Electronic Supplementary Material (ESI) for Photochemical & Photobiological Sciences.

UV-A screening in *Cladophora* sp. lowers internal UV-A availability and photoreactivation as compared to non-UV screening *Ulva intestinalis*

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Electronic supplemental information

Table S1. Collection dates and locations of algal material used in the indicated experiments. Locations: DAEN = Dänisch-Nienhof, Schwedeneck, Kiel; FAL= Falckensteiner Strand, Friedrichsort, Kiel; FRI = light house Friedrichsort, Kiel; MWD = Marina Wentdorf, Stein, Kiel; NOK = Kiel channel, Holtenau, Kiel. Exp. No. refers to independent replication of the experiments, Uint = *U. intestinalis*, *C*sp. = *Cladophora* sp..

Experiment	Exp. No.	Collection date	Location	Species
DNA damage analysis *in situ*	1	01/06/15	FAL	*Uint* & *C*sp
	2	22/06/15	FAL	*Uint* & *C*sp
	3	21/07/15	FAL	*Uint* & *C*sp
Spectral transmittance		29/08/18	FRI	*Uint* & *C*sp
Repair under different conditions	1	28/07/15	MWD	*Uint* & *C*sp
	2	18/08/15	NOK	*Uint*
	3	17/09/15	FAL	*Uint* & *C*sp
	4	27/07/16	DAEN	*C*sp
	5	22/09/16	FAL	*Uint* & *C*sp
Dose-dependency of photoreactivation	1	27/07/17	FRI	*Uint* & *C*sp
	2	11/08/17	FRI	*Uint* & *C*sp
	3	05/07/18	FRI	*Uint* & *C*sp

Table S2. Photon flux densities of experimentally employed irradiation sources unweighted and weighted for photoreactivation (PR) and corrected for apparent UV screening in *U. intestinalis* and *Cladophora* sp.

Irradiance source	UVA fluorescent tube	Metal halide lamp
	µmol photons m^{-2} s^{-1}	
Unweighted	52.6	100
Weighted for photoreactivation	48.5	13.9
Internal PR-weighted *U. intestinalis*	46.5	11.7
Internal PR-weighted *Cladophora* sp.	26.2	10.9