



SIERRA CLUB

MARYLAND CHAPTER

P.O. Box 278
Riverdale, MD 20738

Testimony: SB0523, Department of Natural Resources - Water Resources - Identification of Vernal Pools

Committee: Environment and Transportation Committee

Hearing Date: April 2, 2026

Position: Favorable

The Maryland Chapter of the Sierra Club supports Senate Bill 523 because of the benefits of vernal pools to amphibians, other wildlife, and native plants.

Critical, Unique Habitat for Rare Species: Vernal pools seasonally alternate between wet and dry conditions, and these isolated systems do not harbor fish, which devour invertebrates and amphibian eggs. Consequently, these shallow ephemeral ponds and their surroundings are fragile, remarkable habitats that host rare plants and animals not typically found elsewhere. To survive and breed, these organisms have developed unique behaviors, structures, and physiologies.¹ For example, the resident pretty Yellow Water Crowfoot wildflower (*Ranunculus flabellaris*) and the attractively colored Eastern Tiger Salamander (*Ambystoma tigrinum*) are endangered, according to the Maryland Department of Natural Resources.^{2, 3} In the Mid-Atlantic region, a remarkable 26% of amphibians listed as state-threatened or endangered depend on seasonal ponds.⁴ In addition to highly state-rare residents, many other animals depend on the vernal pools for food, including reptiles, birds, and mammals.⁵

Crucial Services to the Environment and Humans: Vernal pool depressions can stop or slow floodwaters, prevent erosion, filter out pollutants that could damage the Chesapeake Bay, and allow water to infiltrate down into our vital aquifers. Furthermore, resident salamanders, particularly from the ambystomatid family, can provide mosquito-control services. According to one research study, mosquito larvae were 98% less dense in wetlands when these salamanders were present.⁶

Threats to Vernal Pool Habitats: The existence of these small, unique environments is threatened because they are often filled, drained, paved over, and bulldozed. These easy-to-miss seasonal pools will be at risk throughout Maryland unless they are identified. If these valuable habitats disappear, biodiversity will suffer. Rare animals, including amphibians, could face extinction because they would have nowhere to breed.

Declining Amphibian Populations: Amphibian populations are declining at an alarming rate, and some species are likely to become extinct. The causes are complex and interrelated, but the biggest factor is habitat destruction.⁷ Decades ago, it was not unusual to see children out exploring the wilds of a suburban neighborhood. In early spring, the children might hear spring

peepers and go out adventuring . They might return sopping wet, eyes-shining with delight and excited about the army of frogs singing and laying eggs in the local shallow pond. We have the responsibility to find and preserve these natural habitats for future generations.

Vernal pools are crucial for the health of the environment, the services they provide, and the biodiversity they contain. The Maryland Chapter of the Sierra Club respectfully requests a favorable report for SB0523.

Judy Fulton
Natural Places Committee
jfulton5@gmail.com

Josh Tulkin
Chapter Director
Josh.Tulkin@MDSierra.org

CITATIONS:

- 1 [Brown](#), L.J. and R. Jung. 2005. An Introduction to Mid-Atlantic Seasonal Pools (EPA/903/B-05/001). U.S. Environmental Protection Agency. 92 pages.
- 2 [Maryland](#) Natural Heritage Program. 2021. Rare, Threatened, and Endangered Plants of Maryland, C. Frye Ed., Maryland Department of Natural Resources, 580 Taylor Avenue, Annapolis, MD 21401. DNR 03-030321-270.
- 3 [Maryland](#) Natural Heritage Program. 2023. List of Rare, Threatened, and Endangered Animals of Maryland. Maryland Department of Natural Resources, 580 Taylor Avenue, Annapolis, MD 21401.
- 4 [Brown](#), L.J. and R. Jung. 2005. An Introduction to Mid-Atlantic Seasonal Pools (EPA/903/B-05/001). U.S. Environmental Protection Agency. 92 pages.
- 5 Williams, D.D. 1987. The Ecology of Temporary Waters. Timber Press, Portland, Oregon.
- 6 [Brodman](#), R., J. Ogger, M. Kolaczyk, R.A. Pulver. 2003. Mosquito control by pond-breeding salamander larvae. Herpetological Review 34: 116-119.
- 7 [Blaustein](#), A.R., B.A. Han, R.A. Relyea, P.T.J. Johnson, J.C. Buck, S.S. Gervasi, and L.B. Kats. 2011. The complexity of amphibian population declines: understanding the role of cofactors in driving amphibian losses. Ann. N.Y. Acad. Sci. 1223:108–119, New York Academy of Sciences.