

# NEW DATA ON THE RANGE OF THE TROGLOBITIC TRICHONISCID ISOPOD, *CAUCASONETHES HENROTI*

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Although terrestrial isopods of the family Trichoniscidae are rather common and widespread in caves of the United States, only six species, representing three genera, are troglobitic (i.e., obligatory cavernicoles). Furthermore, most of the troglobitic species are rare and populations are known only from a few scattered localities. Included in this poorly known trichoniscid isopod fauna is *Caucasonethes henroti* (Vandel), a species previously known only from its type locality—Gilley Cave near Pennington Gap, Lee County, Virginia. A description and subsequent references to this species have been published by Vandel (1950, 1953, 1965). As presently understood, the genus *Caucasonethes* contains five species, four of which are troglobitic and one of which is endogenous. Of the four cavernicolous species, three are endemic to the southern United States, and one is known from two caves in Georgian S. S. R. (Vandel 1965).

On 26 November 1965 three specimens (2 females and 1 male) of *C. henroti* were collected from rotting wood about 610 meters from the entrance of Spangler Cave, Lee County, Virginia. This cave is located 6.2 kilometers southwest of Gilley Cave and on the same side of the Powell River. On 19 March 1966 five more specimens (4 females and 1 male) of this species were collected from damp, rotting wood on a wet clay floor about 300 meters from the entrance of Gallohan Cave (Number One), Lee County, Virginia. This cave is located 3.4 kilometers southwest of Spangler Cave and is on the same side of the Powell River. Despite three earlier visits to Gallohan Cave, trichoniscids were not discovered there until the spring of 1966. In both Spangler and Gallohan Caves, the collecting sites were situated distant from the respective cave streams in

areas apparently not exposed to spring flooding. The ecological association of cavernicolous trichoniscids with biotopes characterized by damp to wet, rotting wood in areas not susceptible to flooding has been observed by the author in 12 different Appalachian caves during the last six year.

The two new Lee County records for *C. henroti* extend the range of this rare species approximately 9.5 kilometers to the southwest. This is the first time that a North American species of *Caucasonethes* has been taken outside of its type locality and the first time that any species of this genus has been taken from more than two localities. The gently dipping, cavernous limestone strata (Cambrian and Ordovician age) of the upper Powell River Valley in Lee County, Virginia, undoubtedly impose few, if any, real barriers to the dispersal of troglobitic species. Both the geologic structure of this area and the lack of any appreciable morphological variation in the population samples offer good presumptive evidence of relatively free gene flow between populations of *C. henroti*.

Determination of the isopods was made by the author, and both collections, including two slide mounts, have been deposited in the United States National Museum. The assistance of Mr. Don Finley with the field work is gratefully acknowledged.

## LITERATURE CITED

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