

SUPPLEMENTARY MATERIAL

Seasonal fluctuations in groundwater fluoride concentration and health risk assessment: Tolon District, Northern Ghana

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Table S1. Assessment of non-carcinogenic health risks from fluoride ingestion in groundwater in the study area

Sample ID	Hazard quotient (<i>HQ</i>) values in				Sample ID	Hazard quotient (<i>HQ</i>) values in			
	rainy season		dry season			rainy season		dry season	
	adults	children	adults	children		adults	children	adults	children
TD 1	0.11	0.56	–	–	TD 35	0.00	0.00	0.17	0.81
TD 2	0.59	2.91	–	–	TD 36	0.00	0.00	0.66	3.24
TD 3	0.00	0.00	–	–	TD 37	0.38	1.86	0.09	0.42
TD 4	0.00	0.00	–	–	TD 38	0.01	0.06	0.08	0.39
TD 5	0.13	0.62	–	–	TD 39	0.03	0.12	0.12	0.60
TD 6	0.15	0.74	–	–	TD 40	0.09	0.43	0.15	0.75
TD 7	0.17	0.83	0.17	0.84	TD 41	0.00	0.00	–	–
TD 8	0.00	0.00	0.00	0.00	TD 42	0.78	3.83	1.27	6.24
TD 9	0.68	3.34	0.14	0.69	TD 43	0.00	0.00	0.14	0.69
TD 10	0.00	0.00	0.10	0.51	TD 44	0.00	0.00	0.00	0.00
TD 11	0.00	0.00	–	–	TD 45	0.07	0.35	–	–
TD 12	0.00	0.00	0.00	0.00	TD 46	0.01	0.04	0.12	0.57
TD 13	0.04	0.19	–	–	TD 47	0.00	0.00	–	–
TD 14	0.00	0.00	0.27	1.32	TD 48	0.09	0.47	0.18	0.90
TD 15	0.76	3.71	0.32	1.56	TD 49	0.44	2.13	0.17	0.81
TD 16	0.00	0.00	0.01	0.03	TD 50	0.26	1.27	0.18	0.87
TD 17	0.20	0.99	0.13	0.63	TD 51	0.00	0.00	–	–
TD 18	0.00	0.00	0.00	0.00	TD 52	0.11	0.53	–	–
TD 19	0.00	0.00	0.13	0.63	TD 53	0.00	0.00	–	–
TD 20	0.14	0.68	0.22	1.08	TD 54	0.00	0.00	–	–

Sample ID	Hazard quotient (<i>HQ</i>) values in				Sample ID	Hazard quotient (<i>HQ</i>) values in			
	rainy season		dry season			rainy season		dry season	
	adults	children	adults	children		adults	children	adults	children
TD 21	0.08	0.40	–	–	TD 55	0.00	0.00	–	–
TD 22	0.00	0.00	–	–	TD 56	–	–	0.76	3.75
TD 23	0.30	1.46	0.39	1.92	TD 57	–	–	0.08	0.39
TD 24	0.30	1.46	–	–	TD 58	–	–	0.33	1.62
TD 25	0.00	0.00	–	–	TD 59	–	–	0.41	2.01
TD 26	0.79	3.90	0.34	1.65	TD 60	–	–	0.00	0.00
TD 27	0.00	0.00	0.12	0.57	TD 61	–	–	0.00	0.00
TD 28	0.20	0.96	0.07	0.36	TD 62	–	–	0.32	1.59
TD 29	0.56	2.75	0.08	0.39	TD 63	–	–	1.12	5.52
TD 30	0.00	0.00	0.04	0.18	mean	0.15	0.73	0.22	1.08
TD 31	0.00	0.00	0.00	0.00	std. dev.	0.23	1.14	0.28	1.37
TD 32	0.04	0.18	–	–	min	0.00	0.00	0.00	0.00
TD 33	0.63	3.09	0.01	0.06	max	0.79	3.90	1.27	6.24
TD 34	0.03	0.14	0.40	1.95					

Explanation: “–” = was not sampled because of the absence of water in the borehole in the dry season.

Source: own study.