

Toothcup

Rotala ramosior

Description

Toothcup is a small annual herb that has smooth stems that may grow up 12 inches (30 cm) in height, but in some cases may be less than 1 inch. The leaves are oppositely arranged, stalkless, averaging about 1 inch (2.5 cm) long, untoothed, generally elliptic in shape with a rounded tip and tapering base. The flowers, appearing from July to September, are located in the leaf axils. Each flower has 4 light pink or whitish petals, which tend to fall off early. The fruit is a many-seeded capsule that is about 3/16 inch (3-5 mm) long and usually becomes red in color as it matures.

Distribution & Habitat

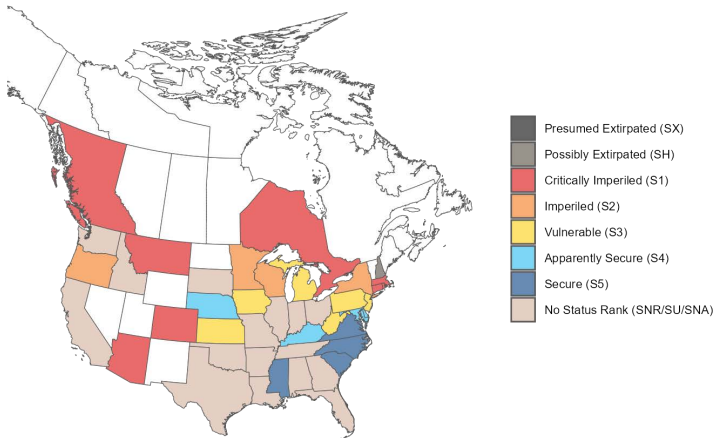
Toothcup has a very wide range in North America. In Pennsylvania, it has been documented historically in numerous southern counties, particularly along the Susquehanna River. It grows on exposed shorelines, stream margins, streambed outcrops, and other damp, open places.



Photo source: R. Harrison Wiegand

North American State/Province Conservation Status

Map by NatureServe 2025



Current State Status

The PA Biological Survey (PABS) considers Toothcup to be a species of special concern, based on the relatively few occurrences that have been recently confirmed and its wetland habitat. It has a PA legal rarity status and a PABS suggested rarity status of Rare. About 30 populations are currently known from the state.

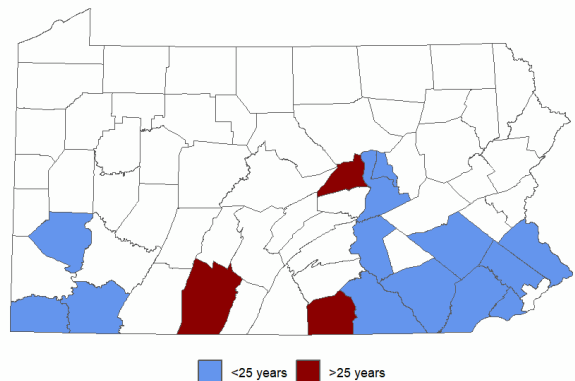
Conservation Considerations

The populations of Toothcup that occur along streams and rivers can be enhanced by maintaining the natural seasonal fluctuations in the water level of the stream and the natural conditions of its shoreline. Despite its somewhat narrow habitat requirements, this species appears to be fairly successful in reproducing itself and colonizing new areas. Invasive species may be a threat in some locations.

NatureServe conservation status ranks

G5 – Globally Secure; **S3** – Vulnerable in Pennsylvania

Tooth-cup (*Rotala ramosior*)



References

- NatureServe. 2025. NatureServe Explorer [web application] NatureServe, Arlington, Virginia. Available at <https://explorer.natureserve.org> (Accessed: May 8, 2025)
- Pennsylvania Natural Heritage Program. 2025.
- Rhoads, A.F. and W.M. Klein, Jr. 1993. The Vascular Flora of Pennsylvania. American Philosophical Society, Philadelphia, Pennsylvania.
- Rhoads, A.F. and T.A. Block. 2007. The Plants of Pennsylvania: An Illustrated Manual. 2nd edition. University of Pennsylvania Press, Philadelphia, Pennsylvania.