

Supplementary Information

Seasonal Dynamics of Epiphytic Microbial Communities on Marine Macrophyte Surfaces

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Running title: Seasonal dynamics of epiphytic communities

Supplementary figures

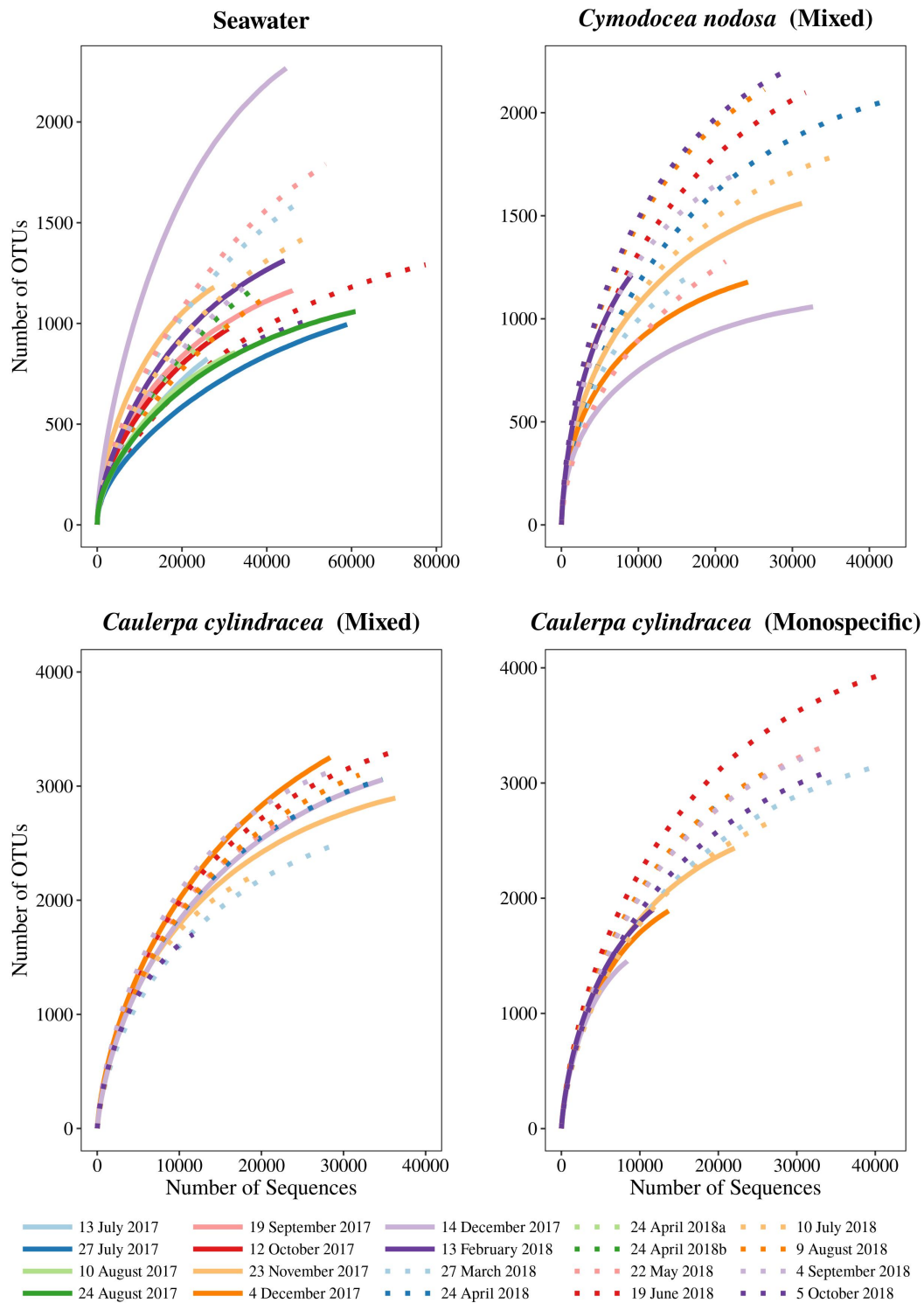


Fig. S1. Rarefaction curves of bacterial and archaeal communities from the surfaces of the macrophytes *C. nodosa* (mixed settlement) and *C. cylindracea* (mixed and monospecific settlement) and in the ambient seawater.

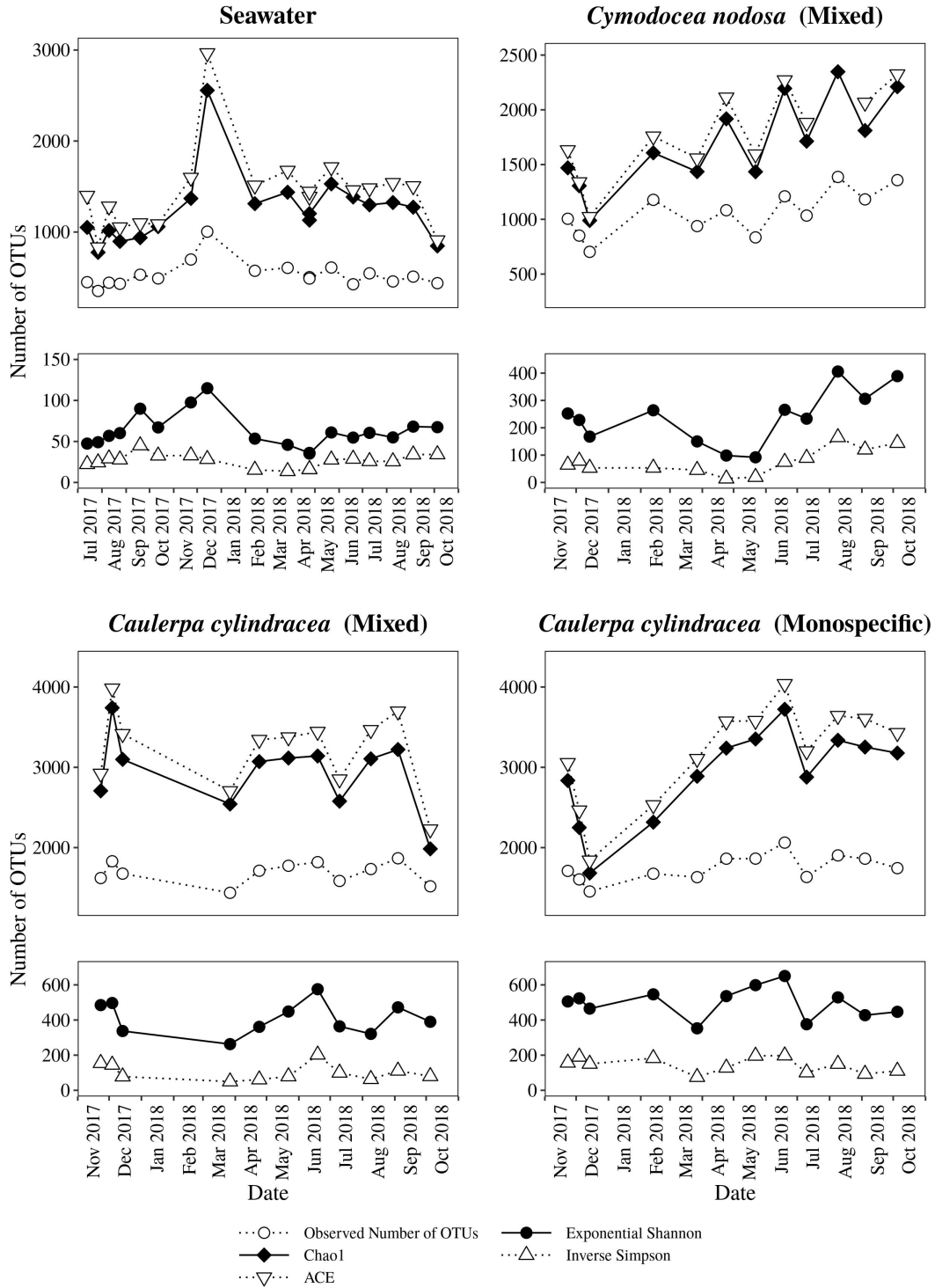


Fig. S2. Seasonal dynamics of observed number of OTUs, Chao1, ACE, exponential of the Shannon diversity index and Inverse Simpson index of bacterial and archaeal communities from the surfaces of the macrophytes *C. nodosa* (mixed settlement) and *C. cylindracea* (mixed and monospecific settlement) and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

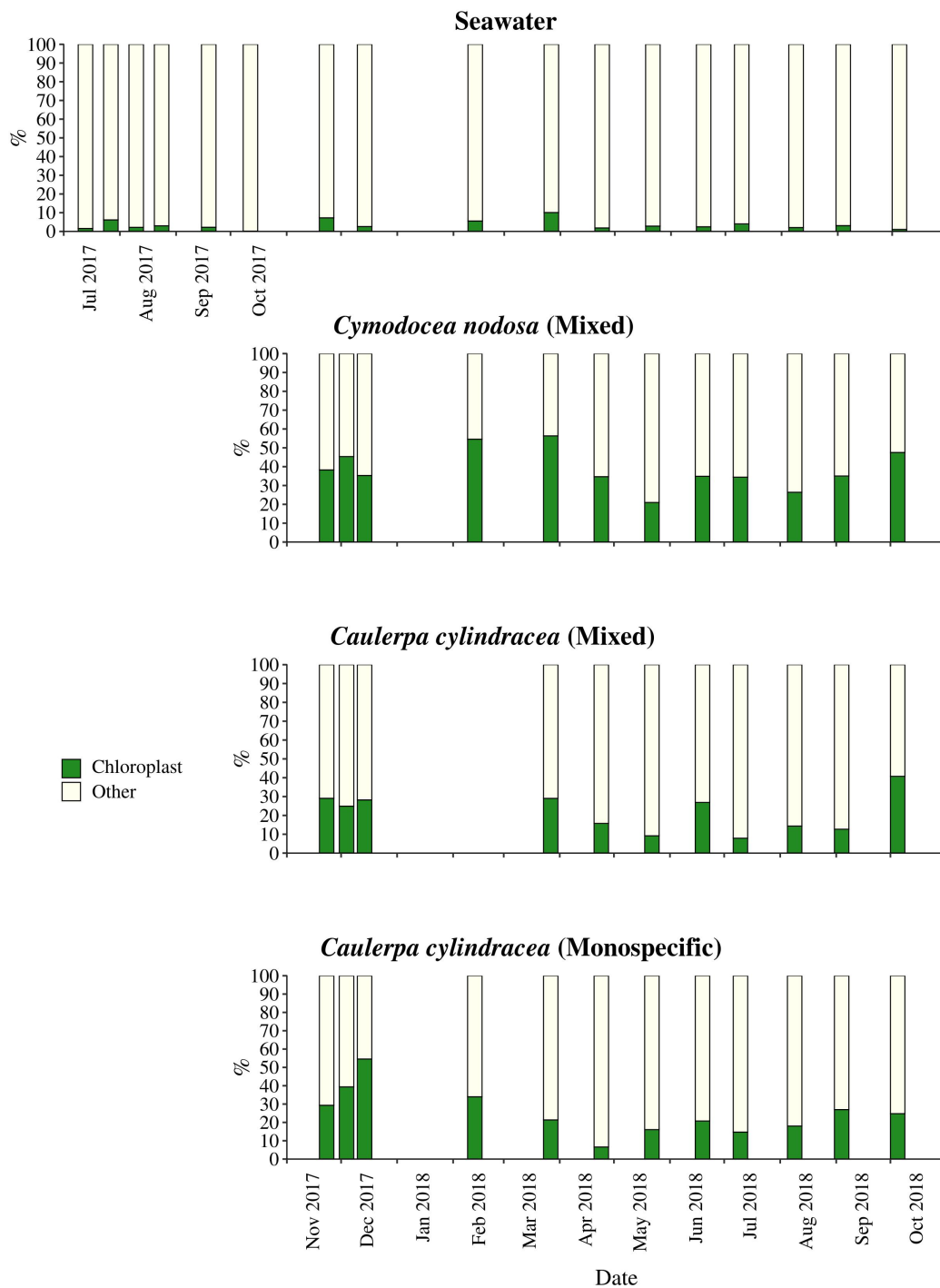


Fig. S3. Relative contribution of chloroplast sequences on the surfaces of the macrophytes *C. nodosa* (mixed settlement) and *C. cylindracea* (mixed and monospecific settlement) and in the ambient seawater.

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 | <i>Cymodocea nodosa</i> (Mixed) | 23 November 2017 | Autumn | 31,241 | 1,560 |
| 41 | <i>Cymodocea nodosa</i> (Mixed) | 4 December 2017 | Autumn | 24,241 | 1,178 |
| 45 | <i>Cymodocea nodosa</i> (Mixed) | 14 December 2017 | Autumn | 32,686 | 1,058 |
| 49 | <i>Cymodocea nodosa</i> (Mixed) | 13 February 2018 | Winter | 9,091 | 1,213 |
| 52 | <i>Cymodocea nodosa</i> (Mixed) | 27 March 2018 | Winter | 17,000 | 1,215 |
| 55 | <i>Cymodocea nodosa</i> (Mixed) | 24 April 2018 | Spring | 42,653 | 2,063 |
| 58 | <i>Cymodocea nodosa</i> (Mixed) | 22 May 2018 | Spring | 21,337 | 1,278 |
| 61 | <i>Cymodocea nodosa</i> (Mixed) | 19 June 2018 | Spring | 31,726 | 2,097 |
| 64 | <i>Cymodocea nodosa</i> (Mixed) | 10 July 2018 | Summer | 35,746 | 1,793 |
| 67 | <i>Cymodocea nodosa</i> (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 | <i>Cymodocea nodosa</i> (Mixed) | 4 September 2018 | Summer | 23,276 | 1,713 |
| 73 | <i>Cymodocea nodosa</i> (Mixed) | 5 October 2018 | Autumn | 29,910 | 2,216 |
| 38 | <i>Caulerpa cylindracea</i> (Mixed) | 23 November 2017 | Autumn | 36,318 | 2,895 |
| 42 | <i>Caulerpa cylindracea</i> (Mixed) | 4 December 2017 | Autumn | 28,388 | 3,251 |
| 46 | <i>Caulerpa cylindracea</i> (Mixed) | 14 December 2017 | Autumn | 34,721 | 3,055 |
| 53 | <i>Caulerpa cylindracea</i> (Mixed) | 27 March 2018 | Winter | 28,688 | 2,478 |
| 56 | <i>Caulerpa cylindracea</i> (Mixed) | 24 April 2018 | Spring | 34,765 | 3,060 |
| 59 | <i>Caulerpa cylindracea</i> (Mixed) | 22 May 2018 | Spring | 23,403 | 2,723 |
| 62 | <i>Caulerpa cylindracea</i> (Mixed) | 19 June 2018 | Spring | 36,487 | 3,310 |
| 65 | <i>Caulerpa cylindracea</i> (Mixed) | 10 July 2018 | Summer | 18,486 | 2,192 |
| 68 | <i>Caulerpa cylindracea</i> (Mixed) | 9 August 2018 | Summer | 31,953 | 3,099 |
| 71 | <i>Caulerpa cylindracea</i> (Mixed) | 4 September 2018 | Summer | 29,280 | 3,152 |
| 74 | <i>Caulerpa cylindracea</i> (Mixed) | 5 October 2018 | Autumn | 11,698 | 1,702 |
| 39 | <i>Caulerpa cylindracea</i> (Monospecific) | 23 November 2017 | Autumn | 22,086 | 2,435 |
| 43 | <i>Caulerpa cylindracea</i> (Monospecific) | 4 December 2017 | Autumn | 13,661 | 1,890 |
| 47 | <i>Caulerpa cylindracea</i> (Monospecific) | 14 December 2017 | Autumn | 8,408 | 1,454 |
| 51 | <i>Caulerpa cylindracea</i> (Monospecific) | 13 February 2018 | Winter | 11,673 | 1,902 |
| 54 | <i>Caulerpa cylindracea</i> (Monospecific) | 27 March 2018 | Winter | 39,469 | 3,131 |
| 57 | <i>Caulerpa cylindracea</i> (Monospecific) | 24 April 2018 | Spring | 20,299 | 2,832 |
| 60 | <i>Caulerpa cylindracea</i> (Monospecific) | 22 May 2018 | Spring | 33,042 | 3,305 |
| 63 | <i>Caulerpa cylindracea</i> (Monospecific) | 19 June 2018 | Spring | 41,852 | 3,964 |
| 66 | <i>Caulerpa cylindracea</i> (Monospecific) | 10 July 2018 | Summer | 27,036 | 2,673 |
| 69 | <i>Caulerpa cylindracea</i> (Monospecific) | 9 August 2018 | Summer | 26,736 | 3,114 |
| 72 | <i>Caulerpa cylindracea</i> (Monospecific) | 4 September 2018 | Summer | 31,872 | 3,246 |
| 75 | <i>Caulerpa cylindracea</i> (Monospecific) | 5 October 2018 | Autumn | 33,086 | 3,076 |