



Legal status: State threatened

Global and state rank: G4G5/S2

Other common names: sedge

Family: Cyperaceae (sedge)

Total range: *Carex assiniboinensis* has a somewhat limited distribution in North America, ranging from southeastern Saskatchewan through North Dakota and northeastern South Dakota to Iowa, occurring east to western Upper Michigan and southern Ontario. It is considered rare in Ontario, Saskatchewan, and Wisconsin, and is thought to be extirpated from Iowa.

State distribution: This species was first found in Michigan in the Sylvania Recreation Area (Gogebic County) in 1980, where it was found to be locally abundant in rich northern hardwoods. It has since been collected from three more western Upper Peninsula counties (Iron, Dickinson, and Menominee) at sites where it occurs as a local dominant to a widely scattered, frequent groundcover species.

Recognition: The loosely tufted stems of *C. assiniboinensis*, arising from short rootstocks, are **slender, weak, and somewhat lax**, reaching 3-6 dm or more in height. Sterile stems of this species are frequently **stoloniferous, developing long-arching runners that form new plants at their nodes** (Tolstead 1946, Wheeler 1983). The narrow leaves, which are ca. 1-3 mm wide, are few and widely spaced along the stem. Fertile stems are terminated by 3-4 spikes that are **well spaced and few-flowered**, with the **terminal spike staminate on a 2-3 cm stalk**. The 2-4

cm long pistillate spikes have approximately **1-6 alternate, widely spaced perigynia**, each subtended by an **acute to sharply-awned scale about as long as the perigynium**. The perigynia are **finely but densely pubescent and narrowly lanceolate in shape, tapering to a long slender beak with an oblique opening at the tip**. The characteristic arching stolons that are frequently formed enable *C. assiniboinensis* to be identified even in sterile condition.

The mesic forest habitat of *C. assiniboinensis* often contains several other *Carex* species, none of which are particularly similar. To the inexperienced eye, this species may be considered superficially similar to some species within section *Laxiflorae* that occur in the same habitats.

Best survey time/phenology: Assiniboia sedge can flower during the first week of June, and recognizable perigynia have been observed as late as early September. In addition to fertile characters, the distinctive stolons (horizontal above-ground stems) developed provide an excellent, late-season recognition feature. It is possible that those experienced with this sedge may be able to determine it beyond the period identified above.

Habitat: Assiniboia sedge occurs in mesic northern hardwood forests dominated by *Acer saccharum* (sugar maple) and *Tilia americana* (basswood) with lesser amounts of *Ulmus americana* (American elm), *Ostrya virginiana* (hophornbeam), and occasionally early successional trees such as *Populus grandidentata* (big tooth aspen). The soils are commonly moist loams, supporting such herbaceous groundcover associates as *C. plantaginea* (plantain-leaved sedge), *C. woodii* (sedge), *Viola*



canadensis (Canada violet), *Asarum canadense* (wild ginger), *Osmorhiza longistylis* (sweet cicely), *Circaea lutetiana* (enchanter's-nightshade), *Laportea canadensis* (wood nettle), *Allium tricoccum* (wild leek), *Caulophyllum thalictroides* (blue cohosh), *Sanguinaria canadensis* (bloodroot), *Adiantum pedatum* (maidenhair fern), *Athyrium filix-femina* (lady fern), and *A. thylepteroides* (silvery spleenwort). Within the main portion of its range this sedge occurs in similar moist woods and thickets.

Biology: This species is a perennial, producing loose tufts from rhizomes (underground stems). Its ability to proliferate by forming stolons is well documented (Bernard 1959), and large populations can be generated through this type of propagation. Fruiting specimens have been collected from late May through August and even early September, although the primary fruiting period is probably June and July.

Conservation/management: The Sylvania Recreation Area in Gogebic County and a small park in Iron County contain two of Michigan's largest known populations of this species. The abundance of its habitat type in western Upper Michigan indicates that more occurrences likely exist, although numerous surveys have not identified this species despite the predominance of apparently suitable habitat. Overstory clearcutting could seriously impact this forest-inhabiting sedge. Logging, thus, should be limited, at best, to careful selective harvesting during the winter to minimize impacts, until the effects of timbering activities are better known.

Research needs:

Related abstracts: mesic northern forest, fairy bells, ginseng, goblin fern, large toothwort, red-shouldered hawk

Selected references

- Bernard, J.P. 1959. *Carex assiniboinensis* Boott and its stoloniferous form. *Naturalist Can.* 86: 11-19.
- Tolstead, W.L. 1946. Stolons of *Carex assiniboinensis* Boott in Iowa. *Am. Midl. Nat.* 35:797.
- Wheeler, G.A. 1983. *Carex* of northeastern Minnesota: Cook, Lake, St. Louis, and Itasca Counties. *Mich. Bot.* 22:53-62.

Abstract citation

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