



# Natural Heritage & Endangered Species Program

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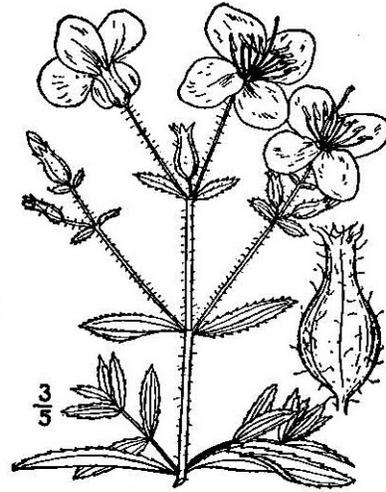
## Maryland Meadow Beauty *Rhexia mariana* L.

State Status: **Endangered**  
Federal Status: None

**Description:** Maryland Meadow Beauty is a regionally rare showy perennial wildflower of the Meadow Beauty family (Melastomataceae), found along moist open sites of the Massachusetts coastal plain.

**Aid to identification:** Maryland Meadow Beauty is a rhizomatous, branched, pubescent perennial, 20 to 100 cm (8–39 in.) in height. The leaves are opposite, commonly 2 to 5 cm (0.8–2 in.) long (but can be up to 8 cm; 3.1 inches). They are oblong, or linear-oblong, and three-nerved. The stem is unequally four-sided with one of pair sides broad, dark green, and convex, and other pair narrower, paler, and concave. Pink or white flowers are borne in small clusters near the top of the plant. Each flower has four petals and elongated yellow to orange anthers (pollen-bearing structures) that angle downwards on the ends of hooked stamens. The fruit is a reddish, urn-shaped capsule that contains many tiny, tan to brown seeds. Maryland Meadow Beauty flowers from August to September.

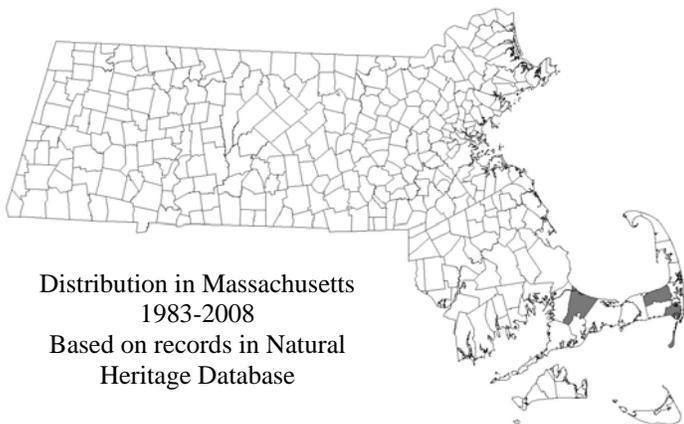
**Similar species:** Maryland Meadow Beauty resembles and can co-occur with the far more common Virginia Meadow Beauty (*Rhexia virginica*). When in bloom the two species are easily distinguished, as Virginia Meadow Beauty has darker pink to rose petals. Virginia Meadow Beauty also has broader leaves and an equally four-sided, slightly winged stem. Lastly, Virginia Meadow Beauty is generally less branched than its congener.



Britton, N.L. and A. Brown. 1970. *An Illustrated Flora of the Northern United States and Canada*, Second Edition. Dover Publications, Inc. New York.

**Habitat:** Maryland Meadow Beauty inhabits moist, open, peaty or sandy sites, usually associated with coastal plain ponds (e.g., shores, associated marshes, wet grassy places). The species is dependent on fluctuating water levels and may not appear every year. Associated species include Highbush Blueberry (*Vaccinium corymbosum*), Marsh-rush (*Juncus canadensis*), Plymouth Gentian (*Sabatia kennedyana*; Special Concern), Rose Coreopsis (*Coreopsis rosea*, Watch List), Slender-leaved Goldenrod (*Euthamia graminifolia*), Steeplebush (*Spiraea tomentosa*), Thread-leaf Sundew (*Drosera filiformis*), and Virginia Meadow Beauty (*Rhexia virginica*).

**Threats:** Threats include any activities that change the natural hydrology, water quality, or soil integrity of its habitat. Examples include water table drawdown from local wells, eutrophication resulting from nutrient inputs from septic systems and lawns, and trampling and soil disturbance due to recreational use of pond shores (i.e., hiking, sunbathing, swimming, fishing, boat-launching, and raking or digging).



### Flowering time in Massachusetts

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form as these donations comprise a significant portion of our operating budget.

**Range:** The documented range of Maryland Meadow Beauty extends from Massachusetts to Florida and throughout much of the Midwest. Massachusetts has its only New England stations.

**Population in Massachusetts:** Maryland Meadow Beauty is listed under the Massachusetts Endangered Species Act as Endangered. All listed species are legally protected from killing, collection, possession, or sale, and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. Maryland Meadow Beauty is currently known only from Barnstable County.

**Management recommendations:** Preservation of Maryland Meadow Beauty requires protection of the natural hydrology, water quality, and soil integrity of its habitat. Like other coastal plain pond shore associates, it requires pronounced water-level fluctuations, and acidic, nutrient-poor water and substrate, free from major soil disturbance.

Maryland Meadow Beauty populations should be monitored regularly to identify possible threats. Protection of Maryland Meadow Beauty may require exclusion of new wells and septic systems, prohibitions on fertilizer use, and restrictions on recreational use of the pond shores. Prolonged artificial water level draw-down can encourage shrubby species to displace Maryland Meadow Beauty. Recreational activities such as swimming, fishing, and boat-launching should be diverted from plant population locations by providing alternative locations for these activities.

Also, habitat should be monitored for exotic plant species invasions. The nature of coastal plain ponds makes them generally inhospitable to many exotic plants, but they can become established at sites that have major soil disturbance or heavy nutrient inputs. Exotic species that could establish along the shoreline of coastal plain ponds include Common Reed (*Phragmites australis* ssp. *australis*), Gray Willow (*Salix cinerea*), and Purple Loosestrife (*Lythrum salicaria*).

All active management of rare plant populations (including invasive species removal) is subject to review under the Massachusetts Endangered Species Act, and should be planned in close consultation with the Massachusetts Natural Heritage & Endangered Species Program.

*Updated June 2008*