

Kenk's amphipod

Stygobromus kenki

In the hustle and bustle of our nation's capital, there are special places that offer a haven for nature. Thanks to the foresight of planners, Rock Creek Park in Washington, D.C., is one of those places set aside for residents to enjoy and animals to thrive.

This site in the Rock Creek valley protects some of the last remaining natural springs in the highly developed metropolitan area—springs that are homes to salamanders and food resources including insects and crustaceans. Living in this natural place is the extremely rare Kenk's amphipod, a tiny crustacean found in just two places in the world: Rock Creek valley and 60 miles south in Caroline County.

Amphipod Who?

An amphipod is a small shrimp-like freshwater crustacean. The order name Amphipoda means “different feet” in Latin, referring to the many types of legs these crustaceans have, including some for eating and some for



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Colorless, without eyes, and about the size of the tip of your pinky fingernail. While these amphipods aren't cute or cuddly, they are helpful warnings for water quality issues and are food for other animals like salamanders.

swimming. The amphipod's sensitivity to water quality makes its presence an indication of safe water and healthy food webs.

The Kenk's amphipod measures between one eighth and one quarter inch in length as an adult. Since it lives primarily underground, it is colorless and has no eyes. While much of the life history of the species remains a mystery, biologists believe it may eat bacteria and fungi found on dead and decaying leaves. Its underground habitat makes it very difficult to study, and it is infrequently present in the spring outflows on the surface.

An Animal In Peril

Kenk's amphipod was first discovered by Dr. Roman Kenk in 1967, found on leaves and fine soils where underground water comes to the surface in the waters of seepage spring outflows. Since that time, the species' story is mixed: the amphipod has disappeared from many natural areas where it was once found in the nation's capital, yet it has also been discovered in a new area 60 miles away.

Before 2016, the species was known from only six sites in Washington, D.C., and Montgomery County, Maryland. Five of these sites are within the Rock Creek drainage, with four of those in Rock Creek Park managed by the National Park Service. The sixth is within the Northwest Branch drainage in the Northwest Branch Stream Valley Park managed by Montgomery County.

Recent data from multiple surveys in 2015 and 2016 indicate that Kenk's amphipod can no longer be found at five of the six Washington, D.C., and Maryland sites, even though other common amphipod species have been present at most sites. Species that



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Biologists search for Kenk's amphipods by overturning leaves and carefully digging in the fine soil of spring seepages.

are less common, like the Kenk's amphipod, often have less capacity to adapt.

While the cause remains unknown, the animal's decline could be due to changes in water quality and quantity. While many of the springs are in protected areas, activities occurring outside park boundaries could affect the groundwater. Toxic spills, sewer leaks, and the accumulation of pollutants from development in the watershed can alter water quality. Land disturbance or conversion to roads, pavement, roofs, or changes in the amount or timing of precipitation in the D.C. area, can affect the amount or level of water.

Researchers were pleased to find the Kenk's amphipod in 2016 in four seepage springs in the Army's Fort A.P. Hill in Caroline County, Virginia. The Army has maintained the basins supplying these four springs, avoiding potential water quality issues. Although areas between D.C.

and Caroline County, Virginia, have been surveyed for other amphipods, additional surveys will provide more certainty on whether Kenk's amphipod could be present in those areas.

The survival of Kenk's amphipod may be dependent on good water quality in the few areas continuing to support the species. By protecting the groundwater, we can ensure clean water for the animals that depend on it and ourselves. Several organizations are working together to learn more about Kenk's amphipod, to ensure that high-quality natural springs persist into the future, and to protect these natural areas for the benefit of wildlife and people.

Following a review of scientific and commercial information on the Kenk's amphipod, the U.S. Fish and Wildlife Service proposed September 30, 2016, to list the species as federally endangered under the Endangered Species Act. Following a 60-day public comment and peer review period, we will make a final decision to list as endangered or threatened, or to withdraw the proposal.

The amphipod is state-listed as endangered in Maryland, and was only recently identified in Virginia.

How You Can Help Keep Water Safe

- Dispose of trash properly.
- Do not dump trash, oil, or other products into storm water drains.
- Consider alternative methods for maintaining your lawn without the use of herbicides and pesticides.
- Report illegal dumping and discharges to community leaders.
- Plant native gardens or rain gardens to help reduce stormwater runoff.

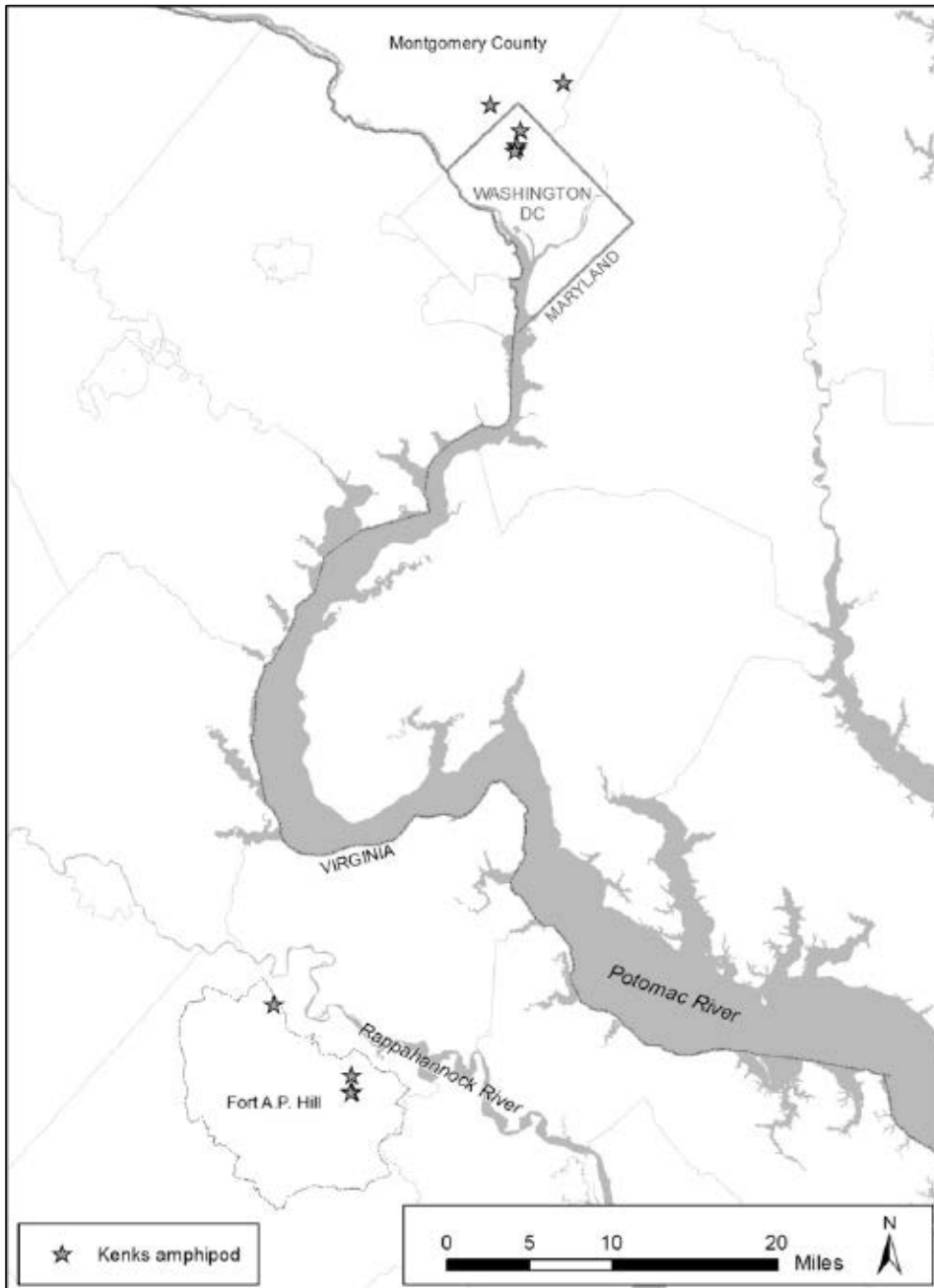
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Current distribution of the 10 known sites of the Kenk's amphipod, though the amphipod has not been recently found at five of the six Washington, D.C., and Maryland sites. Due to scale, some sites are obscured by the symbols of others.