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Authors: Ivan Voltski, Andrew J. Gooday, Jan Pawlowski

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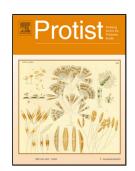
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### **ORIGINAL PAPER**

# Eyes of the Deep-sea Floor: The Integrative Taxonomy of the Foraminiferal Genus *Vanhoeffenella*

Running title: Integrative Taxonomy of Vanhoeffenella

Ivan Voltski<sup>a,1</sup> Andrew J. Gooday<sup>b</sup>, and Jan Pawlowski<sup>a</sup>

<sup>a</sup>Department of Genetics and Evolution, University of Geneva, Quai Ernest Ansermet 30, 1211 Geneva 4, Switzerland

<sup>b</sup> National Oceanography Centre, Southampton, University of Southampton Waterfront Campus, European Way, Southampton SO14 3ZH, UK

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<sup>1</sup>Corresponding author; e-mail allogromia@gmail.com (I. Voltski).

Vanhoeffenella is a common deep-sea monothalamous foraminifer, some species of which have a unique eye-like test morphology. Owing to its world-wide distribution, it has been recorded numerous times since the "heroic age" of the deep-sea exploration in the early 20th century. So far, only 4 species have been described, and no attempts have been made to estimate the real diversity of this peculiar genus. Over the last fifteen years, we have collected specimens of Vanhoeffenella from various deep-sea areas, providing the basis for an integrative taxonomy and biogeography of this genus. Here, we clarify the phylogenetic position of Vanhoeffenella and give an account of its diversity in the Atlantic, Arctic and Southern Oceans (the Weddell Sea) as revealed by genetic marker (SSU rDNA) and morphology. Our study shows that Vanhoeffenella branches within Clade F of

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