REPORT OF THE
BROOKS BIRD CLUB
FORAY

1942
HOLLY RIVER STATE PARK-W.VA.
JUNE - 13·20
REPORT OF THIRD ANNUAL FORAY

HOLLY RIVER STATE PARK

June 13-20, 1942

This report of the third annual Foray sponsored by the Brooks Bird Club is respectfully dedicated to the West Virginia Conservation Commission. We are especially grateful for the cooperation rendered by the Division of State Parks in sending park naturalists to the Foray for training. We also appreciate the personal interest shown by Bruce Griffith, State Parks chief; Chris Dill, Senior Technician; John Handlan, Educational Director and others of the state staff who visited the camp and contributed materially to its success. We offer a special vote of thanks to Harold Fisher, Superintendent of Holly River State Park, for his assistance in making necessary adjustments to accommodate such a large group and for the many favors he rendered in the interest of everyone's comfort.

We feel that since so many of the personnel of the Conservation Commission attended the Foray, in full or for part of this year, that this study will be of greater interest and therefore more valuable than those of preceding years. As for ourselves, the 1942 Foray at Holly River State Park provided the ideal vacation in addition to increasing our knowledge of the ecology of the Park and its surroundings.

The Brooks Bird Club
MOLLY RIVER STATE PARK

A natural wonderland of high mountains, deep forests, great, grey, moss-covered boulders, and rushing streams, Molly River State Park, located in Webster County, is one of the newest of West Virginia's state parks.

Originally planned and developed by the Resettlement Administration of the Department of Agriculture as a recreational area and game refuge, it was turned over to the state, under the administration of the State Park Service in 1938. The entire park, 7,320 acres in all, remains a game refuge, and a great number and variety of wild animals can be found within its confines.

The park, which ranges in elevation from 1000 to 2300 feet, consists chiefly of second growth timber, with some areas of virgin timber, principally beech, sugar and red maple, and tulip poplar. Drained by Laurel Fork of the Holly River, and its wealth of tumbling little tributaries, the park abounds with moisture-loving flowering plants, ferns, mosses, and laurel and rhododendron thickets.

The cabin area, which occupies about 20 acres, contains nine comfortable cabins, the custodian's dwelling, a unique recreation hall, playgrounds, picnic areas and shelters. Sports courts and a fine swimming pool afford ample recreational facilities.

To those who love the out-of-doors in all its native loveliness, Molly River State Park presents unlimited opportunity for study and relaxation. Far from the mad rush of the city, along the cool depths of its trails, in the friendliness of its camp fires, one finds rest and peace, and a new perspective.

Jean Wilson
CAMP SCHEDULE

CAMPFIRES

Leader Fireman
Russ West Ted Frankenberg
John Handlan George DeVinney
Maxine Thacker Jean Wilson
George Flouer W. C. Legg
Charles Conrad Don Keyser
Pete Chandler John Diemer

EARLY LORNING WALKS

Leaders
Russ West and Harold Fisher
Polly Handlan and W. C. Legg
Charles Conrad and Elizabeth Etz
Maxine Thacker and Pete Chandler
John Handlan and Virginia Thayer
Carolyn Conrad and William Murray
All together

ECOLOGICAL DISCUSSION

MONDAY Ornithology Charles Conrad
TUESDAY Roadsides Russ West
WEDNESDAY Normal Skinning Wayne Wilson
THURSDAY All Day Field Trip
FRIDAY Summary for Week Pete Chandler

ACTIVITIES

Diary.................John Handlan, Julia Gombert, Carolyn Conrad,
                             Ted Frankenberg
Mail..................John Diemer
Photographers...........Charles Conrad and John Handlan
Refreshments............Russ West, George DeVinney, Don Keyser
Climatic Report........Jean Wilson
Ecological Report.......Polly Handlan, Eva Hays
Ornithology............Ted Frankenberg, Elizabeth Etz, W. C. Legg
Herps..................Pete Chandler, George DeVinney, Adele Harpold
Trees..................William Murray, Norma Jepson
Ferns, etc..............Russ West, Elizabeth Hunter, Mrs. West
Flowering Plants.......Maxine Thacker, Paulinebelle Wyss, Catherine Gombert
Mammals................Dorothy Conrad, Mary Jones, Wayne Wilson
Dining Service.........Mrs. West
Holly River Description.Jean Wilson
Prologue

If this were an "opry," an explanatory prologue would be presented in a setting built to represent the Kanawha county cottage at Jackson's Hill, Lewis county, W. Va., during the first week of March, 1942.

In the cast would be various state parks custodians and rangers, other state parks officials, game protectors and other Conservation Commission representatives - and President Russ West of the Brooks Bird Club, Wheeling.

Outdoors, some two feet of snow covered the world. Indoors, the steam heat worked perfectly and vocal chords strove to wring from tortured songs some vestige of harmony.

Among the singers was one "red-haired guy with a high tenor" who turned out to be the custodian of Holly River state park. His name was Harold Fischer and he and Russ hit it off immediately. After two years work at Lost River park, West reasoned the gang might like a change in 1942 and - well, maybe the red-headed tenor had a hand in it .........

Saturday, June 13

Chuck Conrad's earload reached Holly River state park at 3 P.M. today -- the vanguard of three earloads from Wheeling and one from Lorristown, Ohio. Another ear, occupied by Julia and Katherine Gombert picked up Pete Chandler and Bill Murray at Chester and one of the Wheeling groups stopped for Ted Frankenber'g, who had traveled by rail from New York to Grafton. Laxine Thacker, Bobby Witt and Bill Leg prepared to appear separately and in devious fashions from the southeast.

Chuck, finding the cabins a bit more crowded than he had pictured, immediately went scouting for a mess hall and, in lieu of establishing it officially on Saturday night, sent the crowd to the park commissary where Mrs. Elsie Klee fed 'em ham and fixin's in entirely adequate style. Then, just to show he approved of the equipment, Chuck and his gang, aided and abetted by the Park custodian, wiped some tables and benches and lo! There was a mess-hall.

It didn't take the outfit long to find the recreation hall's ping-pong tables, fireplace and juke box, all of which were duly enjoyed by the older, more serious-minded members of the party. In the meantime Chuck and his aides wedged 'em all into cabins and so to bed. But not to sleep; oh, no. The gals in Cabin 9 got no sleep. The study of mammalogy was a dandy science, they reasoned, but they were damned if they'd be chased in a cabin with a very active example of Little Brown Bat. And then, in Cabin 8, Nurse Elizabeth Hunter, who had come equipped (and this is hearsay) with sensible, flannel pajamas, found the rest of her house mates resplendent in satin nightgowns.
Cabin 7 - but the sign outside said "Cabin Occupied" and that's what it was for a full (?) week. When six folks were in the living room, it was crowded, and when forty people were in the room, it was still crowded, but there was always room.

Those who visited Cabin Occupied during the day and the evening stepped softly. Diemer, Legg and Keyser were engaged in a serious and seemingly never-ending conversation. At least Legg and Keyser thought it was.

A chap stopped in Cabin Occupied this afternoon. He had on one shirt and carried his other in a bag. His battered felt hat covered the place where his hair was. He was shy, quiet and retiring. He spoke only when spoken to. But before the day was over, Bill Legg, former editor and publisher of Field Ornithology had made the hit of the week.

Even under the expert guidance of Pete Chandler, a formal campfire program was impossible tonight. Some of the forky members were attending after becoming acquainted with the bird club through correspondence and the monthly publication, THE EBDSTART. Perhaps they were amazed at the folks they saw. As Ed Werner put it, I came here expecting a bunch of elderly ladies, but gee-----, all semblance to an organized campfire program disappeared when Chet Shafter pulled in from Nashville, Tennessee. And then the fun began, stories, songs, jokes, "where have you been this past year" andandon.

As usual, Pappy DeVinney outlasted 'em.

Sunday, June 14

The woods were plenty wet this morning, but nevertheless, a group of hardy souls braved the rain and soggy thickets with serene and joyous aplomb — and before breakfast. Bill Voitle, chef, and Helper Harry Krebic (nick-named, Henry Aldrich) gave 'em both barrels to initiate the improvised mess hall with hot sausage and scrambled eggs as chief offerings.

Dorothy Conrad was talking at breakfast this morning. She was describing an unusual bird song she had heard. Bill Legg, sitting on the opposite side of the table was an interested listener. Finally, Bill said, I just Dorothy, that was a Swainson's Warbler that you were listening to and that's just the way the books describe the song. Was Dorothy proud?

With amateur biologists of every description and leaning among those present, the tie-up for the group and the center of study was based on ecology. During the morning, Ed discussed briefly some of the habitat areas that might be encountered in Holly River State Park and many of the campers entered their suggestions regarding the life-forms to be found in each area.

Our colony grew in numbers today, by a substantial increase. Ed Werner pulled in from all the way over to Cacapon Park, Morgan county. Wayne and Large Wilson, of Hoosierfield, reached Holly River enroute to Watoga park. Mrs. Lewis, Mrs. E. E. Chandler, Hester and Jane Chandler, and Mrs. Marion Murdoch and Jeanie and Arney Murdoch arrived in the same car from Hancock county. Immediately back of them were John and Polly Hardian, up from Keenan, in Monroe county.
By this time, the wet weather had really changed into rain and heavy mists wreathed the mountain tops.

Somehow or other, Chuck found beds and cots for all of us and room in the dining cabin so we really went to town on supper. Campfire that night was indoors, at the recreation hall, and Russ engineered a short and snappy program with Carolyn and Lax Thacker alternating as song leaders and the entire park staff supplementing our own part, to give us a gang of well over 40.

The big item, for newcomers, was the campfire announcement that Bill Legg had "rediscovered" Swainson's Warbler to be fairly numerous in Holly River park -- to everyone's considerable pleasure.

While we were at campfire, Chris and Sarah Dill and their gal-child Joan, arrived at Fischers' but were too tired to join the campfire didoes.

Round-robin and the usual skipping about went forward for a large group, while more academically inclined campers resorted to Cabin Occupied where an earnest (and fruitless) search was undertaken for the lost chord. It was a long search, too....and still raining.

Weather: Rain all day.

Temperature: 7 a.m., 58 degrees; noon, 62 degrees; 7 p.m., 60 degrees

Monday, June 15

Folly Handlan, Bill Legg and Pete Chandler were early walk leaders beginning at 7:30. After breakfast, the whole outfit assembled near the cabins and Red Fischer appeared at 10 A.M. to distribute maps and take us on a preliminary tour of the park. We went up a steep trail with serious delays caused by the insatiable appetite of a few earnest souls who ate wild strawberries as if they had not already consumed pounds of hot breakfast.

At one point on the trail we paused to watch the excited flutterings and to hear the reiterated "chip-churrs" of a pair of Scarlet Tanagers. We watched the parents for several minutes before we were aware that a tiny, green fledgling was perch on a branch scarily far from many of us and in plain view -- a grand example of protective coloration. The little fledgling made no sound whatsoever, but watched us keenly. Birding, in general was good and we recorded a very good list of warblers namely, Black-white, Hooded, Swainson's, Prairie, Worm-eating, Golden wing, Blue-wing, Redstart and Kentucky.

On the way up, we saw stumps and other reminders of what must once have been a magnificent forest. We were told, also, by Red Fischer that he had skied down that trail last winter and we all figured he must have been a mite tetch'd.

After an hour or more of slow progress (due to the berry-biters) we emerged into high uplands, abandoned farms where the woodland birds and plants gave way to those of the forest-edge and open uplands. We were slow here, too, because the hungry ones found wild raspberries to add to their fruit diet.
Near the top of the ridge a clear mountain spring came out of the ground. Werner, Grosscup and West pointing out specimens of every large plant group within a radius of two feet. They sure got their feet wet, literally and actually.

Eventually we came to the top of a "hog-back" from where we had a glorious view of the surrounding, rugged countryside. Red Fischer spotted a couple of Black-tail deer on a hillside perhaps a half-mile distant and these shortly were joined by two more. All of us had a chance to watch them with the aid of glasses, although one could see them with the naked eye. Then Red confessed he had skidded down the hill we were expected to descend and he were sure he should be placed under observation.

We arrived an hour and one-half late for lunch and still found Bill Voitle in a grand good humor! Furthermore, we found mountains of spaghetti, cole slaw and apple-sauce to help us recuperate from a long walk, and was it all good!

Pete Chandler, Bill Legg and Ted Frankenberg combined to give us an interesting discussion of birds and bird-life as an afternoon feature. A few then continued explorations, others rested and some took advantage of the momentary sunshine to test the new swimming pool (it's a honey!)

The week-enders Lester Koon and Sam Shaw returned to Fairmont and Houndsville today. They must have had a good time for Koon promised to return later in the week with his daughter, despite the tire shortage and the fact that his work kept him tied down. Adele Harpold also left late today.

Campfire was led by John H and a and had an ornithological theme with another of Bill Legg's accounts of the Swinson's Warbler as a high point of the program.

Cabin Occupied entertained.

Weather: Overcast

Temperature: 7 a.m., 62 degrees; noon, 69 degrees; 7 p.m., 68 degrees.

Tuesday, June 16

Chuck Conrad and Libby Etz were leaders of the morning field trips and the group followed up with a walk devoted to the study of ferns and the "working over" of a sizeable "habitat area" in general.

After a good husky lunch, the activities directors of the state parks sat in a group discussion with Senior Technician Chris Dill of the Parks division and J. W. Hainlen of the Education division, Conservation Commission. Russ West and Chuck were invited participants in the session. Midway through it, Ranger-naturalist George Flower of Lost River park entered the room, having just arrived along with Harge Flower and their son, Jack, the latter a four-year-old veteran of two preceding forays.

Russ West led a walk and discussion of roadsides as wildlife areas, a theme supplemented by a discussion by Ed Werner on typical habitats of algae and liverworts.
Later in the afternoon, Wayne Wilson with a small group laid a trap-line for small mammals, the series of traps being placed in the cabin area and baited with cheese and bits of meat. Bill Legg, Pete Chandler, Chuck Conrad and John Handlan helped out — or got in the way.

Max Thacker was campfire leader tonight in an all-gals event. A feature was Dorothy Reynolds description of a 100-mile bicycle trip made by her and Nancy Caldabaugh earlier in the month. A ferry was crossed, a cow was milked and the people of Friendly, W. Va. were found very friendly, Dorothy reported.

The floor show at Camp 7 was rather poorly attended, but nevertheless was deeply enjoyed by a select group of participants ("select" meaning those who selected this way to spend the late hours.)

We learned that Helen Chandler did not lose her admirable poise when she found three strange men climbing across a bed in the Chandler cabin in pursuit of a Flying Squirrel resident there. P. S. They caught the squirrel.

Weather: Overcast, scattered showers.

Temperature: 7 a.m., 58 degrees; noon, 72 degrees; 7 p.m. 70 degrees.

Wednesday, June 17

We had to say "So long" to Ed Werner and Wayne and Marge Wilson today. Marge, it developed, lost a toothpaste tube somewhere around camp — which cuts off her rations of toothpaste for the duration! Before Wayne got away he demonstrated the skinning of small mammals.

Max Thacker engineered the principal field trip of the morning with especial emphasis upon flowering plants. Jack Flouer demonstrated his usual ability to keep up with young men like Pappy Devinney and John Diemer.

After Wayne’s discussion, Bill Murray was leader for the group who were interested in tree study. They followed the road along the Holly River being interested today in the trees of the bottom land.

With their usual fiendish ingenuity, the "gents" organized a super campfire for tonight, with sobriety and dignity as the principal components of a pro ram masterfully handled by George Flouer. Chuck Conrad as "Dorothy Reynolds" and Ed Dowler as "Nancy Caldabaugh" (in costume of course, with hay-scented fern very appropriately used as fill-in) acted out a 100-mile bicycle trip in the course of some 20 minutes. Bill Legg played the part of a country storekeeper, Pete Chandler that of an extremely friendly guy from Friendly and Don Keyser served as a "ferry." A lop-eared, sorry-looking specimen of a stuffed (and that's the word) doe deer played the part of a cow, assisted by a zipper-fastened toilet kit. Frankenberg led the stage-hands in their work which continued all the time the episode was in progress. A big "How! How!" was given the cook for he sure was putting out the good grub and plenty of it, even under the difficulties that only he knows.
The singing tonight at No. 7 was spectacular! It was the best job we've done thus far in that direction. Along about 2:30 A.M. we received a wake-up recruit from a small, pajama-clad feller who turned out to be Jack Fleurer, A.W.O.L. from his sleeping Aunt Folly. Chuck Conrad, whose bed was about five yards from cabin 7 refused to go to his own cabin, and occupied the bed of an obliging tenant who slept on the floor.

Weather: Overcast, some sun in P.M.

Temperature: 7 a.m., 60 degrees; noon, 68 degrees; 7 p.m., 67 degrees

Thursday, June 18

Today the campers turned in a round of activity even more full than usual. We hiked to the fire tower, under Stacy Grosscup's guidance, the hikers making side excursions along the way to examine items of interest. Don Keyser appeared and disappeared through the woods with startling clairvoyance, left elaborate markers for nests (which no one beside Don really located) and otherwise probably traveled double the length of the trail up which the rest of us toiled.

At the tower, we found lunch was arrived via automobiles and Bill Voitle helped us to sandwiches, iced tea, cakes and fruit which disappeared with amazing rapidity. After lunch, a few of the group took the cars back to camp, and the rest of us went in search of a beaver dam. We went along an old log grade and found the remains of a log-road trestle which invited photography. We never did find the dam, excepting that Pete Chandler and Bill Legg, scouting off by themselves, did manage to locate it and reported their find on their arrival back in camp about 5:30 P.M.

In the meantime, the rest of us hiked back via roadway and arrived "home" late in the afternoon after a day's field trip of over 11 miles afoot.

At the dinner table, among the highlights of the trip were disclosed several choice "puns" which we all agreed should go in the journal, such as:

Norma Jepson referring to service berries as "handy berries" -
The designation of "Siesta" as a handle for Ed Dowler -
Pappy DeVinney's remark when someone commented on the good sportsmanship and courage of the missus Gombert and Mrs. West: "G'er the Gomberts, we watch!" -

Tonight was public campfire night, with Chuck Conrad presiding. Superintendent Harold Fischer, of the Park, had invited the neighbors in for the campfire and for a square dance to follow it. R. Bruce Griffith, state parks chief, Mrs. Griffith and Ted, their son, returned to the park in time to participate in this event. Among the guests were Dale Arbogast and Bill Lewis, who late in May were 4-H club representatives at the state conservation camp at Camp Caesar in Webster county.
A three piece orchestra was stationed in the recreation hall and immediately after campfire the guys and gals swung their partners and generally had a good time mixing with the neighbors square dancing -- each set calling its own figures. They also swung their neighbor to the Okey-dokey, Bingo, and Virginia Reel. The dancing proceeded until midnight (How many more miles were checked off for the day no one knows!)

Cabin Occupied held open house -- as usual. The late evening was marked by Chuck's discovery that he still was wearing under his own clothing a sunsuit which he had purloined from some luckless girl's cabin for his costume at the Wednesday night campfire.

This marked the first day of the week that we had no rain. The sun shone bright and all day long.

Weather: Bright, sunny

Temperature: 7 a.m., 55 degrees; noon, 77 degrees; 7 p.m., 70 degrees.

Friday, June 19

Everyone was pretty well tired from the full day on Thursday, but small groups and individuals took to the trails regardless, the majority spending most of the morning in a vain search for the nest of Swainson's Warbler. The birds sang and called from all around us and we caught fleeting glimpses of them without as much as coming near the nest, so far as we could determine.

Before lunch today, Chuck and Ted Frankenberg went to Hackers Valley for a few "shorts" in supplies. Ted, in trying to fill a request, asked the clerk for a box of Kleenex, and the response was -- "how many pounds of peanuts do you want."

At lunch time, Mr. Klee, along with his daughter Elsie, who did a great job in helping us get supplies and twice baked pies for the gang, were our guests. Mr. Klee brought with him the 'squeeze-box' which he had played at the dance and gave forth with some very fine music. Particularly were we pleased and surprised, as was he, when he played the "Swiss Walking Song" and we rendered the words.

In the afternoon, one of the most fruitful walks, from the standpoint of bird discoveries was made by Polly Handlen, Dorothy Conrad, Chuck Conrad, Bill Legg and Pete Chandler. They spent the afternoon in a visit to the Hacker Valley area, with Chuck photographing every activity and find possible.

Another group, this time under their own leadership, with directions from Pete Chandler and Bill Legg, went to the Beaver dam. They did see it and were well satisfied for their efforts.

Still another group motored to the famous town of Helvetia and were both surprised and pleased with their trip and the cheese they purchased.
This evening Lester Koon returned as he had promised. With him was his
daughter Alma, who played several fine selections on her violin.

The campfire gave everyone a chance to relate his most enjoyable experi-
ence of the week. A feature was Jack Flouer's demand for a hearing and
his description of "trees and ferns and birds." Chuck Conrad disclosed
how part of the time was spent on the way back from Hacker Valley by read-
ing an "honorary bird list".

After the campfire, we gathered for the last time in Cabin "Occupied
which will always be remembered. A big party, with refreshment difficulties
was had. We talked about many of the outstanding events of the week. John
told several of his stories by demand. The singing as usual was loud but
this time good and exceptionally long -- until nearly 5 o'clock as a strict
matter of record.

Weather: Bright, sunny.

Temperature: 10 a.m., 68 degrees; noon, 70 degrees; 7 p.m., 65 degrees.

Saturday, June 20

As usual, nobody wanted to go home, but we had to be out of the cabins by
10 A.M.

"See you at reunion," were the words that substituted for "Goodbye" as
carload after carload rolled away for home after the completion of another
highly successful foray.

Second Thoughts

It is difficult, even in an informal journal, to capture a small fraction
of the work and fun and comradeship of the foray. There's a feeling of
pride that, despite the difficulties of some twenty temporarily absent
members in the armed forces, the club can continue its program, pays its
way without any subsidy, and carries out a schedule of activities, as var-
ed and interesting as are those of this week-long camping expedition. And
there's a deep feeling in most of us that the foray gives everyone concerned
the chance to renew old friendships and establish interesting new ones.....
and perhaps that's the best part of it.

John W. Randlan
Charleston, W. Va.
ECOLOGICAL DISCUSSIONS

June 15 - ORNITHOLOGY - (discussion by Charles Conrad)

Birds that one might expect to see and hear in this area were discussed — a list of possibilities was given by W. C. Legg. Bird life at Holly River seemed to be very similar to that of Lost River though at a lower altitude. Ted Frankenberg read list of birds reported so far and Folly Handlan reported on nests.

June 15 - (Trip up Fire Tower Trail)

This walk was led by Mr. Harold Fisher. Abundance of raspberry bushes, wild strawberries, an old farm with apple and peach trees and several Service Berry trees along the way. A young Scarlet Tanager, not able to feed self, was observed and pictures were taken. Four deer (the northern race of the White-tailed deer) were watched for some fifteen minutes or so while they grazed on a far hillside.

June 15 - (Campfire discussion - John Handlan)

Mr. W. C. Legg talked on the Swainson's Warbler and his study of it in his home locality of Nicholas County at Mt. Lookout. The Swainson's seemed to be quite common at Holly River and was seen and heard quite frequently during our stay.

John Handlan mentioned the presence in the same area, as reported by observers, of the Blue-winged and Golden-winged Warblers. He briefly discussed the hybridization of these forms. Four young hatched from a mating of the Blue-wing and Golden-wing will prove to be examples of Brewster's Warbler. The latter are infertile if they breed to one another, but are fertile if bred back to the parent stock. If Brewster's Warbler breeds back with either of the parent stocks, the proportion of birds will be: nine Brewster's, three Blue-wings, three Golden-wings and one Lawrence's.

Wayne Wilson reported that a Flying Squirrel was captured in Pete Chandler's cabin. Also a Green Lizard was found in the woodpile by George DeVinney. John Handlan urged the search for the nest of the Swainson's Warbler so a breeding record could be recorded for the County.

June 16 ROADSIDES - Russell West

Bracken found in abundance in burned over areas. Bracken found in every country — in Australia, it grows to a height of eleven feet before branching out. Copperheads often found near power lines. Ed Werner talked on the habitat of Liverworts and Algae — found in moist, wet and cool places; lowest form or first plants, after these
cone ferns and the flowering plants. Trees and shrubs in this area typical of the Northern part of West Virginia - ground pine - (hemlocks). Heavy growth of ferns noted over entire part especially the Hayscented and New York ferns in abundance.

June 16 - HAILAL SKINNING - Wayne Wilson

Mr. Wilson gave a talk on the wood Tick which causes Rocky Mountain Spotted Fever. Prevention and treatment were discussed.

Mr. Wilson gave a demonstration of mammal skinning using a Northern White-footed Mouse (Peromyscus leucopus noveboracensis) as the subject.

June 17 - Trip to Reservoir - FLOWERING PLANTS - Maxine Thacker

Acid condition of soil characteristic for heavy growth of Rhododendron. Rocks in this section covered by a heavy deposit of soil and covered with moss and dead leaves. Leguminous plants common. Slimy Salamanders and Spotted Newt found - would not be found in dry area.

Yellow Birch and Tulip trees common, also Rhododendron, Witch Hazel, Hercules Club, Striped Maple, some small Maples and Red Oaks. No Alder trees or Sassafras trees as these are found in dry areas. Most common birds - Red-eyed Vireo, Redstarts, and Flycatchers although one would have thought in such a wooded area, Woodthrushes and Tanagers would be abundant.

Floor of forest carpeted with Violets and Trailing Arbutus. In one spot about five feet square, seven kinds of Violets were found.

June 18 - Trip to Fire Tower and Beaver Dam

This was partly on the same trail as taken several days previous. A number of Black Locust trees were observed on road leading down from Tower with Indigo Buntings the most common bird.

Fragrance of Grape blossoms very heavy in this area.

We covered territory ranging from deep woods to rocky, sandy open fields at the top and near the top of the mountain.

Polly Handlan
Eva H. Hays
The Brooks Bird Club, this year, established headquarters in Holly River State Park on June 13th bringing together a total of 62 members, the prime purpose being as complete a biological survey of the area as was possible in a period of six days. Lost, but not all, of the campers were trained bird students, many having had years of experience in the study of the birds of West Virginia. Although much time was devoted by the group to studies of life forms other than birds, this did not detract but rather added to the knowledge of the birds gained during the week's period. Studies of the plant and animal forms based on the almost encyclopedic knowledge of the group gave what is considered to be a fairly accurate and comprehensive record of the bird life in Holly River State Park during the post-breeding season. An almost continuous rainfall during the camping season may have kept the birds quiet to some extent but did not dampen the intensity or the ardor of the students in pursuing their favorite projects.

Had the purpose of the Foray, as the annual encampment is called, been to obtain as large and important a list as possible, the dates selected would have been two or three weeks earlier. The object, however, was entirely different. Cooperating with the State Park Division of the Conservation Commission of West Virginia, the Brooks Bird Club has been holding their Forays within the confines of the state parks each summer for the purpose of making biological surveys, listing plants and animals and preparing a definite report for each park visited. It is realized that those individuals who occupy the cabins during the summer camping season either have an interest in the life forms they find or they can be easily induced to develop this interest.

It is hoped that these reports will be of value not only to the Division of State Parks and to the custodians, but of interest and value to the visitors in the state parks. Therefore, selecting the post-breeding season enables the Brooks Bird Club to accumulate a report of life forms which will be useable as a checklist for the entire summer season.

The reports of breeding birds that are included in the following list are each carefully explained so that the records will show how the observations were made. The total number of breeding records established for the week show twenty-five different species. The total number of species recorded were seventy-four.

Turkey Vulture, Cathartes aura. These birds were found within the county but apparently very seldom flew over the park area.

Sharp-shinned Hawk, Accipiter velox. Only one example of this species was seen during the entire week. This was found hunting in dense woodland.

Cooper's Hawk, Accipiter cooperi. One report was made of the Cooper's Hawk within the confines of the park.
Red-tailed Hawk, *Buteo* borealis. The hill topped by the fire tower makes an excellent observation post for the high-flying hawks. It was here that the Red-tailed Hawk was seen. The formation of the valley centered by the town of Hackers Valley gives the impression that this might be a fairly good fly-way for hawks during the migration season.

Red-shouldered Hawk, *Buteo* lineatus. Only example of Red-shouldered Hawk was seen during the entire week of June 13-20.

*Ruffed Grouse, *Bonasa* umbellus. Several juvenile birds were flushed near Hackers Valley by E. F. Chandler, William Legg and Charles Conrad. The apparent age of the birds made it perfectly obvious that a recently used nest was in the vicinity. Even at this late date, one or two of the birds were heard drumming.

*Bob-white, *Colinus virginianus. In a large field at the foot of the mountain near Hackers Valley, Dorothy Conrad and Polly Handlan flushed two coveys of Bob-white. The first was that of two young not big enough to fly well so they succeeded in capturing and photographing one of them. The second covey included an adult and four young. There were probably more than five in this covey but the birds disappeared so quickly and were so small that the others were not located. The open grassy valleys seemed ideal for the Bob-white as the fields were nearly all bordered with satisfactory cover.

Killdeer, *Charadrius vociferus. A few Killdeer congregated in the open area near the Park Administration Building.

Yellow-billed Cuckoo, *Coccyzus americanus. Several Yellow-bills were heard during the week and one bird was observed at close range to insure identification.

*Barred Owl, *Strix varia. A number of these birds were heard during the evenings of the week, one bird visiting at the Friday night campfire over which he circled much to the pleasure of the visitors.

* Whip-poor-will, *Antrostomus* vociferus. Near the top of the fire tower trail, Don Keyser found a nest of the Whip-poor-will containing two eggs. He had wandered away from the fire trail and accidentally flushed a brooding bird. The nest was only a slight depression in the ground — no attempt at building apparently had been made. The two eggs represented the entire effort of nesting. Considering the rainy weather and the lateness of the season, the number of songs heard indicated that Whip-poor-wills were frequent in the area.

Chimney Swift, *Chaetura pelagica. These birds seem to be far more common in the urban areas in the state than they are where buildings are scattered. Their abundance in Holly River State Park is comparative to almost any similar mountain area in the state.

*Ruby-throated Hummingbird, *Archilochus colubris. While neither young birds nor an occupied nest were seen, Harjorie Flouer located what was obviously a new nest of the Ruby-throat. This was in an oak tree some twenty feet from the ground. The nest was taken from the tree for further study and exact identification. Several of these birds were frequent visitors in the cabin area.
Belted Kingfisher, *Megaceryle alcyon*. Common along the valley streams, this bird could be seen or heard flying over the hills or occasionally following the Laurel Fork of the Holly River which winds through the park.

Flicker, *Colaptes auratus*. The tree growth in many parts of the park has been undisturbed for a long period of time creating dense deciduous thickets. In this type of area the Flicker was very seldom found. On the forest edges along the road ways and in the open valleys, it was common.

Pileated Woodpecker, *Cephaloeus pileatus*. As common as in any portion of the state, this bird could be heard almost continuously during the daylight hours from the hills surrounding the cabins.

Hairy Woodpecker, *Dryobates villosus*. As is usual, less common than the following species, the Hairy seems normally abundant.

Downy Woodpecker, *Dryobates pubescens*. Far less common than in many sections of the state. The forest areas within the park contain many birches and magnolias which apparently are not too much to the liking of the Downy Woodpecker.

Kingbird, *Tyrannus tyrannus*. Only one Kingbird was seen during the entire week of the Foray.

Crested Flycatcher, *Lyiaechus crinitus*. Normally common; it is apparent that these birds require a sizeable territory for each pair and as a result are usually much scattered throughout any one area.

*Phoebe, Sayornis phoebe*. Common, but not nearly so frequently found as in many parts of east Virginia. The park area is cut by very steep gullies, the streams being small. The Phoebe does not find many satisfactory nesting places and as a result is more frequent where the streams flow into the valley than they are at any other point. The only nest which was found was under a bridge near the main park office.

*Acadian Flycatcher, Empidonax virescens*. Frequent. This apparently was the only form of the group of flycatchers breeding within the park. No reports of the Least Flycatcher were made. In a hemlock tree in the picnic area, Jean Milson found a nest of the Acadian Flycatcher about six feet from the ground; it was very ragged and thin. One egg and an oversized bird were found in the nest. The bird was presumed to be a Cowbird rather than the Flycatcher.

*Wood Pewee, Lyiochanes virens*. In a yellow bird about twenty feet from the ground on a limb about half way from the trunk to the end of the branch, E. R. Chandler found the nest of the Wood Pewee; William Legg climbed the tree, crawled out on the branch to make a closer study of the nest and the three eggs which it contained. Wood Pewees were common throughout the areas.

Rough-winged Swallow, *Stelgidopteryx ruficollis*. A number of these birds were seen flying around a bank bordering the roadside near the Webster Springs entrance of the park.
Barn Swallow, *Hirundo erythrogaster*. Occasional birds were seen within the park and many could be found flying around the farm yards on the outside of the park area.

Blue Jay, *Cyanocitta cristata*. Occasional Blue Jays were found in the valley, but most of them seemed to prefer the wooded hillsides.

Chickadee, *Penthestes sp.* Never having been convinced of accurate methods of identifying the West Virginia Chickadees in the field, it has been found preferable to use only this generic name. Chickadees were common throughout the wooded area but were not nearly so abundant as in the lower sections of the state.

Tufted Titmouse, *Baeolophus bicolor*. These birds seem to prefer the forest edges near the top of the mountain. Occasionally, of course, they would be found in the taller trees in the thickets in company with Chickadees.

White-breasted Nuthatch, *Sitta carolinensis*. Apparently as common here as in most portions of West Virginia.

Carolina Wren, *Thryothorus ludovicianus*. This bird was rarely seen or heard but indications pointed to the fact that they were fairly abundant within the park.

*Catbird, Dunatella carolinensis*. The nest of a Catbird was located by Virginia Thayer in some small bushes about four feet from the ground near the custodian's home. Four downy young were in the nest.

Brown Thrasher, *Toxostoma rufum*. The only Brown Thrasher seen was high on the hill near the fire tower.

*Robin, Turdus migratorius*. Near the main park office, William Legg found four Robin nests in one apple tree, one nest about twelve feet from the ground contained four eggs, the others apparently were vacant. At the time the observations were made, the Robins were confined almost entirely to the open valleys. It was presumed, however, that during August and September, the gullies and wooded hillsides would feed and shelter many large flocks of these birds.

*Wood Thrush, Hylociachla mistelina*. Directly in the center of the cabin area was a tulip tree. In the tree, Polly Handlan found a Wood Thrush nest almost sixty feet from the ground. Both birds of the pair were carrying materials and working on the inside construction of the nest.

*Bluebird, Sialis sialis*. In the Hackers Valley area the stub of a dead apple tree contained a deep hole. Within this hole, Polly Handlan found the nest of a Bluebird containing four eggs. Frequency: Common.

Blue-gray Gnatcatcher, *Polioptila caerulea*. A number of these birds were on the hillside near the recreation area but were not noted in any other part of the park.
Cedar Waxwing, *Bombus illa cedrorum*. It is difficult to state the estimated frequency of Waxwings due to their "vagrant migrations".

White-eyed Vireo, *Vireo griseus*. Holly River State Park is made up of land purchased from sub-marginal farmers by the Farm Security Administration. Many of these farmers kept herds of cattle and prepared and used pasture lands both in the valley and on the mountain tops. Many of these grassy areas are still in existence; other pasture lands are gradually being taken over by shrub and trees. In one of these latter areas along Laurel Forks, the White-eyed Vireo was heard and seen. No reports were received from other portions of the park.

Yellow-throated Vireo, *Vireo flavifrons*. Several examples of this bird were seen and heard, some in the valley below the picnic area and others near the fire tower.

Blue-headed Vireo, *Vireo solitarius*. Apparently a frequent resident within the park, as has been noted in other parts of West Virginia, areas used for camping seem to contain the favorite nesting habitat of this bird. This seems true in Holly River and is surely true of the camping grounds in Preston County.

Red-eyed Vireo, *Vireo olivaceus*. A nest containing three young was found by Polly Handlan in a yellow birch about seven feet from the ground. This was located near the foot bridge leading to the Recreation area. Although it was twilight when the nest was found, the adults were still carrying food to the young. William Lurray and Norma Jepson located a second nest containing two young. An adult was on this nest and stayed with the young despite the fact the branch was shaken in an effort to dislodge it.

Black and White Warbler, *Hlnotilta varia*. Fairly common the wooded hill-sides. Along the trail leading to the fire tower near the top of the hill, Charles Conrad found Black & White Warblers feeding young. There was an adult and two juveniles in the group.

Swainson's Warbler, *Limnothlypis swainsoni*. William Legg, who has had this species under observation for two years in Nicholas county found the bird throughout the park area, both in the valleys and on the hillsides. The complete record of his observations is being prepared for one of the senior ornithological publications.

Worm-eating Warbler, *Helmithococ nas vernivorus*. Occasional songs of the Worm-eater were heard. Several reports of sight observations were made.

Golden-winged Warbler, *Vermivora chrysoptera*. Although both the Golden-wing and the Blue-wing were present, no reports were made of any individuals which might have been hybrids. Lost songs of this bird were heard along the Laurel Fork below the picnic area.

Blue-winged Warbler, *Vermivora pinus*. Only a few songs of this species were heard.
Parula Warbler, *Compsothlypis americana*. Along the forest edges the Parula Warbler was common. Within the confines of the park, this bird seemed not to prefer the taller growth on the hillsides.

Yellow Warbler, *Dendroica aestiva*. Found throughout the open valley areas wherever tree growth was available.

Black-throated Blue Warbler, *Dendroica caerulescens*. Songs of the Black-throated Blue were heard near the fire tower.

Black-throated Green Warbler, *Dendroica virens*. This bird seems comparatively uncommon. The ecological discussions which were a daily feature of the week's program, disclosed the fact that the Black-throated Green seemed lacking in the portions of the park where the magnolias were most common. The Cucumber Tree and the two large-leaved magnolias were frequently interspersed with the other deciduous trees, especially on the levels near the streams. It was concluded that perhaps the conditions which induced the growth of the magnolias might not have been to the liking of the subject birds.

Cerulean Warbler, *Dendroica cerulea*. Providing an excellent opportunity to compare songs with the Parula Warbler, the Cerulean Warbler was heard singing near the cabins. They did not appear to be common.

Blackburnian Warbler, *Dendroica fusca*. An individual appearing to be a first-year male provided a group of students with an exciting five minutes. The brilliantly yellow throat on this individual gave rise to the hope that we had located another southern warbler but closer examination dashed this anticipation.

Prairie Warbler, *Dendroica discolor*. A few Prairie Warblers were seen and heard during the week. Most of these were near the top of the hill.

Ovenbird, *Seiurus aurocapillus*. Not very common, in fact these birds were so rare during the week of the Foray that at no time was any attempt made to locate a nest. While the final campfire was in progress and well after dark, an Ovenbird flew overhead singing the remarkable "flight song".

*Louisiana Waterthrush, *Seiurus motacilla*. Not far from the Beaver Dam near the fire tower road, a group of students found the nest of the Waterthrush. It was located on the bank of the stream between the roots of an old stump which was hanging over the creek. The nest contained four eggs. The Waterthrush was not nearly so common as was anticipated.

*Kentucky Warbler, *Oporornis formosus*. Charles Conrad reported the finding of an adult with one young, just out of the nest. The adult was feeding the young bird at the time of the observation.

*Yellow-breasted Chat, *Icteria virens*. In an American Horn-beam of shrubby form about two feet from the ground near Hackers Valley, Polly Handlan found the nest of a Yellow-breasted Chat. The nest containing three eggs was very ragged and at first was believed to be one of the previous year.
Yellow-throat, Geothlypis trichas. Theodore Frankenburg has a notation, "This year's nest". Apparently this was not a definite identification nor were the birds abundant.

*Hooded Warbler, Wilsonia citrina. Four eggs were in a nest about eighteen inches from the ground in a wild Hydrangea. This nest was located by George Flouer on the fire tower trail. Hooded Warblers were not very common within the park. The terminology of this paper in attempting to use comparative terms like "common and uncommon" should be considered in the light of the methods of the students - the campers obtained most of these impressions by listening to the songs of the birds. Considering this with the further fact that many birds reduce the quantity of their songs during the post-breeding season will tend to vary one's impression of the comparative terms.

*Redstart, Setophaga ruticilla. Several juvenile birds were found by Charles Conrad, but despite intensive search no nests were located. Apparently, the conditions within the park were not satisfactory for a concentration of breeding Redstarts.

*English Sparrow, Passer domesticus. Remarkably uncommon even in the central administration area. Charles Conrad reported the location of one nest.

Leaqlark, Sturnella magna. In the open fields, both in the valleys and on the mountain tops. Common wherever conditions were suitable.

Redwing, Agelaius phoeniceus. A few Redwings were seen and heard in the Hackers Valley portion of the Park.

Grackle, Quiscalus quiscula. A few birds were seen in the open areas within the park during the week. They did not appear to be common.

*Cowbird, Molothrus ater. Unfrequent occurrence with the exception of the possibility noted under the heading of the Acadian Flycatcher - no other young birds were seen.

*Scarlet Tanager, Piranga erythrocephalus. Most of the campers made a trip one day up the difficult mountain trail to the fire tower. Along this trail a young bird was heard chirping but was not discovered until the male Scarlet Tanager came down close to the group and created a disturbance. Only then was the young greenish bird seen about four feet from the nearest hiker. The juvenile was apparently just out of the nest for it could not fly as yet.

*Cardinal, Richmondena cardinalis. A nest containing four young birds was found in a grapevine thicket in the picnic area by Katherine Gombert.

Indigo Bunting, Passerina cyanea. Polly Handlan, E. R. Chandler and William Legg found the nest of an Indigo Bunting only about a foot from the ground. One side of the nest was attached to Blackberry canes and the other side was attached to a small dogwood shrub. Two young birds were in the nest. Dorothy Conrad also found another nest of the Indigo in an entirely different location. This was in a locust tree some fifteen feet from the ground.
Goldfinch, Spinus tristis. This common bird was in full song throughout the week of the Foray. Goldfinches sing almost all during the summer so most campers should become acquainted with its song.

*Townhee, Pipilo erythrophthalmus. The nest of a Townhee with two young was found by Polly Handlan on the fire tower trail near the top of the mountain. It was in a Chestnut tree in a fork close to the trunk about six feet from the ground. Townhees did not appear to be common within the park.

Vesper Sparrow, Poecetes gramineus. Curiosity was aroused by the song of one individual of this species which had a song post near the administration area. This bird repeated its song twice with each singing. This was of particular interest because another member of the bird club had located the Sutton's Warbler by noting what appeared to be a Parula Warbler's song sung twice in succession. Unfortunately, the bird found in Holly River State Park appeared to be a normal Vesper Sparrow and not another scientific wonder.

*Chipping Sparrow, Spizella passerina. An adult was seen by the group feeding three young Chipping Sparrows. These birds were very common in the open area.

*Field Sparrow, Spizella pusilla. The nest of a Field Sparrow was found by William Legg in Blackberry canes only about a foot from the ground. The nest contained three eggs. Field Sparrows were common along the forest edges.

Song Sparrow, Melospiza melodia. Not very common except in the open portions of the park.

(* indicates observations of breeding birds)

A casual reading of the observations in the preceding list will indicate that the heavily wooded hillside and the valleys which were thickly forested contained comparatively few birds. The best place to see and hear birds seemed to be near Hackers Valley. At this point, the wooded hillsides came down to the valley, opening out into grassy pasture lands, through which ran the Holly River. The other type of territory which seemed particularly favorable to a somewhat different type of bird life was to be found on the mountain tops where the trees had been cleared away giving a forest edge a second growth and pasture land habitats.

The observations summarized in this paper were discussed throughout the entire week of the Foray, particularly during the ecological conferences. Comments were made on the habits, habitats and frequency of occurrence of the various species. While this list may be incomplete, it should furnish a very satisfactory basis for future observations within the confines of Holly River State Park.

Polly Handlan and Ted Frankenberg
The area in which the Forey was held in 1942 is not a place for name-splitting, curiosity-seeking, professional botanists who specialize in ferns. But to the novice and to the lover of woodland scenery, the ferns of Holly River State Park are beautiful and attractive beyond compare. The roadsides, the forest undergrowth and even the open fields are filled with a profusion of ferns that form a carpet of almost the entire length and breadth of the park. Most of the study of this group of plants was concentrated near the cabin area with occasional trips to more distant points, but the steady downpour of rain during the entire week did not permit many extended field trips.

The list of ferns and fern allies studied was surprisingly small especially considering the interest and intensity of the work. On the other hand it was to some advantage to those who were formerly unacquainted with this type of plant to be privileged to learn the names of a few ferns and to review their new-found knowledge until the various factors and field identification marks were thoroughly learned.

In the list that follows, the nomenclature follows that used by H. G. Brooks in "The Pteridophytes of West Virginia". This publication, incidentally, bids well to become not only the standard guide to the ferns and their relatives in this state but also to form a model for the publication of fern guides in other states and as a model for publications regarding other life-forms within the state of West Virginia. It is used by the Brooks Bird Club as a manual and guide in all of their consideration of this group of plants.

Botrychium dissectum, Dissected Grape Fern. The forms of the Grape Fern which were found were all of the type called by some botanists as B. obliquum, the Oblique Grape Fern. Not a single specimen was reported of the finely dissected form. This fern was common throughout the area which is understandable. Most portions of the park were formerly farmlands of one kind and another and in those areas which are now considered as mountain meadows (they had been used to pasture cattle in other years) the Grape Fern was to be found. Another type of habitat which is not so frequent is within the dense woodlands. It might be that these woods, which are not very old, were at one time in the past covered with grass and that the Grape Fern roots have persisted through the years.

Botrychium virginianum, Rattlesnake Fern. Not nearly so common as the preceding species but spread throughout the woodlands which cover most of the park.

Osmunda cinnamomea, Cinnamon Fern. Found throughout the park, those in the woodlands are typical of the illustrations and descriptions in the manuals. Found also in grassy fields, this plant takes on a much more coarse appearance. The woodland forms seem greener, spread their fronds to obtain more light and the pinnules are more rounded. Those found growing in full sunlight in the open fields take on a brownish hue, the fronds are densely packed into tight bundles and the pinnules tend to become sharply "toothed".

Osmunda claytoni, Interrupted Fern. Frequent throughout the wooded areas principally in the breaks in the dense tree growth. Found also in abundance in the densely-wooded, rocky areas in thick layers of humus.
Onoclea sensibilis, Sensitive Fern. Occasionally along stream banks, more
frequently in meadows where water is held on the surface, this fern is more
frequently found within the park near springs which crop out of the rock
formations. In the higher portions of the park, this fern lines the moun-
tain spring banks.

Dennstaedtia punctilobula, Hay-scented Fern. Typically found along the
margins of the roads, new and old within the confines of the park, the Hay-
scented Fern is one of the most abundant.

Polystichum acrostichoides, Christmas Fern. Damp gullies, a thin spread of
leaf-mold atop a clay subsoil, heavy overhead covering have all conspired to
induce the Christmas Fern to become very abundant. This is one of several
ferns to be found within the park which show an occasional tendency to fork
at the tip of the frond. Many specimens of "forma divaricata" were found
particularly along the fire trails where man and other animals might have
injured the fronds to induce this peculiar growth.

Dryopteris novaeboracensis, New York Fern. Even the tiniest fronds of the
New York Fern show the diamond-shaped pattern to make this fern stand out.
in all of the park area covered by the students, this plant was common.

Dryopteris marginalis, Marginal Shield Fern. Throughout the wooded areas
of the park was found the Marginal Shield Fern. Although frequently a close
companion to the Christmas Fern, it was not nearly so common as that species.

Dryopteris intermedia, Intermediate Shield Fern. Common throughout. This
fern produced endless discussion. Without trained, professional leadership,
the group could not understand the reported differences between the three
ferns in the D. spinulosa group, D. spinulosa, intermedia and camptoptera.
When the ranges of the three species were discussed in connection with the
slight differences in the determining characters, the opinion seemed to
hold that these might possibly be but one species showing slight changes in
the various portions of its range.

Phegopteris hexagonoptera, Broad Beech Fern. In small stations found prin-
cipally along the deep-cut banks of the hillside streams. Common.

Asplenium platyneuron, Ebony Spleenwort. Along the sides of the hills, where
shaly rocks appeared on the surface and herbaceous ground cover was not too
heavy, this plant was found in abundance. But to find great quantities of it
in the mountain meadows growing in tufts of grass was surprising. In some
of these meadows, there seemed to be as many plants of the Ebony Spleenwort
as there were of grass.

Athyrium angustifolium, Narrow-leaved Spleenwort. In the woodlands along
the banks of the slower streams where humus had been washed down to form a
deep cover for the rocks, the Narrow-leaved Spleenwort made its stand. In
Holly River State Park many rhododendrons grew in the same sort of habitat so
that they were frequently associated. No specimens of fruiting fronds were
located.

Athyrium asplenoides, Lowland Lady Fern. The abundance of the Lady Fern gave a good opportunity to study its many shapes and forms. As usual, the red-stemmed form was as common in the densely-shaded damp spots as it was in the open grasslands beside the roads.

Adiantum pedatum, Maidenhair Fern. In company with the Christmas Fern in some places and frequently found with the Narrow-leaved Spleenwort, this representative of the tree-ferns grew luxuriantly.

Pteridium latiusculum, Eastern Bracken. While this fern was to be found everywhere in the Park, its greatest growth seemed to be obtained in recently burned-over areas.

Polypodium virginianum, Common Polypody. With great rocks covered with lead-mold covering the hillsides where the humidity is high, it was not surprising to find many large colonies of the Common Polypody.

Lycopodium lucidulum, Shining Club Moss. At no point within the park could this be called common and the impression is gained that it is gradually being crowded out as the park increases in usefulness to the citizens of West Virginia.

Lycopodium complanatum, Ground Pine. More common and apparently more persistent than the preceding species, the colonies are larger and there are many more plants to be found.

It is to be acknowledged that other ferns and fern allies might and would be found within the confines of Holly River State Park. W. G. Brooks lists the following additional species for Webster County and any or all of them might be collected in the park:

- Osmunda Regalis
- Cystopteris fragilis
- Dryopteris thelypteris
- Dryopteris cristata
- Dryopteris spinulosa
- Ctenopteris rhizophyllus
- Asplenium trichomanes
- Asplenium montanum
- Equisetum arvense
- Lycopodium obscurum dendroides
- Lycopodium clavatum
- Selaginella apoda
- Royal Fern
- Fragile Bladder Fern
- Larsh Fern
- Crested Shield Fern
- Spinulose Shield Fern
- Walking Fern
- Maidenhair Spleenwort
- Mountain Spleenwort
- Field Horsetail
- Tree Club Moss
- Running Pine
- Creeping Selaginella

A number of the students hunted faithfully for Lygodium palmatum, the Climbing Fern but despite their consistent efforts, no station was found to reward them. The absence of Cystopteris fragilis, the Fragile Bladder Fern, and of Ctenopteris rhizophyllus, the Walking Fern, were very surprising, as the habitats seemed ideal for these two ferns. And the absolute lack of Equisetteums, the Horsetails, was something that most of us could not comprehend. In summary, then, the abundance of the common forms and the lack of certain other forms of this group of plants were items of interest and debate during the entire Foray week.

Russell West
At the time of the Foray, the middle of June, leaves and fruit are the only remnants of spring flowers, and very few summer flowers are in bloom in the park; so, most of the flowers were identified in this way.

There were two definitely wet areas in the park: one beyond the playground area, and the other through the woods toward the reservoir. In the first section, the White Wood Oxalis, and one of the White Violets, probably the Sweet White, were the common cover plants; here, too, were two or three thrifty patches of Larchantia, one of the Bryophytes, showing the three types of fruiting structures: male, female, and the gemma, or cup-like type. Toward the reservoir, violets were the commonest plants; along the trail, we picked out six or seven different species. Also common along this trail, were Blue Cohosh, White Snakeroot, Lions Paw, and Wood Nettle.

Along the edges of the cold streams, we found False Bugbane, which we had seen before in the same situations at Swallow Falls, in Maryland.

Below is an incomplete list of the flowering plants, including the weeds, of Holly River State Park.

<table>
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<th>Lily Family</th>
<th>POLYGONACEAE</th>
<th>Buckwheat Family</th>
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</table>
GERANIACEAE  Geranium Family

Wild Geranium

ROSACEAE  Rose Family

Wild Rose
Goat's beard
Indian Physic
Common Cinquefoil
Three-leaved Cinquefoil
Shrubby Cinquefoil
Strawberry
Blackberry
Raspberry
 Dewberry
White Avens
Agrimony

LEGUMINOSAE  Pulse Family

Red Clover
White Clover
Alsike
Hop Clover
Hog Peanut

VIOLACEAE  Violet Family

Round-leaved Yellow Violet
Hairy-lanced Yellow Violet
Downy Yellow Violet
Smooth Yellow Violet
Primrose-leaved White Violet
Large-leaved White Violet
SweetWhite Violet
Canada Violet
Paleate-leaved Violet
Common Blue Violet

ARALIACEAE  Ginseng Family

Hercules' Club

ERICACEAE  Heath Family

Rhododendron
Lountain Laurel
Teaberry; Wintergreen
Partridgeberry
Azalea
Huckleberry
Blueberry
Squawberry
Indian Pipe

APOCYNACEAE  Dogbane Family

Spreading Dogbane

ASCLEPIADACEAE  Milkweed Family

Common Milkweed
Poison Milkweed

LABIATAE  Mint Family

Pennyroyal
Self-heal
Leehania
Field Basil
Collinsonia; Horsemint

RUBIACEAE  Hender Family

Rough Bedstraw
Purple-flowered Bedstraw
Small White Bedstraw

COMPOSITAE  Composite Family

Rough Hawkweed
Golden Ragwort
Yarrow
Brown-eyed Susan
Ox-eye Daisy
Daisy Fleabane
White Snakeroot
Lion's Paw
Indian Plantain
Pussytoe
Zigzag Goldenrod
Breath Goldenrod
Boneset
Joe Pyeweed
Ironweed

PRIMULACEAE  Primrose Family

Evening Primrose
Sundrops

SOLANACEAE  Nightshade Family

Sandbrier
Ground Cherry

SANTALACEAE  Sandalwood Family

Buffalo Nut
CAPRIFOLIACEAE  Honeysuckle Family
Laple-leaved Viburnum
Hobble Bush; Loosewood
Elderberry
Red-berried Elder

CELASTRACEAE  Staff Tree Family
Strawberry Bush

BORAGINACEAE  Borage Family
Wild Confrey
Hound’s Tongue

ARISTOLOCHIACEAE  Birthwort Family
Pipe Vine
Canada Ginger

VITACEAE  Vine Family
Virginia Creeper

ONAGRACEAE  Evening Primrose Family
Enchanter’s Nightshade

PHYTOLACCACEAE  Pokeweed Family
Pokeberry

SCROPHULARIACEAE  Figwort Family
Common Speedwell
Veronica
Wood Betony
Common Hulsein
White Penstemon
Purple Penstemon
Foxglove

HYPERICACEAE  St. John’s-Wort Family
St. John’s Wort (several species)

PAPAVERACEAE  Poppy Family
Bloodroot

BERBERIDACEAE  Barberry Family
Layapple
Blue Cohosh

SAXIFRAGACEAE  Saxifrage Family
False Hellebore
Wild Hydrangea
Heuchera

LYTHRACEAE  Loosestrife Family
Whorled Loosestrife

HYDRPHYLLACEAE  Waterleaf Family
Canada Waterleaf

BALSAMINACEAE  Touch-me-not Family
Jewelweed

OXALIDACEAE  Wood Sorrel Family
White Wood Sorrel
Yellow Wood Sorrel

OROBANCHACEAE  Bloom-rape Family
Squawroot
Beechdrops

CRASSULACEAE  Orpine Family
Stonecrop

Maxine Thacker
The Committee on the Trees and Shrubs wish to offer the following report covering considerable areas of the Holly River State Park in Webster County, West Virginia.

This study was made between June 14th and 20th. The first day or two was spent in the study of the more common trees of the area. Following the introductory study, an ecological investigation was made of two dissimilar areas.

The first of these areas was along the stream habitat located between the cabin area to the reservoir dam on the south side of the stream. The following trees and shrubs were found. The population will be indicated as follows: "ab" - abundant; "F" - fair amount; "S" - scarce.

Betula lutea, ab
Liriodendron tulipifera, ab
Acer rubrum, ab
Fagus grandiflora, f
Rhododendron maximum, ab
Tsuga canadensis, ab
Magnolia Fraseri, f
Acer saccharinum, f
Tilia americana, f
Hydrangea arborescens, ab
Hamamelis virginiana, ab
Platanus occidentalis, f
Betula lenta, f
Sambucus canadensis, f
Quercus velutina, s
Cornus florida, f
Magnolia tripetala, f
Smilax sp.
Asimina triloba, s
Kalmia latifolia, f
Sambucus racemosa, f
Juglans cinerea, s
Hicoria sp., s
Quercus rubra, s

Yellow Birch
Tulip Tree
Red Maple
Beech
Rhododendron
Hemlock
Mountain Magnolia
Sugar Maple
Linden (Basswood)
Wild Hydrangea
Witch Hazel
Sycamore
Black Birch
Common Elder
Black Oak
Flowering Dogwood
Umbrella Tree
Greenbrier
Paw Paw
Mountain Laurel
Red Elder
Butternut
Hickory
Red Oak

The second habitat area studied was a hill back of the swimming pool, having a southern exposure. The soil was dry; rather thin and shaley. The area studied was the base of the hill to within one-third of the distance to the top. The following trees and shrubs were found:

Castanea dentata
Rhus typhina
Sassafras varifolium
Quercus palustris
Chestnut
Azalea
Sumach
Sassafras
Pin Oak
THE BROOKS BIRD CLUB 1942 FORAY
FINANCIAL REPORT

**INCOME**

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Registration Fees</td>
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<td>Registration (Cancellation)</td>
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<td>Full-time Campers</td>
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<td>Part-time Campers</td>
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<td>Transportation Fees</td>
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**Total Income** $651.80

**EXPENSES**

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<td>Telephone - Telegrams</td>
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<td>Cabins - Cots</td>
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<td>Ice and Kerosene</td>
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<td>1942 Foray Report</td>
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<tr>
<td>Miscellaneous Expense</td>
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<tr>
<td>Transportation Costs</td>
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**Total Expenses** $484.26

Net Income returned to the Brooks Bird Club Treasury $167.54