Supplementary materials



Fig. S1 Time series of annual pH in the Mediterranean Sea according to the CONTROL (CTRL, cyan line with squares), RCP8.5 (red line) and RCP4.5 (red dashed line).

TEMPERATURE



Fig.S2 - Mean Temperature (in C) in the first 0-100m and 200-600m in the present period (2005-2020, a,b, c,d), MID-FUTURE (e,f,g,h) and FAR-FUTURE (i, j,k,l) variations in the RCP4.5 scenario (left column) and RCP8.5 (right column). The value located over the Iberian Peninsula is the average variation on basin scale in blu/dark orange if it is negative/positive.

SALINITY



Fig. S3 as Fig.S2 but for Salinity.



Fig. S4 - Timeseries of the yearly maximum value of mixed layer depth (in m) observed in the Gulf of Lion, Southern Adriatic, Aegean Sea and Levantine basin in the period 2005-2099 under emission scenario RCP4.5 (blu line) and RCP8.5 (dark orange line).



Fig.S5 Timeseries of the yearly total transport (in Mmol year⁻¹) of Phosphate (left panels) and Nitrate (right panels) through the Sicily strait in the period 2005-2099, in the first 100 m (upper panels) and between 200-600m (bottom panels) under emission scenario RCP4.5 (blue line) and RCP8.5 (dark orange line). The yearly timeseries have been smoothed using 10-years running mean.



Fig.S6 Timeseries of the yearly total transport (in Mmol year⁻¹) of Phosphate (left panels) and Nitrate (right panels) through the Otranto strait in the period 2005-2099, in the first 100 m (upper panels) and between 200-600m (bottom panels) under RCP4.5 (blue line) and RCP8.5 (dark orange line). The yearly timeseries have been smoothed using 10 years running average.



Fig.S7 Timeseries of the yearly total transport (in Mmol year⁻¹) of Phosphate (left panels) and Nitrate (right panels) in the Alboran Sea in the period 2005-2099, in the first 100 m (upper panels) and between 200-600m (bottom panels) under RCP4.5 (blue line) and RCP8.5 (dark orange line). The yearly timeseries have been smoothed using 10 years running average.



DO

PRESENT (b) 0-100m RCP85

PRESENT (a) 0-100m RCP45

Fig.S8 -as Fig.S3 but for Dissolved oxygen (in mmol m⁻³).



PHYTOPLANKTON RESPIRATION

Fig. S9- as Fig.S8 but for Integrated phytoplankton respiration (in gC m⁻² year⁻¹).

PHYTOPLANKTON BIOMASS



Fig. S10 - as Fig. S9 but for Phytoplankton biomass (in mg m⁻³).

ZOOPLANKTON BIOMASS





BACTERIAL BIOMASS



Fig. S12 - as Fig. S11 but for Bacterial biomass (in mg m⁻³).

POC



Fig. S13 - as Fig. S12 but for Particulate organic Matter (in mg m⁻³).

DISSOLVED INORGANIC CARBON



Fig. S14 as Fig.S13 but for Dissolved inorganic carbon (in ug kg⁻¹).