



Status: State special concern

Global and state rank: G5/S3

Other common names: sundew

Family: Droseraceae (sundew)

Synonyms: *Drosera Xanglica* Hudson

Taxonomy: *Drosera anglica* exists in two forms, occurring as a sterile, diploid hybrid (*D. Xanglica*) between the common *D. rotundifolia* (round-leaved sundew) and *D. linearis* (linear-leaved sundew), and also as a fertile tetraploid (i.e. having four sets of chromosomes). The presence of filled seed capsules is evidence of the fertile form of this plant, which otherwise is indistinguishable from the diploid hybrids.

Total range: English sundew is a circumboreal species, ranging south in North America to Quebec, northern Maine, and southern Ontario, in the Midwest occurring south primarily to the northern regions of Michigan, Wisconsin, and Minnesota, and in the West, ranging south to California (Gleason & Cronquist 1991).

State distribution: *Drosera anglica* occurs primarily in the Upper Peninsula and northern Lower Michigan, ranging from Isle Royale and the Keweenaw Peninsula to Luce and Mackinac counties. In northern Lower Michigan, this species ranges through Charlevoix, Emmet, Cheboygan, and Presque Isle counties. Somewhat disjunct occurrences have been documented in marl fens in southern Lower Michigan, where this species has been in Oakland and Livingston counties.

Recognition: English sundew is a diminutive plant similar to other species of *Drosera*, forming small clumps or rosettes of leaves covered with numerous sticky, red, glandular hairs. The rosettes, which are approximately 5-10 cm or more in diameter, are composed of **long-petioled, glandular leaves that become broadened and narrowly paddle-shaped (spatulate) toward the tip**. The leaves, which are somewhat **erect to ascending**, are covered with long, reddish, hairs, each tipped with a small droplet of sticky fluid. **Tiny, white, five-petaled flowers** are borne toward the end of a slender stem that arises from the center of the rosette.

There are only four species of sundew known in Michigan, and these taxa may rarely occur in close proximity within the same site, such as in patterned peatlands in eastern Upper Peninsula. English sundew, however, is most likely to be confused with *D. intermedia*, a species that usually occurs in bogs and other acid substrates. ***D. intermedia* is a markedly smaller, more delicate plant with leaf blades that range only from 2-4 mm wide versus 3-8 mm wide in *D. anglica*.** Additional differences include **smooth petioles in *D. intermedia* versus at least slightly glandular petioles in *D. anglica* and the laterally borne flowering stem in *D. intermedia* in contrast to the centrally arising flowering stem in *D. anglica*** (Voss 1985). *Drosera rotundifolia* (round-leaved sundew), which often occurs with English sundew, is generally a smaller and distinctly prostrate plant with shorter petioles that terminate abruptly in very roundish, orbicular leaf blades.

Best survey time/phenology: English sundew is observable by the latter part of May, and is probably best sought



from late spring through early summer, though it will persist through August and perhaps later in recognizable form. Flowering occurs approximately in late June through July.

Habitat: English sundew typically occurs in northern fens, including marl flats, cobble shores, and other calcareous habitats such as interdunal wetlands along the northern shores of Lake Huron and Lake Michigan. It also occurs in rock pools on Isle Royale (Voss 1985). In these sites, typical associates include such species as *Drosera linearis*, *D. rotundifolia*, *Thuja occidentalis* (northern white cedar), *Larix laricina* (Eastern larch), *Triglochin* spp. (arrow-grasses), *Sarracenia purpurea* (pitcher-plant), *Tofieldia glutinosa* (false asphodel), *Primula mistassinica* (bird's-eye primrose), *Lobelia kalmii* (Kalm's lobelia), *Scirpus cespitosus* (bulrush), *Pogonia ophioglossoides* (rose pogonia), *Calopogon tuberosus* (marsh-pink), as well as several *Sphagnum* species and brown mosses such as *Scorpidium scorpioides* (scorpidium). Elsewhere, English sundew also occurs in interior areas on floating peat mats and in wet depressions (termed "flarks") of patterned peatland complexes in the eastern Upper Peninsula. In southern Lower Michigan, this species is very rare, being restricted to the wet, marly zones of a few prairie fens, where it occurs with many of the aforementioned plant associates.

Biology: Similar to *Sarracenia purpurea* (pitcher-plant) and *Pinguicula vulgaris* (butterwort), sundews are carnivorous plants, capturing insects (primarily) with their nectar-like, mucilaginous secretions to supplement nutrients, such as nitrogen, that are otherwise in low availability in their habitats. Sundew leaves curl around their insect prey, when captured, to digest it.

Conservation/management: The primary conservation need for this species is simply the protection of its habitat, including the maintenance of local hydrological and natural disturbance regimes to sustain wetland function and the generally open, non-forested habitat required for perpetuation.

Research needs: There are relatively few published studies concerning the biology and ecology of this species, although there is widespread interest in insectivorous and carnivorous plants. Research likely to be of the greatest benefit to conservation would include studies of population dynamics, demography, and virtually any aspect of life history, especially if such investigations incorporate habitat information.

Related abstracts: prairie fen, small white lady's-slipper, mat muhly, prairie dropseed, Eastern massasauga, Mitchell's satyr

Selected references

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Voss, E.G. 1985. Michigan Flora Part II: Dicots (Saururaceae-Cornaceae). Bull. Cranbrook Inst. Sci. 59 and U. of Mich. Herb. xix + 724 pp.

Wood, Carroll E., Jr. 1955. Evidence of the Hybrid Origin of *Drosera anglica*. *Rhodora* 57:105-130.

Wynne, F.E. 1944. *Drosera* in Eastern North America. Bull. of the Torrey Bot. Club. Vol. 71:166-174.

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