

Best Management Practices

Missouri Department of
Conservation

Decurrent False Aster

Boltonia decurrens

Common name ▪ Decurrent False Aster

Scientific name ▪ *Boltonia decurrens*

State status ▪ Endangered

Federal status ▪ Threatened

Ecology

Decurrent false aster grows in wetlands, on the borders of marshes and lakes, and on the margins of bottomland oxbows and sloughs. Historically, this plant was found in wet prairies, marshes, and along the shores of some rivers and lakes. Decurrent false aster is a "fugitive" species that exists in relatively ephemeral populations. It favors recently disturbed areas and flooding plays a major role in creating "habitat opportunities" for this species. Current habitats include riverbanks, old fields, roadsides, mudflats and lake shores. Decurrent false aster prefers a moist habitat but can tolerate drought. Today it can be found in areas where succession is prevented by some kind of disturbance and sunlight is allowed to reach the seedlings. It is a perennial plant that blooms from August to October, and spreads vegetatively by producing root offshoots (rosettes) around the parent plant. Seed dispersal is achieved primarily by floodwater. In Missouri, decurrent false aster distribution is restricted to the Mississippi River floodplain from the Illinois River southward. Current populations are fewer and more isolated than in historical times. Former distribution of this plant included Lincoln, St. Charles, St. Louis, and Cape Girardeau counties. Presently it is only known to occur in St. Charles County.

Reasons for Decline

Populations of decurrent false aster declined as floodplain wetlands were converted for agricultural use. It is currently threatened by flood-control measures, agricultural use of marginal river-bottom land, increased siltation of floodwater, herbicide use for weed control, construction, and possibly by hybridization with the related false aster, *B. asteroides*. Changes in flooding regimes which allow succession of habitats to shade-producing species are also a threat.



Recommendations

Projects in areas where decurrent false aster is likely to occur should include a survey during the August to October flowering period to determine if the species is present.

Beneficial Practices

- Maintain open, moist, early successional habitat that receives periodic inundation from Mississippi River floodwater. Established populations need newly-disturbed areas in which to spread.
- Occasional cultivation may benefit asters through soil disturbance. Asters are often located in wet lowland agricultural fields. These marginal areas should be avoided in wet years

unless woody vegetation becomes established. Periodic disturbance will be needed to keep a site suitable for the aster.

- The wetland areas where decurrent false aster is found need to be protected in order to protect its habitat. Many aster populations are started when seeds float downstream and become established on river banks or in muddy backwater areas. Do not disturb these sites after flooding.
- Resurvey following significant flooding as decurrent false aster populations are frequently redistributed by flood waters.
- Use cutting, prescribed burns, or herbicides to reduce colonization of sites by cottonwoods, willows, and other wetland woody species.
- Low, wet areas of agricultural fields occupied by decurrent false aster should be cultivated only with adequate frequency to prevent succession to heavy shade-producing species, perhaps every third year.

Adverse Practices

- Mowing of decurrent false aster populations the May through October growing period.
- Changing drainage patterns that would lessen accessibility of sites to Mississippi river flood water.
- Applying non-specific herbicides.

Information Contacts

For further information regarding regulations for development in rivers and streams, contact:

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Policy Coordination Section
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Jefferson City, MO 65102-0180
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Ecological Services Field Office
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Columbia, MO 65203
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Legal Issues

These Best Management Practices were prepared by the Missouri Department of Conservation with assistance from other state agencies, contractors, and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat.

Compliance with Best Management Practices is not required by the Missouri wildlife and forestry law nor by any regulation of the Missouri Conservation Commission. Other federal, state or local laws may affect construction practices.

“State Endangered Status” is determined by the Missouri Conservation Commission under constitutional authority, and specific requirements for impacts to such species are expressed in the Missouri Wildlife Code, rule 3CSR10-4.111.

Species listed under the Federal Endangered Species Act must be considered in projects receiving federal funds or requiring permits under the Clean Water Act, with compliance issues resolved in consultation with the U.S. Fish and Wildlife Service.