



THE RELATIVE DISTRIBUTION OF HERBACEOUS PLANTS IN OKLAHOMA COUNTY, OKLAHOMA

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This study of the relative distribution of herbaceous plants of Oklahoma County was carried on during the month of August, 1934, which was part of the period of the great drought. Forty stations were taken somewhat at random over the entire county with three quadrats of 1 m square (within 3-5 ft. of each other) at each station. Most of the county is in cultivated condition now. However, only uncultivated, overgrown, and grazed areas were used even though these stations might have received other treatment previously.

The entire number of stations became divided automatically into three distinct types, namely, the low prairie, the high prairie, and a few miscellaneous types of habitats. Listed below is a summary of these 40 stations:

<p>I. LOW PRAIRIE 22 stations</p> <p>1. Undisturbed ----- 11</p> <p>2. Cultivated ----- 5</p> <p>3. Burned ----- 3</p> <p>4. Grazed ----- 2</p> <p>5. Completely denuded----- 1</p>	<p>III. MISCELLANEOUS 11 sta.</p> <p>A. Woods</p> <p>1. Undisturbed ----- 4</p> <p>2. Burned ----- 1</p> <p>B. Thicket</p> <p>1. Undisturbed ----- 2</p> <p>2. Grazed ----- 1</p> <p>C. Roadside</p> <p>1. Undisturbed ----- 2</p> <p>D. Hydric</p> <p>1. Dried up and plants in- troduced ----- 1</p>	<p>II. HIGH PRAIRIE 7 stations</p> <p>1. Undisturbed ----- 4</p> <p>2. Grazed ----- 2</p> <p>3. Burned ----- 1</p>
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The three dominant families of the county during this period were in order of their relative importance: the Gramineae, the Compositae, and the Fabaceae.

- LOW PRAIRIE:** Dominants: *Andropogon scoparius*, *Bromus secalinus*, *Buchloe dactyloides*, *Elymus*, sp. *Sporobolus asper*.
 Sub-dominants: *Ambrosia psilostachya*, *Aplopappus ciliatus*.
 Incidentals: *Panicum* sp., *Hymenopappus tenuifolius*, *Lepidium virginicum*, *Helianthus petiolaris*, *Achillea*, *Plantago*.
- HIGH PRAIRIE:** Dominants: *Andropogon scoparius*, *Veronica Baldwinii*, *Sporobolus asper*, *Buchloe dactyloides*, *Phalaris canadensis*.
 Sub-dominants: *Bouteloua hirsuta*, *Oenothera serrulata*, *Plantago virginica*, *Lepidium virginicum*, *Amorpha canescens*.
 Incidentals: *Thlasperma trifidum*, *Rudbeckia hirta*, *Erigeron canadensis*.
- MISCELLANEOUS:**
- A. Woods** Dominants: *Andropogon scoparius*, *Festuca octoflora*.
 Sub-dominants: *Ambrosia psilostachya*, *Petalostemum purpureum*, *Aristida* sp.
 Incidentals: *Amorpha canescens*, *Erigeron canadensis*, *Helianthus petiolaris*, *Melilotus alba*.
- B. Thicket** Dominants: *Andropogon scoparius*, *Veronica Baldwinii*, *Baptisia bracteata*, *Symphoricarpos orbiculatus*, *Elymus canadensis*.
 Sub-dominants: *Setaria viridis*, *Smilax rotundifolia*.
 Incidentals: *Ambrosia psilostachya*, *Helianthus petiolaris*, *Amphitachrys dracunculoides*.
- C. Roadside** Dominants: *Holcus halapense*.
 Sub-dominants: *Ambrosia crispa*, *Melilotus alba*.
 Incidentals: *Erigeron canadensis*.
- D. Hydric** Dominants: *Amaranthus retroflexus*, one undetermined species.
 Sub-dominants: *Cyperus aristidus*, *Panicum* sp., one undetermined species.
 Incidentals: None.

The total number of species found in this work was exactly 100.

The 3.69 in. of rain which occurred August 22 and the 5.32 in. more which fell within the remaining nine days of the month, made a total of 9.01 in. This was 4.55 in. in excess of the average normal amount which has been computed over a period of 40 years. Along with these sudden heavy rains was the conspicuous, immediate reappearance of insect life which had been noticeably absent in the earlier part of the month and the apparent increasing vigor of the vegetation.

