A MONOGRAPHIC STUDY OF THE GENUS ASTER IN OKLAHOMA

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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. anomalous 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.

There is some difficulty in distinguishing A. ericoides from A. commutatus; A. praealtus from A. coerulescens or A. paniculatus (which according to M. L. Fernald 1 is a late synonym and cannot be maintained); and A. vimeinus 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. ericoideus, 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 distitiflorus 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.

