

Interactive comment on “Mats of psychrophilic thiotrophic bacteria associated with cold seeps of the Barents Sea” by S. Grünke et al.

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This interesting and comprehensive study describe the bacterial diversity of 2 visually different type of microbial mats of 3 cold seep sites of the Norwegian margin based on both microscopic observation data and molecular survey (16SrRNA gene sequencing, molecular fingerprints..) in regards with geochemical gradients. This paper presents a huge set of data exploited in a very elegant manner.

My remarks are as follow : 1-I wonder if , as (according to the supplementary table 2) chemicals data (pore water analysis, oxygen profiles. . .), and molecular data (ARISA, sequencing . . .) some time came from different cores (sometimes sampled during different cruises), a map or figure presenting the spatial distribution of core samples for each sampled habitats would have been helpful. 2-On figure 3 Phylogenetic tree

C1658

the addition recent obtained sequences from the Lucky strike vent field (Crepeau et al, 2011) would have been of interest to asses a possible "temperature dependant" speciation within *Beggiatoa* sp!

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