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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*

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*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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