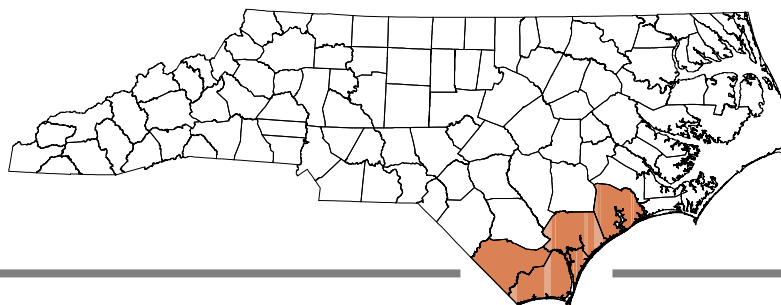


Cooley's meadowrue

Thalictrum cooleyi

Endangered (March 9, 1989)



Description: A totally smooth perennial herb of the buttercup family, growing up to 39 inches (1 m) tall. It may grow as high as 6.5 ft (2 m) in recently burned areas. In full sun, the slender stems are erect, while under shady conditions they are lax, leaning or trailing along the ground. Leaves are divided into small leaflets, usually in groups of three, and may be doubly compound in lower leaves. The leaflets are green above and pale beneath, and while the shape varies, are usually oblong or lance-shaped, 0.1-2.4 inches (3-60 mm) long, 0.1-0.5 inch (2-12 mm) wide, with edges rolled under somewhat. Flowers are few and small and have no petals; sepals on male flowers are yellowish-white with lavender filaments, while sepals on female flowers are green.

Life History: Flowering occurs in June. Fruiting occurs August-September; seeds remain on the plants until October. The fruits are small, hard, and dry, with one seed each, 0.18-0.24 inch (4.5-6 mm) long and 0.06-0.08 inch (1.5-2 mm) broad. Few seedlings are found in the wild. Lab studies indicate poor seed germination and a short seed life.

Habitat: Moist to wet bogs and savannas kept open by frequent fire or other disturbance, fire plow lines, roadside ditches, forest clearings dominated by grass or sedge, and powerline rights-of-way. Often grows in association with tulip poplar (*Liriodendron tulipifera*) cypress and/or Atlantic white cedar (*Chamaecyparis thyoides*).

Distribution: Endemic to the Southeastern coastal plain with 11 locations in North Carolina

and 1 in Florida. Populations extant in Brunswick, Columbus, Onslow, and Pender counties. May occur in New Hanover County although record is over 20 years old.

Threats: Endangered by fire suppression, mining, drainage activities associated with silviculture and agriculture, and residential and industrial development. While it can withstand some timber harvesting operations if properly done, this species cannot withstand bulldozing, drainage of habitat as it is converted to pine plantation, highway construction and maintenance, or direct herbicide application. Fire suppression has already resulted in extirpation of 25% of the

known populations since discovery.

Disturbance that opens up the landscape to full sun is conducive to species success if mowing is done in the early part of the growing season.

Management Recommendations:

Habitat protection, prescribed fire, reintroduction into historic habitat, and study and collection of genetic materials. Search for additional populations and potential habitat.

Sources: Boyer 1994, Jackson et al. 1992, Jordan 1995, Radford et al. 1964, USFWS 1992a.

