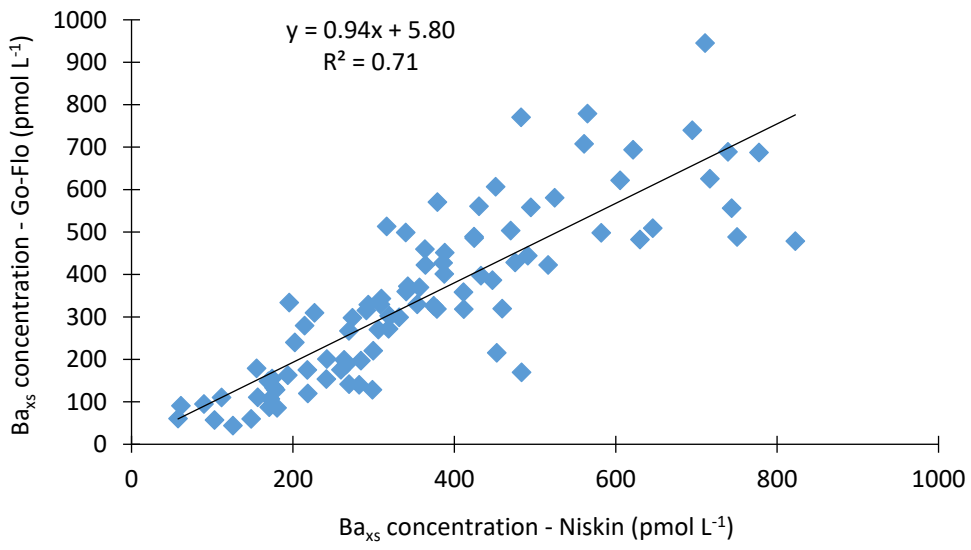

<u>Figure S1:</u> Comparison between the Ba_{xs} concentrations obtained by two different sampling (Niskin and Go-Flo systems) and analytical methods.

Table S1: **Particulate biogenic barium (Ba_{xs}; in pmol L^{-1}) during GEOVIDE, obtained from Niskin bottles. The apparent oxygen utilisation (AOU; in µmol kg^{-1}) and the water mass age (in years) are also indicated.**

Station 1 (40.3 °N/-10.0 °E)				Station 13 (41.4°N/-13.9°E)				Station 21 (46.5°N/-19.7°E)			
Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)	Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)	Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)
20	126 ± 19			20	239 ± 53			10	207 ± 36		
40	195 ± 13			40	218 ± 38			20	566 ± 113		
60	214 ± 17			60	177 ± 42			40	276 ± 45		
79	363 ± 35			78	242 ± 48			60	181 ± 35		
98	412 ± 80	19	6.4	100	274 ± 50	10	3.1	76	483 ± 79		
119	291 ± 67			120	306 ± 50			100	453 ± 73	14	2.1
139	288 ± 64			140	379 ± 71			120	467 ± 66		
160	241 ± 54	22	6.6	160	449 ± 70			140	502 ± 74	14	1.6
200	340 ± 88	30	8.6	200	425 ± 64	14	2.9	160	338 ± 56		
249	470 ± 111			250	496 ± 87			200	340 ± 51	15	2.7
299	310 ± 101	43	16	300	582 ± 90	31	9.0	300	491 ± 76	17	4.8
399	263 ± 70	54	25	400	961 ± 147	17	4.6	400	379 ± 57	34	13
499	286 ± 86	72	37	500	357 ± 62	34	13	500	524 ± 91	17	7.6
597	483 ± 103	79	43	600	319 ± 61	51	22	600	424 ± 69	25	12
702	156 ± 95	81	47	700	305 ± 54	79	38	700	364 ± 59	79	38
800	159 ± 62	82	50	800	259 ± 51	89	48	800	308 ± 48	94	49
1000	171 ± 62	83	58	1000	270 ± 49	88	59	1000	318 ± 62	85	52
1505	157 ± 62			1501	172 ± 43	69	0.5	1200	212 ± 40		

Station 26 (50.3°N/-22.6°E)				Station 32 (55.5°N/-26.7°E)				Station 38 (58.8°N/-31.3°E)			
Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)	Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)	Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)
20	1018 ± 185			10	86 ± 16			10	185 ± 24		
50	1888 ± 314			20	170 ± 26			20	84 ± 7		
75	378 ± 54			40	105 ± 20			40	159 ± 28		
99	174 ± 29	13	5.0	60	112 ± 21			60	103 ± 18		
200	451 ± 64	14	8.9	80	119 ± 20			80	169 ± 29		
400	433 ± 63	46	26	100	155 ± 26	-0.1	2.3	100	227 ± 37	16	14
599	388 ± 60	77	42	120	308 ± 49			120	346 ± 51		
800	396 ± 61			140	294 ± 51	13	10	140	472 ± 68	17	14
1000	320 ± 47	49	28	161	480 ± 80			160	599 ± 106		
				200	646 ± 93	13	10	180	590 ± 100		
				300	566 ± 93	34	20	200	565 ± 87	15	13
				380	489 ± 79	33	19	300	711 ± 106	16	13
				450	644 ± 111	78	37	400	621 ± 95	16	12
				500	386 ± 58	71	35	500	388 ± 65	41	23
				598	342 ± 51	63	32	600	496 ± 80		
				700	293 ± 50	56	28	700	644 ± 103	62	32
				800	354 ± 54	47	25	800	241 ± 54	57	31
				1000	269 ± 46	40	22	1000	202 ± 48	48	29

Station 44 (59.6°N/-38.9°E)				
Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)	
10	116 ± 14			
20	90 ± 7			
40	292 ± 48			
60	293 ± 46			
80	298 ± 45			
100	464 ± 68	18	11	
120	431 ± 64			
140	501 ± 83	19	12	
160	605 ± 91			
200	695 ± 104	18	11	
300	739 ± 116	18	13	
400	747 ± 111	19	12	
500	653 ± 106	20	13	
600	483 ± 83	24	15	
700	823 ± 134	25	15	
800	632 ± 89	22	14	
1100	284 ± 54	40	24	
1401	298 ± 52			

Station 51 (59.8°N/-42.0°E)				
Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)	
10	127 ± 25			
19	61 ± 8			
40	180 ± 36			
60	194 ± 37			
80	266 ± 49			
100	300 ± 54	5.6	6.1	
120	307 ± 58			
140	316 ± 59	15	8.7	
160	359 ± 69			
180	251 ± 55			
200	383 ± 72	18	10	
300	495 ± 84	22	12	
400	445 ± 78	29	13	
500	299 ± 65	38	17	
600	278 ± 46			
700	275 ± 47			
800	225 ± 47	40	17	
1000	199 ± 34	38	27	

Station 53 (59.9°N/-43.01°E)				
Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)	
10	295 ± 122			
20	203 ± 133			
40	137 ± 80			
60	98 ± 75			
80	100 ± 98			
100	218 ± 114			
120	284 ± 113			
140	129 ± 143			

Station 64 (59.1°N/-46.1°E)				
Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)	
10	61 ± 13			
20	143 ± 32			
40	99 ± 22			
60	97 ± 22			
80	112 ± 23			
100	282 ± 47	10	7.3	
120	432 ± 77			
140	506 ± 86	17	9.0	
160	458 ± 91			
199	447 ± 89	19	10	
300	500 ± 104	19	12	
400	332 ± 82	20	12	
500	717 ± 115	18	10	
600	696 ± 100			
700	516 ± 83	22	13	
800	750 ± 121	19	11	
900	630 ± 108	22	14	
1000	580 ± 98	25	15	

Station 69 (55.8°N/-48.1°E)				
Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)	
11	58 ± 13			
20	148 ± 11			
41	178 ± 40			
60	198 ± 46			
80	358 ± 72			
100	459 ± 89	20	13	
120	505 ± 96			
140	550 ± 102	22	14	
160	525 ± 91			
200	619 ± 97	20	13	
300	768 ± 121	23	13	
400	682 ± 119	22	14	
502	778 ± 123	23	13	
601	831 ± 135	23	15	
700	863 ± 135			
802	744 ± 113	23	15	
900	663 ± 111			
1001	741 ± 119	24	16	
1500	535 ± 91			

Station 77 (53.0°N/51.1°E)				
Depth (m)	Ba_{xs} (pmol L^{-1})	AOU (µmol kg^{-1})	Water mass age (years)	
10	104 ± 6			
20	113 ± 9			
39	170 ± 16			
60	316 ± 57			
80	374 ± 63			
100	411 ± 71	6.8	7.8	
120	381 ± 68			
140	369 ± 61	11	9.6	
160	418 ± 84			
200	493 ± 87	15	11	
300	503 ± 75	17	12	
401	470 ± 80	23	13	
500	509 ± 86	23	16	
601	445 ± 73	24	14	
700	561 ± 88	24	15	
800	575 ± 101	26	16	
901	583 ± 93	25	15	
1002	475 ± 70	25	15	