6. Observed Pollutant Concentrations at HELCOM Stations in 1998

HELCOM Stations in 1998. Table 6.1 includes HELCOM stations which have reported measurements for 1998. The name and, code of each station and its location in one of the sub-basins/catchments of the Baltic Sea is given in the table (page 2).

Map with the locations of the HELCOM Stations. Figure 6.1 - map with geographical locations of the HELCOM stations which are listed in Table 6.1 (page 3).

Tables with 1998 Observations at HELCOM Stations. Complete set of tables with monthly concentrations and annual average values, of all compounds reported from HELCOM stations to the NILU database for 1988:

- Concentrations at the Danish HELCOM Stations in 1998 4
- Concentrations at the Estonian HELCOM Stations in 1998 6
- Concentrations at the Finnish HELCOM Stations in 1998 8
- Concentrations at the German HELCOM Stations in 1998 12
- Concentrations at the Latvian HELCOM Stations in 1998 15
- Concentrations at the Lithuanian HELCOM Stations in 1998 18
- Concentrations at the Polish HELCOM Stations in 1998 20
- Concentrations at the Swedish HELCOM Stations in 1998 21

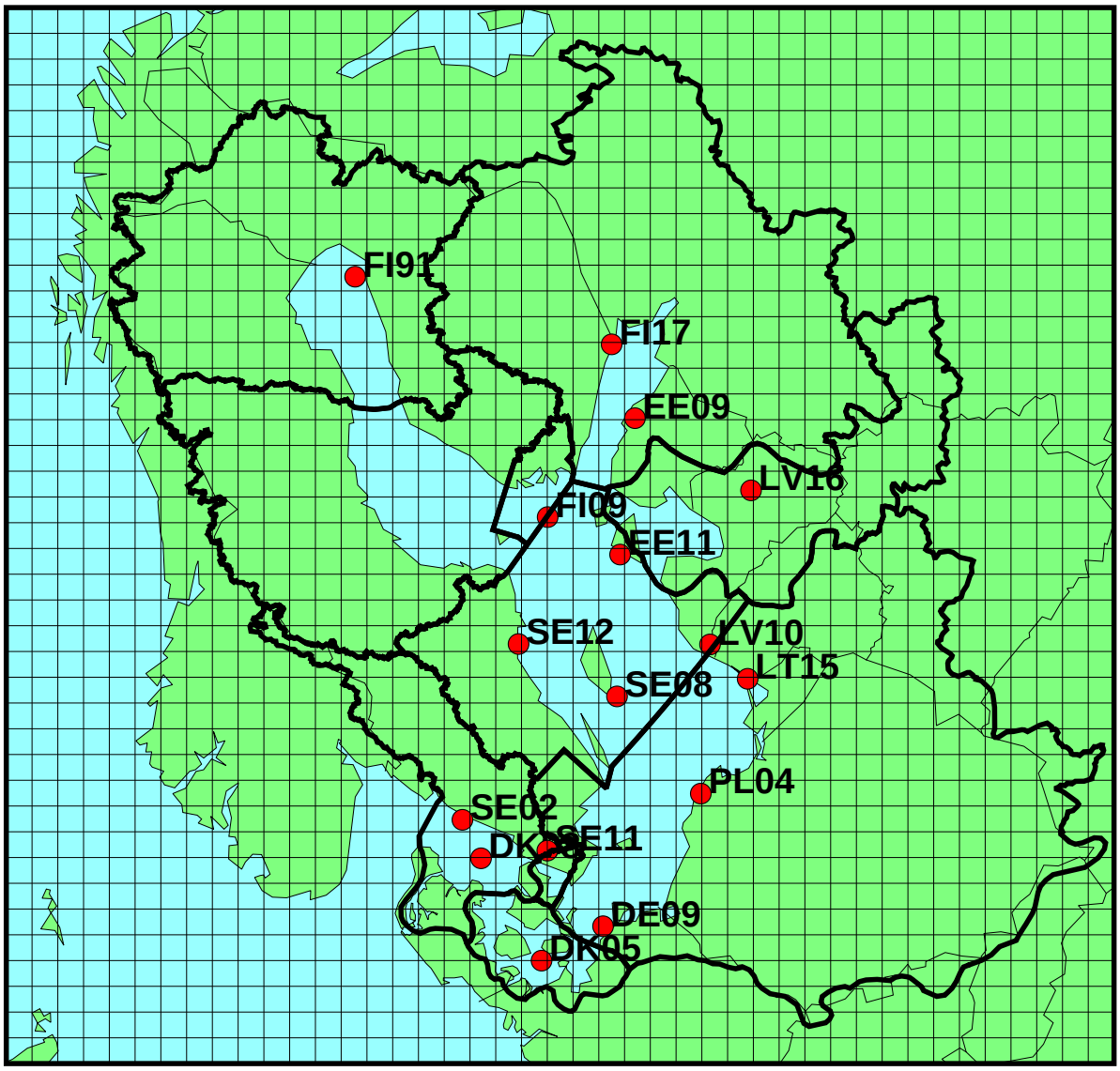
Figures with measurement data. Graphical illustration of measurements at the HELCOM stations in 1998.

- Nitrogen Concentrations and pH in Precipitation 27
- Nitrogen Concentrations in the Air 32
- Heavy Metal Concentrations in Precipitation 34
- Heavy Metal Concentrations in the Air 37

Table 6.1. Measurement sites and compounds measured in 1997. The bullet in Table 6.1 means that measurements for one of the compounds (nitrogen, heavy metals and POPs, in air or precipitation) are available for 1998.

	Station		**Nitrogen**		**Heavy Metals**		**Organic**	
	FI53	Hailuoto	•		•			
	FI09	Utö	•	•	•			
	FI17	Virolahti II	•	•	•			
	EE09	Lahemaa	•	•	•			
	LV16	Zoseni	•	•	•	•		
	EE11	Vilsandy	•		•			
	LV10	Rucava	•	•	•	•		
	SE08	Hoburgen	•	•				
	SE12	Aspvreten	•	•	•			
	LT15	Preila	•	•	•	•		
	PL04	Leba	•	•				
	DE09	Zingst	•	•	•	•	•	
	DK05	Keldsnor	•	•		•		
	SE11	Vavihill	•	•				
	SE02	R•rvik	•	•				
	DK08	Anholt	•	•		•		

Figure 6.1. Geographical locations of the HELCOM stations used in 1998 computations.



Concentrations at the Danish HELCOM Stations in 1998

Keldsnor, DK05R, 1998

	sum	pH	k	SO4--	SO4-- corr	NH4+	NO3-	Na+	Mg++	Cl-	Ca++	K+
	precip	precip	precip	precip	precip	precip	precip	precip	precip	precip	precip	precip
	mm		µS/cm	mg S/l	mg S/l	mg N/l	mg N/l	mg/l	mg/l	mg/l	mg/l	mg/l
01/1998	73.46	4.80	42.44	0.64	0.25	0.23	0.35	4.69	0.55	8.09	0.26	0.28
02/1998	18.35	4.98	40.45	1.02	0.73	0.79	0.63	3.55	0.42	6.30	0.61	0.23
03/1998	49.04	4.81	18.80	0.43	0.33	0.32	0.39	1.23	0.14	2.10	0.12	0.06
04/1998	71.35	5.04	21.13	0.64	0.57	0.68	0.63	0.76	0.11	1.33	0.28	0.14
05/1998	36.75	4.58	43.29	1.37	1.28	1.24	0.78	1.66	0.11	1.90	0.33	0.23
06/1998	74.04	5.03	19.56	0.62	0.57	0.75	0.59	0.78	0.07	0.89	0.29	0.22
07/1998	59.90	5.06	21.61	0.65	0.55	0.85	0.51	1.22	0.13	2.00	0.15	0.26
08/1998	33.44	5.43	23.51	0.60	0.46	0.62	0.44	1.71	0.26	2.95	0.84	0.17
09/1998	25.75	5.11	21.34	0.56	0.46	0.57	0.53	1.23	0.14	2.21	0.14	0.08
10/1998	94.30	5.03	34.69	0.67	0.36	0.22	0.29	3.78	0.43	6.72	0.30	0.29
11/1998	62.42	4.55	34.93	0.71	0.55	0.56	0.84	1.91	0.23	3.33	0.25	0.24
12/1998	36.56	4.81	21.24	0.46	0.36	0.37	0.47	1.18	0.10	2.15	0.18	0.44
Annual values	**635.35**	**4.87**	**28.57**	**0.67**	**0.50**	**0.55**	**0.52**	**2.08**	**0.24**	**0.28**	**3.55**	**0.23**

Keldsnor, DK05R, 1998

	SO2	S_total	NH3+NH4	HNO3+NO3	Cu	Pb	Ni	Zn
	air	aerosol	areosol	areosol	aerosol	aerosol	aerosol	aerosol
	µgS/m3	µgS/m3	µgN/m3	µgN/m3	µg/m3	µg/m3	µg/m3	µg/m3
01/1998	0.87	0.64	1.76	1.01	2.21	9.18	1.14	20.07
02/1998	1.17	1.02	4.50	2.44	2.07	14.03	2.21	21.58
03/1998	0.80	0.43	2.51	1.07	1.08	5.48	1.56	11.03
04/1998	0.95	0.64	2.70	1.38	1.51	7.56	2.45	14.18
05/1998	0.75	1.37	3.19	1.10	2.86	5.16	3.36	13.29
06/1998	0.54	0.62	2.53	0.84	1.05	4.54	1.70	8.77
07/1998	0.41	0.65	1.74	0.60	0.63	2.49	1.14	4.73
08/1998	0.46	0.60	2.03	0.64	0.99	3.04	0.99	5.53
09/1998	0.71	0.56	3.77	1.02	1.63	8.78	1.91	15.01
10/1998	0.45	0.67	1.15	0.51	0.88	3.96	0.97	8.78
11/1998	1.79	0.71	2.71	1.42	3.04	18.63	2.03	30.48
12/1998	1.33	0.46	2.57	1.38	2.32	14.08	1.88	21.11
Annual values	**0.85**	**1.05**	**2.58**	**1.11**	**1.69**	**8.01**	**1.77**	**14.46**

Anholt, DK08R, 1998

	sum precip mm	pH precip	k precip µS/cm	SO4-- precip mg S/l	SO4-- corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	52.27	4.49	38.69	0.61	0.36	0.32	0.64	3.05	0.37	5.15	0.16	0.12
02/1998	45.41	4.81	33.91	0.76	0.43	0.45	0.53	3.93	0.48	6.78	0.32	0.17
03/1998	47.15	4.73	41.02	0.74	0.42	0.41	0.55	3.86	0.50	6.95	0.28	0.16
04/1998	49.60	4.57	34.32	0.82	0.64	0.57	0.63	2.17	0.27	3.57	0.21	0.10
05/1998	18.84	4.77	51.66	1.38	1.03	0.82	0.75	4.40	0.48	6.85	0.59	0.79
06/1998	114.22	4.65	34.83	0.73	0.50	0.35	0.40	2.84	0.33	4.94	0.23	0.19
07/1998	68.28	4.82	33.48	0.60	0.31	0.20	0.32	3.58	0.40	6.07	0.21	0.15
08/1998	34.11	4.59	48.38	0.93	0.54	0.38	0.59	4.68	0.49	7.74	0.34	0.23
09/1998	55.43	4.82	19.65	0.44	0.35	0.28	0.39	1.22	0.14	1.94	0.16	0.09
10/1998	109.86	4.75	39.00	0.58	0.23	0.20	0.34	4.26	0.45	7.16	0.21	0.16
11/1998	64.28	4.27	54.33	0.87	0.57	0.30	0.72	3.70	0.43	6.48	0.19	0.14
12/1998	54.33	4.42	37.12	0.61	0.43	0.44	0.73	2.18	0.26	3.55	0.12	0.09
Annual values	**713.77**	**4.61**	**37.80**	**0.70**	**0.43**	**0.35**	**0.51**	**3.26**	**0.38**	**5.54**	**0.23**	**0.16**

Anholt, DK08R, 1997

	SO2 air µgS/m3	NO2 air µg N/m3	S_total aerosol µgS/m3	NH3+NH4 areosol µgN/m3	HNO3+NO3 areosol µgN/m3	Cu aerosol µg/m3	Pb aerosol µg/m3	Ni aerosol µg/m3	Zn aerosol µg/m3
01/1998	0.68	1.20	0.54	1.06	0.80	1.45	6.74	1.53	13.76
02/1998	0.43	2.04	0.67	1.97	1.16	0.99	5.91	1.16	8.76
03/1998	0.81	1.85	0.65	1.19	0.74	0.82	4.13	1.32	8.57
04/1998	0.90	2.44	1.13	1.43	0.78	1.18	5.75	1.87	12.79
05/1998	0.75	1.84	0.99	1.25	0.79	0.82	3.47	1.80	8.76
06/1998	0.46	1.36	0.93	0.97	0.60	0.76	2.51	1.25	5.67
07/1998	0.41	1.00	0.88	0.82	0.52	0.60	1.79	0.84	4.95
08/1998	0.45	1.23	0.65	0.75	0.43	0.44	1.59	0.77	3.42
09/1998	0.53	1.67	1.45	1.54	0.66	1.53	5.29	1.29	10.27
10/1998	0.24	1.17	0.48	0.54	0.28	0.62	1.88	0.58	4.20
11/1998	1.40	2.86	1.28	1.14	0.63	1.26	9.21	1.14	15.61
12/1998	1.20	4.23	0.89	1.25	0.84	1.36	7.85	1.61	12.37
Annual values	**0.69**	**1.96**	**0.88**	**1.15**	**0.68**	**9.04**	**0.98**	**4.63**	**1.26**

Concentrations at the Estonian HELCOM Stations in 1998

Lahema, EE0R, 1998

	sum precip mm	pH precip	k precip µS/cm	SO4-- precip mg S/l	SO4-- corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	40.10	5.36	26.83	1.08	0.99	0.24	0.44	0.93	0.36	1.72	2.96	0.19
02/1998	41.70	5.34	16.57	0.61	0.54	0.13	0.43	0.77	0.13	1.49	0.54	0.18
03/1998	23.00	4.93	32.17	1.87	1.74	0.45	0.65	0.68	0.20	1.83	2.61	1.06
04/1998	31.20	5.50	21.98	1.77	1.72	0.36	0.45	0.40	0.13	0.53	1.87	0.22
05/1998	85.50	5.44	17.65	0.51	0.47	0.22	0.22	0.26	0.10	0.58	3.53	0.28
06/1998	151.30	5.30	19.88	0.57	0.54	0.18	0.24	0.15	0.08	0.93	3.39	0.17
07/1998	103.00	5.29	9.54	0.49	0.47	0.14	0.09	0.14	0.05	0.50	0.67	0.12
08/1998	180.90	4.96	11.50	0.19	0.17	0.07	0.08	0.11	0.05	0.49	1.39	0.06
09/1998	20.40	6.18	11.00	0.46	0.40	0.04	0.07	0.21	0.07	0.73	0.95	0.08
10/1998	75.70	4.91	11.89	0.31	0.26	0.05	0.18	0.56	0.07	1.16	0.56	0.13
11/1998	31.40	4.38	23.20	0.49	0.48	0.21	0.50	0.07	0.02	0.37	0.80	0.08
12/1998	53.80	4.58	19.74	0.67	0.63	0.26	0.37	0.37	0.06	0.86	0.18	0.08
Annual values	**838.00**	**5.02**	**16.33**	**0.55**	**0.51**	**0.16**	**0.23**	**0.29**	**0.09**	**0.80**	**1.79**	**0.16**

Lahema, EE09R, 1998

	sum precip mm	Cd precip µg/l	Pb precip µg/l	Zn precip µg/l	Cr precip µg/l	Cu precip µg/l	Ni precip µg/l	As precip µg/l
01/1998	40.10	0.12	1.68	5.90	0.54	1.41	0.74	0.32
02/1998	41.70	15.92	0.91	11.98	0.50	0.71	0.58	0.25
03/1998	23.00	7.12	1.35	36.85	0.50	2.70	2.31	0.62
04/1998	31.20	6.88	0.68	13.92	0.50	23.53	1.57	0.25
05/1998	85.50	1.26	0.50	28.94	0.50	4.98	0.50	0.25
06/1998	151.30	0.91	0.50	22.79	0.50	3.05	0.75	0.39
07/1998	103.00	0.05	0.50	5.27	0.58	2.43	0.52	0.36
08/1998	180.90	3.26	0.67	5.18	0.50	2.98	0.73	0.25
09/1998	20.40	26.02	0.50	5.00	0.50	0.99	0.50	0.25
10/1998	75.70	3.62	0.50	6.27	0.55	2.12	1.59	0.34
11/1998	31.40	2.29	1.19	13.97	0.50	3.11	1.94	0.42
12/1998	53.80	2.17	2.18	11.25	0.53	1.91	0.57	0.44
Annual values	**838.00**	**3.44**	**0.78**	**13.24**	**0.52**	**3.51**	**0.86**	**0.33**

Lahema, EE09R, 1998

	NO2 air µg N/m3
01/1998	0.97
02/1998	0.91
03/1998	0.83
04/1998	0.53
05/1998	0.53
06/1998	0.49
07/1998	0.42
08/1998	0.44
09/1998	0.48
10/1998	0.51
11/1998	0.78
12/1998	0.62
Annual values	**0.63**

Vilsandy, EE11R, 1998

	NO2 air µg N/m3	SO2 air µgS/m3
01/1998	1.15	
02/1998	1.21	
03/1998	0.69	
04/1998	0.76	
05/1998	0.99	
06/1998	1.10	0.12
07/1998	0.74	0.09
08/1998	0.55	0.09
09/1998	0.37	0.15
10/1998	0.64	0.13
11/1998	0.88	0.83
12/1998	1.17	0.72
Annual values	**0.85**	*(0.31)*

Vilsandy, EE11R, 1998

	sum precip mm	pH precip	k precip µS/cm	SO4-- precip mg S/l	SO4-- corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	34.60	4.39	30.00	0.86	0.77	0.24	0.55	1.12	0.18	2.90	0.40	0.05
02/1998	18.30	4.74	20.00	0.70	0.62	0.25	0.60	0.98	0.21	2.10	0.70	0.10
03/1998	3.80	5.25	29.00	1.57	1.28	0.23	0.71	1.47	0.42	3.50	2.00	0.17
04/1998	24.90	5.51	20.39	1.18	1.10	0.29	0.51	0.61	0.26	1.00	1.62	0.21
05/1998	24.10	5.48	27.13	1.23	1.12	0.80	0.66	0.59	0.18	1.42	0.77	0.56
06/1998	67.80	5.18	18.84	0.48	0.42	0.61	0.24	0.40	0.10	0.93	0.28	0.65
07/1998	29.80	4.99	15.88	0.46	0.44	0.37	0.09	0.39	0.03	1.00	0.24	0.39
08/1998	74.50	6.09	17.40	0.37	0.31	0.51	0.13	0.47	0.10	1.19	0.66	0.40
09/1998	19.20	5.59	23.10	0.72	0.66	0.73	0.41	0.33	0.08	0.84	0.37	0.34
10/1998	90.70	3.30	26.25	1.29	1.19	0.19	0.51	1.10	0.13	2.28	0.33	0.09
11/1998	56.00	4.59	20.20	1.43	1.37	0.14	0.36	0.25	0.08	0.76	0.42	0.09
12/1998	47.50	4.50	23.33	1.68	1.59	0.36	0.45	1.14	0.14	1.93	0.17	0.06
Annual values	**491.20**	**3.98**	**21.96**	**0.96**	**0.88**	**0.38**	**0.38**	**0.69**	**0.13**	**1.53**	**0.48**	**0.27**

Vilsandy, EE11R, 1998

	sum precip mm	Cd precip µg/l	Cu precip µg/l	Pb precip µg/l	Zn precip µg/l	Cr precip µg/l	Ni precip µg/l	As precip µg/l
01/1998	34.60	0.11	0.50	0.50	20.00	0.50	0.50	0.10
02/1998	18.30	0.08	0.50	0.50	20.00	0.50	0.50	0.10
03/1998	3.80	0.08	2.10	0.50	5.00	0.50	0.50	0.10
04/1998	24.90	0.07	7.89	0.50	11.81	0.50	0.50	0.13
05/1998	24.10	17.87	2.64	0.50	9.32	0.57	1.13	0.42
06/1998	67.80	0.04	3.61	0.50	6.85	0.50	1.52	0.27
07/1998	29.80	6.75	8.07	0.91	5.00	0.50	0.50	0.17
08/1998	74.50	9.31	5.23	0.88	15.58	0.50	0.66	0.18
09/1998	19.20	0.06	6.76	0.50	29.48	0.50	0.87	0.25
10/1998	90.70	0.18	1.57	0.60	11.05	0.50	0.50	0.32
11/1998	56.00	0.08	0.88	2.17	12.19	0.50	2.20	0.36
12/1998	47.50	0.12	1.56	1.12	15.05	0.50	0.50	0.38
Annual values	**491.20**	**2.77**	**3.14**	**0.86**	**12.93**	**0.50**	**0.91**	**0.26**

Concentrations at the Finnish HELCOM Stations in 1998

Utö, FI09R, 1998

	sum precip mm	sum precip mm off	k presip µS/cm	ph precip pH unit	SO4-- precip mg S/l	SO4— corr. precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	16.10	50.00	42.11	4.26	0.84	0.58	0.36	0.81	3.05	0.37	5.19	0.24	0.26
02/1998	5.60	45.10	59.00	4.05	1.48	1.24	0.63	1.49	2.89	0.34	4.41	0.42	0.39
03/1998	3.60	26.70	66.42	4.37	0.86	0.67	0.37	0.96	2.31	0.29	3.22	0.30	0.19
04/1998	4.60	28.90	19.75	4.60	0.53	0.50	0.25	0.30	0.33	0.03	0.51	0.14	0.22
05/1998	31.90	42.20	17.51	4.76	0.74	0.70	0.47	0.37	0.34	0.08	0.66	0.32	0.16
06/1998	44.40	61.80	20.91	4.62	0.82	0.77	0.33	0.29	0.64	0.08	1.27	0.45	0.14
07/1998	23.20	41.10	16.92	4.71	0.37	0.27	0.15	0.29	1.12	0.14	1.86	0.19	0.12
08/1998	51.50	68.90	13.56	4.64	0.32	0.27	0.20	0.28	0.58	0.09	1.03	0.09	0.10
09/1998	32.30	45.90	19.12	4.70	0.50	0.41	0.24	0.31	1.07	0.15	1.78	0.29	0.10
10/1998	39.80	85.60	45.45	4.37	0.79	0.39	0.33	0.59	4.76	0.56	8.19	0.27	0.21
11/1998	3.30	70.80	118.55	3.94	3.71	2.79	1.15	2.00	11.14	1.71	22.62	1.86	0.82
12/1998	13.90	52.90	29.24	4.35	0.73	0.53	0.22	0.48	2.50	0.30	4.50	0.15	0.20
Annual values	**270.20**	**619.90**	**26.24**	**4.44**	**0.75**	**0.58**	**0.33**	**0.53**	**2.08**	**0.26**	**3.61**	**0.30**	**0.19**

Utö, FI09R, 1998

	sum precip mm	Cd precip µg/l	Cu precip µg/l	Pb precip µg/l	Zn precip µg/l	Cr precip µg/l	Ni precip µg/l	As precip µg/l	Fe precip µg/l	Mn precip µg/l	V precip µg/l
01/1998	20.40	0.10	2.71	4.95	12.20	0.43	1.18	0.44	176.50	4.36	1.67
02/1998	3.30	0.43	10.24	18.85	49.10	1.75	4.34	2.70	942.00	27.85	9.59
03/1998	1.40	0.83	28.45	28.20	81.45	2.78	9.82	2.85	1350.0	58.45	12.10
04/1998	24.70	0.06	2.58	2.16	4.31	0.13	0.35	0.19	28.50	2.12	0.74
05/1998	36.00	0.07	5.92	6.44	5.78	0.21	0.73	0.25	85.40	5.22	0.67
06/1998	52.50	0.05	1.76	1.90	5.18	0.13	0.36	0.21	34.75	3.07	0.51
07/1998	30.20	0.05	2.37	0.97	21.90	0.19	0.59	0.19	112.00	5.36	0.52
08/1998	91.30	0.02	0.89	2.05	5.47	0.03	0.22	0.09	37.40	1.55	0.35
09/1998	41.60	0.05	1.31	1.44	5.29	0.17	0.32	0.29	34.25	4.76	0.42
10/1998	36.10	0.10	1.36	2.83	7.17	0.14	0.45	0.40	31.25	1.58	0.79
11/1998	31.80	0.15	0.78	3.13	7.38	0.47	1.32	0.30	32.15	1.48	1.85
12/1998	20.40	0.14	1.52	3.19	8.85	0.23	0.93	0.57	35.20	1.42	1.39
Annual values	**389.70**	**0.07**	**2.08**	**2.90**	**8.13**	**0.20**	**0.60**	**0.28**	**64.90**	**3.33**	**0.85**

Utö, FI09R, 1998

	SO2 air µgS/m3	NO2 air µgN/m3	SO4-- aerosol µgS/m3	NH3+NH4 areosol µgN/m3	HNO3+NO3 areosol µgN/m3
01/1998	0.51	1.31	0.69	0.44	0.43
02/1998	1.09	1.65	0.84	0.57	0.56
03/1998	0.82	1.65	0.77	0.54	0.46
04/1998	0.74	3.53	1.11	0.82	0.56
05/1998	0.44	2.88	0.58	0.51	0.35
06/1998	0.30	2.30	0.66	0.60	0.42
07/1998	0.29	1.12	0.61	0.48	0.41
08/1998	0.19	0.68	0.40	0.33	0.22
09/1998	0.31	0.59	0.58	0.53	0.35
10/1998	0.24	0.89	0.41	0.33	0.29
11/1998	1.01	1.21	0.99	0.50	0.38
12/1998	0.74	1.39	0.85	0.39	0.37
Annual values	**0.55**	**1.60**	**0.71**	**0.50**	**0.40**

Virolahti,FI17R, 1998

	sum precip mm	sum precip mm off	k precip µS/cm	ph precip pH unit	SO4-- precip mg S/l	SO4— corr. precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	35.30	49.30	30.61	4.37	1.03	1.00	0.44	0.61	0.31	0.08	0.63	0.53	0.18
02/1998	20.40	34.60	29.12	4.46	0.80	0.73	0.52	0.77	0.66	0.12	1.31	0.53	0.29
03/1998	31.30	39.90	18.56	4.60	0.60	0.59	0.49	0.44	0.14	0.03	0.27	0.16	0.07
04/1998	17.00	21.20	21.76	4.58	0.88	0.87	0.72	0.44	0.04	0.03	0.13	0.26	0.09
05/1998	41.70	46.60	9.74	5.19	0.37	0.36	0.39	0.14	0.06	0.05	0.09	0.22	0.24
06/1998	57.30	66.40	15.34	4.89	0.66	0.66	0.51	0.29	0.09	0.05	0.20	0.35	0.29
07/1998	99.30	109.70	7.45	5.09	0.28	0.27	0.20	0.12	0.06	0.02	0.13	0.08	0.09
08/1998	147.90	169.10	12.57	5.05	0.43	0.42	0.38	0.27	0.17	0.04	0.21	0.30	0.12
09/1998	22.20	26.30	12.84	4.99	0.51	0.48	0.22	0.27	0.20	0.07	0.46	0.44	0.53
10/1998	103.80	118.60	13.91	4.83	0.40	0.35	0.18	0.26	0.50	0.08	0.91	0.23	0.35
11/1998	23.40	29.20	19.85	4.74	0.54	0.49	0.49	0.47	0.59	0.08	1.04	0.20	0.22
12/1998	43.80	56.50	17.88	4.72	0.75	0.71	0.28	0.40	0.36	0.08	0.72	0.55	0.14
Annual values	**643.40**	**767.40**	**14.73**	**4.80**	**0.53**	**0.50**	**0.35**	**0.31**	**0.25**	**0.06**	**0.45**	**0.30**	**0.20**

Virolahti,FI17R, 1998

	sum precip mm	Cd precip µg/l	Cu precip µg/l	Pb precip µg/l	Zn precip µg/l	Cr precip µg/l	Ni precip µg/l	As precip µg/l	Fe precip µg/l	Mn precip µg/l	V precip µg/l
01/1998	31.00	0.11	1.92	4.77	14.02	0.43	1.00	0.78	64.33	2.44	1.63
02/1998	15.50	0.13	3.90	4.76	11.53	0.62	1.56	1.09	81.37	6.69	2.46
03/1998	22.30	0.12	1.28	3.39	8.61	0.27	0.59	0.49	49.77	2.63	1.27
04/1998	15.00	0.13	1.51	2.15	6.86	0.16	0.53	0.29	22.97	2.45	1.35
05/1998	43.30	0.04	0.78	1.20	4.31	0.13	0.22	0.13	57.97	4.96	0.38
06/1998	57.60	0.06	1.17	1.62	4.60	0.13	0.30	0.16	39.30	4.93	0.53
07/1998	102.40	0.02	0.55	0.59	22.17	0.03	0.22	0.04	19.70	1.56	0.18
08/1998	158.20	0.03	0.80	1.15	4.97	0.03	0.28	0.16	15.57	2.02	0.30
09/1998	22.10	0.06	1.24	1.05	6.17	0.15	0.32	0.26	37.63	7.63	0.46
10/1998	96.70	0.05	1.01	1.50	4.13	0.14	0.31	0.18	10.00	1.28	0.42
11/1998	15.60	0.18	1.97	3.35	8.06	0.24	0.93	0.32	64.23	2.59	2.22
12/1998	36.10	0.30	1.56	2.51	5.28	0.21	0.50	0.40	53.10	1.53	1.21
Annual values	**615.80**	**0.07**	**1.08**	**1.67**	**8.56**	**0.13**	**0.39**	**0.23**	**30.34**	**2.67**	**0.62**

Virolahti,FI17R, 1998

	SO2 air µgS/m3	NO2 air µgN/m3	SO4-- aerosol µgS/m3	NH3+NH4 areosol µgN/m3	HNO3+NO3 areosol µgN/m3
01/1998	0.89	1.76	0.93	0.77	0.27
02/1998	2.67	1.44	1.02	0.71	0.47
03/1998	1.71	2.42	0.91	0.64	0.39
04/1998	1.34	1.70	1.19	1.55	0.41
05/1998	0.52	1.26	0.64	0.90	0.29
06/1998	0.39	0.83	0.69	1.24	0.24
07/1998	0.25	0.89	0.67	1.01	0.21
08/1998	0.26	0.88	0.47	0.69	0.18
09/1998	0.31	1.06	0.58	0.99	0.18
10/1998	0.48	1.39	0.48	0.57	0.21
11/1998	1.84	1.59	1.07	0.61	0.26
12/1998	1.53	1.05	1.12	0.54	0.32
Annual values	**1.02**	**1.35**	**0.81**	**0.85**	**0.29**

Hailuoto, FI53R, 1998

	sum precip mm	k presip µS/cm	ph precip pH unit	SO4-- precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	35.20	18.00	4.50	0.32	0.21	0.41	0.17	0.02	0.33	0.06	0.05
02/1998	20.60	18.00	4.57	0.38	0.26	0.38	0.27	0.04	0.50	0.09	0.04
03/1998	3.20	29.00	4.39	0.85	0.49	0.69	0.54	0.09	0.78	0.44	0.10
04/1998	7.10	40.00	4.29	1.70	1.21	0.80	0.09	0.06	0.17	0.59	0.09
05/1998	51.20	8.00	4.92	0.26	0.13	0.12	0.06	0.02	0.09	0.07	0.04
06/1998	59.90	12.00	4.77	0.45	0.32	0.23	0.05	0.03	0.11	0.11	0.09
07/1998	94.70	8.00	4.86	0.25	0.10	0.12	0.09	0.02	0.13	0.07	0.08
08/1998	63.20	7.00	4.99	0.20	0.12	0.11	0.06	0.01	0.08	0.04	0.04
09/1998	35.80	13.00	4.67	0.41	0.23	0.21	0.11	0.02	0.19	0.06	0.06
10/1998	62.90	10.00	4.84	0.26	0.18	0.20	0.19	0.02	0.32	0.04	0.05
11/1998	16.00	27.00	4.37	0.57	0.30	0.58	0.36	0.05	0.62	0.13	0.06
12/1998	16.60	15.00	4.67	0.28	0.14	0.29	0.56	0.07	0.95	0.10	0.05
Annual values	**466.40**	**11.76**	**4.78**	**0.33**	**0.20**	**0.22**	**0.13**	**0.03**	**0.23**	**0.08**	**0.06**

Hailuoto, FI53R, 1998

	sum precip mm	Cd precip µg/l	Cu precip µg/l	Pb precip µg/l	Zn precip µg/l	Cr precip µg/l	Ni precip µg/l	As precip µg/l	Fe precip µg/l	Mn precip µg/l	V precip µg/l
01/1998	36.40	0.02	0.58	1.17	2.49	0.12	0.31	0.08	9.34	1.65	0.45
02/1998	18.40	0.04	1.40	1.58	3.86	0.14	0.41	0.19	21.15	2.56	1.23
03/1998	0.50	0.11	11.90	7.89	20.80	1.66	2.42	0.71	332.00	20.30	8.04
04/1998	3.60	0.25	6.35	6.77	19.80	0.61	1.50	0.82	106.25	11.95	2.98
05/1998	50.70	0.02	0.63	0.47	1.79	0.03	0.20	0.06	32.65	1.14	0.20
06/1998	60.60	0.03	0.57	0.88	2.21	0.03	0.30	0.09	17.80	2.14	0.31
07/1998	90.40	0.01	0.44	0.35	3.58	0.03	0.30	0.04	8.13	1.12	0.14
08/1998	67.10	0.01	0.45	0.58	2.22	0.03	0.24	0.08	5.50	1.01	0.18
09/1998	37.00	0.04	1.07	1.32	3.17	0.07	0.22	0.13	14.85	2.15	0.29
10/1998	63.50	0.02	0.54	0.48	1.84	0.03	0.14	0.06	1.25	0.54	0.21
11/1998	14.90	0.09	1.81	2.27	6.36	0.13	0.55	0.21	28.45	2.36	1.31
12/1998	16.20	0.02	1.10	0.62	3.01	0.05	0.23	0.06	18.05	1.71	0.63
Annual values	**459.30**	**0.02**	**0.72**	**0.81**	**2.87**	**0.05**	**0.27**	**0.09**	**14.07**	**1.51**	**0.35**

Concentrations at the German HELCOM Stations in 1998

Zingst, DE09R, 1998

	sum precip mm	k presip µS/cm	ph precip	SO4-- precip mg S/l	SO4- corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	51.20	22.23	4.86	0.51	0.40	0.29	0.45	1.18	0.17	2.10	0.35	0.11
02/1998	35.90	38.43	4.81	1.26	1.15	1.21	1.12	1.11	0.21	2.26	0.83	0.11
03/1998	46.70	19.87	5.03	0.61	0.54	0.44	0.50	0.86	0.13	1.27	0.43	0.07
04/1998	58.60	29.91	5.02	1.56	1.52	1.09	0.80	0.48	0.27	0.89	1.15	0.16
05/1998	28.00	26.93	5.75	1.37	1.26	1.13	0.68	0.70	0.33	1.43	1.14	0.22
06/1998	89.90	17.29	5.02	0.75	0.71	0.31	0.46	0.37	0.16	0.62	0.80	0.09
07/1998	53.70	26.52	4.91	0.96	0.88	0.91	0.85	0.78	0.18	1.32	0.68	0.19
08/1998	68.50	17.93	5.22	0.57	0.51	0.51	0.46	0.65	0.12	1.28	0.43	0.10
09/1998	56.20	16.61	4.84	0.54	0.49	0.31	0.35	0.56	0.11	1.00	0.46	0.07
10/1998	96.60	30.22	5.54	0.78	0.53	0.16	0.29	2.88	0.43	5.29	0.66	0.26
11/1998	39.90	38.83	4.50	1.44	1.29	0.47	0.87	1.44	0.38	2.42	1.05	0.16
12/1998	34.20	26.20	4.70	0.58	0.52	0.65	0.75	0.61	0.12	1.61	0.35	0.08
Annual values	**659.40**	**24.96**	**4.96**	**0.87**	**0.77**	**0.55**	**0.57**	**1.06**	**0.22**	**1.93**	**0.68**	**0.14**

Zingst, DE09R, 1998

	sum precip mm	sum precip mm off	Cd precip µg/l	Cu precip µg/l	Pb precip µg/l	Zn precip µg/l	Cr precip µg/l	Ni precip µg/l	As precip µg/l	Hg precip µg/l
01/1998	59.80	36.60	0.06	2.63	1.93	10.81	0.30	0.56	0.11	9.00
02/1998	48.95	28.58	0.14	5.32	3.22	12.92	0.43	0.92	0.21	15.00
03/1998	57.01	43.80	0.09	2.69	1.87	9.33	0.22	0.55	0.10	8.22
04/1998	71.35	69.19	0.11	1.72	2.24	9.46	0.20	0.48	0.28	11.90
05/1998	28.82	29.82	0.12	2.45	3.18	16.62	0.38	0.69	0.25	24.84
06/1998	93.39	95.26	0.07	1.79	1.33	8.56	0.16	0.48	0.18	24.02
07/1998	64.64	67.71	0.09	1.64	1.08	7.74	0.09	0.44	0.10	22.10
08/1998	67.57	70.96	0.05	3.61	1.09	12.67	0.11	0.45	0.09	13.27
09/1998	57.38	57.68	0.03	1.46	0.95	9.42	0.11	0.42	0.09	11.08
10/1998	110.29	107.20	0.03	1.29	0.59	12.18	0.04	0.49	0.07	6.09
11/1998	48.95	47.20	0.06	2.24	1.72	17.98	0.09	0.68	0.19	10.63
12/1998	44.92	34.22	0.03	6.59	1.03	9.56	0.10	0.14	0.10	4.24
Annual values	**753.06**	**688.21**	**0.07**	**2.54**	**1.52**	**11.04**	**0.17**	**0.51**	**0.14**	**13.14**

Zingst, DE09R, 1998

	Cd aerosol µg/m3	Cu aerosol µg/m3	Pb aerosol µg/m3	Ni aerosol µg/m3	Mn aerosol µg/m3	As aerosol µg/m3	Fe aerosol µg/m3
01/1997	0.18	2.17	9.70	1.11	2.63	0.53	68.00
02/1997	0.26	3.34	13.30	2.49	5.08	0.72	125.00
03/1997	0.17	1.85	6.70	1.74	2.73	0.64	75.00
04/1997	0.20	2.24	8.10	1.73	3.16	0.85	84.00
05/1997	0.13	1.86	5.70	2.29	4.12	0.40	127.00
06/1997	0.08	1.04	3.80	1.53	2.79	0.33	78.00
07/1997	0.05	1.64	2.50	1.41	2.11	0.19	58.00
08/1997	0.06	0.95	2.80	1.22	2.48	0.24	72.00
09/1997	0.24	1.62	8.90	1.42	3.29	1.01	83.00
10/1997	0.11	2.09	4.90	0.79	1.92	0.29	49.00
11/1997	0.55	4.68	25.20	2.73	4.00	1.22	104.00
12/1997	0.27	1.79	13.20	1.93	2.34	1.46	61.00
Annual values	**0.19**	**2.09**	**8.67**	**1.69**	**3.04**	**0.65**	**81.59**

Zingst, DE09R, 1998

	SO2 air µgS/m3	NO2 air µgN/m3	HNO3-N aerosol µgN/m3	NH3-N aerosol µgN/m3	SO4-- aerosol µg/m3	TSP aerosol µg/m3
01/1998	0.63	2.86	0.30	0.25	0.45	16.74
02/1998	1.18	3.74	0.58	1.11	0.89	32.25
03/1998	0.87	1.77	0.29	0.33	0.42	18.42
04/1998	0.74	1.80	0.21	0.56	0.66	22.70
05/1998	0.52	1.92	0.13	0.44	0.59	25.84
06/1998	0.36	1.67	0.10	0.44	0.56	19.96
07/1998	0.29	1.31	0.17	0.21	0.41	14.19
08/1998	0.51	1.52	0.14	0.13	0.37	14.29
09/1998	0.75	1.37	0.16	1.16	0.82	22.10
10/1998	0.27	1.77	0.29	0.43	0.40	14.20
11/1998	2.19	3.41	0.89	2.38	1.61	32.60
12/1998	2.44	4.17	0.86	1.60	0.98	22.97
Annual values	**0.89**	**2.27**	**0.34**	**0.75**	**0.67**	**21.26**

Zingst, DE09R, 1998

	sum precip mm	heptachlor precip ng/l	endrin precip ng/l	op_DDT precip ng/l	sum_PCB precip ng/l	PCB_118 precip ng/l	PCB_138 precip ng/l	PCB_153 precip ng/l	PCB_180 precip ng/l	PCB_28 precip ng/l	PCB_52 precip ng/l	pyrene precip ng/l	benz_a_anthracene precip ng/l	benzo_a_pyrene precip ng/l
01/1998	58.50	0.01	0.13	0.47	2.38	0.14	0.86	0.68	0.59	0.01	0.07	12.00	5.20	3.10
02/1998	36.60	0.01	0.13	1.20	2.95	0.07	0.50	0.16	0.26	0.50	0.75	8.90	5.40	3.50
03/1998	37.80	0.01	0.13	0.67	1.30	0.07	0.42	0.22	0.20	0.01	0.07	14.00	6.30	2.90
04/1998	72.00	0.01	0.13	0.29	0.58	0.07	0.12	0.13	0.07	0.01	0.07	19.00	9.50	6.70
05/1998	15.20	0.04		0.40	2.46	0.27	0.54	0.16	0.10	0.03	0.52	12.00	4.80	3.90
06/1998	190.00	0.13	0.07		0.41		0.07	0.07	0.07		0.13	16.30	7.30	9.50
07/1998	83.20	0.13	0.07		0.41		0.07	0.07	0.07		0.13	10.60	0.70	2.10
08/1998	55.60	0.13	0.07		0.41		0.07	0.07	0.07		0.13	8.60	0.70	1.90
09/1998	53.80	0.13	0.07		0.41		0.07	0.07	0.07		0.13	12.30	0.70	1.80
10/1998	51.60	0.13	0.07		0.54		0.07	0.07	0.07		0.26	22.70	3.90	3.00
11/1998	84.00	0.13	0.07		0.41		0.07	0.07	0.07		0.13	69.60	16.30	10.60
12/1998	34.00	0.13	0.07		0.41		0.07	0.07	0.07		0.13	45.90	9.40	9.00
Annual values	**772.30**	**0.10**	**0.09**	*0.56*	**0.79**	*0.10*	**0.18**	**0.14**	**0.13**	*0.09*	**0.16**	**21.76**	**6.36**	**5.82**

Zingst, DE09R, 1998

	benzo_b_fluoranthene precip ng/l	benzo_ghi_perylene precip ng/l	benzo_k_fluoranthene precip ng/l	chrysene precip ng/l	anthracene precip ng/l	PCB_101 precip ng/l	dieldrin precip ng/l	aldrin precip ng/l	HCB precip ng/l	pp_DDT precip ng/l	fluoranthene precip ng/l	inden_123cd_pyrene precip ng/l	phenanthrene precip ng/l	dibenzo_ah_anthracene precip ng/l
01/1998	9.30	4.60	3.50	10.00	0.80	0.03	0.07	0.01	0.18	2.30	19.00	3.30	27.00	0.70
02/1998	6.10	5.20	2.70	7.60	0.50	0.71	0.07	0.01	0.05	1.90	19.00	3.30	21.00	0.70
03/1998	5.60	3.50	2.60	7.10	0.90	0.31	0.27	0.01	0.06	1.60	26.00	3.30	25.00	0.70
04/1998	11.00	10.00	5.10	16.00	0.60	0.11	0.59	0.01	0.21	1.90	55.00	3.30	19.00	0.70
05/1998	4.60	5.60	2.10	6.20	1.20	0.84	0.07	0.01	0.55	1.10	19.00	3.30	31.00	0.70
06/1998	15.70	12.40	7.30	14.50	2.50	0.07	0.07	0.07	0.03	0.07	12.60	12.10		2.80
07/1998	3.30	4.40	0.70	3.00	2.10	0.07	0.07	0.07	0.03	0.07	9.20	3.30		0.70
08/1998	3.20	4.30	0.70	2.70	1.90	0.07	0.07	0.07	0.03	0.07	1.30	3.30	3.50	0.70
09/1998	3.70	4.20	0.70	3.90	2.00	0.07	0.07	0.07	0.03	0.07	15.40	3.30	29.90	0.70
10/1998	9.40	5.40	3.70	10.30	1.30	0.07	0.07	0.07	0.03	0.07	30.20	5.10	52.30	0.80
11/1998	33.10	14.70	13.20	36.30	4.90	0.07	0.07	0.07	0.03	0.07	93.50	16.90	85.40	2.40
12/1998	22.40	12.50	8.80	24.80	2.20	0.07	0.07	0.21	0.03	0.07	73.10	14.00	100.10	2.00
Annual values	**12.30**	**8.45**	**5.08**	**13.16**	**2.04**	**0.13**	**0.13**	**0.06**	**0.07**	**0.59**	**29.78**	**7.54**	**40.50**	**1.47**

Concentrations at the Latvian HELCOM Stations in 1998

Rucava, LV10R, 1998

	sum precip mm	k presip µS/cm	ph precip	SO4-- precip mg S/l	SO4-corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	66.00	24.38	4.36	0.44	0.37	0.27	0.28	0.95	0.14	1.08	0.22	0.15
02/1998	54.80	22.04	4.56	0.61	0.53	0.44	0.39	0.78	0.13	1.11	0.44	0.10
03/1998	46.30	18.20	4.36	0.52	0.46	0.48	0.26	0.41	0.10	0.92	0.26	0.21
04/1998	41.90	18.69	4.54	0.37	0.34	0.44	0.23	0.27	0.05	0.60	0.25	0.06
05/1998	29.70	30.86	4.53	0.64	0.61	0.68	0.45	0.28	0.13	0.69	0.46	0.10
06/1998	59.80	17.94	4.59	0.33	0.30	0.37	0.32	0.36	0.05	0.80	0.14	0.08
07/1998	90.60	10.70	4.15	0.18	0.17	0.24	0.16	0.31	0.04	0.26	0.10	0.07
08/1998	131.00	12.83	4.13	0.20	0.17	0.22	0.16	0.30	0.05	0.56	0.13	0.06
09/1998	64.60	11.17	4.64	0.29	0.28	0.22	0.19	0.17	0.03	0.25	0.20	0.06
10/1998	161.50	18.09	4.67	0.54	0.47	0.31	0.41	0.85	0.13	1.63	0.51	0.08
11/1998	61.80	11.40	4.67	0.23	0.21	0.15	0.21	0.21	0.06	0.57	0.11	0.05
12/1998	49.20	22.13	4.13	1.14	1.08	0.31	0.56	0.58	0.06	1.19	0.28	0.03
Annual values	**857.20**	**16.94**	**4.38**	**0.42**	**0.38**	**0.31**	**0.30**	**0.50**	**0.08**	**0.86**	**0.27**	**0.09**

Rucava, LV10R, 1998

	sum precip mm	Cd precip µg/l	Cu precip µg/l	Pb precip µg/l	Zn precip µg/l
01/1998	66.00	0.15	0.30	9.40	34.60
02/1998	54.80	0.08	1.40	5.10	15.90
03/1998	46.30	0.62	1.00	3.70	35.80
04/1998	41.90	0.89	2.10	2.70	25.40
05/1998	29.70	0.07	1.60	4.80	17.70
06/1998	59.80	0.16	1.00	3.10	21.50
07/1998	90.60	0.03	0.90	1.00	5.10
08/1998	131.00	0.06	0.20	1.20	4.10
09/1998	64.60	0.04	0.50	1.00	8.80
10/1998	161.50	0.10	0.40	2.90	6.80
11/1998	61.80	0.02	0.30	1.00	1.30
12/1998	49.20	0.17	0.90	1.40	12.00
Annual values	**857.20**	**0.15**	**0.71**	**2.83**	**12.86**

Rucava, LV10R, 1998

	SO2 air µgS/m3	NO2 air µgN/m3	Cd air µg/m3	Pb air µg/m3	Cu air µg/m3	Zn air µg/m3	SO4-- aerosol µg/m3	NH3+NH4 areosol+air µg/m3	HNO3+NO3 areosol+air µg/m3	NO3 aerosol µgN/m3	NH4 aerosol µgN/m3
01/1998	1.11	1.51	0.71	10.63	2.93	49.57	0.99	1.35	0.56	0.45	1.24
02/1998	0.78	1.10	0.31	2.82	2.38	60.70	0.99	0.65	0.47	0.42	0.57
03/1998	0.28	0.25	0.19	0.60	0.71	8.97	0.21	0.28	0.07	0.05	0.12
04/1998	0.40	0.54	0.12	0.70	0.62	11.65	0.14	0.44	0.06	0.05	0.24
05/1998	0.23	0.59	0.09	1.35	0.37	8.75	0.05	0.45	0.05	0.04	0.30
06/1998	0.43	0.44	0.05	0.82	0.65	6.11	0.09	0.44	0.07	0.04	0.31
07/1998	0.52	0.42	0.06	0.65	0.66	2.93	0.07	0.36	0.05	0.03	0.23
08/1998	0.32	0.47	0.02	0.45	0.20	1.87	0.16	0.33	0.05	0.03	0.23
09/1998	0.88	0.56	0.08	1.24	0.33	5.65	0.14	0.52	0.05	0.05	0.39
10/1998	0.41	0.55	0.02	0.21	0.24	1.41	0.11	0.36	0.04	0.03	0.26
11/1998	0.26	0.51	0.02	0.31	0.24	2.75	0.06	0.35	0.02	0.02	0.26
12/1998	0.12	0.97	0.04	0.54	0.27	3.59	0.29	0.70	0.06	0.06	0.56
Annual values	**0.47**	**0.65**	**0.14**	**1.67**	**0.78**	**13.12**	**0.28**	**0.51**	**0.13**	**0.10**	**0.39**

Zoseni, LV16R, 1998

	sum precip mm	k presip µS/cm	ph precip	SO4-- precip mg S/l	SO4- corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	62.80	30.67	5.51	0.93	0.85	0.74	0.71	0.63	0.37	1.24	1.05	0.48
02/1998	74.90	37.24	5.81	0.72	0.65	0.56	0.63	0.33	0.39	1.03	1.31	0.53
03/1998	32.30	37.01	5.96	0.92	0.80	0.88	0.58	1.27	0.46	1.73	1.90	0.46
04/1998	23.50	40.78	5.72	0.94	0.89	0.80	0.70	0.57	0.66	1.62	2.04	0.74
05/1998	130.00	19.43	5.50	0.60	0.59	0.36	0.44	0.10	0.35	0.42	1.07	0.19
06/1998	131.60	12.94	6.17	0.48	0.48	0.40	0.34	0.09	0.23	0.28	0.68	0.08
07/1998	112.70	10.87	6.15	0.41	0.32	0.10	0.24	0.21	0.24	0.50	0.64	0.29
08/1998	128.30	7.55	4.87	0.33	0.31	0.04	0.24	0.13	0.20	0.38	0.38	0.07
09/1998	46.90	11.73	5.05	0.52	0.51	0.28	0.43	0.09	0.30	0.28	0.74	0.12
10/1998	104.70	13.74	5.65	0.40	0.36	0.21	0.35	0.31	0.26	0.87	0.70	0.10
11/1998	14.30	33.39	5.54	0.73	0.69	0.49	0.49	0.23	0.07	0.84	0.25	0.49
12/1998	66.30	22.72	5.08	0.70	0.65	0.45	0.65	0.55	0.21	1.35	0.91	0.11
Annual values	**928.30**	**18.59**	**5.37**	**0.55**	**0.51**	**0.35**	**0.42**	**0.27**	**0.29**	**0.71**	**0.85**	**0.22**

Zoseni, LV16R, 1998

	sum precip mm	Cd precip µg/l	Cu precip µg/l	Pb precip µg/l	Zn precip µg/l
01/1998	62.80	0.09	0.30	4.70	17.00
02/1998	74.90	0.07	3.00	2.70	7.80
03/1998	30.70	0.21	7.40	5.10	37.80
04/1998	23.50	0.25	2.30	1.70	17.00
05/1998	130.00	0.01	1.00	2.20	8.40
06/1998	131.60	0.07	1.50	1.30	12.90
07/1998	112.70	0.04	1.10	1.00	11.70
08/1998	128.30	0.04	3.40	1.70	12.10
09/1998	46.90	0.04	1.10	1.00	56.10
10/1998	104.70	0.07	1.10	1.00	4.60
11/1998	14.30	0.17		4.50	17.80
12/1998	66.30	0.08	1.00	1.40	25.40
Annual values	**926.70**	**0.07**	**1.85**	**1.93**	**15.03**

Zoseni, LV16R, 1998

	SO2 air µgS/m3	NO2 air µgN/m3	Cd air µg/m3	Pb air µg/m3	Cu air µg/m3	Zn air µg/m3	SO4-- aerosol µg/Sm3	NH3+NH4 areosol+air µgN/m3	HNO3+NO3 areosol+air µgN/m3	NO3 aerosol µgN/m3	NH4 aerosol µgN/m3
01/1998	0.67	1.27	0.41	5.25	1.95	**496.70**	0.48	0.73	0.23	0.19	0.60
02/1998	0.57	0.55	0.32	6.35	1.82	**945.83**	0.41	1.03	0.29	0.21	0.91
03/1998	0.53	0.62	0.18	1.20	1.24	**211.62**	0.23	0.81	0.09	0.07	0.68
04/1998	0.60	0.57	0.19	1.68	0.82	10.99	0.56	1.05	0.22	0.19	0.85
05/1998	0.79	0.40	0.11	1.19	0.92	7.04	0.57	0.76	0.20	0.17	0.59
06/1998	0.86	0.35	0.10	1.24	0.54	5.56	0.10	0.87	0.08	0.05	0.63
07/1998	0.52	0.42	0.11	2.29	0.71	6.90	0.12	0.71	0.09	0.04	0.48
08/1998	0.31	0.38	0.06	1.52	0.74	5.60	0.40	0.61	0.07	0.04	0.40
09/1998	0.52	0.42	0.14	2.24	0.82	9.65	0.18	0.73	0.08	0.09	0.47
10/1998	0.49	0.62	0.23	4.22	0.68	9.67	0.16	0.67	0.15	0.14	0.47
11/1998	0.71	0.79	0.34	2.65	0.95	15.56	0.25	0.95	0.24	0.20	0.76
12/1998	0.95	0.97	0.37	3.48	0.85	14.57	0.45	0.96	0.32	0.27	0.81
Annual values	**0.64**	**0.59**	**0.20**	**2.52**	**0.91**	***75.70***	**0.32**	**0.81**	**0.17**	**0.14**	**0.62**

Concentrations at the Lithuanian HELCOM Stations in 1998

Preila, LT15R, 1998

	sum precip mm	ph precip	k precip µS/cm	SO4-- precip mg S/l	SO4- corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	36.10	4.89	54.47	1.33	0.74	0.31	0.87	7.09	14.75	1.38	0.44
02/1998	23.20	4.97	54.94	1.55	0.91	1.08	1.24	7.64	11.81	1.19	0.50
03/1998	19.90	6.12	50.33	1.10	0.70	0.35	0.75	4.84	8.13	1.54	0.42
04/1998	46.66	5.22	12.61	0.89	0.83	0.49	0.37	0.65	0.89	0.88	0.08
05/1998	30.33	4.94	48.57	1.74	1.42	1.31	1.11	3.73	6.45	0.97	0.32
06/1998	80.11	5.37	19.76	0.76	0.64	0.36	0.37	1.36	2.53	0.97	0.21
07/1998	32.74	5.76	19.83	0.64	0.53	0.30	0.35	1.31	2.45	1.02	0.18
08/1998	99.43	5.81	20.70	0.75	0.58	0.37	0.45	2.06	3.99	1.02	0.31
09/1998	73.13	5.99	12.67	0.47	0.39	0.12	0.21	0.92	1.34	0.75	0.10
10/1998	89.99	5.51	41.02	0.93	0.46	0.25	0.51	5.55	8.74	1.77	0.21
11/1998	28.71	5.72	36.44	0.59	0.20	0.20	0.29	4.64	8.36	1.36	0.17
12/1998	23.10	5.26	38.63	0.95	0.59	0.32	0.74	4.28	8.08	1.48	0.27
Annual values	**583.40**	**5.52**	**29.40**	**0.88**	**0.62**	**0.39**	**0.51**	**3.13**	**5.48**	**1.16**	**0.24**

Preila, LT15R, 1998

	sum precip mm	Cd precip µg/l	Cu precip µg/l	Pb precip µg/l	Zn precip µg/l	Mn precip µg/l	Ni precip µg/l	V precip µg/l
01/1998	41.46	0.17	2.17	2.60	17.10	10.20	2.00	1.63
02/1998	36.89	0.17	1.18	1.40	14.95	22.00	1.30	2.50
03/1998	28.46	0.06	1.96	3.40	10.20	24.70	1.16	1.27
04/1998	58.28	0.34	10.57	2.81	39.75	29.63	0.61	0.41
05/1998	25.04	0.09	1.37	1.70	12.50	4.38	0.50	0.32
06/1998	93.96	0.14	1.63	8.35	12.98	3.61	0.58	0.58
07/1998	36.05	0.12	1.80	6.17	18.74	5.91	1.00	0.44
08/1998	150.07	0.07	0.71	3.02	6.12	3.58	0.39	0.29
09/1998	76.06	0.04	0.57	3.08	4.91	1.50	0.75	0.55
10/1998	98.07	0.40	1.17	7.68	8.30	1.30	1.09	0.41
11/1998	33.27	0.21	1.39	4.86	9.74	1.29	0.90	0.61
12/1998	30.16	0.08	1.14	2.56	7.17	0.80	0.73	1.11
Annual values	**707.77**	**0.17**	**1.98**	**4.45**	**12.33**	**7.37**	**0.81**	**0.68**

Preila, LT15R, 1998

	NO2 air µgN/m3	SO2 air µgS/m3	Cd air µg/m3	Cu air µg/m3	Pb air µg/m3	Zn air µg/m3	Mn air µg/m3	V air µg/m3
01/1998	2.53	1.37	0.45	5.06	13.86	25.35	2.46	2.99
02/1998	6.09	8.30	0.35	2.34	13.02	25.83	1.96	4.90
03/1998	1.59	4.78	0.68	2.29	10.31	27.09	1.89	5.68
04/1998	1.62	0.85	0.37	2.37	8.89	20.58	6.32	3.28
05/1998	4.62	0.72	0.22	2.51	7.64	14.17	5.18	2.61
06/1998	31.21	0.21	0.22	1.71	6.26	18.98	2.37	2.15
07/1998	25.37	0.47	0.09	1.26	2.53	10.27	2.01	1.73
08/1998	7.64	0.44	0.10	1.40	2.61	13.65	2.25	1.43
09/1998	2.13	0.59	0.31	2.30	7.74	20.24	10.30	1.56
10/1998	15.10	3.98						
11/1998	50.89	1.70	0.54	2.24	12.88	34.24	3.30	10.64
12/1998	1.47	2.69	0.33	2.26	10.55	23.89	1.90	4.41
Annual values	**12.48**	**2.14**	**0.32**	**2.35**	**8.50**	**20.49**	**3.34**	**3.43**

Preila, LT15R, 1998

	NH4 areosol µgN/m3	NO3 areosol µgN/m3	NH3+NH4 areosol+air µgN/m3	HNO3+NO3 areosol+air µgN/m3	SO4-- aerosol µg/Sm3
01/1998	1.37	0.82	2.15	7.59	1.11
02/1998	5.35	1.38	2.59	1.91	5.03
03/1998	1.03	0.56	1.64	7.06	1.11
04/1998	1.33	0.62	22.36	0.88	1.58
05/1998	1.16	0.56	14.63	0.69	1.20
06/1998	1.02	0.53	1.92	0.62	1.20
07/1998	0.91	0.50	1.61	0.53	1.01
08/1998	0.73	0.40	1.26	0.46	0.80
09/1998	0.95	0.34	1.88	0.45	1.05
10/1998	0.78	0.42	1.12	0.53	0.68
11/1998	4.88	0.70	1.95	0.84	1.48
12/1998	1.32	0.85	2.13	1.04	1.35
Annual values	**1.70**	**0.64**	**4.59**	**1.90**	**1.44**

Concentrations at the Polish HELCOM Stations in 1998

Leba, PL04R, 1998

	sum precip mm	k precip µS/cm	ph precip	SO4-- precip mg S/l	SO4- corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	58.50	31.40	4.39	0.63	0.55	0.49	0.69	0.96	0.14	1.81	0.12	0.06
02/1998	36.20	37.32	4.39	0.86	0.77	0.87	1.07	1.03	0.18	1.90	0.32	0.12
03/1998	43.00	31.44	4.55	0.65	0.52	0.52	0.56	1.50	0.22	3.07	0.29	0.12
04/1998	56.80	29.29	4.38	0.93	0.90	0.68	0.60	0.25	0.05	0.51	0.15	0.06
05/1998	25.20	27.80	4.67	1.21	1.17	1.05	0.66	0.26	0.07	0.79	0.31	0.23
06/1998	101.20	18.44	4.76	0.64	0.60	0.55	0.41	0.39	0.08	0.77	0.23	0.08
07/1998	71.80	17.03	4.72	0.53	0.49	0.39	0.35	0.45	0.06	0.75	0.13	0.07
08/1998	116.80	16.42	4.90	0.52	0.47	0.45	0.36	0.57	0.09	0.96	0.22	0.09
09/1998	36.30	19.27	4.74	0.84	0.80	0.52	0.33	0.42	0.07	0.71	0.34	0.11
10/1998	133.30	22.42	4.79	0.41	0.27	0.17	0.28	1.73	0.22	3.39	0.19	0.09
11/1998	56.10	27.14	4.38	0.53	0.47	0.24	0.47	0.75	0.10	1.47	0.13	0.04
12/1998	56.50	28.58	4.44	0.54	0.45	0.33	0.54	1.07	0.13	2.04	0.17	0.07
Annual values	**791.70**	**23.67**	**4.60**	**0.62**	**0.54**	**0.45**	**0.47**	**0.85**	**0.12**	**1.61**	**0.20**	**0.09**

Leba, PL04R, 1998

	SO2 air µgS/m3	NO2 air µgN/m3	NH3+NH4 areosol+air µgN/m3	HNO3+NO3 areosol+air µgN/m3	NO3 aerosol µgN/m3	NH4 aerosol µgN/m3	SO4-- aerosol µgS/m3
01/1998	2.33	2.35	1.10	0.79	0.71	1.02	0.76
02/1998	1.11	2.74	2.10	1.52	1.44	1.89	1.86
03/1998	1.98	1.32	0.97	0.57	0.49	0.71	0.97
04/1998	1.73	1.66	1.67	0.53	0.50	0.78	1.97
05/1998	1.15	1.15	1.44	0.60	0.41	1.08	1.74
06/1998	1.37	0.96	0.87	0.54	0.45	0.70	1.38
07/1998	0.53	0.93	1.60	0.52	0.43	0.87	1.01
08/1998	0.64	1.02	1.28	0.33	0.23	0.64	0.64
09/1998	0.69	1.14	1.74	0.33	0.28	1.25	1.21
10/1998	1.26	1.31	0.96	0.34	0.33	0.76	0.94
11/1998	3.60	2.83	1.50	0.49	0.48	1.36	1.15
12/1998	2.47	3.03	1.40	0.52	0.45	1.08	1.16
Annual values	**1.57**	**1.70**	**1.37**	**0.58**	**0.51**	**1.01**	**1.21**

Concentrations at the Swedish HELCOM Stations in 1998

Rörvik, SE02R, 1998

	sum precip mm	pH precip	k precip µS/cm	SO4-- precip mg S/l	SO4-- corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	57.90	4.59	28.38	0.42	0.28	0.24	0.42	1.59	0.21	2.73	0.15	0.07
02/1998	52.00	4.67	33.83	0.89	0.65	0.60	0.67	2.73	0.40	4.79	0.55	0.15
03/1998	49.60	4.78	27.45	0.48	0.28	0.42	0.48	2.37	0.32	3.96	0.20	0.12
04/1998	66.40	4.50	19.33	0.63	0.61	0.65	0.58	0.26	0.06	0.45	0.16	0.12
05/1998	29.00	4.69	23.00	0.76	0.67	0.67	0.49	1.00	0.13	1.86	0.21	0.08
06/1998	103.60	4.58	28.09	0.66	0.54	0.45	0.50	1.41	0.18	2.51	0.20	0.10
07/1998	58.80	4.58	31.29	0.57	0.39	0.19	0.30	2.49	0.26	4.42	0.17	0.17
08/1998	82.20	4.55	22.90	0.52	0.41	0.36	0.38	1.43	0.16	2.55	0.15	0.12
09/1998	69.00	4.75	14.88	0.40	0.35	0.28	0.31	0.58	0.10	1.05	0.18	0.10
10/1998	121.90	4.64	29.48	0.59	0.30	0.20	0.35	3.51	0.33	5.82	0.28	0.20
11/1998	32.80	4.40	24.29	0.50	0.41	0.27	0.47	1.09	0.15	2.17	0.13	0.13
12/1998	69.90	4.35	28.03	0.63	0.56	0.48	0.68	0.90	0.13	1.62	0.13	0.11
Annual values	**793.10**	**4.57**	**26.15**	**0.58**	**0.44**	**0.38**	**0.46**	**1.73**	**0.21**	**3.00**	**0.21**	**0.13**

Rörvik, SE02R, 1998

	sum precip mm	Hg precip µg/l
01/1998	48.00	5.70
02/1998	42.00	12.80
03/1998	36.00	12.30
04/1998	54.00	8.20
05/1998	43.00	8.40
06/1998	110.00	5.90
07/1998	71.00	7.80
08/1998	92.00	5.60
09/1998	74.00	3.80
10/1998	31.00	4.30
11/1998	10.00	6.00
12/1998	15.00	
Annual values	**626.00**	**6.96**

Vavihill, SE11R, 1998

	sum precip mm	Hg precip µg/l
01/1997	29.00	15.80
02/1997	40.00	16.80
03/1997	48.00	17.30
04/1997	75.00	9.30
05/1997	43.00	5.70
06/1997	107.00	7.10
07/1997	107.00	3.80
08/1997	87.00	8.90
09/1997	83.00	3.50
10/1997	101.00	5.70
11/1997	24.00	13.10
12/1997	38.00	12.10
Annual values	**782.00**	**8.29**

Rörvik, SE02R, 1998

	SO2 air µgS/m3	NO2 air µg N/m3	SO4 aerosol µgS/m3	NH3+NH4 areosol µgN/m3	HNO3+NO3 areosol µgN/m3	TSP areosol µg/m3
01/1998	0.60	2.99	0.50	0.69	0.60	2.50
02/1998	0.60	2.24	0.94	1.32	0.95	1.26
03/1998	0.71	1.65	0.54	0.91	0.63	1.76
04/1998	0.65	1.25	1.12	1.31	0.43	2.27
05/1998	0.66	1.32	0.72	1.27	0.63	1.21
06/1998	0.56	1.02	0.73	0.84	0.49	0.76
07/1998	0.54	0.86	0.60	0.70	0.45	0.80
08/1998	0.46	0.92	0.36	0.74	0.32	0.76
09/1998	0.38	1.00	1.12	1.38	0.47	1.89
10/1998	0.27	1.11	0.38	0.39	0.25	1.07
11/1998	0.91	2.20	1.13	1.23	0.40	5.13
12/1998	0.89	3.36	0.90	0.99	0.67	2.48
Annual values	**0.60**	**1.66**	**0.75**	**0.98**	**0.52**	**1.83**

Hoburg, SE08, 1998

	SO2 air µgS/m3	NO2 air µg N/m3	SO4 aerosol µgS/m3	TSP areosol µg/m3
01/1998	0.84	1.68	0.53	3.57
02/1998	0.60	1.21	0.74	1.39
03/1998	0.49	0.78	0.62	1.88
04/1998	0.74	0.97	1.14	2.59
05/1998	0.59	1.24	0.70	1.51
06/1998	0.55	1.06	0.75	0.99
07/1998	0.43	0.76	0.53	0.77
08/1998	0.36	0.61	0.41	0.82
09/1998	0.46	0.67	0.74	2.50
10/1998	0.34	0.83	0.47	1.81
11/1998	1.83	0.86	1.13	5.08
12/1998	1.12	1.57	0.92	3.87
Annual values	**0.69**	**1.02**	**0.72**	**2.24**

Vavihill, SE11R, 1998

	sum precip mm	pH precip	k precip µS/cm	SO4-- precip mg S/l	SO4-- corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	32.00	4.53	28.46	0.69	0.56	0.58	0.78	1.61	0.21	2.59	0.23	0.23
02/1998	76.40	4.61	25.30	0.86	0.81	1.03	0.87	0.66	0.11	1.57	0.22	0.10
03/1998	61.80	4.71	19.87	0.47	0.38	0.43	0.48	1.01	0.14	1.70	0.20	0.18
04/1998	58.00	4.65	19.33	0.56	0.53	0.56	0.53	0.24	0.06	0.43	0.15	0.09
05/1998	29.80	4.82	25.93	1.22	1.17	1.23	0.70	0.50	0.09	0.86	0.30	0.21
06/1998	113.20	4.82	21.29	0.58	0.48	0.45	0.37	1.13	0.15	2.04	0.22	0.08
07/1998	123.60	4.85	17.64	0.48	0.42	0.40	0.28	0.72	0.10	1.29	0.12	0.17
08/1998	36.30	4.88	30.13	0.63	0.42	0.48	0.34	2.49	0.22	4.25	0.30	0.21
09/1998	4.70	5.35	10.21	0.33	0.27	0.36	0.29	0.34	0.09	0.65	0.16	0.13
10/1998	172.80	4.69	22.18	0.44	0.35	0.41	0.39	1.19	0.14	2.52	0.15	0.17
11/1998	42.00	4.15	42.51	1.06	0.99	0.77	0.98	0.83	0.13	2.05	0.20	0.20
12/1998	56.40	4.44	31.82	0.80	0.75	0.75	0.86	0.53	0.10	1.10	0.11	0.15
Annual values	**807.00**	**4.64**	**23.69**	**0.62**	**0.54**	**0.57**	**0.52**	**0.96**	**0.12**	**1.85**	**0.18**	**0.15**

Vavihill, SE0011R, 1998

	SO2 air µgS/m3	NO2 air µg N/m3	SO4 aerosol µgS/m3	NH3+NH4 areosol µgN/m3	HNO3+NO3 areosol µgN/m3	TSP areosol µg/m3
01/1998	0.79	3.31	0.46	0.77	0.63	2.55
02/1998	1.02	3.15	1.00	1.63	1.08	2.49
03/1998	0.81	1.49	0.47	0.82	0.51	1.97
04/1998	0.73	1.08	1.16	1.42	0.60	3.22
05/1998	0.53	1.07	0.74	1.43	0.45	1.34
06/1998	0.28	1.14	0.73	1.23	0.46	0.75
07/1998	0.41	1.10	0.55	0.84	0.35	0.91
08/1998	0.35	1.14	0.48	0.87	0.43	1.07
09/1998	0.33	1.26	1.04	1.46	0.46	2.00
10/1998	0.31	1.86	0.43	0.65	0.34	1.13
11/1998	1.56	1.74	1.26	1.29	0.44	5.39
12/1998	1.44	3.72	0.82	1.00	0.61	3.40
Annual values	**0.74**	**1.87**	**0.78**	**1.13**	**0.54**	**2.26**

Aspvreten, SE12R, 1998

	sum precip mm	pH precip	k precip µS/cm	SO4-- precip mg S/l	SO4-- corr precip mg S/l	NH4+ precip mg N/l	NO3- precip mg N/l	Na+ precip mg/l	Mg++ precip mg/l	Cl- precip mg/l	Ca++ precip mg/l	K+ precip mg/l
01/1998	35.10	4.75	13.50	0.29	0.26	0.19	0.37	0.23	0.05	0.46	0.15	0.13
02/1998	4.90	5.36	6.00	0.15	0.11	0.08	0.14	0.43	0.06	0.83	0.07	0.04
03/1998	33.60	4.78	11.76	0.29	0.25	0.20	0.30	0.29	0.07	0.61	0.11	0.09
04/1998	33.00	4.90	17.11	0.61	0.57	0.40	0.39	0.22	0.08	0.70	0.36	0.09
05/1998	60.50	4.97	16.44	0.71	0.69	0.51	0.32	0.10	0.04	0.39	0.35	0.07
06/1998	55.80	4.66	17.88	0.56	0.55	0.34	0.33	0.08	0.03	0.44	0.21	0.08
07/1998	41.40	4.81	12.87	0.29	0.27	0.18	0.28	0.12	0.07	0.34	0.15	0.14
08/1998	50.20	5.08	13.27	0.40	0.37	0.27	0.30	0.15	0.08	0.42	0.28	0.13
09/1998	40.70	4.72	15.68	0.52	0.49	0.30	0.26	0.18	0.07	0.35	0.17	0.13
10/1998	25.10	4.62	16.52	0.33	0.28	0.14	0.29	0.50	0.10	1.89	0.48	0.13
11/1998	17.20	4.55	31.52	1.00	0.91	0.41	0.61	0.37	0.13	1.68	0.80	0.19
12/1998	29.10	4.45	25.13	0.60	0.58	0.22	0.55	0.18	0.07	0.33	0.12	0.13
Annual values	**426.60**	**4.79**	**16.37**	**0.50**	**0.47**	**0.30**	**0.34**	**0.19**	**0.05**	**0.58**	**0.26**	**0.11**

Aspvreten, SE12R, 1998

	sum precip mm	Cd precip µg/l	Cu precip µg/l	Pb precip µg/l	Zn precip µg/l	Cr precip µg/l	Co precip µg/l	Ni precip µg/l	As precip µg/l	Mn precip µg/l	V precip µg/l
01/1998	66.00	0.06	1.96	3.94	6.50	0.21	0.01	0.24	0.29	0.70	0.52
02/1998	57.00	0.04	6.01	1.47	8.70	0.34	0.01	0.23	0.09	1.50	0.44
03/1998	29.00	0.04	5.56	2.13	6.90	0.40	0.02	0.33	0.11	2.60	0.70
04/1998	26.00	0.11	1.44	3.12	12.10	0.11	0.03	0.03	0.24	2.70	0.61
05/1998	68.00	0.37	5.97	2.34	54.40	0.45	0.07	0.03	0.45	21.70	0.36
06/1998	30.00	0.03	3.08	3.01	39.30	0.19	0.02	0.16	0.09	1.70	0.32
07/1998	31.00	0.06	4.13	3.13	3.50	0.31	0.05	0.15	0.18	2.70	0.29
08/1998	50.00	0.02	0.98	1.15	23.00	0.12	0.01	0.35	0.12	2.10	0.21
09/1998	39.00	0.07	1.10	3.40	27.30	0.08	0.02	0.62	0.23	2.50	0.30
10/1998	37.00	0.05	1.38	1.60	26.10	0.05	0.02	0.25	0.14	2.20	0.48
11/1998	21.00	0.11	1.60	3.68	9.00	0.23	0.03	0.71	0.31	2.60	2.06
12/1998	44.00	0.08	8.30	2.25	7.40	0.23	0.02	0.30	0.26	1.60	0.59
Annual values	**498.00**	**0.10**	**3.69**	**2.53**	**20.32**	**0.24**	**0.03**	**0.26**	**0.22**	**4.61**	**0.50**

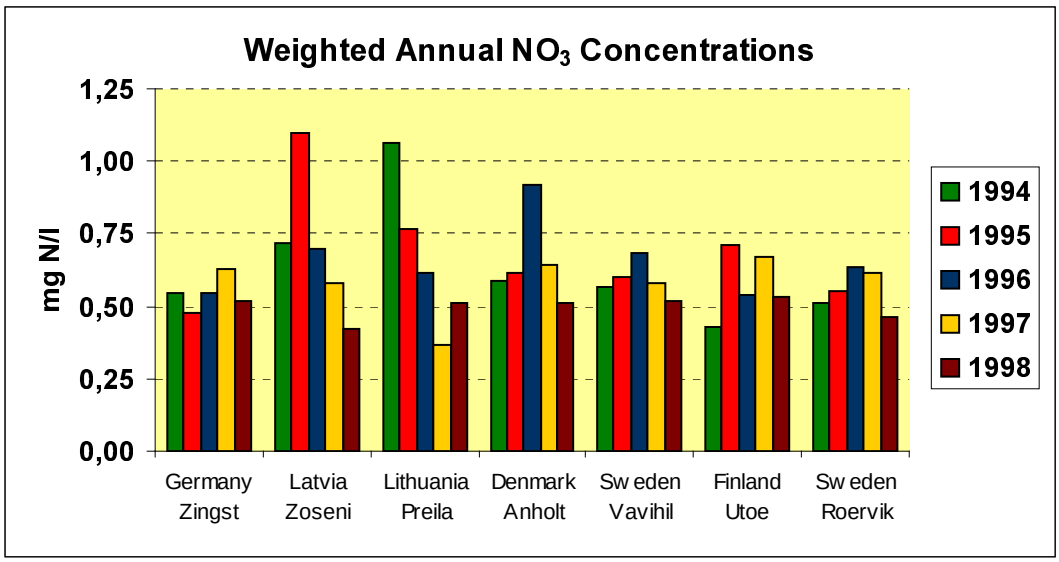
Aspvreten, SE12R, 1998

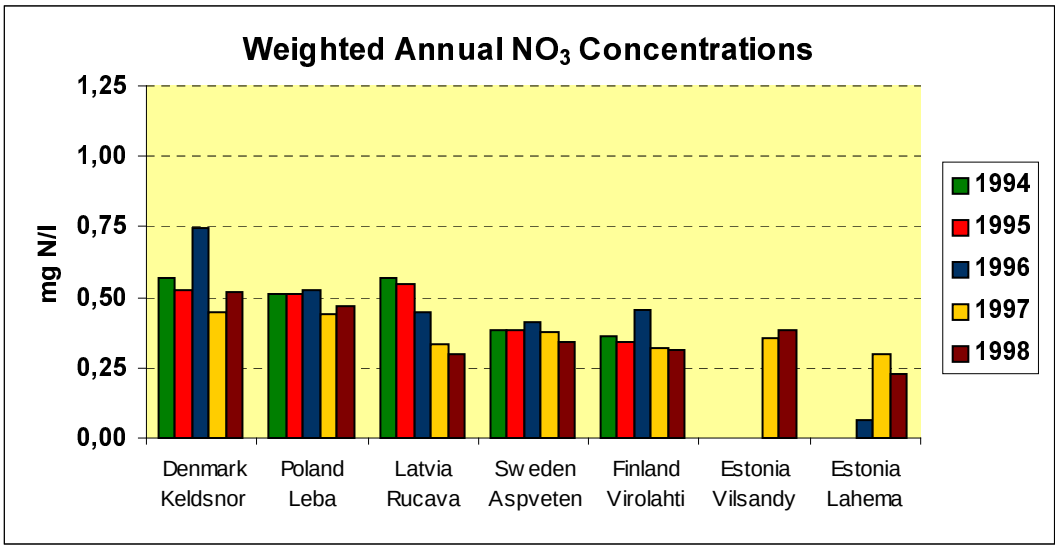
	sum precip mm	Hg precip µg/l
01/1998	36.00	10.60
02/1998	37.00	8.50
03/1998	31.00	9.40
04/1998	27.00	12.10
05/1998	59.00	7.70
06/1998	73.00	9.80
07/1998	44.00	10.90
08/1998	62.00	6.40
09/1998	47.00	5.20
10/1998	45.00	5.90
11/1998	19.00	7.80
12/1998	27.00	6.10
Annual values	**507.00**	**8.25**

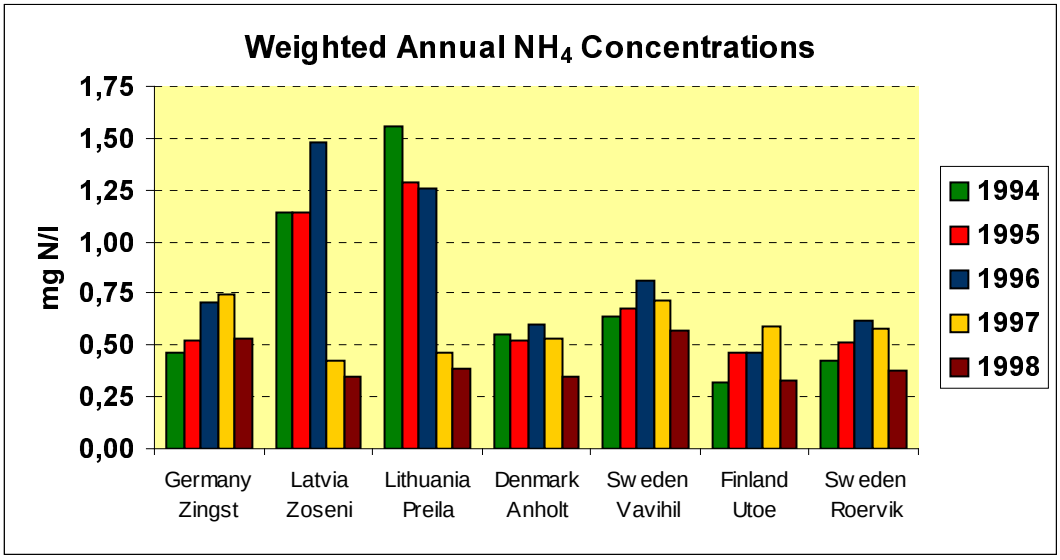
Aspvreten, SE12R, 1998

	SO2 air µgS/m3	NO2 air µg N/m3	SO4 aerosol µgS/m3	NH3+NH4 areosol µgN/m3	HNO3+NO3 areosol µgN/m3
01/1998	0.31	1.58	0.57	0.40	0.35
02/1998	0.30	1.05	0.59	0.52	0.32
03/1998	0.42	0.71	0.54	0.49	0.24
04/1998	0.58	0.77	1.05	0.83	0.33
05/1998	0.27	0.53	0.53	0.42	0.25
06/1998	0.19	0.53	0.40	0.39	0.21
07/1998	0.22	0.43	0.30	0.34	0.17
08/1998	0.12	0.52	0.19	0.25	0.12
09/1998	0.21	0.67	0.55	0.49	0.21
10/1998	0.18	0.94	0.27	0.20	0.16
11/1998	0.55	1.15	0.90	0.61	0.19
12/1998	0.51	1.36	0.66	0.45	0.28
Annual values	**0.33**	**0.85**	**0.55**	**0.45**	**0.24**

Nitrogen Concentrations and pH in Precipitation



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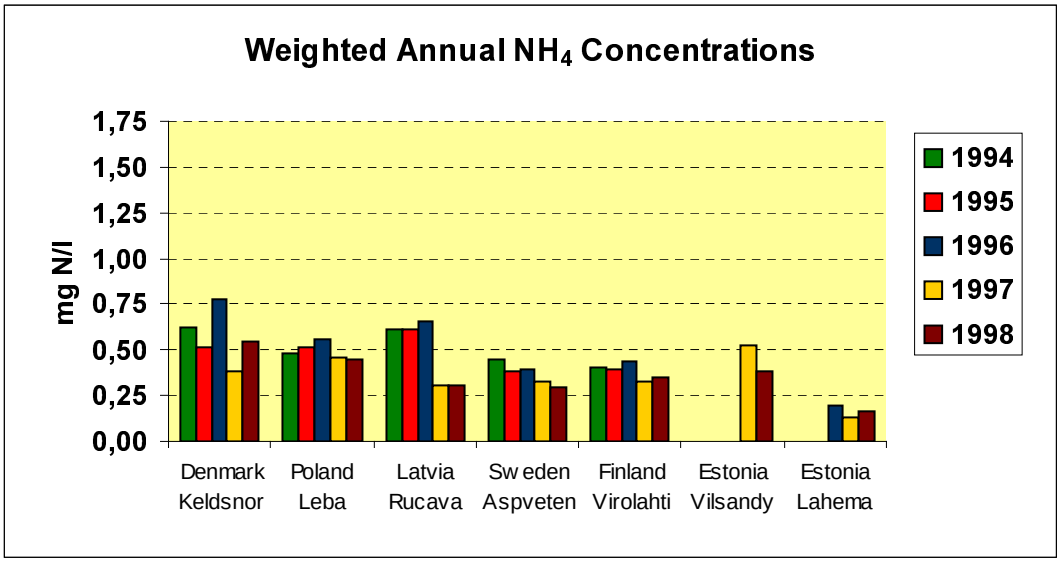
Sweden Vavihil
Finland Utoe
Sweden Roervik
1994
1995
1996
1997
1998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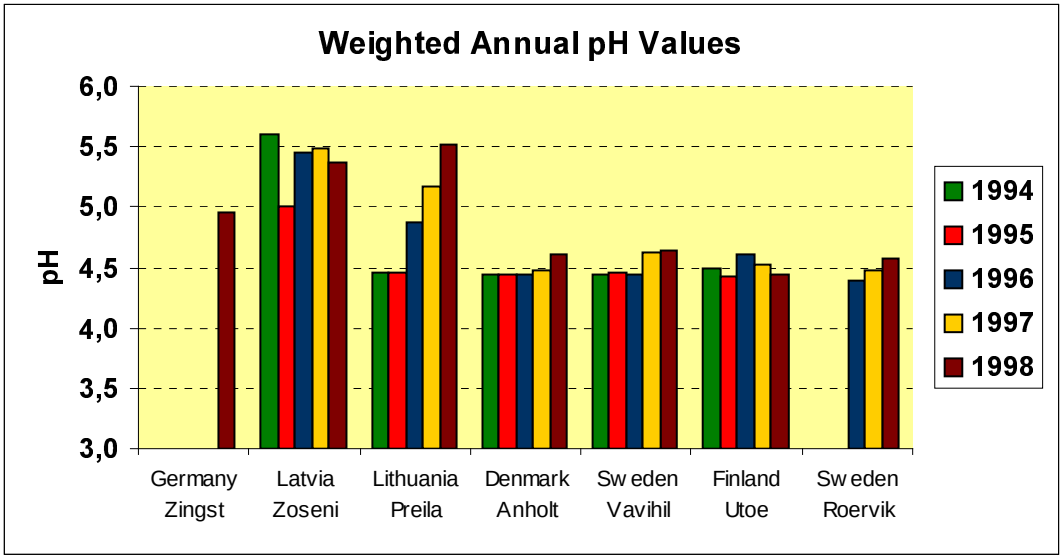
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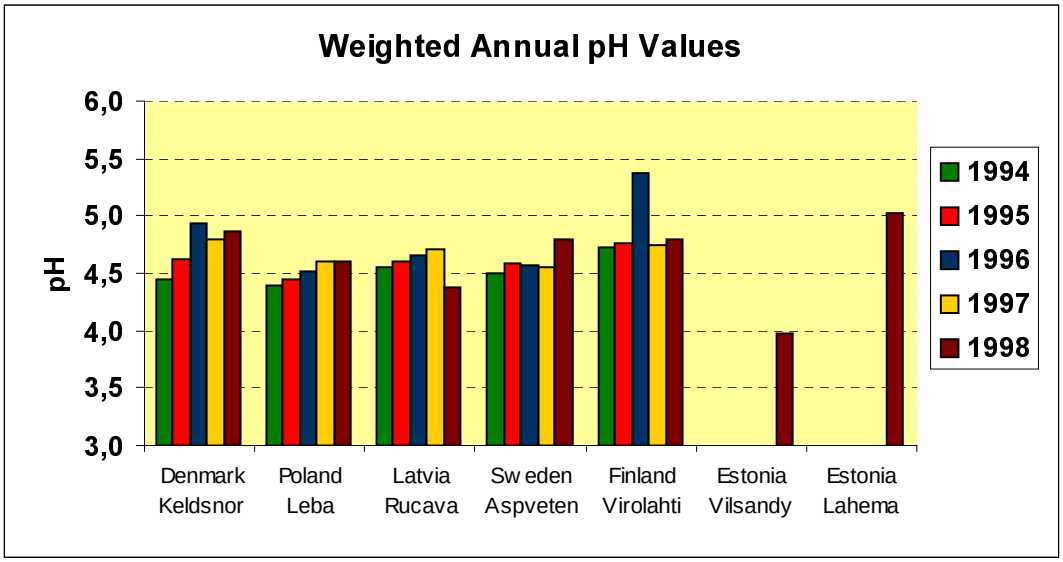
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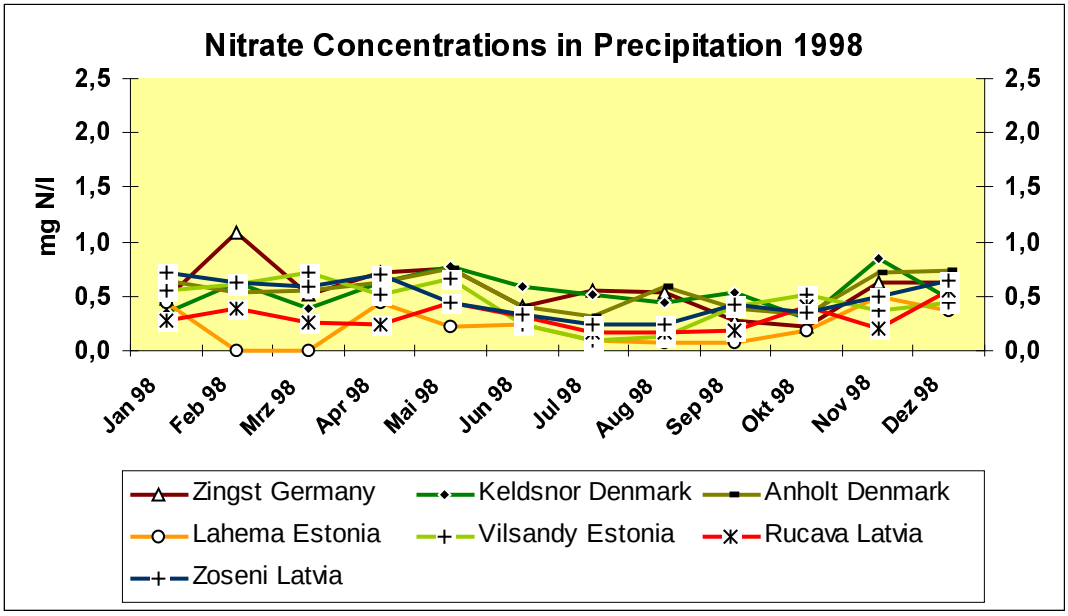
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Mrz 98
Apr 98
Mai 98
Jun 98
Jul 98
Aug 98
Sep 98
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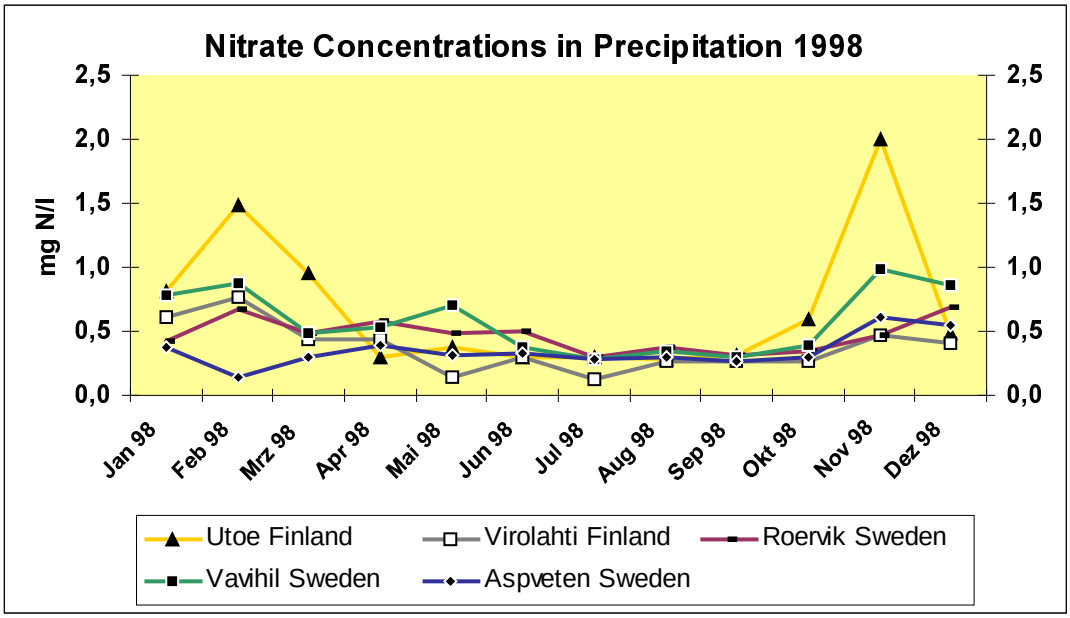
Anholt Denmark
Lahema Estonia
Vilsandy Estonia
Rucava Latvia
Zoseni Latvia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mg N/l
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1,0
0,5
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Feb 98
Mrz 98
Apr 98
Mai 98
Jun 98
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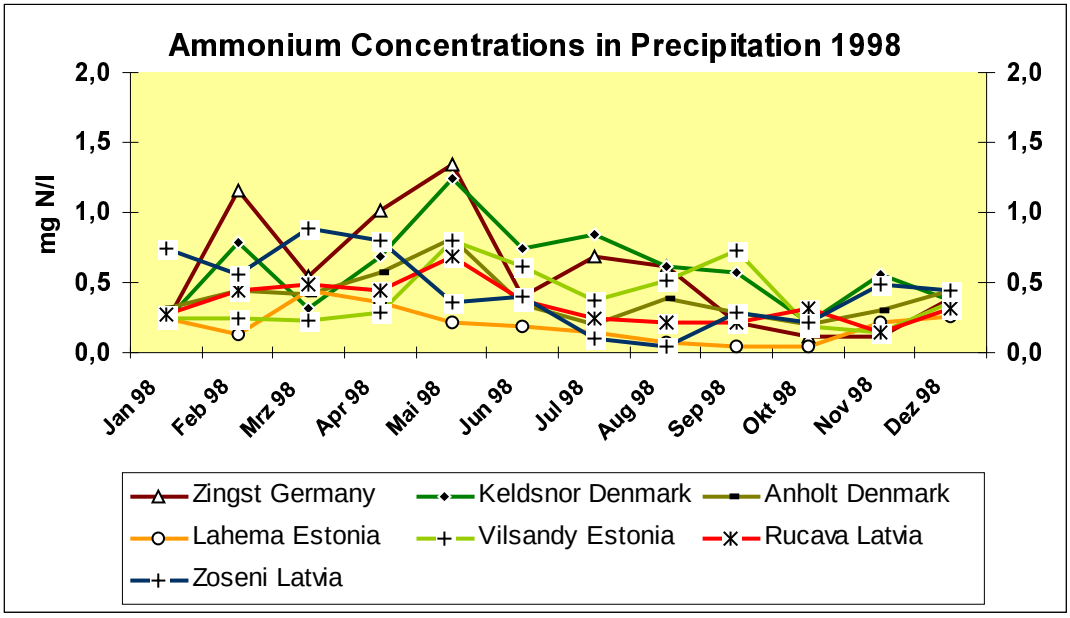
Vavihil Sweden
Aspveten Sweden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Mai 98
Jun 98
Jul 98
Aug 98
Sep 98
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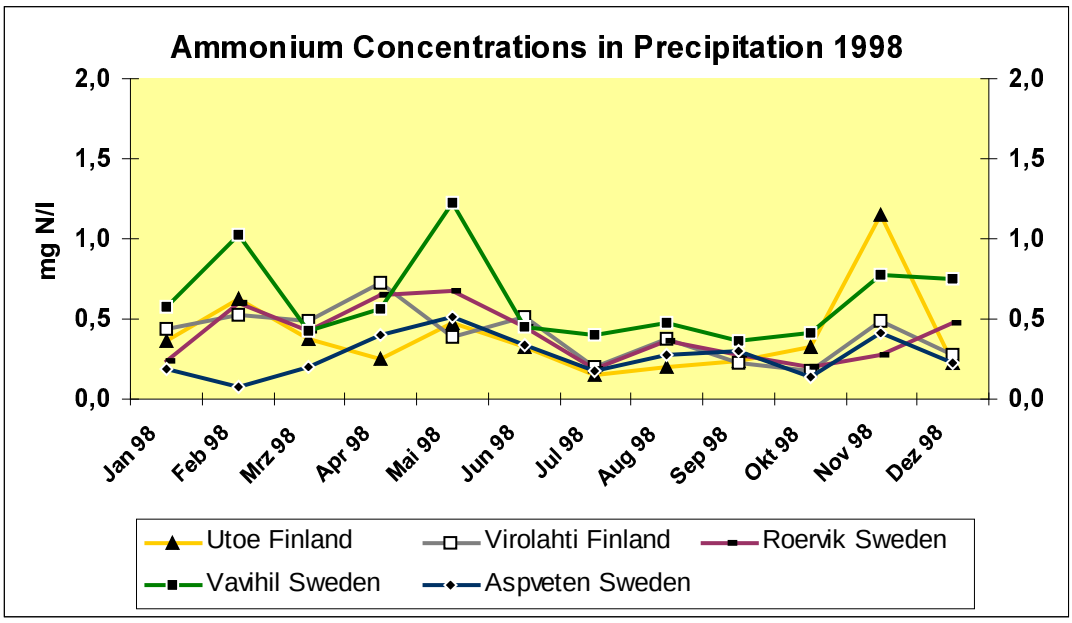
Anholt Denmark
Lahema Estonia
Vilsandy Estonia
Rucava Latvia
Zoseni Latvia


Ammonium Concentrations in Precipitation 1998
mg N/l
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1,5
1,0
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0,0
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Feb 98
Mrz 98
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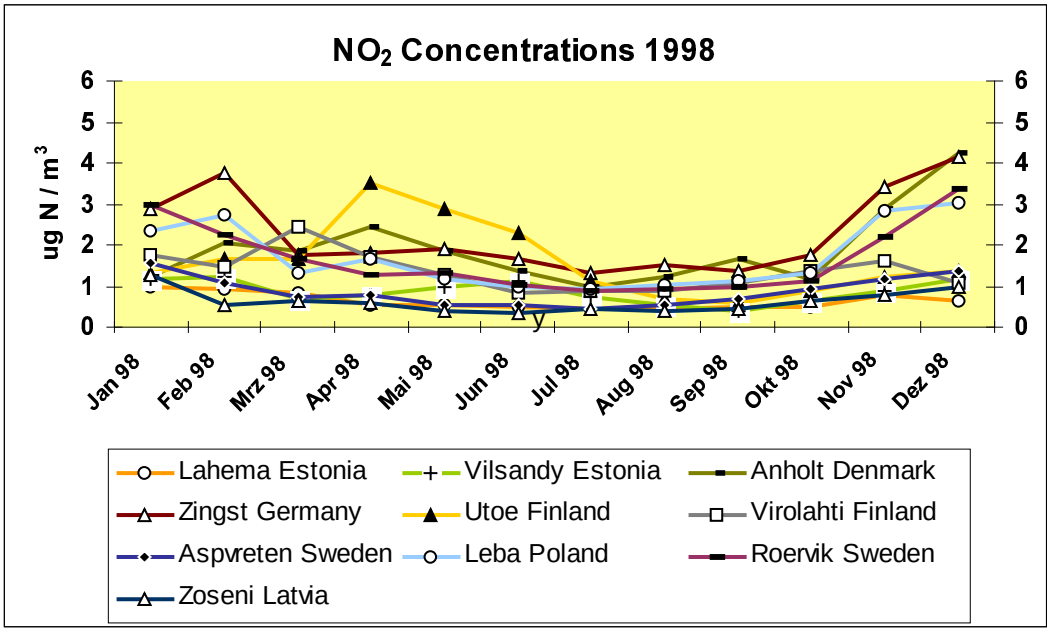
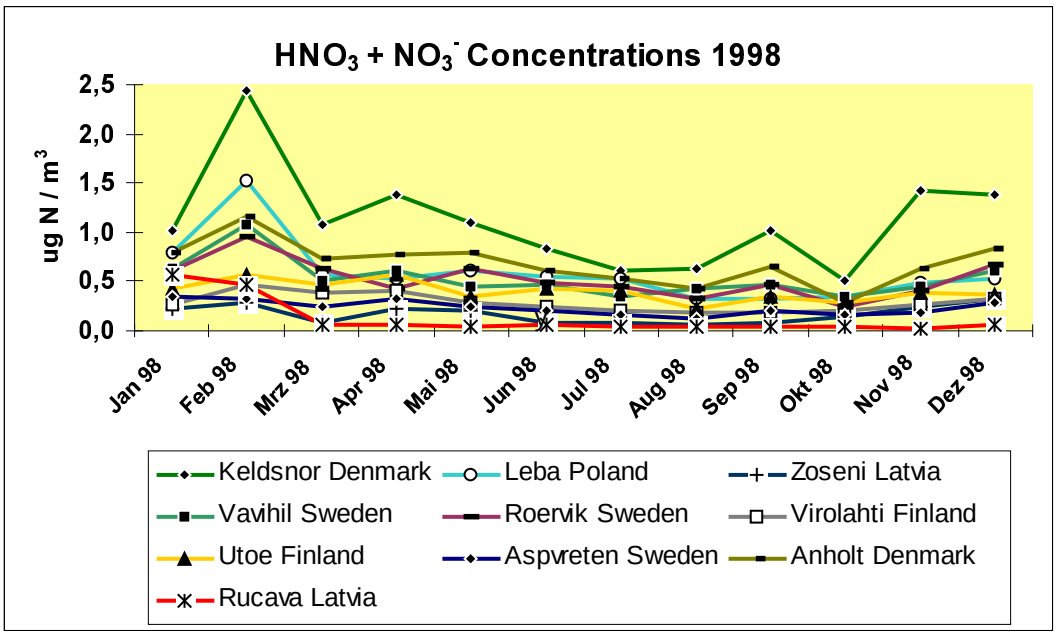
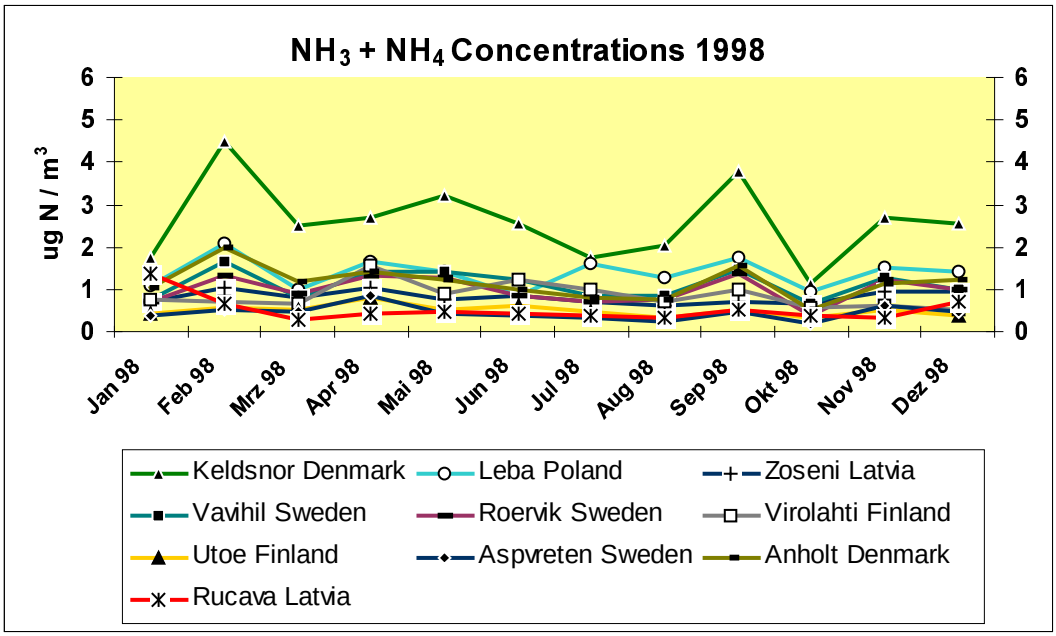
Jun 98
Jul 98
Aug 98
Sep 98
Okt 98
Nov 98
Dez 98
Utoe Finland
Virolahti Finland
Roervik Sweden
Vavihil Sweden
Aspveten Sweden

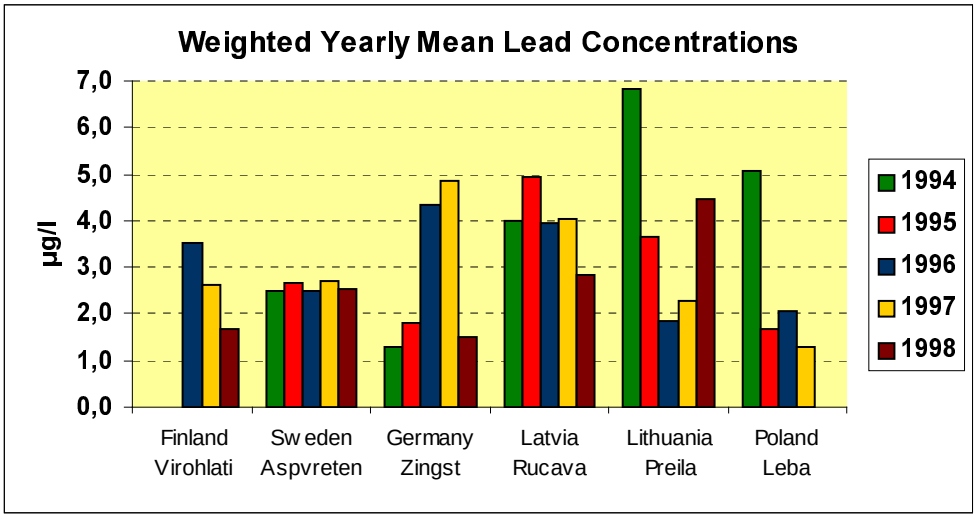
Nitrogen Concentrations in the Air

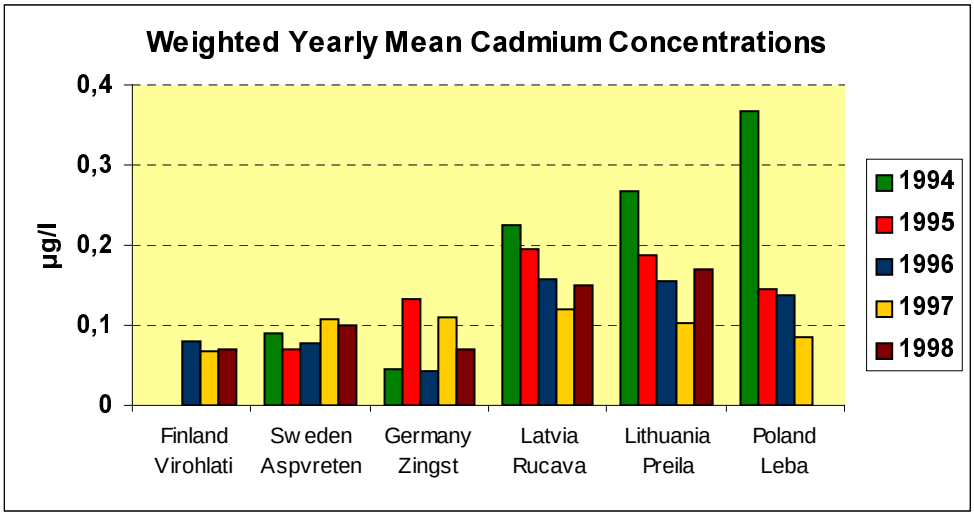


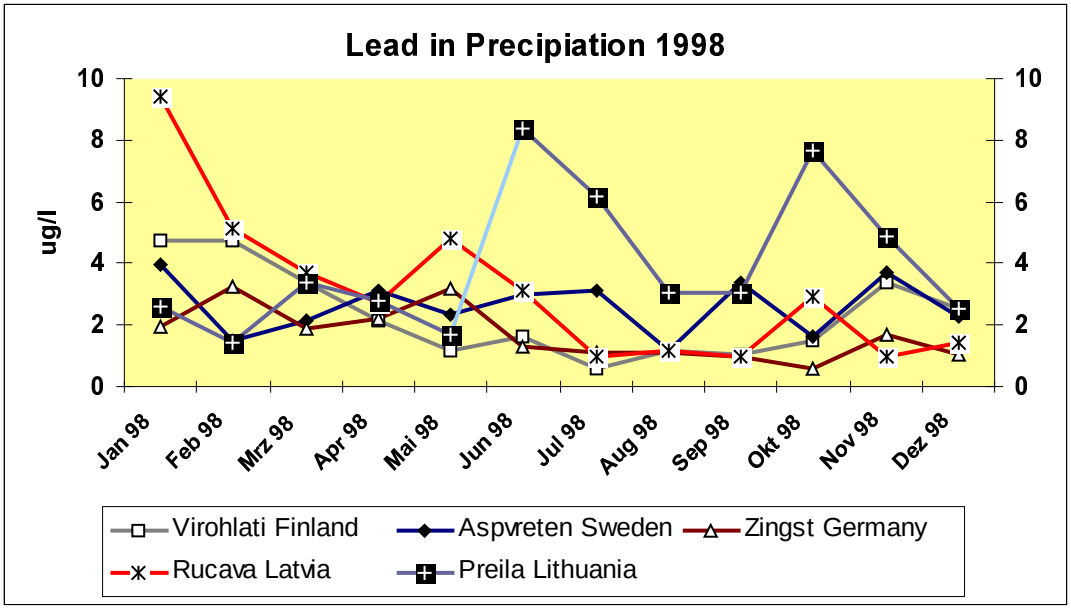


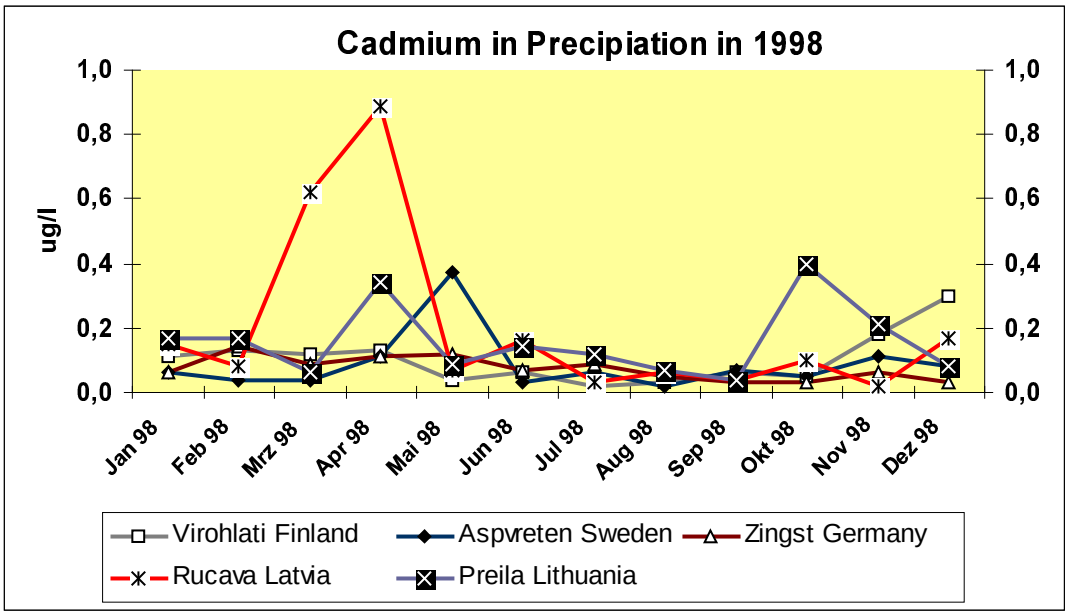

NH3 + NH4 Concentrations 1998
ug N / m3
0
1
2
3
4
5
6
Jan 98
Feb 98
Mrz 98
Apr 98
Mai 98
Jun 98
Jul 98
Aug 98
Sep 98
Okt 98
Nov 98
Dez 98
Keldsnor Denmark
Leba Poland
Zoseni Latvia
Vavihil Sweden
Roervik Sweden
Virolahti Finland
Utoe Finland
Aspvreten Sweden
Anholt Denmark
Rucava Latvia

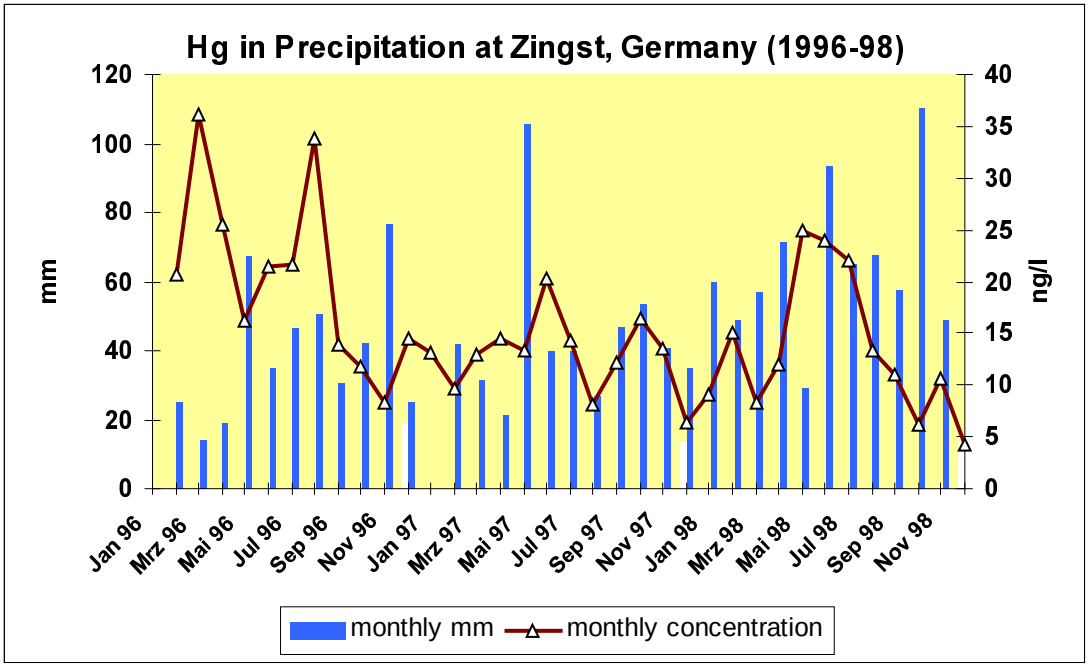
Heavy Metal Concentrations in Precipitation

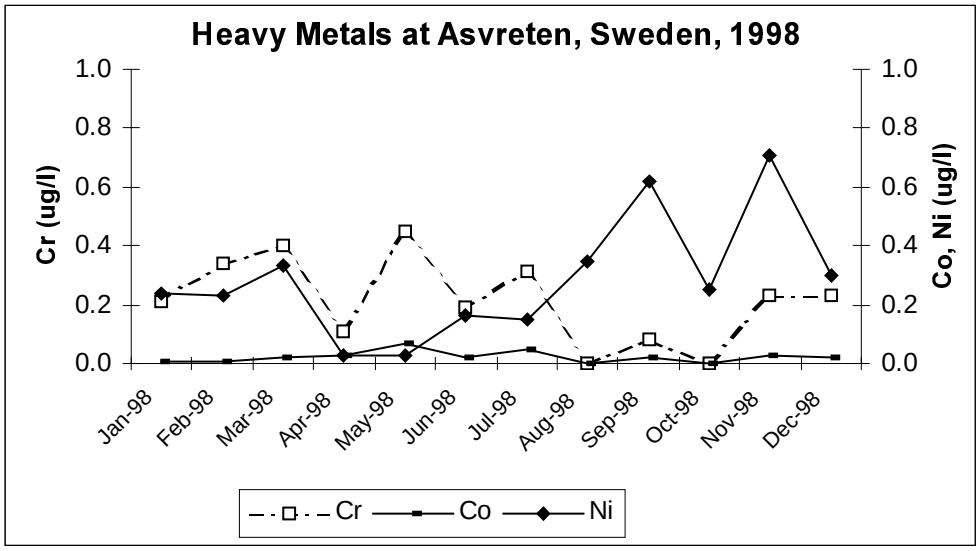




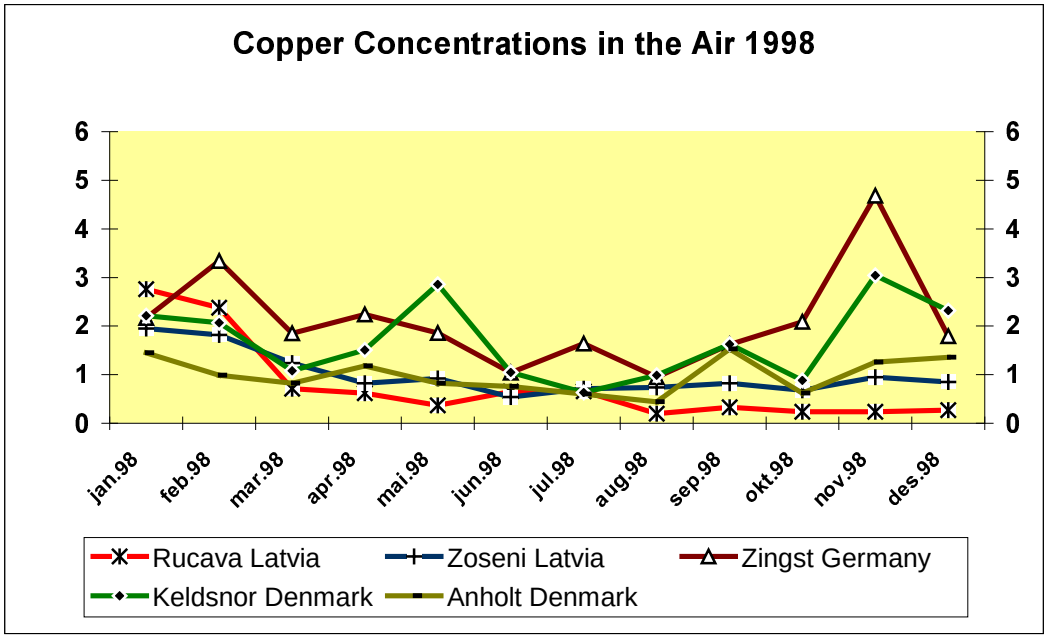

Lead in Precipiation 1998
ug/l
10
8
6
4
2
0
Jan 98
Feb 98
Mrz 98
Apr 98
Mai 98
Jun 98
Jul 98
Aug 98
Sep 98
Okt 98
Nov 98
Dez 98
Virohlati Finland
Aspvreten Sweden
Zingst Germany
Rucava Latvia
Preila Lithuania

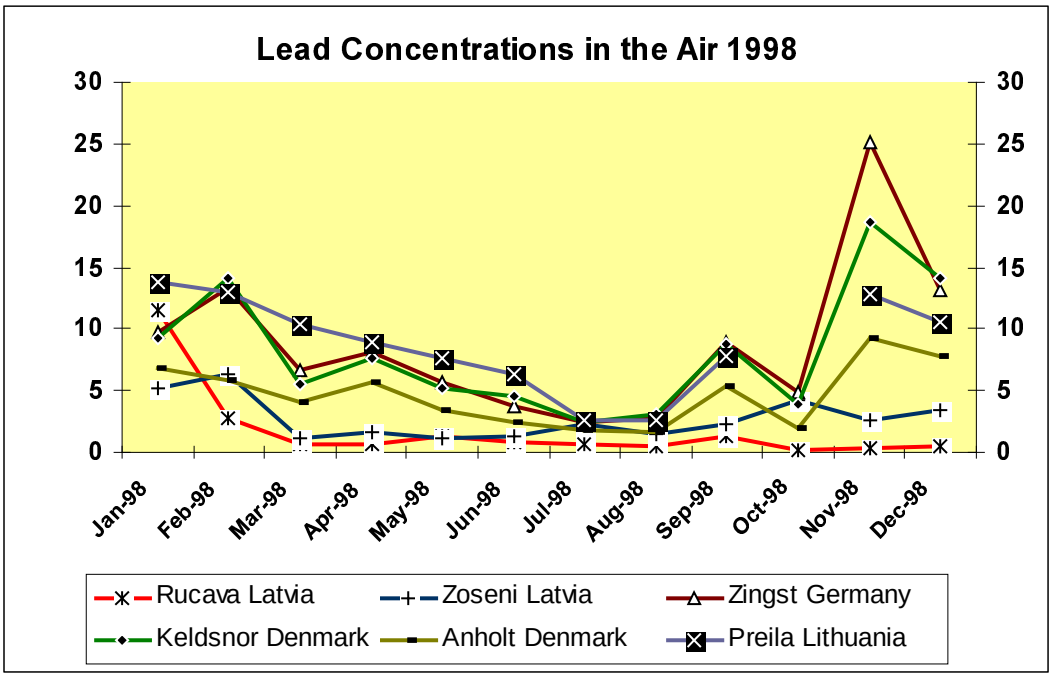

Cadmium in Precipiation in 1998
ug/l
1,0
0,8
0,6
0,4
0,2
0,0
Jan 98
Feb 98
Mrz 98
Apr 98
Mai 98
Jun 98
Jul 98
Aug 98
Sep 98
Okt 98
Nov 98
Dez 98
Virohlati Finland
Aspvreten Sweden
Zingst Germany
Rucava Latvia
Preila Lithuania

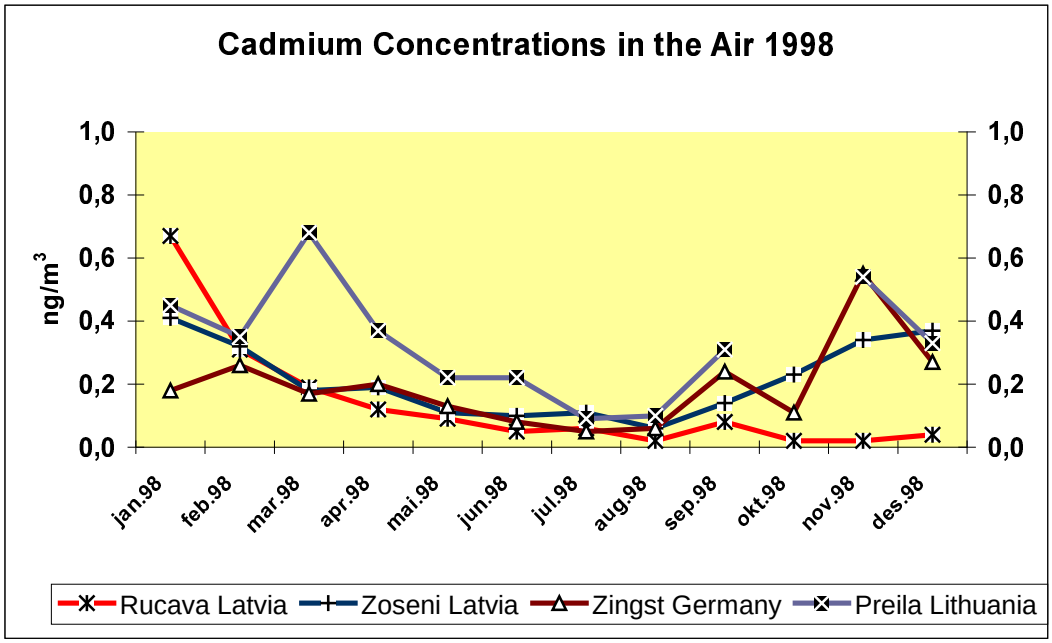

Hg in Precipitation at Zingst, Germany (1996-98)
mm
ng/l
120
100
80
60
40
20
0
40
35
30
25
20
15
10
5
0
Jan 96
Mrz 96
Mai 96
Jul 96
Sep 96
Nov 96
Jan 97
Mrz 97
Mai 97
Jul 97
Sep 97
Nov 97
Jan 98
Mrz 98
Mai 98
Jul 98
Sep 98
Nov 98
monthly mm
monthly concentration

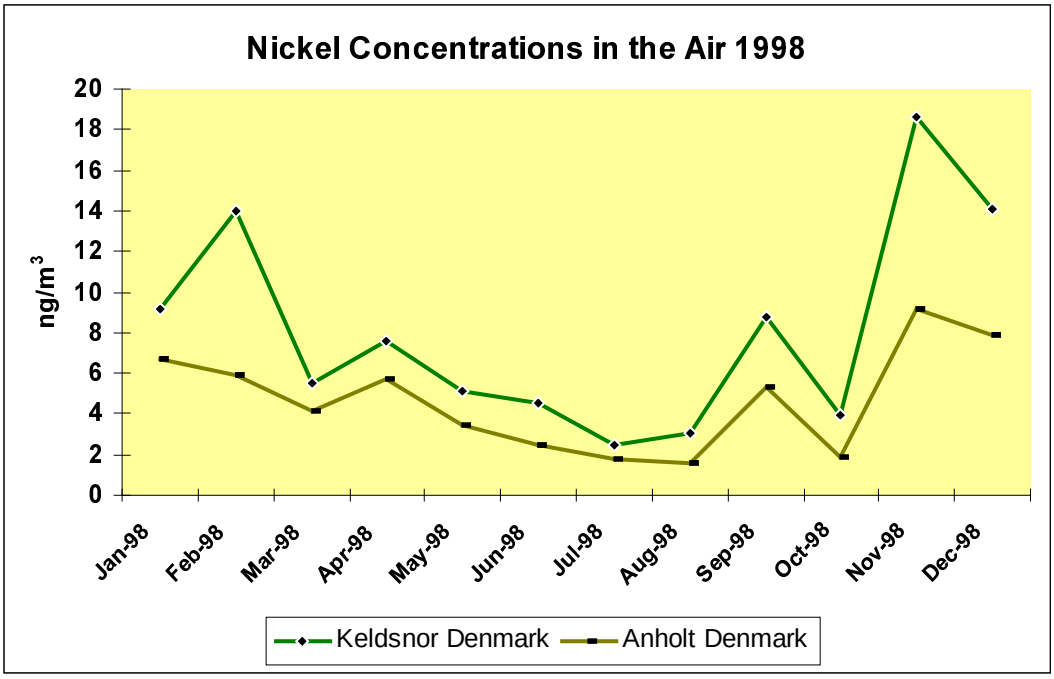

Heavy Metals at Asvreten, Sweden, 1998
Cr (ug/l)
Co, Ni (ug/l)
1.0
0.8
0.6
0.4
0.2
0.0
Jan-98
Feb-98
Mar-98
Apr-98
May-98
Jun-98
Jul-98
Aug-98
Sep-98
Oct-98
Nov-98
Dec-98
Cr
Co
Ni

Heavy Metal Concentrations in the Air






Cadmium Concentrations in the Air 1998
ng/m3
1,0
0,8
0,6
0,4
0,2
0,0
jan.98
feb.98
mar.98
apr.98
mai.98
jun.98
jul.98
aug.98
sep.98
okt.98
nov.98
des.98
Rucava Latvia
Zoseni Latvia
Zingst Germany
Preila Lithuania


Nickel Concentrations in the Air 1998
ng/m3
20
18
16
14
12
10
8
6
4
2
0
Jan-98
Feb-98
Mar-98
Apr-98
May-98
Jun-98
Jul-98
Aug-98
Sep-98
Oct-98
Nov-98
Dec-98
Keldsnor Denmark
Anholt Denmark