

Supplementary materials

Feed types driven differentiation in microbial community and functionality of marine integrated multitrophic aquaculture system

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Table S1. The initial stocking density and final harvest biomass of farmed animals from FFD and FD ponds

Species (kg/hectare)		Initial density		Final density		Growth	
		FFD	FD	FFD	FD	FFD	FD
Main species	Mud crab	104	89	720	840	616	751
	Razor clam	120	135	0	1800	-120	1665
Intercropping species	Malyasian cockle	870	570	3300	3450	2430	2880
	Ridgetail white prawn	3	3	630	750	627	747

Table S2. The water quality parameters of the combined effluent discharge of two pond systems over weeks

Week	TAN (mg L ⁻¹)	NO2 (mg L ⁻¹)	NO3 (mg L ⁻¹)	Phosphorus (mg L ⁻¹)	COD (mg L ⁻¹)	BOD5 (mg L ⁻¹)	TSS (mg L ⁻¹)	pH
1	0.17	0.05	0.17	0.04	3.34	1.30	51.40	8.06
4	0.01	0.01	0.07	0.11	3.56	0.78	81.60	8.28
6	0.14	0.01	0.10	0.03	4.00	ND	72.00	8.23
9	0.47	0.11	0.51	0.07	6.51	1.47	0.80	8.26
13	0.69	0.05	0.22	0.10	3.21	1.63	26.00	7.79
17	0.31	0.07	0.12	0.01	4.00	3.50	24.50	8.94
20	0.82	0.24	0.02	0.12	1.85	0.98	73.00	8.37

Table S3. Microbial similarity between FFD and FD treatments in water and sediment samples.

FFD VS FD	R value	P value
Water	0.648	0.01
Sedimentation	0.084	0.15

Table S4. The net income analysis of FFD and FD polyculture ponds in the experiment.

Items	FFD (CNY/ha)	FD (CNY/ha)
Revenues		
Mud crab	72000	84000
Razor clam	NA	36000
Malaysian cockle	99000	124200
Ridgetail white prawn	36540	37500
Total Revenues	207540	281700
Expenses		
Feed	42825	40245
Pond	48000	57000
Larvae	40170	39105
Labour	10005	9375
Electricity	1245	1313
Chemicals	1665	4688
Total expenses	143910	151726
Net income	63630	129974