

Mediterranean seagrasses as carbon sinks: Methodological and regional differences

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6 Appendices

Table S1. Coordinates of sampling sites and related Meteorological stations. Data for the stations in Mallorca provided by the Agencia Estatal de Meteorología (AEMET), and from the Cyprus Department of Meteorology for Cyprus sampling sites and from the Hellenic National Meteorological Service for the sampling sites in Crete.

Sampling station	Latitude (°)	Longitude (°)	Meteorological station	Latitude (°)	Longitude (°)
Cap Enderrocat (Mallorca)	39.473	2.721			
Son Veri (Mallorca)	39.495	2.73	Palma Son San Juan (Mallorca)	39.561	2.737
Cala Blava (Mallorca)	39.489	2.724			
Pt. Negra (Mallorca)	39.552	2.61			
Magalluf (Mallorca)	39.537	2.674	Palma CTM (Mallorca)	39.553	2.625
St. Elm (Mallorca)	39.726	2.603			
Sta. Maria (Mallorca)	39.15	2.96	Pollença (Mallorca)	39.909	3.1
Pollença (Mallorca)	39.826	3.088			
Marathi (Crete)	35.504	24.174	Chania (Crete)	35.553	24.068
Kalami (Crete)	35.47	24.136			
Maridati (Crete)	35.222	26.273	Sitia (Crete)	35.205	26.095
Limmassol (Cyprus)	34.707	33.123	1389-7615 Tepak (Cyprus)	34.677	3.038

Table S2. Summary of the available metabolic data per species, region and season.

	NCP	CR	GPP
benthic chambers	99	67	67
<i>Cymodocea nodosa</i>			
WEST	19	19	19
Fall	1	1	1
Spring	4	4	4
Summer	14	14	14

Posidonia oceanica

<i>EAST</i>		6	6	6
	Fall	1	1	1
	Spring	1	1	1
	Summer	2	2	2
	Winter	2	2	2
<i>WEST</i>		74	42	42
	Anual	1	1	1
	Fall	10	8	8
	Spring	16	9	9
	Summer	39	19	19
	Winter	8	5	5
	sensors	69	66	74
<i>Cymodocea nodosa</i>		30	30	30
<i>EAST</i>		8	8	8
	Summer	8	8	8
<i>WEST</i>		22	22	22
	Fall	1	1	1
	Spring	2	2	2
	Summer	18	18	18
	Winter	1	1	1
<i>Posidonia oceanica</i>		39	36	44
<i>EAST</i>		6	6	6
	Summer	6	6	6
<i>WEST</i>		33	30	38
	Anual			9
	Fall	4	4	4
	Spring	11	11	11
	Summer	15	14	13
	Winter	3	1	1
Total		168	133	141

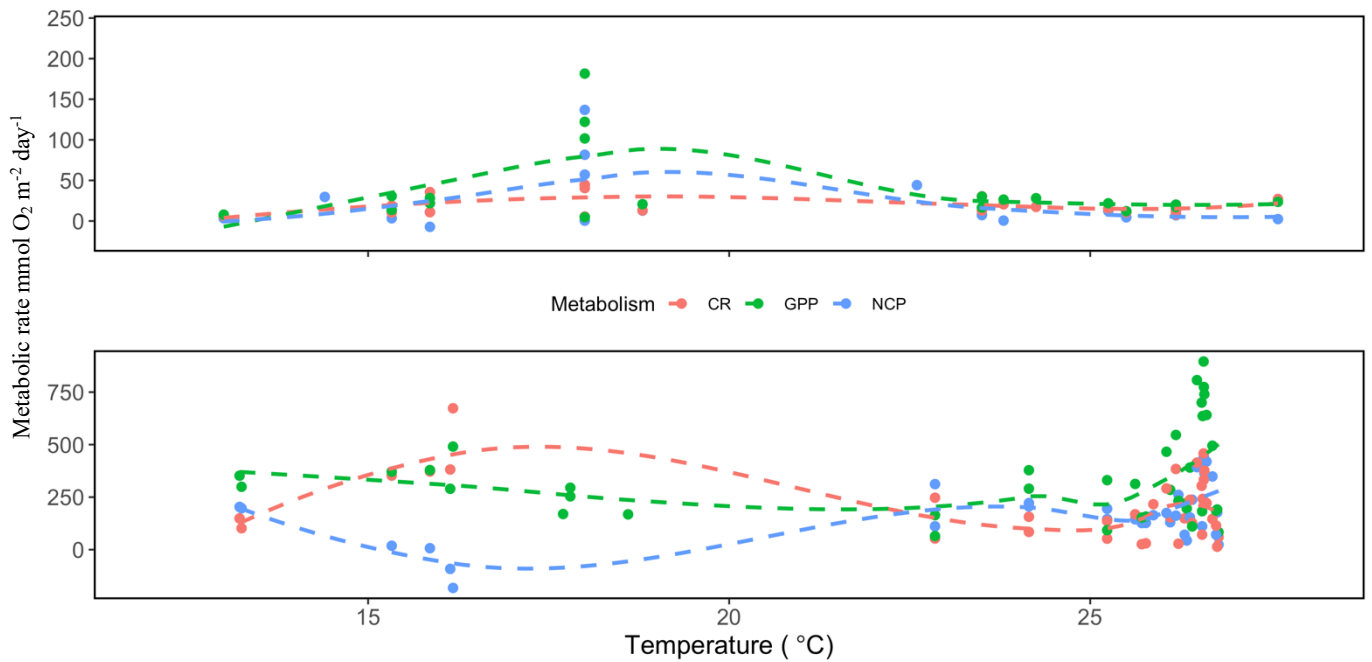


Figure S1. Metabolic rates (CR, NCP and GPP in mmol O₂ m⁻² day⁻¹) in relationship with the *in situ* temperature in the *Posidonia oceanica* benthic chambers data (top plot) and for all sensor data (bottom plot) in the Western basin. A positive linear correlation was found for NCP with temperature, while negative for CR based on sensor data. No significant regressions were found with temperature for benthic chambers. The dashed line shows the least square fit of the metabolic rates.

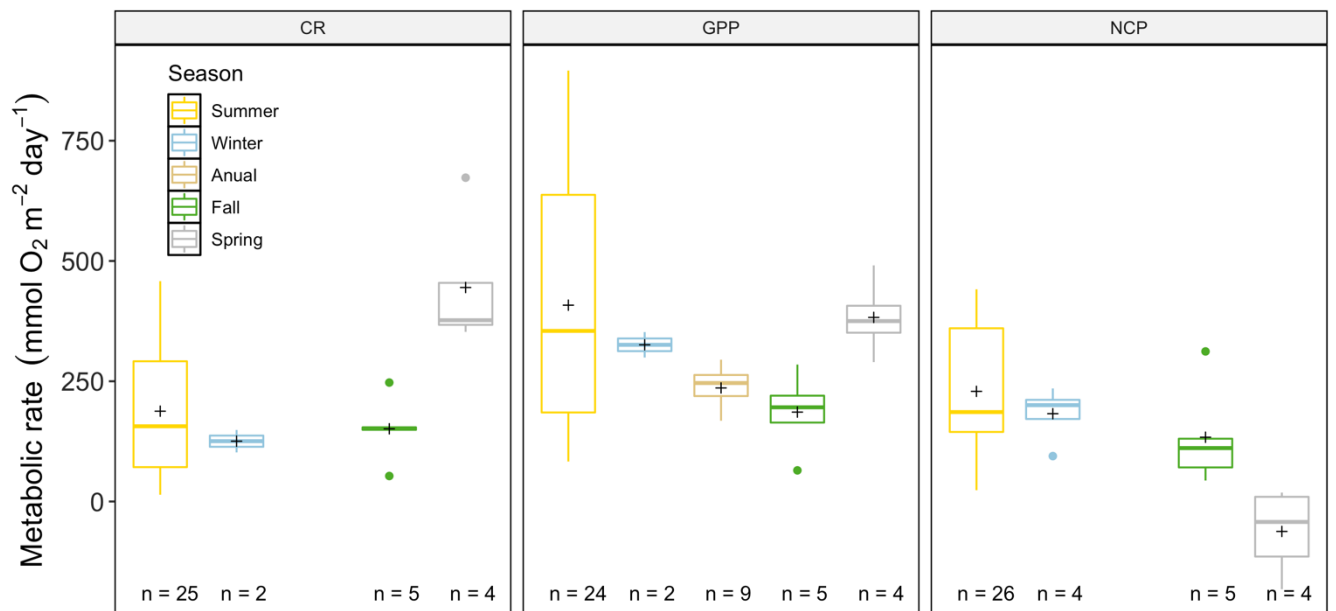


Figure S2 A. Seasonal metabolic rates (GPP, NCP and CR in mmol O₂ m⁻² day⁻¹) in the Western Mediterranean basin calculated with sensor data. Upper and lower hinges correspond to the upper and lower quartiles. the line inside the boxes correspond to the median, while the mean is shown with cross hairs and the error bars are based on minimum and maximum standard deviation for each parameter.

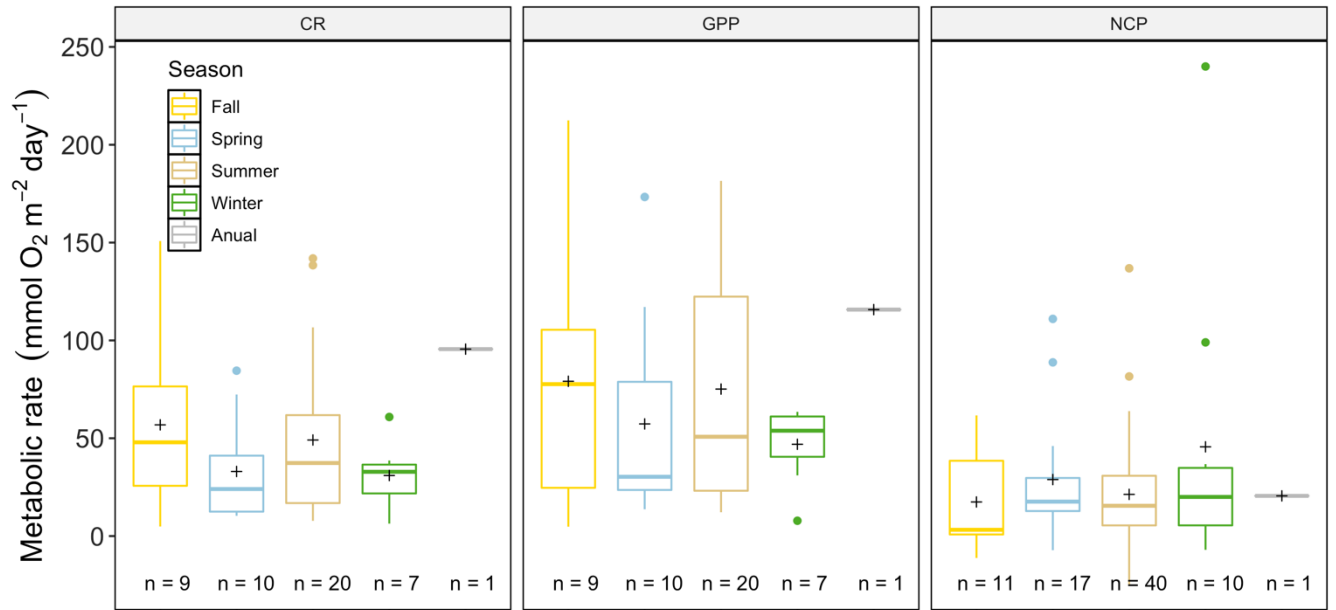


Figure S2 B. Seasonal metabolic rates (GPP, NCP and CR in $\text{mmol O}_2 \text{ m}^{-2} \text{ day}^{-1}$) calculated with benthic chamber data for *Posidonia oceanica*. Upper and lower hinges correspond to the upper and lower quartiles, the line inside the boxes correspond to the median, while the mean is shown with cross hairs and the error bars are based on minimum and maximum standard deviation for each parameter.

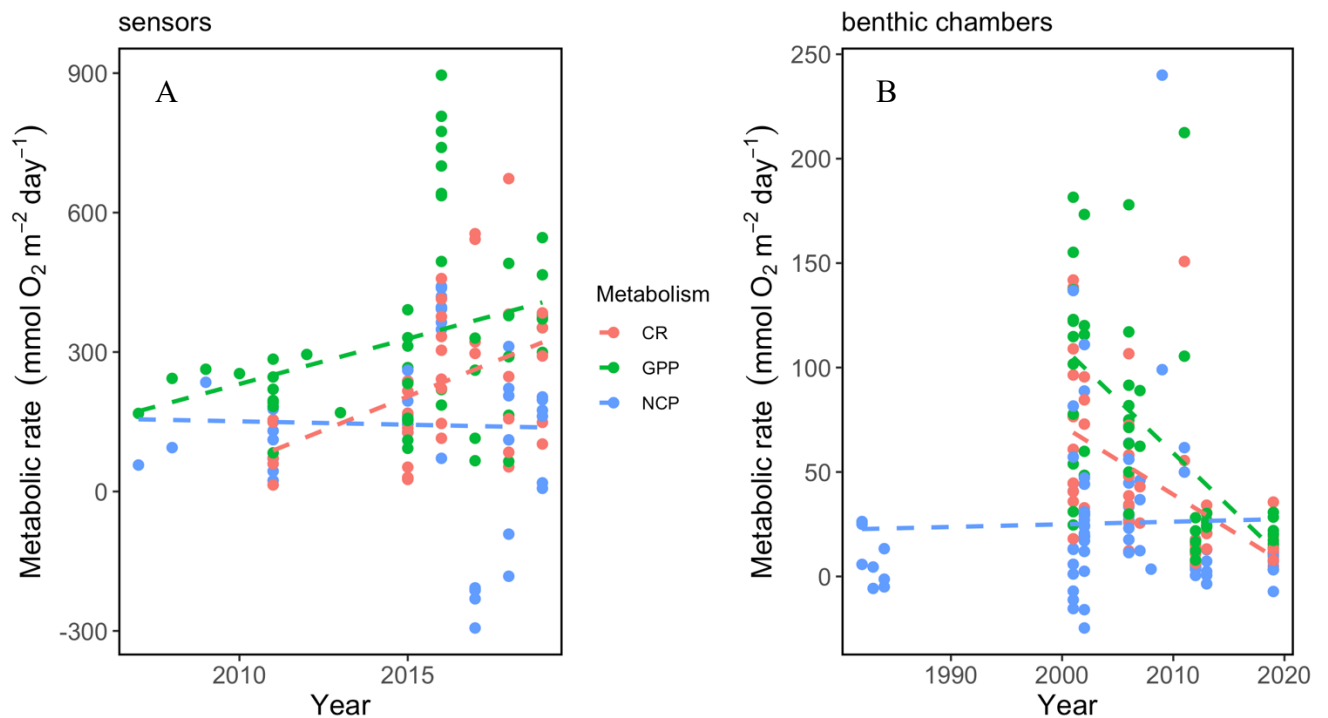


Figure S3. Changes over time (Year) in metabolic rates (GPP, NCP and CR in $\text{mmol O}_2 \text{ m}^{-2} \text{ day}^{-1}$) for A) rates calculated with sensor data (both basins) and B) incubations of *Posidonia oceanica*. Dashed lines correspond to linear regressions, with only the positive relationship with CR over time for sensor data significant.