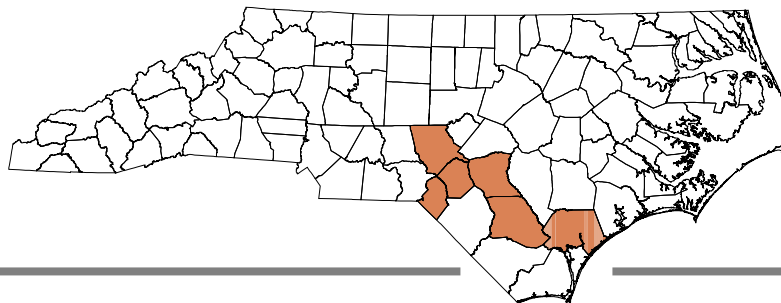


American chaffseed

Schwalbea americana

Endangered (September 29, 1992)



Description: American chaffseed is an erect, densely hairy, unbranched perennial, 1-2 ft (30-60 cm) tall. Leaves are alternate, 0.8-1.6 inches (2-4 cm) tall, 0.2-0.4 inch (6-10 mm) wide and attach directly to the stalk without a leaf stem. Each leaf has three noticeable veins. Flowers are grouped in a long terminal cluster. The sepals are fused to form a calyx in the shape of two unequal lips, 0.5-0.7 inch (14-18 mm) long, beneath the petals. The corolla are two-lipped and narrow, twice as long as the calyx. The upper lip is triangular, while the lower lip consists of three short, broad lobes, of which the middle one is notched. Coloration is yellowish or purplish. The numerous seeds are enclosed in a loose-fitting, sac-like structure that provides the basis for the common name, chaffseed.

Life History: The American chaffseed, with its hemiparasitic behavior, is considered to be one of the rarest root-parasite species of flowering plants in the southeastern U.S. Although it is not host-specific, a host is required and may be a wide variety of woody and herbaceous plants. Showy, insect-pollinated flowers occur May-June, with fruits maturing in August. Fruit is a brown, dry dehiscent capsule, narrowly oval-shaped, about 0.4 inches (1 cm) long. Seeds are numerous, flat, and winged. Fire appears to be a requirement for long-term viability strongly affecting the reproductive success by controlling conditions necessary for successful seed germination and possibly required for young plants to make their haustorial connection. The few brief months immediately following a fire are enough time for the minute seeds to germinate in the mineral soil under full sun without litter and competing vegetation. The coarse, thickened chaffseed capsule insulates the seeds from the higher temperature of the fire and the heat exposure may increase germination rates.

Habitat: Prefers sandy, acidic, seasonally moist soils in sunny or partly sunny areas subject to frequent fires in the growing season.

Distribution: Occurs on moist to dryish pine flatlands, pine savannas, and on longleaf pine/oak sandhills at the western edge of the coastal plain in Bladen*, Cumberland, Hoke, Moore, Pender*, and Scotland counties.

Threats: Rarity of populations and low numbers within the population make this species especially vulnerable to competition from other species and loss of habitat to urban development, road building, wetland drainage, and pine forest management. Fire suppression allows succession to proceed so that competition for light excludes this species.

Management Recommendations: Need for additional research and monitoring of plant populations. Protection of habitat and prescribed burning to promote maintenance of extant populations.

* No record has been reported in this county in the past 20 years.

Sources: Jackson et al. 1992, Radford et al. 1964, USFWS 1992a.

