

To: President and Sanctuary Committee

Date: March 9, 1968

From: C. S. Robbins

Subject: Visit with Mrs. G. M. Hostetler, 10801 Glen Rd., Potomac, Md.

Introduction

Mrs. G. M. Hostetler, until recently a member of Maryland's House of Delegates, contacted M.O.S. member Mrs. M. B. Donnalld regarding the future disposition of her home and 15 acres, located in Montgomery County a little over 2 miles north-northwest of the village of Potomac. Being interested in conservation and not having direct heirs, Mrs. Hostetler expressed the desire to leave her property to some organization that would use it for educational or research purposes and maintain it in its entirety rather than let it become a real estate development. Mrs. Hostetler has also made contacts with Hood College and other organizations, so M.O.S. is only one of several corporations being considered by her.

Mrs. Donnalld and I had a most enjoyable visit today with Mrs. Hostetler and Mrs. Hamilton Knox, her close friend and neighbor. We explained the objectives of the M.O.S. Sanctuary program and gave her some Maryland Birdlife material relating to our present sanctuaries, including Dr. Taylor's objectives of the Sanctuary program. Mrs. Hostetler showed us around the property and pointed out a woodchuck den, and Pileated Woodpecker and sapsucker drillings on a pear tree right by the porch. She also took us to a huge black walnut tree; she proudly explained that she had been offered a good price for it several times, but that she much preferred to keep it rather than have it cut down. With this we heartily agreed. I took about 10 Kodachrome slides; if I finish the rest of the roll in time I'll take these to the Trustees meeting on March 30.

Location

Location of the property may be found on the Rockville 7 $\frac{1}{2}$ ' USGS quadrangle. It is on the north side of Glen Road, extending from 0.2 to 0.3 mile due west of the road intersection at Glen. The west edge of the property is just west of and parallel to the driveway shown on the map, just to the right of the "h" in the word "Branch" (Watts Branch). The property extends up the hill along the driveway to about the 310 ft. contour line (just below the house shown on the 1949 edition of the topographic map), then runs a little bit south of east for a distance of nearly 800 ft. (or almost to the driveway leading to the house on the hilltop immediately west of Glen). The line then runs down the hill in a south-southwest direction until it reaches Glen Road, which forms the south boundary of the property.

Habitat

Except for a line of shrubs and a few trees along the two gullies that show on the topographic map, the entire acreage except the north boundary and the immediate vicinity of the residence is an open field, sloping rather sharply to the south (dropping about 1 ft. out of every 4). The field is mowed 3 or 4 times a year. Along part of the north boundary is an old road, grown up with honeysuckle, shrubs and briers.

Residence

The house is a 6-year-old one story rambler, reached by a paved driveway. The house is beautifully designed, inside and out. The roof slopes back in such a way that it drops nearly to the ground level at the back (up hill), yet provides for a very high ceiling in the spacious living room. The living room is connected by a series of full-length glass doors to a porch that extends the entire length of the house. From both the living room or the porch there is a gorgeous view of the nearby fields and the distant wooded hillsides.

Adjacent properties

I understand that the area is zoned for 2-acre residential, although most if not all of the nearby property owners have larger holdings than that at the present time. Except for 3 or 4 fine-looking residences, the view is almost entirely of natural wooded hills in the distance (one-half mile away to the south-east, south and west), with mowed fields or pastures on the north side of Glen Road, and 20-30-year-old Virginia pine and some deciduous trees to the north of the property. The Potomac River (Swain's Lock) is $1\frac{1}{2}$ miles to the southwest ($2\frac{1}{2}$ miles by road). Swans, geese, ducks, and gulls flying as low as 250 ft. above the Potomac would be visible by telescope from the house.

Advantages of the Hostetler property as an M.O.S. Sanctuary

1. Favorable location, within easy reach of population centers, on good road, in fine neighborhood with natural surroundings and conservation-minded neighbors.
2. Proximity to two M.O.S. Chapters: Montgomery (close by) and Patuxent (45 minutes).
3. Acreage sufficient for development of several nature trails.
4. Modern house with all utilities. Large porch, with concrete floor, suitable for lectures, living exhibits, bird banding demonstrations, conservation workshops, nature crafts, and other work with young people. Spacious living room suitable for adult lectures, seminars, nature library, display of mounted specimens, exhibits, research projects. Extra bathroom so visitors would not use the one for the resident naturalist. In warm weather, porch can be connected with living room in case seating capacity is exceeded. House sits far enough above road so traffic noise would not interfere with lectures.
5. Well situated for observing and studying Bird Migration. At edge of Potomac Valley with panorama overlooking the Potomac flyway. At southern end of a wooded ridge (between Piney Branch and Watts Branch) oriented in the best direction for migration (northeast-southwest). This may turn out to be one of the best places to observe diurnal migration in the immediate vicinity of Washington.
6. Convenient headquarters for day-camp activities in conservation. Close to several public parks that offer many different habitats, soils, and geological formations not found on the Hostetler property.

Limitations to use of Hostetler property as an M.O.S. Sanctuary

1. Zoning restrictions may prevent the property from being used on a regular basis for group activities, no matter how desirable or beneficial these activities may be. Mrs. Knox, who is a realtor, is looking into this.

2. Fifteen-acre size and lack of much diversity of habitats at the present time would restrict the variety of plant and animal species using the area for the first decade or so. By careful planning, however, portions of the area could be permitted to revert, through natural succession, to native forest, thereby greatly increasing the potential for demonstration and study of a much larger variety of wildlife species and principles.

3. Views from the homes of the adjacent property owners would have to be considered in connection with future habitat changes, such as letting fields revert to woods.

4. To assure protection of the property, it would be necessary to have a resident naturalist, whose small family would share their home with the visitors.

5. Although my seating estimates are very rough, I doubt that the living room could seat more than 50 or 60 people comfortably on folding chairs. Even by including the porch, there would be insufficient room to accommodate the people who now attend the monthly meetings of the Montgomery Chapter of M.O.S. I did not investigate the possibility of ultimately building on a lecture room; this might be out of the question because of zoning regulations. If we were to accommodate 150 or 200 people, considerable parking space would be required. In all probability, lectures would have to be frequent and before small audiences, unless a small outdoor "theater" area were provided for use during warm weather.

6. There would have to be sufficient endowment, from one source or another, to assure continuity of an effective nature education program, including upkeep on the house, naturalist's salary, physical improvements, utilities, taxes, teaching aids, etc. Many items would, of course, be contributed by M.O.S. members, as they have been on other M.O.S. Sanctuaries.

7. Even though profits from M.O.S. book sales presently go exclusively into the Sanctuary account, it is possible that zoning regulations would preclude the sale of books on the Hostetler Sanctuary grounds. Until we get a ruling on this we would not know whether sale of books, feeders, bird seed, etc., could be used to help cover operating expenses.

8. The area is not large enough to permit children to collect turtles, snakes, salamanders, toads, etc., for study. Collecting would have to be limited to certain insects, leaves, flowers, fruits, etc., all under supervision.

Some suggestions for development of a Hostetler Sanctuary program

Although it is premature at this point to make any specific plans, I believe it may help the Sanctuary Committee to visualize the potential of a Hostetler Sanctuary if I outline briefly a few of my own ideas as to how an effective wildlife conservation education program could be developed there with a minimum of expense.

Physical needs: Parking area to accommodate 20 cars or a maximum of 2 buses. Porch would need 2 external entrances, for fire exits if not for normal traffic (I seem to recall only one exit at present).

"Visual" aids: As a starter we would need a 16 mm movie projector, 1 or 2 slide projectors (preferably one automatic), 2 screens, a record player, a tape player, and a telescope. I would also like to see a weatherproof microphone (at outdoor feeder) and amplifier to permit observers inside the house to hear, close up, the conversations of the birds outside.

Documentation of present wildlife use of the area (inventory of plant and animal life on the property, by M.O.S. volunteers): This should precede the erection of nesting boxes, additional bird feeders, habitat alteration, etc. We should also set up a system for systematic record keeping of wildlife observations on the Sanctuary.

Habitat development: This should have the dual purpose of increasing the wildlife potential of the property and demonstrating the results of this increase. At present, relatively few bird or other wildlife species nest (or winter) on the property because the only trees are either isolated or in hedgerows. There is a fine floodplain forest just across Glen Road; this may become a county (?) park in the future. There are upland deciduous woods on the adjoining property to the east, and some pines to the north of the property. For both demonstration and habitat diversity, I would recommend letting about 5 acres (preferably bordering on the wooded portion of an adjacent property) revert through natural succession to climax forest, with a record being kept, year by year, of the changes in plant and animal life as the habitat goes through the various seral stages. A smaller acreage, possibly 3 acres, could be manipulated in such a way as to provide other habitats that would favor native plant and animal species that would not otherwise be found on the Sanctuary. For example, one might start with an orchard as a quick way of introducing trees for food and cover; then after 20 or 30 years it might be permitted to seed in to young pine from the older pines that by then would be growing on the 5 acres. Most of the rest of the property should probably be maintained in fields, although much can be done to improve the hedgerows. Owing to the steep gradient and the small size of the watershed, it is unlikely that a permanent pond could be established on the property. We might at some time wish to construct a small temporary pool in the large draw, to attract a few species of amphibians and insects that would not otherwise occur on the Sanctuary, and to make the area more attractive to birds.

Youth participation: The Sanctuary must be more than a demonstration area. We learn by doing, and we should give school children, scouts, and other groups the opportunity to help us carry out our program. To reach Eagle rank in scouting, a boy must participate in and report on one or more conservation projects. In addition to planting, nest-box making, trail labeling and exhibit making, the more advanced youngsters can get practical experience as assistant leaders on nature hikes or in handicrafts and prepare themselves for future employment as nature counselors in summer camps.

Programming: Early morning (dawn to about 8:30), grounds could be open for bird watchers and other naturalists, unguided. Mid-morning (perhaps 9 to 11), a school class could hear a carefully prepared tape recording, synchronized with slides, telling what they will see and exciting their curiosity by asking questions; they could then examine exhibits related to the proper season, weather, theme, or whatever is appropriate; then they would set out on their guided field trip of exploration and discovery. A second group might come for 2 hours in the afternoon once the program gets well established and when there are sufficient volunteers to help guide. Evening, a schedule of lectures, movies, seminars, workshop sessions for adults; possible double showing of lectures that are of most general interest. We already have the basic ingredients necessary for a varied program, as we have a long list of speakers, a fine collection of slides, and several members with experience in tape recording; we also know of scores of top-notch wildlife movies that are available free or for nominal charges. I believe there's no doubt about the demand for a good nature education program. Earlier this week I had a visit from one of four staff members of the Schuylkill Valley Nature Preserve at the edge of Philadelphia; although it's a brand new program, they are already booked solid with requests from schools.

Bird banding: A banding program such as has been carried on at our Cylburn headquarters and at Rock Run Sanctuary is one of the most effective ways of treating a city youngster to an experience he will never forget. The Hostetler property is a bit too open and too exposed to sun and wind to be very effective as a banding station at the present time. However, it contains exciting possibilities for future development through proper planting of choice food and cover species as well as through development of some woodland habitats. One might even construct a small Heligoland trap in one of the draws and give youngsters the thrill of assisting in the capture of a few birds during the migration seasons. The results of a banding program, when properly displayed, can also be one of the best teaching aids.

Recommendation to M.O.S. Trustees and Sanctuary Committee

Both Margaret Donald and I were very much impressed with potential of the property for Sanctuary purposes, most especially as an education and demonstration center. The advantages are many; the opportunities are many. We cannot say at this time whether zoning restrictions would prevent the property from being used for educational purposes, or whether Mrs. Hostetler will decide that M.O.S. can best fulfill her dreams for the future use of the property. I recommend, however, that we give serious thought to the challenge of setting up a dynamic full-time educational program. I also recommend that one or two Montgomery Chapter members be appointed to the new Sanctuary Committee in May to facilitate close contact with Mrs. Hostetler.

Charles S. Robbins

Copies to: Mrs. G. M. Hostetler

M.O.S. President, V. Edwin Unger, West Central Avenue, Federalsburg
 Chairman, Sanctuary Committee, Robert Sharp II, Doncaster, Easton
 Vice-chairman, Sanctuary Committee, Mrs. Richard D. Cole, 625 Valley Lane, Towson
 Other members of Sanctuary Committee: B. F. Early, Mrs. Basil Gregory,
 Anderson J. Martin, Mrs. C. Gordon Taylor, Mrs. Gardner Tillinghast
 President, Montgomery Chapter, Dr. Thomas Valega, 12328 La Plata St., Silver Spring
 Mrs. Morrill B. Donald, 11501 S. Glen Rd., Rockville

Federalsburg, Md.,
July 15, 1969.

Mrs. G. M. Hostetler,
Potomac, Md.

Dear Mrs. Hostetler:

I have today received and have executed on behalf of the Maryland Ornithological Society the agreement establishing a nature study center to be known as "ADVENTURE", this through your munificence. While anything I might say in an attempt to indicate my pleasure and the gratefulness of the Society is bound to be inadequate, I know that you will derive deep satisfaction in the days to come from the knowledge that you have done something momentous, the value of which is bound to increase with the passing years.

Coincident with our execution of the agreement, I am naming the Society's trustees as provided. With their approval already obtained, I have named Mrs. Morrill Donald and Mr. Chandler Robbins, both known to you personally. I know them to be both able and willing to provide assistance and direction in establishing and implementing policies consistent with the terms of the agreement.

Inasmuch as the first meeting of the Trustees is at your pleasure and since these people are quite near, you may find it more convenient to communicate directly with them in setting up a meeting date. Each has been notified of the appointment, has accepted with pleasure and awaits word of a meeting date.

Again, I must say that this matter has been a source of great satisfaction and encouragement to me and to our Society.

Respectfully yours,

V. E. Unger, Pres.,
Maryland Ornithological Society

Notes on meeting -- May 29th, 1968

Attending:

Mrs. Hostetler
Stan Ernst (Wheaton Regional Park)
Bob Young (Needwood)
Mrs. M. Donald (MOS)

Confirmed understanding that Maryland National Capital Park and Planning would:

Plan to have a resident naturalist (Ernst is head of 600-member Association of Interpretative Naturalists, with excellent contacts for recruiting).
Expect to bear financial responsibility for naturalist's salary, property maintenance, etc.

Felt that property should be strictly controlled to restrict use to appropriate educational and research use -- probably through direct control of a permit procedure (by naturalist???) rather than through routine park permit procedure.

While commitment is obviously not possible at this point, Ernst and Young indicated strong feeling that segment of flood plain woodland along Watts Branch within "taking-line" of proposed future park, directly across Glen Road from south edge of property, be reserved for similar educational and research use.

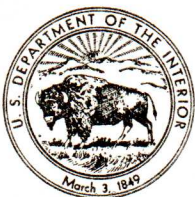
Raised question concerning possibility of planting material such as eleagnus to attract birds. My personal reaction was that such planting might be appropriate as, say, screen of parking area where it might serve to attract birds to a feeding area in view of house, but should not ~~impinge~~ impinge on existing natural areas -- that there should be appropriate native plants that could be used for up-grading of hedge rows, etc.

Raised question concerning community reaction to appearance at intermediate stages of areas reverting thru succession to woodland (Chan's initial report had recommended perhaps 5 acres for this purpose).

Mrs. Hostetler indicated she is giving serious consideration to including with the original tract of land under discussion, an adjoining woodland of approximately 2 acres. This would provide the desirable variety of habitat. It might still be desirable to select an area for demonstration of succession, ~~but~~, but it could be small, and relatively well screened.

No representative from, and no further information on proposed Hood College participation.

Note: Chan and I have been preparing a draft for Mrs. Hostetler to see before she goes to California on June 13. ~~If~~ If it ~~is~~ satisfactorily expresses her ~~wishes~~ wishes, then it presumably would go to the various organizations for first ~~review~~ review, study and further "negotiation".



United States Department of the Interior

FISH AND WILDLIFE SERVICE BUREAU OF SPORT FISHERIES AND WILDLIFE

Migratory Bird Populations Station
Laurel, Maryland 20810

WRes

July 31, 1972

Bi-b-distr

Mrs. Morrill Donnald
11501 S. Glen Road
Potomac, Maryland 20854

Dear Margaret:

Under separate cover I am returning your map of Unit 2 of Watts Branch Park, as well as a Xerox copy of same on which I have marked some tentative boundaries for the nature area with a dashed red line.

Along the west edge I have drawn this boundary along the height of land by means of straight lines between points for which elevation had been determined. I notice there is a faint line on the map (which I have marked in green) which may be a former property line that runs parallel to part of my proposed west boundary. Note, however, that this line dips into the floodplain of Watts Branch and would not make nearly as logical a boundary as one separating the Watts Branch drainage from that of Piney Branch. To preserve the ecology of the Watts Branch drainage basin (including the integrity of the springs that you found along the base of the hill), it would be most desirable to have the boundary run along the height of land as I indicated in red.

The north and west boundaries are already established according to our on-site conversation of last Saturday.

My proposal for an east boundary would run through area 5 along the 275-foot contour line. It would be desirable to make a field check of the small gully just to the west of this proposed boundary and see whether there are features that would make it desirable to include this gully in the proposed nature area. Some documentation here, either pro or con, would certainly be desirable. In any case, I would not run the boundary down the middle of the depression.

I wish you every success in the bird-population studies that you are setting up for this area, including the banding program that you are just starting.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Cham".

Chandler S. Robbins, Chief
Migratory Non-Game Bird Studies
Division of Wildlife Research

PROPOSED BOUNDARIES FOR NATURE STUDY AREA, WATTS BRANCH STREAM VALLEY PARK

Under agreement of May 14, 1969, certain parklands adjacent to the Hostetler property (designated ADVENTURE) are to be developed in a manner compatible with the use and purposes of ADVENTURE, i. e. for nature study. Proposed Unit 2 of the Watts Branch Stream Valley Park (map dated December 1970) has been explored to determine possible boundaries for such a Nature Study Area. Suggested boundaries are outlined on the accompanying map.

Northwestern boundary south of Glen Road is proposed to follow the height of land along the ridge between Watts Branch and Piney Branch. This would preserve intact the ecology of the Watts Branch drainage, including the integrity of springs found at the base of this hill on the Watts Branch side.

On the west - southwest, boundary would follow the crest of a corresponding ridge south of Watts Branch, crossing the stream east of its junction with Piney Branch.

Proposed south boundary would follow the south boundary of the park, including the open area of the water transmission line paralleling that boundary. Inclusion of the early stage field succession here would potentially double the number of plant species represented in the overall nature study area. An existing bridle trail along this open area poses no foreseeable significant conflicts. Between this proposed southern boundary and Watts Branch (in areas marked 2 and 3 on map) lie significant expanses of upland oak woods and mature bottomland woods. Of special interest here are two very large den trees just above the floodplain (these are living tulip trees, one of which measured some 48" in diameter). The bottomland woods on the floodplain south of Watts Branch is especially valuable since the narrow strip of bottomland woods on the north side of Watts Branch has been badly decimated by installation of the sewer line on that side of the stream. The principal bridle trail along Watts Branch follows the sewer line on the north bank of the stream, although there are indications that occasional riders go through the woodland on the south bank. It is suggested that the bridle trail along Watts Branch follow the current location along the north bank of Watts Branch and that the woodland to the south of the stream be left undisturbed for wildlife and botanical studies.

A suggested first choice for eastern boundary of the nature study area, would follow the 275' contour mark in area 5 on the map, crossing Watts Branch along a line pointing to the southeast corner of the Hostetler property. This would include in the study area a small segment of the laurel thicket typical of the steep north slope in area 5 on the map. It would encompass secondgrowth woodland of 20 to 30 years or more in age on area 4 (including some mixed pine-hardwood stands). It would also encompass the mid-stage floodplain succession in the widest portion of the floodplain in area 4 on the map (a territory recorded as cleared on quad maps of some 20 years ago). This young floodplain woods may well prove to be the best location for bird banding studied in the proposed nature center area. A major bridle trail crosses area 4 on a roughly north-south line. It may be desirable to establish a corridor for trail use, especially since mist nets for bird banding may be used in the area and wildlife studies requiring continuity might be conducted.

If plans for development of the Watts Branch Stream Valley Park should include rebuilding of the old Glen Mill, then the 2nd choice east boundary for the nature area is suggested. This boundary would exclude the "laurel thicket", but still include a portion of the young floodplain woodland of area 4 described above.

Submitted by:

Margaret T. Donald
Chandler S. Robbins

Trustees of Adventure for the Maryland Ornithological Society

October 1, 1972

(Proposed Boundaries for Nature Study Area, Watts Branch Stream Valley Park)

I am forwarding a brief summary of progress on ~~documentation/banding~~ documentation & banding at ADVENTURE. Mist nets have been used on the floodplain between Glen Road and Watts Branch immediately south of the Hostetler property for 11 days between 23 August and 29 September, with number of nets varying from 5 (initially) to 15. While this coverage will not give a complete picture of fall migration in the area, - it nevertheless includes some interesting records. Early migration dates include a magnolia warbler on August 23rd, and a Swainson's thrush on August 30th. Most frequent birds included ovenbird, magnolia warbler, black-throated blue warbler, Swainson's thrush, cardinal, carolina wren, yellowthroat, brown thrasher, indigo bunting, and robin. Uncommon birds included the yellow-bellied flycatcher, bay-breasted warbler, hairy woodpecker, and Nashville warbler.

I will be out of town until October 16, but plan to band again in late October and probably on into November. At that time I would like to try nets along the hedgerow on the south side of the Hostetler property. This would require using poles. I have available myself enough poles (hollow aluminum electric conduit pipe) for 10 nets. However, it would seem desirable, with no fencing, to take poles down when they are not in actual use. To expedite this, I would like to drive concrete reinforcing rods into the ground and set the hollow poles over them. Would this procedure be acceptable to MNCP&P? It would probably mean that an area varying from 2' to 6' in width in front of the hedge row could not be mowed. If this is OK, would MNCP&P be able to obtain the concrete reinforcing rods, or should I get them myself? It would require a minimum of 20 such rods (1/2" x 36") for the hedgerow area.

I have, so far, put nets up only when they were to be actively used, to eliminate any potential for vandalism. The consequent put-up and take-down time limits the number of nets that can be effectively handled. I have available (my own and some old ones from Chan Robbins) some 18 nets, which will be adequate for anticipated banding this fall.

I find much interest in the banding activity -- and have given several 'mini' demonstrations. Best of all, I have acquired three (unsolicited) teen-age assistants -- two from the Potomac area and one from McLean, Virginia.

When we met at Adventure in late July it was my understanding that the boundaries for a nature study area in the Watts Branch Stream Valley Park had not been set. Accordingly, I have explored the area along with Chan Robbins and Harriet Gilbert. Suggestions for possible boundaries for the study area ~~for/for~~ are attached for transmission to and consideration by the proper MNCP&P authorities.

MIXED HABITAT -- DECIDUOUS WOODED STREAM VALLEY, ^{AND} MEADOW.

Location: Potomac, Maryland; 39° 2' 40" N, 77° 13' 50" W, Rockville

Quadrangle U.S.G.S.

Size: 35.7⁶ ha = 88 acres. From contour map by planimeter. Boundary of survey area follows that proposed for Nature Study Center in future stream valley park.

Description of Area: Study tract is a wooded stream valley with adjacent slopes.

Range of elevation from valley to ridges averages 80 feet, with a maximum rise of 103 feet. Watts Branch traverses the 88 acre tract from east to west.

The tract is also crossed by a paved county road to the north of and

paralleling the stream. The 14 acres north of this road (mostly meadow),

include a house site and adjacent ornamental plantings on approximately

one acre, and two acres of recent second-growth woods bordered by Black

Walnut (Juglans nigra) and Multiflora Rose (Rosa multiflora) along the

meadow edges. The dominant trees in this woods are Black Walnut (~~Juglans~~

~~nigra~~), Tulip-tree (Liriodendron Tulipifera), Sycamore (Platanus occidentalis),

and Black Locust (Robinia Pseudo-Acacia), with some Scrub-Pine (Pinus

virginiana), Black Cherry (Prunus serotina), and Box-Elder (Acer Negundo),

and an understory of Spicebush (Lindera Benzoin), and Sumac (Rhus spp.).

The grass meadow is kept closely mowed through the growing season.

Black Walnut (~~Juglans nigra~~) and Tulip-tree (~~Liriodendron Tulipifera~~) are

the dominant trees of the meadow edge and of the shrub-filled draws which

make two natural hedge rows on the slope of the meadow. Spicebush (~~Lindera~~

~~Benzoin~~), is again the dominant shrub here with some Japanese Honeysuckle

(Lonicera Japonica), Blackberry (Rubus spp.), Sumac (~~Rhus spp.~~), Sassafras

(Sassafras albidum), and Persimmon (Diospyros virginiana). South of the

road dividing the area, the stream valley bottomland has Sycamore (Platanus

~~occidentalis~~) and Tulip-tree (~~Liriodendron Tulipifera~~) sharing dominance, with Box-Elder (~~Acer Negundo~~) and Green Ash (Fraxinus pennsylvanica ~~var. subintegrifolia~~) as the prime sub-dominants. Tulip-tree (~~Liriodendron Tulipifera~~) retains its prominence on the slopes, joined by Red Oak (Quercus rubra) and White Oak (Quercus alba) with Hickories (Carya spp.) and Beech (Fagus grandifolia) also present. The more mature stands are on the higher slopes to the south and west, with several formerly cleared areas recognized by the persistence of pockets of Scrub-Pine (~~Pinus virginiana~~) near the perimeter of the study area. The majority of the deciduous trees are one to two feet in diameter with scattered individual specimens as large as four feet in diameter. Two large springs and four draws (two with permanent water courses and two with intermittent flow) join the main stream within the boundaries of the study site. The south border of the tract is a maintained pipeline right-of-way. On the south of the road through the area, to the east and west the tract is continuous with adjacent woodlands. North of the road, the borders are adjacent horse pastures and home sites. Plant names are from M. L. Fernald, Gray's Manual of Botany, 8th ed., 1950.

Weather: During the two-month study period, temperatures ranged from a low of ~~8°~~ ^{5°} on ~~January 13~~ ^{February 3} to a high of 66° on January 17. January temperatures averaged 8° above normal, while February temperatures averaged about 3° below. Precipitation over the total period was near normal, though January records show moisture somewhat above normal (2.94^{in.} compared with a normal mean of 2.16^{in.}) and February records are somewhat below normal (3.94^{in.} compared with a normal mean of 5.05^{in.}). A trace of snow (0.1^{in.}) on February 23 was the only snow during the period. Four trips were made on clear days, and 4 on cloudy days with light drizzle during the last hour of one trip. Winds ranged from calm (1 day) to 6 to 7 mph (4 days) and 8 to 12 mph (3 days). Weather data taken from

Climatological Data for Maryland and Delaware, U. S. Department of Commerce, for weather station in Rockville, Maryland. This station is located approximately five miles northeast of the study area, at an elevation of 320^{ft.}, as compared with elevations ranging from 220 to 330^{ft.} on the study area.

Coverage: January 6, 21, 28; February 4, 11, 14, 19 (1/2), 24 (1/2).

Total: 7 trips, averaging 4 hours 20 minutes each. Trips began between 6:55 a. m. and 8:20 a. m., and all were finished by 12:00 noon. One coverage consisted of a trip over 1/2 of the area on each of two different days (February 19 and 24). On two trips (February 11 and 14), each half of the area was covered concurrently by two separate observers.

Count: Starling, 61 (¹17⁶⁹, ~~70~~); Carolina Chickadee, 19 (²²53, ~~21~~); Cardinal, 14 (³⁹41, 16); ^{com.} Crow, 9 (²⁵26, 10); White-throated Sparrow, 8 (²²25, 9); Tufted Titmouse, 7 (20, 8); Blue Jay, 7 (²⁶19, 8); Bobwhite, 5 (^{14, 6}12, ~~5~~); Song Sparrow, 5 (^{14, 6}12, ~~5~~); Purple Finch, 4 (¹¹12, 5); Carolina Wren, 4 (11, 5); Slate-colored Junco, 3 (^{8, 3}9, ~~4~~); Field Sparrow, 3 (^{8, 3}9, ~~4~~); White-breasted Nuthatch, 3 (8, 3); Red-bellied Woodpecker, 2 (^{6, 2}7, ~~3~~); Downy Woodpecker, 2 (^{6, 2}6, ~~8~~); Mourning Dove, 2 (⁶4, 2); Pileated Woodpecker, 1 (3, 1); House Sparrow, 1 (³2, 1); Eastern Bluebird, 1 (³2, 1); Golden-crowned Kinglet, 1 (³2, 1); Red-shouldered Hawk, 1 (³2, 1); Brown Creeper, 1 (³2, 1); Mockingbird, +; Hairy woodpecker, +; Winter Wren, +; ~~Downy~~ Brown-headed Cowbird, +; American Goldfinch, +; Swamp Sparrow, +; Belted Kingfisher, +; Yellow-shafted Flicker, +; Robin, +; Ruby-crowned Kinglet, +.

Average total: 164 birds (461 per sq. km., 186 per 100 acres).

Remarks: Total species, 33. Three additional species were seen only in flight over the area (Turkey Vulture, Evening Grosbeak, Rock Dove). Ten species were seen on every trip (Red-bellied Woodpecker, Downy Woodpecker, Blue Jay, Carolina Chickadee, Tufted Titmouse, Carolina Wren, Starling, Cardinal, White-throated Sparrow, and Song Sparrow). Eight species were seen on only one trip (^{Pileated} Kingfisher, Yellow-shafted Flicker, Hairy Woodpecker, Robin, Ruby-crowned Kinglet, House Sparrow, Brown-headed Cowbird, and Swamp Sparrow). Pileated Woodpecker was observed on five of the seven trips. Red-shouldered Hawk appears to have established territory in nearby woodland. Description of the area was prepared by HARRIET GILBERT. -----

☐ JOHN R. NORVELL, MORRILL B. DONNARD, MARGARET T. DONNARD (compiler),
Montgomery County Chapter, Maryland Ornithological Society.

Preliminary Seasonal Bird Observations -- ADVENTURE

| Species | Spring 5/21/69 Robbins | Summer 1969 Meyers | Fall '72 Donnald et al | Winter 1973 Norvell | Species | Spring 5/21/69 Robbins | Summer 1969 Meyers | Fall '72 Donnald et al | Winter 1973 Norvell |
|-----------------|------------------------------|--------------------------|------------------------------|---------------------------|-----------------|------------------------------|--------------------------|------------------------------|---------------------------|
| Canada Goose | | | X | | Cedar Waxwing | X | | X | |
| Wood Duck | | | | X | Starling | X | | X | X |
| Turkey Vulture | X | X | | X | WhEyeVireo | | | X | |
| RedShHawk | | | | X | YellowThVireo | X | | | |
| BroadWingHawk | | | X | | RedEyedVireo | X | X | X | |
| BobWhite | X | XX | X | X | Blk&WhWarbler | | | XXX | |
| MourningDove | X | X | X | X | NashvilleWarb | | | XXX | |
| YellBillCuckoo | X | | X | | ParulaWarbler | X | | | |
| GrHornOwl | | | | X | MagnoliaWarb | | | XXX | |
| BarredOwl | | | X | X | BlkThrBlueWarb | | | XXX | |
| ChimneySwift | X | X | | | MyrtleWarbler | | | XXX | |
| RubyThrHummer | X | XX | X | | BlkThrGreenWarb | X | | | |
| Kingfisher | X | | | X | ChSideWarbler | | | XXX | |
| YSFlisker | | X | X | | BayBrWarbler | X | | XXX | |
| PileatedWdpkr | X | | X | X | BlackpollWarb | X | | | |
| RedbelliedWdpkr | X | X | X | X | Ovenbird | | | XXX | |
| HairyWdpkr | X | | XXX | X | PrairieWarb | | X | | |
| DownyWdpkr | X | | XXX | X | NoWaterthrush | | | XXX | |
| EastKingbird | X | XX | | | LaWaterthrush | X | | XXX | |
| GrCrestFlycher | X | X | | | KentuckyWarb | X | | | |
| EastPhoebe | | X | XXX | | MourningWarb | X | | | |
| YellowBelFlych | | | XXX | | Yellowthroat | X | | XXX | |
| AcadianFlycher | X | X | XXX | | YellBrChat | X | X | | |
| WoodPewee | X | X | X | | Wilson'sWarb | X | | | |
| BarnSwallow | | X | | | CanadaWarbler | X | | | |
| PurpleMartin | X | | | | AmRedstart | | | X | |
| Bluejay | X | X | XXX | X | HouseSparrow | X | X | | X |
| Crow | X | X | X | X | Meadowlark | X | X | | |
| FishCrow | | X | | | RedWgBlackbird | X | X | | X |
| CarChickadee | X | XX | XXX | X | BaltoOriole | | XX | | |
| TuftedTitmouse | X | X | XXX | X | CommonGrackle | X | X | X | |
| WhBrNuthatch | X | X | XXX | X | BrHeadCowbird | X | X | | |
| BrownCreeper | | | XXX | X | ScarletTanager | X | X | | |
| HouseWren | X | XX | XXX | | Cardinal | X | X | XXX | X |
| WinterWren | | | | X | RoseBrGrosbeak | X | | | |
| CarolinaWren | X | XX | XXX | X | IndigoBunting | X | XX | XXX | |
| Mockingbird | X | XX | X | X | EveningGrosbeak | | | XXX | X |
| Catbird | X | | XXX | | PurpleFinch | | | X | X |
| BrownThrasher | X | XX | XXX | | Goldfinch | X | X | XXX | X |
| Robin | X | | XXX | | RSTowhee | X | | X | X |
| WoodThrush | X | X | XXX | | GrasshopperSp | X | | | |
| HermitThrush | | | XXX | | SCJunco | | | XXX | X |
| Swainson'sThr | X | | XXX | | ChippingSp | X | XX | | |
| GrayChkThrush | | | XXX | | FieldSparrow | X | XX | XXX | X |
| Veery | | | XXX | | WhThrSparrow | | | XXX | X |
| Bluebird | X | | X | X | SwampSparrow | | | XXX | X |
| BlueGrayGnatch | X | | | | SongSparrow | | | XXX | X |
| GoldCrKinglet | | | XXX | X | | | | | |
| RubyCrKinglet | | | XXX | X | RockDove | | | | X |

CODE: X -- Observed
 XX -- Confirmed Nesting
 XXX -- Banded

TOTALS: 59 12 42 38
 39 64
 (Cumulative Total: 97)

Banding Summary -- ADVENTURE
Fall 1972

| | August | | | | | September | | | | | | October | | | November | | | |
|----------------|--------|----|----|----|----|-----------|----|----|----|----|----|---------|----|----|----------|----|---|-------|
| | 23 | 27 | 28 | 30 | 31 | 9 | 10 | 16 | 17 | 28 | 29 | 21 | 22 | 23 | 4 | 5 | 6 | TOTAL |
| Hairy Wdpkr | | | | | | | | 1 | | | | | | | | | | 1 |
| Downy Wdpkr | 1 | | | 2 | | 2 | | | | | | | 1 | | | | | 5 |
| E Phoebe | | | | | | | | | | | | | | | | | | 1 |
| Y-bel Flycher | | | | | | | | 2 | | | | | | | | | | 2 |
| Acad Flycher | | | | | | | | 2 | | | | | | | | | | 2 |
| Bluejay | | | | | | | | | | | 1 | 2 | 1 | 1 | | | | 5 |
| Car Chickadee | 2 | | 1 | | | 1 | 2 | | | | | | | | | 1 | | 7 |
| Tufted Tit | 2 | | 2 | 2 | | | | | | | | | | | | 2 | 1 | 9 |
| Wh Br Nuthatch | | | | 1 | | | | | | | | | | | | | | 1 |
| Brown Creeper | | | | | | | | | | | | 1 | | | | | | 1 |
| House Wren | | | | | | | | | | 1 | 1 | | | | | | | 2 |
| Carolina Wren | 1 | 4 | | | 2 | | 1 | 1 | 1 | | | | | | | | | 10 |
| Catbird | | | | 1 | | | | 1 | | | | | | | | | | 2 |
| Br Thrasher | | 1 | 1 | 1 | | 1 | 1 | | 3 | 1 | | | | 1 | | | | 10 |
| Robin | | | | | | | | 1 | 1 | 4 | 2 | | | | | | | 8 |
| Wood Thrush | | | 1 | | | | 1 | 2 | 1 | | 1 | | | | | | | 6 |
| Hermit Thrush | | | | | | | | | | | | | 1 | 2 | | | | 3 |
| Swainson'sThr | | | | 1 | | | | 4 | 2 | 2 | 4 | | | 1 | | | | 14 |
| GrayChThrush | | | | | | | | | | 3 | 2 | | | | | | | 5 |
| Veery | | | | | | 2 | | 1 | | | | | | | | | | 3 |
| GoldCrKinglet | | | | | | | | | | | | | 1 | 1 | | | | 2 |
| RubyCrKinglet | | | | | | | | | | | | 2 | 1 | 2 | | | | 5 |
| Blk&WhWarbler | | | | 1 | | | | | | 3 | | | | | | | | 4 |
| NashvilleWarb | | | | | | | | | | 1 | | | | | | | | 1 |
| MagnoliaWarb | 1 | | 2 | 1 | | 2 | 1 | 1 | | 10 | | | | | | | | 18 |
| BlkThrBlueWarb | | | | | | | 2 | | | 3 | 7 | 2 | | | | | | 14 |
| MyrtleWarbler | | | | | | | | | | | | | 5 | 7 | 1 | | | 13 |
| ChestnutSidWar | | | | | | | | | | 1 | | | | | | | | 1 |
| BayBrWarbler | | | | | | | | 1 | | | | | | | | | | 1 |
| Ovenbird | | | | | | 6 | 1 | 5 | 1 | 7 | | | | | | | | 20 |
| NoWaterthrush | | | | | | | 1 | 2 | | 1 | | | | | | | | 4 |
| LaWaterthrush | | | 1 | | | | | | | | | | | | | | | 1 |
| Yellowthroat | | | | | | | | | 1 | 2 | 7 | | | | | | | 10 |
| Cardinal | 1 | 1 | | 2 | | | 1 | | 2 | 5 | | 1 | | 4 | 1 | 1 | 5 | 34 |
| EvenGrosbeak | | | | | | | | | | | | | 2 | | | | | 2 |
| IndigoBunting | | 1 | 4 | | | | | | | 4 | | | | | | | | 9 |
| Goldfinch | | | | | | | | | | | | | 6 | | | | | 6 |
| SCJunco | | | | | | | | | | | | 1 | | | | 2 | 4 | 7 |
| Field Sparrow | | | | | | | | | | | | | 1 | | | 2= | 1 | 3 |
| Wh-ThrSparrow | | | | | | | | | | | | 11 | 12 | 21 | 1 | 5 | 4 | 54 |
| Swamp Sparrow | | | | | | | | | | | | | | | | 2 | | 2 |
| Song Sparrow | | | | | | | | | | | | | 1 | 1 | | 3 | 1 | 6 |

| | | | | | | | | | | | | | | | | | | |
|------------|---|---|----|----|---|----|----|----|----|----|----|----|----|----|---|----|----|-----|
| No Species | 6 | 4 | 6 | 9 | 2 | 6 | 9 | 13 | 9 | 15 | 8 | 6 | 11 | 11 | 2 | 8 | 6 | 42 |
| No Banded | 8 | 7 | 10 | 13 | 3 | 14 | 11 | 24 | 15 | 52 | 20 | 22 | 34 | 36 | 2 | 28 | 16 | 315 |

Gray-Cheeked Thrush #107-195296 (Sept 29th) --- Bicknell's - wing chord 83mm.

Note early dates on Magnolia Warbler (8-23), Swainson's Thrush (8-30) and Evening Grosbeak (10-22).

GLEN ROAD SURVEY (Adventure)

Observers: John R. Norvell 2/19/73
Morrill Donnalld
Margaret Donnalld

John R. Norvell 2/24/73
Morrill Donnalld

| <u>Species</u> | <u>2/19/73</u> | <u>2/24/73</u> | <u>Total</u> |
|-------------------------|----------------|----------------|----------------------------------|
| Turkey Vulture | | (1) | (1) |
| Bobwhite | 8 | 1 | 9 |
| Mourning Dove | | 1 (4) | 1 (4) |
| Belted Kingfisher | | 1 | 1 |
| Pileated Woodpecker | 2 | 2 | 2 (same 2 birds ?) |
| Red-bellied Woodpecker | 4 | 3 | 4 (same birds ?) |
| Downy Woodpecker | 2 | 3 | 5 |
| Blue Jay | 3 | 5 (50+) | 8 (50+) |
| Common Crow | (12) | 1 (15) | 1 (15) |
| Carolina Chickadee | 11 | 15 | 26 |
| Tufted Titmouse | 6 | 7 | 13 |
| White-breasted Nuthatch | 5 | 3 | 8 |
| Brown Creeper | 1 | 1 | 2 |
| Winter Wren | 1 | | 1 |
| Carolina Wren | 3 | 1 | 4 |
| Eastern Bluebird | 2 | | 2 |
| Golden-crowned Kinglet | 3 | 2 | 5 |
| Starling | 4 | 30 | 34 |
| House Sparrow | | 1 | 1 |
| Cardinal | 4 | 28 | 32 |
| Evening Grosbeak | (1) | | (1) |
| Purple Finch | | 4 | 4 |
| Slate-colored Junco | 4 | 5 | 9 |
| White-throated Sparrow | 2 | 6 | 8 |
| Song Sparrow | | 4 | 4 |
| Unidentified Sparrows | | 30 | 30 (in flock with song sparrows) |
| | <u>65</u> | <u>154</u> | <u>314</u> |
| | (13) | (70+) | (71+) |

Note: Totals for Pileated woodpecker, Red-bellied Woodpecker, and Common Crow, were adjusted downward for probable duplication.

Total species: 25

MIXED HABITAT -- ~~UPPER~~ DECIDUOUS WOODED STREAM VALLEY, MEADOW.

Description of Area: Study tract is a stream valley with adjacent slopes.

change Range of elevation from valley to ridges averages 80 feet, *with maximum rise* of 103 feet. *88 feet rise* The tract is divided by a paved county road. The 14 acres north of this road ~~include~~ (mostly meadow), include a house site and adjacent ornamental plantings on approximately one acre, and two acres of recent *second- woods* ~~2nd growth woodlot~~ which is bordered by Black Walnut (*Juglans nigra*) and Multiflora Rose (*Rosa multiflora*) ~~along the meadow edges~~. The dominant trees in ~~the~~ *this woods* ~~Black woodlot~~ are ~~are~~ Walnut (*Juglans nigra*), Tulip-tree (*Liriodendron Tulipifera*), Sycamore (*Platanus occidentalis*), and Black Locust (*Robinia Pseudo-Acacia*), with some Scrub-Pine (*Pinus virginiana*), Black Cherry (*Prunus serotina*), and Box-elder (*Acer Negundo*), *and* with an understory of Spicebush (*Lindera Benzoin*), and Sumac (*Rhus* spp.). The grass meadow is kept closely mowed through the growing season. Black Walnut (*Juglans nigra*) and Tulip-tree (*Liriodendron Tulipifera*) are the dominant trees of the meadow edge and ~~the~~ *shrub* shrub-filled draws which make two natural hedge rows on the slope of the meadow. Spicebush (*Lindera Benzoin*), is again the dominant ~~here~~ *shrub* here with some Japanese honeysuckle (*Lonicera Japonica*), Blackberry (*Rubus* spp.), Sumac (*Rhus* spp.), Sassafras (*Sassafras albidum*), and Persimmon (*Diospyros virginiana*). South of the road dividing the area, ~~the~~ ~~and~~ stream ~~valley~~ bottomland has Sycamore (*Platanus occidentalis*) and Tulip-tree (*Liriodendron Tulipifera*) sharing dominance, with Box-elder (*Acer Negundo*) and Green Ash (*Fraxinus pennsylvanica* var. *subintegerrima*) as the prime sub-dominants. Tulip-tree (*Liriodendron Tulipifera*) retains its prominence on the slopes, joined by Red Oak (*Quercus rubra*) and White Oak (*Quercus alba*) with Hickories (*Carya* spp.) and Beech (*Fagus grandifolia*) also present. The more mature stands are on the higher slopes to the south and west, with several formerly cleared areas recognized by the persistence of pockets of Scrub-Pine (*Pinus virginiana*) near the perimeter of the study area. The majority of the deciduous trees are one to two feet in diameter with a scattered individual specimens as large as *four* ~~4~~ feet in

diameter. Two large springs and four draws, ψ (two with permanent water courses and two with intermittent flow) join the ^{main} stream within the boundaries of the study site. The south border of the tract is a maintained pipeline right-of-way. ~~On the south of the road through the area, to the east and west of the tract-----~~ On the south of the road through the area, to the east and west of the tract is continuous with adjacent woodlands. North of the road, the borders are adjacent horse pastures and home sites.

Plant names are from A. L. Fernald, Gray's Manual of Botany, 2nd ed., 1950.

A - ~~The~~ Washburn ^{traverses} ~~crosses~~ the RR. some tract from
E to W, the tract is ^{also crossed by} ~~divided~~ by a paved country road
~~parallel to~~ ^{to the} W of ~~the~~ of paralleling the stream.

Remarks
 Description of the ~~map~~ was prepared by Harriett Gilbert
 including completion of a more detailed
 botanical survey

Weather: During the two-month study period, temperatures ranged from a low of 8° on January 13 to a high of 66° on January 17. January temperatures averaged 8° above normal, while February temperatures averaged about 3° below. Precipitation over the total period was near normal, though January records ~~show~~ show moisture somewhat above normal (2.94 compared with a normal mean of 2.16) and February records are somewhat below normal (3.94 compared with a normal mean of 5.05). A trace of snow (.1 inch) on February 23 was the only snow during the period. Four trips were made on clear days, and 4 on cloudy days with light drizzle during the last hour of one trip. Winds ranged from calm (1 day) to 6 to 7 mph (4 days) and 8 to 12 mph (3 days). Weather data taken from Climatological Data for Maryland and Delaware, U. S. Department of Commerce, for weather station in Rockville, Md. This station is located about 5 miles North east of study area, at ~~a location~~ ^{the} an elevation of 320, as compared with ~~an~~ ^{the} elevations ~~of~~ ^{from} 220 + to 330 on the study area.

WINTER BIRD-POPULATION STUDY:

ADVENTURE - 1973

Coverage: January 6, 21, 28, February 4, 11, 14, 19 (1/2), 24 (1/2).

Total: 7 trips averaging 4 hours 20 minutes each. Trips began between 6:55 a. m. and 8:20 a. m., and all were finished by 12:00 noon.

One coverage consisted of a trip over 1/2 of the area on each of two different days (Feb 19 and 24). On two trips (Feb 11 and 14), each half of the area was covered concurrently by 2 separate observers.

Count: Starling 61 (175, 70); Carolina chickadee 19 (53, 21), Cardinal 14 (41, 16), Crow 9 (26, 10), White-throated sparrow 8 (25, 9), Tufted titmouse 7 (20, 8), Bluejay 7 (19, 8), Bobwhite 5 (12, 5), Song sparrow 5 (12, 5), Purple finch 4 (12, 5), Carolina wren 4 (11, 5), Slate-colored Junco 3 (9, 4), Field sparrow 3 (9, 4), Red-bellied woodpecker 2 (7, 3), Downy woodpecker 2 (7, 3), White-breasted Nuthatch 3 (8, 3), Mourning dove 2 (4, 2), Pileated woodpecker 1 (3, 1), House sparrow 1 (2, 1), Eastern bluebird 1 (2, 1), Golden-crowned kinglet 1 (2, 1), Red-shouldered hawk 1 (2, 1), Brown creeper 1 (2, 1), Kingfisher x, ^YFlicker x, ^BHairy woodpecker x, ^AMockingbird x, ^TRobin x, ^JRuby-crowned kinglet x, ^DCowbird x, ^EAmerican goldfinch x, ^FSwamp sparrow x, ^CWinter wren x. Average Total: 166 birds (472 per sq. Km., 189 per 100 acres).

Remarks: Total species 33. Three additional species seen only in flight over the area (Turkey vulture, Evening grosbeak, Rock dove). Ten species were seen on every trip (Red-bellied woodpecker, Downy woodpecker, Bluejay, Carolina chickadee, Tufted titmouse, Carolina wren, Starling, Cardinal, White-throated sparrow, and Song sparrow). Eight species were seen on only one trip (Kingfisher, Yellow-shafted Flicker, Hairy woodpecker, Robin, Ruby-crowned kinglet, House sparrow, Cowbird, and Swamp sparrow). Pileated woodpecker was observed on 5 of the 7 trips. Red-shouldered hawk appears to have established territory ~~of~~ in nearby ~~pine~~ woodland.

Location: Potomac Maryland 39° 2' 40" N, 39° 77' 13" W, Rockville Quadrangle U.S.G.S. Size 35.2 ha \approx 88 acres, ~~Boundary~~ from contour map by planimeter. Boundary of survey area follows that proposed for Nature Study Area in future stream valley park.

JOHN NORVELL, MORRILL DONNARD, MARGARET DONNARD

(compiler) -

Chan Robbins - Meadowlark Nesting

Mid-Atlantic
Chlorotology
Data

US Dept of
Commerce

Monthly

240' elev. (10 years record on precip)
Potomac Filtration Plant
Normal

314
13th
south

near precip - Jan 2.16
Feb 5.05
Mar 1.08

Rockville (24 yrs. temp & precip)
Jan 27.5
Feb 37.0
Mar 41.3

Jan: Rockville (2.94
47.0 - max over precip
24.4 min. no snow
35.7 daily range
range 8 to 66
13th

| | 1-6-73 | 1-9-73 | 1-28-73 | 2-4-73 | 2-11-73 | 2-14-73 | 2-19-73 2-24 | 2-21 | part trip | over 500 km | over 100 miles | |
|-------------------|--------|-----------------|---------|----------|-----------|------------|------------------|------------------|----------------|-----------------|-------------------|--------------------------------------|
| TV | ① | ① | | ③ | ① | | ① | ⑦ | ① | ③ | ① | |
| Red Sh Hawk | | 2 ^③ | 1 | | 1 | | | 4 ^③ | 1 ^x | 2 | + | 22 |
| Bob White | | 25 | | | | | 8 | 33 | 5 | 12 | 5 | 8 |
| Mourning Dove | | 1 | | 4 | 1 | 5 | ④ | 11 ^④ | 2 ^① | 4 | 2 | 17 |
| Kingfisher | | | | | | | 1 | 1 | x | - | - | 24 ✓ |
| Flicker | | | | | 1 | | | 1 | x | - | - | 25 ✓ |
| Pileated | | 1 | | 2 | 2 | 1 | 2 | 8 | 1 | 3 | 1 | 18 |
| Red Bel Wdgr | 1 | 1 | 2 | 2 | 2 | 2 | 6 | 16 | 2 | 7 | 3 | 14 |
| Hairy " | 2 | | | | | | | 2 | x | - | - | 26 ✓ |
| Downy " | 2 | 1 | 4 | 2 | 2 | 2 | 4 | 17 | 2 | 7 | 3 | 15 |
| Blue Jay | 1 | 4 | 4 | 6 | 13 | 12 | 8 ^{⑤⑤} | 48 ^{⑤⑤} | 7 ^⑧ | 22 ^⑧ | 8 ^⑨ | 69 |
| Crow | ⑫ | 10 ^⑧ | 12 | 15 | 14 | 12 | 18 ^{②⑦} | 64 ^{④⑦} | 9 ^⑦ | 26 ^⑩ | 10 ^⑧ | 4 |
| Car Chickadee | 13 | 20 | 16 | 21 | 20 | 17 | 18 | 131 | 19 | 53 | 21 | 2 |
| T. Titmouse | 1 | 10 | 7 | 6 | 11 | 9 | 8 | 52 | 7 | 20 | 8 | 76 |
| Wh Br Nuthatch | | | 1 | 5 | 3 | 4 | 6 | 19 | 3 | 8 | 3 | 16 |
| Br Creeper | | 1 | | 1 | | | 2 | 4 | 1 | 2 | 1 | 22 |
| Winter Wren | | 1 | | | | | 1 | 2 | x | - | - | 22 ✓ |
| Car. Wren | 1 | 4 | 8 | 3 | 3 | 6 | 4 | 29 | 4 | 11 | 5 | 911 |
| Mocker | | | | 1 | 2 | | | 3 | x | - | - | 27 ✓ |
| Robin | | | | | 1 | | | 1 | x | - | - | 28 ✓ |
| Bluebird | | | | | 3 | | 2 | 5 | 1 | 2 | 1 | 20 |
| GC Kinglet | | | | 2 | 1 | | 2 | 5 | 1 | 2 | 1 | 20 |
| RC " | | | | | 1 | | | 1 | x | - | - | 29 ✓ |
| Starling | 90 | 74 | 52 | 55 | 60 | 65 | 34 | 430 | 61 | 175 | 70 | 1 |
| House Sparrow | | | | | 6 | | | 6 | 1 | 2 | 1 | 19 |
| Cowbird | | | | 2 | | | | 2 | x | - | - | 30 ✓ |
| Cardinal | 9 | 16 | 28 | 6 | 8 | 13 | 21 | 101 | 14 | 41 | 16 | 3 |
| Ev Grosbeak | | | | ⑩ | ① | | ① | ⑫ | ③ | ⑤ | ⑥ | |
| Purple Finch | 15 | | | | 5 | 6 | 4 | 30 | 4 | 12 | 5 | 10 |
| Gold Finch | | | | | 1 | 1 | | 2 | x | - | - | 31 ✓ |
| S.C. Junco | | 5 | 1 | | 9 | 3 | 4 | 22 | 3 | 9 | 4 | 12 |
| Field Sparrow | 3 | | | | 8 | 11 | | 22 | 3 | 9 | 4 | 13 |
| Wh Thr " | 7 | 8 | 20 | 7 | 4 | 6 | 6 | 58 | 8 | 25 | 9 | 5 |
| Swamp " | | | | | 2 | | | 2 | x | - | - | 32 ✓ |
| Song " | 3 | 4 | 1 | 3 | 8 | 10 | 4 | 33 | 5 | 12 | 5 | 149 |
| 32 sp. | | | | | | | | 1165 | 166 | 444 | 189 | |
| | | | | | | | | | | 472 | | |
| Rock Dove | ② | | | ① | | | | ⑪ | ② | ④ | ③ | |
| Start | 820 | 745 | 725 | 810-810 | 740-740 | 760-760 | 655-655 | 730 | | | | 190 |
| End | 1130 | 1115 | 1200 | 845-1015 | 1000-1040 | 1000-1040 | 1000-1040 | 1140 | | | | 210 |
| Temp. | 32° | 26° | 44° | 18° | | | 32-35/34 | 39° | | | | 275 |
| Wind | 8 | 9 | 7 | 10-15 | 0 | 6 | 6 | | | | | 250 |
| Sky | cloudy | clear | cloudy | clear | overcast | lt drizzle | clear | clear | | | | 280 (155-125) |
| | | | | ↑ | 2 fls | 7:00 | 7:15 | | | | | 260 (140-120) |
| | | | | | | | | | | | | 365 (180-185) |
| | | | | | | | | | | | | 71-1830 (263-4 hrs. 20 min increase) |

Re: Nature Study Center,
Watts Branch Stream Valley Park

To: Mr. Stan Ernst, Associate Director of Parks,
Maryland National Capital Park and Planning Commission.

The agreement of May 14, 1969 establishing 'Adventure' as a Nature Study Center provided for development of abutting park lands in a "manner compatible with the use and purposes of 'Adventure'". The Maryland Ornithological Society, at the suggestion of park personnel, studied the proposed Watts Branch Stream Valley Park Unit 2, adjacent to the Hostetler property. As a result of this investigation, a proposal for boundaries of such a nature study area has been prepared, and certain general concepts have been outlined with respect to development and use of the park unit involved.

The Maryland Ornithological Society Trustees of Adventure wish to present these proposals to the Adventure Trustees meeting scheduled for May 23, 1973. They are being submitted to you and to Hood College in order that you may have an opportunity to review them before the Trustees meeting.

At this time individual MOS members are participating in documentary studies of the Adventure area and adjacent projected park lands. Queries already received concerning possible group use of the area have raised certain questions. (1) What should be the timing of group use -- perhaps to follow or be coordinated with assignment of a naturalist? (2) Should there be a target age group or groups for center activities? (3) In anticipation of future use of the area, Mrs. Hostetler has suggested that plans for the coming year include planting of shrubs to attract birds. The MOS would recommend that such planting emphasize naturalistic groupings and native plant materials, insofar as possible, to retain the unspoiled, natural appearance of 'Adventure'.

One meadowlark nest has been located and 'roped off' on the meadow slope south of the house on the Hostetler property. Is it practical to change mowing schedule at this time so that meadows would not be mowed again before mid-August, to minimize the loss of ground-nesting field birds? If this is not advisable for 1973, could mowing contract for 1974 be written accordingly?

Submitted by:

Margaret T. Donald
Chandler S. Robbins

Trustees of Adventure for the Maryland Ornithological Society

May 15, 1973

DEVELOPMENT AND USE OF UNIT 2, WATTS BRANCH STREAM VALLEY PARK

The Maryland Ornithological Society, with approval of MNCP&P personnel, has begun documentary studies on the 'Adventure' tract and adjacent park lands of projected Watts Branch Stream Valley Park, Unit 2. These studies have included:

- (1) general bird observations (see Incl 1, seasonal bird observations;
- (2) bird banding -- Margaret Donnalld et al (see Incl 2, fall banding summary, 1972);
- (3) regular census of birdlife -- John Norvell (see Incl 3, sample maps and trip lists) begun in January 1973 and planned to continue throughout the coming year, from which winter bird-population study was prepared (see Incl 4, copy of winter bird-population study accepted for publication in June 1973 issue of American Birds);
- (4) botanical survey -- Harriet Gilbert;
- (5) historical research -- Marjorie Early;
- (6) documentary photographs.

Of special interest from the documentation of bird life are the observation (through May 1, 1973) of 105 species of birds, and the regular occurrence of such birds as the pileated woodpecker, red-shouldered hawk, and barred owl, plus evidence that broad-winged hawk nested on or near the area in 1972.

Botanically the outstanding tree in the area is undoubtedly the large black walnut tree (3' in diameter) on the Hostetler property. Most surprising find to date has been a 16" diameter white pine on the south border of parcel 4, with a second larger pine some 18" in diameter and an estimated 100' tall which is probably just south of park take-lines. Other large trees include 4' diameter specimens of tulip tree (parcel 2), white oak and red maple (by spring in parcel 4).

One named tributary, Piney Branch, joins Watts Branch within proposed park Unit 2. Two large springs and four draws (two with permanent water courses and two with intermittent flow) also join Watts Branch within the boundaries of the proposed nature study area. As a result of land uses in past years, Unit 2 includes (1) areas of formerly cleared floodplain now in viny thickets and young floodplain woods; (2) land selectively lumbered some 50 or 60 years ago; (3) areas of undisturbed, relatively mature oak slope and floodplain woods; and (4) pockets of scrub pine near the perimeter of the unit on formerly cleared slopes. The variety of habitat present on the area provides ideal conditions for maximum wildlife values, and a unique opportunity for a nature education program.

A proposal is attached (see Incl 5, proposed boundaries for Nature Study Center) for a nature study area within Unit 2 of the Watts Branch Stream Valley Park. This proposal outlines a workable ecological unit covering parcels 3 and 4, plus parts of parcels 2 and 5 of this unit. It is felt that these should be the minimum boundaries for a Nature Study Center, though the center need not be limited to these boundaries. Indeed, all of parcels 2, 3, 4, and 5 of Unit 2 are very desirable natural areas. To protect a nature study center from encroachment, it may well prove desirable to restrict the entire Unit 2 of the park (or at least parcels 2, 3, 4, and 5 of the unit) to educational uses, with no recreational uses permitted.

This boundary proposal has been prepared on the basis of current projected park take-lines. MOS study of the area indicates that the steep, triangular, south-facing slope between Glen Road and the Hostetler property is heavily used by birds in the area. MOS therefore recommends that the MNCP&P investigate the possibility of adding the Case and Cahoon property located here to the planned Unit 2.

MOS representatives investigated present and projected recreational uses of Unit 2 of Watts Branch Stream Valley Park. One projected recreational use which might affect the area is a Watts Branch hiker-biker trail projected as part of the overall county trail program. The floodplain along Watts Branch in Unit 2 is low, wet, and subject to frequent flooding, making expensive upkeep for any possible trail located there. It is therefore recommended that such a trail be planned to parallel Glen Road through the area. It is further suggested that it be planned for the north side of the road to facilitate access of hikers and bikers to what will probably be the concentrated educational use areas of the Nature Center. Placing the trail in the same corridor with the road will minimize disturbance of wildlife and avoid multiple fragmentation of the area.

Presently one horse trail follows Watts Branch through the area, one follows part of the high-pressure water line which forms the south boundary of the park area, and one follows a tributary of Watts Branch. Numerous other trails (some old or low-use) criss-cross the area. From an ecological standpoint these trails have caused extensive damage to spring seepage areas and watercourses, and significant erosion on steep slopes. Extensive riding areas (some 400 acres or more) have in the past been available in the immediate area (bounded by Norton, River, Piney Meetinghouse, Glen, and South Glen Roads). During the past year one tract of some 145 acres just south of Unit 2 has been opened for housing development, and another of 166 acres (currently in use as a commercial stable) is in the proposal stage with percolation tests in process). Closing of these tracts to riding will put increasingly heavy pressure on the area scheduled for parkland which is, at best, ill-suited for the purpose with relatively limited acreage, steep slopes, springs, and wet floodplain soils. Experience here and elsewhere in county parks also indicates

that limiting horses to specific trails is difficult if not impossible, especially where trails will be used by commercial stables.

It is recommended that plans for Unit 2 of Watts Branch Stream Valley Park not provide for any horse trails through the area.

It is, however, recognized that horse trails are a vital part of life in Potomac, and that provision for riding areas is an important element of park planning. There are several possible routes for a trail loop by-passing the Unit 2 area. One suggested routing for a primary trail in the area is sketched on the enclosed map (Incl 6, suggested horse trail and riding area in vicinity of Unit 2, etc.). On the south and west, road right-of-ways reserved along Norton Road and River Road are adequate to provide for trails paralleling these roads. Along Piney Meetinghouse Road it might be necessary to provide for acquisition of a slightly wider than normal right-of-way to permit a trail along this road in its projected eventual width. On the north the trail loop suggested would require clearance with PEPCO for use of their transmission right-of-way. It is anticipated that such clearance would be readily given -- it would certainly enhance PEPCO's image in the Potomac area! On the east a trail through Kilgour Branch Park and Watts Branch Park Unit 3 could probably be available by late 1974. Trails currently follow Kilgour Branch from the present Potomac Loop trail to the vicinity of the high-pressure water line crossing the stream. Two tracts of land now in private use lie along Kilgour Branch between this waterline and the Watts Branch Unit 3 proposed as a trail location. One of these tracts is scheduled for acquisition by MNCP&P this year. The lease of the second tract (now owned by MNCP&P but leased back to the former owner) will expire November 29, 1974.

A target date should be established for closing Unit 2 to horse traffic, to correlate with expected land acquisition in the Unit and probable beginning of active use of 'Adventure' as a nature education center.

Provision for an extensive riding area near the Glen could be made by earmarking for horse trail use the future Piney Grove Regional Park (some 431 acres, off of Glen Road and Piney Meetinghouse Road, near the Potomac Horse Center). The area is currently used for riding. Its slopes and drainage are suitable. This proposed Piney Grove Park area is most noteworthy for the extent of its woodland, and for certain herbaceous and shrubby plants found in the county largely on the serpentine outcrops occurring here. Use of the area for trails would presumably permit preservation of much of the pine-oak woodland in a natural state. Most of the unique herbaceous and shrubby plants would probably find increased suitable habitat along the edges of clearings for horse trails. This area is currently owned by PEPCO. It would seem reasonable to expect that permission could be secured for trail use of the area prior to its acquisition for parkland.

May 15, 1973

Preliminary Seasonal Bird Observations -- ADVENTURE

| Species | Spring 5/21/69 Robbins | Summer 1969 Meyers | Fall '72 Donnald et al | Winter 1973 Norvell | Species | Spring 5/21/69 Robbins | Summer 1969 Meyers | Fall '72 Donnald et al | Winter 1973 Norvell |
|-----------------|------------------------------|--------------------------|------------------------------|---------------------------|-----------------|------------------------------|--------------------------|------------------------------|---------------------------|
| Canada Goose | | | X | | Cedar Waxwing | X | | X | |
| Wood Duck | | | | X | Starling | X | | X | X |
| Turkey Vulture | X | X | | X | WhEyeVireo | | | X | |
| RedShHawk | | | | X | YellowThVireo | X | | | |
| BroadWingHawk | | | X | | RedEyedVireo | X | X | X | |
| BobWhite | X | XX | X | X | Blk&WhWarbler | | | XXX | |
| MourningDove | X | X | X | X | NashvilleWarb | | | XXX | |
| YellBillCuckoo | X | | X | | ParulaWarbler | X | | | |
| GrHornOwl | | | | X | MagnoliaWarb | | | XXX | |
| BarredOwl | | | X | X | BlkThrBlueWarb | | | XXX | |
| ChimneySwift | X | X | | | MyrtleWarbler | | | XXX | |
| RubyThrHummer | X | XX | X | | BlkThrGreenWarb | X | | | |
| Kingfisher | X | | | X | ChSideWarbler | | | XXX | |
| YSFlicker | | X | X | | BayBrWarbler | X | | XXX | |
| PileatedWdpkr | X | | X | X | BlackpollWarb | X | | | |
| RedbelliedWdpkr | X | X | X | X | Ovenbird | | | XXX | |
| HairyWdpkr | X | | XXX | X | PrairieWarb | | X | | |
| DownyWdpkr | X | | XXX | X | NoWaterthrush | | | XXX | |
| EastKingbird | X | XX | | | LaWaterthrush | X | | XXX | |
| GrCrestFlycher | X | X | | | KentuckyWarb | X | | | |
| EastPhoebe | | X | XXX | | MourningWarb | X | | | |
| YellowBelFlych | | | XXX | | Yellowthroat | X | | XXX | |
| AcadianFlycher | X | X | XXX | | YellBrChat | X | X | | |
| WoodPewee | X | X | X | | Wilson'sWarb | X | | | |
| BarnSwallow | | X | | | CanadaWarbler | X | | | |
| PurpleMartin | X | | | | AmRedstart | | | X | |
| Bluejay | X | X | XXX | X | HouseSparrow | X | X | | X |
| Crow | X | X | X | X | Meadowlark | X | X | | |
| FishCrow | | X | | | RedWgBlackbird | X | X | | X |
| CarChickadee | X | XX | XXX | X | BaltoOriole | | XX | | |
| TuftedTitmouse | X | X | XXX | X | CommonGrackle | X | X | X | |
| WhBrNuthatch | X | X | XXX | X | BrHeadCowbird | X | X | | |
| BrownCreeper | | | XXX | X | ScarletTanager | X | X | | |
| HouseWren | X | XX | XXX | | Cardinal | X | X | XXX | X |
| WinterWren | | | | X | RoseBrGrosbeak | X | | | |
| CarolinaWren | X | XX | XXX | X | IndigoBunting | X | XX | XXX | |
| Mockingbird | X | XX | X | X | EveningGrosbeak | | | XXX | X |
| Catbird | X | | XXX | | PurpleFinch | | | X | X |
| BrownThrasher | X | XX | XXX | | Goldfinch | X | X | XXX | X |
| Robin | X | | XXX | | RSTowhee | X | | X | X |
| WoodThrush | X | X | XXX | | GrasshopperSp | X | | | |
| HermitThrush | | | XXX | | SCJunco | | | XXX | X |
| Swainson'sThr | X | | XXX | | ChippingSp | X | XX | | |
| GrayChkThrush | | | XXX | | FieldSparrow | X | XX | XXX | X |
| Veery | | | XXX | | WhThrSparrow | | | XXX | X |
| Bluebird | X | | X | X | SwampSparrow | | | XXX | X |
| BlueGrayGnatch | X | | | | SongSparrow | | | XXX | X |
| GoldCrKinglet | | | XXX | X | | | | | |
| RubyCrKinglet | | | XXX | X | RockDove | | | | X |

CODE: X -- Observed
 XX -- Confirmed Nesting
 Incl 1 XXX -- Banded

TOTALS: 59 12 42 33
 39 64
 (Cumulative Total: 97)

Banding Summary -- ADVENTURE
Fall 1972

| | August | | | | | September | | | | | October | | | November | | | TOTAL | |
|----------------|--------|----|----|----|----|-----------|----|----|----|----|---------|----|----|----------|---|---|-------|----|
| | 23 | 27 | 28 | 30 | 31 | 9 | 10 | 16 | 17 | 28 | 29 | 21 | 22 | 23 | 4 | 5 | 6 | |
| Hairy Wdpkr | | | | | | | | | 1 | | | | | | | | | 1 |
| Downy Wdpkr | 1 | | | 2 | | 2 | | | | | | | | | | | | 5 |
| E Phoebe | | | | | | | | | | | | | 1 | | | | | 1 |
| Y-bel Flycher | | | | | | | | 2 | | | | | | | | | | 2 |
| Acad Flycher | | | | | | | | 2 | | | | | | | | | | 2 |
| Bluejay | | | | | | | | | | | 1 | 2 | 1 | 1 | | | | 5 |
| Car Chickadee | 2 | | 1 | | | 1 | 2 | | | | | | | | | 1 | | 7 |
| Tufted Tit | 2 | | 2 | 2 | | | | | | | | | | | | 2 | 1 | 9 |
| Wh Br Nuthatch | | | | 1 | | | | | | | | | | | | | | 1 |
| Brown Creeper | | | | | | | | | | | | 1 | | | | | | 1 |
| House Wren | | | | | | | | | | 1 | 1 | | | | | | | 2 |
| Carolina Wren | 1 | 4 | | | 2 | | 1 | 1 | 1 | | | | | | | | | 10 |
| Catbird | | | | 1 | | | | 1 | | | | | | | | | | 2 |
| Br Thrasher | | 1 | 1 | 1 | | 1 | 1 | | 3 | 1 | | | | 1 | | | | 10 |
| Robin | | | | | | | | 1 | 1 | 4 | 2 | | | | | | | 8 |
| Wood Thrush | | | 1 | | | 1 | 2 | 1 | | | 1 | | | | | | | 6 |
| Hermit Thrush | | | | | | | | | | | | | 1 | 2 | | | | 3 |
| Swainson'sThr | | | | 1 | | | | 4 | 2 | 2 | 4 | | | 1 | 1 | | | 14 |
| GrayChThrush | | | | | | | | | | 3 | 2 | | | | | | | 5 |
| Veery | | | | | | 2 | | 1 | | | | | | | | | | 3 |
| GoldCrKinglet | | | | | | | | | | | | | 1 | 1 | | | | 2 |
| RubyCrKinglet | | | | | | | | | | | | 2 | 1 | 2 | | | | 5 |
| Blk&WhWarbler | | | | 1 | | | | | | 3 | | | | | | | | 4 |
| NashvilleWarb | | | | | | | | | | 1 | | | | | | | | 1 |
| MagnoliaWarb | 1 | | 2 | 1 | | 2 | 1 | 1 | | 10 | | | | | | | | 18 |
| BlkThrBlueWarb | | | | | | | 2 | | | 3 | 7 | 2 | | | | | | 14 |
| MyrtleWarbler | | | | | | | | | | | | | 5 | 7 | 1 | | | 13 |
| ChestnutSidWar | | | | | | | | | | 1 | | | | | | | | 1 |
| BayBrWarbler | | | | | | | | 1 | | | | | | | | | | 1 |
| Ovenbird | | | | | | 6 | 1 | 5 | 1 | 7 | | | | | | | | 20 |
| NoWaterthrush | | | | | | | 1 | 2 | | 1 | | | | | | | | 4 |
| LaWaterthrush | | | 1 | | | | | | | | | | | | | | | 1 |
| Yellowthroat | | | | | | | | | 1 | 2 | 7 | | | | | | | 10 |
| Cardinal | 1 | 1 | | 2 | | | 1 | | 2 | 5 | | 1 | | 4 | 1 | 1 | 5 | 34 |
| EvenGrosbeak | | | | | | | | | | | | | 2 | | | | | 2 |
| IndigoBunting | | 1 | 4 | | | | | | | 4 | | | | | | | | 9 |
| Goldfinch | | | | | | | | | | | | | 6 | | | | | 6 |
| SCJunco | | | | | | | | | | | | 1 | | | | 2 | 4 | 7 |
| Field Sparrow | | | | | | | | | | | | | 1 | | | 2 | 1 | 3 |
| Wh-ThrSparrow | | | | | | | | | | | | 11 | 12 | 21 | 1 | 5 | 4 | 54 |
| Swamp Sparrow | | | | | | | | | | | | | | | | 2 | | 2 |
| Song Sparrow | | | | | | | | | | | | | 1 | 1 | | 3 | 1 | 6 |

| | | | | | | | | | | | | | | | | | | |
|------------|---|---|----|----|---|----|----|----|----|----|----|----|----|----|---|----|----|-----|
| No Species | 6 | 4 | 6 | 9 | 2 | 6 | 9 | 13 | 9 | 15 | 8 | 6 | 11 | 11 | 2 | 8 | 6 | 42 |
| No Banded | 8 | 7 | 10 | 13 | 3 | 14 | 11 | 24 | 15 | 52 | 20 | 22 | 34 | 36 | 2 | 28 | 16 | 315 |

Gray-Cheeked Thrush #107-195296 (Sept 29th) --- Bicknell's - wing chord 83mm.

Note early dates on Magnolia Warbler (8-23), Swainson's Thrush (8-30) and Evening Grosbeak (10-22).

South of Creek

Observers: John S. Nevell
Merrill Donald
Margaret Donna

Date: ~~2/9/73~~

Time: 7 to 10 a.m.

Weather:

Tenn. 32-35.

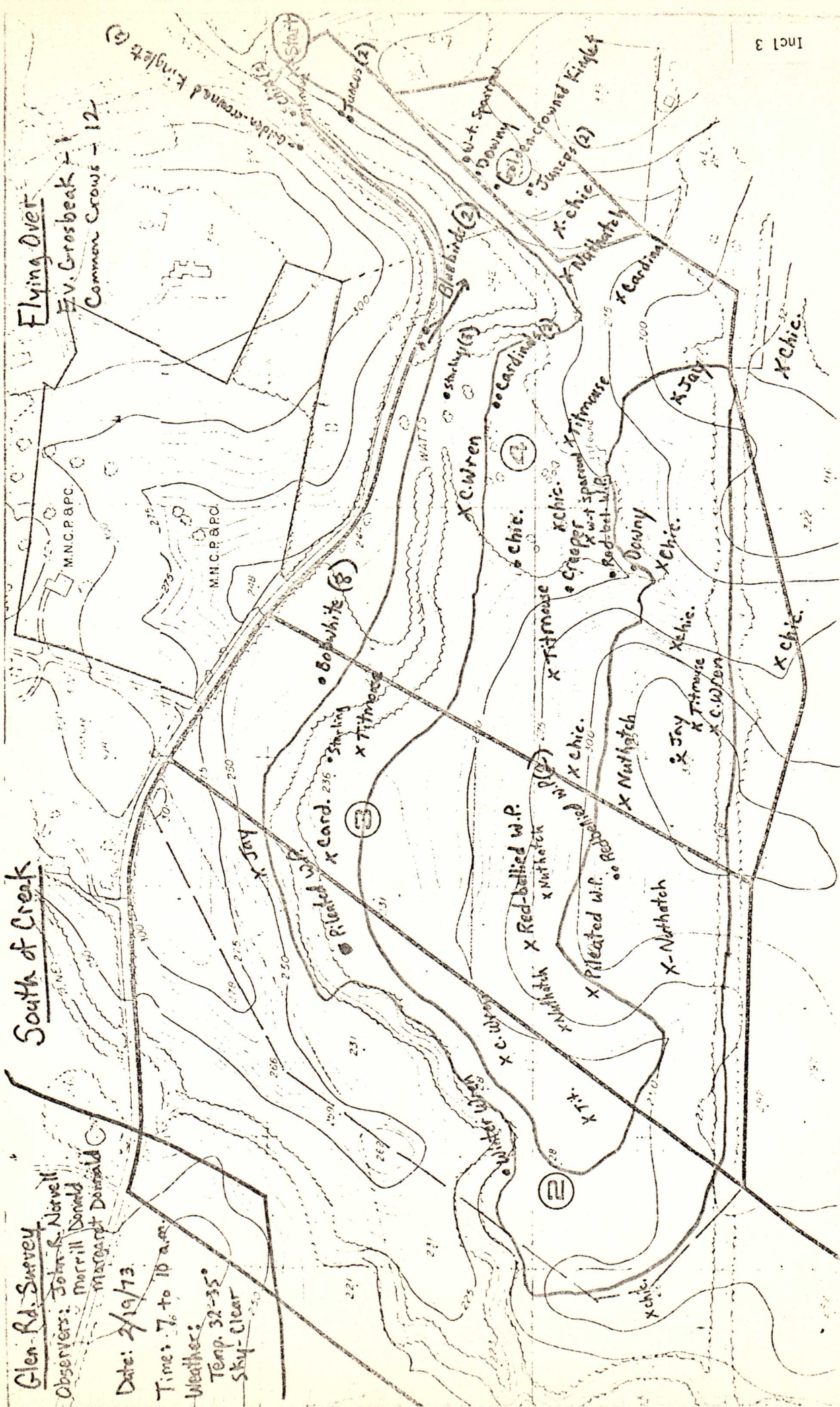
sky-clear

Flying Over

H. V. Grosbeak

Common Crows - 124

Incl 3



North Creek

Observer: John R. Norvell
Mortill. Donald

Date: Feb. 24, 1973

Time: 6:55 a.m. to 10:00 a.m.

Weather: Temp. 34.

Wind - 6 mph

Sky-factory

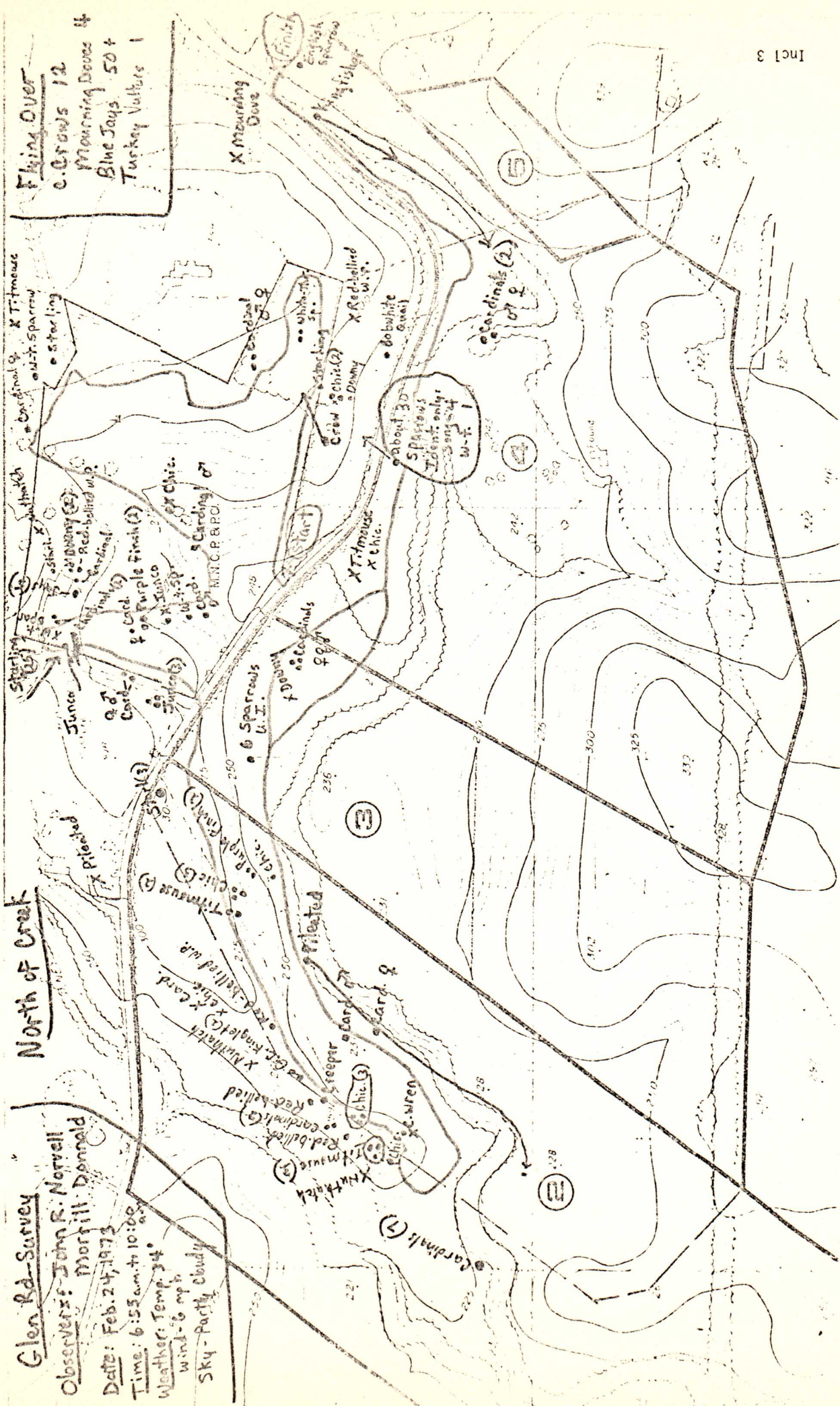
Flims Over

e. 12

Mourning Doves

Blue Jays - 50 +

Turkey Vultures -



GLEN ROAD SURVEY (Adventure)
 Observers: John R. Norvell
 Morrill Donnal
 Margaret Donnal

2/19/73

John R. Norvell 2/24/73
 Morrill Donnal

| <u>Species</u> | <u>2/19/73</u> | <u>2/24/73</u> | <u>Total</u> |
|-------------------------|----------------|----------------|----------------------------------|
| Turkey Vulture | | (1) | (1) |
| Bobwhite | 8 | 1 | 9 |
| Mourning Dove | | 1 (4) | 1 (4) |
| Belted Kingfisher | | 1 | 1 |
| Pileated Woodpecker | 2 | 2 | 2 (same 2 birds ?) |
| Red-bellied Woodpecker | 4 | 3 | 4 (same birds ?) |
| Downy Woodpecker | 2 | 3 | 5 |
| Blue Jay | 3 | 5 (50+) | 8 (50+) |
| Common Crow | (12) | 1 (15) | 1 (15) |
| Carolina Chickadee | 11 | 15 | 26 |
| Tufted Titmouse | 6 | 7 | 13 |
| White-breasted Nuthatch | 5 | 3 | 8 |
| Brown Creeper | 1 | 1 | 2 |
| Winter Wren | 1 | | 1 |
| Carolina Wren | 3 | 1 | 4 |
| Eastern Bluebird | 2 | | 2 |
| Golden-crowned Kinglet | 3 | 2 | 5 |
| Starling | 4 | 30 | 34 |
| House Sparrow | | 1 | 1 |
| Cardinal | 4 | 28 | 32 |
| Evening Grosbeak | (1) | | (1) |
| Purple Finch | | 4 | 4 |
| Slate-colored Junco | 4 | 5 | 9 |
| White-throated Sparrow | 2 | 6 | 8 |
| Song Sparrow | | 4 | 4 |
| Unidentified Sparrows | | 30 | 30 (in flock with song sparrows) |
| | <hr/> 65 | <hr/> 154 | <hr/> 314 |
| | (13) | (70+) | (71+) |

Note: Totals for Pileated woodpecker, Red-bellied Woodpecker, and Common Crow, were adjusted downward for probable duplication.

Total species: 25

() - Flying over

MIXED HABITAT -- DECIDUOUS WOODED STREAM VALLEY AND MEADOW.

Location: Potomac, Maryland; 39° 2' 40" N, 77° 13' 50" W, Rockville Quadrangle U.S.G.S. Size: 35.6 ha = 88 acres. From contour map by planimeter. Boundary of survey area follows that proposed for Nature Study Center in future stream valley park. Description of Area: Study tract is a wooded stream valley with adjacent slopes. Range of elevation from valley to ridges averages 80 feet, with a maximum rise of 103 feet. Watts Branch traverses the 88 acre tract from east to west. The tract is also crossed by a paved county road to the north of and paralleling the stream. The 14 acres north of this road (mostly meadow), include a house site and adjacent ornamental plantings on approximately one acre, and two acres of recent second-growth woods bordered by Black Walnut (Juglans nigra) and Multiflora Rose (Rosa multiflora) along the meadow edges. The dominant trees in this woods are Black Walnut, Tulip-tree (Liriodendron Tulipifera), Sycamore (Platanus occidentalis), and Black Locust (Robinia Pseudo-Acacia), with some Scrub-Pine (Pinus virginiana), Black Cherry (Prunus serotina), and Box-Elder (Acer Negundo), and an understory of Spicebush (Lindera Benzoin), and Sumac (Rhus spp.). The grass meadow is kept closely mowed through the growing season. Black Walnut and Tulip-tree are the dominant trees of the meadow edge and of the shrub-filled draws which make two natural hedge rows on the slope of the meadow. Spicebush is again the dominant shrub here with some Japanese Honeysuckle (Lonicera japonica), Blackberry (Rubus spp.), Sumac, Sassafras (Sassafras albidum), and Persimmon (Diospyros virginiana). South of the road dividing the area, the stream valley bottomland has Sycamore and Tulip-tree sharing dominance, with Box-Elder and Green Ash

(Fraxinus pennsylvanica) as the prime sub-dominants. Tulip-tree retains its prominence on the slopes, joined by Red Oak (Quercus rubra) and White Oak (Quercus alba) with Hickories (Carya spp.) and Beech (Fagus grandifolia) also present. The more mature stands are on the higher slopes to the south and west, with several formerly cleared areas recognized by the persistence of pockets of Scrub-Pine near the perimeter of the study area. The majority of the deciduous trees are one to two feet in diameter with scattered individual specimens as large as four feet in diameter. Two large springs and four draws (two with permanent water courses and two with intermittent flow) join the main stream within the boundaries of the study site. The south border of the tract is a maintained pipeline right-of-way. On the south of the road through the area, to the east and west the tract is continuous with adjacent woodlands. North of the road, the borders are adjacent horse pastures and home sites. Plant names are from M. L. Fernald, Gray's Manual of Botany, 8th ed., 1950. Weather: During the two-month study period, temperatures ranged from a low of 5° on February 3 to a high of 66° on January 17. January temperatures averaged 8° above normal, while February temperatures averaged about 3° below. Precipitation over the total period was near normal, though January records show moisture somewhat above normal (2.94 in. compared with a normal mean of 2.16 in.) and February records are somewhat below normal (3.94 in. compared with a normal mean of 5.05 in.). A trace of snow (0.1") on February 23 was the only snow during the period. Four trips were made on clear days, and 4 on cloudy days with light drizzle during the last hour of one trip. Winds ranged from calm (1 day) to 6 to 7 mph (4 days) and 8 to 12 mph (3 days). Weather data taken from Climatological Data for Maryland and

Delaware, U. S. Department of Commerce, for weather station in Rockville, Maryland. This station is located approximately five miles northeast of the study area, at an elevation of 320 ft., as compared with elevations ranging from 220 to 330 ft. on the study area.

Coverage: Jan. 6, 21, 28; Feb. 4, 11, 14, 19 (1/2), 24 (1/2).

Total: 7 trips, averaging 4 hours 20 minutes each. Trips began between 6:55 a.m. and 8:20 a.m., and all were finished by 12:00 noon. One coverage consisted of a trip over 1/2 of the area on each of two different days (Feb. 19 and 24). On two trips (Feb. 11 and 14), each half of the area was covered concurrently by two separate observers.

Count: Starling, 61 (171, 69); Carolina Chickadee, 19 (53, 22); Cardinal, 14 (39, 16); Common Crow, 9 (25, 10); White-throated Sparrow, 8 (22, 9); Tufted Titmouse, 7 (20, 8); Blue Jay, 7 (20, 8); Bobwhite, 5 (14, 6); Song Sparrow, 5 (14, 6); Purple Finch, 4 (11, 5); Carolina Wren, 4 (11, 5); Slate-colored Junco, 3 (8, 3); Field Sparrow, 3 (8, 3); White-breasted Nuthatch, 3 (8, 3); Red-bellied Woodpecker, 2 (6, 2); Downy Woodpecker, 2 (6, 2); Mourning Dove, 2 (6, 2); Pileated Woodpecker, 1 (3, 1); House Sparrow, 1 (3, 1); Eastern Bluebird, 1 (3, 1); Golden-crowned Kinglet, 1 (3, 1); Red-shouldered Hawk, 1 (3, 1); Brown Creeper, 1 (3, 1); Mockingbird, +; Hairy Woodpecker, +; Winter Wren, +; Brown-headed Cowbird, +; American Goldfinch, +; Swamp Sparrow, +; Belted Kingfisher, +; Yellow-shafted Flicker, +; Robin, +; Ruby-crowned Kinglet, +. Average total: 164 birds (461 per sq. km., 186 per 100 acres). Remarks: Total species, 33. Three additional species were seen only in flight over the area (Turkey Vulture, Evening Grosbeak, Rock Dove). Ten species were seen on every trip (Red-bellied Woodpecker, Downy Woodpecker, Blue Jay, Carolina Chickadee,

Tufted Titmouse, Carolina Wren, Starling, Cardinal, White-throated Sparrow, and Song Sparrow). Eight species were seen on only one trip (Belted Kingfisher, Yellow-shafted Flicker, Hairy Woodpecker, Robin, Ruby-crowned Kinglet, House Sparrow, Brown-headed Cowbird, and Swamp Sparrow). Pileated Woodpecker was observed on five of the seven trips. Red-shouldered Hawk appears to have established territory in nearby woodland. Description of the area was prepared by HARRIET GILBERT. -----JOHN R. NORVELL, MORRILL B. DONNALD, MARGARET T. DONNALD (compiler), Montgomery County Chapter, Maryland Ornithological Society.

PROPOSED BOUNDARIES FOR NATURE STUDY CENTER, WATTS BRANCH STREAM VALLEY PARK

Under agreement of May 14, 1969, certain parklands adjacent to the Hostetler property (designated ADVENTURE) are to be developed in a manner compatible with the use and purposes of ADVENTURE, i. e., for nature study. Proposed Unit 2 of the Watts Branch Stream Valley Park (map dated December 1970) has been explored to determine possible boundaries within proposed park take-lines for such a Nature Study Center. Suggested boundaries are outlined on the accompanying map.

Northwestern boundary south of Glen Road is proposed to follow the height of land along the ridge between Watts Branch and Piney Branch. This would preserve intact the ecology of the Watts Branch drainage, including the integrity of springs found at the base of this hill on the Watts Branch side.

On the west - southwest, boundary would follow the crest of a corresponding ridge south of Watts Branch, crossing the stream east of its junction with Piney Branch.

Proposed south boundary would follow the south boundary of the park, including the open area of the water transmission line paralleling that boundary. Inclusion of the early stage field succession here would potentially double the number of plant species represented in the overall nature study area. Between this proposed southern boundary and Watts Branch (in parcels 2 and 3 on the map) lie significant expanses of upland oak woods and mature bottomland woods. Of special interest here are two very large den trees just above the floodplain (these are living tulip trees, one of which measures some 48 inches in diameter). The bottomland woods on the floodplain south of Watts Branch is especially valuable since the narrow strip of bottomland woods on the north side of Watts Branch has been badly decimated by installation of the sewer line on that side of the stream.

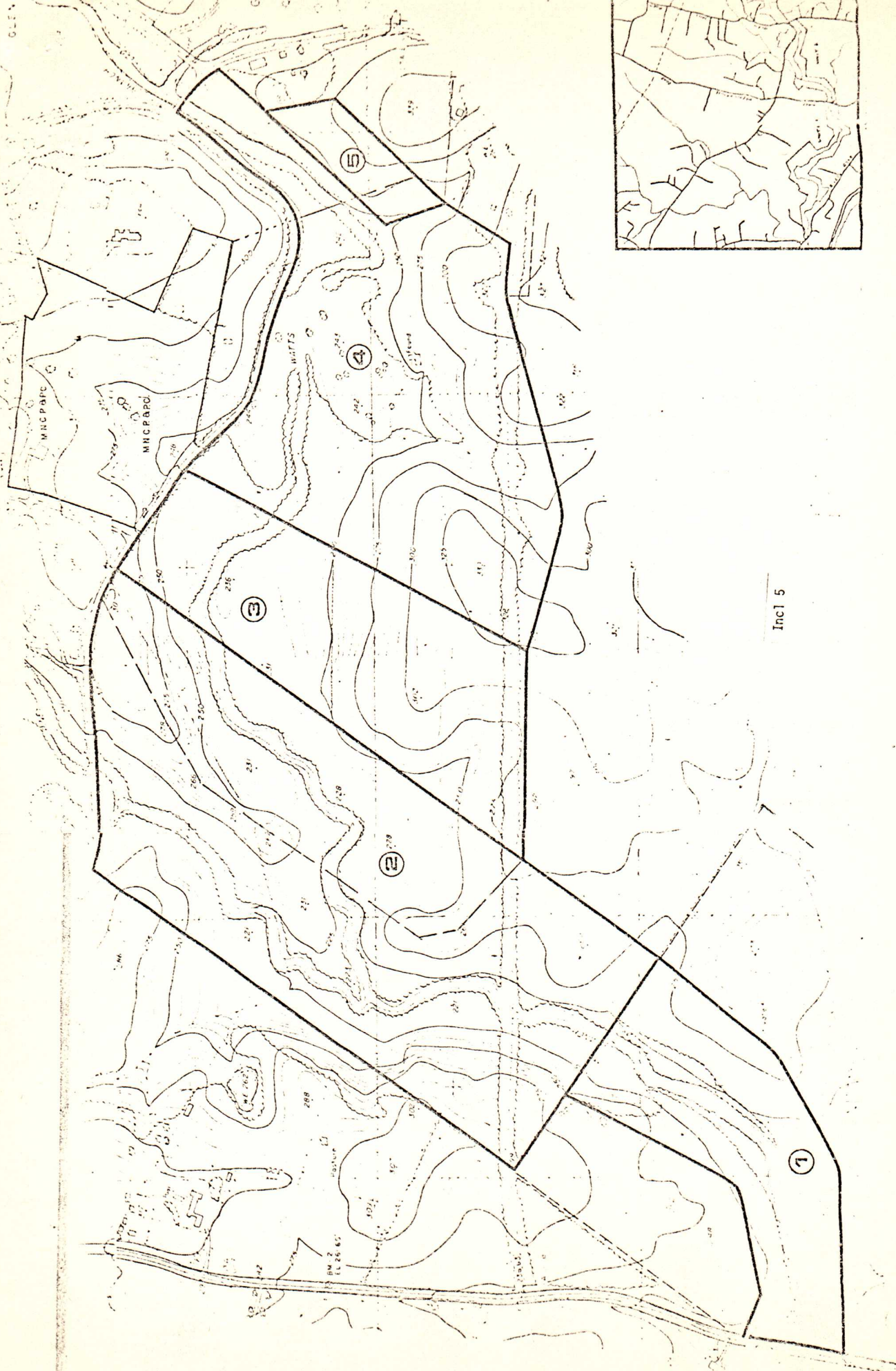
Proposed eastern boundary of the nature study area would follow the 275' contour mark in parcel 5 on the map. It would then cross Watts Branch along a line pointing to the southeast corner of the Hostetler property. This would include in the study area a small segment of the laurel thicket typical of the steep north slope in parcel 5 on the map. It would encompass second-growth woodland of 20 to 30 years or more in age on parcel 4 (including some mixed pine-hardwood stands). It would also encompass the mid-stage floodplain succession in the widest portion of the floodplain in parcel 4 on the map (a territory recorded as cleared on quad maps of some 20 years ago). This young floodplain woods may well prove to be the best location for bird banding studies in the proposed nature center area.

Submitted by:

Margaret T. Donnalld
Chandler S. Robbins

Trustees of Adventure for the Maryland Ornithological Society

May 15, 1973



— Park taking lines—Watts Branch Unit 2
--- Proposed Nature Study area

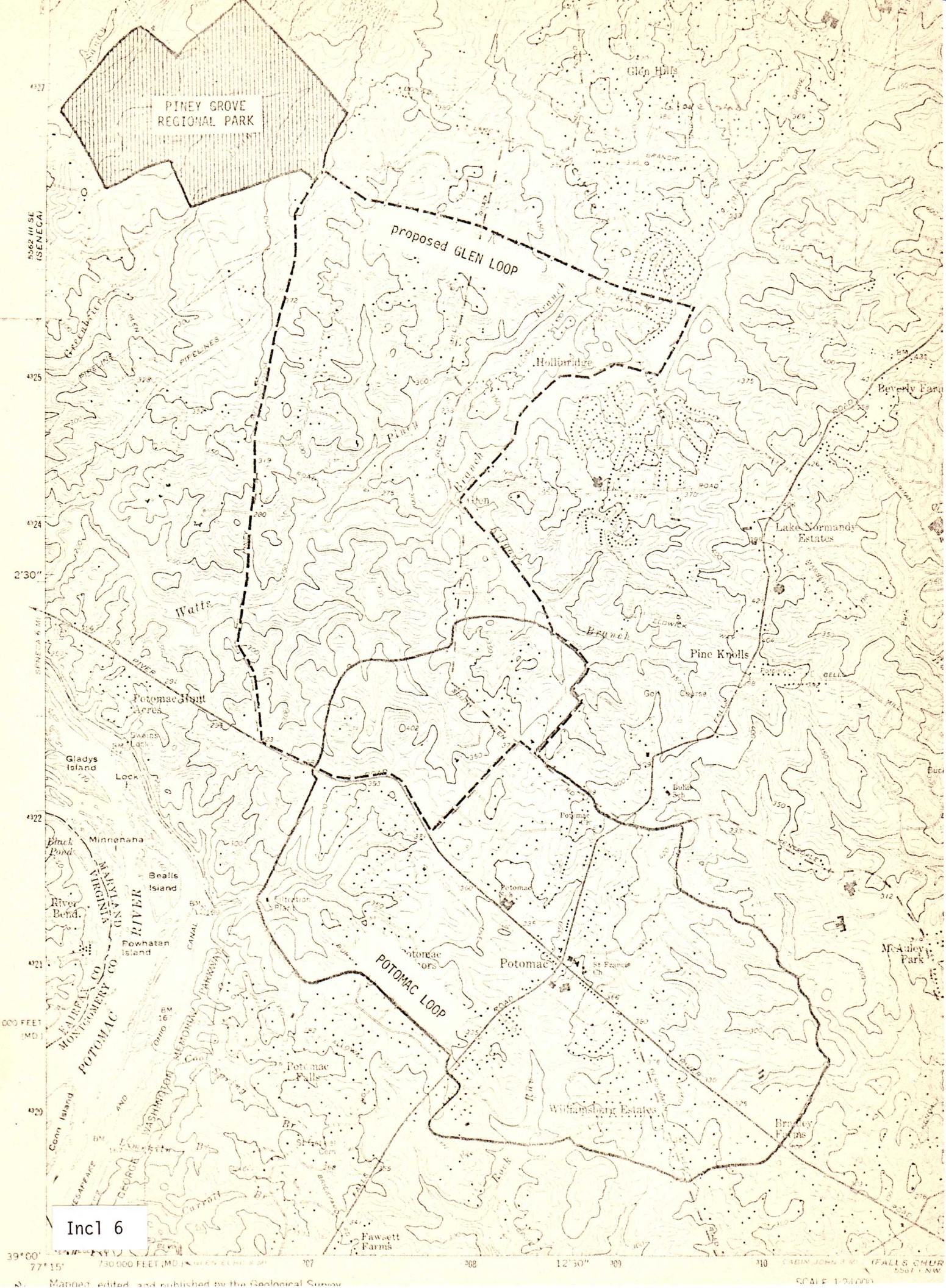
Incl 5 (map).

PINEY GROVE
REGIONAL PARK

proposed GLEN LOOP

POTOMAC LOOP

Incl 6



Proposal For Program Implementation of "Adventure"

On Thursday May 31, 1973 the Steering Committee for "Adventure" Staffing and Programming met at the Needwood Mansion, Derwood, Maryland. Said committee had been appointed by Mrs. Alice Watts Hostetler on May 23, 1973 at the annual meeting of the "ADVENTURE" Board of Trustees and consisted of Dr. James Gilford-Hood College, Margaret T. Donald - Maryland Ornithological Society and Robert L. Young - M-NCPPC. Also present were Anthony Janda and William Nopper of the M-NCPPC.

Means of assigning schedules and responsibilities within the trust were discussed at some length and it was resolved that these might most easily be attained by electing a Chairman or Chairwoman and a Secretary. Pending approval by Mrs. Hostetler and the full Board of Trustees, Mrs. Donald was elected Chairwoman, and the M-NCPPC agreed to furnish the Secretary, Anthony Janda for present, and all administrative services. It was also tentatively agreed that a Board of Trustees meeting be held during the first week of September 1973 and quarterly thereafter. The mailing address for "ADVENTURE" business will be the Needwood Mansion until such time as a resident naturalist program is implemented at the site.

The following questions were discussed and resolved:

I. Proposed States of Facilities and Resources

- A. Residence - Naturalist quarters with eventual addition of rest rooms and meeting room in keeping with present architecture and landscape.
- B. Woodlot - Remain as is.
- C. Meadows - More than half as sanctuary (with very limited access controlled by Trustee's policy applied by naturalist; remainder demonstration area with use by permit only applied by naturalist.
- D. Unit 2 (Watts Branch Stream Valley Park) - Maintain separately but with compatible uses, especially as applies to stream measurements.
- E. Development - Parking lot limited to one bus and five cars, improve drive in keeping with right-of-way agreements and wildlife plantings as per recommendations of MOS and Dr. Gilford.

WOODY PLANTS OF THE "ADVENTURE" (PROPOSED
PARK) TRACT RANKED ACCORDING TO THEIR
FOOD VALUE TO WILDLIFE

Below are listed species of woody plants found on the "Adventure" tract. They are ranked according to their value as a food source to wildlife for the entire United States and for the Northeast Region of the country, which includes Maryland.

The numerical ratio in each column indicates an approximate value of the plant as a wildlife food. The numerator is the total of stars(*) recorded for the plant's use by the total number of animal users (denominator). One or more stars indicates that the plant is of some importance to wildlife (at least 2% or more of diet) .

"A low numerator(stars) over a large denominator(users) indicates that a plant is used by many wildlife species but only to a limited extent by each. A higher numerator and small denominator characterizes a plant of great importance to a limited segment of our wildlife."+

| Woody Plants | Ranking | United States | | Northeast U.S. | | Song Birds N.E. |
|------------------------------------|---------|--------------------|----------------------|----------------|-------------------|-----------------------|
| | | (Total Users) | Vertebrate Users) | Ranking | (Total Users) | |
| Oaks(White & Red) | 1 | $\frac{263^*}{96}$ | | 1 | $\frac{71^*}{43}$ | $\frac{25^*}{17}$ |
| Blackberry | 3 | $\frac{118^*}{97}$ | | 2 | $\frac{50^*}{56}$ | $\frac{27^*}{34}$ |
| Wild Cherry(Incl. Black Cherry) | 4 | $\frac{104^*}{81}$ | | 3 | $\frac{44^*}{56}$ | $\frac{27^*}{29}$ |
| Pines | 2 | $\frac{234^*}{82}$ | | 4 | $\frac{43^*}{33}$ | $\frac{30^*}{18}$ |
| Dogwood | 5 | $\frac{75^*}{64}$ | | 5 | $\frac{42^*}{47}$ | $\frac{25^*}{28}$ |
| Grape | 6 | $\frac{69^*}{75}$ | | 6 | $\frac{37^*}{53}$ | $\frac{14^*}{37}$ |
| Maples(Incl. Box Elder) | 10 | $\frac{61^*}{33}$ | | 7 | $\frac{36^*}{27}$ | $\frac{13^*}{7}$ |
| Beech | 21 | $\frac{38^*}{31}$ | | 8 | $\frac{34^*}{31}$ | $\frac{8^*}{12}$ |
| Blueberry | 11 | $\frac{57^*}{63}$ | | 9 | $\frac{29^*}{37}$ | $\frac{9^*}{21}$ |
| Sumacs | 17 | $\frac{46^*}{50}$ | | 11 | $\frac{23^*}{28}$ | $\frac{10^*}{19}$ |
| Hickories | - | - | | 14 | $\frac{17^*}{19}$ | $\frac{6^*}{6}$ |
| Alder | 25 | $\frac{36^*}{16}$ | | 16 | $\frac{14^*}{11}$ | $\frac{7^*}{3}$ |

| Woody Plants | Ranking | United States (Total Vert. Users) | Northeast U.S. Ranking (Total Vert. Users) | Song Birds N.E. |
|-----------------------------|---------|---|--|--------------------|
| Poison Ivy | 7 | $\frac{66^*}{61}$ | 17 $\frac{13^*}{28}$ | $\frac{11^*}{21}$ |
| Greenbrier | 32 | $\frac{27^*}{33}$ | 26 $\frac{11^*}{23}$ | $\frac{6^*}{14}$ |
| Ash (Green Ash on tract) | - | - | 27 $\frac{11^*}{18}$ | $\frac{6^*}{6}$ |
| Virginia Creeper | 34 | $\frac{26^*}{30}$ | 29 $\frac{10^*}{22}$ | $\frac{10^*}{19}$ |
| Tuliptree | - | - | 30 $\frac{10^*}{14}$ | $\frac{7^*}{7}$ |
| Black Walnut | - | - | 34 $\frac{6^*}{4}$ | - |
| Persimmon | 31 | $\frac{28^*}{19}$ | - - | - |
| Black Locust | - | - | - - | - |
| Sassafras | - | - | - - | - |
| Spice Bush | - | - | - - | - |
| Sycamore | - | - | - - | - |

* Data and rankings compiled and excerpted from American Wildlife and Plants: A Guide To Wildlife Food Habits, by Alexander C. Martin, Herbert S. Zim, and Arnold L. Nelson; pp. 32, 40, 475-77; (1951)

by John R. Norvell
June 1973

The MCC/MOS Sanctuary Committee is meeting on Monday evening, June 11th, 1973, at the Donnald's, 11501 South Glen Road, Potomac, Maryland, to work on suggested plans for ADVENTURE. Can you join us to help develop these plans?

We will be preparing proposals for: (1) documentation studies (baseline, and continuing or periodic), (2) programs (immediate and long term, with target dates), (3) management (planting to attract birds, mowing schedule, etc.), (4) implementation (methods and means).

As background: At a working session of MOS trustees for Adventure with Hood College and Maryland National Capital Park and Planning trustees (on May 31st), MOS was asked to prepare proposals for future use of the Adventure area. MNCP&P is proposing to include a resident naturalist for Adventure in their budget as of July 1, 1974, with possible initial program use of the area in 1975.

Preliminary program proposals include:

- Observation post

 - (bird observation and listening post -- feeder with one-way glass and microphones)

 - (photo blind)

 - (nocturnal observation post -- with electronic telescopes)

- Weather station

- Bird banding and population studies

 - (to include (1) possible banding demonstrations, (2) color banding of selected species by age and sex, etc.)

- Small mammal studies -- live-trapping and tags

- Food chain studies

- Noise, air, and water quality studies

- Study of contrasting land use and its effects

We would appreciate your help. If you cannot meet with us on the 11th, please let us know your suggestions -- telephone 299-6840 -- Margaret Donnald.

MCC/MOS Sanctuary Committee:

- Margaret T. Donnald (Trustee for Adventure)

- Chandler S. Robbins (Trustee for Adventure)

- Charles D. Cremeans

- Harriet S. Gilbert

- Robert H. Hahn

- Kathy Klimkiewicz

- Ernest G. Meyers

June 5, 1973

II. Proposed Programs

A. Documentary Research

1. Who - Suggest Committee Review
2. Limits - " "
- a. time - " "
- b. space - " "
- c. number of participants "
3. Permit issuer " "
4. Reporting Form - " "
5. Filing - " "

B. Small groups - Outdoor Education, Environmentally Concerned Societies and Associations, Professional Resource Managers and Researchers, Teacher Workshops.

1. Activities -
 - a.) Population study
 - b.) Meteorology
 - c.) Environmental Pollutants
 - d.) Ecology
 - e.) Human History
 - f.) Others as developed and approved by Board of Trustees.
2. Facilities
 - a.) Observation Station w/listening devices, nocturnal observation device and photographic blind.
 - b.) Weather Station
 - c.) Banding and tagging areas (to move as required)
 - d.) Stream Monitoring station in Watts Branch - Future/possible USGS assistance.
 - e.) Noise and air pollution monitoring station.
3. Limits in group size, length of visit and frequency of use to be established by board of trustees*.

The M-NCPPC Division of Interpretation and Conservation recommends an initial limit of 10 students/naturalist; no more than 20 students of any one time; for 1-1/2 hours or more; no more than three tours/day; grade levels to be taken into consideration at time of scheduling but not to be restricted. It is our belief, and experience, that one employee is an exceptional person to operate a program under reasonably broad guidelines. Overly restrictive guidelines generally do not appeal to good naturalists but rather they appeal to the less inventive ones.

Anthony A. Janda
June 8, 1973

I. Policy and general management recommendations:

- A. Relate programs, in-so-far as possible, to direct observations and experiences on Adventure.
- B. Orient program to maximum out-of-doors experience, in winter as well as summer.
- C. Monitor use of area to prevent abuse thru overuse (feel the suggested parking lot limit of one bus - five cars is excellent).
- D. Manage Hostetler property to enhance wildlife potential, but without destroying its uncluttered, natural character. (Suggested planting plan and recommended plant lists to follow).
 1. Leave maximum open meadow areas (east fields, and much of field between hedge rows in middle of property). Field areas to be on twice-a-year mowing schedule beginning with 1974. Mowings to be (a) between June 25 and July 1, and (b) between August 15 and September 1 -- exact date best determined by observations of nesting species in a particular year by naturalist.
 2. Improve wildlife food supply through plantings -- not in 'rows', but in natural groupings, primarily as 'edge', and as enlargements of existing hedgerows (suggest first plantings in fall of 1973). Maximum use of plants native to Montgomery County.
 3. Include one 'managed' hedge row, where vegetation develops naturally in unmowed area with periodic removal of undesirable species (can eventually be demonstration comparison with planted hedgerow areas).
 4. 'Paths' to be closely mowed grass lanes.
- E. Opportunity exists for showing visitors what can be learned by systematic study of a specific area. Provision should be made for eventual display (as with rotating chart frame such as Smithsonian uses for display of posters for sale in their shops??) of accumulated data and/or sample records, in visual form usable by naturalist and understandable to students. For example: All recovery records could be mapped, or just winter recoveries of Adventure-banded birds could be marked on a general map of the winter range for a species. We already have one recovery record for a robin banded at Adventure in fall '72, recovered in Georgia in winter '73.

- F. Agree with concept of use by small groups, naturalist led. In addition the opportunity exists for a variety of special projects for from 1 to 4 or 5 young people, probably teenage, as (1) aides on documentary projects such as bird banding, botany surveys, etc., or as (2) responsible individuals under supervision of naturalist or of appropriate MOS or Hood College personnel on such projects as monitoring of nest boxes; special insect studies or collections (by type, by food source, by habitat, etc.); compilation of weather data (transcription, computation, comparisons with other local stations, etc.). Feel the opportunity for teenagers to carry out or participate in scientific studies is an important element in the Adventure program.

II. Documentation:

A. Bird populations studies:

1. Bird banding -- annually -- MOS

Migration - August 15 thru Nov 15 - 24 nets or equivalent
April 15 thru May 15 " "

Breeding - 3 to 5 days in 3rd week
of June, July " "

Wintering - 3 to 5 days in 3rd week Feeding traps (how many)?
of Dec., Jan., Feb., March

(To include color banding of selected species by age (with different color for each year), and by sex (where plumage is not distinguishing)) Suggested species: mockingbird, cardinal??, titmouse and/or chickadee.

2. Winter population census -- annually -- MOS

6 to 8 trips over area covered in 1973 (Hostetler property plus some 70 acres of Unit 2). To be done between December 15 and February 15.

3. Standard breeding bird survey??? (probably not, since there is no single habitat type unit of 20 acres in size)

or

Breeding bird survey on 2 smaller contrasting tracts (as 6 acres of meadow, and 6 acres of floodplain woods??)

or

Atlas-type data recorded in June for over-all area?

4. Xmas county -- annually -- MOS
Separate data kept for area by observer covering the section on regular Seneca Xmas count.
5. May count -- annually -- MOS
Separate data kept by observers covering section on regular May count.
6. Nest cards -- on boxes as well as observed breeding birds -- annually -- naturalist aide project??

B. Mammal studies (to include bats)

Complete survey by combination of observation, snap-trapping, and live-trapping. Should be completed in fall of 1973 (especially important for open meadow areas before mowing schedule changes. Repeat in 2 or 3 years (except in meadows where there should probably be annual check during period of change). Suggest live-trapping and tagging of meadow voles.

Note to Dr. Gilford -- Hood College: Chan Robbins yhas 3 Sherman traps available. MOS member (Kathy Klimkiewicz) will have 100 snap traps to field test for Smithsonian this fall. Could HOOD plan and guide this program, with help of equipment and perhaps some limited time from Kathy?

C. Herp study

Desirable to sample entire area as thoroughly as possible without keeping specimens. Should be completed if possible before changes in area (such as change in mowing schedule) and repeated on 2 or 3 year cycle.

D. Botanical studies

1. Initial plant survey (but not herbarium) -- under way -- MOS -- to be completed 1974?? Covering Hostetler property plus some 70 acres of Unit 2.. Final product to be a plant list which could be published if MNCP&P feels it appropriate and of sufficient potential value.

List should be reviewed on 4 to 6 year cycle, to coordinate with other repeated studies. More frequent ~~at~~ review needed on areas where changes are occurring -- i. e. , meadows where mowing schedule is changed should be surveyed annual for 2 or 3 years, then on 2 to 3 year cycle, coordinated with other surveys.

2. Map principal habitat types (which largely appear to coorelate with old land boundaries and related varied land uses).
3. Map unique or specimen size woody plants (probably those over 24" diam in canopy trees, over 12" in understory, etc.) Will probably need large scale map (100' to 1" if possible, and/or aerial photos) to facilitate this mapping.
Winter '73 - '74?

E. Entomology survey

Doubt the feasibility of attempting any complete survey of the probable 20,000 species of insects that could be expected on the total area. Perhaps emphasis should be on identifying those insects that play a significant part in the food chain, and those conspicuous or showy enough to be noted in naturalist program. Collections of specific groups of insects (by preferred food source, specific habitat, nest type, or other category) could be made by 'naturalist aides' and referred by Smithsonian or USDA as needed for confirmation or identification.

F. Meterology

Daily weather observations (seven days a week)

Minimum-maximum temperatures

Rainfall

Pressure

Wind

One observation per day at a minimum. Desirable to be as many as 4, and could be more, especially for special studies of limited duration.

- G. History -- research of ownership and land use, especially valuable to correlate with botanical study of nature of cover on various parcels of land and maturity of such cover. MOS member has started on this, but will need guidance from Park Historians as she progresses.

III. Activities -- Facilities

Naturalist's abilities and interests will be important in final development of program. Can propose certain basic concepts concerning possible program activities and recommend appropriate facilities.

A. Plan to eventually provide some type of ornithology-related experience at every season of year.

Nov Dec Jan Feb Mar Apr May June July Aug Sept Oct

"BIRD IN HAND" - close-up observation
(identification, behaviour, migration, plumages, life span, adaptations, etc.)

Feeders - one-way glass, mikes (1975?) (feeders to be started winter '73, on or near probable future locations - to start bird use of area)

Bird bath - drip (recycled) (summer '75?)

Banding - feeder traps

Banding - mist nets (demonstrations)

Nest observation - bluebird boxes, martin house, possibly fake 'chimney' for swifts, observation slots for barn swallows and/or phoebes?

"BIRD IN BUSH" - field experience

Sight -- using binoculars -- observations in hedge rows (not in woods -- too frustrating for beginners) habitat, flight, feeding patterns, food chain, etc.

Sound -- listening to songs - tapes of birds to be expected on walk, purposes of wong, how to recognize, etc.

Facilities -- Feeders - October or November 1973, to start bird use of area -- two locations, one the future meeting area, second the probable banding demonstration area.

Martin house - to be up April 15, 1974

Possible swift and swallow observation areas to be considered in design of meeting room facility.

Tapes of bird songs could be started anytime -- would probably have most value if they could be made by the person who would use them.

n Nest photos?? Collection of infertile eggs, old nests, for exhibit???

B. Possible botany-related programs might include:

"Man and the Land" (study of varied habitat and its relation to history of land uses (old mill site, sewer line location, former field or pasture areas, etc.) Suggest winter months for this -- better visibility in woodland. Would not be feasible on Hostetler property alone. Would need to plan trail to avoid wet soil, or add raised path or boardwalk on part of floodplain.

Wildlife food sources == would be most effective in summer and fall months -- and should improve over years as proposed supplemental plantings on Hostetler property develop. Could include comparison of "planted" hedge with "managed" natural hedge.

Wild flowers of summer (spring herbaceous flora of wooded areas in not rich enough or unique enough to warrant program emphasis.) After meadow areas mature, flowers of summer could be an interesting study. Summer flowering plants could also be introduced on edges of hedge rows -- but would suggest only ones that are showy, vigorous, and not in need of pampering! Examples, butterflyweed, lavender monarda, black-eyed Susan, boneset, swamp milkweed, black cohosh, goat's beard, etc.

C. Wildlife observation (other than birds)

1. Nocturnal observation area -- mammals -- suggest 1st choice of area as south of Glen Road (in Unit 2), provided facility and equipment can be made safe yet easily available. This would reduce road hazards for wildlife. 2nd choice would be in combination with site for banding demonstrations -- chaff here from bird-feeding will inevitably attract many species. Suggest two electronic telescopes. Salt lick for deer (assuming that soil and water are not sufficiently salty to make this 'inoperable').
2. Night sounds -- separate location for listening to frog chorus? Whether or not this would be feasible would need to be checked -- best by resident naturalist, probably. A possible location would be on the hill across Glen Road and just to the west of Adventure mail box -- hill here drops off abruptly to flat floodplain below with permanent spring and large wet area. Tapes of night sounds might be developed for use with this activity.

3. Winter homes of wild life, adaptations to seasonal weather, winter food sources.
 4. Herps -- consider aquaria with revolving short-term exhibits, rather than attempting to keep 'permanent' exhibits alive.
 5. Entomology -- living 'life cycle' exhibits of species such as praying mantis, luna moth, ~~fother~~ suitable native species. Try praying mantis out-of-doors with mesh cover over large enough area to provide food and protection for young.
- D. Meterology -- Install weather station as soon as naturalist is in residence to begin observations (1974?) -- so that backlog of data will be available for use.
- E. Miscellaneous --
- Photo documentation -- set up permanent photo stations so accurate records can be made of changes, seasonal variations, etc. Black and white?? slides?? Is park service equipped to take??
- Natural history reference list is being compiled for consideration, will be available this summer.
- Will meeting room facility need to be equipped to show films? Will it need lab type area with water, sinks, etc.? Microscopes for insect & studies or aquatic studies? Collecting equipment?

A. Plan to eventually provide some type of ornithology-related experience at every season of year.

Nov Dec Jan Feb Mar Apr May June July Aug Sept Oct

"BIRD IN HAND" - (close-up observation) —

(identification, behaviour, migration, plumages, life span, adaptations, etc.)

Feeders - one-way glass, mikes (1975?) (feeders to be started winter '73, on or near probable future locations - to start bird use of area)

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Sight -- using binoculars -- observations in hedge rows (not in woods -- too frustrating for beginners) habitat, flight, feeding patterns, food chain, etc.

Sound -- listening to songs tapes of birds to be expected on walk, purposes of song, how to recognize, etc.

Facilities -- Feeders - October or November 1973, to start bird use of area -- two locations, one the future meeting area, second the probable banding demonstration area.

Martin house - to be up April 15, 1974

Possible swift and swallow observation areas to be considered in design of meeting room facility.

Tapes of bird songs could be started anytime -- would probably have most value if they could be made by the person who would use them.

Nest photos?? Collection of infertile eggs, old nests, for exhibit???

Atlas project collection from Kathy K.

Check B banded Swifts on chimney

Breeding Ecology of the chimney Swift - NY State Museum & Science Service, Bulletin # 362 - April 56. p. 22-23.

(NTDGR)

Possible 20 minutes (at their probable effective time slots) include?

Swallow - separate report on proposed nest box program (see Knight)

all year somewhat

suggest

1st year
2nd year
3rd year
4th year
5th year
6th year
7th year
8th year
9th year
10th year

Aug 73 before migration?

A LISTING OF BIRD AND MAMMAL USE OF THE
WOODY PLANTS OF THE "ADVENTURE" TRACT

Explanatory Notes:

- 1) This is not intended to be an exhaustive list of the bird and mammal species that make use of the woody plants at "Adventure" as a food source. Instead, it is a list of animals that use these plants to a significant portion of their diet($\frac{1}{2}\%$ or more) as determined by wildlife food studies.
- 2) The data has been excerpted mainly from Native Woody Plants of the United States by Van Dersal and American Wildlife and Plants by Martin et al.
- 3) The birds and mammals listed are those which have been documented as occurring on the tract either as residents or visitors, or those which could very likely be found on the tract, but have not yet been observed. This latter group is indicated by an *.
- 4) All percentages are in relation to the particular animal species' total diet, as defined by Martin et al.
- 5) Usually the data was excerpted from these books for the East (E) or Northeast (NE) regions (of the United States) food studies. Where the only available data comes from another region (i.e., West (W), Southeast (SE)), or from a particular state (i.e., NY, Tex, etc), this is indicated. Usually the listing for (SE) had a higher consumption percentage for Eastern species than did those for (NE).

John R. Norvell
August 1973

| WOODY PLANT SPECIES | USAGE BY BIRDS | | USAGE BY MAMMALS | | COMMENTS |
|-------------------------------|--|--|--|---|--|
| | Water & Marsh | Upland Game | Song | Fur & Game, Sm. Game, Browsers | |
| 1. The Oaks (Quercus spp.) | *Mallard 2-5% Wood Duck 2-5% 10-25%(SE) 62% (Wis) (eat small acorns) | Bobwhite Q. 2-5% *Ring-necked Pheasant 2-5% *Wild Turkey 25-50% | <u>1-2%</u> Rusty B.B. Y.S. Flicker R.B. Grosbeak E. Meadowlark *Y.B. Sapsucker (Sap) Starling Downy W.P. C. Wren <u>2-5%</u> C.Crow <u>5-10%</u> B. Thrasher (SE) T. Titmouse R.S. Towhee <u>10-25%</u> C. Grackle (SE) W.B. Nuthatch R.B. Woodpecker *R.H. Woodpecker <u>25-50%</u> Blue Jay Undetermined Amt. Wrens Sparrows | *Gray & *Red Fox $\frac{1}{2}$ -2% *Muskrat $\frac{1}{2}$ -2% *Opossum $\frac{1}{2}$ -2% C.T. Rabbit 2-5% Raccoon 25-50% *Flying Squirrel 5-10% Gray Squirrel 25-50% *E. Chipmunk 5-10% *M. Mouse $\frac{1}{2}$ -2% *W.F. Mouse 5-10% W.T. Deer 2-5% 2-5%(Pa, NY, NC) 25-50%(Mo, Ala) | Oaks are at or near the top on wildlife lists as a food not because they are preferred but because they are so abundantly available as a staple. Their greatest value is during the critical winter season when other foods are scarce White oaks may be more palatable and preferred as a food source rather than red oaks. Oaks provide good cover during winter, since the dead leaves remain on trees and provide good nest material in early spring. Van Dersal suggests that planting of both white and black(incl. red) species is a good idea - where one crop fails, the other can supplement. |
| 2. Blackberry (Rubus spp.) | | <u>13/5 NE</u> B.W. Quail 2-5% American Woodcock 2-5% | <u>27/34</u> <u>1-2%</u> R.W. Blackbird *Rusty " E. Bluebird C. Crow Y.S. Flicker C. Flycatcher E. Grosbeak E. Kingbird E.G. Phoebe G.C. Thrush Swainson's Thrush Red-eyed Vireo White-eyed Vireo | G.T. Rabbit 5-10% (feeds on stem in winter) Gray Squirrel $\frac{1}{2}$ -2% *Red & Gray Fox $\frac{1}{2}$ -2% *Opossum $\frac{1}{2}$ -2% Raccoon Undeterm. *E. Stripped Skunk $\frac{1}{2}$ -2% *E. Chipmunk 2-5% *W.F. & M. Mouse $\frac{1}{2}$ -2% W.T. Deer $\frac{1}{2}$ -10% | Data includes many species of Rubus genus, not just "true blackberries". Recommended by Martin, et al as a good competitor for Japanese Honeysuckle where latter is nuisance. Incl. Dewberries, Wild Raspberries, etc. An important summer food; even dry or drying fruits are available into fall and winter; but main use is in summer when fruit is juicy. Good cover and nesting sites. 2nd most important(preferred) winter food of deer in Mass. |

| WOODY PLANT SPECIES | USAGE BY BIRDS | | USAGE BY MAMMALS | | COMMENTS |
|---------------------------------|----------------|---------------------------|--|--|---|
| | Water & Marsh | Upland Game | Song | Fur & Game, Sm.Game, Browsers | |
| 2. Blackberry (cont'd.) | | | <u>2-5%</u> Common Grackle Blue Jay Mockingbird Baltimore Oriole Robin Scarlet Tanager Veery Wood Thrush Tufted Titmouse Cedar Waxwing R.B. Grosbeak <u>5-10%</u> Cardinal (SE) *Orchard Oriole (SE) Fox Sparrow Brown Thrasher <u>10-25%</u> Catbird Y.B. Chat *Summer Tanager (SE) Undetermined Amt. Indigo Bunting | | |
| 3. Wild Cherry (Prunus spp.) | | B.W. Quail <u>1-2%</u> | <u>1-2%</u> E.Bluebird Cardinal C.Flycatcher Blue Jay Mockingbird B. Oriole C. Grackle Veery W.T.Sparrow Hairy W.P. R.S.Towhee Hermit Th. Scarlet Tan. R.E. Vireo *Summer Tan. <u>2-5%</u> Y.S. Flicker Catbird *Redheaded W. C. Crow R.B. Woodpeck. G.C. Thrush *Y.B. Sapsuck. W. Thrush E. Kingbird <u>5-10%</u> R.B. Grosbeak Starling Brown Thrasher <u>10-25%</u> E. Grosbeak Robin C. Waxwing | <u>1-2%</u> *Opossum *E.Striped Skunk Gray Squirrel <u>2-5%</u> *Red & Gray Fox C.T. Rabbit Raccoon (West) *E. Chipmunk Undetermined Amt. *W.F. Mouse *E.Meadow Mouse | Considered a very important wildlife food source. Fruits available in summer and fall. |

| WOODY PLANT SPECIES | USAGE BY BIRDS | | USAGE BY MAMMALS | | COMMENTS |
|-----------------------------|--|---|---|--|--|
| | Water & Marsh | Upland Game | Song | Fur & Game, Sm. Game, Browsers | |
| 4. Pines (Pinus spp.) | | M. Dove 2-5% B.W. Quail 10-25% | <u>1-2%</u> Am. Goldfch *H. Finch S.C. Junco R.S. Towhee *Y.S. Sapskr Myrtle B. Thrasher Warbler T. Titmouse C. Wren <u>2-5%</u> Br. Creeper E. Meadowlark Red-bellied Woodpeck. <u>5-10%</u> W.B. Nuthatch C. Chick. *Pine Siskin *Pine Wrb. <u>10-25%</u> E. Grosbeak <u>25-50%</u> *Red-breasted Nuthatch | C.T. Rabbit <u>1-2%</u> Gray Squirrel 2-5% *W.F. Mouse 2-5% *Chipmunk Undet. W.T. Deer <u>1-2%</u> | Considered one of best wildlife plants for food, cover, nests and nesting material Recommendations: 1) Plant small area in pines and manage it for this species. 2) Thinning out hardwood saplings from one of the healthiest pine stands, and maintain this pine grove. |
| 5. Dogwoods (Cornus spp) | <u>1-2%</u> Wood Duck (10-25% N.Y.) | <u>1-2%</u> *R.N. Pheas. B.W. Quail 5-10% *Wild Turkey | <u>1-2%</u> C. Flycatcher Scar Tan Red-bell. W.P. C. Crow Pileated WP Mockingbird (SE) Hairy WP Starling <u>2-5%</u> *YB Sapskr *Pine Warb YS Flicker E Bluebird RE Vireo Catbird *Warb Vireo P Finch Downy WP E Kingbird Hermit Thr Swainson's Br Thrasher Thrush <u>5-10%</u> GC Thrush Cardinal Wd Thrush Robin Cedar Waxwing <u>25-50%</u> Ev Grosbeak | <u>1-2%</u> Raccoon *WF Mouse <u>2-5%</u> Gray Squirrel *Eastern Chipmunk WT Deer (NY & NC) <u>5-10%</u> CT Rabbit (Mich) Undetermined Amt Eastern Striped Skunk | Excellent inclusion in hedgerows, also occurs naturally there. Fleshy fruits quite valuable to wildlife, especially in NE region of U.S. Fruits ripen late summer, available all fall; berries may persist into winter; Martin et al, recommends Flowering Dogwood as one of very best to attract birds. |

| WOODY PLANTS SPECIES | USAGE BY BIRDS | | | USAGE BY MAMMALS | | COMMENTS |
|--|--------------------------|--|--|--|--|--|
| | Water & Marsh | Upland Game | Song | Fur & Game, Sm Game, Browsers | | |
| 6. Wild Grape (Vitis spp) | <u>2-5%</u> Wood Duck | <u>2-5%</u> BW Quail Undet. Amt. M Dove *RN Pheas. *Wild Turkey | <u>1-2%</u> *Rusty BB *Orch Oriole B Oriole *YB Sapskr E Bluebrd C Flyctchr Scar Tan WT Sparrow Eng Spar. Br Thrash RS Towhee *Red-hd WP <u>2-5%</u> GC Thrush Swain Thr Wd Thrush Hermit Thr <u>5-10%</u> Pileated WP Red-bellied WP <u>10-25%</u> Cardinal C Crow C Oriole Blue Jay E Kingbrd SC Junco C Grackle Starling Mockngbrd Fox Spar. T Titmouse *Phil Vireo *Pine Warb Ced Waxwg Robin Catbird | <u>1-2%</u> *Red & Gray Fox CT Rabbit <u>2-5%</u> *Opossum Raccoon <u>5-10%</u> E Striped Skunk <u>1-2%</u> WT Deer | | All species of Vitis considered valuable to wildlife. The fruit is a favorite; even in winter the old, dried fruit is sought. The yield varies greatly; sometimes the crop is a total failure. Dense foliage in summer provides good cover, nesting areas; bark is used for nesting materials |
| 7. Maples (Incl. Box Elder) (Acer spp) | | <u>2-5%</u> BW Quail Undet Amt RN Pheas. | <u>1-2%</u> C Chickadee Am Goldfinch *YB Sapsucker <u>2-5%</u> Purple Finch *Red-breasted Nuthatch <u>25-50%</u> Evening Grosbeak Undetermined Amt. *Palm Warbler | <u>1-2%</u> *Meadow Mouse <u>2-5%</u> Cottontail Rabbit *White-footed Mouse <u>5-10%</u> Gray Squirrel *Eastern Chipmunk <u>25-50%</u> White-tail Deer (NY) Undetermined Amt. Muskrat | | Seeds and buds especially sought; song birds use leaves and seed stalks for nesting materials, trees are good nest sites Red Maple is considered the 5th most important winter food of WT Deer in Massachusetts, according to Van Dersal. |

| WOODY PLANTS SPECIES | USAGE BY BIRDS | | | USAGE BY MAMMALS | | COMMENTS |
|---|--------------------------|---|---|--|--|--|
| | Water & Marsh | Upland Game | Song | Fur & Game, Sm Game, Browsers | | |
| 8. Beech (Fagus grandifolia) American Beech | <u>2-5%</u> Wood Duck | <u>Undet. Amt.</u> *RN Pheas BW Quail *Wild Turkey | <u>1-2%</u> *Rusty BB WB Nuthatch P Finch *YB Sapsucker C Grackle Red-bell WP <u>2-5%</u> RB Grosbeak Blue Jay <u>5-10%</u> T. Titmouse <u>Undetermined Amt.</u> C. Chickadee Downy WP Hairy WP | <u>1-2%</u> *Red & Gray Fox Raccoon *White-footed Mouse WT Deer <u>5-10%</u> Gray Squirrel *Eastern Chipmunk <u>10-25%</u> *Flying Squirrel <u>Undetermined Amt.</u> *Opossum | | Beechnuts eaten by birds and mammals; especially important to squirrels and chipmunks; mast crops are occasionally a failure, causing a hardship on these animals. According to Van Dersal, beechnuts are an important food source to raccoons in the fall and early winter. |
| 9. Blueberries (Vaccinium spp) | | <u>1-2%</u> *Wild Turkey | <u>1-2%</u> Fish Crow Blue Jay YS Flicker Hermit Thr C Flycatcher Robin WT Sparrow B Oriole Tree Spar. Wd Thrush T. Titmouse E Phoebe E Kingbird <u>2-5%</u> YB Chat Catbird Br Thrasher RS Towhee GC Thrush Veery Orch Oriole <u>5-10%</u> Eastern Bluebird (SE) <u>10-25%</u> Scarlet Tanager | <u>1-2%</u> *Red & Gray Fox *Opossum (SE) <u>2-5%</u> *E Striped Skunk CT Rabbit <u>5-10%</u> *White-footed Mouse <u>1-10%</u> WT Deer <u>Undetermined Amt.</u> Raccoon | | Included here are the true blueberries, deerberries, cranberries, etc. of the Vaccinium genus. Fruits are the chief attraction. Due to their food value to wildlife and their dense shrubby growth, the taller species are valuable to include in hedgerows, and along wood margins. |
| 10. Sumacs (Rhus spp) | | <u>2-5%</u> BW Quail | <u>1-2%</u> P Finch SC Junco YS Flicker Scar Tan E Grosbk(NW) Veery B Thrasher RE Vireo Warb Vireo *Pine Warb <u>2-5%</u> E Bluebird C Crow Cardinal E Phoebe Catbird Hermit Thr Mockingbird <u>5-10%</u> Robin Starling | <u>5-10%</u> Cottontail Rabbit (bark, twigs, fruit) White-tailed Deer | | This is not a choice or preferred food for wildlife yet, the genus is important as a <u>winter food</u> supply for many eastern animals; fruits remain during the winter when other more desirable foods are scarce; this is especially true for birds. The genus is also a good source of provitamin A in wildlife diets. |

| WOODY PLANT SPECIES | USAGE BY BIRDS | | | USAGE BY MAMMALS | | COMMENTS |
|---------------------------------------|--------------------------------|--|---|--|--|--|
| | Water & Marsh | Upland Game | Song | Fur & Game, Sm Game, Browsers | | |
| 11. Hickories (Carya spp) | <u>5-10%</u> Wood Duck (SE) | <u>1-2%</u> *RN Pheas. BW Quail (SE) <u>2-5%</u> *Wild Turkey (SE) | <u>1-2%</u> Common Crow Blue Jay White-breasted Nuthatch *Yellowbellied Sapsucker <u>2-5%</u> Rose-breasted Grosbeak Red-bellied WP | <u>1-2%</u> *Gray Fox CT Rabbit Raccoon *White-footed Mouse White-tailed Deer (Tex) <u>5-10%</u> *Eastern Chipmunk <u>10-25%</u> Gray Squirrel Undetermined Amt. *Flying Squirrel | | Hickories mature slowly; Shellbark hickory takes about 80 years to mature, before yielding 1-2 bu. of nuts annually. The fruit is generally considered distasteful to wildlife. |
| 12. Alders (Alnus spp) | | <u>1-2%</u> Am Woodcock Undet Amt BW Quail | <u>2-5%</u> *Pine Siskin (NW) American Goldfinch <u>10-25%</u> *Common Red Polls | Undetermined Amt. *Eastern Striped Skunk *Opossum <u>2-5%</u> White-tailed Deer | | The wildlife food value of Alders is low in proportion to their widespread abundance. The dense copses of leaves provides effective cover from enemies and weather. Van Dersal claims that 20 species of birds have been recorded as feeding on alders. |
| 13. Poison Ivy (Toxicodendron spp) | | <u>1-2%</u> *RN Pheas. *Wild Turk. <u>2-5%</u> BW Quail | <u>1-2%</u> E Bluebird C Crow SC Junco P Finch B Thrasher E Phoebe T Titmouse *CM Warb WE Vireo Cedar WW Pileated WP C Wren Mockingbrd (Tex) Fox Sparrow <u>2-5%</u> C Chick. (SE) Starling WT Sparrow Hairy WP Myrtle Warb Red-bell WP <u>2-10%</u> Catbird (SE) Downy WP <u>10-25%</u> YS Flicker Undetermined Amt. YB Sapsucker | <u>1-2%</u> CT Rabbit (NY) Undetermined Amt. *Muskrat | | A popular food plant with wildlife; The woodpeckers, which are well-adapted to eating ants (which contain formic acid) are especially fond of poison ivy fruits. The greatest wildlife food value of these plants is primarily during winter when other food is scarce; this is especially true for birds. |

| WOODY PLANT SPECIES | USAGE BY BIRDS | | USAGE BY MAMMALS | | COMMENTS |
|---|-----------------------------|---|--|---|--|
| | Water & Marsh | Upland Game | Song | Fur & Game, Sm Game, Browsers | |
| 14. Greenbrier (Smilax spp) | $\frac{1}{2}$ -2% Wood Duck | $\frac{1}{2}$ -2% *RN Pheas. 2-5% *Wild Turk. (SE) | $\frac{1}{2}$ -2% WT Spar. GC Thrush Mockngbrd Swain Thr YS Flickr Br Thrshr (SE) 2-5% Hermit Thr 25-50% Fish Crow | $\frac{1}{2}$ -5% Raccoon (5-10% SE) 5-10% WT Deer Undetermined Amt. *Opossum *Gray Fox Gray Squirrel CT Rabbit | Provides good protective cover for wildlife - especially rabbits. A good source of winter food; In the southern U.S. it is an important secondary food for White-tailed Deer; Van Dersal claims that at least 44 species of birds feed on this plant nationwide. |
| 15. Ash (Fraxinus spp) | $\frac{1}{2}$ -2% Wood Duck | $\frac{1}{2}$ -2% *Wild Turk. 2-5% BW Quail | $\frac{1}{2}$ -2% Cardinal Ev Grosbk *YB Sapskr Cedar WW 2-5% Purple Finch | $\frac{1}{2}$ -2% *White-footed Mouse 2-5% White-tailed Deer | Numerous and widespread, yet, of only moderate importance to wildlife; The winged seeds (samaras) are eaten by birds and mammals; an important source of pollen for bees. |
| 16. Virginia Creeper (Parthenocissus spp) | | Undet. Amt. *RN Pheas. *Wild Turk. BW Quail | $\frac{1}{2}$ -2% WB Nuthatch WE Vireo (SE) T Titmouse (SE) Tree Swallow Downy WP 2-5% E Bluebird (SE) C Flycatcher B Thrshr (SE) YB Sapskr RE Vireo Pileated WP 5-10% Mockingbird (SE) | $\frac{1}{2}$ -2% *Red Fox *Eastern Skunk Undetermined Amt. CT Rabbit Raccoon *Eastern Chipmunk | Grape-like clusters are important food source for wildlife; the berries ripen in the fall, many hang on into late winter; the fruit is especially attractive to songbirds. Van Dersal says 38 bird species nationally use the plant. |
| 17. Tulip Tree (Liriodendron tulipifera) | | | $\frac{1}{2}$ -2% Redwinged BB Am Goldfinch 2-5% Cardinal 5-10% Purple Finch Undetermined Amt. C Chick RT Hummingbird | $\frac{1}{2}$ -2% Gray Squirrel | Of moderate significance to wildlife; samara seeds persist into winter providing a good winter food supply and for this reason have special value |

| WOODY PLANT SPECIES | USAGE BY BIRDS | | USAGE BY MAMMALS | | COMMENTS |
|--|----------------|--|---|---|---|
| | Water & Marsh | Upland Game | Song | Fur & Game, Sm Game, Browsers | |
| 18. Black Walnut (Juglans nigra) | | | Undetermined Amt. <u>Red-bellied Woodpecker</u> | <u>2-5% Gray Squirrel</u> <u>Undetermined Amt.</u> <u>White-tailed Deer</u> | Martin et al, claims that four eastern species of squirrel use this plant; |
| 19. Persimmon (Diospyros spp) | | <u>1-2% Wild Turkey.</u> <u>Undet. Amt.</u> <u>BW Quail</u> | <u>1-2% Myrtle Warbler</u> <u>2-5% Catbird Robin(SE)</u> <u>Cedar WW</u> <u>Undetermined Amt.</u> <u>Mockingbird YB Sapskr</u> | <u>1-2% Red & Gray Fox</u> <u>2-5% Opossum</u> <u>5-10% Raccoon</u> <u>Undetermined Amt.</u> <u>Flying Squirrel</u> <u>Up to 25% in SE</u> <u>WT Deer</u> | This plant is much more important in the SE than in the NE; The fleshy fruit ripens in the fall, remains often into winter Martin et al, suggests that this plant may be much more important to birds than stomach analyses have indicated. |
| 20. Black Locust (Robinia pseudoacacia) | | <u>1-2% BW Quail</u> <u>Undetermined Amt</u> <u>M Dove</u> <u>RN Pheas.</u> | | <u>Undet. Amt.</u> <u>*Gray Fox</u> <u>*Opossum</u> <u>White-tailed Deer</u> <u>CT Rabbit</u> | Obviously, rates very low as food for wildlife |
| 21. Sassafras (Sassafras albidum) | | <u>1-2% Wild Turkey</u> <u>*BW Quail</u> | <u>1-2% E Phoebe</u> <u>Swain Thr</u> <u>GC Thrush</u> <u>Br Thrshr</u> <u>YB Sapskr</u> <u>RE Vireo</u> <u>2-5% C Flycatcher</u> <u>E Kingbird</u> <u>Pileated Wp</u> <u>Undetermined Amt.</u> <u>RS Towhee</u> <u>YS Flicker</u> | <u>1-2% WT Deer</u> <u>Undetermined Amt.</u> <u>Woodchuck</u> | The dark, bluish fruit ripens in the fall and is not taken in quantities by wildlife. |

| WOODY PLANT SPECIES | USAGE BY BIRDS | | | USAGE BY MAMMALS | COMMENTS |
|---|----------------|-------------------------------|---|--|---|
| | Water & Mrsh | Upland Game | Song | | |
| 22. Spice Bush (Lindera benzoin) | | $\frac{1}{2}$ -2% BW Quail | $\frac{1}{2}$ -2% Catbird C Flycatcher E Kingbird GC Thrush 2-5% Veery 5-10% Wood Thrush | Undetermined Amt. CT Rabbit WT Deer * Opossum | This plant is especially relished by the thrushes, and the Wood Thrush and Veery in particular. |
| 23. Sycamore (Platanus occidentalis) | | | $\frac{1}{2}$ -2% Amer Goldfinch 2-5% Purple Finch | Undetermined Amt. WT Deer * Muskrat | No appreciable importance to wildlife as a food source. |

TO MOS "ADVENTURE" ADVISORY

For your review and suggestions—

We plan to meet at "Adventure" (10801 Glen Road, Potomac) at 6:30 pm on Thursday September 13th to review planting plans on the site. In case of rain meet at Donnald's, 11501 South Glen Road.

1973

PS. If you cannot come early, join us at Donnald's after dark, that is after 7:30!

Harriet Gilbert

PRINCIPLES CONSIDERED IN DEVELOPING PLANTING PROPOSALS ???

Retain maximum open space (since woodland in a variety of stages is available for use in Watts Branch Park area)

Emphasize management for song birds rather than game species. Provide increased food supply for wildlife plus protected areas for nesting and roosting.

Use native plants, and whenever possible Montgomery County native species.

Include plants with special botanical interest (as attractive flowers or fruits, interesting pollination patterns, plant lore, etc.)

Avoid plants that could spread aggressively and become difficult to control.

Retain natural appearance (avoiding "row" planting, but using clumps and groups of plants instead, etc.)

Generally plant understory trees or shrubs, not canopy trees, to keep a low profile across present fields.

Retain narrowing "funnel" down slope in plan for hedgerows, which makes for productive banding.

Expect to add list of herbaceous plants to the habitat groupings. Have you any suggestions?

No comments made on future Watts Branch park area, except that consideration be given to management of at least one of the stands of Virginia pine in the area to keep it as pine (hardwoods now coming in in most of these areas). Retention of pine area would provide prime habitat for such species as Barred owl and woodcock now apparently nesting in the area, for evening grosbeaks, purple finches, red-breasted nuthatches and kinglets in winter. Pine areas may now be the site of hummingbird nesting, (hummingbirds are frequently seen), and might prove attractive to pine warblers as nest areas.

MRS. *Donnald*

THE MARYLAND - NATIONAL CAPITAL PARK AND PLANNING COMMISSION
REGIONAL AND METROPOLITAN DISTRICTS IN MONTGOMERY AND PRINCE GEORGE'S COUNTIES, MARYLAND



Regional Headquarters Building
8787 Georgia Avenue
Silver Spring, Maryland 20907

589-1480
Area Code 301

MINUTES FOR "ADVENTURE"

BOARD OF TRUSTEES MEETING
November 7, 1973

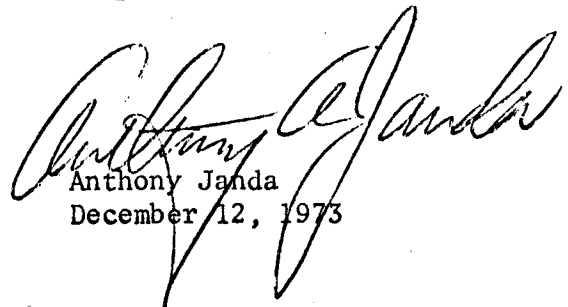
A meeting of the Board of Trustees of "Adventure" was held at the Needwood Mansion at 6:30 p.m. on November 7, 1973. Present were: Mrs. Alice Hostetler and Mrs. Jane Knox, Mrs. Margaret Donnald and Chandler Robbins of MOS; Drs. James Gilford and John Helm of Hood College; John Baines, Anthony Janda and Robert L. Young of M-NCPPC.

Mrs. Donald reported on the MOS program proposals, planting plan and Fall 1973 Bird Count. The proposals were accepted in general by the Board. MOS was encouraged to continue their fine work.

Dr. Gilford reported that Hood College was prepared to initiate a small manual study program. Dr. John Helm was introduced and outlined a plan to run a trap line at Adventure in late November in order to identify the species of small mammals. He also outlined future plans that included gridding "Adventure" and Watts Branch Unit 2, establishing a study collection (to be housed at Hood College for the present) and proposed setting up weather stations at ground level, as well as, standard levels.

Robert Young reported that the M-NCPPC budget proposal for "Adventure" seemed to have been very favorably received by the Montgomery County Planning Board. He asked that MOS and Hood College submit reports of their costs relative to "Adventure", either in dollars or man-hours, for the edification of said board. He volunteered to see that a 100 meter grid of the area be completed by M-NCPPC surveyors and that additional suitable traps be purchased or constructed by the Department of Parks. John Baines, Park Naturalist, was introduced as the new tenant at "Adventure" at such time as Walter Ward moves. John will serve as part-time on-site coordinator until such time as a permanent transfer can be arranged.

The meeting convened on notes of optimism and cooperation.


Anthony Janda
December 12, 1973

WILD FLOWERS AT ADVENTURE

April 1975

reference
Britton and Brown

| COMMON | LATIN | FAMILY |
|--------------------------|-------------------------|-----------|
| Gill-over-the-Ground | Glechoma hederacea | Mint |
| Purple/Red Dead-Nettle | Lamium purpureum | Mint |
| Corn Speedwell | Veronica arvensis | Figwort |
| Common Blue Violet | Viola papilionacea | Violet |
| Common Dandelion | Leontodon Taraxacum | Chickory |
| Field Pansey | Viola Rafinesquii | Violet |
| Pennsylvania Bittercress | Cardamine pennsylvanica | Mustard |
| Periwinkle | Vinca minor | Dogbane |
| Dwarf Cinquefoil | Potentilla simplex | Rose |
| Kidney-leaf Buttercup | Ranunculus abortivus | Crowfoot |
| Bulbous Buttercup | Ranunculus bulbosus | Crowfoot |
| Common Buttercup | Ranunculus acris | Crowfoot |
| May-Apple | Podophyllum peltatum | Barberry |
| Common Chickweed | Alsine media | Chickweed |
| Yellow Corydallis | Capnoids flavulum | Fumewort |
| Common Strawberry | Fragaria virginiana | Rose |
| Henbit | Lamium amplexicaule | Mint |
| Field Mustard | Brassica campestris | Mustard |

May 1975

| COMMON | LATIN | FAMILY |
|---------------------------|--------------------------------|-----------|
| Broad leaved Wood Violet | <i>Viola latiuscula</i> | Violet |
| Corn Salad | <i>Valerianella Locusta</i> | Valerian |
| Jack in the Pulpit | <i>Arisaema triphyllum</i> | Arum |
| Star of Bethlehem | <i>Ornithogalum umbellatum</i> | Lily |
| Spring Avens | <i>Geum vernum</i> | Rose |
| White Roses | <i>Rosa</i> | Rose |
| White Clover | <i>Trifolium repens</i> | Pea |
| Spring Vetch | <i>Vicia sativa</i> | Pea |
| Cleavers | <i>Galium Aparine</i> | Madder |
| English Plantain | <i>Plantago lanceolata</i> | Plantain |
| Sheep Sorrel | <i>Rumex Acetosella</i> | Buckwheat |
| Red Clover | <i>Trifolium pratense</i> | Pea |
| King Devil/Field Hawkweed | <i>Hieracium pratense</i> | Chickory |
| Smaller Hop Clover | <i>Trifolium procumbens</i> | Pea |
| Deptford Pink | <i>Dianthus Armeria</i> | Pink |
| Cow-herb-Cockle | <i>Vaccaria Vaccaria</i> | Pink |
| Bladder Champion | <i>Silene latifolia</i> | Pink |
| Curled Dock | <i>Rumex crispus</i> | Buckwheat |
| Balsam Ragwort | <i>Senecio pauperculus</i> | Thistle |
| Alsike Clover (Pink) | <i>Trifolium hybridum</i> | Pea |
| Yellow Oyster Plant | <i>Trapogon Major (hybrid)</i> | Chickory |

June 1975

COMMON

Field Garlic
Daisy Fleabane
Yellow Moth Mullein
Ox-eye Daisy
Mayweed
Yarrow
Hop Clover
Yellow Wood Sorrel
White Moth Mullein
Basil
Scarlet Pimpernel
Venus Looking-Glass
Day Lily
Chickory
Hedge Bindweed
Honestwort
White Sweet Clover
Rough Avens
Japanese Honeysuckle

LATIN

Allium vineale
Erigeron annuus
Verbascum Blattaria
Chrysanthemum Leucanthemum
Anthemis Cotula
Achillea Ptarmica
Trifolium Agrarium
Xanthoxalis stricta
Verbascum Blattaria
Clinopodium vulgare
Anagallis arvensis
Specularia perfoliata
Hemerocallis fulva
Cichorium Intybus
Convolvulus repens
Deringa Canadensis
Melilotus alba
Geum virginianum
Lonicera japonica

FAMILY

Lily
Thistle
Figwort
Thistle
Thistle
Pea
Wood Sorrel
Figwort
Mint
Primrose
Bellflower
Lily
Chickory
Morning-Glory
Carrot
Pea
Rose
Honeysuckle

August 1975

| COMMON | LATIN | FAMILY |
|--------------------------|-------------------------|--------------|
| Climbing False Buckwheat | Tiniaria scandens | Buckwheat |
| Buckwheat | Fagopyrum Fagopyrum | Buckwheat |
| Slender Ladies' Tresses | Ibidium gracile | Orchid |
| Mistflower | Eupatorium coelestinum | Thistle |
| Horse Nettle | Solanum carolinense | Potato |
| Spurge (Milk Purslane) | Chamaesyce maculata | Spurge |
| Wild Bean | Phaseolus polystachyus | Pea |
| Smooth Ground-Cherry | Physalis subglabrata | Potato |
| Bush Clover (Foreign) | | |
| Virginia Knotweed | Tovara virginiana | Buckwheat |
| Agrimonies | Agrimonia | Rose |
| Heal-All | Prunella vulgaris | Mint |
| Buttonweed | Diodia Teres | Madder |
| Great Ragweed | Ambrosia trifida | Ragweed |
| Common Ragweed | Ambrosia elatior | Ragweed |
| Rough Bedstraw | Galium asprellum | Madder |
| Common Plantain | Plantago major | Plantain |
| Spotted Touch-me-nots | Impatiens biflora | Jewel-weed |
| Asiatic Day Flower | Commelina communis | Spiderwort |
| Wild Carrot | Daucus carota | Carrot |
| Common Mullein | Verbascum thapsus | Figwort |
| Least Hop Clover | Trifolium dubium | Pea |
| Early Goldenrod | Solidago juncea | Thistle |
| Pokeweed | Phytolacca americana | Whitlow-wort |
| Flowering Spurge | Tithymalopsis corollata | Spurge |

September 1975

| COMMON | LATIN | FAMILY |
|--------------------------|----------------------------------|--------------------|
| Germander | <i>Teucrium canadense</i> | Mint |
| Blue Lettuce | <i>Lactuca</i> | Chickory |
| Hoary Tic Trefoil | <i>Meibomia canescens</i> | Pea |
| Wild Potatoe Vine | <i>Ipomoea pandurata</i> | Morning Glory |
| Bur Cucumber | <i>Sicyos Angulatus</i> | Gourd |
| Knotweed | <i>Polygonum prolificum</i> | Buckwheat |
| Common Burdock | <i>Arctium minus</i> | Thistle |
| Clammy Ground Cherry | <i>Physalis heterophylla</i> | Potato |
| Pilewort, Fireweed | <i>Erechtites hieracifolia</i> | Thistle |
| Rough-fruited Cinquefoil | <i>Potentilla recta</i> | Rose |
| Hairy Milkweed | <i>Asclepias pulchra</i> | Milkweed |
| Clammy Cuphea | <i>Parsonsia petiolata</i> | Meadow-Beauty |
| Field Thistle | <i>Cirsium discolor</i> | Thistle |
| Bull Thistle | <i>Cirsium lanceolatum</i> | Thistle |
| Indian Tobacco | <i>Lobelia inflata</i> | Lobelia |
| Sweet Everlasting | <i>Gnaphalium obtusifolium</i> | Thistle |
| Radish | <i>Raphanus satevus</i> | Mustard |
| Jimsonweed | <i>Datura Stramonium</i> | Potato |
| Horseweed | <i>Leptilon canadense</i> | Thistle |
| Carolina Elephant's Foot | <i>Elephantopas Carolineanus</i> | Thistle |
| Yellow Wild Lettuce | <i>Lactuca canadensis</i> | Chickory |
| Slender 3-seeded Mercury | <i>Acalypha virginica</i> | Spurge |
| Long-Bristled Smartweed | <i>Persicaria</i> | Buckwheat |
| Broaddock | <i>Rumex obtusifolius</i> | Buckwheat |
| Begger-ticks | <i>Bidens frondosa</i> | Thistle |
| White Avens | <i>Geum canadense</i> | Rose |
| White Vervain | <i>Verbena urticifolia</i> | Vervain |
| Clearweed | <i>Pilea pumila</i> | Nettle |
| White Heath Aster | <i>Aster ericoides</i> | Thistle |
| Evening Primrose | <i>Oenothera biennis</i> | Evening Primrose |
| Virgin's Bower | <i>Clematis virginiana</i> | Crowfoot |
| New York Ironweed | <i>Vernonia noveboracensis</i> | Thistle |
| Amaranth | <i>Amaranthus</i> | Amaranth |
| Mugwort | <i>Artemisia</i> | Thistle |
| Lamb's Quarter | <i>Cenopodium album</i> | Goosefoot |
| Erect Knotweed | <i>Polygonum erectum</i> | Buckwheat |
| Common Nightshade | <i>Solanum nigrum</i> | Potato |
| Prickly Mallow | <i>Sida spinosa</i> | Mallow |
| Asparagus | <i>Asparagus officinalis</i> | Lily-of-the-Valley |

Records

Surveys

Weather - (type of equipment)

Management - (Adventure, Watts Branch)

Long Range Management - (trails, habitats, etc.)

Planning for facility construction - (design)

Use - (permit use area)

Programs - (size, limitations, co-op studies, public, schools, scouts, etc.)

Records - An important part of the "Adventure" program will be the maintenance of a file system for the records that are accumulated there. These records will be useful for documentation, scientific, and educational purposes.

Surveys - A number of surveys can hopefully be initiated to document and catalogue the flora and fauna of the area. These surveys can cover some of the following subject areas:

- a. Ornithological - This survey has already been initiated and in progress for a number of years. Suggest that a compilation of all M.O.S. records for the area be put together for file and reference purposes. This has been a very valuable and worthwhile survey whose worth increases as the survey progresses and new knowledge is gained. Suggest photo file be incorporated into survey for educational purposes.
- b. Mammals - A program to sample and document small mammals has also been instituted on the site. In the coming year, hopefully more student help can be initiated (Hood College, University of Maryland Practicum Program) to continue this program at an accelerated level. Suggest that live trapping and marking of small mammals be continued with a minimum of animals taken as preserved specimens. Direct observation of larger species is probably feasible for larger species documentation.
- c. Herpetological - A cursory sampling was conducted this spring, but no systematic survey of the area has been implemented. Records pertaining to species inherent to the area and seasons that they are active, breeding, etc., should be started. Again it is suggested that preserved specimens be kept at a minimum with emphasis placed on observing live specimens and returning them to area of capture.
- d. Aquatic Life - Water quality testing along with sampling of aquatic life in Watts Branch and Piney Branch will hopefully be started for documentation. Montgomery College can hopefully assist in this activity.
- e. Insects - Although it is impractical to try and survey all insect species at Adventure, specialized studies might be started. Examples are butterflies and moths, large, conspicuous, or interesting insects such as mantids, bees, etc.

- f. Botanical - With the varied types of habitat present at Adventure and along Watts Branch a unique opportunity exists for studying plants of varying types in a realistic sized area. Suggest that records be kept on species found and time of flowering. This has already been done in a limited extent on the Adventure property, but the records need to be assembled. Suggest that photo file also be incorporated into this survey for educational use.
- g. Soil - Possible mapping of area with various soil types could be incorporated into surveys. Soliciting of University of Maryland Agronomy Department might enhance the feasibility of this project.

Weather - The keeping of accurate weather records are important as analytical tools in many of the studies now being carried out at Adventure. Suggest equipment for recording basic weather data to be installed at site. Self recording instruments would probably be more feasible for keeping daily records year round.

Management - Suggest prescribed plantings be started this year. These plantings should be limited in extent to those which will enhance wildlife potential, but at same time preserve the open look at Adventure. Since the majority of the Watts Branch area is wooded, it is important to keep the Adventure tract open to provide a variety of habitats. Species native to the area will be the only plants considered. The prescribed mowing schedule will be adhered to with two (2) mowings a year (Last week June - first week July, last two weeks August). The mowing schedule might vary somewhat depending upon seasonal variations. It may not be necessary to mow the area twice yearly, but two mowings would be a maximum.

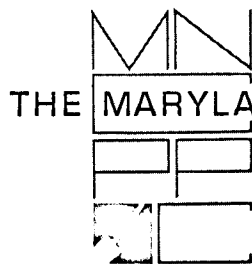
Long Range Management - Some consideration will be given to eventual management of the Watts Branch area. Topics to be considered would include the establishment of a trail system for educational use (consideration of bridle trails), possible crossing area on Watts Branch, management of pine stands. The management of the pine areas are important to maintain wildlife diversity. Hardwoods in these areas should probably be removed. Consideration should be given to maintaining the variety of other habitats found here and the management needed to accomplish doing so.

Facility Design - Consideration will be given to the location and design of the meeting facility proposed for the area.

Use - Use of the area will be open to individuals or groups with a serious intent for conducting systematic studies of the types discussed. Monitoring of the studies to avoid overuse or conflicting times, locations, etc. can probably be accomplished by the issuance of permits.

Programs - Programs will be more specific than general in subject matter and will be concerned with , but not limited to, the subject areas already discussed. Group size should be kept small with a

maximum of 10-12 individuals. Cooperative programs of research can be considered with area colleges. Programs will also be available to scouts, schools, civic groups, etc. All programs must be coordinated and scheduled through the naturalist.



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue • Silver Spring, Maryland 20907

(301) 589-1480

MINUTES FOR "ADVENTURE"

BOARD OF TRUSTEES MEETING
January 26, 1977

A meeting of the Board of Trustees of "Adventure" was held at "Adventure" at 7:00 PM on January 26, 1977. Present were Mrs. Jane Knox, Mrs. Margaret Donnal, Mr. Chandler Robbins, Mr. Jim Thomas and Mr. John Baines.

Mrs. Donnal reported on neighborhood participation at the banding station. It was pointed out that a number of Potomac residents had spent considerable time in helping and learning at the banding station. The number of helpers has been increasing with each banding season. Optimism was expressed that even more of the neighborhood people would become involved in "Adventure's" future programs.

John Baines reported on the progress of the current fencing and parking lot projects. Explanation was given for the type of fence selected and the location and use of the parking lot. With the addition of the new parking lot, the necessity for roadside parking would be lessened.

Selection of mist net locations to avoid horse traffic was discussed but no firm decisions were made to solve this problem.

It was brought to the attention of the board by Mrs. Knox that housing construction had been approved for the Potter property which adjoins the north border of the "Adventure" property. Mrs. Donnal renewed discussion on possible plantings to buffer this border from the future construction. All agreed that planting should probably be done before the construction begins.

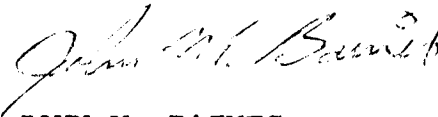
Possible use of the parking area for winter banding was also discussed. This would necessitate screening of the area with some type of planting. Cedar trees were a possible candidate for this screening.

John Baines explained the status of the building of a facility for the coming fiscal year, but assured members that MNCPPC would continue to support the "Adventure" program.

As a goodwill gesture to the surrounding community, it was proposed that an "Open-House" be given during the spring, 77 banding season. Invitations would be sent to immediate neighbors in the community who had expressed an interest or concern. All agreed that this would be good PR for the program.

The status of recently aquired property along Watts Branch was presented at the meeting as an update. The possibility of aquiring the Case property which is adjacent to "Adventure" was also discussed.

The meeting adjourned with a note of cooperation for all involved.


JOHN M. BAINES
Park Naturalist



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue • Silver Spring, Maryland 20907

(301) 589-1480

26 February, 1979

MINUTES FOR "ADVENTURE"
BOARD OF TRUSTEES MEETING
February 22, 1979

A meeting of the Board of Trustees of "Adventure" was held at 7:00 P.M. on Thursday, February 22, 1979. Present at the meeting were: John Baines, Karl Noyes, Jim Thomas (MNCPPC), Margaret Donald, Chandler Robbins, Kathleen Klimkiewicz, and Evan Hannay (M.O.S.). Three major topics were discussed at the meeting:

1. Use of "Adventure" facility - Plans for use of the building which was formerly the Naturalist Residence were discussed. There are plans for office space, a reference library and bird skin collection room, a meeting room and a small auditorium for showing slides and giving lectures and demonstrations. Future storage areas were also discussed. All present agreed upon the planned use of the facility.

2. Proposed extension of South Glen Road through "Adventure" property - Plans to cut a "new improved" extension of South Glen Road through unit 2 of Watts Branch were discussed. An alternative to the new road would be to widen and improve the existing and current South Glen and Glen Roads. This alternative was decided to be the favorable choice of the Board of Trustees. M.O.S. agreed to draft a letter to this effect that would also state their reasons for the decision. MNCPPC Interpretation & Conservation Division will endorse the letter and add its own comments before forwarding to the Planning Department of MNCPPC.

3. Purchase of the Case property - Purchase of the 5 acres belonging to the Case family and adjacent to "Adventure" was discussed. It was agreed by all that this was an important piece of property to the "Adventure" program. M.O.S. agreed to draft a letter describing its importance and urging its purchase. MNCPPC Interpretation and Conservation Division will endorse and concur with M.O.S. recommendation and forward to Land Aquisition Officer.

The meeting was adjourned at approximately 9:30 P.M.

MARYLAND ORNITHOLOGICAL SOCIETY, INC.



Reply to:

Re: Boundaries of Unit 2,
Watts Branch Stream Valley Park

To: Maryland National Park and Planning Commission

In 1973 plans for development and use of 'Adventure' (former Hostetler property) and Unit 2, Watts Branch Stream Valley Park, the Trustees of Adventure for the Maryland Ornithological Society recommended that the planned take-lines for the park include the 5-acre parcel of land on the North side of Glen Road between Glen Road and the eastern extension of 'Adventure' in this area.

On the basis of the past six years of observation and active banding on 'Adventure', Maryland Ornithological Society trustees would like to strongly urge that this property be included in proposed park boundaries. The steep south- and east-facing slopes in this area are rich in wildlife, and are particularly important from the standpoint of bird activity. The property forms a ridge extending into a bend of Watts Branch that, from our observation and analysis, is heavily used by migrating birds, especially by warblers, vireos and thrushes. In two normal fall seasons, when net-hours of banding on the 'Adventure' portion of this ridge were 29% of total banding activity, the area produced 43% of all warblers and thrushes, and 40% of all vireos banded. The area is also heavily used by resident woodpeckers, chickadees, and titmice.

Nets on this ridge have also produced many of the unusual birds (ones that have been seen only once or twice in the course of banding over 27,000 birds). These 'rarities' include: Saw-whet Owl, Whip-poor-will, Chuck-will's-widow (reported only once before in Montgomery County, and never before banded west of Chesapeake Bay), Bewick's Wren, Philadelphia Vireo, Prothonotary Warbler, Lawrence's Warbler, and a hybrid Bay-breasted/Blackpoll Warbler (reported only once before in ornithological literature).

Again, we strongly urge that the park take-lines be amended to include the property referred to above.

Submitted by:

Margaret T. Donnalld
Chandler S. Robbins

Chandler S. Robbins

Trustees of Adventure for the Maryland Ornithological Society

March 13, 1979

April 27 1979

00:21-05:51

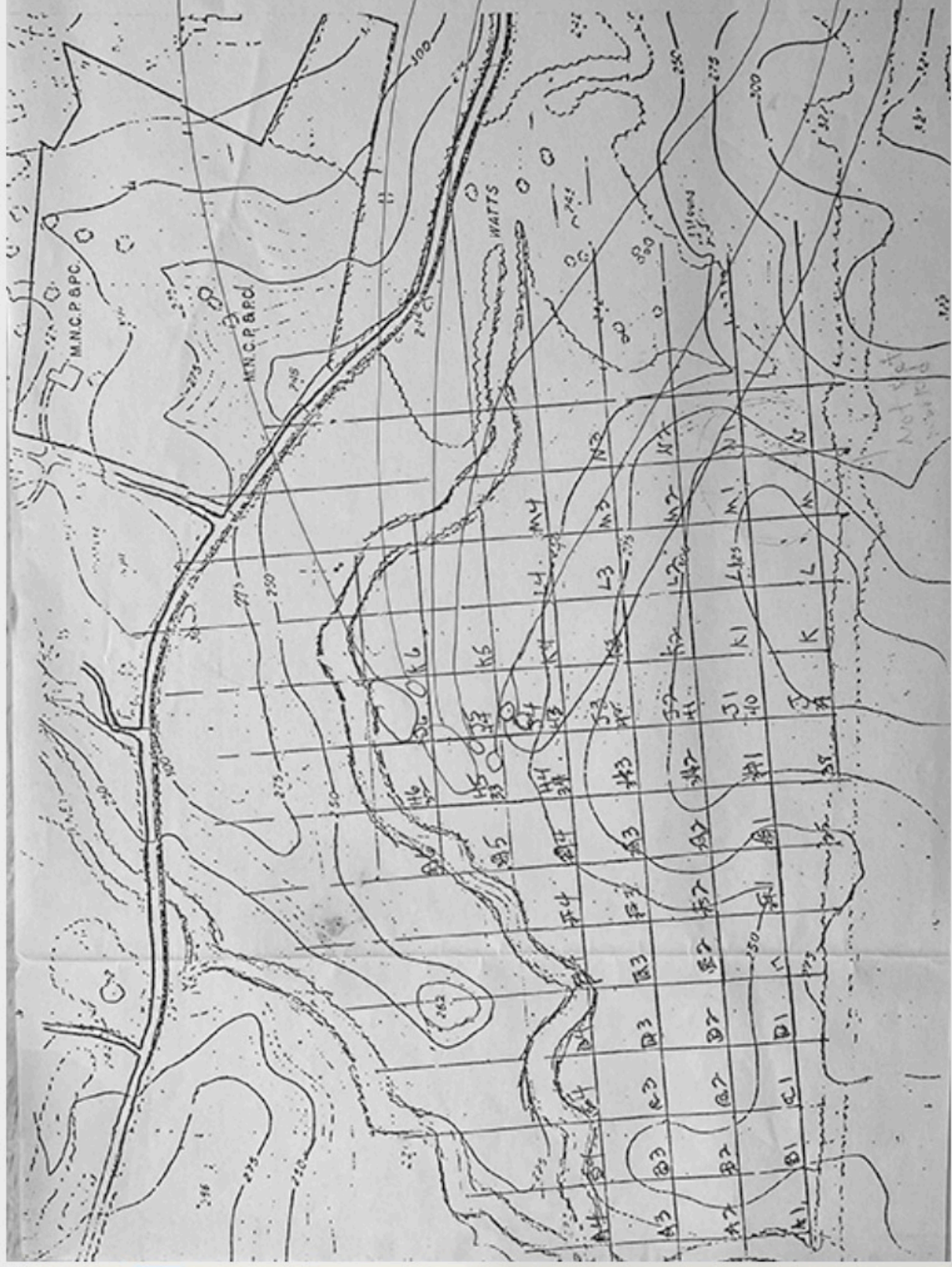
Rich + Tara Barney

G. 11 over the ground
greater chickweed
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Realism

Toothwood?



May 9, 1979 10:05-11:30am

J-6

1. Star chickweed
2. May apples
3. Spring beauty
4. Gill-over-the-ground
5. Jack-in-the-pulpit
6. Garlic mustard
7. Cleavers
8. Wild Geranium

H-6

1, 2, 3, 4, 5, 8

9. Wild Ginger

10. Small-flowered crowfoot?

11. Trout lily (leaves)

12. False Solomon's Seal

G-5

2, 5, 7, 9, 10, 11

13. Common violet

14. Rue anemone

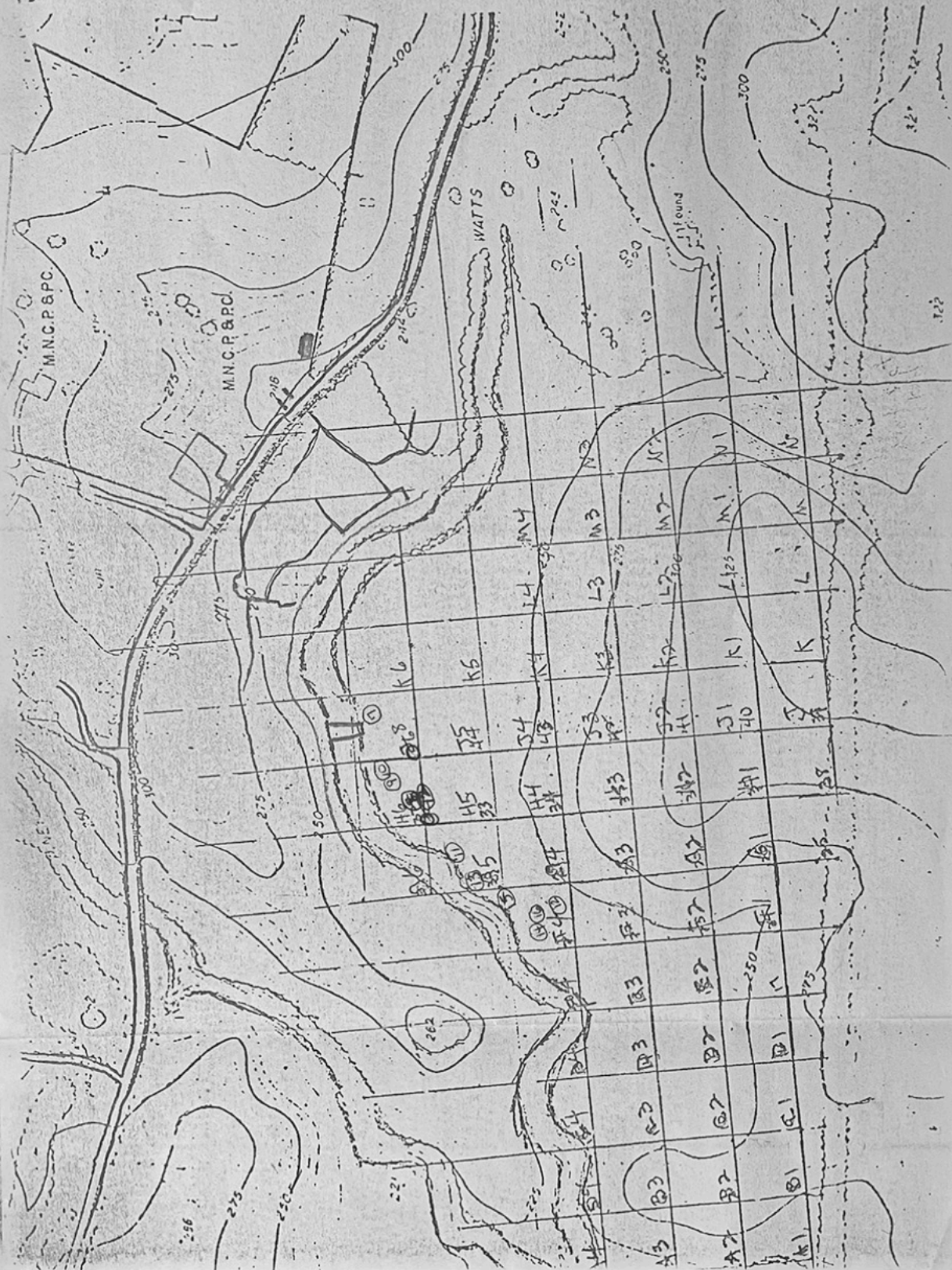
15. Hooked crowfoot

16. Swamp cabbage

F-4

11, 13, 14, 15, 16

Tara Bray



4-6-83

Margaret,

Here are field sheets for 1978-81 Adventure
Winter Bird counts. They are copies of originals
returned to John Norrell, who has the other
field sheets, I believe.

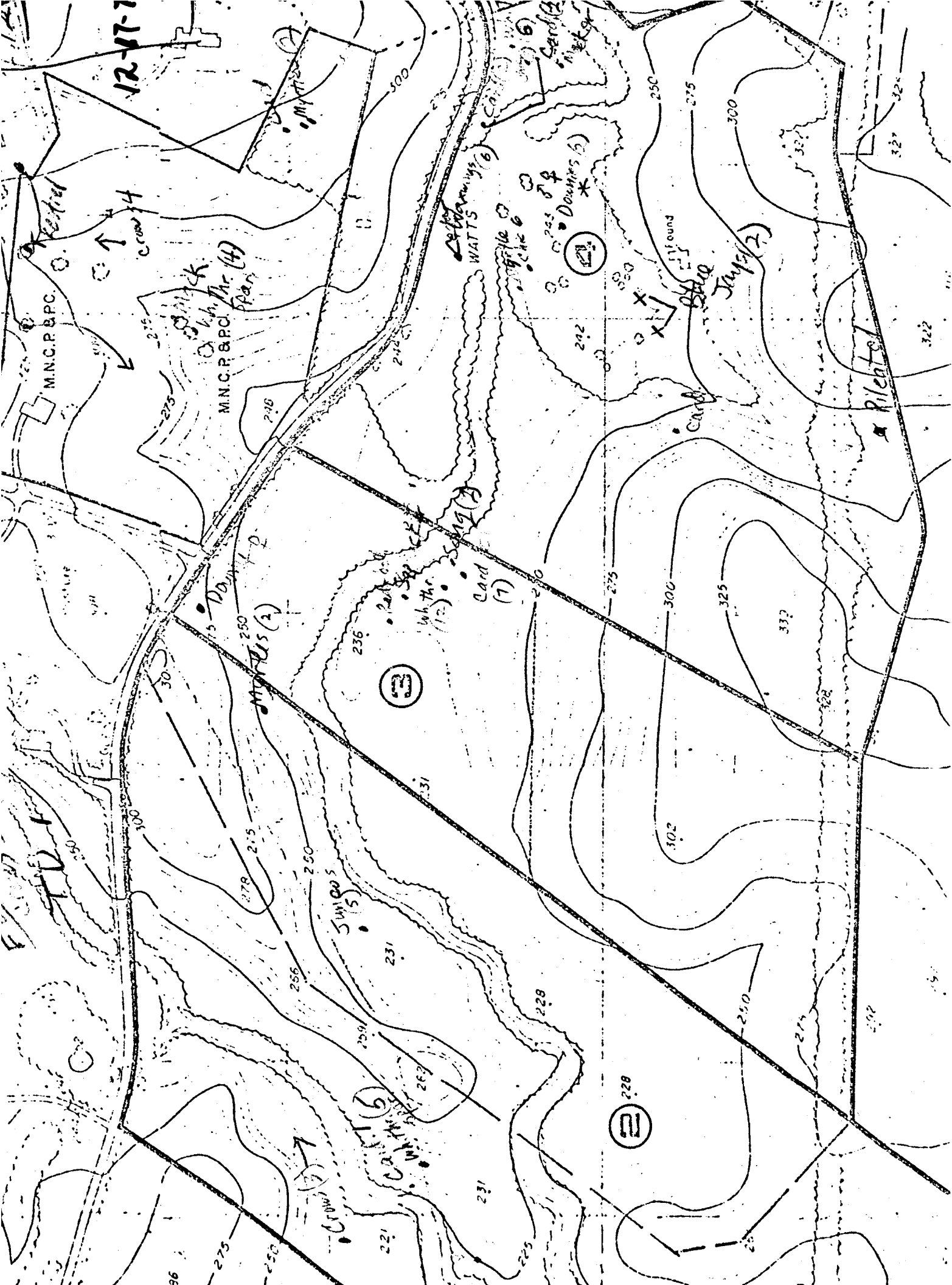
Jim Wilkinson

Adv. ~~WBC~~
W.B.C.

1981

~~Carolina Wren~~ 4

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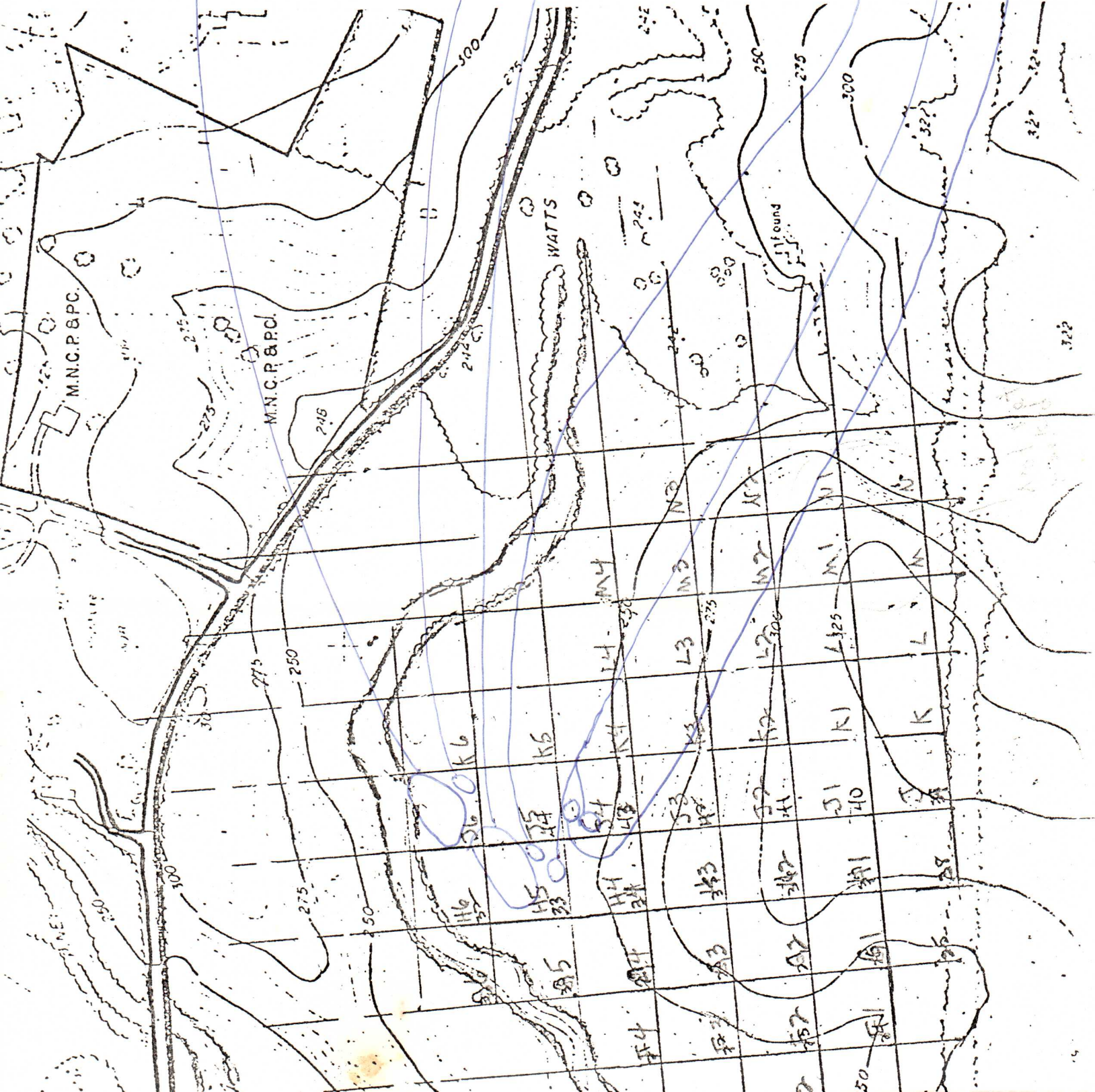
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April 27 1979

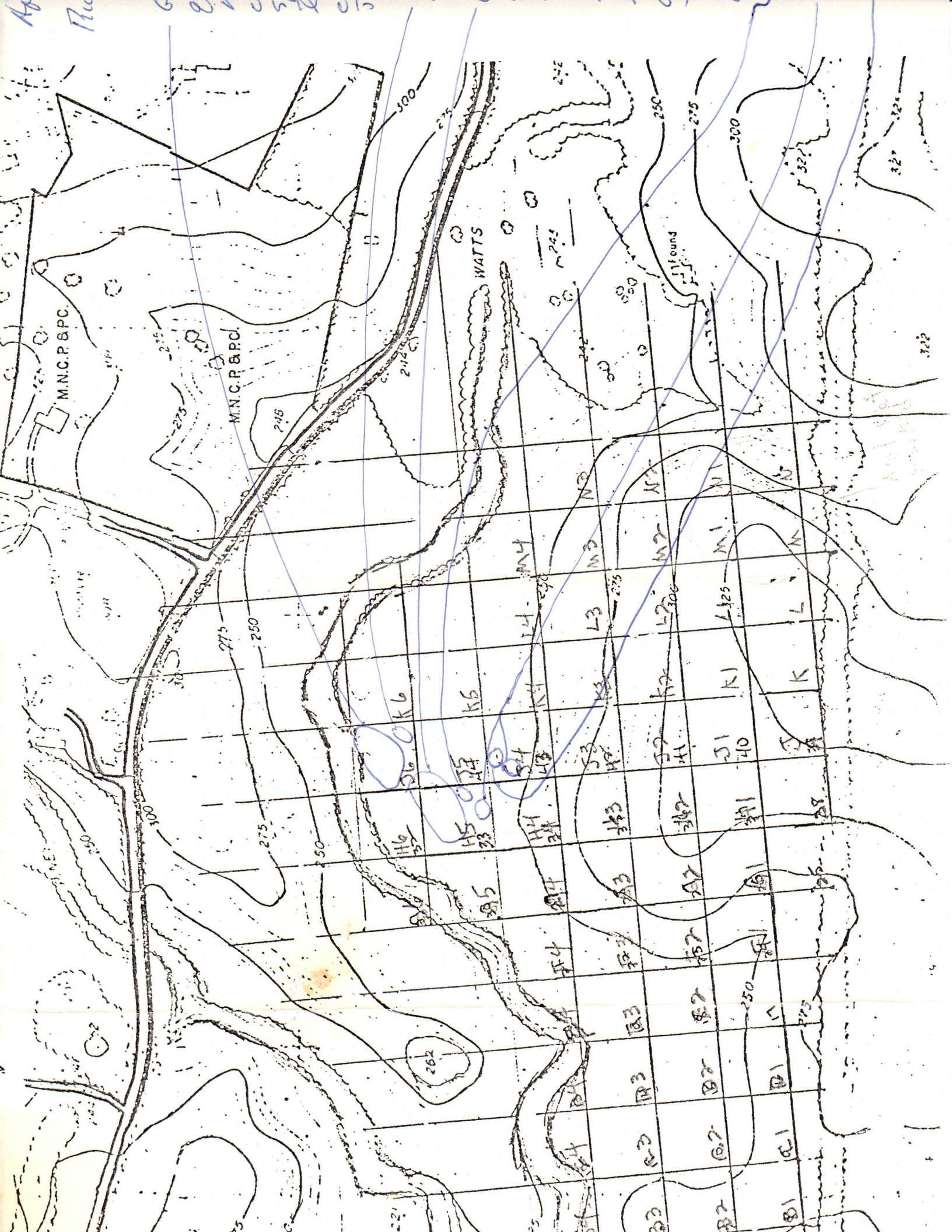
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Rich + Tana Berry



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common violet
spring beauty
broad lily-yellow
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Jack in the pulpit
garlic mustard

Gill over the ground
greater chickweed
may apple
common violet
spring beauty
broad lily-yellow
cleome
Jack in the pulpit
wild ginger
marsh violet?
pale anemone
Toothwort?



May 9, 1979 10:05-11:30am

J-6

1. Star chickweed
2. May apples
3. Spring beauty
4. Gill-over-the-ground
5. Jack in the Pulpit
6. Garlic mustard
7. Cleavers
8. Wild Geranium

H-6

- 1, 2, 3, 4, 5, 8

9. Wild Ginger

10. Small-flowered crowfoot?

11. Trout lily (leaves)

12. False Solomon's Seal

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13. Common violet

14. Rue anemone

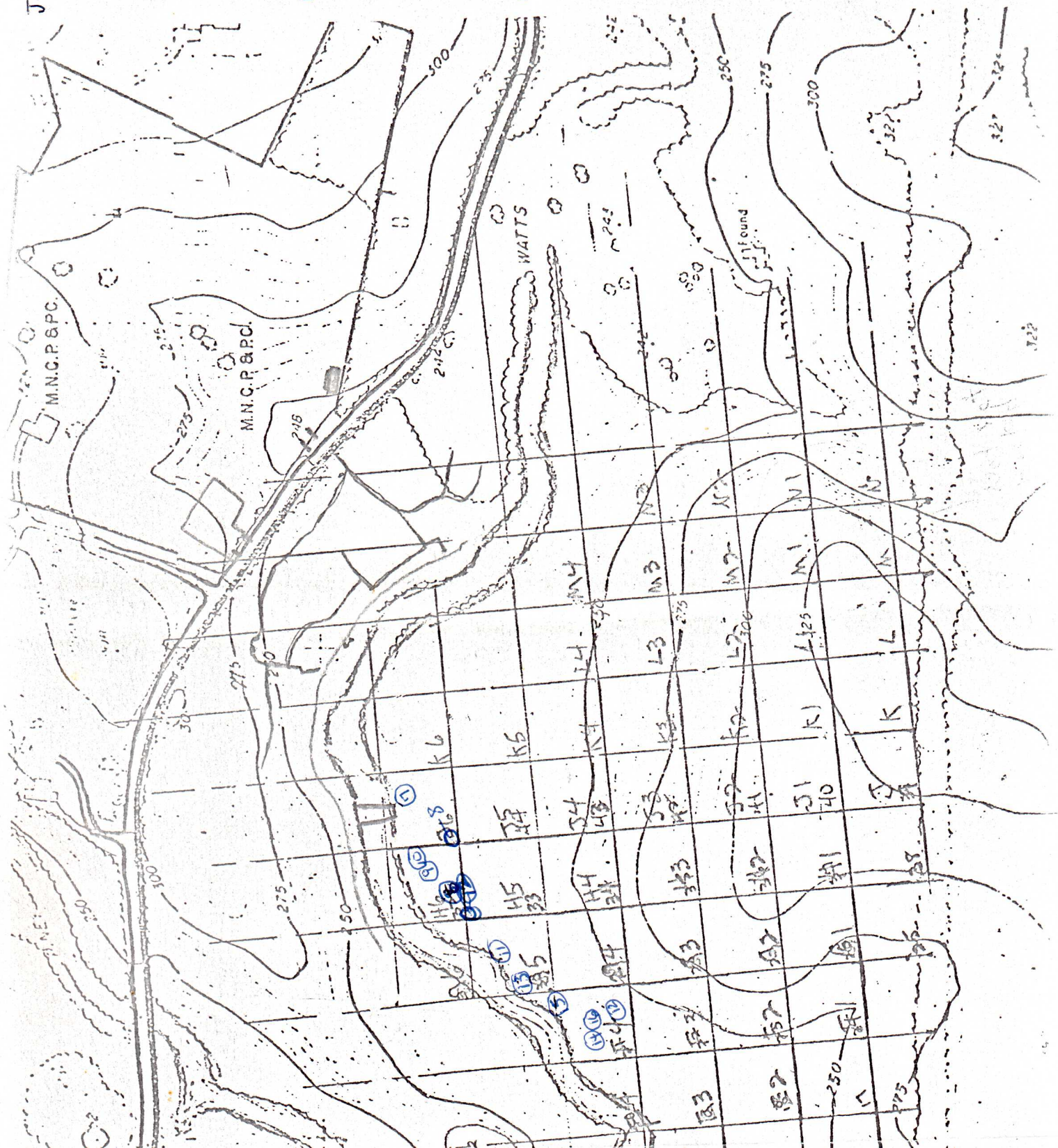
15. Hooked crowfoot

16. Swamp cabbage

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F-4

- 11, 13, 14, 15, 16

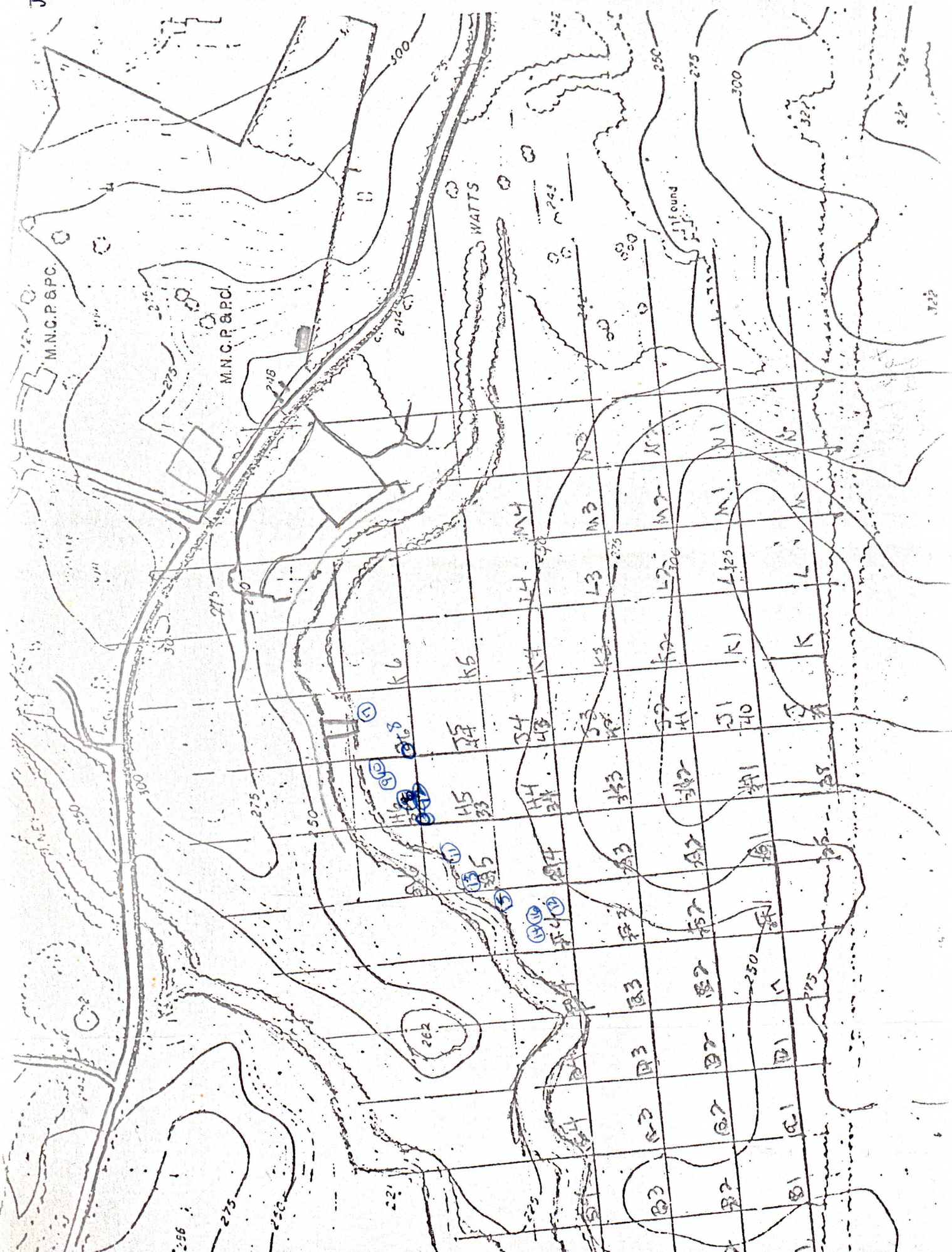


Tara Bray

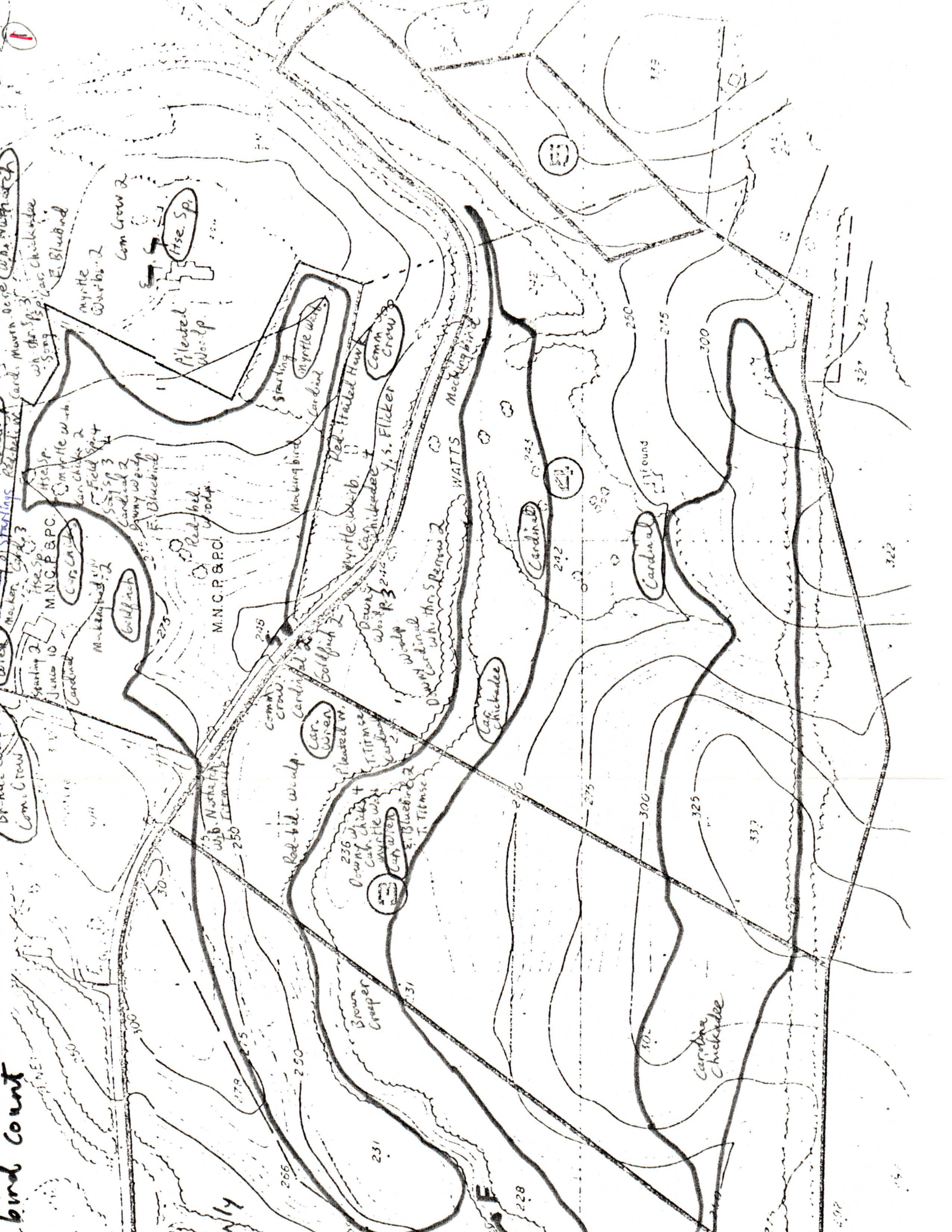
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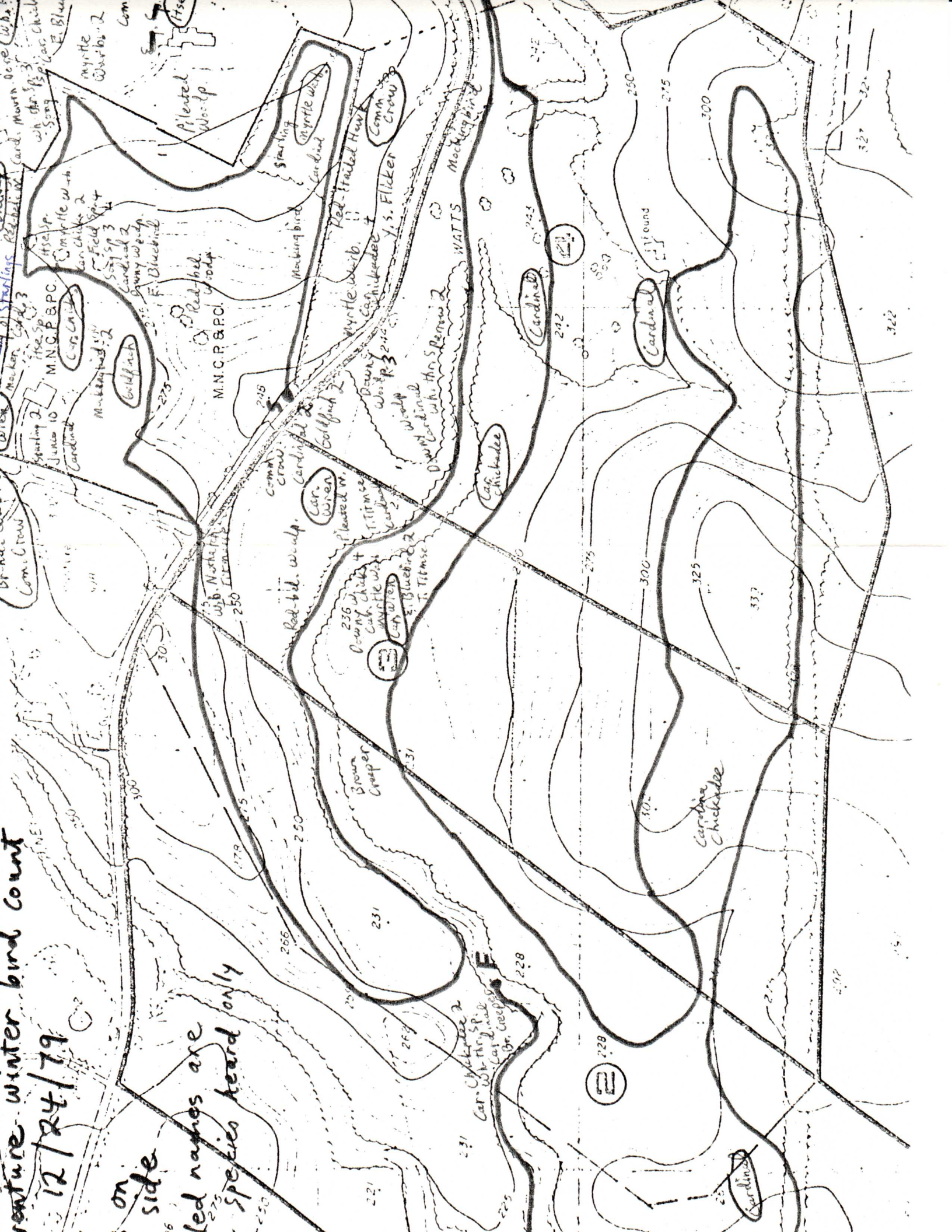


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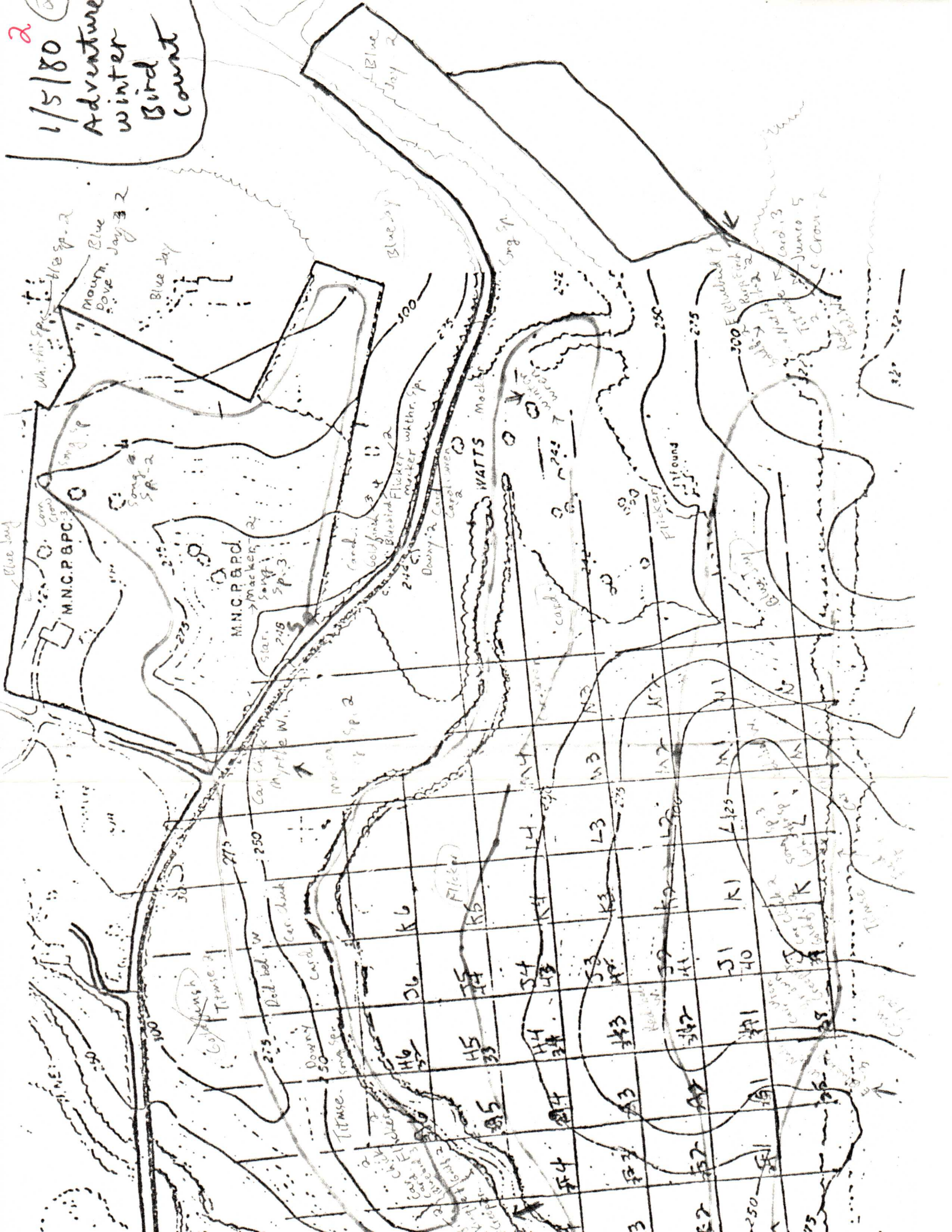


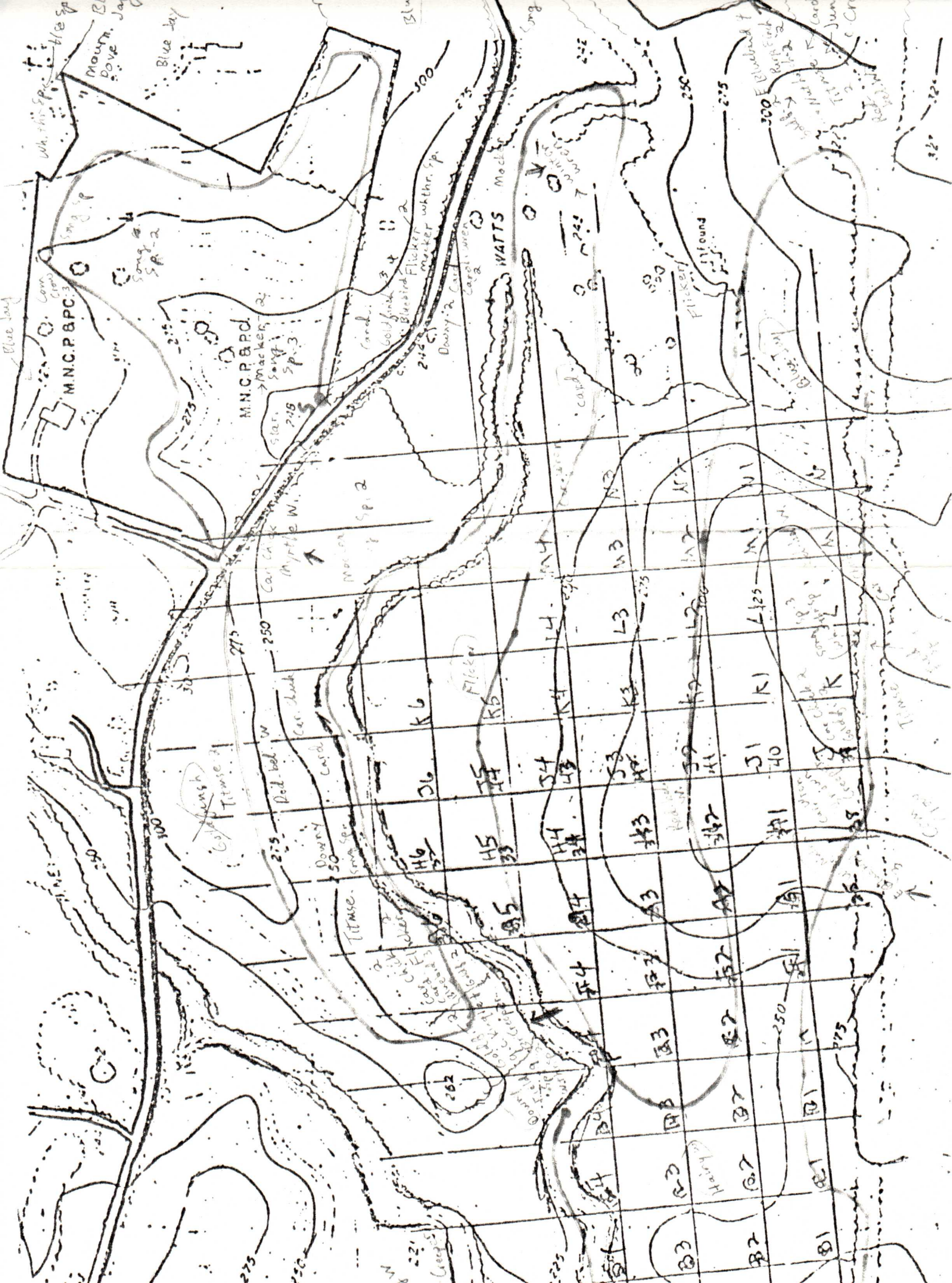
12/24/79

led names are
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1/5/80
Adventure
winter
Bird
Count

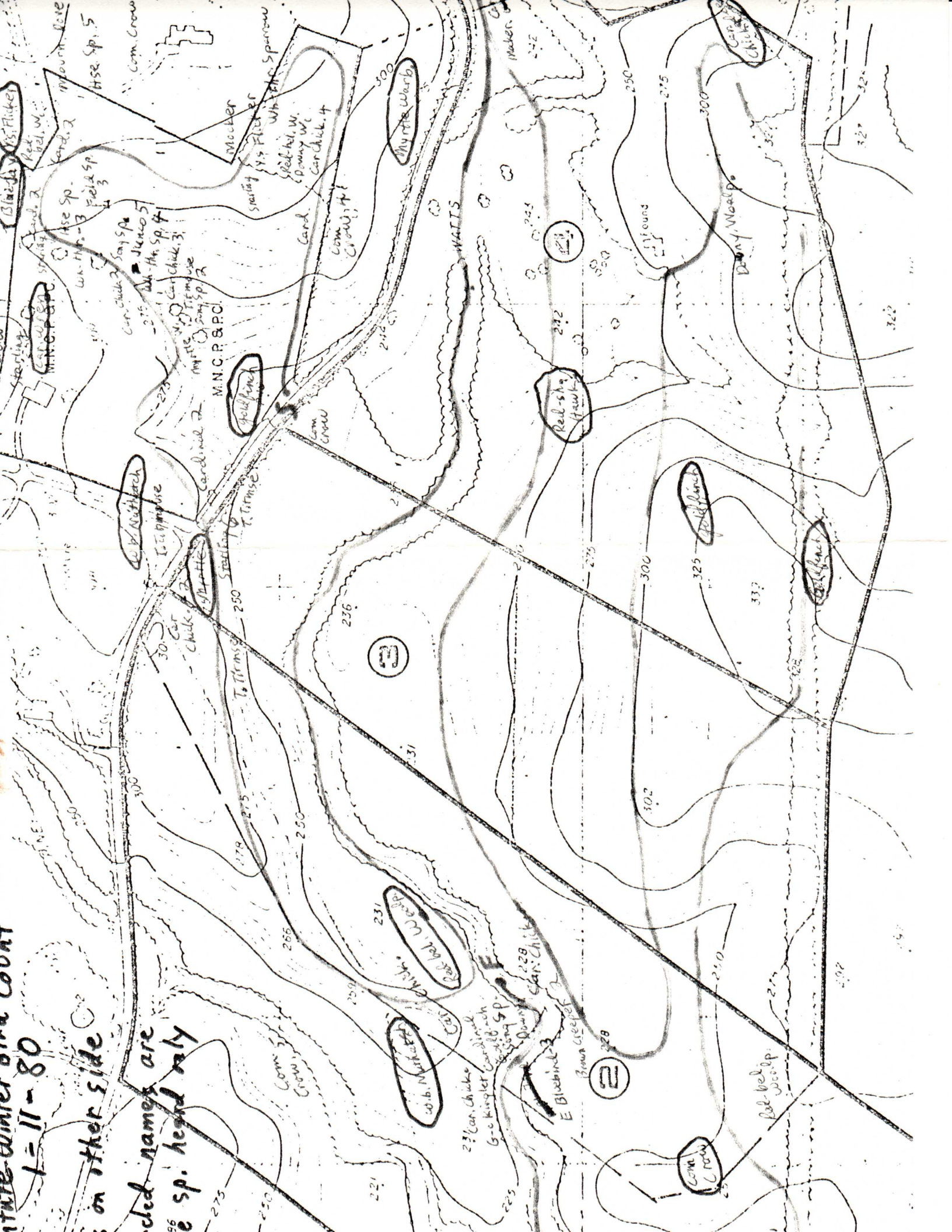


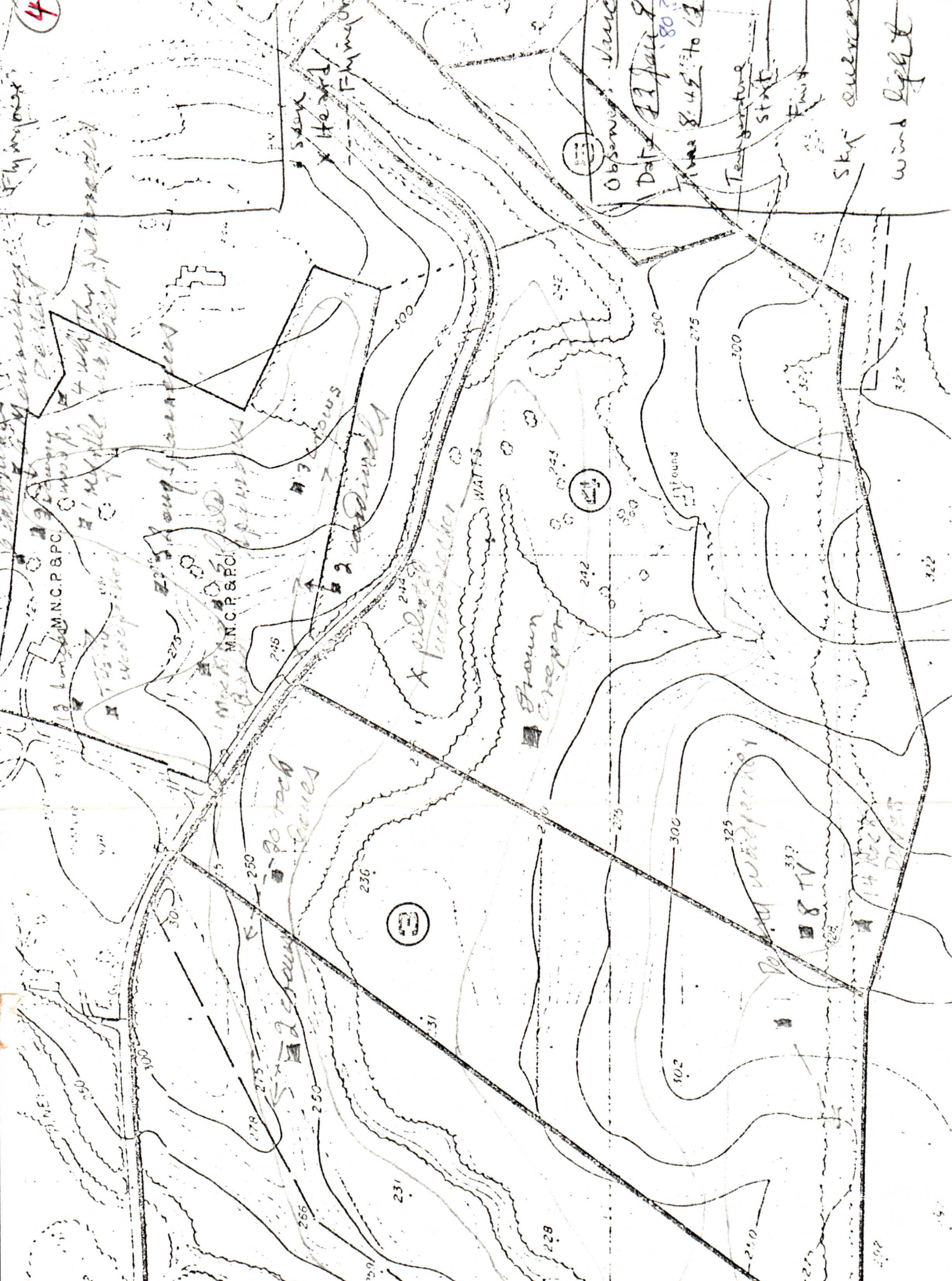


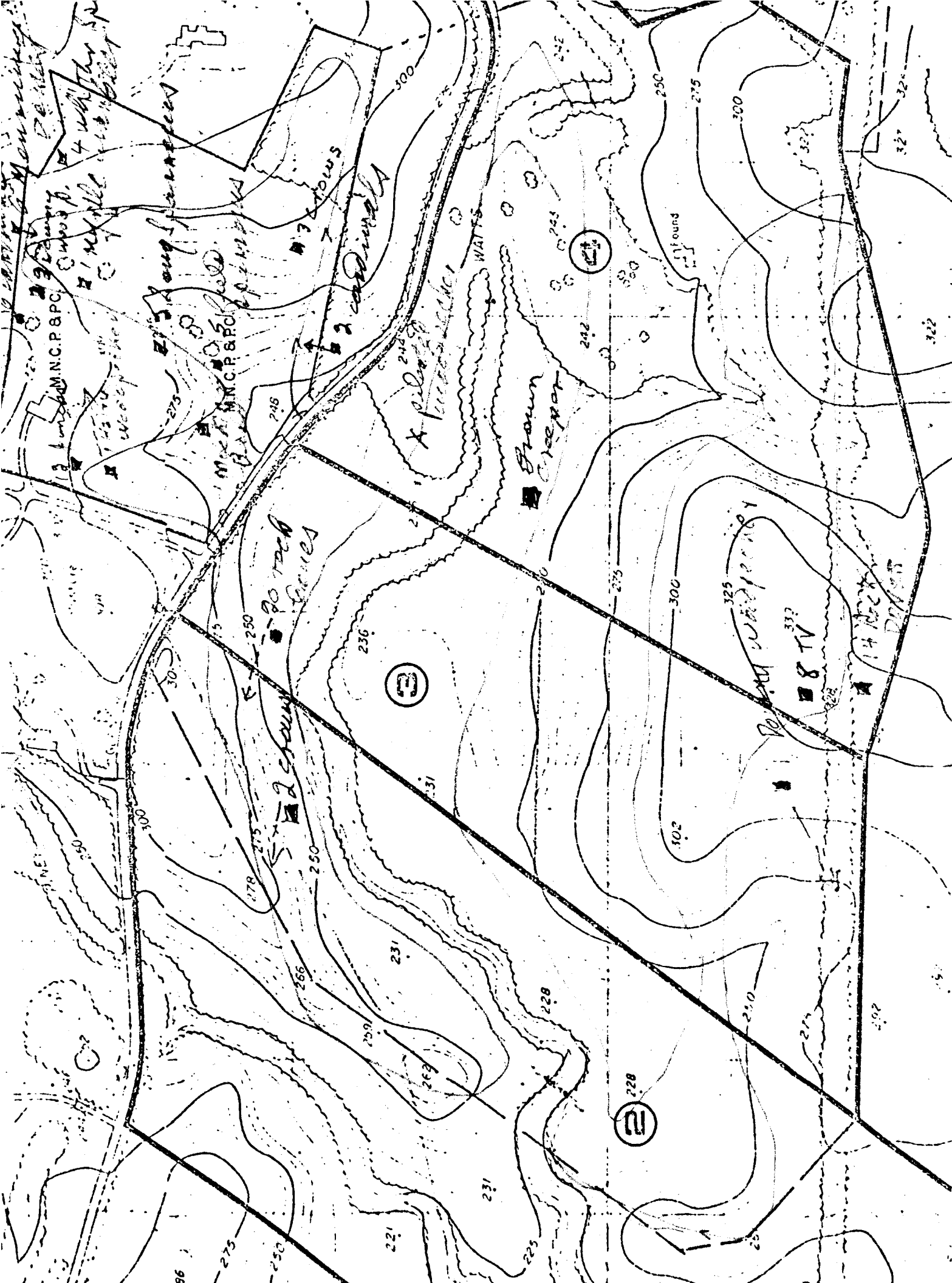


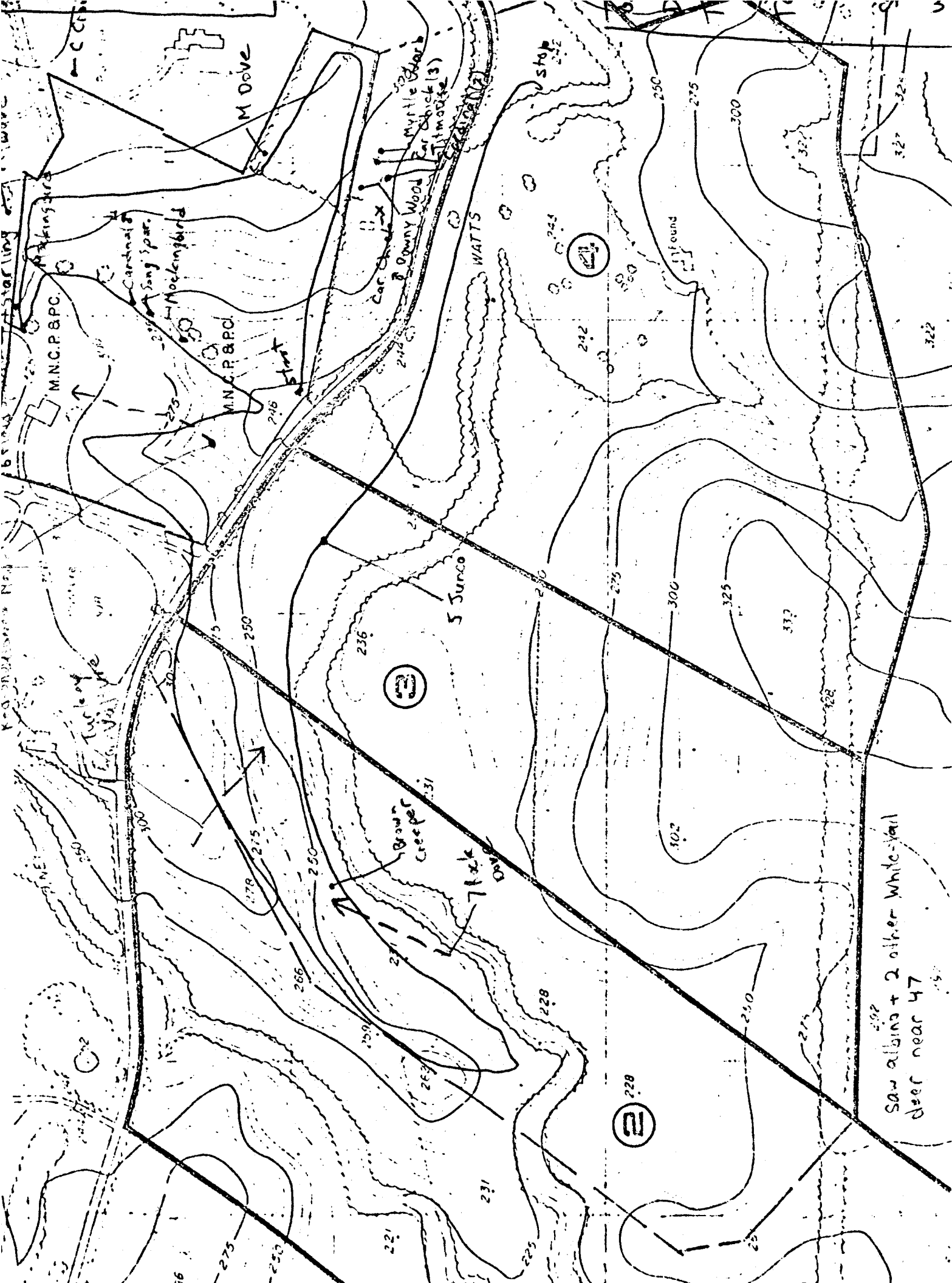
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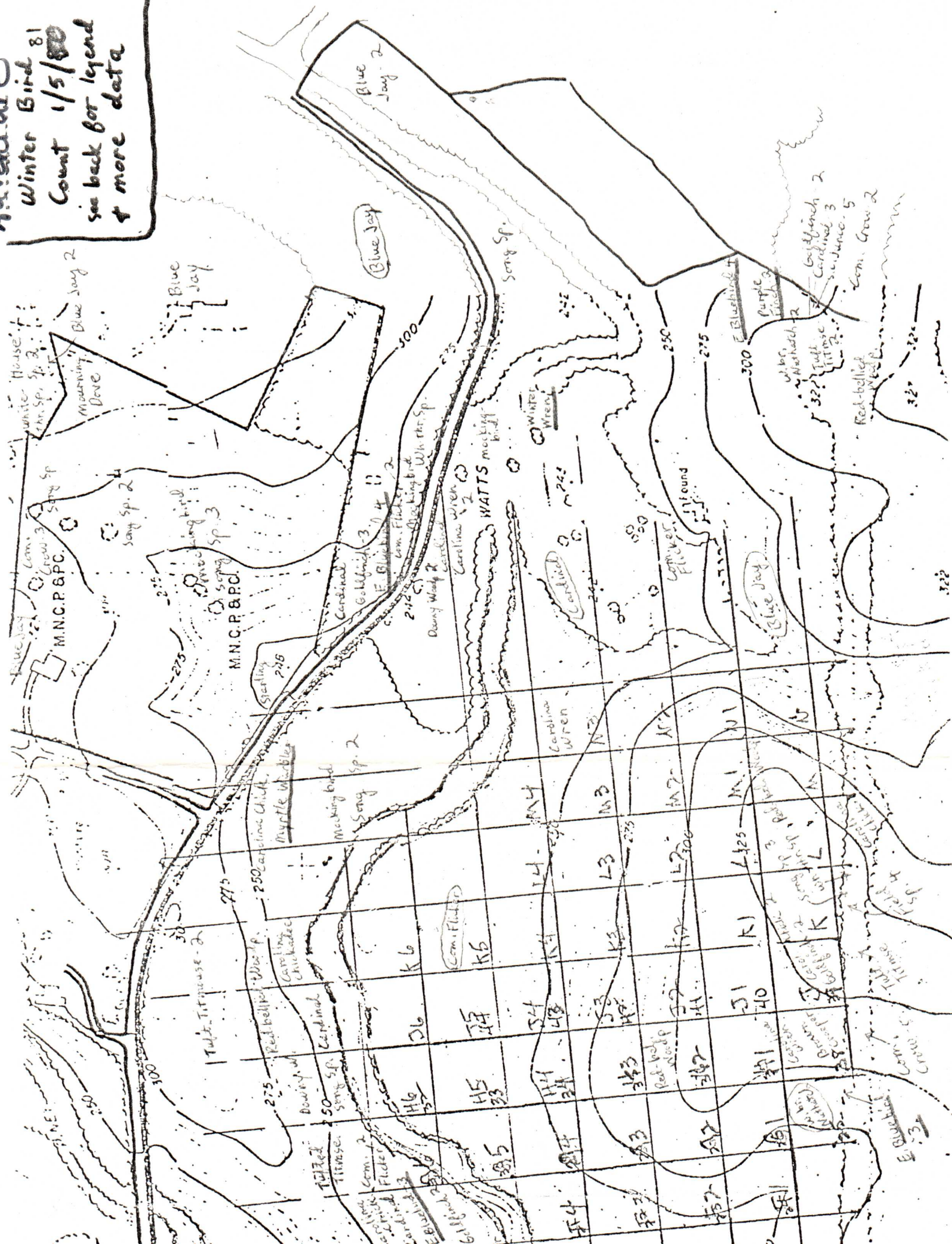


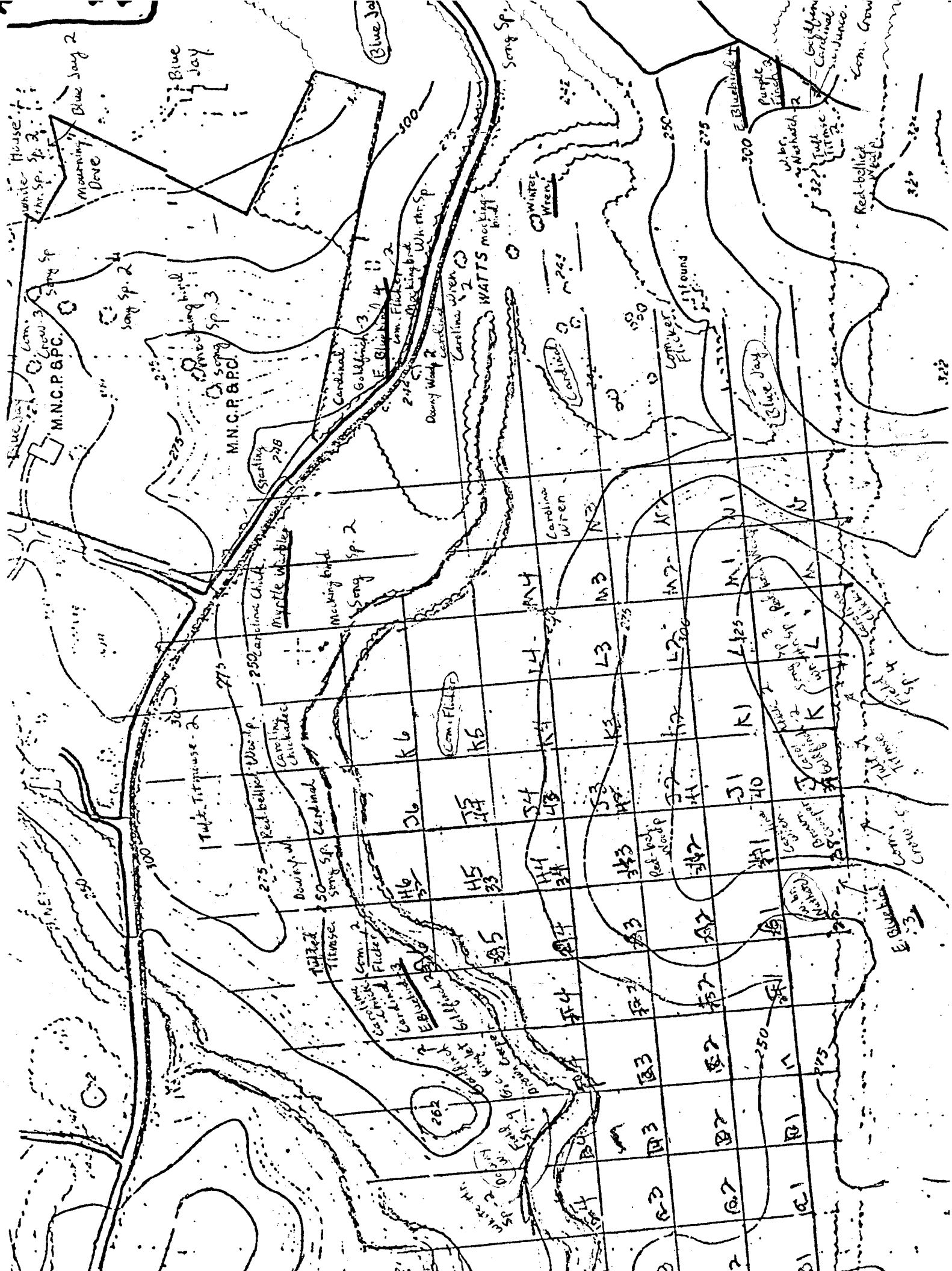


292
Saw albino + 2 other White-tail
deer near 47

[illegible]

Adventure
 Winter Bird 81
 Count 1/5/80
 see back for legend
 & more data





Margaret: Please let me know -
by December 15 if possible -
what you think of this.

November, 1981

Jim Wilkinson
1602 Park Grove Ave.
Catonsville, Md. 21228
301-788-4763

Possible Outline for Adventure Winter Bird Count Paper { *for Am. Birds*
or
Md. Birdlife

- I. Introduction- paper presents the results of winter bird counts during the 1970s at the Adventure MOS sanctuary. These results will reveal:
- Relative abundance of wintering bird species for every year and averaged out over the entire census period (1973-80). 1981 data shown for comparison only since there was just one count in that year and the results might be misleading.
 - Location- some species were observed at the same places in the study area on most counts in a particular year and even in more than one year they would be found in the same areas.
 - Weather effects.
 - Harsh winters such as 1977- effects on all species and on selected ones like Carolina Wren.
 - Wind effects
 - Habitat changes and their effects on bird populations such as overgrowth of Watts Branch floodplain on Swamp Sparrow populations.

II. Methods

- Survey site- a brief description given. For more detail and photographs reader will be referred to Richard Bray's article in Dec. 1979 Maryland Birdlife (35: 88-97).
- Census
 - Counts averaged 3.5-4.5 hours on foot following route laid out in 1973 by John Norvell.
 - There were an average of 6 counts a year.
 - Counts made from second half of Dec. to late Feb. (Dec. 15 to Feb. 24 are the extreme dates). The first count every (?) year coincided with the Seneca Xmas Count.
 - Most counts started between 0700 and 0900 and ended by 1300. Dates chosen to exclude late Fall and early Spring migrants and to end counts before singing of winter residents starts (Robbins and Bystrak, 1974)*.
- Tabulation of data.
 - Used summaries in American Birds and field sheets to list number of individuals for each species for each year of the survey (1973-80). For 1981, species were listed as present or absent.
 - 8-year means for all species calculated using birds per 100 acres.
 - Species listed in order from largest 8-year mean to smallest; thus showing levels of abundance from those species likely to be seen in large numbers every winter to those that might only be recorded once.
 - Also listed by year and 8-yr. mean: total birds/100 acres, total birds/sq. km., total species, and number of counts.
 - Species only recorded as flying over census tract were listed separately.

* Robbins, C.S. and D. Bystrak. 1974. Winter Bird Survey of Central Maryland, U.S.A. Acta Ornithologica. 14: 254-271.

III. Results and discussion (refer to Table 1 that is attached).

- A. Relative abundance of each species in terms of birds per 100 acres for 1973-80 and 8-year means. 1981 results listed as 'X' for a species being present (used for comparison only). Also shown in Table 1 are total birds per 100 acres, total birds per sq. km., total species and number of counts (values for each year and 8-yr. average). Perhaps some mention here of the rarest species and most abundant ones?
- B. Location- I used 1979, 1980 and 1981 field sheets to find sightings of certain species that were observed in the same place and/or similar habitat all 3 years (and presumably before. Some examples follow:
 Mourning Dove- only in NE corner of Adventure property near houses, visits feeders there.
 Belted Kingfisher- always along Watts Branch as expected.
 Winter Wren- in brushy spot near site of former Glen Mill in 1980 and 1981.
 Golden-crowned Kinglet- near end of route just N of Watts Branch and once near Glen Road bridge.
 Yellow-rumped Warbler- in woods along Glen Road, near site of banding station, pine grove on hill E of station, and along hedgerow, feeds on Poison Ivy berries in these spots.
- C. Weather effects
 1. Harsh winters of 1977 and 1978- species totals did not decline but numbers of individual birds dropped sharply despite similar number of counts in mild and harsh winters. For the mild winters of 1973-76 there was a mean of 173 total birds/100 acres vs 90 total birds/100 acres in 1977-78.
 2. Wind- more birds noted in lee areas of floodplain and few birds in meadow or upland woods when a count is done in strong winds. Some sparrows appear to move from hedgerow to sheltered spots along Watts Branch and Glen Road on windy days.
- D. Habitat changes- the absence of Swamp Sparrows since 1978 may be due to overgrowth of marshy spots in Watts Branch floodplain (along sewer line) that species was found in on 1978 and earlier counts. Disappearance of Bobwhite after 1976 may be due to habitat change and cold winters since J. Norvell found coveys on floodplain in 1973-74 but growth of trees there may have made area unsuitable and forced species into meadow where there would be less shelter from weather or predators like the Red-tailed Hawk that was most abundant in the harsh winter of 1978 and would forage over the meadow rather than the woods.
- C.1. cont. Mention decrease or decline of Belted Kingfisher, Carolina Wren, Winter Wren and Golden-crowned Kinglet during harsh winters of 1977-79. Northern birds such as Evening Grosbeak, Purple Finch and Tree Sparrow increase in 1977-78.

Table 1. Birds per 100 Acres in Deciduous Wooded Stream Valley and Meadow ("Adventure"). Species Listed in Order of Decreasing Abundance.

| Species | 8-yr. mean | 1973 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 ¹ |
|------------------------|---------------|------|----|----|----|----|----|----|----|-----------------|
| Starling | 25 | 69 | 17 | 22 | 31 | 10 | 5 | 34 | 10 | X |
| Carolina Chickadee | 15 | 22 | 14 | 24 | 18 | 11 | 8 | 15 | 10 | X |
| Common Crow | 13 | 10 | 14 | 27 | 13 | 14 | 9 | 9 | 9 | X |
| Cardinal | 13 | 16 | 9 | 17 | 11 | 11 | 11 | 17 | 10 | X |
| White-thr. Sparrow | 13 | 9 | 19 | 8 | 11 | 11 | 6 | 34 | 6 | X |
| Slate-colored Junco | 8 | 3 | 17 | 5 | 17 | 6 | 3 | 8 | 8 | X |
| Song Sparrow | 7 | 6 | 9 | 11 | 5 | 5 | 5 | 7 | 6 | X |
| Blue Jay | 5 | 8 | 1 | 14 | 5 | 3 | 1 | 6 | 2 | X |
| Field Sparrow | 5 | 3 | 2 | 3 | 9 | 6 | 6 | 5 | 6 | X |
| Tufted Titmouse | 4 | 8 | 3 | 7 | 6 | 3 | 3 | 2 | 3 | X |
| Carolina Wren | 4 | 5 | 2 | 8 | 9 | 3 | 1 | 1 | 2 | X |
| Downy Woodpecker | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 5 | 5 | X |
| Eastern Bluebird | 3 | 1 | 3 | 5 | -- | 1 | 5 | 2 | 6 | X |
| Bobwhite | 2 | 6 | 6 | -- | 2 | -- | -- | -- | -- | -- |
| Red-bellied Woodpecker | 2 | 2 | 1 | 3 | 2 | 2 | 1 | 2 | 2 | X |
| White-br. Nuthatch | 2 | 3 | 2 | 2 | 2 | + | 1 | + | 2 | X |
| Mockingbird | 2 | + | 1 | 1 | 3 | 2 | 2 | 2 | 3 | X |
| Yellow-rumped Warbler | 2 | -- | -- | 2 | + | + | + | 11 | 2 | X |
| American Goldfinch | 2 | + | + | 7 | + | 1 | 2 | 3 | 5 | X |
| Mourning Dove | 1 | 2 | + | + | 1 | + | 3 | -- | 3 | X |
| Common Flicker | 1 | + | + | 2 | + | + | 1 | 6 | 2 | X |
| Pileated Woodpecker | 1 | 1 | 1 | 2 | 1 | + | + | + | 1 | -- |
| Brown Creeper | 1 | 1 | + | 1 | 1 | -- | + | -- | 2 | X |
| Golden-cr. Kinglet | 1 | 1 | 3 | + | 4 | + | + | -- | 1 | X |
| House Sparrow | 1 | 1 | + | -- | 2 | 3 | 1 | 1 | 3 | X |
| Brown-headed Cowbird | 1 | + | -- | 5 | -- | -- | + | -- | + | -- |
| Purple Finch | 1 | 5 | -- | -- | -- | + | 2 | 1 | + | X |
| Sharp-shinned Hawk | + | -- | + | -- | + | + | + | + | -- | -- |
| Cooper's Hawk | + | -- | -- | -- | -- | + | -- | -- | -- | -- |
| Red-tailed Hawk | + | -- | + | + | + | + | 1 | + | + | -- |
| Red-shouldered Hawk | + | 1 | + | + | + | + | 1 | 1 | + | -- |
| Northern Harrier | + | -- | -- | -- | -- | -- | + | -- | -- | -- |
| American Kestrel | + | -- | -- | -- | -- | -- | -- | + | -- | -- |
| Am. Woodcock | + | -- | + | -- | -- | -- | -- | -- | -- | -- |
| Rock Dove | + | -- | -- | + | -- | -- | -- | -- | -- | -- |
| Great-horned Owl | + | -- | -- | + | -- | -- | -- | -- | -- | -- |
| Barred Owl | + | -- | + | + | + | + | + | -- | -- | -- |
| Belted Kingfisher | + | + | + | + | + | -- | + | + | + | -- |
| Yellow-bel. Sapsucker | + | -- | -- | + | + | + | -- | 1 | -- | -- |
| Hairy Woodpecker | + | + | 1 | + | + | + | + | + | + | X |

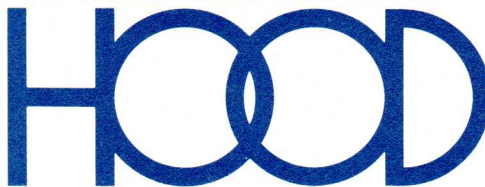
Table 1. Continued.

| Species | 8-yr. mean | 1973 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 |
|-----------------------------|---------------|------|-----|-----|-----|-----|-----|-----|-----|----|
| Fish Crow | + | -- | -- | -- | -- | -- | + | -- | -- | -- |
| Black-cap. Chickadee | + | -- | -- | -- | + | -- | -- | -- | -- | -- |
| Winter Wren | + | + | + | + | + | + | -- | -- | + | X |
| American Robin | + | + | -- | + | -- | -- | -- | -- | -- | -- |
| Hermit Thrush | + | -- | -- | + | -- | -- | -- | + | -- | -- |
| Ruby-cr. Kinglet | + | + | -- | -- | -- | -- | -- | -- | -- | -- |
| Cedar Waxwing | + | -- | -- | -- | -- | -- | -- | 3 | -- | -- |
| Common Grackle | + | -- | -- | 1 | -- | -- | -- | -- | -- | -- |
| Evening Grosbeak | + | -- | -- | -- | -- | + | + | -- | -- | -- |
| Rufous-sided Towhee | + | -- | -- | + | -- | -- | -- | -- | -- | -- |
| Tree Sparrow | + | -- | -- | 3 | -- | + | + | -- | -- | -- |
| Swamp Sparrow | + | + | + | -- | -- | + | 1 | -- | -- | -- |
| Total birds/100 acres | 145 | 186 | 145 | 200 | 161 | 97 | 83 | 177 | 113 | -- |
| Total birds/km ² | 359 | 461 | 359 | 494 | 399 | 239 | 205 | 437 | 279 | -- |
| Total species | 34 | 33 | 33 | 39 | 33 | 35 | 37 | 31 | 31 | 26 |
| Number of counts | 6 | 7 | 7 | 8 | 7 | 6 | 7 | 2 | 5 | 1 |

1. In 1981 there was only one census so results are for comparison.
 'X' means a species was present but its density was not determined.

Species only recorded flying over the census tract:

Canada Goose
 Turkey Vulture
 Black Vulture
 Killdeer
 Herring Gull
 Ring-billed Gull



(301) 663-3131

December 20, 1983

Ms. Margaret Donald
"Adventure" Sanctuary
Maryland Ornithological Society
10800 Glen Road
Potomac, Maryland 20854

Dear Ms. Donald:

On behalf of Hood College I thank you and your organization for serving as an internship placement for our students during the past semester. The faculty and administration of the College are committed to the program as an important learning experience for students. Everyone at Hood recognizes the value and importance of cooperation between higher education and private businesses, government agencies and nonprofit organizations.

I hope the internship experience was useful for your organization, and that you will continue to accept Hood interns in the future. If at any time you have questions or concerns about the program, please feel free to contact me, the undergraduate internship coordinator, at (301) 663-3131, ext. 345, 361.

Yours very truly,

A handwritten signature in cursive script, reading "Carolyn S. Reynolds".

Carolyn S. Reynolds
Director
Career Planning and Placement

CSR:ch

ADVENTURE NATURE STUDY AREA

October 1988

Don and Margaret Donnell
Banding Station
as of 9/21/90

ADVENTURE is located in Potomac, Maryland on property under the three-way trusteeship of the Maryland Ornithological Society, Hood College, and the Maryland National Capitol Park and Planning Commission. It consists of 15 acres and a house (now converted to a Nature Center) given by Alice Hostetler, together with 89 acres of stream valley park land, all dedicated to nature research and education.

The Adventure bird banding program, begun in 1972, has been the principal activity carried out on the study area. Support for the program by the Park Commission has included such major items as construction of a parking lot, fencing of the 15 acre open area, annual mowing of meadows, building of a shelter for banding, and purchase of mist nets used in the project.

Banding is carried out each year from 15 April thru 31 May, and from 15 August thru 31 October, seven days a week, from one-half hour before sunrise through a flashlight check after dark. From 25 to 30 mist nets are used in three kinds of habitat (hedgerows, second growth woods on a ridge, and floodplain woods).

A significant feature of the Adventure banding program is the participation of a large number of volunteers. In an average season, in addition to the master bander, the staff will include 10 or 11 'sub-permittees', and 30 or more 'band aides' of all ages from students to retirees. An active training program for student 'aides' has produced as a by-product several excellent school and science fair projects.

Beginning in 1982, new Carolina Chickadees and Tufted Titmice have been color-banded. Each bird gets a year-code color placed above the FWS band, and two color bands on the other leg for an individual color combination. Individual birds can then be recognized in the field and at feeders without capturing them. Flocking habits, movement patterns, and social behaviors are being watched. So far, 265 chickadees and 172 titmice have been color-banded.

Since 1972 (through ^{Sept. 20, 1990} ~~October 7, 1988~~) ^{82,575} ~~75,000~~ birds of ¹⁴⁴ ~~141~~ species have been banded. Returns number ²⁵⁶⁰ ~~2560~~, with returns per season reaching a high of 139 in spring 1982. Interesting returns include an Acadian Flycatcher banded in 1974 and not caught again till spring of 1982 (with a brood patch and in the same net as when originally banded!). Age records include the Downy Woodpecker banded September 9, 1972, and last caught October 28, 1982, and the national age records for Parula Warbler (4 years 11 months), Kentucky Warbler (6 years 11 months), and Pileated Woodpecker (⁹ ~~8~~ years, 11 months). 2967

Recoveries at Adventure of birds from other banders total ²¹ ~~20~~, while ⁹⁰ ~~80~~ Adventure birds have been recovered elsewhere, from Ontario and Nova Scotia, to Mexico, Guatemala, and on a shrimp boat thirty miles off Key West, Florida.

The computerization of Adventure banding records was started in 1983 to produce schedules and species sheets and to provide greater quality control of banding data. In 1986, in addition of the processing of current records, we began the entry of back data. This project was supported in part by a Maryland Ornithological Society research grant. All of the Adventure data (over ^{100,000} ~~95,000~~ records, including new bandings, repeats, returns, and recoveries) is now on computer. Preliminary analysis of data is underway, and hopefully, will lead to studies on a level suitable for publication.

6/14 Lon - This came in my mail right after I
talked with you - thought you'd like a copy.
Also, if you think more people would come to a
picnic at Woodend instead of Black Hills it would be
O.K. w/me. Would we have to pay for Woodend? —
Mirette

10 June 1995

To: Adventure Banding Staff

We, the Donalds, have regretfully come to the conclusion, primarily for health reasons, that we can no longer operate the Adventure Banding Station.

Adventure has been in operation since the fall of 1972. Through Spring '95 a total of 98,960 birds have been banded. These twenty-three years of bird banding have been a source of great satisfaction to us, both for the work that has been done and for the friendships with which we have been blessed. Our most sincere thanks to each and every one of you for your work, your loyal support, and above all, for the opportunity to have known and worked with you.

In the near future we hope to spend some time on analyses of the banding data -- a project for which we have never found time while spending so many hours on the necessities of an active banding program. We also hope that MOS will look toward the use of the Adventure property for a variety of nature studies and educational activities as was envisioned in the agreement setting up the Adventure Nature Study Center.

PLEASE KEEP IN TOUCH!

Margaret & Don

The Donalds
11501 South Glen Road
Potomac, Maryland 20854

(301 299-6840)

ADVENTURE BANDING STATION

Meeting to consider re-opening of Adventure bird banding station on Glen Road in Potomac by the Montgomery county Chapter of MOS.

Thursday March 2, 2000- 10a.m-12 pm. Linda Friedland's house
Attending: Don Donald, Mike Bowen, Linda Friedland

History of Adventure

Don Donald provided the history of the banding station:

When Potomac resident Alice Hostetler died in 1973 she left the 16 acres surrounding her small rambler on Glen Road to the M-NCPPC with the restriction that the land be used for educational and conservation purposes. In her will dated 1959, she named Hood College and MOS to serve as advisors to the park commission concerning the use of the property. In 1972 she had asked Don and Margaret Donald (whom she knew well as neighbors) to set up a bird banding station on her property which they established in the fall of 1972. The banding station ran continually from then until the spring of 1995 when because of health reasons the Donalds suspended operations. The M-NCPPC did little more than supply some banding equipment and do the required maintenance such as yearly mowing of the fields. The MNCPPC naturalists from Locust Grove Nature Center in Bethesda however would often bring school children to see the operations. The biology Dept of Hood College showed some interest in Adventure the first few years by sending some students to observe but were almost totally uninvolved the last 20 years of the station's operation.

The Donalds who both held banding permits, ran a full time banding station. The station was in full swing every day each spring from April 15- May 31 and each fall from Aug 15 to the end of Oct. Over 30 volunteers (some with permits but the majority with sub-permits) manned the station during peak activity and over the years more than 180 participated. All the data collected from these years is currently held by Don.

Considerations for restarting Adventure

Purpose- need to define this carefully-is it to collect data to compare w/earlier years, noting large surrounding habitat changes?- would it benefit the scientific community? Is data isolated or part of a network? As an educational tool – school groups, banding and ID demonstrations? training ground for future banders? science fair students?

Magnitude and nature of the undertaking Given that it's probably impossible to repeat what the Donalds did, there are three options (sets of desired statistics): 1. Band only during migration two or three weeks in spring and fall- 2. Band once or twice a week during breeding season (MAPS) A series of nets opened so birds don't get net-shy 3) Establish MAPS program to run from May to end of August but also run a migratory fall program. Delay setting up nets for migratory program until September- Don has said that September was the time they banded the largest **variety** of species; October was

when they banded the largest **number** of species. Therefore establish a breakpoint in Sept when one prog. Ends and the other takes over (conversation w/Don March 22 2000)

Equipment needed: The Donnalds purchased most of the equipment with their own funds. Both Linda and Mike felt that MCC could use fund money (Baker, Wilds) to purchase needed items. Some of the items needed to run a station:

* nets (which could be as much as \$100 per year)-Park service paid in past- these often need to be replaced due to wear and tear; Don used 40' nets

*pliers*calipers*poles- Don fashioned his own from R bars purchased at electrical supply place

* F and W dept supplies bands;(they also send in data of recovered birds as soon as possible)

*scales- Don has his own heavy and awkward scale but recommends a new electronic scale which means less stress time on birds.(Park service loaned one to him)

Definitions of terms

Master bander: supervise banders with sub-permit

Licensed bander: very loose term- have two licensed bander deem you OK; license valid for all banding systems (migratory or MAPS)

Permit; a federal license; issued by Banding Lab

Sub-permit: designated by licensed holders

Manpower

Don says that it is not difficult to train people to remove birds from nets, do clerical work etc.His experience shows the best candidates to remove birds are teenage girls (worst are middle aged men (impossible) and older women. Some one can be recruited to do recording of data only.

Could we muster enough **volunteers** to man station? Don says that we need to have enough bird activity (and PR birds) to attract volunteers. This would argue for migratory banding as well as MAPS.

Locust Grove Nature Center connection

The naturalists here are responsible for Adventure- contacts: Bill Nopper, chief naturalist and Marian Stover (Don knows her well and suggests as liaison). Don would like to meet with both naturalists and new master bander before re-starting Adventure

Points to remember from Don

The banders will need keys to parking lot.

The MNCPPC needs to know if we have started doing anything on property e.g. clipping bushes. The floodplain on the property is loaded with fallen trees, briars- this needs to be cleared out to clear net lanes and paths to get to them

The master bander will need to learn (from Don) how to set up poles and where.

The Park Dept will be very interested in demonstrations- accommodate.

Order of events: 1. Train people 2. Plans for operation 3. Nets set up 4. After one year , permit demonstrations

Annual Mowing- needs to be monitored- Don suggests June rather than July because of bluebirds.(no evidence of breeding sparrows); at this time Susan Strange is monitoring bluebird boxes on property: Don still keeps an eye on the property

