

NEW NATIVE ORCHIDS FOR OKLAHOMA AND KANSAS

Lawrence K. Magrath

Discipline of Biology, University of Science and Arts of Oklahoma, Chickasha, Oklahoma 73018

Field studies on the native orchids of Oklahoma and adjacent states in recent years have led to the discovery of several new orchid species for Oklahoma and Kansas. In addition to the field work, herbarium collections were consulted at several institutions to verify that the recent collections were indeed new state records. Herbaria consulted were: OKLA, OKL, DUR, TULS, KANU, UARK, KSC, KSP, KSTC, MO and Northeastern Oklahoma State University (Tahlequah). All specimens cited are located at OCLA, and otherwise as cited.

Calopogon tuberosus (L.) B.S.P.

KANSAS: *Cherokee Co.:* ca. 1.5 mi N of Riverton on K 26, prairie hay meadow, moist loam soil, rare, 25 May 1980, *Magrath 10560* (KANU, CSCN). This collection represents an extension northward from Ottawa County, Oklahoma, northwestward from Benton County, Arkansas (6), and westward from Newton County, Missouri (7). Correll (2) and Luer (4) note that the grass-pink is nearly always found in wet situations in bogs, meadows, marshes, etc. The Kansas location is thus similar to that reported in other areas, but perhaps a little drier than expected. In Bryan County, Oklahoma, there is a fairly large colony of grass-pinks in a meadow that is well drained. The colony is located on an east-facing slope and is below the crest of a small rise in a much moister area than the surrounding meadow. The most common habitats in Oklahoma are wet "pimple" mound prairies. The Kansas specimens were also found in an area that was slightly more moist than the meadow immediately around it.

It should be noted that the Kansas specimen is of the smaller "meadow" taxon that is most commonly found in Oklahoma. However, there is a much larger "bog" taxon that also occurs in Oklahoma, which is found only in open, well-lighted sphagnum bogs with a pH range of 5.4-6.0. There will be further discussion of these two taxa of *Calopogon tuberosus* in a subsequent paper.

Galearis spectabilis (L.) Raf.

OKLAHOMA: *McCurtain Co.:* 1.3 mi W & 0.2 N of Battiest, pine-oak-hickory woods and sphagnum bog, gravelly soil with leaf litter, rare, 20 July 1983, *Magrath et al. 14447*. This represents an extension southward from Miami County, Kansas (1, 5) and southwestward from Washington, Crawford, and Logan Counties in Arkansas (6). This plant normally grows in "rich woods," where its roots spread through the decomposed leaf-litter, according to Correll (2). The Oklahoma location fits this description very well. A number of other native orchids have also been found at this location, including: *Cypripedium*, *Platanthera flava*, *Spiranthes cernua*, *Corallorhiza*, *Tipularia*, and *Triphora*.

Malaxis unifolia Michx.

KANSAS: *Cherokee Co.:* ca. 1.5 mi E of Riverton on K 26, oak-hickory wood remnant, clay loam soil, rare, 25 May 1980, *Magrath 10558*; Ozark Plateau area, ca. 1.2 mi E & 3.6 S of the junction of K 26 & US 66 in Gelena, oak-hickory woods, gravelly loam soil, in fruit, rare, 20 August 1979, *Magrath 10003* (KANU). These collections represent an extension west from Green County, Missouri (7), northwest from Crawford County, Arkansas (6), and north from Ottawa, Delaware, and Adair Counties in Oklahoma. Correll (2) notes that this plant seems to grow best in rich humus or decaying leaf litter that is slightly acidic. Both of the Kansas collections were made in decaying leaf litter, with the pseudobulbous corms actually in the leaf litter and the roots extending out and downward into the thin humus layer below the leaf litter. This is essentially the same type of habitat in which the plant occurs in Oklahoma. However, in several locations in southeastern Oklahoma, the plant is occasionally found in sphagnum bogs and with some frequency in pine needle litter.

Spiranthes praecox (Walter) S. Wats. in A. Gray

OKLAHOMA: *McCurtain Co.:* Ouachita National Forest, McKinney Creek area, ca. 3.1 mi N of Tom on SH 3, pine-oak-hickory-sweetgum woods, growing in open moist area in bar ditch at edge of woods, rare, 15 May 1980, *Magrath 10456*. This collection represents an extension north from eastern Texas (3) and northwest from Louisiana (4). This location is a moist pine woodland and is similar to habitat reported by Correll (2) for this species elsewhere.

Goodyera pubescens (Willd.) R. Br. in Ait.

OKLAHOMA: *McCurtain Co.:* Ouachita Mountains, Ouachita National Forest, ca. 3 mi E of Smithville on SH 4, pine-oak woods, north-facing slope, scattered and apparently rare, 19 August 1979, *Magrath 10000*. This collection represents an extension westward from Polk County, Arkansas (6). This plant usually occurs in wooded areas growing on rich humus and also on decaying leaf litter. It seems to prefer moist, but well-drained slopes for the most part.

REFERENCES

1. T. M. BARKLEY(ed), *Atlas of the Flora of the Great Plains*, Iowa State Univ. Press, Ames, IA, 1977.
2. D. S. CORRELL, *Native Orchids of North America North of Mexico*, Chronica Botanica Co., Waltham, MA, 1950.
3. D. S. CORRELL and M. C. JOHNSTON, *Manual of the Vascular Plants of Texas*, Univ. of Texas at Dallas, Dallas, TX, 1970.
4. C. A. LUER, *The Native Orchids of the United States and Canada Excluding Florida*, The New York Botanical Garden, NY, 1970.
5. L. K. MAGRATH, *The Native Orchids of the Prairies and Plains Region of North America*, Ph.D. Dissertation, Univ. of Kansas, Lawrence, KS, 1973.
6. E. B. SMITH, *An Atlas and Annotated List of the Vascular Plants of Arkansas*, Univ. of Arkansas at Fayetteville, Fayetteville, Arkansas, 1978.
7. J. A. STEYERMARK, *Flora of Missouri*, Iowa State Univ. Press, Ames, IA, 1962.