

A NATURAL HISTORY INVENTORY
and LIMNOLOGICAL STUDY

Steele Creek Park
Bristol, Tennessee

by
Joseph W. Jackson

Presented to
The Park and Recreation Commission
Bristol, Tennessee

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The purpose of this work is to increase the knowledge of the natural history of Steele Creek Park and to determine the condition of the reservoir. 50% of the Naturalist's time was spent looking for and identifying plants and animals in the park. 25% of the time was spent studying the reservoir, and the other 25% was spent assimilating and writing up data. The study period extended from May 31 to September 6. During this time the Naturalist worked a minimum of 40 hours a week and a minimum of 5 days a week. These minimums were more often than not exceeded. The last three weeks of the period were used to get the journal in order, write the summaries, and return all borrowed equipment.

A small room in the east end of the beachhouse was used as a laboratory and storage room. Much of the equipment used during the summer was borrowed from King College and East Tennessee State University. The equipment which could not be borrowed such as the plankton net and water sampler were constructed by the Naturalist while off duty. The Naturalist also supplied his own microscopes and collecting equipment such as plastic bags, snake rake and back pack.

Most of the plants and animals were identified in the field with the aid of the Peterson Field Guide Series supplied by the Naturalist.

Since the land in which Slagle Hollow is located and the knobs surrounding it were added to the park on June 12, 1971, as much work as possible was done in this area. Brent Rowell, last year's Naturalist, did some work in this area last summer; but the land was not then officially part of the park. A concentrated effort was made during two weeks in July to catalogue as

many plants and animals as possible in the new land. Just prior to those two weeks the Naturalist and his wife camped for a weekend in Slagle Hollow to study the plants and animals.

A shoreline survey from the Naturalist's canoe supplied by the park was made at least once a week. The surveys were made in order to look for birds and plants along the edge of the reservoir. Hiking surveys were made periodically throughout the summer. The accompanying map shows the trails and areas through which the Naturalist hiked.

Steele Creek Park is rich in plant and animal life. Unlike areas covered with a mature forest, the park contains a variety of habitats provided by old fields, the lake, the climaxing Cove Hardwood forest in Slagle Hollow and areas in almost all stages of plant succession. The lists of plants and animals for Steele Creek Park are by no means complete, but they do show the diversity and richness that can be found.

Development of the Slagle Hollow area for use as an environmental study area is most promising. The area provides a diversity that would be advantageous to this type of study. If properly managed the area could be used to illustrate many types of succession and habitats which occur in this area. Certainly, such a place is an asset to the city of Bristol and the surrounding area.

In order to get the most benefit from Steele Creek Park it should be used as both a recreational area as it is now and as an educational area. Contacts with the public were made by the Naturalist to determine the interest in the development of an

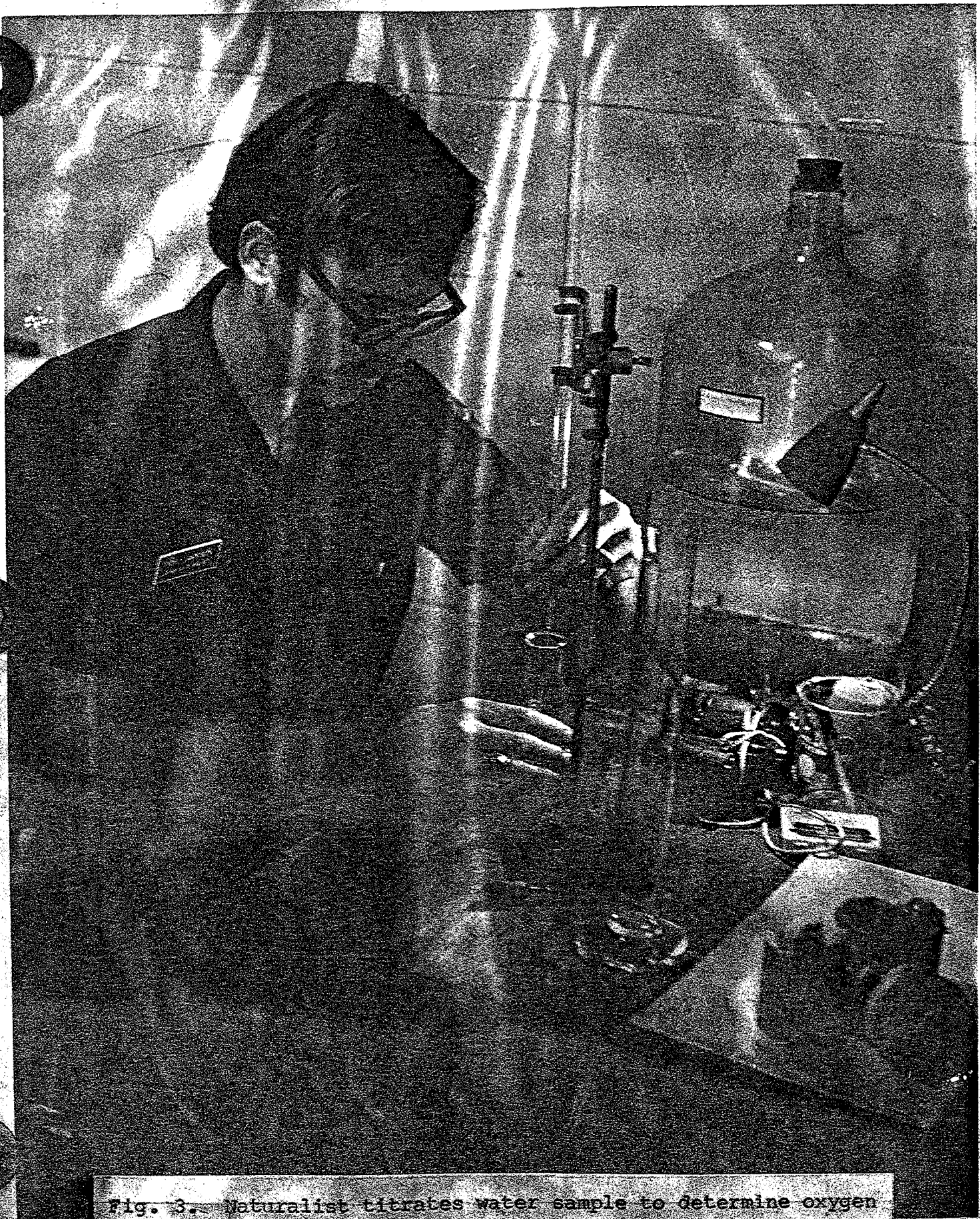


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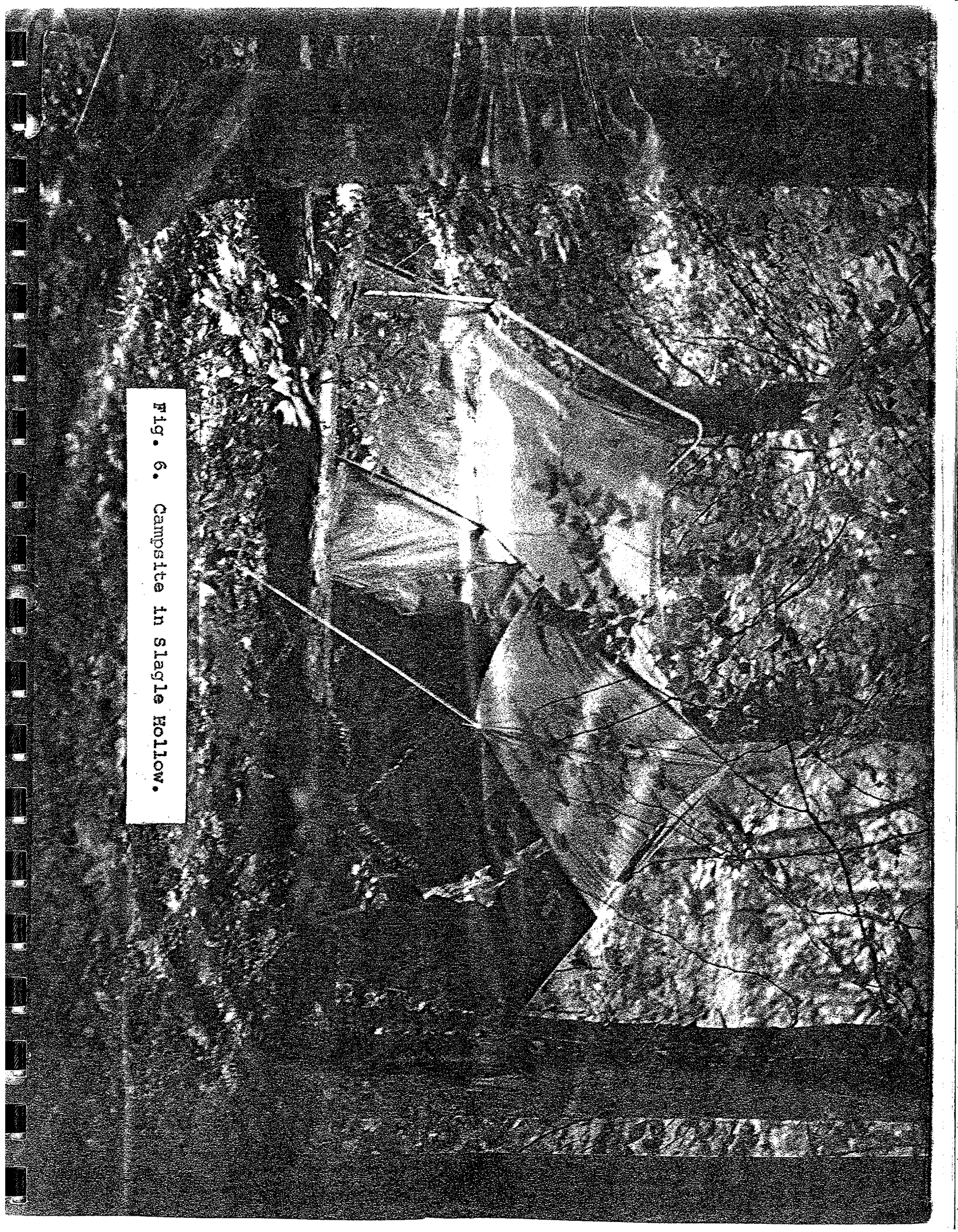


Fig. 6. Campsite in Slagle Hollow.



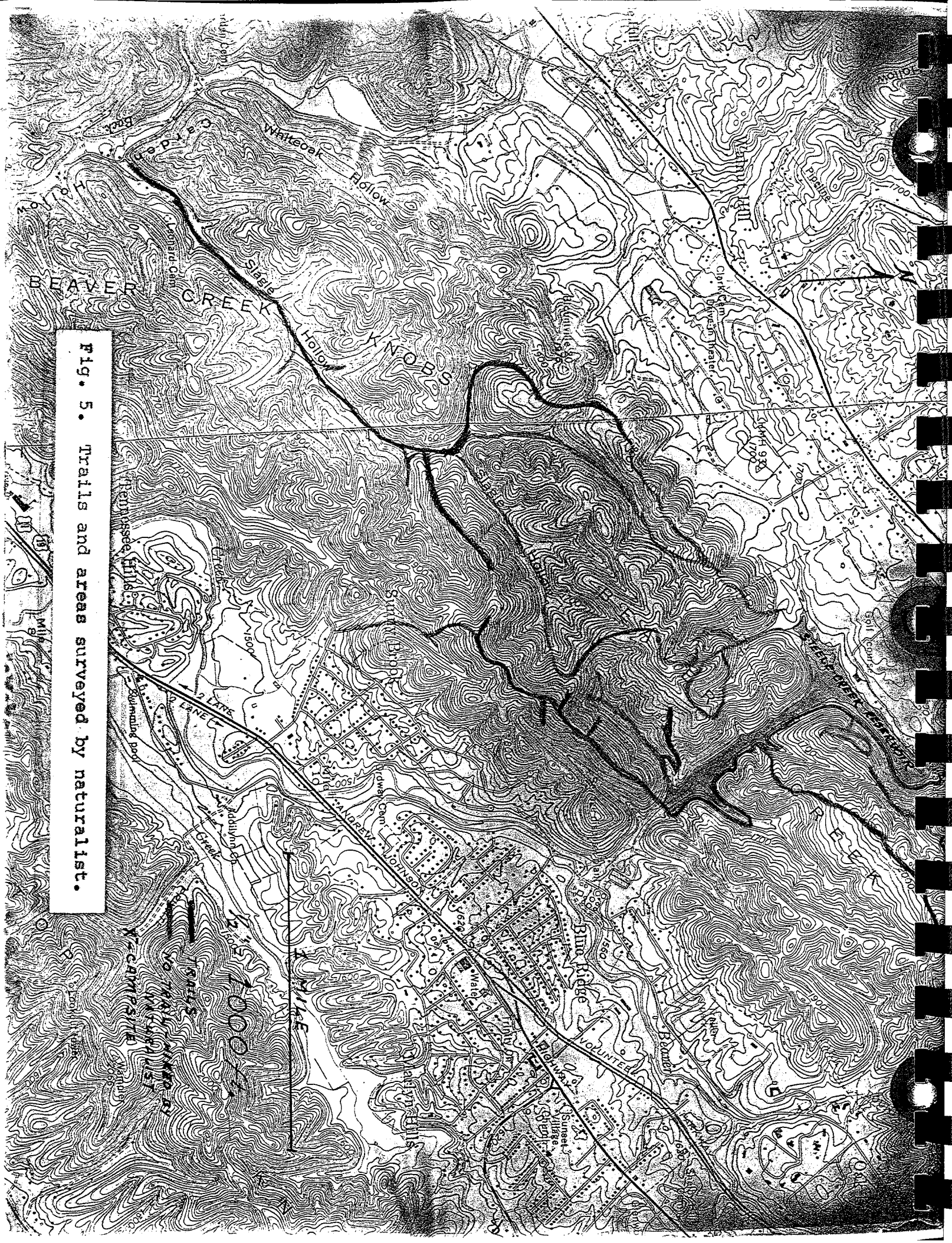


Fig. 5. Trails and areas surveyed by naturalist.



educational area. Many people agreed that the area should be used for educational purposes, but it is hard to get people interested in the natural history of the area in and around the recreational area. If a nature center is constructed at Steele Creek it should be separated from the recreational area but at the same time be accessible.

Public Contacts

The Naturalist made contacts with visitors to the park throughout the summer. These contacts were made to talk about the natural history of the park and to answer questions about the park. Often, the questions asked were not about the natural history.

Public Contacts Made by the Naturalist

Date	Pre-school	Elementary	High School-college	35-55	over 55
1 May		36		4	
1 June	10	45	2	6	
5 June			2	4	
9 June			2	3	3
12 June		5	2		
13 June		6		1	
15 June		7	1	3	
21 June		3			
22 June			1		
25 June		1			
26 June		48	30	41	7
27 June	19	3	4	7	
30 June		3	2	1	
1 July		7	5	3	
2 July	1	2			
3 July	1	21	37	79	3
4 July	11	1		1	
15 July				3	
16 July		5		3	
17 July			2	2	
18 July		3			
19 July		3	2	1	
20 July		1	3	1	1
21 July		2	1	2	
22 July		1	2	3	2
7 August	2		3	2	
10 August	1				
Total	45	203	101	173	16

Total number of contacts made

538

AN ORDINANCE ESTABLISHING RULES AND
REGULATIONS FOR CITY PARKS

SECTION I: Be it ordained by the City of Bristol, Tennessee that the following rules and regulations be established for City Parks, and that it shall be unlawful for anyone to violate said rules and regulations:

1. No person shall injure or damage any structure, rock, tree, flower, bird or wild animal within the Park and shall not gather limbs, brush or trees for firewood.

2. Firearms shall be prohibited at all times except by authorized personnel.

3. Dogs must be kept on a leash while in the Park, and no dog or animal shall be allowed on the beach or in the bathhouse.

4. No vending of merchandise or advertising shall be permitted without permission of the Park & Recreation Commission.

5. Motorist shall observe speed limits as posted and park only in designated areas.

6. All vehicles, including bicycles and motorcycles, must remain on paved roadways inside the Park Areas, which Park Areas are defined as any and all property owned by the City of Bristol, Tennessee, and operated by the Park & Recreation Commission.

7. No alcoholic beverages of any kind shall be permitted in the Park Area.

8. Unauthorized running or rough play shall not be permitted on the beach or in the swimming area..

9. Swimming shall only be permitted in designated areas and only when a lifeguard is on duty.

10. All persons using the facilities of the Municipal Park must pay the fees designated by the Park Commission before engaging in the use of the facilities.

11. Fishing is permitted with line and hook, fly casting, or bait casting.

City of Bristol Tennessee
Parks & Recreation Commission

THE NATURALIST'S ITINERARY

An itinerary was made for each day the Naturalist worked in the park. The itinerary was left at the park gate so that anyone needing to get in touch with the Naturalist would know where to look for him in the park.

Mondays were spent working on the journal unless otherwise noted. No itinerary was ordinarily made for these days, and no itinerary was made for the last three weeks as the Naturalist spent this time compiling the journal and returning borrowed equipment.

(Naturalist's Itinerary)

Monday
31 May 1971

10:00 am. - 11:30 am.

Meet Wallace Coffey at Park and Recreation office.
Drive to Steele Creek Park to get keys and meet personnel.

11:00 am. - 12:30 pm.

Purchase equipment to be used for work in park.

12:30 pm. - 1:00 pm.

Lunch.

1:00 pm. - 3:00 pm.

Survey lake in canoe and edge of lake on foot.

(Naturalist's Itinerary)

Tuesday
1 June 1971

6:00 am - 9:15 am

Avian Survey

9:15 am - 10:00 am

Get map of park from office.

10:00 am - 12:00 ~~am~~

General Survey of area getting familiar with names and features.

12:00 ~~am~~ - 12:30 pm

Lunch

12:30 pm - 4:30 pm

Survey of lake perimeter from canoe..

(Naturalist's Itinerary)

Wednesday
2 June 1971

8:00 am - 9:15 am

Take tax slip to office.

9:15 am - 10:00 am

Go to pond on other side
of Broad Street from gate.

10:00 am - 11:00 am

Call and arrange to meet
Richard Ladd.

11:00 am - 12:30 pm

Go to office to meet
Richard Ladd and get equip-
ment used for lake research.

12:30 pm - 1:00 pm

Lunch

1:00 pm - 3:00 pm

Go over last year's work
and work on maps.

3:00 pm - 4:15 pm

Make contacts in picnic
area.

(Naturalist's Itinerary)

Friday
4 June 1971

6:45 am. - 8:00 am.

Avian Survey.

8:00 am. - 12:00 pm.

Meet Dan Snodgrass at gate.
Take canoe to Lake Spur
Ridge. Hike Flat Ridge
Trail.

12:00 pm. - 1:00 pm.

Meet Wallace Coffey. Put
Letters on canoe.

1:00 pm. - 1:30 pm.

Lunch.

1:30 pm. - 3:00 pm.

Pick up office supplies
and bottles with Wallace.

3:00 pm. - 5:00 pm.

Go over last year's work
with Coffey.

5:00 pm. - 5:30 pm.

Take picture for news-
paper articles.

(Naturalist's Itinerary)

Saturday
5 June 1971

8:00 am - 8:15 am

Make out itinerary and time
sheet for the week.

3:15 am - 11:00 am

Go to Fairmount and Anderson
Street Parks for Clean-up
day.

12:00 ~~am~~ - 12:30 pm

Lunch

12:30 pm - 1:00 pm

Stop by King College library
for Mammal book.

1:00 pm - 1:30 pm

Purchase rope for water sam-
pler.

1:30 pm - 4:30 pm

Make contacts or work on
lake.

(Naturalist's Itinerary)

Sunday
6 June 1971

8:30 am - 8:45 am

Make out itinerary.

8:45 am - 12:00 am

Avian survey around golf course, Shallow Cove, Short Branch and possibly across Bogey Ridge.

12:00 pm - 12:30 pm

Lunch

12:30 pm - 3:30 pm

Lake survey. Take water samples, work with sonar.

3:30 pm - 5:00 pm

Make contacts.

(Naturalist's Itinerary)

Thursday
10 June 1971

10:00 am. - 1:00 pm.

Get chemicals and equipment for D. O. test from from E. T. S. U.

1:00 pm. - 2:30 pm.

Off

2:30 Pm. - 3:00 pm.

Prepare to take water samples and run tests.

3:00 pm. - 6:30 pm.

Take water samples.

(Naturalist's Itinerary)

Friday
11 June 1971

10:00 am. - 11:30 am.

Get uniform from shop in
Kingsport.

11:30 am. - 12:00

Lunch

12:00 - 2:00 pm.

Run tests on water samples

2:00 pm. - 2:30 pm.

Graph data

2:30 pm. - 3:30 pm.

Get chemicals at King and
lead sinker for thermometer.

3:30 pm. - 4:00 pm.

Return equipment to Beach-
house.

(Naturalist's Itinerary)

Saturday
12 June 1971

8:00 am - 8:30 am.

Go over week's work with
Wallace Coffey.

8:30 am -12:00

Spread copper sulfate.

12:00 - 12:30 pm.

Lunch

12:30 pm. - 4:00 pm.

James H. Quillen at park.

(Naturalist's Itinerary)

Sunday
13 June 1971

9:00 am. - 10:00 am.	Avian Survey, check sewer.
10:00 am. - 12:00	Check depths around swimming area.
12:00 - 12:30 pm.	Lunch
12:30 pm. - 1:00 pm.	Make chlorine test.
1:00 pm. - 4:00 pm.	Make contacts.
4:00 pm. - 6:00 pm.	Inspect insect larvae in creek at dam.

(Naturalist's Itinerary)

Tuesday
15 June 1971

9:00 am. - 10:00 am.	Take journal to office to be typed.
10:00 am. - 12:00	Avian survey, check sewer.
12:00 - 12:30 pm.	Lunch
12:30 pm. - 1:30 pm.	Water fowl survey from motor boat.
1:30 pm. - 3:00 pm.	Temp. check in Steele Creek & Mill Creek - Take water samples, check sewer.
3:00 pm. - 4:00 pm.	Analyze samples.
4:00 pm. - 5:30 pm.	Shoreline survey.

(Naturalist's Itinerary)

Wednesday

16 June 1971

9:00 am. - 10:00 am.

Go to King College Library

10:00 am. - 4:45 pm.

Survey of Knobs west of re-
creation area.

4:45 pm. - 5:00 pm.

Check chlorine.

Naturalist's Itinerary

8:00 am. - 8:15 am.

8:15 am. - 10:30 am.

10:30 am. - 12:00

12:00 - 12:30 pm.

12:30 pm. - 1:00 pm.

1:00 pm. - 1:30 pm.

1:30 pm. - 2:30 pm.

2:30 pm. - 2:45 pm

2:45 pm - 4:30 pm.

Saturday
19 June 1971

Make Itinerary.

Avian Survey in recreation
area - check sewer.

Write report on sewage leak.

Lunch

Purchase yard sticks to
keep check on reservoir &
creek levels.

Install yardsticks: 1 on
bridge over creek, 1 on
post near swimming area,
check sewer.

Classify salamanders

Check chlorine

Shoreline Survey

(Naturalist's Itinerary)

Sunday
20 June 1971

8:00 am. - 9:00 am.

Work on journal, no field
work due to rain.

6:00 pm. - 11:00 pm.

Work on plankton net.

(Naturalist's Itinerary)

Monday
21 June 1971

9:00 am. - 12:00	Get chemicals from King College. Go to library.
12:00 - 12:30 pm.	Lunch.
12:30 - 2:00 pm.	Key Plants
2:00 pm. - 5:00 pm.	Work on Journal
9:00 pm. - 12:00 midnight	Run night survey of picnic area with Wallace Coffey and Brent Rowell-look for salamanders and frogs.

(Naturalist's Itinerary)

Tuesday
22 June 1971

8:00 am. - 9:30 am.

Avian Survey from picnic
area to stables.

9:30 am. - 9:45 am.

Check sewer & stream water
gauge.

10:00 am. - 11:30 am.

Run shoreline survey on
south shore of reservoir.

11:30 am. - 12:00

Lunch

12:00 - 1:30 pm.

Take water samples at sta-
tions III, V, IX, XII for
nitrate and phosphate tests.

1:30 pm. - 2:00 pm.

Test & describe spring in
mouth of Steele Creek.

(Naturalist's Itinerary)

Wednesday
23 June 1971

9:00 am. - 9:30 am.

Gather up equipment to
sample plankton.

9:30 am. - 11:00 am.

Take plankton samples.

11:00 am. - 12:00

Prepare plankton for
counting - keyplants-
check sewer & chlorine.

12:00 - 12:30 pm.

Lunch

12:30 pm. - 2:30 pm.

Count plankton.

2:30 pm. - 3:30 pm.

Run phosphate and nitrate
analysis on water samples
taken 22 June.

3:30 pm. - 4:30 pm.

Write up data on plankton
and phosphate and nitrate.

4:30 pm. - 5:00 pm.

Clean glassware used in
previous tests.

(Naturalist's Itinerary)

Friday
25 June 1971

10:00 am. - 11:30 am.

General Survey - Birds, reptiles, plants-from picnic area to stables.

11:30 am. - 12:00

Check sewer - return to beach-house and check chlorine.

12:00 - 12:30 pm.

L unch

12:30 pm. - 2:00 pm.

Identify plants collected over-past 2 weeks.

2:00 pm. - 6:00 pm.

Meet Jerry Rassmusen at gate and show him around lake to see what should be done to check and possibly alter fish populatbn.

(Naturalist's Itinerary)

Saturday

26 June 1971

12:30 pm. - 1:00 Pm.

Gather up turtle trap equipment.

1:00 pm. - 2:00 pm.

Meet Charley Peters at gate-
take over proposed research.

2:00 pm. - 3:00 pm.

Set turtle trap in the Bend.
Check reservoir level.

3:00 pm. - 4:00 pm.

Check creek level, sewer, and
chlorine.

4:00 pm. - 5:00 pm.

Make contacts in recreation
area.

(Naturalist's Itinerary)

Sunday
27 June 1971

12:00 - 1:00 pm.

Check turtle trap, check
reservoir level.

1:00 pm. - 1:30 pm.

Check chlorine. Check
sewer.

1:30 pm. - 5:00 pm.

Make contacts in picnic
area.

(Naturalist's Itinerary)

Tuesday

29 June 1971

8:00 am. - 11:00 am. Work on Journal at beachhouse.

11:00 am. - 11:30 am. Lunch.

11:30 am. - 5:00 pm. Extensive work on Steele Creek. Measure flow,
run chemical tests and collect specimens.

(Naturalist's Itinerary)

Wednesday
30 June 1971

10:00^{am} - 11:00 am.

Take journal to office to
be typed.

11:00 am. - 1:00 pm.

Seine Steele Creek with
Charley Peters and Roger
Campbell.

1:00 pm. - 1:15 pm.

Check sewer.

1:15 pm. - 1:30 pm.

Check chlorine.

1:30 pm. - 3:30 pm.

Reset turtle trap.

(Naturalist's Itinerary)

Friday
2 July 1971

12:00 - 5:00^{pm}. Set gill net with Wallace Coffey and Brent Rowell.

8:00 pm. - 9:30 pm. Check gill net.

(Naturalist's Itinerary)

Saturday
3 July 1971

8:00 am. - 10:00 am.

Check gill net. No fish.

10:00 am. - 11:30 am.

Take bottom samples.

11:30 am. - 12:00

Take temperature profile
of reservoir.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 2:00 pm.

Work on plankton calculations,
stream flow and
Steele Creek cross sections

2:00 pm. - 3:30 pm.

Check chlorine, check sewer,
survey recreation area making
contacts.

3:30 pm. - 8:00 pm.

Off

8:00 pm. - 9:30 pm.

Check gill net.

(Naturalist's Itinerary)

Sunday
4 July 1971

9:30 am. - 11:30 am.

Avian survey around golf course & picnic area. Check sewer.

11:30 am. - 12:00

Check chlorine & make table for recording water levels in reservoir & Steele Creek.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 2:30 pm.

Make contacts in picnic area and around beachhouse.

2:30 pm. - 5:30 pm.

Car count, direct traffic, talk to Wallace Coffey.

(Naturalist's Itinerary)

Monday
5 July 1971

7:00 am. - 9:00 am.

Shoreline and avian survey
with Wallace Coffey.

8:00 pm. - 9:30 pm.

Checked gill net with W. R.
Jackson.

(Naturalist's Itinerary)

Tuesday
6 July 1971

6:00 am. - 8:00 am. Meet Wallace Coffey and Gary Mullins at gate and discuss park development.

Work on Journal rest of the day at home.

(Naturalist's Itinerary)

Wednesday
7 July 1971

11:30 am. - 12:30 pm.

Take journal to be typed.

12:30 pm. - 5:00 pm.

Hike into Slagle Hollow
with D. W. Yambert Jr.,
Wallace Coffey, Benny
Rutherford and Boyd Barnes.

(Naturalist's Itinerary)

Friday
9 July 1971

8:30 am. - 10:00 am.

Repair leak in turtle trap.

10:00 am. - 11:00 am.

Work in office at beachhouse.

11:00 am. - 11:30 am.

Check sewer. Take journal to office to be typed.

11:30 am. - 12:00

Lunch.

12:00 - 2:30 pm.

Remove gill net. Check and remove minnow trap.

2:30 pm. - 4:30 pm.

Meet Wallace Coffey. Take pictures for park brochure.

(Naturalist's Itinerary)

Saturday
10 July 71

9:00 am. - 12:00

Hike to Slagle Hollow looking for birds and plants. Set up camp.

12:00 - 1:00 pm.

Lunch.

1:00 pm. - 3:00 pm.

Seined Creek in Hollow.

3:00 pm. - 6:00 pm.

Surveyed area for plants and animals.

6:00 pm. - 7:00 pm.

Supper.

7:00 pm. - 9:00 pm.

Hunted for salamanders.

(Naturalist's Itinerary)

Sunday
11 July '71

7:00 am.-9:00 am.

Survey for birds.

9:00 am.-12:00

Survey for plants.

12:00-1:00 pm.

Lunch.

1:00 pm.-5:00 pm.

Survey for plants.

5:00 pm.-6:00 pm.

Break camp.

6:00 pm. - 7:00 pm.

Hike back to Carden Hollow.

(Naturalist's Itinerary)

Monday
12 July 1971

9:30 am. - 12:00

Avian Survey on Flat Ridge trail.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 2:30 pm.

Set gill net.

2:30 pm. - 3:00 pm.

Check turtle trap.

3:00 pm. - 4:30 pm.

Measure flow in Steele Creek and Mill's Creek.

(Naturalist's Itinerary)

Tuesday
13 July 1971

9:30 am. - 12:00

Plant survey on Flat Ridge
Trail and along north shore
of lake

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 1:30 pm.

Place yardstick gauge in Mill's
Creek.

1:30 pm. - 5:00 pm.

Set gill net.

(Naturalist's Itinerary)

Thursday
15 July 1971

11:30 am. - 12:30 pm.

Check gill net.

(Naturalist's Itinerary)

Friday
16 July 1971

7:00 am. - 11:00 am.

Avian survey along Flat Ridge Trail, check water level in Steele Creek and Mill's Creek.

11:00 am. - 12:00

Set minnow trap in Mill's Creek.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 1:30 pm.

Check gill net.

1:30 pm. - 3:30 pm.

Take plankton samples and temperature profile in reservoir.

(Naturalist's Itinerary)

Saturday
17 July 1971

8:30 am. - 12:30pm.

Hike along Flat Ridge Trail starting at Three Springs Picnic area and return along north east shore of reservoir.

12:30 pm. - 1:00 Pm.

Lunch.

1:00 pm. - 2:00 pm.

Check gill net.

2:00 pm. - 5:00 pm.

Hike along Mill's Creek and Check water quality and possible sources of pollution.

(Naturalist's Itinerary)

Sunday
18 July 1971

8:00 am. - 10:30 am.

Key plants collected over past week.

10:30 am. - 11:30 am.

Check gill net.

11:30 am. - 12:00

Check minnow trap and levels in Mill's and Steele Creeks.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 4:00 pm.

Make contacts in recreation area.

(Naturalist's Itinerary)

Monday
19 July 1971

1:00 pm. - 4:00 pm.

Work on journal at beachhouse.

(Naturalist's Itinerary)

Tuesday
20 July 1971

8:00 am. - 12:00

Avian and plant survey in
Slagle Hollow- Will enter
Hollow from Carden Hollow.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 1:00 pm.

Check gill net.

1:00 pm. - 4:30 pm.

Check water quality and
seine creek below dam.

4:30 pm. - 5:00 pm.

Check water level in Steele
and Mill's Creek and minnow
trap.

(Naturalist's Itinerary)

Wednesday
21 July 1971

7:00 am. - 12:30 pm.

Survey in Slagle Hollow.

12:30 pm. - 1:00 pm.

Lunch.

1:00 pm. - 3:00 pm.

Shoreline survey on reservoir.

3:00 pm. - 4:00 pm.

Run chemical tests on water samples. Measure fish seined from below dam.

(Naturalist's Itinerary)

Thursday
22 July 1971

9:00 am. - 1:00 pm.

Survey of plants and birds in
Knobs west of dam.

1:00 pm. - 2:00 pm.

Lunch.

2:00 pm. - 5:30 pm.

Survey by car of Steele Creek
watershed.

5:30 pm. - 6:00 pm.

Check water levels in Steele
and Mill's Creeks.

(Naturalist's Itinerary)

Friday
23 July 1971

7:00 am. - 12:00

Hike from Sunny Brook to park.
Avian and plant survey.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 1:30 pm.

Check gill net.

1:30 pm. - 2:30 pm.

Key plants.

2:30 pm. - 3:00 pm.

Check stream levels.

(Naturalist's Itinerary)

Saturday

24 July 1971

9:30 am. - 12:00

Count plankton collected previously.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 2:30 pm.

Collect insects along south-east edge of reservoir.

2:30 pm. - 3:30 pm.

Check gill net.

3:30 pm. - 5:30 pm.

Work on journal.

5:30 pm. - 6:00 pm.

Check water levels.

(Naturalist's Itinerary)

Sunday
25 July 1971

8:30 am. - 10:00 am.

Remove gill net.

10:00 am. - 11:00 am.

Key insects.

11:00 am. - 12:30 pm.

Work on journal.

12:30 pm. - 1:00 pm.

Lunch.

1:00 pm. - 5:00 pm.

Make contacts in picnic area.

(Naturalist's Itinerary)

Monday
26 July 1971

10:30 am. - 11:00 am.

Check water levels in Creeks.

(Naturalist's Itinerary)

Wednesday
28 July 1971

7:30 am. - 12:00

Work on journal at beachhouse.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 4:00 pm.

Work on journal

12:45 pm. - 12:00 midnight

Look for moths around picnic
area.

(Naturalist's Itinerary)

Thursday
29 July 1971

12:00 midnight - 1:00 am.

Search for moths.

1:00 am. - 3:00 am.

Shoreline survey.

3:00 am. - 3:30 am.

Lunch

3:30 am. - 7:30 am.

Animal survey around lake.

(Naturalist's Itinerary)

Friday
30 July 1971

12:00 midnight - 2:00 am.

Work on journal.

8:30 am. - 9:30 am.

Work on journal

9:30 am. - 10:00 am.

Check water levels in Creeks.

10:00 am. - 11:00 am.

Take journal to office to be typed. Go to King College Library.

11:00 am. - 12:00

Canoe to dam. Hike up Knob to west.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 3:00 pm.

Continue hike and avian survey in Knobs west of dam.

(Naturalist's Itinerary)

Saturday
31 July 1971

10:45 am. - 11:00 am.

Check water levels in Creeks.

11:00 am. - 12:00

Remove turtle trap.

12:00 - 12:30 pm.

Identify moths collected 29 July.

12:30 pm. - 1:30 pm.

Clean up office.

(Naturalist's Itinerary)

Saturday
7 August 1971

9:00 am. - 11:00 am.

Shoreline survey along north-
west side of lake.

11:00 am. - 12:00

Avian survey in Knobs west of
dam.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 2:00 pm.

Continue survey in Knobs.

2:00 pm. - 4:00 pm.

Shoreline survey along south-
east side of lake.

4:00 pm. - 4:30 pm.

Check water levels in creeks.

4:30 pm. - 5:30 pm.

Avian survey in picnic area.

(Naturalist's Itinerary)

Monday
9 August 1971

11:30 - 1:00 pm.

Fold up gill net.

1:00 pm. - 4:00 pm.

Make bottom soundings and record on map.

4:00 pm. - 6:00 pm.

Take plankton samples.

(Naturalist's Itinerary)

Tuesday
10 August 1971

8:30 am. - 9:30 am.

Repair short in sonar sounding device.

9:30 am. - 10:30 am.

Pick up typed journal and take Dick Ladd's equipment to office.

10:30 am. - 12:00

Take oxygen samples.

12:00 - 12:30 pm.

Lunch

12:30 - 1:30 pm.

Titrate oxygen samples.

1:30 pm. - 4:00 pm.

Count plankton samples taken 9 August.

4:00 pm. - 4:30 pm.

Check water levels in Steele and Mill's Creek.

(Naturalist's Itinerary)

Wednesday
11 August 1971

12:00 - 5:00 pm.

Plant and avian survey in
Knobs west of dam and in
Slagle Hollow.

5:00 pm. - 7:30 pm.

Finish counting plankton.

9:00 pm. - 11:00 pm.

Work on journal.

(Naturalist's Itinerary)

Thursday
12 August 1971

10:00 am. - 12:00

Look for Great Horned Owl
roost on Front Knob.

12:00 - 12:30 pm.

Lunch.

12:30 pm. - 1:30 pm.

Take pictures of equipment
for journal.

1:30 pm. - 3:30 pm.

Survey around golf course.

3:30 pm. - 6:00 pm.

Plant and animal survey to
stables and cave.

9:00 pm. - 11:00 pm.

Prepare map of reservoir
for use in journal.

(Naturalist's Itinerary)

Saturday
14 August 1971

11:30 am. - 1:00 pm.

Plot cross-section of Mill's
Creek.

1:00 pm. - 3:00 pm.

Plot cross-section and measure
flow of stream at spillway.

3:00 pm. - 5:00 pm.

Compile data of stream mea-
surements.

(Naturalist's Itinerary)

Sunday
15 August 1971

1:00 pm. - 5:00 pm.

Make contacts in recreation
area.

THE NATURALIST'S JOURNAL

A journal was kept throughout the study period. In it each day's activity in the park is recorded. Plant and animal species are listed under the appropriate headings in the sections following the journal. No journal was kept during the last three weeks as no field work was carried out during that period.

(Naturalist's Journal)

Monday
31 May 1971

At 10:00 am met Wallace Coffey at the Park and Recreation Commission office on Anderson Street. Drove to Steele Creek Park where we arranged to have a canoe chained separately for the naturalist's use. I met Tom Statham, and he gave me a lock for the canoe and a key to the chlorine pump house and to the pump house beside the beach house. It was agreed that these two areas could be used for storing equipment needed during the summer. I was also given a key to the office at the main gate.

While at the park I noted the birds that could be seen from the general area of the boatdock and beachhouse.

Wallace brought me back to the office and I went into town to purchase a tool box to be used during the summer's work.

12:30 pm - 1:00 pm Lunch.

After lunch I returned to the park and surveyed the recreation area for birds, reptiles, and plants.

(Naturalist's Journal)

Tuesday
1 June 1971

Partly cloudy, cool. Arrived at park at 6:00 am.
Made avian survey around edge of golf course till 9:15 am.

9:15 am - 10:00 am

Procured map of area from office.

10:00 am - 11:00 am

Spoke to teachers and students from Immanuel Episcopal Day School and Central Elementary School.

11:00 am - 11:30 am

Lunch

11:30 am - 1:00 pm

Searched perimeter of lake in motor boat with George Hicks looking for animals to show to school children.

1:00 pm - 2:00 pm

Spoke to 35 first, second, and third graders from Episcopal Day School.

2:00 pm - 4:30 pm

Surveyed lake perimeter in canoe with Brent Rowell.

(Naturalist's Journal)

Wednesday
2 June 1971

Overcast, Sprinkling rain.

8:00 am - 9:15 am. Took withholding tax form to office.

9:15 am - 11:00 am. James Slusher, the night watch man, had reported finding a spotted salamander. (Ambystoma maculata) near the gate a couple of weeks earlier. An investigation of the farm pond across Broad Street from the gate was made to see if the salamander could have come from the pond. The pond is in a depression in the edge of the pasturefield. It is approximately 30 ft. in diameter and is very muddy around the banks. Although there are no large rocks around the bank of the pond to offer protection for the salamanders, Ambystoma have been found in such a habitat. During the survey of the pond the only vertebrate seen was a small frog, possibly a Pseudacris.

11:00 am - 12:30 pm. Met Richard Ladd at the Park and Recreation office. He loaned us his sonar equipment and his electronic thermometer to be used for limnological studies at Steele Creek.

12:30 pm. - 1:00 pm. Lunch

1:00 pm. - 2:30 pm. Went over last year's work and maps of the area.

2:30 pm. - 4:30 pm. Made contacts and surveyed area for birds.

Warm, partly cloudy - cleared later in the day.

6:45 am - 8:00 am - Avian survey of forest edge and fence rows around golf course.

8:00 am - 12:00 Met Dan Snodgrass at gate. Took canoe to start of Flat Ridge Trail across the gorge from Little Cove. Hiked to powerline on Flat Ridge noting plants and animals observed along the way. It took $2\frac{1}{2}$ hrs. to reach the powerline because of frequent stops made along the way, but it took only 10 min. to return to the canoe. The estimated distance one way is 1 mile. Along the trail we picked up trash consisting of:

- 5 empty shot gun shells
- 4 soft drink cans (most with rifle shot holes)
- 2 broken bottles

Trail bike tracks were seen all along the trail, and large areas of exposed clay and gullies exist in the area around the power line. This erosion of the area is obviously due to the large number of trail bikes and results not only in the destruction of valuable animal habitats but also increases the turbidity of Steele Creek Reservoir. The erosion is not only aesthetically displeasing but also biologically destructive.

12:00 - 1:00 pm. - Met Wallace Coffey. Put the letters "Park Naturalist" on the canoe.

1:00 pm - 1:30 pm. Lunch.

1:30 pm - 3:00 pm. Picked up office supplies at Kimble and Cochran. We purchased:

- 1 bundle of making tags
- 2 packages of small brown envelopes
- 2 50-count boxes of gummed labels, notebooks and paper pads.

From Bunting's drug store we purchased:

- 6-2oz. bottles
- 6-3oz. bottles
- 6-4oz. bottles
- 1 pint Formaldehyde

We were given:

- 1 gallon bottle
- 5 pint bottles
- 1 quart bottle

3:00 pm - 5:00 pm. Went over last years work with Wallace. Decided to keep journal in the same format with the addition of a section on Limnology.

5:00 pm - 5:30 pm. Took picture for newspaper article.

(Naturalist's Journal)

Saturday
5 June 1971

Warm, hazy.

8:00 am - 8:15 am. Made itinerary and time sheet.

8:15 am - 9:00 am. Avian Survey around golf course.

9:00 am - 10:30 am. Hiked to top of Side Ridge.

10:30 am - 12:30 pm. Continued survey around golf course.

Found dead black rat snake on fairway of third hole. Heard reports from golfers of snake seen on second bridge on third fairway. The golfers seemed to think the snake was a copperhead.

12:30 pm - 1:00 pm. Lunch.

1:00 pm - 4:00 pm. Made water tests in Par Bay and White Oak Cove. Checked chlorine in swimming area.

(Naturalist's Journal)

Sunday
6 June 1971

Hazy, warm

8:30 am -- 8:45 am. Made itinerary.

8:45 am - 12:30 pm. Avian survey, Shallow Cove, Short Branch and Bogey Knob. Hiked across Bogey Knob.

12:30 pm - 1:00 pm. Lunch

1:00 pm - 4:00 pm. Took temperature profiles of reservoir with Brent Rowell.

4:00 pm. - 4:30 pm. Explored limestone cave near Home place. Cave was moist and several degrees cooler than outside.

(Naturalist's Journal)

Wednesday
9 June 1971

10:00 am. - 11:00 am. Marked feet on water sampler rope.

11:00 am. - 12:00. Met Wallace Coffey. Wallace had met with Jerry Rassmussen from Game and Fish Commission who told him to use 3 pounds of copper sulfate per 1000 square feet of surface area to kill algae growth.

12:00 Tested chlorine in swimming area.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 2:00 pm. Arranged for office area in east end of beach house.

2:00 pm. - 5:00 pm. Helped clean up lake near picnic area. We filled three 55 gallon trash cans with bottles, logs, cans, plastic bags and other trash found floating and submerged in lake where Steele Creek and Mill's Creek enter lake.

At 4:39 pm. We found raw sewage flowing into the lake from the pumping station near the mouth of Mill's creek. When I returned, Wallace Coffey, Tom Statham, Benny Rutherford, Joe Gentry and I went to investigate the situation more closely. Apparently the pump was not functioning properly and debris and water from the sewer were flowing into the lake. Tom Statham said that he would report this to the Park and Recreation Commission who agreed that the swimming area should be closed until Saturday while the pumping station was being repaired.

(Naturalist's Journal)

Thursday
10 June 1971

10:00 am - 1:00 pm Acquired Sodium thiosulfate and potassium iodide from East Tennessee State University Biology department. Also got 5 gallons of distilled water.

1:00 pm - 2:30 pm Off.

2:30 pm - 6:00 pm Ran dissolved oxygen tests on lake with the help of Genie Jackson.

(Naturalist's Journal)

Friday
11 June 1971

10:00 am - 11:30 am Got dress uniform from Kay's Uniforms,
East Stone Drive, Kingsport.

11:00 am - 12:00 Lunch.

12:00 - 2:00 pm Layed out stations on lake to be checked
periodically.

2:00 pm - 2:15 pm. Went with Benny Rutherford to check
sewage pumping station. The flow of water had been stopped.
However, shudge was still present and was covered with flies.
No precautions had been taken to prevent the presence of flies
and they flew in and out of a door opening directly into the
sewer. The odor was almost overwhelming.

(Naturalist's Journal)

Saturday
12 June 1971

8:00 am. - 8:30 am. Met Wallace Coffey. Talked about plans for next week.

8:30 am. - 10:30 am. Spread 12 pounds of copper sulfate on algae in White Oak Cove. Spread 2 pounds along lake near train track.

10:30 am. - 1:00 pm. Helped prepare for Jimmy Quillen's visit.

1:00 pm. - 3:30 pm. - Mr. Quillen presented a deed to Mayor Jere King for 1220 acres of land southwest of the park, to be added to the park.

(Naturalist's Journal)

Sunday
13 June 1971

9:00 am. - 11:30 am. Make Avian Survey around golf course area.

11:30 am. - 12:00 Lunch.

12:00 - 12:30 pm. Purchased batteries for sonar equipment.

12:30 pm. - 1:30 pm. Temporarily repaired short in sonar equipment.

1:30 pm. - 3:00 pm. Checked depth of lake outside of swimming area.

3:00 pm. - 6:00 pm. Paddled to dam ^{with Jimmy Vaughn} to survey insect larvae in creek below dam. While at the dam we removed 2 automobile tires from the spillway and carried a picnic table from the creek to a level place on top of the dam. We also picked up several tin cans from around the dam. Some boys fishing near the dam reported a large turtle near a pond just below the dam. The turtle had been dead for at least two days, and although it did not smell strongly it was bloated. We took the turtle back to the dock along with the old tires and tin cans.

(Naturalist's Journal)

Tuesday
15 June 1971

9:00 am. - 10:00 am. Took journal to office to be typed.

10:00 am. - 12:00 Made avian survey in recreation area.
Checked sewer and found no overflow.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 2:45 pm. Hiked with Wallace Coffey up Flat Ridge Trail from Mill's Creek.

2:45 pm. - 4:30 pm. Coffey helped me make waterfowl survey from motor boat. We first went to the dam and then started back up the resevoir counting waterfowl. When we came out of the gorge, we circled Par Bay then headed toward the Bend. After making a count in the Bend we returned to the boatdock.

(Naturalist's Journal)

Wednesday
16 June 1971

9:00 am. - 10:00 am. Went to King College Library.

10:00 am. - 4:45 pm. Hiked to Slagle Hollow across Knobs west of recreation area. Hiked through Shallow Cove to top of Little Knob. Took trail south from Hightop Knob and ^{headed} ~~hiked~~ down into Slagle Hollow. Followed drainage area west ~~until~~ it turned into another hollow to the right. Ascended knob west of Sapling Knob and hiked across Sapling Knob and Bogey Knob back to recreation area.

Field guides were taken on the hike and plants and animals were keyed and identified in the field as much as possible. Plants and animals that were not readily identifiable were collected. Plants were placed between newspapers and put in a press consisting of two pieces of $\frac{1}{4}$ inch plywood held tightly together by a buckled web strap.

The two salamanders that were caught were transported in a wide-mouth glass jar partially filled with moss and decayed leaves. Enough water was added to prevent dessication of the specimens until they could be transported back and identified.

All the equipment was carried on a pack frame specially adapted for the purpose. A wooden box the proper size to hold field-guides and also glassjars was attached to the frame. The sturdy box prevents damage to valuable field guides and also prevents breakage of the collecting bottles.

Snake bags, plastic bags and a snake rake were taken for the collection of other specimens. A good supply of labels and tags were also carried so that collections could be properly labeled in the field.

Two-and Three-ounce bottles were taken for the purpose of collecting water samples in case a spring was found.

Water was running in drainage ditch in Slagle Hollow. Large muddy areas caused by motor cycles were found in main part of hollow.

(Naturalist's Journal)

Saturday
19 June 1971

8:00 am. - 12:00 Made avian survey in recreation area and collected mushrooms and other fungi in Park.

12:00 - 2:00 pm. Lunch

12:30 pm. - 2:00 pm. Aquired yardsticks for water measurements. Ripped yardsticks on table saw at home to get rid of advertising on sticks. Gathered up hammer and nails to use in mounting yardsticks.

2:00 pm. - 5:00 pm. Spent afternoon keying and identifying mushrooms and other fungi found in park earlier. Since no previous work had ever been done on the fungi in the park and since the rainy weather had promoted the growth of several kinds of fungi, this work proved most rewarding. However, there are, or at least should be, many more species of fungi in the park that need to be found and identified.

(Naturalist's Journal)

Sunday
20 June 1971

8:00 am. - 9:30 am. Worked in office keying salamanders and cleaning up work area. Left park due to heavy rainfall. Worked 5½ hours on plankton net.

(Naturalist's Journal)

Monday
21 June 1971

9:00 am. - 12:00. Went to King College Library. Got chemicals from Dr. Madison in Chemistry department and borrowed analytical balance.

12:00 - 12:30 pm. Lunch

12:30 pm. Benny Rutherford brought in one mushroom and one Boletes found near Mill's Creek.

12:30 pm. - 6:00 pm. Discussed summer program with Wallace Coffey. Put up yardsticks to measure water level. One yardstick was placed on the eastern pier of the bridge that crosses the mouth of Steele Creek. The yard stick was set to read 1 inch. The distance from the top of the diving platform to the water was $15\frac{1}{2}$ inches. A yardstick was placed on the post just outside the southwest end of the swimming area. The $15\frac{1}{2}$ -inch-mark was placed at water level and ~~the 0 mark was placed at water level and~~ the 0-mark was even with the top of the diving platform. A third yardstick was nailed to the boatdock in the docking area in which the park motor boat is kept. This yardstick was set so that it reads identically with the one placed outside the swimming area.

9:00 pm. - 12:00 midnight. Coffey, Brent Rowell and I explored the three Springs Picnic area for fauna. A gentle rain lasted from 9:00 pm. to 10:25 pm. It was a good night for salamanders to be out, and we hoped to find some new park records.

After a moderate rain the level in Steele creek rose only $\frac{1}{2}$ inch but Mill's Creek was overflowing it's banks. This could have been due to run off from storm sewers increasing the flow or a localized cloudburst. More research needs to be done on the cause of increased flow in Mill's Creek and it needs to be checked to see if this occurs after every rain.

(Naturalist's Journal)

Tuesday
22 June 1971

8:00 am. - 9:45 am. Ran Avian survey from picnic area to stables. Checked sewer.

10:00 am. - 11:30 am. Ran shoreline survey ~~and~~ south shore of reservoir.

11:30 am. - 12:00 Lunch

12:00 - 2:00 pm. Took surface water samples at stations III, V, IX and XII and also in spring in mouth of Steele Creek. Compared temperature of spring to that of surrounding water.

(Naturalist's Journal)

Wednesday
23 June 1971

9:00 am. - 9:30 am. Gathered up equipment to take plankton samples.

9:30 am. - 11:00 am. Took plankton samples at stations: IV, V, VI, VII, IX, X & XII. Checked sewer.

11:00 am. - 12:00. Prepared plankton samples for counting.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 5:00 pm. Sedgwick - Rafter counting cell was broken and therefore the plankton could not be checked until a new counting cell was constructed. Chemical analyses were run on water samples taken 22 June.

(Naturalist's Journal)

Friday
25 June 1971

10:00 am. - 11:45 am. Surveyed area from picnic area to stables.
Made bird list-looked for new flowers.

11:45 am. - 12:00. Checked sewer.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 2:00 pm. Identified plants collected over past 2 weeks.

2:00 pm. - 6:00 pm. Met Jerry Rassmussen, Fisheries biologist with the Game and Fish Commission. Surveyed lake with Rassmussen, Wallace Coffey, and Brent Rowell. Three seinings were made in Par Bay with a 15 ft. small mesh seine. Two attempts were made to sein with a 50 foot net to get some larger fish, but both times the net hung up on either rocks or barbed wire.

(Naturalist's Journal)

Saturday

26 June 1971

12:30 pm. - 1:00 pm. Gathered up turtle trap.

1:00 pm. - 2:00 pm. Talked to Charley Peters a biology major from ETSU taking aquatic biology during the summer session. I agreed to help run some chemical tests on the creek in exchange for the information gathered on the creek by Peters and Roger Campbell.

2:00 pm. - 3:00 pm. Set turtle trap with the help of Charley Peters.

3:00 pm. - 3:30 pm. Called Wallace Coffey and Weather Bureau. Rainfall was 0.35 inches from 7:40 am. - 9:53 am. at the airport. The rain caused a rise of 1 3/4 inches in Steele Creek and a rise of 2 inches in the reservoir. Possibly a localized cloudburst caused the rise in water levels.

3:30 pm. - 5:00 pm. Made contacts in picnic area.

Met Don Mills~~app~~ in picnic area. He lives across from park and has a special interest in the sewer pumping station since he is an electrician and watched the equipment being installed. He said that recently the emergency generator has not been running properly. He also said that the system was a very good one but it is not kept in good repair.

(Naturalist's Journal)

Sunday
27 June 1971

12:00 - 1:00 pm. Checked turtle trap. Waste basket portion of trap has leak and causes water level to rise high enough to allow turtles to escape.

1:00 pm. - 1:30 pm. Checked sewer & chlorine.

1:30 pm. - 5:00 pm. Took Black rat snake around picnic area near beachhouse making contacts. Few people interested in natural history of the park, most wanted to see the snake.

5:00 pm. - 6:00 pm. - Helped Wallace Coffey and Brent Rowell make car tag check, and made more contacts in Three Springs Picnis Area.

6:00 pm. - 6:30 pm. Changed map in frame at beachhouse and changed restroom signs around to make them easier to see.

The total number of contacts made numbered approximately 120 persons.

(Naturalist's Journal)

Tuesday

29 June 1971

8:00 am. - 11:00 am. Worked on journal.

11:00 am. - 11:30 am. Lunch

11:30 am. - 5:00 pm. Worked with Charley Peters, Roger Campbell, Wallace Coffey, and Brent Rowell on Steele Creek. Measured flow and measured cross section of creek at two places. Ran chemical tests and used plankton net to obtain plankton. Seined for fish.

(Naturalist's Journal)

Wednesday
30 June 1971

10:00 am. - 11:00 am. Took journal to office to be typed.

11:00 am. - 2:00 pm. Seined Steele Creek with Charley Peters and Roger Campbell.

2:00 pm. - 2:30 pm. Picnickers reported a copperhead in picnic area beside beachhouse. A man told Benny Rutherford it had to be a copperhead because the snake was in a tree and "it has a white belly." The snake was caught by a workman in the park and turned over to the Naturalist who identified it as a Black ratsnake.

2:30 pm. - 3:45 pm. Reset turtle trap so that the trip board ^{rests} ~~resets~~ on the log in the Bend.

(Naturalist's Journal)

Friday
2 July 1971

12:00 - 5:00 pm. Untangled and set gill net with help of Wallace Coffey and Brent Rowell.

Took Secchi (visibility) disc reading in The Bend. - *2 feet.*

8:00 pm. - 9:30 pm. - Checked gill net with Sidney Jackson and Wallace Coffey.

(Naturalist's Journal)

Saturday
3 July 1977

- 8:00 am. - 10:00 am. No fish were in gill net.
- 10:00 am. - 11:30 am. Took bottom samples at stations IV, III and IX.
- 11:30 am. - 12:00 . Took temperature profile at station V.
- 12:00 - 12:30 pm. Lunch
- 12:30 pm. - 2:00 pm. Worked on plankton samples.
- 2:00 pm. - 3:30 pm. Checked chlorine, sewer, and made contacts in recreation area.
- 3:30 pm. - 8:00 pm. Off
- 8:00 pm. - 9:30 pm. Checked gill net. Found that one end had been badly tangled by someone dragging bouy toward shore. Since no fish had been caught in the area to the right of the mouth of the gorge, I decided to take the net up and put it out in a different place later. Genie Jackson helped me remove the net.

(Naturalist's Journal)

Sunday
4 July 1971

9:30 am. - 11:30 am. Made avian survey around golf course and picnic area. Checked sewer.

11:30 am. - 12:00. Checked chlorine. Made table for recording water level in reservoir and Steele Creek.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 2:30 pm. Made approximately 75 contacts in picnic area. Talked to people from Bristol, Gate City, Johnson City, King Sport, and Lebanon. Discussed plans for adding nature center with many of the people. Everyone said that the park was very nice. ~~Many liked the park was very nice.~~ Many liked the shade provided by the numerous trees but few were really interested in the natural history of the park. One group of 84 persons had gathered for a family reunion. They were from Tennessee, Ohio, Mississippi, Louisiana, North Carolina, South Carolina, Indiana, Florida, Kentucky, and Alabama. One member of the group said that they had spent sometime looking for a place to hold the reunion and decided on Steele Creek Park because it "had something for everybody to do."

2:30 pm. - 5:30 pm. Helped Wallace Coffey check car tags. Relieved James Slusher for about an hour. Slusher had directed traffic since 12:00 noon, helping people find a place to park. Talked to Coffey about naturalist's work for rest of the summer.

(Naturalist's Journal)

Monday
5 July 1971

7:00 am. - 9:00 am. Made shoreline and Avian survey with Wallace Coffey.

9:00 am. - 12:00. Set minnow trap in edge of lake in gorge. Set gill net across gorge.

8:00 pm. - 9:30 pm. Checked gill net with W. R. Jackson. No fish were caught.

(Naturalist's Journal)

Tuesday
6 July 1971

6:00 am. - 8:00 am. Met Gary Mullins at gate. Checked gill net. No fish. Returned to beachhouse and discussed previous work with Wallace Coffey and Mullins.

12:15 pm. - 12:45 pm. Coffey and Mullins had hiked from beachhouse to Carden Hollow through Slagle Hollow. Coffey called from lumber company on Blountville Highway and I picked them up and took them back to Steele Creek Park.

8:00 pm. - 9:30 pm. Checked net with Genie Jackson. Heard Great Horned Owl in knobs to right of lake. No fish in net.

(Naturalist's Journal)

Wednesday
7 July 1971

11:30 am. - 12:30 pm. Took journal to be typed. Picked up parts of journal already typed.

12:30 pm. - 1:00 pm. Arizona vine snake was brought to the park Naturalist by Boyd Barnes. Barnes said that someone had reported the snake in a tree behind his neighbor's house. A policeman had tried to shoot the snake with a 38-caliber pistol and someone tried to shoot it with a shot gun. Both were unsuccessful. Barnes climbed the tree and held out a stick toward the snake. The snake wrapped around the stick and Barnes placed it in a cloth bag and brought it to the park. The snake must have escaped from captivity as they do not ~~occur~~ ^{occur} in this area. The owner has not yet been located.

1:00 pm. - 5:00 pm. Drove through Carden Hollow to mouth of Slagle Hollow with D. W. Yambert Jr., Wallace Coffey, Benny Rutherford, and Boyd Barnes. We hiked about a mile into Slagle Hollow. Yambert, a game biologist with the Game and Fish Commission, evaluated the land and gave some suggestions as to how it could best be developed. Yambert pointed out that the area had obviously been either logged or burned or both in the past, but he said that the area has been relatively untouched since. He noted that the forest was approaching climax along certain areas of the stream. The climax species, beach, oak and white pine are reaching maturity.

He also stated that although the area may not be the very best for a nature study area, it is by no means the worst. The location and available land are quite good. Since different stages of succession already exist, the area would be excellent for ecological studies. Yambert feels that many things could be done to enhance the natural aspects of the area. For example, a pond might be built to attract waterfowl and provide a marshy area for amphibian reproduction. Also, some selective cutting of timber would help promote the health of the majority of trees and prevent the lumber from being wasted. Once trees have passed maturity they soon die; and except for a few that are used for animal homes, they soon become decayed and useless. The complete clearing of a few small tracts of land would increase wildlife populations, birds especially; and provide valuable areas for educational purposes.

Yambert said that, since hunters cannot possibly destroy a squirrel population, a few days a year could be open to hunting.

Slagle Hollow is a natural drainage area. The cutting of roads through the area would certainly increase the flooding and decrease the flora and fauna populations. Yambert suggests that only trails lead into a nature center or at least a maximum of only one service road and that the nature center itself be built on the side of one of the ridges, thus keeping the fertile bottom lands natural and intact. It is also the strong feeling of this writer that any unnecessary destruction or altering of the bottom land in this area would be most foolish.

The Hollow is already dissected by numerous natural trails. In the ini-

(Naturalist's Journal)

7 July 1971
continued

tial development of the park only one or two paved trails would have to be constructed in the areas of heaviest use. The rest of the area could easily be left in its natural state until heavy visitation of the area warrents the paving of more trails.

(Naturalist's Journal)

Friday
9 July 1971

8:30 am. - 10:00 am. Repaired leak in turtle trap. Returned trap to position in The Bend. Aufwuchs, sessile planktonic organisms, were removed from the trap and were examined.

10:00 am. - 11:00 am. - This time was spent cleaning up office.

11:00 am. - 11:30 am. - Took journal to office to be typed. Checked sewer before leaving park.

11:30 am. - 12:00 Lunch.

12:00 - 2:30 pm. Removed gill net and minnow trap from reservoir.

2:30 pm. - 4:30 pm. Wallace Coffey came by to take some color slides of the park for use in a brochure or for other publicity.

(Naturalist's Journal)

Saturday
10 July 1971

In order to study the plants and animals in Slagle Hollow, I decided to spend Saturday night camped in the hollow.

At 9:50 am. W. R. Jackson drove my wife, Genie, and me to the end of the county road leading up Slagle Hollow from the Garden Hollow road. From the end of the road we hiked about $1\frac{1}{2}$ miles into the hollow and set up camp. A record was kept of birds and many of the plants seen along the way.

12:00 - 1:00 pm. Lunch.

1:00 pm. - 3:00 pm. Seined for minnows.

3:00 pm. - 6:00 pm. Identified, collected, and listed plants around camp area.

6:00 pm. - 7:00 pm. Supper

7:00 pm. - 9:00 pm. Hunted for salamanders.

It rained from 5:00 pm. to about 7:00 pm.

(Naturalist's Journal)

Sunday
11 July 1971

7:00 am. - 9:00 am. It was raining and storming. Listened for birds. Only a few were heard.

9:00 am. - 12:00. Surveyed for plants along ridge southeast of campsite. A well-worn trail goes up the ridge.

12:00 - 1:00 pm. - Lunch.

1:00 pm. - 2:00 pm. - Survey for plants near campsite.

2:00 pm. - 4:30 pm. - Wallace Coffey came by and talked with us for about an hour and a half.

4:30 pm. - 6:00 pm. It began to thunder and cloud up again so we decided to break camp before our equipment got wet again. It rained for about 30 minutes just after we had packed up.

6:00 pm. - 7:00 pm. Hiked back to Carden Hollow. Just as we reached Jordon Snow's house it began to storm again. Snow invited us in, and we talked to him for about 30 minutes until W. R. Jackson returned to pick us up.

(Naturalist's Journal)

Monday
12 July 1971

9:30 am. - 12:00 Made Avian survey along Pratt's Knob trail and Flat Ridge Trail.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 2:30 pm. Identified plants from Slagle Hollow trip.

2:30 pm. - 3:30 pm. Checked turtle trap.

3:30 pm. - 4:00 pm. Checked water levels in Steele Creek.

(Naturalist's Journal)

Tuesday
13 July 1971

8:30 am-12:00. Made plant survey along Flat Ridge trail and along northeast shore of lake.

12:00-12:30pm. Lunch.

12:30 pm. -1:00 pm. Placed yardstick on stake in Mill's creek 35 yards upstream from where trail crosses. Yardstick was set to read 1 inch at normal flow. A wire was placed around the yardstick at the 4-inch and the 16-inch levels to attached it to the stake.

1:00 pm. - 4:45 pm. - Set gill net across gorge near station V. Setting the net was made rather difficult due to a strong wind blowing through the gorge. The wind would blow my canoe down the lake while I let out the net and I would have to paddle back.

10:45pm. - 11:45 pm. The gate attendant called me at home about 6:00 pm. and said that some visitors to the park had reported seeing a duck with a broken leg near the Three Springs Picnic Area. I was not able to return to the park until 10:45pm. at which time I searched the picnic area with the help of my wife. We found nothing in the picnic area; but upon searching along the shore in The Bend area we found a duck separated from the others. The duck was making low quacks and was swimming around in circles. We decided this must be the crippled duck and we observed it for about 30 minutes. We then decided that the duck was doing rather well and that there was probably nothing we could do to help it.

(Naturalist's Journal)

Thursday
15 July 1971

11:30 am. - 12:30 pm. Checked gill net. Contained two fish.

(Naturalist's Journal)

Friday
16 July 1971

7:00 am. - 12:00 Ran Avian survey along Flat Ridge trail and north-east shore of reservoir. Was accompanied by Kathleen Jackson.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 1:30 pm. - Checked gill net. Caught two fish.

1:30 pm. - 3:30 pm. - Took plankton samples and a temperature profile of reservoir.

Talked to Wallace Coffey for a few minutes after lunch. We decided to stop making checks on the sewer pumping station since the city was now keeping it checked regularly. We also decided to stop making chlorine tests in the swimming area. Since we have never gotten a reading there seems to be no reason to continue the check.

(Naturalist's Journal)

Saturday
17 July 1971

8:30 am. - 12:30 pm. Hike along Flat Ridge Trail and back along north-east shore of lake. Concentrated on wild flowers. Minnow trap set in Mill's Creek was empty.

12:30 pm. - 1:00 pm. Lunch.

1:00 pm. - 2:00 pm. Checked gill net-empty.

2:00 pm. @ 5:30 pm. Wallace Coffey drove me to Mill's Creek behind Kentucky Fried Chicken place on West State Street. Walked from there back to park checking possible sources of pollution along the creek.

(Naturalist's Journal)

Sunday
18 July 1971

8:00 am. - 10:30 am. Keyed plants collected in Slagle Hollow and along Flat Ridge Trail-about twenty wildflowers.

10:30 am. - 11:30 am. Checked gill net - No fish were caught.

11:30 am. - 12:00 Checked minnow trap in Mill's Creek - no fish.
Checked levels in Mill's and Steele Creeks.

12:00 - 12:30 pm Lunch

12:30 pm. - 4:00 pm. Made contacts in recreation area.

4:00pm. - 5:00 pm. Talked to Wallace Coffey.

(Naturalist's Journal)

Tuesday
20 July 1971

8:00 am. - 12:00 Made Avian and plant survey in Slagle Hollow near western boundary of park.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 1:00 pm. Benny Rutherford helped check gill net - no fish.

1:00 pm. - 2:30 pm. Rutherford helped row to dam where I took water samples and attempted to seine for minnows. I found that the water was too deep and I needed help in seining. We returned to the beachhouse where I changed into swimming trunks. Rutherford and Wallace Coffey took Joey Curcio, a lifeguard, and me to the dam in the motor boat. Curcio helped seine the creek below the dam. Rutherford returned at 4:30 and brought us back to the beachhouse.

4:30 pm. Upon returning from the dam I recieved a message from Tom Statham asking me to come to Haynesfield pool. The chlorine had run out and the pool had begun to turn green. I took a water sample and checked the pH. Left pool 5:30 pm.

(Naturalist's Journal)

Wednesday
21 July 1971

Parked my car at park entrance. W. R. Jackson took me ~~to~~ down Carden Hollow to mouth of Slagle Hollow.

7:00 am. - 12:30 pm. Walked through Slagle Hollow past campsite area-trail comes out at old barn on dirt road behind Akard Elementary School. Hiked along knobs parallel to Blountville Highway (No trail) back to park. Concentrated on making avian survey.

12:30 pm. - 1:00 pm. Lunch.

1:00 pm. - 1:30 pm. Checked gill net with B. Rutherford - no fish.

1:30 pm. - 3:00 pm. Made Shoreline survey listing plants in various areas along the southwest shore of lake.

3:00 pm. - 4:00 pm. Ran chemical tests on water samples taken previously. Measured fish seined from spillway 20 July.

4:00 pm. - 4:30 pm. - Checked water levels in Creeks. Minnow trap missing, apparently stolen.

(Naturalist's Journal)

Thursday
22 July 1971

9:00 am. - 1:00 pm. Made plant and bird survey of Shallow cove, Little Knob and Backspur Ridge.

1:00 pm. - 2:00 pm. Lunch.

2:00 pm. - 5:30 pm. Surveyed Steele Creek watershed by car.

5:30 pm. - 6:00 pm. Checked water levels in Steele and Mill's Creeks.

(Naturalist's Journal)

Friday

23 July 1971

Parked car at park gate. W. R. Jackson drove me to Sunny Brook Subdivision on Bluff City Highway.

7:00 am. - 12:00 Hiked from Sunny Brook to Steele Creek Beachhouse. Made avian survey along entire route. Listed plants found on southern slope of knobs along southern boundary of park from Sunny Brook to Steele Creek dam.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 1:30 pm. Checked gill net with help of Benny Rutherford.

1:30 pm. - 2:30 pm. Identified plants found earlier.

2:30 pm. - 3:00 pm. Checked stream levels.

(Naturalist's Journal)

Saturday
24 July 1971

9:30 am. - 11:00 am. - Counted plankton.

11:00 am. - 11:30 am. Rode in amphibious vehicle with a group of life-guards. This was the second trip the vehicle had made on the lake and the operator wanted to try it out and get our opinion on how the public will react to the ride. It might be possible to give nature lectures on the vehicle while the people ride around the reservoir.

11:30 am. - 12:00 Finished counting plankton.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 2:30 pm. Collected insects along Mill's Creek and along edge of lake opposite train track.

2:30 pm. - 3:30 pm. Checked gill net - no fish.

3:30 pm. - 5:30 pm. Had planned to work on journal but Wallace Coffey came by and wanted to talk about progress of work.

5:30 pm. - 6:00 pm. Checked water levels in Steele & Mill's Creeks.

(Naturalist's Journal)

Sunday
25 July 1971

8:30 am. - 10:00 am. Removed gill net as Coffey and I had decided 24 July.

10:00 am. - 11:00 am. Identified insects caught 24 July.

11:00 am. - 12:30 pm. Worked on journal.

12:30 pm. - 1:00 pm. Lunch.

1:00 pm. - 5:00 pm. Made contacts in picnic area. Talked with Coffey.

(Naturalist's Journal)

Monday
26 July 1971

10:30 am. - 11:00 am. Had intended to be off this day. After a heavy rain decided to check water levels in creeks. Steel Creek had changed little, but Mill's Creek had risen $5\frac{1}{2}$ inches.

(Naturalist's Journal)

Wednesday
28 July 1971

7:30 am. - 12:00 Worked on journal at beachhouse.

12:00 - 12:30 pm. Lunch

12:30 pm. - 4:00 pm. Continued working on journal.

10:45 pm. Returned to park and turned on flood lights at beach to attract moths.

(Naturalist's Journal)

Thursday
29 July 1971

12:00 midnight - 1:00 am. Floodlights at beach house attracted a few moths. The larger ones were collected.

1:00 am. - 3:00 am. Made shoreline survey. An electrical storm was approaching so the survey was not made very far down the gorge.

3:00 am. - 3:30 am. Lunch.

3:30 am. Due to the electrical storm the hike across Flat Ridge was abandoned. At 3:45 am. I turned the floodlights back on and continued looking for moths. At 5:15 am. a small bat ~~was~~ began chasing moths around the floodlights. James Slusher, the night watchman, who had stopped by, managed to catch the bat from mid-air with my butterfly net.

Just before sunrise I began a shoreline survey that lasted until 7:30 am. It rained lightly from 5:00 am throughout the morning.

(Naturalist's Journal)

Friday
30 July 1971

12:00 midnight - 2:00 am. Worked on journal.

8:30 am. - 9:30 am. Worked on journal at beachhouse.

9:30 am. - 10:00 am. Checked water levels in Steele and Mill's Creeks.

10:00 am. - 11:00 am. Took journal to office to be typed. Went to King College Library to return some books.

11:00 am. - 3:30 pm. Canoeed to dam and made avian survey in Knobs west of dam. Took thirty minutes out for lunch.

(Naturalist's Journal)

Saturday
31 July 1971

10:45 am. - 11:00 am. Checked water levels in Steele and Mill's Creek.

11:00 am. - 12:00 Removed turtle trap from The Bend because it had another leak and was not doing any good.

12:00 - 12:30 pm. Identified moths collected 29 July.

12:30 pm. - 1:30 pm. Cleaned up office.

(Naturalist's Journal)

Saturday
7 August 1971

9:00 am. - 11:00 am. Made shoreline survey along northwest shore of reservoir.

11:00 am. 2:00 pm. Made avian survey in Knobs west of dam. Took thirty minutes for lunch.

2:00 pm. - 4:00 pm. Returned along southeast shore of reservoir.

4:00 pm. - 4:30 pm. checked water levels in Steele and Mill's Creek.

4:30 pm. - 5:30 pm. Made avian survey in picnic area.

(Naturalist's Journal)

Monday
9 August 1971

11:30 am. - 1:00 p.m. Spread out gill net in front of beachhouse. Allowed it to dry for a few minutes, then folded it up.

1:00 pm. - 4:00 pm. Made bottom soundings using sonar equipment and recorded depths on map of reservoir.

4:00 pm. - 6:00 pm. Took plankton samples and Secchi disc readings at stations I through XI.

(Naturalist's Journal)

Tuesday
10 August 1971

8:30 am. - 9:30 am. Repaired a broken battery wire in sonar unit.

9:30 am. - 10:30 am. Took Richard Ladd's equipment to office and picked up typed journal.

10:30 am. - 12:00. Took oxygen samples. Had intended to take samples at six stations but was unable to handle canoe in strong wind. Managed to get samples at stations II, V and VIII.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 1:30 pm. Titrated oxygen samples.

1:30 pm. - 4:00 pm. Wallace Coffey came by. Was unable to count all the plankton.

4:00 pm. - 4:30 pm. Checked water levels in Steele and Mill's Creeks.

(Naturalist's Journal)

Wednesday
11 August 1971

12:00 - 5:00 pm. Made plant and animal survey in Knobs west of
dam.

5:00 pm. - 7:00 pm. Finished counting plankton.

9:00 pm. - 11:00 pm. Worked on journal.

(Naturalist's Journal)

Thursday
12 August 1971

After hearing a Great Horned owl on Front Knob 9 August, Wallace Coffey suggested that I look for a roost in that area. Coffey heard the owl on Front Knob at sunset and thought that it had not left its roost when he heard it. However I had heard a Great Horned owl on Bogey Knob at about the same time of day and I had also heard it on Front Knob at 11:25 pm. so there was really not a very good chance that I would find the roost where Coffey had heard the owl on 9 August.

Between 10:00 am. and 12:00 I ^{thoroughly} ~~thoroughly~~ covered Front Knob from the Gorge to just past the cove directly across from the train station. I found no signs of the owl.

12:00 - 12:30 pm. Lunch.

12:30 pm. - 2:30 pm. Coffey came by and talked for about 2 hours.

2:30 pm. - 3:30 pm. Took pictures of equipment used during the summer. These pictures are to be used in the journal.

3:30 pm. - 6:00 pm. Make plant and animal survey to stables and cave.

9:00 pm. - 11:00 pm. Worked on maps of reservoir to be used in journal.

(Naturalist's Journal)

Saturday
14 August 1971

11:30 am. - 1:00 pm. Plotted a cross-section of Mill's Creek 35 yards above where Flat Ridge Trail crosses. The creek had returned to normal flow after the flooding on 12 August. The flood had broken the stake used to measure the water level and it was removed.

1:00 pm. - 3:00 pm. Plotted cross-section of Steele Creek where it flows over spillway and measured the velocity of flow.

3:00 pm. - 5:00 pm. Compiled data of stream measurements.

(Naturalist's Journal)

Sunday
15 August 1971

1:00 pm. - 3:00 pm. Rode amphibious vehicle to get an idea of people's reaction to it. It has been suggested that this would be a good place to hold a brief natural history lecture. It seems that most of the people riding the vehicle are interested only in the vehicle itself. However there are usually several people waiting around the train station when the vehicle is in operation. The train station would be a good place for some natural history exhibits, photographs and articles on nature, fauna, and flora. People waiting to ride the train and amphibious "DUQK" would probably enjoy reading and looking at the exhibits while they wait.

Since the groups riding the DUQK are so heterogeneous it would be hard to give them a lecture unless it were very short and simple. Also a lecture on the DUQK could not be nearly as detailed as a nature walk since it is hard to point out and to see plants and animals from the middle of the reservoir.

The vehicle could be used to some advantage, however, with a carefully planned program.

3:00 pm. - 5:00 pm. Made contacts around beach area.

A Summary of the Mammals

Gray Fox

Urocyon Cinereoargenteus

Only two gray foxes were seen during the summer. These were seen on the golf course 1 June at 6:00 am. Signs of foxes were seen throughout the summer at various places in the park and ~~several reports of foxes were seen throughout the summer at various places in the park and~~ several reports of foxes were made by the night attendant.

Woodchuck
Marmota Monax

During the period only one woodchuck was seen. It was swimming in the reservoir about half way down the Gorge toward the dam. What appears to be a woodchuck den is located under some limestone outcroppings beside Flat Ridge Trail near the cave.

Eastern Cottontail
Sylvilagus floridanus

On 4 June one specimen was found floating in the swimming area. It had been decapitated and was possibly the victim of a Great Horned owl which is known to crack open the cranium of mammals and eat the brains, sometimes leaving the rest of the animal intact.

Eastern Chipmunk
Tamias Striatus

Chipmunks were seen along Steele Creek throughout the summer. They are most frequently seen in the morning especially when few people are in the park. One chipmunk was seen several times near the beachhouse.

Short - tailed Shrew
Blarina brevicauda

On 16 July one specimen was found dead on Flat Ridge Trail. Little is known about the abundance and distribution of this animal in the park.

Eastern Pipistrelle
Pipistrellus subflavus

In the early morning hours on 29 July several small bats were seen flying around the lights near the beachhouse. James Slusher was able to catch one from mid-flight with a butterfly net. The Eastern pipistrelle is characterized by its weak and erratic flight and may be identified in the hand by its tri-colored fur.

(Species Account)

Tuesday
1 June 1971

Fox - Saw one, maybe two gray foxes on number 3 fairway near forest at 6:00 am.

Wood chuck - Seen swimming across gorge near dam. Animal was in middle of lake when first seen. George Hicks circled it in the motor boat and the woodchuck turned and swam back from where it came. When it reached the bank ~~the~~ it scrambled up the steep bank and quickly disappeared into the forest.

(Species Account)

Friday
4 June 1971

Mammals:

Eastern Cottontail - Found by lifeguard. Was floating
in swimming area. Had been decap-
itated.

(Species Account)

Friday
25 June 1971

Mammals:

Chipmunk - found dead on drive to beachhouse.

(Species Account)

Tuesday
13 July 1971

Mammals:

Ground hog - hole under limestone outcropping to left of Flat
Ridge Trail near cave.

(Species Account)

Friday
16 July 1971

Mammals:

Short - tailed shrew - found dead on Flat Ridge trail, 150 ft. from cave.

Measurements - total length - 107 mm, tail 20 mm, Right hind foot 15mm.

(Species Account)

Thursday
29 July 1971

Mammals:

Eastern Pipistrelle _ caught in flight with butterfly net by James Slusher at 5:15 am. The bat was catching insects that gathered around the floodlights at the beachhouse. This smallest of our native bats is characterized by its weak and erratic flight.

(Species Account)

Friday
30 July 1971

Mammals:

Eastern Chipmunk - seen in picnic area along Steele Creek at 9:35 am.

A Summary of the Birds

PARK AND RECREATION COMMISSION

⑩ - Indicates birds were in Slagter Hollow or in surrounding knobs



SUMMER BIRDS OF STEELE CREEK PARK 1971

BRISTOL, TENNESSEE

PARK AND RECREATION COMMISSION

		1																2							3							4	
SPECIES		1 June	2 June	4 June	5 June	6 June	13 June	15 June	16 June	22 June	25 June	3 July	4 July	7 July	10 July	11 July	12 July	16 July	20 July	21 July	28 July	29 July	30 July	7 August	11 August	12 August							
1	Chimney Swift	5		1	3	2	5						2																				
2	R. th. Hummingbird					1																											
3	Belted Kingfisher						1			2								1	1	1		3											
4	Yellow-shafted flicker	1	2	3	1		1	2	0			3	0	0	1	4	0				3	1	2										
5	Pileated Woodpecker			1	1			0				1	0							1	1												
6	Red-bellied Woodpecker	(8 July - slope Hollow)																															
7	Red-headed Woopecker																																
8	Hairy Woodpecker												0						0														
9	Downy Woodpecker	1				1													0	0													
10																																	
11	Eastern Kingbird											1																					
12	Grt. creasted Flycatcher	1		1	1													1															
13	Eastern Phoebe				1		1	0					0						0			1											
14	Acadian Flycatcher				1																												
15	Traill's Flycatcher																																
16	Ea. Wood Pewee		1	1			0					1	0					3	0	0	3												
	Horned Lark																																
19	Rough-winged Swallow	2	2	2	5	4					2							3															
20	Barn Swallow	1	1	3	2	2	1			2								5				2											
21	Purple Martin	2	4																														
22																																	
23	Blue Jay	1			1	1						1	0					1	4	0		4	4	2									
24	Common Crow	3	2	2	3	1	2			6								3	0	2	6	2	3										
25	Carolina Chickadee				6	2				4	3	0						1	0	0	10	1											
26	Tufted Titmouse	1	1	2	1	1	1	0		1								2	0	0	4												
27	White-br. Nuthatch					1		0					0						0		2												
28	House Wren									2																							
29	Bewick's Wren																																
30	Carolina Wren		1		1							1	0					2	0	3	0	1											
31																																	
32	Robin	4	2	2	1	2	8	3		5	5							4	9		5	9	6	4									
33	Wood Thrush	1	1		1	1	0					1	0					2	0														
34	Western Bluebird																	4															
35	Blue-gr. gnatcatcher				1																1	0	1										
	Cedar Waxwing																		3														
	Loggerhead Shrike																																
38	Starling	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	✓							
39	Mockingbird	1	1	1	5	3				2	2										2	1											
40	Catbird												0																				
	Brown Thrasher	3	1	6	8	1	3	2	0	1	4							1	5		2	1											

SUMMER BIRDS OF STEELE CREEK PARK 1971

BRISTOL, TENNESSEE

PARK AND RECREATION COMMISSION

		1							2					3					4								
	SPECIES	1 June	2 June	4 June	5 June	6 June	13 June	15 June	16 June	22 June	25 June	3 July	4 July	7 July	10 July	11 July	12 July	14 July	16 July	20 July	21 July	28 July	29 July	30 July	1 August	11 August	12 August
	White-eyed Vireo						1			2							1	1									
	Yellow-thr. Vireo																										
	Red-eyed Vireo							0		2		0						0	1	1							
	Warbling Vireo																										
	Black-and-white Warbler	1		1		1	0					0					1	0									
	Prothonotary Warbler																										
	Worm-eating Warbler	1		1	1																						
	Yellow Warbler																										
	Yellow-throated Warbler																										
	Prairie Warbler																										
	Ovenbird	1	1	1	1	1	0			1		0															
	Louisiana Warbler											0						0		0							
	Water Thrush											0						0		0							
	Kentucky Warbler											0						0		0							
	Yellowthroat																										
	Yellow-br. Chat		1																								
	Hooded Warbler																	3									
	American Redstart																										
	House Sparrow																										
	Eastern Meadowlark	2		2	1	3					2																
	Red-winged Blackbird		1																								
	Orchard Oriole					2				1								1									
	Baltimore Oriole					1	2																				
	Common Grackle	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Brown-headed Cowbird		6		1	2				1																	
	Scarlet Tanager											1															
	Summer Tanager	1		1	1	1	0				1						1	0	1								
	Cardinal	1	1	1	2	1	3	1	0	3	3	0					3	4	0	3	4	0	7	2	2		
	Blue Grosbeak																										
	Indigo Bunting	2	1	2	2	1				1	2						2	5	0	1	3	3					
	Dickcissel																										
	American Goldfinch					1														1	2		1				
	Rufous-sided Towhee	4	2	3	1	2	3	3	0	3	2	0	0				3	8	0	0	7	3	5	2	2		
	Grasshopper Sparrow																										
	Chipping Sparrow	1																									
	Field Sparrow	2								1	1						3										
	Song Sparrow		1	1		0						0					1	2	0	1	0	3		1			

The species of birds found in the park are summarized in the Natural History Inventory, Steele Creek Park, Summer 1970, by Brent Rowell. Most of the species listed by Rowell were seen in 1971 except for such birds as the Red Crossbill which should be considered rare. The following species were not encountered by Rowell and are therefore summarized here. With the addition of these five species, the checklist of birds for Steele Creek Park includes 77 species.

Yellow-Crowned Night Heron
Nyctanassa violacea

The heron was seen by Wallace Coffey on 21 June. It perched on a lifeguard stand at the beach between 9:40 am. and 9:50 am., during which time it was observed by Coffey and several lifeguards. Although not a rare bird, it is seldom seen because of its nocturnal habits.

Great Horned Owl
Bubo virginianus

Although this bird had been reported to Rowell during the summer of 1970, Rowell was not able to confirm the reports. This bird was heard by the Naturalist 6 July 1971 on Side Saddle and again 28 July on Front Knob. It was heard again on Front Knob on 9 August by Wallace Coffey.

Screech Owl
Otus asio

This owl was also reported to Rowell. It was heard 28 July 1971 by Wallace Coffey near the park entrance and again near the beachhouse on 11 August.

American Woodcock
Philohela minor

This bird was flushed from the ground in Slagle Hollow on 7 July. It was heard and seen by Wallace Coffey and Bill Yambert and was heard by Benny Rutherford, Boyd Barnes and the Naturalist.

Red-tailed Hawk
Buteo jamaicensis

A Red-tailed hawk was seen flying into Slagle Hollow from Carden Hollow on 13 July by Wallace Coffey.

(Species Account)

Monday

31 May 1971

Birds:

Robin - Young bird seen on park bench just above beach area.

Barn Swallow - Nest in rafters of train station. There had been 4 eggs; 1 was hanging on outside of mud nest, 1 was crushed on the the concrete floor, and 2 eggs were still in the nest. The nest is probably abandoned.

Two adult swallows were seen flying under V. F. W. shelter and were probably in the process of building a nest although the actual site was not found.

(Species Account)

Wednesday
2 June 1971

Birds:

Flicker- Seen hollowing out locust tree on right of drive 500 ft. from gate toward beach area. The bird did not notice my approach and I was able to get within 7 ft. of it. The bird noticed something different and instead of immediately resuming its pecking would start into the hole and immediately jump back out. He repeated this several times and when I did not move again he resumed his work on the tree.

Robin- Nest found in cedar tree 300 ft from gate. Nest is in branch hanging out over the drive.

Black-billed cuckoo- Adult and two young seen in woods along gravel drive between golf course and boat dock.

(Species Account)

Sunday
6 June 1971

Birds:

Sparrow Hawk - seen flying over pasture field near gate.

Ruffwinged Swallow - nest in cliff near dam spillway.

(Specied Account)

Tuesday
15 June 1971

Birds:

The waterfowl survey resulted in the following:

Mallards - 12 males, 7 females
Domestic Ducks - 16
Domestic Geese - 4
Unknown - 1

(Species Account)

Wednesday
16 June 1971

Birds:

Following species found in northeast end of Slagle Hollow:

Species	Number
Yellow billed cuckoo	1
Common Crow	1
Eastern Phoebe	1
Red - eyed vireo	1
Woodthrush - on nest, 4 young - nest 5 ft. from ground in small maple.	
Ovenbird	1
Worm - eating warbler	1

(Species Account)

Monday
21 June 1971

Birds:

Yellow - crowned night heron - Wallace Coffey observed the bird perching on the lifeguard stand at the northeast end of the beach from 9:40 am. - 9:50 am. The bird was seen by several of the lifeguards and when a group of them moved toward it, it flew to the trees in the picnic area northeast of the Beachhouse. The bird was not seen again that day. This is the first time this bird has been reported in the park.

(Species Account)

Tuesday
22 June 1971

Birds:

White - eyed vireo - pair appeared to be nesting in tree near Broad Street in front of stables.

A yellow warbler was seen near stables but was not seen long enough to be identified.

(Species Account

Friday
25 June 1971

Birds:

Yellow-shafted Flicker - nest found in stump of elm 150 ft. inside gate to left of drive to beachhouse. Nest contained 3 young ready to leave the nest within a few days.

(Species Account)

Saturday
3 July 1971

Birds:

Broad- winged hawk - seen near stables by Brent Rowell.

Eastern Kingbird - on electric wire near entrance gate. Identified
by Genie Jackson.

(Species Account)

Monday
5 July 1971

Birds:

Catbird ; Seen by Wallace Coffey. Was carrying nesting material into locust tree across lake from train tunnel.

(Species Account)

Tuesday
6 July 1971

Birds:

Great Horned Owl - Heard by Naturalist and Genie Jackson in knobs
to right of reservoir from 8:45 pm. - 9:15 pm.

(Species Account)

Wednesday
7 July 1971

Birds:

Broad-winged hawk - Identified in Slagle Hollow by Wallace Coffey.

American Woodcock - Slagle Hollow

Red-eyed vireo-nest in red maple, 6 feet above ground in Slagle Hollow.

(Species Account)

Thursday
8 July 1971

Birds:

Red Bellied Woodpecker - seen near park boundary in Slagle
Hollow by Wallace Coffey.

(Species Account)

Sunday
11 July 1971

Birds:

Wood thrush - broken egg found by Wallace Coffey in Slagle Hollow trail. Nest near trail appears to be active.

Bobwhite - Mother with young seen in trail near entrance of Slagle Hollow by Coffey.

(Species Account)

Monday
12 July 1971

Birds:

Eastern Bluebird - 4 immature birds were sitting on electric line near end of train track.

Bobwhite - standing in road near the Bend at 3:35 pm.

(Species Account)

Tuesday
12 July 1971

Birds:

Mallard duck - at 11:30 pm. I counted 46 females and immatures swimming in the Bend.

(Species Account)

Tuesday
13 July 1971

Birds:

Killdeer - one seen on beach by Wallace Coffey.

Redtail Hawk - seen in Slagle Hollow by Coffey.

(Species Account)

Sunday
18 July 1971

Birds:

House Wren - seen near Little Lane between gate house and upper parking lot.

Cedar Waxwing - one pair in tree near upper parking lot.

Both of the preceeding were seen by Wallace Coffey.

(Species Account)

Wednesday
28 July 1971

Birds:

Screech owl - report near park gate at 3:30 am. by Wallace Coffey.

(Species Account)

Wednesday
28 July 1971

Great Horned owl - was heard on Front Knob at 11:25 pm. Called only twice.

(Species Account)

Thursday
29 July 1971

Mockingbird - heard singing from cedar tree west of proshop at 12:25 am.
and again from 2:45 am. to 3:05 am.

Green Heron - gave two calls from gorge at 4:10 am.

(Species Account)

Monday
9 August 1971

Birds:

Great Horned Owl - Heard on Front Knob by Wallace Coffey between
8:45 pm. and 9:10pm.

(Species Account)

Wednesday
11 August 1971

Birds:

Screech owl - reported by Wallace Coffey to be near beachhouse at
11:30 pm.

A Summary of the Herptiles

Northern Copperhead
Akistrodon contortrix mokeson

Several times during the summer people reported seeing copperheads in the park, however, these reports could not be substantiated except once when a copperhead was reported in a tree near the beachhouse. It turned out to be a black rat snake, and the boatdock operator killed a water snake thinking it was a copperhead. Only one copperhead was actually seen by the Naturalist. On 16 July one was seen in the trail from Mill's Creek to the cave and was positively identified as a Northern copperhead.

Black Rat Snake
Elaphe obsoleta obsoleta

This snake had not been found in the park previously, but during the summer three specimens were identified. One had been killed on the golf course, one killed on the road near the park entrance and one live specimen was caught in the picnic area east of the Beachhouse.

Northern Water Snake
Natrix sipedon sipedon

This common water snake is colored somewhat like the Northern copperhead but the markings are quite different. Although nonpoisonous this snake can inflict a painful bite. This snake ^{was} seen at least twice in Deep cove on the rocky bank near the water.

Fence Swift
Sceloporus undulatus hyacinthinus

This common lizard is a dull brown and can easily be overlooked when it is resting on the bark of a tree. It was seen in the woods near the dam, and one was seen on a tree on Flat Ridge.

Eastern Box Turtle
Terrepenne carolina

This common turtle was encountered frequently during the summer in all types of terrestrial habitats from the picnic area to Slagle Hollow. It was most commonly seen on the tops of the knobs such as Flat Ridge.

Eastern Spiny Softshell Turtle

Trionyx spinifer spinifer

The Softshell, an aquatic turtle, was frequently seen sunning itself on the log that floats in the Bend. On 23 July three specimens approximately 14 inches long were seen sunning on the log. Other aquatic turtles were seen but could not be positively identified from a distance. Attempts were made to trap turtles in the Bend, but the attempts were not successful.

Snapping Turtle
Chelydra serpentina

A rather large specimen measuring 14½ inches was found on the bank of the pool below the dam. The turtle was dead but there were no external injuries evident. Two small specimens were found swimming in the lake at the mouth of Steele Creek.

Cave Salamander
Eurycea lucifuga

Cave salamanders were found at only two locations in the park. Four were seen in the limestone cave and one was found in the spring beside Steele Creek just below Lakeshore drive.

Northern Dusky Salamander
Desmognathus fuscus fuscus

This is the most commonly encountered salamander in the park. It was found in the spring beside Steele Creek and several specimens were seen in the creek in Slagle Hollow.

Slimy Salamander
Plethodon glutinosus glutinosus

Two small Slimy salamanders were found under a log at the campsite in Slagle Hollow.

Bullfrog
Rana catesbeiana

Bullfrogs were often heard calling in White Oak Cove and from along the bank near the Bend. One specimen weighing 302.6g was caught near the mouth of Steele Creek by Brent Rowell.

Northern Leopard Frog
Rana pipiens pipiens

Three specimens were identified in Slagle Hollow. They were found in mud puddles along the trail through the hollow.

American Toad
Bufo americanus americanus

This frog was found near the beachhouse, in the knobs just west of the recreational area, and in Slagle Hollow.

Fowler's Toad
Bufo woodhousei fowleri

This toad should be common in the park, however, the American toad is seen more frequently. A Fowler's toad was heard calling near the beachhouse, 29 July.

(Species Account)

Tuesday
1 June 1971

Reptiles:

Northern Water Snake - 45-in. specimen mistaken for copperhead and killed by George Hicks. Snake was in edge of water in Deep Cove.

Two other snakes were killed by two college students who reported the snakes to be copperheads, however, the snakes could not be produced; and since they were reported to be in the water it should be assumed that these were water snakes.

(Species Account)

Friday
4 June 1971

Herptiles:

Box turtles - 2 seen on Flat Ridge Trail near top of
Flat Ridge Knob.

(Species Account)

Saturday
5 June 1971

Herptiles:

Black Rat Snake - Measured 4 ft. $\frac{1}{2}$ in. Found dead on third fairway near first bridge over creek. The snake's head had been crushed. Its eyes were cloudy, indicating it was about to shed. This may be the reason the snake was not able to get away from whoever killed it.

(Species Account)

Sunday
6 June 1971

Herptiles:

Fence swift - seen on tree near dam by Brent Rowell

Box turtle - shell found near dam.

Cave salamander - Caught 1 in limestone cove. In crevice in ceiling 5 ft. from mouth of cave.

(Species Account)

Tuesday
15 June 1971

Herptiles:

Eastern Box Turtle - One seen on Flat Ridge Trail near
Mill's Creek.

Black Rat Snake - 4 foot specimen found dead on Broad
Street near park entrance.

(Species Account

Wednesday
16 June 1971

Herptiles:

American toad - Found on trail down south slope of Hightop knob.

Head - body length 2 3/8 inches

Tibia 1 inch

Eastern box turtle - Ontop of Little Knob one specimen found beside run-off in Slagle Hollow.

Northern Dusky salamander - 2 specimens approximately 5 in. long caught in run-off water at northeast end of Slagle Hollow.

(Species Account)

Monday
21 June 1971

Herptiles:

At 9:55 pm. Wallace Coffey saw the larval stage of a salamander in the spring on the northeast side of Steele Creek. He described the salamander as: "chunky body, salmon colored, maroon gills and about 5 inches long. It swam back into the spring out of sight."

Northern Dusky salamander- one 89mm specimen caught on stones beside spring on southwest side of Steele Creek. One smaller specimen caught in spring on other side of creek.

Cave salamander - One specimen caught in spring on southwest side of Steele Creek. 3 specimens caught, measured and released in cave above Mill's Creek, measurements (in millimeters are:)

specimen #	Head to Anus	Tail	total
1	68	103	171
2	67	79	146
3	68	80	168

(Species Account)

21 June

Herptiles:

Bullfrog - caught by Brent Rowell on edge of lake in three
Springs Picnic area.

weight - 302.6 g

body length - $5\frac{1}{2}$ inches

(Species Account)

Tuesday
22 June 1971

Herptiles:

Eastern Box turtle - Found in picnic area northeast of beachhouse by three boys. Was later released at some location.

(Species Account)

Tuesday

29 June 1971

Herptiles:

American toad - caught at 4:00 am. near beachhouse by Jim
McCormick (night gate attendant). Toad weighed 87 grams.

(Species Account)

Wednesday
30 June 1971

Herptiles:

Black Rat Snake - Approximately 3 1/2 ft. caught in picnic area beside beachhouse by park workman. Given to the naturalist who identified it and placed it in a cage. The snake was very active but did not try to bite. It will be kept as a pet through out the summer and eventually released.

(Species Account)

Wednesday
7 July 1971

Herptiles;

Northern Dusky Salamander - Three specimens seen in Slagle Hollow.

Northern banded watersnake - 1 specimen approximately 12 in. long found in bush overhanging stream in Slagle Hollow.

(Species Account)

Saturday
10 July 1971

Herptiles:

American toad - Found in trail in Slagle Hollow.

Slimy Salamander - two small specimens (Approx. 2 in.) found under log at camp site in Slagle Hollow.

Northern Dusky salamander - several specimens ranging from 1 in. to 5 in. were found by rolling over stones in the creek in Slagle Hollow.

(Species Account)

Sunday
11 July 1971

Herptiles:

American toad- Brick red coloration found on ridge southeast of
campsite.

(Species Account)

Sunday
13 ~~July~~ 1971
July

Herptiles:

Snapping Turtle - found beside pond below dam. Shell measured
15 3/4". The turtle was dead but there were no external injuries
evident.

(Species Account)

Friday
16 July 1971

Herptiles:

Copperhead - approximately 24" long. Was lying stretched out across path halfway between Mill's creek and the cave. It was 7:30 am. and it was cloudy so the snake was not sunning. Apparently the snake froze when it saw us. I nudged the snake with a stick but it seemed reluctant to move. Finally it did crawl off into the tall grass beside the path where it partially coiled up. It did not attempt to strike us we walked on by it.

(Species Account)

Saturday
17 July 1971

Herptiles:

Box turtle - Flat Ridge Trail, Flat Ridge.

Fence Swift - on tree fallen across Flat Ridge Trail, Flat Ridge.

(Species Account)

Wednesday
21 July 1971

Herptiles:

Leopard frog - three (approximately $2\frac{1}{2}$ " long) found in puddles along trail in Slagle Hollow.

(Species Account)

Friday
23 July 1971

Herptiles:

Fence swift - Two were in brambles on shore of reservoir in Deep Cove.

Softshell turtle - three turtles approximately 14 inches long were sunning on log in The Bend at 11:45 am.

(Species Account)

Thursday
29 ~~July~~ August 1971

Herptiles:

Snapping turtle - shell measuring approximately 10 inches. Swam along beach area between 1:00 pm. - 1:30pm.

(Species Account)

Thursday
29 July 1971

Bull frog - heard 6; 2 in The Bend, 2 in White oak cove, 1 in The Gorge, 1 in Par Bay.

Fowler's toad - heard calling from near the mouth of the Gorge.

(Species Account)

Saturday
7 August 1971

Herptiles:

Northern banded watersnake - (approx. 2 ft.) on rocky bank on south side of Deep Cove.

A Summary of the Fishes

Largemouth Bass
Micropterus salmoides

Jerry Rassmussen, a biologist with the Game and Fish Commission, visited the park on 25 June. We seined Par Bay and in one seine haul caught an estimated 2,000 largemouth bass fry. This indicates that the bass are reproducing well and also indicates that there must be a rather large population in the lake. Over a period of two weeks, however, only two bass were caught in the gill net. Although the two bass were 14 inches and 16 inches long, the catch was disappointingly low. Rassmussen did point out that attempts to gill net fish in a lake are usually not very successful after the fish have established there territories and stop moving around so much. This probably also explains the decline in fishing success later in the summer. Apparently there are some good-sized bass in the reservoir and they are reproducing, but fishing is not as good as it should be due to the abundance of natural food available.

Bluegill
Lepomis ~~microchirus~~
macrochirus

On 25 June several small specimens were seined from White Oak Cove and a few from Par Bay. Bluegill provide good fishing in White Oak Cove and especially near the spillway at the dam where boys from the Bluff City Highway area often fish. Several bluegill were seined from the spillway.

Carp
Carpoides thompsoni
Cyprinus carpio

Carp are abundant in the lake and can often be seen feeding along the banks and around the trash that accumulates near the mouth of Steele Creek. ~~One near the mouth of Steele Creek.~~ One 11 7/8-inch carp was seined from the spillway and two from the mouth of Steele Creek. One carp was caught in the gill net. Although it is not a sport fish, many carp are caught by fishermen around The Bend and many of them are kept.

Channel Catfish
Ictalurus punctatus

Several catfish were seen during the summer, many of them dead. On 15 July a catfish 27 7/8 inches long was caught in the gill net. Catfish seem to be abundant in the lake but few people ever catch any.

Gizzard Shad
~~Alosa aestivalis~~
Dorosoma cepedianum

Shad are abundant in the lake. They were often seen in large schools in White Oak Cove and near the dam, and during the early part of the summer were seen in large numbers in Steele Creek. One shad measuring 6 3/4 inches was seined from the spillway. Shad provide an almost limitless supply of food for the bass and are partially responsible for the poor bass fishing.

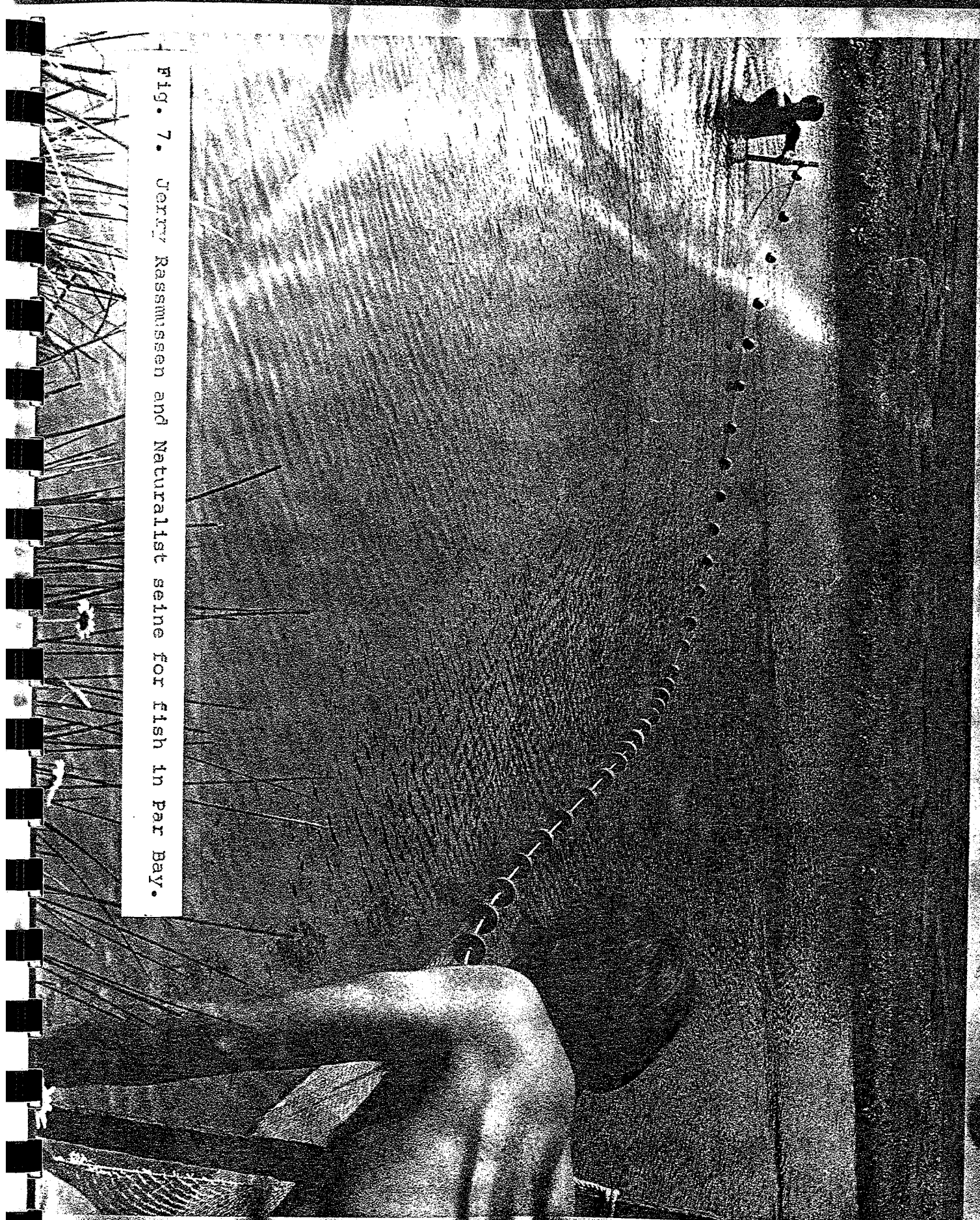
Minnow
Notropis sp.

Minnows have been seen in the lake near the spillway. One was seined from the spillway and three were seined from the creek that runs through Slagle Hollow.

Sucker
Catostomus sp.

Like the minnow, this is a common fish of the small stream. Two 5½-inch specimens were seined from the spillway.

Fig. 7. Jerry Rasmussen and Naturalist seine for fish in Par Bay.





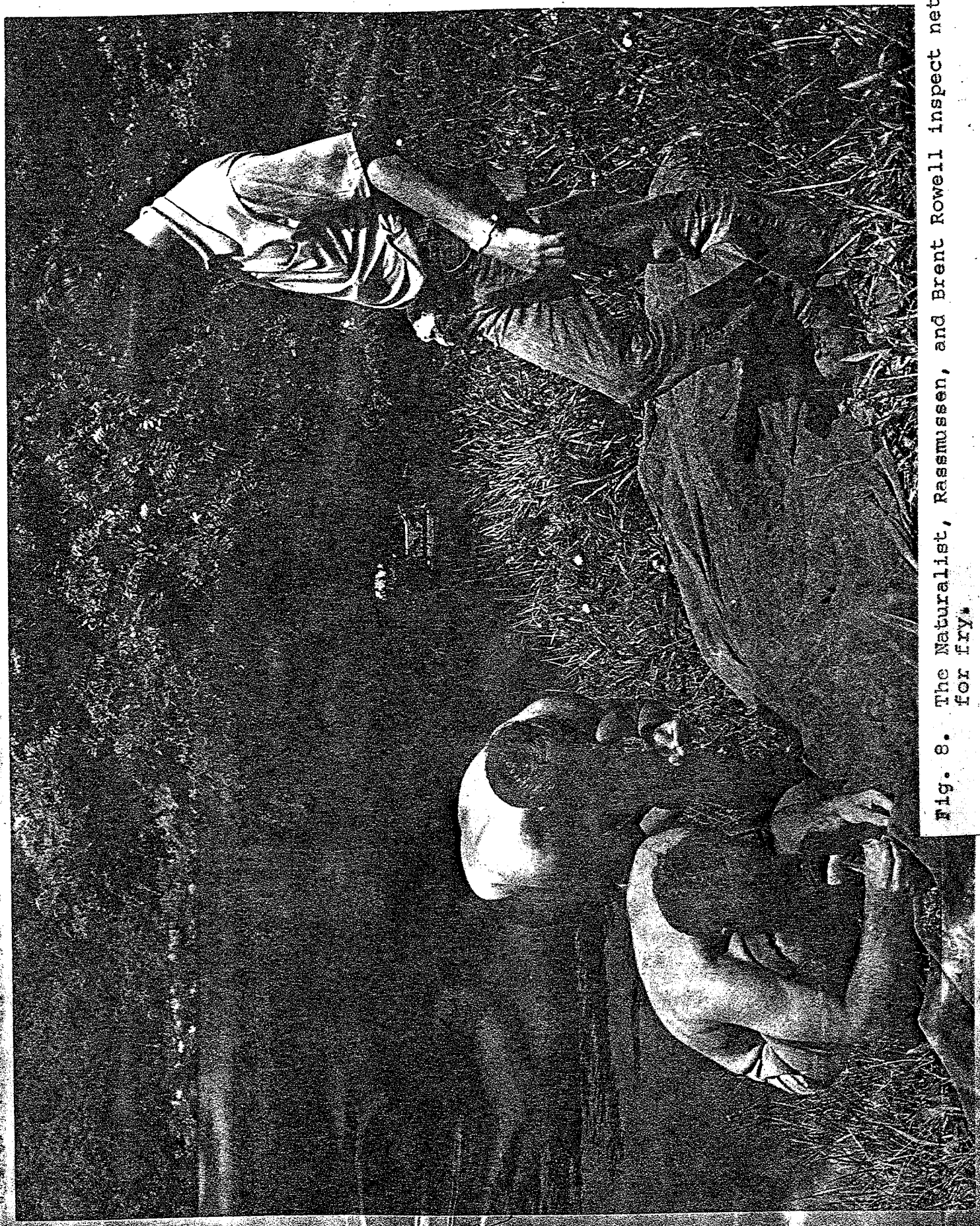


Fig. 8. The Naturalist, Rasmussen, and Brent Rowell inspect net for fry.



(Species Account)

Monday
31 May 1971

Fish:

Gizzard Shad - one seen in White Oak Cove with fungal growth covering tail.

Catfish - About 8 in. long. Dead, floating in lake near dam.

Carp - 8 carp measuring approximately 10 in. were caught by lady and young girl from bank near train tunnel.

Shad - School, numbering about 60, seen in White Oak Cove.

(Species Account)

Tuesday
15 June 1971

Fish:

Three elementary school boys fishing with worms caught the following in White Oak Cove:

Bass - 12 inches

Carp - 2-10 inches

Bluegill- 18 ranging from 4 to 6 inches.

(Species Account)

Friday
25 June 1971

Fish:

Large Mouth Bass - caught in seine. Number was estimated at 2,000 fry approximately 1 inch long.

The two other seine hauls brought in several shad and two species of fry that were unidentifiable.

(Species Account)

Wednesday
30 June 1971

Fish:

Gizzard shad - Approximately 15, ranging in size from 6 to 8 inches were caught in a seine in Steele Creek.

Carp - 2 caught in Steele Creek in a seine.

One unidentified minnow was caught. It was given to Charley Peters and Roger Campbell for their work on the creek, however, they promised to return the preserved fish to the Naturalist later in the summer.

(Species Account)

Monday
5 July 1971

Fish:

Gizzard Shad - Spawning activities noted along bank in gorge.

(Species Account)

Saturday

10 July 1971

Fish:

Minnow (Notropis Sp.) - one 2 3/4 - inch specimen seined from creek in Slagle Hollow. Two 1-inch specimen were also caught.

Several larger fish (up to 6 inches) were seen in the deeper pools in the creek.

(Species Account)

Thursday
15 July 1971

Fish:

Largemouth bass - caught in gill net 10 ft. from shore, 6 ft. deep. Fish was half-eaten. A conservative estimate of the fish's original length would be 16 inches.

Channel Catfish - Caught in gill net 20 ft. from shore, 19ft. deep. Measured 27 7/8 " and is estimated to have weighed between 7 and 8 pounds.

Both fish were caught near the southwest shore of reservoir.

(Species Account)

Friday
16 July 1971

Fish:

Carp - 9 3/8" - caught in gill net 10 ft. from northwest shore, 10 ft. deep.

Large mouth bass - 13" - caught in gill net 10 ft. from northwest bank, 6 ft. deep. Estimated weight of bass is 1 1/2 pounds.

(Species Account)

Tuesday
20 July 1971

Fish:

The creek below the dam was seined from the bridge crossing the creek in the Kettlefoot shooting range to the spillway with no results. Only one fish (probably a shad) jumped over the seine.

We attempted to seine the deep pool at the base of the dam, but the water was over our heads.

Several minnows were seen in a pool in the spillway - seining of the pool yielded the following fish.

Species	Length
Bluegill	6 5/8"
Bluegill	5 3/4"
Gizzard Shad	6 3/4"
Carp	11 7/8"
Bluegill	6 1/8"
Bluegill	5 5/8"
Sucker	5 1/2"
Sucker	5 1/2"
Minnow	2 1/2"

(Species Account)

Thursday
29 July 1971

Fish:

Carp - several schools of these fish came to the edge of the beach. They were apparently attracted to the light from the beachhouse.

(Species Account)

Saturday
14 August 1971

Fish:

Two minnows were observed to swim up over spillway where the water first leaves the lake. The minnows (approx. 3 inches long) swam through water $1\frac{1}{2}$ inches deep and flowing at a velocity of 4 ft./sec. over a distance of 10 ft.

A school of about 100 minnows was seen in the lake just above the spillway.

A Summary of the Invertebrates
(excluding insects)

No classification or special work was done with invertebrates other than the insects and those connected directly with the limnological work.

A few of the common invertebrates were noted. These may be found in "Species Account - Invertebrates."

(Species Account)

Wednesday
26 June 1971

Invertebrates:

Milliped - Yellow, spotted, 2-inch specimen along ditch in
Slagle Hollow.

(Species Account)

Monday
21 June 1971

Invertebrates:

Earthworm - several seen crawling on pavement during and after rain from 9:00 pm. to 12:00 midnight.

(Species Account)

Tuesday
20 July 1971

Invertebrates:

Tick - Found crawling on my pant's leg after walking through weeds below dam.

Orb weavers (spiders) - several had spun webs across trail through Slagle Hollow.

(Species Account)

Wednesday
21 July 1971

Invertebrates:

Water Spider - large spider approximately 3" from tip of leg to tip of leg. Found in canoe - apparently fell in while canoe was brushed along plants at shoreline.

A Summary of the Insects

INSECTS

Common Name

Order, Family or Scientific Name

Ant
 Beetle, Ladybird
 Japanese
 June
 Bumblebee
 Butterfly, European Cabbage
 Caterpillar, Yellow-necked
 Cicada
 Cricket, Cave
 Damselfly, Narrow-winged
 Firefly
 Fly, Green Blow
 Horse
 Fritillary, Great Spangled
 Grasshopper, Bond-winged
 Long horned
 Honeybee
 Mantis, Preying
 Milkweed Bug
 Monarch
 Mosquitoe
 Moth, Luna
 Polyphemus
 Mud-dauber
 Nymph, Wood
 Skipper, Silver Spotted
 Sphinx, Clear-winged
 White - lined
 Strider, Water
 Sulfur, Common
 Swallowtail, Black
 Tiger
 Wasp, Paper
 Yellowjacket

Order Hymenoptera
Hippodamia convergens
Popilla japonica
 Family Scarabaeidae
Megabombus sp.
Pieris rapae
Datana ministra
 Family Cicadidae
Ceuthophilus sp.
 Family coenagrionidae
Photuris pennsylvanica
Phaenicia sericata
Tabanus sp.
Speyeria cybele
Spharagemon sp.
 Family Tettigoniidae
Apis mellifera
Mantis religiosa
Lygaeus kalmii
Danaus plexippus
 Family Culicidae
Actias Luna
Antheraea polyphemus
Sceliphron caementarium
Cercyonis pegala
Eparcyreus clarus
 Family Sphingidae
 Family Sphingidae
Gerris sp.
Colias philodice
Papilio polyxenes
Papilio glaucus
 Family Vespidae
Vespula maculifrons

(Species Account)

Tuesday
1 June 1971

Insects:

Unidentified insect larvae were extremely numerous
in creek below dam.

(Species Account)

Tuesday
15 June 1971

Insects:

Ant colony - Found under flat rock near Mill's Creek
where Flat Ridge Trail Crosses.

Mosquitoes - Large number observed on and around rock
outcropping on Flat Ridge Trail above Mill's
Creek.

Green flies - Large masses of eggs found on snake carcass
on Broad Street.

(Species Account)

Wednesday
16 June 1971

Insects:

Mosquitoes - Large numbers in Shallow Cove - Short Branch
Area - Also along run-off in Slagle Hollow.

(Species Account)

Monday
21 June 1971

Insects:

Firefly - Numerous ones seen around park after dark.

Water strider - 6 seen near mouth of Steele Creek (10:00
pm.)

Cave cricket - 4 seen on rocks surrounding spring on
Southwest side of Steele Creek.

(Species Account)

Sunday
4 July 1971

Insects:

Grasshoppers - numerous, less than 1/2 inch long, along northwest fence row.

(Species Account)

Sunday
11 July 1971

Insects:

Luna moth - found dead, lying in trail into Slagle Hollow. Found by Wallace Coffey.

Cicada - heard singing during the daylight hours in Slagle Hollow.

Water Strider - found in stream through Slagle Hollow.

(Species Account)

Friday
16 July 1971

Insects:

Monarch Butterfly - across The Bend from train track.

Black Swallowtails - 2 seen beside Flat Ridge trail where it crosses Mill's Creek.

Horsefly - one caught on Flat Ridge Trail, Flat Ridge. They are quite numerous inside beachhouse.

(Species Account)

Saturday
17 July 1971

Insects:

Preying mantis - 2 3/8", beside Flat Ridge Trail 500 ft. up trail from cave.

(Species Account)

Tuesday
20 July 1971

Insects:

Preying Mantis - (57mm) Slagle Hollow near park boundary.

Narrow - winged damsel fly - 4 seen in Slagle Hollow near park boundary.

Japanese beetle - numerous on plants in open areas of Slagle Hollow.

Cicada - heard in Slagle Hollow near park boundary.

Black swallowtail - on common milkweed flowers in Slagle Hollow near park boundary.

Great spangled fritillary- 5 seen on Common milkweed flowers in Slagle Hollow near park boundary.

(Species Account)

Wednesday
21 July 1971

Insects:

Narrow-winged damsel fly - 17 counted along southwest shore of lake.

Tiger Swallowtail - seen in Side Ridge Cove.

Monarch - seen flying across lake near Little Cove.

(Species Account)

Friday
23 July 1971

Insects:

June Beetle - found beside lake across from end of train track.

Short - horned grasshopper - numerous along trail to dam.

(Species Account)

Saturday
24 July 1971

Insects:

Mud dauber - flew into office at Beachhouse at 3:45 pm.

The following insects were collected in the old field growth between Mill's Creek and the drive to the sewage pumping station.

wasp
European cabbage butterfly
Silver spotted skipper
Common sulfur (butterfly)
Wood nymph (butterfly)
Bumblebee
Honeybee
Milkweed bug
Clear - winged sphinx

The following insects were collected beside lake across from train track.

Butterflies:

Monarch
Great Spangled Fritillary
Wood nymph
3 Black Swallowtails
Tiger Swallowtail
Band-winged grasshopper

Japanese beetles were noted on plants in both areas.

(Species Account)

Thursday
29 July 1971

Insects:

The following moths were caught flying around the floodlights at the beachhouse between the hours of 12:00 midnight and 5:00 am.

Polyphemus moth

Luna moth

White - winged sphinx

Yellow - necked caterpillar

Lady bird beetle - found on plant near stone wall at beach.

Long-horned grasshopper - calling from grass above train station.

(Species Account)

Saturday
7 August 1971

Insects:

Yellow jackets - nest in ground beside trail up ridge west of dam.

A Summary of the Flora

(Species Account)

Friday
4 June 1971

Flora:

The following plants were seen along Flat Ridge Trail:

False Soloman's Seal	in bloom
Beard tongue	in bloom
Mountain Laurel	in bloom
Viburnum	
Bluxets	in bloom
Azaleas	in bloom
Spotted Wintergreen	
Wild Rose	
Black Berries	
Wild grapes	
Squaw root	
Blue berries	in bloom

White pine - Found 40 ft. off trail to right coming from lake. Measured 55 inches in circumference.

(Species Account)

Sunday
6 June 1971

Flora:

Mountain Laurel - In bloom on Bogey Knob.

(Species Account)

Tuesday
15 June 1971

Flora:

The following plants were found in the area near the park cave.

Sweet yellow clover	in bloom
Sweet white clover	in bloom
Rough-fruited cinquefoil	in bloom
Chicory	in bloom
Queen Anne's Lace	in bloom
Purple Wood Aster	in bloom
Robin's plantain	in bloom
Poikeweed	
Ox - eye daisy	in bloom
Venus' looking glass	in bloom
Yarrow	in bloom

Virginia creeper- A bed 50 ft. x 150 ft. growing along Flat Ridge Trail just above Mills Creek. Some poison ivy was scattered throughout the bed.

Day lily - In bloom in Little Cove near edge of lake.

(Species Account)

Wednesday
16 June 1971

Flora:

The dominante canopy species in the northeast part of Slagle Hollow are:

Tulip tree

one measured 4' 1½" circumference and was approximately 75 ft. high.

White oak
Hickories
Sugar Maple
Beech

one measured 7'1" in circumference.

Blackgum
White Ash

The understory consists of:

Sassafras
Flowering Dogwood

Tremendous amount in north east end of hollow.

Redbud
Ironwood (carpinus)
Witch - Hazel
Sourwood
Common Spicebush
Strawberry bush
Goose berries
Wild hydrangea

(Species Account)

16 June 1971

Flora:

Herbs & vines found in Slagle Hollow are:

Tick trefoil
Virginia creeper
White Baneberry
Panic grass
Greenbriar
Wild ginger
Trumpet honeysuckle
Stinging nettle
Goat's beard
Wild geranium
False solomon's seal
Soloman's seal
Blood root
Indian pipes
May apple
Partridge berry
~~erect~~ dwarf iris

Ferns found in Slagle Hollow:

Christmas fern
Rattlesnake fern
Maiden hair (spleenwort)

White Oak - Located 14 yards into woods near 4th Tee through thicket of tulip trees, measures: 8"5½" in circumference.

(Species Account)

Saturday
19 June 1971

Flora:

The following Species of fungi were found & identified:

<u>Common name</u>	<u>scientific name</u>	<u>location</u>
Club-footed Clitocybe	<u>Clitocybe clavipes</u>	The Pines
Angular-pored Polypore	<u>Polyporus arcularius</u>	Railroad Crosstie
White Marasmius	<u>Marasmius candidus</u>	The Pines
Glistening Coprinus	<u>Coprinus micaceus</u>	Lawn near Beachhouse
Two-color Bolete	<u>Boletus bicolor</u>	Beside drive to Beach house.
Mycenas	<u>Mycena sp.</u>	The Pines
Sylvan Mushroom	<u>Agaricus sylvicola</u>	Near park entrance

At least two other species were found but I was not able to identify them using the available text (Hesler, L. R. 1960. Mushrooms of the Great Smokies. The University of Tennessee Press.)

(Species Account)

Monday
21 June 1971

Flora:

Tricholoma sp. - mushroom found near Mill's Creek by Benny Rutherford. The other fungus Rutherford found was probably a bolete, but was not identifiable with the text used.

(Species Account)

Tuesday
22 June 1971

Flora:

Broad - leaved arrowhead - growing in water's edge in coves along south shore of reservoir.

Daylillies - in full bloom in little Cove.

Yellow Giant Hyssop - growing on south shore of reservoir near dam.

Two-color Bolete - growing along south shore near dam.

A large fungus (cap - $7\frac{7}{8} \times 9\frac{1}{4}$ " ; stalk - $6\frac{1}{2}$ ") was found growing in soil 5 ft. from water's edge in second cove from dam on south shore. The fungus is mushroom shaped but has tubes instead of gills underneath edge of cap and is probably a bolete.

(Species Account)

Wednesday
23 June '71

Flora:

Devil's snuff-box - 10-12 puffballs $1/2$ - 1 inch in diameter
seen at northeast end of beachhouse.

(Species Account)

Friday
25 June 1971

Flora:

Chicory - white flowered chicory growing beside drive along Mill's Creek.

Moth Mullien - growing along Mill's Creek.

(Species Account)

Sunday
4 July 1971

Flora:

Boletes - 6, ranging from 4-6 inches in diameter were found in the northwestern corner of the park.

Butterfly weed - in bloom along lake and in picnic area.

Raspberries - ripe, along trail to dam.

Puffballs - several along on northwest boundry of park.

Black snakeroot- in bloom in cove near dam.

(Species Account)

Tuesday
6 July 1971

Flora:

Sourwood - In bloom along edge of Lake.

(Species Account)

Wednesday
7 July 1971

Flora :

The following plants were seen in Slagle Hollow:

Paw~~p~~aw
Ground pine (Lycopodium)
Liverwort
Twisted - stalk
Rattle snake plaintain
Wood lily (Cintonia)

(Species Account)

Saturday
10 July 1971

Flora:

The following list of plants were recorded from around our camp site in the north eastern end of Slagle Hollow.

Wild Flowers-

Wild geranium
Spotted wintergreen
Partridge berry
Greenbriar
Naked-flowered tick trefoil
Solomon's seal
False solomon's seal
Wild grape
Virginia creeper
Dwarf iris
Wild hydrangea
Stinging nettle
Blood root
Tall white lettuce
May apple
Stone crop
Louse wort
Round leaved wintergreen
Hepatica
Huckleberry

Trees-

Beech - (several mature trees and many seedlings)
White pine
Sycamore
Sugar maple
Blackgum
Ironwood
Yellow buckeye
Dogwood
Spice bush
Witch hazel
White oak
Blackjack oak
Hop- hornbeam
Tulip tree

Ferns -

Bracken
Rattlesnake fern
Christmas fern
Christmas fern (incised variety)
Ebony spleen wort
Maidenhair fern

(Species Account)

10 July 1971 con't.

Fungus-

Bolete-three boletes approximately 6 in. in diameter were found along trail near campsite.

The forest along the creek in Slagle Hollow contains mature trees of climax species. These areas are good examples of the "Cove hardwood forest."

(Species Account)

Sunday
11 July 1971

Flora:

The ridge southeast of our campsite in Slagle Hollow has a western exposure and a slope that is not too steep. The dominate tree species are oak with some maple and hickory and several other species scattered throughout.

The species of trees found are:

Beech
Sourwood
Blackgum
Whitepine
Virginia pine
Sassafrass
Tulip tree
Red Maple
Sugar Maple
Hickory (several species)
Northern oak
Chestnut oak
Blackjack oak
Black oak
Scarlet oak
Post oak
Wild cherry
Red cedar
Witch hazel
Hawthorn
Redbud
Spicebush

The following wild flowers, shubs, and vines were found along the same ridge southeast of our campsite.

Wild Hydrangea
Damnit briar
Dewberry
May apple
Wild geranium
Wild ginger
Stinging nettle
Bloodroot
Black snakeroot
Wild grape
False Soloman's seal
Clintonia
Squaw root
Blueberry
Smooth gerardia
Teaberry
Wild potato vine

(Species Account)

11 July 1971 con't.

Spotted wintergreen
Wild rose
Partridge berry
Butterfly weed
Honewort
Gobets'-rue

The following ferns were found in this area.

Christmas fern
Hay-scented fern
Ebony spleenwort
Maidenhair fern

(Species Account)

Monday
12 July 1971

Flora:

Horsetails - found growing beside of Mill's Creek where trail crossed.

Staghorn sumac - in bloom near power line crossing Pratt's Knob.

(Species Account)

Tuesday
13 July 1971

Flora:

Evening Primrose - In bloom beside railroad track. Plants were infested with Japanese beetles.

The following trees are found growing along flat ridge trail from Mill's Creek to the top of the ridge.

- Blackjack oak
- Chestnut oak
- Wild Cherry
- Box elder
- Redbud
- White pine
- Dogwood
- White Ash
- Beech
- Sycamore
- Red Maple
- Tulip tree
- Red Cedar
- Serviceberry
- Sugar Maple
- White oak
- American elm
- Yellow buckeye
- Mulberry
- Black Walnut
- Tree of heaven
- Black locust
- American elderberry
- Deciduous holly
- Perssimon
- Winged Sumac
- Staghorn Sumac
- Smooth Sumac
- Sourwood
- Blackgum
- Virginia Pine
- Mochernut Hickory
- Pignut hickory
- Ironwood
- Black oak.
- Scarlet oak
- Northern Red oak
- American Basswood

(Species Account)

Friday

16 July 1971

Flora:

Hophornbeam - beside Flat Ridge trail above The Bend.

Maple-leaved viburnum-Flat Ridge Trail, Flat Ridge.

Smooth ~~e~~ Gerardia - Flat Ridge Trail, Flat Ridge.

Stinkhorn - Flat Ridge Trail, Flat Ridge

Firepink - growing on bank beside trail to dam across the lake from shallow cove.

Denny Royal - Base of Front Knob on trail along lake - Identified by Kathleen Jackson.

Wild Phlox - Beside Mill's Creek where trail crosses.

(Species Account)

Tuesday
20 July 1971

Flora:

The following list of flora was made near the western boundry of the park land in Slagle Hollow. This area is partially open and has many of the species of plants characteristic of the early stages of sucession.

Trees:

Sycamore
Wild Cherry
Beech
Sassafras
Tulip tree
American elm
Witch hazel
Virginia pine
Flowering Dogwood
White oak
Red-bud
Yellow buckeye
Willow

Spicebush
Winged Sumac
Staghorn Sumac
Smooth Sumac
Pawpaw
White pine
Sugar maple
Blackjack oak
Sourwood
Black oak
Basswood
Alder
Box elder

Only a few scattered trees have reached maturity and in the open areas sumac dominates.

(Species Account)

20 July 1971 con't.

The following wildflowers were found in Slagle Hollow near the western boundary.

Great Ragweed
Ragweed
Crown-beard
Common Milkweed
Agrimony
Red Clover
Golden rod
Queen Anne's Lace
Sensitive plant
Brambels
Naked-flowered tick trefoil
Panicled tick trefoil
Wild geranium
Wild grape
Stinging nettle
Galax
Angelica
Damnit briar
Virginia creeper
Wild Hydrangea
Spotted touch-me-not
Hollow Joe-pye weed

Rough bed straw
Thimbleweed
Bowman's root
Wild bean
Strawberry
Basil
Aster
Honey-suckle
Prickly lettuce
Wild lettuce
Solomon's seal
White lettuce
Bull Thistle
Mullien
Spotted St. John's wort
Iris
Heal-all
Poison Ivy
Ox-eye daisy
Beggar-ticks
Yellow wood sorrel
Whorled loosestrife

The following ferns were also found:

Christmas fern
Ebony Spleenwort

(Species Account)

Wednesday
21 July 1971

Flowers growing at base of Bogey Knob facing boat dock:

Tall Bellflower

Thimble weed

Wildbean

Black snakeroot

Wild Hydrangea

Spotted ~~forget~~^{touch}-me-not

The following trees and shrubs at same location:

Basswood

Wild cherry

Alder

Flowers at base of Bogey Knob facing gorge:

Hollow Joe-pye weed

Whorled looses~~tr~~trife

Ox-eye daisy

Bloodroot

Horsenettle

Heal-all

Wild Rose

Honeysuckle

Sharp-winged MonKey flower

Flowers growing in Side Ridge Cove:

Wild Bergamot

~~Yellow~~ Yarrow

Queen Anne's Lace

Red clover

Crown-beard

Flowers growing at base of Side Saddle:

Naked-flowered tick trefoil

Bluet

Flowers growing in Little Cove:

Agrimony

Spotted St. John's wort

Dodder

Angelica

Flowers growing in cove at dam:

Wild Bergamot

Evening Primrose

Trees at some location:

Catalpa

Tree-of-Heaven

Mimosa

(Species Account)

Thursday
22 July 1971

Flowers growing on northwest slope of Backspur Ridge:

Jack-in-the-pulpit
Stinging nettle
Black snake root
Wild hydrangea
Poison ivy
Hepatica
Wild ginger
Stonecrop
Rattlesnake orchid
Squawroot
Teaberry
Wild Bean
Blueberries
False Buckwheat
Wild Rose
Naked flowered tick-trefoil

Trees from some location :

Beech- dominant species in shallow Cove
Sycamore
Cucumber tree
American elm
Chestnut oak
Hickory
White pine
Flowering dogwood
Black-gum
Sourwood
Sugar maple
Witch Hazel
Red oak
Black oak
Serviceberry
Wild Cherry
Scarlet oak
Redbud

Shrubs on Backspur Ridge:

Mountain laurel
Maple-leaved viburnum

Ferns in shallow cove:

Christmas fern
Ebony Spleenwort
Maidenhair fern
Rattlesnake fern

(Species Account)

20 July 1971 con't.

Blackberry lily - Between dam and shooting range.

Spotted touch - me - not- beside dam spillway.

White sweet clover - covering top of dam.

(Species Account)

Friday
23 July 1971

Flora:

The following plants were found on south slope of Knobs on southern boundary of park between Sunny Brook and Steele Creek dam.

Flowers and Vines and shrubs:

Stonecrop

Stinging nettle

Blueberries

Huckleberries

Crown-beard

Lousewort

Wild Grape

Damnit briar

Poison ivy

Virginia creeper

Wild white licorice

Common Speedwell

Naked-flowered tick trefoil

Jack-in-the-pulpit

Hog peanut

Rattlesnake orchid

Flowering spurge

Wild white lettuce

Spotted wintergreen

May apple

Bloodroot

Maple-leaved viburnum

False solomon's seal

Solomon's seal

Woodland sunflower

Squawroot

Wild Hydrangea

Ragweed

Wild Oats

Brambles

Wild Bean

Agromony

Goat's rue

Ferns:

Christmas fern

Ebony Spleenwort

Fungus:

Earth star - this puff ball relative was found on the southern boundary in the hollow behind Sunny Brook.

(Species Account)

Saturday
17 July 1971

Flora:

The following flowers were found growing along Flat Ridge Trail.

~~Polyweed~~
Horsenettle
Queen Anne's Lace
Ox-eye daisy
Common milkweed
Yarrow
Black-eyed Susan
Tall bellflower
Heal all
White Snakeroot
Agrimony
Black snakeroot
Wood Aster
Poor man's pepper
Bull thistle
Carolina dwarf dandelion
False buckwheat
Fringed loosestrife
Golden-aster
Giant Hyssop
Golden rod
Ragweed
Giant Ragweed
Aster
Basil
Coralberry
Squaw root
Common speedwell
Wild Bergamot
Bowman's root
Lousewort
White wild licorice
Thimble weed

(Species Account)

23 July 1971 Cont.

Trees:

The forest behind Sunny Brook on the Southern slope of the Knobs is primarily composed of oaks and hickories. The species of trees in this area are;

Chestnut oak
Black oak
Red oak
Scarlet oak
Southern red oak
Sassafrass
Virginia pine
Yellow pine
Flowering dogwood
Beech
Mockernut hickory
Pignut hickory
Blackgum
Black locust

Sourwood
Blackjack oak
Winged sumac
Sugar Maple
Smooth sumac
Hawthorn
Perssimon
Redbud
Basswood
Serviceberry
Red Maple

Wild Bergamot - abundant along northeast shore of lake. Covers an area 50 feet square in lake shore in deep cove.

Boneset - growing along trail in deep cove.

(Species Account)

Saturday
7 August 1971

Flora:

The following plants were found in Deep Cove:

False nettle
Southern Harebell
Swamp rose - mallow

(Species Account)

Wednesday
11 August 1971

Flora:

Turk's cap lily - found growing in hollow just below and southeast of dam spillway.

(Species Account)

Saturday
14 August 1971

Flora:

Peach tree - on northwestern edge of reservoir 100 ft. from Little Cove toward dam. The tree was about 5 ft. high with several dead limbs. It had only three peaches on it measuring 1 inch in length.

Virgin's Bower - growing on northwestern shore near station V.

Great Lobelia - growing in Side Ridge Cove and beside Mill's Creek.

(Species Account)

Sunday
15 August 1971

Flora:

New York Iron Weed - on reservoir shore across from Deep Cove.

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