

## **Description of Additional Supplementary Files:**

**Supplementary Data 1:** expansion of Table 1, which includes calculated bacterial biovolumes and C and N content

**Supplementary Data 2:** results of proteomics showing proteins expressed by *Marinobacter* and *Rhodophyticola* in co-culture with *Phaeodactylum tricornutum*

**Supplementary Data 3:** results of genomic analysis showing presence of metabolic pathways