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THE CACTI OF OKLAHOMA

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The flora of Oklahoma, as a whole, has not been too thoroughly investigated and, of the vascular plants, the Cacti, perhaps, has received less attention than any other natural group. In the following paper an attempt has been made to give a preliminary survey of the species native to the state. While this survey has extended over a period of about three years it is not to be considered as complete, or faultless, in the determination of the species, and the author welcomes any additional information.

Most of the Oklahoma Cacti are found in Cimarron County and in the southwest part of the state, and of the seventeen species recognized in this paper only four are found beyond these limits. The term species, as here used, is defined as a group of individuals which resemble each other more closely than they resemble anything else, and with such restrictions some closely related and previously named species have been treated under one common specific name.

The genus Echinocactus is represented by one species, E. texensis—Hopf, which is quite rare and local in its distribution over the clay and gypsum brakes of Harmon County. This species is the most rare of the Cacti within the state, and so far as I know has not been previously reported within our range. It is a low growing coarse spined plant, known locally as the Devil's Pin Cushion or Horse Crippler.

The genus Echinocereus is represented by four species. The most widely known is E. Reichenbachii—(Tresch.) Haage., which is found in the limestone regions throughout the Arbuckle and Wichita mountains. It is especially common in the Arbuckle limestone of both areas. E. viridiflorus—Engelm. is common on the mesas and brakes of western

Cimarron County and, perhaps, locally eastward in the panhandle region. This is a slow growing species and has the distinction of being the type of the genus. E. perbellus—Brit. and Rose. is found on the clay and gypsum hills from Harmon county northward to Roger Mills County. It has not been previously reported under this name, but has no doubt been collected and reported, together with E. Reichenbachii, under the name of E. caespitosus—Engelm. and Gray. E. Baileyi—Rose. is the one cactus that is found only in Oklahoma. It is endemic to the granite peaks of the Wichita mountain region. The type locally is north of Cache where it was collected by Mr. Vernon Bailey in 1909. This species, no doubt had been previously collected and designated as E. caespitosus.

Two species of the genus Coryphantha are common within the state, two more have been reported but to date I have been unable to confirm the reports. C. missouriensis—(Sweet.) B. & R. is found on the hills and other dry localities from Osage County eastward to the Ozark region and southward to the Arkansas river and, perhaps, beyond. The yellow flowers and red fruit make identification easy. C. neo-mexicana—(Engelm.) Brit. and Rose. is common on the sand hills along the Red river from Love County westward to the Texas line and northward to about the Canadian river. Its pink flowers and oblong greenish fruit make its determination fairly certain. I have representatives of C. similis—Brit. and Rose. which are said to have come from the southeastern part of the state but as yet, I have been unable to confirm this report. C. vivpara—(Nutt)—Brit. and Rose. has been reported from the northern part of the state but I have not found what I consider to be that species which is of northern distribution and probably does not come within our range.

The genus Neomamillaria is represented by one species, N. Heyderi—(Muel.) Brit. and Rose. It is found in heavy clay soil of valleys and flats, usually growing beneath mesquite or other shrubbery, in Harmon and western Jackson counties. The shortening of the root pulls the plant close to the ground so as to make its detection difficult. The small whitish flowers or the long scarlet fruit makes determination easy. To my knowledge this species has not been previously reported from our range.

Most of the Oklahoma cacti belongs to the genus Opuntia. Nine species have been reported, seven of which are here confirmed with another not previously mentioned, under the classification herein treated, at least. On the brakes of the Cimarron in the western part of Cimarron county is found the largest member of the family within the state. O. imbricata—De. Cand. has a much branched woody stem and is locally called the Tree Cactus. In the canyons and on the mesas of this same region is O. trichophora—(Englem.) Brit. and Rose., a low growing species characterized by the long weak bristle-like spines of the older joints. Eastward on the plains and sandy brakes of Cimarron, Texas, and Beaver counties O. Polycantha—Haw. is quite common, often almost completely covering poorly grassed slopes. O. phiacantha—Engelm. and Gray. has been reported from this region but I have not been able to confirm the report. O. fragilis—(Nutt.) Haw. has also been reported from this region, but since this is the most northern representative of the Cactus family, reaching as far north as the Peace river in Canada, its southern extension into these latitudes would be rare if present at all. O. tortispina—Engelm. is the most abundant Cactus of the state. It is common and very plentiful in the southwest part of the state, often covering hillsides and mesas to the exclusion of most other plants. O. Davisii—Engelm. is sparcely found on the clay brakes of streams in Harmon, Jackson and Greer counties. It is a rather low growing woody branched species and has the most wicked spine of all the Cacti in the state. O. leptocaulis—De. Cand. is

found in about the same range as O. Davisii but is much taller, more slender and more plentiful, often growing in small impenetrable thickets. These two species, to my knowledge, have not been previously reported from the state, though they must have been known to the people of those regions since the early settlements. O. macrorhiza—Engelm. has a wider distribution than any other Cactus of the state. It is the common Cactus over the greater part of our range, being the only species found in much of the eastern part. It is characterized by its large yellow flowers and tuberous-like root. It is commonly known as the Prickly Pear or Dog-ear Cactus. In a few scattered localities is found a species the determination of which I am doubtful, but have tentatively listed as O. Mackensenii—Rose. It is found from Jefferson county to the Arbuckle mountains and then occurs again in the Ozarks. In fruit and flower it is similar to O. macrorhiza, but it is far larger and has many more spines and fibrous roots. The type locality of this species is in central Texas making its southern occurrence easily explained. Its presence in the Ozarks can, perhaps, be explained as a stranded survival from the dryer condition that once prevailed in eastern Oklahoma in times quite recent.

After the reduction of all synonyms to well defined species, it appears that fourteen species of Cacti have been previously reported from Oklahoma. Of this number I have been able to identify and confirm eleven, to which number I have added six species not previously reported, making a total of seventeen species found within the state and which are briefly treated in the preceeding paragraphs of this paper.

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