DOI: 10.4081/jlimnol.2019.1907

SUPPLEMENTARY MATERIAL

TEP production under oxidative stress of the picocyanobacterium Synechococcus

Cristiana CALLIERI,^{1*} María B. SATHICQ,² Pedro J. CABELLO-YEVES,³ Ester M. ECKERT,¹ Justo Salvador HERNÁNDEZ-AVILÉS⁴

¹Microbial Ecology Group, CNR-IRSA Water Research Institute, Verbania, Italy
²Institute of Limnology "Dr. Raúl A. Ringuelet", National University of La Plata - National Scientific and Technical Research Council (UNLP-CONICET), La Plata, Argentina
³Evolutionary Genomics Group, Plant Science and Microbiology Department, Miguel Hernández University, San Juan de Alicante, Spain
⁴Laboratory of Limnology, UMIEZ, Biology Department, National Autonomous University of Mexico (UNAM), Mexico City, Mexico

Corresponding author: cristiana.callieri@irsa.cnr.it



Growth rates (d ⁻¹)				TEP (ng C cell ⁻¹)			Aggregate formation
Strains LL MW ATX NH BO	Control 0.36 0.27 0.31 -0.01 0.22	Peroxide -0.05 -0.22 0.13 0.01 0.13	UV-PAR 0.33 0.23 0.20 -0.49 0.27	Control 50 93 139 37 196	Peroxide 29 189* 194* 41 276*	UV-PAR 61* 93 218* 101* 219	Treatment UV-PAR No All No No
BO	0.22	0.13	0.27	196	276*	219	No
2<0.01 signi	ificant differen	nce respect to co	ontrol.				

Tab. S1. Summary of the growth rates, normalized TEP production and aggregate formation in the different treatments for all the Synechococcus strains.

press



Fig. S1. Absorption spectra of the *Synechococcus* strains used in the experiments kept in controlled conditions for maintenance (20°C and 10-15 μ mol photons m⁻² s⁻¹).



Fig. S2. Cell number of *Synechococcus* PE strains (LL, ATX) and PC strains (MW, BO) before sonication, in the control and the two treatments, during the days of the experiment (T_0 - T_3).





Fig. S3. TEP concentration (μ g C L⁻¹) of *Synechococcus* PE strains (LL, ATX, NH) and PC strains (MW, BO) in the control and the two treatments, during the days of the experiment. The bars are the standard deviations.



Fig. S4. Alcian blu stained TEP particles associated to microcolonies in *Synechococcus* NH (left) and BO (right) strains as appear under transmission view by epifluorescence microscopy (Zeiss).





Fig. S5. TEP concentration normalized per chlorophyll concentration in *Synechococcus* PE strains (LL, ATX, NH) and PC strains (MW, BO) in the control and the two treatments, during the days of the experiment.



Fig. S6. Bacterial number in *Synechococcus* PE strains (LL, ATX, NH) and PC strains (MW, BO) in the control and the two treatments, during the days of the experiment.





Fig. S7. LL *Synechococcus* strain (control, upper panel) and MW *Synechococcus* strain (UVR-PAR, lower panel) after DAPI staining, at T₃ of the experiment.