



## Widespread occurrence of nitrate storage and denitrification among Foraminifera and Gromiida

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Auteur	Piña-Ochoa, E. [1], Hogslund, S. [2], Geslin, Emmanuelle [3], Cedhagen, T. [4], Revsbech, N.-P. [5], Nielsen, L.-P. [6], Schweizer, Magali [7], Jorissen, Frans [8], Rysgaard, S. [9], Risgaard-Petersen, Nils [10]
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Résumé en anglais	<p>Benthic foraminifers inhabit a wide range of aquatic environments including open marine, brackish, and freshwater environments. Here we show that several different and diverse foraminiferal groups (miliolids, rotaliids, textulariids) and Gromia, another taxon also belonging to Rhizaria, accumulate and respire nitrates through denitrification. The widespread occurrence among distantly related organisms suggests an ancient origin of the trait. The diverse metabolic capacity of these organisms, which enables them to respire with oxygen and nitrate and to sustain respiratory activity even when electron acceptors are absent from the environment, may be one of the reasons for their successful colonization of diverse marine sediment environments. The contribution of eukaryotes to the removal of fixed nitrogen by respiration may equal the importance of bacterial denitrification in ocean sediments.</p>
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### Liens

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