

***Aster subulatus* var. *ligulatus* (Asteraceae) and *Chloris virgata* (Poaceae) in Illinois**

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ABSTRACT

Aster subulatus Michx. var. *ligulatus* Shinnery (Asteraceae) and *Chloris virgata* Swartz (Poaceae) are reported from Union County for the first time as adventive members of Illinois' vascular flora.

INTRODUCTION

The continuation of botanical field studies in southern Illinois has led to the discovery of two taxa of vascular plants which were not previously reported for the state. These two taxa, *Aster subulatus* Michx. var. *ligulatus* Shinnery (Asteraceae) and *Chloris virgata* Swartz (Poaceae), both adventive members of the Illinois flora, were found in recently disturbed plant communities in Union County. Voucher specimens for these taxa are deposited at the Illinois Natural History Survey Herbarium (ILLS) in Champaign, Illinois. Nomenclature follows Mohlenbrock (1986).

RESULTS AND DISCUSSION

SPECIMEN: *Aster subulatus* Michx. var. *ligulatus* Shinnery Illinois: Union County, Weaver's Woods approximately 4 miles south of Jonesboro off IL 127, disturbed soil along intermittent stream from recent timber harvest. SW/4 SW/4 sec. 13 T13S R2W. 13 October 1996. Basinger 11060.

Aster subulatus var. *ligulatus* is a tap-rooted annual which has a non-succulent habit, usually non-maritime and often weedy distribution. Broad ligulate florets which are longer than the phyllaries and pappus and are inrolled at maturity distinguish this taxon from var. *subulatus* (Cronquist 1980; Gleason and Cronquist 1991). A synonym for var. *ligulatus* is *Aster exilis* Elliott (Kartesz 1994).

Cronquist (1980) reported this taxon from the southern United States westward to New Mexico and northward to Missouri, Kansas, and Nebraska. This taxon is found in adjoining states to Illinois such as Missouri (Steyermark 1963), Arkansas (Smith 1994),

Kentucky (Browne and Athey 1992), Tennessee (Wofford and Kral 1993), as well as the Great Plains states of Oklahoma, Kansas, and Nebraska (Barkley 1986). Swink and Wilhelm (1994) reported *Aster subulatus* from expressways in the Chicago region. It appears the Chicago region plants are var. *subulatus* in that they possess ligulate florets that are rudimentary or at most 3 mm in length, succulent herbage, and a halophytic habitat.

Aster subulatus var. *ligulatus* was probably introduced from Missouri as seed transported in logging equipment used for timber harvesting at Weaver's Woods. A population of approximately 20 plants persists at this site along an intermittent stream. Associated native taxa included *Ambrosia artemisiifolia* L., *Cyperus ovularis* (Michx.) Torr., *Cyperus strigosus* L., *Erigeron annuus* (L.) Pers., *Leersia virginica* Willd., *Phytolacca americana* L., and *Polygonum pensylvanicum* L, while non-native taxa included *Leucanthemum vulgare* Lam. and *Setaria faberi* Herrm.

SPECIMEN: *Chloris virgata* Swartz Illinois: Union County, Jonesboro Ranger Station off of North Main Street, recently disturbed soil adjacent to paved walkway around lake at the ranger station. SE/4 NE/4 sec. 24 T12S R2W. 29 July 1997. Basinger 11279.

Chloris virgata is a fibrous-rooted annual with feathery, digitate spikelets and long ciliate or villous trichomes on the fertile lemmas, inflated upper sheaths around the flowering culms, and awns 3-10 mm long on both the fertile and sterile lemmas of each spikelet. *Chloris virgata* is native to tropical America and is found worldwide in tropical and warm temperate regions (Hitchcock 1951; Gould 1975). This grass is known throughout the southern United States, especially the southwestern states, where it often provides valuable forage for livestock, and is found locally in the eastern states northward to Maine (Hitchcock 1951; Kucera 1961; Steyermark 1963; Radford et al. 1968; Gould 1975; Gleason and Cronquist 1991; Browne and Athey 1992; Wofford and Kral 1993; Smith 1994). A population of approximately 10 plants persists at the collection site. Associated native taxa included *Ambrosia artemisiifolia* L., *Ambrosia trifida* L., and *Ludwigia decurrens* Walt., while non-native taxa included *Cynodon dactylon* (L.) Pers., *Digitaria sanguinalis* (L.) Scop., *Eleusine indica* (L.) Gaertn., *Polygonum cespitosum* Blume var. *longisetum* (DeBruyn) Stewart, *Setaria faberi* Herrm., and *Setaria verticillata* (L.) Beauv.

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