

Cartuche et al., 2026. Changes in periphyton communities with land use in tropical mountain streams in Loja (Ecuador). *Limnetica*, 45 (2), 2026

SUPPLEMENTARY INFORMATION

Table S1. List of diatom species identified in each stream and each zone with relative abundance (as percentage of total per stream and zone). Genus name with ‘spp’ stands for observations within the genus from girdle view. Empty boxes represent that the species was not recorded. *Lista de especies de diatomeas identificadas en cada arroyo y cada zona con su abundancia relativa (porcentaje del total por arroyo y zona). El nombre del género con ‘spp.’ indica observaciones dentro del género en vista lateral de la frústula. Las casillas vacías indican que la especie no fue registrada.*

Species	El Carmen forested	El Carmen open	Mónica forested	Mónica open	Volcán forested	Volcán open	Tenería degraded	Violeta degraded
<i>Achnanthis deflexum</i> (Reimer) Kingston					7.1			
<i>Achnanthis minutissimum</i> (Kütz.) Czarnacki	46.7		37.6	5.4	10.1	28.5	3.4	
<i>Achnanthis rivulare</i> Potapova & Ponader	10.7							
<i>Achnanthis subatomus</i> (Hust.) Lange-Bert.	16.0	12.3	23.8	5.4	1.1			
<i>Achnanthis subhudsonis</i> var. <i>kraeuseli</i> (Choln.) Cholnoky		13.8						
<i>Bacillaria paradoxa</i> Gmelin			4.9					
<i>Cocconeis placentula</i> Ehr.			1.0				6.8	
<i>Eunotia exigua</i> (Breb.) Rabenh.		1.5		2.7				
<i>Fragilaria mesolepta</i> Rabenh.		4.6						
<i>Frustulia saxonica</i> Rabenh.					0.3			
<i>Geissleria decussis</i> (Østrup) Lange-Bert. & Metzeltin								11.7
<i>Gomphonema micropus</i> Kütz		3.1			0.3			
<i>Gomphonema minutum</i> (Agardh) Agardh			1.0	29.7	50.8		39.2	
<i>Gomphonema parvulum</i> (Kütz.) Kütz	5.3	20.0	3.0	8.1				
<i>Gomphonema pumilum</i> (Grun.) Reich. & Lange-Bert.						0.8		
<i>Gomphonema subclavatum</i> (Grun.) Grunow		1.5	2.0					
<i>Gomphonema</i> spp	9.3	6.2		10.8	6.6	68.5	4.7	
<i>Gyrosigma scalproides</i> (Rabenhorst) Cleve								0.6
<i>Hannaea arcus</i> (Ehr.) Patrick		32.3	3.0					
<i>Kobayasiella subtilissima</i> (Cleve) Lange-Bert.	2.7							
<i>Melosira varians</i> Agardh					0.5			
<i>Navicula angusta</i> Grunow								1.9

<i>Navicula cryptocephala</i> Kütz.								0.7
<i>Navicula germainii</i> Wallace								5.6
<i>Navicula gregaria</i> Donkin							1.4	16.0
<i>Navicula lanceolata</i> Ehrenberg							4.1	
<i>Navicula notha</i> Wallace				5.4				
<i>Navicula rostellata</i> Kütz.							1.4	
<i>Navicula symmetrica</i> Patrick							2.0	1.9
<i>Navicula</i> spp				2.7	1.1			
<i>Nitzschia frustulum</i> (Kütz.) Grun.								21.6
<i>Nitzschia palea</i> (Kütz.) W.Smith			1.5					
<i>Nitzschia linearis</i> (Agardt) W.Smith					0.5	2.3		0.6
<i>Nitzschia recta</i> <i>Hantzsch ex Rabenhorst</i>							2.0	8.6
<i>Nitzschia nana</i> Grunow							0.7	
<i>Nitzschia</i> spp				5.4			0.7	1.9
<i>Nupela</i> sp.1			3.0					
<i>Odontidium mesodon</i> (Ehrenb.) Kütz.	1.3							
<i>Pinnularia subcapitata</i> Gregory	1.3							
<i>Pinnularia</i> cf. <i>viridis</i> (Nitzsch) Ehr.		1.5						
<i>Pinnularia divergentissima</i> (Grun.) Cleve			1.0					
<i>Planothidium lanceolatum</i> (Breb ex Kütz.) Lange-Bert.	4.0	1.5		13.5	0.8			51.2
<i>Planothidium</i> sp.1	2.7							
<i>Reimeria sinuata</i> (Greg.) Kociolek & Stoermer					2.1			9.5
<i>Rhoicosphenia abbreviata</i> (C. Agardh) Lange-Bert.								1.4
<i>Synedra cf rumpens</i> Kütz.			17.8	2.7	1.6			
<i>Synedra</i> spp				8.1	7.1			
<i>Ulnaria ulna</i> (Nitzsch) Compere			2.0		10.1			0.7
Total abundance (cells/cm ²)	72 326	62 680	97 396	35 680	364 518	125 364	142 724	156 228
Species richness	10	12	12	12	13	4	16	10
Genera recorded	6	8	9	7	10	3	8	5
Shannon Diversity Index	0.74	0.85	0.77	0.96	0.61	0.32	0.85	0.67