Literature on the Vegetation of Oklahoma

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The original stimulus for this bibliographic compilation on the vegetation of Oklahoma came from Dr. Frank Egler, Norfolk, Connecticut, who is sponsoring a series of such papers for all the states of the country. Oklahoma is especially favorable for the study of vegetation since it is a border state between the cold temperate North and the warm temperature South, and between the arid West and the humid East. In recognition of the above climatic differences, the state has been divided into seven sections. The parallel of 35 degrees, 30 minutes North Latitude has been utilized to divide the state into northern and southern portions. The state has been further divided into panhandle, western, central, and eastern sections, by the use of the following meridians: 96 degrees W., 98 degrees W., and 100 degrees W. In all cases, county lines have been followed so that counties would not be partitioned between two or more sections. The seven sections are as follows: Panhandle, PH; Northwest, NW; Southwest, SW; North Central, NC; South Central, SC; Northeast, NE; and Southeast, SE (Figure 1).

The various sections of the state have unique topographic features of interest to the student of vegetation. These sections and included topographic features are as follows: Panhandle: Black Mesa, high plains, playas (wet weather ponds); Northwest: Antelope Hills, Glass Mountains, gypsum hills, sand desert, Waynoka Dunes, salt plains, Great Salt Plains Reservoir; Southwest: gypsum hills, Wichita Mountains, Altus-Lugert Reservoir; North Central: redbed plains, sandstone hills, prairie plains; South Central: redbed plains, sandstone hills, Arbuckle Mountains, Lake Texoma; Northeast: Ozark Plateau, Grand Lake; Southeast: Ouachita Mountains, Gulf Coastal Plain, ox-bow lakes.

The vegetation of Oklahoma has not been subjected to detailed investigation. Of the thirteen vegetational (game type) units discussed by Duck and Fletcher (35) none has been investigated quantitatively, although a start has been made on the tall grass prairie. The forests of eastern Oklahoma have been studied in a general way, but the post oak-blackjack oak and the shinnery oak communities have received little investigative attention. Perhaps the least known are the bottomland forest communities. In view of the fact that Oklahoma lies on the western edge of the deciduous forest, vegetation studies on the oak-hickory and post oak-blackjack oak communities are urgently needed. Since the grasslands of Oklahoma lie on the eastern border of the grassland formation, and contain many southern floral elements, it is believed that quantitative investigation therein should be particularly rewarding.

This compilation comprises 166 references with information on the distribution, composition, structure, and dynamics of vegetation in Oklahoma. Included are citations from agriculture, forestry, geology, physiography, meteorology, taxonomy, and zoology, insofar as these contribute information of value in understanding natural vegetation. Reports which are ecological in nature but do not refer specifically to vegetation have been omitted.

The citations have been arranged alphabetically by authors. Comments have been added on many of the longer papers, especially if not well known to plant ecologists, or when largely zoological in content. At the end of each citation, abbreviations, in parentheses, have been added to indicate whether the contribution is regional (RE), state-wide (OK), or

1 The publication of extra pages has been made possible by funds provided by the Oklahoma Biological Survey.
from one or more sections of the state. Abbreviations for the sections are given in Figure 1.

Additions or corrections to this bibliography for inclusion in a possible future revision will be welcomed by the authors.

**Vegetation Literature**


22. Carpenter, J. R. 1937. Some observations on the number and size of samples necessary to make an adequate sampling of an ecological prairie community. Proc. Oklahoma Acad. Sci. 15:31 (SC)


34. Duck, L. G. and J. B. Fletcher. 1943. A game type map of Oklahoma. Division of Wildlife Restoration, Oklahoma Game and Fish Dept., Oklahoma City, Oklahoma. A map based on current vegetative types with reference to wildlife values. Best vegetation map to date. See (35). (OK)

35. . and . 1945. A survey of the game and furbearing animals of Oklahoma. Oklahoma Game and Fish Comm. Bull. 3. 144 pp. Includes a discussion of thirteen game (vegetation) types under the following headings: definition, climatic, physical, land use, and wild-
life characteristics. Descriptions based on current vegetation. No attempt to reconstruct vegetation before the coming of man. See map published in 1943. (OK)


78. LEAKE, DOROTHY V. 1945. The algae of Crystal Lake, Cleveland County, Oklahoma. Am. Midland Naturalist 34:750-768. Lists aquatic, wetland, and terrestrial plants in and near Crystal Lake. (SC)

79. LINDSEY, J. S. (Probably 1951). The white-tailed deer. Oklahoma Game and Fish Dept., Oklahoma City, Oklahoma. Includes vegetation, succession, and deer foods of McCurtain County. (SE)


81. LITTLE, E. L. 1936. The bryophytes of Muskogee County, Oklahoma. Bryologist 39:3-16. (NE)


86. LITTLE, E. L. AND C. E. OLMS TED. 1931. An ecological study of the southeastern Oklahoma Protective Unit. Manuscript, University of Oklahoma Library. (SE)


96. MARCY, R. B. 1853. Exploration of the Red River of Louisiana. Senate Ex. Doc. No. 54, 32nd Congress. Includes botanical work by J. Torrey. (RE)

98. Morris, J. W. 1962. Oklahoma Geography. 154 pp. Oklahoma City: Harlow Publ. Corp. Although written for seventh grade students, it includes useful information to the student of vegetation on geology, natural regions, climate, forestry, agriculture, and other subjects of geographical interest in the state. (OK)


104. Oklahoma Planning and Resources Board. 1947. Oklahoma lakes. Oklahoma City, Oklahoma. 31 pp. Includes all federal lakes and all other lakes of 10 or more acres. (OK)


140. SMITH, C. C. 1940. The effect of overgrazing and erosion upon the biota of the mixed grass prairie of Oklahoma. Ecology 21:381-397. Includes data on the fate of all prairie plants under moderate and heavy grazing. (NC, SC)
146. TATE, R. C. 1928. Some observations on the spread of mesquite to the north in Cimarron County, Oklahoma. Proc. Oklahoma Acad. Sci. 8:59. (PH)
149. ———. 1941. Climate and man. Yearbook of Agriculture. (RE)
157. ———. 1952. A catalogue of the flora of Oklahoma. Stillwater: The Research Foundation, Oklahoma A. and M. College. Not annotated. Papers describing new species, listing species new to Oklahoma, and extension of ranges are not listed in our bibliography since the citations are given in this catalogue. (OK)

FIGURE 1. Map of Oklahoma Showing the Various Regions Cited in the Bibliography.