

The following supplement accompanies the article

Outwelling from arid mangrove systems is sustained by inwelling of seagrass productivity

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Supplement. Further details of the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values of samples from the 3 sample locations in each habitat (see Table 1 in the main article)

Table S1. Mean and standard deviation of the $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values of species samples from the 3 sample locations in each habitat (M= Mangrove, SG = seagrass) and number of samples collected (n)

Spp	Habitat	Al Khor						South Al Dhakira						West Al Dhakira								
		Mean $\delta^{13}\text{C}$	\pm	SD	Mean $\delta^{15}\text{N}$	\pm	SD	n	Mean $\delta^{13}\text{C}$	\pm	SD	Mean $\delta^{15}\text{N}$	\pm	SD	n	Mean $\delta^{13}\text{C}$	\pm	SD	Mean $\delta^{15}\text{N}$	\pm	SD	n
<i>Avicennia marina</i> leaf (brown)	M	-29.2	\pm	0.2	-2.0	\pm	0.5	4	-28.2	\pm	0.9	-2.4	\pm	1.1	7	-30.1	\pm	0.6	-2.8	\pm	0.5	4
<i>Halodule uninervis</i> leaf	SG	-9.0	\pm	1.2	-3.9	\pm	3.2	129	-9.3	\pm	0.8	-5.2	\pm	2.1	5	-8.6	\pm	1.0	-0.8	\pm	1.3	5
Phytoplankton		-19.1	\pm	1.4	4.1	\pm	0.8	3	-19.1	\pm	1.4	4.1	\pm	0.8	3	-19.1	\pm	1.4	4.1	\pm	0.8	3
Sediment Oct	SG	-15.4	\pm	0.4	1.6	\pm	0.6	5														
	M	-26.1	\pm	0.4	-1.2	\pm	0.2	8														
Sediment May	SG	-15.2	\pm	0.5	1.4	\pm	0.3	5	-18.8	\pm	1.4	-2.3	\pm	1.3	7	-21.5	\pm	1.2	-2.7	\pm	1.7	4
	M	-24.1	\pm	1.6	-0.3	\pm	1.3	6	-23.4	\pm	0.2	-2.4	\pm	0.5	3	-26.4	\pm	0.5	-1.7	\pm	0.3	6
POM (suspended)		-21.0	\pm	1.0	-0.2	\pm	1.0	9														
<i>Littoraria intermedia</i>	M	-22.1			0.1			1														
<i>Cerithidea cingulata</i>	SG	-14.5	\pm	0.7	1.2	\pm	0.4	4	-12.0	\pm	0.6	2.4	\pm	0.2	4	-16.6	\pm	0.6	2.1	\pm	0.1	4
	M	-21.5	\pm	0.3	2.3	\pm	0.1	3	-16.2	\pm	0.4	0.9	\pm	0.2	4	-21.3	\pm	1.0	1.5	\pm	0.6	3
<i>Cerithium scabridrum</i>	SG	-12.6	\pm	1.6	1.5	\pm	0.2	2														
	M	-11.5	\pm	1.8	2.2	\pm	0.5	2														
Paguroidea	SG	-12.9	\pm	0.9	1.5	\pm	1.2	5	-12.7	\pm	1.3	2.1	\pm	0.6	2	-14.7	\pm	1.1	2.8	\pm	0.5	7
<i>Brachidontes variabilis</i>	SG	-16.5	\pm	1.1	2.6	\pm	0.5	15														
	M	-17.9	\pm	1.5	1.6	\pm	0.3	6														
<i>Clypeomorus bifasciata</i>	SG	-11.5	\pm	1.4	3.9	\pm	0.4	8	-13.4	\pm	1.6	2.8	\pm	0.3	4	-15.8	\pm	0.9	2.4	\pm	0.7	5
	M	-20.6	\pm	1.4	2.0	\pm	0.5	4	-16.4	\pm	0.4	1.9	\pm	0.2	4	-21.2	\pm	0.9	1.0	\pm	1.1	4
<i>Nodilittorina natalensis</i>	M								-14.5	\pm	1.5	1.2	\pm	0.5	4							
<i>Umbonium vestiarium</i>	SG	-11.5			2.3			1														
<i>Axinella gnata</i>	SG	-14.5	\pm	0.7	2.4	\pm	0.4	3	-14.3	\pm	0.3	2.2	\pm	0.6	5	-17.9	\pm	0.2	0.3	\pm	0.2	3
<i>Neopycnodonte cochlear</i>	SG	-14.5	\pm	1.6	2.6	\pm	0.6	5														
<i>Pinctada radiata</i>	SG	-17.6	\pm	1.2	2.7	\pm	0.3	11														
	M								-16.7	\pm	0.7	1.8	\pm	0.4	7	-20.1	\pm	0.9	2.2	\pm	0.6	9
<i>Serpulidae</i> spp.	SG								-14.8	\pm	1.1	2.4	\pm	0.2	8							
	M																					

<i>Osilinus kotschy</i>	SG	-10.7 ± 1.4	3.8 ± 0.3	14	-14.1 ± 0.3	2.8 ± 0.2	4	-16.7 ± 2.3	2.7 ± 0.4	5
	M	-20.4 ± 1.9	2.7 ± 0.2	4	-19.2 ± 0.8	2.2 ± 0.3	3	-22.1 ± 0.3	1.6 ± 0.4	3
<i>Nasima dotilliformis</i>	M	-12.5	3.1	1				-15.4 ± 1.3	2.0 ± 0.2	5
<i>Mezium sublaevigatum</i>	SG	-15.9 ± 0.6	3.4 ± 0.3	4	-16.0 ± 0.4	2.4 ± 0.3	4			
	M	-18.1 ± 0.3	2.8 ± 0.2	4				-18.2	2.6	1
<i>Lunella coronata</i>	SG	-8.3 ± 0.8	2.9 ± 0.7	8						
	M	-15.9 ± 0.5	3.6 ± 0.3	4						
<i>Parviperna nucleus</i>	SG	-15.1 ± 0.4	3.0 ± 0.3	4						
<i>Ostrea subucula</i>	SG	-17.5 ± 0.3	3.0 ± 0.2	3						
<i>Macrophthalmus depressus</i>	SG				-13.3 ± 0.6	2.1 ± 0.2	4	-15.0 ± 1.0	3.4 ± 0.4	8
	M	-15.9 ± 1.3	3.2 ± 0.2	4						
<i>Circe rugifera</i>	SG	-15.2 ± 0.1	3.4 ± 0.1	4						
<i>Ascidia sp.</i>	SG	-17.0	3.4	1						
<i>Chama asperella</i>	SG	-16.5 ± 0.6	3.4 ± 0.3	2						
<i>Portunus pelagicus</i>	SG	-17.5 ± 0.7	3.7 ± 0.4	3	-14.6 ± 1.0	3.2 ± 0.6	6	-16.1 ± 0.3	4.4 ± 0.1	3
	M	-17.4 ± 0.8	4.5 ± 0.0	3						
<i>Planaxis sulcatus</i>	SG	-9.9 ± 1.6	3.8 ± 0.1	4	-12.3	2.2	1	-18.3 ± 1.2	2.7 ± 0.6	3
	M				-19.9 ± 1.7	1.1 ± 0.9	8			
<i>Euchelus asper</i>	SG	-15.6 ± 1.3	4.1 ± 0.2	12						
	M	-16.1 ± 0.2	3.9 ± 0.1	4						
<i>Balanus amphitrite</i>	SG	-14.2 ± 1.3	4.0 ± 0.8	4				-16.7 ± 0.5	4.9 ± 0.4	4
	M	-16.7 ± 0.9	4.3 ± 0.8	6				-17.5 ± 1.8	5.1 ± 0.5	4
<i>Liza klunzingeri</i>	M							-16.5 ± 1.6	4.0 ± 0.7	3
<i>Halidund sp.</i>	SG	-17.3 ± 1.1	4.1 ± 0.3	2						
<i>Ceratonereis erythraensis</i>	SG	-13.3 ± 1.2	4.1 ± 0.3	3						
<i>Mitrella blanda</i>	SG				-11.9	3.2	1			
	M	-16.1 ± 2.1	4.3 ± 1.3	4						
<i>Turbo brunneus</i>	SG	-15.0	4.3	1						
<i>Cerithium caeruleum</i>	SG	-11.2 ± 0.7	4.4 ± 0.1	6						
<i>Aphanius dispar</i>	M	-15.2 ± 1.1	4.5 ± 0.2	6	-15.9 ± 1.2	5.2 ± 0.4	3	-16.8 ± 0.5	5.5 ± 0.4	3
<i>Hexaplex kuesterianus</i>	SG	-10.8 ± 0.5	4.8 ± 0.3	5						
	M				-15.5	6.0	1	-17.5 ± 0.1	4.5 ± 0.0	2

<i>Metopograpsus messor</i>	SG	-14.8 ± 1.4	5.0 ± 0.9	6	-15.1 ± 1.8	4.7 ± 0.4	3	-20.1 ± 0.4	3.7 ± 0.3	3	
	M	-20.8 ± 0.9	4.4 ± 0.2	14				-18.9 ± 0.5	3.3 ± 0.3	4	
<i>Cardisoma carnifex</i>	M	-15.9 ± 2.3	5.1 ± 0.3	2							
<i>Semiricinula konkanensis</i>	SG	-12.6 ± 1.7	5.3 ± 0.7	3							
<i>Epixanthus frontalis</i>	SG	-13.4 ± 1.6	5.3 ± 0.7	3							
<i>Penaeus semisulcatus</i>	SG	-13.2 ± 0.2	5.5 ± 0.3	8	-13.6 ± 0.5	4.6 ± 0.3	9	-15.6 ± 0.5	4.9 ± 0.3	4	
<i>Palaemon c.f. pacificus</i>	M	-18.8 ± 0.4	6.0 ± 0.1	8				-18.8 ± 0.7	6.1 ± 0.2	4	
<i>Solea elongata</i>	SG	-13.5 ± 1.7	6.0 ± 0.4	3				-16.5 ± 1.6	4.0 ± 0.7	3	
<i>Thais savignyi</i>	SG	-12.7 ± 1.4	6.7 ± 1.0	11	-13.0 ± 0.1	4.1 ± 0.3	4				
<i>Eurycarcinus orientalis</i>	SG				-16.5	5.7	1				
<i>Platycephalus indicus</i>	M	-14.7	6.8					-17.2	6.4	1	
<i>Terapon jarbua</i>	M	-19.3	6.8	1	-15.4	7.5	1	-18.9	6.7	1	
<i>Eviota</i> sp.	SG	-12.6	7.1	1							
	M							-17.5	7.1	1	
<i>Gerres longirostris</i>	M	-14.3 ± 3.3	7.1 ± 0.4	7	-15.4 ± 0.2	6.6 ± 0.1	4	-18.3 ± 0.8	6.5 ± 0.4	3	
<i>Lutjanus argentimaculatus</i>	M	-14.9	7.2	1							
<i>Rhabdosargus sarba</i>	SG	-15.6	7.5	1							
<i>Upeneus tragula</i>	SG	-15.0 ± 0.4	7.6 ± 0.3	3							
<i>Terapon puta</i>	M	-15.2 ± 0.3	7.7 ± 0.3	3	-14.2	0.3	6.7 ± 0.4	3	-17.3 ± 1.1	7.4 ± 0.3	3
<i>Amblygaster sirm</i>	SG	-16.5 ± 1.0	8.4 ± 0.4	4							