

Supplementary file for: Nędzarek A., Tórz A. & Drost A. 2014. Selected elements in surface waters of Antarctica and their relations with the natural environment. *Polar Research* 33. Correspondence: Arkadiusz Nędzarek, Department of Aquatic Zoology, West Pomeranian University of Technology in Szczecin, K. Królewicza 4, PL-71-550 Szczecin, Poland. E-mail: arkadiusz.nedzarek@zut.edu.pl

Supplementary Table S1. Concentration range, average values, absolute standard deviation (ASD) and variation coefficient (VC %) regarding total concentration of elements in the investigated surface waters.

Water body ^a	N	Statistics	Total elements concentration (µg/L)										
			Al	Co	Ni	Cu	Zn	Cd	Pb	Mn	Fe	As	Se
EG	8	range	8.1-125.8	0.07-0.47	0.39-1.40	0.89-3.28	2.94-15.76	<0.01-0.06	1.71-5.71	1.77-15.72	49.1-510	0.05-0.30	0.03-0.19
		mean	30.6	0.21	0.63	1.53	7.44	0.04	3.01	5.56	126.4	0.18	0.07
		ASD	39.2	0.14	0.32	0.76	4.99	0.02	1.28	4.39	157.2	0.08	0.05
		VC	1541	0.02	0.10	0.59	24.94	0.00	1.6	19.3	24700	0.01	0.00
WV	8	range	7.2-56.0	0.04-0.36	0.17-0.43	0.48-1.92	3.11-11.37	0.02-0.07	0.77-1.51	1.49-10.58	16.1-167	0.94-2.95	0.12-0.27
		mean	21.5	0.14	0.25	1.01	7.02	0.04	1.09	6.07	70.0	1.63	0.20
		ASD	15.3	0.10	0.08	0.48	3.09	0.02	0.22	2.87	46.2	0.68	0.05
		VC	234.8	0.01	0.01	0.23	9.58	0.00	0.05	8.2	2133	0.47	0.00
CC	8	range	5.1-9.1	0.03-0.10	0.14-0.47	0.43-0.79	1.32-10.15	<0.01-0.08	0.92-4.61	0.68-1.89	13.4-52.0	0.07-0.41	0.01-0.20
		mean	5.8	0.05	0.26	0.62	6.88	0.03	1.84	1.24	26.3	0.21	0.11
		ASD	1.4	0.02	0.10	0.15	2.99	0.02	1.63	0.44	12.9	0.15	0.06
		VC	1.8	0.001	0.01	0.02	8.99	0.00	2.64	0.2	168.3	0.02	0.00
VC	8	range	4.3-20.5	0.03-0.13	0.11-0.41	0.24-0.90	1.87-21.24	0.01-0.06	0.87-2.25	0.68-3.05	15.6-66.9	0.10-0.39	0.12-0.32
		mean	11.3	0.07	0.21	0.63	7.25	0.04	1.22	2.05	42.4	0.19	0.19
		ASD	6.0	0.03	0.09	0.22	6.94	0.02	0.47	0.96	17.8	0.09	0.07
		VC	36.2	0.001	0.01	0.05	48.15	0.00	0.22	0.9	316.7	0.01	0.01
PFC	8	range	4.9-10.0	0.03-0.11	0.62-4.12	0.50-2.86	7.18-20.36	0.12-0.57	6.05-36.54	0.58-2.32	19.9-67.4	0.06-0.21	0.09-0.28
		mean	6.9	0.05	1.21	1.26	10.85	0.21	12.92	1.67	40.6	0.10	0.16
		ASD	2.2	0.03	1.18	0.74	4.18	0.16	10.29	0.60	17.5	0.05	0.06
		VC	4.9	0.001	1.4	0.55	17.5	0.03	105.8	0.4	306.1	0.00	0.01
OC	12	range	2.2-30.8	0.03-0.66	0.27-1.39	0.59-7.4	0.86-81.73	0.01-3.41	1.46-10.61	0.59-37.53	8.6-79.4	0.04-0.39	0.06-0.22
		mean	12.8	0.28	0.63	2.49	14.27	0.51	4.22	14.60	30.0	0.18	0.13
		ASD	9.7	0.25	0.31	1.99	21.71	0.99	3.09	15.09	19.5	0.09	0.06
		VC	94.6	0.06	0.09	3.96	471.4	0.99	9.53	227.9	378.9	0.01	0.01
DWR	4	range	7.1-14.5	0.07-0.13	0.36-1.09	0.86-2.43	5.42-17.75	0.03-0.16	3.25-10.89	1.36-3.21	26.8-97.4	0.07-0.11	0.14-0.22
		mean	11.3	0.09	0.67	1.41	10.03	0.09	7.42	2.5	51.4	0.09	0.18
		ASD	3.22	0.03	0.30	0.74	5.60	0.06	4.02	0.79	32.1	0.02	0.04
		VC	10.4	0.001	0.09	0.54	31.3	0.00	16.09	0.63	1027	0.00	0.00
LW	4	range	5.7-7.9	0.07-0.10	0.44-0.72	1.54-2.97	9.69-11.51	0.15-0.75	1.74-4.91	3.9-28.21	29.1-36.2	0.12-0.26	0.26-0.44
		mean	6.6	0.08	0.59	2.38	10.49	0.39	3.53	17.1	33.8	0.18	0.35
		ASD	1.1	0.02	0.14	0.75	0.92	0.32	1.62	12.3	4.1	0.08	0.09
		VC	1.3	0.001	0.02	0.56	0.85	0.10	2.63	151.2	16.4	0.01	0.01

^a Sampled waters are abbreviated as follows: a stream flowing along the border of Ecology Glacier (EG); a stream flowing across the Wróbel Valley (WV); Czech Creek (CC); Vanishing Creek (VC); Petrified Forest Creek (PFC); Ornithologists Creek (OC); drinking water reservoir (DWR); Lake Wujka (LW).

Supplementary Table S2. Concentration range, average values, absolute standard deviation (ASD) and variation coefficient (VC %) regarding dissolved elements in the investigated surface waters

Water body ^a	N	Statistics	Dissolved elements fraction (µg/L)										
			Al	Co	Ni	Cu	Zn	Cd	Pb	Mn	Fe	As	Se
EG	8	range	4.4-43.6	0.03-0.11	0.15-0.84	0.10-0.35	0.58-4.33	<0.01-0.05	0.57-1.68	0.02-1.28	6.3-84.7	0.03-0.21	0.02-0.16
		mean	11.8	0.07	0.31	0.23	2.11	0.02	1.03	0.38	25.2	0.12	0.06
		ASD	13.1	0.03	0.22	0.08	1.33	0.01	0.32	0.42	25.0	0.06	0.05
		VC	170.7	0.01	0.05	0.01	1.77	0.00	0.11	0.18	624	0.00	0.01
WV	8	range	1.3-20.3	0.02-0.14	0.06-0.19	0.19-0.70	1.02-3.68	0.01-0.02	0.26-0.98	0.68-2.65	6.3-25.4	0.74-1.95	0.09-0.20
		mean	8.1	0.07	0.11	0.38	2.08	0.01	0.50	1.81	17.1	1.14	0.15
		ASD	5.8	0.04	0.04	0.19	0.94	0.01	0.26	0.73	7.6	0.37	0.04
		VC	33.4	0.01	0.00	0.04	0.88	0.00	0.07	0.53	57.6	0.14	0.002
CC	8	range	1.2-2.4	0.01-0.03	0.05-0.10	0.11-0.30	0.29-2.70	<0.01-0.02	0.40-2.40	0.27-1.00	6.3-21.0	0.05-0.35	0.01-0.16
		mean	1.8	0.02	0.08	0.19	1.76	0.01	0.98	0.70	10.5	0.17	0.09
		ASD	0.3	0.01	0.02	0.06	0.86	0.01	0.78	0.29	4.7	0.13	0.05
		VC	0.1	0.00	0.00	0.00	0.75	0.00	0.61	0.09	22.2	0.02	0.003
VC	8	range	1.1-10.4	0.01-0.07	0.04-0.10	0.10-0.30	0.87-9.65	0.01-0.03	0.27-1.02	0.23-1.09	6.3-29.3	0.09-0.23	0.10-0.27
		mean	4.8	0.03	0.06	0.10	3.36	0.02	0.63	0.76	17.7	0.13	0.14
		ASD	3.2	0.02	0.02	0.09	3.61	0.01	0.27	0.35	7.6	0.04	0.06
		VC	10.5	0.00	0.00	0.01	13.05	0.00	0.08	0.12	57.2	0.01	0.004
PFC	8	range	1.6-3.3	0.01-0.04	0.19-2.65	0.20-0.98	2.64-9.65	0.06-0.39	2.93-16.30	0.40-1.03	6.7-28.3	0.03-0.17	0.07-0.22
		mean	2.3	0.02	0.58	0.55	4.17	0.11	5.54	0.83	16.6	0.07	0.12
		ASD	0.6	0.01	0.84	0.29	2.45	0.12	4.76	0.22	6.2	0.04	0.05
		VC	0.4	0.00	0.70	0.09	5.98	0.01	22.6	0.025	39.1	0.00	0.003
OC	12	range	1.0-10.3	0.01-0.24	0.09-0.55	0.16-2.04	0.36-25.32	<0.01-1.02	0.49-3.65	0.20-16.0	4.0-29.3	0.03-0.24	0.04-0.19
		mean	4.4	0.08	0.21	0.80	4.48	0.15	1.49	6.0	12.7	0.12	0.10
		ASD	3.6	0.08	0.13	0.60	6.71	0.30	0.96	6.0	7.1	0.06	0.05
		VC	12.7	0.01	0.02	0.58	45.0	0.09	0.91	36.5	49.7	0.01	0.002
DWR	4	range	2.0-5.0	0.03-0.07	0.12-0.55	0.21-0.95	1.69-11.00	0.02-0.13	2.04-7.32	0.95-2.04	15.6-75.3	0.04-0.08	0.11-0.20
		mean	3.7	0.04	0.30	0.49	4.85	0.07	4.84	1.75	35.6	0.06	0.16
		ASD	1.3	0.02	0.18	0.34	4.31	0.05	2.71	0.53	27.3	0.02	0.05
		VC	1.7	0.00	0.03	0.12	18.6	0.01	7.29	0.28	743	0.00	0.002
LW	4	range	1.6-2.0	0.02-0.03	0.20-0.36	0.68-1.03	3.68-4.32	0.10-0.56	1.02-3.98	1.95-12.3	12.0-16.4	0.09-0.20	0.24-0.40
		mean	1.9	0.03	0.26	0.89	4.01	0.29	2.67	7.9	13.6	0.13	0.32
		ASD	0.2	0.01	0.09	0.19	0.32	0.24	1.51	5.3	2.4	0.06	0.08
		VC	0.04	0.00	0.01	0.04	0.10	0.06	2.28	28.4	5.9	0.01	0.01

^a Sampled waters are abbreviated as follows: a stream flowing along the border of Ecology Glacier (EG); a stream flowing across the Wróbel Valley (WV); Czech Creek (CC); Vanishing Creek (VC); Petrified Forest Creek (PFC); Ornithologists Creek (OC); drinking water reservoir (DWR); Lake Wujka (LW).