

Supplementary Material

Silica Storage, Fluxes, and Nutrient Stoichiometry in Different Benthic Primary Producer Communities in the Littoral Zone of a Deep Subalpine Lake (Lake Iseo, Italy)

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Table S1. Features of organic matter (OM), biogenic silica (BSi), organic nitrogen (N), organic phosphorous (P), chlorophyll a (Chl-a) and phaeopigments (Pha) and BSi:N, BSi:P and N:P molar ratios in the 0-2 cm sediment horizon at the three investigated sites (RS = rocky shores; VS = vegetated sediments; BS = bare sediments). All the data are mean ± standard error (standard error in parenthesis), n.a. = not available.

	RS			VS			BS		
	Early	Mid	Late	Early	Mid	Late	Early	Mid	Late
OM (g m ⁻²)	n.a.	767	1500	539 (30)	479 (23)	500 (15)	329 (18)	333 (5)	358 (23)
BSi (g m ⁻²)	n.a.	0.47 (0.06)	0.75 (0.09)	33 (1)	25 (1)	24 (1)	26 (1)	24 (1)	20 (1)
P (g m ⁻²)	n.a.	0.06 (0.01)	0.11 (0.01)	0.48 (0.00)	0.43 (0.01)	0.39 (0.01)	0.32 (0.02)	0.34 (0.01)	0.41 (0.03)
N (g m ⁻²)	n.a.	0.24 (0.03)	0.52 (0.06)	4.86 (0.14)	4.39 (0.13)	4.10 (0.20)	4.08 (0.03)	4.04 (0.09)	4.22 (0.15)
BSi:N (mol:mol)	n.a.	0.98	0.72	1.37 (0.01)	1.16 (0.08)	1.16 (0.06)	1.27 (0.03)	1.19 (0.05)	0.98 (0.05)
BSi:P (mol:mol)	n.a.	9.07	7.49	77 (1)	66 (4)	67 (3)	91 (4)	79 (2)	56 (6)
N:P (mol:mol)	n.a.	9.23	10.35	57 (2)	58 (2)	58 (2)	72 (4)	66 (1)	57 (3)
Cha (mg m ⁻²)	n.a.	21 (3)	42 (7)	140 (5)	190 (23)	196 (22)	193 (34)	220 (15)	288 (12)
Pha (mg m ⁻²)	n.a.	5 (1)	7 (1)	146 (1)	97 (9)	136 (12)	55 (9)	40 (3)	79 (4)

Table S2. Features of organic matter (OM), biogenic silica (BSi), organic nitrogen (N), organic phosphorous (P), chlorophyll a (Chl-a) and phaeopigments (Pha) and BSi:N, BSi:P and N:P molar ratios in the 2-5 cm sediment horizon at the three investigated sites (RS = rocky shores; VS = vegetated sediments; BS = bare sediments). All the data are mean \pm standard error (standard error in parenthesis), n.a. = not available.

	RS			VS			BS		
	Early	Mid	Late	Early	Mid	Late	Early	Mid	Late
OM (g m ⁻²)	n.a.	n.a.	n.a.	171 (10)	147 (7)	148 (7)	145 (17)	132 (2)	148 (7)
BSi (g m ⁻²)	n.a.	n.a.	n.a.	41 (6)	28 (1)	29 (1)	31 (1)	27 (2)	22 (3)
P (g m ⁻²)	n.a.	n.a.	n.a.	0.69 (0.19)	0.47 (0.01)	0.46 (0.02)	0.35 (0.01)	0.35 (0.01)	0.47 (0.01)
N (g m ⁻²)	n.a.	n.a.	n.a.	13.4 (0.1)	11.6 (0.1)	12.0 (0.1)	10.5 (0.2)	10.8 (0.4)	11.2 (0.7)
BSi:N (mol:mol)	n.a.	n.a.	n.a.	1.53 (0.24)	1.20 (0.04)	1.18 (0.05)	1.50 (0.07)	1.31 (0.09)	0.96 (0.25)
BSi:P (mol:mol)	n.a.	n.a.	n.a.	69 (9)	67 (2)	70 (2)	100 (5)	87 (9)	52 (7)
N:P (mol:mol)	n.a.	n.a.	n.a.	47 (13)	57 (1)	59 (1)	66 (1)	70 (2)	53 (6)
Cha (mg m ⁻²)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Pha (mg m ⁻²)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Table S3. Conversion of sedimentary chlorophyll a (Chl-a) and phaeopigments (Pha) into BSi and organic P and N in the 0-2 cm sediment horizon at the three investigated sites (RS = rocky shores; VS = vegetated sediments; BS = bare sediments). All the data are mean \pm standard error (standard error in parenthesis), n.a. = not available.

mg m ⁻²	RS			VS			BS		
	Early	Mid	Late	Early	Mid	Late	Early	Mid	Late
BSi	n.a.	304 (36)	604 (103)	2011 (84)	2716 (328)	2805 (320)	2753 (481)	3144 (209)	4112 (171)
N	n.a.	83 (10)	164 (28)	547 (23)	739 (89)	763 (87)	749 (131)	855 (57)	1118 (46)
P	n.a.	10 (1)	21 (4)	69 (3)	93 (11)	96 (11)	94 (17)	108 (7)	141 (6)
Pha									
BSi	n.a.	73 (12)	101 (15)	2094 (12)	1393 (139)	1949 (177)	787 (124)	578 (37)	1134 (62)
N	n.a.	20 (3)	27 (4)	569 (3)	379 (38)	530 (48)	214 (34)	157 (10)	308 (17)
P	n.a.	2 (0)	3 (1)	72 (0)	48 (5)	67 (6)	27 (4)	20 (1)	39 (1)