

## PANHANDLE MEADOWBEAUTY

*Rhexia salicifolia* Kral & Bostick

**Synonyms:** none

**Family:** Melastomataceae (meadow-beauty)

**FNAI Ranks:** G3/S3

**Legal Status:** US-none; FL-Threatened



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**Field Description:** Perennial herb, 20 - 55 cm tall, with stiff, slender, square stems with glandular hairs and narrow wings on the angles. Leaves 1.5 - 4.1 cm long, opposite, narrow, lacking leafstalks, with 3 conspicuous veins and glandular hairs on margins and both surfaces; leaves turned at right angles to the ground so surfaces face out rather than up. Flowers with 4 rounded, lavender-pink petals that fall easily, and stamens with bright yellow, curved anthers. Fruit a tiny urn with scattered hairs, short neck, and round body.

**Similar Species:** There are 11 species of meadow-beauty with pink flowers in the FL Panhandle. Panhandle meadowbeauty is the only species with narrow leaves turned perpendicular to the ground, equal-sided stems, bright lavender-pink petals, gland-tipped hairs at the leaf nodes, and glandular-hairy fruits with neck shorter than the body.

**Related Rare Species:** Small-flowered meadow-beauty (*Rhexia parviflora*), state-endangered, looks similar to *Rhexia salicifolia*, but the flowers are white and the leaves are not turned at right angles to the ground.

## Panhandle meadowbeauty

## *Rhexia salicifolia*

**Habitat:** Sunny margins of depression marshes, flatwoods ponds, and sandhill upland lakes (karst ponds), in wet sands or peats.

**Best Survey Season:** Summer-fall; June - September.

**Range-wide Distribution:** FL Panhandle, 2 adjacent counties in SE AL, and 2 counties in southern Georgia (only discovered recently in the state, in 2007 and 2019).

**Conservation Status:** There are 179 documented populations of *R. salicifolia* in Florida, but a large proportion of these were only first recorded in the late 90's to early 2000's based on surveys done by Lisa and Ed Keppner in the Econfinia Creek Water Management Area (ECWMA) and surroundings areas. About 50 of the 179 populations occur on ECWMA. Other Florida managed lands with *R. salicifolia* populations include Eglin Air Force base, Topsail Hill Preserve State Park, Deer Lake State Park, Pine Log State Forest, and Apalachicola National Forest. Twenty-six of the 179 populations were not found on-site when last visited by field botanists and one is listed as having been extirpated. It is important to note, however, that water levels can vary within and between years and can determine whether plants may be observable at a particular time (i.e. high water levels may mean no plants are observable aboveground, but the population may still be persisting via underground tubers or via the seedbank). New populations are still being discovered within the state on managed lands, though given the specific habitat this species occupies around karst ponds, these locations are fairly predictable. Nearly half of the known populations of *R. salicifolia* occur on private property. If permission from landowners could be obtained, many more populations could be recorded on private property, at least where karst pond edges remain fairly undisturbed. Shores of private karst ponds are often scraped to create "beaches." Erosion and run-off from pine plantations and lakeside developments damage the shoreline and alter hydrology in karst ponds. Off-road-vehicle use in wetlands is a serious threat to this species. Habitat loss from residential and recreational development have been a threat to this species, especially concentrated in the latter half of the 20th century. In 1980s, development of karst lakes was identified as the primary threat to this species (Bounds 1987). Development may still be impacting *R. salicifolia* on private lands where there is no protection for this species against destruction. The clearing of vegetation on the pond/lake slopes through heavy equipment and/or herbicide, often for the creation of beaches and "scenic" areas, has been detrimental to this species in the past and has allowed for erosion and invasion by invasive grasses, further degrading the habitat (Kral 1995). The preparation and site clearing associated with forestry operations and road maintenance has also historically been a threat, leading to erosion of shorelines and decreasing water quality of the ponds/lakes. Recreational ORV use along karst pond edges has threatened this species through soil disturbance/rutting. Other forms of recreation that impact the pond

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shorelines such as boating and camping have also harmed this species and its habitat. Pollution of the pond waters has also been a threat, particularly from herbicide runoff and from sewer system leakage. Once this pollution has occurred in one pond, it's possible for the pollution to spread to others nearby, as they are connected underground (Kral 1995).

**Protection and Management:** Avoid filling, ditching, draining, or logging in wetlands. Maintain pond shoreline vegetation in natural condition; avoid clearing and mowing. Prevent run-off and sedimentation into ponds and wetlands. Exclude off-road-vehicles from wetlands.

**References:** Coile 2000, Godfrey and Wooten 1981, Kral 1983, Kral 1995, Kral and Bostick 1969, Reed and Cruz 1997, Tobe et al. 1998, Ward 1979, Wunderlin and Hansen 2011, Wunderlin et al. 2018.



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