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A STUDY OF THE HERBACEOUS, VASCULAR  
PLANTS FROM SELECTED SITES  
IN FAULKNER COUNTY, ARKANSAS

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Collections of wildflowers and ferns were made from selected sites in Faulkner County, Arkansas, during March and April, 1968, to add to the information concerning the vegetation of the state (Dale, 1963). Sites for collecting were selected on the basis of elevation, topography, and drainage situations which reflected differences in soils.

Faulkner County, which is slightly north of the geographical center of the state, lies entirely within the Arkansas River Valley. It is bounded on the north by Van Buren and Cleburne Counties, on the east by White, Lonoke, and Pulaski Counties, and on the south by Pulaski County. On the west it is separated from Perry County by the Arkansas River and from the greater part of Conway County by Cadron Creek. Collections were made in the Greenbrier area in the northern part of the county. Greenbrier lies in a valley, surrounded on all sides by small ridges. Here the average annual rainfall is 46.57 inches; for the 1968 season the Greenbrier weather station recorded 8.86 inches in March (4.61) and April (4.25). Old timers of the area refer to 1968 as a "late" spring. Snowfall was recorded in mid-March. Temperatures during the collecting months ranged from fourteen in March to eighty-six on April 18. The high for the last day of collection was eighty-four on May 1.

Complete descriptions of the soils and the various sites can be obtained (Barnett, 1968). Brief descriptions follow:

Site number 1 is along Cadron Ridge with its Allen-Hector Soil Complex and a shale phase of Montevallo. The ridge gives way to rolling pasture land with a slope of about 30 percent. The pasture land is Linker soil, a gravelly fine sandy loam; in the more poorly drained areas, the soil is Leadvale. Near the crest of the ridge is a rock outcropping. Elevations range from 350 feet on the ridge to 300 feet along Cadron Creek; the pasture ranges from 330 to 340 feet.

Site number 2 was flooded on several occasions during the collecting dates. Soils at this site include Linker soil on the gently, slightly rolling area blending into Leadvale which contains a fragipan and hence is very poorly drained. Also found here is Atkins Soil in very low areas and Casa along the small stream. Elevation here is about 290 feet.

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Site number 3 is a rolling to very hilly farm with Horseshoe Mountain as the northwestern boundary. Here the soil is of the Allen-Hector complex. Most of the area is in open pasture of the Linker and Leadvale soil types. Elevations range from 330 feet in the pasture to 450 feet on the mountain.

Site number 4, near Springhill, extends southward nearly to Kaney Ridge. Elevations range from 340 to 420 feet. Linker is the predominant soil with mounds of Taft. Montevallo was found in one location that had been cleared in recent years. The topsoil is thin except in the mounded area and the subsoil is shale. The soil at this site dries out quickly.

Site number 5 lies within Greenbrier. The land is very gently sloping from an elevation of 340 to 330 feet. On the higher area soils are Linker; this fine sandy loam blends into a Taft silt loam. It contains a fragipan. Running south to north through the open field is a low, poorly drained area consisting of Leadvale soil with its fragipan.

Site number 6 has elevations ranging from 380 feet along Cadron Creek to 534 feet in some of the hills. Large outcroppings of Atoka sandstone rocks and fallen slabs provide small pockets of sandy-mixed alluvial soil beneath straight rock walls. An adequate, constant moisture supply supports a more luxuriant vegetation than that at the other sites.

Various manuals were used in the identification of plants; however, the plant families are listed according to Fernald (1950). Following is a check list, along with the site number where each species was collected.

## Site Number

1 2 3 4 5 6

## Selaginellaceae

6 *Selaginella apoda* (L.) Fern.

## Polypodiaceae

3

6 *Asplenium platyneuron* (L.) Oakes6 *Asplenium Trichomanes* L.

1

*Cheilanthes lanosa* (Michx.) D. C. Eat.6 *Dryopteris marginalis* (L.) Gray

1

*Polypodium polypodioides* (L.) Watt6 *Polystichum acrostichoides* (Michx.) Schott

1

3 4 5

*Woodsia obtusa* (Spreng.) Torr.

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## Araceae

- 6
- Arisema triphyllum*
- (L.) Schott

## Commelinaceae

- 5
- Tradescantia ohioensis*
- Raf.

## Liliaceae

- 1 4 *Allium canadense* L.  
 1 *Allium mutabile* Michx.  
 4 *Amianthium Muscaetoxicum* (Walt.) Gray  
 1 *Camassia scilloides* (Raf.) Cory  
 4 *Erythronium americanum* Ker  
 1 2 3 4 *Nothoscordum bivalve* (L.) Britt.

## Amaryllidaceae

- 3
- Hypoxis hirsuta*
- (L.) Coville

## Iridaceae

- 6 *Iris cristata* Ait.  
 2 *Sisyrinchium albidum* Raf.

## Polygonaceae

- 1 2 3 4 5 6 *Rumex acetosella* L.  
 3 *Rumex crispus* L.

## Portulacaceae

- 6 *Claytonia caroliniana* Michx.  
 3 4 5 6 *Claytonia virginica* L.

## Caryophyllaceae

- 2 3 5 *Cerastium nutans* Raf.  
 1 2 4 5 *Cerastium viscosum* L.  
 2 *Cerastium vulgatum* L.  
 2 3 4 5 *Sagina decumbens* (Ell.) T. & G.  
 1 2 3 4 5 *Stellaria media* (L.) Cyrillo

## Ranunculaceae

- 4 *Anemone caroliniana* Walt.  
 3 6 *Anemonella thalictroides* (L.) Spach  
 4 *Myosurus minimus* L.

1	2	5	<i>Ranunculus abortivus</i> L.				
	2	3	4	6	<i>Ranunculus acris</i> L.		
1		4	6	<i>Ranunculus Harvegi</i> (Gray) Britt.			
			5	<i>Ranunculus laxicaulis</i> (T. & G.) Darby			
1	2			<i>Ranunculus recurvatus</i> Poir.			
1				<i>Ranunculus septentrionalis</i> Poir.			
Berberidaceae							
1					<i>Podophyllum peltatum</i> L.		
Cruciferae							
				6	<i>Arabis missouriensis</i> Greene		
	2	3	4		<i>Capsella Bursa-pastoris</i> (L.) Medic.		
				6	<i>Dentaria laciniata</i> Muhl.		
1	2	3	4	5	6	<i>Draba brachycarpa</i> Nutt.	
1						<i>Erysimum cheiranthoides</i> L.	
1	2	3	4		6	<i>Lepidium virginicum</i> L.	
1	2	3	4	5		<i>Sibara virginica</i> (L.) Rollins	
Saxifragaceae							
					6	<i>Saxifraga virginensis</i> Michx.	
Rosaceae							
		3		5		<i>Potentilla simplex</i> Michx.	
Leguminosae							
				4		<i>Trifolium dubium</i> Sibth.	
					6	<i>Trifolium incarnatum</i> L.	
			3			<i>Trifolium pratense</i> L.	
1	2	3			6	<i>Trifolium procumbens</i> L.	
		2		4		<i>Trifolium repens</i> L.	
			3	4	5	6	<i>Vicia sativa</i> L.
Oxalidaceae							
1	2	3	4	5	6	<i>Oxalis stricta</i> L.	
1		3	4			<i>Oxalis violacea</i> L.	
Geraniaceae							
1	2		4	5	6	<i>Geranium carolinianum</i> L.	
Guttiferae							
	2					<i>Hypericum denticulatum</i> Walt.	

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Violaceae

- |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | <i>Viola Kitaibeliana</i> R. & S.<br>var. <i>Rafinesquii</i> (Greene) Fern. |
|   |   | 3 | 4 |   | 6 | <i>Viola Langloisii</i> Greene  |
|   |   |   |   |   | 6 | <i>Viola pedata</i> L.  |
| 1 | 2 | 3 |   | 5 |   | <i>Viola sororia</i> Willd.   |

Onagraceae

- |   |   |   |   |   |   |                                  |
|---|---|---|---|---|---|----------------------------------|
| 1 | 2 |   | 4 | 5 | 6 | <i>Oenothera biennis</i> L.      |
|   |   | 3 |   |   |   | <i>Oenothera laciniata</i> Hill  |
|   | 2 |   |   |   |   | <i>Oenothera linifolia</i> Nutt. |

Umebliferae

- |  |   |   |   |  |  |   |
|--|---|---|---|--|--|---|
|  | 2 | 3 | 4 |  |  | <i>Chaerophyllum procumbens</i> (L.) Crantz |
|--|---|---|---|--|--|---|

Primulaceae

- |  |  |  |  |  |   |                              |
|--|--|--|--|--|---|------------------------------|
|  |  |  |  |  | 6 | <i>Dodecatheon Meadia</i> L. |
|--|--|--|--|--|---|------------------------------|

Apocynaceae

- |   |  |  |  |  |  |                                      |
|---|--|--|--|--|--|--------------------------------------|
| 1 |  |  |  |  |  | <i>Amsonia Tabernaemontana</i> Walt. |
|---|--|--|--|--|--|--------------------------------------|

Polemoniaceae

- |  |  |  |  |  |   |                        |
|--|--|--|--|--|---|------------------------|
|  |  |  |  |  | 6 | <i>Phlox pilosa</i> L. |
|--|--|--|--|--|---|------------------------|

Hydrophyllaceae

- |   |  |  |   |  |  |                                  |
|---|--|--|---|--|--|----------------------------------|
| 1 |  |  | 4 |  |  | <i>Phacelia dubia</i> (L.) Trel. |
|---|--|--|---|--|--|----------------------------------|

Boraginaceae

- |   |   |   |   |  |   |                                     |
|---|---|---|---|--|---|-------------------------------------|
| 1 |   |   |   |  |   | <i>Myosotis macrosperma</i> Engelm. |
|   | 2 | 3 | 4 |  | 6 | <i>Myosotis verna</i> Nutt.         |

Verbenaceae

- |   |  |   |   |  |  |                                       |
|---|--|---|---|--|--|---------------------------------------|
| 1 |  | 3 | 4 |  |  | <i>Verbena canadensis</i> (L.) Britt. |
|---|--|---|---|--|--|---------------------------------------|

Labiatae

- |  |   |   |   |   |   |                                   |
|--|---|---|---|---|---|-----------------------------------|
|  |   | 3 | 4 | 5 |   | <i>Laniam amplexicaule</i> L.     |
|  | 2 | 3 | 4 | 5 | 6 | <i>Salvia lyrata</i> L.           |
|  |   | 3 |   |   |   | <i>Scutellaria parvula</i> Michx. |

Scrophulariaceae

- |   |   |   |   |   |   |                                       |
|---|---|---|---|---|---|---------------------------------------|
|   |   |   |   |   | 4 | <i>Collinsia violacea</i> Nutt.       |
| 1 |   |   | 4 |   |   | <i>Linaria canadensis</i> (L.) Dumont |
|   | 2 | 3 |   | 5 | 6 | <i>Linaria canadensis</i> (L.) Dumont |

- var. *texana* (Scheele) Pennell
- 1                    6 *Penstemon arkansanus* Pennell
- 2                    *Penstemon Digitalis* Nutt.
- 4 5 6 *Veronica arvensis* L.
- 2 3 4 5            *Veronica peregrina* L.
- Bignoniaceae
- 2                    *Bignonia capreolata* L.
- Plantaginaceae
- 2                    *Plantago heterophylla* Nutt.
- 2 3                    *Plantago pusilla* Nutt.
- 1 2 3 4 5            *Plantago virginica* L.
- Rubiaceae
- 1                    *Galium arkansanum* Gray
- 3 4            6 *Galium Aparine* L.
- 1                    *Galium circaezana* Michx.  
                               var. *hypomalacum* Fern.
- 2 3                    *Galium obtusum* Bigel.
- 6 *Galium pilosum* Ait.
- 6 *Houstonia caerulea* L.
- 1     3                    *Houstonia longifolia* Gaertn
- 1 2 3 4 5 6 *Houstonia patens* Ell.
- Valerianaceae
- 1 2 3 4 5 6 *Valerianella radiata* (L.) Dufr.
- Campanulaceae
- 1                    *Specularia perfoliata* (L.) A. DC.
- Compositae
- 1     3                    6 *Antennaria plantaginifolia* (L.) Hook.
- 5 *Erigeron philadelphicus* L.
- 2 3                    5 *Erigeron strigosus* Muhl.
- 1 2 3 4 5 6 *Gnaphalium purpureum* L.
- 2                    *Krigia Dandelion* (L.) Nutt.
- 5 *Krigia occidentalis* Nutt.
- 2                    *Krigia oppositifolia* Raf.
- 2 3                    *Krigia virginica* (L.) Willd.

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1	2	4	<i>Senecio glabellus</i> Poir.
	3	5	<i>Senecio obovatus</i> Muhl.
		5	<i>Senecio tomentosus</i> Michx.
		5	<i>Taraxacum erythrospermum</i> Andrz.

The 299 specimens collected included 108 different species. Site 6, with its greater variation in topography (open fields, precipitous rock cliffs, overhanging rocks, and rich woods), yielded 16 species not found at the other sites. Among these was *Claytonia caroliniana*, reported from only one other location in Arkansas. Site 1 yielded 11 species not found elsewhere, including those found on dry ledges and in open woods recently cleared of timber. Many of the species found at several sites were weeds or other plants requiring no special habitat.

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