

***Grievella shanki*, a new genus and species of scolecitrichid calanoid copepod (Crustacea) from a hydrothermal vent along the southern East Pacific Rise**

Frank D. Ferrari and E. L. Markhaseva

(FDF) Department of Invertebrate Zoology (MRC 534), National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A.; (ELM) Russian Academy of Sciences, Zoological Institute, Universitetskaya nab. 1, 199034, St. Petersburg, Russia

*Abstract.*—Four derived states separate the calanoid copepod *Grievella shanki*, new genus and species, from other scolecitrichids: small integumental bumps on the genital complex; an ear-like extension on articulating segment 22 of antenna 1; two lateral setae on the distal exopodal segment of swimming leg 2; a denticle-like attenuation of the proximal praecoxal lobe of maxilla 2. The first probably is an autapomorphy for the species; the second, third and fourth are presumed synapomorphies for species of the new genus. The last derived state is convergent with some species of the calanoid superfamilies Epacteriscoidea, Centropagoidea and Megacalanoidea, but it is a synapomorphy within the Clausocalanoidea to which *Grievella shanki* belongs. Five setae on the proximal praecoxal lobe of maxilla 2 and three setae on the distal praecoxal lobe of the maxilliped separate *Grievella shanki* from species of Diaixidae, Parkiidae and Tharybidae, and species of Phaennidae, respectively. The states of these characters for *Grievella shanki* may be plesiomorphic to the states expressed in Diaixidae, Parkiidae, Tharybidae and Phaennidae so assignment of this species to the Scolecitrichidae is tentative. The number and kind of sensory setae on the distal basal lobe plus exopod of maxilla 2 alone are not adequate to diagnose the Scolecitrichidae, or to separate all of its species from those of the other families with these sensory setae.

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Calanoid copepods belonging to the family Scolecitrichidae usually are collected from pelagic or benthopelagic habitats of marine waters below 200 m. There are over 250 nominal species in 22 genera in the family. Eight of the 22 genera in this family have been described within the last quarter century, reflecting a general increase in interest in the biology of the deep waters of the world's ocean. Here we describe the 23rd genus of the family.

#### Materials and Methods

The copepod was collected at Droopy Vent, 21°24.027'S, 114°16.184'W on 17 October 1998 with a slurp vacuum sampler

less than a meter above the surface on the side of a small diffusing vent chimney during *Alvin* dive 3287; bottom depth, 2788 m, water temperature, 4.5°C. The specimen was fixed in 70% ethanol/30% seawater. During laboratory examination, the specimen was cleared in steps through 50% lactic acid/50% deionized freshwater to 100% lactic acid, stained by adding a solution of chlorazol black E dissolved in 70% ethanol/30% deionized freshwater, dissected, and examined with bright-field and with differential interference optics. Drawings were made with a camera lucida. The dissected specimen is preserved in 70% ethanol/30% deionized freshwater with a drop of glycerin added.