

Supplementary document

Table 1. Arithmetic mean and standard deviations of the total concentrations of OCPs in summer with respect to the wind directions (ng m^{-3})

Sector	SSW	SW	WSW	W	WNW	NW	N	NE	ENE	E	SE
<i>N*</i>	2	2	28	9	4	1	2	3	2	1	1
Beta BHC	1.18		1.21±1.16	0.80±0.83			0.061	0.041±0.0017	0.022		0.022
Heptachloroepoxide			0.056								
Endosulfan I	0.043		0.074±0.072	0.11±0.09	0.15±0.13	0.025	0.066	0.074±0.076		0.039	
4,4'-DDE		0.0014	0.0047±0.0037	0.0057±0.0044	0.0060		0.0055	0.0027	0.0012	0.0048	0.0012
Endrin	0.026	0.058	0.100±0.133	0.064±0.029	0.040±0.0040		0.046	0.041±0.045	0.078	0.064	0.078
Endosulfan II	0.016	0.081	0.040±0.036	0.038±0.020	0.050±0.036		0.024	0.040±0.040	0.017	0.021	0.017
4,4'-DDD			0.0071±0.0048	0.0052				0.014			
Endrin aldehyde		0.014									
Endosulfan sulfate		0.082	0.100±0.038	0.12±0.074	0.060				0.068		0.068
Endrin ketone			0.049±0.023	0.042±0.0087	0.10			0.052			
Methoxychlor		0.11	0.084±0.043	0.072±0.013	0.026						

Table 2. Arithmetic mean and standard deviations of the total concentrations of OCPs in winter with respect to the wind directions (ng m⁻³)

Sector	S	SSW	SW	WSW	NE	ENE	E	ESE	SE	SSE
<i>N</i> *	6	7	4	9	1	4	3	3	8	15
Beta BHC		0.14		0.26±0.43			0.034	0.38±0.52	0.12±0.12	0.11±0.12
Heptachloroepoxide	0.019±0.026	0.014±0.0044	0.0045	0.039±0.0098		0.0027	0.029	0.0056±0.0046	0.028±0.037	0.019±0.014
Endosulfan I	0.025±0.023	0.012±0.017	0.016	0.017±0.021		0.0153		0.024±0.025	0.18±0.42	0.024±0.019
4,4'-DDE	0.0031	0.012±0.015		0.010±0.012	0.00856			0.0043	0.012±0.0095	0.026±0.046
Endrin	0.34±0.15	0.19±0.11	0.24±0.12	0.180±0.089	0.143	0.15±0.10	0.14±0.057	0.25±0.12	0.33±0.18	0.27±0.11
Endosulfan II	0.047±0.029	0.047±0.035		0.038±0.029		0.049±0.0022	0.073±0.026	0.0074	0.048±0.025	0.040±0.039
4,4'-DDD	0.036±0.013	0.014±0.0053	0.024	0.015±0.0089	0.010	0.037	0.011	0.060±0.049	0.034±0.017	0.031±0.017
Endrin aldehyde	0.052±0.036	0.022±0.011	0.016	0.038±0.060	0.0076	0.062	0.0036	0.061±0.075	0.052±0.051	0.042±0.027
Endosulfan sulfate	0.10±0.038	0.075±0.024	0.095	0.12	0.072	0.075±0.027	0.074		0.12±0.059	0.092±0.042
Endrin ketone	0.063±0.030	0.052		0.047±0.018	0.024		0.027±0.011	0.023	0.044±0.021	0.089
Methoxychlor	0.22±0.12	0.24±0.19	0.11	0.23±0.21	0.043	0.022		0.17±0.057	0.26±0.12	0.32±0.31

*N**: Number of days

Table 3. Mean and standard deviations of total concentrations of PCBs in summer with respect to wind directions ($\mu\text{g m}^{-3}$)

Sector	SSW	SW	WSW	W	WNW	N	NE	ENE	E	SE
<i>N*</i>	2	2	25	8	4	2	2	2	1	1
PCB-18	15.4		10.3±7.14	9.11±8.74	4.03±2.13	15.5	10.6	23.9	7.63	
PCB-28+31	27.7	18.1	10.7±7.01	7.71±6.51	7.94±5.43	17.8	13.5	11.7	12.9	1.18
PCB-20	28.7	20.8	12.1±5.76	7.44±7.11	9.86±9.25	14.7	21.6	12.0		
PCB-52	31.2	42.6	10.5±13.3	6.94	19.8				30.6	
PCB-101	6.40	6.80	2.88±1.99	1.54±1.37	1.61±1.54		3.73	4.13	3.76	
PCB-149	4.27	2.65	2.24±1.34	1.64±1.44	1.25±1.25	1.58	2.23	2.31	2.45	
PCB-118		2.82	2.78±2.39	1.30±1.56	1.48	5.15		0.540	1.39	
PCB-153	5.28	3.25	1.95±1.33	1.51±1.45	2.06±0.74	2.65	2.28	2.74	3.06	0.111
PCB-105	12.0	8.29	6.38±12.37	0.726	10.51	5.90	9.12			
PCB-180			20.4±0.8	19.6±6.80	24.9		20.4		37.7	
PCB-170		9.07	3.50±7.32	2.22	0.621					
PCB-194			20.7±42.9	3.49±2.00						

*N**: Number of days

Table 4. Mean and standard deviations of total concentrations of PCBs in winter with respect to wind directions (pg m⁻³)

Sector	S	SSW	SW	WSW	ENE	E	ESE	SE	SSE
<i>N</i> *	3	3	3	8	3	2	3	5	13
PCB-18		13.1	22.1	16.1±17.4	15.1±19.1	11.6	23.2±24.3	15.9	17.1±3.06
PCB-28+31	19.7±4.32	26.0±17.1	52.2±42.4	63.6±59.5	51.0±29.7	11.2	62.6±76.8	37.5±17.2	28.1±15.7
PCB-20	98.4±34.5	82.9±74.9	61.9±36.0	61.8±52.9	137.5±92.8	21.8	119.0±17.2	96.6±54.3	91.0±46.6
PCB-52				33.6±36.7	95.3		80.7	22.6	72.4±76.9
PCB-101	4.55±4.87	2.71	7.41±5.80	13.7±10.6	10.7±5.20	0.316	14.9±15.9	3.84±1.61	5.86±3.92
PCB-149	4.31±0.01	3.18±0.69	9.23±1.97	11.2±6.13	6.33±5.32	4.88	11.2±8.44	5.52±0.80	6.43±3.38
PCB-118	5.65±3.57	3.17±3.64	8.84±3.75	9.75±9.05	3.14	4.11	8.32±7.23	9.15±0.01	4.41±4.53
PCB-153	9.79±2.72	8.25±3.07	13.1±1.1	12.4±7.74	10.8±8.05	6.50	10.9±11.2	9.77±4.02	9.77±3.87
PCB-105	16.6		6.43	7.88±3.96		16.7		34.4	28.9
PCB-180	7.35±6.22	5.58±4.35	23.4	14.8±3.71	9.48±4.16	21.1	18.2±7.82	15.9±5.5	22.3±14.5
PCB-170	3.86±3.03	0.949±0.937	2.44	1.82±1.28	1.63±1.39		2.56	4.00	3.08±2.60
PCB-194					2.36	17.2		2.50±2.76	39.7±46.5

*N**: Number of days

Table 5. Average recoveries (%) and standard deviations (N=3)

Compounds	R (%)±std
β-BHC	89±5.3
heptachlor epoxide	73±6.0
endosulfan I	89±4.5
4,4'- DDE	100±5.6
endrin	107±5.5
endosulfan II	105±4.0
4,4'- DDD	72±5.4
endrin aldehyde	90±4.2
endosulfan sulfate	128±0.2
endrin ketone	104±6.2
methoxychlor	120±6.0
PCB 18	74±4.0
PCB 20	77±6.6
PCB 28	75±5.4
PCB 31	70±5.4
PCB 44	90±4.0
PCB 52	83±4.9
PCB 101	105±3.2
PCB 105	105±3.7
PCB 118	93±3.0
PCB 138	103±2.8
PCB 149	78±4.6
PCB 153	101±3.5
PCB 170	102±3.6
PCB 180	98±4.7
PCB 194	106±3.7