

A MONOGRAPHIC STUDY OF THE GENUS *ASTER* IN OKLAHOMA

MARTHA FLOWERS, Norman

Research indicates that sixteen species of *Aster* occur in Oklahoma, with a possible presence of four more. The species are naturally divided into three groups, the distinguishing features being leaf characteristics: 1. Those having cordate, petioled leaves are *A. drummondii* Lindl., *A. azureus* Lindl., *A. anomalus* Engelm. 2. Those having cordate- or auriculate-clasping leaves are *A. patens* Ait., *A. patens* var. *gracilis* Hook., *A. oblongifolius* Nutt., *A. oblongifolius* var. *rigidulus* Gray. 3. Those having non-clasping stem leaves, narrowed, rounded or cordate at the base are: *A. Fendleri* Gray, *A. tanacetifolius* HBK., *A. sericeus* Vent., *A. ericoides* L. (*A. multiflorus* Ait.) *A. spinosus* Benth., *A. exilis* Ell., *A. paludosus* Ait., *A. turbinellus* Lindl., *A. ericaefolius* Rothrock, *A. praealtus* Poir (*A. salicifolius* Ait.) and varieties, *A. coerulescens* DC., and possibly *A. paniculatus* Lam. and varieties, *A. vimineus* var. *subdumosus* Wiegand, *A. lateriflorus* var. *pendulus* (Ait.) Burgess, and *A. commutatus* (T. and G.) Gray.

There is some difficulty in distinguishing *A. ericoides* from *A. commutatus*; *A. praealtus* from *A. coerulescens* or *A. paniculatus* (which according to M. L. Fernald¹ is a late synonym and cannot be maintained); and *A. vimineus* from *A. dumosus* L. or *A. lateriflorus*. However, specific distinctions are clear-cut among the other species of this third group.

Insufficient material is preventing an accurate distributional study of species. It appears that *A. exilis*, *A. patens*, *A. oblongifolius* var. *rigidulus*, *A. ericoides*, *A. Drummondii*, and *A. praealtus* occur more generally than others in the Oklahoma flora. *A. tanacetifolius*, *A. Fendleri*, *A. commutatus*, and *A. ericaefolius* seem to be a part of a more arid flora in the western counties. The other species and varieties are scattered through the eastern half of the state. *A. undulatus* L., *A. laevis* L., *A. dumosus*, *A. novaeangliae* L., *A. linearifolius* L., *A. parviflorus* Gray, *A. sagittifolius* Wedemeyer and its variety *dissitiflorus* Burgess, and *A. cordifolius* L. are reported in various publications² as occurring here, but there seems to be no record of specimens actually collected.

The most unusual points brought out in this preliminary study are: 1. Evidence that *A. oblongifolius* occurs only in the easternmost counties, while its variety, *rigidulus*, is found generally throughout the rest of the state; 2. Slight evidence that *A. commutatus* (White Prairie Aster), a Colorado species which spreads northward and eastward, occurs in western Oklahoma; 3. Discovery of a report of K. M. Wiegand indicating that *A. coerulescens* occurs in Oklahoma.³ This never has been reported for the state before.

REFERENCES

- ¹ Letter to Dr. Milton Hopkins.
- ² Jeffs, R. E. 1931. A key to the ferns and seed plants of Oklahoma: 128. University Mimeograph Publishers, Norman, Okla.
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