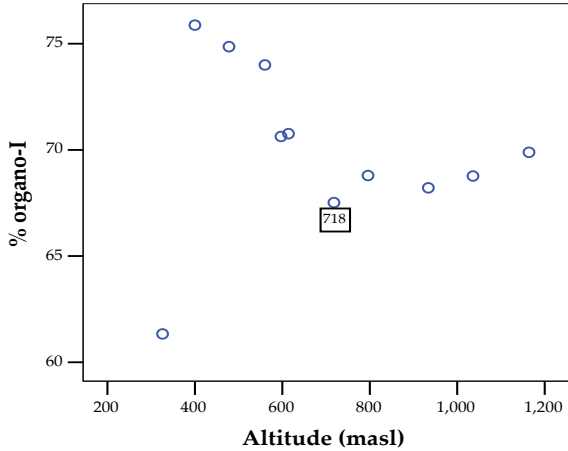


Supplementary material



Sup. Fig. 1: % organically bound iodine in snow vs. altitude. Number in graph indicates altitude.

Sup. Table 1: Total iodine, iodide and organically bound iodine in snow samples from the northern Black Forest. All concentrations in nmol/l.

Sample location	Date	Altitude (masl)	Total I	I ⁻	IO ₃ ⁻	Orano-I	Unknown peak 1 Ret. 5.4 mins.	Unknown peak 2 Ret. ca 6.8 mins	Na
Ottenhöfen N 48°34'06.6'' E 008°09'42.0''	11.02.06	326	29.5	11.4	-	18	1.3	2.6	87
Seebach N 48°34'44.1'' E 008°10'13.4''	11.02.06	400	38.0	9.1	-	28.8	1.5	3.0	65
Oberseebach N 48°34'43.7'' E 008°10'54.7''	11.02.06	478	37.3	9.4	-	27.9	0.9	2.9	50
Elsa Weg 1 N 48°34'59'' E 008°10'54.5''	11.02.06	560	33.5	8.7	-	24.8	1.3	3.5	47
Elsa Weg 2 N 48°35'03.9'' E 008°10'41.7''	11.02.06	597	33.3	9.8	-	23.5	1.2	2.8	48
Elsa Weg 3 N 48°35'13.2'' E 008°10'29''	11.02.06	614	32.3	9.5	-	22.9	1.1	2.7	47
Elsa Weg 4 N 48°35'21.8'' E 008°10'47.1''	12.02.06	718	18.6	6.1	-	12.5	0.6	1.7	27
Elsa Weg 6 N 48°35'19.3'' E 008°11'24.7'	12.02.06	796	19.9	6.2	-	13.6	0.7	2.0	23
Elsa Weg 7 N 48°35'39'' E 008°11'24.3'	12.02.06	934	18.1	5.8	-	12.4	0.6	0.8	37
Mummelsee N 48°35'52'' E 008°12'08'	12.02.06	1036	16.4	5.1	-	11.3	0.4	0.6	21
Hornisgrinde N 48°36'05.2'' E 008°12'03.2'	12.02.06	1164	13.0	3.9	-	9.1	0.3	0.6	21
Mummelsee	26.01.06	326	13.5	6.4	-	7.1		0.2	
Mummelsee	26.01.06	400	15.4	7.2	-	8.1		0.6	
Mummelsee	26.01.06	478	13.5	5.3	-	8.2		0.4	
Mummelsee	26.01.06	560	13.7	6.8	-	6.9			
Elsa Weg 6 N 48°35'19.3'' E 008°11'24.7'	14/4/06	597	1.6	0.7	-	0.9		0.4	
Elsa Weg 7 N 48°35'39'' E 008°11'24.3'	14/4/06	614	1.4	0.9	0.23	0.3		0.5	
Mummelsee N 48°35'52'' E 008°12'08'	14/4/06	718	4.9	2	0.4	2.4		1.1	
Hornisgrinde N 48°36'05.2'' E 008°12'03.2'	14/4/06	796	2.4	1.1		1.3		0.5	

Sup. Table 2: Total bromine, bromide and organically bound bromine in snow samples from the northern Black Forest. All concentrations in nmol/l.

Sample location	Date	Altitude (masl)	Total Br	Br ⁻	Orano-Br	% org-Br
Ottenhöfen N 48°34'06.6'' E 008°09'42.0''	11.02.06	326	114.5	93.4	21.2	18
Seebach N 48°34'44.1'' E 008°10'13.4''	11.02.06	400	128.5	92.9	35.7	27
Oberseebach N 48°34'43.7'' E 008°10'54.7''	11.02.06	478	116.4	79.7	36.7	31
Elsa Weg 1 N 48°34'59'' E 008°10'54.5''	11.02.06	560	99.9	78.0	21.9	22
Elsa Weg 2 N 48°35'03.9'' E 008°10'41.7''	11.02.06	597	104.3	77.6	26.7	25
Elsa Weg 3 N 48°35'13.2'' E 008°10'29''	11.02.06	614	106.8	77.5	29.3	27
Elsa Weg 4 N 48°35'21.8'' E 008°10'47.1''	12.02.06	718	64.1	47.1	17.0	26
Elsa Weg 6 N 48°35'19.3'' E 008°11'24.7''	12.02.06	796	58.6	47.9	10.6	18
Elsa Weg 7 N 48°35'39'' E 008°11'24.3''	12.02.06	934	62.8	51.8	11.0	17
Mummelsee N 48°35'52'' E 008°12'08''	12.02.06	1036	47.6	37.4	10.1	21
Hornisgrinde N 48°36'05.2'' E 008°12'03.2''	12.02.06	1164	38.7	28.2	10.5	27
Mummelsee	26.01.06	326	55.2	35.4	19.8	36
Mummelsee	26.01.06	400	91.0	63.7	27.3	30
Mummelsee	26.01.06	478	62.8	45.1	17.8	28
Mummelsee	26.01.06	560	64.2	43.3	20.5	32
Elsa Weg 6 N 48°35'19.3'' E 008°11'24.7''	14/4/06	597	114.5	93.4	21.2	30
Elsa Weg 7 N 48°35'39'' E 008°11'24.3''	14/4/06	614	128.5	92.9	35.7	29
Mummelsee N 48°35'52'' E 008°12'08''	14/4/06	718	116.4	79.7	36.7	30
Hornisgrinde N 48°36'05.2'' E 008°12'03.2''	14/4/06	796	99.9	78.0	21.9	37

Sup. Table 3: Metal concentrations in snow from the northern Black Forest. All concentrations in nmol/l.

Sample location	Date	Altitude (masl)	Li	V	Mn	Co	Rb	Zn	As	Mo	Pb	Ba	Sb	U
Ottenhöfen N 48°34'06.6'' E 008°09'42.0''	11.02.06	326	17.3	28.9	158.0	1.6	8.0	959	4.1	5.0	36.9	23.3	4.4	33.6
Seebach N 48°34'44.1'' E 008°10'13.4''	11.02.06	400	17.3	36.7	176.0	1.4	6.5	692	5.2	5.9	44.3	21.8	5.4	33.6
Oberseebach N 48°34'43.7'' E 008°10'54.7''	11.02.06	478	14.4	30.8	118.5	1.1	5.1	606	4.6	4.3	38.1	16.3	4.4	21.0
Elsa Weg 1 N 48°34'59'' E 008°10'54.5''	11.02.06	560	14.4	33.0	114.7	1.0	4.9	637	4.0	4.9	43.0	16.0	4.6	25.2
Elsa Weg 2 N 48°35'03.9'' E 008°10'41.7''	11.02.06	597	10.1	29.6	100.5	0.9	4.4	587	3.7	3.6	37.0	14.0	3.5	21.0
Elsa Weg 3 N 48°35'13.2'' E 008°10'29''	11.02.06	614	14.4	29.8	111.6	1.0	4.9	613	4.8	4.3	40.2	16.7	4.1	21.0
Elsa Weg 4 N 48°35'21.8'' E 008°10'47.1''	12.02.06	718	5.8	19.4	56.2	0.6	2.9	362	2.9	2.6	22.6	8.6	2.5	12.6
Elsa Weg 6 N 48°35'19.3'' E 008°11'24.7''	12.02.06	796	5.8	18.1	46.4	0.5	3.3	362	3.0	2.6	20.1	7.6	2.1	12.6
Elsa Weg 7 N 48°35'39'' E 008°11'24.3''	12.02.06	934	4.3	17.9	46.2	0.5	3.3	372	3.0	2.5	19.9	7.6	2.1	12.6
Mummelsee N 48°35'52'' E 008°12'08''	12.02.06	1036	2.9	15.3	45.1	0.4	2.1	323	2.9	2.2	17.1	8.4	2.0	8.4
Hornisgrinde N 48°36'05.2'' E 008°12'03.2''	12.02.06	1164	2.9	11.0	34.4	0.3	1.5	275	2.3	1.6	12.9	6.4	1.7	8.4

