

On the resilience of an east boarder upwelling ecosystem exposed to multiple stressors

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Supplementary material

Fig. S 1: Monthly means and 13-term smoothing average of sea surface temperature (SST, °C), and upwelling wind (UW, m s^{-1}) in the areas north and south of Cap Blanc. SST and UW shift are delimited by a black line. The periods covered by the biological data (1995 to 2004, 2006, 2011, and 2015) are shaded in grey.

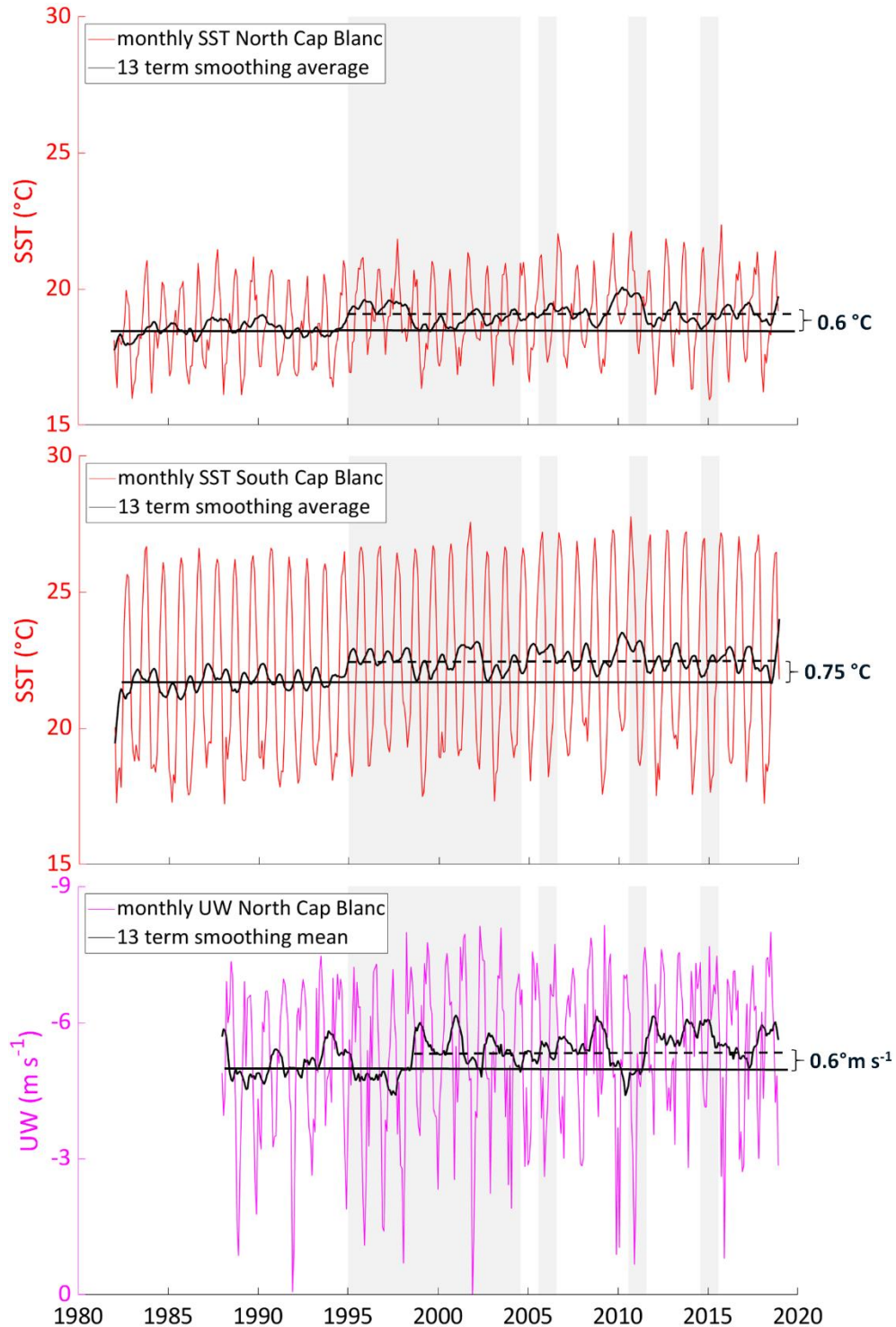


Fig. S 2: Variation in the mean Nautical Area Scattering Coefficient (NASC, $\text{m}^2 \text{nmi}^{-2}$) in the areas north and south of Cap Blanc for the plankton group (PG), pelagic fish group (PFG), and total group (TG) in North and South Cap Blanc.

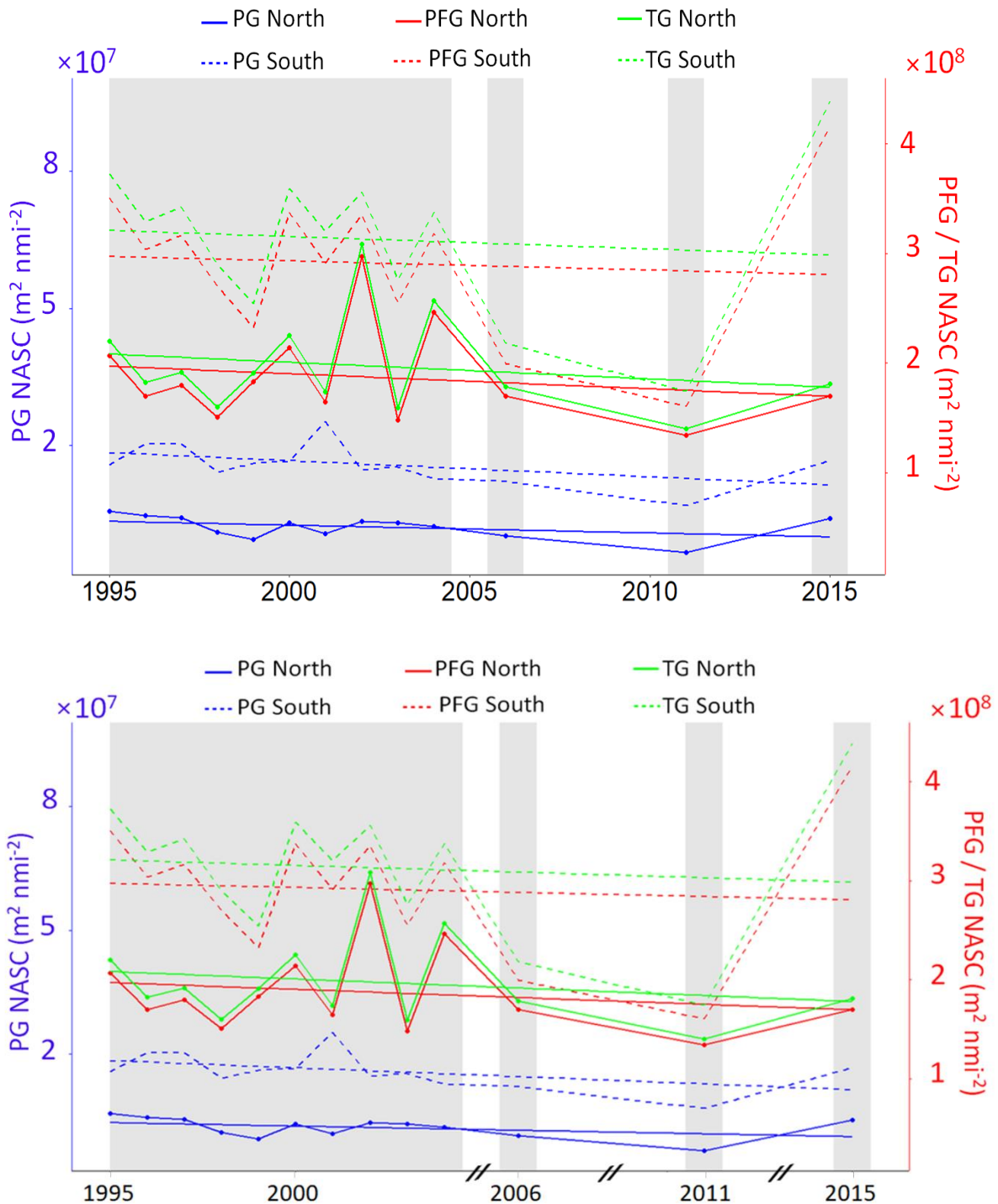


Fig. S 3: Anomaly in the mean relative pelagic biomass (expressed as Nautical Area Scattering Coefficient NASC, $m^2 nmi^{-2}$) in North and South Cap Blanc for total group (TG) in areas north and south of Cap Blanc.

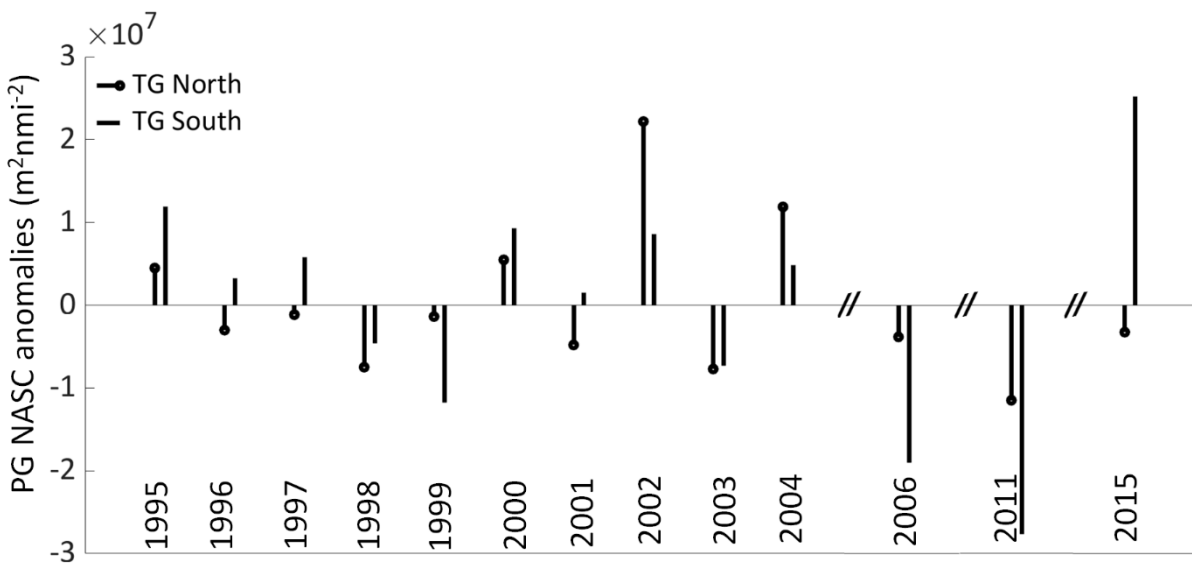
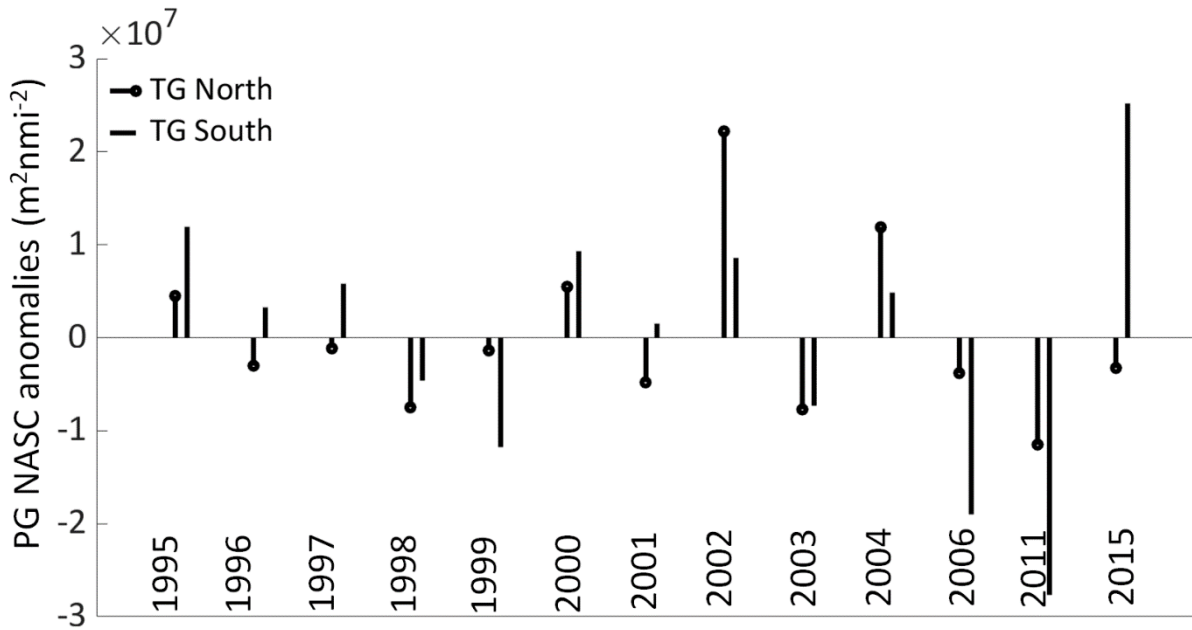


Fig. S 4: Box plot (minimum, maximum, and median) of relative pelagic biomass (expressed as Nautical Area Scattering Coefficient noted NASC, $m^2 nmi m^{-2}$) grouped by diel period (day and night) for the plankton group (PG), pelagic fish group (PFG), and total group (TG) in the area north and south of Cap Blanc. Wilcoxon test comparing the mean between day and night was significant (p -value < 0.001) for each group.

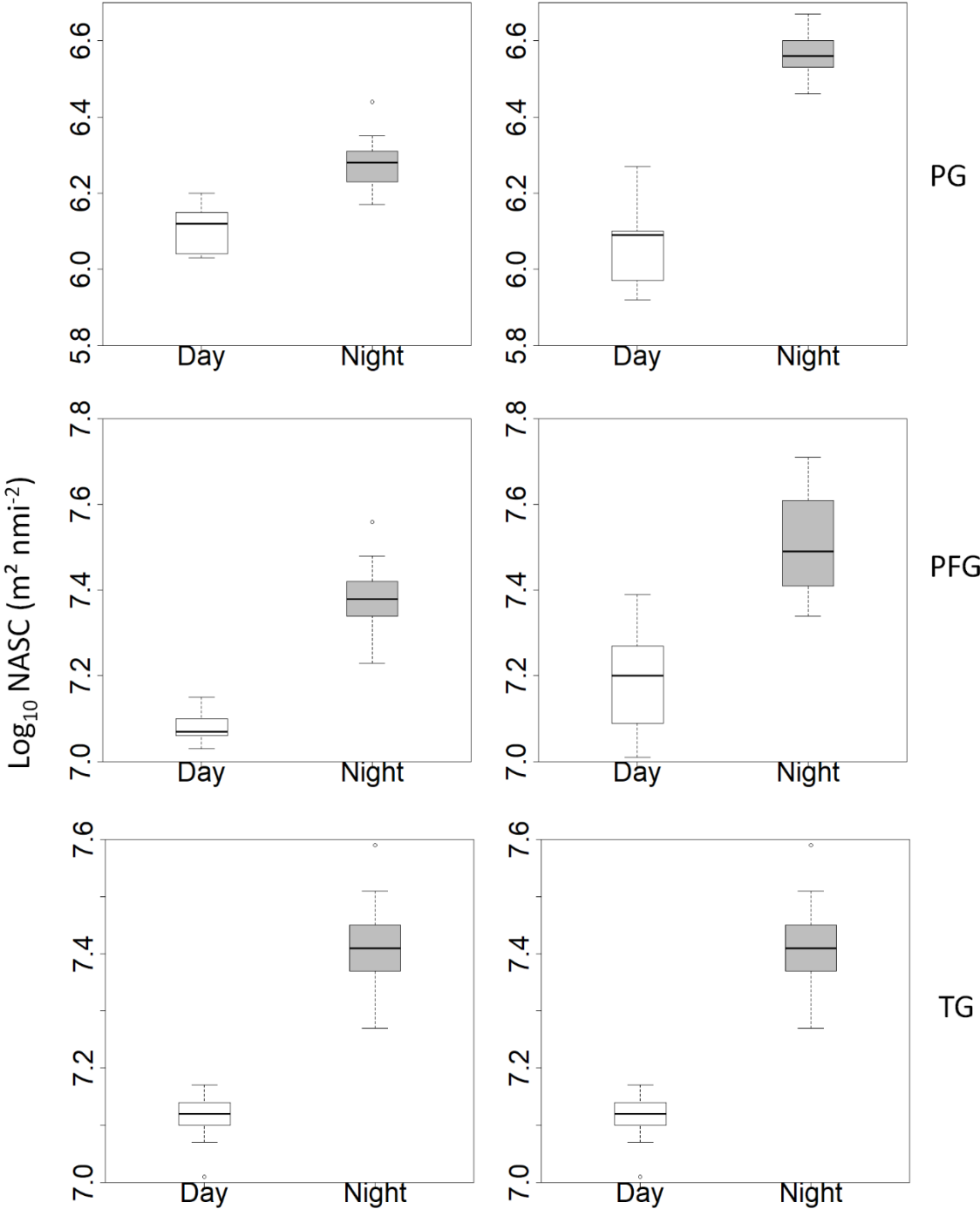


Fig. S 5: Comparison of the plankton group (PG) and pelagic fish group (PFG) with respect to relative pelagic biomass (expressed in Nautical Area Scattering Coefficient noted NASC, $m^2 nmi^{-2}$) anomalies and environmental anomalies (sea surface temperature (SST), favorable upwelling wind (UW), and sea surface chlorophyll-*a* concentration (SSC)) in the area north of Cap Blanc (left) and south of Cap Blanc (right) in the southern part of the Canary Current Large Marine Ecosystem.

