The following supplement accompanies the article

Nitrogen and phosphorus cycling in the digestive system and shell biofilm of the eastern oyster *Crassostrea virginica*

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Table S1. Average (± SE) for each flux, for each treatment, on each incubation day. Fluxes are presented in their "raw" form, i.e. as they were calculated before control correction and conversion to µmol indiv^{-1} hr^{-1} or µg indiv^{-1} hr^{-1}. To convert to flux per oyster, we subtracted the mean flux among control chambers from the flux of each chamber with oysters for each incubation. We then multiplied by the cross sectional area of the chamber (0.00785 m^2) and divided by the number of oysters (n = 4 per chamber).

Date	Treatment	O_2 flux (mg m^{-2} hr^{-1})	Chl-a flux (µg L^{-1} hr^{-1})	NH_4^+ flux (µmol m^{-2} hr^{-1})	NO_3^- flux (µmol m^{-2} hr^{-1})
July 24, 2015	Control	-12.47 ± 7.12	21.24 ± 73.24	-18.53 ± 10.51	-18.76 ± 9.09
	Whole Oyster	-299.60 ± 28.15	-14.05 ± 8.42	1011.27 ± 328.66	7.05 ± 1.97
	Shell Epibiont	-82.68 ± 8.97	-28.94 ± 24.03	372.47 ± 115.81	-2.23 ± 3.19
	Digestive Tract	-119.78 ± 11.67	-148.40 ± 27.53	457.64 ± 118.58	-30.42 ± 4.82
August 5, 2015	Control	-108.41 ± 42.83	9.85 ± 2.76	303.44 ± 19.31	2.86 ± 3.87
	Whole Oyster	-251.55 ± 17.76	-0.41 ± 2.68	712.04 ± 115.32	59.10 ± 33.90
	Shell Epibiont	-133.16 ± 26.18	0.40 ± 9.03	846.67 ± 113.88	92.78 ± 13.68
	Digestive Tract	-115.11 ± 33.80	1.87 ± 5.93	499.79 ± 196.04	3.46 ± 3.29
August 13, 2015	Control	-30.08 ± 4.76	-24.54 ± 11.01	-25.20 ± 17.36	-6.73 ± 0.90
	Whole Oyster	-204.65 ± 10.71	-68.73 ± 35.53	713.58 ± 78.48	72.14 ± 24.39
	Shell Epibiont	-122.93 ± 20.10	-100.38 ± 6.56	959. 05 ± 92.26	43.89 ± 15.49
	Digestive Tract	-76.55 ± 39.33	-39.96 ± 30.82	253.51 ± 134.77	16.38 ± 4.24

Date	Treatment	NO_2^- flux ($\mu mol\ m^{-2}\ hr^{-1}$)	PO_4^{3-} flux ($\mu mol\ m^{-2}\ hr^{-1}$)	N_2-N flux ($\mu mol\ m^{-2}\ hr^{-1}$)	N_2O flux ($nmol\ m^{-2}\ hr^{-1}$)
July 24, 2015	Control	-0.20 ± 0.62	1.66 ± 0.46	-141.83 ± 141.83	0 ± 0
	Whole Oyster	13.70 ± 3.95	78.02 ± 25.65	-171.30 ± 160.67	191.57 ± 59.65
	Shell Epibiont	12.08 ± 5.98	24.20 ± 12.27	-262.58 ± 143.02	90.83 ± 52.34
	Digestive Tract	0.99 ± 1.17	39.45 ± 16.63	190.81 ± 95.41	95.57 ± 62.08
August 5, 2015	Control	-3.89 ± 1.76	40.75 ± 1.68	-363.68 ± 21.11	-48.53 ± 48.53
	Whole Oyster	34.29 ± 14.42	62.70 ± 9.88	209.08 ± 104.61	305.57 ± 118.39
	Shell Epibiont	40.68 ± 2.36	433.57 ± 99.07	-357.40 ± 179.88	198.27 ± 198.27
	Digestive Tract	5.28 ± 1.08	66.23 ± 21.30	-23.27 ± 332.21	743.53 ± 544.60
August 13, 2015	Control	-0.46 ± 1.50	0.64 ± 0.30	123.22 ± 123.22	-19.73 ± 19.73
	Whole Oyster	22.84 ± 8.61	31.09 ± 6.68	201.23 ± 103.20	0 ± 0
	Shell Epibiont	18.75 ± 4.90	280.54 ± 36.00	243.58 ± 134.89	21.77 ± 38.55
	Digestive Tract	1.64 ± 0.94	18.30 ± 5.81	357.50 ± 73.74	593.27 ± 132.71

Table S2. Mean concentration (µmol ± standard error) of NH_4^+, NO_3^-, NO_2^-, and PO_4^{3-} in incubation chambers containing only site water at the start of each incubation.

Incubation Date	$[NH_4^+]$	$[NO_3^-]$	$[NO_2^-]$	$[PO_4^{3-}]$
July 24 2015	1.45 ± 0.22	0.72 ± 0.42	0.04 ± 0.01	0.08 ± 0.01
August 5 2015	7.23 ± 0.18	0.11 ± 0.02	0.13 ± 0.02	0.52 ± 0.01
August 13 2015	1.26 ± 0.40	0.42 ± 0.06	0.08 ± 0.1	0.05 ± 0.00