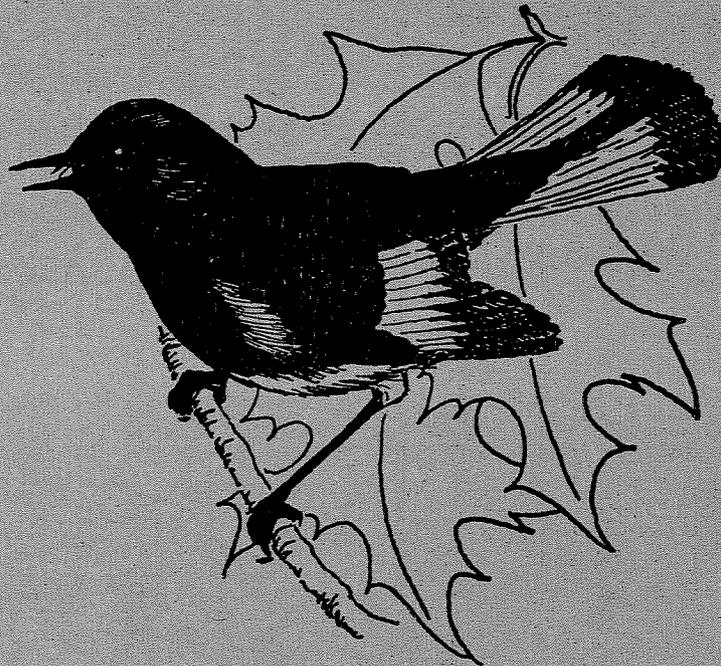


# *The* REDSTART

Volume 35—Number 3

July, 1968



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# The REDSTART

Volume 35—Number 3

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SUMMER BIRD POPULATION STUDIES IN THE CACAPON RIVER VALLEY-  
HAMPSHIRE COUNTY, WEST VIRGINIA

John Trott and William Wiggins

*Introduction:*

The Burgundy Wildlife Camp was started in June 1963 as a summer extension of the Burgundy Farm School in Alexandria, Virginia. This school, a non-profit, cooperative, independent day school, has had an experimental program of advanced studies in the natural sciences for several years with particular emphasis on botany and ornithology. The summer camp grew out of a need to give students, aged 12 through 15, a chance to use purposefully the skills taught in the school's classrooms. The camp, limited to no more than 25 selected boys and girls, has a program which emphasizes careful instruction in the methods of studying field biology. Enrollment has not been limited to students from the Burgundy Farm School.

(For more detail on the purposes of the camp and additional information on the physical plant and modus operandi see the *Atlantic Naturalist* 23, 22 (1968). Ed.)

The instructional part of a typical camp day begins with a hike to a specific point of interest in which campers and most of the staff take part. The ecology of the plant and animal life seen on these two-hour excursions is emphasized along with identification and attention to the behavior of animals, particularly birds, seen by the group. During the afternoon campers have an opportunity to pursue a special interest under the leadership of a staff member. Help with actual projects along with instruction in ornithology, various aspects of botany, entomology, astronomy, nature crafts, and certain other activities are offered. These sessions last two hours and campers have free time both before and after dinner during which they again have the opportunity to work under the leadership of staff members with various specialties. The evening program consists of wildlife movies, seminars and lectures by visiting specialists. Banding is conducted full time as a means of determining the bird population of the area. As a part of the camp's instructional program, it is used to demonstrate one method of studying ornithology. This banding program is carried out under the supervision of the senior author, who is the Camp Director, a bander of eight years experience. The actual banding operations are conducted by the junior author who also teaches ornithology.

TABLE 1. Banding Summary for Study Area for the 4-Year Period.

Year	Net Hours Per Day	Net Hours Per Season	Number Banded	New Birds Per Net Hour	Number of Returns	Total	% of Returns to Total
1963	25	750	81	.10	0	81	0%
1964	56	1,344	129	.10	9	138	7%
1965	80	2,560	154	.06	12	166	7%
1966	130	4,160	201	.05	22	223	10%

*Description of Area*

The area in which the study was made is located in Hampshire County in the Northeastern part of West Virginia. Situated in the panhandle, the 20-acre tract lies 3.8 miles northwest of the town of Capon Bridge and 18 miles due east of Romney. The Cacapon River flows parallel to the north boundary of the study area. The map shows the area divided into eight plots which are generally quite distinct in vegetation. Most of the study area is

at an elevation of 775 feet. Cold Stream cuts through the northern part of the tract; it is a cold, rushing mountain stream with an average width of eight feet.

Plot A: This one-fourth acre section contains the two buildings in which the Wildlife Camp operates. Plot A is open and a count of the 15 species of trees gave the following percentage composition and average diameter at breast height: American Beech (*Fagus grandifolia*), 17%, 7 in.; Black Oak (*Quercus velutina*) 12%, 13 in.; White Oak (*Q. alba*), 5%, 15 in.; Bitternut Hickory (*Carya cordiformis*) 2%, 5 in.; Pignut Hickory (*C. glabra*) 7%, 6 in.; Shagbark Hickory (*C. ovata*) 2%, 4 in.; Ironwood (*Carpinus caroliniana*) 12%, 3 in.; White Ash (*Fraxinus americana*) 2%, 4 in.; Slippery Elm (*Ulmus rubra*) 2%, 6 in.; Hazelnut (*Corylus americana*) 29%, 0.5 in.; Spicebush (*Lindera benzoin*) 2%, 0.75 in.; Black Walnut (*Juglans nigra*) 2%, 16 in.; Sycamore (*Platanus occidentalis*) 2%, 18 in.; Black Cherry (*Prunus serotina*) 2%, 5 in.; and Wild Raisin (*Viburnum cassinoides*) 2%, 4 in. The stream bank has a thick growth of Hazelnut interspersed with Spicebush.

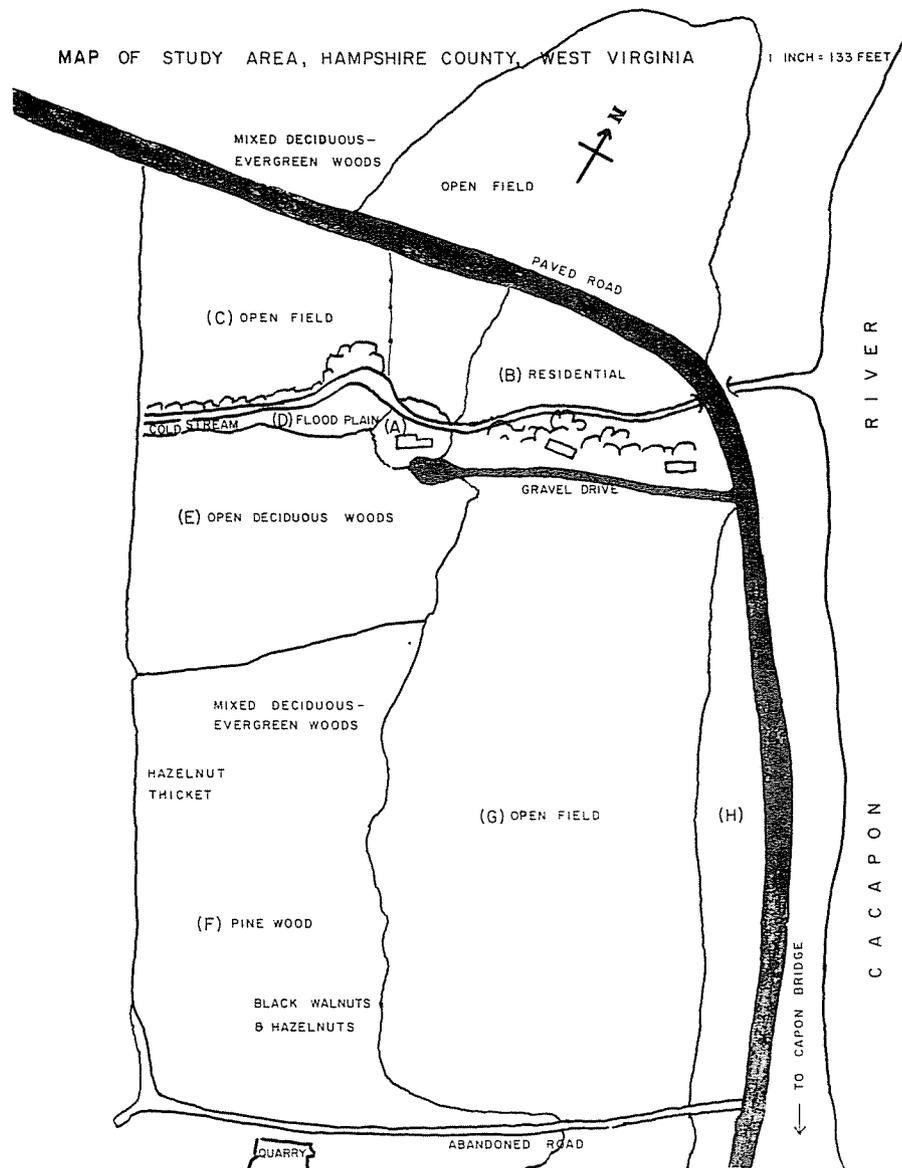
Plot A is the scene of much human activity during the camp season and rarely are nets placed here; it is the center of extensive field observation, however, and most of the nests located here are found by campers and staff. Birds nesting close to or on the ground are discouraged by camper activity though those nesting above 20 feet seem little affected. It is interesting to note that all the Chipping Sparrow nests located in this plot were over 20 feet above the ground. The nests of the Yellow-throated Vireo and the Cerulean Warbler were located in this plot along with three of the four Acadian Flycatcher nests found.

Plot B: This is a residential area containing two summer cottages and much open space under planted ornamentals. This one and a half acre plot is bisected by Cold Stream, bordered on the north and east by a paved road and separated from Plot C on the west by a thick growth of *Rosa multiflora*. A gravel drive separates Plot B from Plot G on the southeast. Another very thick growth of *R. multiflora* separates this section from the paved road under which Cold Stream flows before emptying into the Cacapon River. A count of the woody plants in the area gave the following composition and average diameter: Hemlock (*Tsuga canadensis*) 25%, 1 in.; White Pine (*Pinus strobus*) 2%, 12 in.; Blue Spruce (*Picea Menziesii*) 2%, 4 in.; White Cedar (*Chamaecyparis thuyoides*) 3%, 5 in.; Red Cedar (*Juniperus virginiana*) 2%, 4 in.; Weeping Willow (*Salix babylonica*) 7%, 5 in.; Lombardy Poplar (*Populus nigra* var. *italica*) 7%, 4.5 in.; Black Walnut 5%, 9 in.; White Birch (*Betula papyrifera*) 3%, 3 in.; Sycamore 13%, 8 in.; Chinquapin (*Castanea pumila*) 3%, 4 in.; Black Oak 3%, 14 in.; Red Maple (*Acer rubrum*) 3%, 10 in.; Hoptree (*Ptelea trifoliata*) 7%, 0.5 in.; Basswood (*Tilia americana*) 3%, 10 in.; White Ash 10%, 8 in.; and Apple (*Pyrus sp.*) 2%, 3 in.

The above plot is subject to frequent human activity from summer visitors and the grass under the trees is periodically mowed. Because of this, very few nets were used in Plot B during the four-year study period. There is, however, much nesting activity in the thick stands of *R. multiflora* which surround Plot B on three sides. All the Baltimore Oriole, Cedar Waxwing, Red-eyed Vireo, Yellow Warbler and Song Sparrow nests found were located in this plot.

Plot C: This two and three-fourths acre section is bounded on the north by a paved country road. Cold Stream forms the southeast boundary. An imaginary line forms the southwest boundary across a field of annual grasses made up primarily of the genus *Panicum*. Along part of the northern boundary, between Plot B and a fence cutting across Plot C, are eight small Spruces (*Picea sp.*) which offer nesting habitat for Chipping Sparrows. A Bush Honeysuckle (*Lonicera tatarica*) located in the same general area was the site of the only Brown Thrasher nest found.

Both parts of the field are scenes of human activity, the northeast section being used as a playing field for campers and the remainder being mowed annually. A few trees grow a-



long the Plot C side of Cold Stream. This type of growth is described for Plots A and D. One small triangular shaped area, approximately 400 square feet in size, next to Cold Stream and on the northwest side of the fence cutting across Plot C, has a good growth of Blackberry (*Rubus sp.*) and Hawthorn (*Crataegus sp.*). Field Sparrow and Indigo Bunting nests have been found here.

Though there is little cover, bird activity across Plot C is quite heavy as birds fly from the thick deciduous woods across the paved road toward Cold Stream.

Plot D: This one-half acre section is a typical flood plain subject to spring overflows from Cold Stream. The woods to the southwest are similar but higher and less subject to flooding. The forest canopy is very thick and there is little undergrowth though during the spring the rich soil supports a wide variety of early blooming herbaceous plants. A transect across the plot revealed the following ten species: American Beech 11%, 2 in.; Black Oak 24%, 6.5 in.; White Oak 15%, 3.5 in.; Bitternut Hickory 19%, 3 in.; Pignut Hickory 4%, 2 in.; Shagbark Hickory 4%, 5.5 in.; Basswood 4%, 9 in.; Hackberry (*Celtis occidentalis*) 11%, 4 in.; Viburnum (*Viburnum sp.*) 4%, 0.5 in.; and Wild Grape (*Vitis sp.*) 4%, 3 in.

There are many dead trees and stumps of various heights providing excellent habitat for cavity nesting birds. Acadian Flycatchers are also found here, as are Cerulean Warblers. The exposed roots of trees along the stream and undercuts in the bank provide suitable nesting habitat for Louisiana Waterthrushes which are frequently seen here, but no nests have been located. Flying Squirrels also use the cavities in the numerous dead trees and deer browse the low-hanging foliage.

Plot E: Sloping steadily from an elevation of 775 feet to 835 feet, this one and three-fourths acre plot is a well-drained, dry, open wooded hill with a scattering of fallen logs and little undergrowth. A transect of the trees revealed the following: White Pine 8%, 9 in.; Tuliptree (*Liriodendron tulipifera*) 3%, 24 in.; American Beech 19%, 3.5 in. (this average diameter is somewhat misleading as there are many saplings but many beeches in the area have a diameter of 10 in.); Chestnut Oak (*Q. montana*) 3%, 10 in.; White oak 8%, 7 in.; Black Oak 8%, 14 in.; Shagbark Hickory 3%, 4 in.; Bitternut Hickory 6%, 14 in.; Hop Hornbeam (*Ostrya virginiana*) 8%, 9 in.; Ironwood 6%, 2.5 in.; Witch Hazel (*Hamamelis virginiana*) 17%, 0.75 in.; Flowering Dogwood (*Cornus florida*) 8%, 2.5 in.; and Viburnum (*Viburnum sp.*) 4%, 1 in. Witch Hazel forms the primary understory tree in this plot. This type of plant habitat and altitude extends a considerable distance beyond our western boundary.

The Wood Thrush nest found was located in this plot though observations indicate that titmice, chickadees and various species of woodpeckers also find this habitat suitable for nesting. It is likely that Worm-eating Warblers and Ovenbirds nest on this hillside though they are rarely seen during the camp season. Were it not for banding, these two warblers would probably go unrecorded. The border adjoining Plot G is quite thick with stands of Redbud (*Cercis canadensis*), Hoptree, Hawthorn and Basswood, the latter forming dense thickets where shoots of one half inch diameter come from the stumps of felled trees. Indigo Buntings use this for nesting.

Plot F: This important five acre section is varied not only in elevation but in plant habitat. The southwest corner of this area is approximately 815 feet high and the northwest corner, bordering Plot E, has the same elevation. A gentle downward slope from both these high points results in a slight depression running southeast at an altitude of 790 feet. An abandoned limestone quarry, 20 feet in depth and devoid of water, is just outside the south-southeast boundary. Nets placed on its rim caught many birds. The quarry has Sycamores with an average diameter of 6 in. and a scattering of Bush Honeysuckle growing in it. The Blue-gray Gnatcatcher nest was found near this quarry.

Four distinct plant habitats make up Plot F (see map). Bordering Plot E, just over the crest of the hill, is a mixed deciduous-evergreen woodland with much denser undergrowth than found in Plot E. This section forms approximately 30% of Plot F and a transect across it revealed the following 15 species: White Pine 7%, 4 in.; Red Cedar 5%, 3 in.; Black Oak 5%, 3 in.; Blackjack Oak (*Q. marilandica*) 4%, 2 in.; Bitternut Hickory 2%, 5 in.; Red Maple 22% 6.5 in.; Dwarf Sumac (*Rhus copallina*) 7%, 0.5 in.; Dogwood 4%, 1.5 in.; Hackberry 4%, 7 in.; Sycamore 4%, 7 in.; Redbud 12%, 1 in.; Black Locust (*Robinia pseudo-acacia*) 12%, 12 in.; Black Cherry 4%, 12 in.; Bush Honeysuckle 4%, 1 in.; and Viburnum (*Viburnum sp.*) 4%, 1.5 in. Bordering the above section to the south is a thick stand of Virginia Pine which occupies approximately 15% of Plot F. These trees have an average diameter of 4.5 in. An old stone wall forms the southwest boundary of this area; a dense stand of Hazelnut with an average diameter of 0.5 in. grows along this wall and forms roughly 25% of Plot F. There are a few dead Black Locusts in this Hazelnut thicket.

The remainder of Plot F, approximately 30%, runs along the base of the depression in a semi-circular form with its open side facing the large field, Plot G. This section is very open and is made up almost exclusively of Black Walnut and Hazelnut. The trees have an average diameter of 4 in. and 22 individuals were counted within the area. The Hazelnut is scattered under the walnuts and does not form dense thickets; 30 shrubs with an average diameter of 0.25 in. were counted. Grasses (*Bromus* spp., *Panicum* spp. and others) form a thick mat under the above plants.

Plot F has been very successful for netting. It produces a large variety of species which no doubt move periodically into the area to feed on the many berry and seed-producing plants. The large numbers of dead and dying locusts also attract woodpeckers. The dense stand of pines offers excellent cover for a variety of species including Screech Owls and Ruffed Grouse.

Plot G: This six and a half acre field was planted in corn in 1964 and in rye in 1965. In 1963 and 1966 it contained the following scattering of herbaceous plants: Old Witch Grass (*Panicum capillare*) and other species of *Panicum*, Love Grass (*Eragrostis* sp.), Bindweed (*Convolvulus* sp.), Mouse-ear Cress (*Arabidopsis thaliana*), Deptford Pink (*Dianthus armeria*), Viper's Bugloss (*Echium vulgare*), Horse-nettle (*Solanum carolinense*), Queen Anne's Lace (*Daucus carota*), Plantain (*Plantago* sp.), Chicory (*Cichorium intybus*), Everlasting (*Gnaphalium* sp.), Goldenrod (*Solidago* spp.), and Yarrow (*Achillea millefolium*). A few small plants of Blackberry also were found in the field.

Goldfinches, Field and Chipping Sparrows feed in this field and many birds pass over it from Plots H to F. Deer, rabbits and woodchucks were occasionally observed feeding in this field during the four years. Plot G was the second least used of the total study area for netting activities.

Plot H: This one and three-fourths acre strip of land is bordered on the east by a paved road that separates it from the Cacapon River. The river has a strong influence on the birds that frequent this strip of land. Woody plants form a narrow but important boundary along the road. A sampling of these plants revealed the following five species: White Ash 50%, 3.5 in.; Slippery Elm 5%, 6 in.; Sycamore 5%, 13 in.; Sassafras (*Sassafras albidum*) 30%, 0.5 in.; and Black Cherry 10%, 6.5 in.

The remainder of Plot H is a varied and complex habitat which supports an equally varied wildlife. Wild Rose (*Rosa* sp.), Blackberry and Black Locust with an average diameter of 0.5 in. make up 40% of the woody plants. The remaining 60% is composed of: Virginia Pine 36%, 5 in.; Tuliptree 4%, 4 in.; Sycamore 4%, 3 in.; White Ash 12%, 6 in.; Sassafras 4%, 2 in.; Smooth Sumac (*R. glabra*) 12%, 0.5 in.; Bush Honeysuckle 20%, 0.25 in.; and Black Cherry 8%, 1 in. Grasses and other herbaceous plants make up a very

important part of this habitat and support a varied and numerous bird life. The following non-woody plants have been identified: Panic Grass; Wedge Grass (*Sphenopholis nitida*);

Brome Grass; Virginia Wild Rye (*Elymus* sp.); Bottlebrush Grass (*Hystrix patula*); Butterfly Weed (*Asclepias tuberosa*); Purple Milkweed (*A. purpurascens*); Flowering Spurge (*Euphorbia corollata*); Blackberry; Pepper Grass (*Lepidium* sp.); Queen Anne's Lace;

TABLE 2. Summary of Adults and of Returns of Banded Birds

Species	Adults Captured				No. that Returned	'63-'65 Adults that Returned	'66 Adults Previously Banded
	1963	1964	1965	1966			
Belted Kingfisher	2	2	0	0	0	0%	0%
Yellow-shafted Flicker	0	0	0	2	-	-	0%
Pileated Woodpecker	0	0	0	1	-	-	0%
Downy Woodpecker	1	7	13	2	2	9%	50%
Eastern Kingbird	0	0	0	1	-	-	0%
Crested Flycatcher	0	0	0	1	-	-	0%
Eastern Phoebe	1	2	0	5	0	0%	0%
Acadian Flycatcher	5	7	5	5	5	23%	40%
Eastern Wood Pewee	3	4	2	3	2	17%	0%
Carolina Chickadee	0	2	1	1	0	0%	0%
Tufted Titmouse	1	3	2	0	0	0%	0%
White-breasted Nuthatch	2	3	3	0	0	0%	0%
Catbird	5	7	14	16	2	5%	13%
Robin	0	8	8	4	2	10%	0%
Wood Thrush	3	5	12	14	1	3%	7%
Blue-gray Gnatcatcher	0	0	1	5	0	0%	0%
Cedar Waxwing	0	0	0	7	-	-	0%
White-eyed Vireo	2	0	0	0	0	0%	0%
Yellow-throated Vireo	2	2	0	0	1	25%	0%
Red-eyed Vireo	7	6	5	2	2	10%	0%
Black-and-white Warbler	1	2	0	1	1	25%	100%
Worm-eating Warbler	0	3	5	5	1	8%	20%
Golden-winged Warbler	1	1	3	9	0	0%	0%
Yellow Warbler	1	2	4	3	1	10%	25%
Cerulean Warbler	1	2	1	7	0	0%	0%
Ovenbird	1	1	0	1	0	0%	0%
Louisiana Waterthrush	0	1	1	3	0	0%	0%
Yellowthroat	1	0	0	4	0	0%	0%
Yellow-breasted Chat	1	2	7	7	4	24%	43%
Hooded Warbler	1	1	0	0	0	0%	0%
American Redstart	0	0	1	7	0	0%	0%
Baltimore Oriole	0	0	1	0	0	0%	0%
Common Grackle	1	1	1	1	0	0%	0%
Brown-headed Cowbird	1	0	0	0	0	0%	0%
Scarlet Tanager	2	0	3	3	1	13%	0%
Cardinal	2	4	1	0	0	0%	0%
Indigo Bunting	9	8	8	8	4	12%	38%
American Goldfinch	8	26	15	19	3	4%	11%
Rufous-sided Towhee	0	1	4	5	3	30%	60%
Chipping Sparrow	2	6	7	3	2	11%	0%
Field Sparrow	0	1	2	8	1	9%	13%
Song Sparrow	2	0	0	1	1	33%	100%

Cow Parsnip (*Heracleum maximum*); Chicory; Yarrow; and Black-eyed Susan (*Rudbeckia* sp.).

The brome grass and panic grass are dominant, forming thick mats under the tangles of Wild Rose and Blackberry. Golden-winged Warblers, Yellowthroats and Field Sparrows find this thick ground cover favorable while Yellow-breasted Chats, Catbirds and Indigo Buntings make use of the heavy cover at a slightly higher level.

Note: Identification, common and scientific names of plants mentioned in this study are according to *Flora of West Virginia*, Strausbaugh, P. D. and Earl L. Core; West Virginia University Bulletin, Morgantown, West Virginia. 1964.

#### Banding Operations

The 20-acre tract used for this study was covered completely during the four years. Nets were moved to a new location when a bird was captured a third time, indicating either incubation or feeding of young. Consequently, the same areas were covered from year to year with the only difference being the addition of more nets and net-hours as shown in Table 1. This table also shows birds per net hour and the percentage of returns to new bandings.

In 1963 the camp operated for five days of each two-week session at the school in Alexandria (Virginia) and the remaining seven days on the study area—this being roughly every other week for six weeks. In 1964 the entire camp season was on the study area but only for four weeks. In 1965 and 1966 six-week seasons were held on the study area. This is illustrated by Figure 1.

The banding effort was great enough so that the variation in time netting on the study area during the four-year period had no noticeable effect on the number of species caught. Increase in individuals of some species was obviously a result of the larger number of nets in use. The doubling of net hours each year made more apparent the decline in the number of individuals captured of some species.

Though 5, 9 and 12-meter lengths were used all four years the shorter length was found to be less profitable. Nets were usually in a line to get maximum coverage of an area. During the first two years the banding was carried on during the afternoon and early evening with a few morning openings. In 1965 and 1966 banding was an all day operation and on many occasions nets were left open overnight. Of the birds banded during the study period, 14% of those banded in 1963 were caught again in following years, 10% of those banded in 1964 were recaptured in following years and 9% of those banded in 1965 were returns in 1966.

There were returns from 86% of the species in which five or more individuals were captured (see Table 2). These returns were not broken down into males and females because of insufficient numbers captured which would lead to inaccurate conclusions on sex ratios.

#### Nest Location Program

The location of active nests by campers during the camp season was encouraged by a contest in which each bird known to nest in the area was given a number of points. For example, a Cerulean Warbler nest gave a camper 30 points and a number of points was received for each egg and an increased number for each young. A Cowbird egg or young increased the overall score. This stimulated the search for nests and a careful record was made of each nest found including the date, location, contents, etc. Though follow-up was encouraged it was rarely done, for the sessions lasted only 12 days; this, combined with the complexities of scheduling a varied program, did not allow sufficient time for continued observations. The North American Nest Record Card Program of the Laboratory of Ornithology of Cornell University was used to some extent. Table 3 shows the number of nests found over the four-year study period.

#### Field Observations

A total of 75 species of birds was seen in the study area over the four-year period by Wildlife campers and staff; forty-nine species, or 65% of the total seen, were banded. Of the remaining 26 species only 8 were known to be summer residents in the study area. The following birds were seen or heard frequently enough to indicate nesting either in the study area or very close to it: Ruffed Grouse, Bobwhite, Black-billed Cuckoo, Screech Owl, Barred Owl, Whip-poor-will, Ruby-throated Hummingbird and Orchard Oriole. The hummingbirds were netted regularly with an average of 4 captures per year though 7 were caught in one day in 1965. Banding of this species was not a part of our program. Orchard Orioles were as abundant in the area as Baltimore Orioles and probably nested in the trees along the road bordering Plot H. The following birds were seen regularly to infrequently flying over the study area: Great Blue Heron, Green Heron, Wood Duck, Turkey Vulture, Black Vulture, Red-tailed Hawk, Broad-winged Hawk, Chimney Swift, Barn Swallow, Common Raven, Common Crow, Starling and Red-winged Blackbird.

TABLE 3. Nests Found in Study Area.

Species	1963	1964	1965	1966	Total	Plot Location
Yellow-shafted Flicker	0	1	0	0	1	H
Eastern Phoebe	1	1	0	1	3	A, B
Acadian Flycatcher	1	0	1	2*	4	A, E
Eastern Wood Pewee	2	0	1	0	3	A, H
Catbird	0	1	1	1	3	B, H
Brown Thrasher	0	0	1	0	1	C
Robin	3	1	0	1	5	A, B
Wood Thrush	0	0	0	1	1	E
Eastern Bluebird	0	0	2	1	3	C, H
Blue-gray Gnatcatcher	0	0	1	0	1	F
Cedar Waxwing	1	0	0	0	1	B
Yellow-throated Vireo	0	0	1*	1	2	A
Red-eyed Vireo	0	0	0	1*	1	B
Yellow Warbler	0	0	1	0	1	B
Cerulean Warbler	0	0	0	1*	1	A
Baltimore Oriole	0	1	0	2	3	B
Common Grackle	0	0	0	2	2	A, B
Indigo Bunting	2*	3	0	0	5	C, E, H
Chipping Sparrow	0	1	1	4	6	A, C, H
Field Sparrow	1	1	0	1	3	E, H
Song Sparrow	0	1	0	0	1	B
Totals	11	11	10	19	52	

\*indicated known parasitism by cowbird; number of asterisks indicates number parasitised.

The following five species were encountered in the study area an average of 5 times per season for each of the four years: Spotted Sandpiper, Mourning Dove, Yellow-billed Cuckoo, Carolina Wren and Kentucky Warbler.

### Analysis of Data

Though coverage of the study area by nets was consistent for the four-year period, with net hours increasing progressively, there were some changes in bird populations in terms of numbers captured. Some of this can be attributed to changes in habitat by man in Plot H and natural plant succession in Plot F.

The authors also feel that the lack of rain during the early part of the breeding season had considerable effect on the population of some species. Data from the Romney U.S. Weather Bureau Station are shown on Table 4.

Severe local wind and rain storms, not recorded at Romney, struck the study area in mid-July of 1965 and 1966. A total of 2.96 inches of rain fell in a half hour on July 13, 1966. Much song activity was noted after both storms indicating possible loss of nests.

Following are attempts by the authors to interpret the stability, increase or decrease of some species:

#### Acadian Flycatcher

Field observation, number of nests located and capture by mist nets indicates a stable population of two, possibly, three pairs of this bird nesting in the study area. Heavy parasitism by cowbirds was evident. Two nests were found in 1966, both located in Plot A and built by the same pair of birds. The first nest produced one cowbird and no Acadian young. While this fledgling was being fed, the pair started a second nest 15 feet away. This nest also produced a Cowbird and no Acadian young.

#### Vireos

Though different in habitat preference, the Red-eyed and White-eyed Vireos showed a decline during the study period (see Table 2). A single nest of the Red-eyed Vireo was located (Plot B) in 1966; it contained one cowbird egg and was eventually abandoned. There was a very noticeable decrease in both sight records and singing activity of the Red-eyed Vireo during the four-year period.

The White-eyed Vireo is a seemingly clear example of a single pair occupying the study area. On July 7, 1963 two of this species were captured in the same net within a few inches of each other. They were banded and released and remained in the Hazelnut thicket (Plot F) where they were captured. On May 4, 1965 the same two birds were recaptured very close to the spot in which they had been netted previously. Since this time the White-eyed Vireo has neither been heard, seen or captured on the study area.

#### Golden-winged Warbler and Yellowthroat

Table 2 shows an increase in both these species in 1966 over the three preceding years that cannot be completely attributed to the increase in net hours. Possibly some of the birds captured from mid to late July were wanderers that had finished nesting in other areas. The following factors seem to relate to possible breeding success for both species occupy the same habitat during the nesting season. All the birds captured in 1966 were netted in Plots F and H. Many of the Black Locusts in Plot F died in the years from 1963 through 1966 opening up the ground cover which became a thick mat of various species of brome and panic grass. The same habitat change occurred in Area H as a result of the removal of a number of the larger trees in the fall of 1965 to make way for a telephone line.

Undoubtedly the lack of rainfall in May, June and July during the four-year period contributed to nesting success of both species as local flooding as a result of spring rains often takes a toll of nests with eggs or young. A second nesting of the Yellowthroat may have been affected by the severe storms accompanied by heavy rains which occurred in Mid-July of 1965 and 1966 but observations indicate the Golden-winged Warbler had ceased nesting at this time.

No nests of either species were located during the four-year period. Few Golden-wings were

noted on field observations though an occasional one was seen or heard from mid-June to July 1. The Yellowthroat was more in evidence and males continued singing well into July.

#### Cerulean Warbler

Table 2 shows a marked increase in numbers captured in 1966 over the three preceding years. Though its song was constantly heard in the vicinity of the main lodge (plot A) during the four years of the study period, no nest was found until 1966. It was 40 feet up on the horizontal limb of an American Basswood. The nest, located 35 feet southeast of the main camp building contained one fledgling cowbird on July 20, 1966. The cowbird left the nest soon after this date and was frequently seen for several days afterward being fed by the adult warblers.

One Cerulean Warbler, a male, was captured near Cold Stream in Plot D in 1963. A male and a female were captured in 1964 in Plot E. Most of the singing activity, which continued well past mid-July, and the sightings of these birds occurred in these two areas along Cold Stream and on the hillside of mixed deciduous woodland, Plot E.

One female was captured along the southern boundary of Plot F in 1965. Eight individuals (2 males, 5 females and 1 immature female) were captured in Plot F in 1966. One of these females, captured July 10 repeated the following day. Another female was captured June 27; she repeated on June 29, July 14 and July 21. The repeats suggest nesting activity.

It is safe to assume on the basis of the above information that at least three nesting pairs of Cerulean Warblers were active in 1966 whereas there is little evidence of more than one pair in the entire 20-acre tract in each of the three preceding years.

TABLE 4. July Climatological Data for Romney

	Low	High	Temperature Average	Precipitation
4-year average	42.2°	96.7°	74.9°	3.55 in.*
1963	41°	95°	71.2°	Not avail.
1964	45°	96°	79.5°	Not avail.
1965	42°	95°	72.3°	2.14 in.
1966	41°	101°	75.7°	1.06 in.

\*37-year average

#### Indigo Bunting

The status of this species has interested the authors considerably. In spite of parasitism by cowbirds (20% of the nests found contained eggs or young) and the annual loss of nesting habitat by mowing along the paved road bordering two sides of the study area, the bird has maintained a steady population (see Table 2).

Though only five active nests were located within the study area, Plots C, E and H, an even larger number was found in suitable habitat outside the area. One nest, located approximately one-half mile southwest of the study area, produced three young in 1963. Each of these nestlings was banded. One, a male, returned and was recaptured in Plot F in 1965 and 1966. An adult male, banded in 1963, was recaptured in 1966.

#### Discussion

With only a few species of birds were the three methods of determining bird population effective enough to give an accurate picture of a bird's status on the study area. General observation (sight records and constancy of singing males), nest location and capture by mist nets tend to relate and fortify each other for the Acadian Flycatcher, Eastern Wood Pewee, Robin and Baltimore Oriole. The population figures for these birds tended to remain steady during the four years of the study.

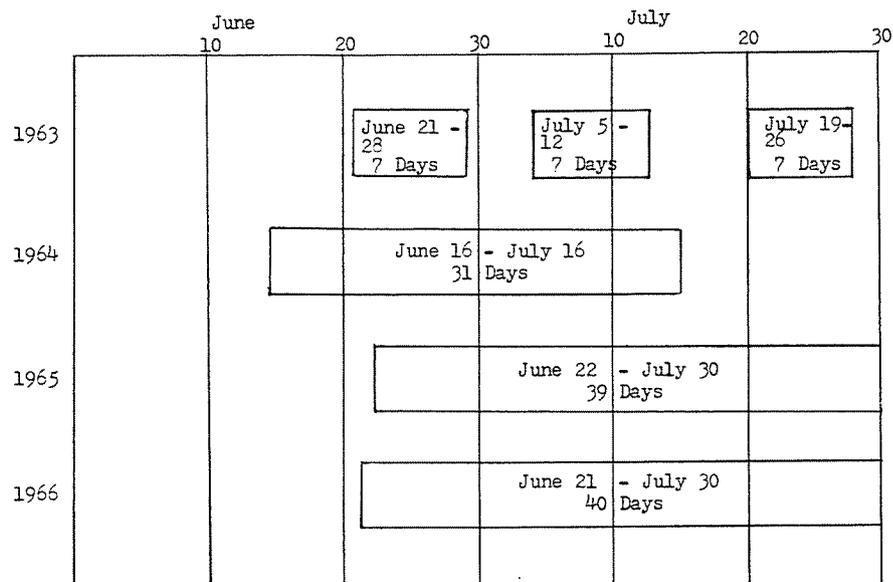
The three methods of determining a bird's presence mentioned above do not give a clear picture of the Yellow-breasted Chat population. Singing males, sight records and numbers of individuals captured indicate an increase but no nests were found in the study area. The chat was confined by availability of suitable habitat to Plots F and H where the bird was both captured and seen.

Figures on the number of captured Indigo Buntings indicate a steady population but general observations and number of nests found suggest a decrease from 1963 through 1966.

The sharp increase in the number of Golden-winged Warblers in 1966 over the three previous years suggests that more birds were nesting on the study area than previously. No nests were found, however, and the general observations do not bear out this conclusion which is an example of how one method (capture by mist nets) can give a false impression of population change if not reinforced with other types of information.

The diversity of habitat in the study area provided a variety of species for the study. A more uniform habitat might lend itself to more control of a survey of this sort. To anyone starting a similar study the authors would suggest color banding for a few carefully selected species to facilitate field observations, a set number of nets placed in permanent locations and opened for specific times, and an area with size dependent upon the availability of time to conduct the necessary field work. The 20-acre area used for the described study appears an adequate size for the type of information provided. It would also be most helpful if the field work could be started at an earlier date: mid-May to mid-July would be an ideal period. A few species such as Yellow Warblers and Golden-winged Warblers produce a single brood and nesting is often finished by late June.

Figure 1. Graph Showing Comparative Time Spent on Study Area



Conclusion

The authors are convinced that systematic netting during the breeding season can do much toward determining the breeding bird population of a given area. This type of study carried out over a period of several years can eventually produce valuable information when correlated with field observation, nesting data and careful checking of predation. Fluctuations in not only the numbers of adult breeding birds but the relationship of numbers of males to females (when possible to determine) and the incidence of year to year returns also become apparent. This study does not pretend to be complete. Certain trends and ecological relationships are discernable, however, and it is hoped that this kind of study will eventually lead to one of more detail.

7710 Old Dominion Drive, McLean, Va.

FIELD NOTES

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



SPRING SEASON: MARCH 1 to MAY 31

Cold weather persisted well into March with lakes and ponds remaining frozen until the middle of the month. When a change occurred it was suddenly warm and the good weather was warmer and drier than usual until the end of April. Vegetation advanced ahead of schedule and altogether there were scattered frosts in May, there was little damage to crops. There was an exceptional display of blossoms and wildflowers which were preserved for a longer period than usual by the cooler and wetter weather in May.

The March birds came in on time and were in good numbers. There were good duck flights in several localities between March 22-30. By the end of April most of the summer residents had arrived but very few migrants had appeared.

The cold wet May weather was discouraging to both birds and observers. By now the trees were in full leaf and migrants were few and hard to see. Although most reporters commented that they had managed to see about everything they could expect to see they had to work at it and found numbers very small. There were no waves or apparent peaks. Birds nesting to the north of our region appeared to have passed hurriedly as few northern species were reported beyond May 20.

Loons, Grebes and Herons—Common Loons were scarce. April 6 at Seneca Lake, near Barnesville, Ohio was the earliest date (C&E). They were recorded

in Webster County, W. Va. April 26 (GHB) and at Tygart Lake, W. Va. May 4 (NG). A **Red-necked Grebe** was seen at Seneca Lake, Ohio March 16 (C&E). The only **Horned Grebe** seen at Morgantown, W. Va. was March 24 (GAH). They were recorded at Seneca Lake, Ohio March 30. Several were seen at Presque Isle, Pa. April 6 (TVS). On this same date **Eared Grebes** were seen at Presque Isle (TVS). Recent records for this species could mean that there is a change in their migratory pattern. **Pied-billed Grebes** did not appear plentiful. **Great Blue Herons** had arrived at Seneca Lake, Ohio March 16 and are again nesting in their large rookery south of the lake (C&E). **Common Egrets** were seen in Putnam County, W. Va. March 22 (NG); at Seneca Lake one or more was there for some time after April 13; Skaggs saw one in the eastern suburbs of Cleveland, Ohio May 11. **Black-crowned Night Herons** were first seen at Seneca Lake, Ohio April 16 but were not recorded in the Porthmouth, Ohio area until May 11 and fewer than usual migrated through the Scioto river bottomlands (MT). A pair of **Yellow-crowned Night Herons** were observed April 20 in the Scioto river bottomlands. They were nesting but attracted so much attention that the nest was abandoned (MT). **American Bittern** was listed near Portsmouth, Ohio April 16 (MT). a **Least Bittern** was seen at Altona Marsh in the eastern panhandle of West Virginia May 26 (NL). They were recorded at Willoughby, Ohio May 22 (MS).

Waterfowl—18 **Whistling Swans** were seen at Seneca Lake, Ohio March 16; several were on Guilford Lake, Ohio March 22, and 10 were seen near DuBois, Pa. March 31. A lone **Snow Goose** was seen near Lisbon, Ohio March 26 (NL). 5 **Snow Geese** plus 7 **Blue Geese** were seen at Pymatuning Lake, Pa. March 29 (MS). The duck flight was held up for lack of open water until about March 10. Then there was a spell of good weather which hurried the main flight northward. Observers checking inland lakes and ponds regularly found ducks that they normally expected to see. March 22 was a good day at McClintic Wildlife Station, near Point Pleasant, W. Va. (NG). March 29 was an exceptionally good day at Pymatuning Lake, Pa. (MS) and March 26-30 were good days in the Lisbon, Ohio area (NL). **Gadwalls** were seen at Seneca Lake, March 16; at Lisbon, Ohio March 26-30 and at Morgantown, W. Va. on March 24 and April 21 (GAH). **American Widgeons** appeared in much better than usual numbers. **Shovelers** were seen at Seneca Lake, Ohio March 27 and at Guilford Lake, Lisbon, Ohio March 26-30. A flock of 80 **Ring-necked** ducks remained at Morgantown, W. Va. from March 17 to 24. Good numbers were in the Lisbon, Ohio area March 26-30; plentiful at Hartstown, Pa. (Pymatuning area) March 29 and an estimated 350 were at this location April 18 (MS). **Canvasbacks** were at Seneca Lake, Ohio March 27; Guilford Lake, Ohio March 26-30; a dozen at Hartstown, Pa. swamp March 29 and several were seen near Ravenna, Ohio April 8. Only one was listed at Morgantown, W. Va. during the spring. The bulk of the **Scaup** duck flight was late and lingered. Large flocks were in Columbiana County, Ohio April 14 (NL) and a few remained at Morgantown until May (GAH). **Ruddy** ducks were listed at McClintic Wildlife Station, W. Va. March 22 (NG); Guilford Lake, Ohio March 30 and at Seneca Lake, Ohio April 27.

Vultures and Hawks—The first date for **Turkey Vulture** was March 9 at Charleston, W. Va. Their numbers appear to have increased in the region. **Black Vultures** were listed at McClintic Wildlife Station, W. Va. March 22

(NG). A **Rough-legged Hawk**, dark phase, was seen at Brockway, Pa. May 19 (TVS). **Marsh Hawks** were seen at McClintic Wildlife Station, W. Va. April 22 (NG) and at Brockway, Pa. May 19 (TVS). Several interesting **Osprey** records were submitted. One was seen at Seneca Lake, Ohio March 24 and same one or another was seen there for several weeks (C&E). Other sightings were Webster County, W. Va. April 26 (NG), Brockway, Pa. April 28 (TVS), Summersville, W. Va. April 30 (GHB), near East Liverpool, Ohio May 6 (NL) and two were seen diving for fish at Rollins Lake near Ripley, W. Va. May 22 (LCC). A pair were found nesting in Tomlinson Run State Park, Hancock County, W. Va. during April. The nest and young were still under observation at the end of the period (ERC). A strong wave of **Sparrow Hawks** was noted at Charleston, W. Va. March 1, 2, 3 (CK). Hall considered their migration poor at Morgantown, W. Va.

Gallinaceous birds—**Ruffed Grouse** and **Bobwhites** seem to have come through the winter in good numbers. A **Virginia Rail** was seen at Khedive Swamp near Clarksville, Pa. May 26 (RKB). **Soras** were seen in the Willoughby, Ohio area May 22 (MS). No rails were found at Altona Marsh in May when the BBC Sutton Seekers visited the marsh. **Coots** were at McClintic Wildlife Station, W. Va. March 22 (NG). Their numbers appear below normal.

Shorebirds—An interesting account of a concentration of shorebirds was received from Oliver Johnson. On May 22-23 in an area where water had accumulated behind National Steele's General Office in Weirton W. Va. the following were observed by Art Ryan and Robert Rine (both known to the editor as careful observers): 1 **Semi-palmated Plover**, 1 **Black-bellied Plover**, 1 **Ruddy Turnstone**, 3 **Greater** and 1 **Lesser Yellowlegs**, 10 **Least Sandpipers**, 26 **Dunlin**, 36 **Semi-palmated Sandpipers** and a number of **Herring** and **Ring-billed Gulls**. A **Semi-palmated Plover** was listed at Seneca Lake, Ohio April 21 (C&E). **Woodcock** had arrived at Charleston, W. Va. March 7 (CK). Earliest date for **Common Snipe** was March 9 at Lisbon, Ohio (NL). 4 pairs of **Upland Plovers** were found near Clarksville, Pr. where they have nested for the past few years (RKB). One was listed at Pymatuning Lake, Pa. May 16 (MS). **Pectoral Sandpipers** were in the Scioto River bottomlands near Portsmouth, Ohio April 22 (MT) and at Seneca Lake, Ohio May 11. Fifteen were seen at Pymatuning Lake, Pa. May 16 (MS). A **Dowitcher** was recorded at Seneca Lake, Ohio May 16 (C&E). A **Stilt Sandpiper** was seen near Portsmouth, Ohio April 27 (MT).

Cuckoos and Owls—Despite a moderate outbreak of tent caterpillars **Cuckoos** did not seem plentiful. Charleston, W. Va. was an exception where Gluck thought they were in better than usual numbers. **Black-billed Cuckoos** were found at McClintic Wildlife Station, W. Va. April 22 (CK) but the average arrival dates of both kinds were well into May. A **Barn Owl** was at Bell's Farm near Clarksville, Pa. April 7. The last of the young **Great Horned Owls** left the nest in Coonskin Park, Charleston, W. Va. on May 4 or 5 (NG). **Great Horned** were seen on two occasions in Columbiana County, Ohio being harrassed by crows. A **Snowy Owl** was found on the University farm in Columbus, Ohio May 24 (HEB). **Barred Owls** and a **Saw-whet** were recorded at the Middle Mountain cabin area, Pocahontas County, W. Va. April 21-22 (NL&VO). A **Saw-whet** was heard on Gaudineer Knob May 24 and one called consistantly at Blackwater Falls, near Davis, W. Va. up to mid May (GHB).

Goatsuckers through Hummingbird—Earliest date for **Whip-poor-will** was

April 12 at Kanawha State Forest near Charleston, W. Va. (NG) One was heard at Harpers Ferry, W. Va. May 25 (NL). **Common Nighthawks** were seen at Brockway, Pa. April 26 (TVS) and at Charleston, W. Va. April 29 (NG) but were not reported elsewhere for several days. The first **Chimney Swifts** arrived at Charleston, W. Va. April 12, Barnesville, Ohio April 16, Morgantown, W. Va. April 17 but were not seen at Brockway, Pa. before April 26. A **Ruby-throated Hummingbird** was seen in Shawnee State Forest in southern Ohio April 20 (MT). Other arrival dates were well into May and they were considered scarce by most reporters.

**Woodpeckers**—All of the woodpeckers seem to be doing quite well. **Flickers** arrived a little early in good numbers. **Red-headed Woodpeckers** were found in two locations in Hancock County, W. Va. (OJ) where they have not been recorded for many years. **Yellow-bellied Sapsuckers** were numerous in Charleston, W. Va. first two weeks of April (CK). They were found on Middle Mountain, Pocahontas County, W. Va. April 21-22 (NL&VO).

**Flycatchers**—The first date for **Eastern Kingbird** was April 21 at Seneca Lake, Ohio although it was not recorded at Brockway, Pa. until May 10. Several were found in the Clarksville, Pa. area where it is usually scarce (RKB). **Great Crested Flycatchers** were at Charleston, W. Va. and in Raleigh County, W. Va. April 22 and at Morgantown W. Va. April 28 but did not reach Brockway until May 23. **Phoebes** appeared plentiful generally. The earliest day was March 10 at Barnesville, Ohio (C&E) **Acadian Flycatchers** arrived in the southern part of the region first week in May. They appeared to be abundant. April 28 seems an early arrival for **Traill's Flycatcher** in Webster County, W. Va. (GHB). The nearest date was May 15 at Seneca Lake, Ohio (C&E). A pair was found building a nest in Cedar Creek State Park, Gilmer County, W. Va. May 30 by BBC members participating in the "Little Foray." **Least Flycatchers** were listed at Richwood, W. Va. April 30 (GHB); at Shawnee State Forest in southern Ohio May 1 and one was found building a nest at Gaudineer Knob, W. Va. May 14 (NG). **Wood Pewees** were found in Kanawha County, W. Va. May 4 (CK) and arrived in most other places a week later. Numbers appeared normal.

**Swallows**—Swallows were considered scarce by several reporters. **Tree Swallows** were found near Lisbon, Ohio March 26 (NL) and at Seneca Lake, Ohio March 30 (C&E). They were seen at Cedar Lakes, near Ripley, W. Va. May 6 (GHB). From Clarksville, Pa. Ralph Bell reports a nest with 5 eggs in a Bluebird box on May 27. He comments that this is the first known nesting record for **Tree Swallows** in Greene County, Pa. since 1893. **Barn Swallows** arrived on time in normal numbers. Several reporters showed concern for **Purple Martins**. Numbers were particularly low in both Charleston, W. Va. and Wiloughby, Ohio.

**Chickadees through Wrens**—**Black-capped Chickadees** were not reported out of their breeding range. Populations of **Carolina Chickadees**, **Titmice**, and **White-breasted Nuthatches** appeared to be very good. **Red-breasted Nuthatches** were not mentioned as a spring migrant. However they were plentiful at Middle Mountain, Pocahontas County, W. Va. April 21-22 (NL&VO). Several were seen at Gaudineer Knob May 15 (NG) and were found in the Blackwater Falls area May 19-21. **Brown Creepers** were common in the East Liverpool, Ohio area during March and April. A good migration occurred at Charleston, W. Va.

in mid April (CK). **House Wrens** were on time and in good numbers. **Winter Wrens** were plentiful in Pocahontas County, W. Va. April 21-22 (NL&VO). **Carolina Wrens** came through the winter in good shape.

**Mimics**—**Mockingbirds** were found in Hancock County, W. Va. (OJ) and Morgantown, W. Va. in May. One was seen at Brockway, Pa. March 10 (TVS). **Catbirds** arrived in most localities during the last week of April. **Brown Thrashers** were at Charleston, W. Va. April 1 (CK), at Clarksville, Pa. and Morgantown, W. Va. April 13 but their presence was not noted at Brockway, Pa. until April 28.

**Thrushes**—**Wood Thrush** were recorded at Charleston, W. Va. April 15 and had arrived in good numbers in other localities within a week. A **Hermit Thrush** was netted at Charleston April 18 (CK). They were singing in Pocahontas County, W. Va. April 21-22 and one was in full song near East Liverpool, Ohio April 29. A **Swainson's Thrush** movement was noted at Charleston, W. Va. May 11 to 20. This coincides with East Liverpool, Ohio as did the comment of good song. Hall considered numbers only fair at Morgantown, W. Va. A **Gray-cheeked Thrush** seen at Morgantown May 12 was Hall's first positive spring record in fifteen years. **Bluebirds** continue to do well. Ralph Bell reports 130 boxes occupied as of May 1 out of 218 checked.

**Gnatcatchers through Waxwings**—**Blue-gray Gnatcatchers** came on time in good numbers. **Ruby-crowned Kinglets** appeared to have the edge on **Golden-crowns** during migration. **Golden-crowns** had moved out by the third week of April **Water Pipits** were again found at Morgantown, W. Va. on March 17 (GAH). Miss Trowbridge found flocks of them in both Scioto and Adams Counties in Ohio March 23. A single was seen at Brockway, Pa. March 24 (TVS). **Cedar Waxwings** were generally common this spring.

**Vireos**—**White-eyed Vireos** were considered more common than usual by several reporters. The first dates were April 20 at Charleston and April 21 at Morgantown, W. Va. **Yellow-throated Vireos** did not seem common. The only mention of **Solitary Vireo** applied to their nesting grounds. They were common singing birds at Middle Mountain, Pocahontas County, W. Va. April 21-22 (NL&VO). **Red-eyed Vireos** were in most places during the last week of April but did not seem very abundant. Earliest date for **Warbling Vireo** was April 19 at Charleston, W. Va. An increase in numbers was mentioned by several reporters.

**Warblers**—The Warbler flight was puzzling indeed. Most reporters conceded that they had listed about all the warblers they could expect to see during migration but in very small numbers. Resident warblers arrived on time and were apparently in good numbers. **Parulas**, **Yellows** and **Chats** were very common. With few exceptions the late migrant warblers moved quietly through. Reports on **Tennessees** were contradictory. **Magnolia** and **Myrtles** were the two species that made a good showing. Unusual was the record of a **Yellow-throated Warbler** at Brockway, Pa. on May 12 (TVS). **Palm Warblers**, not often recorded during the Spring were at Morgantown, W. Va. and Clarksville, Pa. on April 29. A **Wilson's Warbler** was at Morgantown, W. Va. May 8 and at Charleston, W. Va. May 9 and 21 (CK). The BBC people failed to find the usual migrants in the eastern panhandle of West Virginia during the annual field trip May 25-26.

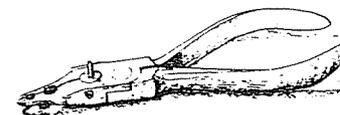
**Blackbirds, Orioles and Tanagers**—**Bobolinks** were seen at Brockway, Pa.

April 20 and at Morgantown, W. Va. April 28. They were present in other areas in normal numbers first week of May. **Meadowlarks**, **Red-winged Blackbirds** and **Grackles** were on time. **Orchard Orioles** were seen at Clarksville, Pa. May 3 and at Barnesville, Ohio May 4. There was a good influx of **Baltimore Orioles** with earliest arrival date April 21 at Barnesville, Ohio. **Rusty Blackbirds** were seen at the McClintic Wildlife Station, W. Va. March 22 (NG). **Scarlet Tanagers** arrived in the southern part of the region the third week of April but were not reported in the northern part until first week of May. **Summer Tanagers** arrived in Charleston, W. Va. and southern Ohio April 25. Hall banded his only record at Morgantown, W. Va. May 8 and Bell saw a pair near Waynesburg, Pa. May 26.

Grosbeaks and Sparrows—**Rose-breasted Grosbeaks** made a poor showing. A **Blue Grosbeak** was seen and heard in Columbiana County, Ohio May 9. This is thought to be the second sight record in this county (NL). A **Dickcissel** came to a feeder in Portsmouth, Ohio during April (MT). **Indigo Buntings** were a little late and did not appear plentiful. Few **Purple Finch** were listed during the period. **Pine Siskin** were listed irregularly at Brockway, Pa. until April 21. They were present in good numbers in Pocahontas County, W. Va. April 21-22. **Rufous-sided Towhees** were on time and plentiful. The earliest date for **Savannah Sparrow** was March 27 at Clarksville, Pa. (RKB). **Grasshopper Sparrows** were not reported before May 12. The first **Henslow's Sparrows** were also on that date. March 26 to 31 appeared to be the general arrival period for **Vesper Sparrows**. **Chipping Sparrows** staged a good migration over the region, appearing a little earlier than usual. **Field Sparrows** were also in good numbers. A good migration of **White-crowned Sparrows** occurred during the first two weeks of May. **White-throated Sparrows** were less conspicuous during their passage and some reporters thought their numbers were low. **Fox Sparrows** were scarce. Proof that **Lincoln Sparrows** are not as rare as they seem during migration was the fact that 5 were banded at Morgantown, W. Va. from May 6 to 15 (GAH). Dates for **Swamp Sparrow** arrivals ranged from March 29 to April 10.

Contributors—Ralph K. Bell, **RKB**; George H. Breiding, **GHB**; Harold E. Burt, **HEB**; Everett R. Chandler, **ERC**; Mary Chapman and Mabel Edgerton, **C&E**; Linnie and Clifford Coon, **LCC**; Norris Gluck, **NG**; George A. Hall, **GAH**; Oliver Johnson, **OJ**; Constance Katholi, **CK**; Virginia Olsen, **VO**; Tom and Violet Shields, **TVS**; Merit Skaggs, **MS**; Marie Trowbridge, **MT**;—Mrs Nevada Laitsch, MC 21, East Liverpool, Ohio.

## The Gathering Cage



Constance Katholi, Editor  
930 Woodland Ave.,  
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SOUTH CHARLESTON, W. VA.

Had it been a Curlew Sandpiper I'd have been no more surprised than I was by the bird which I found in the net across the lawn on the hot, still afternoon of June 28: an adult male Blue-winged Warbler, the first of this species I have ever handled, and only the second to be observed by me from Woodland Avenue (and that one was during migration some years ago.) The nearest Blue-wing which I located this spring in early May was singing in a brushy clearing along Trace Fork in Little Creek Park several miles away. These woods are scarcely the expected habitat, although it is conceivable that the change in land use in the vicinity has created a suitable area in Joplin Hollow below and behind me. In any event the tiny bird made my day. There is something rather special, almost awesome, about warblers with their jewel-like colors, the perfection of their plumage, their seeming fragility and delicacy. I was puzzled by his presence in the yard. Was he already wandering upon completion of the nesting cycle; or simply foraging far afield; or was he a surplus, unmated bird? Whatever the answer a net has again provided evidence of the presence of a completely unsuspected species. This same net setting yielded the xanthocroic Scarlet Tanager just a year ago, and two years ago in July, another errant warbler, a Louisiana Waterthrush.

An hour after I had released the Blue-wing, as I was working in the garden, I was electrified to hear in the tree above my head the voice of a Black-throated Green. The bird sang five or six times, —unmistakable after the recent week spent in Pocahontas County, although the extremely heavy foliage prevented me from actually seeing the bird. Was this pure coincidence, or was there a pattern behind the appearance of these two warblers?

I was also the proud recipient recently of another of the Banding Office's innovations, the new gilt-edged certificate-of-appreciation, for having reported the recovery of Ralph Bell's Purple Martin in the martin roost here last August. All in all it has been a good month!

C. Katholi

CLARKSVILLE, PA.

"Most birders have noticed the reluctance of some birds to leave their nest when one approaches to have a look. I have often wondered if there is any danger of these birds abandoning their nests if caught. Circumstances vary, but I now believe that at least all Bluebirds will return to their nests. This gives us a chance to make a better study of this species. During the summer of 1965 two female Bluebirds were caught on their nests and banded. Their nests were checked later and there was no nest desertion. During 1966 two more fe-

males were caught on their nests and banded. During 1967 four were caught and banded. This year (1968) I have been deliberately trying to catch females on their nests, and so far have captured ten. Two of these wore bands. One banded female caught in April 1968 had been caught in the same box and banded on May 3, 1966. The other female had been banded as a nestling last summer (1967) in a box about two miles away." Ralph Bell  
COLUMBUS, OHIO

"My last report was gloomy. The buildings and parking facilities of the new General College were encroaching on the decoy trap area; the trap itself was gathering rust and the top was sagging as a result of snow accumulation,—and its use as a trampoline by juvenile delinquents. Now they have built us a brand new trap 200 yards from the old location, in a place rather well isolated by multiflora hedges. It is also close to a small woodlot.

The trap was put into operation April 17 and in the first month I banded 2000 birds,—mostly Redwings. This encouraging number may reflect a better trap, a better location, or an unusual increase in the local population. As far as species is concerned this influx of Redwings differs from previous years when the peak for Redwings was in July and August. (Cf. our article in Redstart for July 1967.) At the outset the ratio of females to males ran 2 to 1, or 3 to 1. By mid-May the female captures were less than the male. Presumably this reflects female preoccupation with nesting and care of young. The pattern of repeating suggests that the trap has a strong attraction for some individuals either as a daily source of food or as a social situation. In the first month one female Redwing repeated 17 times followed by others with 16, 15, and 14, and several more between 5 and 10 repeats. It is nice to be in business again.

Harold E. Burt

#### SUMMIT LAKE, WISCONSIN

"I caught a foreign Junco in early May. This was a thrill in itself, but in addition the bird was a partial albino. It had white on the head only in a circle around the eye and under the chin. This condition seems unusually common in juncos. I remember several items in EBBA News and The Redstart recently. Actually I had two partial albinos this spring and three last spring. There was white on the heads of all of them, and one had white markings on the body as well. This bird looked a little like a junco covered with snowflakes!

It was a good spring for Gambel's White Crowns; I got six of them, and one Eastern White Crown, the first I had ever seen here. Previously, I had gotten the Gambel's one or two at a time in the fall, and never in the spring.

The martins are back, but I've stopped hoping that they'll use my houses. I believe we have too many Tree Swallows; they even drive the bluebirds away! I finally decided to quit fighting them and join them, so I put out MORE boxes. We have an acre and a half of open field with ten pairs nesting on it so far. They are fascinating birds; it seems the more houses you put out, the more birds you get—and the more ramshackly the houses, the better they like them. Since they love to feather their nests with white feathers—they are so crazy for the feathers that they will swarm around and nearly snatch them from your fingers if you scatter some—I have found a way to net them. The technique is to set the net among small trees or near some brush which hides the net, but not so close that the swallows cannot swoop in flight. Place whitechicken feathers in the net and wait for the swallows to snap them up. The day must be windless to insure that the birds will be pocketed; if the net bellies out, the birds will bounce off. Since they usually fly to their boxes upon release, I can also learn which nest goes with each bird."

Carol Rudy

This is especially interesting since we found white feathers in a Tree Swallow's nest in a fence post at Foray this June.

C. Katholi

## REDSTART EDITORIAL POLICY

Original papers in the field of natural history are published in the Redstart. Papers are judged on the basis of their contributions to original data, ideas, or interpretations. Scientific accuracy is most important and to this end an Advisory Board, selected by the Editorial Staff, will review submitted papers. Papers should be typewritten, double spaced and on one side of the paper only. Clarity and conciseness of presentation are very important.

## SUGGESTIONS TO AUTHORS

**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.

**REPRINTS.** Authors may request reprints at the time papers are submitted. Cost of reprints will be paid by the author. The author is responsible for putting his paper in final form for production. This will include corrections suggested by the Advisory Editorial Board.

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.

## BROOKS BIRD CLUB MEMBERSHIP

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