Supplementary Information

Seasonal Dynamics of Epiphytic Microbial Communities on Marine Macrophyte Surfaces

Marino Korlević^{1*}, Marsej Markovski¹, Zihao Zhao², Gerhard J. Herndl^{2,3}, Mirjana Najdek¹

1. Center for Marine Research, Ruđer Bošković Institute, Croatia

2. Department of Functional and Evolutionary Ecology, University of Vienna, Austria

3. NIOZ, Department of Marine Microbiology and Biogeochemistry, Royal Netherlands Institute for Sea Research, Utrecht University, The Netherlands

*To whom correspondence should be addressed:

Marino Korlević

G. Paliaga 5, 52210 Rovinj, Croatia

Tel.: +385 52 804 768

Fax: +385 52 804 780

e-mail: marino.korlevic@irb.hr

Running title: Seasonal dynamics of epiphytic communities

Supplementary figures

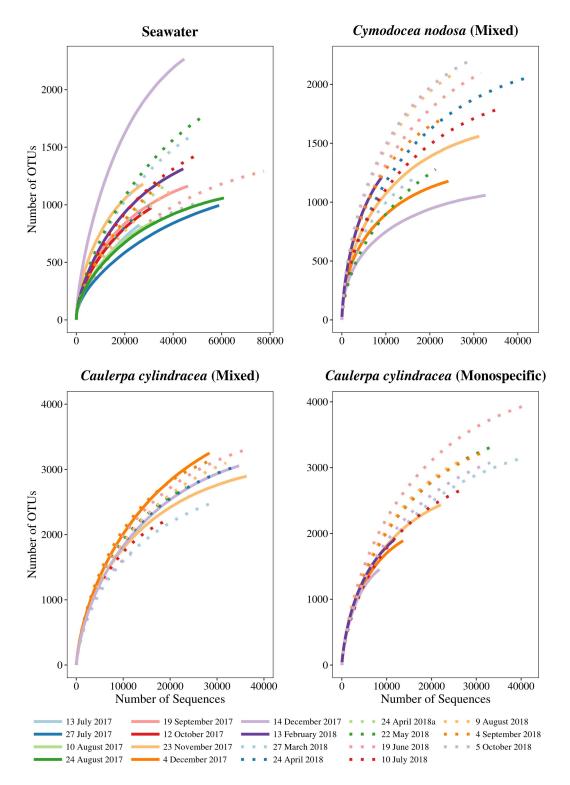


Fig. S1. Rarefaction curves of bacterial and archaeal communities from the surfaces of the macrophytes *C. nodosa* (mixed settlement) and *C. cylindracea* (mixed and monospecific settlement) and in the ambient seawater.

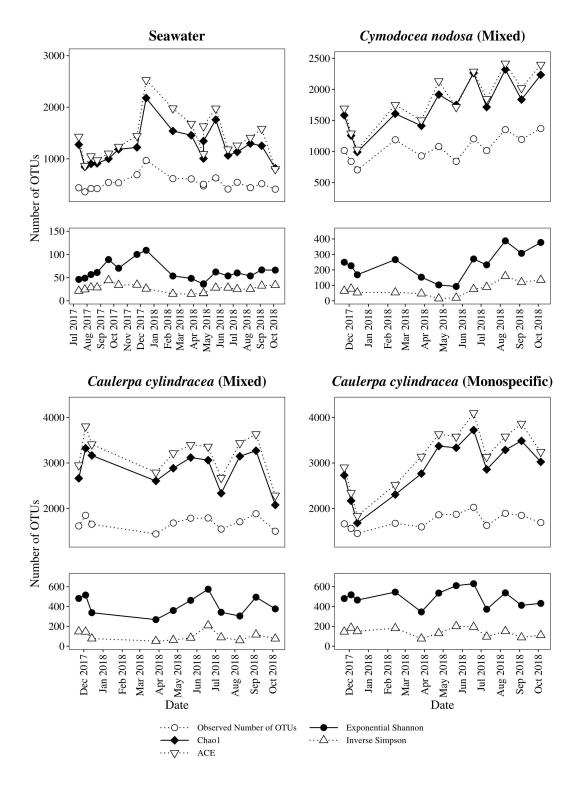


Fig. S2. Seasonal dynamics of observed number of OTUs, Chao1, ACE, exponential of the Shannon diversity index and Inverse Simpson index of bacterial and archaeal communities from the surfaces of the macrophytes *C. nodosa* (mixed settlement) and *C. cylindracea* (mixed and monospecific settlement) and in the ambient seawater.

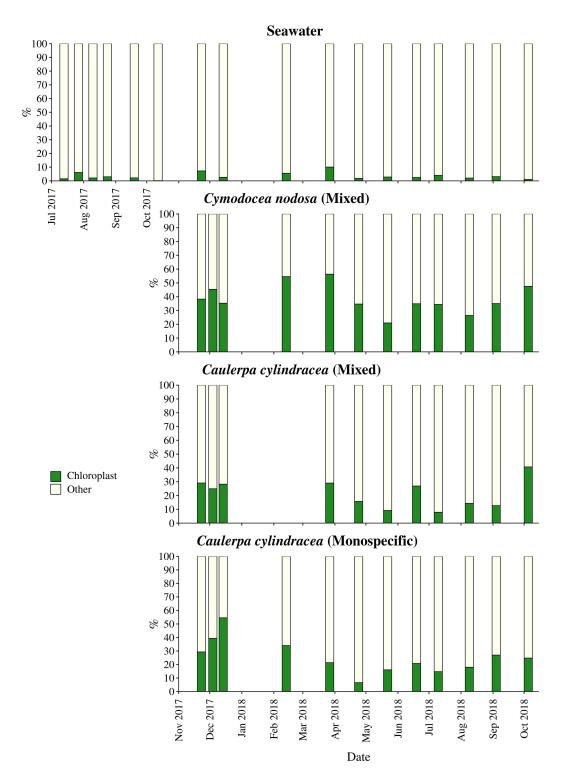


Fig. S3. Relative contribution of chloroplast sequences on the surfaces of the macrophytes *C. nodosa* (mixed settlement) and *C. cylindracea* (mixed and monospecific settlement) and in the ambient seawater.

Supplementary table

Table S1. Sample ID, community type, sampling date and season, no. of sequences and no. of OTUs of each sample. The number of sequences and OTUs was calculated after exclusion of sequences without known relatives (no relative sequences) and eukaryotic, chloroplast and mitochondrial sequences.

Sample ID	Community Type	Date	Season	No. of Sequences	No. of OTUs
3	Seawater	13 July 2017	Summer	26,006	825
5	Seawater	27 July 2017	Summer	58,951	995
7	Seawater	10 August 2017	Summer	32,623	856
9	Seawater	24 August 2017	Summer	60,938	1,059
11	Seawater	19 September 2017	Summer	46,106	1,163
13	Seawater	12 October 2017	Autumn	30,905	973
15	Seawater	23 November 2017	Autumn	27,582	1,180
17	Seawater	14 December 2017	Autumn	44,591	2,267
19	Seawater	13 February 2018	Winter	44,193	1,312
21	Seawater	27 March 2018	Winter	46,352	1,583
23a	Seawater	24 April 2018	Spring	30,976	995
23b	Seawater	24 April 2018	Spring	38,565	1,196
25	Seawater	22 May 2018	Spring	53,872	1,791
27	Seawater	19 June 2018	Spring	77,463	1,291
29	Seawater	10 July 2018	Summer	50,786	1,443
31	Seawater	9 August 2018	Summer	39,039	1,120
33	Seawater	4 September 2018	Summer	36,201	1,205
35	Seawater	5 October 2018	Autumn	49,585	1,014
37	Cymodocea nodosa (Mixed)	23 November 2017	Autumn	31,241	1,560
41	Cymodocea nodosa (Mixed)	4 December 2017	Autumn	24,241	1,178
45	Cymodocea nodosa (Mixed)	14 December 2017	Autumn	32,686	1,058
49	Cymodocea nodosa (Mixed)	13 February 2018	Winter	9,091	1,213
52	Cymodocea nodosa (Mixed)	27 March 2018	Winter	17,000	1,215
55	Cymodocea nodosa (Mixed)	24 April 2018	Spring	42,653	2,063
58	Cymodocea nodosa (Mixed)	22 May 2018	Spring	21,337	1,278
61	Cymodocea nodosa (Mixed)	19 June 2018	Spring	31,726	2,097
64	Cymodocea nodosa (Mixed)	10 July 2018	Summer	35,746	1,793
67	Cymodocea nodosa (Mixed)	9 August 2018	Summer	26,360	2,113

Table S1. Sample ID, community type, sampling date and season, no. of sequences and no. of OTUs of each sample. The number of sequences and OTUs was calculated after exclusion of sequences without known relatives (no relative sequences) and eukaryotic, chloroplast and mitochondrial sequences. *(continued)*

Sample ID	Community Type	Date	Season	No. of Sequences	No. of OTUs
70	Cymodocea nodosa (Mixed)	4 September 2018	Summer	23,276	1,713
73	Cymodocea nodosa (Mixed)	5 October 2018	Autumn	29,910	2,216
38	Caulerpa cylindracea (Mixed)	23 November 2017	Autumn	36,318	2,895
42	Caulerpa cylindracea (Mixed)	4 December 2017	Autumn	28,388	3,251
46	Caulerpa cylindracea (Mixed)	14 December 2017	Autumn	34,721	3,055
53	Caulerpa cylindracea (Mixed)	27 March 2018	Winter	28,688	2,478
56	Caulerpa cylindracea (Mixed)	24 April 2018	Spring	34,765	3,060
59	Caulerpa cylindracea (Mixed)	22 May 2018	Spring	23,403	2,723
62	Caulerpa cylindracea (Mixed)	19 June 2018	Spring	36,487	3,310
65	Caulerpa cylindracea (Mixed)	10 July 2018	Summer	18,486	2,192
68	Caulerpa cylindracea (Mixed)	9 August 2018	Summer	31,953	3,099
71	Caulerpa cylindracea (Mixed)	4 September 2018	Summer	29,280	3,152
74	Caulerpa cylindracea (Mixed)	5 October 2018	Autumn	11,698	1,702
39	Caulerpa cylindracea (Monospecific)	23 November 2017	Autumn	22,086	2,435
43	Caulerpa cylindracea (Monospecific)	4 December 2017	Autumn	13,661	1,890
47	Caulerpa cylindracea (Monospecific)	14 December 2017	Autumn	8,408	1,454
51	Caulerpa cylindracea (Monospecific)	13 February 2018	Winter	11,673	1,902
54	Caulerpa cylindracea (Monospecific)	27 March 2018	Winter	39,469	3,131
57	Caulerpa cylindracea (Monospecific)	24 April 2018	Spring	20,299	2,832
60	Caulerpa cylindracea (Monospecific)	22 May 2018	Spring	33,042	3,305
63	Caulerpa cylindracea (Monospecific)	19 June 2018	Spring	41,852	3,964
66	Caulerpa cylindracea (Monospecific)	10 July 2018	Summer	27,036	2,673
69	Caulerpa cylindracea (Monospecific)	9 August 2018	Summer	26,736	3,114
72	Caulerpa cylindracea (Monospecific)	4 September 2018	Summer	31,872	3,246
75	Caulerpa cylindracea (Monospecific)	5 October 2018	Autumn	33,086	3,076