

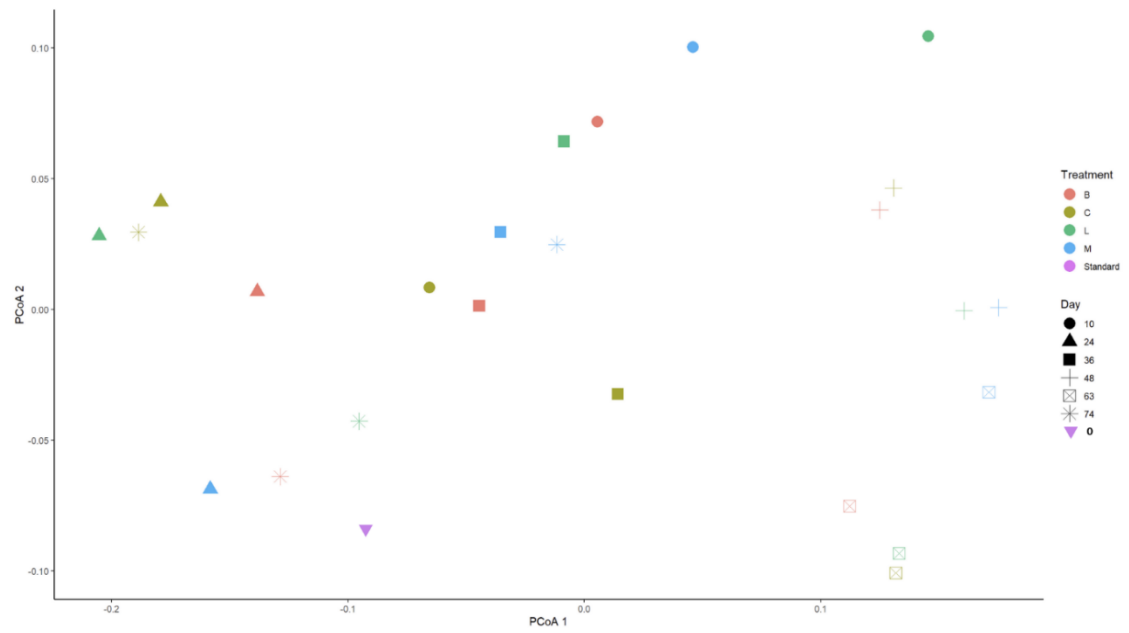


Figure S1. Principal Coordinate Analysis (PCoA) on sample groups based on Bray-Curtis dissimilarity.

Supplement Table S1. Sample size per treatment at different culture days

Day of culture	Number of individuals per treatment (5 tanks per treatment)
0	300
10	150
24	130
36	80
48	80
63	80
74	30
84	30

Supplement Table S2. Number of reads and OTUs in Pacific white shrimp gut by treatment

No.	Sample	Raw reads	High-quality reads	OTUs
1	F0	334,114	324,208	3,169
2	C10	321,120	313,550	2,729
3	B10	330,414	322,344	3,314
4	L10	355,414	344,214	4,828
5	M10	324,322	316,708	3,586
6	C24	363,210	354,284	2,522
7	B24	364,228	355,936	2,760
8	L24	350,322	341,208	2,332
9	M24	353,040	344,948	2,515
10	C36	345,924	337,670	3,109
11	B36	339,192	331,558	2,918
12	L36	350,626	338,922	3,476
13	M36	334,354	324,384	3,201
14	C48	337,974	326,164	4,476
15	B48	364,070	354,970	4,223
16	L48	346,806	335,130	4,252
17	M48	359,298	348,378	4,273
18	C63	360,418	352,146	3,591
19	B63	327,808	319,636	3,555
20	L63	366,024	356,248	3,632
21	M63	339,014	330,678	4,013
22	C74	331,020	321,380	2,583
23	B74	353,610	346,242	2,510
24	L74	329,112	319,320	2,987
25	M74	363,568	353,054	3,464

Supplement Table S3. Alpha diversity indicates

Sample	Observed OTUs	Chao1	Shannon	Simpson
F0	1,106	2,095.733	4.119513	0.9365744
C10	1,020	1,670.243	3.967332	0.9316666
B10	1,198	2,269.429	3.994374	0.9313379
L10	1,675	3,009.860	4.219105	0.9364016
M10	1,230	2,116.550	4.037327	0.9321537
C24	881	1,566.367	3.835242	0.9285824
B24	966	1,762.656	3.921364	0.9314381
L24	804	1,394.819	3.744102	0.9254193
M24	1,029	2,021.603	4.045898	0.9361206
C36	1,137	1,948.297	4.021057	0.9326178
B36	1,084	1,912.311	3.970145	0.9305468
L36	1,119	1,778.603	3.913909	0.9293026
M36	1,043	1,943.585	3.876787	0.9276385
C48	1,410	2,733.697	4.067280	0.9321680
B48	1,513	2,580.552	4.175964	0.9350678
L48	1,408	2,319.600	4.062342	0.9326670
M48	1,396	2,328.275	4.081381	0.9345243
C63	1,278	2,229.597	4.191622	0.9395516
B63	1,266	2,044.599	4.139648	0.9366837
L63	1,239	2,175.138	4.120659	0.9367107
M63	1,346	2,230.531	4.181108	0.9374410
C74	872	1,664.914	3.790938	0.9278431
B74	880	1,669.364	3.944337	0.9360033
L74	1,006	1,929.176	4.034257	0.9370510
M74	1,106	1,823.129	4.039992	0.9346554

Supplement Table S4. ANOVA Results for Alpha Diversity Indices

Indicates	ANOVA p-value	ANOVA results (p<0.05)
Observed OTUs	0.9307	Non-significant
Chao1	0.9827	Non-significant
Shannon	0.8527	Non-significant
Simpson	0.8275	Non-significant

Supplement Table S5. PERMANOVA Results for Treatments

Group		Pseudo-F	p value	q value
Group 1	Group 2			
B	C	0.237714	0.963	0.997
B	L	0.353781	0.895	0.997
B	M	0.440303	0.811	0.997
C	L	0.356803	0.832	0.997
C	M	0.513508	0.682	0.997
L	M	0.135528	0.997	0.997