

## ON-LINE SUPPLEMENTARY MATERIAL

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**On-line Suppl. Tab. 1.** Summary of most important studies of diatom taxa from the Adriatic Sea. Literature with list of taxa reported with an asterisk (\*). Northern Adriatic (NA), Middle Adriatic (MA), Southern Adriatic (SA), N (Natural substrate); A (Artificial substrate); SWDI (Shannon-Wiener Diversity Index); microphytobenthos (MPB).

Reference	Area	Location	Habitat and Comments
1. Tolomio and Andreoli 1989	NA	Venice Lagoon, Italy	A (artificial hard substrate)
2. Tolomio et al. 1991	NA	Venice Lagoon, Italy	A (artificial hard substrate)
3. Bartole et al. 1991-94	NA	Gulf of Trieste, Italy	A; the first colonization stages of diatoms on an artificial hard substrate in two stations
4. Sdrigotti et al. 1999*	NA	Gulf of Trieste, Italy	N; sediment cores collected at two stations at monthly intervals from May to October 1998; at both stations mainly epipelagic species belonging <i>Cylindrotheca closterium</i> , <i>Bacillaria paxillifera</i> and <i>Gyrosigma acuminatum</i> where recorded; diatom assemblage living under the mussel cultures has been less abundant in comparison with the reference site
5. Tolomio et al. 1999	NA	Venice Lagoon, Italy	N (natural sediment samples)
6. Witkowski et al. 2000	SA	Among others, samples collected from the Lokrum Island near Dubrovnik, Croatia	N
7. Facca et al. 2002a	NA	Venice Lagoon, Italy	N (natural sediment samples)
8. Facca et al. 2002b	NA	Venice Lagoon, Italy	N (natural sediment samples)
9. Tolomio et al. 2002	NA	Venice Lagoon, Italy	N (natural sediment samples)
10. Viličić et al. 2002*	NA + MA + SA	Eastern Adriatic Sea, Croatia	N; old published data supplemented with more recent information from the period 1981–2000; diatoms were composed of 518 species (330 pennates, 174 centric diatoms); list is accompanied by data on the general distribution of species in the northern, central and southern part of the eastern Adriatic Sea
11. Welker et al. 2002	NA	Gulf of Trieste, Italy	N (natural sediment samples) at 20 m depth; Annual variations in MPB abundance in the surface sediment layer (0–1 cm) in the months from November 1992 to October 1993 and from July 1995 to June 1996 were similar; Positive correlation between MPB abundance and ammonium and silicate concentrations were found
12. Gambi et al. 2003	MA	Adriatic coast (the Lesina Lagoon), Italy	N (natural sediment samples); MPB density and biomass ( $43\text{--}1031 \times 10^3 \text{ cells cm}^{-3}$ and $24.43\text{--}591.12 \text{ } \mu\text{gC cm}^{-3}$ ; salinity gradients influenced MPB distribution

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Reference	Area	Location	Habitat and Comments
13. Facca et al. 2003	NA	Venice Lagoon, Italy	N (sediment, <i>Cymodocea nodosa</i> , <i>Zostera marina</i> , <i>Ulva rigida</i> ); monthly at 6 stations; from November 1998 to October 1999 + June 2000 to May 2001; significant correlations observed with the sediment size (granulometry) and presence/absence of macrophytes, while the influence of temperature was negligible
14. Totti 2003	NA	Northwestern Adriatic coast (from Ancona to the Po Delta), Italy	N (natural sediment samples)
15. Burić et al. 2004	MA	Eastern Adriatic Sea coast, Zrmanja River estuary, Croatia	A; plexiglas plates; at depths of 0, 0.5, 1, 1.5 and 2 m; in July 2000; 60 species (5 pennates and 2 centrics; the maximum abundance of $1.83 \times 10^7$ cells $\text{cm}^{-2}$ after 25 days of colonization; Most abundant taxa: <i>Cocconeis scutellum</i>
16. Facca et al. 2004	NA	Venice Lagoon, Italy	N (natural sediment samples); Water and surface sediment samples collected monthly from May 2000 to June 2001 in three stations to investigate phytoplankton and benthic diatom distribution; the presence/absence of macrophyte and the fluxes of sediment appear to be the factors which mainly affected benthic diatoms distribution; at all stations maximum values of benthic diatoms were recorded in June and July
17. Tolomio 2004	NA	Venice Lagoon, Italy	N (natural sediment samples)
18. Miho and Witkowski 2005	SA	Eastern Adriatic Sea coast, Albania	N; paper reviews the diatom flora of the Albanian coastal wetlands; more than 430 diatom taxa were identified in the brackish water of coastal wetlands
19. Munda 2005	NA	Gulf of Trieste; in the heavily polluted and eutrofied area near Piran - at the locality Punta Madonna (48° 32' N; 13° 34' E), Slovenia	A; concrete plates (50 x 50 cm); at 1 m, 3 m and 7 m; monthly for one year, from March to October; 135 species; Most abundant genera: <i>Berkeleya</i> , <i>Navicula</i> and <i>Licmophora</i> ; <i>Achnanthes</i> species were among the primary colonizers, while <i>Nitzschia</i> species joined the fouling communities in autumn
20. Cibic et al. 2007a*	NA	Gulf of Trieste, Italy	N; sediment cores; Small pebbles and shell fragments (> 2 mm) were separated from the sand and mud fractions; Benthic epipsammic + epipelagic + epiphytic + tytopelagic + Planktonic; from January 2003 to December 2004, but not in October 2004; Among all the 103 Bacillariophyceae taxa identified in the sediment - 67 benthic, 8 epiphytic and 8 planktonic species; <i>Nitzschia</i> and <i>Navicula</i> were the most abundant genera; two diatom assemblages: a winter assemblage and a spring-summer one
21. Cibic et al. 2007b	NA	Gulf of Trieste, Italy	N; conical sediment trap, moored at 15 m depth (water depth 17 m) from January to December 2003; throughout the year, diatoms predominated in the trap material, comprising 75.32% of the settled cells, while flagellates accounted for 24.11%. Planktonic, benthic, and epiphytic forms comprised 50.78%, 36.95%, and 12.27% of the annual average biomass, respectively. Consequently, vertical fluxes may be overestimated by 50% or more if benthic and epiphytic species are not excluded.
22. Facca and Sfriso 2007	NA	Venice Lagoon, Italy	N (natural sediment samples); epipelagic diatoms; Samples of surface sediment layer (ca. 1 cm); at 1-1.2 m depth; between June 2000 and June 2003; Abundance varied between 0.26 and 5.65 $10^6$ cells $\text{ml}^{-1}$ , SWDI 0.93 – 4.36 H' depending on seasonal and spatial variability; <i>Amphora</i> , <i>Cocconeis</i> , <i>Navicula</i> , <i>Nitzschia</i> and <i>Thalassiosira</i> were the most common genera; The seasonal variations were not correlated with water temperature, but with nutrient concentrations, sediment re-suspension and grain size; The spatial fluctuations mostly influenced by water turbidity

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Reference	Area	Location	Habitat and Comments
23. Totti et al. 2007	NA	Northwestern Adriatic coast (along the Conero coast in the Ancona region), Italy	A; epilithic diatoms on various artificial hard substrates (marble, quartzite and slate); at a depth of 8 m; in April 2003, July 2003, January 2004 and February 2004 - The discs were collected after 6-7 weeks; Dominance of motile species over the entire study period, followed by erect, adnate and tube-dwelling diatoms; Diatom density showed a marked seasonal variability, ranging from $365 \pm 407$ (winter 2004) to $557156 \pm 82602$ cells cm <sup>-2</sup> (spring 2004); Biomass ranged from $0.02 \pm 0.01$ to $17.53 \pm 3.20$ µg cm <sup>-2</sup> ; Abundance and biomass values did not present any significant differences for the three substrates examined
24. Caput Mihalić et al. 2008	MA	Eastern Adriatic Sea coast, Zrmanja River estuary, Croatia	A; plexiglas plates (10 x 10 x 0.3 cm); Plates were fixed parallel to the water surface on a line at depths of 0, 0.5, 1, 1.5, and 2 m (+ 3 m); in July 2000; After 2 weeks of exposure 41 species ( $2.3 \times 10^7$ cells cm <sup>-2</sup> ), after 4 weeks, abundance doubled and richness increased to 50; SWDI: 0.87 – 2.7; Maximum diatom abundance was at 0.5 m after 2 weeks and at 1.5 m after 4 weeks; Most abundant genera: <i>Navicula</i> and <i>Nitzschia</i> ; Most abundant taxa: <i>Amphora coffeaeformis</i> and <i>Navicula veneta</i> ; Valuable data on estuarine periphytic diatoms in this part of the Adriatic
25. Cibic and Facca 2010	NA + MA + the Ligurian Sea	Gulf of Trieste, the Venice Lagoon, the Adriatic coast from Ancona to the Po Delta and the Lesina Lagoon, along the Conero coast in the Ancona region and in the Ligurian Sea, Italy	N (natural sediment samples and epibiontic microalgae on marine hydroids <i>Eudendrium racemosum</i> ) and A (epilithic diatoms on various artificial hard substrates); from 1991-94 till 2014; the checklist of MPB of Italian seas; natural sediment samples from the Gulf of Trieste (Sdrigotti et al. 1999, Welker et al. 2002, Cibic et al. 2007), the Venice Lagoon (Tolomio et al. 1999, 2002, Facca et al. 2002a, b, 2004, Tolomio 2004, Facca and Sfriso 2007), the Adriatic coast from Ancona to the Po Delta (Totti 2003) and the Lesina Lagoon (Gambi et al. 2003), as well as epibiontic microalgae on marine hydroids <i>Eudendrium racemosum</i> in the Ligurian Sea (Romagnoli et al. 2014), epilithic diatoms on various artificial hard substrates along the Conero coast in the Ancona region (Totti et al. 2007) and the first colonization stages of diatoms on an artificial hard substrate in two stations in the Gulf of Trieste (Bartole et al. 1991-94) and in the Venice Lagoon (Tolomio and Andreoli 1989, Tolomio et al. 1991)
26. Levkov et al. 2010	SA	Eastern Adriatic Sea coast; Among others, diatom slides from River Ombla estuary near Dubrovnik, Croatia	periphyton at 0.5 m depth; taxonomical study of 15 <i>Rhoicosphenia</i> species based on light and scanning electron microscope was performed; <i>R. adriatica</i> and <i>R. omblaensis</i> from periphyton from River Ombla estuary
27. Cibic and Blasutto 2011	NA	Gulf of Trieste, Italy	N; epipelagic or epipsammic diatoms; Benthic diatom assemblages were studied to highlight their response to different nutrient concentrations; under conditions of nutrient enrichment, overall abundance was high, but the dominance of a single species increased, leading to a decrease in diversity; <i>Navicula</i> and <i>Nitzschia</i> were the most abundant genera at all the investigated stations; <i>Cylindrotheca closterium</i> did not show high degree of membership with any of the nutrients, seeming to prefer oligotrophic conditions; a phosphate loving group which included, among others, <i>Navicula directa</i> , <i>Thalassiosira eccentrica</i> , <i>Entomoneis alata</i> and <i>Nitzschia panduriformis</i> ; This study suggests that not only macrobenthos but also marine benthic diatoms can be useful indicators of nutrient enrichment, representing a potential and innovative tool in biomonitoring

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Reference	Area	Location	Habitat and Comments
28. Car et al. 2012	MA + SA	Eastern Adriatic Sea coast; Among others, samples collected from the Bay of Stari Grad, the Island of Hvar, Stari Grad Bay (43° 10' 54" N, 16° 35' 00" E); Dubrovnik (42° 37' 50" N, 18° 8' 2" E); Mljet National Park (42° 45' N, 17° 23' E), Croatia	N; epiphytic (on thalli of the invasive green alga <i>Caulerpa taxifolia</i> and <i>C. cylindracea</i> + <i>Padina</i> sp., <i>Halimeda tuna</i> , <i>Posidonia oceanica</i> ); between October 2008 and October 2010; <i>Cocconeis caulerpacola</i> Witkowski, Car & Dobosz – a new marine epiphytic species found growing on thalli of the invasive green alga <i>Caulerpa taxifolia</i> collected from the Bay of Stari Grad, the Island of Hvar, Central Adriatic, Croatia, the coasts of the Mediterranean (Saint Raphaël, west of Cannes, France) and the eastern coast of Australia (Moreton Bay, southeast Queensland); <i>C. taxifolia</i> is a suitable host for epiphytic diatoms, in particular tiny <i>Cocconeis</i> , despite its reputation as a 'killer seaweed'
29. Cibic et al. 2012	NA	Gulf of Trieste, Italy	N; benthic diatom community dynamics has been studied for seven years (1999–2005) at two sublittoral stations and related to variations of temperature, salinity, nutrient concentrations, freshwater inflow and mucilage; while <i>Nitzschia</i> and <i>Navicula</i> presented a positive <i>Pleurosigma</i> revealed a negative trend with increasing temperature; a peak of the tychopelagic genus <i>Cylindrotheca</i> was observed in correspondence with high salinity
30. Franzo et al. 2014	NA	Gulf of Trieste; Italy	N (The impact of long-line mussel farming on MPB was studied by analyzing sediment grain size, organic matter content, microalgal abundance, and community structure); in September 2008 and March 2009; Three dominant genera were observed: <i>Navicula</i> and <i>Gyrosigma</i> appeared to be stimulated by organic load under active farms, while <i>Nitzschia</i> proliferation was likely limited by shading from mussel ropes.
31. Franzo et al. 2015	NA	Northwestern Adriatic coast; in front of the Emilia Romagna coast between Rimini and Pesaro cities, Italy	N; sediment samples for the analysis of the benthic communities collected from 13 to 50 m; a 10-point-station grid covering an area of about 400 km <sup>2</sup> in September 2010 and March 2011; 17 diatom genera observed in September and 16 in March; In September, <i>Paralia</i> was the dominant genus, followed by <i>Nitzschia</i> , <i>Navicula</i> and <i>Gyrosigma</i> ; In March, the planktonic genus <i>Skeletonema</i> , <i>Paralia</i> , <i>Navicula</i> and <i>Diploneis</i> ; in March highest values of microphytobenthic abundance was 111600 ± 23759 cells cm <sup>-3</sup>
32. Mejdandžić et al. 2015	NA	Eastern Adriatic Sea coast; in the bay Val de Lessio in the city of Rovinj, Croatia	A; plexiglass (100 × 70 × 2 mm) plates set vertically at a depth of 5 m; The late summer/early autumn (from September 9 <sup>th</sup> to October 7 <sup>th</sup> 2013); 30 days of exposure; 30 different taxa of diatoms; 6.10 × 10 <sup>5</sup> cells cm <sup>-2</sup> ; Most abundant genera: <i>Navicula</i> sp., <i>Thalassiosira</i> sp., <i>Amphora</i> sp., <i>Licmophora</i> sp., <i>Mastogloia</i> sp., <i>Proschkinia</i> sp., <i>Thalassionema</i> sp., <i>Cyclotella</i> sp.; Most abundant taxa: <i>Cylindrotheca closterium</i>
33. Nenadović et al. 2015	MA	Eastern Adriatic Sea coast; in the Puntamika peninsula near Zadar, Croatia	A; 11 different artificial substrates (asbestos, painted iron, wood, concrete, glass, plastic, unpainted iron, rubber, ceramics, stone and aluminium); Artificial substrates were placed at an angle of 45 ° on the sea bed at a depth of 12 m; a period of 30 days (March 7 <sup>th</sup> to April 6 <sup>th</sup> 2012); 41 diatom taxa; The highest abundance of diatoms (6948 cells cm <sup>-2</sup> ) was recorded on asbestos. The highest abundance on the bottom side of the substrates was on glass (2225 cells cm <sup>-2</sup> ); Most abundant genera: <i>Cylindrotheca</i> , <i>Amphora</i> , <i>Nitzschia</i> , <i>Cocconeis</i> and <i>Navicula</i> <i>Cylindrotheca closterium</i> was the dominant species of diatoms present in all the samples
34. Lobban et al. 2015	MA	Among others from the Bay of Stari Grad, Hvar Island (43° 10' 54" N, 16° 35' 00" E), Croatia	N (epiphytic diatoms from <i>Padina</i> sp.); collected in September 2009 in Croatia; LM and SEM observations on <i>Licmosphenia</i> species and sequence data from additional <i>Licmophora</i> species

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Reference	Area	Location	Habitat and Comments
35. Accoroni et al. 2016	NA	in Portonovo, Conero Riviera (43° 33' 41" N, 13° 36' 06" E) (Ancona region), Italy	N (macroalgae and pebbles). Samples for the study of MPB were collected with a monthly frequency from March to November 2009, and in March 2010; the most abundant forms throughout the year were motile diatom species ( $77.5 \pm 3.71\%$ of the population), while erect diatoms represented the majority of biomass in winter and spring
36. Witkowski et al. 2016	SA	Among others from Adriatic Sea coast near Dubrovnik, Croatia	<i>Amphora helenensis</i>
37. Pennesi and Danovaro 2017	NA	between Ancona and the Conero, Italy	A (MPB colonizing ARMS (Autonomous Reef Monitoring Structures) has been used to assess the marine environmental quality); MPB can be used in future monitoring/restoration programmes to assess and improve marine environmental health; genera like <i>Entomoneis</i> and <i>Cylindrotheca</i> could be used as indicators of nutrient enriched and stressed conditions; evidence that the analysis of MPB colonizing artificial substrates could be used as a tool for detecting altered environmental characteristics; ARMS, recreating hot spots of microphytobenthic biodiversity, and protect them from grazing, could be potentially utilized to restore degraded hard substrates
38. Rogelja et al. 2018*	NA	Gulf of Trieste, Italy	N (sediment cores); in June 2013; 57 taxa belonging to 27 genera; the most abundant genus – <i>Nitzschia</i> ; The tychopelagic species <i>Cylindrotheca closterium</i> and <i>Paralia sulcata</i> were also observed in high densities; Contamination levels significantly influenced the structure of active and resting microbenthic communities by selecting stress-resistant taxa in highly contaminated areas and increasing their abundance. However, the photosynthetic capacity of the active microalgal community remained unaffected by the contamination, with light availability at the seafloor being the primary factor driving this process.
39. Hafner et al. 2018a*	MA	Eastern Adriatic Sea coast; Neum Bay, Bosnia and Herzegovina	N (benthic diatoms naturally growing on stones and macroalgae mostly <i>Cystoseira</i> spp., <i>Codium vermilara</i> (Olivi) Delle Chiaje, <i>Ceramium</i> spp., <i>Dictyota dichotoma</i> (Hudson) J.V.Lamouroux); from a depth of 0.5 m and 8 m; in March, May and July of 2010 and at monthly intervals from January to December 2011; 425 pennate and 58 centric taxa (species and infraspecific taxa) belonging to 60 families and 115 genera
40. Hafner et al. 2018b*	MA	Eastern Adriatic Sea coast; Neum Bay, Bosnia and Herzegovina	N (epilithic diatoms, stones of 15-20 cm in diameter); from a depth of 0.5 m and 8 m; At monthly intervals from January to December 2011; 264 diatom taxa within 69 genera; temperature, oxygen saturation (O <sub>2</sub> /O <sub>2</sub> '), silicate concentration (SiO <sub>4</sub> ), and salinity were the most important factors influencing diatom community structure in the bay
41. Car et al. 2019a	MA	Eastern Adriatic Sea coast; Island of Hvar, Stari Grad Bay (43° 10' 54" N, 16° 35' 00" E), Croatia	N (epiphytic diatoms on fronds of <i>Caulerpa taxifolia</i> and on autochthonous macroalgae <i>Padina</i> sp. and <i>Halimeda tuna</i> ); in the summer and autumn of 2010; SWDI for <i>Caulerpa taxifolia</i> showed a wide range of values (3.11–4.88), with a maximum in August and a minimum in October; the number of taxa on <i>Caulerpa taxifolia</i> fronds increased from June (41) to August (88), it declined in autumn due to the high relative abundance of <i>Cocconeis caulerpacola</i> ; the largest number of taxa on <i>Padina</i> sp. was observed in September (82)

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Reference	Area	Location	Habitat and Comments
42. Car et al. 2019b*	MA + SA	Eastern Adriatic Sea coast; Bay of Stari Grad, Island of Hvar (43° 10' 54" N, 16° 35' 00" E); National Park Mljet, Gonoturska Bay (42° 45' N, 17° 23' E); Location Orsula near Dubrovnik (42° 37' 50" N, 18° 8' 2" E), Croatia	N (epilithic); an area affected by <i>Caulerpa taxifolia</i> (Hvar) and an area affected by <i>Caulerpa cylindracea</i> (Mljet + Dubrovnik); at depths ranging from 5 m to 10 m; during a two-year period from November 2008 to October 2010; 310 taxa belonging to 65 genera; 248 taxa were found at Hvar site, 216 were found at Mljet site and 154 taxa occurred at Dubrovnik site; highest values of SWDI recorded in autumn and ranged from 5.26 to 5.34; SWDI had slightly wider range (4.45-5.26) at <i>C. cylindracea</i> sampling sites D and M (together) in comparison to H (4.97-5.34)
43. Cibic et al. 2019	NA	four lagoons of the Po River Delta (two with more marine features, and two more directly affected by the Po River flow), Italy	N; epipsammic (on sand) nearby the lagoonal mouths, epipelagic (on mud) at the innermost sites and non-benthic forms (planktonic, tychopelagic and epiphytic) at sites directly influenced by freshwater; in May 2016; dominance of non-benthic diatom life modes in the more polluted lagoon suggests a negative influence of contamination on MPB structure.
44. Kanjer et al. 2019	MA	Eastern Adriatic Sea coast; Tetevišćica Bay, on the western side of Dugi otok island (43° 58' 22" N; 15° 03' 36" E), Croatia	N (epiphytic diatoms from <i>Posidonia oceanica</i> ); at three depths: 10, 15 and 20 m; in May 2017; 68 taxa belonging to 30 genera: 43 from 10 m depth, 41 from 15 m depth and 39 from 20 m depth; genus <i>Cocconeis</i> was dominant in all samples; The most common genera: <i>Cocconeis</i> , <i>Mastogloia</i> , <i>Navicula</i> , <i>Grammatophora</i> , <i>Licmophora</i> and <i>Toxarium</i> ; SWDI from 2.54 (from middle part of <i>P. oceanica</i> leaves at the depth of 10 m) to 4.13 (from older apical part of <i>P. oceanica</i> leaves at depth of 20 m)
45. Li et al. 2019	SA	from Lumbarda Beach on the island of Korcula, Croatia	N; in October 2013; chloroplast genome sequence of <i>Nanofrustulum shiloi</i> , a tiny marine araphid pennate diatom
46. Car et al. 2020*	SA	Eastern Adriatic Sea coast; Lokrum Island; marine lake (42° 37' 21" N; 18° 7' 14" E), Croatia	A (microscope glass slides); from April to October 2016; 285 diatom taxa within 72 genera; the highest species diversity index in August; adnate were the primary colonizers, particularly <i>Cocconeis dirupta</i> W.Gregory var. <i>flexella</i> (Janisch and Rabenhorst) Grunow and <i>Cocconeis scutellum</i> Ehrenberg var. <i>scutellum</i> , while motile taxa joined the fouling communities from July to September
47. Car et al. 2021*	SA	Eastern Adriatic Sea coast; Lokrum Island; marine lake (42° 37' 21" N; 18° 7' 14" E), Croatia	N (epilithon, epiphyton) + A (microscope glass slides); weekly between 11th August and 2nd September 2016; 97 taxa identified in 12 samples; SWDI values varied from 1.78 (in September on <i>Padina</i> sp.) to 4.52 (in August on glass); <i>Cocconeis scutellum</i> Ehrenberg and <i>Halamphora coffeiformis</i> (C.Agardh) Levkov were the most frequent taxa in the samples
48. Cibic et al. 2022	NA	Gulf of Trieste, Italy	N (sediment); from March 2015 to March 2019; at a 17-m deep coastal site; <sup>14</sup> C-method was used to quantify the overall ecosystem productivity (to quantify benthic (PPs) and pelagic (PPw) contributions to total primary production (PPt); in sediments, negative PPs values were estimated in late autumn/winter, when minima of MPB abundance occurred. The highest rates were recorded in January 2018 and October 2016 (28.50 and 17.55 mgC m <sup>-2</sup> h <sup>-1</sup> ), attributed to the dominant diatoms <i>Paralia sulcata</i> and <i>Nitzschia sigma</i> var. <i>sigmatella</i> , respectively. The contribution of PPs to PPt was negligible (< 2%) in 6 of 16 experiments, with a mean of 11.3%, but reached 43% in January 2018.

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Reference	Area	Location	Habitat and Comments
49. Baldassarre et al. 2023	NA	in Palude di Cona, near the Dese River mouth, Venice Lagoon, Italy	N (sediment cores); mesocosm experiments; in July 2019 and October 2020; Species richness increased in summer but slightly decreased in autumn, likely due to the dominance of taxa favored by high organic loads and fine sediment grain size. Combining classical taxonomy with 18S rRNA gene metabarcoding provided a comprehensive view of the community, emphasizing the complementarity of these approaches in ecological studies.
50. Natali et al. 2023	NA	Grado lagoon, Italy	A (wooden panels of <i>Abies alba</i> and <i>Picea abies</i> were placed in 2 areas with diverse hydrodynamic conditions and retrieved after 6, 20, and 40 days); the impact of different wood treatments on microbial biofilm formation; no significant differences in the microalgal total abundances between the two types of wood ( <i>Abies alba</i> and <i>Picea abies</i> ); applied chemical treatments selected diatom taxa like <i>Licmophora</i> , <i>Synedra</i> , and <i>Fragilaria</i> , which adhere to substrates via mucilaginous stalks and tubes, forming complex three-dimensional structures. In the short term, the treatments were effective as antifouling agents, but over time, both copper-based coatings and thermal modification failed to inhibit biofouling colonization, likely due to nutrient release from these treatments stimulating growth.
51. Seveno et al. 2023	NA + MA + SA	Among others, Eastern Adriatic Sea coast; Krk Island + between Hvar Island and Dubrovnik; Croatia	N; Epiphytic diatom samples of turf and <i>Padina</i> sp.; in August 2019 (Krk); in July 2020 (along the Dalmatian coast from Hvar to Dubrovnik); First description of benthic blue <i>Haslea</i> spp. blooms in open environments on periphyton in the Mediterranean Sea (Corsica, France, and Croatia), involving <i>H. ostrearia</i> and <i>H. provincialis</i> . Occurred in shallow calm waters, emphasizing the role of light in initiating the blooms.
52. Seveno et al. 2024	MA + SA	Among others, Eastern Adriatic Sea between Hvar Island and Dubrovnik; 3 sited (Stari Grad, Drvenik, Šunj); Croatia	N (Epiphytic diatom samples of <i>Padina</i> sp.); in July 2020; complex interaction between <i>Haslea ostrearia</i> bloom events and microbial dynamics; Morphological and molecular techniques; blue <i>Haslea</i> blooms do not significantly alter the diatom or bacterial populations