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Supplementary Data

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Table S1. Monthly distribution of the physical-chemical parameters; sea temperature (T), salinity (S), nitrate (NO₃⁻), nitrite (NO₂⁻), ammonium (NH₄⁺), phosphate (PO₄³⁻), silicate (SiO₄⁴⁻), total inorganic nitrogen (TIN), oxygen saturation (O₂/O₂[']) and chlorophyll *a* concentrations (Chl *a*) at sampling sites Dubrovnik, Mljet and Hvar throughout 24-month period from November 2008 to October 2010. N/A = not available.

Season	Site	Dubrovnik										Mljet										Hvar
	Physical-chemical parameters/ Date	TEMP (°C)	SAL	O ₂ /O ₂ [']	NO ₃ ⁻ (μM)	NO ₂ ⁻ (μM)	NH ₄ ⁺ (μM)	PO ₄ ³⁻ (μM)	SiO ₄ ⁴⁻ (μM)	TIN	Chl <i>a</i>	TEMP (°C)	SAL	O ₂ /O ₂ [']	NO ₃ ⁻ (μM)	NO ₂ ⁻ (μM)	NH ₄ ⁺ (μM)	PO ₄ ³⁻ (μM)	SiO ₄ ⁴⁻ (μM)	TIN	Chl <i>a</i>	TEMP (°C)
Autumn	Nov 2008	19.59	38.18	1.08	1.00	0.02	0.21	0.02	1.42	1.23	0.15	19.00	38.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.00
Winter	Dec 2008	17.62	38.12	1.00	1.00	0.07	0.18	0.03	2.24	1.25	0.22	17.00	38.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.00
	Jan 2009	14.22	37.66	0.96	1.05	0.15	0.26	0.04	2.06	1.45	0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.00
	Feb 2009	12.96	37.30	1.01	1.37	0.13	0.30	0.02	3.31	1.80	0.12	13.00	38.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.00
Summer	Mar 2009	12.73	37.71	1.00	2.22	0.10	0.29	0.04	3.09	2.61	0.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13.00
	Apr 2009	13.18	37.67	0.99	1.73	0.05	0.29	0.06	2.66	2.07	0.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.00
	May 2009	15.78	37.77	1.09	1.59	0.02	0.57	0.05	2.70	2.18	0.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	17.00
	Jun 2009	21.05	36.83	1.11	1.43	0.02	0.42	0.05	3.71	1.86	0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21.00

	Jul 2009	25.66	37.04	4.20	2.06	0.01	0.22	0.07	2.70	2.29	0.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.00
	Aug 2009	20.00	38.28	1.07	2.11	0.01	0.30	0.09	2.56	2.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.00
Autumn	Sep 2009	N/A	N/A	0.53	1.69	0.01	N/A	0.06	2.17	1.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.00
	Oct 2009	23.00	38.37	1.05	1.82	0.02	0.18	0.06	2.38	2.01	N/A	20.40	38.45	N/A	2.21	0.02	0.23	0.14	2.16	2.46	N/A	20.00	
	Nov 2009	18.55	38.02	1.07	0.57	0.03	0.21	0.06	3.00	0.81	0.17	N/A	N/A	N/A	0.14	0.03	0.19	0.08	3.16	0.36	N/A	18.00	
Winter	Dec 2009	14.92	37.84	0.94	1.25	0.05	0.28	0.07	1.70	1.58	0.39	14.93	38.04	0.94	1.50	0.04	0.22	0.07	1.65	1.76	0.48	12.00	
	Jan 2010	13.66	35.15	1.02	0.87	0.19	0.21	0.07	8.06	1.26	0.49	13.10	36.93	0.95	0.45	0.19	0.09	0.11	6.66	0.72	0.30	12.00	
	Feb 2010	12.34	37.21	0.52	0.68	0.15	0.30	0.08	5.04	1.13	0.30	13.85	38.19	0.92	0.25	0.18	0.17	0.39	8.64	0.60	0.06	12.00	
Spring	Mar 2010	13.18	37.07	1.03	0.31	0.13	0.60	0.04	6.10	1.04	0.23	13.05	37.25	0.96	0.17	0.19	0.15	0.04	3.95	0.51	0.13	12.00	
	Apr 2010	15.24	37.13	1.06	0.08	0.01	1.14	0.01	0.73	1.23	0.12	15.38	37.56	0.99	0.35	0.03	0.24	0.02	1.24	0.62	0.12	15.00	
	May 2010	16.06	38.10	1.08	0.03	0.01	1.19	0.04	1.82	1.23	0.08	18.52	37.23	1.01	0.24	0.01	0.14	0.02	2.62	0.39	0.00	16.00	
Summer	Jun 2010	23.91	38.06	1.15	0.04	0.01	0.20	0.04	2.56	0.26	0.05	20.88	37.67	1.06	0.06	0.02	0.04	0.02	2.70	0.12	0.07	23.00	
	Jul 2010	19.19	38.08	1.17	0.01	0.02	0.04	0.03	4.41	0.07	0.04	17.74	38.26	1.09	0.04	0.01	0.11	0.00	3.76	0.16	0.02	24.00	
	Aug 2010	16.84	38.33	1.12	0.06	0.01	0.10	0.04	1.93	0.17	0.01	17.94	38.46	1.12	0.14	0.01	0.25	0.00	1.91	0.39	0.00	25.00	
Autumn	Sep 2010	21.28	38.38	1.03	0.05	0.02	0.11	0.06	2.19	0.18	0.06	21.63	38.50	1.01	0.14	0.05	0.16	0.15	2.38	0.35	0.00	23.00	
	Oct 2010	21.00	N/A	N/A	0.84	0.01	0.10	0.03	1.92	0.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.00	

Table S2. The t-test between Dubrovnik and Mljet for December 2009 to September 2010 (N = 10).

Site	T value	Dubrovnik		Mljet	
		Average	StDev	Average	StDev
T (°C)	0.490	16.661	3.544	16.700	2.949
S	0.228	37.537	0.922	37.808	0.529
O ₂ /O ₂ '	0.464	1.011	0.177	1.005	0.063
NO ₃ ⁻ (µM)	0.489	0.338	0.418	0.332	0.407
NO ₂ ⁻ (µM)	0.363	0.060	0.066	0.072	0.075
NH ₄ ⁺ (µM)	<u>0.043</u>	0.416	0.400	0.157	0.063
PO ₄ ³⁻ (µM)	0.204	0.048	0.022	0.081	0.113
SiO ₄ ⁴⁻ (µM)	0.463	3.453	2.225	3.552	2.244
TIN (µM)	0.147	0.814	0.543	0.562	0.439
Chl a (µg L ⁻¹)	0.214	0.177	0.159	0.118	0.150

Table S3. SIMPER analysis of diatom taxa contributing (% cumulative = 70%) to dissimilarities between epilithic diatom assemblages from areas of *C. cylindracea* and *C. taxifolia*.

Taxa	<i>C. cylindracea</i> sampling sites		<i>C. taxifolia</i> sampling site		
	Av.Abund	Av.Abund	Av.Dis	Contrib	Cum.
<i>Cocconeis scutellum</i> Ehrenberg var. <i>scutellum</i>	13.22	3.18	5.21	7.59	7.59
<i>Rhopalodia pacifica</i> Krammer	0.61	6.99	3.27	4.76	12.36
<i>Navicula ramosissima</i> (Agardh) Cleve	8.86	6.96	2.86	4.17	16.53
<i>Berkeleya rutilans</i> (Trentepohl) Grunow	0.39	5.27	2.47	3.59	20.12
<i>Cocconeis molesta</i> var. <i>crucifera</i> Grunow in Van Heurck	5.05	1.90	2.41	3.51	23.63
<i>Nitzschia macilenta</i> W.Gregory	1.30	4.06	2.32	3.38	27.01
<i>Grammatophora oceanica</i> (Ehrenberg 1854 pro parte) Grunow	4.15	0.04	2.06	2.99	30.01
<i>Nitzschia lanceolata</i> var. <i>minima</i> Grunow	1.94	4.73	1.70	2.47	32.48
<i>Cocconeis costata</i> Gregory var. <i>costata</i>	3.41	0.22	1.66	2.41	34.89
<i>Mastogloia binotata</i> (Grunow) Cleve	3.73	0.68	1.64	2.39	37.28
<i>Hyalosynedra laevigata</i> (Grunow) Williams & Round	3.31	4.56	1.33	1.94	39.22
<i>Opephora pacifica</i> (Grunow) Petit	0.30	2.78	1.27	1.84	41.06
<i>Berkeleya scopulorum</i> (Brébisson ex Kützing) E.J.Cox	0.36	2.65	1.25	1.81	42.88
<i>Tabularia ktenooides</i> M.Kuylenstierna	2.96	1.58	1.23	1.79	44.67
<i>Licmophora paradoxa</i> (Lyngbye) Agardh	2.56	0.49	1.17	1.71	46.38
<i>Nitzschia angularis</i> W. Smith	2.84	3.81	1.17	1.71	48.09

<i>Nitzschia fusiformis</i> Grunow	1.25	2.90	1.00	1.46	49.54
<i>Cocconeis peltoides</i> Hustedt	0.26	2.22	1.00	1.45	50.99
<i>Fragilaria investiens</i> (W. Smith) Cleve-Euler	2.20	0.79	0.99	1.44	52.43
<i>Tryblionella persuadens</i> (Cholnoki) K.P.Cavalcante. P.I.Tremarin & T.A.V.Ludwig	0.17	2.07	0.96	1.40	53.83
<i>Nitzschia panduriformis</i> Gregory var. <i>panduriformis</i>	0.83	2.19	0.81	1.17	55.01
<i>Halamphora acutiuscula</i> (Kützing) Levkov	2.10	1.78	0.73	1.07	56.08
<i>Navicula subagnita</i> Proschkina-Lavrenko	1.59	1.36	0.73	1.06	57.13
<i>Licmophora gracilis</i> (Ehrenberg) Grunow var. <i>gracilis</i>	1.35	0.27	0.69	1.00	58.13
<i>Mastogloia crucicula</i> var. <i>alternans</i> Zanon	1.40	0.39	0.64	0.93	59.06
<i>Amphora helenensis</i> Giffen	0.84	1.73	0.62	0.90	59.96
<i>Mastogloia crucicula</i> (Grunow) Cleve var. <i>crucicula</i>	1.57	0.48	0.61	0.89	60.85
<i>Amphora pseudohyalina</i> Simonsen	0.35	1.23	0.60	0.88	61.73
<i>Toxarium undulatum</i> Bailey	1.35	0.31	0.58	0.85	62.58
<i>Halamphora kolbei</i> (Aleem) Álvarez-Blanco & S.Blanco	1.15	0.13	0.57	0.84	63.42
<i>Mastogloia pusilla</i> (Grunow) Cleve var. <i>pusilla</i>	0.65	0.85	0.56	0.82	64.24
<i>Cocconeis</i> cf. <i>distantula</i> Giffen	0.21	1.26	0.55	0.81	65.04
<i>Mastogloia manokwariensis</i> Cholnoky	0.04	1.09	0.54	0.79	65.83
<i>Mastogloia fimbriata</i> (Brightwell) Cleve	1.09	0.09	0.53	0.77	66.60
<i>Dimmeregrama minor</i> (Gregory) Ralfs var. <i>minor</i>	0.83	0.88	0.51	0.74	67.34
<i>Fallacia forcipata</i> (Greville) Stickle & D.G.Mann	0.01	1.01	0.50	0.73	68.07
<i>Ardissonia crystallina</i> (C.A. Agardh) Grunow	1.12	0.43	0.49	0.71	68.78
<i>Mastogloia cuneata</i> (Meister) Simonsen	0.84	0.41	0.46	0.67	69.46

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