

tubercles at the base, and the foliage is glabrous. *Scleria muhlenbergia*, not yet found in Michigan although it is known from northwestern Indiana, can be distinguished by its glabrous foliage and slightly pubescent achenes.

Best survey time/phenology: Michigan collections of this species have been documented from approximately mid-July through mid-August.

Habitat: Michigan's early records merely note that *S. pauciflora* was collected from "sandy, open ground" and a "dry, gravelly knoll." In Muskegon County it was found in dry sand (Au Gres soil series) with a pH of 4.2, adjacent to a moist depression where it was associated with *Xris torta* (yellow-eyed-grass), *Rhynchospora capitellata* (beak-rush), *Andropogon scoparius* (little bluestem), *Spartina pectinata* (prairie cordgrass), *Stachys hyssopifolia* (hyssop hedge nettle), and *Polytrichum* species (hair cap mosses), which indicate the presence of coastal plain marsh habitat. The locality in Allegan County is very similar to that observed in Muskegon County, as this species was discovered at the edge of oak barrens adjacent to a large coastal plain marsh. In Wayne County, few-flowered nut-rush was found in seasonally inundated sandy soil with a pH of 6.5-7.0, where it occurred in a disturbed lakeplain prairie opening; there associates included little bluestem, *Aristida longespica* (three-awned grass), *Danthonia spicata* (poverty grass), *Euthamia graminifolia* (grass-leaved goldenrod), *Hypericum prolificum* (shrubby St. John's-wort), *Krigia biflora* (wild dandelion), *Polygala sanguinea* (field milkwort), and *Liatris scariosa* (blazing star).

Elsewhere it is typically a plant of moist to dry sandy mineral soil, occurring in the southeastern United States in meadows, prairies, swamps, boggy seeps, and pine flatwoods and savannas (Godfrey and Wooten 1979). In northwestern Indiana it has been found in moist marsh borders with *Calamagrostis canadensis* (bluejoint), *Hypericum adpressum* (shore St. John's-wort), *Panicum verrucosum* (warty panic grass), *Scleria muhlenbergia* (nut-rush), and *Scleria triglomerata* (tall nut-rush) (Swink and Wilhelm 1994). In Ohio, it grows in open, moist, often sandy habitats such as lake shores, wet fields, and "bogs" (McCance and Burns 1984).

Biology: This species is a rhizomatous perennial.

Conservation/management: The locality in Muskegon County lies in the Huron-Manistee National Forest. Although land managers are aware of this occurrence, it remains vulnerable to excessive off-road-vehicle (ORV) use and other threats. The Allegan County site occurs within a large state game area where coastal plain marshes and oak barrens are protected and monitored and restoration management is occurring; however, this locality also remains vulnerable to impacts from illegal ORV use. The occurrence in Wayne County, although on township land, is threatened by impending development as well as the lack of management necessary to maintain and perpetuate lakeplain prairie habitat.

Research needs: Few-flowered nut-rush is a somewhat obscure sedge and could be overlooked, as it appears to be quite localized when found. The relatively recent records indicate that this species has a strong potential for occurring in association with coastal plain marshes and lakeplain prairies, and thus should be sought, particularly in southeastern and southwestern Lower Michigan. The Allegan County occurrence was found in a sandy area recently disturbed by logging activities, suggesting that soil scarification may be necessary to stimulate soil seed banks. Research in restoration management would be desirable to determine the optimal disturbance regimes necessary to maintain habitat and perpetuate colonies.

Related abstracts: Coastal plain marsh, lakeplain wet prairie, lakeplain wet-mesic prairie, oak barrens, purple milkweed, paniced screw-stem, Hill's thistle, Alleghany plum, Hall's bulrush, meadow beauty, Gattinger's gerardia, Skinner's gerardia, three-awned grass, northern appressed clubmoss, chestnut sedge, short-fruited rush, Leiberg's panic grass, pink milkwort, prairie buttercup, eastern box turtle, eastern fox snake, red-legged spittlebug, blazing star borer, culver's root borer, silphium borer

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