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Status: State Threatened (legally protected)

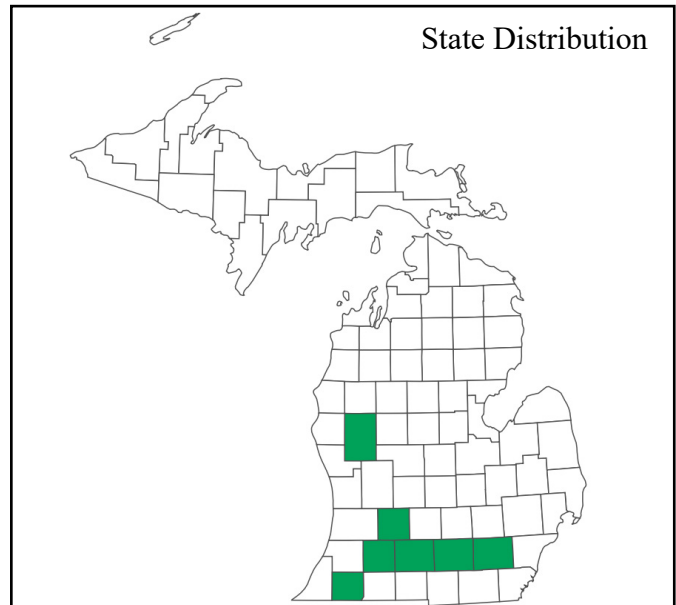
Global and State Rank: G5 (Globally Secure) / S1 (State Critically Imperiled)

Other Common Names: sessile-leaved boneset

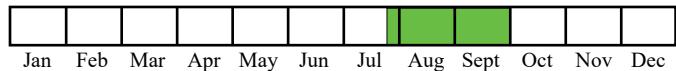
Synonyms: *Uncasia sessilifolia* (L.) Greene

Family: Asteraceae (also known as Compositae; commonly called the aster, composite, daisy, or sunflower family)

Taxonomy: *Eupatorium sessilifolium* is placed in the order Asterales and family Asteraceae. Members of this family are distinguished by having flowers clustered into a head (capitulum) which resembles and ecologically functions as a single flower. *Eupatorium sessilifolium* belongs to the sub-family Asteroideae, together with more than 70% of the species of the family. *Eupatorium sessilifolium* belongs to the tribe Eupatorieae, along



Best Survey Period



with *Ageratina*, *Brickellia*, *Eutrochium*, *Liatris*, *Mikania*, and several genera not represented in Michigan (Stevens 2025).

Total Range: The range of *E. sessilifolium* extends from Arkansas north to Minnesota including far-eastern Kansas, east across the Midwest and Appalachian states to Maine, south down the Atlantic coastal plain states to Georgia, and west across many southern states. *Eupatorium sessilifolium* is ranked nationally N5 (Secure) and globally G5 (Secure). In Delaware, Kansas, Iowa, Maine, Michigan and Vermont the status of *E. sessilifolium* is S1 (Critically Imperiled). In Minnesota, it is ranked S2 (Imperiled). In Georgia it is ranked S3? (Inexact Numeric Rank). It is ranked S4 (Apparently Secure) in Wisconsin and North Carolina and in Virginia and West Virginia *E. sessilifolium* is ranked S5 (Secure). In New Hampshire, it is ranked SH (Possibly Extirpated) (NatureServe 2025). In other states within its range and in the District of Columbia *E. sessilifolium* is ranked SNR (Not Ranked) (NatureServe 2025).

State Distribution: Across Michigan *E. sessilifolium* has fifteen current or historical records across six counties. It is concentrated in the lower three tiers of counties from Cass County in the west to Washtenaw County in the east. There is one



disjunct occurrence northward in Newaygo County (MNFI 2025). Of fifteen occurrences in Michigan, three are ranked H (historical), and one is ranked F (failed to find). Of the 11 remaining occurrences, five are ranked C, C? or CD (fair, possibly fair or fair to poor estimated viability), five B or BC (good or good to fair estimated viability), and one E (verified extant [viability not assessed]).

Recognition: *Eupatorium sessilifolium* is a tall perennial forb (5 to 10 or more dm) (Siripun and Schilling 2020). Individuals are **single-stemmed**. Stems are **glabrous** on middle internodes (or sparsely puberulent) (Reznicek et al. 2025) and **puberulent** in the inflorescence (Gleason and Cronquist 1991). Leaves are **opposite, sessile to sub-sessile, lance-shaped** and truncate to **broadly rounded** at the base. Margins of leaves are **serrate**. Leaf tips are acuminate to long-acute. The leaves are approximately **7-18 cm** long and **1.5-5 cm** wide and **pinnately veined** with only one long vein (the midrib) distinct beneath (Gleason and Cronquist 1991, Reznicek et al. 2025). Involucres are 4.5-6.5 mm with imbricate phyllaries (bracts), rounded to obtuse at the tips. Involucres and bracts can be villous-puberulent and glandular. Inflorescences are **discoïd** (without ray flowers) and have **5-6 small white flowers** per head (Gleason and Cronquist 1991). The fruit produced by *E. sessilifolium* is single seeded, 2-3 mm long, and topped with a pappus (modified calyx) of 30-40 bristles 3-4 mm long (Siripun and Schilling 2020).

The rare *Eupatorium perfoliatum* f. *truncatum* is a pubescent plant, otherwise resembling this species. *Eupatorium sessilifolium* is distinguished from other members of the genus *Eupatorium* by having **sessile leaves**, florets fewer than eight per head, **stems glabrous** and **leaves truncate to rounded** and with only one vein prominent beneath. *Eupatorium sessilifolium* is distinguished from members of the genus *Eutrochium* by having **opposite leaves** (sometimes a few upper alternate ones) rather than whorled leaves. *Eupatorium sessilifolium* is distinguished from members of the genus *Ageratina* by having **leaf blades sessile**, lanceolate and approximately 2-4 times as long as broad, as opposed to the leaves of *Ageratina* which are petiolate, ovate and less than twice as long as broad (Reznicek et al. 2025).



Alex Ellison

Best Survey Time/Phenology: *Eupatorium sessilifolium* is easiest to observe during its flowering time between the fourth week of July and the fourth week of September (MNFI 2025).

Habitat: *Eupatorium sessilifolium* is found in oak forests and oak barrens (MNFI 2025), in shaded thickets and on gravel banks (Reznicek et al. 2025), on cliffs and ledges, and along dry open edges of forested woodlands (NatureServe 2025). Specifically, it is often found on forested or open gravelly bluffs, hillsides and terraces above waterbodies (MNFI 2025).

Common woody associates include *Carya* spp. (hickories), *Cercis canadensis* (redbud), *Hamamelis virginiana* (witch-hazel), *Parthenocissus quinquefolia* (Virginia creeper), *Prunus serotina* (black cherry), *P. virginiana* (choke cherry), *Quercus alba* (white oak), *Q. rubra* (red oak), *Q. velutina* (black oak), *Rhus aromatica* (fragrant sumac), *Sassafras albidum* (sassafras), and *Smilax* spp. (greenbriers) (MNFI 2025).

Common herbaceous associates include *Circaea canadensis* (enchanter's-nightshade), *Galium circaezans* (white wild licorice), *Persicaria virginiana* (jumpseed), *Phryma leptostachya* (lopseed), *Solidago caesia* (bluestem goldenrod), and *Triosteum aurantiacum* (horse-gentian) and (MNFI 2025).

Biology: *Eupatorium sessilifolium* is a perennial forb that is both insect-pollinated and self-compatible by way of agamospermy, the capacity to develop fruit without any fertilization (Grubbs et al. 2009, Siripun 2006). All Michigan populations



are likely to be agamosperous polyploids (Siripun 2006). Members of the genus *Eupatorium* produce nectar and are visited by many pollinators including small and large butterflies, native and domesticated bees, hummingbirds, wasps and several other insect pollinators. Wasps that visit species of *Eupatorium* include *Ammophila*, *Eumenes*, *Monobia*, *Philanthus*, *Polistes*, and *Scolia* (Hayden 2023, Hilty 2020, Robertson 1929). Bees that are known to pollinate species of *Eupatorium* include *Agapostemon*, *Andrena*, *Bombus*, *Hylaeus*, and *Lasioglossum* spp. (Holm 2014).

Eupatorium sessilifolium seeds are wind dispersed (Dodds 2024). Some members of *Eupatorium* have been proven to form arbuscular mycorrhizal associations with soil fungi which may be a factor in seed germination and new plant growth (Wang and Qiu 2006). Life cycle information for *E. sessilifolium* is not well documented from germination to adulthood and further research is needed.

Conservation/Management: *Eupatorium sessilifolium* likely requires management practices that maintain an open canopy or midstory with low woody species density in oak forests and barrens that facilitates light availability in the ground cover layer (MNFI 2025). Hutchinson et al. (2024) showed that *E. sessilifolium* is an indicator species for landscapes with recent exposure to fire. Fire and other methods of keeping the canopy and understory open, such as girdling and thinning of canopy trees (especially mesophytic species such as *Prunus serotina* and red maple [*Acer rubrum*]) and management of woody encroachment, would likely benefit this species (Cohen et al. 2020). The removal of non-native invasive species will help maintain understory structure. Managing populations of deer would likely have a positive effect on this species viability because records have often documented deer browse on *E. sessilifolium* (MNFI 2025). In Michigan, this species occurs in relatively closed-canopy landscapes but prior to European colonization it likely occurred in more open savanna and barrens systems (Basset et al 2022, Cohen et al. 2009, MNFI 2025). Eight of the twelve occurrences that are non-historical records are found on public lands, nature reserves, lands owned by educational institutions or lands managed or maintained by the government or military and



are relatively secure and safe from development and habitat conversion. Four of the twelve occurrences that are non-historical records are located on privately owned lands and their viability with respect to development and habitat conversion are unclear (MNFI 2025).

Comments: Hybridization is rampant within *Eupatorium*. Molecular evidence indicates *Eupatorium godfreyanum* (Godfrey's thoroughwort), a species restricted to Virginia and adjacent states, was originally derived from hybridization between *E. sessilifolium* and *E. rotundifolium* (roundleaf thoroughwort) (Siripun 2006). In Michigan, *E. sessilifolium* is not known to hybridize with any other species. The name *Eupatorium* honors the ancient Greek Mithridates VI Eupator, king of Pontus, who experimented with the medicinal uses of plants (Gledhill 2008).

Research Needs: The taxonomy and validity of this species' varieties are still disagreed upon and need more research for clarification (NatureServe 2025). Peer reviewed literature on the life cycle from seed to adult for *E. sessilifolium* and its relatives is sparse. There is still a lot of molecular work to be done on phylogenetic relationships within *Eupatorium*. Research comparing fire-managed and non-fire-managed populations in Michigan has not been done and could provide valuable data and insight into this species' response to fire.

Related Abstracts: Dry-mesic northern forest, dry-mesic southern forest, hillside prairie, oak barrens, oak openings, oak-pine barrens

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