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XI CBC
TCS Summer Meeting
June 06-09th, 2022
Brazil

Santos (Brazil) - 2022

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The Crustacean Society

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THE CRUSTACEAN SOCIETY (TCS) SUMMER MEETING

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THEME
Tradition and Innovation:
Integrative Approaches to Crustacean Studies

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MORPHOLOGICAL VARIABILITY BETWEEN POPULATIONS OF THE TROGLOBITIC AMPHIPOD *Hyalella veredae* CARDOSO AND BUENO, 2014

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Subterranean habitats comprise several microhabitats, and the past decade of research unveiled that its particular selective regime, such as the absence of light and oligotrophy, conditioned the modifications found in specialized organisms at these places. New research shows that microhabitats within a given cave environment, such as puddles and rivers, can also drive existing morphological differences. Some organisms possess populations occurring exclusively in hypogean environments, including some amphipod crustaceans. Among the few *Hyalella* species recorded in Brazilian caves, only one is known to occur more than one cave and in different cave microhabitats, *Hyalella veredae*. The objective of this study was to assess if the morphologies observed in the troglobite *H. veredae* are associated with microhabitat variation and are not due only to the hypogean environment *per se*. We studied the populations from four caves of Presidente Olegário, Minas Gerais state, Southeast Brazil. The microhabitats were characterized as lentic or lotic. The crustaceans were analyzed concerning the troglomorphic traits (eyes area, size of antennas and pereopods IV to VII). A total of 108 specimens of both sexes were analyzed. The organisms differed significantly concerning the microhabitat, mainly in the eyes, antennas and pereopods IV, and VII. Longer antennae, larger eyes, and shorter pereopods were associated with lotic microhabitat, and the opposite was correlated with lentic microhabitat. Our results indicate that morphological differences may be associated with microhabitat.

Keywords: *Hyalella*, hypogean environment, morphology, southeast Brazil.

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