

Supplementary material

Effects of shading on seagrass morphology and thermal optimal of productivity

Eunice Kong^{A,B,E}, Yan Xiang Ow^C, Samantha Lai^A, Siti Maryam Yaakub^D and Peter Todd^A

^AExperimental Marine Ecology Laboratory, Department of Biological Sciences,
National University of Singapore, 14 Science Drive 4, Block S3, Level 2, Singapore 117543,
Republic of Singapore.

^BNational Biodiversity Centre, National Parks Board, 1B Cluny Road, Singapore 259569,
Republic of Singapore.

^CSt John’s Island National Marine Laboratory, Tropical Marine Science Institute,
National University of Singapore, 18 Kent Ridge Road, Singapore 119227,
Republic of Singapore.

^DDHI Water & Environment (S) Pte Ltd, 2 Venture Drive, #18-18,
Vision Exchange, Singapore 608526, Republic of Singapore.

^ECorresponding author. Email: eunicekong@hotmail.sg

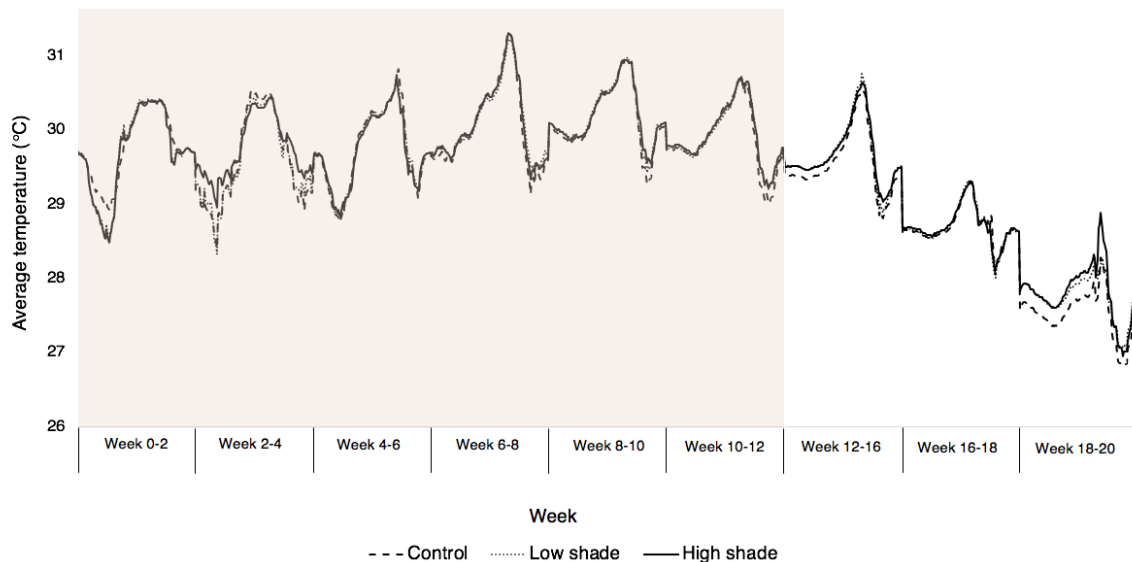


Fig. S1. Two-week average temperature (°C) at 15-min intervals from 0000 to 2400 hours in control (dashed line), low shade (dotted line) and high shade (solid line) during the shading (Weeks 0–12, brown) and post-shading (Weeks 12–20) phases. Data for Weeks 12–16 were combined because new temperature loggers were not deployed in Week 14. Temperature readings obtained throughout the deployment period were used.

Table S1. *F*-statistics and *P*-values obtained when analysing the estimated parameters of thermal optimal of seagrass productivity during the post-shading phase with repeated-measures ANOVA

T_{opt} , optimal temperature; P_{max} , maximum photosynthetic rate at T_{opt} ; and T_{max} , maximum temperature. Significance level at 0.05

Parameter estimated from Yan and Hunt (1999) model	Explanatory variable	<i>F</i> -statistic	<i>P</i> -value
T_{opt} (°C)	Shade	1.11	0.351
	Week	0.04	0.837
	Shade × Week	0.05	0.95
T_{max} (°C)	Shade	0.22	0.802
	Week	1.43	0.248
	Shade × Week	0.32	0.732
P_{max} (mg O ₂ g DW ⁻¹ h ⁻¹)	Shade	0.52	0.605
	Week	4.27	0.054
	Shade × Week	2.12	0.15

Reference

Yan, W., and Hunt, L. A. (1999). An equation for modelling the temperature response of plants using only the cardinal temperatures. *Annals of Botany* **84**, 607–614. doi:10.1006/anbo.1999.0955