in Mercer, Summers, and Monroe counties(JP). **Purple Martins** were reported from Summers(JP) and Kanawha(HG) counties. **Tree Swallows** seem to do well along the New River, and Hullet Good was surprised to find this species along Elk River as late as June 23. **Northern Rough-winged Swallows** were found in most areas. A **Bank Swallow** colony was reported from Wood County(MBC). **Cliff Swallows** nested in Pleasants(MBC) and Preston(GF) counties, and **Barn Swallows** were fairly common. **Red-breasted Nuthatches** were very common on the Randolph/Pocahontas county line(GB), and **White-breasted Nuthatches** seemed to be doing well across the state.

Carolina Wrens seem to be in good numbers. Mixed reports were received for **House Wrens**. **Winter Wrens** were considered to be in higher than usual numbers in Coopers Rock State Forest, Monongalia County(GB, SS), and in Preston County(GF). A singing male was present in mid to late June for the third year along the Bluestone River, Summers County(JP). **Golden-crowned Kinglets** were listed for Monongalia(SS) and Randolph(GB) counties. George Breiding has conducted thrush surveys along the Highland Scenic Highway, Pocahontas County, for the last 10 years. He estimates **Hermit** and **Swainson's thrushes** were at 10-year highs during 1999, and the **Veery** and **Wood Thrush** were low in numbers. **Hermit Thrushes** were reported for Webster(DG) and Preston(GF) counties. **Wood Thrushes** seemed to be doing fairly well at lower elevations. Ron Canterbury, at Concord College, continues his study of **Golden-winged Warblers** in the coal fields of southern West Virginia where this species seems to have a stronghold. The **Golden-winged Warbler** is becoming harder to find even in nearby Mercer and Summers counties(JP). The only other mention of **Golden-winged Warblers** made by contributors came from Preston County, where Gary Felton found half as many singing males as in 1998. **Blue-winged Warblers** were fairly common in Ritchie County(VC). **Northern Parula Warblers** seemed to be in good number across the state. **Chestnut-sided Warblers** were mentioned only from Monongalia County(SS), and **Magnolia Warblers** only from Preston County(GF).

Black-throated Blue Warblers were found in Preston(GF) and Monongalia(GB) counties. Two adults and three fledgling **Yellow-rumped Warblers** were seen on Gaudineer Knob, Randolph/Pocahontas county line, on July 9(GB). Pat Hissom, naturalist for Blackwater Falls State Park, reports that this species has been seen well into June in the vicinity of the nature center for the last few years. **Yellow-throated Warblers** seemed to be fairly common. **Cerulean Warblers** were considered to be uncommon to common with reports coming from Summers(JP), Preston(GF), Monongalia(GB), and Kanawha(HG) counties. George Breiding found numbers down for **Mourning**, **Kentucky**, and **Hooded warblers** and **Ovenbirds**. He also failed to find **Swainson's Warblers** in some of their usual locations. Gary Felton found 23 species of warblers in Preston County during June and July. Migrants seemed to be appearing a bit earlier than usual, perhaps because of widespread drought.

Scarlet Tanagers seemed to be in near normal numbers, while **Summer Tanagers** were rather scarce. A colony of **Grasshopper Sparrows** continues to be found in Preston County(GF). **Swamp Sparrows** summered in Preston County(GF). A **White-throated Sparrow** was present in Huntington, Cabell County, on June 12(HS). One had also been seen in that area mid-June of 1998. The only report for **Blue Grosbeak** came from Berkeley County at the end of the period(SM). **Indigo Buntings** seemed to be in usual numbers. The **orioles** were fairly uncommon for most of the region. A **Pine Siskin** was banded in Athens, Mercer County, on July 3(JM).

Contributors—George Breiding(GB), Steve Bolar(SB), Virginia Cronenberger(VC), Cynthia Ellis(CE), Gary Felton(GF), Donny Good(DG), Hullet Good(HG), Virginia Bly Hoover(VH), Ann McRae(AM), Jim Meyer(JM), Stauffer Miller(SM), Mountwood Bird Club(MBC), WV Nongame Wildlife & Natural Heritage News(MS) Susan Schneider(SS), and Harry Slack(HS).

HC 78, Box 42-C
Pipestem, WV 25979
cne01663@mail.wvnet.edu

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2000 Calendar of Events
The Brooks Bird Club, Inc.

Date	Activity	Place
January	BBC Membership Month	Wheeling, WV
February	Write an article for the *Mail Bag* or *The Redstart*	mail to editor
February 18-20	Mid-Winter Meeting	Bethany, WV
March 19	Waterfowl Field Trip	Seneca Lake, OH
April 28-30	Spring Warbler Weekend	tentative
May 13	North American Migration Count	local groups
May 19-21	Crane Creek/Ottawa NWR Warbler Field Trip	Oak Harbor, OH
June 1-30	25-Mile Breeding Bird Surveys	local groups
June 9-17	Foray - Concord College	Athens, WV
June 21-27	Sortie - Dolly Sods	Laneville, WV
August 12-Oct. 7	Bird Banding - Dolly Sods	Grant Co., WV
Sept. 1-4	Labor Day Weekend - Timberline Resort	Canaan Valley, WV
September 15-17	Hawk Count Weekend	Dolly Sods, WV
September 16-27	Hawk Count	Peters Mountain, WV
October 27-29	Meeting - North Bend State Park	Harrisville, WV
November 4	Board of Directors Meeting - BBC Clubroom	Wheeling, WV
November 8-12	Eastern Shore Waterfowl Trip - contact Carl Slater	Eastern Shore
Dec. 15-Jan. 2, '01	Christmas Bird Counts	local groups

BBC FORAYS

2000	Concord College	Athens, WV
2001	Camp Kidd	Parsons, WV
2002	Raleigh Co. 4-H Camp	Daniels, WV
2003	Pocahontas County 4-H Camp	Thornwood, WV

SEASONAL FIELD AND BANDING NOTES DUE

March 15 June 15 September 15 December 15

MAIL: Banding Notes to: Ralph K. Bell, R.D. 1, Box 229, Clarksville, PA 15322
Field Notes to: James D. Phillips, HC 78, Box 42-C, Pipestem, WV 25979
cne01663@mail.wvnet.edu

West Virginia Rare Bird Hotline: 304-736-3086

http://brooksbirdclub.org

The dates for the 2000 BBC program may be changed if necessary. Changes in the program will be announced in the *Mail Bag*.