

CPC 2005



St. Louis, MO

Restoring America's  
native plants

CPC National Collection Plant Profile

*Stylisma pickeringii* var. *pickeringii*

**Family:** Convolvulaceae (Morning-glory Family)

**Common Names:** Pickering's dawnflower, Pickering's morning-glory

**Taxon Synonym:** *Breweria pickeringii* var. *caesariense*

**Author:** (Nash) House

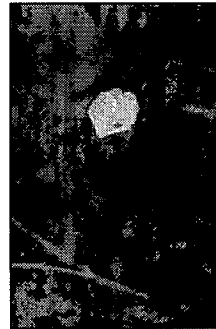
**Growth Habit:** Perennial

**CPC Number:** 4157

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*Stylisma pickeringii* var. *pickeringii* is Fully Sponsored

Primary custodian for this plant in the CPC National Collection of Endangered Plants is:  
North Carolina Botanical Garden

*Stylisma pickeringii* var. *pickeringii*

Pickering's dawnflower is a spreading, herbaceous, perennial vine that forms large mats and clumps primarily in the sandhills and sandy woods of the Southeast. It is usually found in the driest, most barren, deep-sand areas and occasionally colonizing roadsides and other disturbed areas (TNC)

1993). It produces small white and sometimes pink morning glory like flowers from June through September. This taxon is easy to recognize by its growth form, with numerous stems arching from a central point, then trailing radically away, forming a mound 1-2 m in diameter. There are 43 known populations, many of which are vulnerable to habitat destruction.

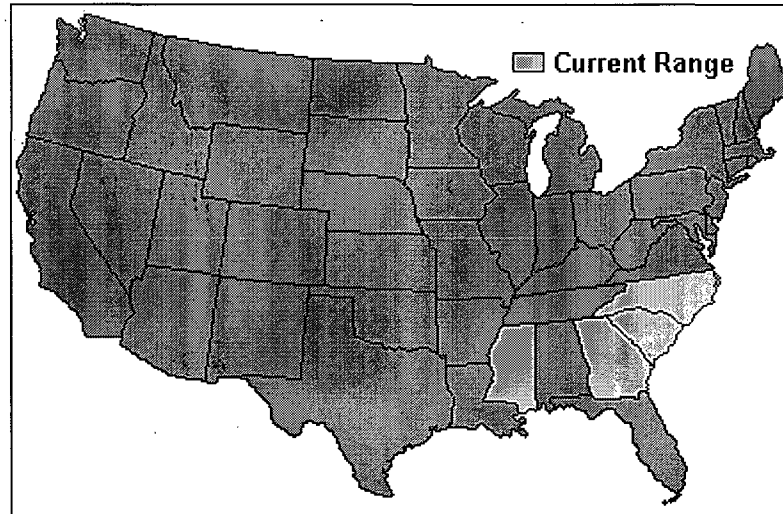
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### Distribution & Occurrence

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#### State Range

Georgia  
Mississippi  
North Carolina  
South Carolina



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#### Habitat

dry to xeric, nutrient poor, well-drained, coarse sandy soils with little to no competing vegetation or litter (TNC 1993)

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#### Distribution

North Carolina, South Carolina, Georgia, Alabama, New Jersey. (NatureServe 2001)

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#### Number Left

43 known extant occurrences (NatureServe 2001). New populations have been found in NC and recorded from seven counties in Georgia.

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### Protection

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**Global Rank:** G4T2T3 7/13/1995 [Guide to Global Ranks](#)

**Federal Status:** FSC

[Guide to Federal Status](#)

**Recovery Plan:** No

#### State/Area Protection

State/Area	Rank	Status	Date
Georgia	S2	T	7/13/1995
New Jersey	S1	E	4/24/1991
North Carolina	S2	E	8/2/1991
South Carolina	S1		6/19/1990

#### Conservation, Ecology & Research

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#### Ecological Relationships

- There is slight morphological variation between the disjunct populations (Fernald and Schubert 1949).
- *S. pickeringii* appears to be a primary successional species and cannot invade or colonize new areas without some sort of disturbance, whether fire or mechanical. In fact, spread of the dawnflower is greatest just following a spring or summer burn, where new shoots can colonize, flower, and set seed on newly cleared soil (TNC 1993). The optimal fire intensity, however, is unknown.
- Some plants that occur along xeric river terraces may depend upon the scouring effects of flooding for colonization and seed dispersal. Many of the dawnflower's seeds germinate right after falling from the plant, and consequently the importance of seedbank recruitment and seed dormancy to population dynamics is unclear (TNC 1993).

#### Threats

Loss of habitat through development, trampling, fire suppression.

#### Current Research Summary

- North Carolina Botanical Garden has had some success with seed germination, but it has been sporadic and seedlings have been extremely slow growing.
- *Stylisma pickeringii* var. *pattersonii* is a rare species in Illinois. Extensive research has been performed on this species by individuals from Eastern Illinois University and the University of Illinois at Urbana-Champaign. (Donnelly et al. 2001; Heisler et al. 2000, 1999; Kerber 2000; Sojka et al. 1999; Todd et al. 2000, 2001a, 2001b, 2002)

#### Current Management Summary

- Many populations occur in managed sandhills that presently receive regular prescribed burns. However, there are a significant number of roadside and other populations that lack a current management strategy (Bert Pittman, SC Natural Heritage Trust Program, pers. comm.).

- Researchers in NJ report that prescribed burns destroyed populations in their state (TNC 1993).

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**Research Management Needs**

Roadside population management, pollination and germination biology, population genetic work, specific habitat requirements, importance of fire and disturbance (in terms of season, intensity, and frequency), biological monitoring program, surveys and inventories of existing populations (TNC 1993).

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**Ex Situ Needs**

Germplasm collection from populations not represented in collection and further propagation work.

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