

IDENTIFICATION: Whorled sunflower, *Helianthus verticillatus*, is a member of the sunflower family (Asteraceae) that was [designated as an endangered species](#) on September 2, 2014. It is a perennial with tuberous, thickened roots with slender rhizomes. Slender, erect stems grow up to ten feet tall. Linear to lanceolate shaped leaves are three to seven inches in length and arranged oppositely on the lower stem, whorled (three to four per group) at mid-stem, and alternate or opposite in the inflorescence at the end.

Flowers in a large branched cluster at the top of the stem, generally with three to seven heads, each head with 13 yellow ray flowers, a central disk of yellow flowers, and a whorl of narrow, spreading, green bracts below.

HABITAT: Habitat for whorled sunflowers is moist, prairie-like remnants, which in a more natural setting exist as openings in woodlands and adjacent to creeks. Today, these conditions are most often found in small remnant patches or old field habitats adjacent to roadsides, railroad rights-of-way, and streams bordered by agricultural lands. Whorled sunflower, like other members of this genus, grows best where there is little to no forest canopy cover where they receive full sunlight for most of the day.



Currently, this species is found at eight sites in northeast Alabama, northwest Georgia and southwest Tennessee. In Alabama, it is found only at two sites in Cherokee county on flat to gently rolling uplands along stream terraces in the headwaters of Mud Creek. The first site is a narrow, open strip of vegetation adjacent to a roadside. The second population is along a small intermittent stream and adjacent floodplain on a site that was logged in 1998. The population responded well to the logging but has since become less dense due to competition from canopy closure of replanted pines.

The soil types where whorled sunflower is found include silt loams, silty clay loams, and fine sandy loams. These soils share the characteristics of being strongly to extremely acidic and having low to moderate natural fertility and low to medium organic matter content.

One site in Georgia is formally protected through a conservation easement held by The Nature Conservancy, which jointly manages the property with the landowner. The other seven sites are privately owned with no formal protection.

Designation of Critical Habitat: When a species is listed as Threatened or Endangered, the US Fish and Wildlife Service must designate critical habitat at the maximum extent prudent and determinable. The designation of critical habitat is based on the best scientific data after taking into consideration

economic impact, national security impact, and any other relevant impact of specifying a particular area as critical habitat. Critical habitat is defined as:

- The specific areas within the geographic area occupied by the species, at the time it is listed in accordance with the Endangered Species Act, on which are found those physical or biological features:
 - o Essential to the conservation of the species.
 - o Which may require special management considerations or protection.
 - o Specific areas outside of the geographic range area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

The designation of critical habitat does not affect land ownership or designate a refuge, wilderness, reserve, preserve, or other conservation area. Such a designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners unless an action or activity has a federal nexus. The eight sites where whorled sunflower is found were [designated as critical habitat](#) on September 25, 2014. No significant impacts to private landowners are expected as a result of this ruling.

FORESTRY CONSIDERATIONS: Management activities to benefit whorled sunflower should include limiting succession and canopy closure to allow these sun loving plants to flourish. Pre-harvest plans should include a strategy to be as environmentally friendly as possible to sites with whorled sunflower. Location of skid trails, loading decks, roads and other high use areas should be carefully planned to minimize negative impacts. Herbicide use should be carefully planned and follow label directions. Management of non-native invasive species such as privet may be necessary to minimize competition.

DISTRIBUTION BY COUNTY: This plant is known to occur only at two sites in Cherokee county, Alabama along with six other sites in Georgia and Tennessee.

Photo Credit: Dr. Christopher Brown, Georgia Gwinnett College



This information is provided by the Alabama Forestry Commission
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