American chaffseed
(Schwalbea americana)

Description
American chaffseed is a tall perennial herb in the figwort family and is distinguished by its large, purplish-yellow, tubular flowers. The plant has unbranched stems that grow to a height of 12 to 31 inches and is densely, but minutely hairy throughout, including the flowers. The leaves are alternate, lance-shaped to elliptic, stalkless and entire. The fruit is a long and narrow capsule, enclosed in a loose-fitting sac-like structure that provides the basis for the common name, chaffseed. Flowering occurs from April to June in the southern part of the species’ range, and from June to mid-July in the northern part of the range. Fruits mature from early summer in the south to October in the north. The best time to survey for American chaffseed is during its flowering period.

American chaffseed is a hemiparasite (partially dependent upon another plant as its host). The species is not host-specific and may parasitize a variety of trees, shrubs, and herbs. It is considered one of the rarest root-parasite species of flowering plants in the Southeast. In New Jersey, some host species that have been identified are pitch pine (Pinus rigida), highbush blueberry (Vaccinium corymbosum), creeping wintergreen (Gaultheria procumbens), inkberry (Ilex glabra), blackjack oak (Quercus marilandica), black cherry (Prunus serotina), black huckleberry (Gaylussacia baccata), and little bluestem (Schizachrum scoparium).

Range
Currently, American chaffseed occurs in New Jersey, North Carolina, South Carolina, Georgia, Florida, Alabama, and Louisiana. American chaffseed was never considered to be common, but populations have declined and the range has seriously contracted in recent decades. States with historic records only are Massachusetts, Connecticut, New York, Delaware, Maryland, Virginia, Alabama, Mississippi, Louisiana, Texas, Tennessee, and Kentucky.

Habitat
American chaffseed occurs in fire-maintained longleaf pine flatwoods and savannas. Often it is found in ecotonal areas between peaty wetlands and xeric sandy soils. Kral (1983) described American chaffseed habitat as open grass-sedge systems in moist acidic sandy loams or sandy peat loams. Chaffseed is dependent on factors such as fire, mowing, or fluctuating water tables to maintain the open to partly-open conditions that it requires. Historically, the species probably existed on savannas and pinelands throughout the coastal plain and on sandstone knobs and plains inland where frequent, naturally occurring fires maintained these subclimax communities. Under these conditions, herbaceous plants such as American chaffseed were favored over trees and shrubs.

Most of the surviving populations, and all of the most vigorous populations, are in areas that are still subject to frequent fire. These fire-maintained habitats include plantations where prescribed fire is part of a management regime for quail and other game species, army base impact zones that burn regularly because of artillery shelling, forest management areas that are burned to maintain habitat for wildlife, including the endangered red-cockaded woodpecker, and various other private lands that are burned to maintain open fields. Fire may be important to the species in ways that are not yet understood, such as for germination of seed, or in the formation of the connection to the host plant.

Status
American chaffseed was federally listed as an endangered species in 1992. The U.S. Fish and Wildlife Service initiated a 5-year Status Review in June 2017 and is currently drafting those findings.

Threats
Fire suppression and vegetational succession of fire-maintained ecosystems across the Atlantic and Gulf Coasts region remains the greatest threat to American chaffseed. Across this species range, the largest, healthiest populations are ones that are burned annually by quail plantation managers. Fort Bragg supports the largest populations on federal land due to 2-year fire return intervals from the mil-
Management/Protection Needs

- Protect existing populations and manage habitat with a high fire return interval (1-3 years).
- Reintroduce American chaffseed into the northern and southern portion of the current range.
- Seek opportunities to include American chaffseed protection into Safe Harbor Agreements or Habitat Conservation Plans developed for red cockaded-woodpecker where the species co-exist.
- Conduct research to determine species life history traits such as germination ecology.

- Determine if fire surrogates such as mowing can effectively keep woody vegetation at bay and maintain the grass and composite groundstory diversity that American chaffseed depends upon.

References


Contact

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For more information:
https://www.fws.gov/southeast/wildlife/plants/american-chaffseed