Supplementary information

Type of files:

Figures: JPEG image files (.jpg)

Tables: MS Excel spreadsheet documents (.xlsx)

Supplementary table 1:

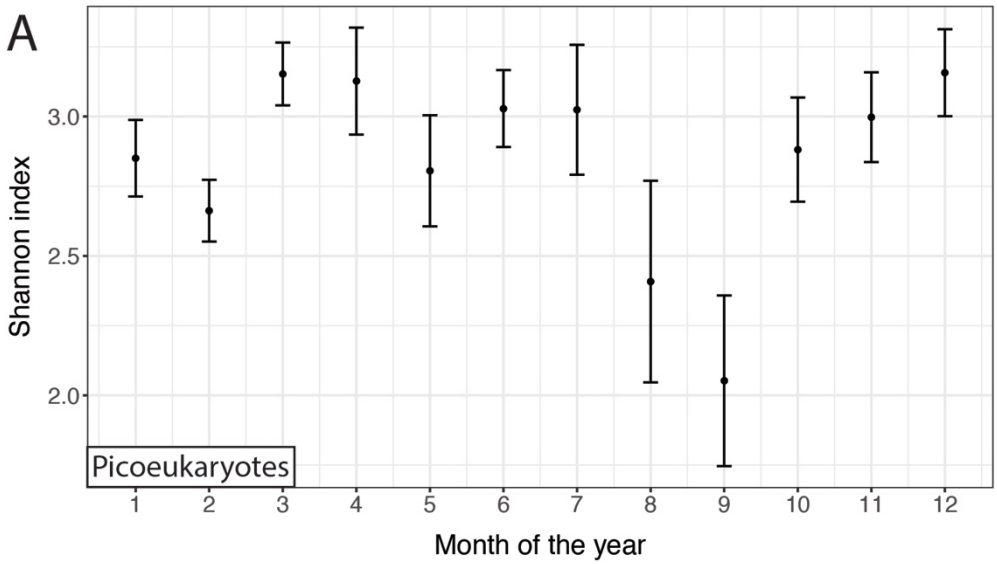
ASV tables concerning the eukaryotic phytoplankton, bacteria and archaea datasets. The counts are normalized by proportional abundance.

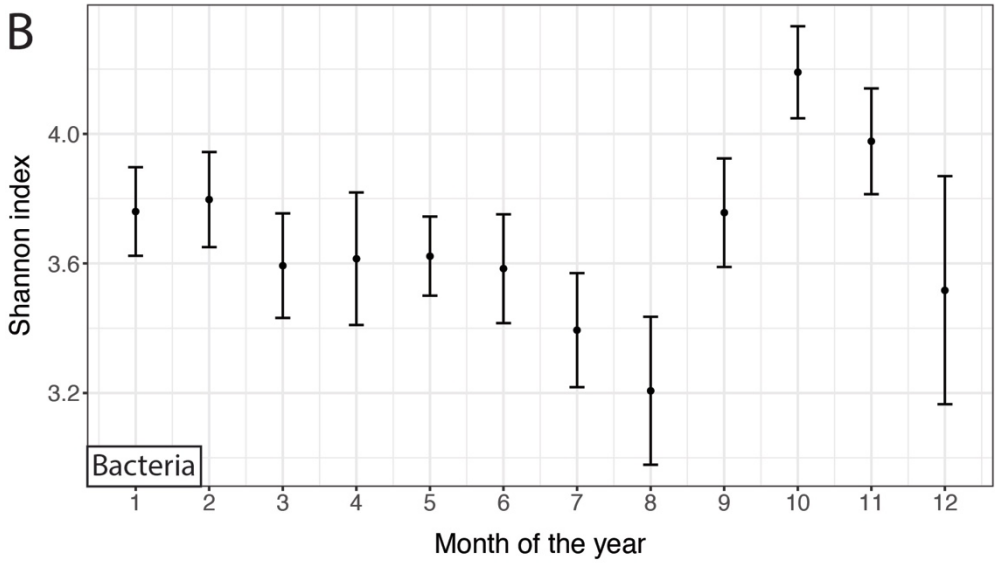
Supplementary table 2:

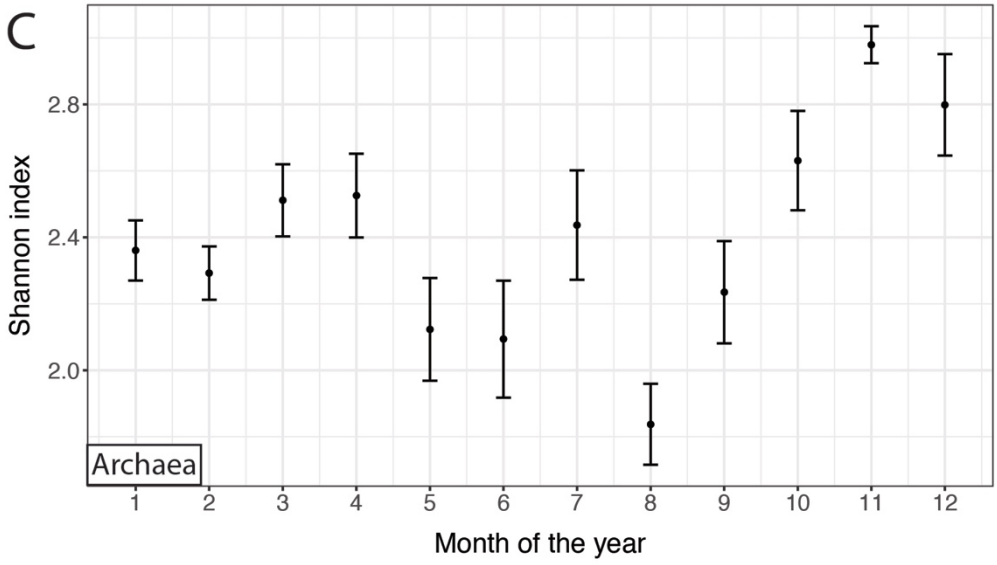
Explained variance of environmental factors relative to the CCAs of the three domains of life. The ration expresses the explained variance associated to temperature and day length divided by the explained variance of all environmental factors (Temperature, Day Length, Ammonium, Nitrate, Nitrite, Phosphate, Silicate, Salinity).

Supplementary table 3:

Taxonomy, percentage of total sequences, number of sequences, PNmax and week of maximum occurrence of rhythmic ASVs

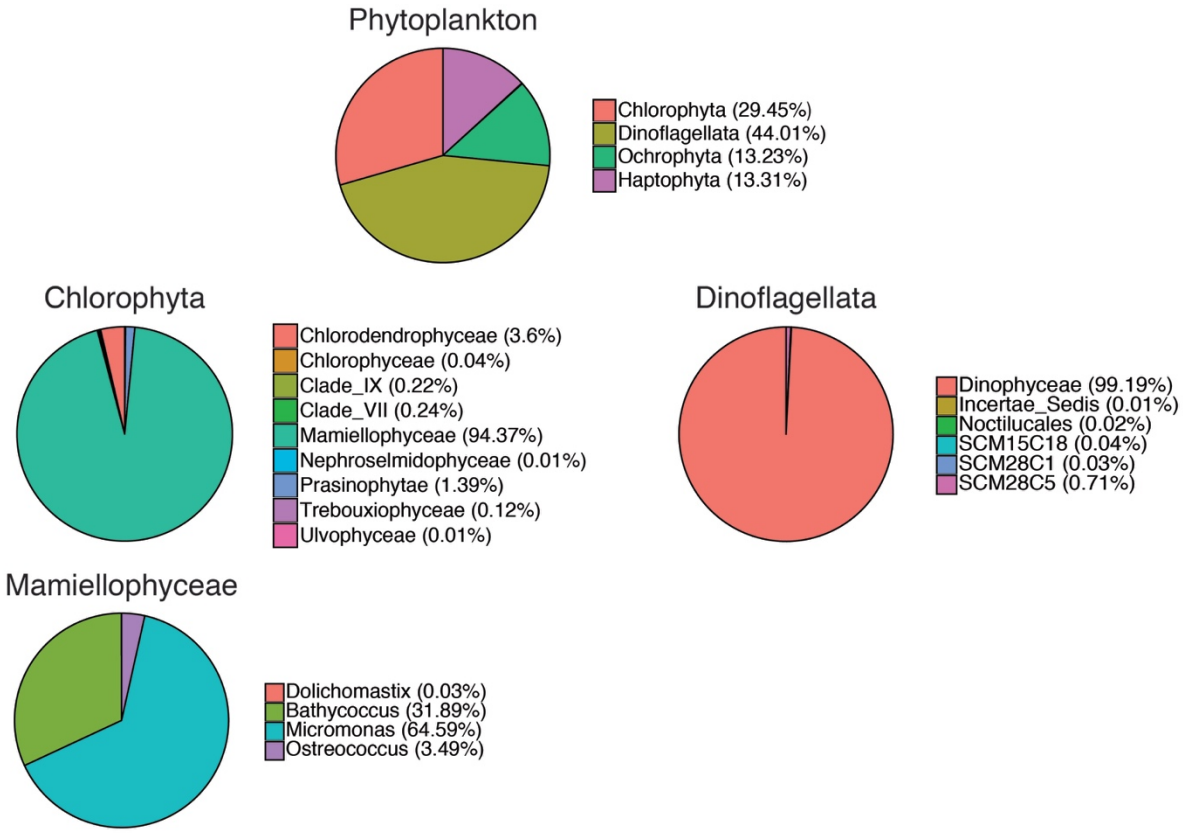

A
Shannon index
3.0
2.5
2.0
Picoeukaryotes
1 2 3 4 5 6 7 8 9 10 11 12
Month of the year


B
Shannon index
4.0
3.6
3.2
Bacteria
1 2 3 4 5 6 7 8 9 10 11 12
Month of the year


C
Shannon index
2.8
2.4
2.0
Archaea
1 2 3 4 5 6 7 8 9 10 11 12
Month of the year

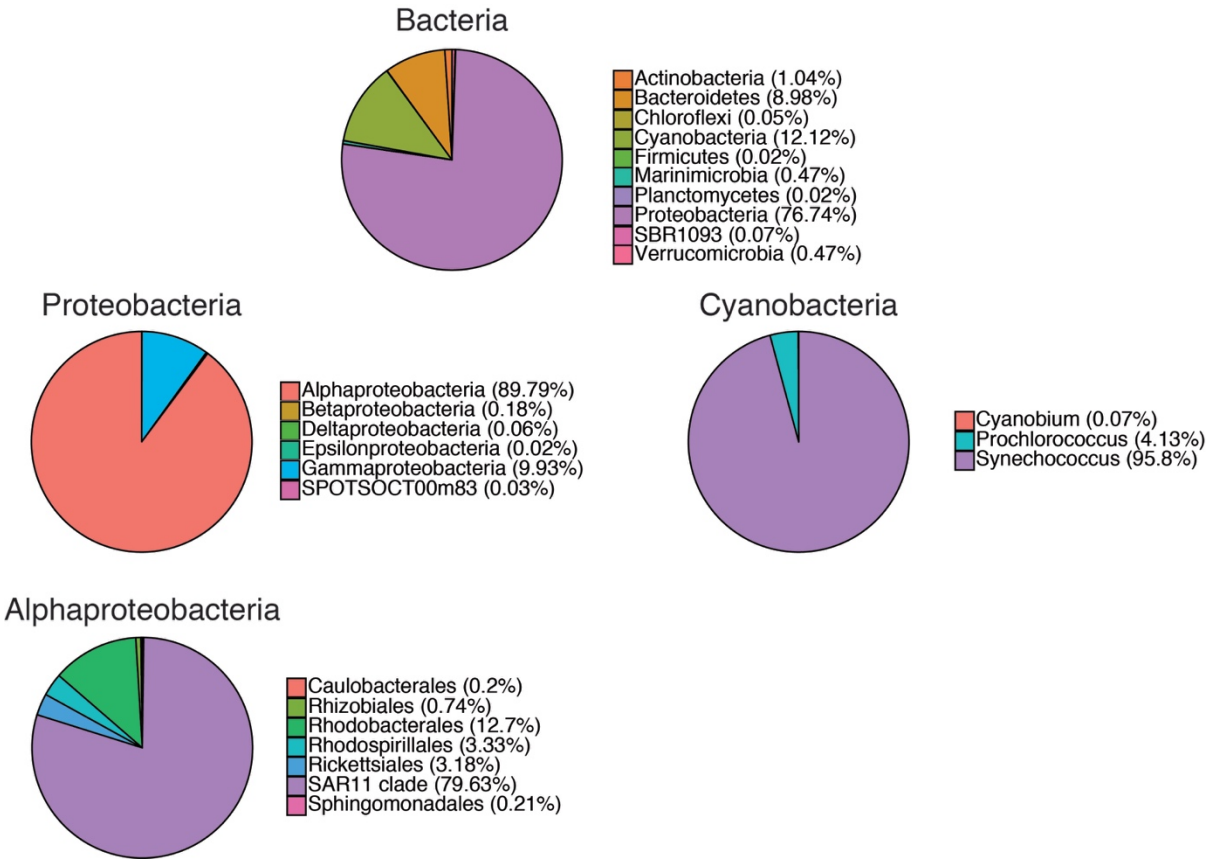
Supplementary Fig 1:

Average Shannon index, with the standard error, per month for picoeukaryotes (A), bacteria(B), archaea (C).



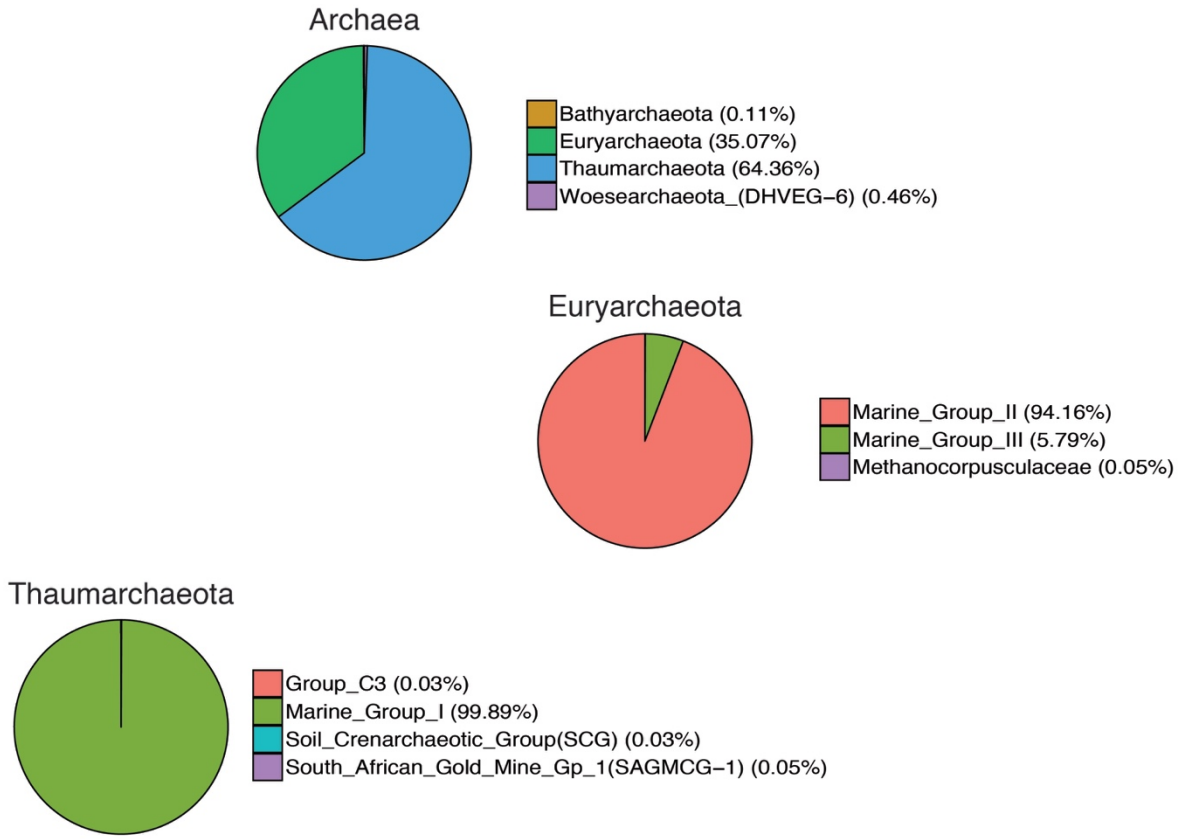
Supplementary Fig 2:

Overall proportion of phytoplankton divisions and classes at the SOLA station in the Banyuls Bay from 2007 to 2015.



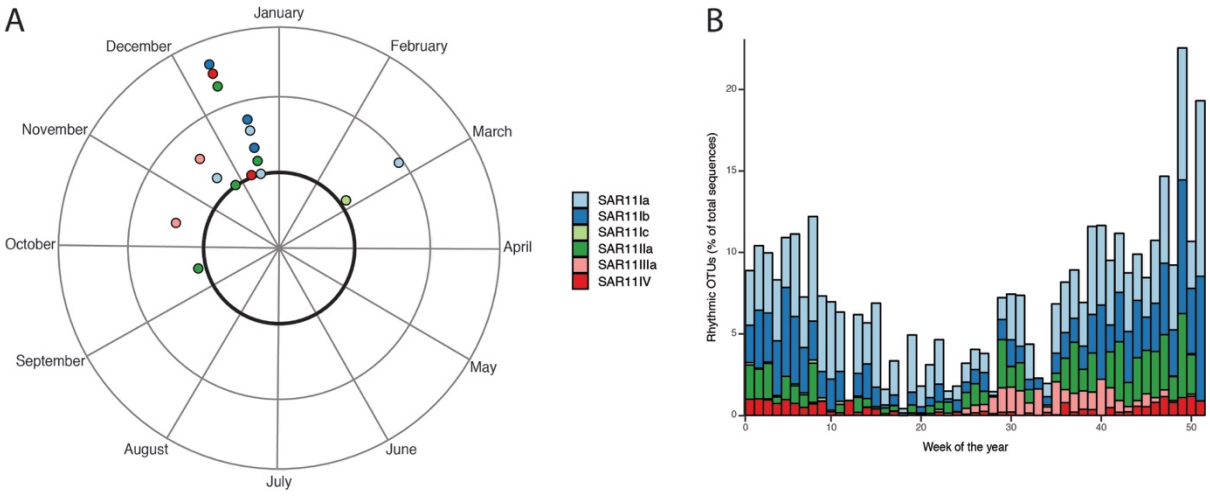
Supplementary Fig 3:

Overall proportion of bacteria phylums and classes at the SOLA station in the Banyuls Bay from 2007 to 2015.



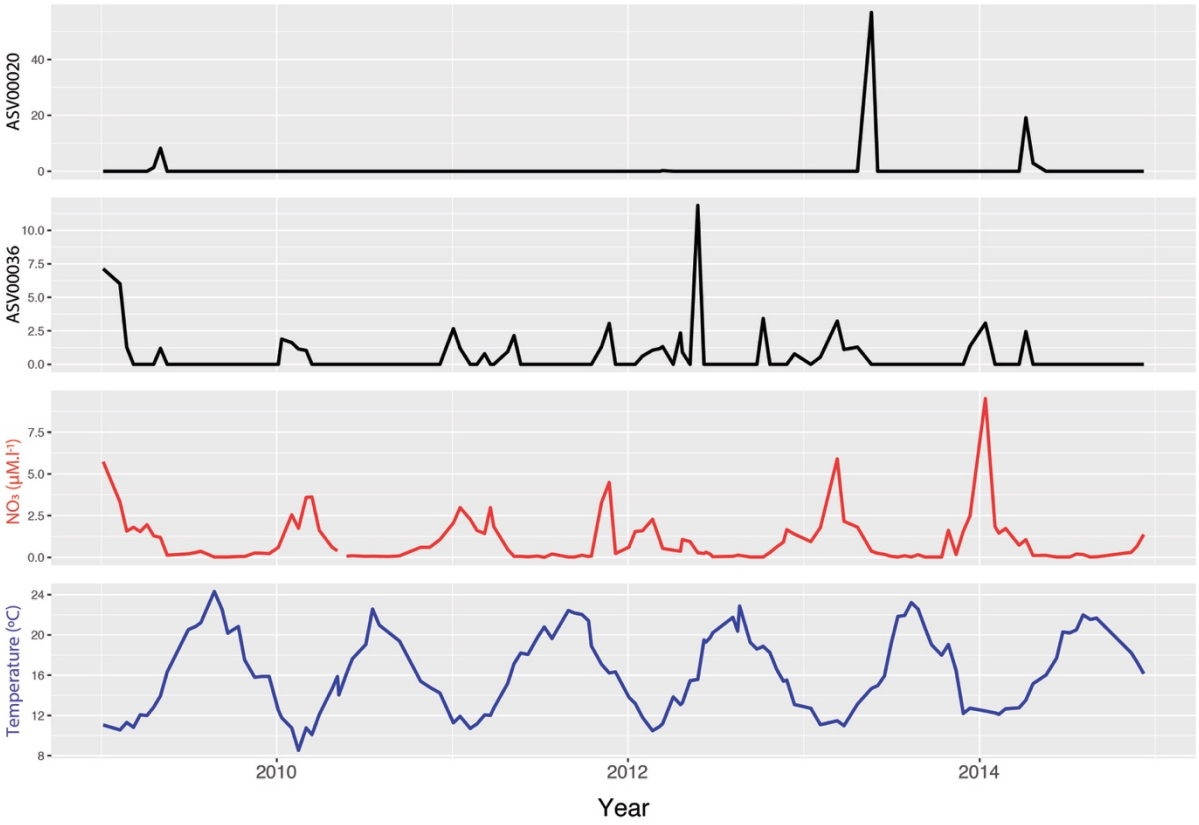
Supplementary Fig 4:

Overall proportion of archaea phylums and classes at the SOLA station in the Banyuls Bay from 2007 to 2015.



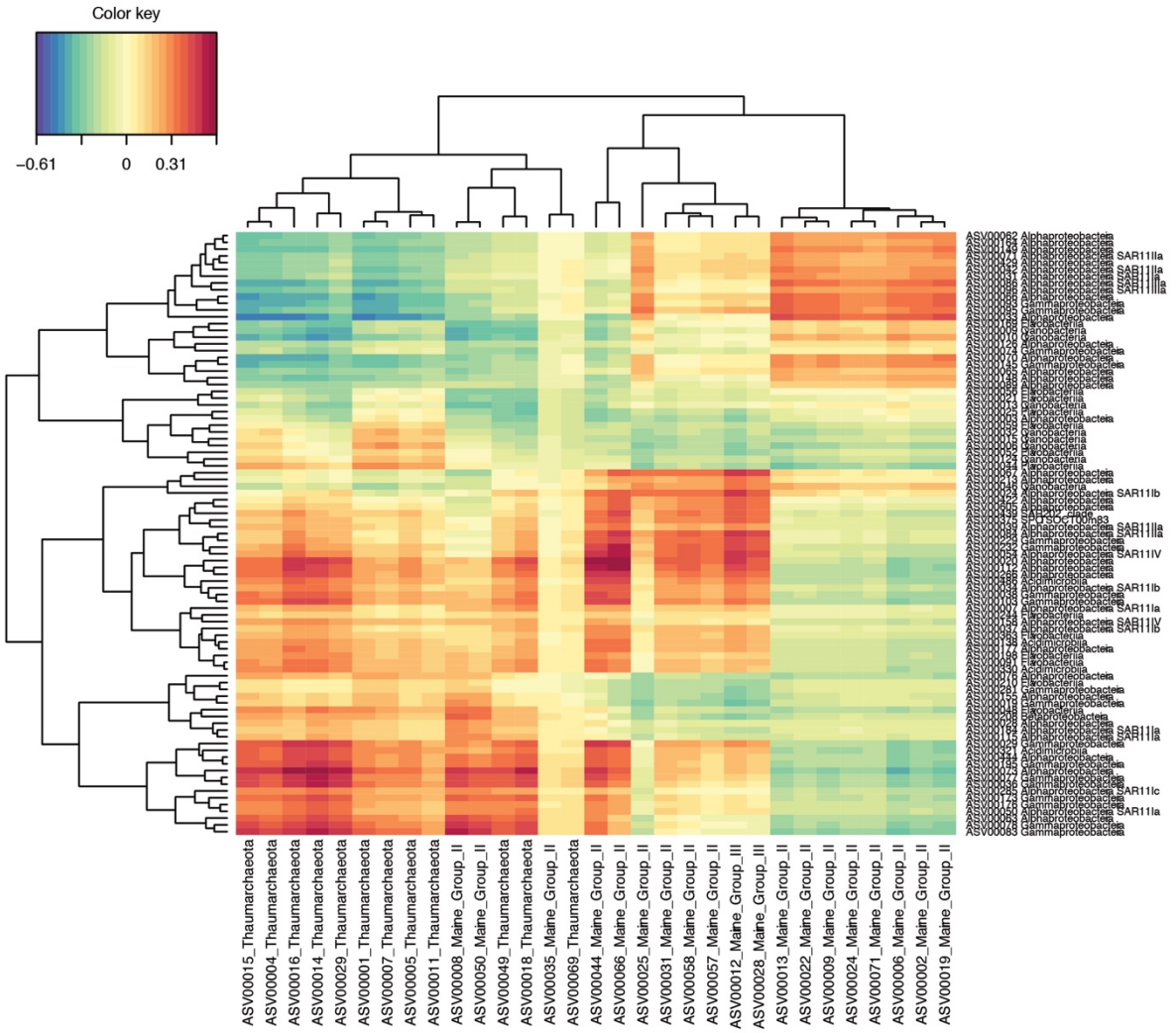
Supplementary Fig 5:

Polar plots representing the rhythmic SAR11 ASVs (A). The bar plots show the proportion of sequences belonging to rhythmic SAR11 ASVs averaged per week of the year (B).



Supplementary Fig 6:

Temperature, nitrate (NO_3) and ASV abundance (percentage of total reads) of ASV00020 and ASV00036 from 2009 to 2014 at the SOLA sampling point in the Banyuls Bay.



Supplementary Fig 7:

Heatmap, based on a sPLS function that relate correlations between abundance matrixes, showing co-occurrences between rhythmic bacteria ASVs and archaea ASVs.