

## ***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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