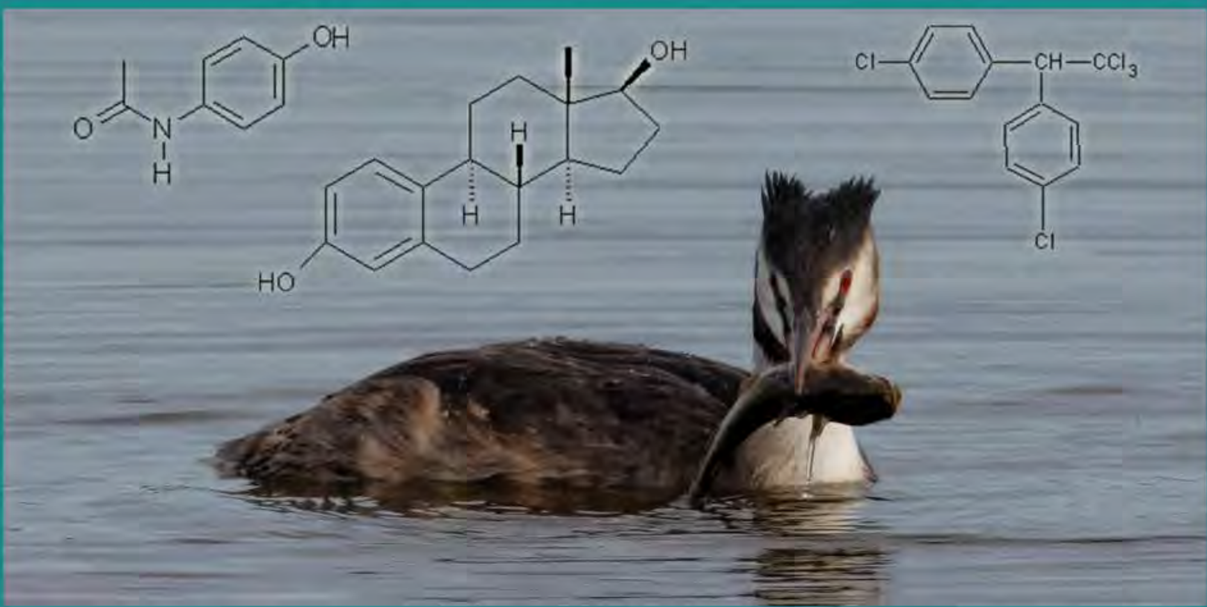
EEA/NSV/13/002 – ETC/ICM

European Topic Centre
Inland, coastal, marine waters

Hazardous Substances in European waters
Volume 2

Analysis of the data on hazardous substances in groundwater, rivers, lakes, transitional, coastal and marine waters reported to the European Environment Agency from 2002–2011



ETC/ICM Technical Report 3/2015

Vít Kodeš, Silvie Semerádová, Benoit Fribourg-Blanc, Birger Bjerkeng, Norman Green, Joergen Noerrevang Jensen, Miroslav Fanta, Marko Kovačič, Gašper Šubelj, Anita Künitzer, Bo Jacobsen

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Cover photo: Chemical pollution of water and the water dependent foodchain. Great crested grebe eating a catfish at étang des landes, Creuse, France in water with substances paracetamol, oestradiol and DDT symbolizing hazardous substances in water.

Layout/editing: Miluše Rollerová

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ISBN 978-3-944280-53-0

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4.3 *Hazardous substances in rivers across Europe in 2002–2011*

4.3.1 Overview

For each hazardous substance in rivers, the number and percentage of samples with negative (samples < LOQ) and positive (samples >= LOQ) findings within the 2002–2011 period are shown in figures 4.3.1.1 and 4.3.1.2. The number and percentage of monitoring stations with negative (all samples in station < LOQ within 2002–2011 period) and positive findings (at least one sample in station >= LOQ within the 2002–2011 period) are shown in figures 4.3.1.3 and 4.3.1.4. According the monitoring data reported, metals and pesticides were among the substances monitored most often. Several of the substances were measured at concentrations below LOD or LOQ. However and as could be anticipated (no filtration by soil and underground layers) the percentage of quantification is higher for surface water and for this case for rivers than groundwater with most substances measured at levels above LOD or LOQ in more than 10% of samples in rivers and for Cadmium, Lead, dissolved nickel, and nickel and Endosulfan and sum of PAH2 it reaches more than 40% of the samples. As an higher percentage of stations with at least one quantification is found in many cases except for some substances (Lead, Nickel, …), it is probable that many stations have rare quantification. Maximum concentrations of several of the compounds reported by the countries might be considered as considerably exceeding the EQS.

The maximum concentrations in rivers are shown in figure 4.3.1.5. and in Table 4.3.1.1. Metals and metalloids (Cd, Pb, Ni), and PAHs are the only substances reported in concentrations higher than 200 μg/l.

Figure 4.3.1.1 Number of stations with negative/positive findings in river in 2002–2011

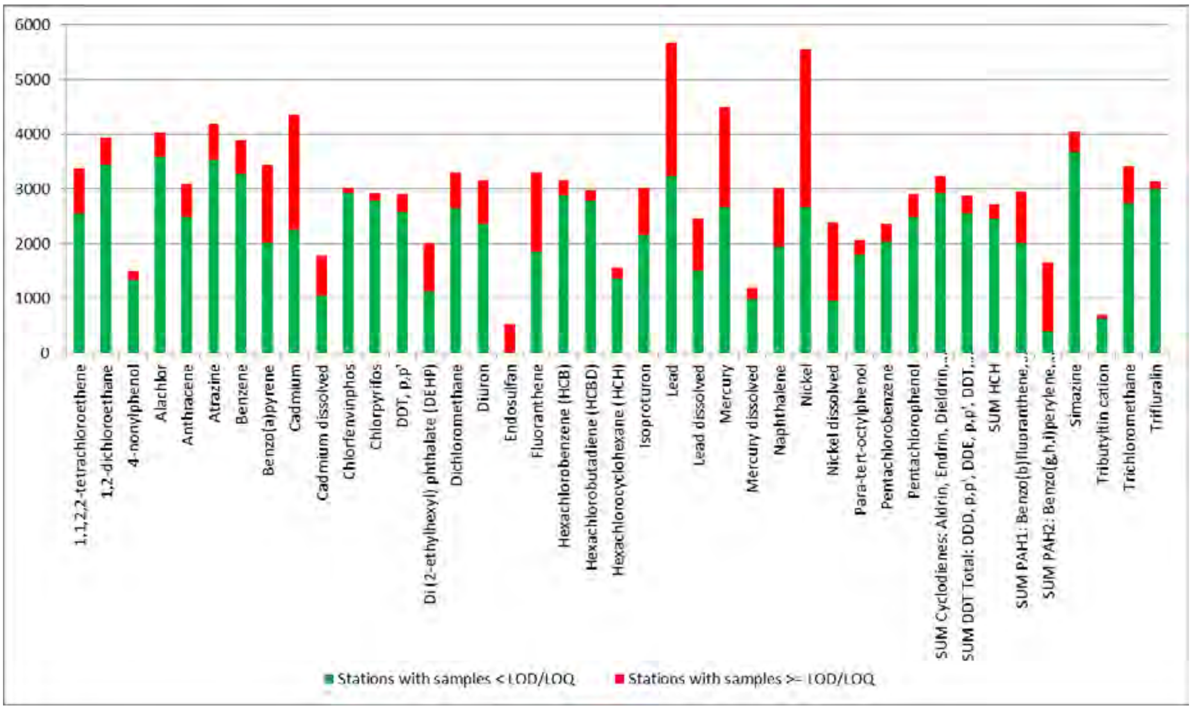


Figure 4.3.1.2 Percentage of stations with negative/positive findings in rivers in 2002–2011

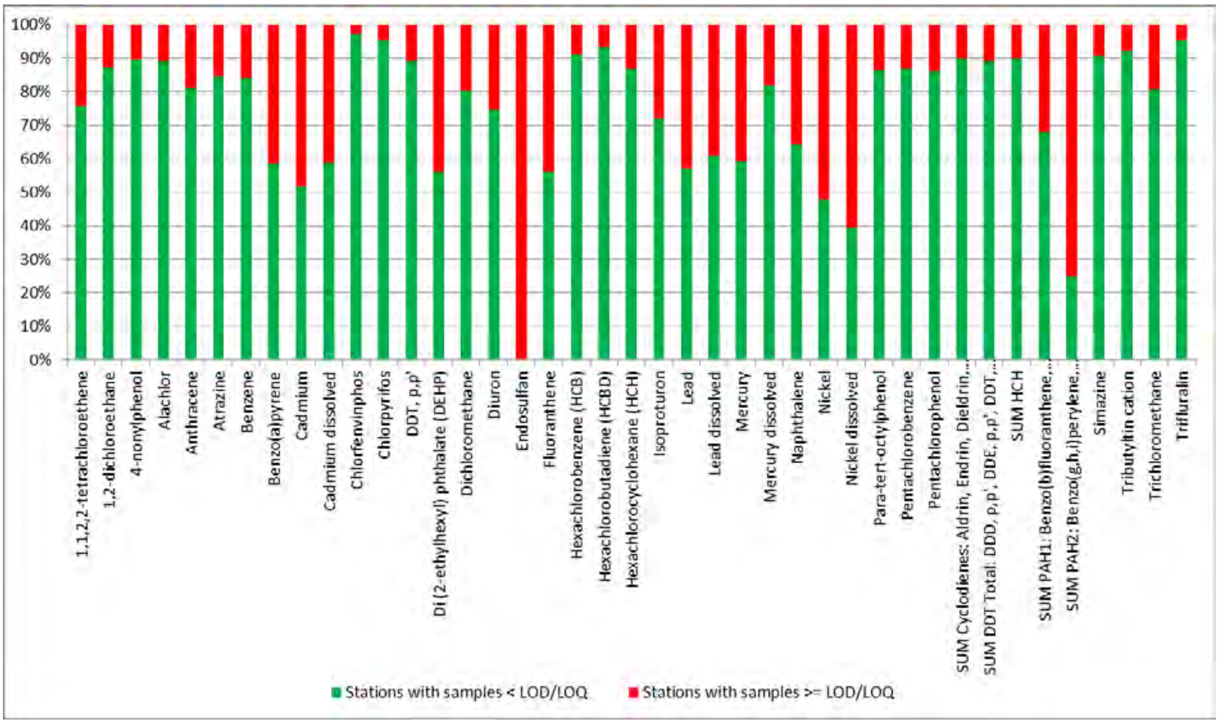


Figure 4.3.1.3 Number of analyses with negative/positive findings in rivers in 2002–2011

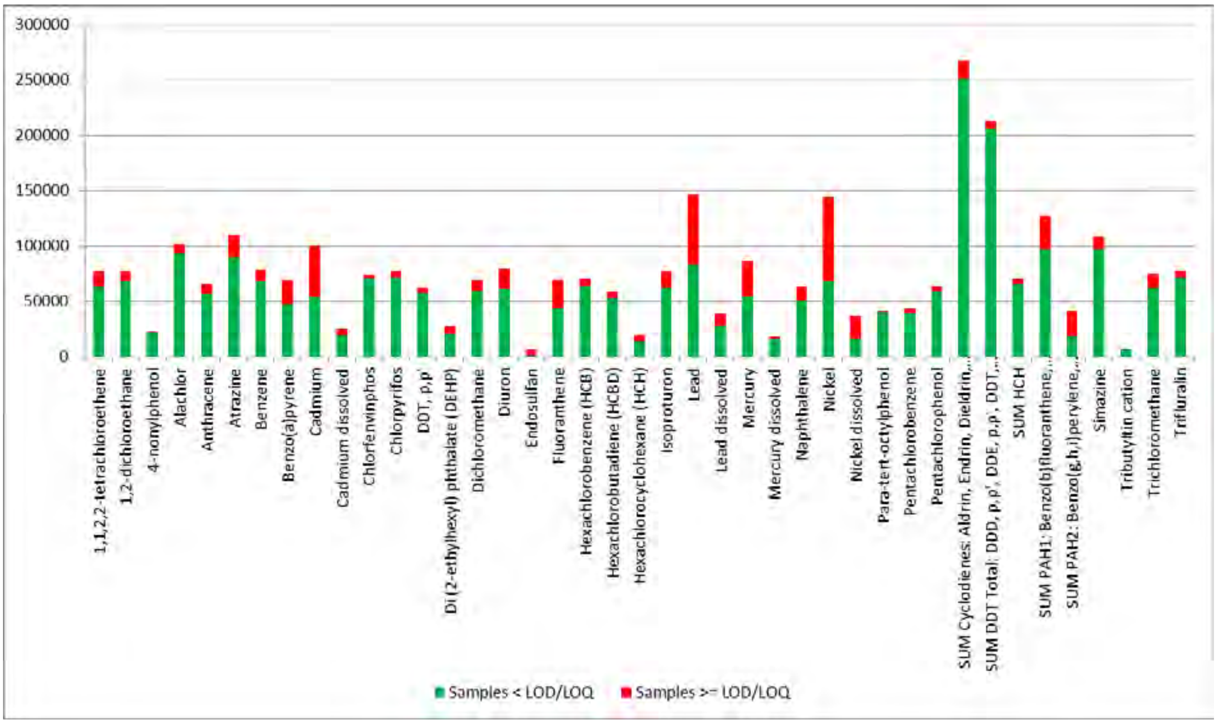


Figure 4.3.1.4 Percentage of analyses with negative/positive findings in rivers in 2002–2011

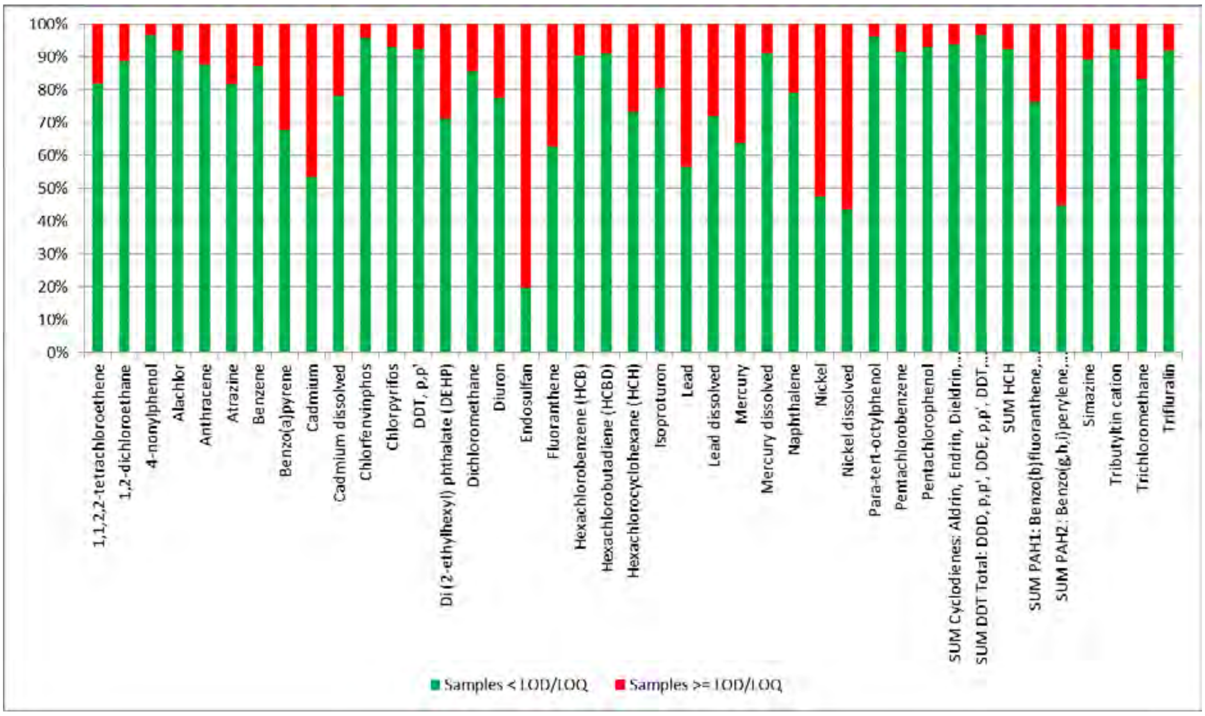


Figure 4.3.1.5 Maximum annual river concentrations in 2002–2011

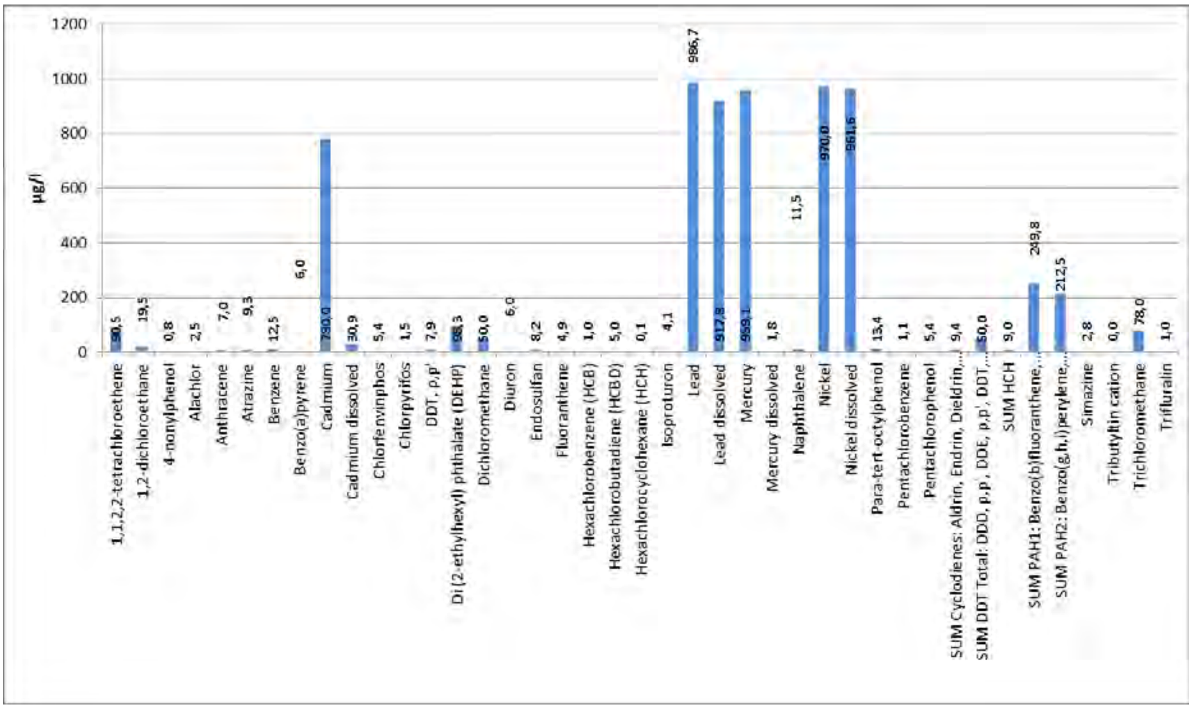


Table 4.3.1.1 Maximum annual river concentrations (µg/l) reported by countries in 2010–2011 (< indicates concentration less than LOD or LOQ, cells without numbers indicates that no data has been submitted)

Country	1,1,2,2-tetrachloroethene	1,2-dichloroethane	4-nonylphenol	Alachlor	Anthracene	Atrazine	Benzene	Benzo(a)pyrene	Cadmium	Cadmium dissolved	Chlorfenvinphos	Chlorpyrifos	DDT, p,p'
AL									0,16				
AT									0,4544	0,4544			
BA	0,72	<1.5000	<0.0500	<0.0250	0,1803	0,1957	<0.5000	0,0323	0,3729		<0.0500	<0.0100	
BE	0,9008	1,3454	<0.0431	0,0228	0,0516	0,1554	<0.1500	0,0669	1,85	0,4208	<0.0050	<0.0111	<0.0007
BG						2,5			4,5433			<0.0150	
CH									<0.0109	<0.0100			
CY	4,2767	<0.0312		0,3202		<0.0125	<0.0312		0,46		<0.0125	0,0195	<0.0020
CZ													
DE	0,4181	<5.0000		<0.0250	<0.0150	0,0368	<2.5000	0,0391		0,5558	<0.0250	<0.0125	0,1294
DK													
EE									0,1				
ES	7,2	<1.0000	0,52	<0.0530			<0.8800	<0.0470		30,91			
FI				<0.0050	<0.0012	<0.0025		<0.0025	0,272		<0.0050	<0.0050	<0.0050
FR	4,2425	2,6	<0.1500	0,105	0,015	0,223	<0.5000	0,0725	0,1908	0,353	<0.0250	<0.0150	<0.0050
GB	4,5275	4,6			0,0132	0,0155	<0.7500	0,0137	95,3333	2,1814	<0.0050	<0.0011	0,0037
GR													
HR	<0.1500	5		0,1	0,018	0,0139	<1.0000	<0.0075	<0.1000	0,525	0,03	0,03	0,0109
HU													
IE	<0.2500	<0.2500			<0.0149	<0.0250	<0.2500	<0.0094	<0.0583				
IS				<0.0050		<0.0050			<0.0018		<0.0050		<0.0050
IT	10	1,5	0,1567	0,05	0,03	1,3139	1,15	0,02	61,1042	29,01	0,05	1,5119	0,01
LI													
LT	0,19		0,11		0,002			0,01	0,4				
LU	<0.3000	<2.5000	<0.0617	<0.0050	0,0086	<0.0150	<0.5000	0,0099	<0.0330		<0.0250	<0.0100	<0.0050
LV									0,44				0,0004
ME													
MK									443,4167				
MT	<0.0050	<0.0005	<0.0050	<0.0005	<0.0005	<0.0005	<0.0050	<0.0005	<0.0050		<0.0050	<0.0050	<0.0005
NL	0,1195	3,9296		<0.0055	<0.0092	<0.0071	0,0271	0,0204	0,3267	0,0999	<0.0058	<0.0072	<0.0005
NO									0,0515				
PL	<6.5000	<8.4250		0,2567	0,0645	<0.3000	5,9667	0,0614	13,5667		5,3629	<0.0212	0,1118
PT				<0.0275	<0.0100	<0.0500							
RO	<5.0000		0,0762	<0.0250	0,3164	0,175	<5.0000	0,0258	5,64	2,4832	0,0278	<0.0100	0,007
RS				0,0335	<0.0004	0,336		<0.0002	0,27	0,655	<0.0050	0,0132	0,005
SE				<0.0100		<0.0012			0,0557		<0.0011	<0.0004	
SI		<0.1000	<0.0260	<0.0250	<0.0025	<0.0250	<0.1000	<0.0031		0,0287	<0.0150	<0.0045	<0.0015
SK	0,5792	<0.3167	<0.0667	<0.0767	<0.0025	<0.1513	<0.1500	<0.0011		1,1067	<0.0037	0,0099	
TR													
XK													

Table 4.3.1.1 continued

Country	Di (2-ethylhexyl) phthalate (DEHP)	Dichloromethane	Diuron	Endosulfan	Fluoranthene	Hexachlorobenzene (HCB)	Hexachlorobutadiene (HCBD)	Hexachlorocyclohexane (HCH)	Isoproturon	Lead	Lead dissolved	Mercury	Mercury dissolved	Naphthalene
AL										1,1				
AT										7,8258	3,8525	<0.0250	<0.0250	
BA	1,297	<1.0000	0,05	0,63	0,168	<0.0050	<0.0500		<0.0500	16,1017		0,036		1,928
BE	1,8783	6,4769	0,1834	0,004	0,2807	<0.0005		0,121	0,4782	33,7182	1,9	0,1193	<0.0093	0,2369
BG										6,7183		1,4		
CH										0,4408	<0.0662	<0.0050	<0.0050	
CY		<2.5000	<0.0125			0,0008	<0.0312	<0.0003	<0.0125	<1.9500				<0.0729
CZ														
DE	0,9897	<5.0000	0,4957		0,1038	0,0072	<0.0500		0,2875		<2.0000		0,0267	<0.5000
DK														
EE										3,7				
ES		15,5937	0,7239						0,43		917,764			
FI			0,1975		0,003	<0.0050	<0.0050		<0.0050	2,23		0,0125		0,0064
FR	7,915	8,9333	0,1891	<0.0009	0,135	0,0072	<0.0550		1,1037	8,72	22,8	<0.0337	0,5796	0,1302
GB	2,58	5,6	0,0176		0,221	<0.0009	0,0032		0,0161	970	610	10,9	1,8212	0,2199
GR														
HR		50	<0.0179	0,0156	<0.0105	0,01	<0.0300	0,0883	<0.0135	<1.5000	7,05	0,4624	0,3	0,04
HU														
IE	<0.7429	0,6	<0.0250		<0.0207		<0.0857		0,4741	69		<0.0250		<0.2500
IS						<0.0025	<0.0050			0,02		<0.0010		
IT	2,2	<3.5275	6	0,05	<0.0500	0,1022	1	0,0591	0,1077	20	538,875	25,2955		6,5556
LI														
LT	2,16	2,78			0,03					5,6		0,045		
LU	0,4209	<5.0000	0,0483		0,0205	<0.0050	<0.0050		0,1567	0,9264				<0.0172
LV						<0.0001				2,8333				
ME														
MK										780,4167				
MT	0,27	<0.0050	<0.0500		<0.0005	<0.0005	<0.0050	<0.0005	<0.0500	2		<0.0250		<0.0005
NL	<0.7077	<5.0000	0,0323	0,0014	0,0865	<0.0005	<0.0050		0,0264	10,2854	0,3032	0,0862	0,0009	<0.0758
NO										0,7163		0,0048		
PL	8,5983	16,0071	0,3	0,1778	0,1437	0,0123	0,3	0,0172	0,2108	13,7417		0,2942		<1.0000
PT			<0.0250		<0.0010					<3.5000				<0.5000
RO		<10.0000	<0.0250		0,1598	<0.0011	0,175		<0.0100	50,75	6,12	0,4345	0,0843	0,2326
RS			0,2503	<0.0025	0,001	<0.0037	<0.0010		0,43	4,6	2,8333			
SE			<0.0026						0,2947	22,0009		0,0061		
SI	0,2383	<2.5000	<0.0100		0,0068	<0.0015	<0.0150		<0.0100		1,1		<0.0075	0,0173
SK	2,7583	<0.2500	<0.0312		0,0058		<0.0500		<0.0504		9,8217		0,0888	<0.1500
TR														
XK											<0.5000			

Table 4.3.1.1 continued

Country	Nickel	Nickel dissolved	Para-tert-octylphenol	Pentachlorobenzene	Pentachlorophenol	SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin	SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'	SUM HCH	SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene	SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	Simazine	Tributyltin cation	Trichloromethane	Trifluralin
AL	1,63													
AT	8,7167	3,0583												
BA	16,6667		<0.0500		<0.0250	<0.0000		<0.0000	0,0228	<0.0015	0,5883		0,3205	<0.0050
BE	13,1667	10,875	0,0933	<0.0010	<0.0150	<0.0001	<0.0003	0,0047	0,0571	0,0578	0,1092		0,9292	<0.0029
BG	35,6389					0,03		2,5			<0.0100			
CH	0,7396	0,5146												
CY	27,7229					<0.0000	<0.0002	<0.0000			0,2195		<0.2500	0,1257
CZ														
DE		16,5385	0,1412	<0.0025	<0.0500						<0.0250	0,0045	<0.5000	<0.0150
DK														
EE	1													
ES		961,615			<0.1834									
FI	18,2077		<0.0243				<0.0000	<0.0000	<0.0000		<0.0050			<0.0050
FR	7,29	13,75	0,1528	0,0225	0,1171	<0.0005	<0.0008	0,0116	0,0599	0,0217	0,0596	0,0006	2,3667	<0.0150
GB	950	880	0,16	<0.0025	0,509	<0.0005	<0.0010	0,0096	<0.0037		0,119		1,7867	<0.0145
GR														
HR	2,9575	10,55		0,0028	0,1	0,0117	0,01	0,01	0,0075	0,0071	0,0427		1	
HU														
IE	4,375								<0.0041	0,0055	<0.0292		<0.4556	
IS						<0.0000	<0.0000	<0.0000			<0.0050			
IT	46,3529	346,25	13,444	0,05	<0.2000	0,0812	0,01	0,05	0,01	0,0125	1,5714		11,4	0,0875
LI														
LT	3,3		0,12		3,75				0,0065	0,0115				
LU	<1.7000		<0.0250		<0.0050	<0.0000	<0.0000		0,006	0,0071	<0.0250		<1.2500	0,0388
LV	<2.0833					<0.0000	<0.0001	<0.0000						
ME														
MK														
MT	2		<0.0050	<0.0005	<0.0005	<0.0000	<0.0000		<0.0000	<0.0000	<0.0050	<0.0001	<0.0050	<0.0005
NL	6,3169	3,9062	0,005	0,0001	<0.0500	0,0044	<0.0000	0,0008	0,023	0,0162	<0.0060		0,1115	<0.0050
NO	6,8575							<0.0000						
PL	21,6667		<0.0500	0,0064	<0.1500	0,0054	0,0849		0,0516	0,079	0,32		20,4611	0,0399
PT														
RO	75,525	9,245	0,0652	0,595							<0.0250		<0.5000	
RS	67,75	39,9	0,0875	<0.0010	0,42	<0.0031	0,0171	0,014	<0.0001	<0.0001	0,622			<0.0225
SE	7,4333							<0.0002			<0.0015			<0.0012
SI		1,7167	<0.0080	<0.0010	<0.0300	<0.0000	<0.0000	<0.0000	<0.0008		<0.0250	<0.0001	<1.0000	<0.0050
SK	<0.8917	<2.3425	<0.0250		<0.0375		<0.0004	<0.0000	<0.0000	<0.0006	<0.1500		<0.7250	<0.0025
TR														
XK		<0.5000												

4.3.2 Occurrence and concentrations of hazardous substances in rivers

Summary tables for number of countries, and apportionment between quantified and not quantified substances, see tables 3.3.2 and 3.3.3 and highest value found by substance and country, see table 4.3.1.1. are shown in the previous section. Many substances are quantified in a higher proportion of stations than samples. While a more detailed analysis substance by substance would be necessary to conclude, this result shows that the contamination is more of diffuse pollution nature: low number of high values found at many stations, more typical for example for pesticide substances.

Figures of the mean concentrations and numbers of stations with data from the period 2002–2011 based on the indicator are shown in figures 4.3.2.1a – 4.3.2.36a for selected hazardous substances found in rivers in Europe.

Figures showing the percentage of stations in the 2010–2011 period for each country in each of the indicator categories for selected hazardous substances in rivers are shown in figures 4.3.2.1b – 4.3.2.36b.

Maps of the maximum concentrations from the 2010–2011 period based on the indicator for selected hazardous substances in rivers across Europe in individual countries are shown in figures 4.3.2.1c – 4.3.2.36c.

1,1,2,2-tetrachloroethene

The analysis is based on data from 15 countries for the 2002–2011 and 2010–2011 periods, see tables 3.3.2 and 3.3.3. The substance was found in 17.9 % of samples (Fig. 4.3.1.2) and in 24.5 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 and lately has been oscillating around 1850 stations (Fig. 4.3.2.1a). 1,1,2,2-tetrachloroethene exceeded the EQS in 2002–2011 period in 4 to 14 stations (Fig. 4.3.2.1b) and exceeded the EQS in 2010–2011 only in a small area of Italy (Fig. 4.3.2.1c). The distribution of values evolves from year to year with a range varying from 10.000 to 100.000 and 50% of the values close to the median value (Fig. 4.3.2.1d). The highest concentration of 10µg/l was reported by Italy in the 2010–2011 period, see table 4.3.1.1.

1,2-dichloroethane

The analysis is based on data from 18 countries for the 2002–2011 period and from 16 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 11.3 % of samples (Fig. 4.3.1.2) and in 12.7 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 2000 stations (Fig. 4.3.2.2a). 1,2-dichloroethane exceeded the EQS in 2002–2011 period in 1 to 4 stations (Fig. 4.3.2.2b) and did not exceed the EQS in 2010–2011 in any country (Fig. 4.3.2.2c). The distribution of values evolves from year to year with a range varying from 10 to 10.000, larger in the recent years, and 50% of the values in a range of 10, around the median value (Fig. 4.3.2.2d). The highest concentration of 5µg/l was reported by Croatia in the 2010–2011 period, see table 4.3.1.1.

4-Nonylphenol

The analysis is based on data from 13 countries for the 2002–2011 period and from 11 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 3.4 % of samples (Fig. 4.3.1.2) and in 10.3 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 700 stations (Fig. 4.3.2.3a). 4-nonylphenol did not exceed the EQS in 2002–2011 except in 1 to 7 stations depending on the year (Fig. 4.3.2.3b) and in Spain in 2010–2011 (Fig. 4.3.2.3c). The distribution of values evolves from year to year with a range varying from 10 to 200, larger in the recent years with more data, and 50% of the values in the recent years in a range of 1 to 3, around the median value (Fig. 4.3.2.3d). The highest concentration of 0.52µg/l was reported by Spain in the 2010–2011 period, see table 4.3.1.1.

Alachlor

The analysis is based on data from 23 countries for the 2002–2011 period and from 20 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 8 % of samples (Fig. 4.3.1.2) and in 10.9 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 2200 stations (Fig. 4.3.2.4a). Alachlor did not exceed the EQS in 2002–2011 except in 1 to 3 stations in 4 years (Fig. 4.3.2.4b) and none in 2010–2011 (Fig. 4.3.2.4c). The distribution of values evolves from year to year with a range varying from 10 to 1000, more stable in the recent years with more data, and 50% of the values in the recent years in a range of 1 to 10, around the median value (Fig. 4.3.2.4d). The highest concentration of 0.32µg/l was reported by Cyprus in the 2010–2011 period, see table 4.3.1.1.

Anthracene

The analysis is based on data from 22 countries for the 2002–2011 period and from 19 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 12.3 % of samples (Fig. 4.3.1.2) and in 18.8 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1700 stations (Fig. 4.3.2.5a). Anthracene did not exceed the EQS in 2002–2011 except in 1 to 5 stations in the recent years (Fig. 4.3.2.5b) and especially in Romania and Bosnia and Herzegovina in 2010–2011 (Fig. 4.3.2.5c). The distribution of values evolves from year to year with a range varying from 10 to 100.000, larger in the recent years with more data, and 50% of the values in the recent years in a range of 1 to 10, around the median value (Fig. 4.3.2.5d). The highest concentration of 0.316µg/l was reported by Romania in the 2010–2011 period, see table 4.3.1.1.

Sum of cyclodienes: aldrin, dieldrin, endrin, and isodrin

The analysis is based on data from 23 countries for the 2002–2011 period and from 16 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 6.2 % of samples (Fig. 4.3.1.2) and in 10.1 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach almost 1800 stations (Fig. 4.3.2.6a). Sum of cyclodienes: aldrin, dieldrin, endrin, and isodrin exceeded the EQS in 2002–2011 in up to 82 stations (Fig. 4.3.2.6b) and especially in Italy in two specific areas, and in Croatia and Bulgaria in 2010–2011 (Fig. 4.3.2.6c). The distribution of values evolves from year to year with a range narrowing down in the recent years with more data (Fig. 4.3.2.6d). The highest concentration of 0.081µg/l was reported by Italy in the 2010–2011 period, see table 4.3.1.1.

Atrazine

The analysis is based on data from 27 countries for the 2002–2011 period and from 22 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 18.3 % of samples (Fig. 4.3.1.2) and in 15.5 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 2200 stations (Fig. 4.3.2.7a). Atrazine exceeded the EQS in 2002–2011 in 1 to 13 stations depending on the year (Fig. 4.3.2.7b) and did not exceed the EQS in 2010–2011 (Fig. 4.3.2.7c). The distribution of values evolves from year to year with a range of less than 1000, and 50% of the values in the recent years very close to the median value (Fig. 4.3.2.7d). The highest concentration of 2.5µg/l was reported by Bulgaria in the 2010–2011 period, see table 4.3.1.1.

Benzene

The analysis is based on data from 24 countries for the 2002–2011 period and from 17 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 12.9 % of samples (Fig. 4.3.1.2) and in 16 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 2000 stations (Fig. 4.3.2.8a). Benzene did not exceed the EQS in 2002–2011 except in 11 stations in 2008 (Fig. 4.3.2.8b) and none in 2010–2011 (Fig. 4.3.2.8c). The distribution of values evolves from year to year with a range varying from 50 to 1000, larger in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.8d). The highest concentration of 5.967μg/l was reported by Poland in the 2010–2011 period, see table 4.3.1.1.

Cadmium

Countries have reported Cd in various forms, e.g., Cd and water hardness, dissolved Cd with water hardness, Cd with no water hardness, and dissolved Cd with no water hardness. Within some countries, various forms of Cd have been reported. Concentrations of Cd were exceeded above EQS in many rivers across Europe.

The analysis of total cadmium is based on data from 32 countries for the 2002–2011 period and from 26 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 46.6 % of samples (Fig. 4.3.1.2) and in 48.4 % of stations (Fig. 4.3.1.4). The highest concentration of 443.42μg/l was reported by Macedonia in the 2010–2011 period, see table 4.3.1.1.

For the case of total cadmium with hardness data, the data have been provided in the recent years thus the number of reported stations has increased from 2009 onward to reach around 600 stations (Fig. 4.3.2.9a1) and then decrease again as more and more countries provide dissolved cadmium. Total cadmium with hardness data exceeded the EQS in 2002–2011 in up to 175 stations in 2010 (Fig. 4.3.2.9b1) and in 13 countries in particular in northern Italy and Romania in 2010–2011 (Fig. 4.3.2.9c1). The distribution of values evolves from year to year with a range reaching 10.000 in the recent years with more data, and 50% of the values in the recent years in a very small range below 10 around the median value (Fig. 4.3.2.9d1).

For the case of total cadmium with no hardness data, the data were provided without hardness by default thus the number of reported stations has increased from 2002 to 2007 as it is in the priority substance list of WFD and then decreased from 2007 as hardness was explicitly required. It reached 1200 in 2007 and 2008 (Fig. 4.3.2.9a2). Total cadmium with no hardness data exceeded the EQS in 2002–2011 in up to 251 stations in 2010 (Fig. 4.3.2.9b2) and 8 countries, in particular in Scotland and Northern Italy in 2010–2011 (Fig. 4.3.2.9c2). The distribution of values is relatively stable in a wide range of 10.000, and 50% of the values in a range of 10 around the median value (Fig. 4.3.2.9d2).

The analysis of dissolved cadmium is based on data from 15 countries for the 2002–2011 period and from 14 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 21.8 % of samples (Fig. 4.3.1.2) and in 41.2 % of stations (Fig. 4.3.1.4). The highest concentration of 30.91μg/l was reported by Spain in the 2010–2011 period, see table 4.3.1.1.

For the case of dissolved cadmium with hardness data, the data were provided recently when dissolved cadmium was found to be a more appropriate fraction to monitor cadmium. The number of reported stations has increased in the last 3 years to reach around 1000 stations (Fig. 4.3.2.9a3). Cadmium dissolved exceeded the EQS in 2002–2011 in up to 91 stations in 2011 (Fig. 4.3.2.9b3) and 7 countries in particular in northern Spain in 2010–2011 (Fig. 4.3.2.9c3). The distribution of values reach around 1000, and 50% of the values are found in a small range of less than 10 around the median value (Fig. 4.3.2.9d3).

For the case of dissolved cadmium with no hardness data like for the above, the data were provided recently when dissolved cadmium was found to be a more appropriate fraction to monitor cadmium. The number of reported stations has increased since 2002 to reach around 500 stations (Fig. 4.3.2.9a4). Cadmium dissolved with no hardness data exceeded the EQS in 2002–2011 in up to 46 stations in 2011 (Fig. 4.3.2.9b4) and 6 countries in 2010–2011 (Fig. 4.3.2.9c4). The distribution of values reaches around 1000, and 50% of the values are found in a small range of less than 5 around the median value (Fig. 4.3.2.9d4).

Chlorfenvinphos

The analysis is based on data from 21 countries for the 2002–2011 period and from 19 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in a very low number of samples and stations 4.2% of samples (Fig. 4.3.1.2) and in 2.7 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 2000 stations (Fig. 4.3.2.10a). Chlorfenvinphos did not exceed the EQS in 2002–2011 except in 1 to 3 stations (Fig. 4.3.2.10b) and one station in Poland in 2010–2011 (Fig. 4.3.2.10c). The distribution of values evolves from year to year with a range varying from 10 to more than 1000, larger in the recent years with more data, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.3.2.10d). The highest concentration of 5.363µg/l was reported by Poland in the 2010–2011 period, see table 4.3.1.1.

Chlorpyrifos

The analysis is based on data from 21 countries for the 2002–2011 period and from 19 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 7 % of samples (Fig. 4.3.1.2) and in 4.7 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach a number slightly above 1800 stations (Fig. 4.3.2.11a). Chlorpyrifos did not exceed the EQS in 2002–2011 except in 1 to 64 stations during the period (Fig. 4.3.2.11b) and in Italy (10% of monitoring stations) in 2010–2011 (Fig. 4.3.2.11c). The distribution of values evolves from year to year with a range around 1000, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.3.211d). The highest concentration of 1.512µg/l was reported by Kosovo in the 2010–2011 period, see table 4.3.1.1.

DDT total (DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p')

The analysis is based on data from 21 countries for the 2002–2011 period and from 16 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 3.3 % of samples (Fig. 4.3.1.2) and in 11 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach slightly less than 2000 stations (Fig. 4.3.2.12a). DDT total did not exceed the EQS in 2002–2011 except in 1 to 32 stations depending on the year (Fig. 4.3.2.12b) and in Poland in 2010–2011 (Fig. 4.3.2.12c). The distribution of values evolves from year to year with a range reaching 1000, smaller in the recent years with more data (Fig. 4.3.2.12d). The highest concentration of 0.0849µg/l was reported by Poland in the 2010–2011 period, see table 4.3.1.1.

DDT, p,p'

The analysis is based on data from 23 countries for the 2002–2011 period and from 17 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 7.4 % of samples (Fig. 4.3.1.2) and in 11% of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach slightly less than 1800 stations (Fig. 4.3.2.13a). DDT, p,p' did not exceed the EQS in 2002–2011 except in 2 to 74 stations depending on the year (Fig. 4.3.2.13b) and 4 countries mainly in Italy in 2010–2011 (Fig. 4.3.2.13c). The distribution of values evolves from year to year with a range reaching 1000, smaller in the recent years with more data, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.3.2.13d). The highest concentration of 0.129µg/l was reported by Germany in the 2010–2011 period, see table 4.3.1.1.

di(2-ethylhexyl) phthalate (DEHP)

The analysis is based on data from 16 countries for the 2002–2011 period and from 14 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 28.7 % of samples (Fig. 4.3.1.2) and in 44 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 950 stations in 2009 and then less (Fig. 4.3.2.14a). di(2-ethylhexyl) phthalate (DEHP) exceeded the EQS in 2002–2011 in 3 to 170 stations (Fig. 4.3.2.14b) and six countries mainly in France, mainly localized around Paris, in 2010–2011 (Fig. 4.3.2.18c). The distribution of values evolves from year to year with a range varying from 100 to 10.000, larger in the recent years with more data, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.3.2.14d). The highest concentration of 8.598µg/l was reported by Poland in the 2010–2011 period, see table 4.3.1.1.

Dichloromethane

The analysis is based on data from 19 countries for the 2002–2011 period and from 18 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 14.3 % of samples (Fig. 4.3.1.2) and in 19.8 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1800 stations (Fig. 4.3.2.15a). Dichloromethane did not exceed the EQS in 2002–2011 except in 1 to 5 stations depending on the year (Fig. 4.3.2.15b) and one station in Croatia in 2010–2011 (Fig. 4.3.2.15c). The distribution of values evolves from year to year with a range reaching around 100.000 in the last year and 50% of the values in the recent years in a range of a bit more than 10 around the median value (Fig. 4.3.2.15d). The highest concentration of 50µg/l was reported by Croatia in the 2010–2011 period, see table 4.3.1.1.

Diuron

The analysis is based on data from 24 countries for the 2002–2011 period and from 21 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 12.9 % of samples (Fig. 4.3.1.2) and in 16 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 2000 stations (Fig. 4.3.2.16a). Diuron exceeded the EQS in 2002–2011 in 3 to 34 stations (Fig. 4.3.2.16b) and 4 countries in 2010–2011 (Fig. 4.3.2.16c). The distribution of values evolves from year to year with a range reaching 5000 in recent year, larger in the recent years with more data, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.3.2.16d). The highest concentration of 6µg/l was reported by Italy in the 2010–2011 period, see table 4.3.1.1.

Endosulfan

The analysis is based on data from 16 countries for the 2002–2011 period and from 8 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 80.3 % of samples (Fig. 4.3.1.2) and in 100 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 250 stations in 2010 (Fig. 4.3.2.17a). Endosulfan exceeded the EQS in 2002–2011 in 1 to 165 stations (Fig. 4.3.2.17b) and mostly in Italy (78% of monitoring stations) in 2010–2011 (Fig. 4.3.2.17c). The distribution of values evolves from year to year with a range varying from 50 to 1000, larger in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.17d). The highest concentration of 0.63µg/l was reported by Bosnia and Herzegovina in the 2010–2011 period, see table 4.3.1.1.

Fluoranthene

The analysis is based on data from 22 countries for the 2002–2011 period and from 19 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 37.3 % of samples (Fig. 4.3.1.2) and in 43.9 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1800 stations (Fig. 4.3.2.18a). Fluoranthene did not exceed the EQS in 2002–2011 except in 1 to 12 stations during the period (Fig. 4.3.2.18b) and 6 countries for very low number of stations in 2010–2011 (Fig. 4.3.2.18c). The distribution of values evolves from year to year with a range varying from 100 to 1000, smaller in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.18d). The highest concentration of 0.281µg/l was reported by Belgium in the 2010–2011 period, see table 4.3.1.1.

Hexachlorobenzene (HCB)

The analysis is based on data from 22 countries for the 2002–2011 period and from 18 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 9.6 % of samples

(Fig. 4.3.1.2) and in 8.9 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1700 stations (Fig. 4.3.2.19a). Hexachlorobenzene (HCB) did not exceed the EQS in 2002–2011 except in 1 to 155 stations depending on the year (Fig. 4.3.2.19b) and in 3 countries in particular Italy in two areas of the north (almost 30% of stations) in 2010–2011 (Fig. 4.3.2.19c). The distribution of values evolves from year to year with a range varying from 10 to 10.000, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.19d). The highest concentration of 0.102µg/l was reported by Italy in the 2010–2011 period, see table 4.3.1.1.

Hexachlorobutadiene (HCBD)

The analysis is based on data from 20 countries for the 2002–2011 period and from 18 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 9 % of samples (Fig. 4.3.1.2) and in 6.7 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1300 stations (Fig. 4.3.2.20a). Hexachlorobutadiene (HCBD) did not exceed the EQS in 2002–2011 except in 1 to 42 stations depending on the year (Fig. 4.3.2.20b) and 3 countries, mainly north east part of Italy 2010–2011 (Fig. 4.3.2.20c). The distribution of values evolves from year to year with a range varying from 50 to 1000, larger in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.20d). The highest concentration of 1µg/l was reported by Italy in the 2010–2011 period, see table 4.3.1.1.

Sum Hexachlorocyclohexane (HCH)

The analysis is based on data from 21 countries for the 2002–2011 period and from 17 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 7.5 % of samples (Fig. 4.3.1.2) and in 10.1 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 2000 stations (Fig. 4.3.2.21a). Sum of Hexachlorocyclohexane (HCH) exceeded the EQS in 2002–2011 in 1 to 96 stations (Fig. 4.3.2.21b) and in north east part of Italy (15% of monitoring stations in 2010–2011 (Fig. 4.3.2.21c). The distribution of values evolves from year to year with a range varying from 100 to 1000 (Fig. 4.3.2.21d). The highest concentration of 2.5µg/l was reported by Bulgaria in the 2010–2011 period, see table 4.3.1.1.

Hexachlorocyclohexane (HCH)

The analysis is based on data from 9 countries for the 2002–2011 period and from 6 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 26.7 % of samples (Fig. 4.3.1.2) and in 13.2 % of stations (Fig. 4.3.1.4). The number of reported stations evolved from year to year with a maximum of 700 stations in 2007 (Fig. 4.3.2.21a1). Hexachlorocyclohexane (HCH) exceeded the EQS in 2002–2011 in 1 to 60 stations (Fig. 4.3.2.21b1) and in three countries, mainly north east part of Italy (12% of monitoring stations) in 2010–2011 (Fig. 4.3.2.21c1). The distribution of values evolved from year to year with a range reaching 1000 in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.21d1). The highest concentration of 0.121µg/l was reported by Belgium in the 2010–2011 period, see table 4.3.1.1.

Isoproturon

The analysis is based on data from 23 countries for the 2002–2011 period and from 20 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 19.5 % of samples (Fig. 4.3.1.2) and in 28.1 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1800 stations (Fig. 4.3.2.22a). Isoproturon did not exceed the EQS in 2002–2011 except in 2 to 13 stations depending on the year (Fig. 4.3.2.22b) and 4 countries in 2010–2011 (Fig. 4.3.2.22c). The distribution of values evolves from year to year with a range above 1000, larger in the recent years with more data, and 50% of the values in the recent years in a range of

10 around the median value (Fig. 4.3.2.22d). The highest concentration of 1.104µg/l was reported by France in the 2010–2011 period, see table 4.3.1.1.

Lead

Many countries reported Pb as Pb dissolved and/or Pb as Pb and its compounds.

For the case of Lead and its compound (total Lead), the analysis is based on data from 31 countries for the 2002–2011 period and from 27 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 43.3 % of samples (Fig. 4.3.1.2) and in 42.9 % of stations (Fig. 4.3.1.4). The number of reported stations has increased until 2007 and decreased afterwards when it was highlighted at EU level the dissolved fraction should be reported instead. Almost 3000 stations were reported in 2007 (Fig. 4.3.2.23a). Lead total exceeded the EQS in 10 to 103 stations in 2002–2011 (Fig. 4.3.2. 23b) and in 12 countries, mostly in Scotland in 2010–2011 (Fig. 4.3.2. 23c). The distribution of values evolves from year to year with a range smaller in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2. 23d). The highest concentration of 970µg/l was reported by United Kingdom in the 2010–2011 period, see table 4.3.1.1.

For the case of dissolved Lead, the analysis is based on data from 15 countries for the 2002–2011 period and from 15 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 28.1 % of samples (Fig. 4.3.1.2) and in 39.2 % of stations (Fig. 4.3.1.4). The number of reported stations has increased in the last 3 years to reach around 2000 stations (Fig. 4.3.2. 23a1). Lead did not exceed the EQS in 2002–2011 except in 1 to 82 stations (Fig. 4.3.2. 23b1) and 4 countries, mostly UK and Spain in 2010–2011 (Fig. 4.3.2. 23c1). The distribution of values is wide, larger in last year with more data, and 50% of the values in the recent year in a range of less than 10 around the median value (Fig. 4.3.2. 23d1). The highest concentration of 917.8µg/l was reported by Spain in the 2010–2011 period, see table 4.3.1.1.

Mercury

Many countries report Hg as Hg and its compounds and in the recent years as Hg dissolved.

For the case of Mercury and its compound (total Mercury), the analysis is based on data from 28 countries for the 2002–2011 period and from 19 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 36.2 % of samples (Fig. 4.3.1.2) and in 40.8 % of stations (Fig. 4.3.1.4). The number of reported stations has increased until 2007 and decreased afterwards when it was highlighted at EU level the dissolved fraction should be reported instead. Almost 1600 stations were reported in 2007 (Fig. 4.3.2.24a). Mercury exceeded the EQS in 2002–2011 in many stations in Europe: in 36 to 432 (40%) stations (Fig. 4.3.2. 24b) and in 12 countries, mostly in Italy (49% of stations) in two areas but also in Poland, Bulgaria and Scotland in 2010–2011 (Fig. 4.3.2.24c). The distribution of values evolves from year to year with a range varying from 50 to 1000, larger in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.24d). The highest concentration of 25.3µg/l was reported by Italy in the 2010–2011 period, see table 4.3.1.1.

For the case of dissolved Mercury, the analysis is based on data from 22 countries for the 2002–2011 period and from 11 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 9 % of samples (Fig. 4.3.1.2) and in 18.2 % of stations (Fig. 4.3.1.4). The number of reported stations has increased in the last two years to reach around 800 stations (Fig. 4.3.2.24a1). Mercury did not exceed the EQS in 2002–2011 except in 5 to 33 stations (Fig. 4.3.2.24b1) and 5 countries, mostly in north-eastern part of France in 2010–2011 (Fig. 4.3.2.24c1). The distribution of values is wide, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.3.2.24d1). The highest concentration of 1.821µg/l was reported by United Kingdom in the 2010–2011 period, see table 4.3.1.1.

Naphthalene

The analysis is based on data from 21 countries for the 2002–2011 period and from 18 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 20.7 % of samples (Fig. 4.3.1.2) and in 35.6 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1700 stations (Fig. 4.3.2.25a). Naphthalene did not exceed the EQS in 2002–2011 except in 1 to 16 stations (Fig. 4.3.2.25b) and 3 stations in Italy in 2010–2011 (Fig. 4.3.2.25c). The distribution of values evolves from year to year with a range varying from 50 to 1000, larger in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.25d). The highest concentration of 6.556µg/l was reported by Italy in the 2010–2011 period, see table 4.3.1.1.

Nickel

Many countries reported Ni as Ni and its compounds and recently Ni as Ni dissolved.

For the case of Nickel and its compound (total Nickel), the analysis is based on data from 30 countries for the 2002–2011 period and from 25 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 52.3 % of samples (Fig. 4.3.1.2) and in 52.2 % of stations (Fig. 4.3.1.4). The number of reported stations has increased until 2007 and decreased afterwards when it was highlighted at EU level the dissolved fraction should be reported instead. Almost 2800 stations were reported in 2007 (Fig. 4.3.2.26a). Nickel exceeded the EQS in 2002–2011 in 6 to 76 stations (Fig. 4.3.2.26b) and 6 countries, mostly in Scotland (24% of stations) in 2010–2011 (Fig. 4.3.2.26c). The distribution of values evolves from year to year with a range smaller in the recent years with more data, and 50% of the values in a range of 10 around the median value (Fig. 4.3.2.26d). The highest concentration of 950µg/l was reported by United Kingdom in the 2010–2011 period, see table 4.3.1.1.

For the case of dissolved , the analysis is based on data from 15 countries for the 2002–2011 period and from 15 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 56.4 % of samples (Fig. 4.3.1.2) and in 60.4 % of stations (Fig. 4.3.1.4). The number of reported stations has increased in the last two years to reach around 2000 stations (Fig. 4.3.2.26a1). Nickel dissolved exceeded the EQS in 2002–2011 in 1 to 61 stations (Fig. 4.3.2.26b1) and in 3 countries, mostly north east of Spain and Scotland and Northern Ireland in 2010–2011 (Fig. 4.3.2.26c1). The distribution of values evolves from year to year with a wide range, larger in 2011 with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.26d1). The highest concentration of 961.6µg/l was reported by Spain in the 2010–2011 period, see table 4.3.1.1.

Para-tert-octylphenol

The analysis is based on data from 17 countries for the 2002–2011 period and from 16 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 3.5 % of samples (Fig. 4.3.1.2) and in 13.9 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1400 stations (Fig. 4.3.2.27a). Para-tert-octylphenol did not exceed the EQS in 2002–2011 except in 1 to 8 stations in the period (Fig. 4.3.2.27b) and 4 countries in 2010–2011 (Fig. 4.3.2.27c). The distribution of values evolves from year to year with a wide range but most values in a range of 100, larger in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.27d). The highest concentration of 13.4µg/l was reported by Italy in the 2010–2011 period, see table 4.3.1.1.

Pentachlorobenzene

The analysis is based on data from 16 countries for the 2002–2011 period and from 12 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 8.3 % of samples (Fig. 4.3.1.2) and in 13.2 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1200 stations (Fig. 4.3.2.28a). Pentachlorobenzene exceeded the EQS in 2002–2011 in 1 to 162 stations (Fig. 4.3.2.28b) and 3 countries, mostly north east and west of Italy (53% of the stations) in 2010–2011 (Fig. 4.3.2.28c). The distribution of values evolves from year to year with a wide range reaching 100.000, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.3.2.28d). The highest concentration of 0.595µg/l was reported by Romania in the 2010–2011 period, see table 4.3.1.1.

Pentachlorophenol

The analysis is based on data from 20 countries for the 2002–2011 period and from 16 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 6.8 % of samples (Fig. 4.3.1.2) and in 14 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1600 stations (Fig. 4.3.2.29a). Pentachlorophenol did not exceed the EQS in 2002–2011 except in 1 to 7 stations depending on the year (Fig. 4.3.2.29b) and in 4 stations in 2 countries in 2010–2011 (Fig. 4.3.2.29c). The distribution of values evolves from year to year with a range varying from 100 to 1000, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.29d). The highest concentration of 3.75µg/l was reported by Lithuania in the 2010–2011 period, see table 4.3.1.1.

Benzo(a)pyrene

The analysis is based on data from 23 countries for the 2002–2011 period and from 19 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 32.1 % of samples (Fig. 4.3.1.2) and in 41.3 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 2100 stations (Fig. 4.3.2.30a). Benzo(a)pyrene did not exceed the EQS in 2002–2011 except in 1 to 18 stations (Fig. 4.3.2.30b) and 6 stations in 2 countries in 2010–2011 (Fig. 4.3.2.30c). The distribution of values evolves from year to year with a small range of 100, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.30d). The highest concentration of 0.073µg/l was reported by France in the 2010–2011 period, see table 4.3.1.1.

Sum of benzo(b)fluoranthene and benzo(k)fluoranthene

The analysis is based on data from 19 countries for the 2002–2011 period and from 16 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 23.6 % of samples (Fig. 4.3.1.2) and in 32.1 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1700 stations (Fig. 4.3.2.31a). The sum of benzo(b)fluoranthene and benzo(k)fluoranthene did not exceed the EQS in 2002–2011 except in 2 to 23 stations (Fig. 4.3.2.31b) and 3 countries for 9 stations in 2010–2011 (Fig. 4.3.2.31c). The distribution of values is very narrow, and 50% of the values in the recent years in a range of 0.2 around the median value (Fig. 4.3.2.31d). The highest concentration of 0.0599µg/l was reported by France in the 2010–2011 period, see table 4.3.1.1.

Sum of benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene

The analysis is based on data from 16 countries for the 2002–2011 period and from 13 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 55.3 % of samples (Fig. 4.3.1.2) and in 75.2 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 2000 stations (Fig. 4.3.2.32a). The sum of benzo(b)fluoranthene and benzo(k)fluoranthene exceeded the EQS in a significant number of stations (up to 52%) in period 2002–2011 from 33 to 284 stations (Fig. 4.3.2.32b) and 9 countries, mostly in Belgium, France, Italy and Poland in 2010–2011 (Fig. 4.3.2.32c). Most values are in a range of 15, and 50% of the values in the recent years in a range of 2 around the median value (Fig. 4.3.2.32d). The highest concentration of 0.079µg/l was reported by Poland in the 2010–2011 period, see table 4.3.1.1.

Simazine

The analysis is based on data from 25 countries for the 2002–2011 period and from 21 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 10.8 % of samples (Fig. 4.3.1.2) and in 9.4 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 2200 stations (Fig. 4.3.2.33a). Simazine did not exceed the EQS in 2002–2011 except in 1 to 13 stations depending on the year (Fig. 4.3.2.33b) and none in 2010–2011 (Fig. 4.3.2.33c). The distribution of values evolves from year to year with a wider range in the recent years with more data, and 50% of the values in the recent years in a very small range around the median value (Fig. 4.3.2.33d). The highest concentration of 1.571µg/l was reported by Italy in the 2010–2011 period, see table 4.3.1.1.

Tributyltin cation

The analysis is based on data from 6 countries for the 2002–2011 period and from 4 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 7.8 % of samples (Fig. 4.3.1.2) and in 8 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 560 stations (Fig. 4.3.2.34a). Tributyltin cation did not exceed the EQS in 2002–2011 except in 1 to 16 stations depending on the year (Fig. 4.3.2.34b) and 12 stations in France and Germany in 2010–2011 (Fig. 4.3.2.34c). The distribution of values evolves from year to year but ,no conclusion can be drawn (Fig. 4.3.2.34d). The highest concentration of 0.005µg/l was reported by Germany in the 2010–2011 period, see table 4.3.1.1.

Trichloromethane

The analysis is based on data from 20 countries for the 2002–2011 period and from 16 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 16.6 % of samples (Fig. 4.3.1.2) and in 19.4 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1900 stations (Fig. 4.3.2.35a). Trichloromethane did not exceed the EQS in 2002–2011 except in 1 to 137 stations but with a significant figure (137 stations, 9.2%) only in 2007 (Fig. 4.3.2.35b) and 21 stations in Italy and Poland in 2010–2011 (Fig. 4.3.2.35c). The distribution of values evolves from year to year with a range varying from 10 to 10.000, larger in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.3.2.35d). The highest concentration of 20.46µg/l was reported by Poland in the 2010–2011 period, see table 4.3.1.1.

Trifluralin

The analysis is based on data from 20 countries for the 2002–2011 period and from 16 countries for 2010–2011 period, see tables 3.3.2 and 3.3.3. The substance was found in 7.9 % of samples (Fig. 4.3.1.2) and in 4.6 % of stations (Fig. 4.3.1.4). The number of reported stations has increased since 2002 to reach around 1800 stations (Fig. 4.3.2.36a). Trifluralin did not exceed the EQS in 2002–2011 except in 1 to 64 stations depending on the year (Fig. 4.3.2.36b) and 59 stations of which mainly in Italy (11% of stations) in 2010–2011 (Fig. 4.3.2.36c). The distribution of values evolves from year to year with a range around 1000, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.3.2.36d). The highest concentration of 0.126µg/l was reported by Cyprus in the 2010–2011 period, see table 4.3.1.1.

Figure 4.3.2.1a Long-term traffic-light indicator and number of stations for 1,1,2,2-tetrachloroethene in rivers.

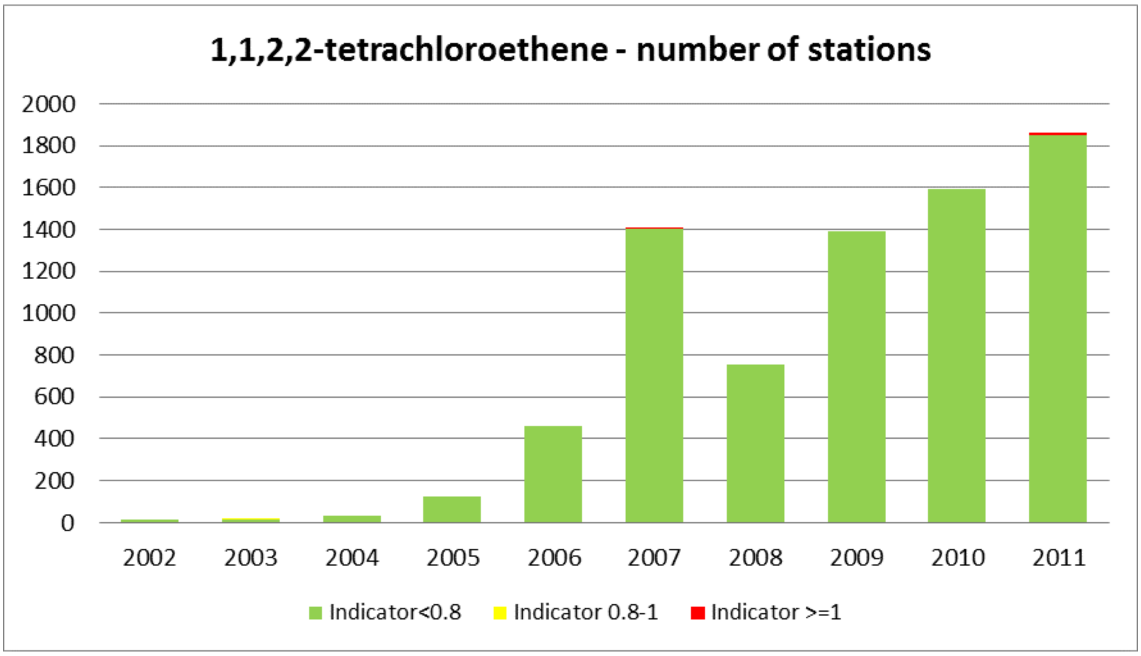


Figure 4.3.2.1b Traffic-light indicator for 1,1,2,2-tetrachloroethene in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

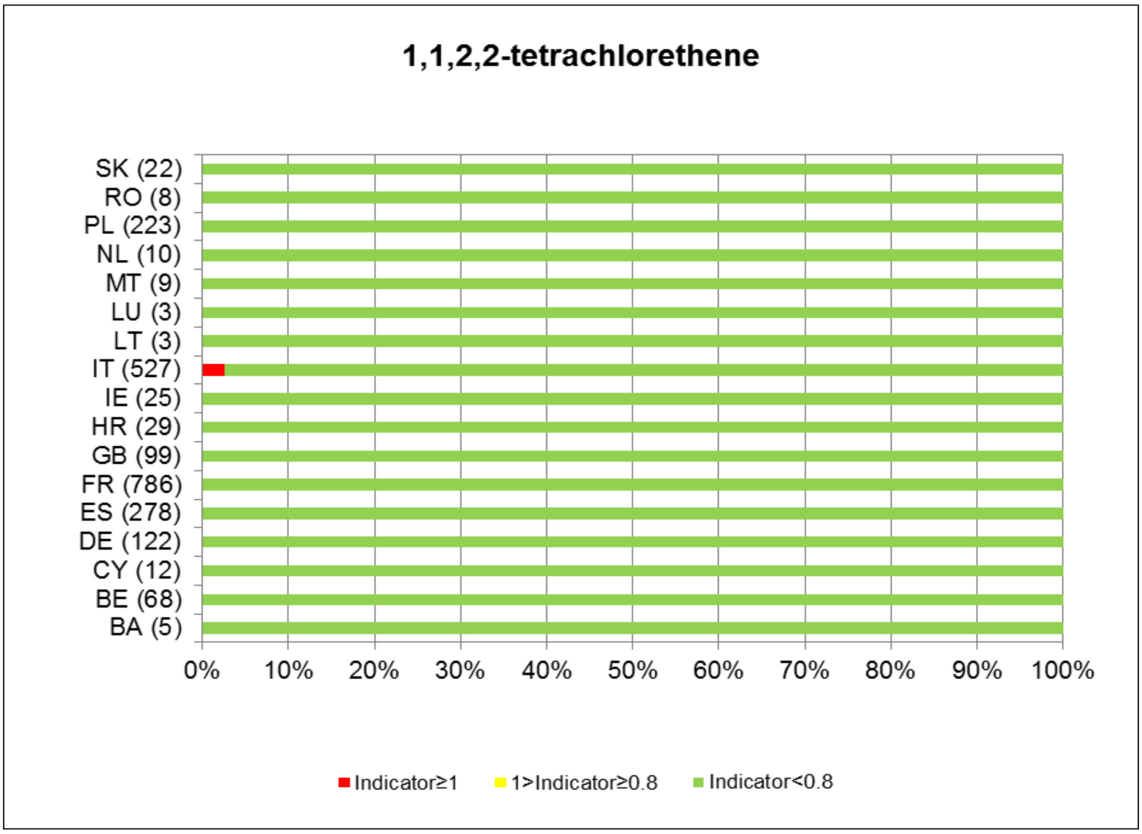


Figure 4.3.2.1c Map of traffic-light indicator for 1,1,2,2-tetrachloroethene in rivers from 2010–2011.

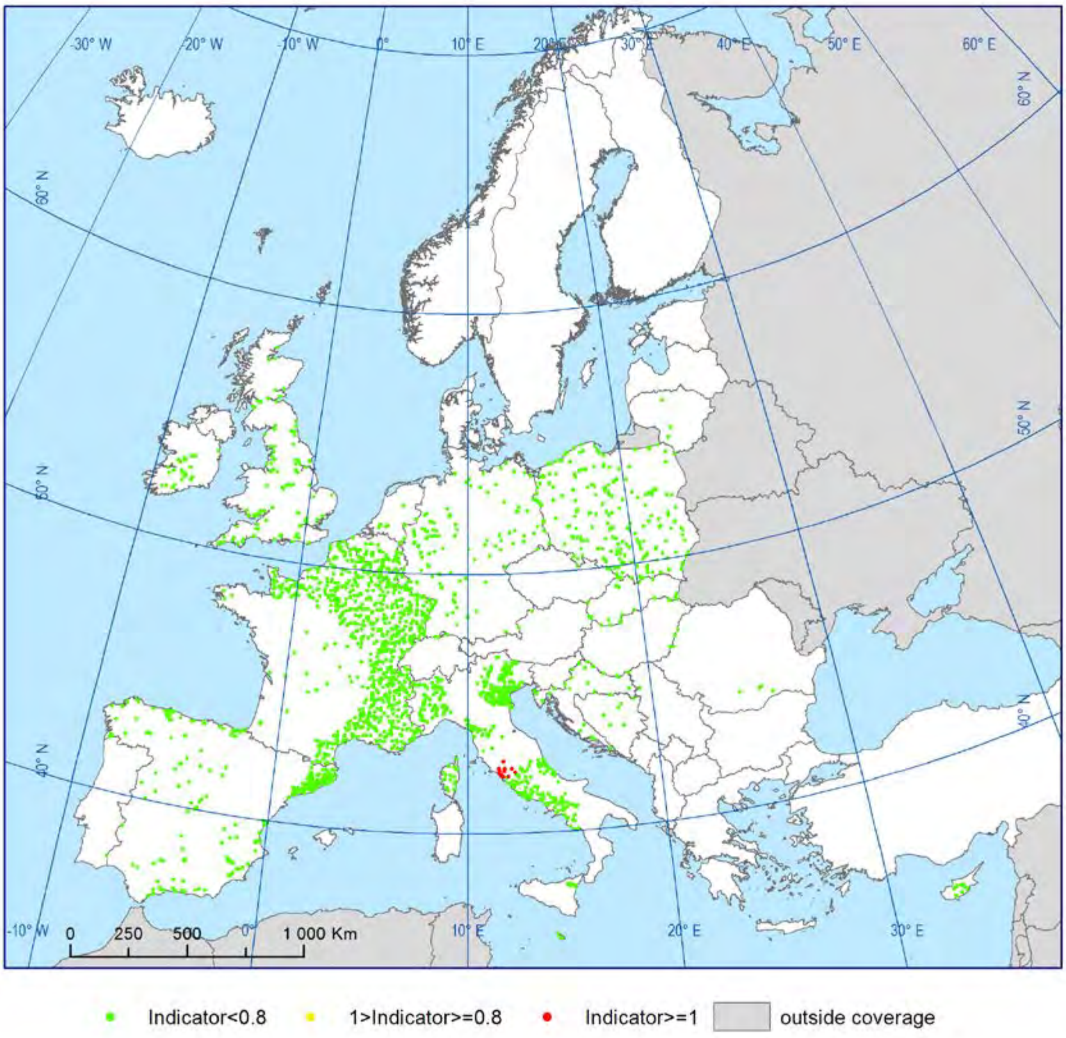


Figure 4.3.2.1d Box plot of data for 1,1,2,2-tetrachloroethene in rivers.

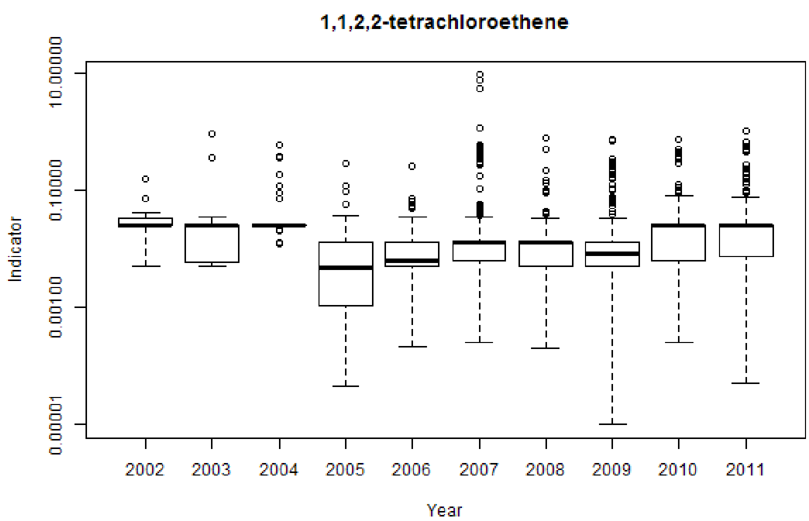


Figure 4.3.2.2a Long-term traffic-light indicator and number of stations for 1,2-dichloroethane in rivers.

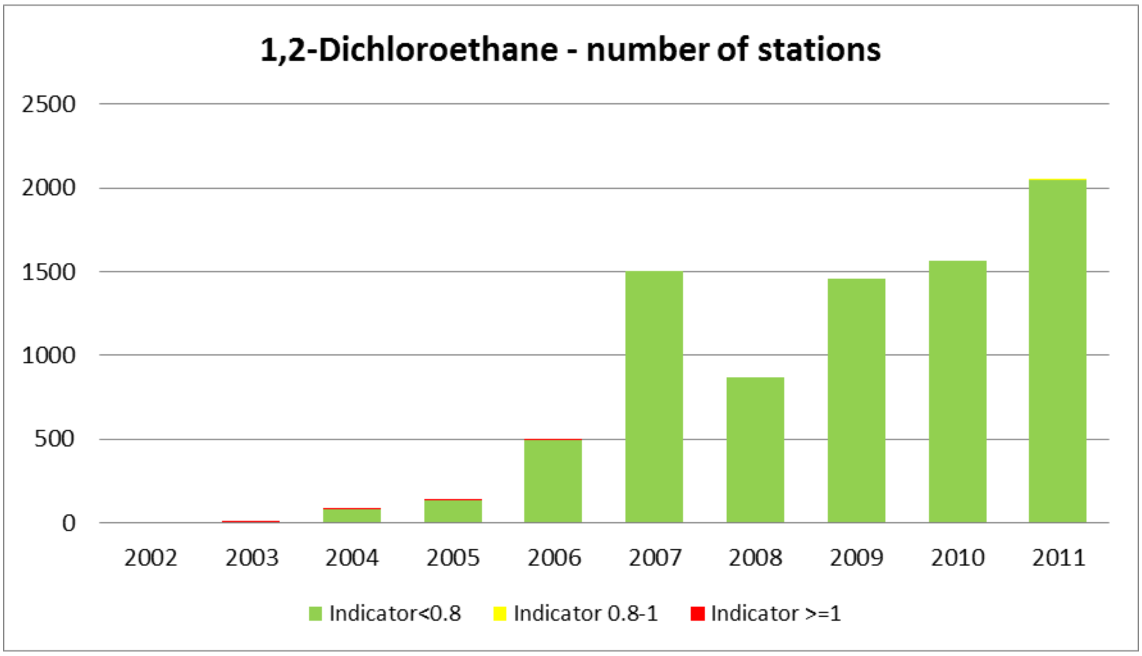


Figure 4.3.2.2b Traffic-light indicator for 1,2-dichloroethane in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

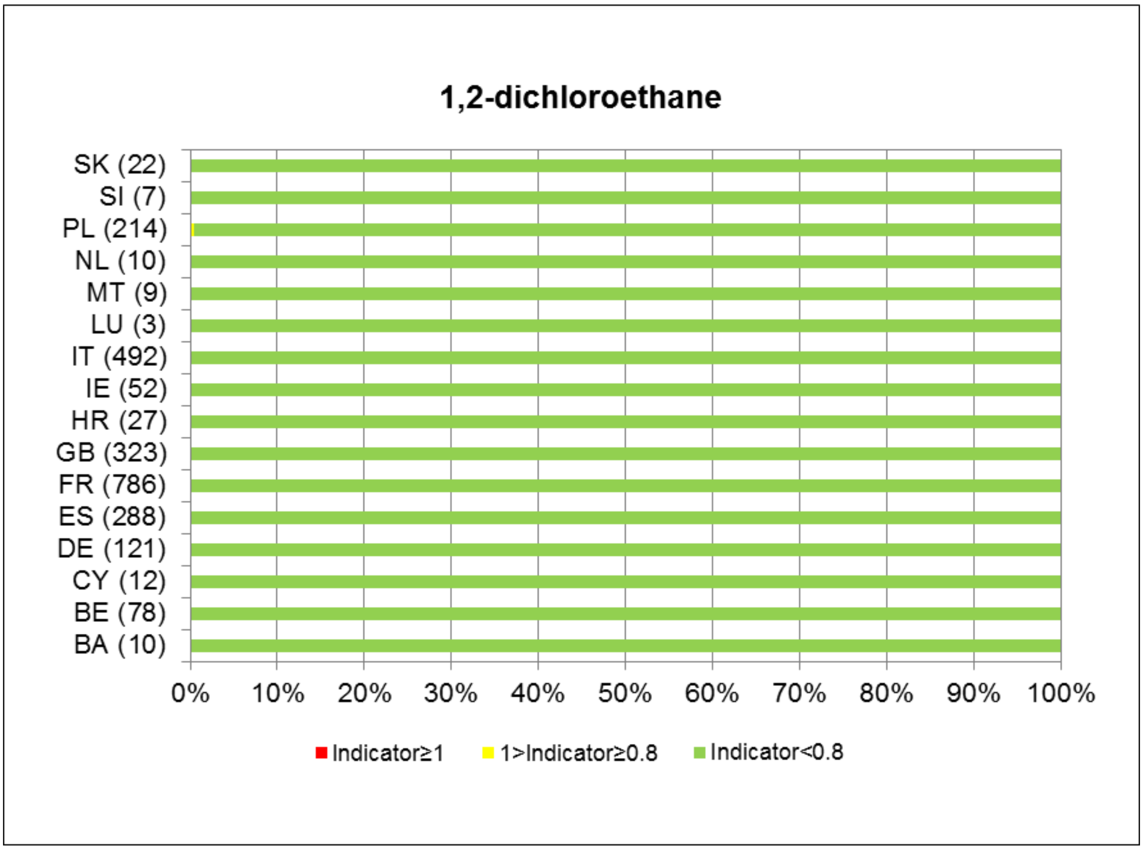


Figure 4.3.2.2c Map of traffic-light indicator for 1,2-dichloroethane in rivers from 2010–2011.

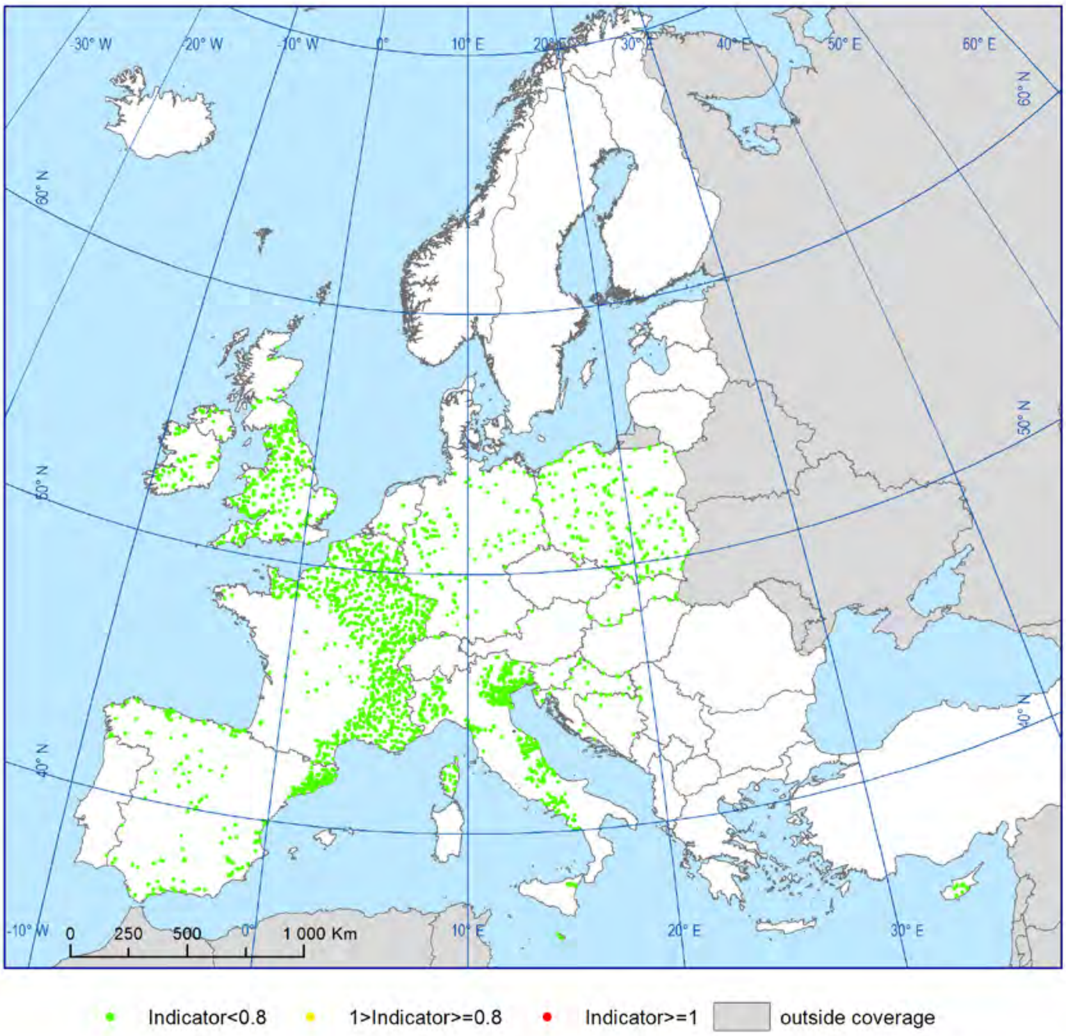


Figure 4.3.2.2d Box plot of data for 1,2-dichloroethane in rivers.

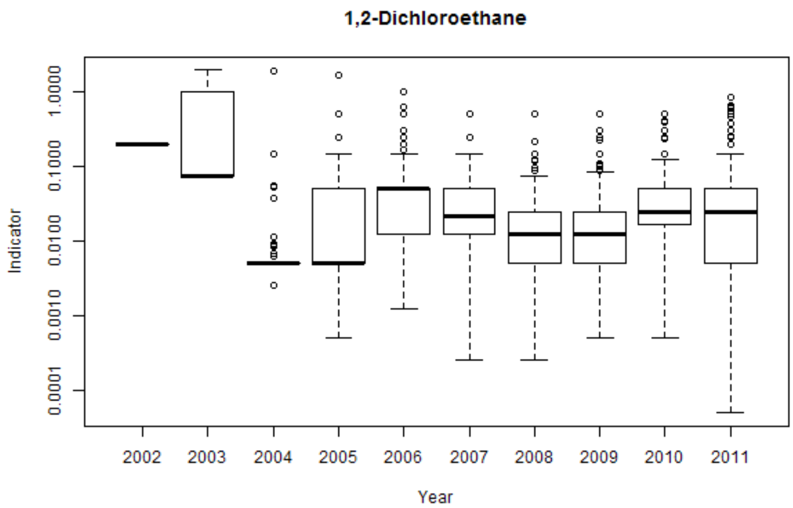


Figure 4.3.2.3a Long-term traffic-light indicator and number of stations for 4-nonylphenol in rivers.

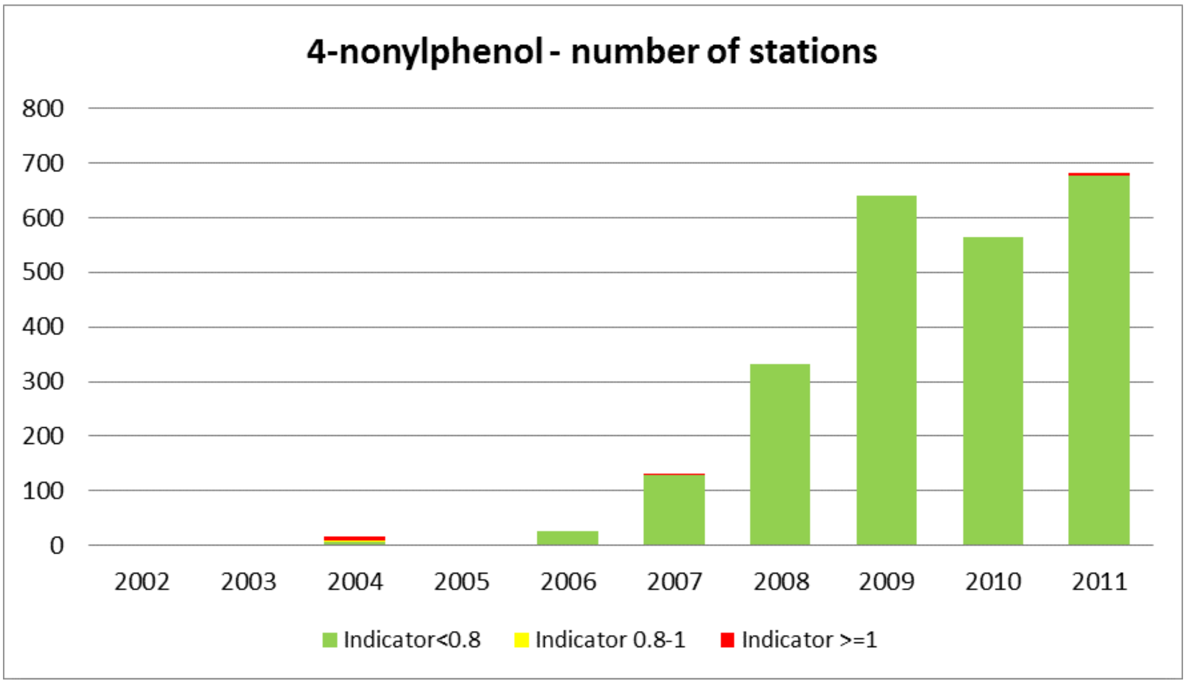


Figure 4.3.2.3b Traffic-light indicator for 4-nonylphenol in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

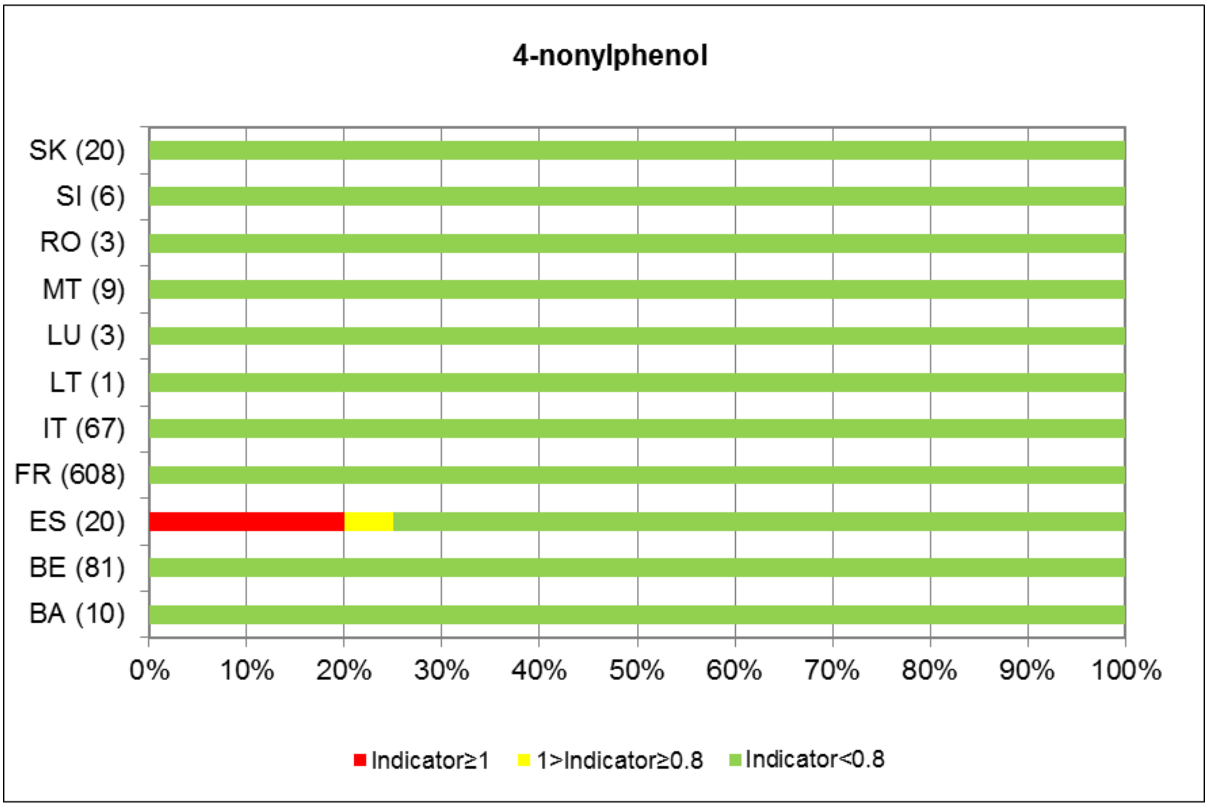


Figure 4.3.2.3c Map of traffic-light indicator for 4-nonylphenol in rivers from 2010–2011

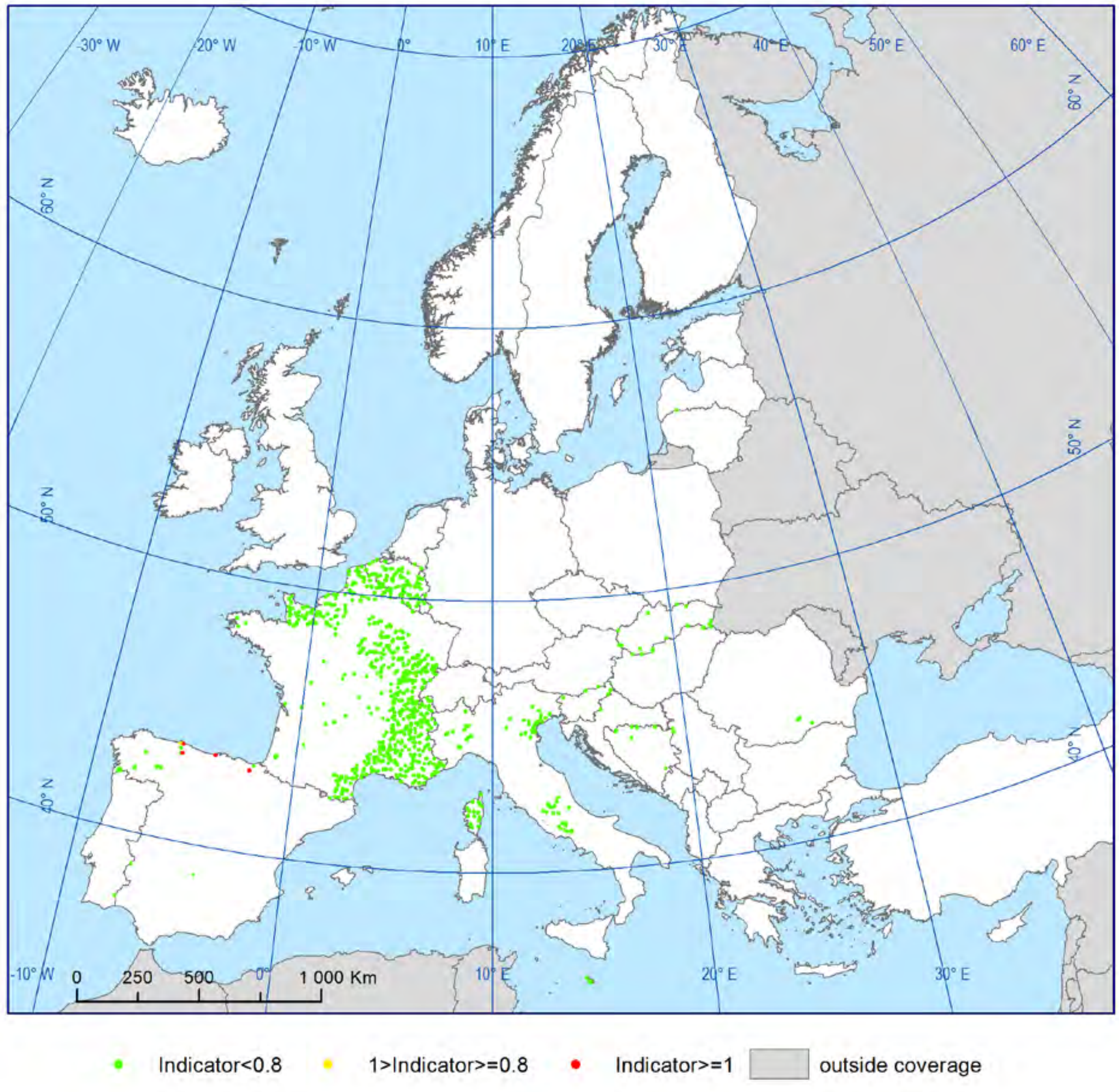


Figure 4.3.2.3d Box plot of data for 4-nonylphenol in rivers.

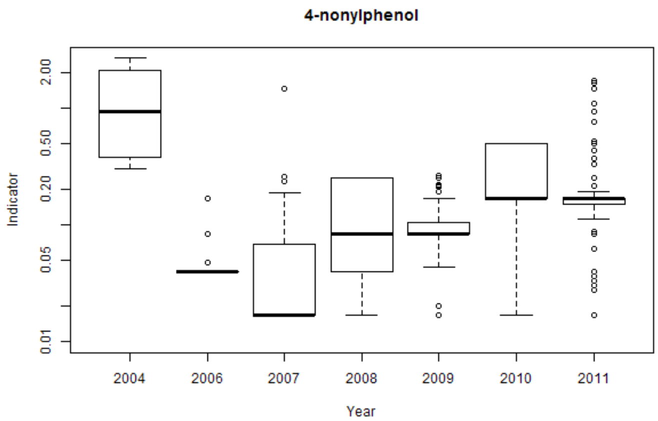


Figure 4.3.2.4a Long-term traffic-light indicator and number of stations for alachlor in rivers.

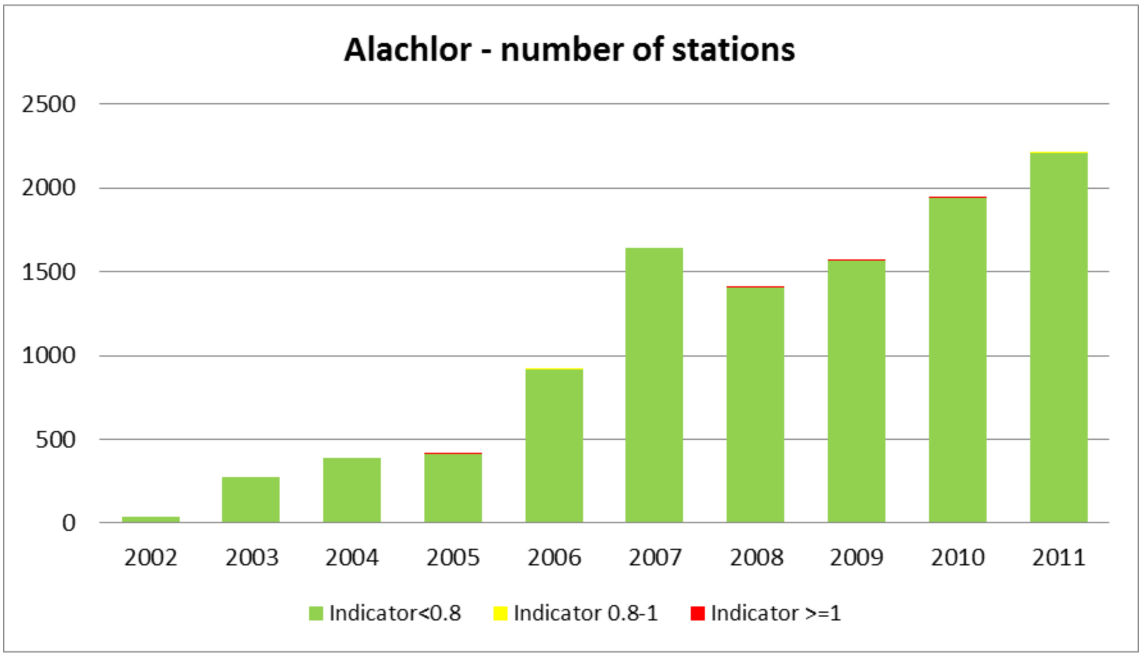


Figure 4.3.2.4b Traffic-light indicator for alachlor in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

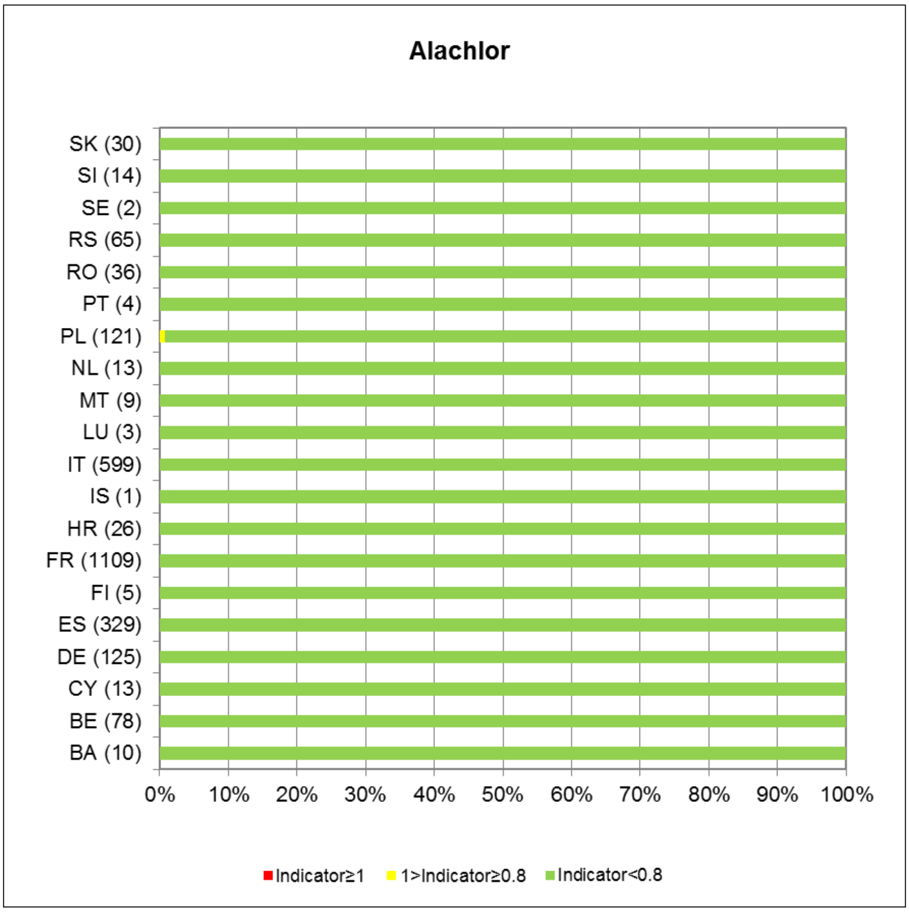


Figure 4.3.2.4c Map of traffic-light indicator for alachlor in rivers from 2010–2011.

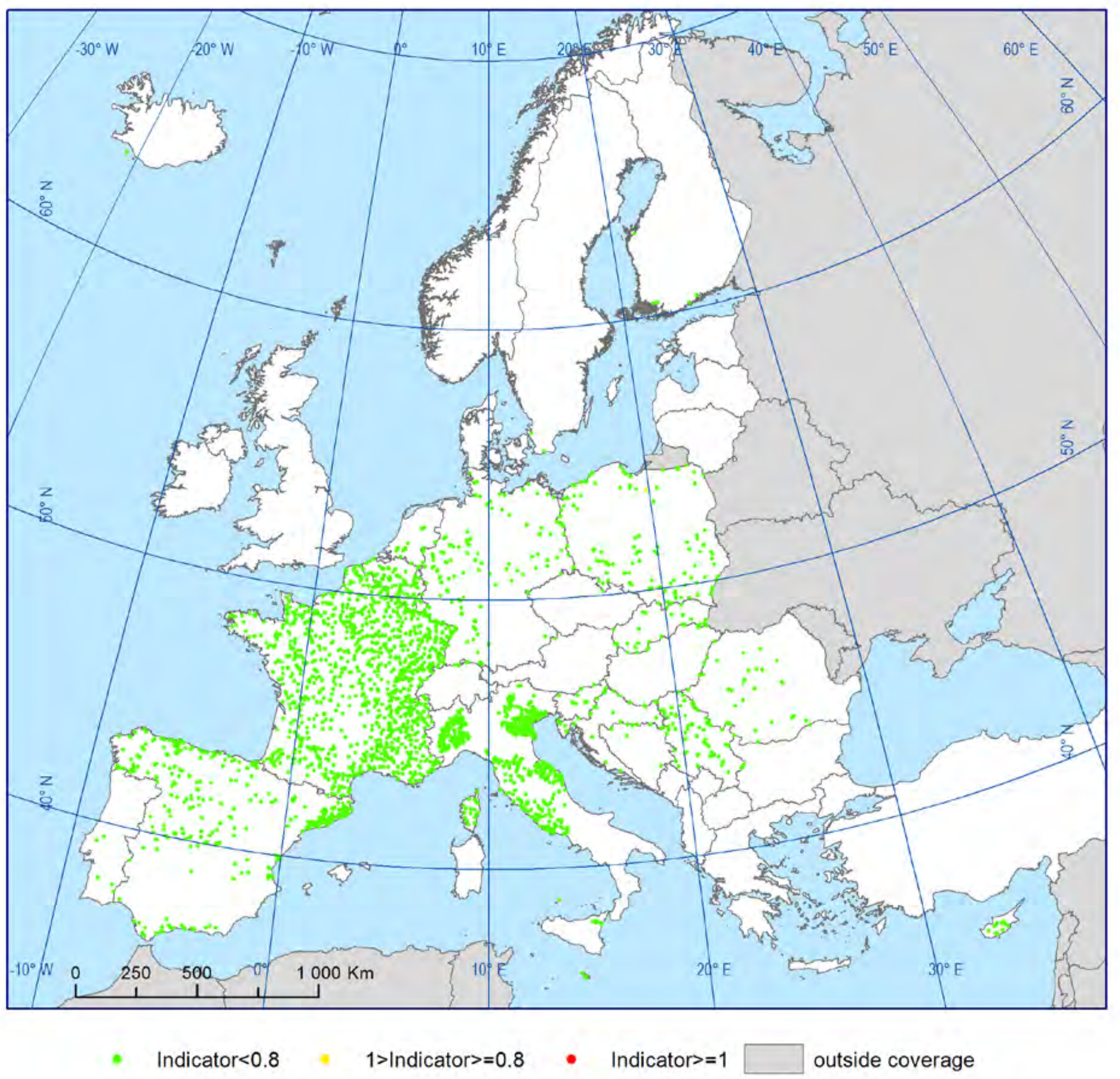


Figure 4.3.2.4d Box plot of data for alachlor in rivers.

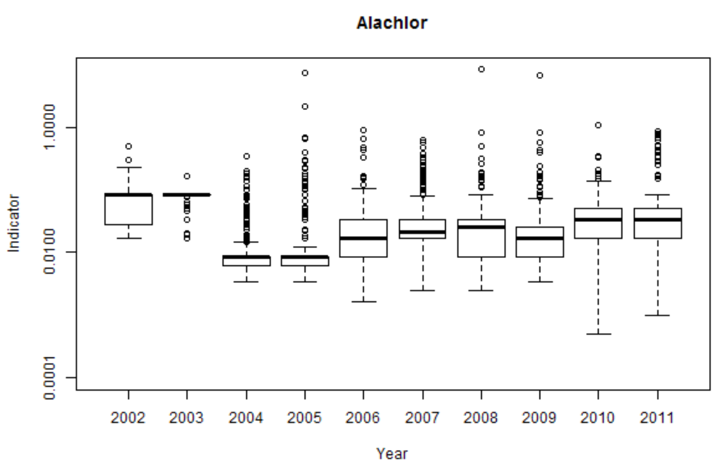


Figure 4.3.2.5a Long-term traffic-light indicator and number of stations for sum of aldrin, dieldrin, endrin, and isodrin in rivers.

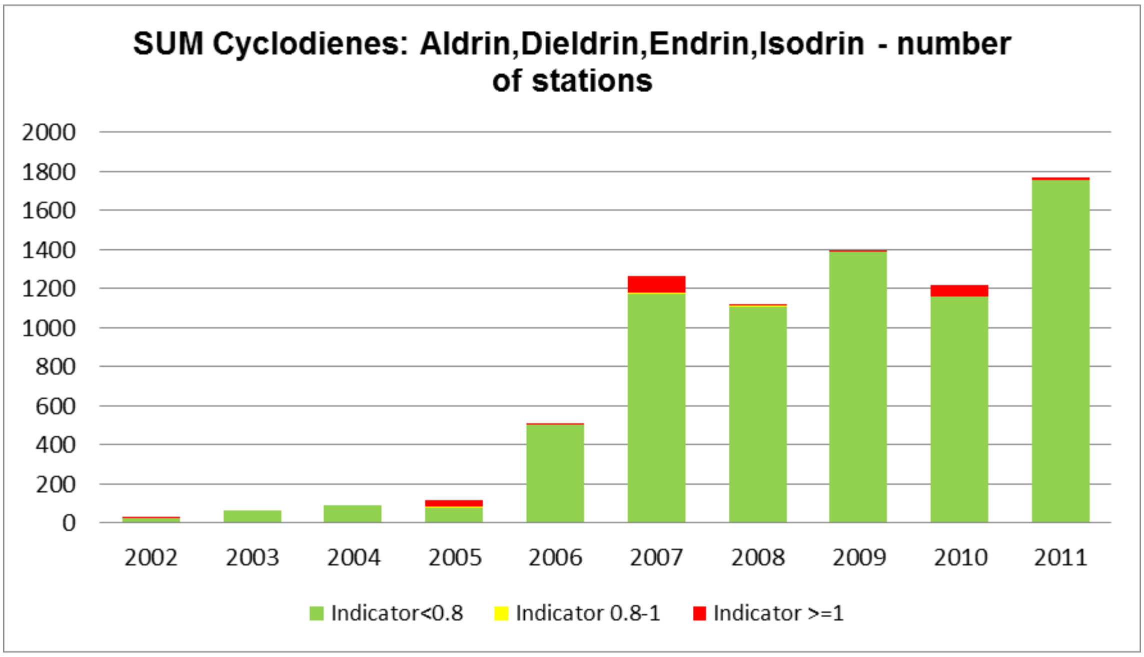


Figure 4.3.2.5b Traffic-light indicator for sum of aldrin, dieldrin, endrin, and isodrin in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

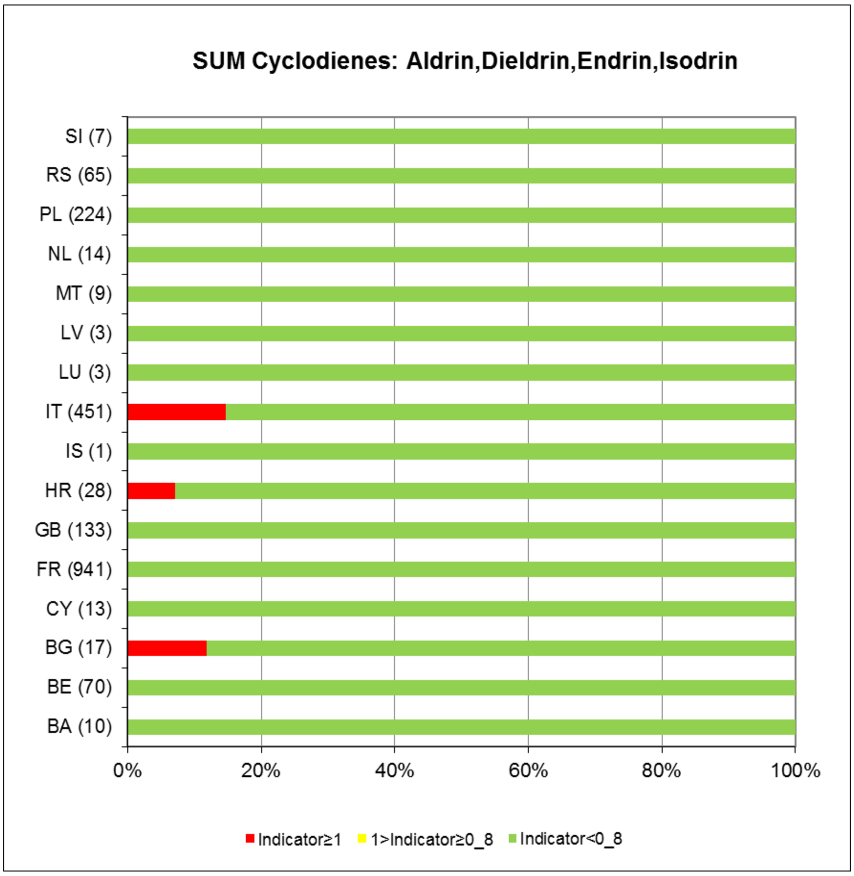


Figure 4.3.2.5c Map of traffic-light indicator for sum of aldrin, dieldrin, endrin, and isodrin in rivers from 2010–2011.

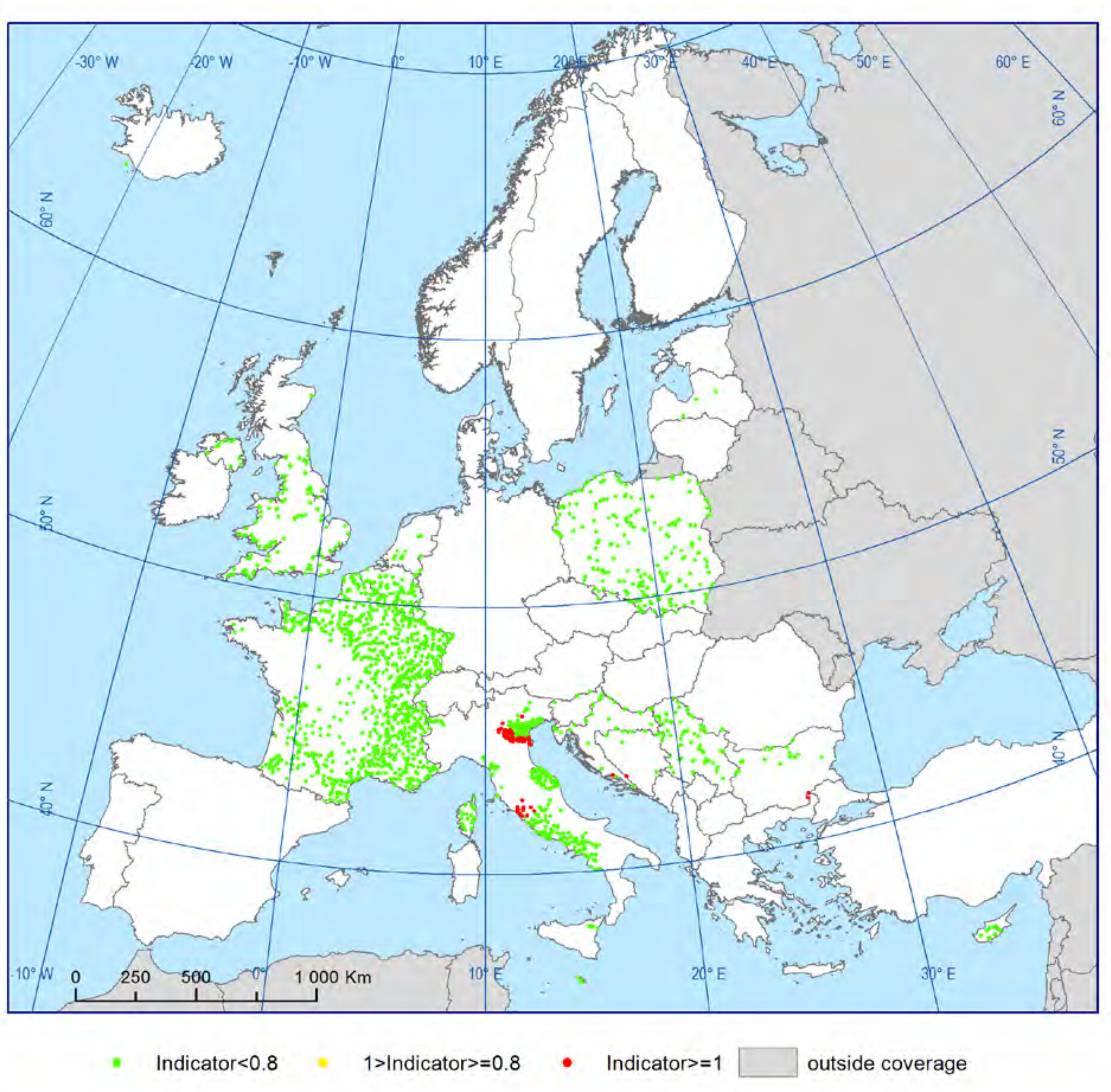


Figure 4.3.2.5d Box plot of data for the sum of aldrin, dieldrin, endrin, and isodrin in rivers.

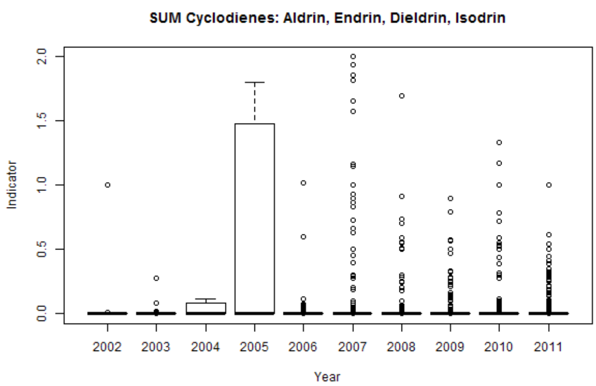


Figure 4.3.2.6a Long-term traffic-light indicator and number of stations for anthracene in rivers.

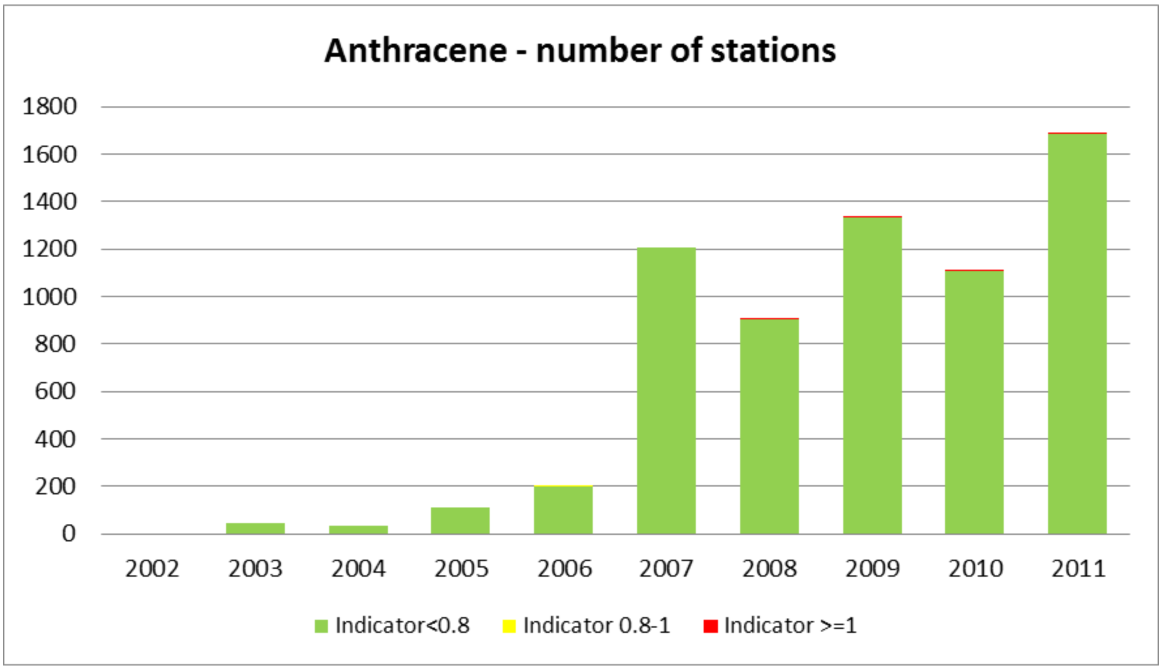


Figure 4.3.2.6b Traffic-light indicator for anthracene in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

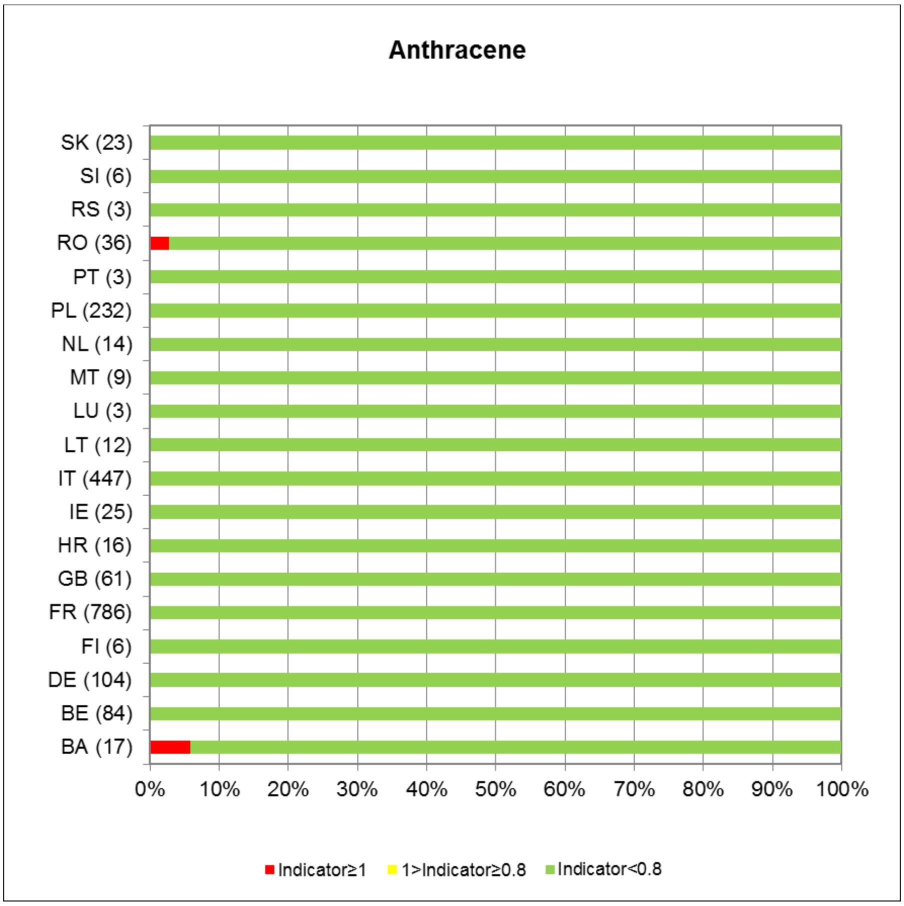


Figure 4.3.2.6c Map of traffic-light indicator for anthracene in rivers from 2010–2011.

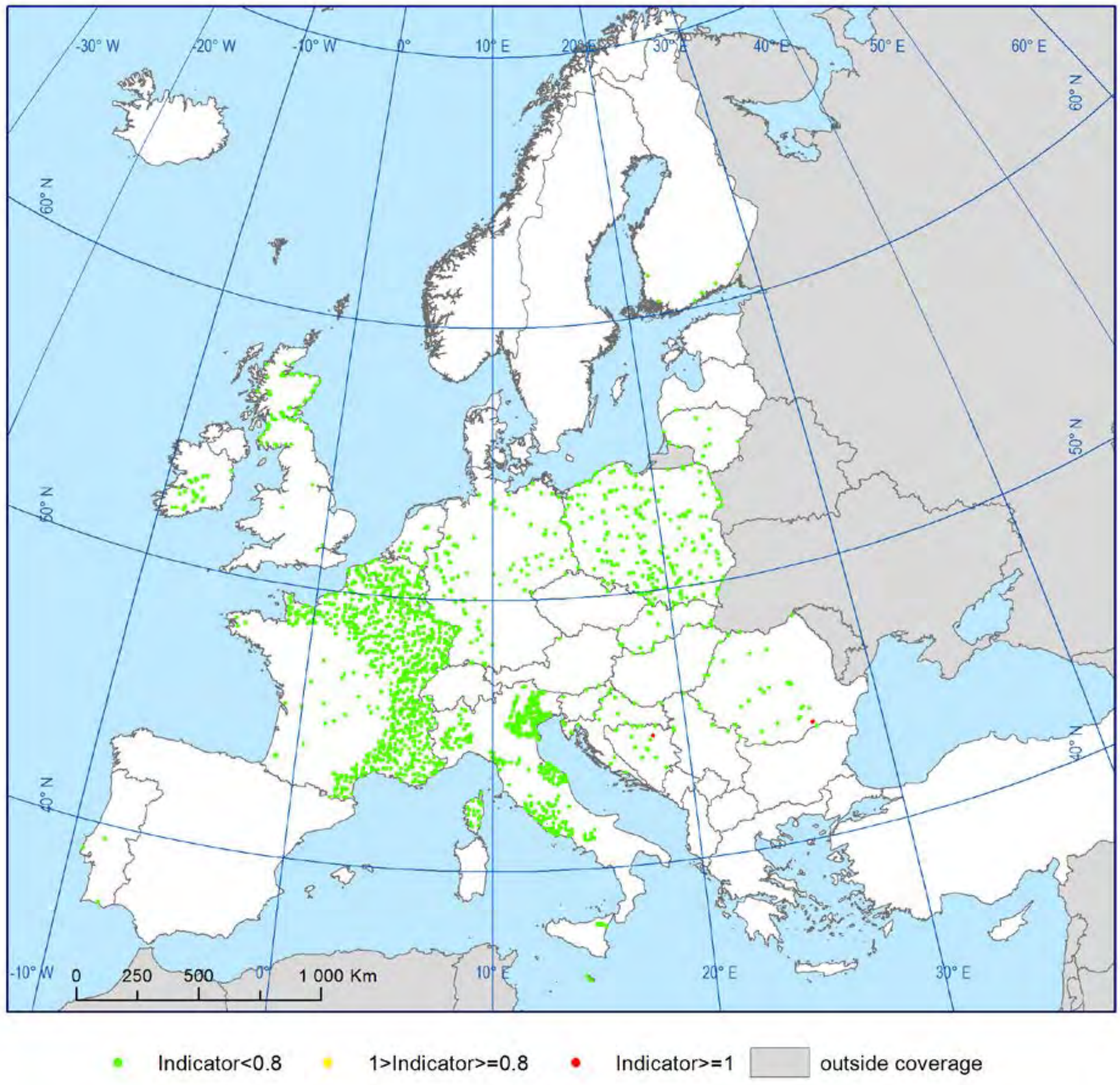


Figure 4.3.2.6d Box plot of data for anthracene in rivers.

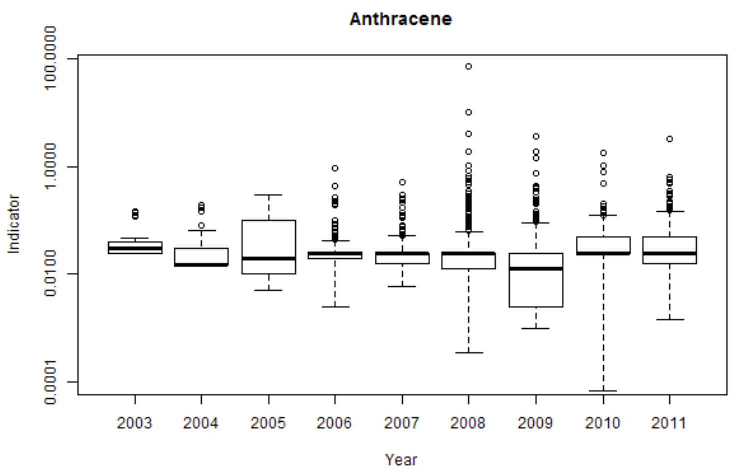


Figure 4.3.2.7a Long-term traffic-light indicator and number of stations for atrazine in rivers.

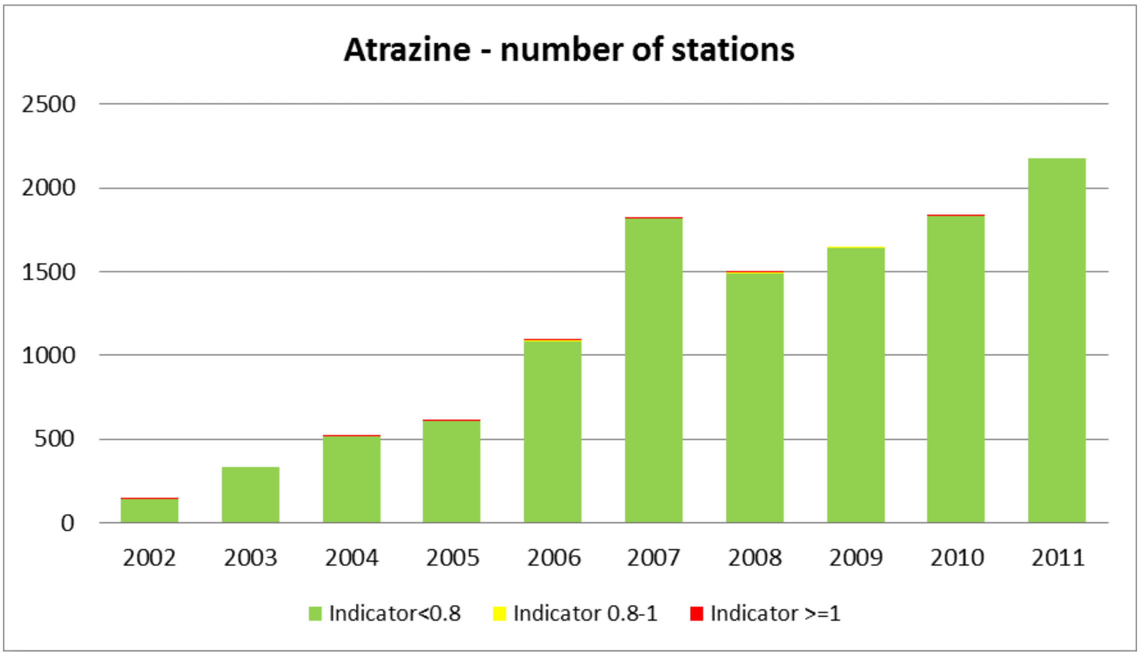


Figure 4.3.2.7b Traffic-light indicator for atrazine in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

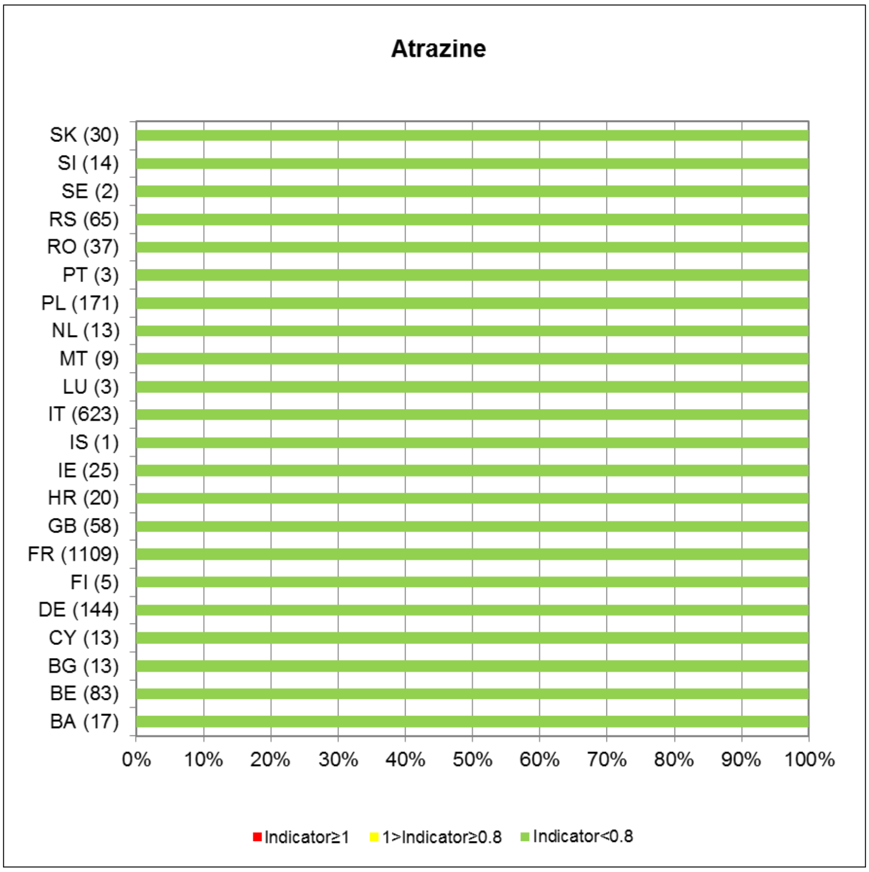


Figure 4.3.2.7c Map of traffic-light indicator for atrazine in rivers from 2010–2011.

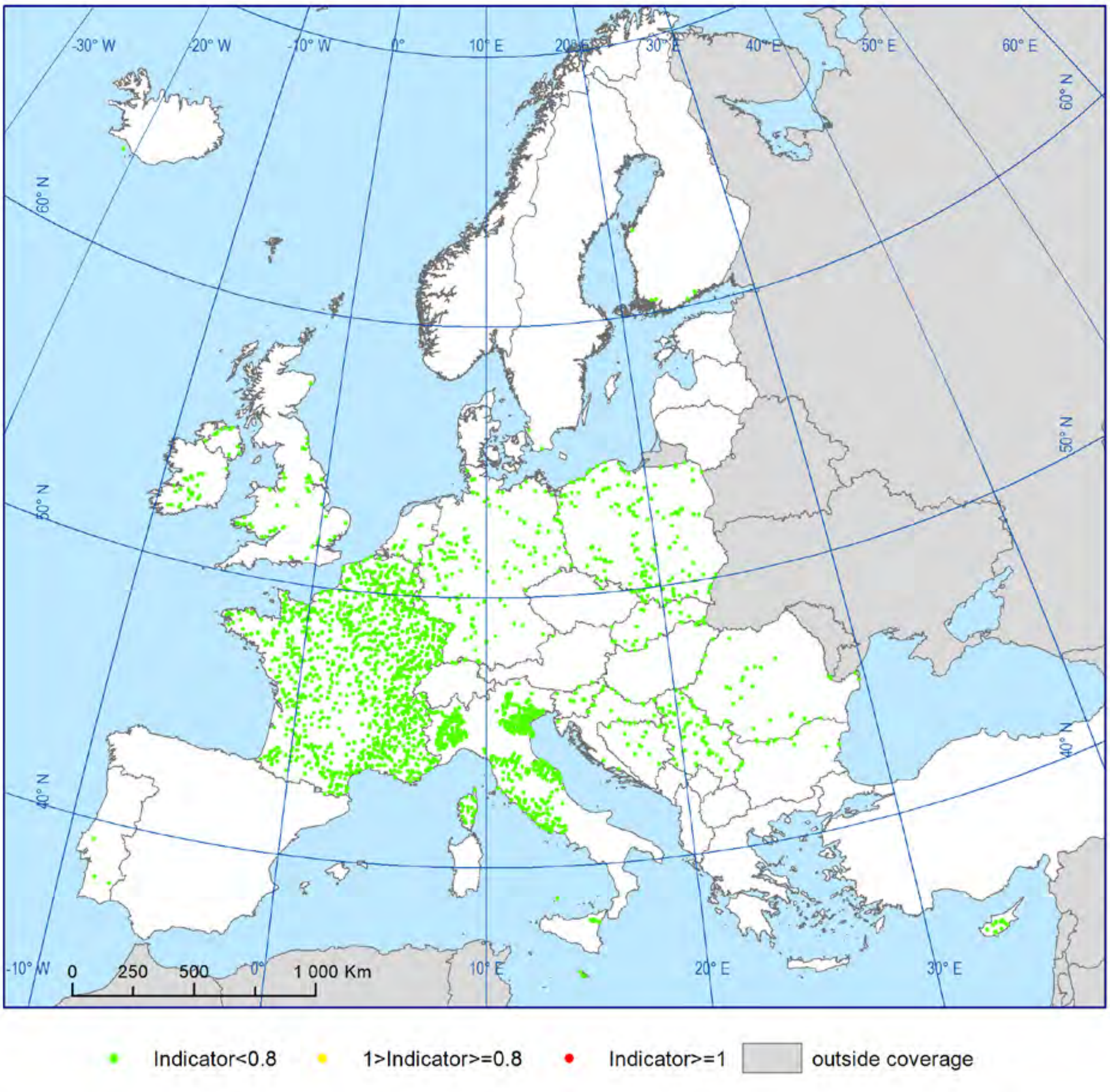


Figure 4.3.2.7d Box plot of data for atrazine in rivers.

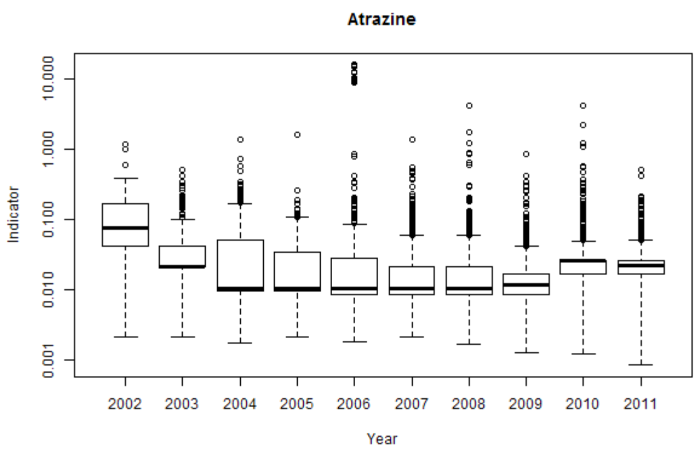


Figure 4.3.2.8a Long-term traffic-light indicator and number of stations for benzene in rivers.

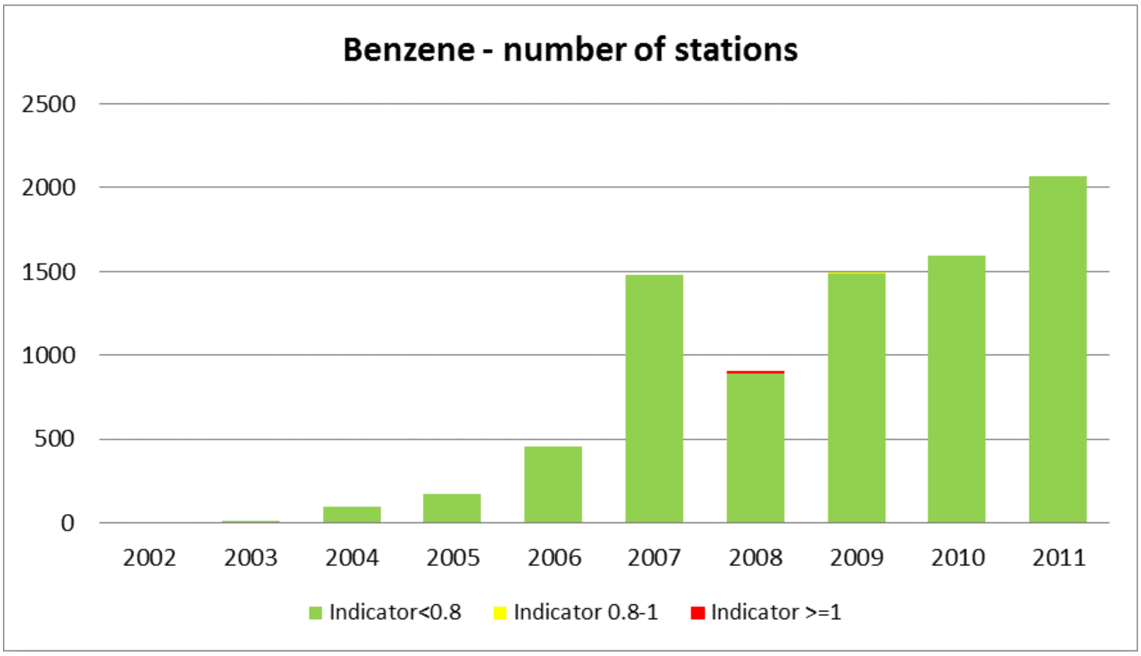


Figure 4.3.2.8b Traffic-light indicator for benzene in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

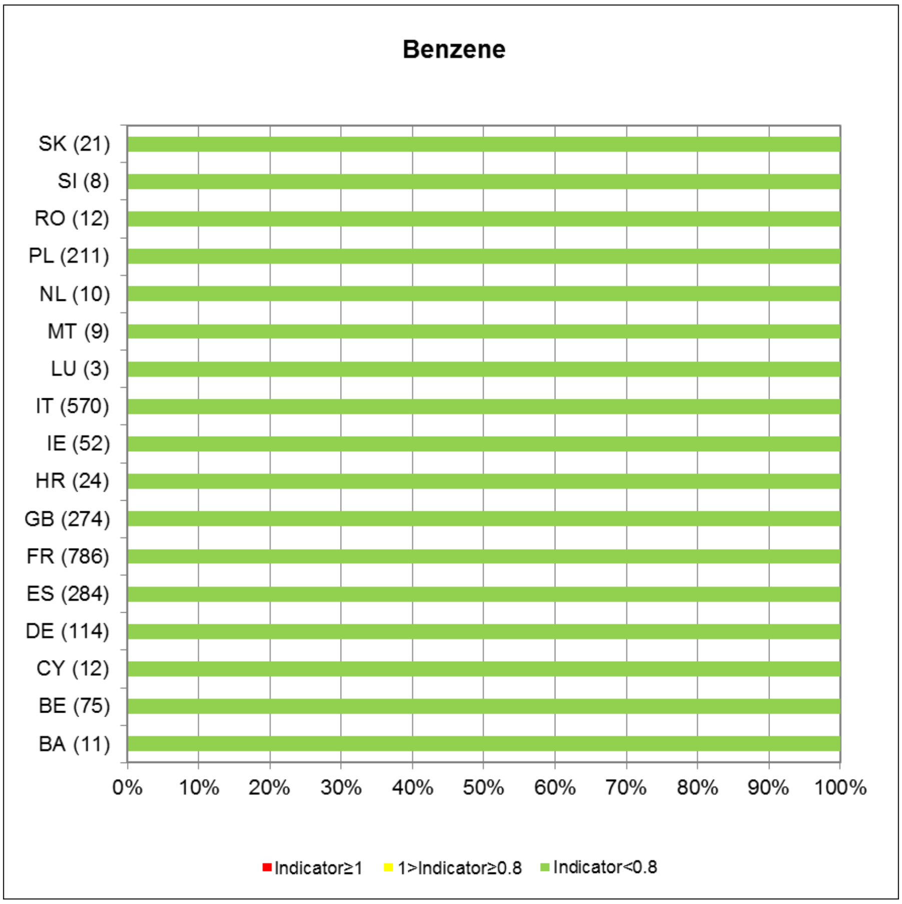


Figure 4.3.2.8c Map of traffic-light indicator for benzene in rivers from 2010–2011.

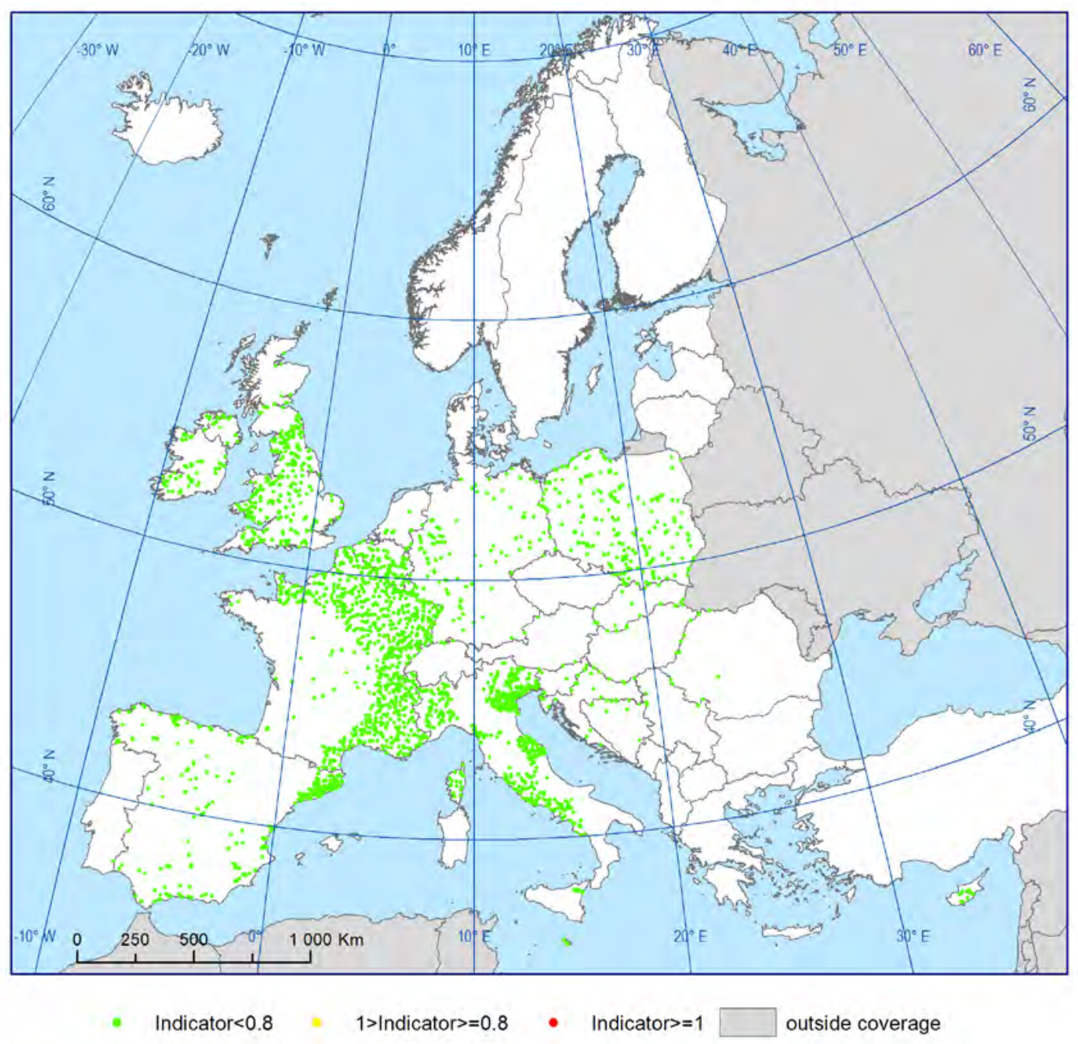


Figure 4.3.2.8d Box plot of data for benzene in rivers from 2002–2011.

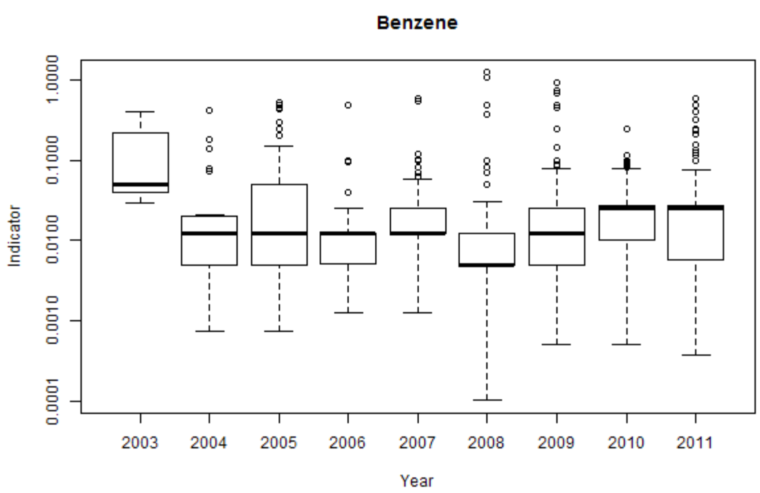


Figure 4.3.2.9a1 Long-term traffic-light indicator and number of stations for cadmium in rivers.

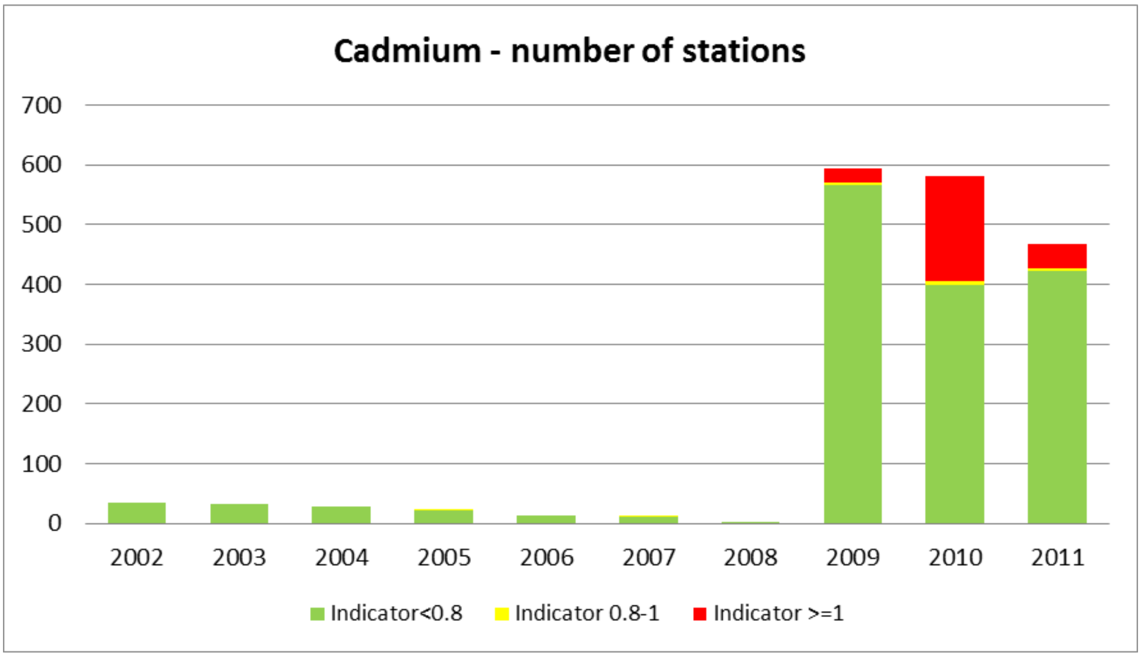


Figure 4.3.2.9b1 Traffic-light indicator for cadmium in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

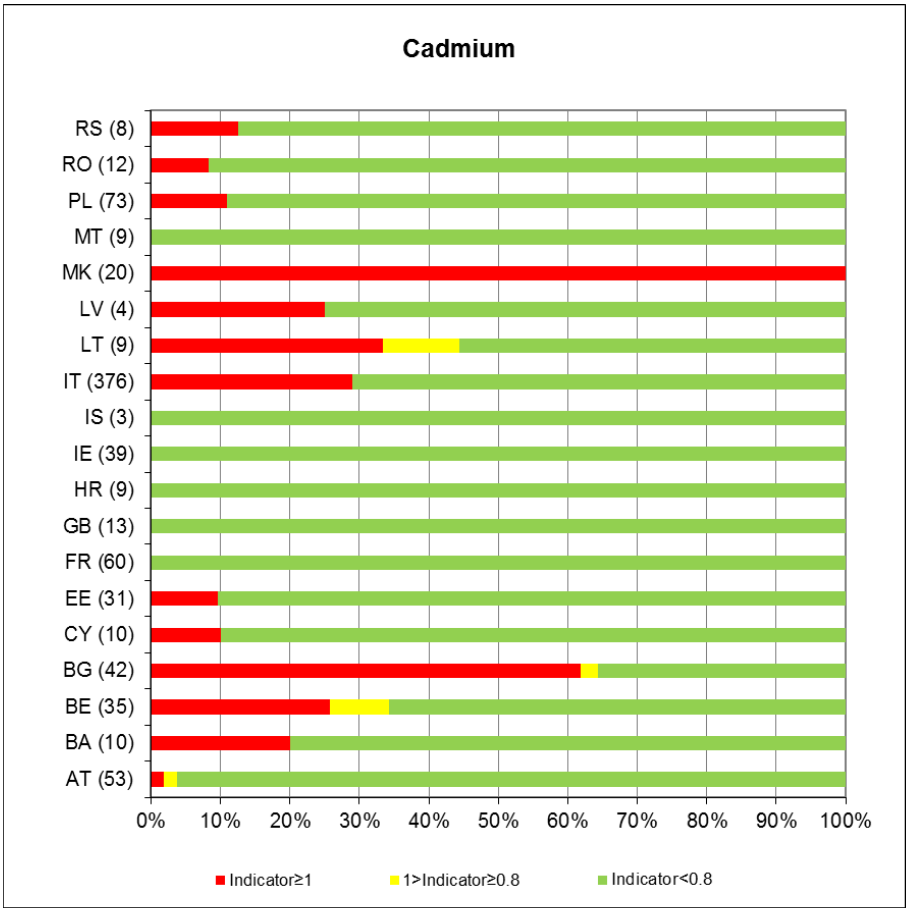


Figure 4.3.2.9c1 Map of traffic-light indicator for cadmium in rivers from 2010–2011.

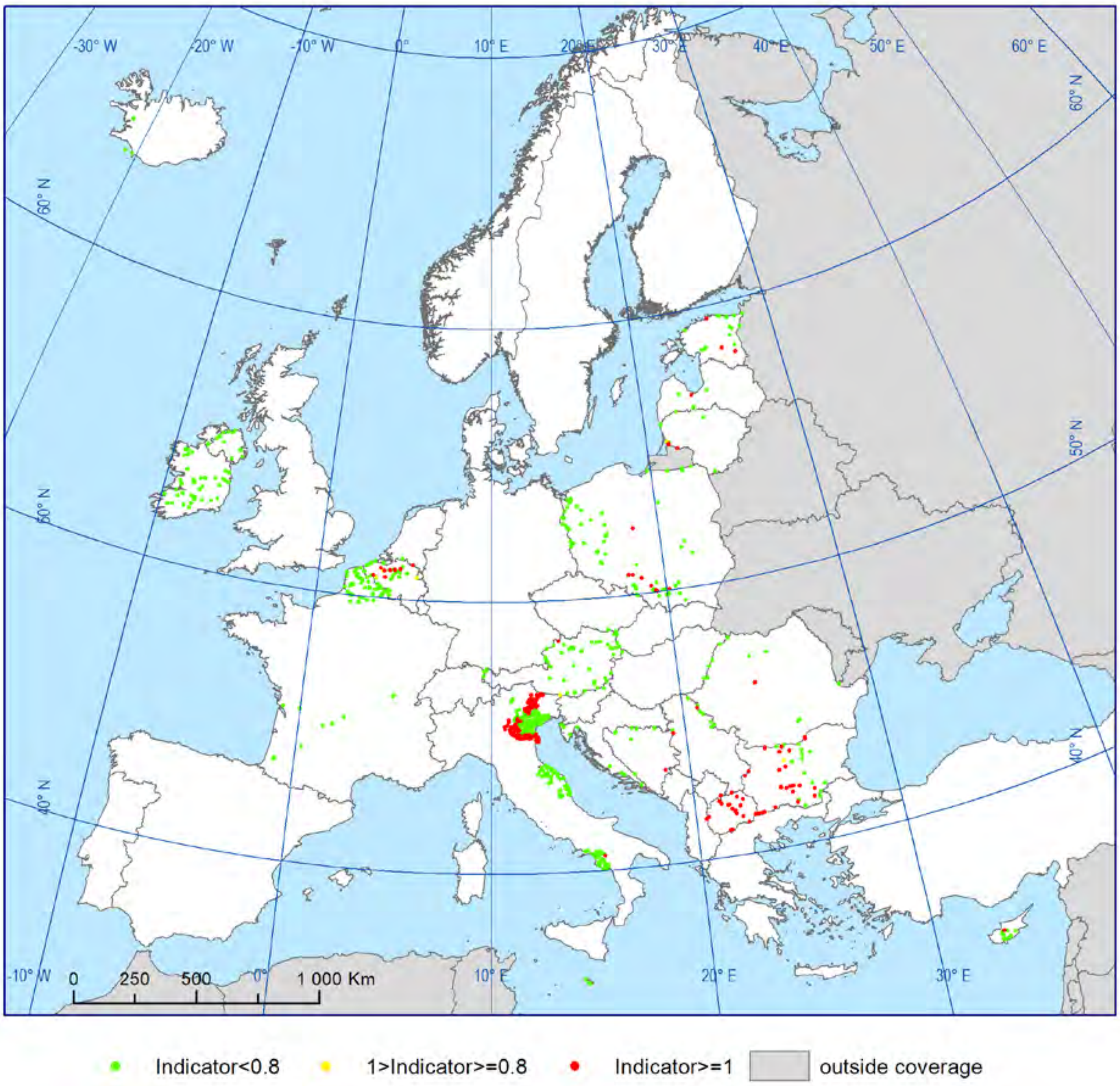


Figure 4.3.2.9d1 Box plot of data for cadmium in rivers.

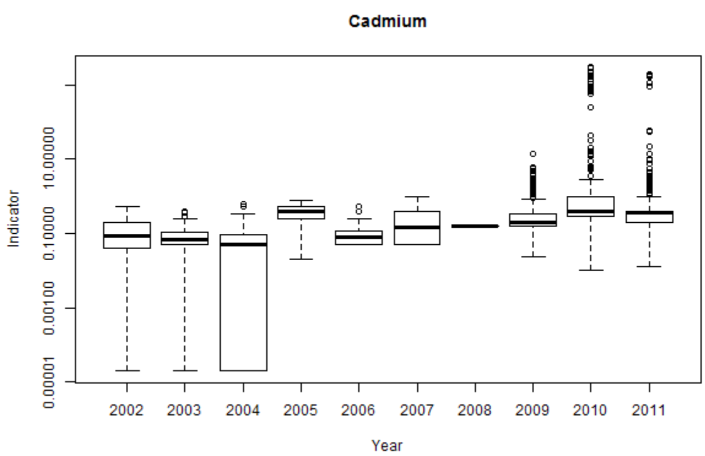


Figure 4.3.2.9a2 Long-term traffic-light indicator and number of stations for cadmium in rivers, no data on water hardness.

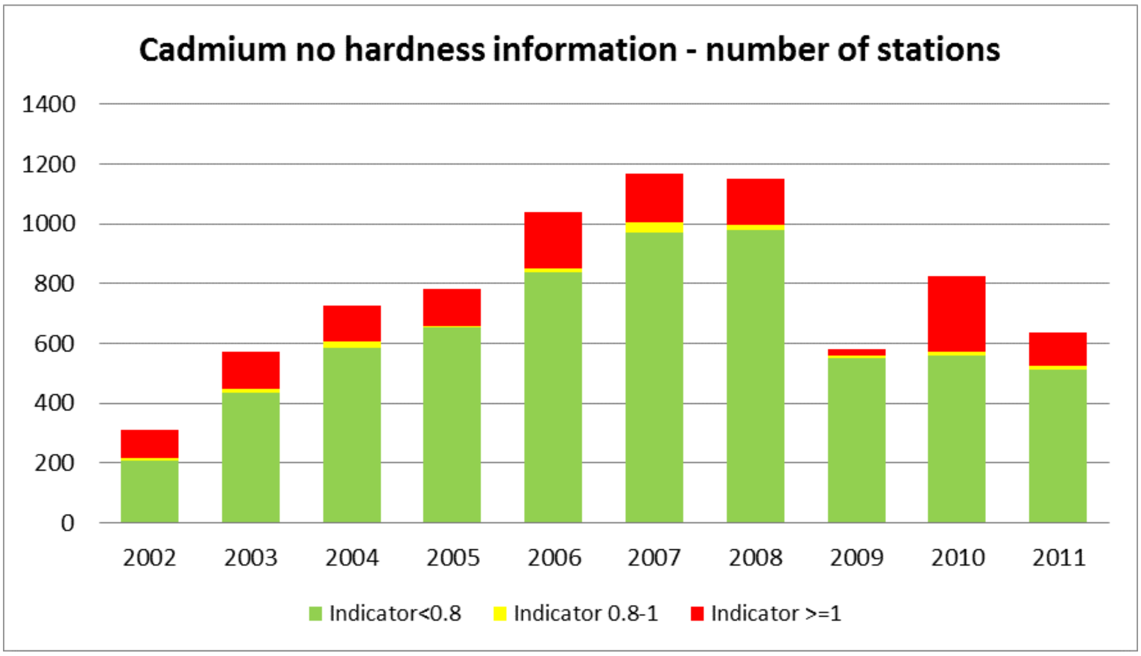


Figure 4.3.2.9b2 Traffic–light indicator for cadmium in rivers from 2010–2011 (number of stations per country is shown in parenthesis), no data on water hardness.

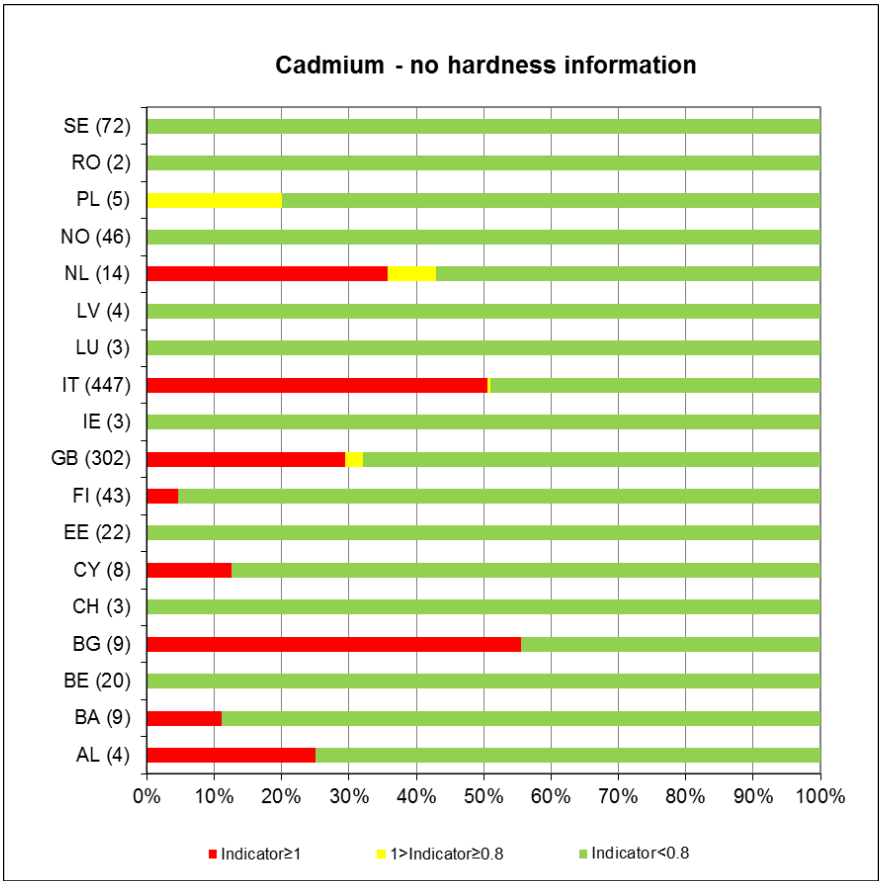


Figure 4.3.2.9c2 Map of traffic-light indicator for cadmium in rivers from 2010–2011, no data on water hardness.

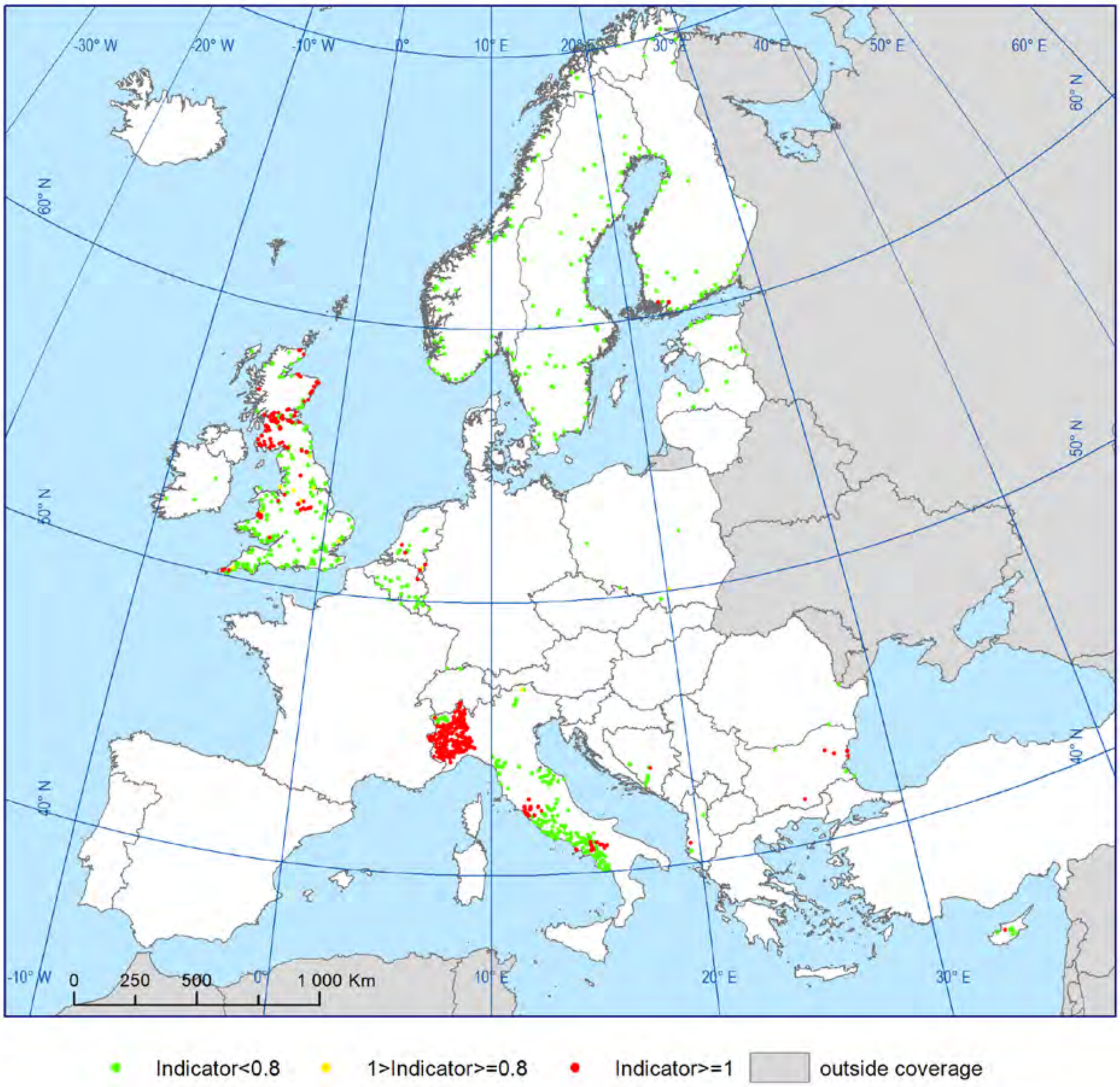


Figure 4.3.2.9d2 Box plot of data for dissolved cadmium in rivers, no data on water hardness.

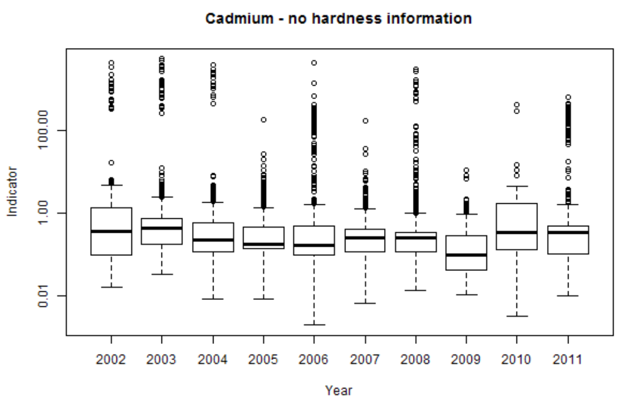


Figure 4.3.2.9a3 Long-term traffic-light indicator and number of stations for dissolved cadmium in rivers.

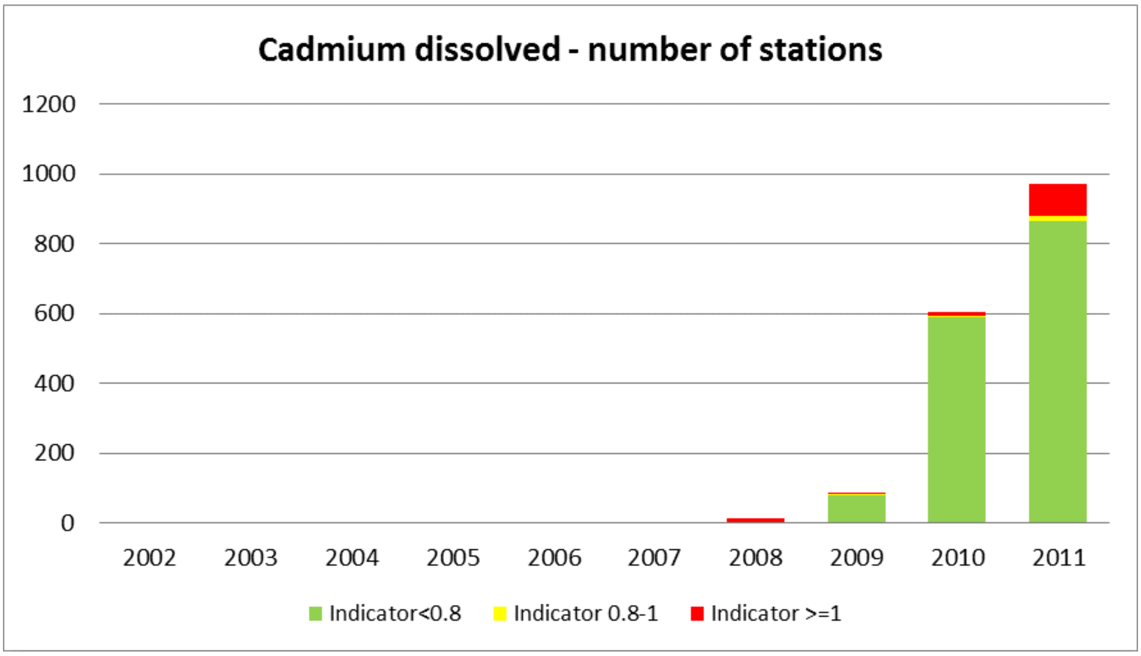


Figure 4.3.2.9b3 Traffic-light indicator for dissolved cadmium in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

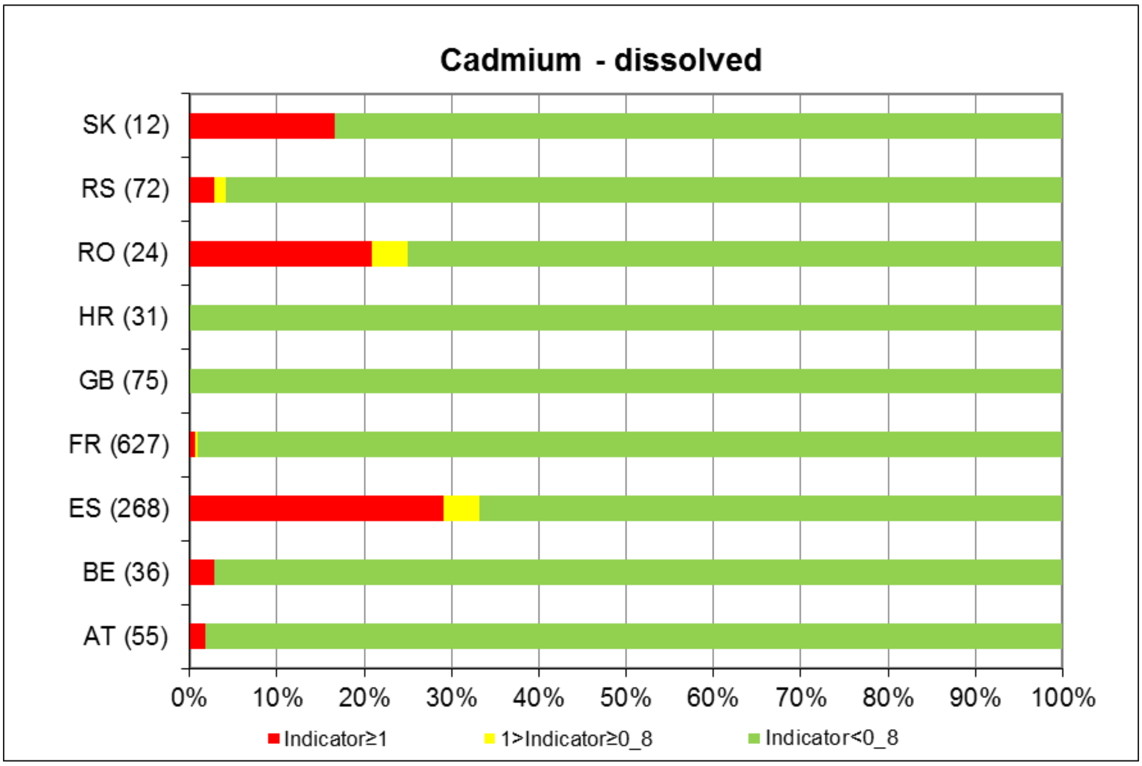


Figure 4.3.2.9c3 Map of traffic-light indicator for dissolved cadmium in rivers from 2010– 2011.

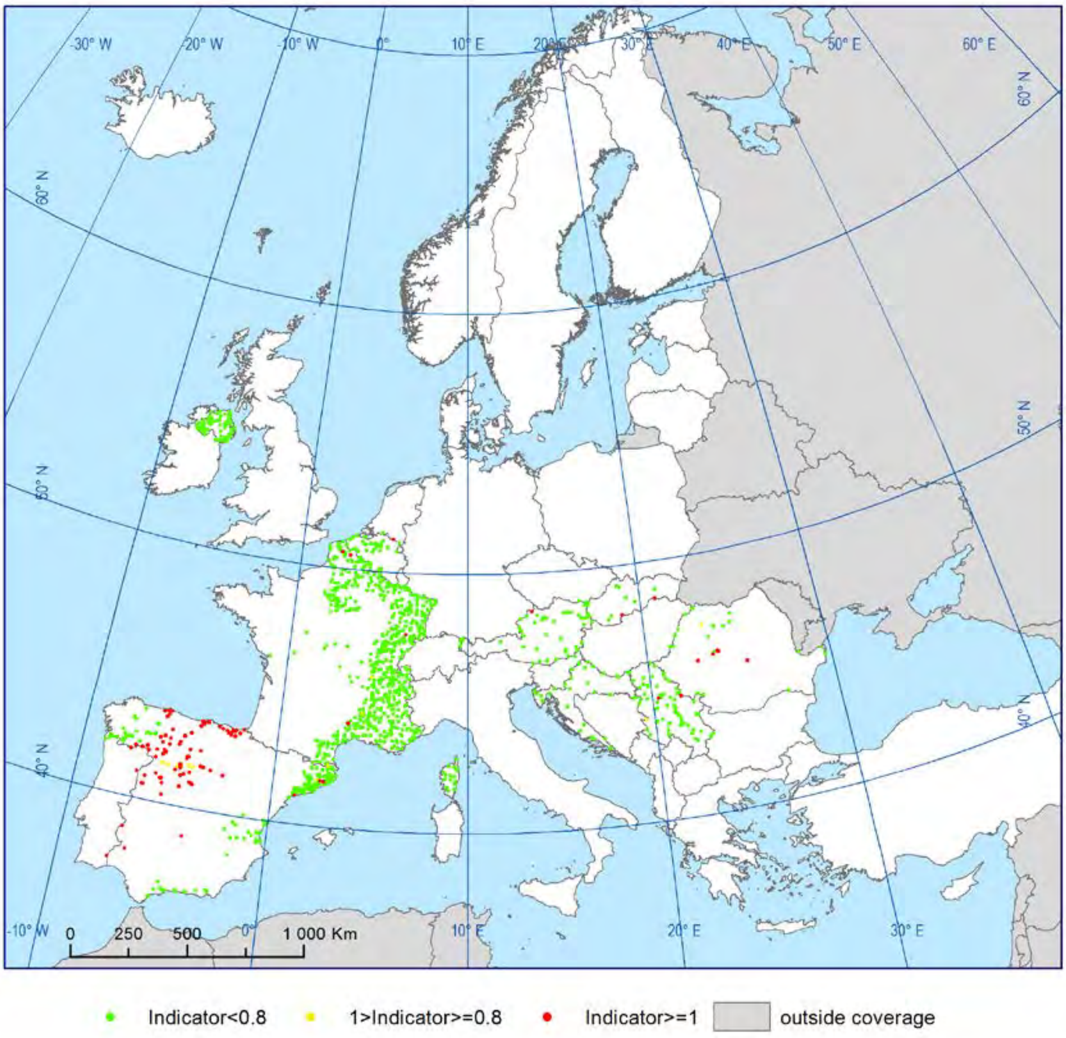


Figure 4.3.2.9d3 Box plot of data for dissolved cadmium in rivers.

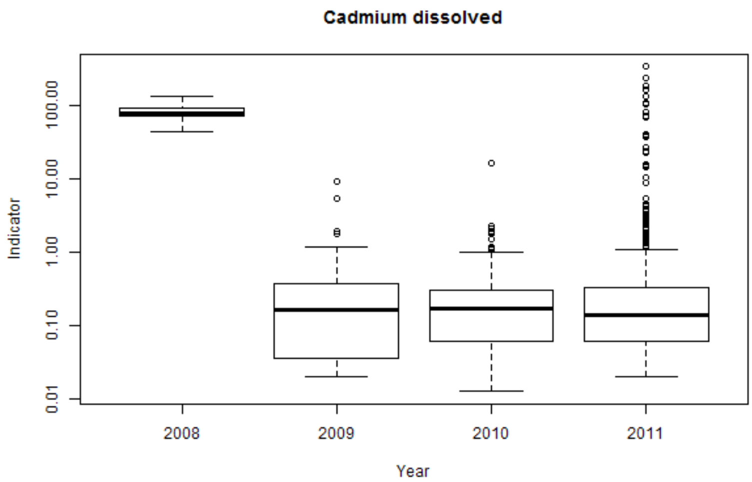


Figure 4.3.2.9a4 Long-term traffic-light indicator and number of stations for dissolved cadmium in rivers, no data on water hardness.

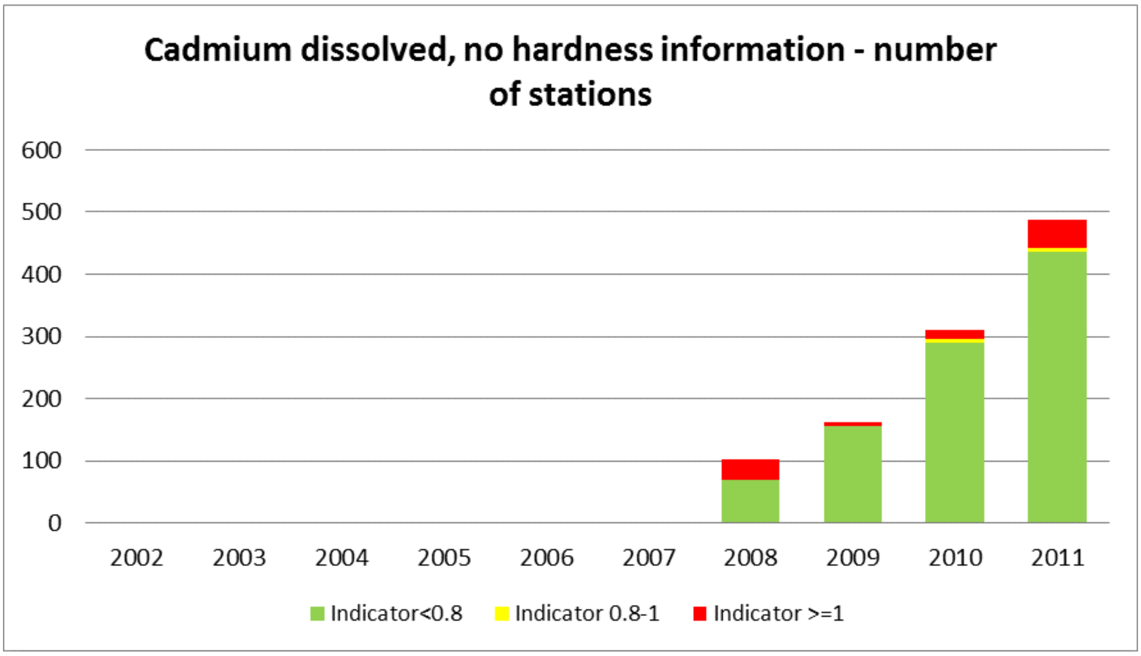


Figure 4.3.2.9b4 Traffic-light indicator for dissolved cadmium in rivers from 2010–2011 (number of stations per country is shown in parenthesis), no data on water hardness.

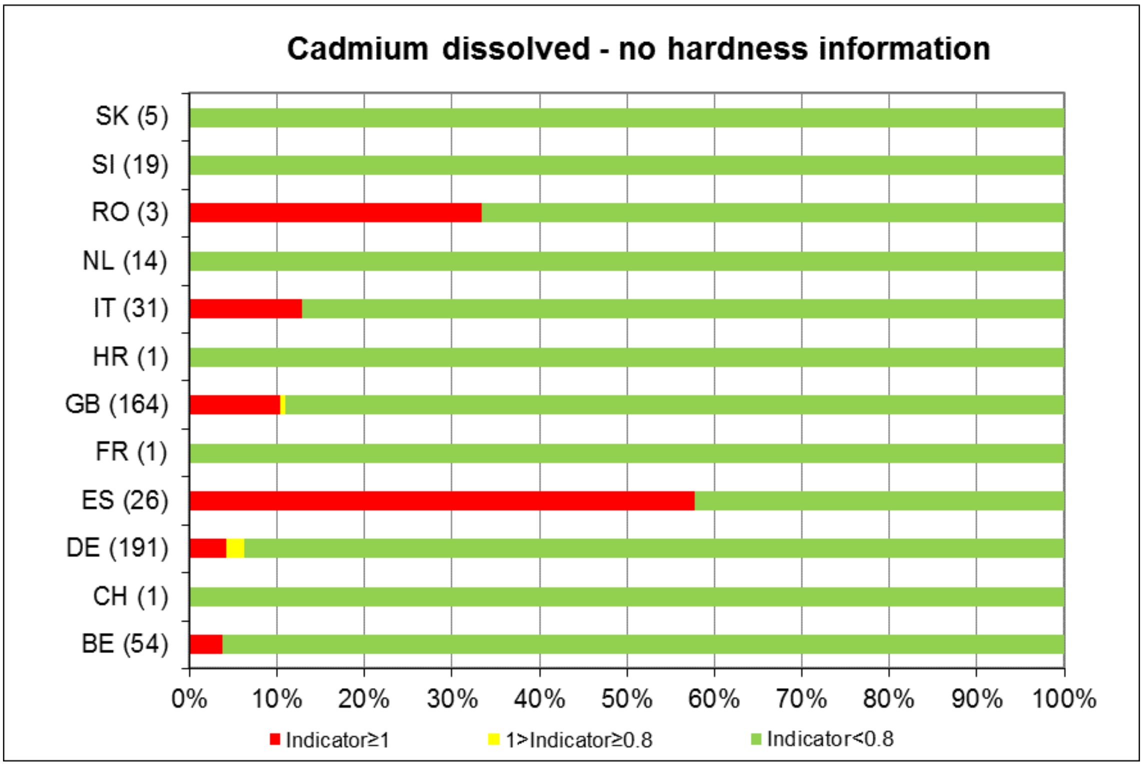


Figure 4.3.2.9c4 Map of traffic-light indicator for dissolved cadmium in rivers from 2010– 2011, no data on water hardness.

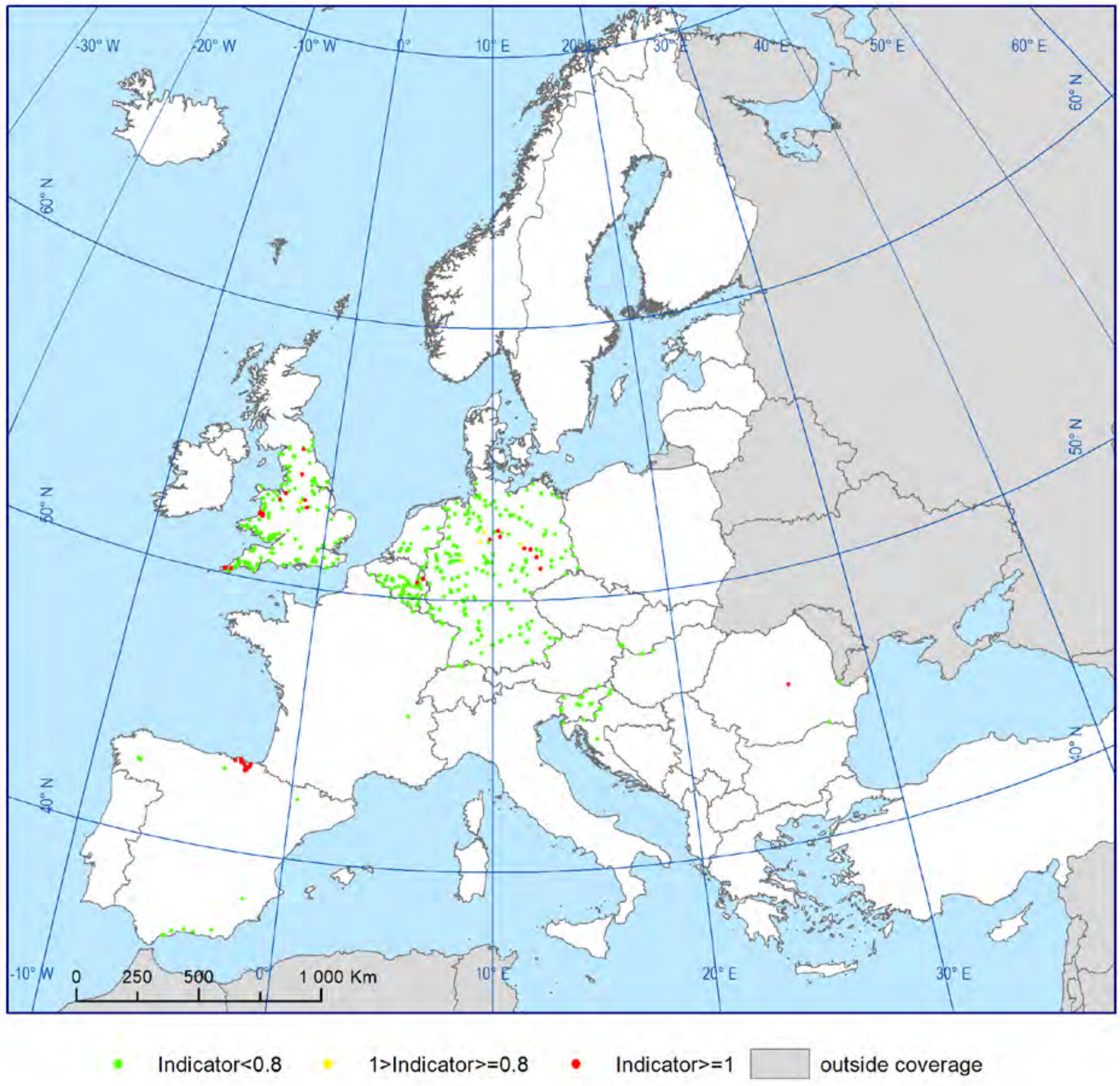


Figure 4.3.2.9d4 Box plot of data for dissolved cadmium in rivers, no data on water hardness.

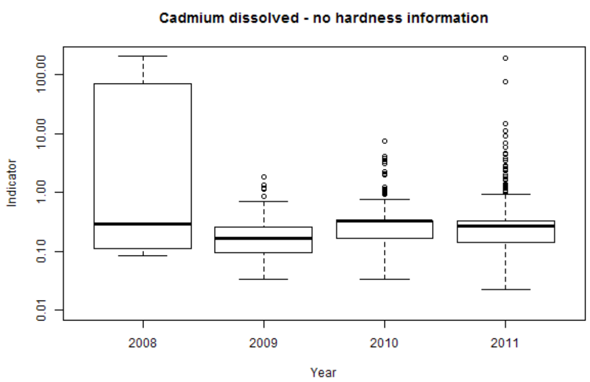


Figure 4.3.2.10a Long-term traffic-light indicator and number of stations for chlorfenvinphos in rivers.

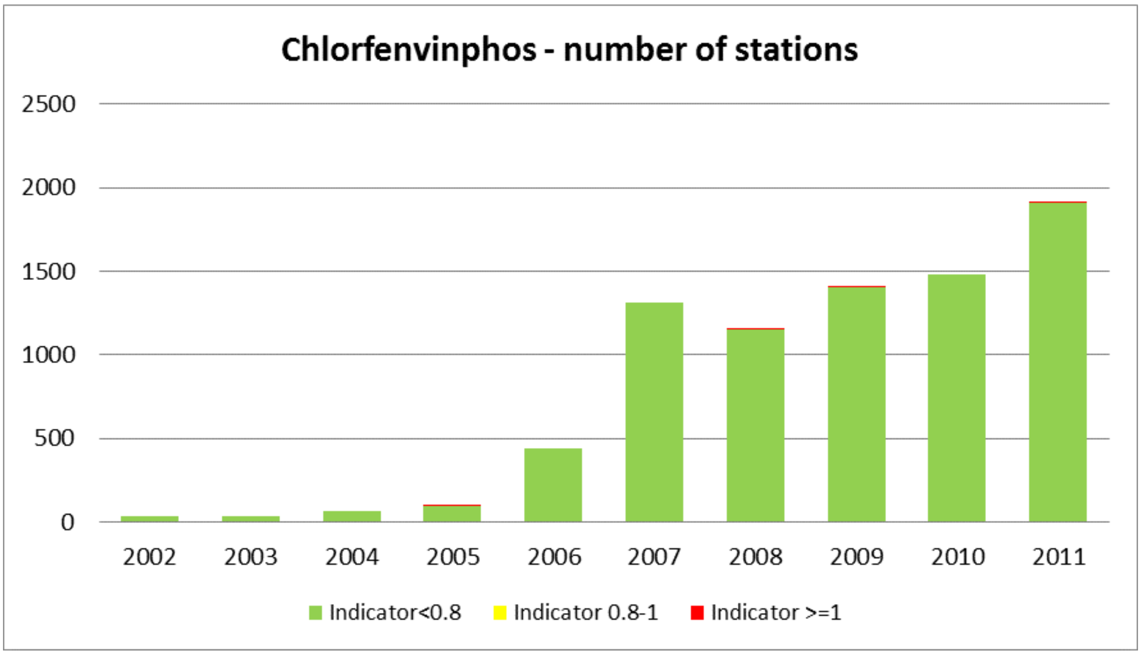


Figure 4.3.2.10b Traffic-light indicator for chlorfenvinphos in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

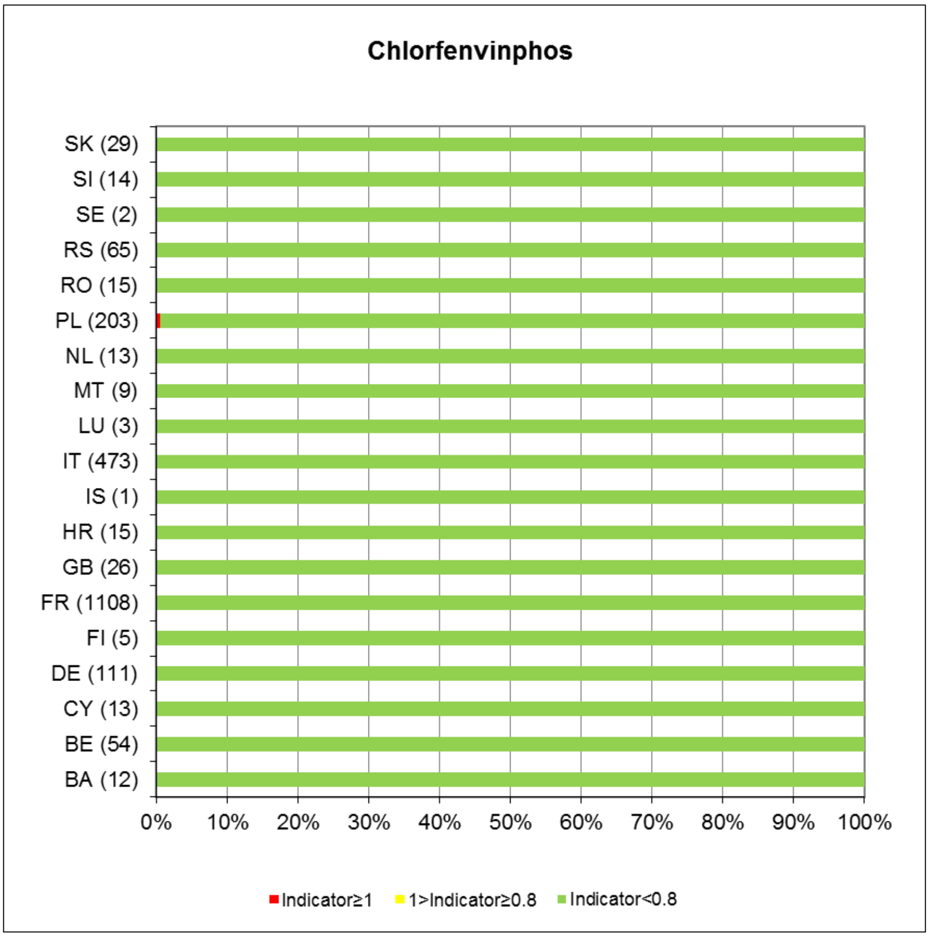


Figure 4.3.2.10c Map of traffic-light indicator for chlorfenvinphos in rivers from 2010–2011.

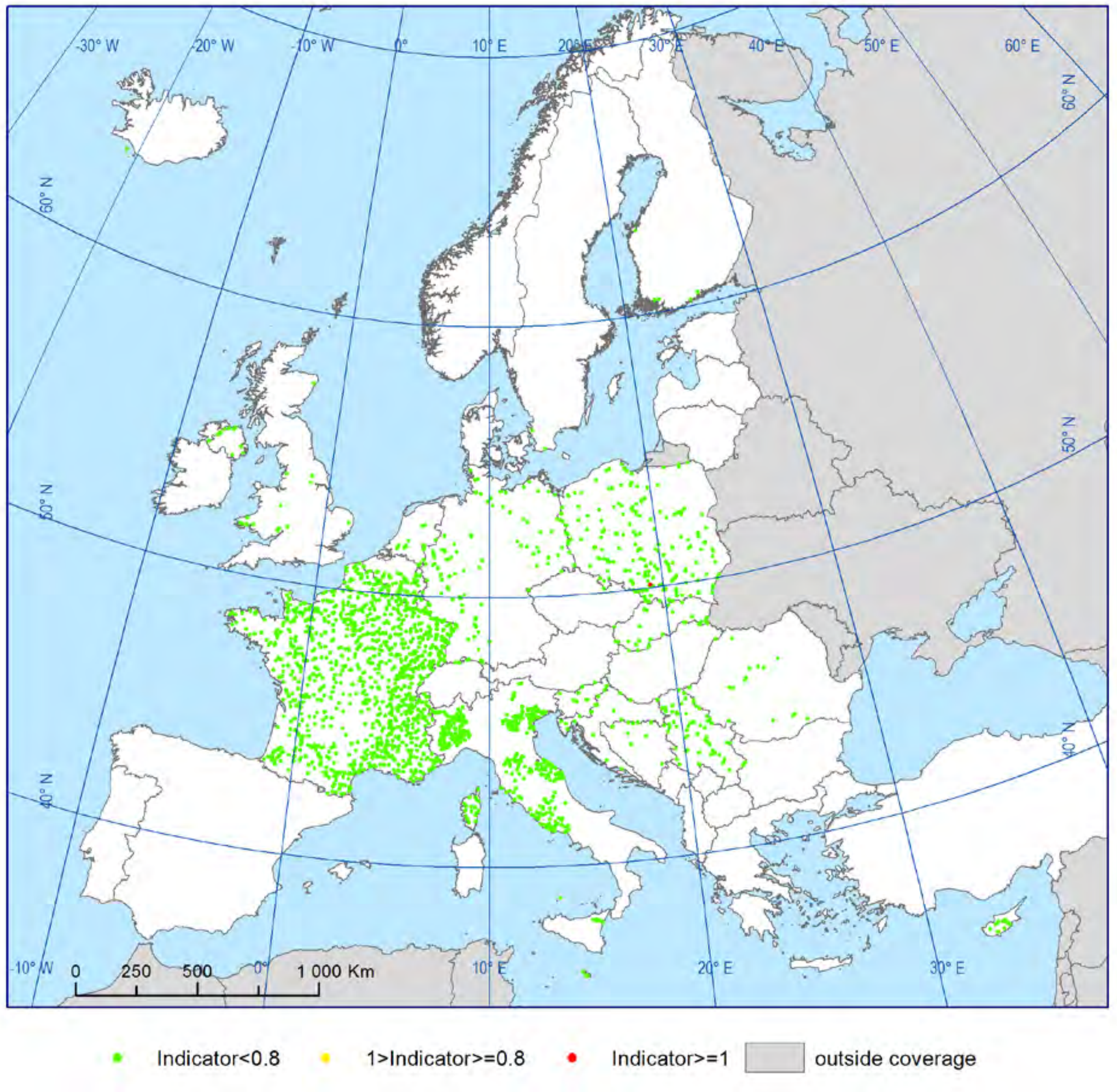


Figure 4.3.2.10d Box plot of data for chlorfenvinphos in rivers.

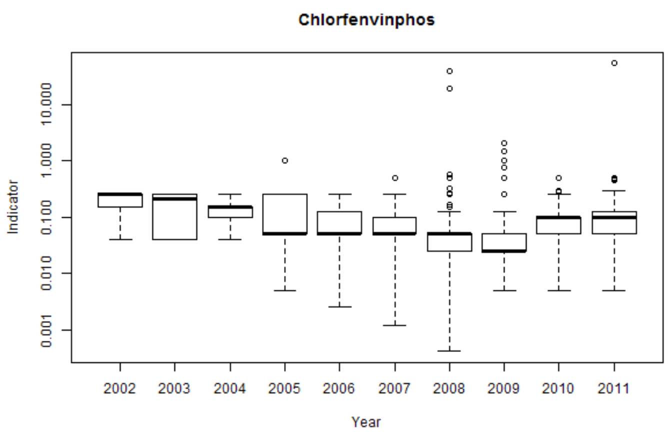


Figure 4.3.2.11a Long-term traffic-light indicator and number of stations for chlorpyrifos in rivers.

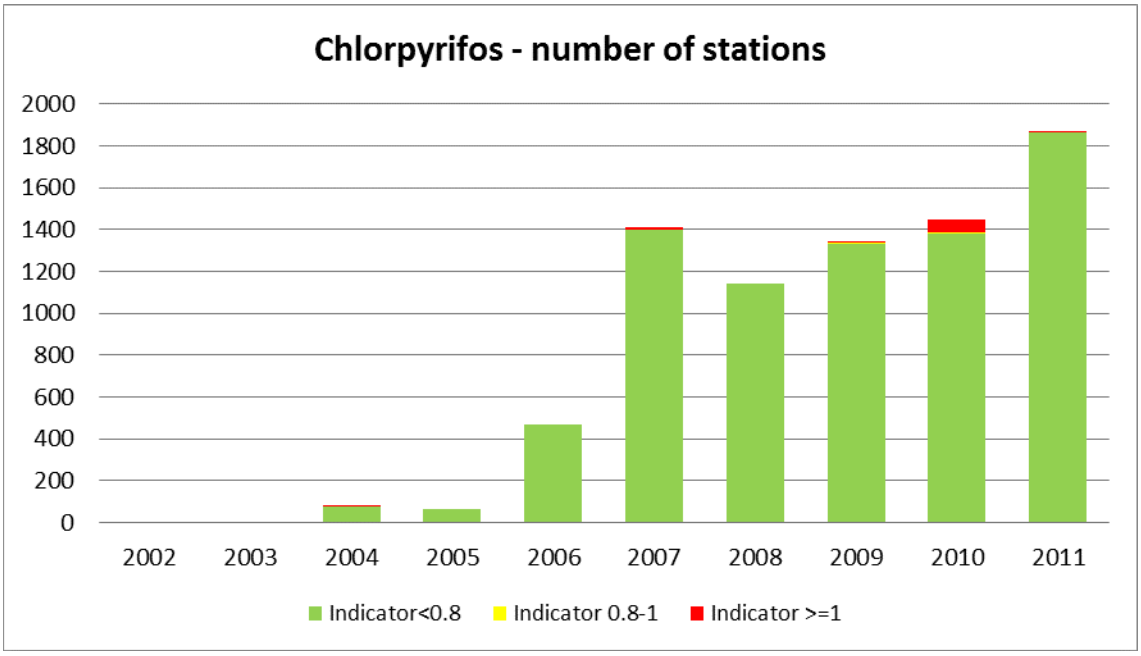


Figure 4.3.2.11b Traffic-light indicator for chlorpyrifos in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

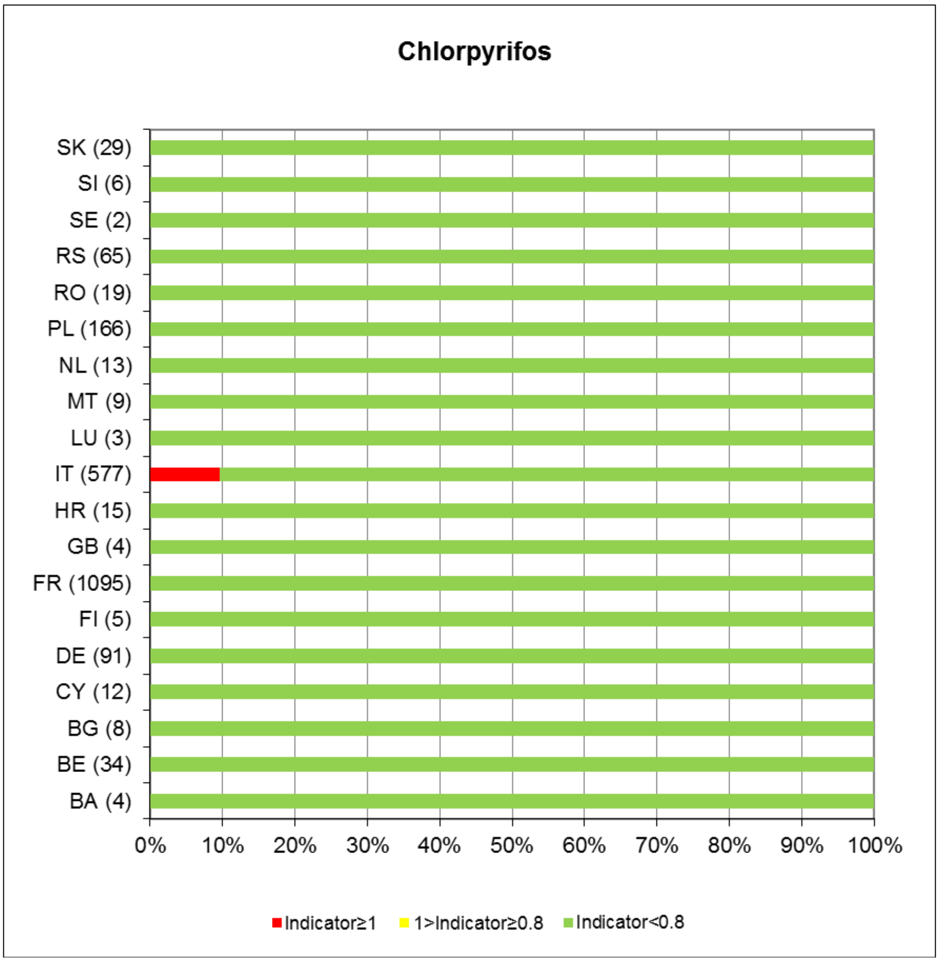


Figure 4.3.2.11c Map of traffic-light indicator for chlorpyrifos in rivers from 2010–2011.

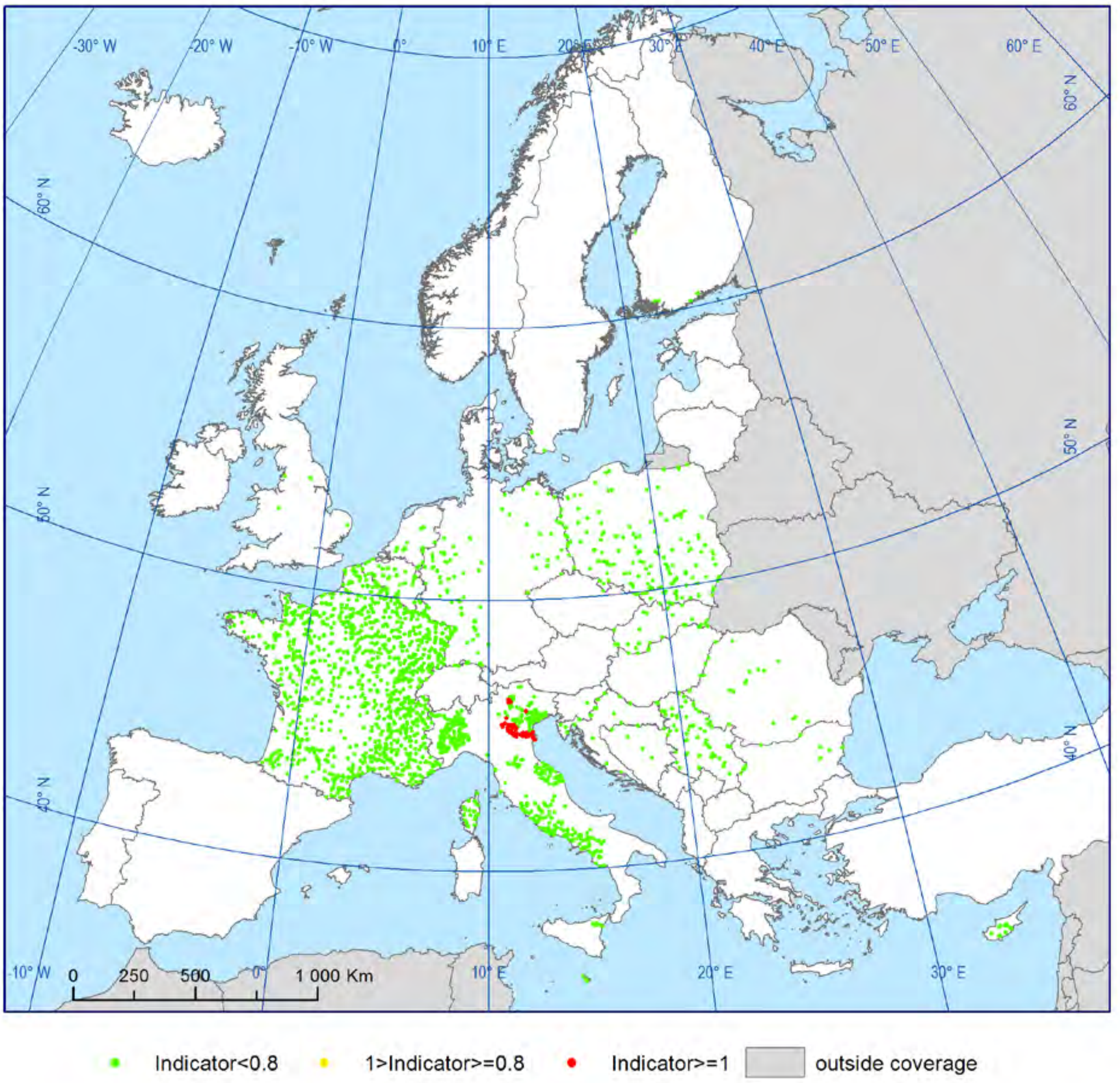


Figure 4.3.2.11d Box plot of data for chlorpyrifos in rivers.

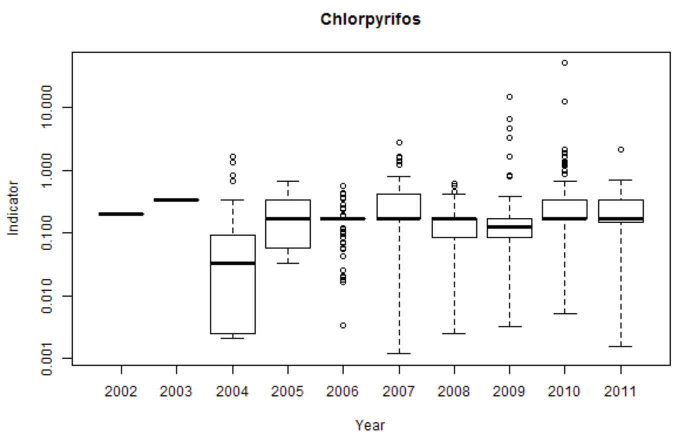


Figure 4.3.2.12a Long-term traffic-light indicator and number of stations for DDT total (p,p'-DDT, o,*p'*-DDT, p,*p'*-DDE, and p,*p'*-DDD) in rivers.

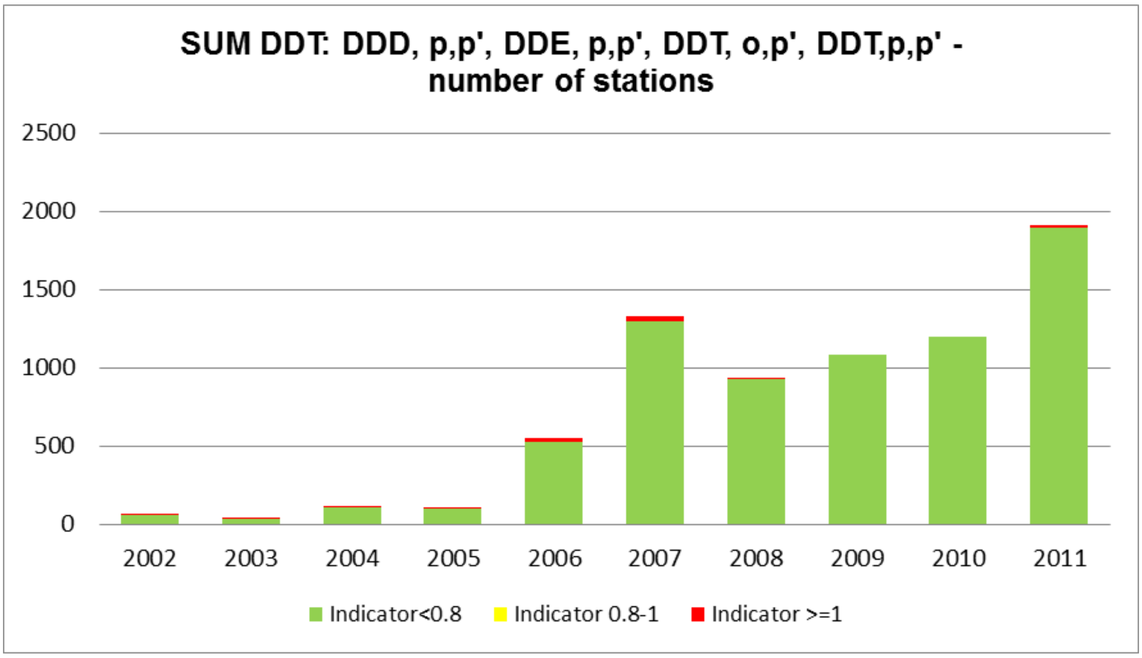


Figure 4.3.2.12b Traffic-light indicator for DDT total (p,p'-DDT, o,*p'*-DDT, p,*p'*-DDE, and p,*p'*-DDD) in rivers from 2010–2011(number of stations per country is shown in parenthesis).

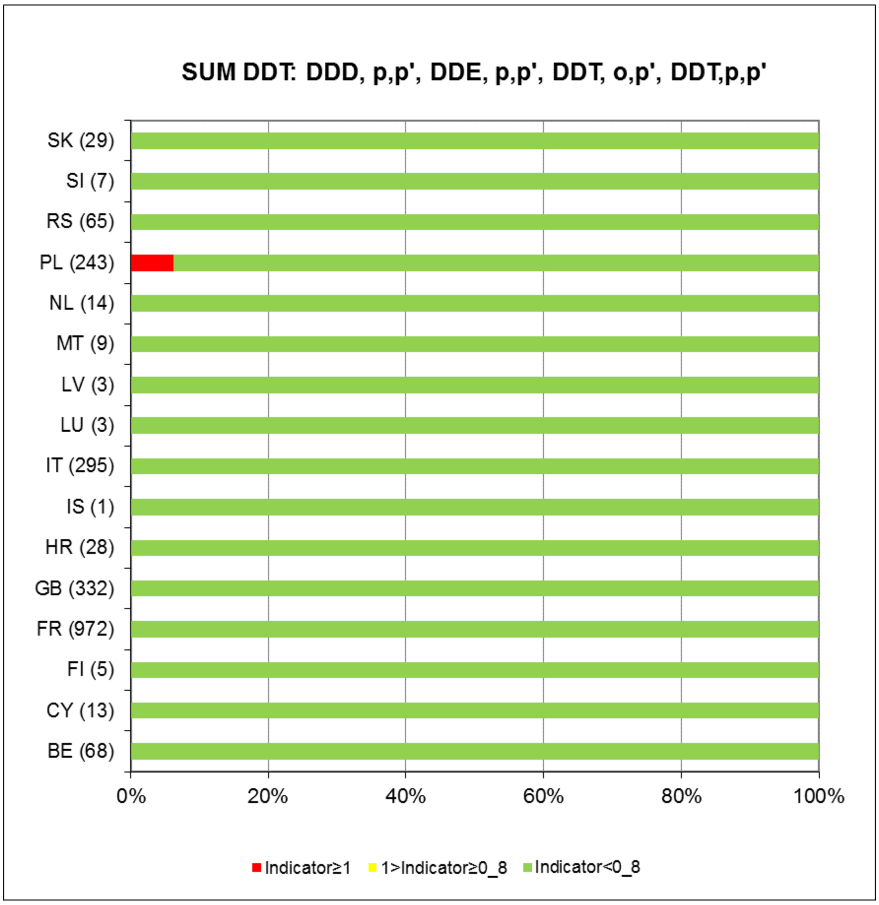


Figure 4.3.2.12c Map of traffic-light indicator for DDT total (p,p'-DDT, o,*p'*-DDT, p,*p'*-DDE, and p,*p'*-DDD) in rivers from 2010–2011.

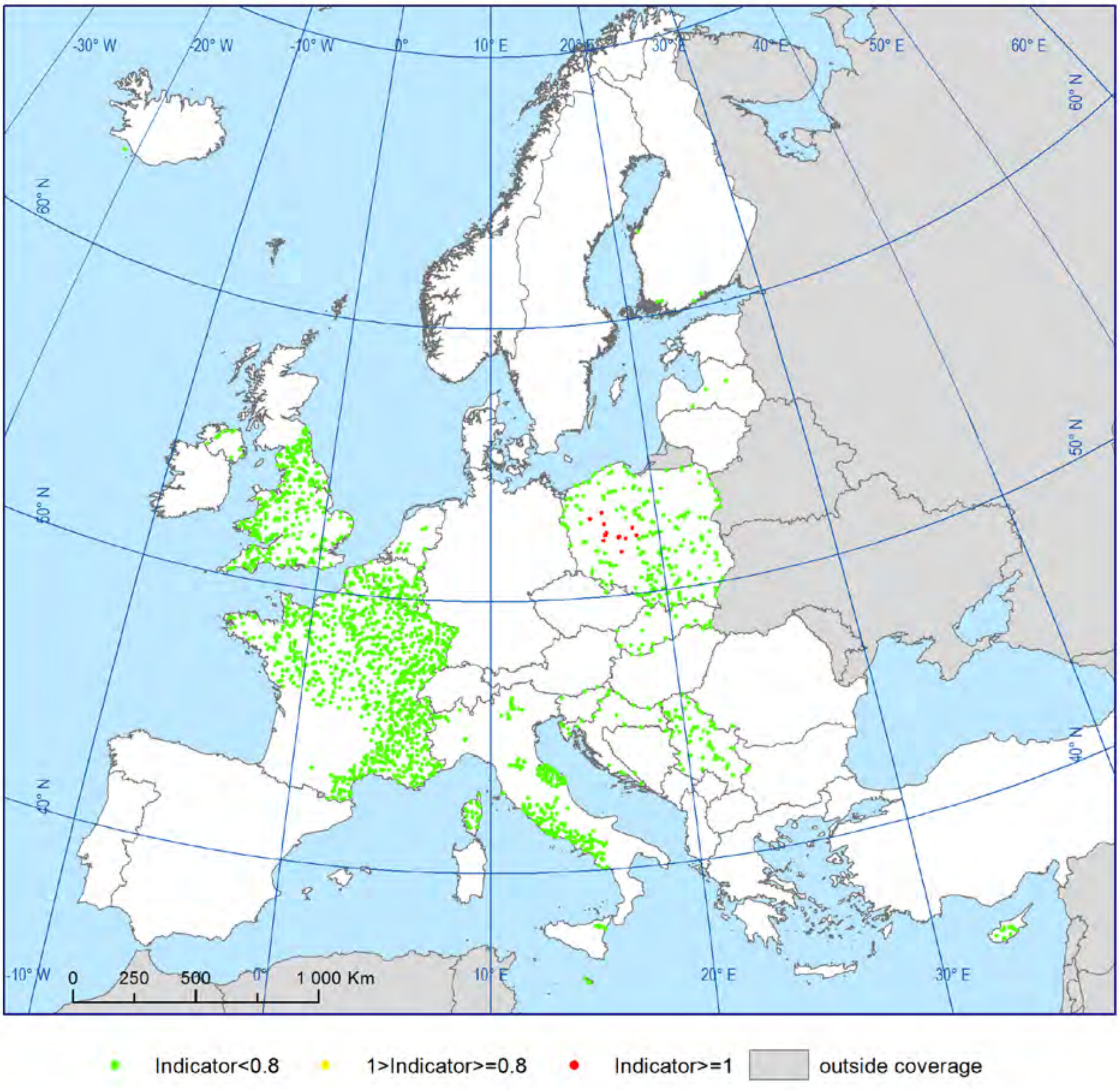


Figure 4.3.2.12d Box plot of data for DDT total (p,p'-DDT, o,*p'*-DDT, p,*p'*-DDE, and p,*p'*-DDD) in rivers.

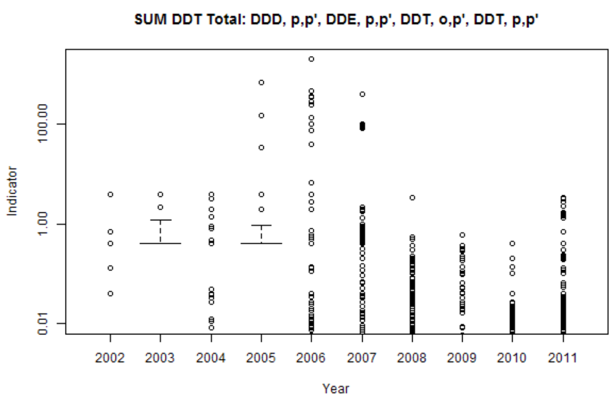


Figure 4.3.2.13a Long-term traffic-light indicator and number of stations for para-para-DDT in rivers.

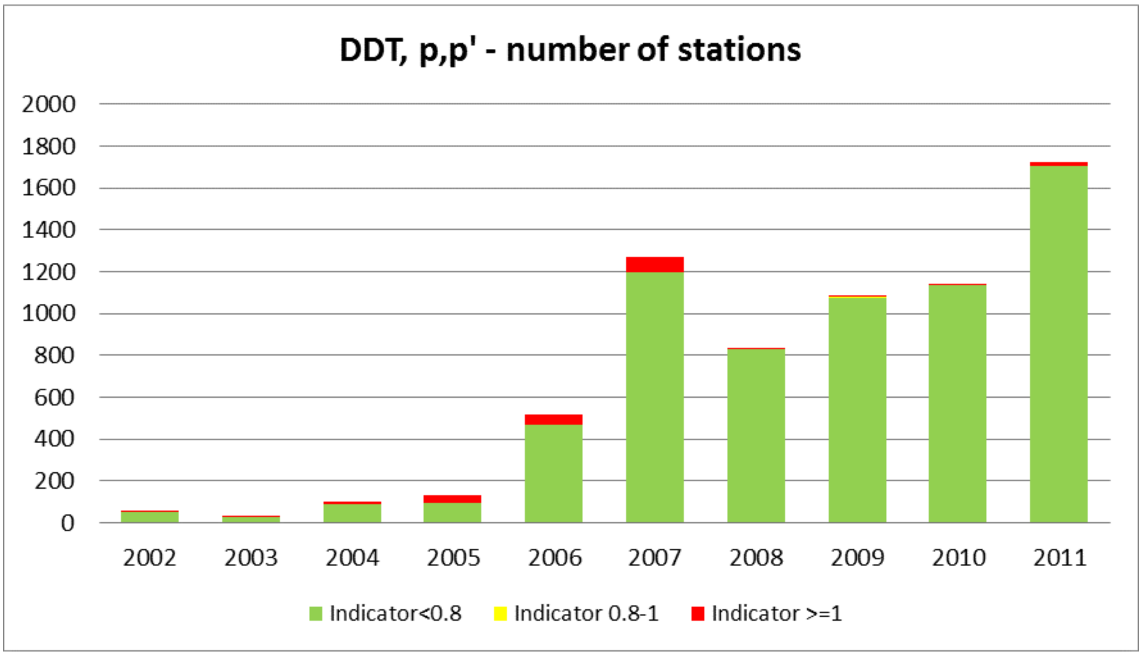


Figure 4.3.2.13b Traffic-light indicator for para-para-DDT in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

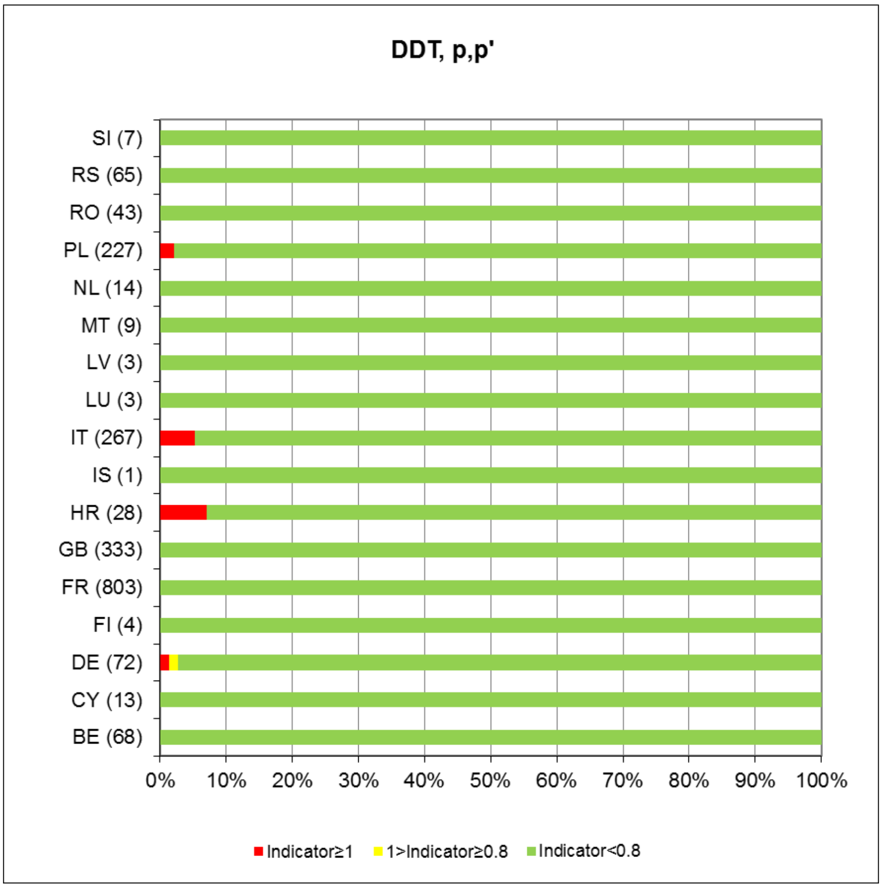


Figure 4.3.2.13c Map of traffic-light indicator for para-para-DDT in rivers from 2010–2011.

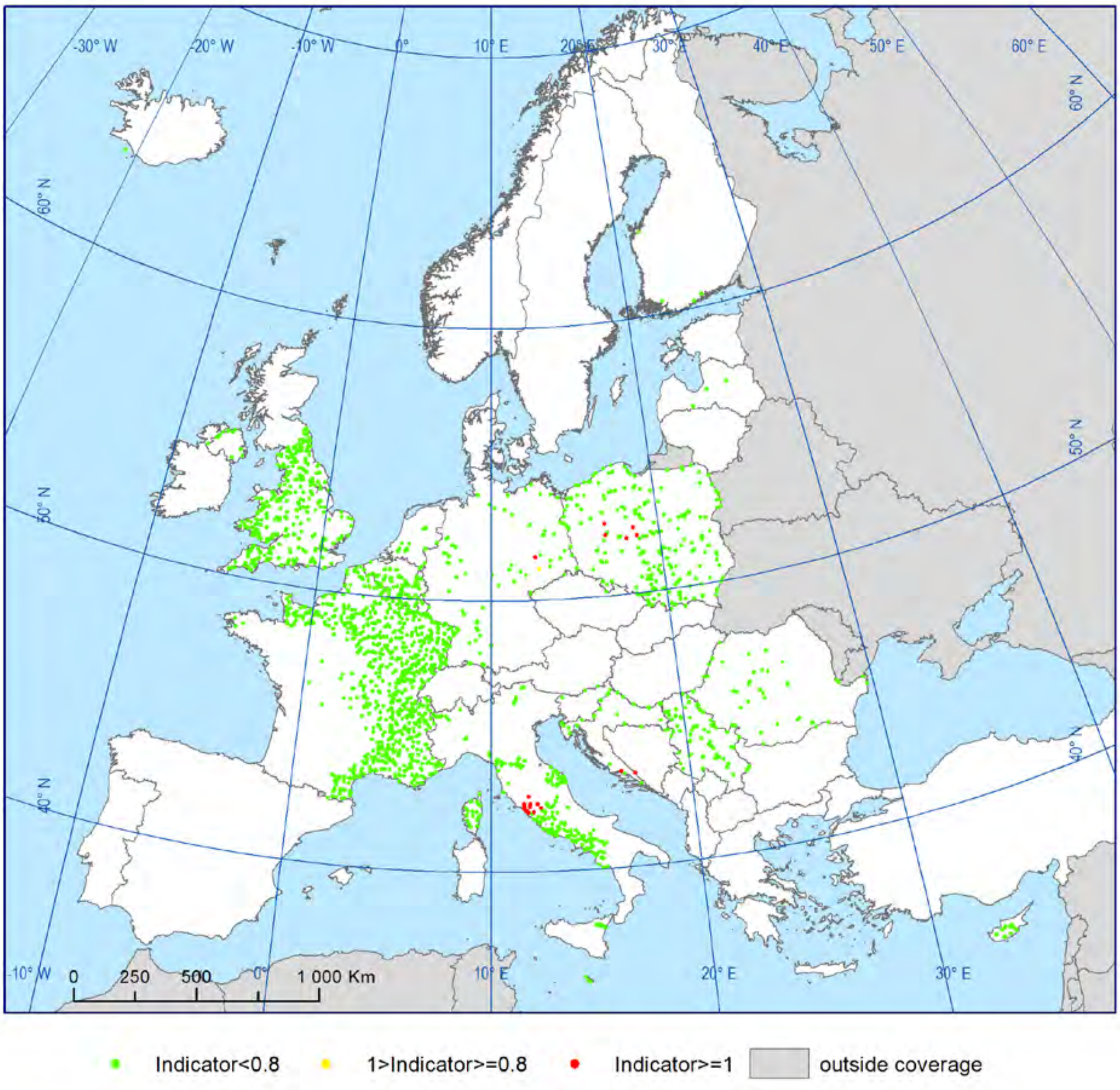


Figure 4.3.2.13d Box plot of data for para-para-DDT in rivers.

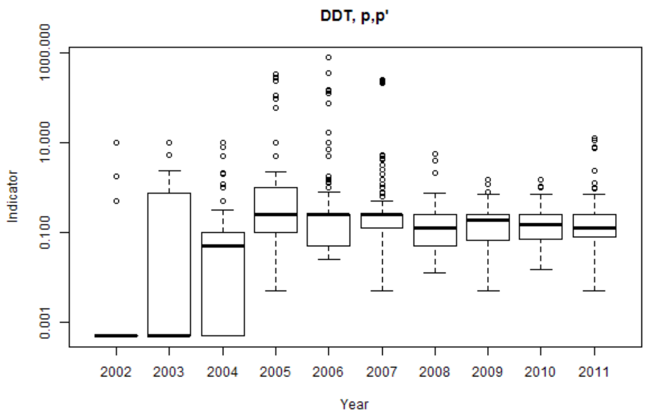


Figure 4.3.2.14a Long-term traffic-light indicator and number of stations for Di (2-ethylhexyl) phthalate (DEHP) in rivers.

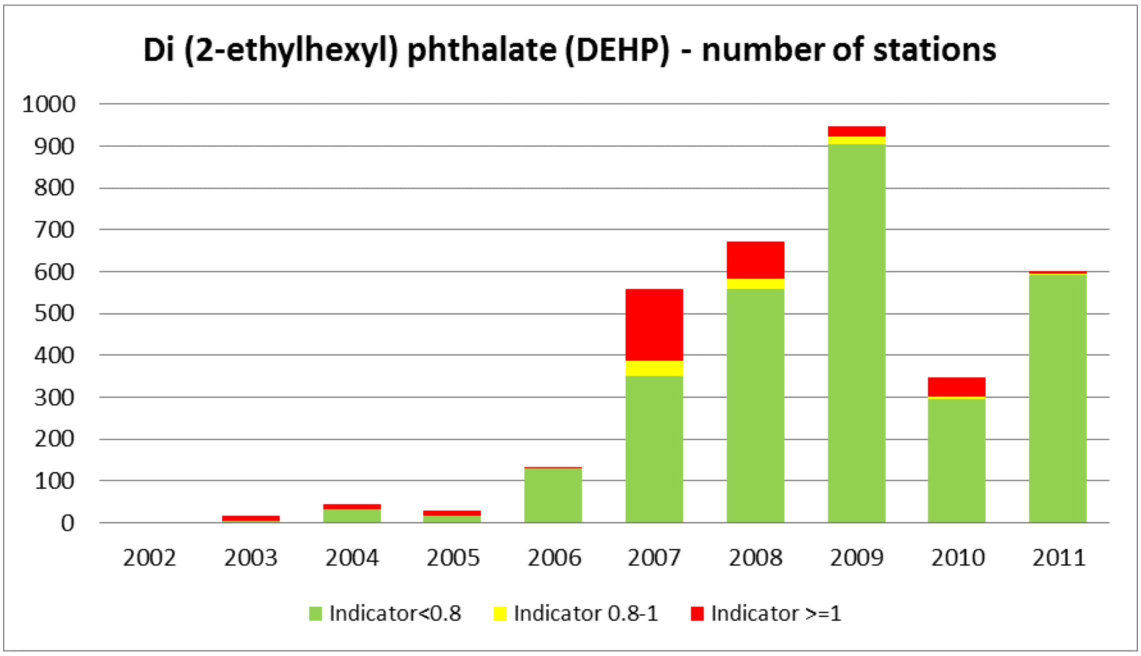


Figure 4.3.2.14b Traffic-light indicator for Di (2-ethylhexyl) phthalate (DEHP) in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

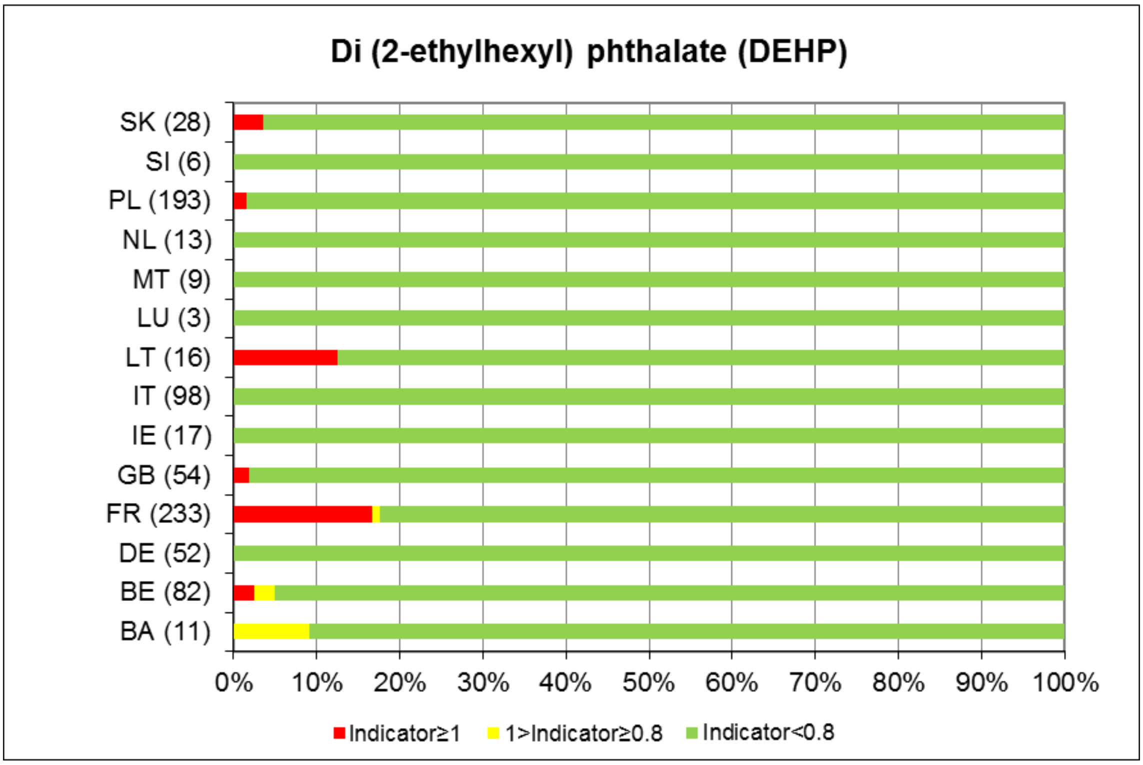


Figure 4.3.2.14c Map of traffic-light indicator for Di (2-ethylhexyl) phthalate (DEHP) in rivers from 2010–2011.

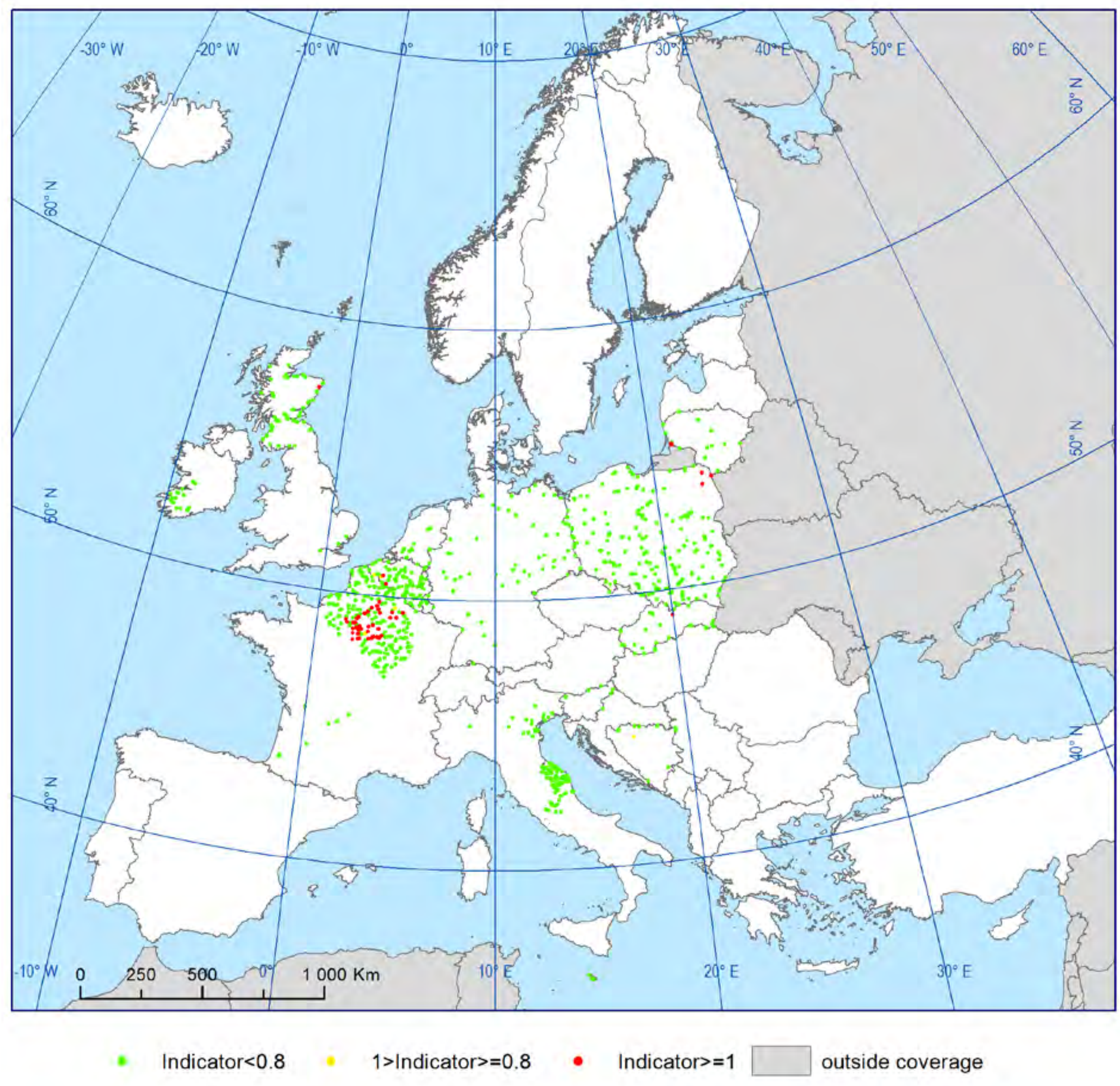


Figure 4.3.2.14d Box plot of data for Di (2-ethylhexyl) phthalate (DEHP) in rivers.

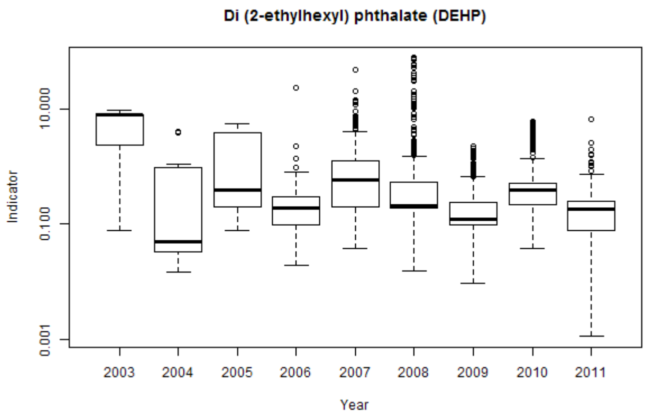


Figure 4.3.2.15a Long-term traffic-light indicator and number of stations for dichloromethane in rivers.

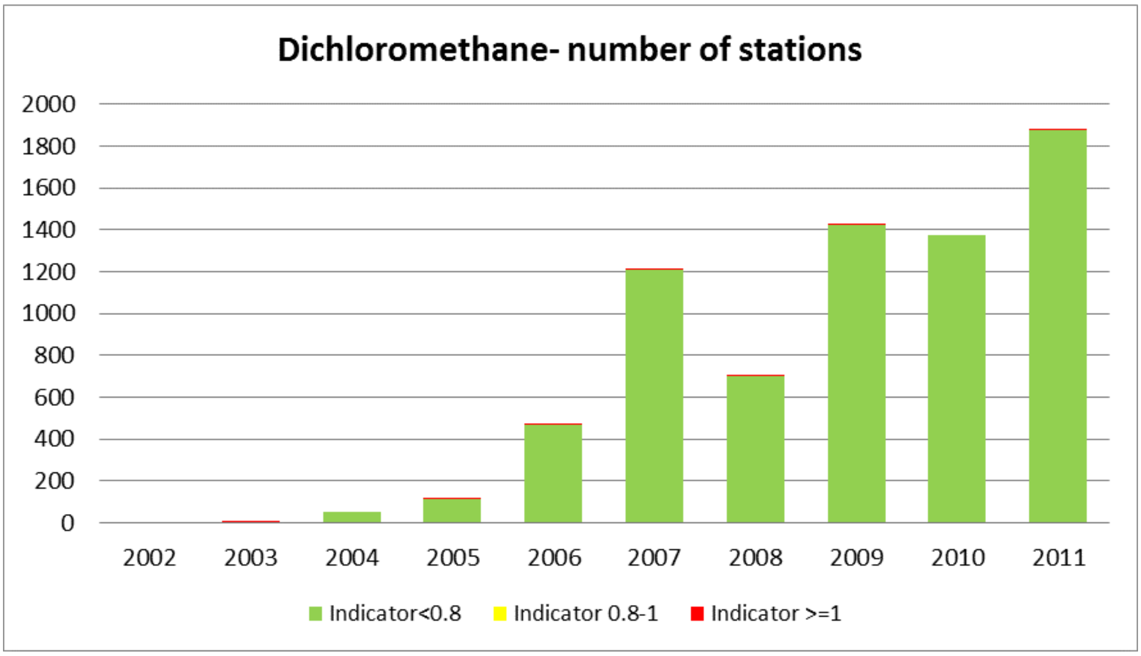


Figure 4.3.2.15b Traffic-light indicator for dichloromethane in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

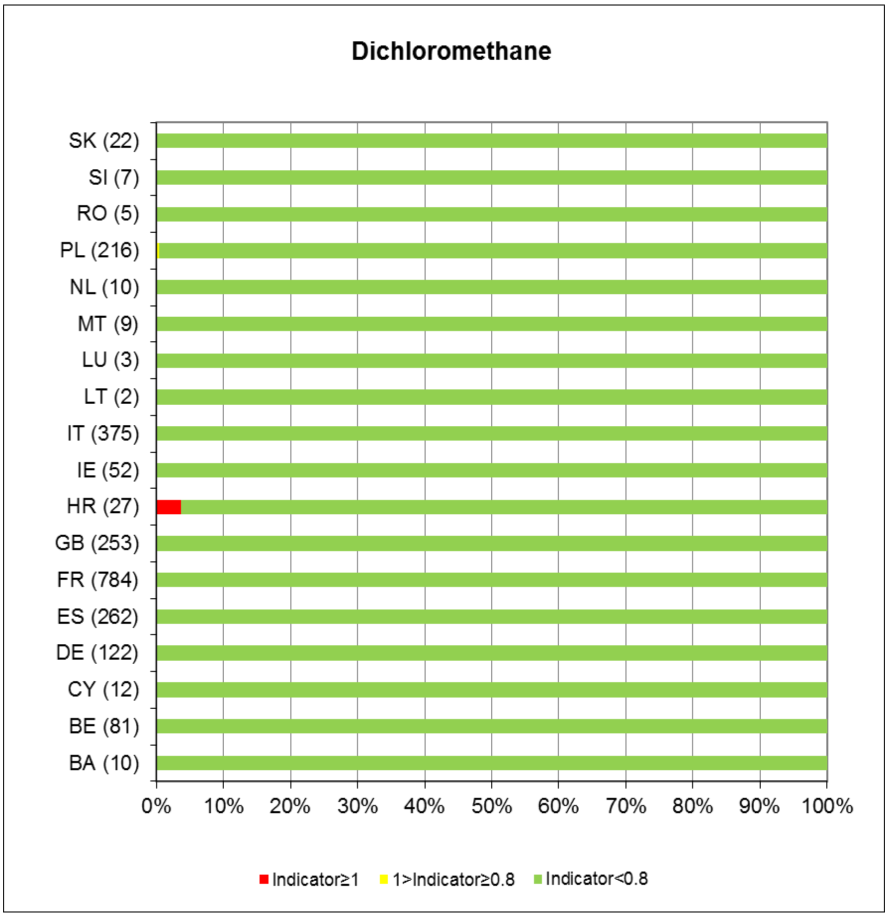


Figure 4.3.2.15c Map of traffic-light indicator for dichloromethane in rivers from 2010–2011.

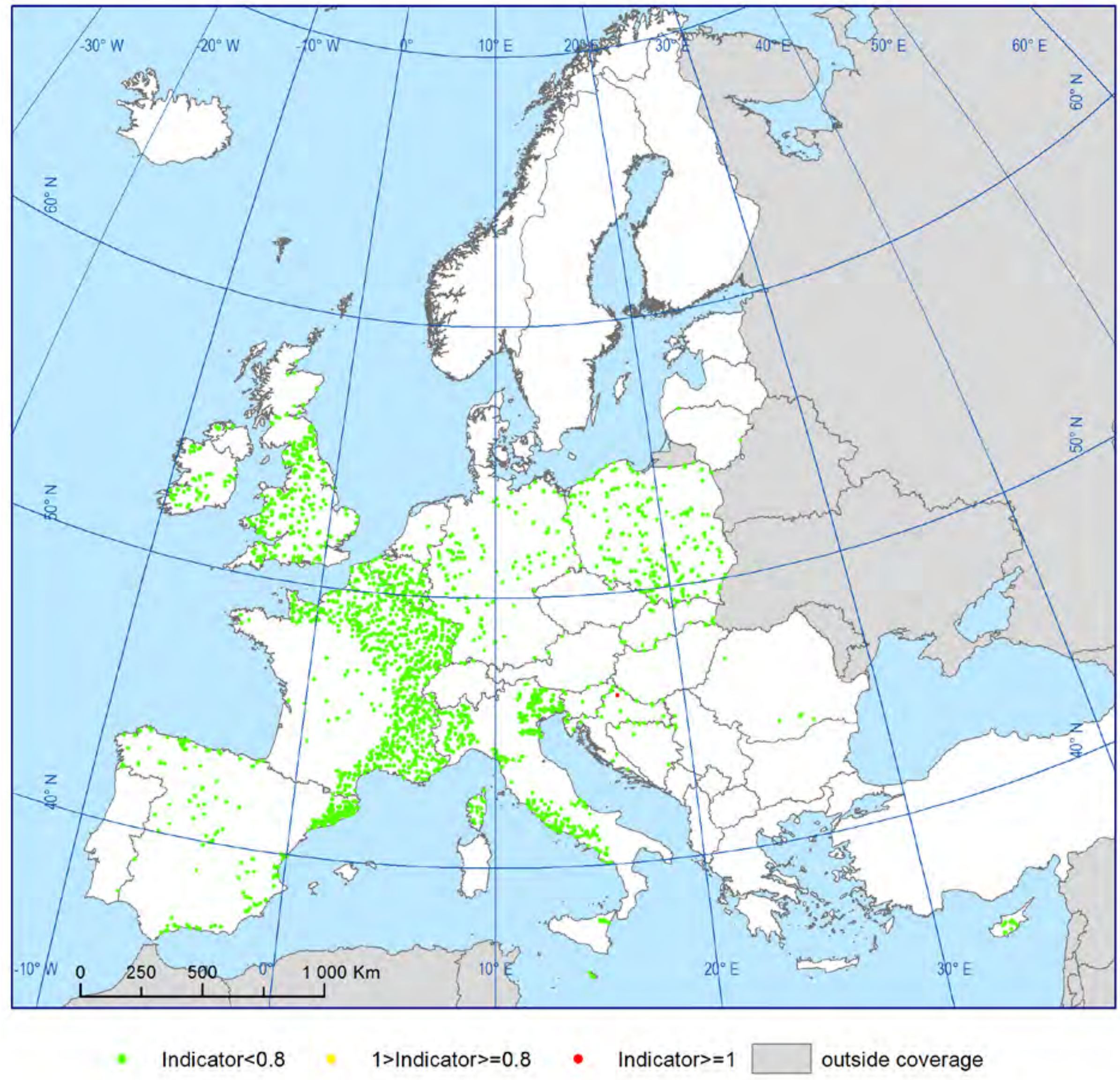


Figure 4.3.2.15d Box plot of data for dichloromethane in rivers.

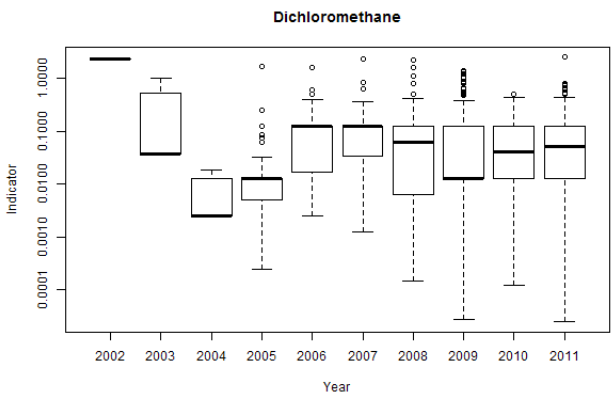


Figure 4.3.2.16a Long-term traffic-light indicator and number of stations for diuron in rivers.

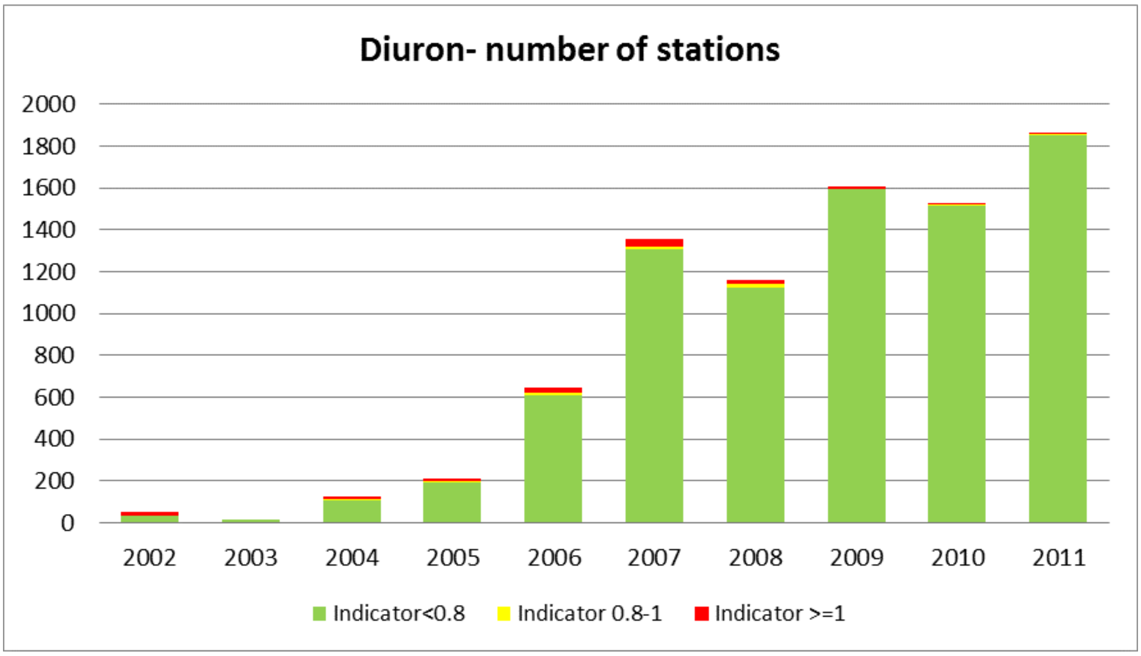


Figure 4.3.2.16b Traffic-light indicator for diuron in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

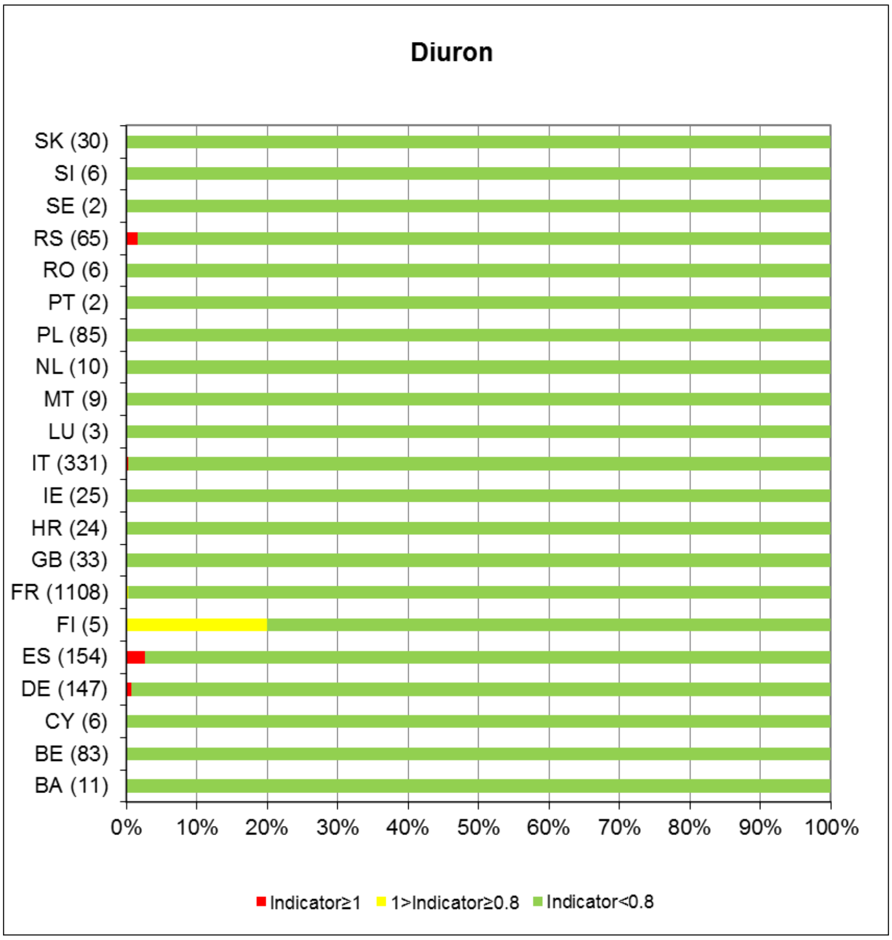


Figure 4.3.2.16c Map of traffic-light indicator for diuron in rivers from 2010–2011.

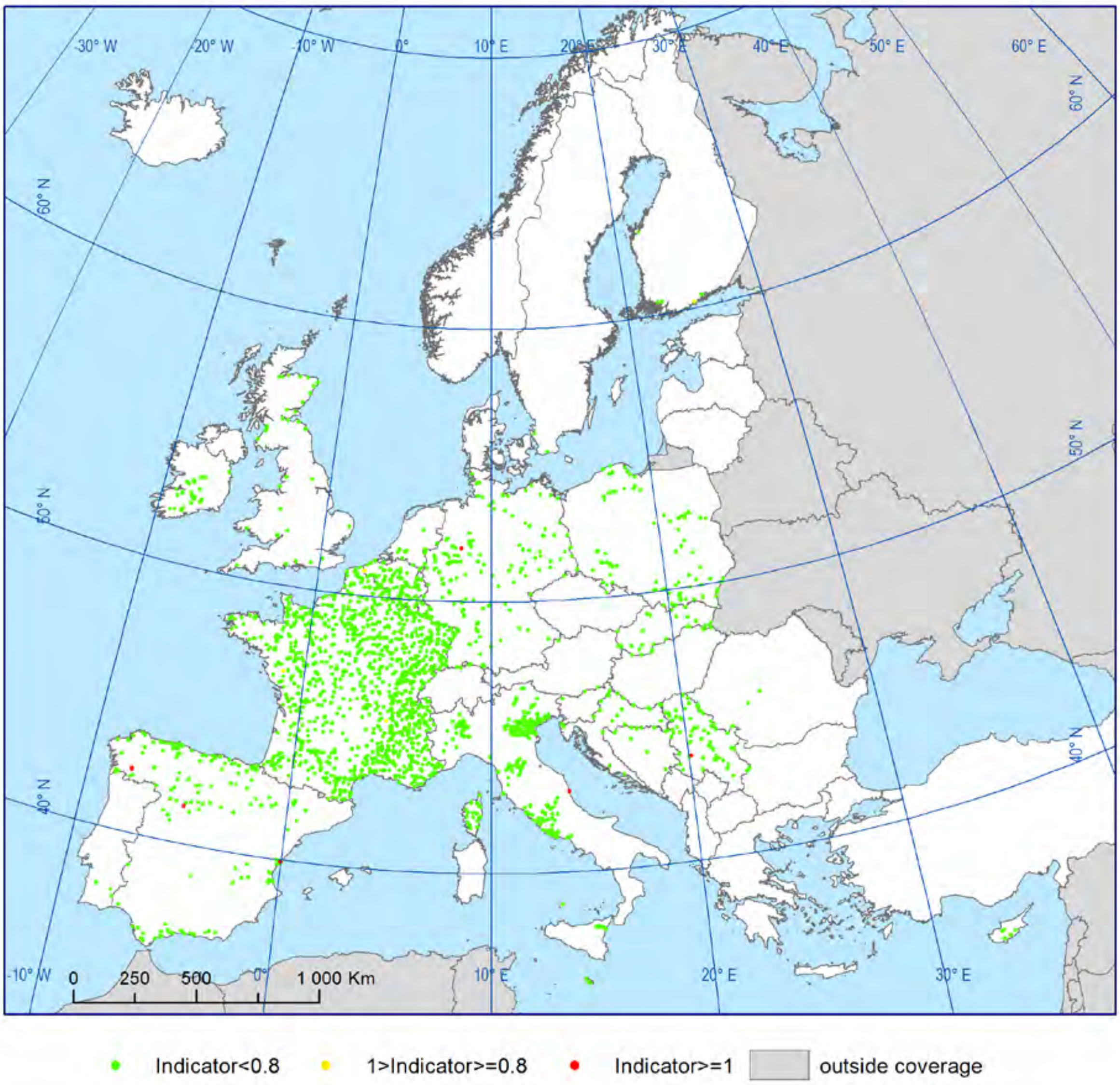


Figure 4.3.2.16d Box plot of data for diuron in rivers.

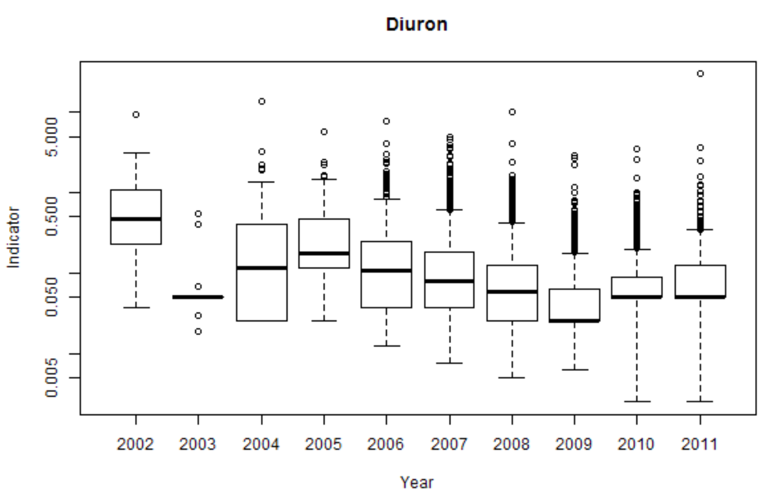


Figure 4.3.2.17a Long-term traffic-light indicator and number of stations for endosulfan in rivers.

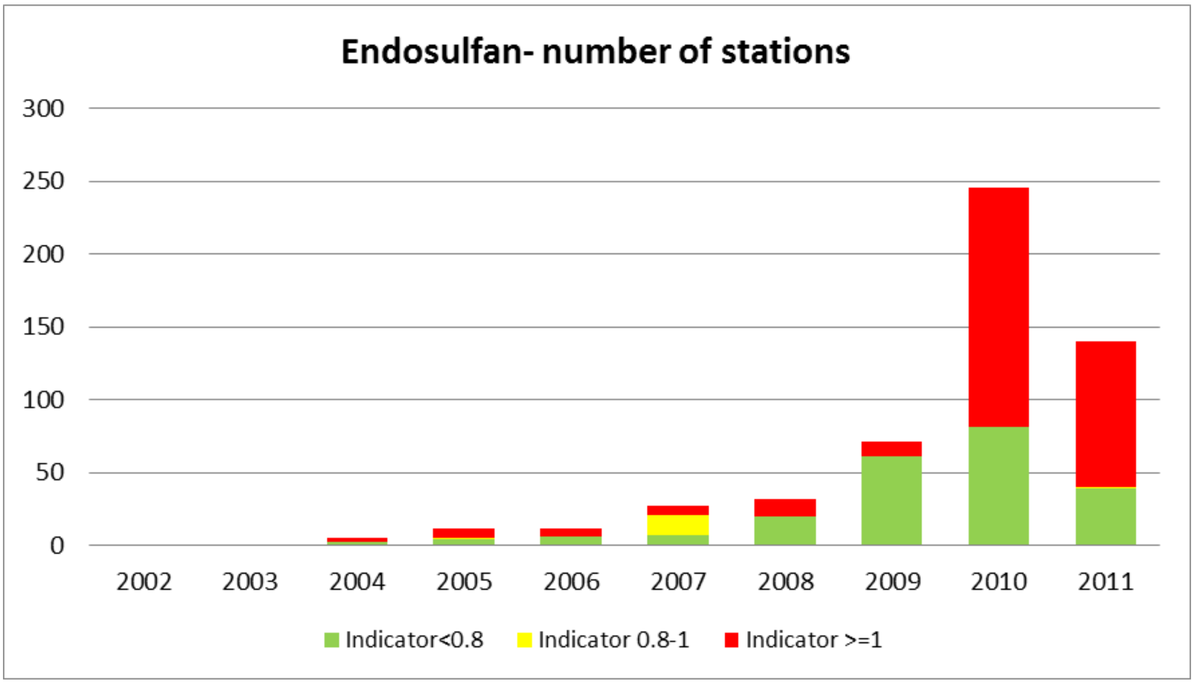


Figure 4.3.2.17b Traffic-light indicator for endosulfan in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

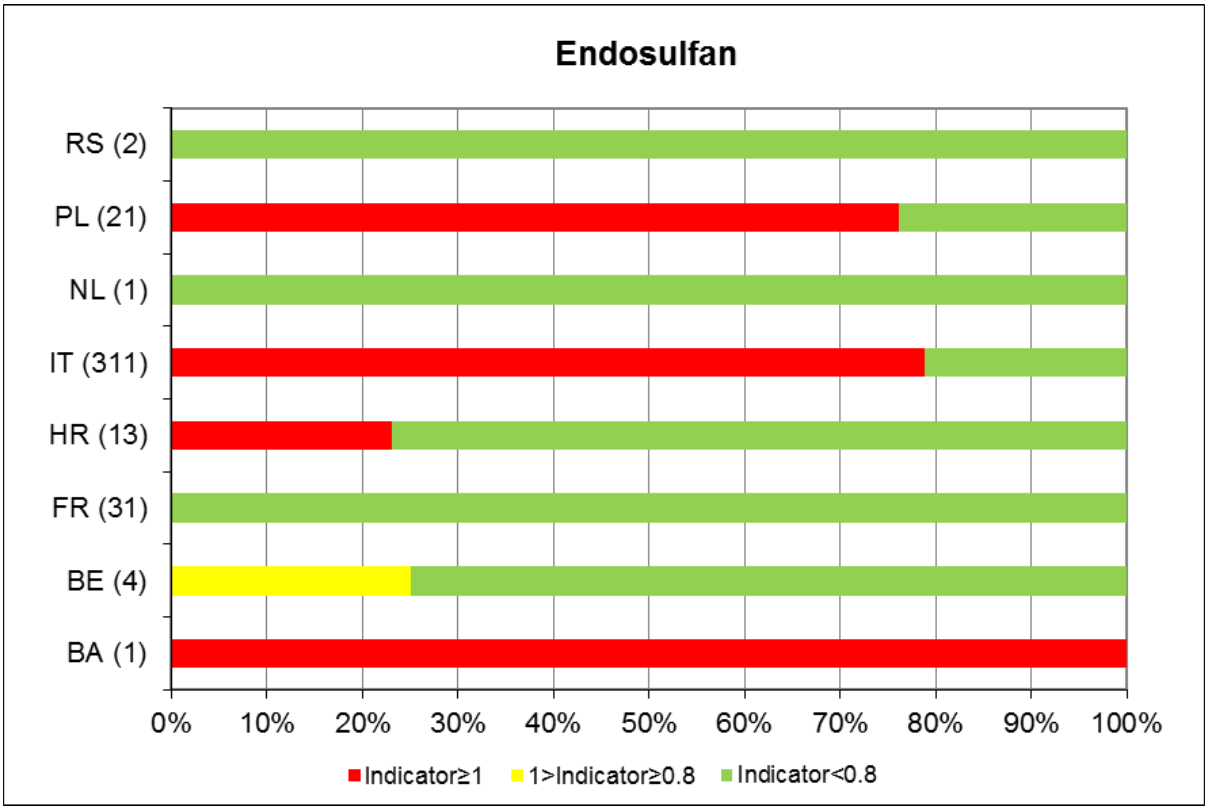


Figure 4.3.2.17c Map of traffic-light indicator for endosulfan in rivers from 2010–2011.

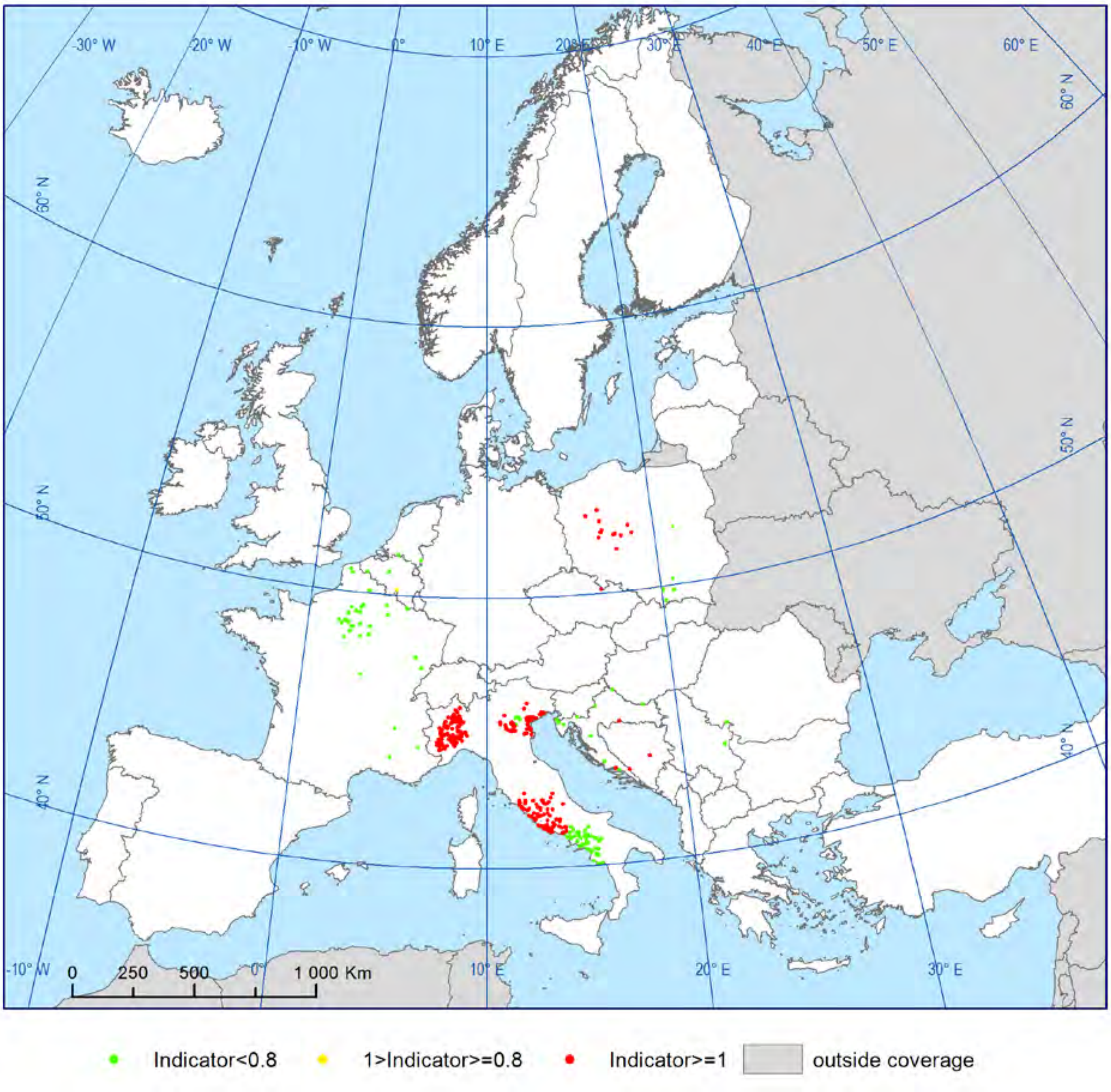


Figure 4.3.2.17d Box plot of data for endosulfan in rivers.

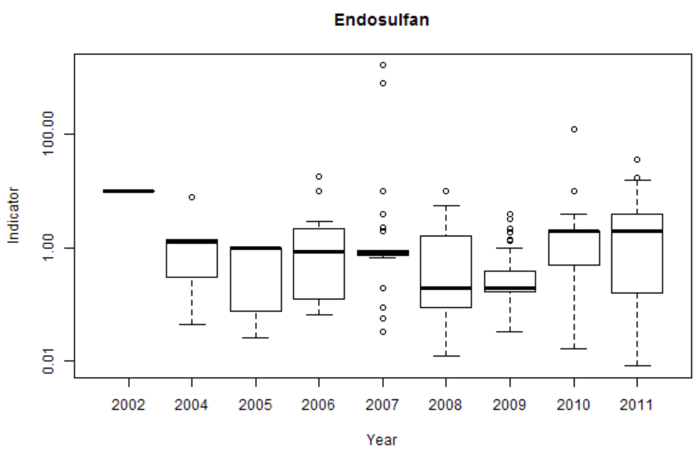


Figure 4.3.2.18a Long-term traffic-light indicator and number of stations fluoranthene in rivers.

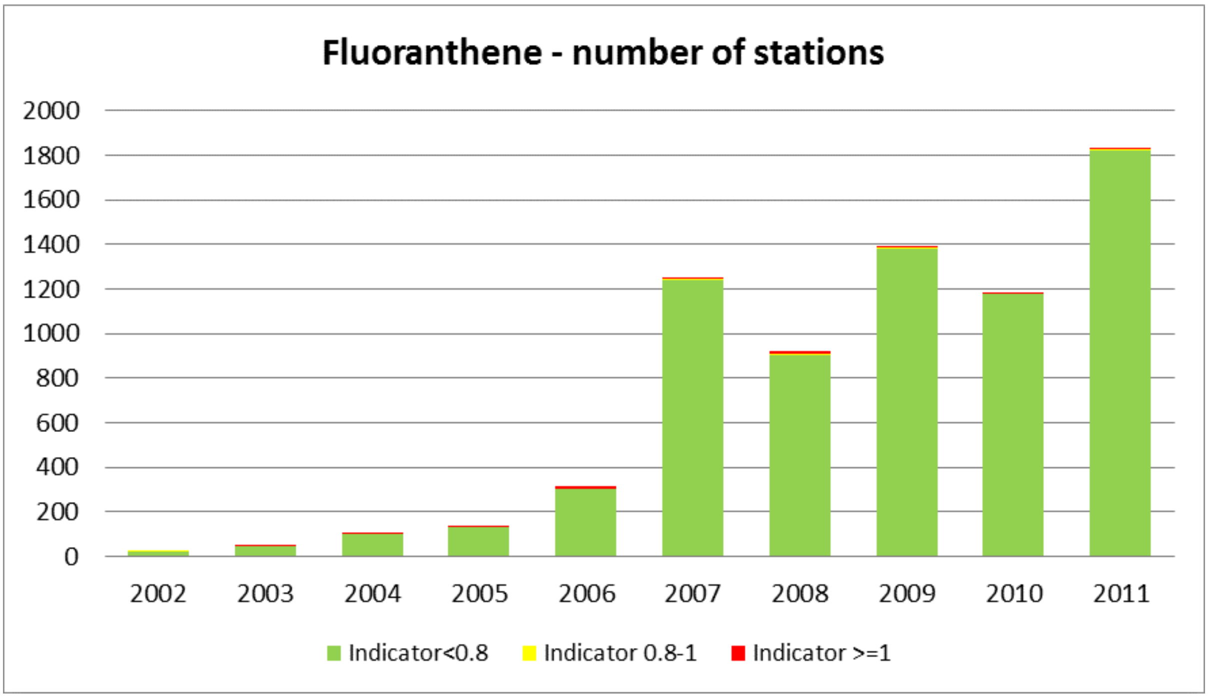


Figure 4.3.2.18b Traffic-light indicator for fluoranthene in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

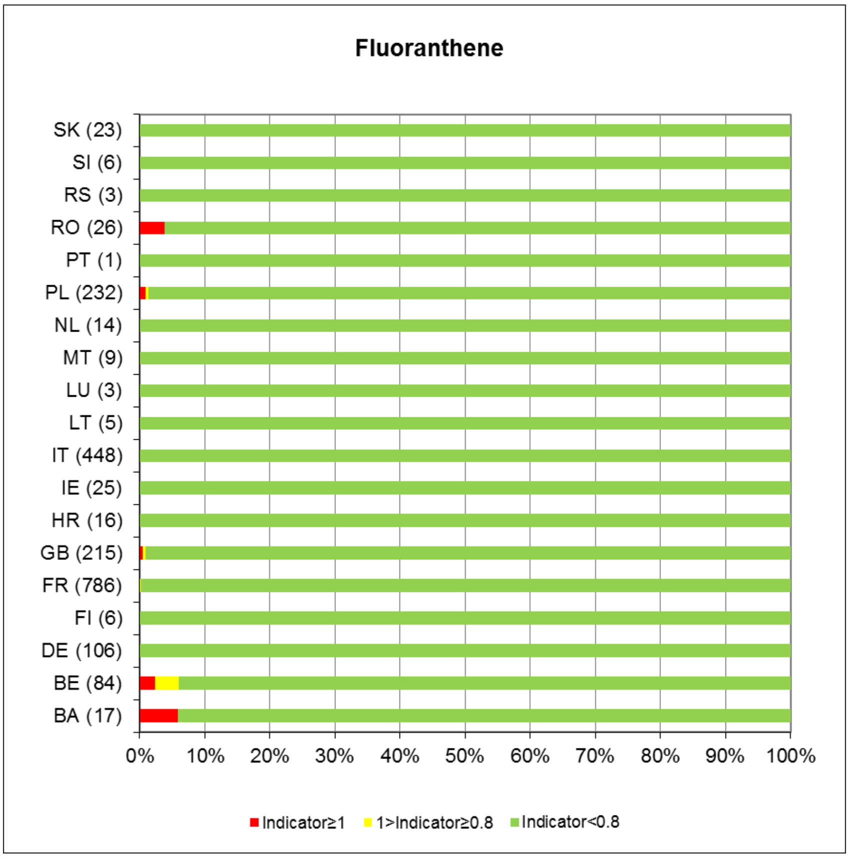


Figure 4.3.2.18c Map of traffic-light indicator for fluoranthene in rivers from 2010–2011.

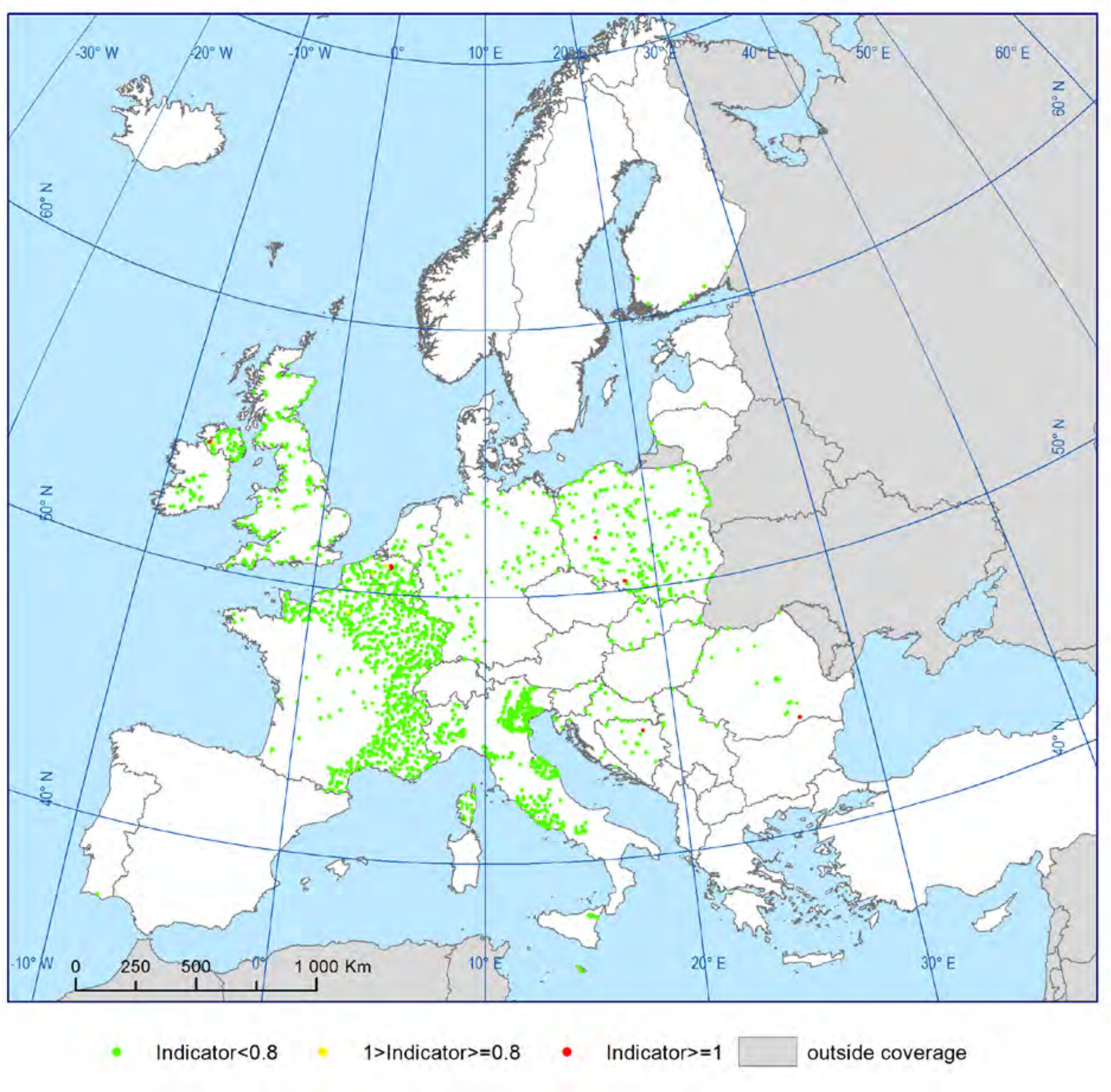


Figure 4.3.2.18d Box plot of data for fluoranthene in rivers.

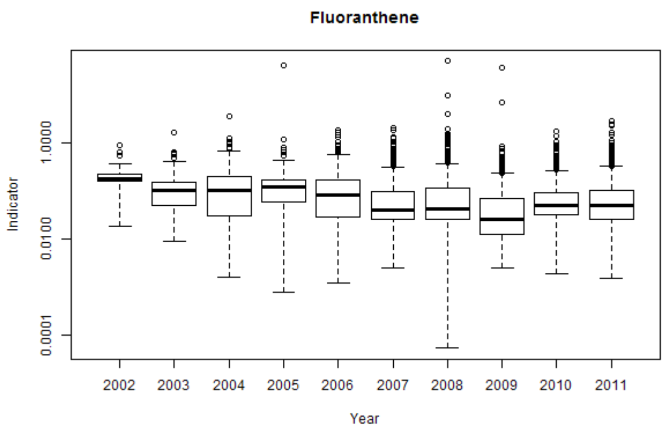


Figure 4.3.2.19a Long-term traffic-light indicator and number of stations for hexachlorobenzene (HCB) in rivers.

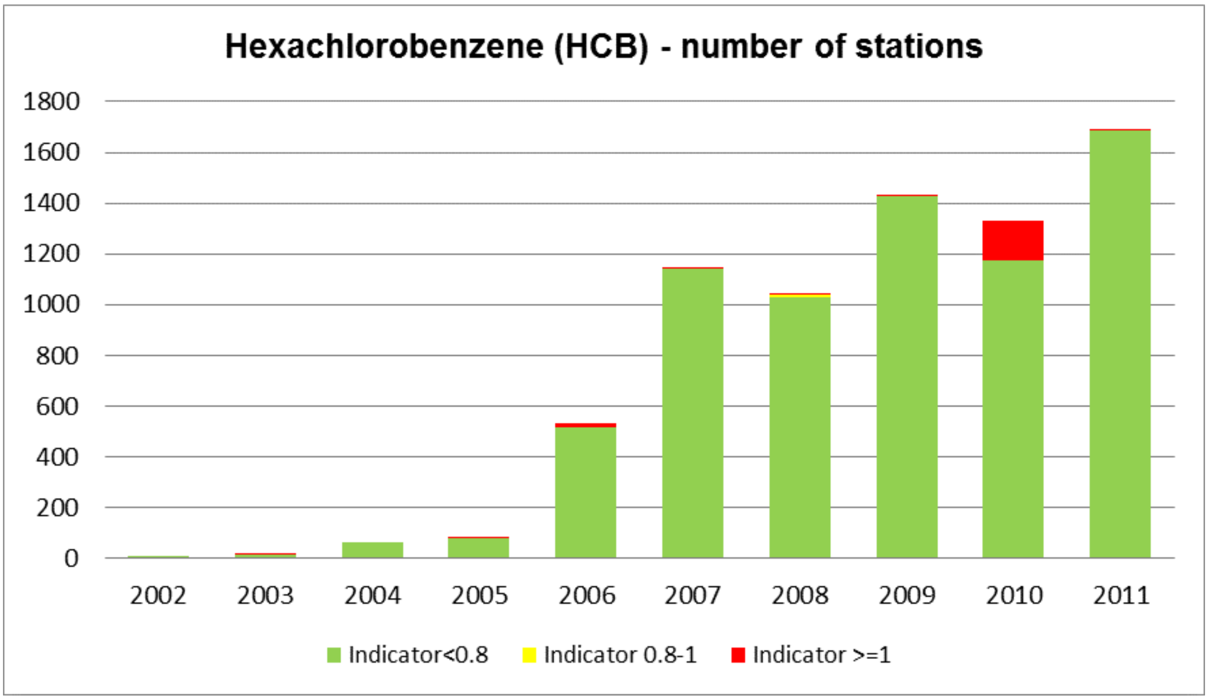


Figure 4.3.2.19b Traffic-light indicator for hexachlorobenzene (HCB) in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

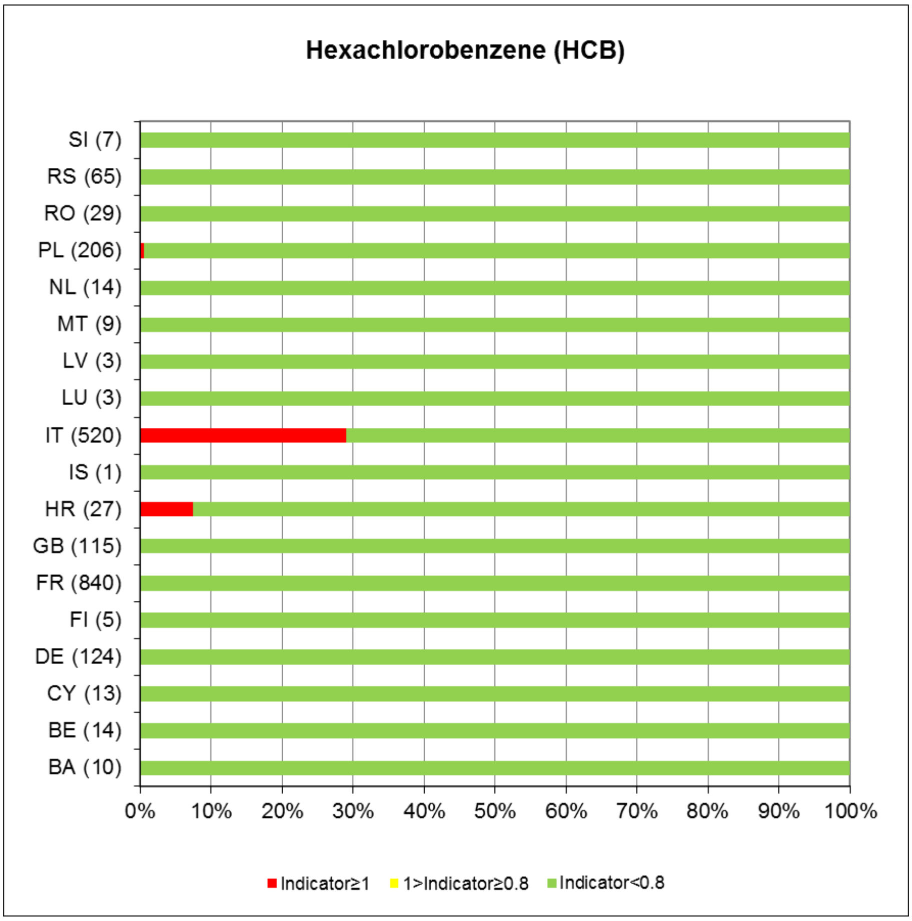


Figure 4.3.2.19c Map of traffic-light indicator for hexachlorobenzene (HCB) in rivers from 2010–2011.

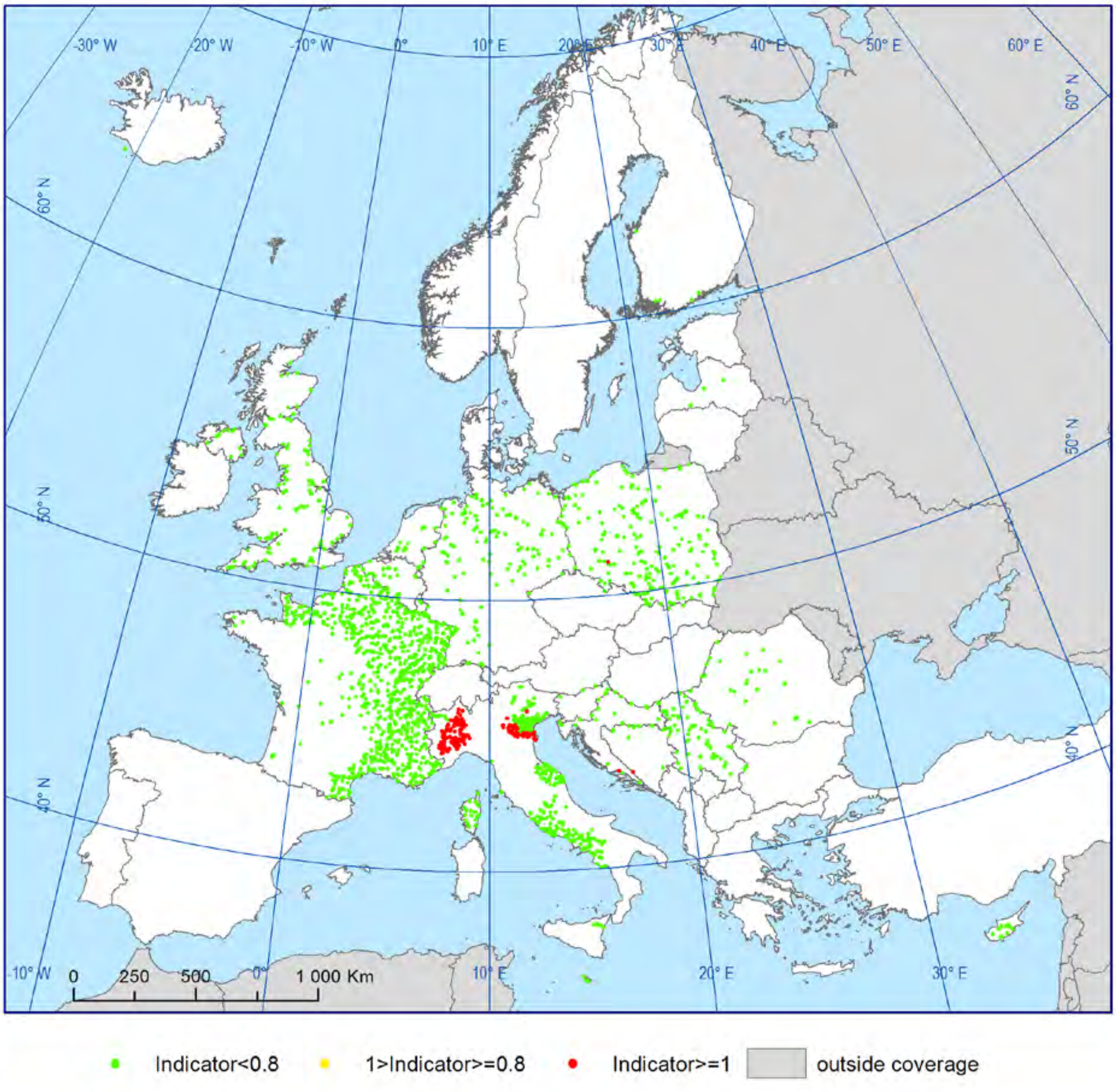


Figure 4.3.2.19d Box plot of data for hexachlorobenzene (HCB) in rivers.

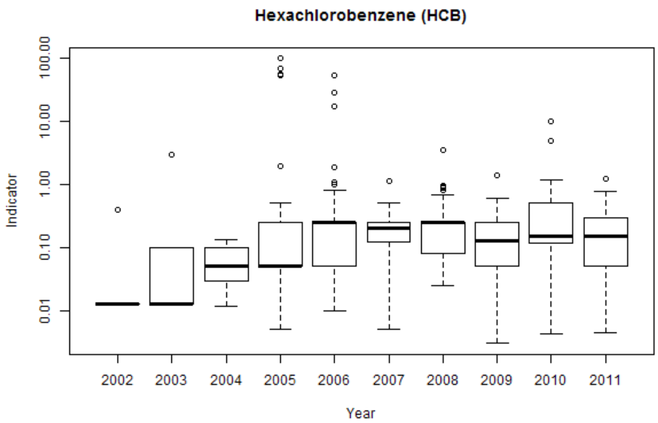


Figure 4.3.2.20a Long-term traffic-light indicator and number of stations for hexachlorobutadiene (HCBD) in rivers.

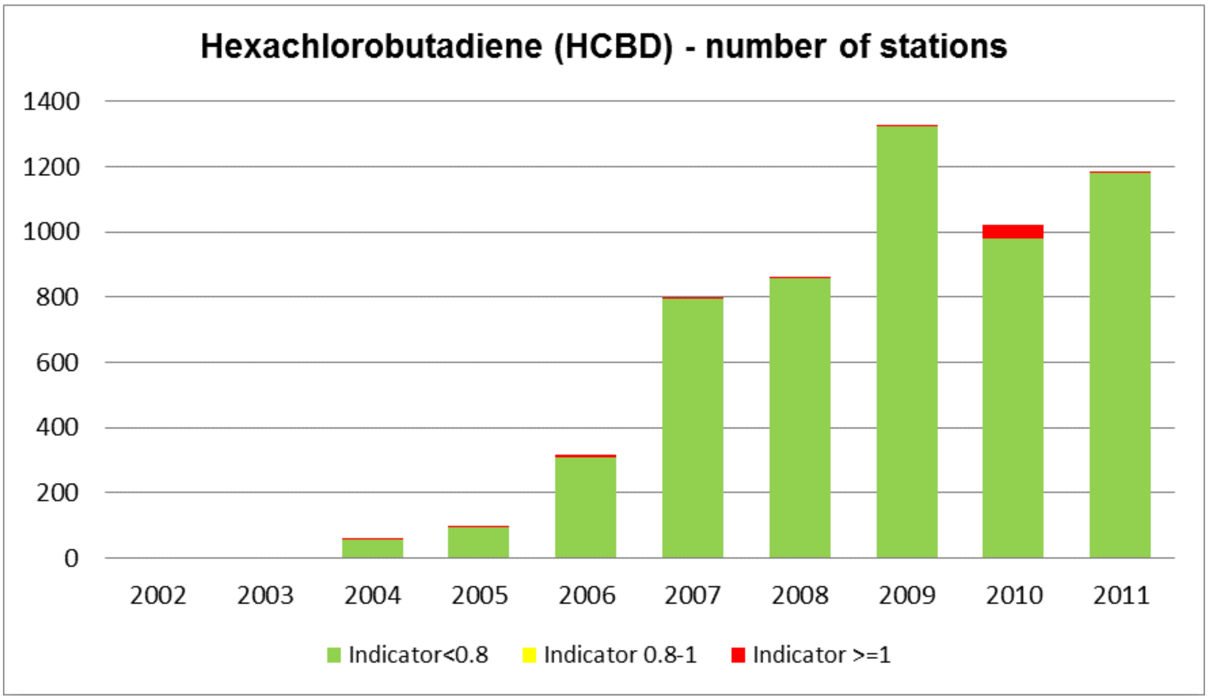


Figure 4.3.2.20b Traffic-light indicator for hexachlorobutadiene (HCBD) in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

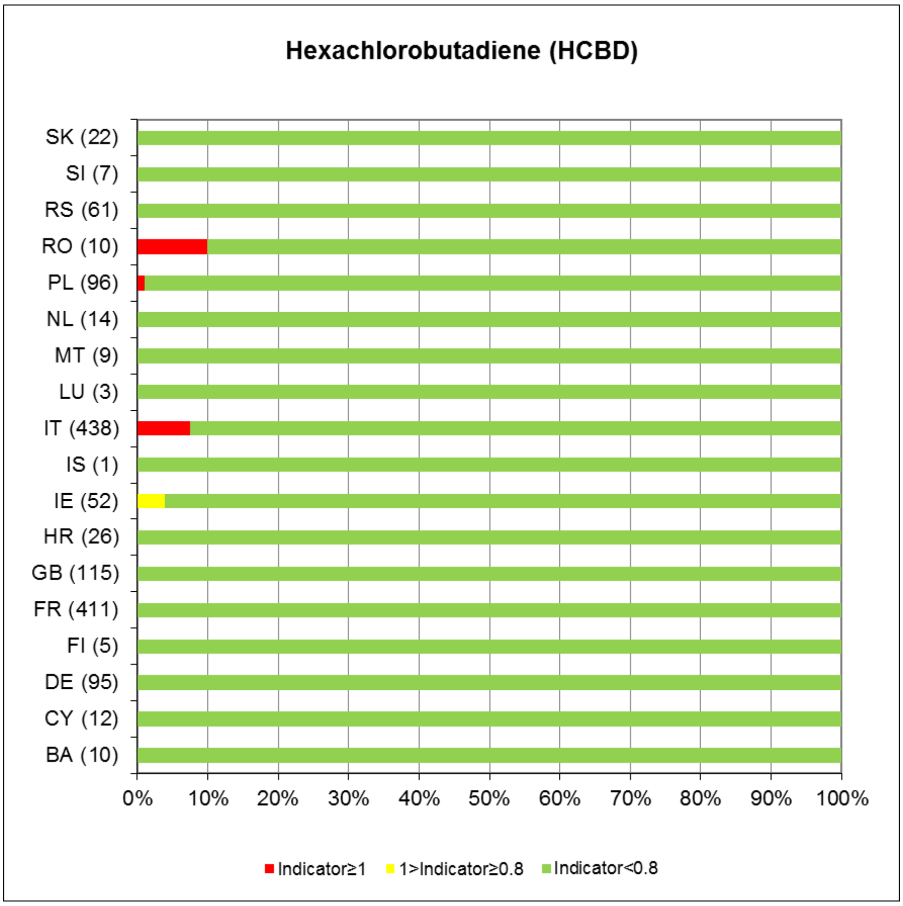


Figure 4.3.2.20c Map of traffic-light indicator for hexachlorobutadiene (HCBD) in rivers in 2010–2011.

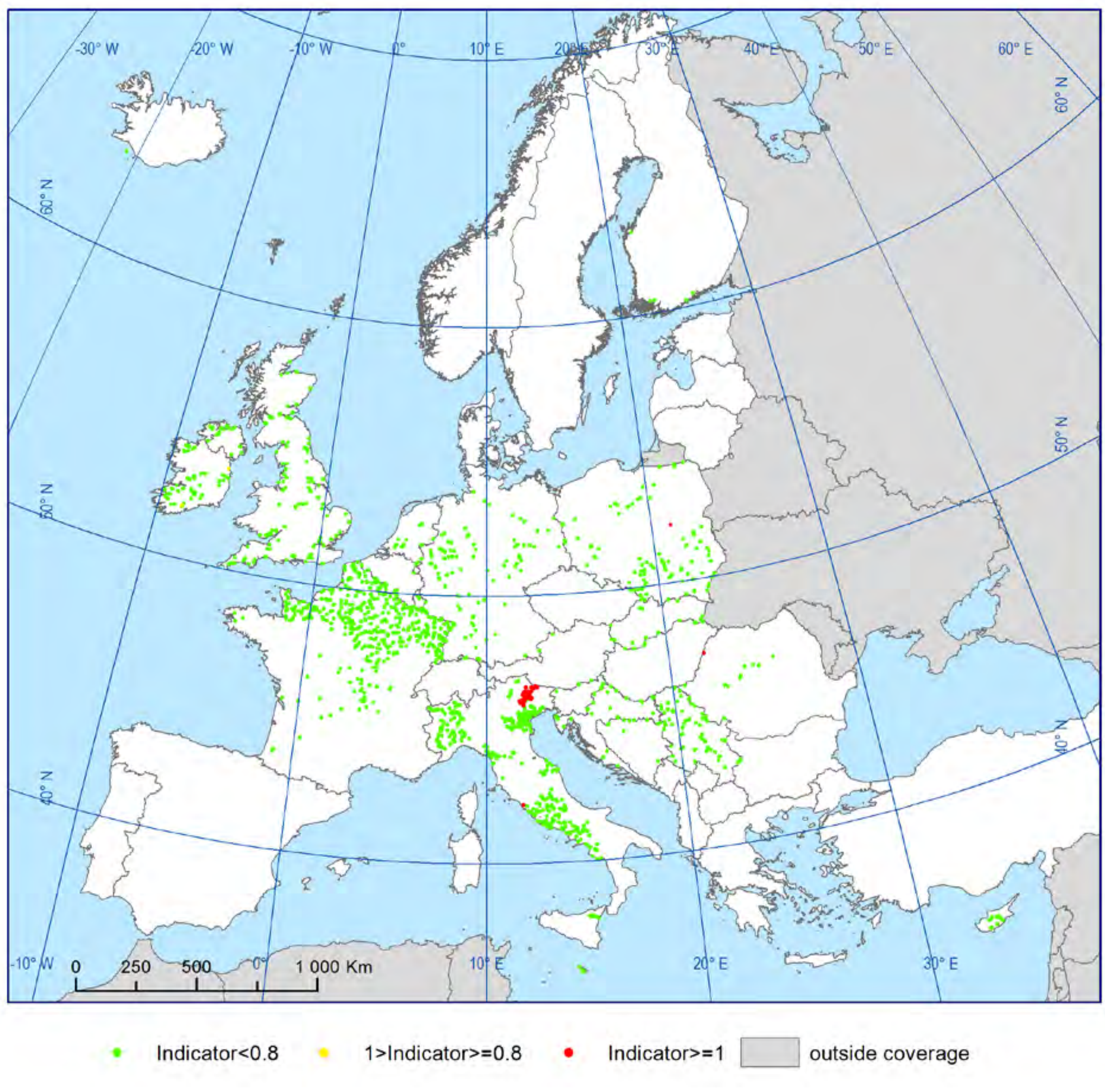


Figure 4.3.2.20d Box plot of data for hexachlorobutadiene (HCBD) in rivers.

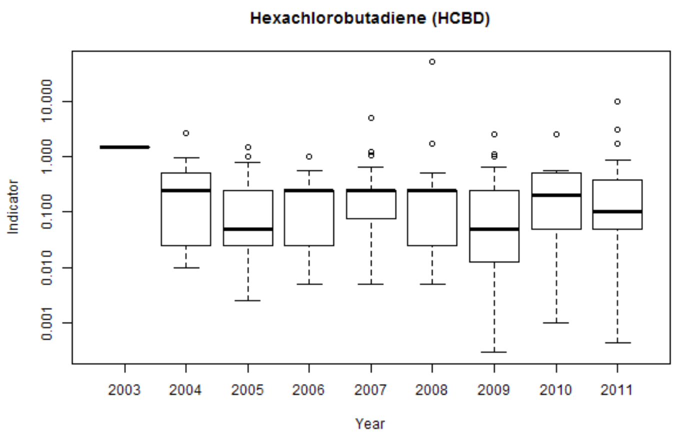


Figure 4.3.2.21a Long-term traffic-light indicator and number of stations for hexachlorocyclohexane (HCH) in rivers. Sum of isomers of the technical mixture (CAS no. 608-73-1) has been calculated.

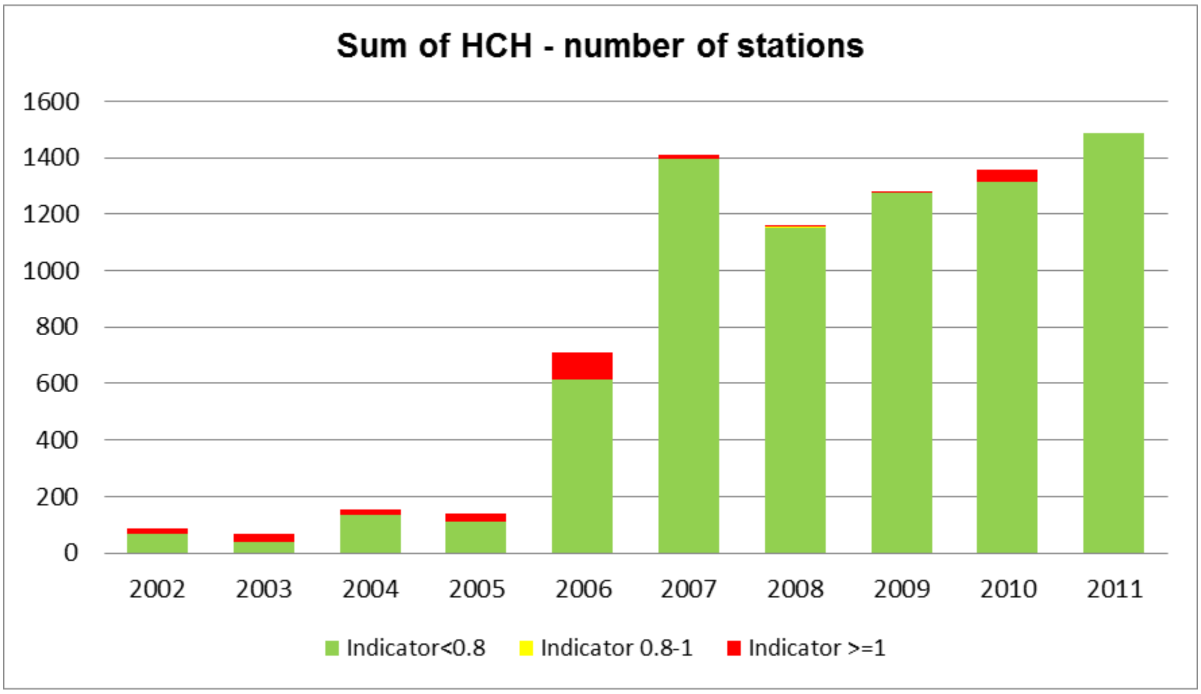


Figure 4.3.2.21b Traffic-light indicator for hexachlorocyclohexane (HCH) in rivers from 2010–2011 (number of stations per country is shown in parenthesis). Sum of isomers of the technical mixture (CAS no. 608-73-1) has been calculated.

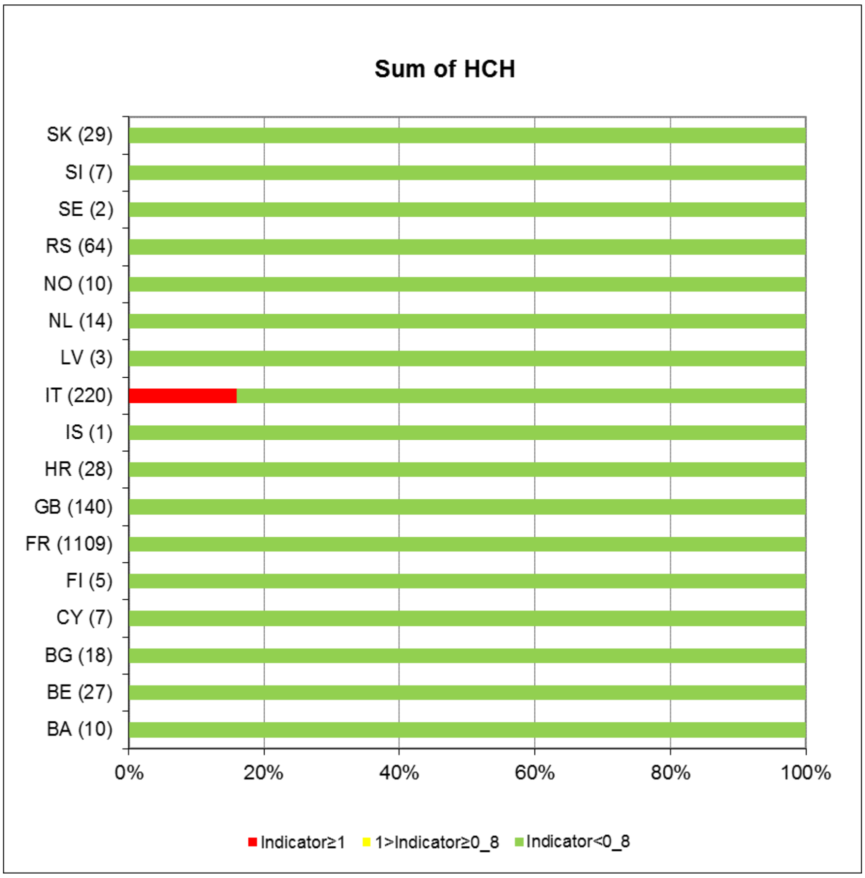


Figure 4.3.2.21c Map of traffic-light indicator for hexachlorocyclohexane (HCH) in rivers from 2010–2011. Sum of isomers of the technical mixture (CAS no. 608-73-1) has been calculated.

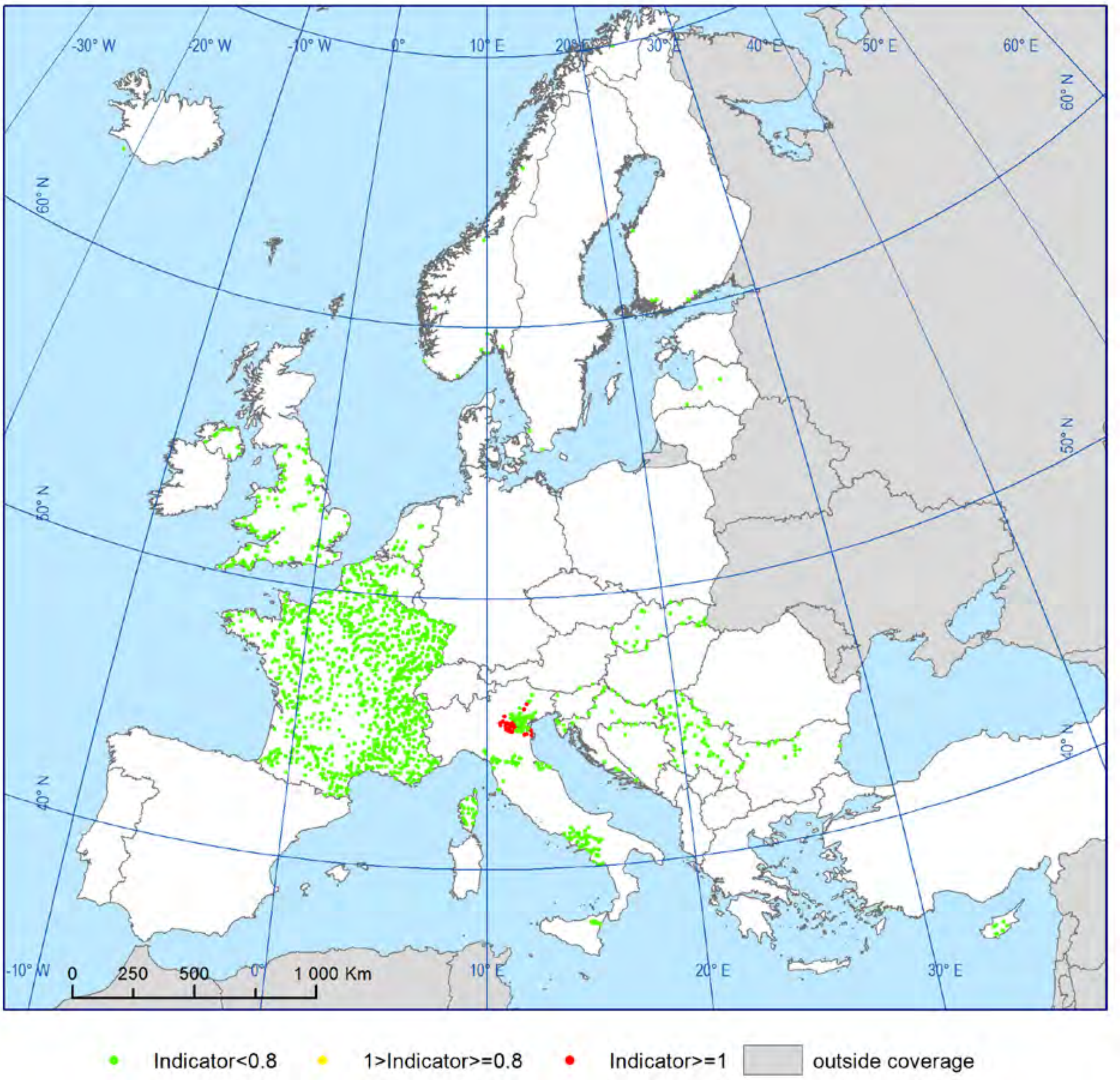


Figure 4.3.2.21d Box plot of data for hexachlorocyclohexane (HCH) in rivers. Sum of isomers of the technical mixture (CAS no. 608-73-1) has been calculated.

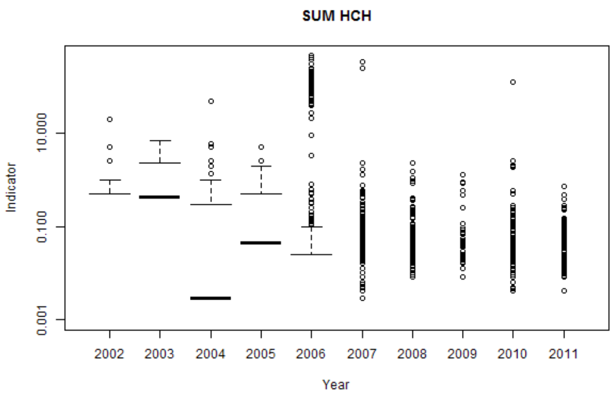


Figure 4.3.2.21a1 Long-term traffic-light indicator and number of stations for hexachlorocyclohexane (HCH) in rivers. γ-HCH ("Lindane", CAS no. 58-89-9), has most likely been reported.

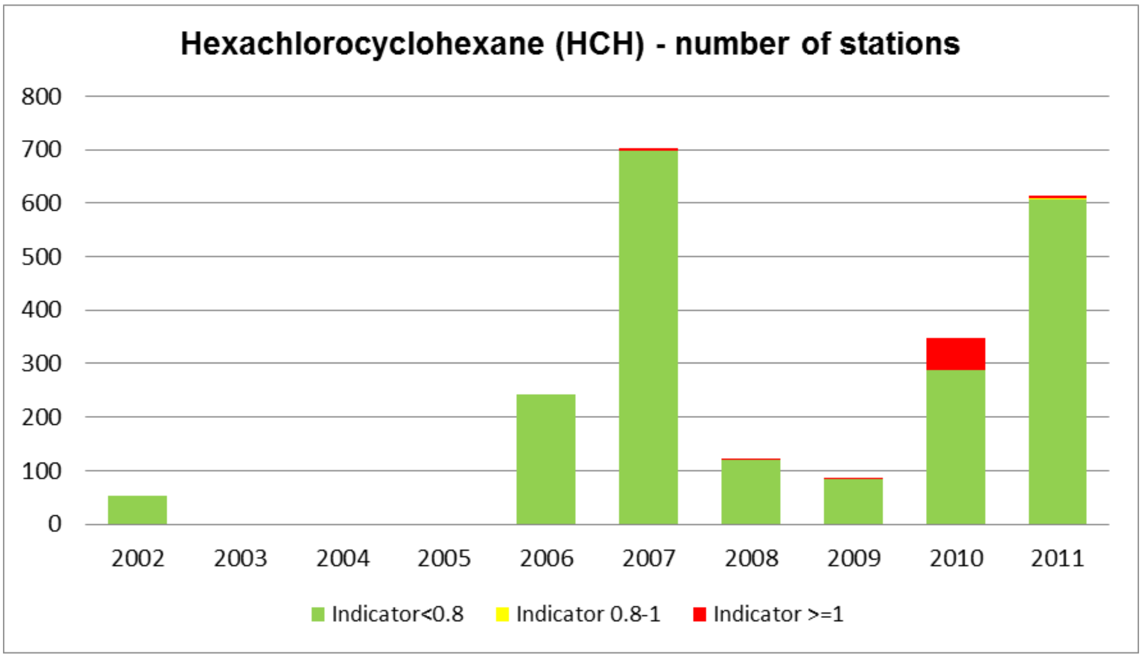


Figure 4.3.2.21b1 Traffic-light indicator for hexachlorocyclohexane (HCH) in rivers from 2010–2011 (number of stations per country is shown in parenthesis). γ-HCH ("Lindane", CAS no. 58-89-9), has most likely been reported.

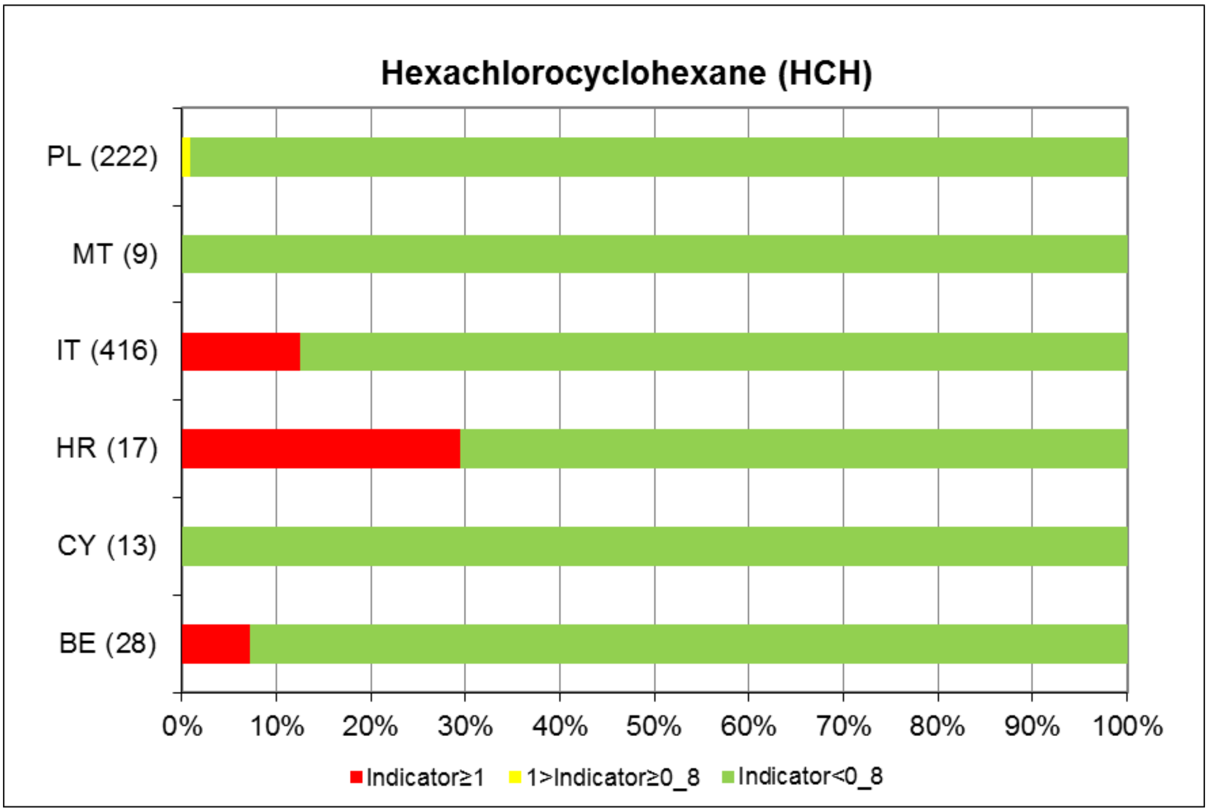


Figure 4.3.2.21c1 Map of traffic-light indicator for hexachlorocyclohexane (HCH) in rivers from 2010–2011. γ-HCH ("Lindane", CAS no. 58-89-9), has most likely been reported.

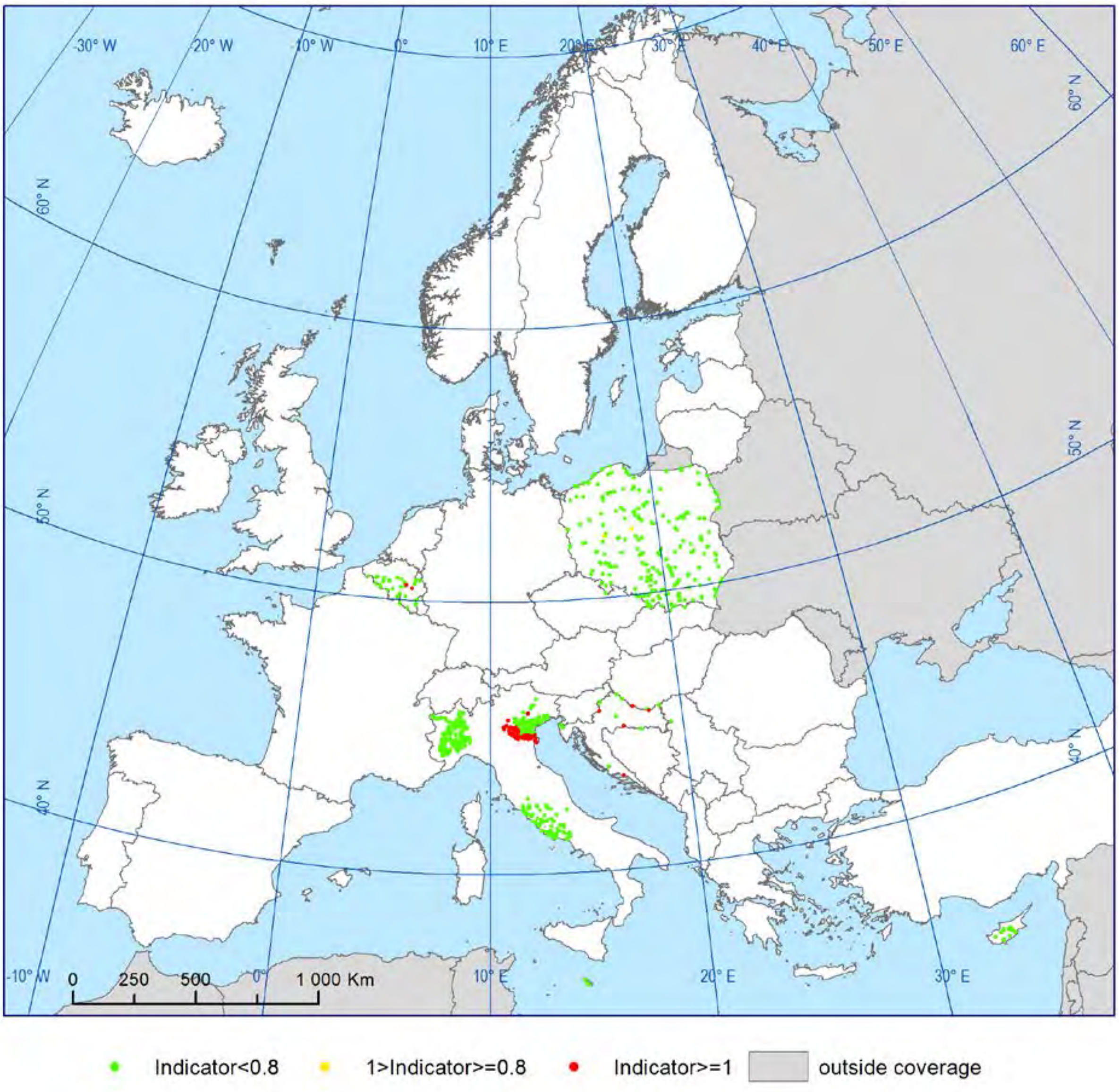


Figure 4.3.2.21d1 Box plot of data for hexachlorocyclohexane (HCH) in rivers. γ-HCH ("Lindane", CAS no. 58-89-9), has most likely been reported.

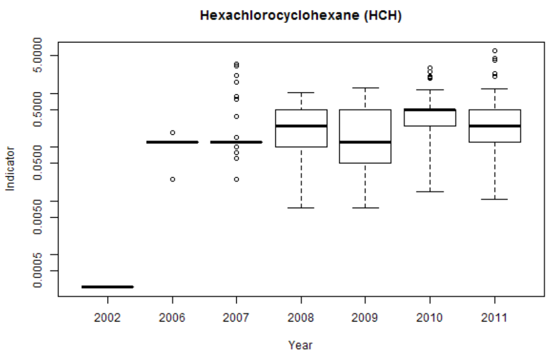


Figure 4.3.2.22a Long-term traffic-light indicator and number of stations for isoproturon in rivers.

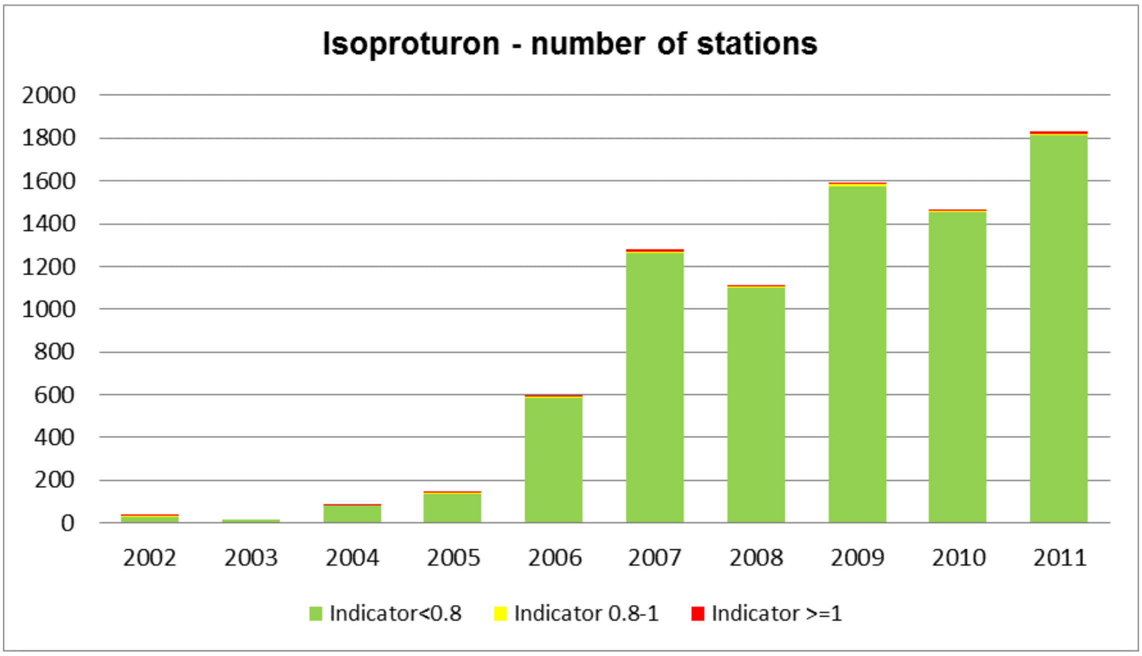


Figure 4.3.2.22b Traffic-light indicator for isoproturon in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

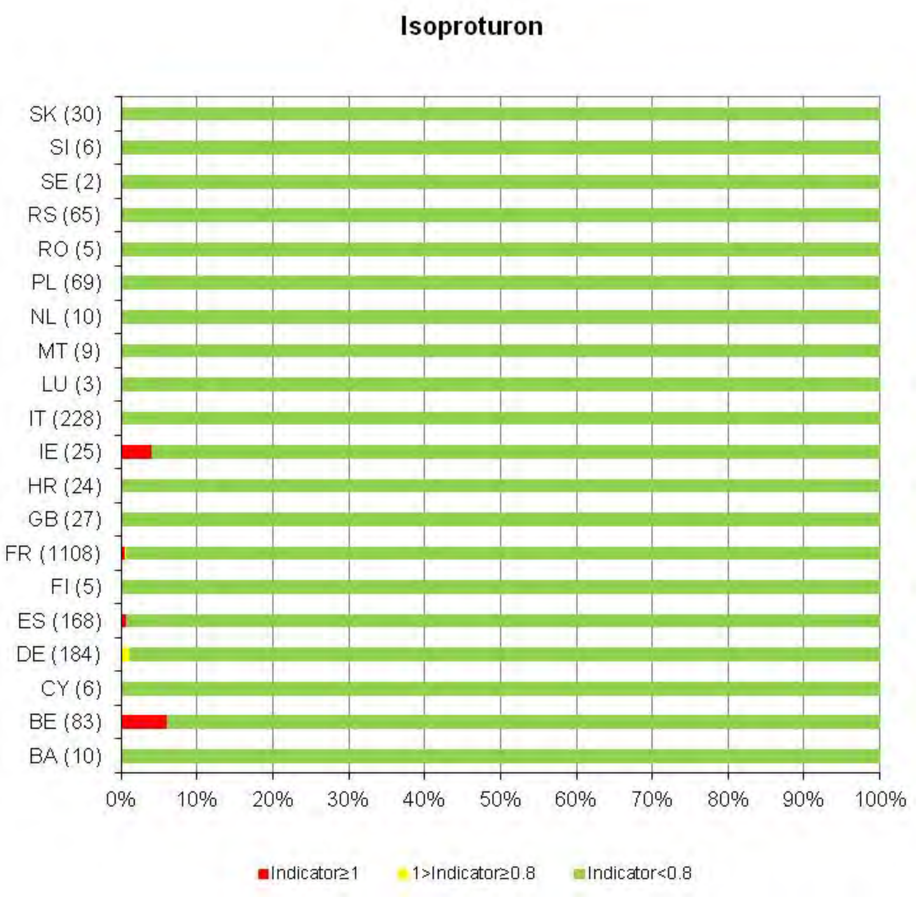


Figure 4.3.2.22c Map of traffic-light indicator for isoproturon in rivers from 2010–2011.

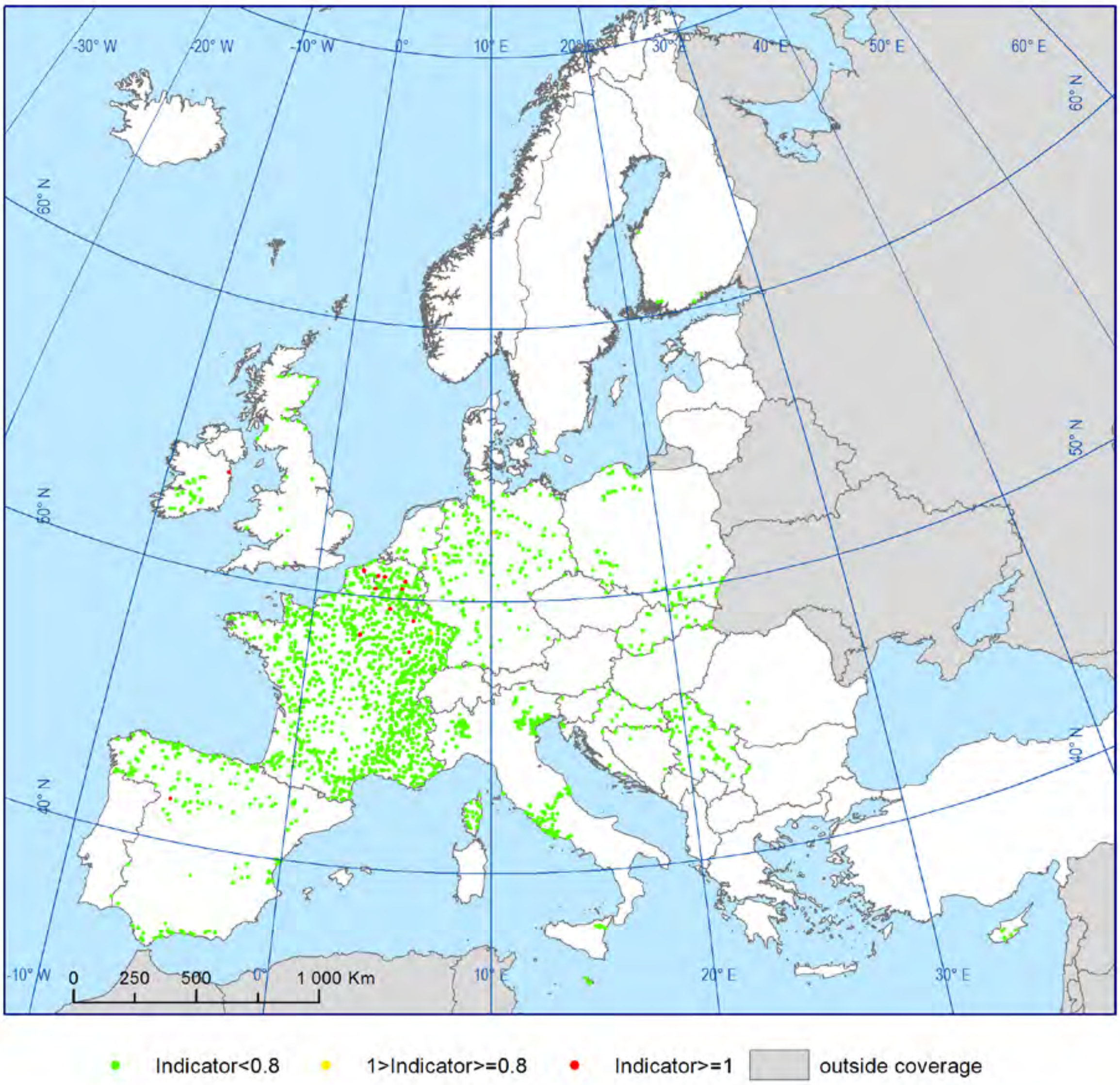


Figure 4.3.2.22d Box plot of data for isoproturon in rivers.

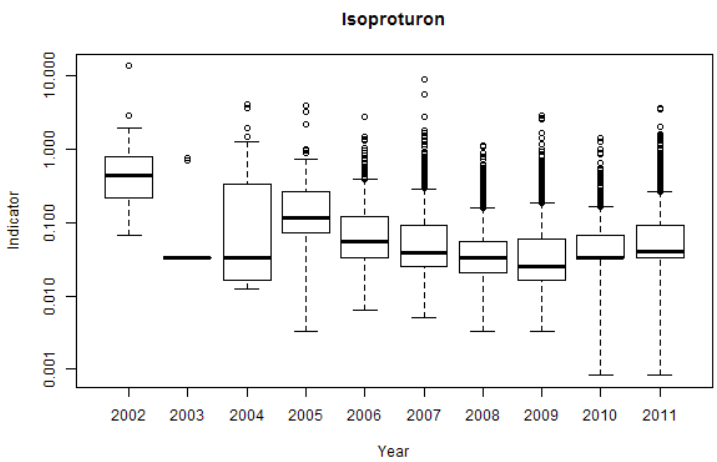


Figure 4.3.2.23a Long-term traffic-light indicator and number of stations for lead and its compounds in rivers.

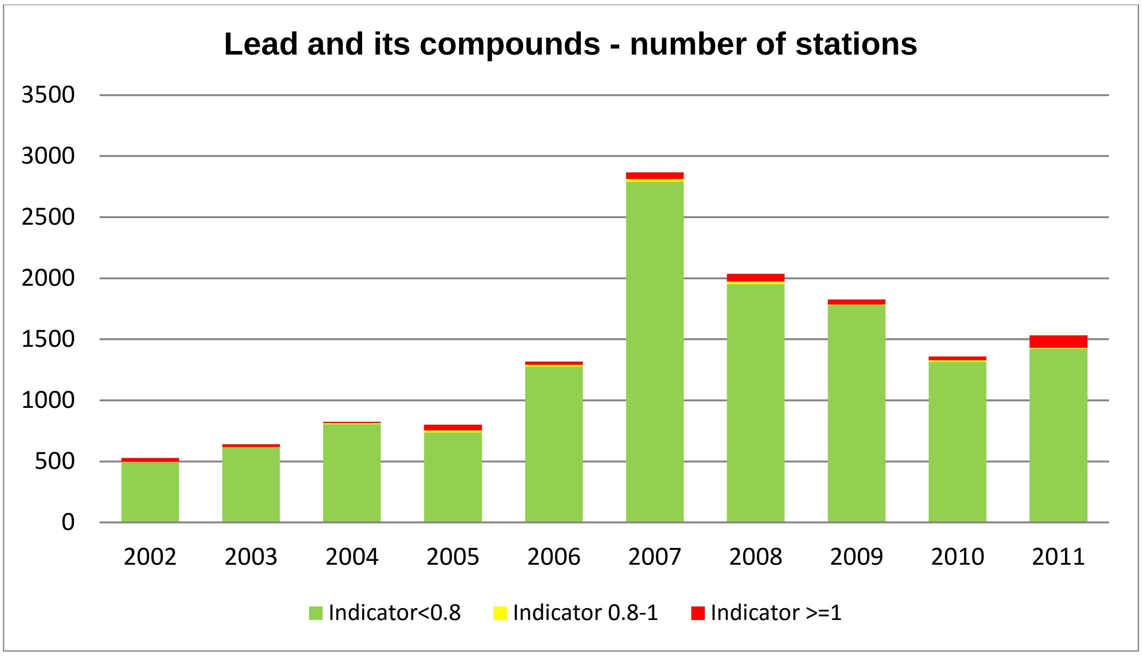


Figure 4.3.2.23b Traffic-light indicator for lead and its compounds in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

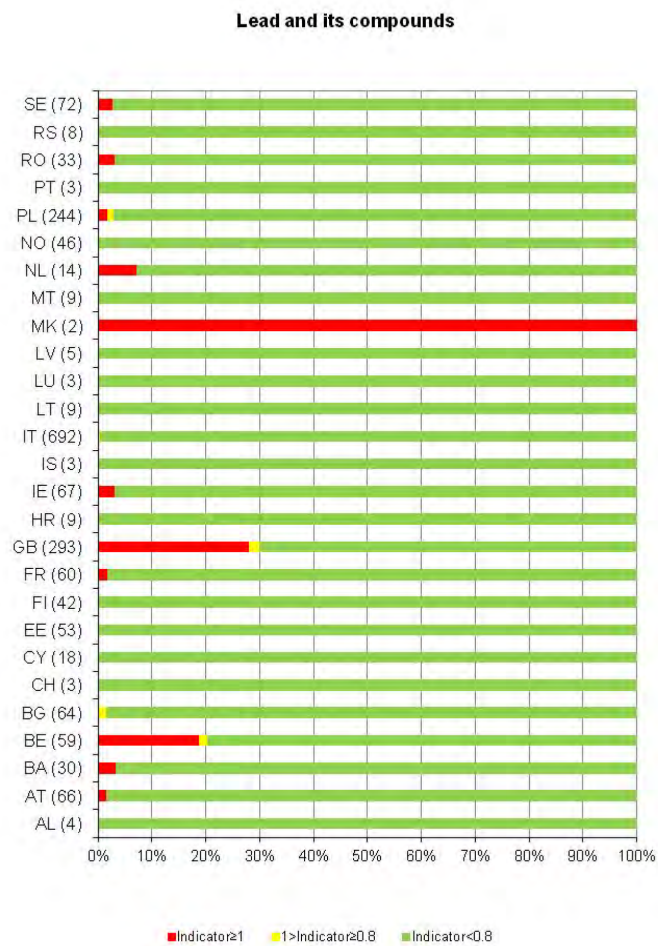


Figure 4.3.2.23c Map of traffic-light indicator for lead and its compounds in rivers for 2010–2011.

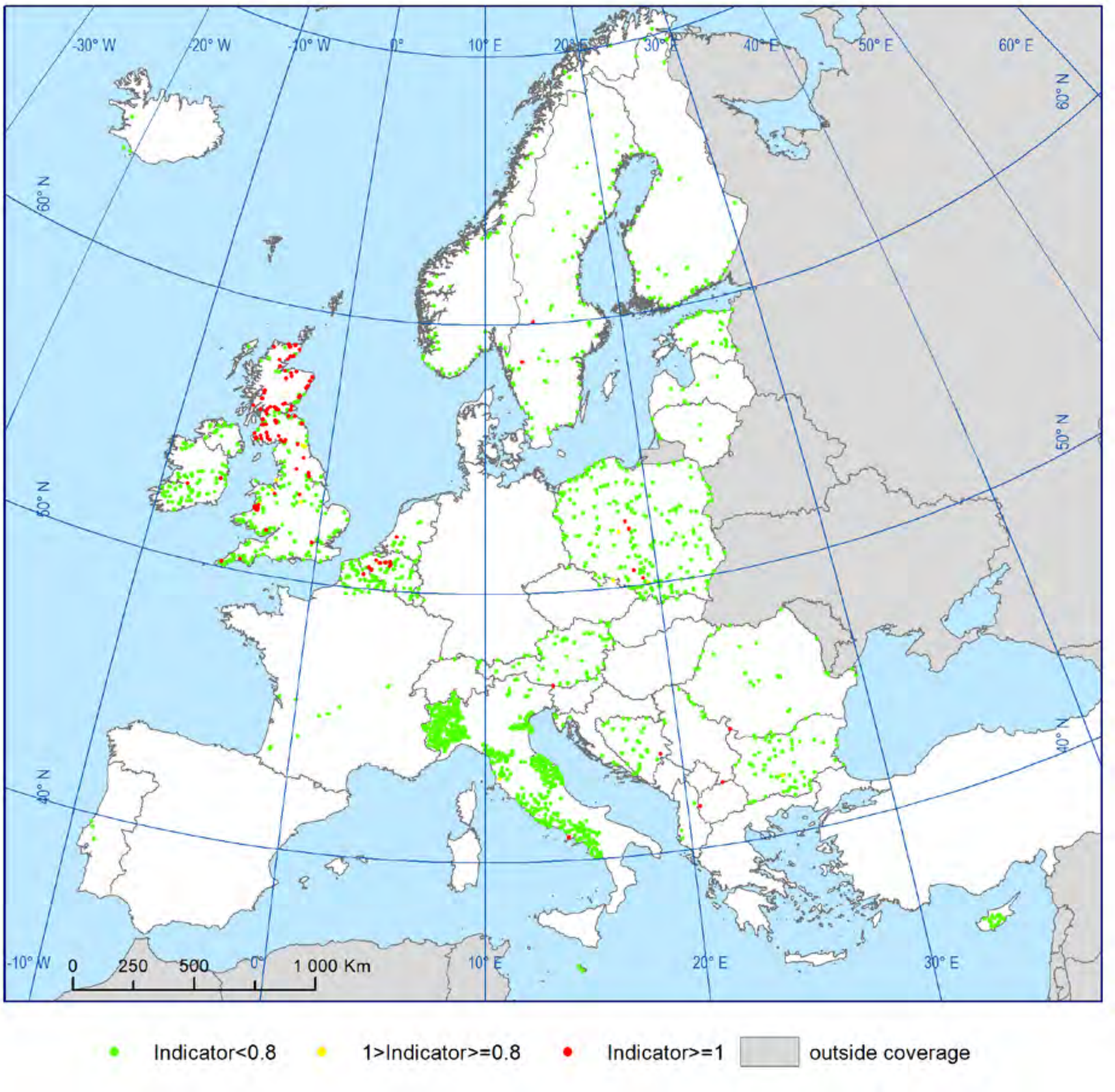


Figure 4.3.2.23d Box plot of data for lead and its compounds in rivers.

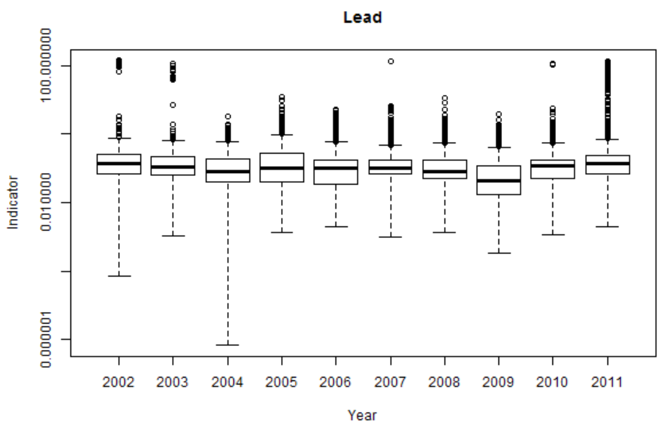


Figure 4.3.2.23a1 Long-term traffic-light indicator and number of stations for dissolved lead in rivers.

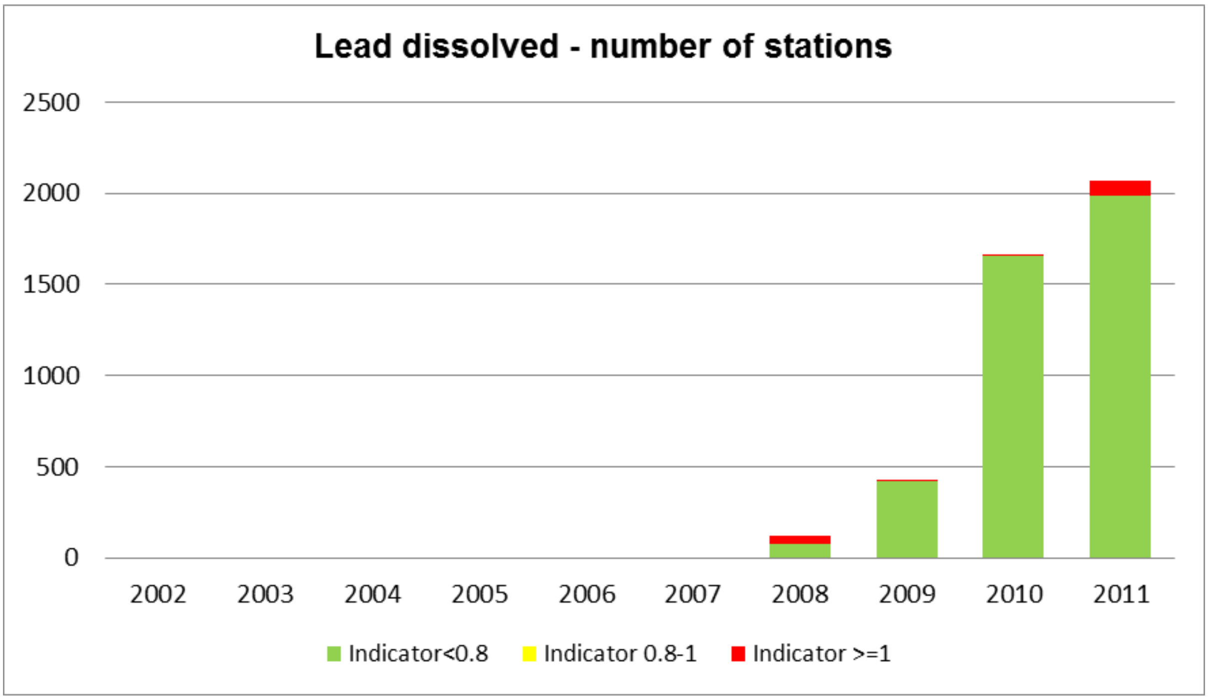


Figure 4.3.2.23b1 Traffic-light indicator for dissolved lead in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

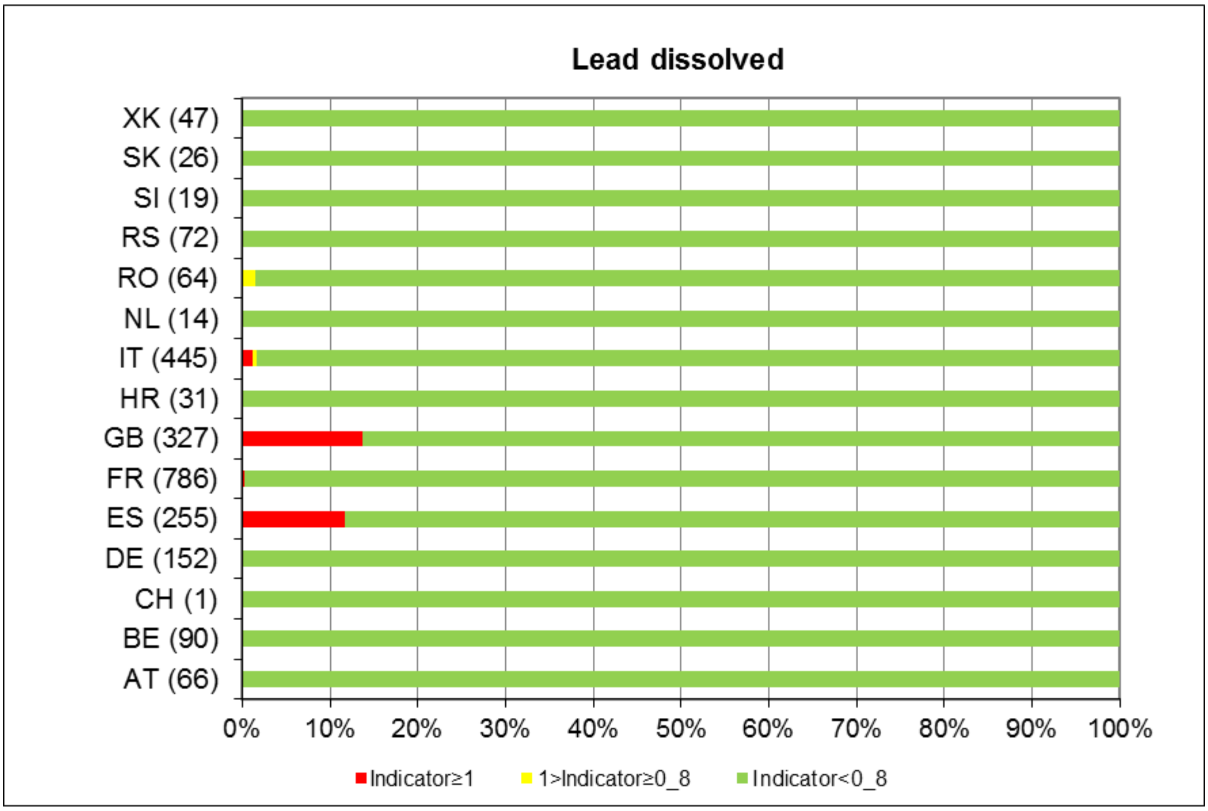


Figure 4.3.2.23c1 Map of traffic-light indicator for dissolved lead in rivers in 2010–2011.

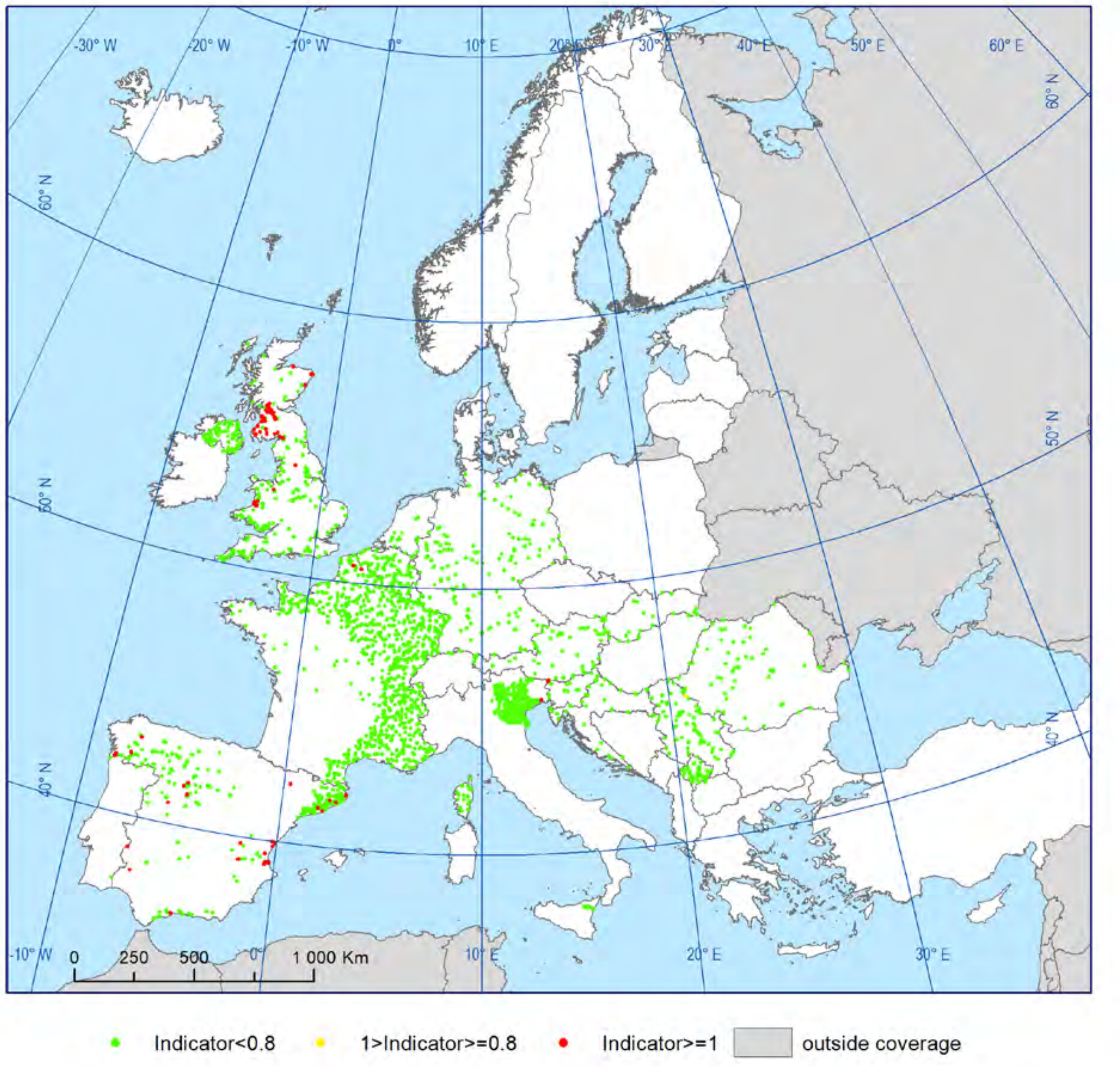


Figure 4.3.2.23d1 Box plot of data for dissolved lead in rivers.

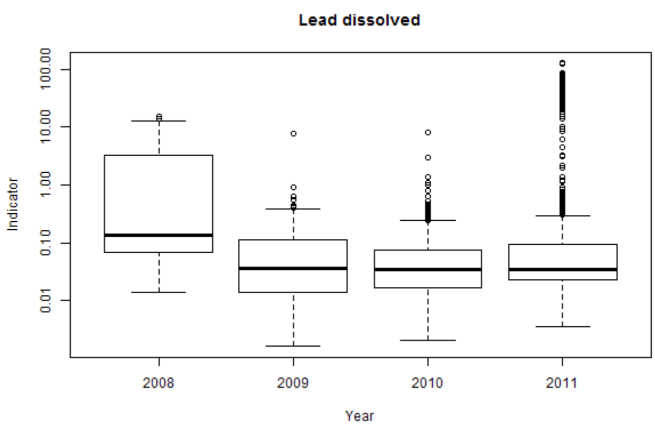


Figure 4.3.2.24a Long-term traffic-light indicator and number of stations for mercury in rivers.

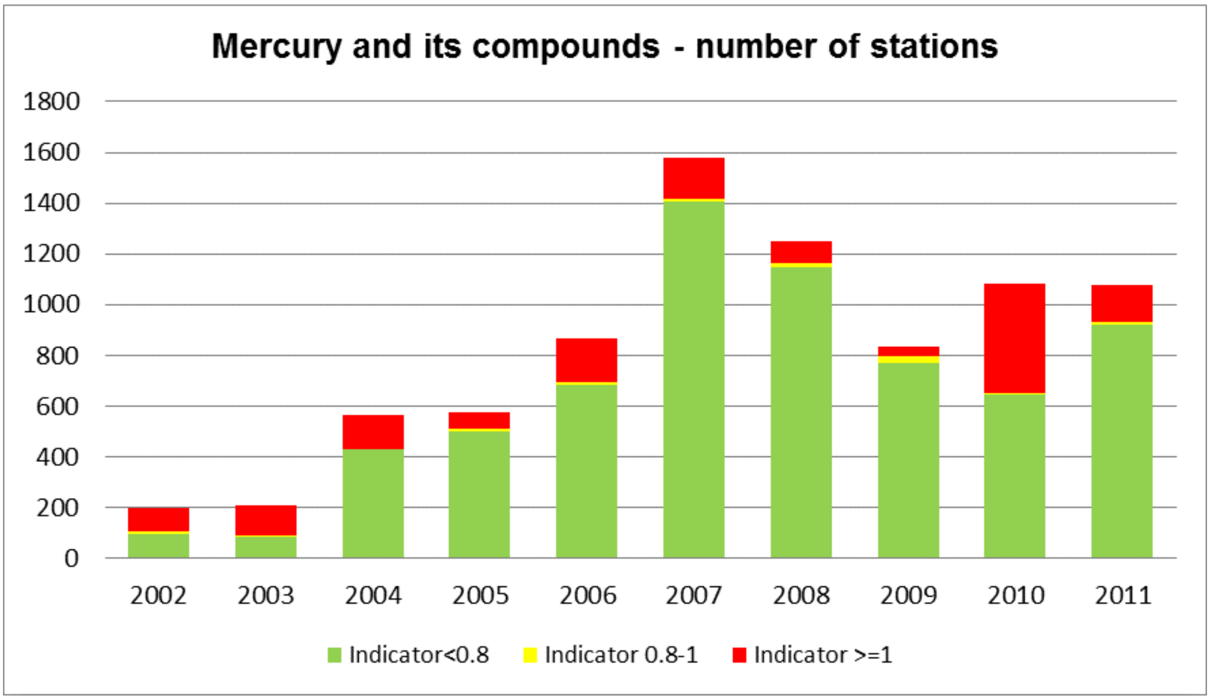


Figure 4.3.2.24b Traffic-light indicator for mercury in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

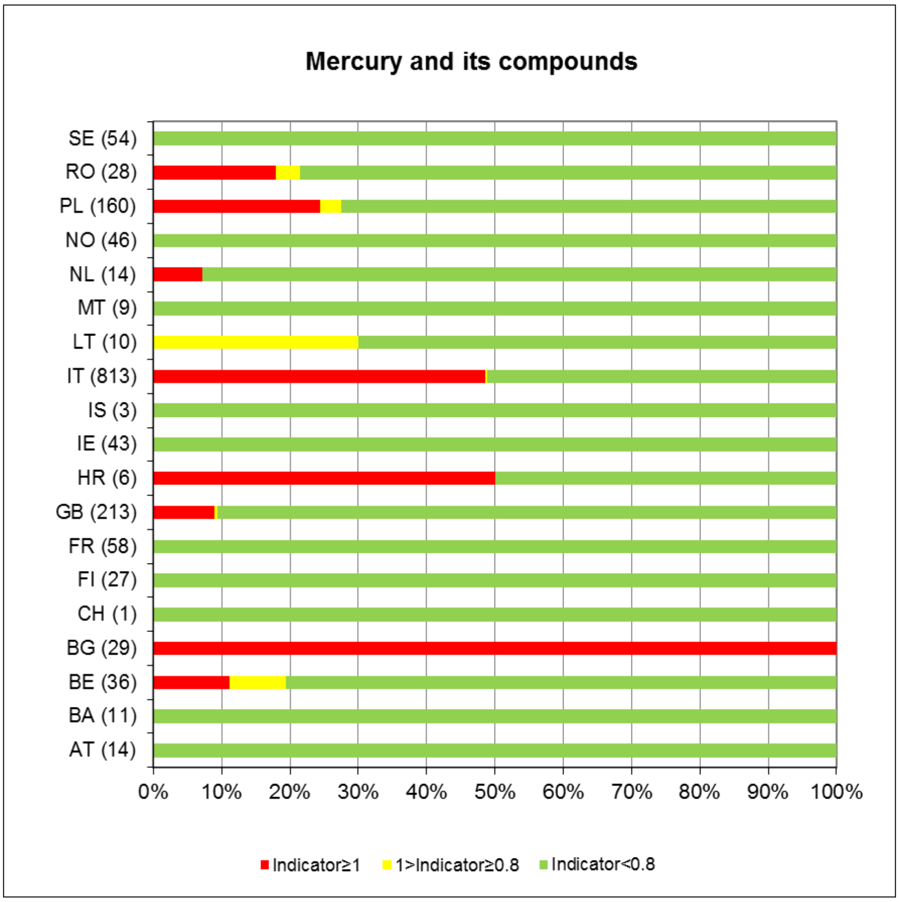


Figure 4.3.2.24c Map of traffic-light indicator for mercury in rivers from 2010–2011.

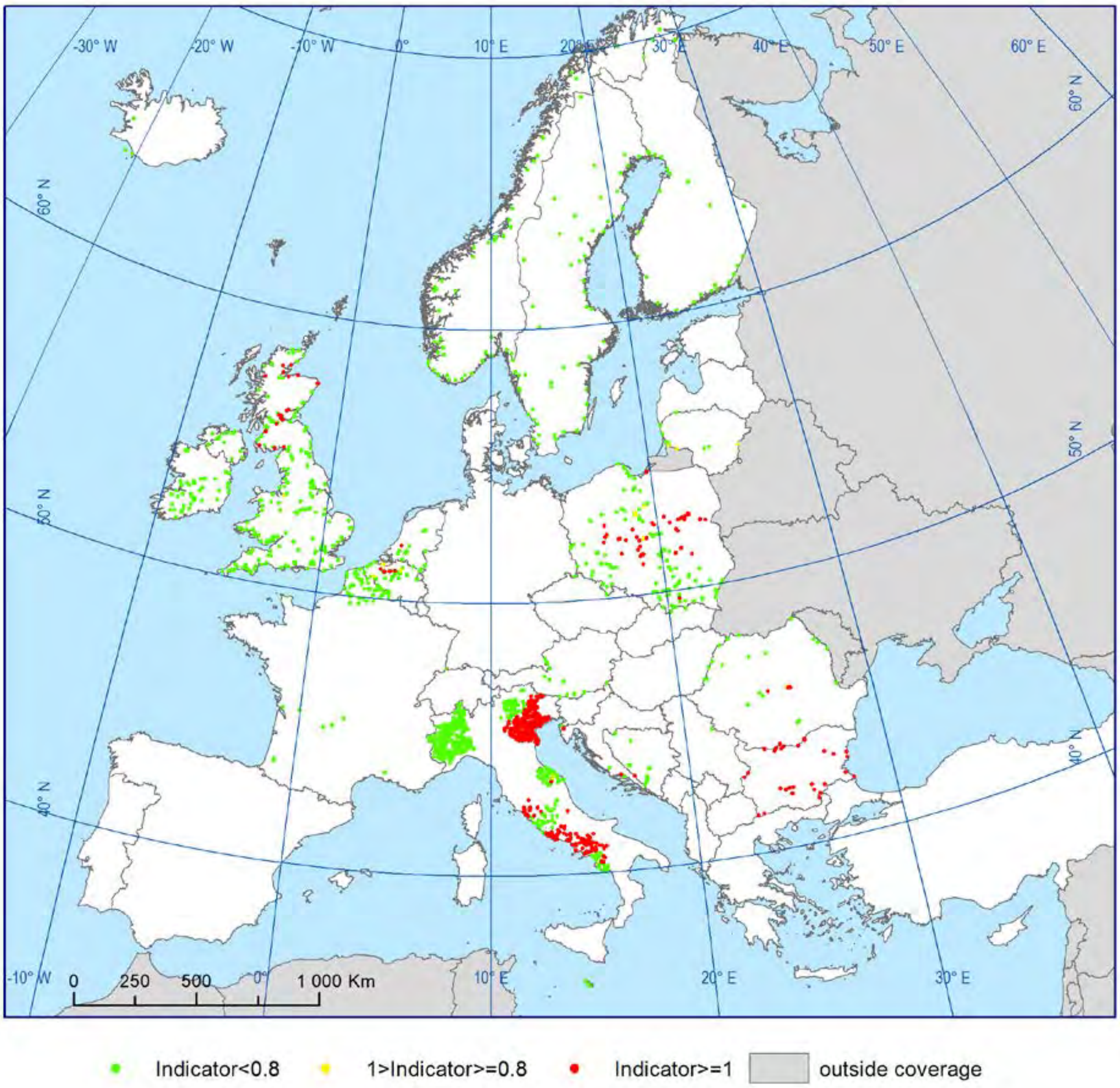


Figure 4.3.2.24d Box plot of data for mercury in rivers.

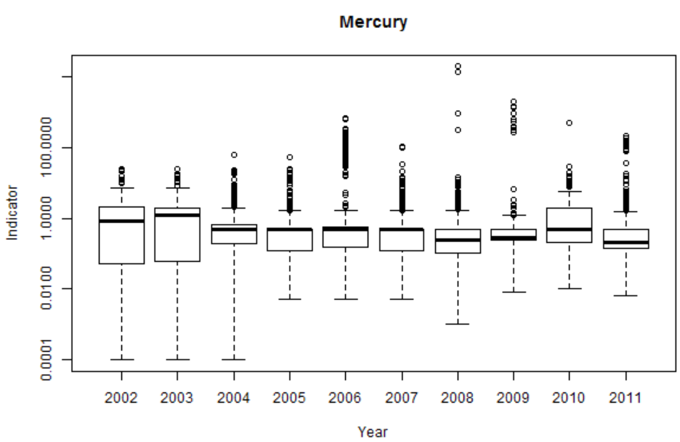


Figure 4.3.2.24a1 Long-term traffic-light indicator and number of stations for dissolved mercury in rivers.

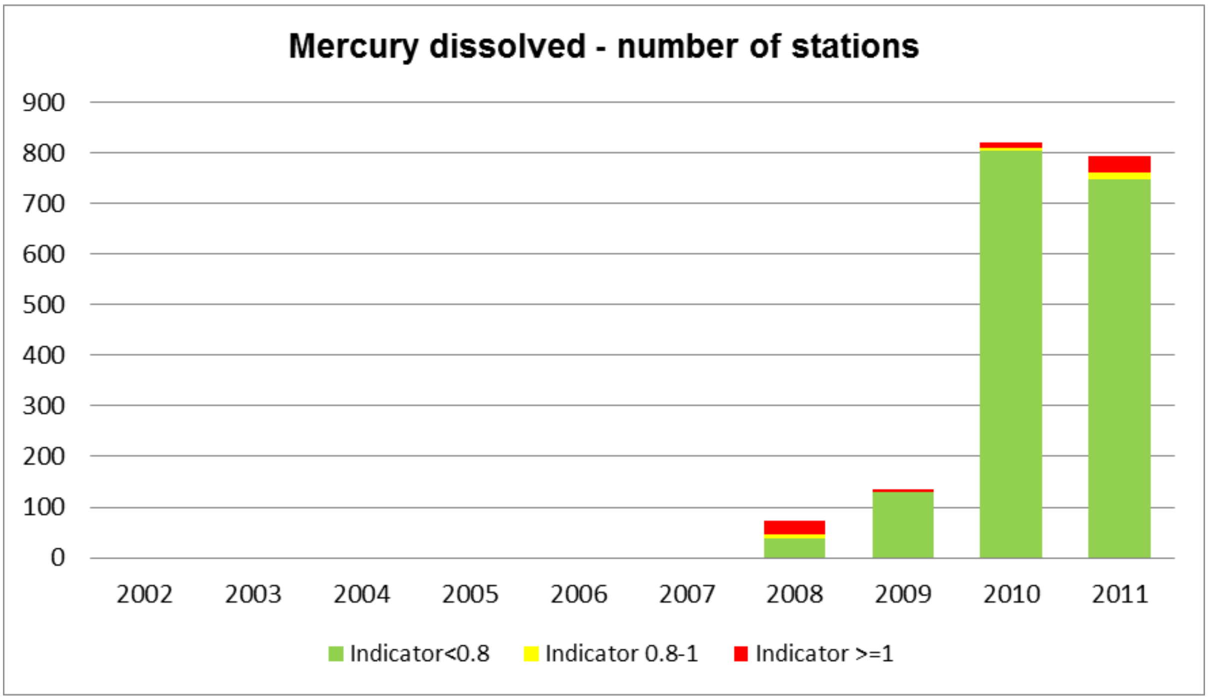


Figure 4.3.2.24b1 Traffic-light indicator for dissolved mercury in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

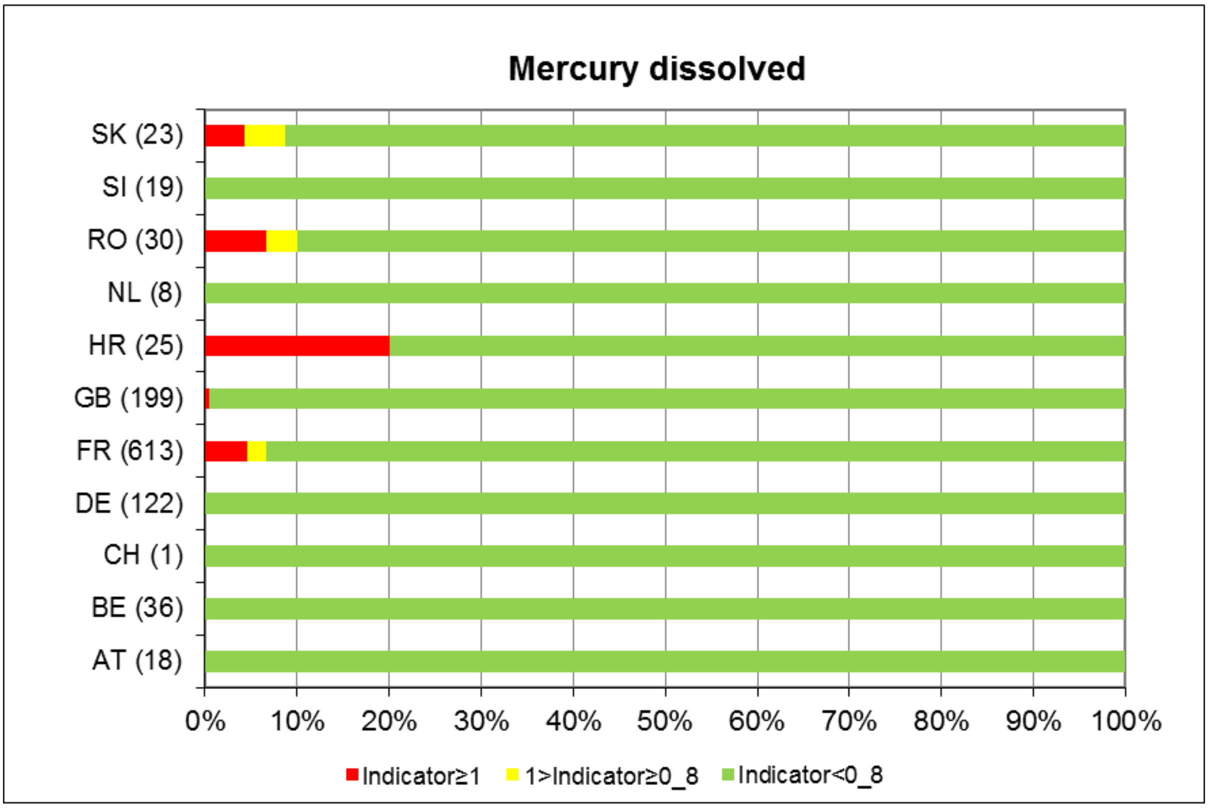


Figure 4.3.2.24c1 Map of traffic-light indicator for dissolved mercury in rivers from 2010–2011.

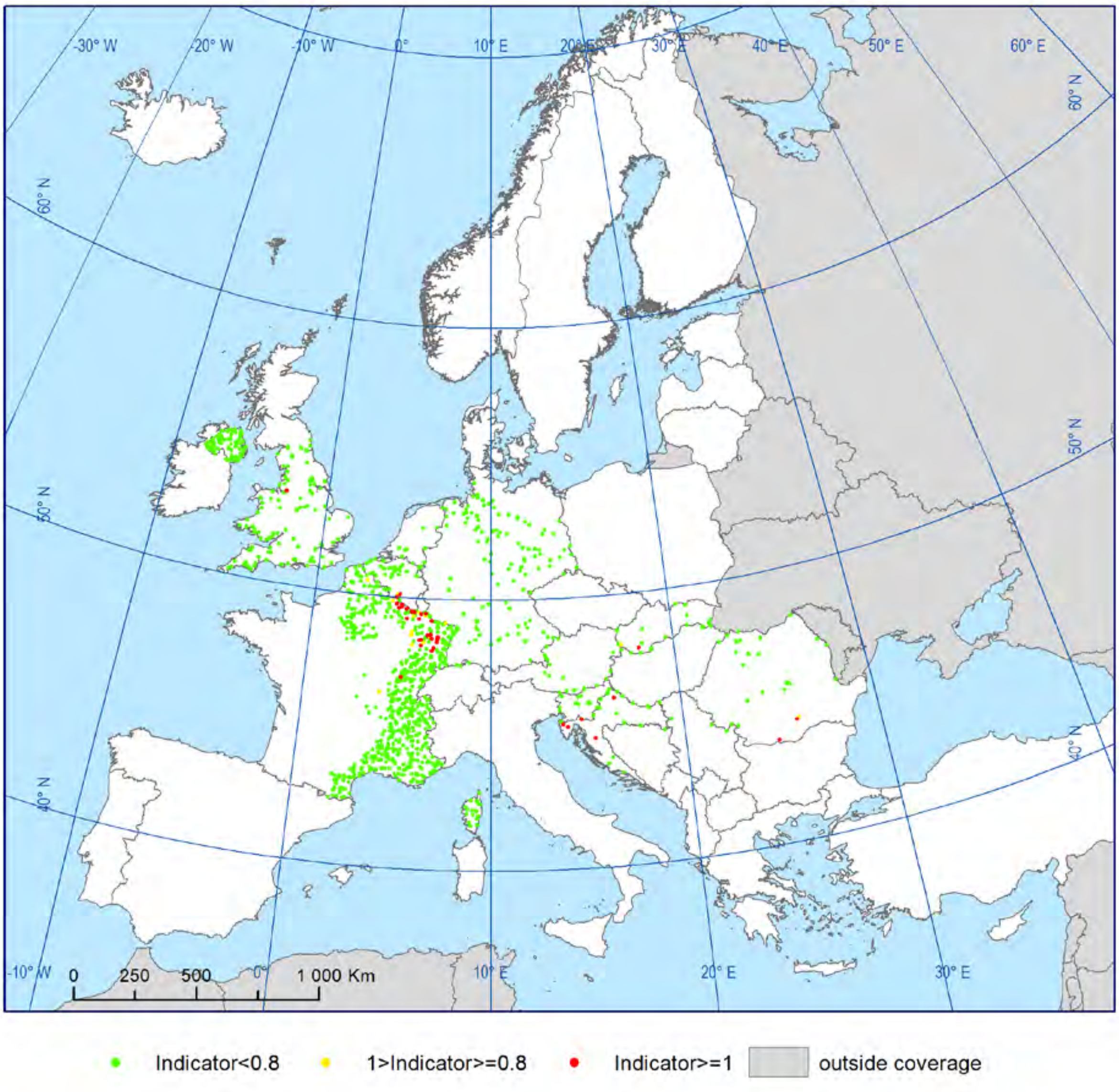


Figure 4.3.2.24d1 Box plot of data for dissolved mercury in rivers.

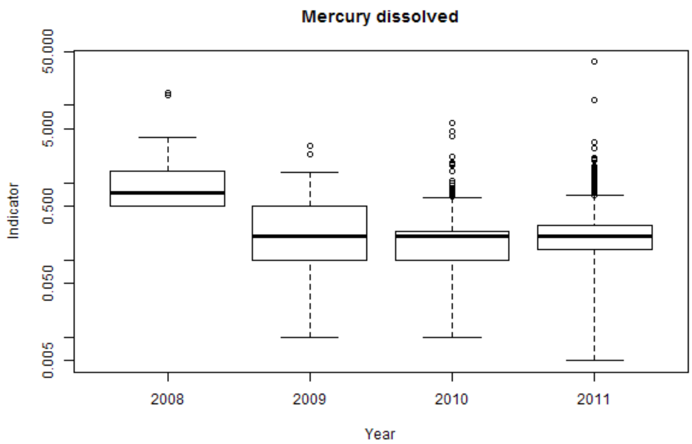


Figure 4.3.2.25a Long-term traffic-light indicator and number of stations for naphthalene in rivers.

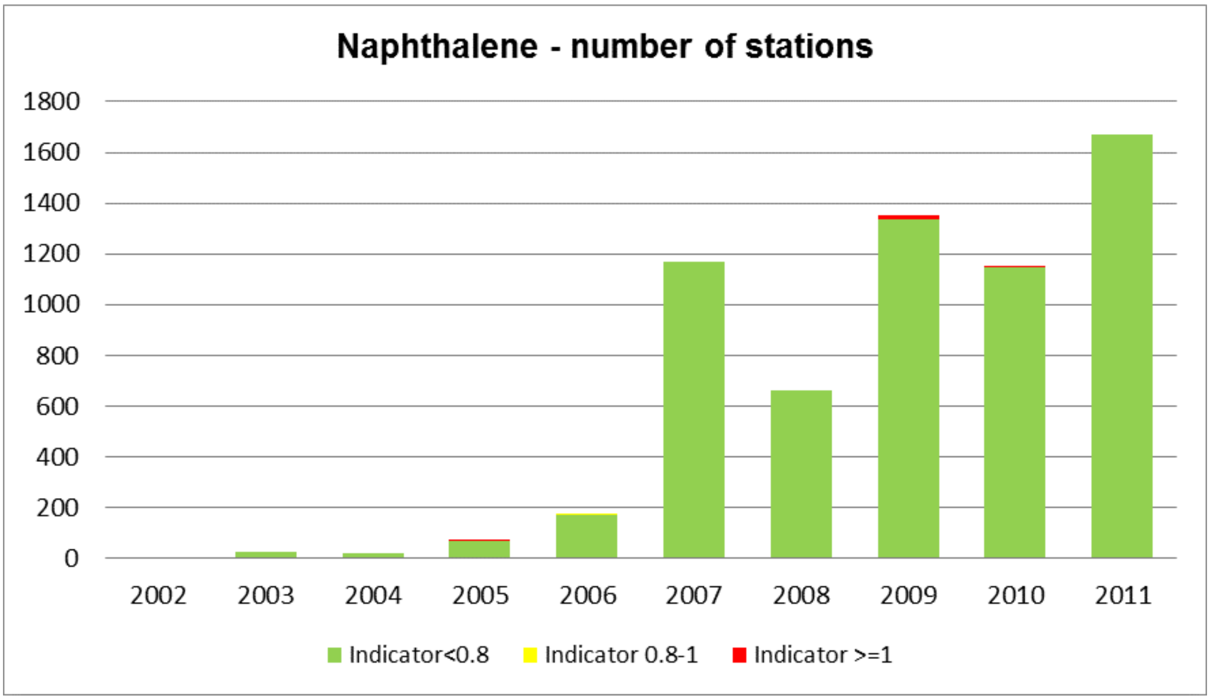


Figure 4.3.2.25b Traffic-light indicator for naphthalene in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

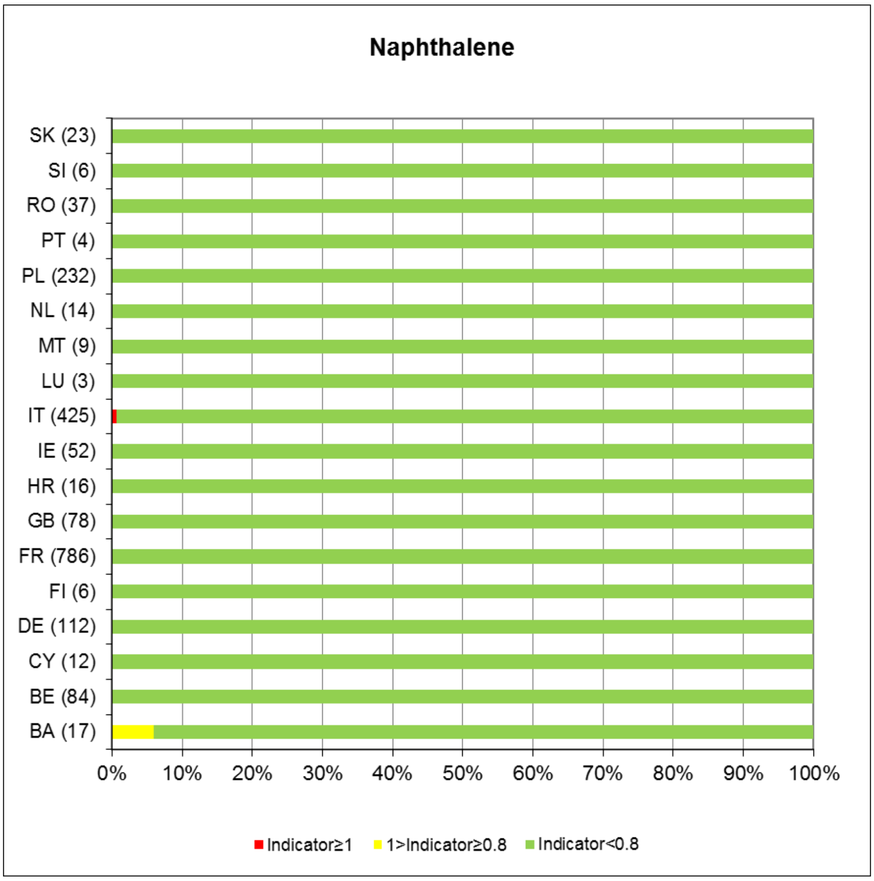


Figure 4.3.2.25c Map of traffic-light indicator for naphthalene in rivers from 2010–2011.

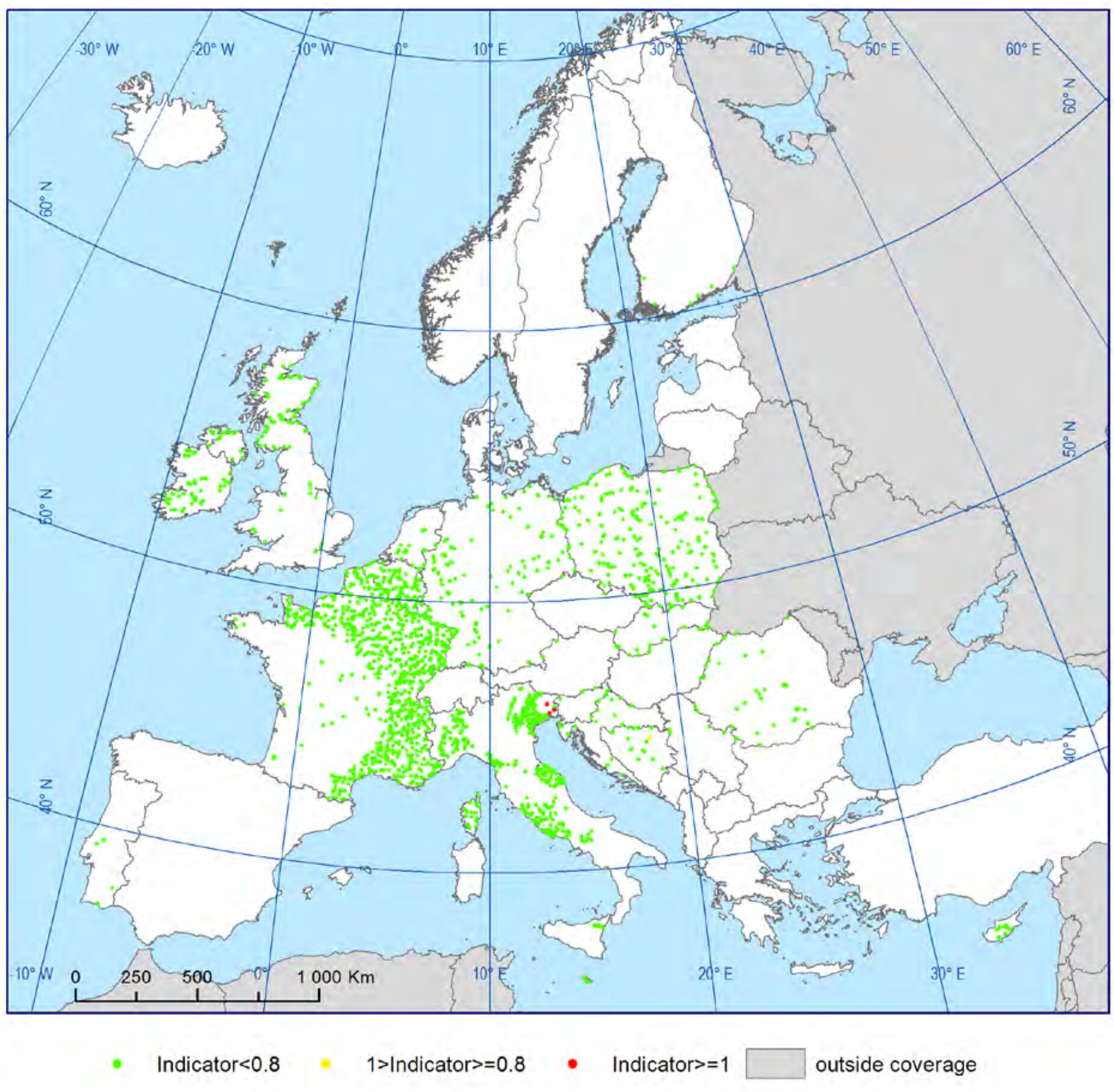


Figure 4.3.2.25d Box plot of data for naphthalene in rivers.

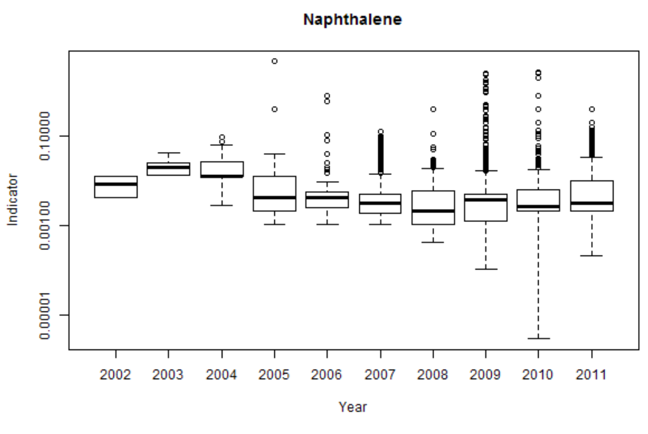


Figure 4.3.2.26a Long-term traffic-light indicator and number of stations for nickel and its compounds in rivers.

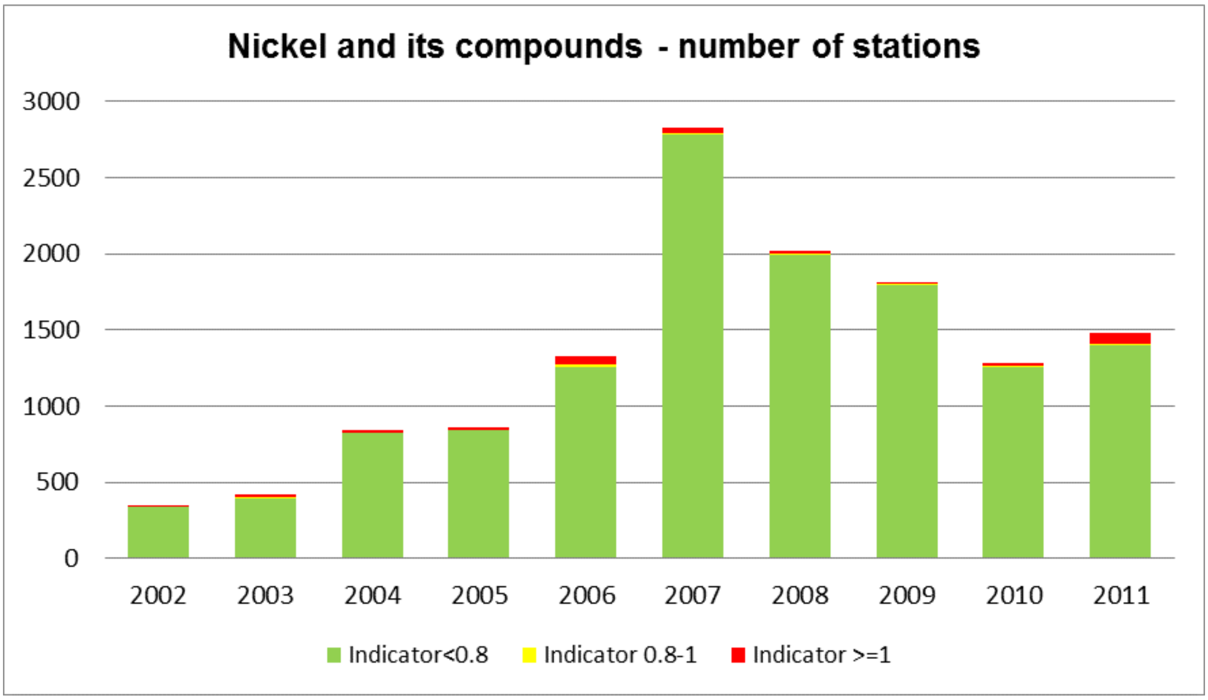


Figure 4.3.2.26b Traffic-light indicator for nickel and its compounds in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

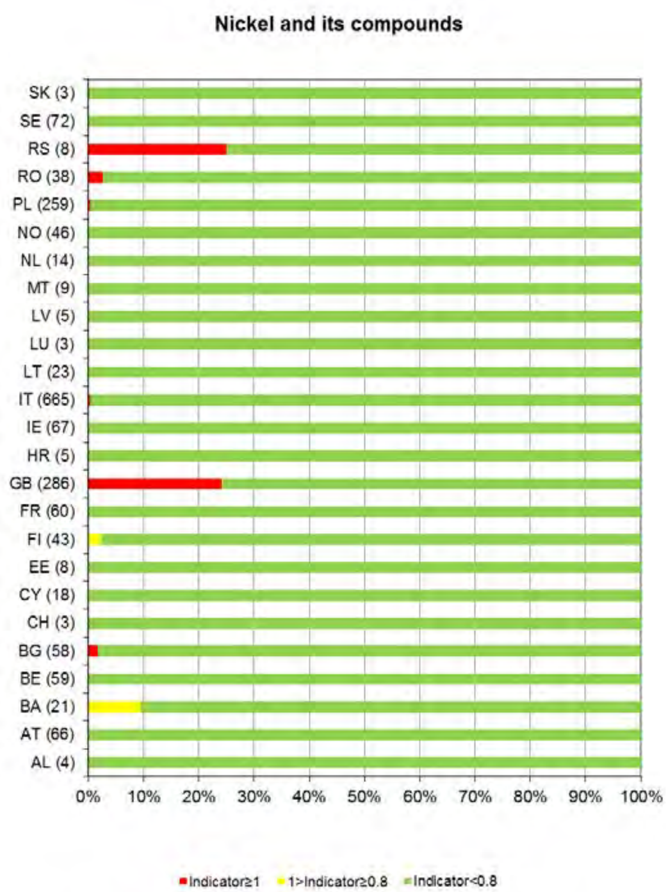


Figure 4.3.2.26c Map of traffic-light indicator for nickel and its compounds in rivers from 2010–2011.

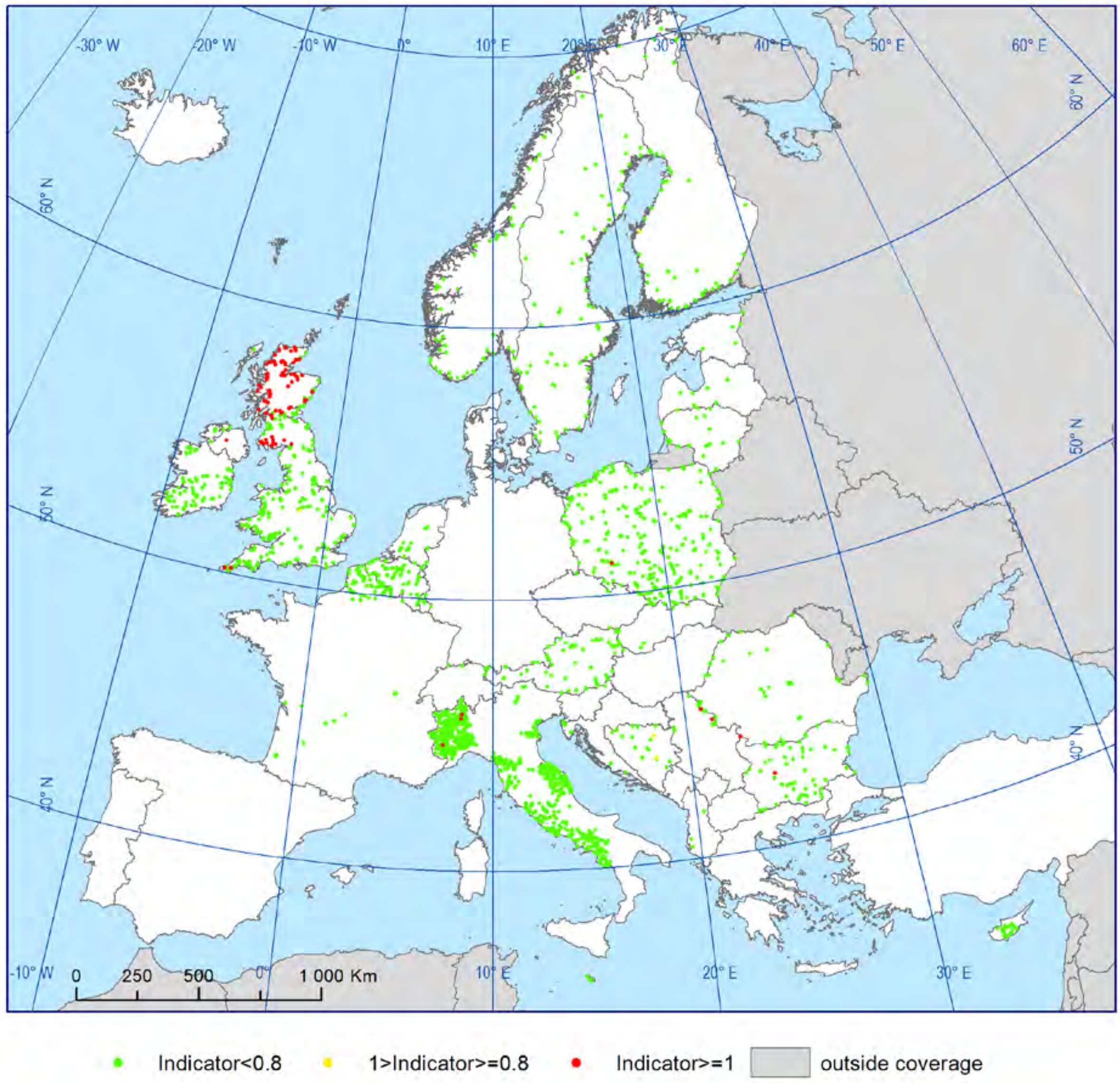


Figure 4.3.2.26d Box plot of data for nickel and its compounds in rivers from 2010–2011.

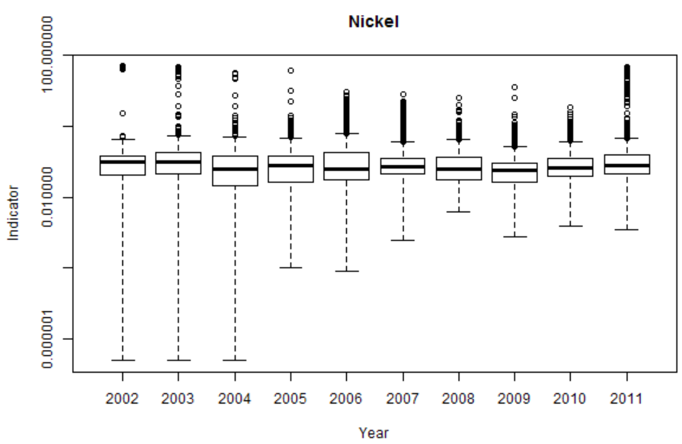


Figure 4.3.2.26a1 Long-term traffic-light indicator and number of stations for dissolved nickel in rivers.

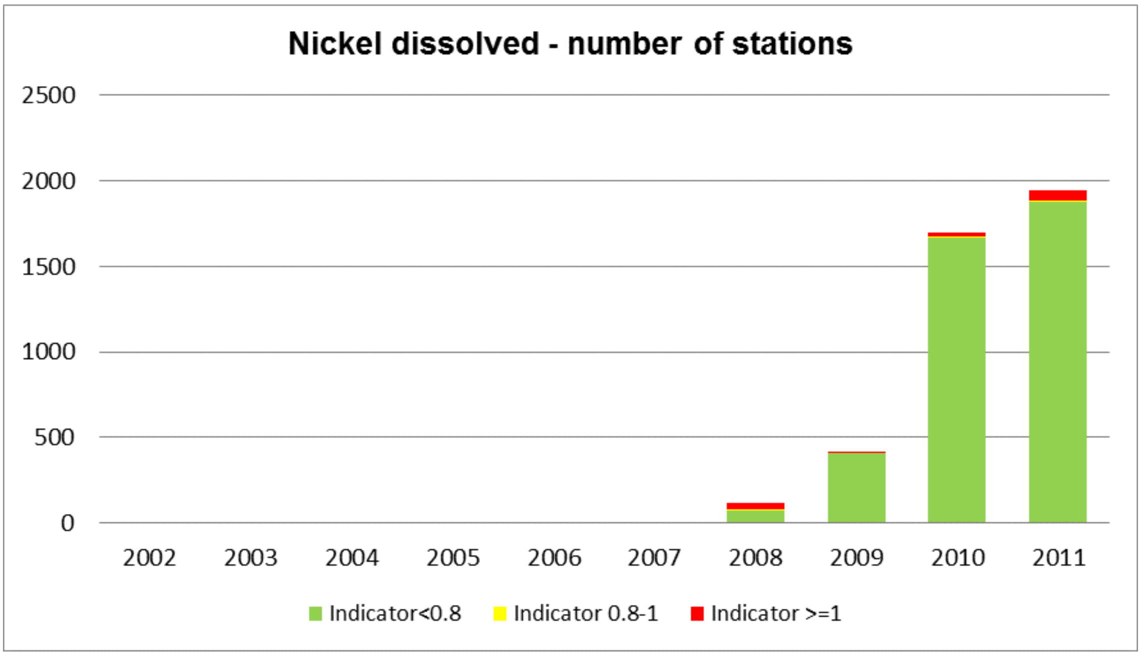


Figure 4.3.2.26b1 Traffic-light indicator for dissolved nickel in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

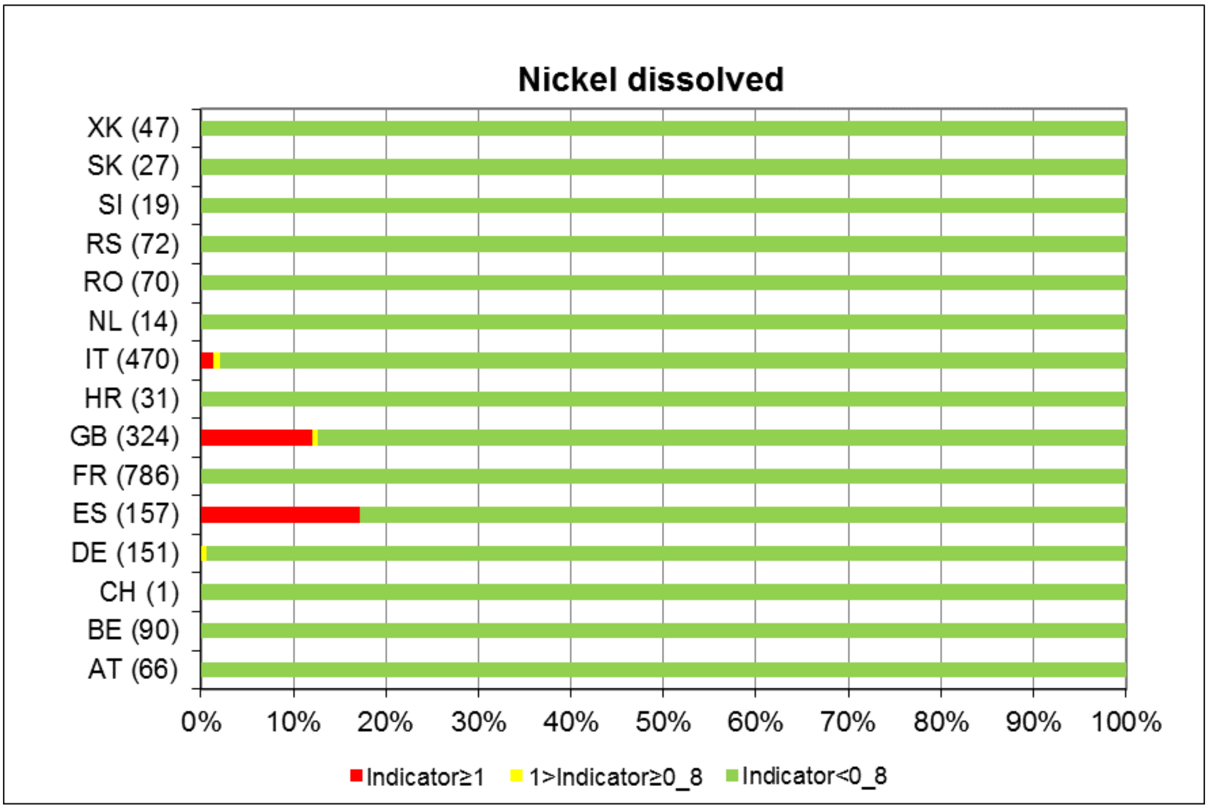


Figure 4.3.2.26c1 Map of traffic-light indicator for dissolved nickel in rivers from 2010–2011.

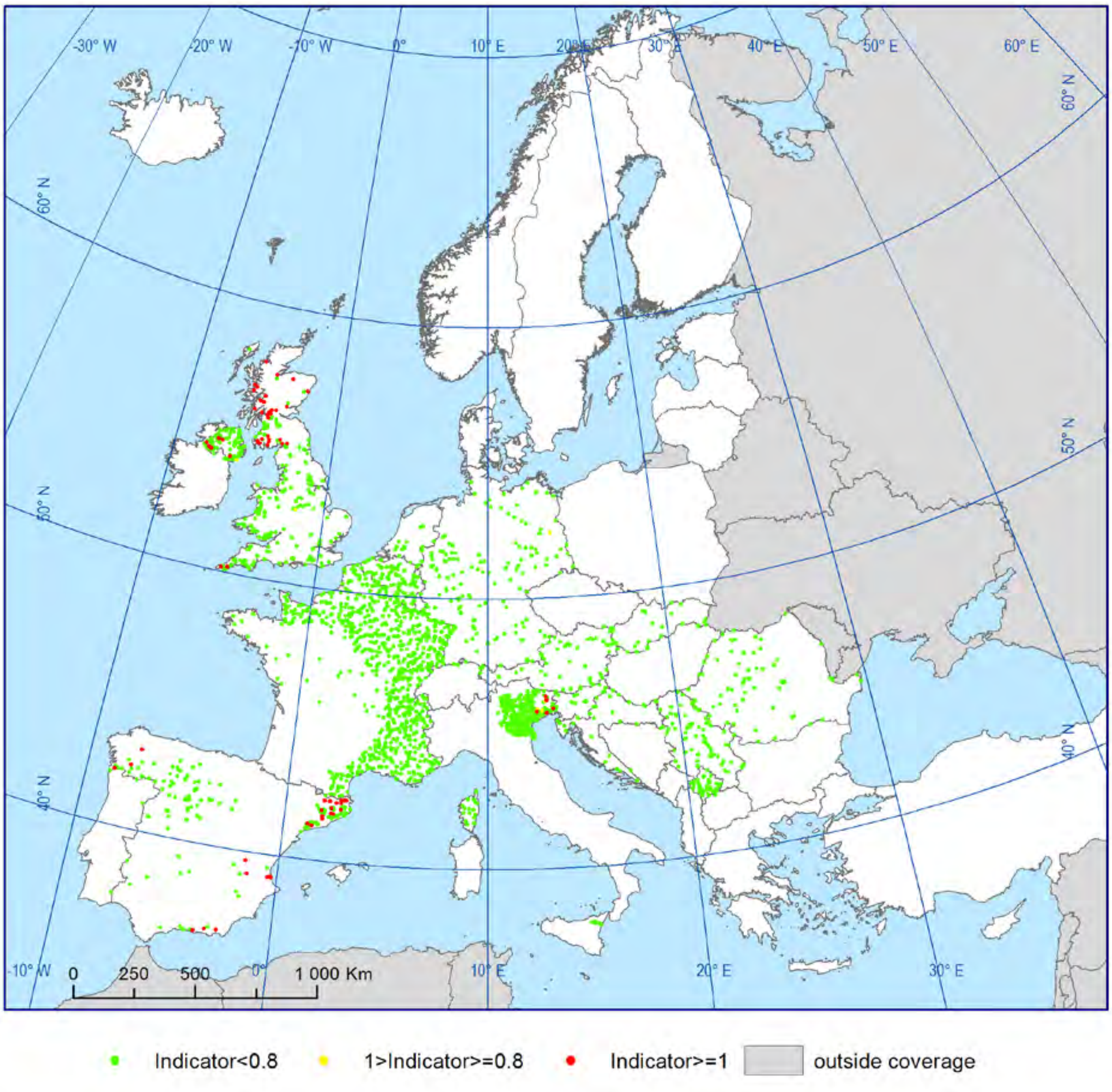


Figure 4.3.2.26d Box plot of data for dissolved nickel in rivers.

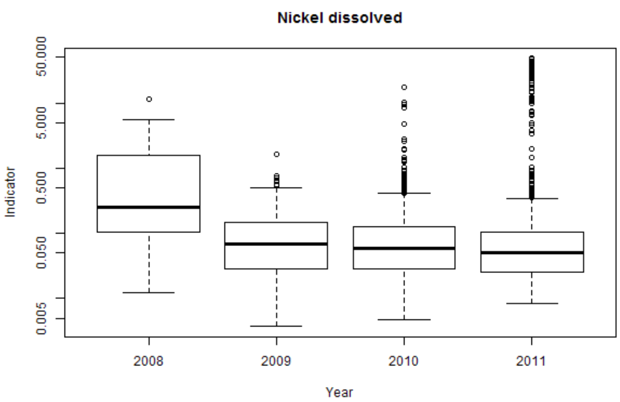


Figure 4.3.2.27a Long-term traffic-light indicator and number of stations for para-tert-octylphenol in rivers.

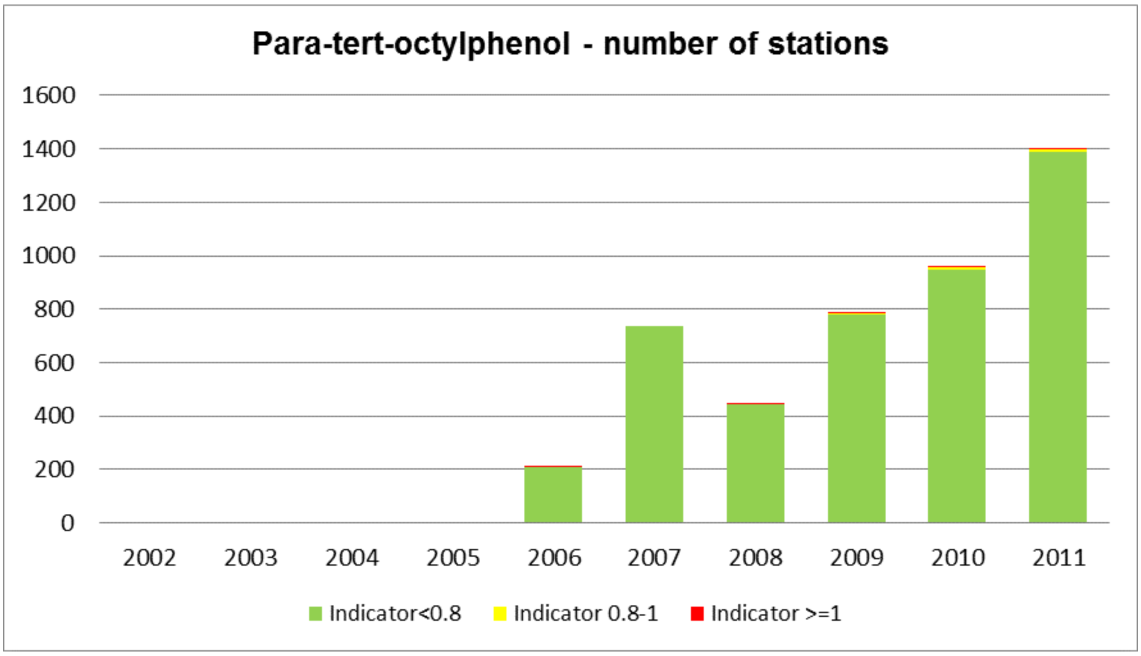


Figure 4.3.2.27b Traffic-light indicator for para-tert-octylphenol in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

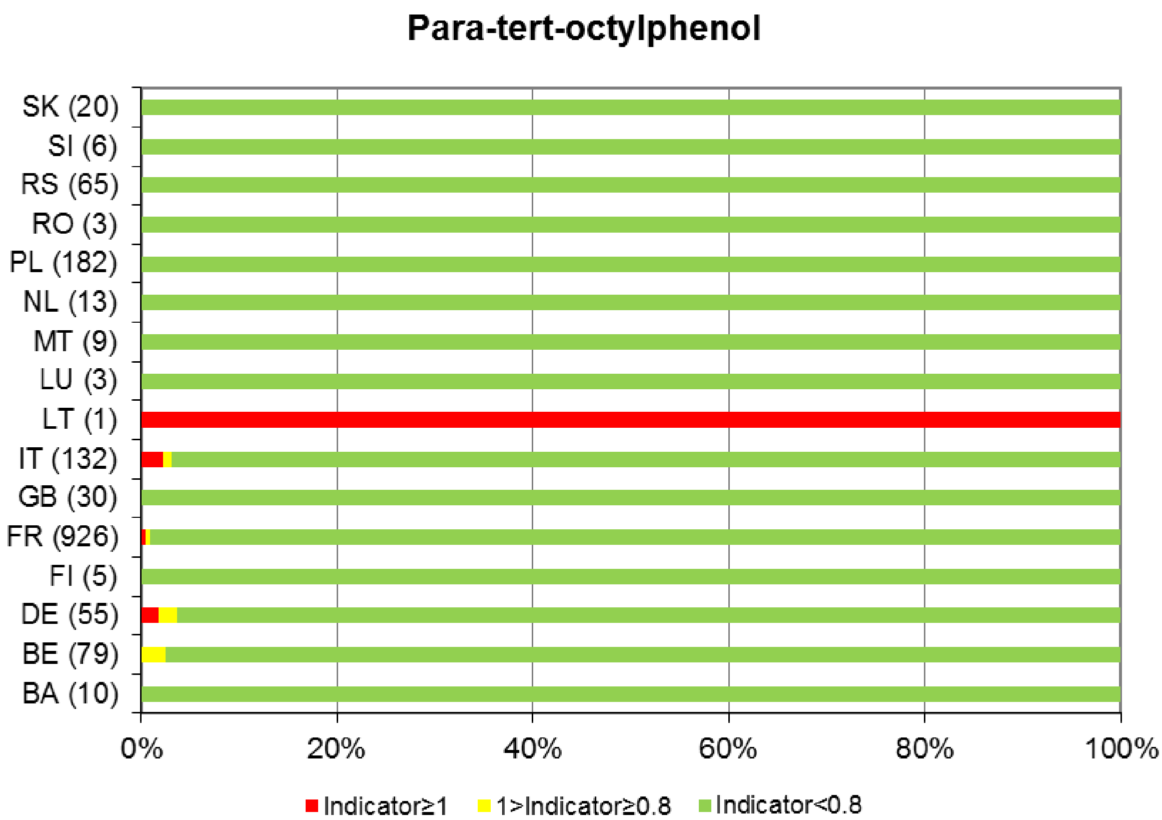


Figure 4.3.2.27c Map of traffic-light indicator for para-tert-octylphenol in rivers from 2010–2011.

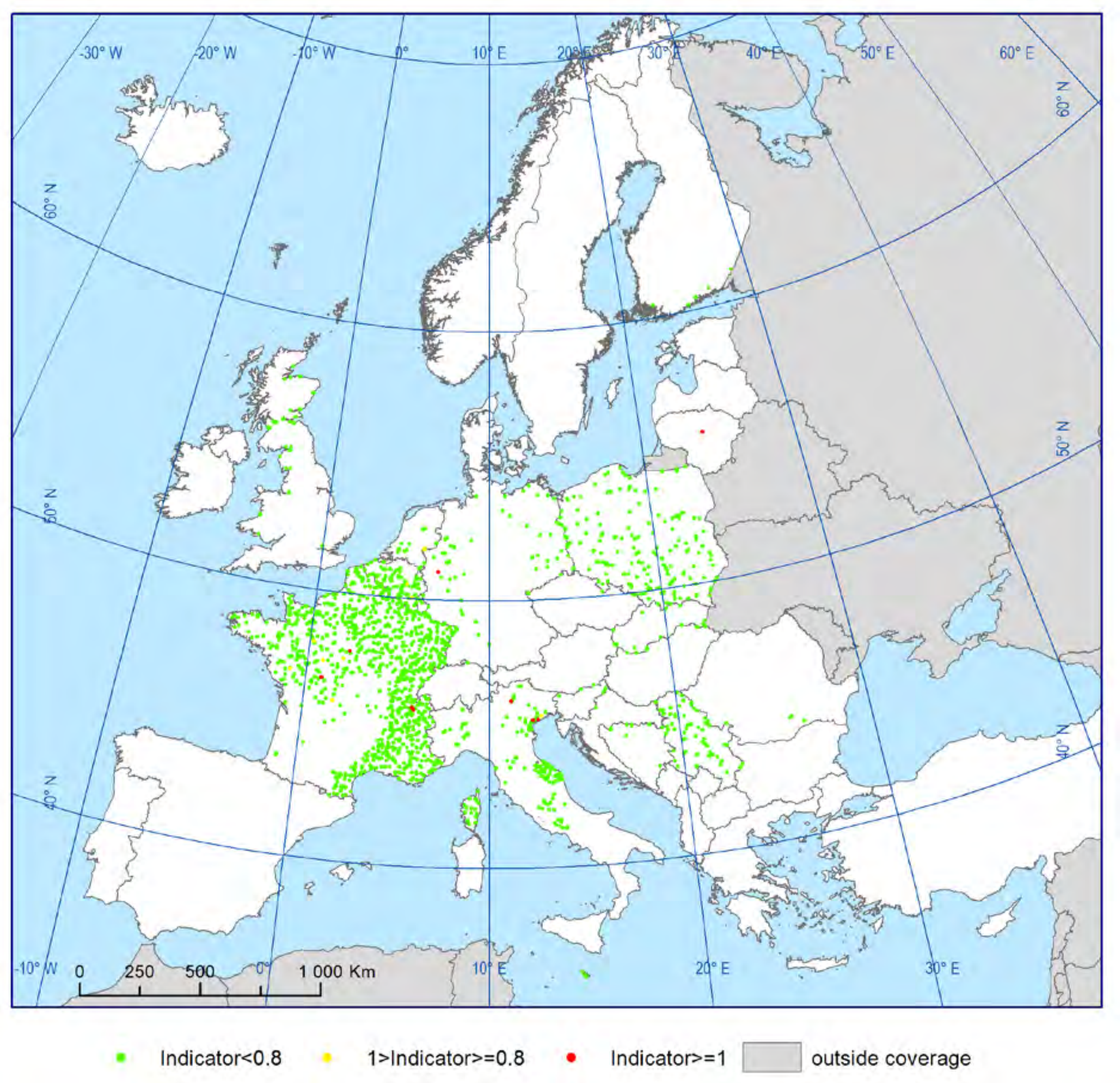


Figure 4.3.2.27d Box plot of data for para-tert-octylphenol in rivers.

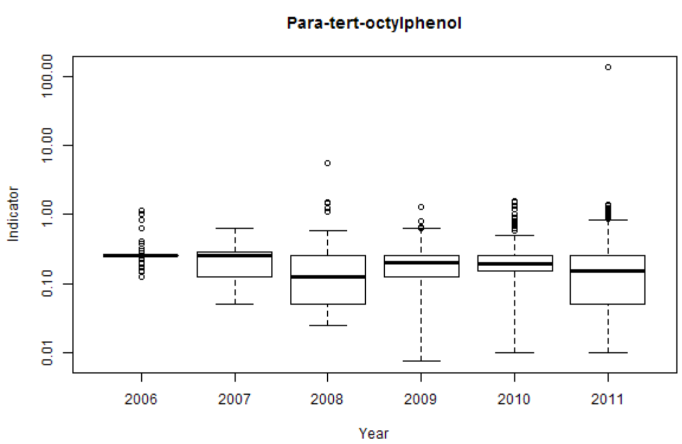


Figure 4.3.2.28a Long-term traffic-light indicator and number of stations for pentachlorobenzene in rivers.

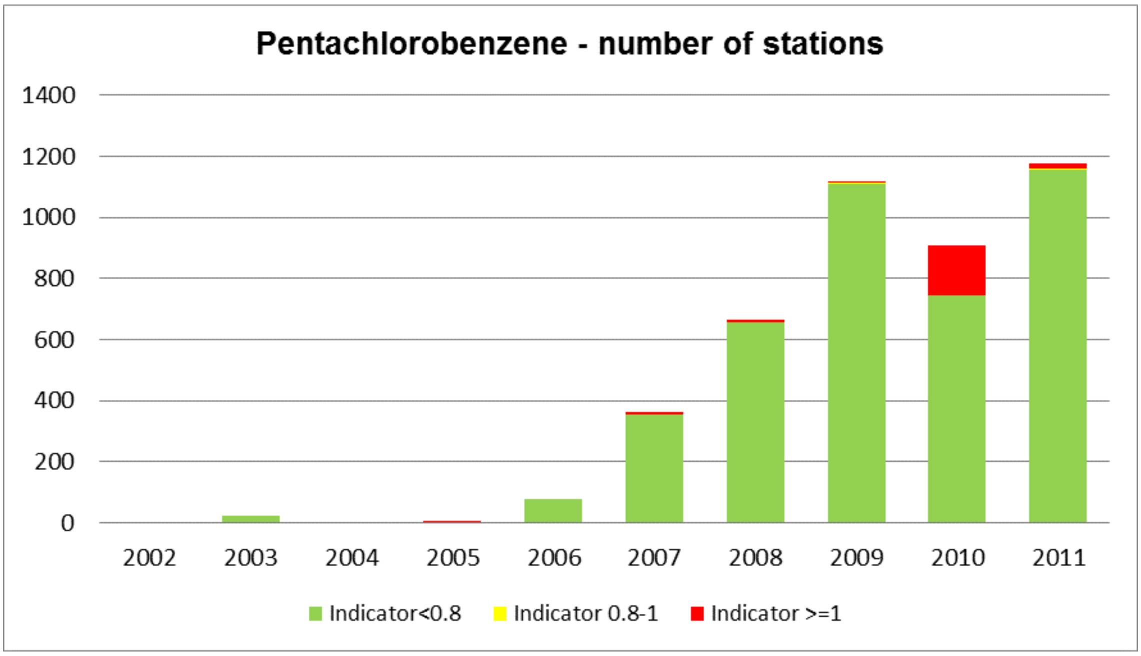


Figure 4.3.2.28b Traffic-light indicator for pentachlorobenzene in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

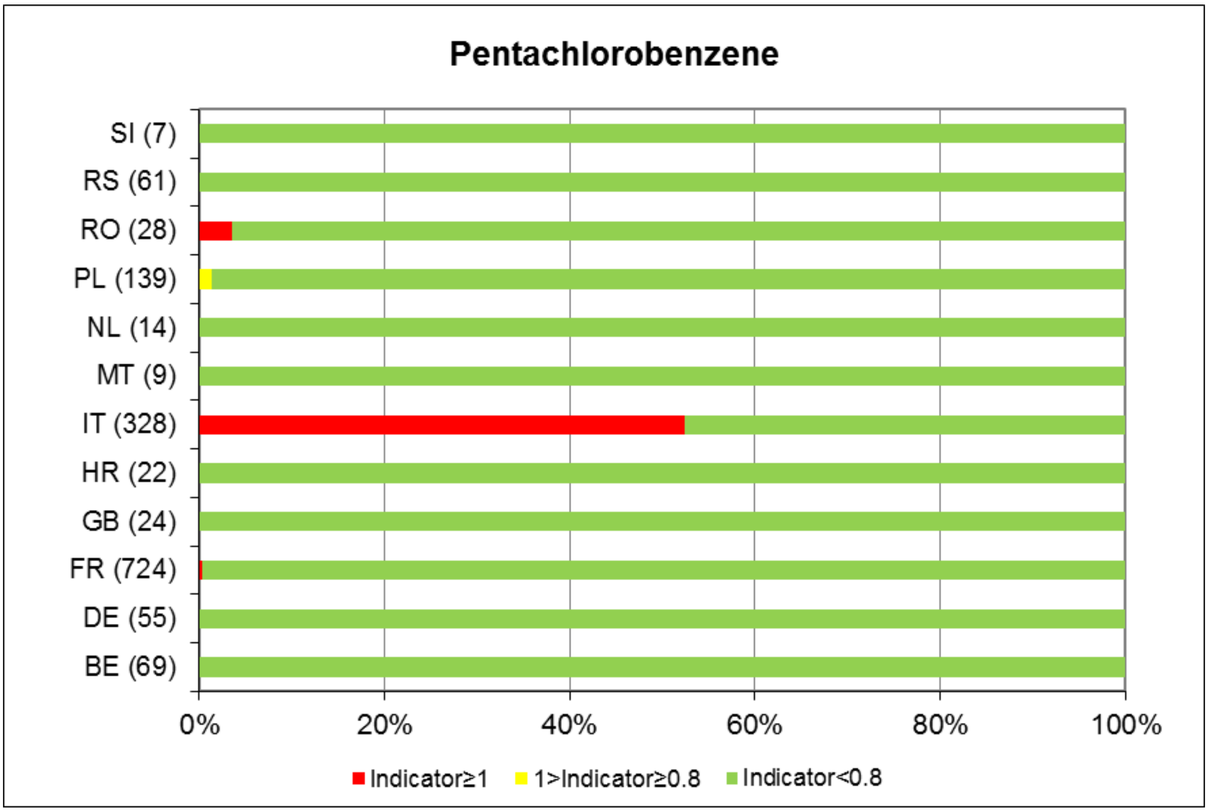


Figure 4.3.2.28c Map of traffic-light indicator for pentachlorobenzene in rivers from 2010–2011.

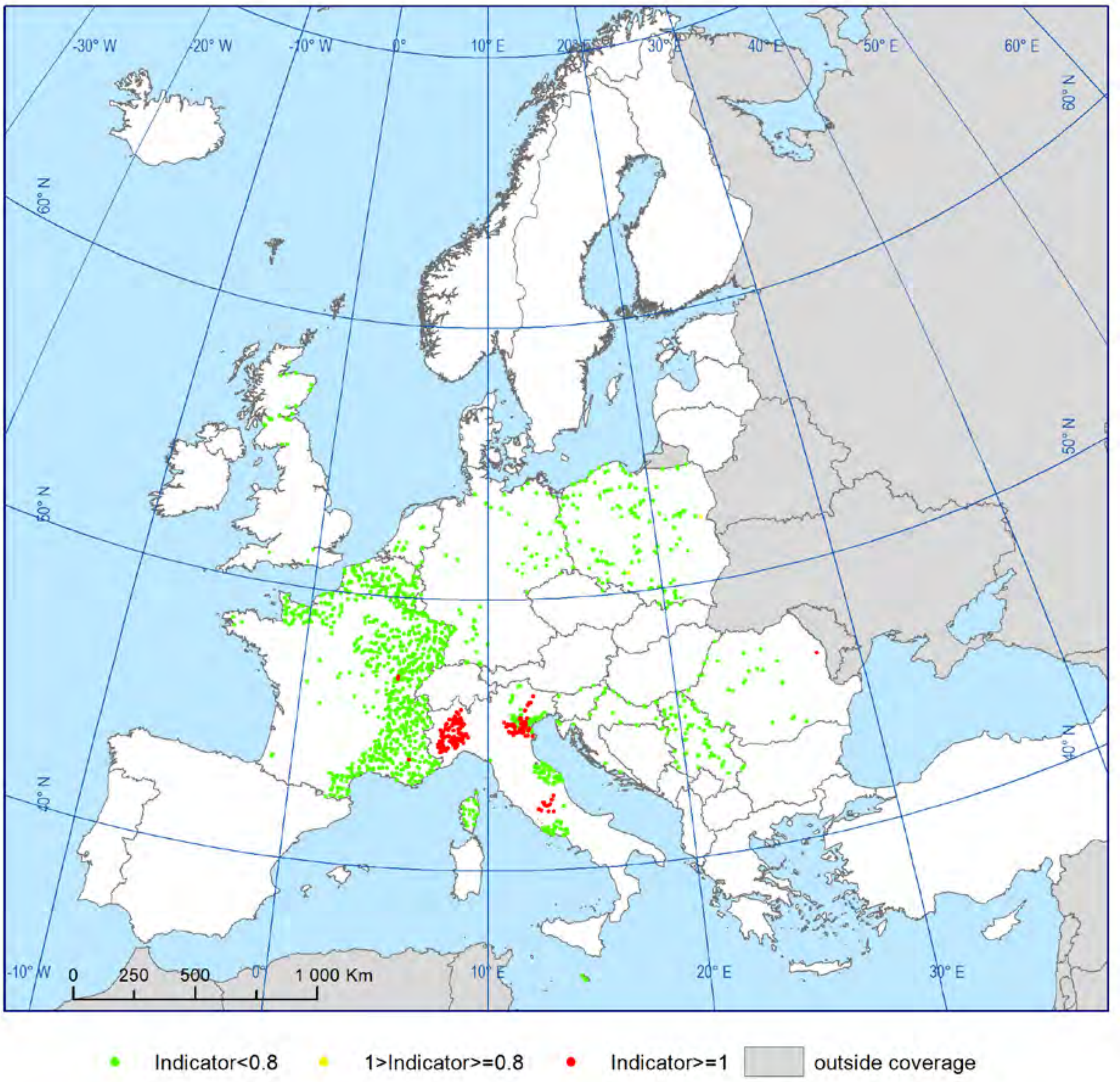


Figure 4.3.2.28d Box plot of data for pentachlorobenzene in rivers.

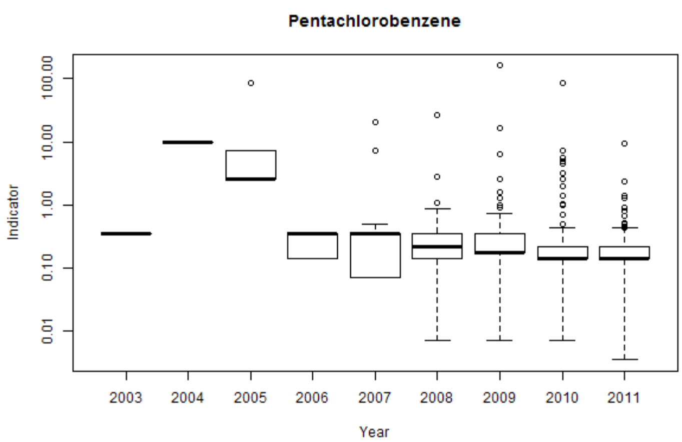


Figure 4.3.2.29a Long-term traffic-light indicator and number of stations for pentachlorophenol in rivers.

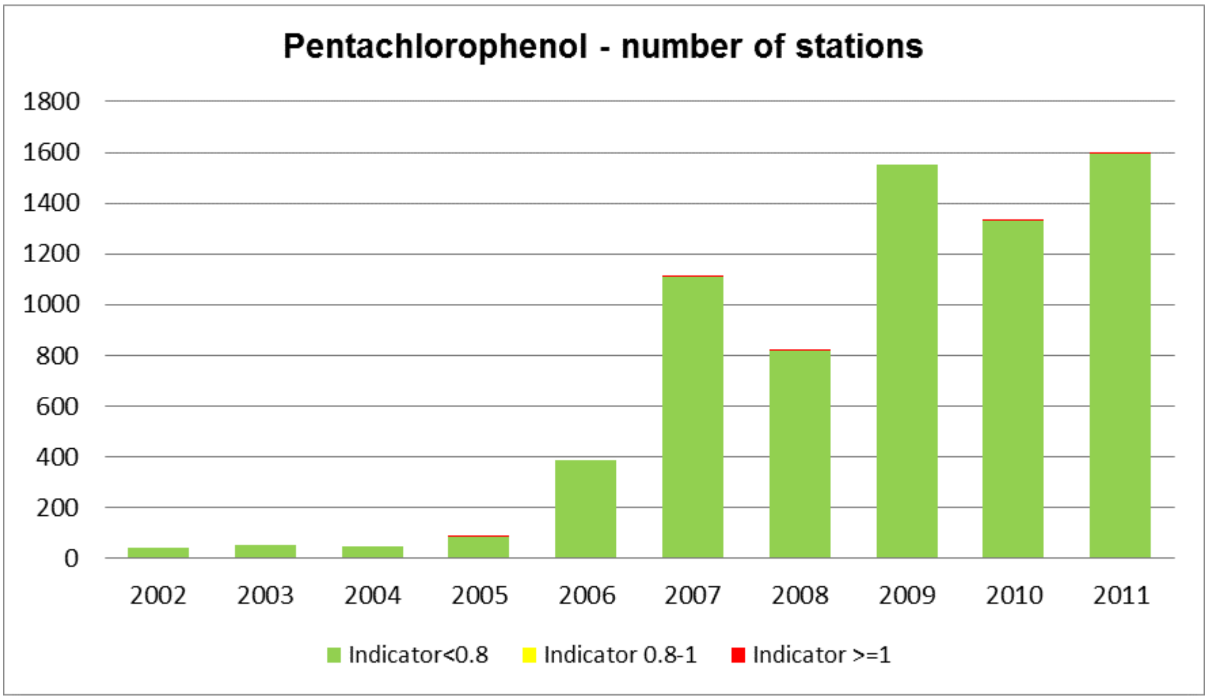


Figure 4.3.2.29b Traffic-light indicator for pentachlorophenol in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

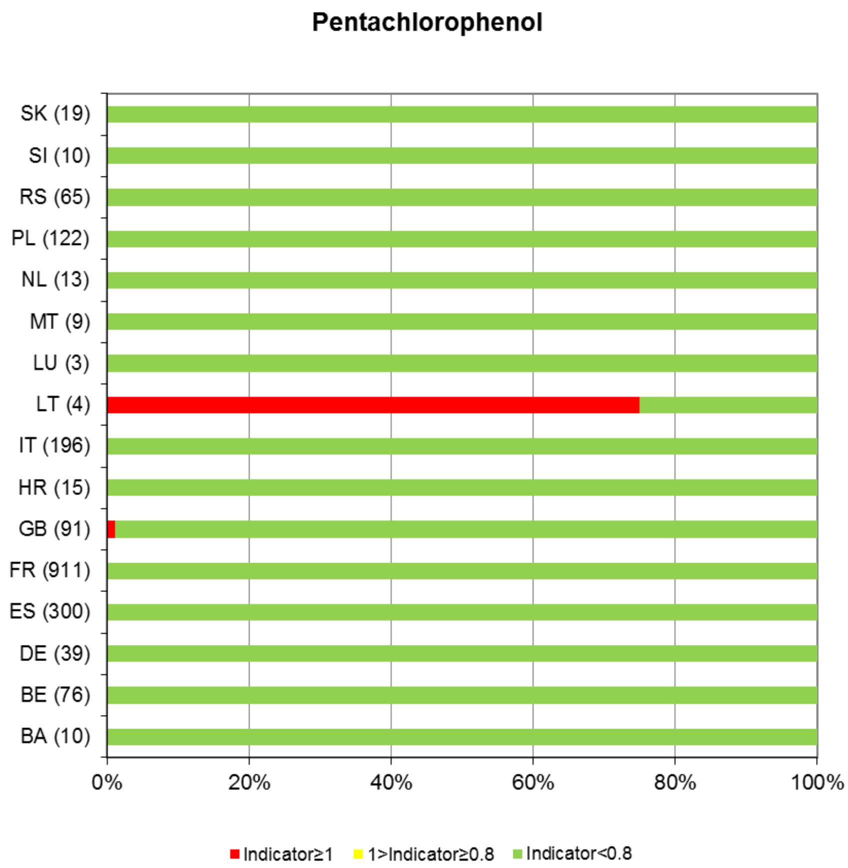


Figure 4.3.2.29c Map of traffic-light indicator for pentachlorophenol in rivers from 2010–2011.

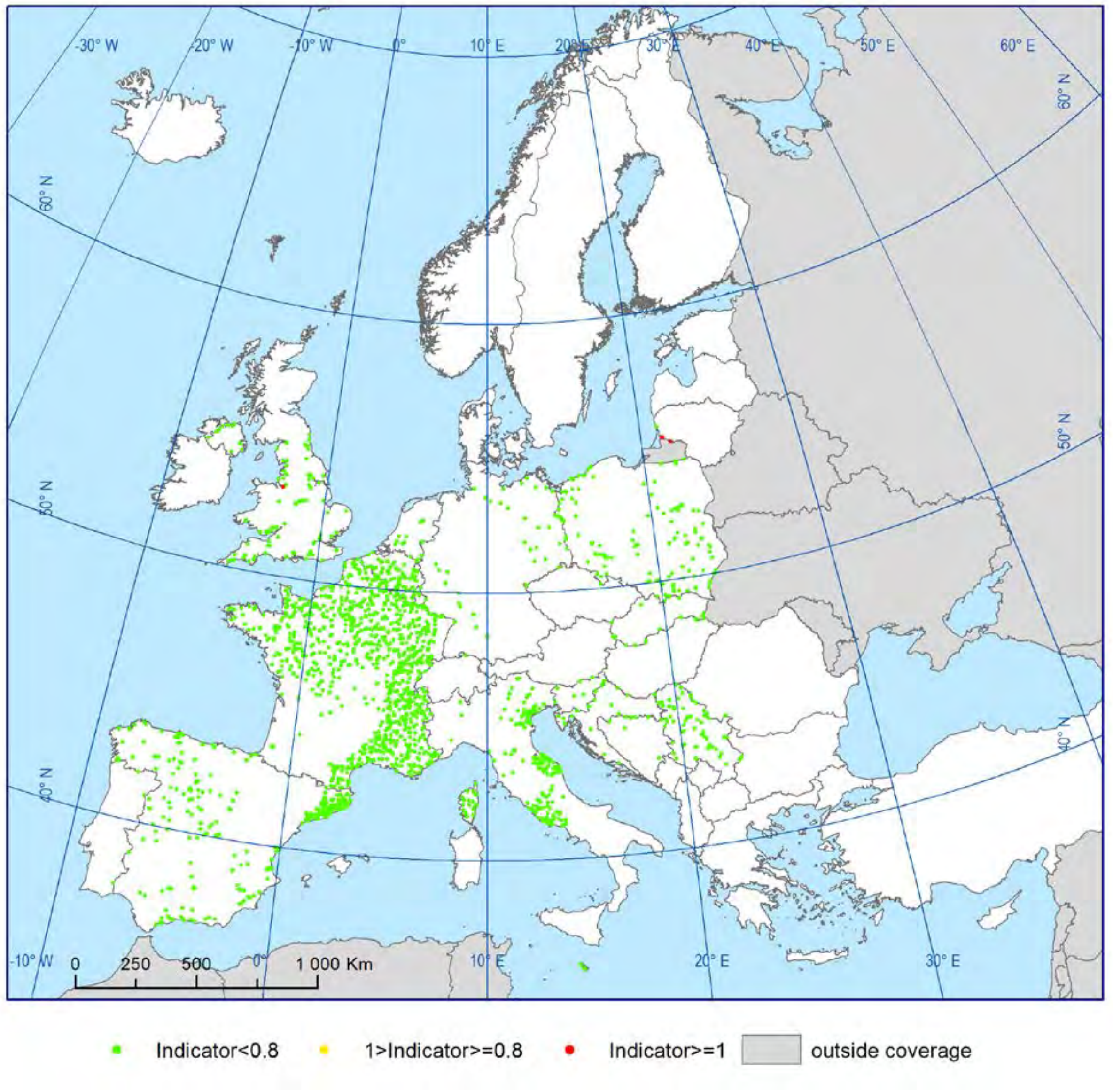


Figure 4.3.2.29d Box plot of data for pentachlorophenol in rivers.

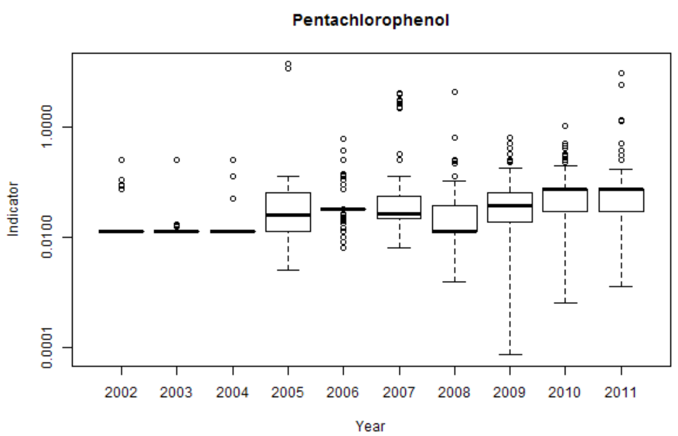


Figure 4.3.2.30a Long-term traffic-light indicator and number of stations for benzo(a)pyrene in rivers.

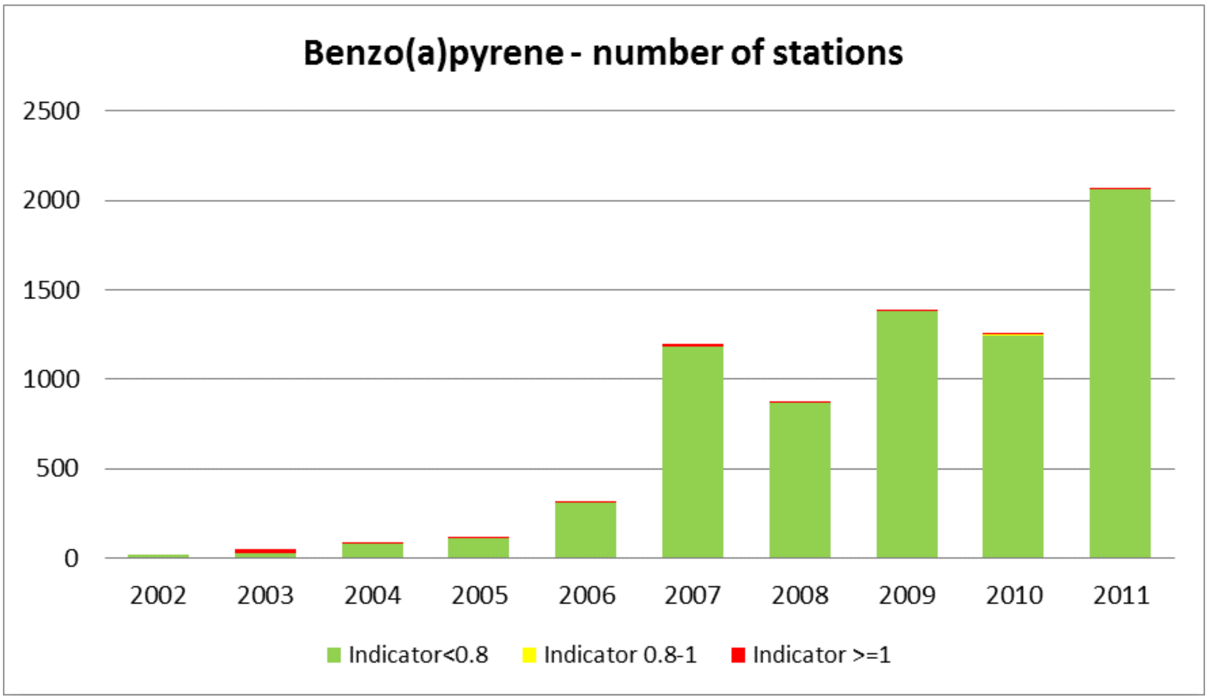


Figure 4.3.2.30b Traffic-light indicator for benzo(a)pyrene in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

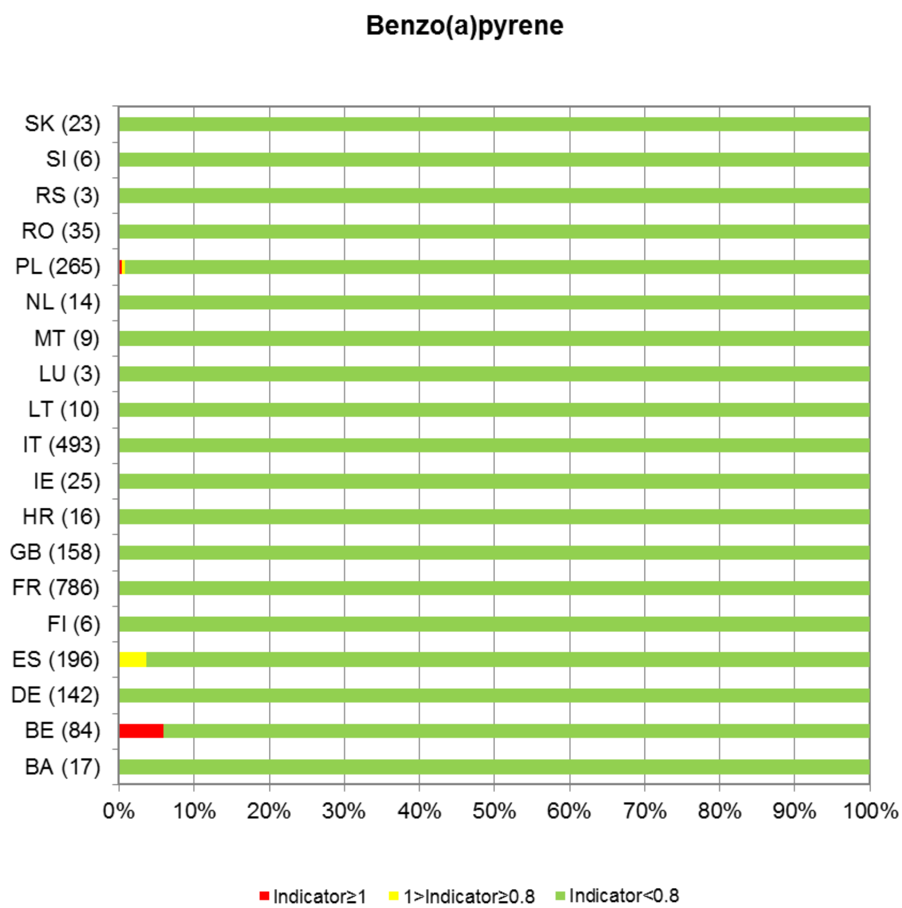


Figure 4.3.2.30c Map of traffic-light indicator for benzo(a)pyrene in rivers from 2010–2011.

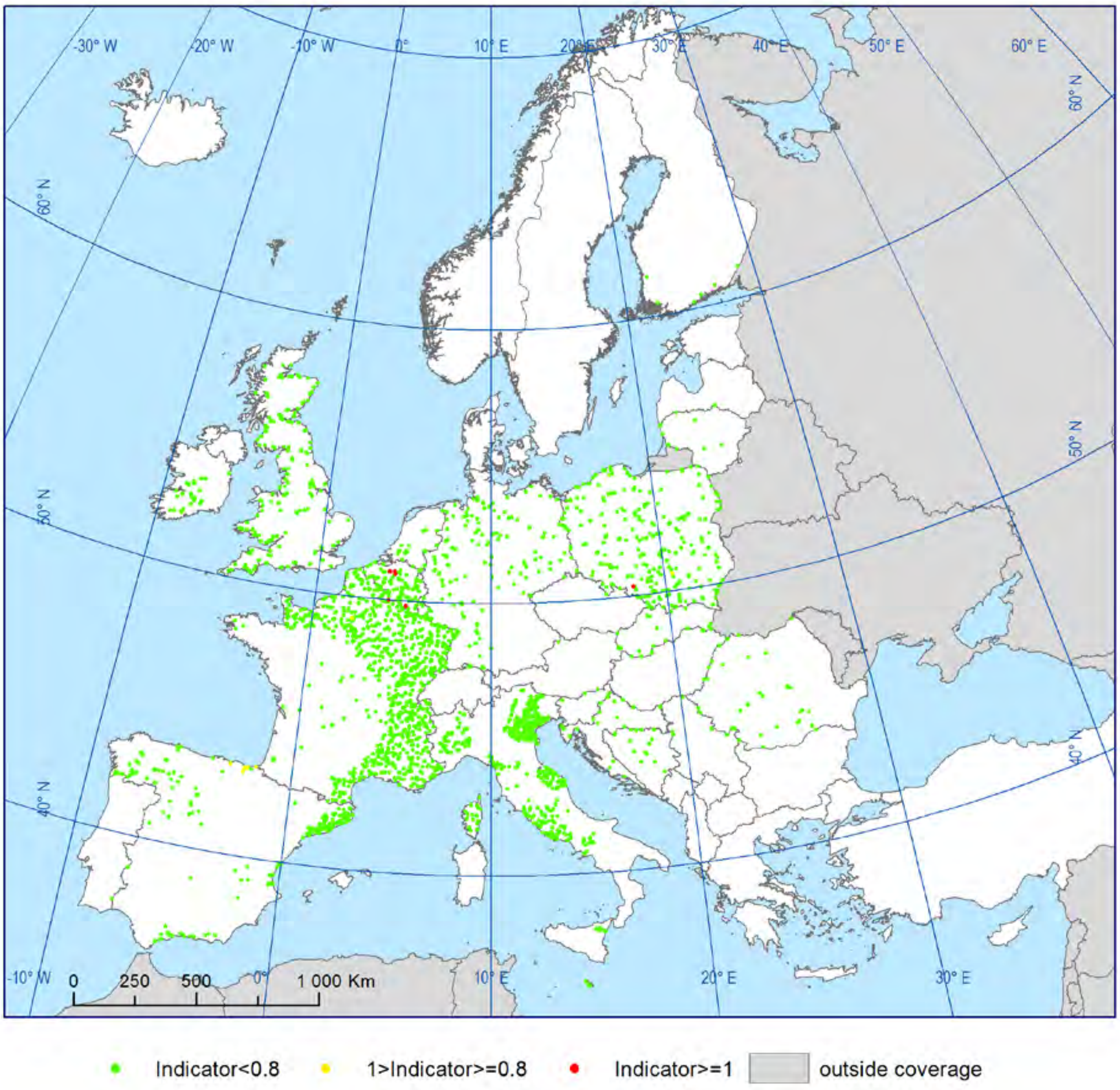


Figure 4.3.2.30d Box plot of data for benzo(a)pyrene in rivers.

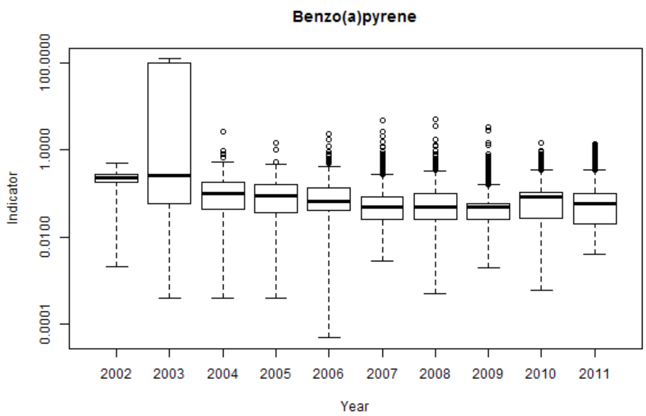


Figure 4.3.2.31a Long-term traffic-light indicator and number of stations for sum of benzo(b)fluoranthene and benzo(k)fluoranthene in rivers.

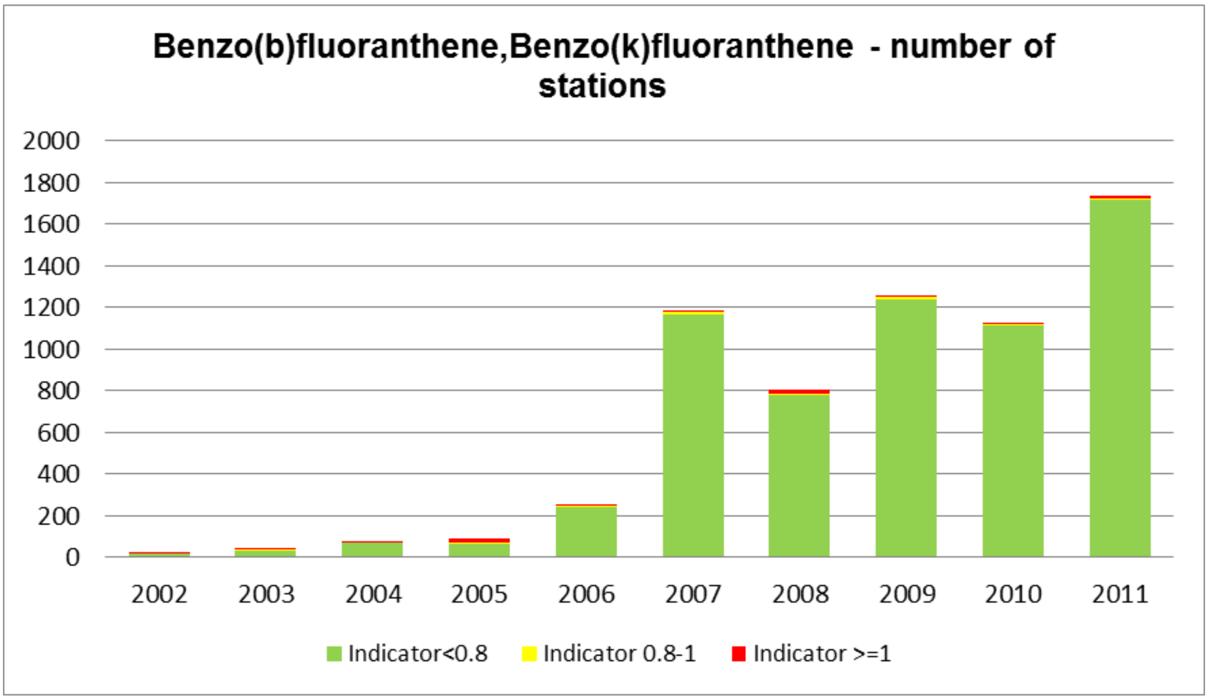


Figure 4.3.2.31b Traffic-light indicator for sum of benzo(b)fluoranthene and benzo(k)fluoranthene in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

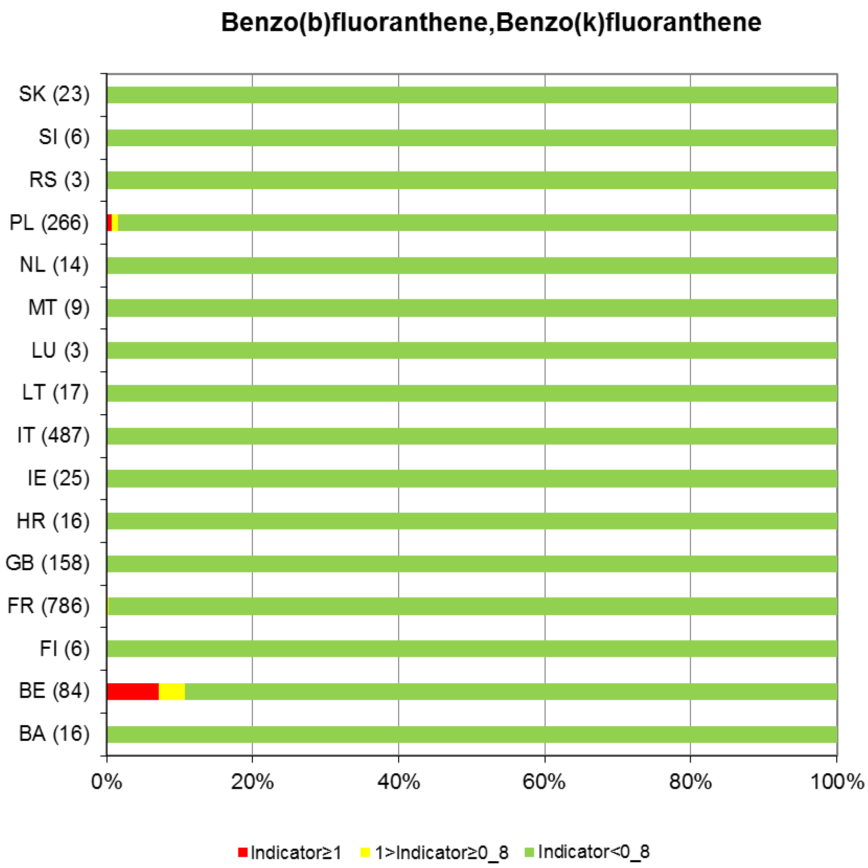


Figure 4.3.2.31c Map of traffic-light indicator for sum of benzo(b)fluoranthene and benzo(k)fluoranthene in rivers from 2010–2011.

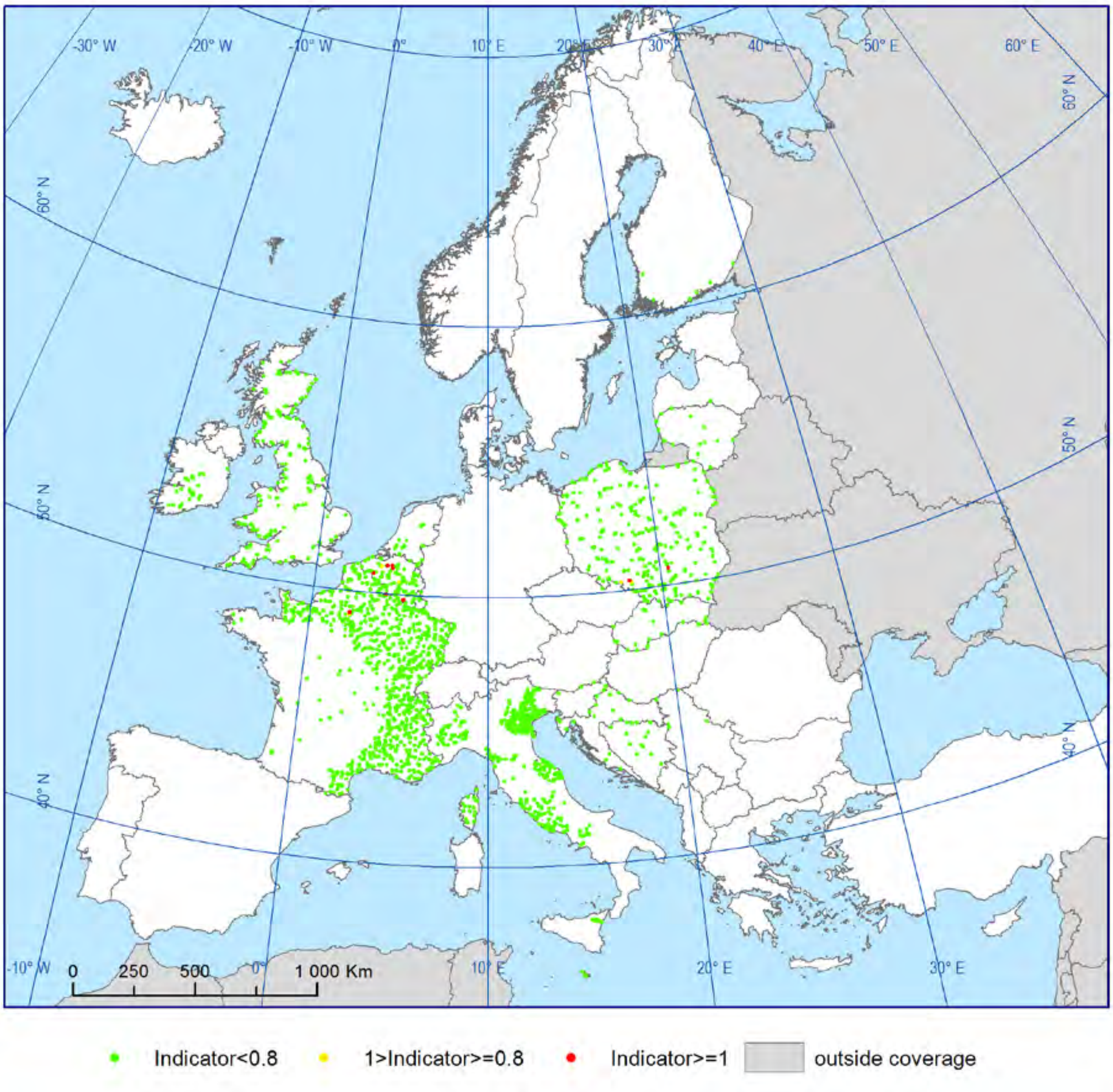


Figure 4.3.2.31d Box plot of data for sum of benzo(b)fluoranthene and benzo(k)fluoranthene in rivers.

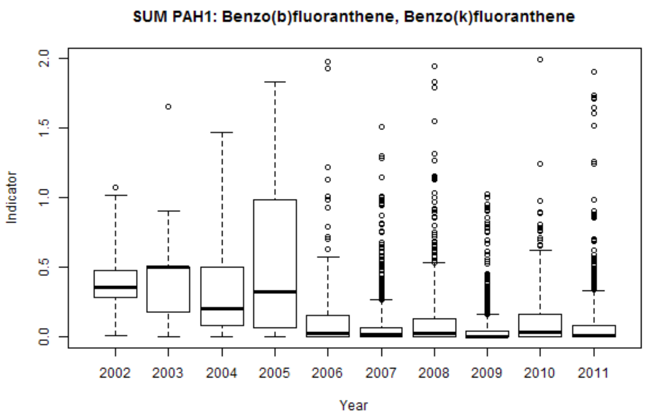


Figure 4.3.2.32a Long-term traffic-light indicator and number of stations for sum of benzo(g,h,i)-perylene and indeno(1,2,3-cd)-pyrene in rivers.

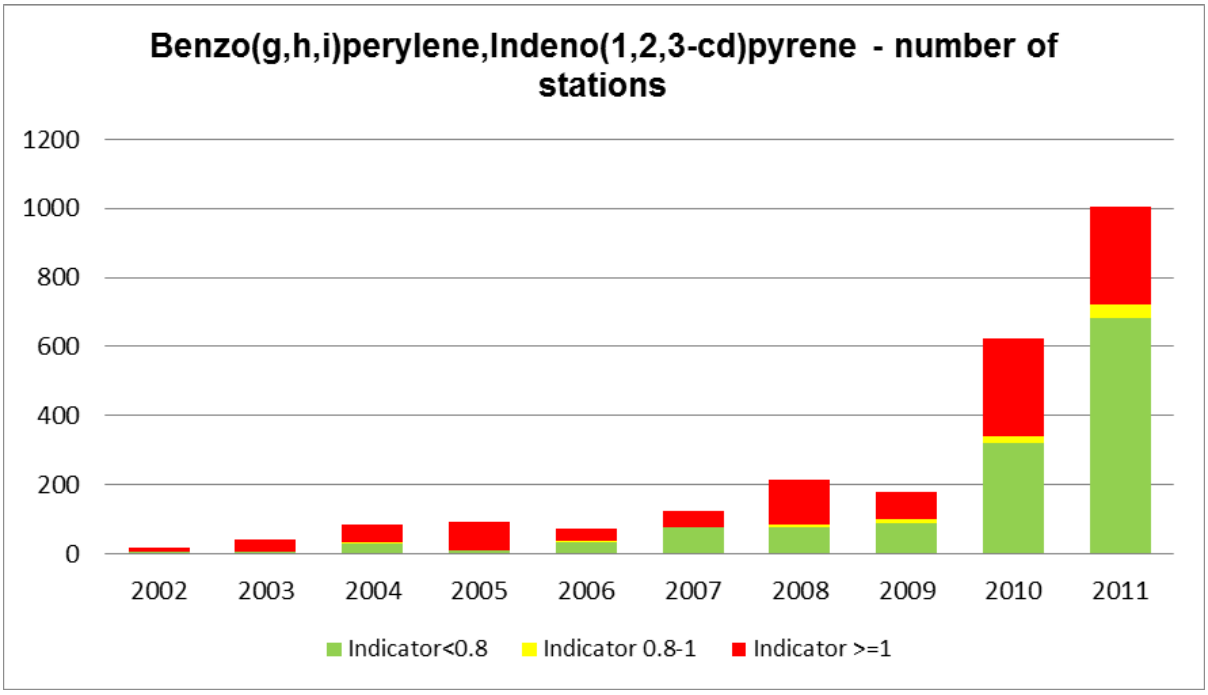


Figure 4.3.2.32b Traffic-light indicator for sum of benzo(g,h,i)-perylene and indeno(1,2,3-cd)-pyrene in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

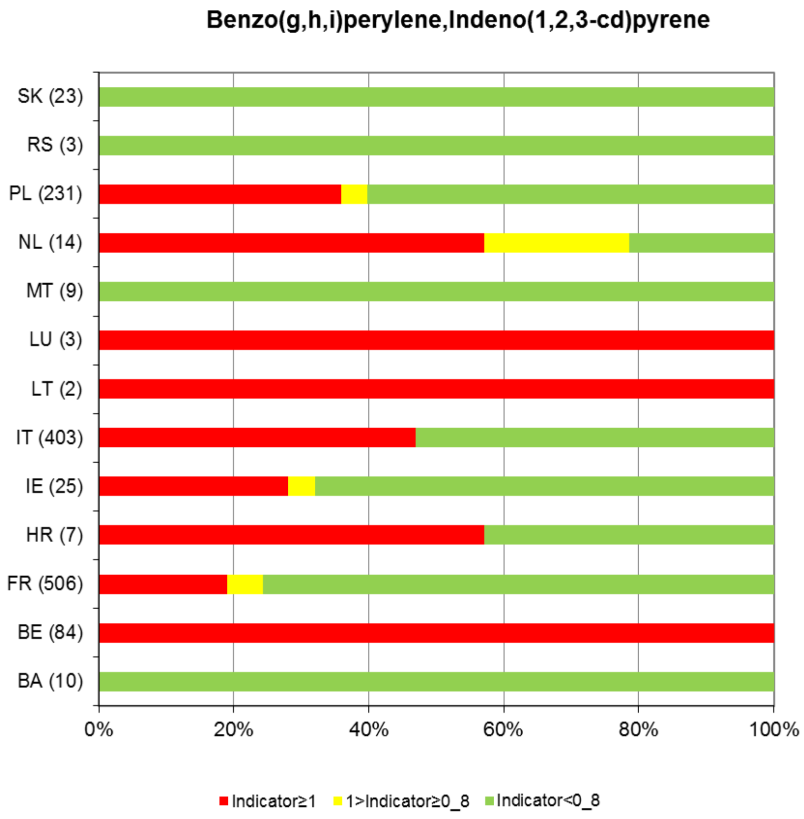


Figure 4.3.2.32c Map of traffic-light indicator for sum of benzo(g,h,i)-perylene and indeno(1,2,3-cd)-pyrene in rivers from 2010–2011.

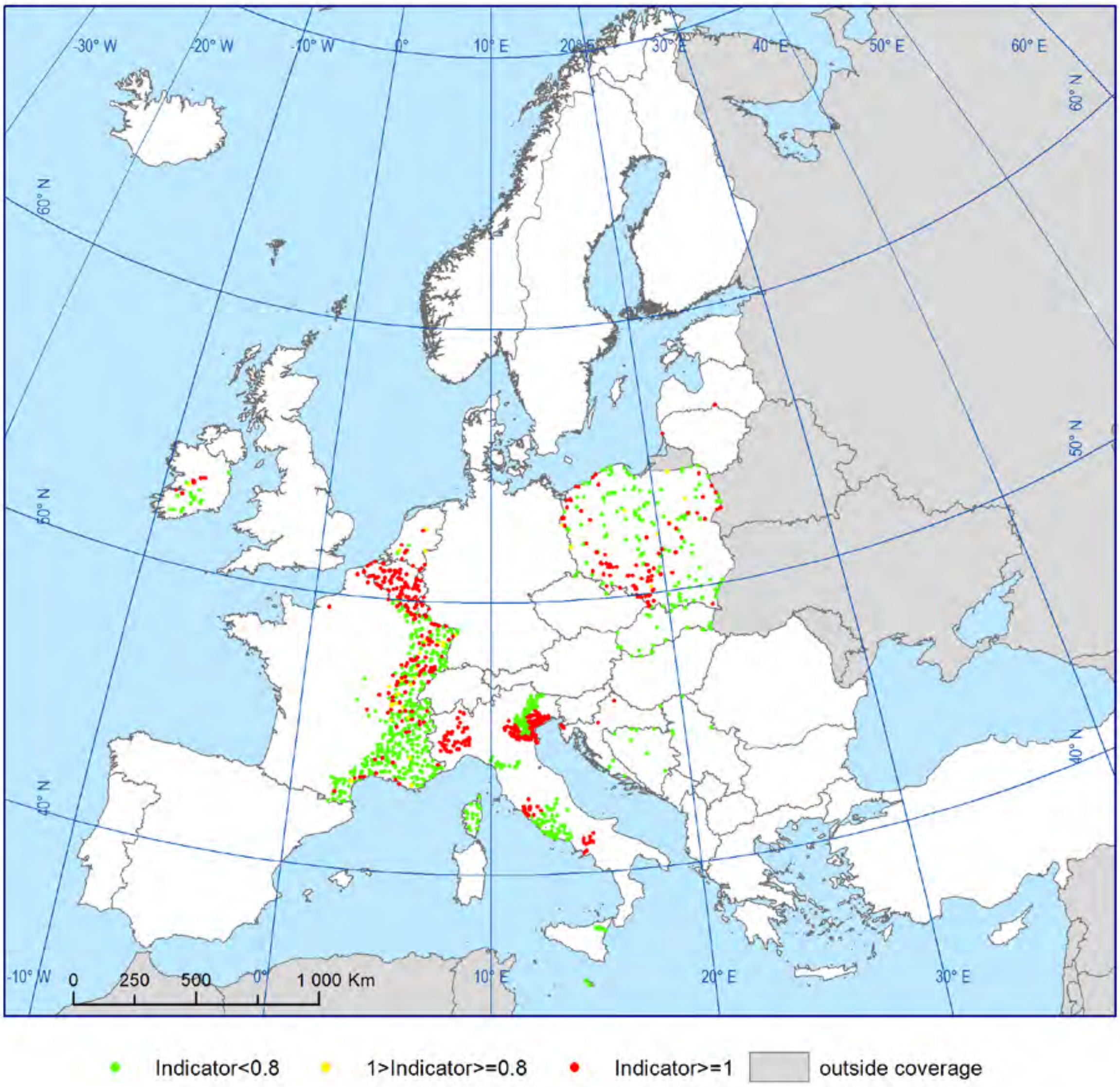


Figure 4.3.2.32d Box plot of data for sum of benzo(g,h,i)-perylene and indeno(1,2,3-cd)-pyrene in rivers.

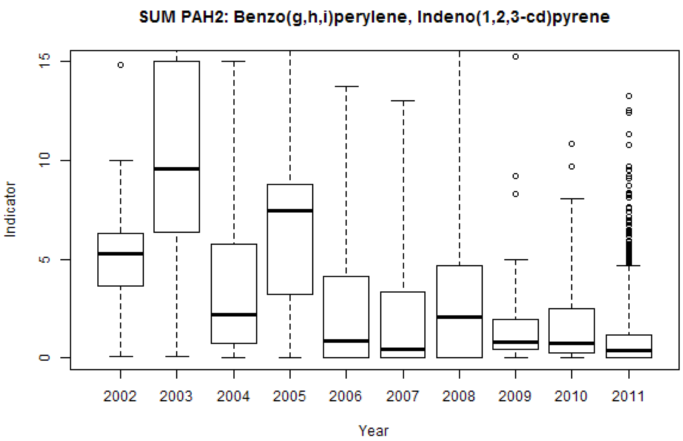


Figure 4.3.2.33a Long-term traffic-light indicator and number of stations for simazine in rivers.

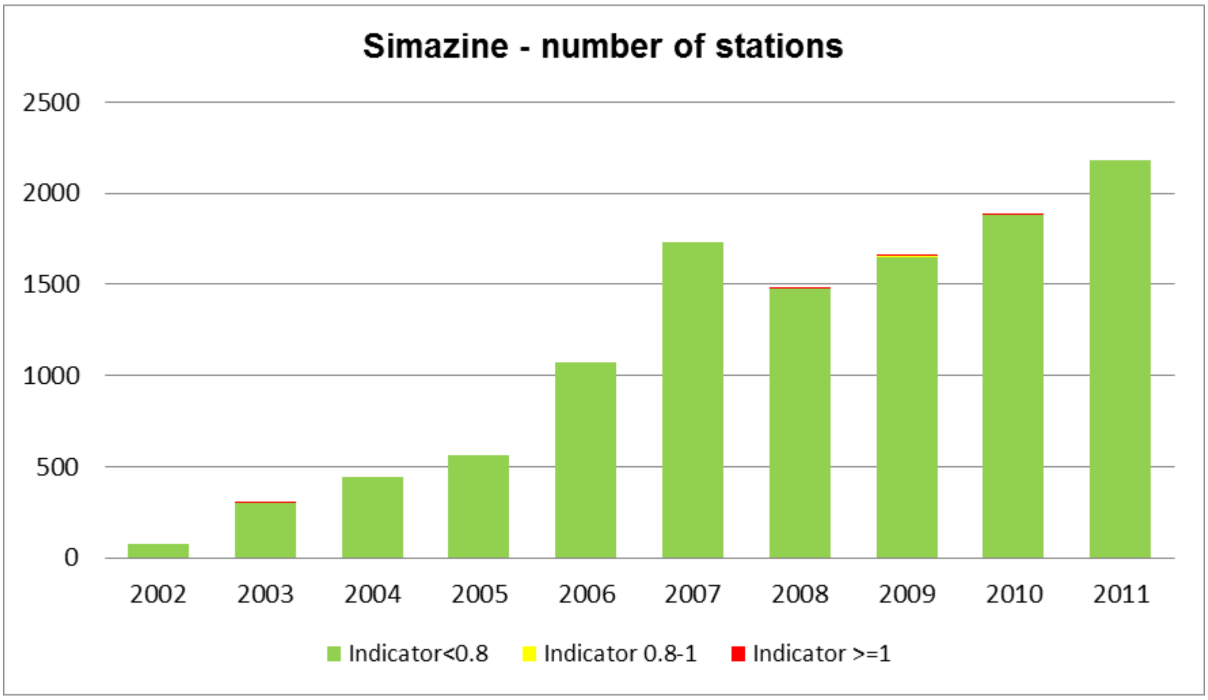


Figure 4.3.2.33b Traffic-light indicator for simazine in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

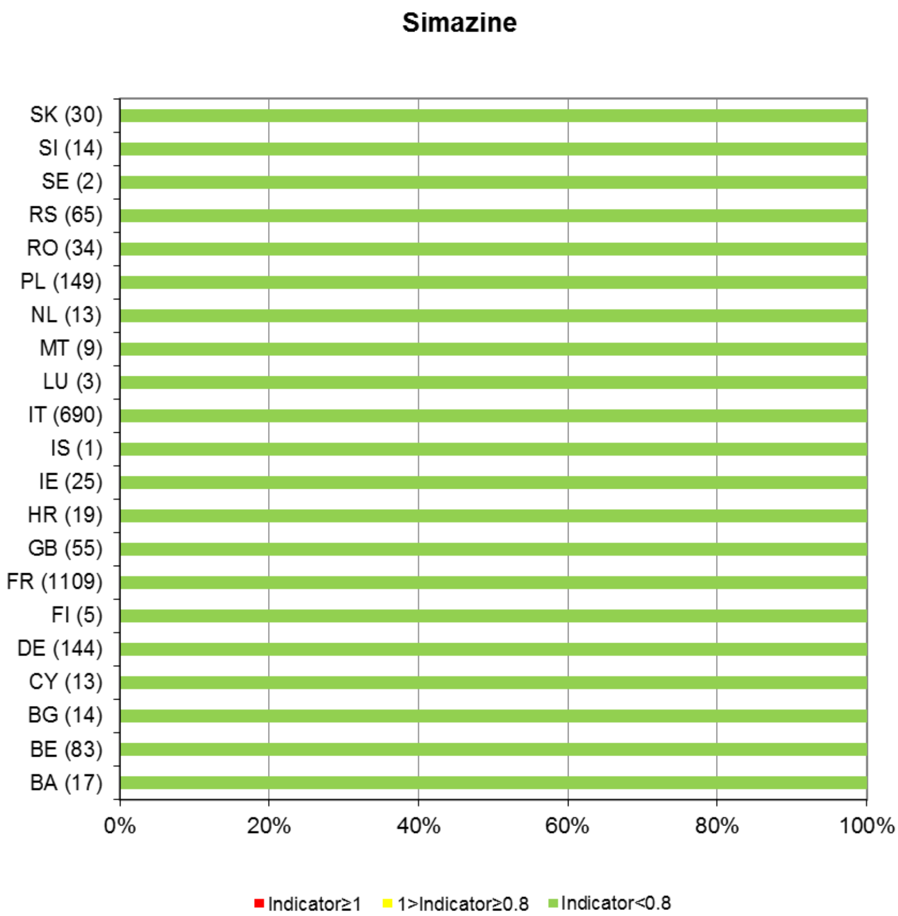


Figure 4.3.2.33c Map of traffic-light indicator for simazine in rivers from 2010–2011.

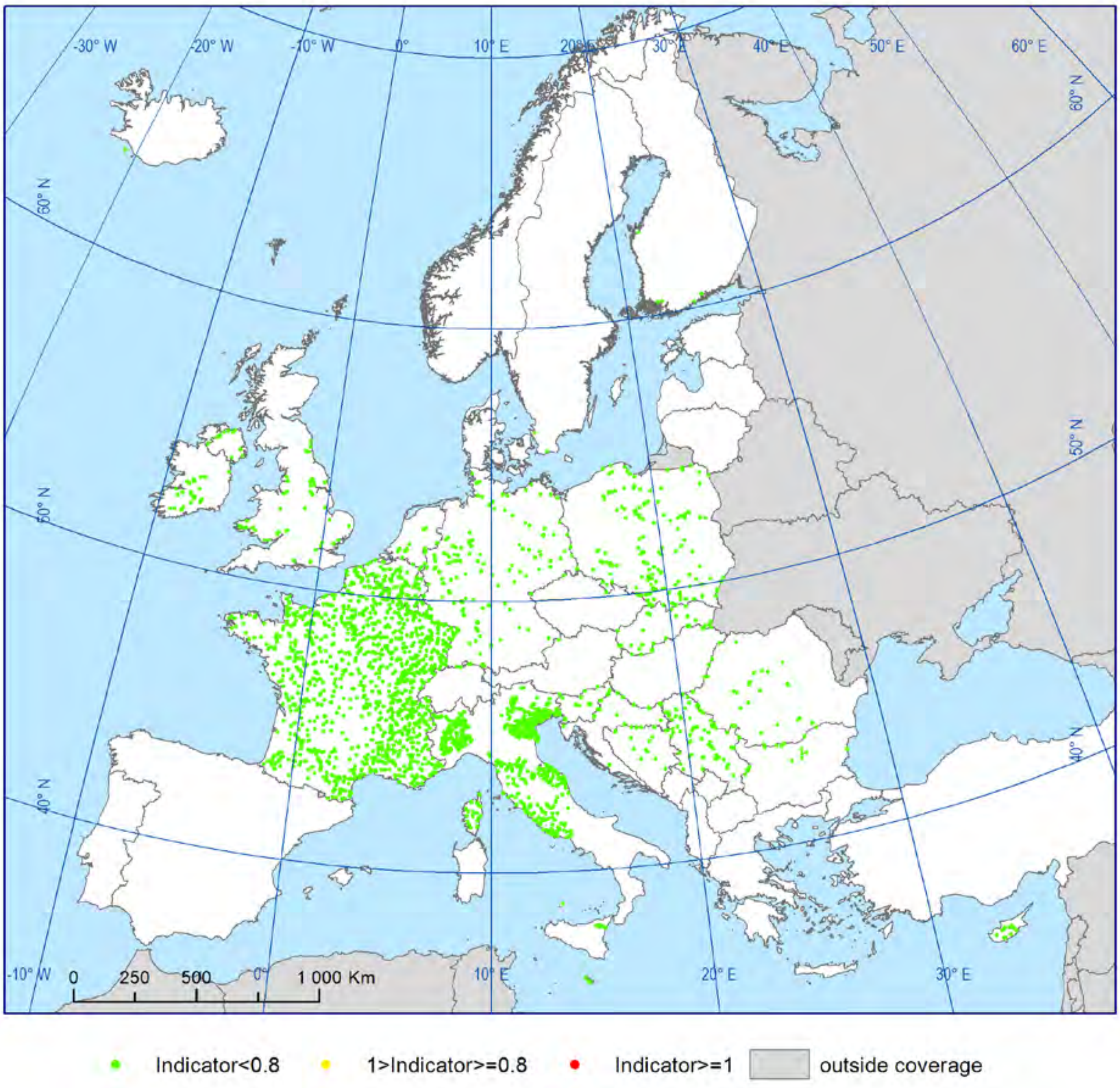


Figure 4.3.2.33d Box plot of data for simazine in rivers.

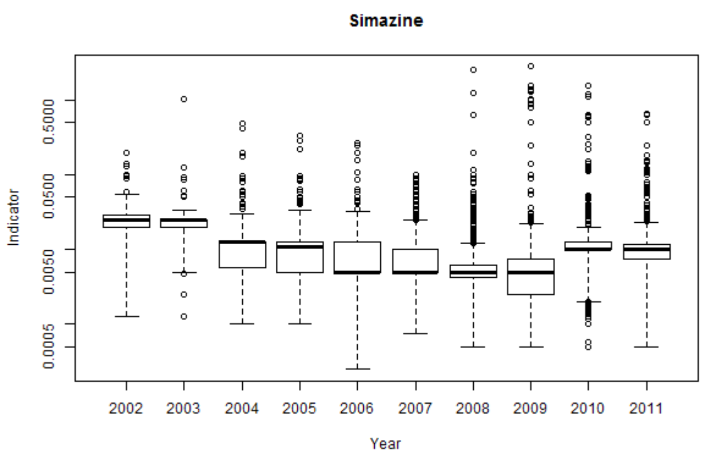


Figure 4.3.2.34a Long-term traffic-light indicator and number of stations for tributyltin-cation in rivers.

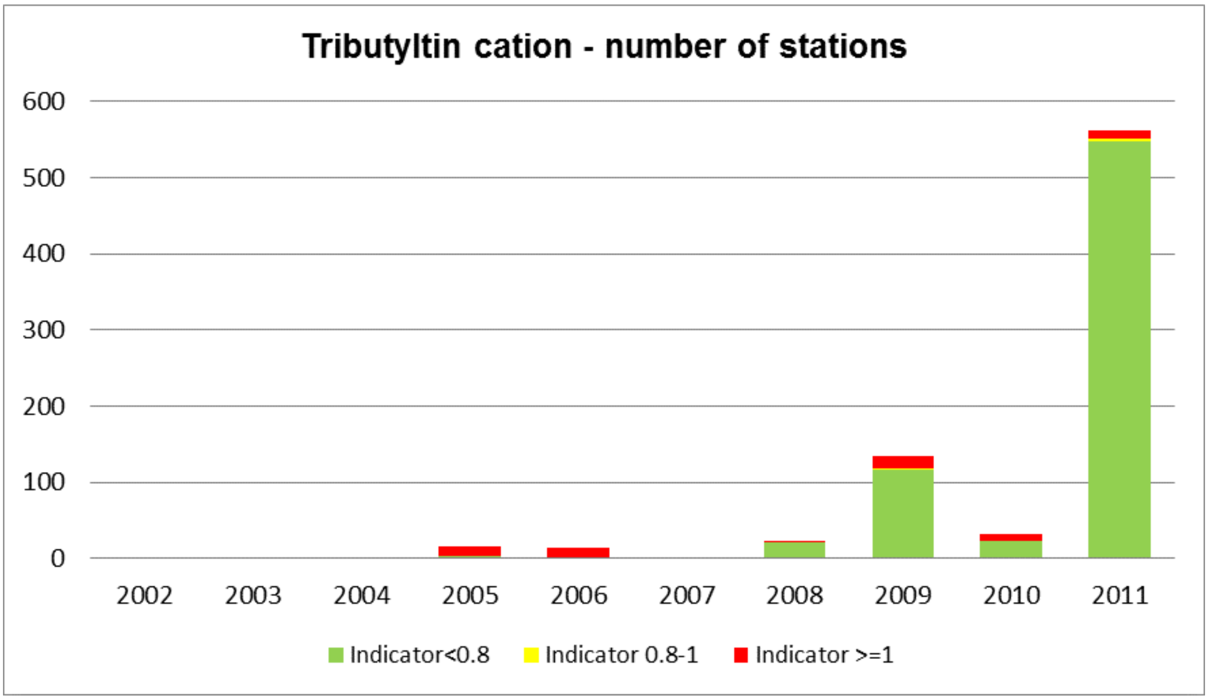


Figure 4.3.2.34b Traffic-light indicator for tributyltin-cation in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

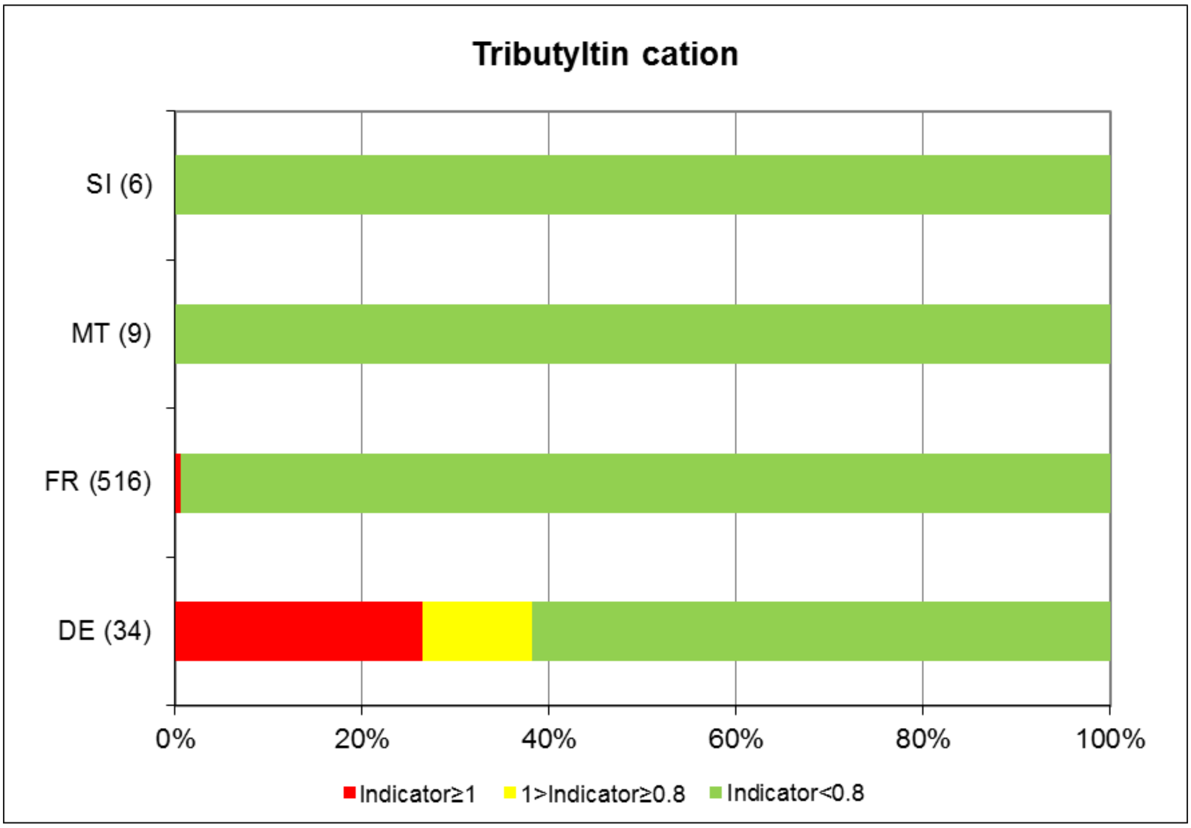


Figure 4.3.2.34c Map of traffic-light indicator for tributyltin-cation in rivers form 2010–2011.

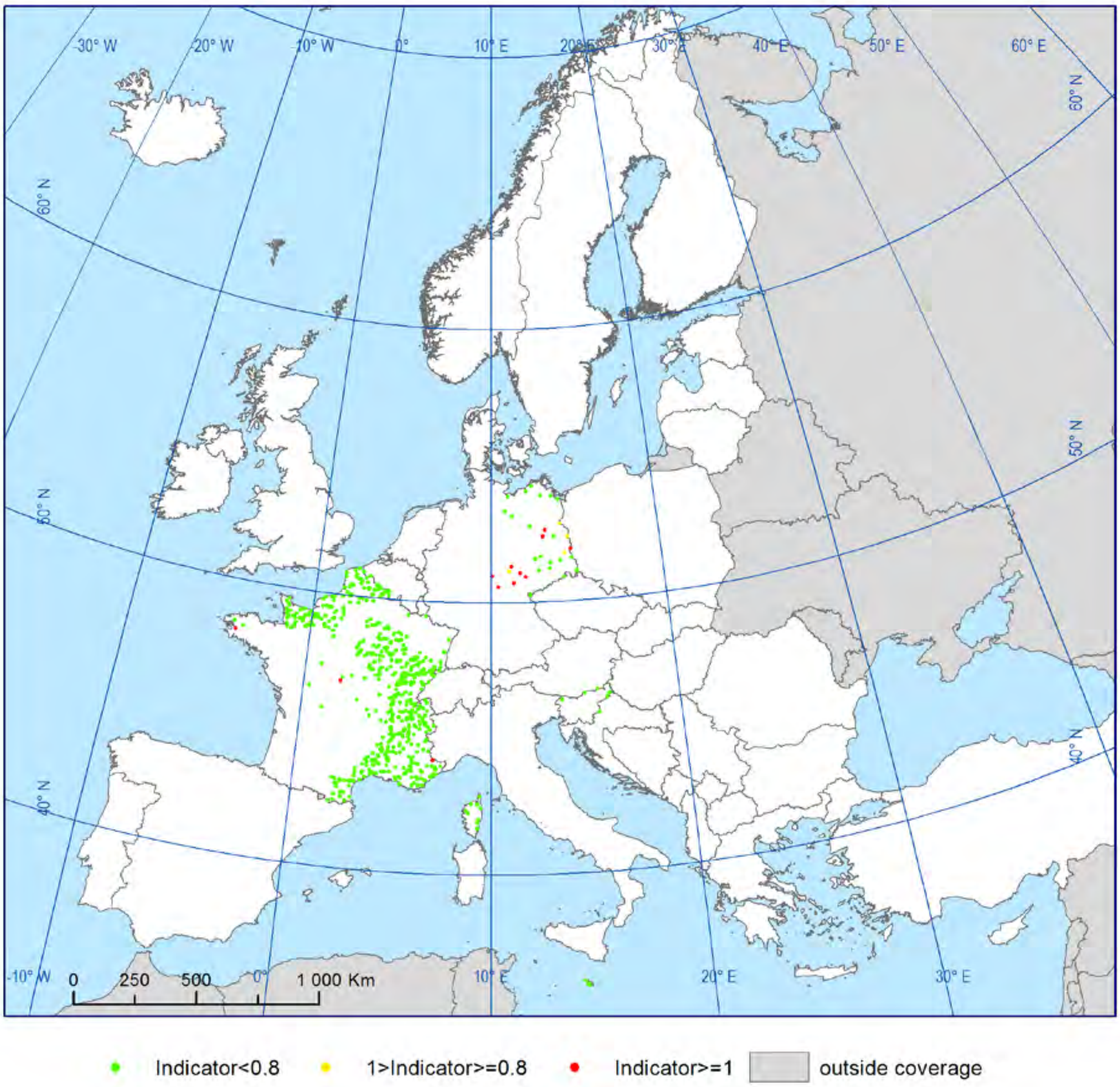


Figure 4.3.2.34d Box plot of data for tributyltin-cation in rivers.

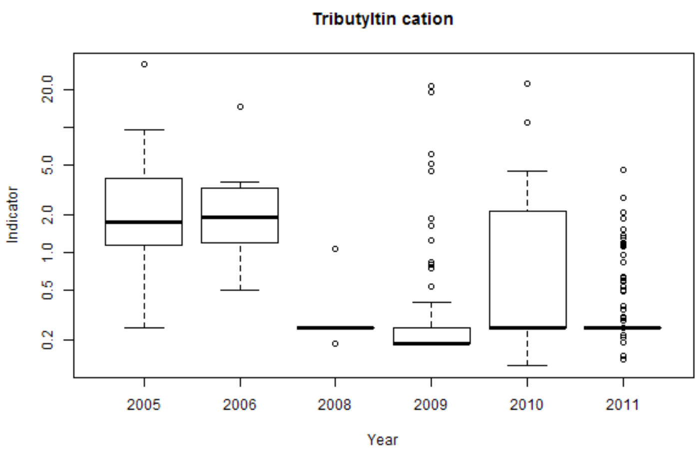


Figure 4.3.2.35a Long-term traffic-light indicator and number of stations for trichloromethane in rivers.

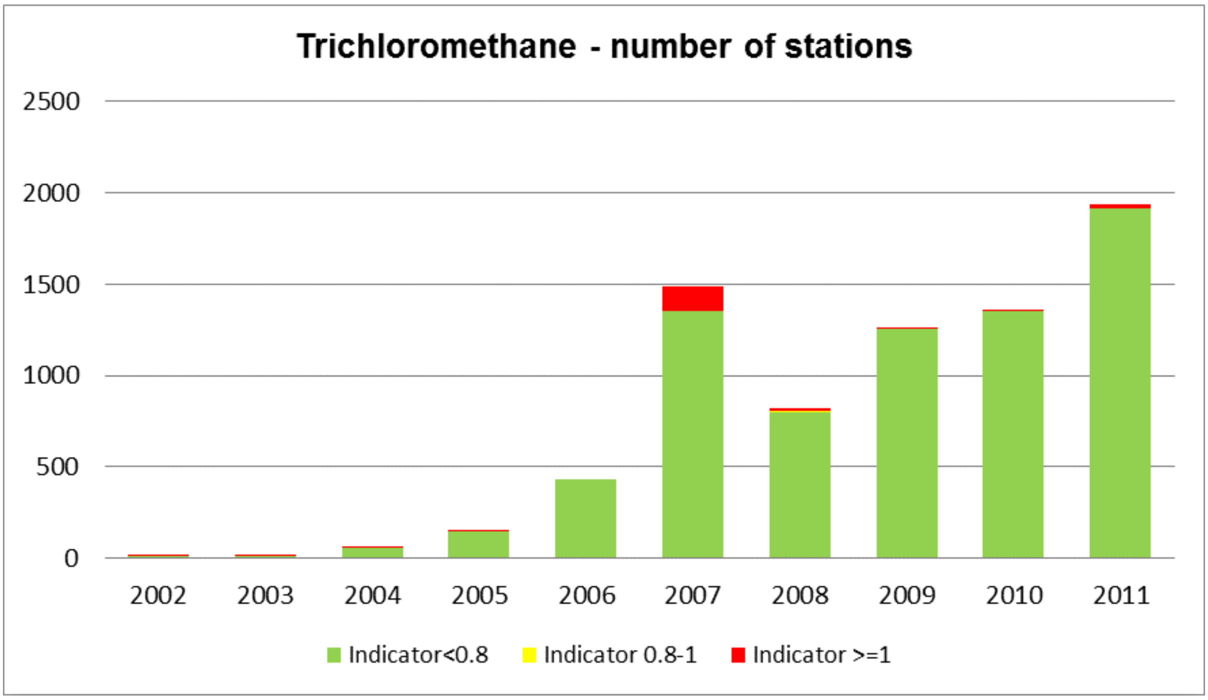


Figure 4.3.2.35b Traffic-light indicator for trichloromethane in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

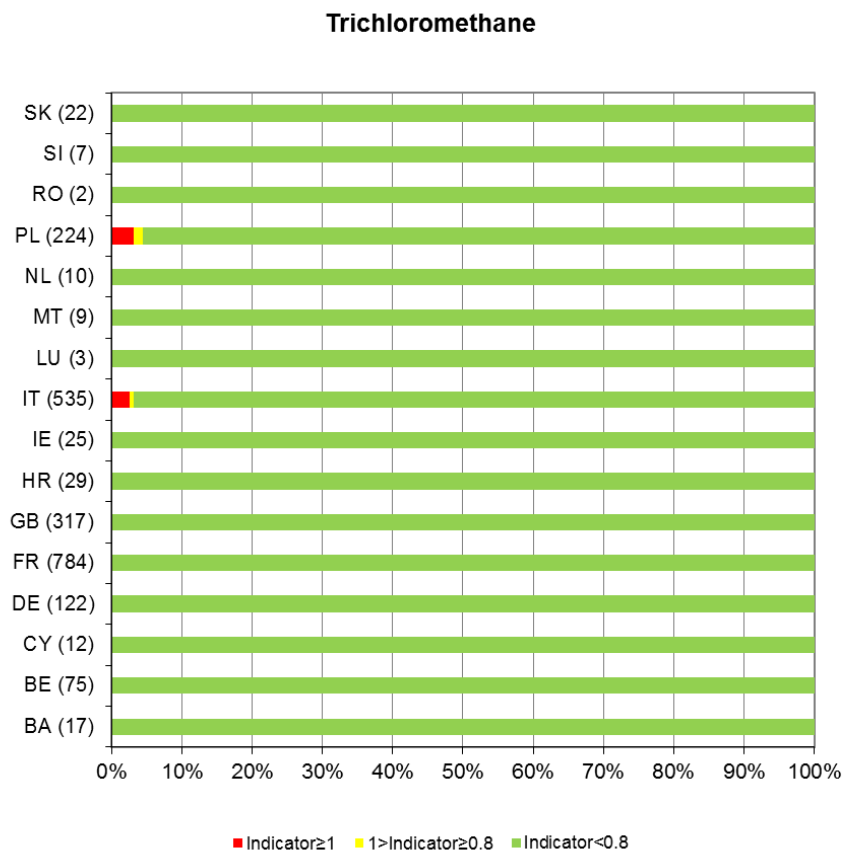


Figure 4.3.2.35c Map of traffic-light indicator for trichloromethane in rivers from 2010–2011.

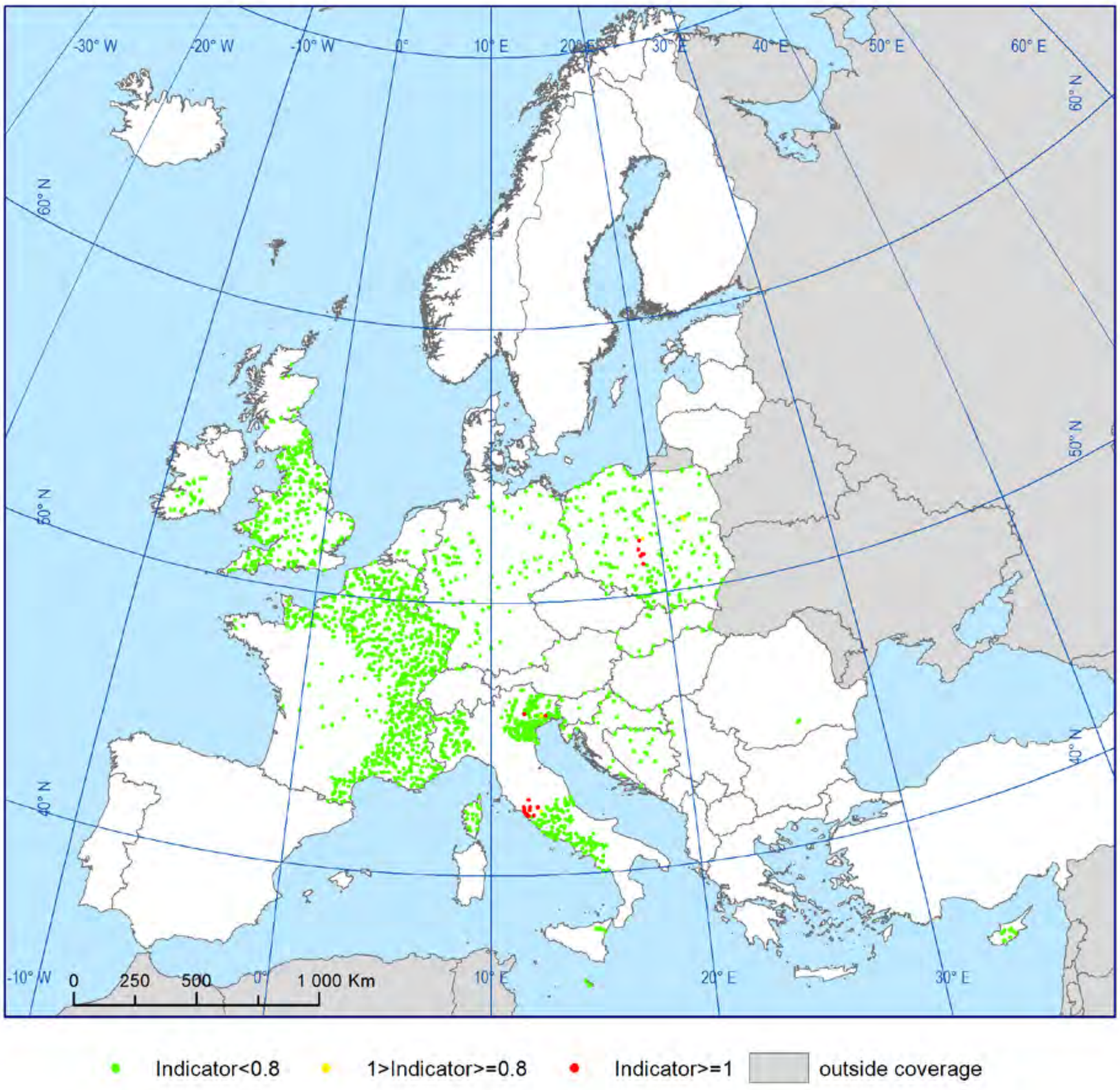


Figure 4.3.2.35d Box plot of data for trichloromethane in rivers.

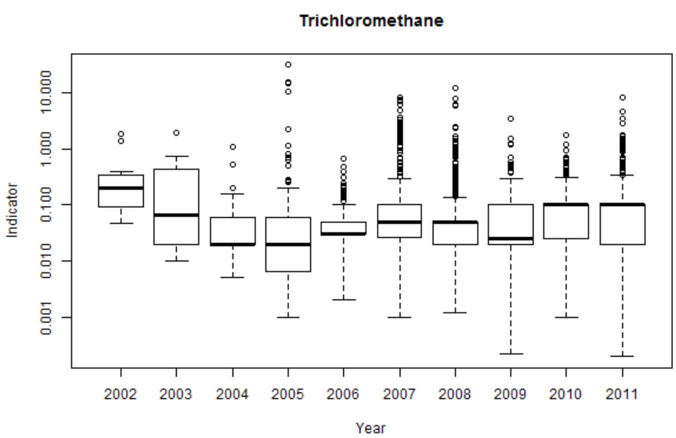


Figure 4.3.2.36a Long-term traffic-light indicator and number of stations for trifluralin in rivers.

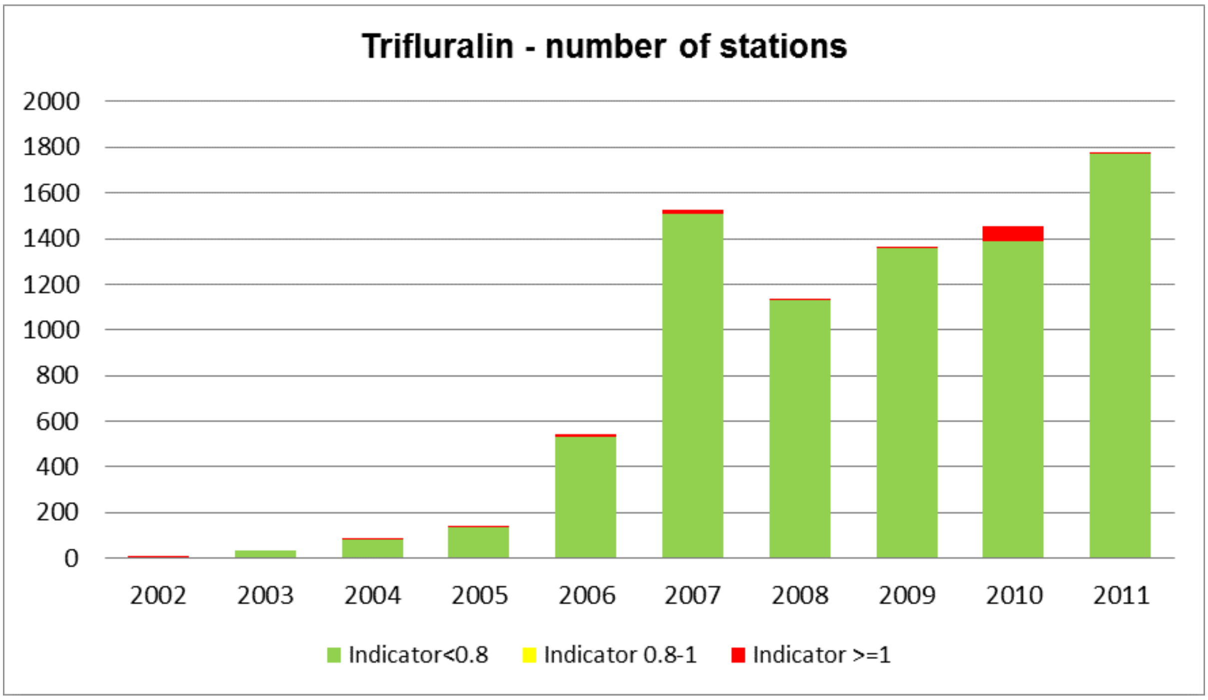


Figure 4.3.2.36b Traffic-light indicator for trifluralin in rivers from 2010–2011 (number of stations per country is shown in parenthesis).

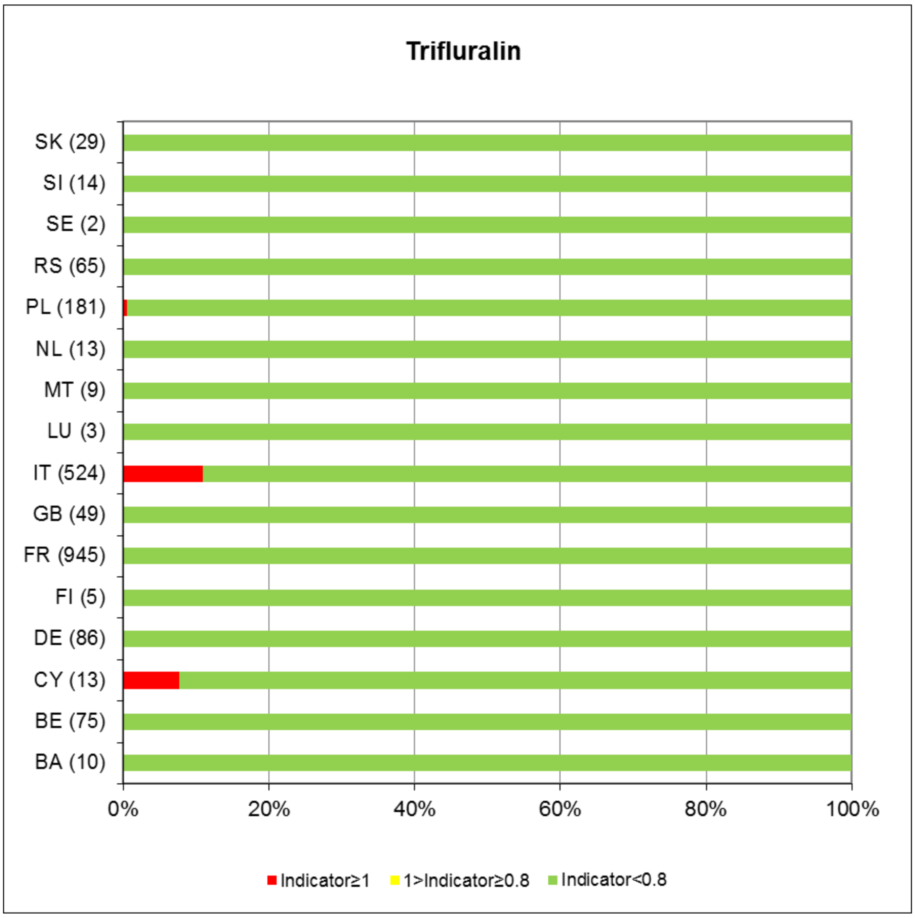


Figure 4.3.2.36c Map of traffic-light indicator for trifluralin in rivers from 2010–2011.

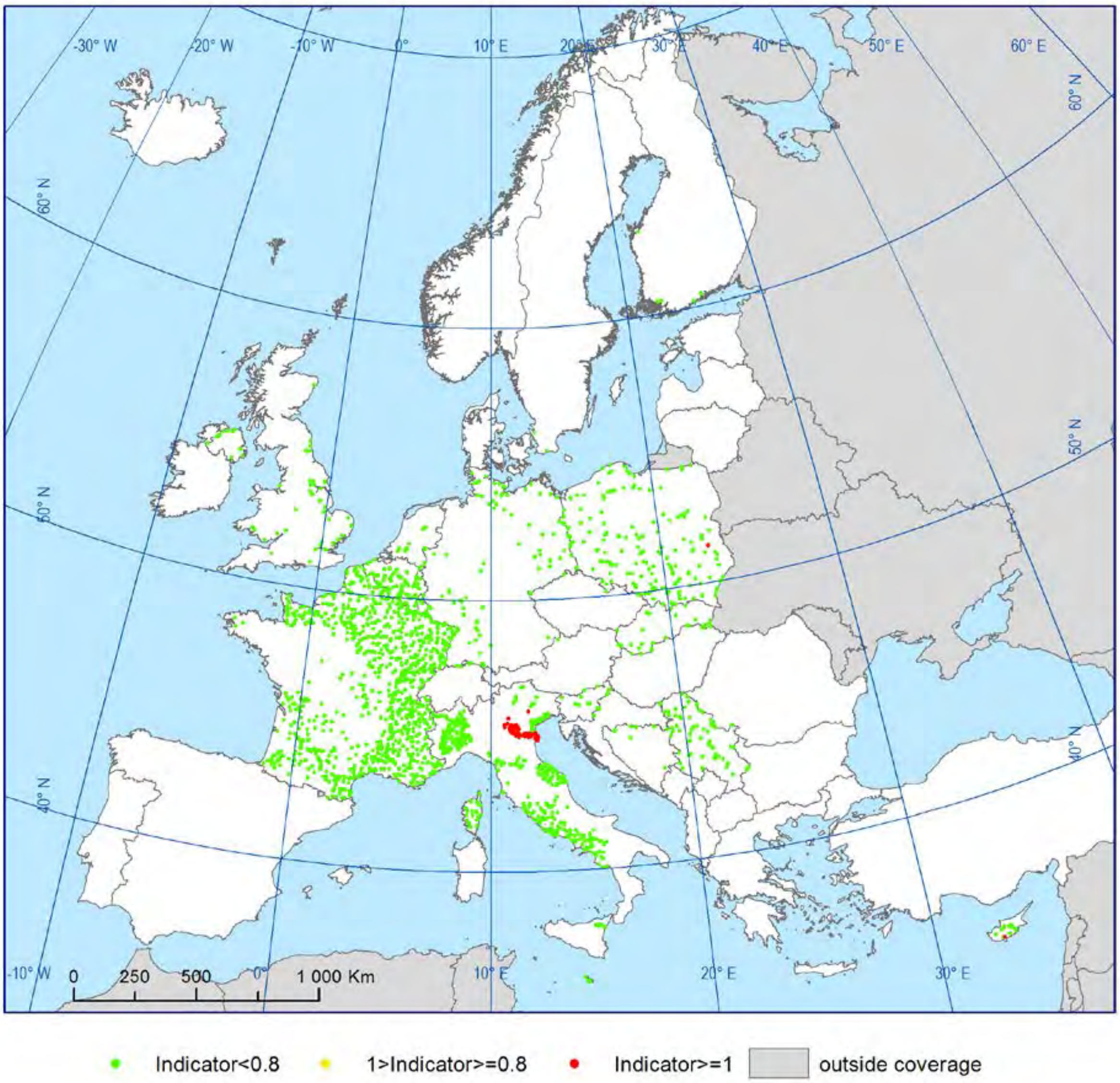
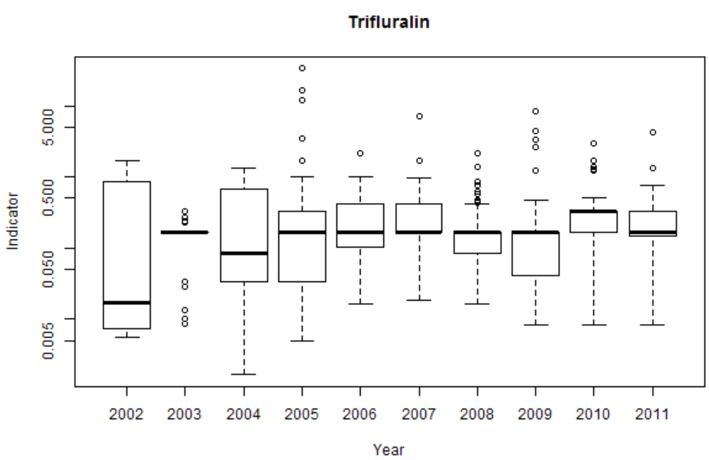


Figure 4.3.2.36d Box plot of data for trifluralin in rivers.



4.4 Hazardous substances in lakes across Europe in 2002–2011

4.4.1 Overview

For each hazardous substance in lakes, the number and percentage of samples with negative (samples < LOQ) and positive (samples >= LOQ) findings within the 2002–2011 period are shown in figures 4.4.1.1 and 4.4.1.2. The number and percentage of monitoring stations with negative (all samples in station < LOQ within 2002–2011 period) and positive findings (at least one sample in station >= LOQ within the 2002–2011 period) are shown in figures 4.4.1.3 and 4.4.1.4.

According the monitoring data reported, metals, PAHs and pesticides are among the substances monitored most often. Several of the substances were measured at concentrations below LOD or LOQ. However and (like for rivers) as could be anticipated (no filtration by soil and underground layers) the percentage of quantification is higher for surface water and in this case for lakes than groundwater. The percentage of substances measured at levels above LOD or LOQ is even higher for lake water than for river with many substances measured at levels above LOD or LOQ in more than 40% of samples, and for cadmium, lead, dissolved nickel, and nickel and endosulfan, fluoranthene, HCH, sum HCH and sum of PAH2 it reaches more than 50% of the samples. As a higher percentage of stations with at least one result measured at levels above LOD or LOQ is found in some cases, it is probable that for these substances a part of the stations have rare quantification.

The maximum concentrations in lakes are shown in figure 4.3.1.5. and in Table 4.3.1.1. Metals and metalloids (Pb, Ni) are the only substances reported in concentrations higher than 200 µg/l but many organic substances are found over 1µg/l and thus might be considered as considerably exceeding the EQS (example: sum DDT at 2,5µg/l with AA EQS in 2013/39/EC at 0,01).

Figure 4.4.1.1 No. of lake stations with available data within the 2002–2011 period.

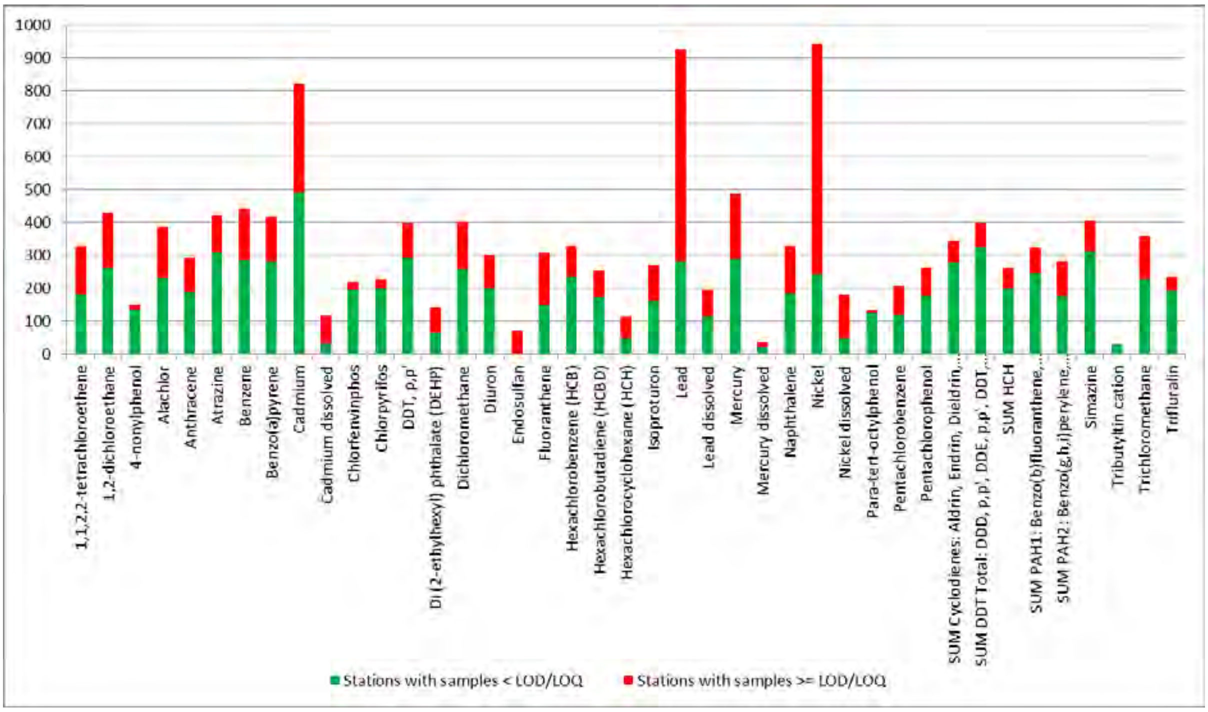


Figure 4.4.1.2 Percentage of lake stations with negative/positive findings within the 2002–2011 period.

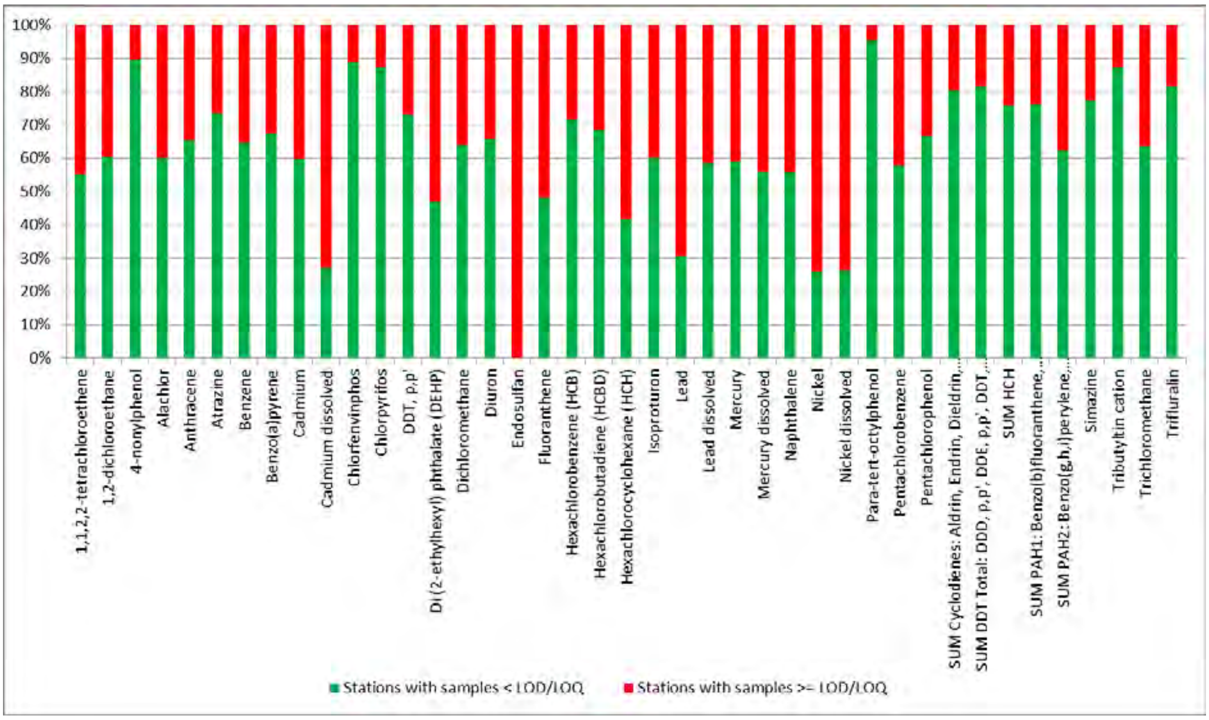


Figure 4.4.1.3 Number of analyses with negative/positive findings in lakes in 2002–2011.

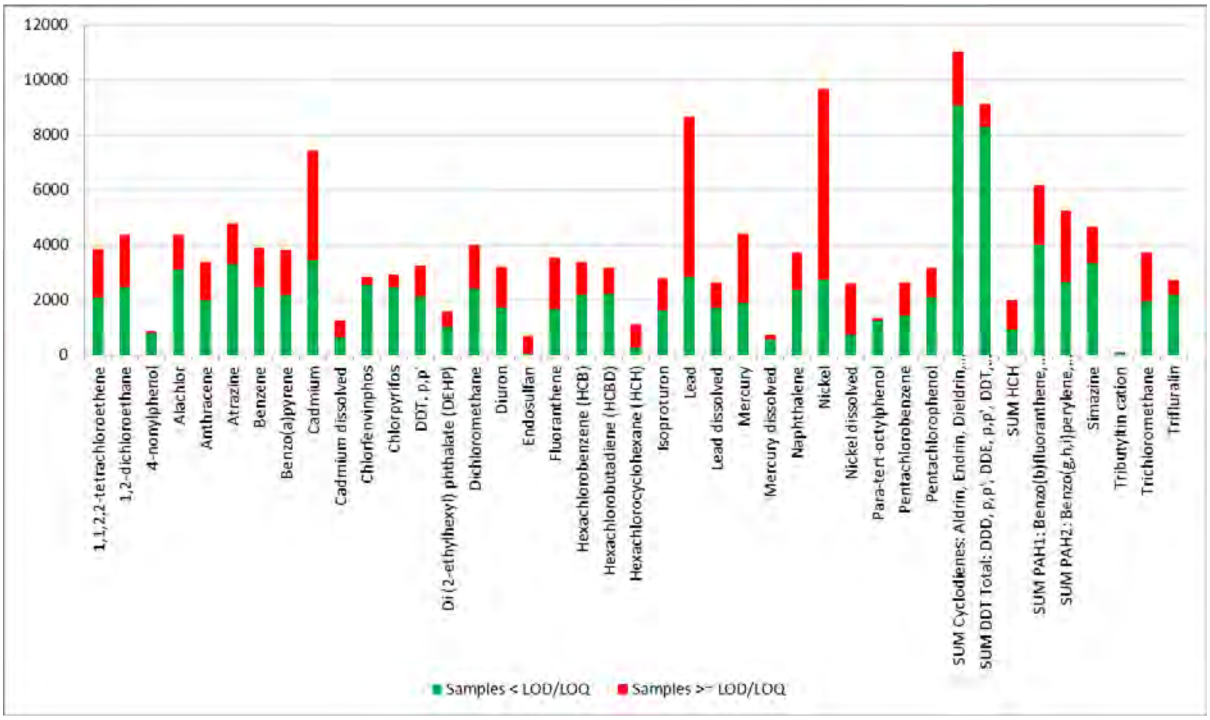


Figure 4.4.1.4. Percentage of analyses with negative/positive findings in lakes in 2002–2011.

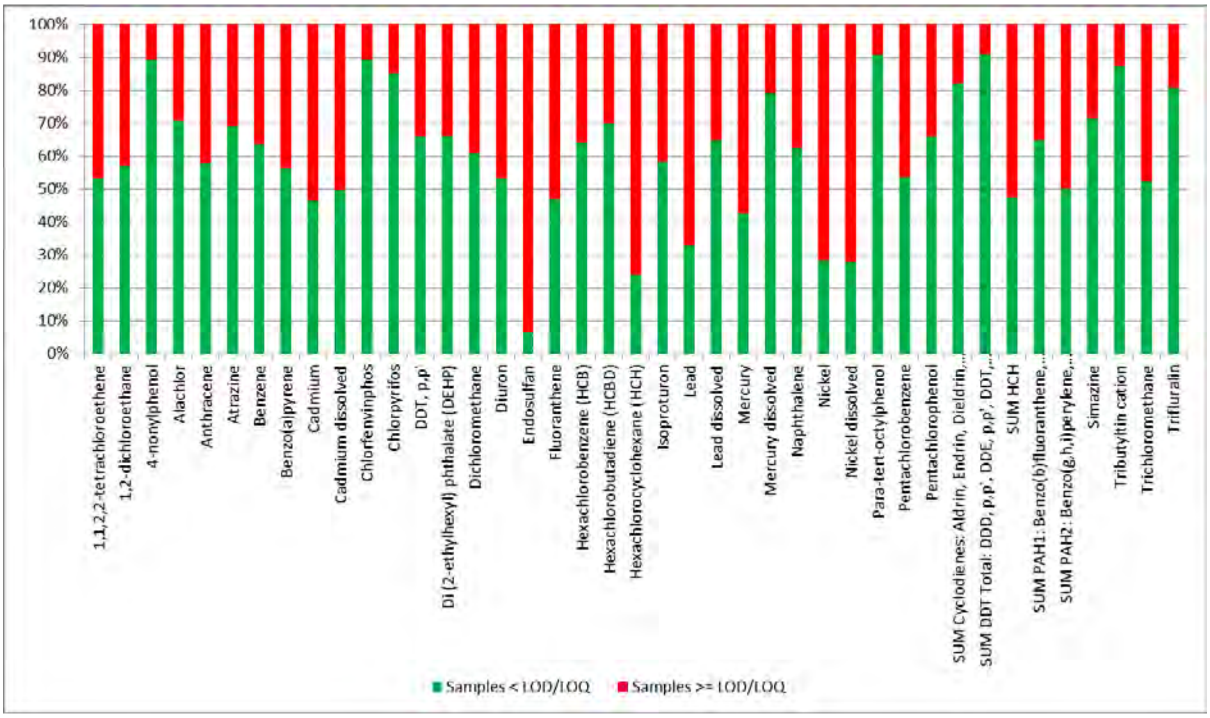


Figure 4.4.1.5 Maximum annual lake concentrations in 2002–2011.

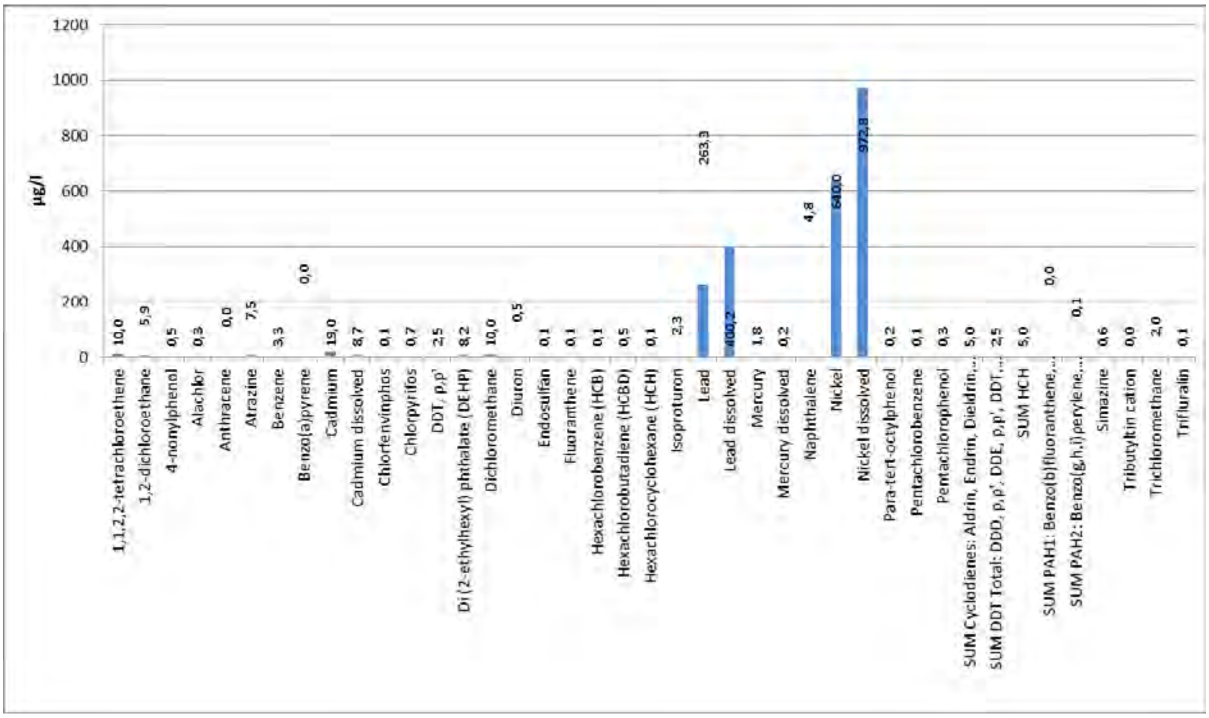


Table 4.4.1.1 Maximum annual lake concentrations (μg/l) reported by countries in 2010–2011. <, indicates concentration less than LOD or LOQ.

Country	1,1,2,2-tetrachloroethene	1,2-dichloroethane	4-nonylphenol	Alachlor	Anthracene	Atrazine	Benzene	Benzo(a)pyrene	Cadmium	Cadmium dissolved	Chlorfenvinphos	Chlorpyrifos	DDT, p,p'
AL													
AT													
BA									0,5387				
BE	<0.0367	<0.0343	<0.0120	<0.0044	0,0015	0,0244	<0.0343	<0.0019	<0.0500	<0.0500		<0.0075	
BG						<0.0050			0,5			<0.0150	
CH													
CY	<0.0312	<0.0312		<0.0150	<0.0008	<0.0138	<0.0312	<0.0008	0,1633		<0.0125	<0.0070	<0.0020
CZ													
DE								0,003					
DK													
EE									0,1				
ES	<0.7000	<1.0000	<0.0167	<0.0167			<0.8333	<0.0083					
FI									0,025				
FR	0,5	0,5	<0.1500	<0.0200	0,005	<0.0150	0,5	0,003	<0.1000	0,027	0,02	0,02	<0.0050
GB		<0.0500					0,1167	0,011	19	<0.0755			<0.0010
GR													
HR	<0.0990	<0.1185		0,015						0,2	0,015	0,015	<0.0010
HU													
IE	0,275	0,255			<0.0138	<0.0362	0,255	<0.0058	2,8667				
IS									<0.0016				
IT	10	<1.5000	<0.0250	0,05	<0.0250	2,2762	1	<0.0250	0,25		0,05	0,0364	0,01
LI													
LT													
LU													
LV													
ME													
MK													
MT	0,01	0,001	0,01	0,001	0,001	0,001	0,01	0,001	0,01		0,01	0,01	0,001
NL	0,0335	0,0319		<0.0054	<0.0058	0,0115	0,0427	0,0119	0,1936	0,1374	<0.0058	<0.0062	<0.0005
NO									0,12				
PL	5,4417	5,9		0,2908	0,0109	1,5	3,25	0,0089	1,7616		0,1083	0,65	0,0102
PT				<0.0275	0,02	<0.0250	<0.1000	<0.0000					
RO				<0.0250	<0.0050			<0.0075	0,5303	0,95			0,0318
RS										8,7267			
SE									0,29				
SI				<0.0250		<0.0250			0,0238	0,0197	<0.0250	<0.0045	<0.0010
SK	<0.2500	<0.2500	<0.0545	<0.0450	<0.0025	<0.0900	<0.1500	<0.0010		<0.0210	<0.0029	<0.0027	
TR													
XK													

Table 4.4.1.1 continued

Country	Di (2-ethylhexyl) phthalate (DEHP)	Dichloromethane	Diuron	Endosulfan	Fluoranthene	Hexachlorobenzene (HCB)	Hexachlorobutadiene (HCBD)	Hexachlorocyclohexane (HCH)	Isoproturon	Lead	Lead dissolved	Mercury	Mercury dissolved	Naphthalene
AL														
AT														
BA	0,0104									3,0644		0,04		
BE	0,2217	0,0912	0,0192		<0.0086			<0.0010	0,0525	1,2909	<0.3109	0,0152	<0.0075	0,0188
BG										10				
CH														
CY		<2.5000	0,02		<0.0016	<0.0001	<0.0312	0,0017	0,02	13,8867				<0.0625
CZ														
DE	0,1071				0,011					<0.6678		<0.0005		0,0162
DK														
EE										1				
ES		<0.8333	0,1922						<0.0133		400,15			
FI										0,574		0,0058		
FR	0,2875	10	0,025	<0.0010	0,005	<0.0050	0,1		0,0567	5,4		0,0777		0,0351
GB	<0.1000	<1.5000	0,01		0,02					263,3333	3,2425	0,01	<0.0068	
GR														
HR		<0.1470		0,002		0,015	<0.0154				2		0,2	
HU														
IE	1,3	0,235	<0.0363		<0.0112		0,255		<0.0354	0,6875		<0.0250		0,245
IS										0,073		<0.0010		
IT	0,2575	3,7992	<0.1000	0,025	<0.0250	0,05	0,25	0,0364	<0.0250	4	<1.1667	0,5		<0.0500
LI														
LT														
LU														
LV														
ME														
MK	4,54													
MT	2,09	0,01	0,1		0,001	0,001	0,01	0,001	0,1	3		0,05		0,001
NL	<0.6169	<5.0000	0,0731	<0.0002	0,0558	<0.0005	<0.0054		0,0631	4,1857	0,2631	0,0315	0,0013	<0.0958
NO										0,19				
PL	1,2208	5	0,45	0,0715	0,1142	0,0272	0,35	0,0145	2,2525	26,857		0,3445		1
PT		<3.0000	<0.0250		<0.0150	<0.0025	<0.0050			8,75	<2.5000		<0.0050	<0.5000
RO					<0.0050	0,0075				2,2513	6,86	<0.0220	0,033	0,0386
RS											11,4667			
SE										4,8		0,0033		
SI										<0.5000	<0.1309	0,0025	<0.0045	
SK	8,1917	<0.2500	<0.0300		<0.0031		<0.0500		<0.0450				<0.0250	<0.1500
TR														
XK														

Table 4.4.1.1 continued

Country	Nickel	Nickel dissolved	Para-tert-octylphenol	Pentachlorobenzene	Pentachlorophenol	SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin	SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'	SUM HCH	SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene	SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	Simazine	Tributyltin cation	Trichloromethane	Trifluralin
AL														
AT														
BA														
BE	<2.1833	<2.0000	<0.0250		<0.0150			<0.0000	0,0024	<0.0012	0,012		<0.0336	<0.0010
BG	12					0,012								
CH														
CY	13,39					<0.0001	<0.0002	<0.0000	<0.0000		0,034		<0.2500	<0.0058
CZ														
DE	<1.6789													
DK														
EE	1													
ES		972,788			0,2067									
FI	42,9167													
FR	<3.7500		0,1	0,005	<0.0500	<0.0000	<0.0000	<0.0000	0,001	0,0012	<0.0100	0,0002	0,5	0,02
GB	640	530	<0.0312			<0.0000	<0.0000	<0.0000	<0.0000			0,0008	0,49	
GR														
HR		2			0,015	0,0052	<0.0000	0,002					<0.1020	
HU														
IE	5,0083								<0.0028	0,0025	<0.0354		0,245	
IS	0,0738													
IT	20,6667	2,5	<0.0500	0,05	<0.2000	0,0364	0,001	0,0438	0,005	0,005	0,05		0,25	0,0364
LI														
LT														
LU														
LV														
ME														
MK	6,1367							0,0063						
MT	6		0,01	0,001	0,001	<0.0000	<0.0000		<0.0000	<0.0000	0,01	0,0002	0,01	0,001
NL	7,1608	5,3417	0,0055	<0.0001	<0.0500	<0.0001	<0.0000	0,0084	0,02	0,0117	0,0104		0,1421	<0.0050
NO	23,5													
PL	<7.0000			0,005	0,25	0,0208	0,0102		0,0189	0,1169	0,6		1,8475	0,1
PT		<1.0000			<0.0500									<0.0050
RO	2,2736	2,51		0,003										
RS		41,3333												
SE	7,2													
SI	<0.8500	0,8427				<0.0000	<0.0000				<0.0250			<0.0045
SK			<0.0250		<0.0250		<0.0000	<0.0000	<0.0000	<0.0005	<0.1500		<0.5000	<0.0017
TR														
XK														

4.4.2 Occurrence and concentrations of hazardous substances in lakes

Summary tables for the number of countries, and apportionment between quantified and not quantified substances, see tables 3.4.2 and 3.4.3 and highest value found by substance and country, see table 4.4.1.1. are shown in the previous section. Many substances are quantified in a higher proportion of samples than stations. While a more detailed analysis substance by substance would be necessary to conclude, this result shows that the contamination is more localized on some stations: high number of high values are found at a small number of stations.

Figures of the mean concentrations and numbers of stations with data from the period 2002–2011 based on the indicator are shown in figures 4.4.2.1a – 4.4.2.37a for selected hazardous substances found in lakes in Europe

Figures showing the percentage of stations in the 2010–2011 period for each country in each of the indicator categories for selected hazardous substances in lakes are shown in figures 4.4.2.1b – 4.4.2.37b.

Maps of the maximum concentrations from the 2010–2011 period based on the indicator for selected hazardous substances in lakes across Europe in individual countries are shown in figures 4.4.2.1c – 4.4.2.37c.

Corresponding box plots showing variability of data for each substance are shown in figures 4.4.2.1d –4.4.2.37d.

1,1,2,2-tetrachloroethene

The analysis is based on data from 11 countries for the 2002–2011 and 2010–2011 periods, see tables 3.4.2 and 3.4.3. The substance was found in 46.6 % of samples (Fig. 4.4.1.2) and in 44.8 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 and lately has been oscillating around 200 stations (Fig. 4.4.2.1a). 1,1,2,2-tetrachloroethene did not exceed the EQS in 2002–2011 except for 2 stations in 2011 in Italy (Fig. 4.4.2.1b and Fig. 4.4.2.1c). The distribution of values evolves from year to year with a range up to 10.000 and 50% of the values in a range of 10, close to the median value (Fig. 4.4.2.1d). The highest concentration of 10µg/l was reported by Italy in the 2010–2011 period, see table 4.4.1.1.

1,2-dichloroethane

The analysis is based on data from 12 countries for the 2002–2011 period and 2010–2011 periods, see tables 3.4.2 and 3.4.3. The substance was found in 43 % of samples (Fig. 4.4.1.2) and in 39.7 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 250 stations (Fig. 4.4.2.2a). 1,2-dichloroethane did not exceed the EQS in 2002–2011 period (Fig. 4.4.2.2b and Fig. 4.4.2.2c). The distribution of values evolves from year to year with a range varying from 1.000 to 10.000, larger in the recent years, and 50% of the values in a range of 10, around the median value (Fig. 4.4.2.2d). The highest concentration of 5.9µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

4-Nonylphenol

The analysis is based on data from 9 countries for the 2002–2011 period and from 6 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 10.8 % of samples (Fig. 4.4.1.2) and in 10.6 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 86 stations (Fig. 4.4.2.3a). 4-nonylphenol did not exceed the EQS in 2002–2011 except in 1 station in 2009 (Fig. 4.4.2.3b) and also not in 2010–2011 (Fig. 4.4.2.3c). The distribution of values evolves from year to year but the low number of data make it of low representativity, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.3d). The highest concentration of 0.01µg/l was reported by Malta in the 2010–2011 period, see table 4.4.1.1.

Alachlor

The analysis is based on data from 14 countries for the 2002–2011 period and from 13 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 29.9 % of samples (Fig. 4.4.1.2) and in 39.9 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 209 stations (Fig. 4.4.2.4a). Alachlor did not exceed the EQS in 2002–2011 (Fig. 4.4.2.4b) and also in 2010–2011 (Fig. 4.4.2.4c). The distribution of values evolves from year to year with a range reaching 500 in the last year with more data, and 50% of the values in the recent years in a range of 1 to 10, around the median value (Fig. 4.4.2.4d). The highest concentration of 0.291µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Sum of cyclodienes: aldrin, dieldrin, endrin, and isodrin

The analysis is based on data from 15 countries for the 2002–2011 period and from 10 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 17.9 % of samples (Fig. 4.4.1.2) and in 19.7 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 136 stations (Fig. 4.4.2.5a). Sum of cyclodienes: aldrin, dieldrin, endrin, and isodrin exceeded the EQS in 2002–2011 in 4 to 14 stations (Fig. 4.4.2.5b) and in Italy, Bulgaria and Poland in 8 stations in 2010–2011 (Fig. 4.4.2.5c). The distribution of values is varying from year to year with a range narrowing down in the recent years with more data (Fig. 4.4.2.5d). The highest concentration of 0.036µg/l was reported by Italy in the 2010–2011 period, see table 4.4.1.1.

Anthracene

The analysis is based on data from 13 countries for the 2002–2011 period and from 11 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 41.9 % of samples (Fig. 4.4.1.2) and in 34.7 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 179 stations (Fig. 4.4.2.6a). Anthracene did not exceed the EQS in 2002–2011 (Fig. 4.4.2.6b) neither in 2010–2011 (Fig. 4.4.2.6c). The distribution of values evolves from year to year with a range up to 500, and 50% of the values in the recent years in a range of 1 to 10, around the median value (Fig. 4.4.2.6d). The highest concentration of 0.02µg/l was reported by Portugal in the 2010–2011 period, see table 4.4.1.1.

Atrazine

The analysis is based on data from 19 countries for the 2002–2011 period and from 12 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 31.1 % of samples (Fig. 4.4.1.2) and in 26.5 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 178 stations in 2008 and 166 stations in 2011 (Fig. 4.4.2.7a). Atrazine exceeded the EQS in 2002–2011 in 1 to 2 stations depending on the year (Fig. 4.4.2.7b) and in one station in Poland in 2010–2011 (Fig. 4.4.2.7c). The distribution of values evolves from year to year with a range of less than 1000, and 50% of the values in the recent years very close to the median value (Fig. 4.4.2.7d). The highest concentration of 2.276µg/l was reported by Italy in the 2010–2011 period, see table 4.4.1.1.

Benzene

The analysis is based on data from 14 countries for the 2002–2011 period and from 12 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 36.2 % of samples (Fig. 4.4.1.2) and in 35.4 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 229 stations (Fig. 4.4.2.8a). Benzene did not exceed the EQS in 2002–2011 (Fig. 4.4.2.8b) and neither in 2010–2011 (Fig. 4.4.2.8c). The distribution of values evolves from year to year with a range reaching 500 in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.8d). The highest concentration of 3.25µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Cadmium

Countries have reported Cd in various forms, e.g., Cd and water hardness, dissolved Cd with water hardness, Cd with no water hardness, and dissolved Cd with no water hardness. Within some countries, various forms of Cd have been reported. Concentrations of Cd were exceeded above EQS in many rivers across Europe.

The analysis of total cadmium is based on data from 23 countries for the 2002–2011 period and from 18 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 53.6 % of samples (Fig. 4.4.1.2) and in 40.3 % of stations (Fig. 4.4.1.4). The highest concentration of 19µg/l was reported by United Kingdom in the 2010–2011 period, see table 4.4.1.1.

For the case of total cadmium with hardness data, the data have been provided in the recent years in a relatively low number of stations varying from 14 in 2007 to 67 stations in 2006 and 55 in 2011 (Fig. 4.4.2.9a1). The variation has no clear explanation but the improvement to monitoring of lakes with WFD implementation might have an influence in the increase. Total cadmium with hardness data exceeded the EQS in 2002–2011 in up to 19 stations and a significant proportion of the monitored stations (Fig. 4.4.2.9b1) and in 3 countries in particular in Poland and Italy in 2010–2011 (Fig. 4.4.2.9c1). The distribution of values evolves from year to year with a range reaching 1000 in the recent years with more data, and 50% of the values in the recent years in a small range around the median value (Fig. 4.4.2.9d1).

For the case of total cadmium with no hardness data, the data were provided without hardness by default thus the number of reported stations is relatively stable around 200 stations in the period 2002–2011 (Fig. 4.4.2.9a2). Total cadmium with no hardness data exceeded the EQS in 2002–2011 in up to 34 stations in 2010 (Fig. 4.4.2.9b1) and 8 countries, in particular in Northern Italy and Poland in 2010–2011 (Fig. 4.4.2.9c1). The distribution of values is relatively stable in a wide range of 100.000, and 50% of the values in a range of 10 around the median value (Fig. 4.4.2.9d1).

The analysis of dissolved cadmium is based on data from 9 countries for the 2002–2011 and 2010–2011 periods, see tables 3.4.2 and 3.4.3. The data were provided recently when dissolved cadmium was found to be a more appropriate fraction to monitor cadmium. The substance was found in 50.3 % of samples (Fig. 4.4.1.2) and in 72.9 % of stations (Fig. 4.4.1.4). The highest concentration of 8.727µg/l was reported by Serbia in the 2010–2011 period, see table 4.4.1.1.

For the case of dissolved cadmium with hardness data, the data were provided only in the last 2 years. The number of reported stations is relatively low around 80 stations (Fig. 4.4.2.9a2). Cadmium dissolved exceeded the EQS in 2002–2011 in up to 60 stations or 80% of stations (Fig. 4.4.2.9b2) and 3 countries in particular Serbia in 2010–2011 (Fig. 4.4.2.9c2). The distribution of values reach around 1000, and 50% of the values are found in a small range of less than 10 around the median value (Fig. 4.4.2.9d2).

For the case of dissolved cadmium with no hardness data like for the above. The number of reported stations is low, around 20 stations (Fig. 4.4.2.9a3). Cadmium dissolved with no hardness data did not exceed the EQS in 2002–2011 except in 1 to 2 stations (Fig. 4.4.2.9b3) and in 3 stations in Romania in 2010–2011 (Fig. 4.4.2.9c3). The distribution of values is of low representativity (Fig. 4.4.2.9d3).

Chlorfenvinphos

The analysis is based on data from 11 countries for the 2002–2011 period and from 9 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in a very low number of samples and stations 10.7% of samples (Fig. 4.4.1.2) and in 11.4 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 120 stations (Fig. 4.4.2.10a). Chlorfenvinphos did not exceed the EQS in 2002–2011 except in 1 to 5 stations (Fig. 4.4.2.10b) with 5 stations in Poland in 2010–2011 (Fig. 4.4.2.10c). The distribution of values evolves from year to year with a range reaching more than 100 in 2011, larger in the recent years with more data, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.4.2.10d).

The highest concentration of 0.108µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Chlorpyrifos

The analysis is based on data from 13 countries for the 2002–2011 period and from 11 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 14.7 % of samples (Fig. 4.4.1.2) and in 12.9 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach a number slightly above 110 stations (Fig. 4.4.2.11a). Chlorpyrifos did not exceed the EQS in 2002–2011 except in 2 to 12 stations during the period (Fig. 4.4.2.11b) and in Poland and Italy in 8 stations in 2010–2011 (Fig. 4.4.2.11c). The distribution of values evolves from year to year with a range around 500, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.4.211d). The highest concentration of 0.165µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

DDT total (DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p')

The analysis is based on data from 15 countries for the 2002–2011 period and from 10 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 8.9 % of samples (Fig. 4.4.1.2) and in 18.8 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach slightly less than 209 stations (Fig. 4.4.2.12a). DDT total did not exceed the EQS in 2002–2011 except in 2 stations in 2007 (Fig. 4.4.2.12b) and no exceedance in 2010–2011 (Fig. 4.4.2.12c). The distribution of values evolves from year to year with a range reaching 100, smaller in the recent years with more data (Fig. 4.4.2.12d). The highest concentration of 0.0102µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

DDT, p,p'

The analysis is based on data from 15 countries for the 2002–2011 period and from 10 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 34.1 % of samples (Fig. 4.4.1.2) and in 27% of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 210 stations in 2011 (Fig. 4.4.2.13a). DDT, p,p' did not exceed the EQS in 2002–2011 except in 1 to 12 stations depending on the year (Fig. 4.4.2.13b) and in 3 stations from 3 countries in 2010–2011 (Fig. 4.4.2.13c). The distribution of values evolves from year to year with a range reaching 1000, smaller in the recent years with more data, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.4.2.13d). The highest concentration of 0.032µg/l was reported by Romania in the 2010–2011 period, see table 4.4.1.1.

di(2-ethylhexyl) phthalate (DEHP)

The analysis is based on data from 15 countries for the 2002–2011 period and from 12 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 33.8 % of samples (Fig. 4.4.1.2) and in 53.1 % of stations (Fig. 4.4.1.4). The number of reported stations varies since 2002 to reach 100 stations in 2010 and 68 in 2011 (Fig. 4.4.2.14a). di(2-ethylhexyl) phthalate (DEHP) exceeded the EQS in 2002–2011 in 1 to 16 stations (Fig. 4.4.2.14b) and 24 stations and four countries especially Slovakia and Ireland, in 2010–2011 (Fig. 4.4.2.18c). The distribution of values evolves from year to year but has currently low significance (Fig. 4.4.2.14d). The highest concentration of 8.192µg/l was reported by Slovakia in the 2010–2011 period, see table 4.4.1.1.

Dichloromethane

The analysis is based on data from 13 countries for the 2002–2011 and for 2010–2011 periods, see tables 3.4.2 and 3.4.3. The substance was found in 39.3 % of samples (Fig. 4.4.1.2) and in 36.1 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 239 stations (Fig. 4.4.2.15a). Dichloromethane did not exceed the EQS in 2002–2011 (Fig. 4.4.2.15b) and neither in 2010–2011 (Fig. 4.4.2.15c). The distribution of values evolves from year to year with a range reaching around 50.000 in the last years and 50% of the values in the recent years in a range of a bit more than 10 around the median value (Fig. 4.4.2.15d). The highest concentration of 10µg/l was reported by France in the 2010–2011 period, see table 4.4.1.1.

Diuron

The analysis is based on data from 14 countries for the 2002–2011 period and from 12 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 46.6 % of samples (Fig. 4.4.1.2) and in 34.4 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 160 stations (Fig. 4.4.2.16a). Diuron did not exceed the EQS in 2002–2011 except in 1 to 6 stations (Fig. 4.4.2.16b) and in 6 stations in Poland in 2010–2011 (Fig. 4.4.2.16c). The distribution of values evolves from year to year with a range reaching 200 in recent year, larger in the recent years with more data, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.4.2.16d). The highest concentration of 0.45µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Endosulfan

The analysis is based on data from 6 countries for the 2002–2011 period and from 5 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 93.3 % of samples (Fig. 4.4.1.2) and in 100 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 42 stations in 2010 (Fig. 4.4.2.17a). Endosulfan exceeded the EQS in 2002–2011 in 5 to 14 stations (Fig. 4.4.2.17b) and 19 stations in Poland and Italy in 2010–2011 (Fig. 4.4.2.17c). The distribution of values evolves from year to year with a range varying from 10 to 100 and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.17d). The highest concentration of 0.0715µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Fluoranthene

The analysis is based on data from 14 countries for the 2002–2011 period and from 13 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 53.1 % of samples (Fig. 4.4.1.2) and in 51.8 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 200 stations (Fig. 4.4.2.18a). Fluoranthene did not exceed the EQS in 2002–2011 except in 1 station during the period (Fig. 4.4.2.18b) and 1 station in Poland in 2010–2011 (Fig. 4.4.2.18c). The distribution of values evolves from year to year with a range varying from 10 to 1000, smaller in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.18d). The highest concentration of 0.1142µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Hexachlorobenzene (HCB)

The analysisis based on data from 13 countries for the 2002–2011 period and from 9 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 35.8 % of samples (Fig. 4.4.1.2) and in 28.4 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 160 stations (Fig. 4.4.2.19a). Hexachlorobenzene (HCB) did not exceed the EQS in 2002–2011 except in 1 to 16 stations depending on the year (Fig. 4.4.2.19b) and in 8 stations and 3 countries in particular Italy in the north in 2010–2011 (Fig. 4.4.2.19c). The distribution of values evolves from year to year with a range reaching 100 in the recent years, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.19d). The highest concentration of 0.05µg/l was reported by Italy in the 2010–2011 period, see table 4.4.1.1.

Hexachlorobutadiene (HCBD)

The analysisis based on data from 12 countries for the 2002–2011 period and from 10 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 30 % of samples (Fig. 4.4.1.2) and in 31.5 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 170 stations (Fig. 4.4.2.20a). Hexachlorobutadiene (HCBD) did not exceed the EQS in 2002–2011 except in 7 to 19 stations depending on the year (Fig. 4.4.2.20b) and 19 stations and 2 countries, mainly Poland 2010–2011 (Fig. 4.4.2.20c). The distribution of values evolves from year to year with a range reaching 500, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.20d). The highest concentration of 0.35µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Sum Hexachlorocyclohexane (HCH)

The analysis is based on data from 13 countries for the 2002–2011 period and from 9 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 52.4 % of samples (Fig. 4.4.1.2) and in 24.1 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 90 stations (Fig. 4.4.2.21a). Sum of Hexachlorocyclohexane (HCH) did not exceed the EQS in 2002–2011 except in 1 to 14 stations (Fig. 4.4.2.21b) and in 3 stations in the north of Italy in 2010–2011 (Fig. 4.4.2.21c). The distribution of values evolves from year to year with a range reaching 1000 (Fig. 4.4.2.21d). The highest concentration of 0.0438µg/l was reported by Italy in the 2010–2011 period, see table 4.4.1.1.

Hexachlorocyclohexane (HCH)

The analysis is based on data from 8 countries for the 2002–2011 period and from 5 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 76.2 % of samples (Fig. 4.4.1.2) and in 58.3 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 70 stations (Fig. 4.4.2.21a1). Hexachlorocyclohexane (HCH) exceeded the EQS in 2002–2011 in 4 to 12 stations (Fig. 4.4.2.21b1) and in 3 stations in the north of Italy in 2010–2011 (Fig. 4.4.2.21c1). The distribution of values evolved from year to year with a range reaching 100 in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.21d1). The highest concentration of 0.0364µg/l was reported by Italy in the 2010–2011 period, see table 4.4.1.1.

Isoproturon

The analysis is based on data from 14 countries for the 2002–2011 period and from 10 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 41.8 % of samples (Fig. 4.4.1.2) and in 40 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 160 stations (Fig. 4.4.2.22a). Isoproturon did not exceed the EQS in 2002–2011 except in 1 station depending on the year (Fig. 4.4.2.22b) and 1 station in Poland in 2010–2011 (Fig. 4.4.2.22c). The distribution of values evolves from year to year with a range above 1000, larger in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.22d). The highest concentration of 2.2525µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Lead

Many countries reported Pb as Pb dissolved and/or Pb as Pb and its compounds.

For the case of Lead and its compound (total Lead), the analysis is based on data from 27 countries for the 2002–2011 period and from 20 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 67 % of samples (Fig. 4.4.1.2) and in 69.4 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 350 stations in 2010 (Fig. 4.4.2.23a). Lead total did not exceed the EQS except in 1 to 10 stations in 2002–2011 (Fig. 4.4.2. 23b) and in 10 stations and 4 countries in 2010–2011 (Fig. 4.4.2. 23c). The distribution of values evolves from year to year with a range smaller in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2. 23d). The highest concentration of 263.3333µg/l was reported by United Kingdom in the 2010–2011 period, see table 4.4.1.1.

For the case of dissolved Lead, the data were provided recently when dissolved lead was found to be a more appropriate fraction to monitor lead. The analysis is based on data from 10 countries for the 2002–2011 and for 2010–2011 periods, see tables 3.4.2 and 3.4.3. The substance was found in 35.2 % of samples (Fig. 4.4.1.2) and in 41.5 % of stations (Fig. 4.4.1.4). The number of reported stations has increased in the last 3 years to reach around 160 stations (Fig. 4.4.2. 23a1). Dissolved lead did not exceed the EQS in 2002–2011 except in 3 to 6 stations (Fig. 4.4.2. 23b1) and 6 stations and 2 countries, in 2010–2011 (Fig. 4.4.2. 23c1). The distribution of values is wide, larger in last year with more data, and 50% of the values in the recent year in a range of less than 10 around the median value (Fig. 4.4.2. 23d1). The highest concentration of 400.15µg/l was reported by Spain in the 2010–2011 period, see table 4.4.1.1.

Mercury

Many countries report Hg as Hg and its compounds and in the recent years as Hg dissolved.

For the case of Mercury and its compound (total Mercury), the analysis is based on data from 23 countries for the 2002–2011 period and from 15 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 57.4 % of samples (Fig. 4.4.1.2) and in 40.9 % of stations (Fig. 4.4.1.4). The number of reported stations has increased has increased since 2002 to reach 170 stations in 2010 (Fig. 4.4.2.24a). Mercury exceeded the EQS in 2002–2011 in many stations in Europe: in 11 to 83 (67%) stations (Fig. 4.4.2. 24b) and in 53 stations in 4 countries, mostly in Poland, Italy and Malta (100% of stations) in 2010–2011 (Fig. 4.4.2.24c). The distribution of values evolves from year to year with a range varying from 100 to 10000, smaller in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.24d). The highest concentration of 0.5µg/l was reported by Italy in the 2010–2011 period, see table 4.4.1.1.

For the case of dissolved Mercury, the data were provided recently, in the last 3 years when dissolved mercury was found to be a more appropriate fraction to monitor mercury. The analysis is based on data from 8 countries for the 2002–2011 and for 2010–2011 periods, see tables 3.4.2 and 3.4.3. The substance was found in 20.8 % of samples (Fig. 4.4.1.2) and in 44.1 % of stations (Fig. 4.4.1.4). The number of reported stations has reached 29 stations (Fig. 4.4.2.24a1). Dissolved mercury did not exceed the EQS in 2002–2011 except in 1 station in Croatia (Fig. 4.4.2.24b1 and Fig. 4.4.2.24c1). No conclusion on the distribution of values can be drawn (Fig. 4.4.2.24d1). The highest concentration of 0.2µg/l was reported by Croatia in the 2010–2011 period, see table 4.4.1.1.

Naphthalene

The analysis is based on data from 13 countries for the 2002–2011 period and from 12 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 37.7 % of samples (Fig. 4.4.1.2) and in 44.2 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 189 stations (Fig. 4.4.2.25a). Naphthalene did not exceed the EQS in 2002–2011 except in 2 stations in 2009 (Fig. 4.4.2.25b and Fig. 4.4.2.25c). The distribution of values evolves from year to year with a range varying from 100 to 10.000, smaller in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.25d). The highest concentration of 1µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Nickel

Many countries reported Ni as Ni and its compounds and recently Ni as Ni dissolved.

For the case of Nickel and its compound (total Nickel), the analysis is based on data from 27 countries for the 2002–2011 period and from 19 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 71.7 % of samples (Fig. 4.4.1.2) and in 74.1 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 340 stations (Fig. 4.4.2.26a). Nickel did not exceed the EQS in 2002–2011 except in 1 to 12 stations (Fig. 4.4.2.26b) and 4 stations and 3 countries in 2010–2011 (Fig. 4.4.2.26c). The distribution of values evolves from year to year with a range smaller in the recent years with more data, and 50% of the values in a range of 10 around the median value (Fig. 4.4.2.26d). The highest concentration of 640µg/l was reported by United Kingdom in the 2010–2011 period, see table 4.4.1.1.

For the case of dissolved Nickel, the data were provided recently in the last 3 years when dissolved nickel was found to be a more appropriate fraction to monitor nickel. The analysis is based on data from 10 countries for the 2002–2011 and for 2010–2011 periods, see tables 3.4.2 and 3.4.3. The substance was found in 72.2 % of samples (Fig. 4.4.1.2) and in 73.6 % of stations (Fig. 4.4.1.4). The number of reported stations reaches around 160 stations (Fig. 4.4.2.27). Nickel dissolved did not exceed the EQS in 2002–2011 except in 2 to 19 stations (Fig. 4.4.2.27) and in 3 countries, mostly Spain and Serbia in 2010–2011 (Fig. 4.4.2.27). No conclusion on the distribution of values can be drawn (Fig. 4.4.2.27). The highest concentration of 972.788µg/l was reported by Spain in the 2010–2011 period, see table 4.4.1.1.

Para-tert-octylphenol

The analysis is based on data from 8 countries for the 2002–2011 period and from 7 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 9.1 % of samples (Fig. 4.4.1.2) and in 4.5 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 106 stations (Fig. 4.4.2.28a). Para-tert-octylphenol did not exceed the EQS in 2002–2011 except in 1 station in the period (Fig. 4.4.2.28b) and none in 2010–2011 (Fig. 4.4.2.28c). The distribution of values evolves from year to year with a wide range but most values in a range of 100, larger in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.28d). The highest concentration of 0.1µg/l was reported by France in the 2010–2011 period, see table 4.4.1.1.

Pentachlorobenzene

The analysis is based on data from 9 countries for the 2002–2011 period and from 6 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 46.3 % of samples (Fig. 4.4.1.2) and in 42.2 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach around 125 stations (Fig. 4.4.2.29a). Pentachlorobenzene did not exceed the EQS in 2002–2011 except in 12 to 13 stations (Fig. 4.4.2.29b) and Italy (52% of the stations) in 2010–2011 (Fig. 4.4.2.29c). The distribution of values evolves from year to year with a small range of 100 and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.4.2.29d). The highest concentration of 0.05µg/l was reported by Italy in the 2010–2011 period, see table 4.4.1.1.

Pentachlorophenol

The analysis is based on data from 12 countries for the 2002–2011 period and from 10 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 34 % of samples (Fig. 4.4.1.2) and in 33.5 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 148 stations (Fig. 4.4.2.30a). Pentachlorophenol did not exceed the EQS in 2002–2011 (Fig. 4.4.2.30b and Fig. 4.4.2.30c). The distribution of values evolves from year to year with a range wider in the recent years, reaching 100, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.30d). The highest concentration of 0.25µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Benzo(a)pyrene

The analysis is based on data from 16 countries for the 2002–2011 period and from 14 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 43.7 % of samples (Fig. 4.4.1.2) and in 32.6 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 213 stations (Fig. 4.4.2.31a). Benzo(a)pyrene did not exceed the EQS in 2002–2011 (Fig. 4.4.2.31b) and neither in 2010–2011 (Fig. 4.4.2.31c). The distribution of values evolves from year to year with a range up to 10.000, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.31d). The highest concentration of 0.0119µg/l was reported by the Netherlands in the 2010–2011 period, see table 4.4.1.1.

Sum of benzo(b)fluoranthene and benzo(k)fluoranthene

The analysis is based on data from 12 countries for the 2002–2011 period and from 10 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 34.9 % of samples (Fig. 4.4.1.2) and in 23.9 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 163 stations (Fig. 4.4.2.32a). Sum of benzo(b)fluoranthene and benzo(k)fluoranthene did not exceed the EQS in 2002–2011 except in 2 stations (Fig. 4.4.2.32b) and none in 2010–2011 (Fig. 4.4.2.32c). The distribution of values is very narrow (Fig. 4.4.2.32d). The highest concentration of 0.02µg/l was reported by the Netherlands in the 2010–2011 period, see table 4.4.1.1.

Sum of benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene

The analysis is based on data from 11 countries for the 2002–2011 period and from 8 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 49.8 % of samples (Fig. 4.4.1.2) and in 37.6 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 130 stations (Fig. 4.4.2.33a). Sum of benzo(b)fluoranthene and benzo(k)fluoranthene exceeded the EQS in 10 to 25 stations in period 2002–2011 (Fig. 4.4.2.33b) and 30 stations and 4 countries, mostly Poland in 2010–2011 (Fig. 4.4.2.33c). The range increased in the recent years with more data (Fig. 4.4.2.33d). The highest concentration of 0.1169µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Simazine

The analysis is based on data from 16 countries for the 2002–2011 period and from 10 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 28.4 % of samples (Fig. 4.4.1.2) and in 22.7 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 165 stations (Fig. 4.4.2.34a). Simazine did not exceed the EQS in 2002–2011 (Fig. 4.4.2.34b) and in 2010–2011 (Fig. 4.4.2.34c). The distribution of values evolves from year to year with a wider range in the recent years with more data from 100 to 1000, and 50% of the values in the recent years in a very small range around the median value (Fig. 4.4.2.34d). The highest concentration of 0.6µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Tributyltin cation

The analysis is based on data from 3 countries for the 2002–2011 and for 2010–2011 periods, and data are reported only in 2011, see tables 3.4.2 and 3.4.3. The substance was found in 12.6 % of samples (Fig. 4.4.1.2) and in 12.9 % of stations (Fig. 4.4.1.4). 31 stations were reported (Fig. 4.4.2.35a). Tributyltin cation exceeded the EQS in 14 stations or 45% (Fig. 4.4.2.35b and 3 countries in 2010–2011 (Fig. 4.4.2.35c). No conclusion can be drawn on the distribution of values (Fig. 4.4.2.35d). The highest concentration of 0.0008µg/l was reported by United Kingdom in the 2010–2011 period, see table 4.4.1.1.

Trichloromethane

The analysis is based on data from 11 countries for the 2002–2011 and for 2010–2011 periods, see tables 3.4.2 and 3.4.3. The substance was found in 47.7 % of samples (Fig. 4.4.1.2) and in 36.3 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 225 stations (Fig. 4.4.2.36a). Trichloromethane did not exceed the EQS in 2002–2011 except in 1 station (Fig. 4.4.2.36b) and none in 2010–2011 (Fig. 4.4.2.36c). The distribution of values evolves from year to year with a range reaching 1000 in the recent years, larger in the recent years with more data, and 50% of the values in the recent years in a range of 10 around the median value (Fig. 4.4.2.36d). The highest concentration of 1.8475µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Trifluralin

The analysis is based on data from 13 countries for the 2002–2011 period and from 10 countries for 2010–2011 period, see tables 3.4.2 and 3.4.3. The substance was found in 19.1 % of samples (Fig. 4.4.1.2) and in 18.7 % of stations (Fig. 4.4.1.4). The number of reported stations has increased since 2002 to reach 115 stations (Fig. 4.4.2.37a). Trifluralin did not exceed the EQS in 2002–2011 except in 2 to 11 stations depending on the year (Fig. 4.4.2.37b) and 7 stations in Poland and Italy in 2010–2011 (Fig. 4.4.2.37c). The distribution of values evolves from year to year with a range around 100, and 50% of the values in the recent years in a range of less than 10 around the median value (Fig. 4.4.2.37d). The highest concentration of 0.1µg/l was reported by Poland in the 2010–2011 period, see table 4.4.1.1.

Figure 4.4.2.1a Long-term traffic-light indicator and number of stations for 1,1,2,2-tetrachloroethene in lakes.

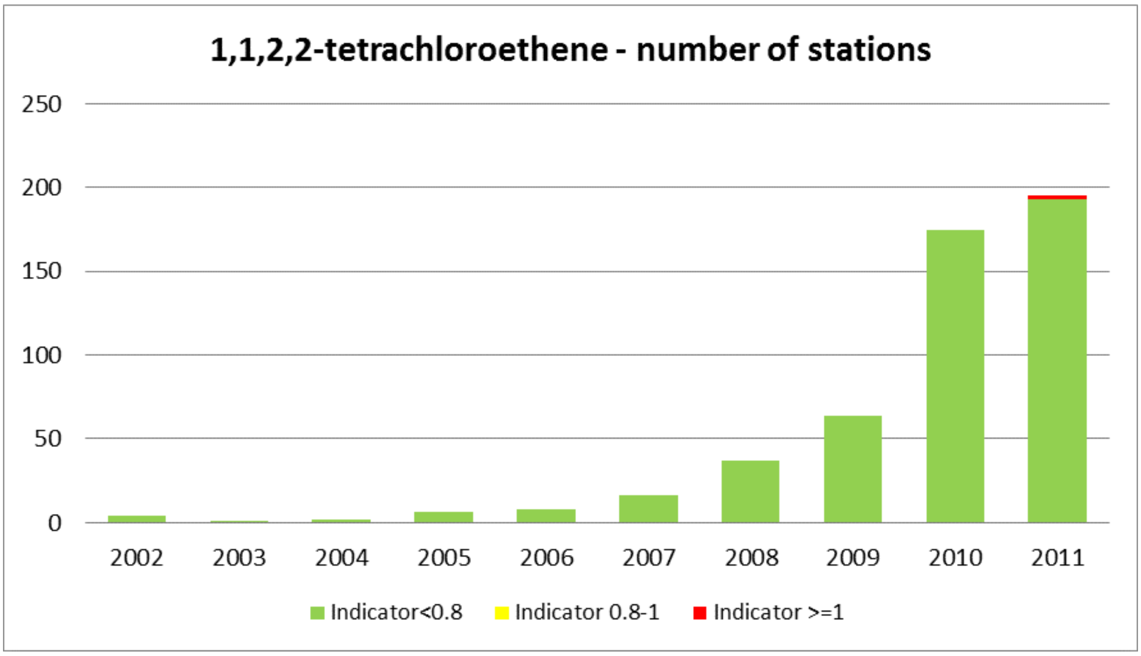


Figure 4.4.2.1b Traffic-light indicator for 1,1,2,2-tetrachloroethene in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

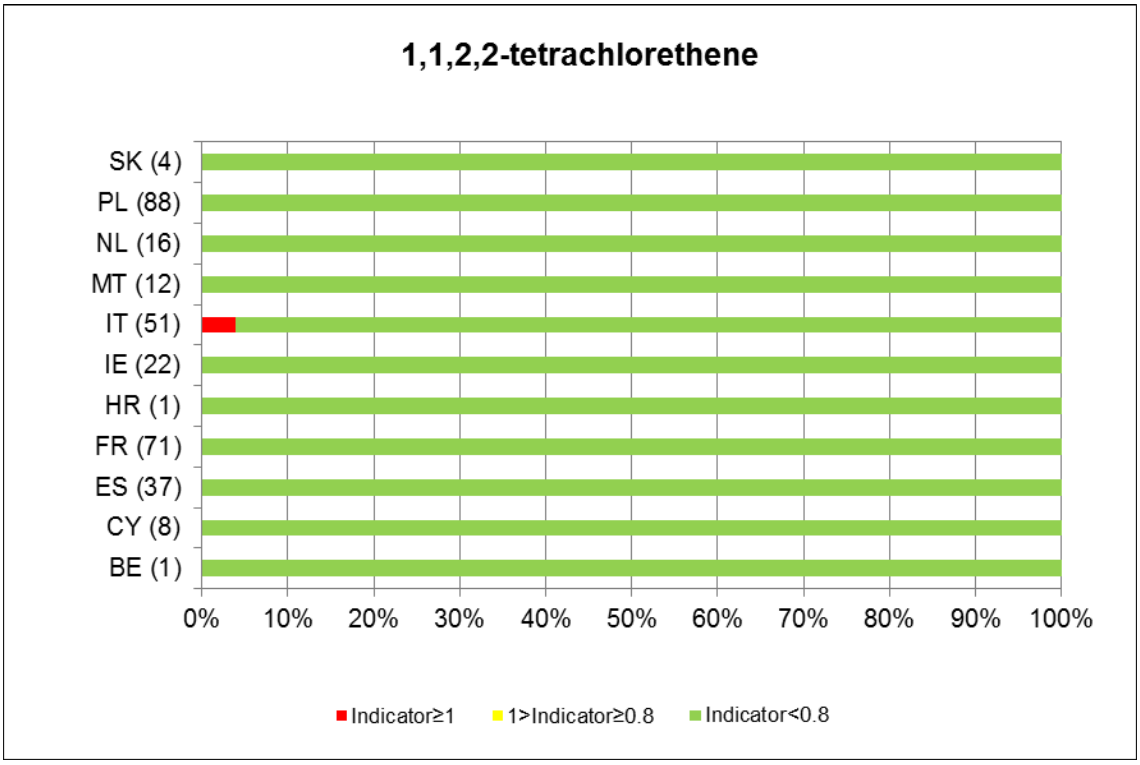


Figure 4.4.2.1c Map of traffic-light indicator for 1,1,2,2-tetrachloroethene in lakes from 2010–2011.

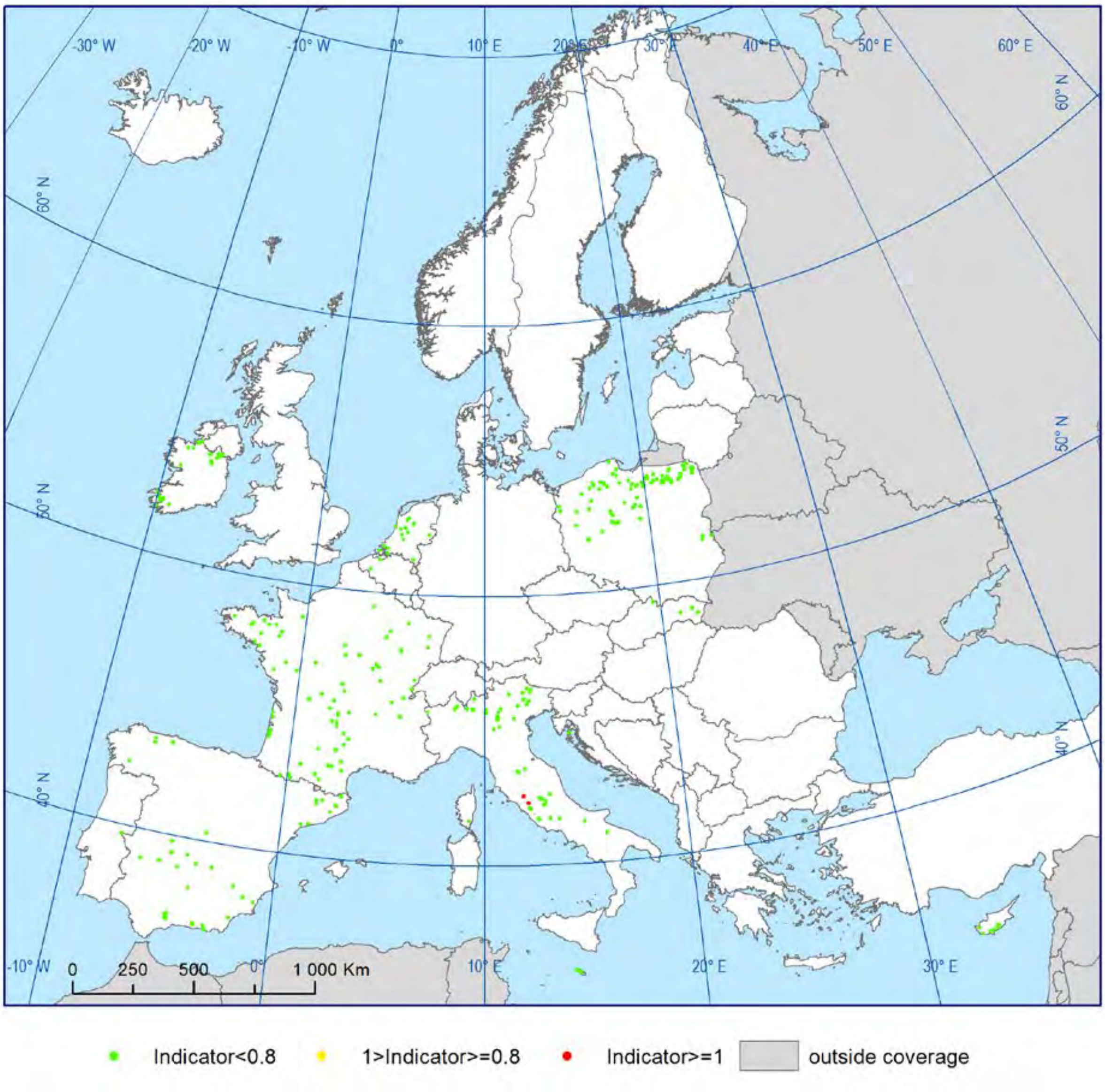


Figure 4.4.2.1d Box plot of data for 1,1,2,2-tetrachloroethene in lakes.

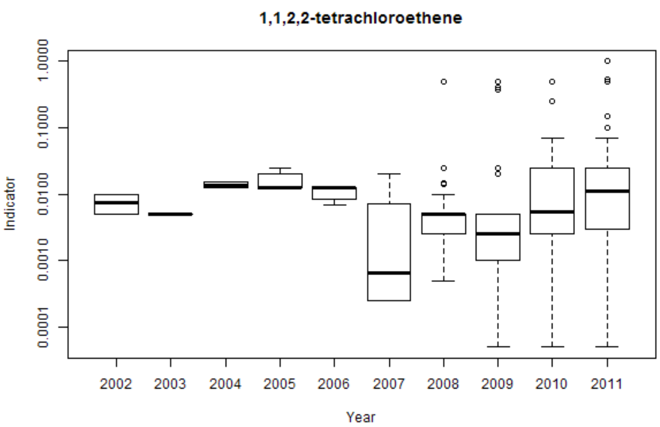


Figure 4.4.2.2a Long-term traffic-light indicator and number of stations for 1,2-dichloroethane in lakes.

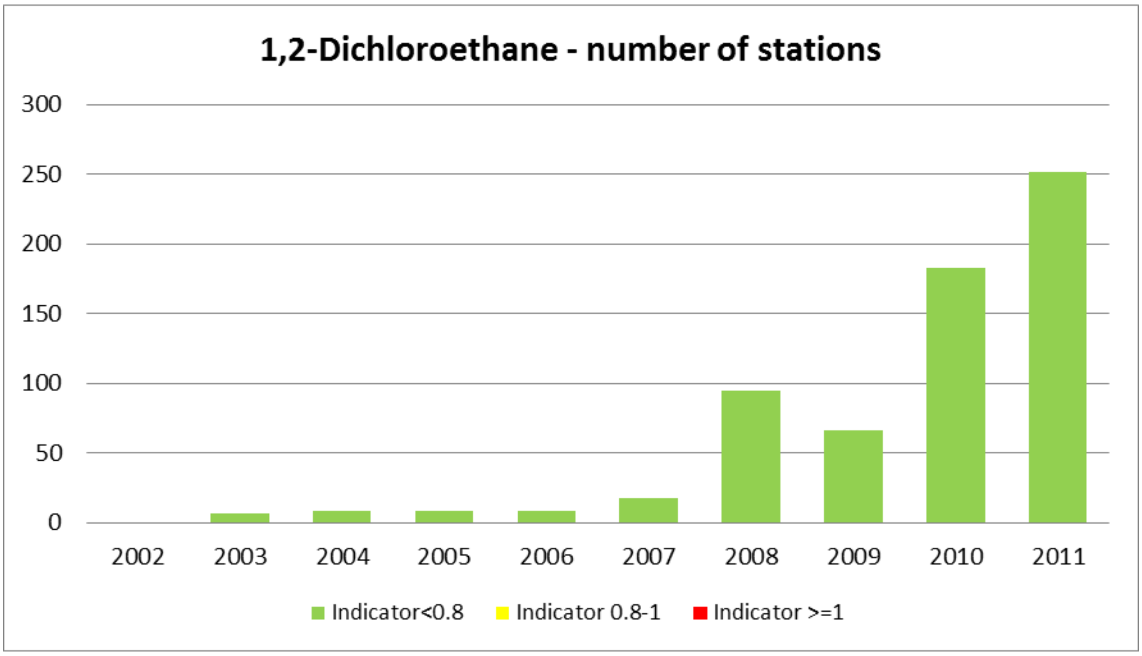


Figure 4.4.2.2b Traffic-light indicator for 1,2-dichloroethane in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

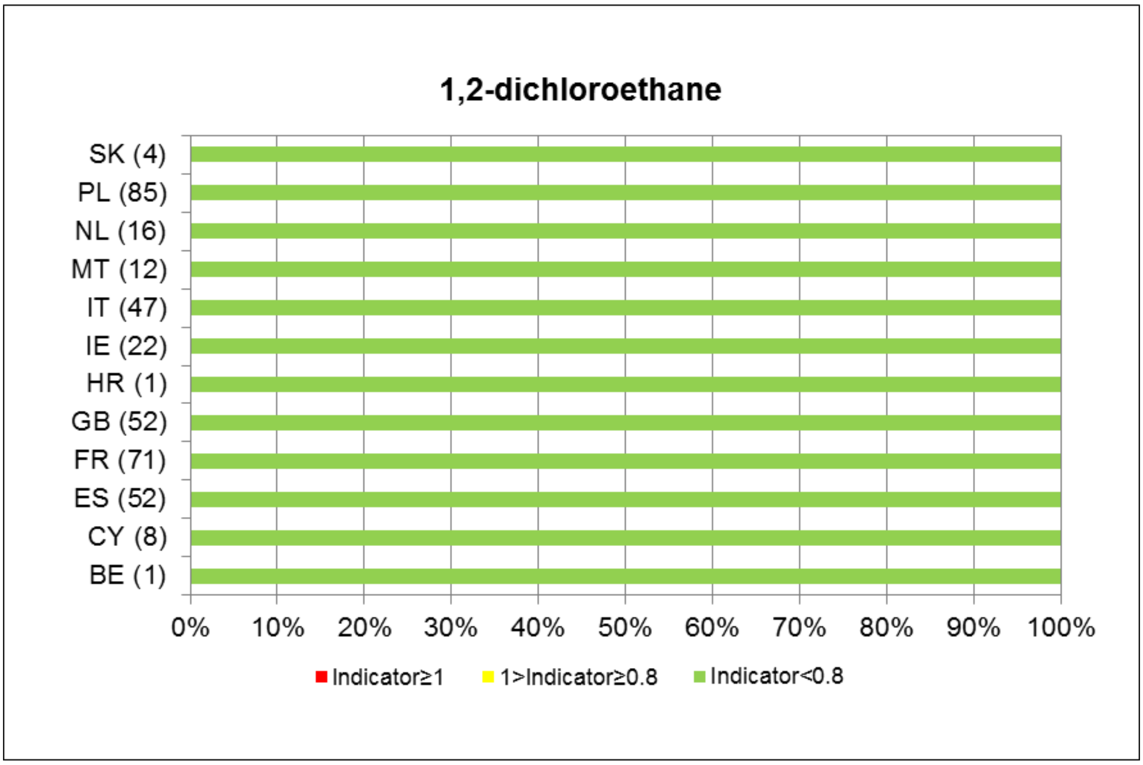


Figure 4.4.2.2c Map of traffic-light indicator for 1,2-dichloroethane in lakes from 2010–2011.

Figure 4.4.2.2d Box plot of data for 1,2-dichloroethane in lakes.

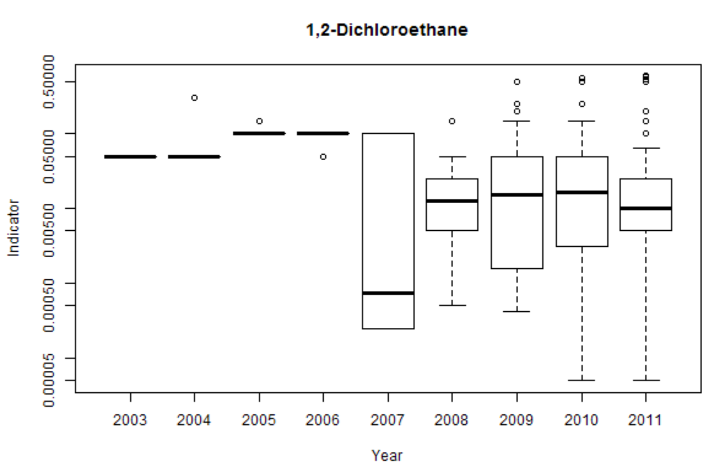


Figure 4.4.2.3a Long-term traffic-light indicator and number of stations for 4-nonylphenol in lakes.

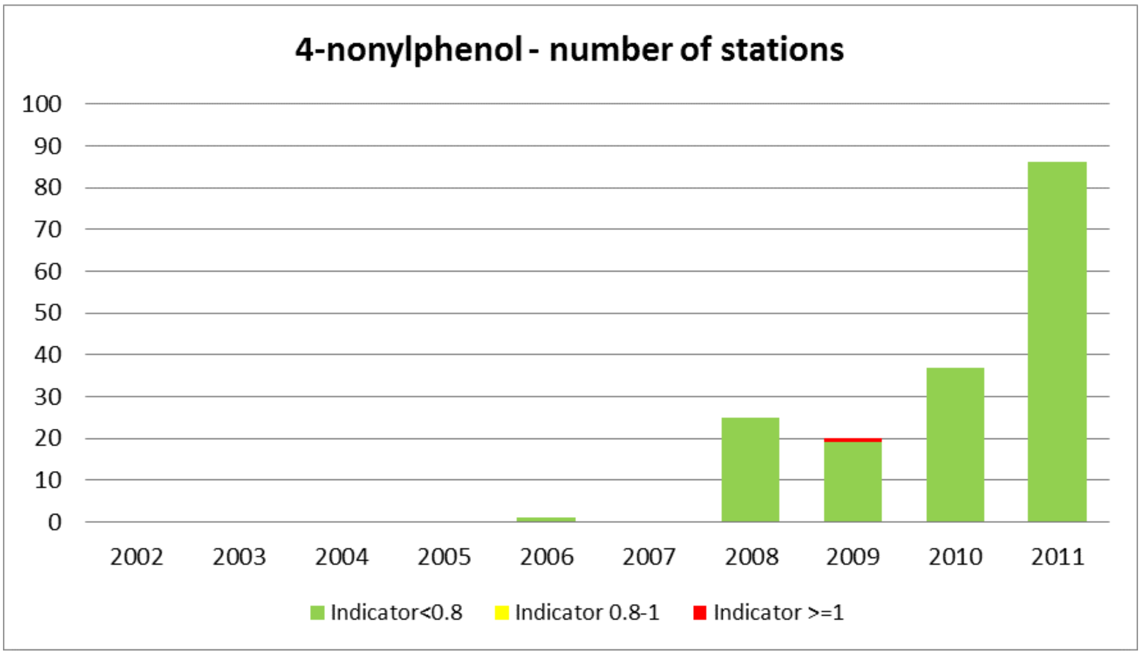


Figure 4.4.2.3b Traffic-light indicator for 4-nonylphenol in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

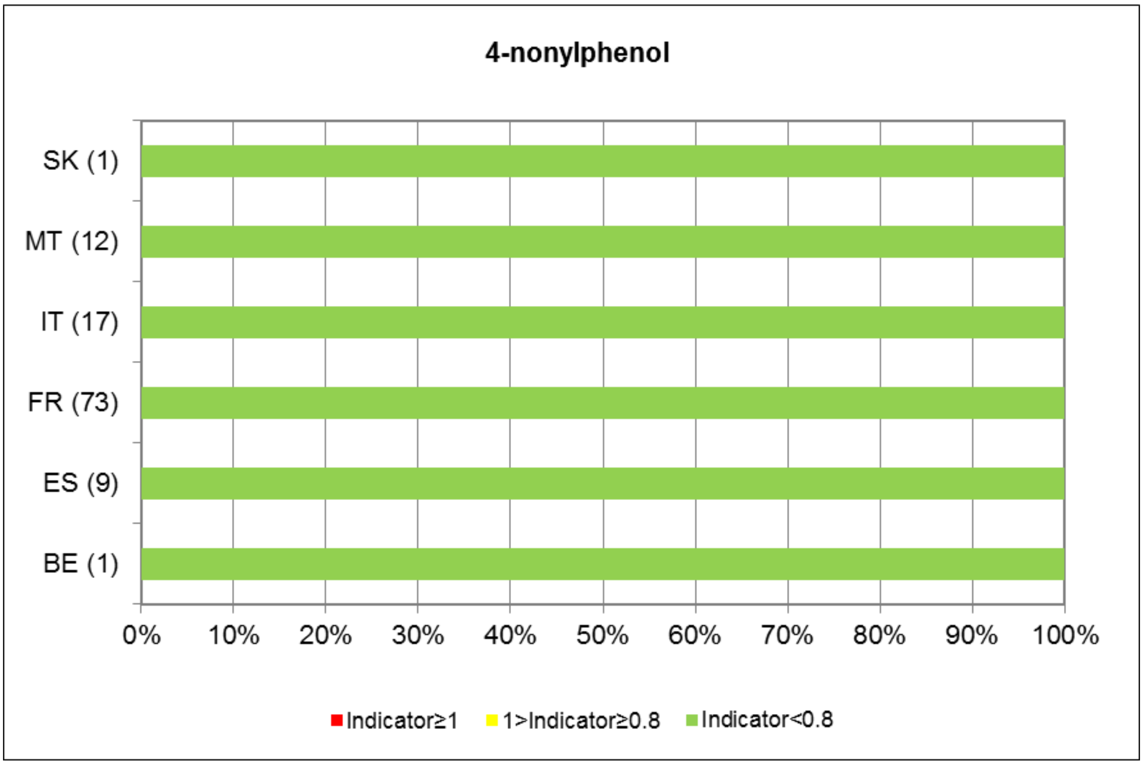


Figure 4.4.2.3c Map of traffic-light indicator for 4-nonylphenol in lakes from 2010–2011.

Figure 4.4.2.3d Box plot of data for 4-nonylphenol in lakes.

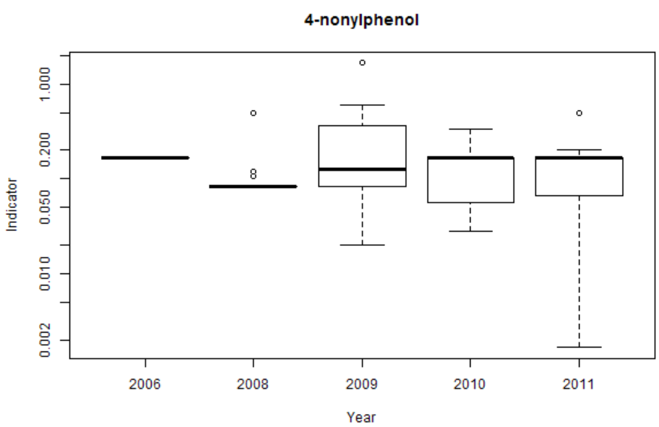


Figure 4.4.2.4a Long-term traffic-light indicator and number of stations for alachlor in lakes.

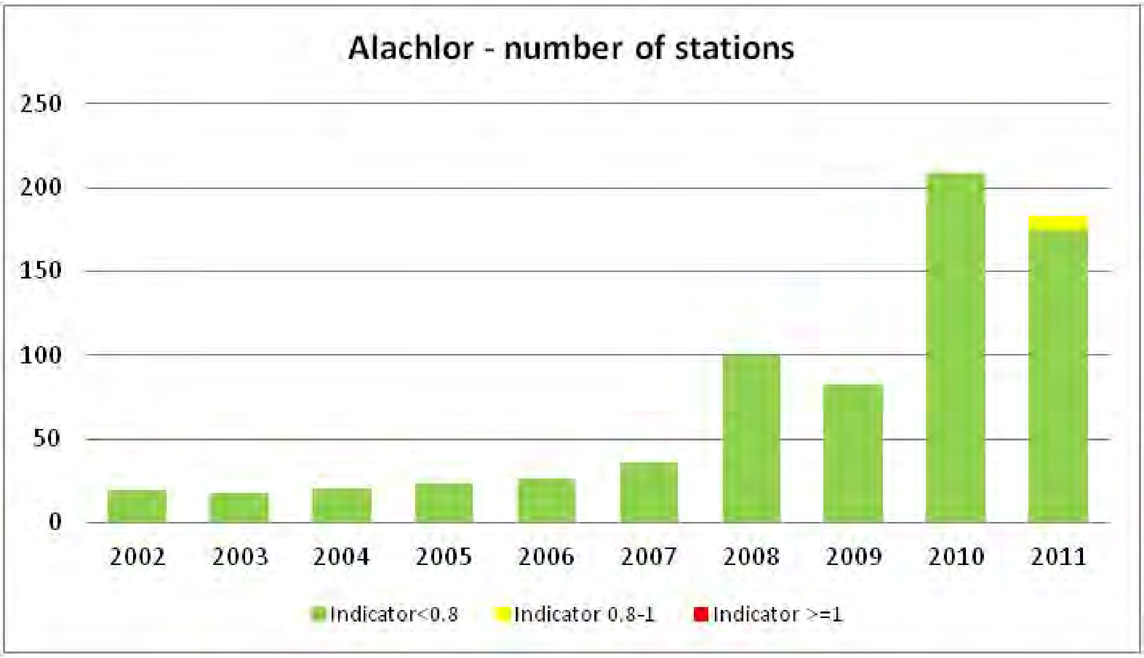


Figure 4.4.2.4b Traffic-light indicator for alachlor in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

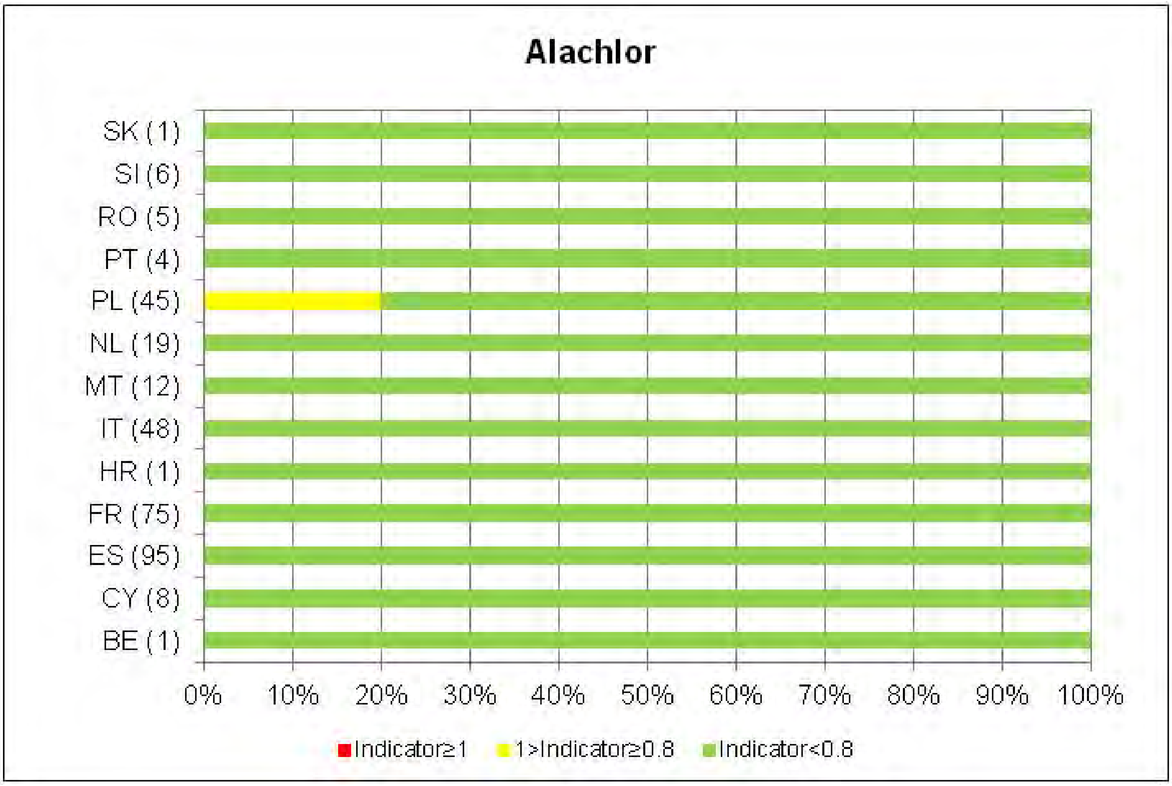


Figure 4.4.2.4c Map of traffic-light indicator for alachlor in lakes from 2010–2011.

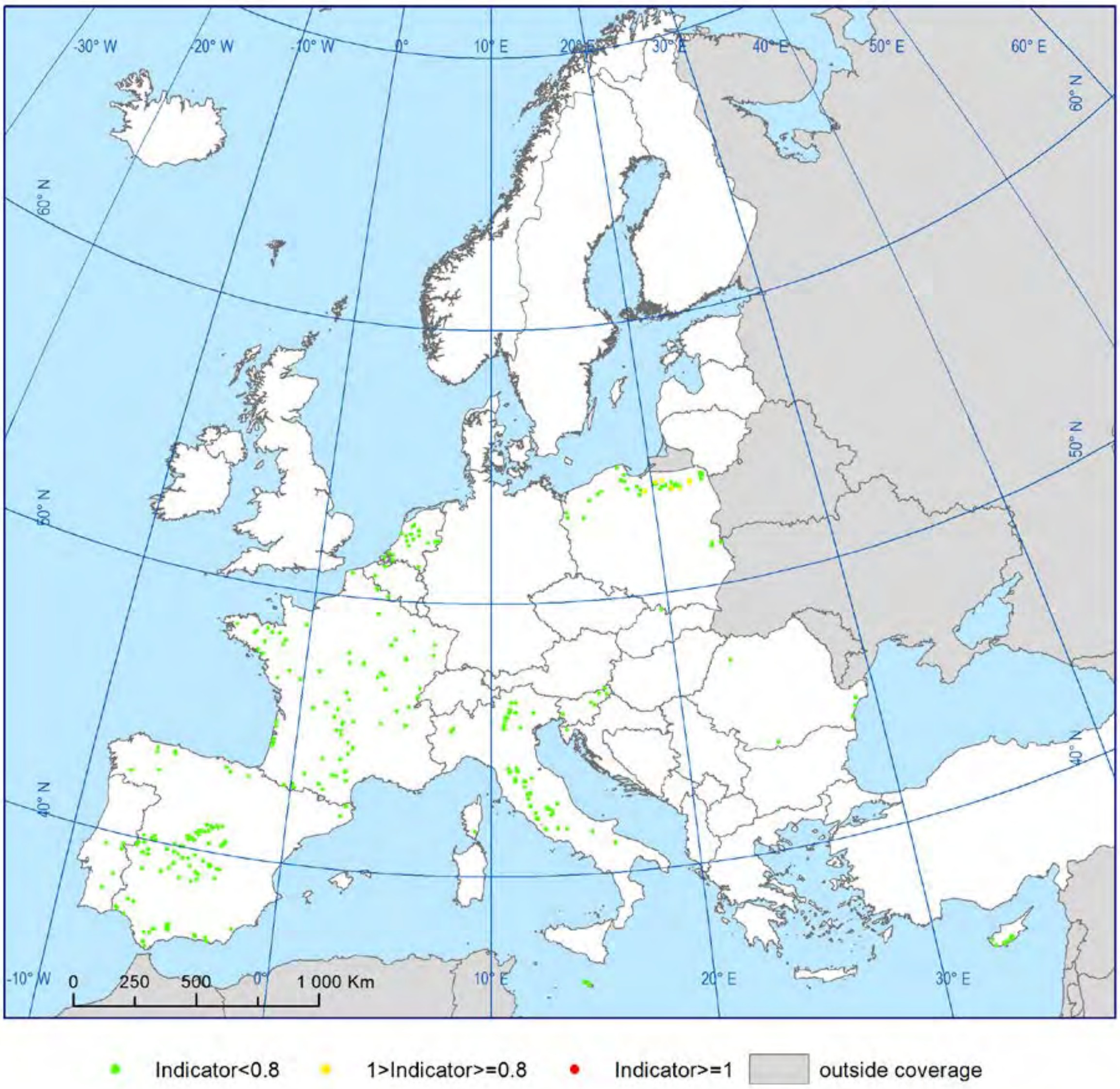


Figure 4.4.2.4d Box plot of data for alachlor in lakes.

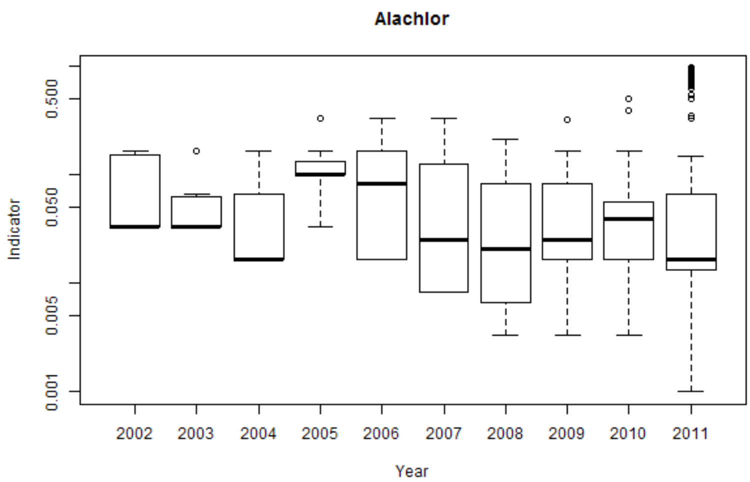


Figure 4.4.2.5a Long-term traffic-light indicator and number of stations for the sum of aldrin, dieldrin, endrin and isodrin in lakes.

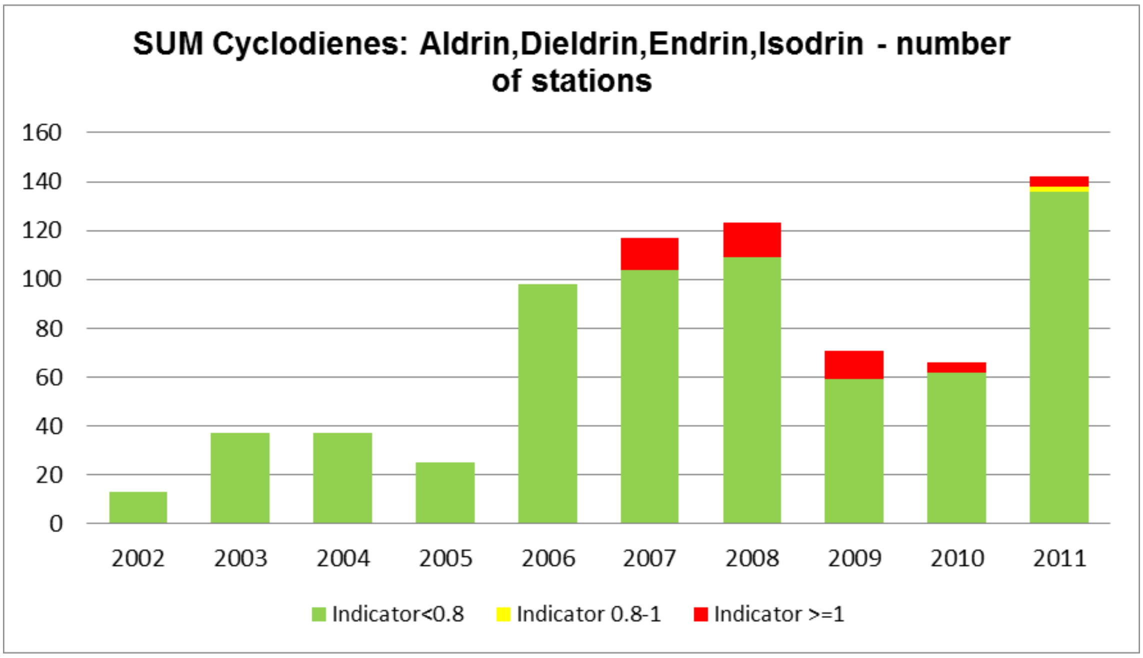


Figure 4.4.2.5b Traffic-light indicator for the sum of aldrin, dieldrin, endrin and isodrin in lakes from 2010-2011 (number of stations per country is shown in parenthesis).

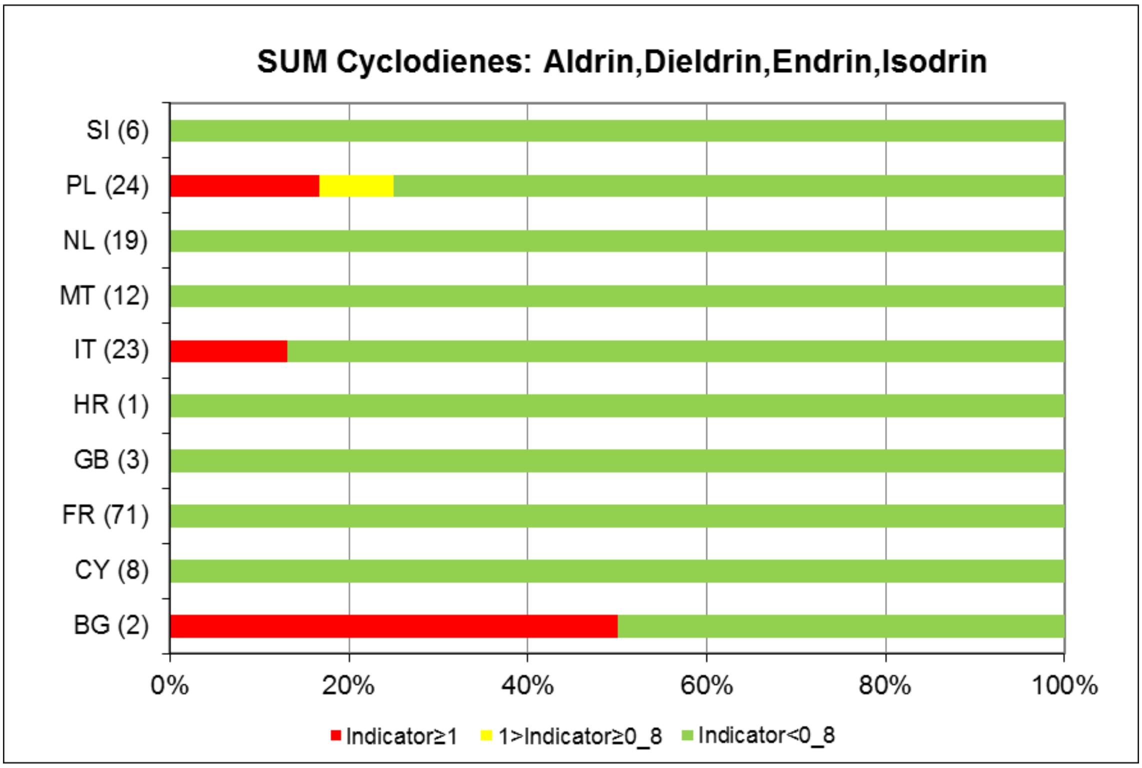


Figure 4.4.2.5c Map of traffic-light indicator for the sum of aldrin, dieldrin, endrin and isodrin in lakes from 2010–2011.

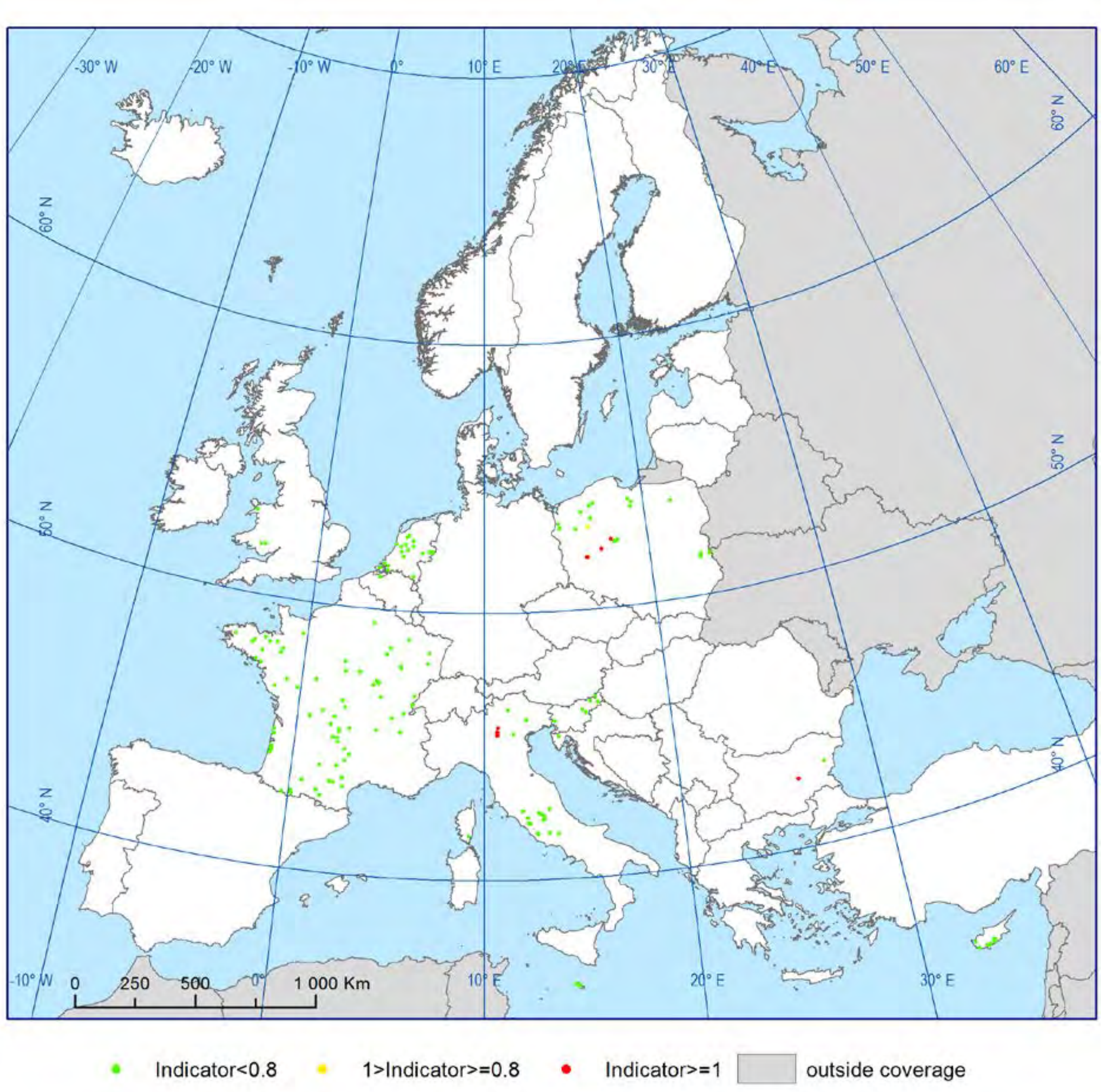


Figure 4.4.2.5d Box plot of data for the sum of aldrin, dieldrin, endrin and isodrin in lakes.

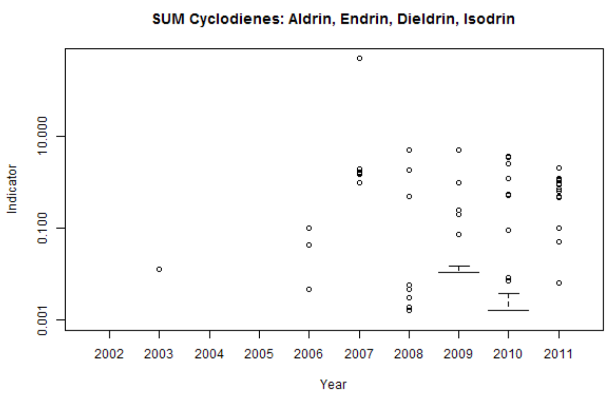


Figure 4.4.2.6a Long-term traffic-light indicator and number of stations for anthracene in lakes.

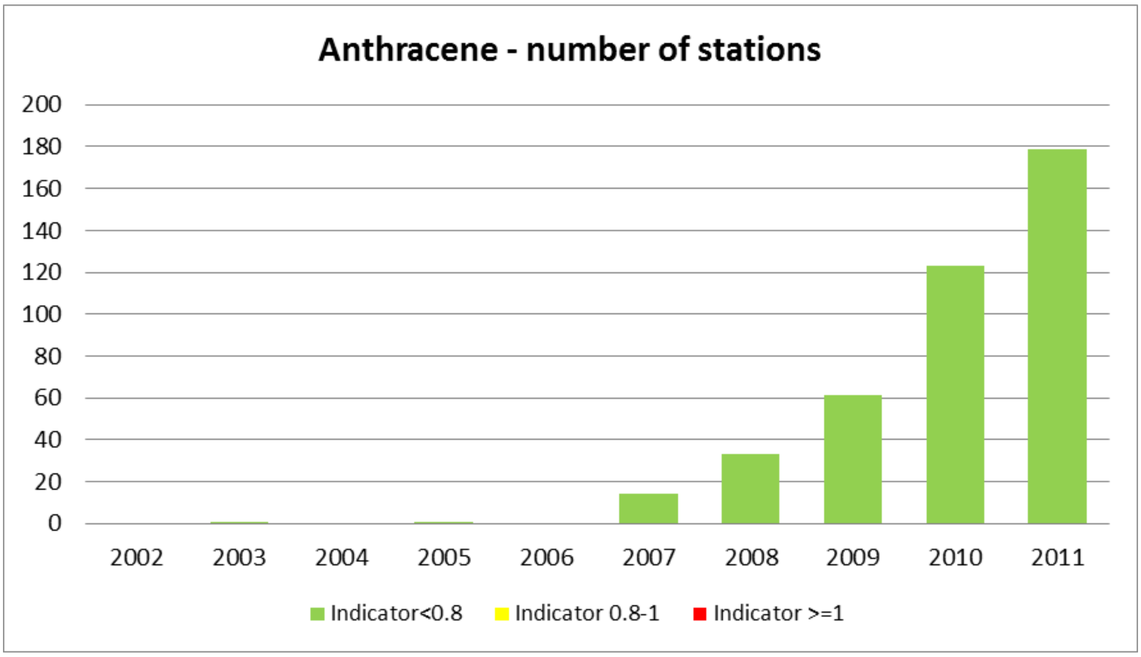


Figure 4.4.2.6b Traffic-light indicator for anthracene in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

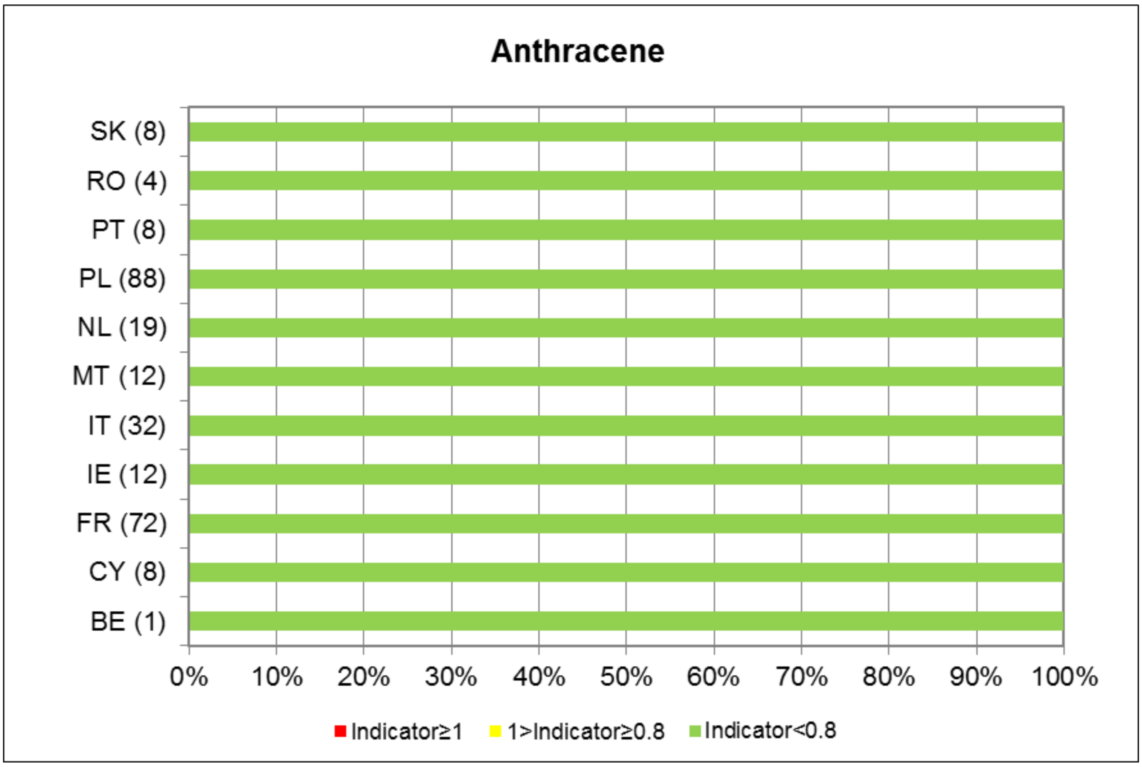


Figure 4.4.2.6c Map of traffic-light indicator for anthracene in lakes from 2010–2011.

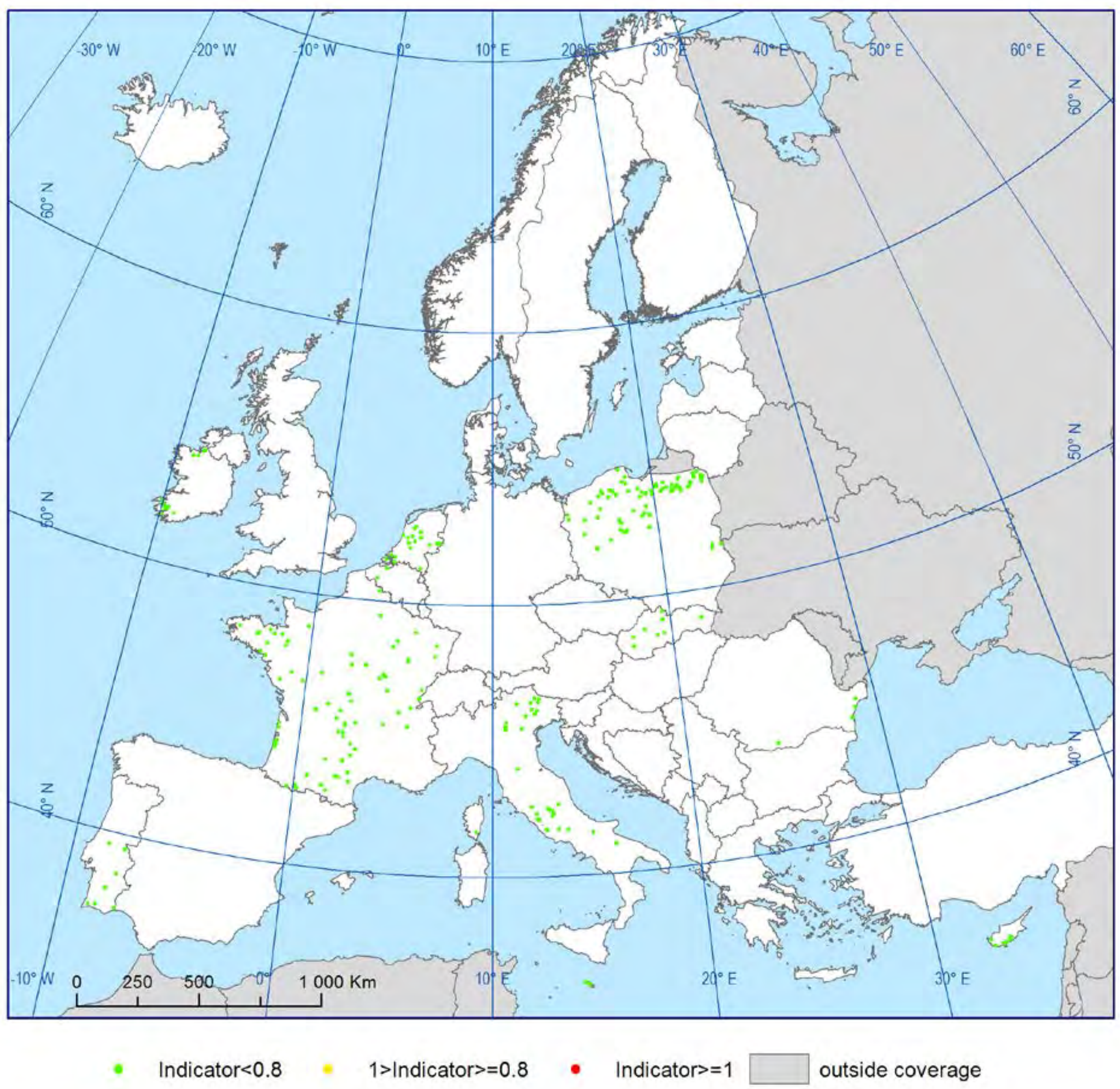


Figure 4.4.2.6d Box plot of data for anthracene in lakes.

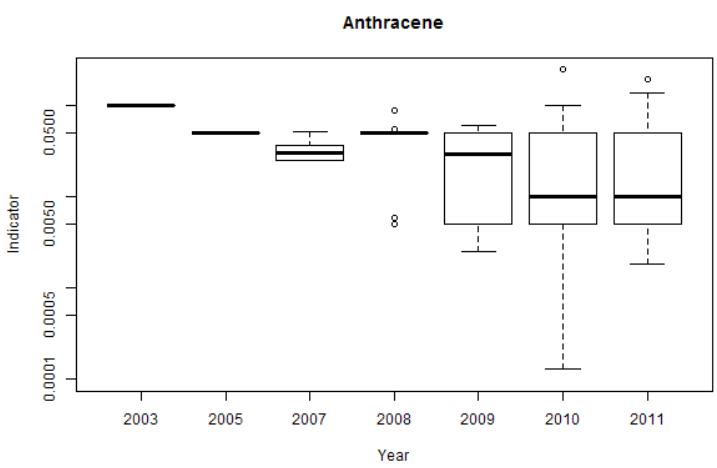


Figure 4.4.2.7a Long-term traffic-light indicator and number of stations for atrazine in lakes.

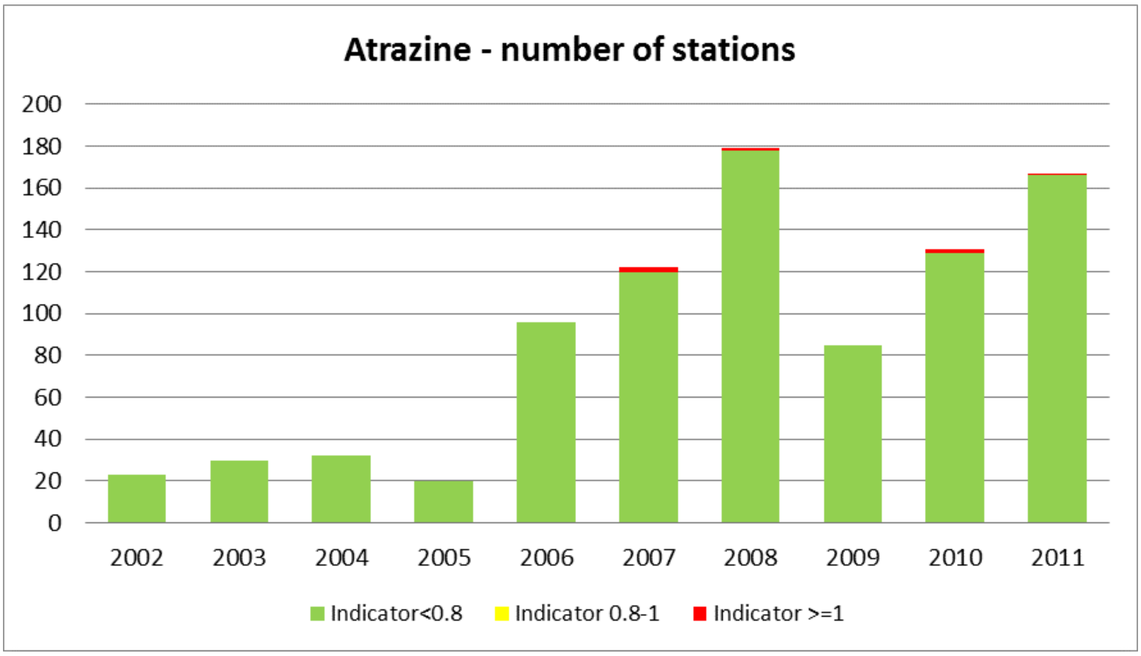


Figure 4.4.2.7b Traffic-light indicator for atrazine in lakes from 2010–2010 (number of stations per country is shown in parenthesis).

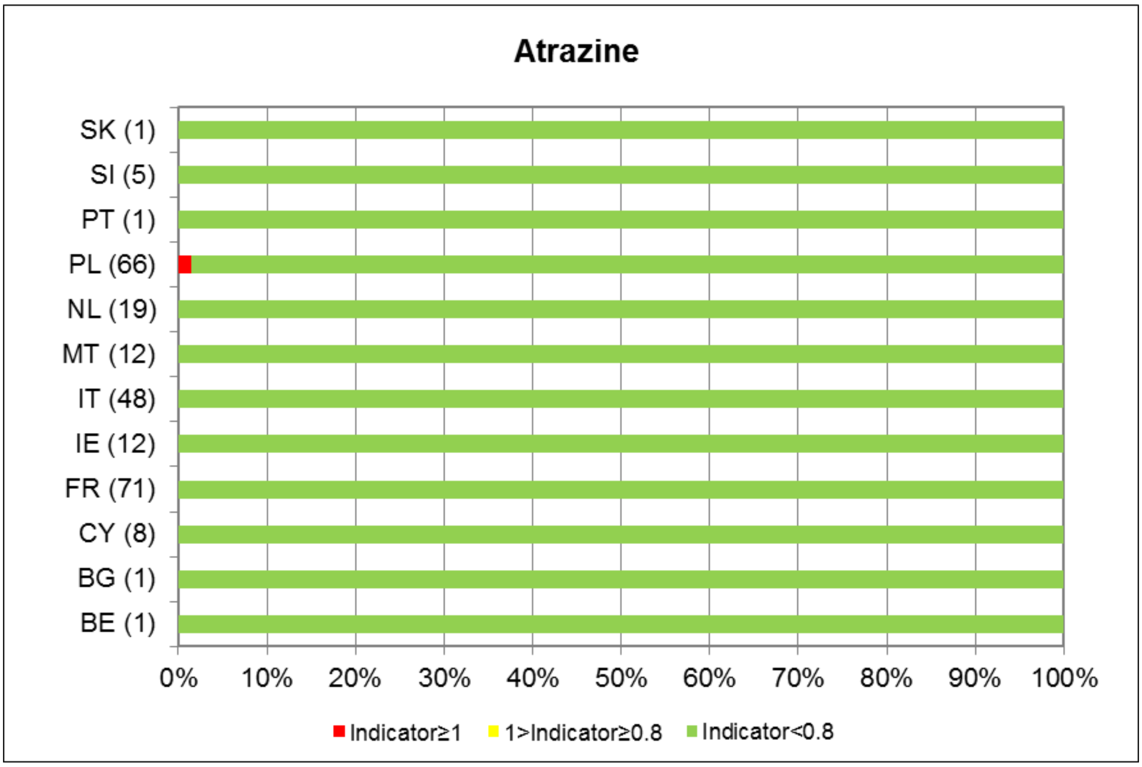


Figure 4.4.2.7c Map of traffic-light indicator for atrazine in lakes from 2010–2011.

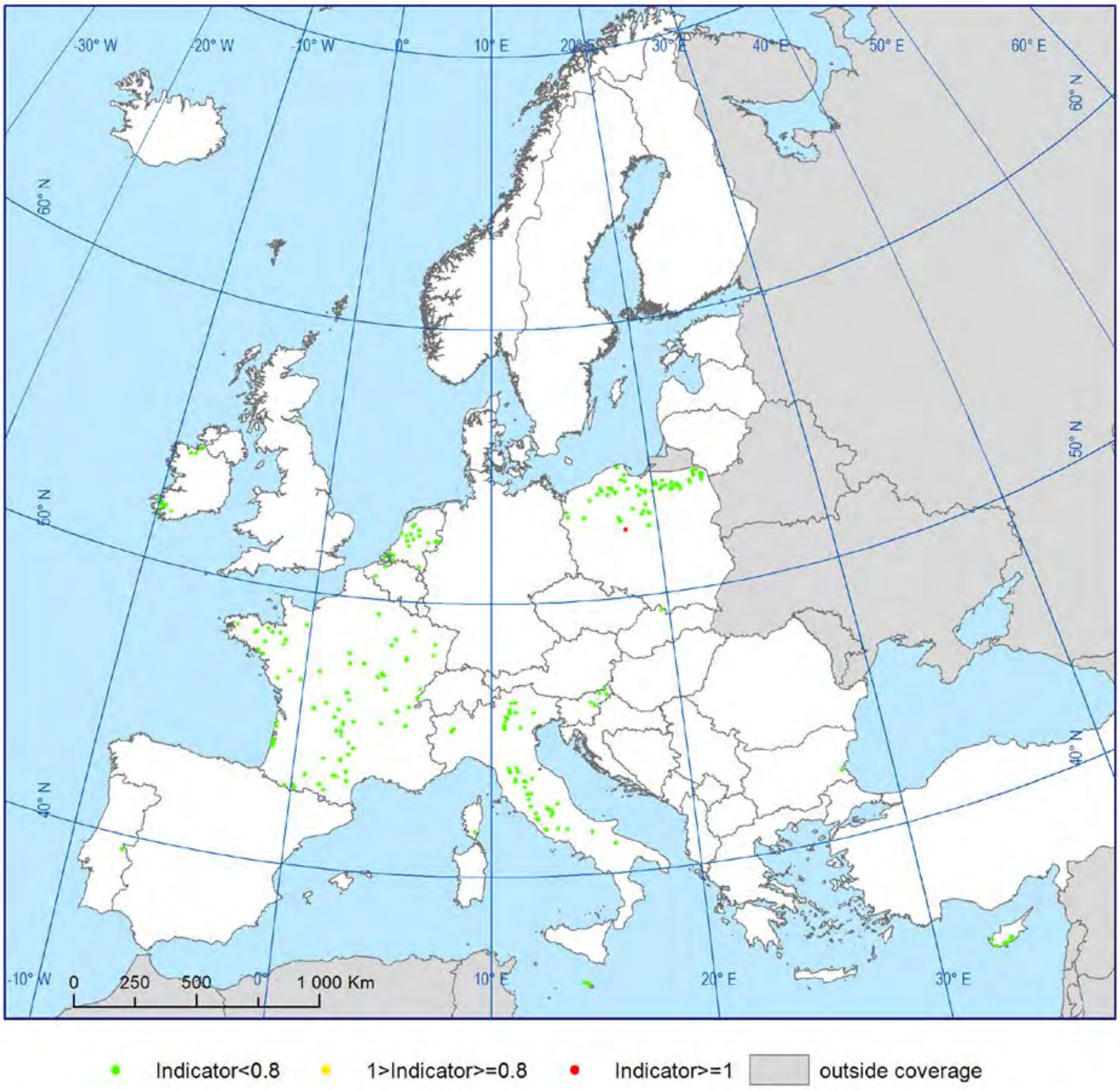


Figure 4.4.2.7d Box plot of data for atrazine in lakes.

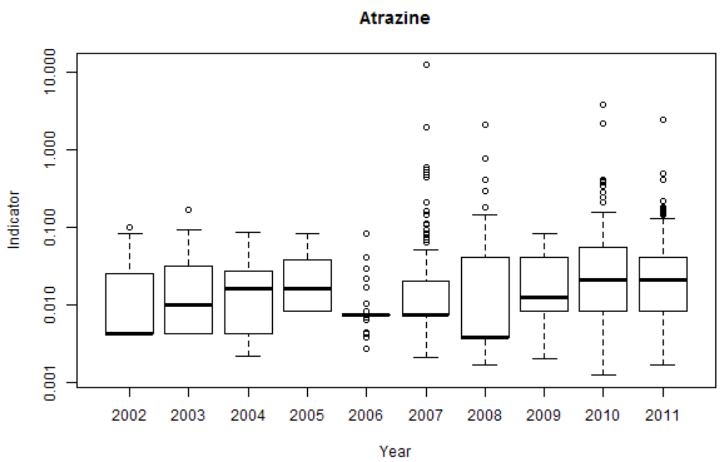


Figure 4.4.2.8a Long-term traffic-light indicator and number of stations for benzene in lakes.

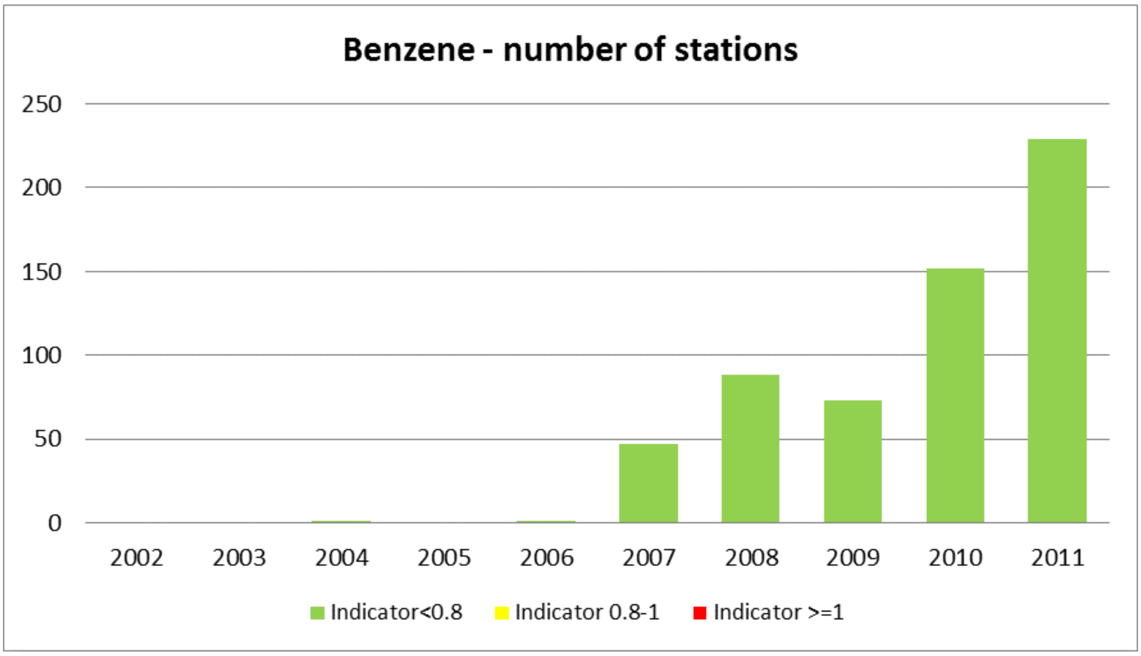


Figure 4.4.2.8b Traffic-light indicator for benzene in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

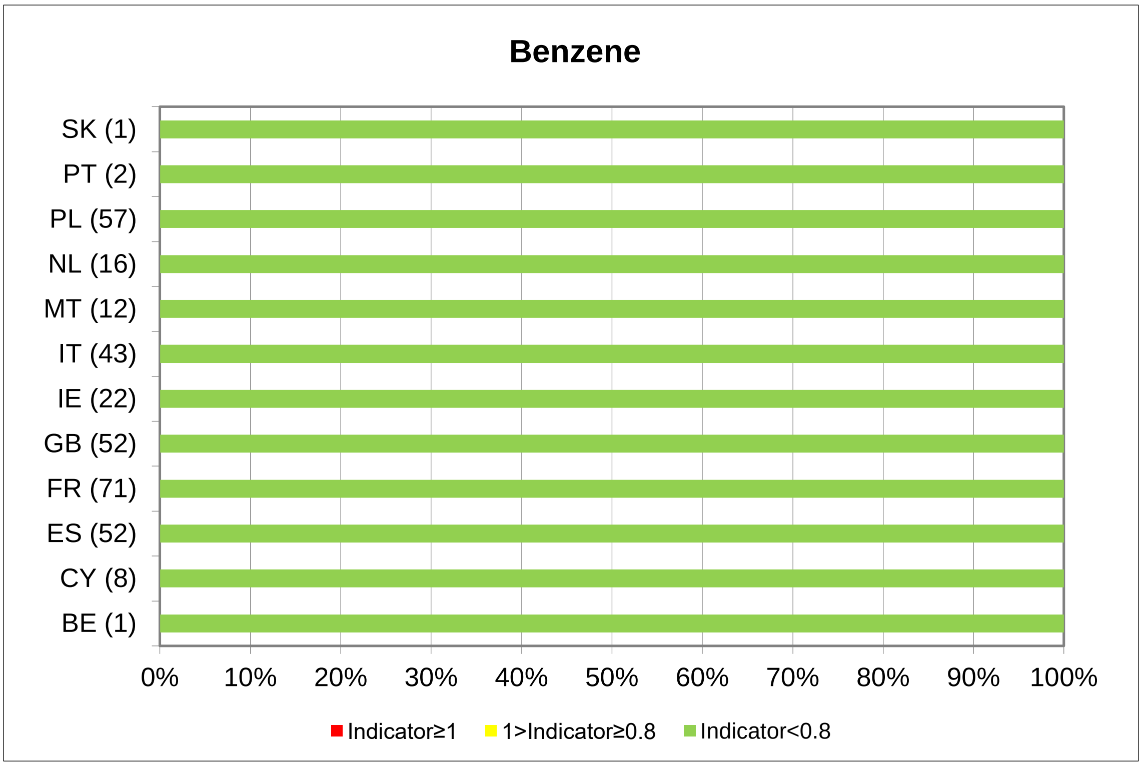


Figure 4.4.2.8c Map of traffic-light indicator for benzene in lakes from 2010–2011.

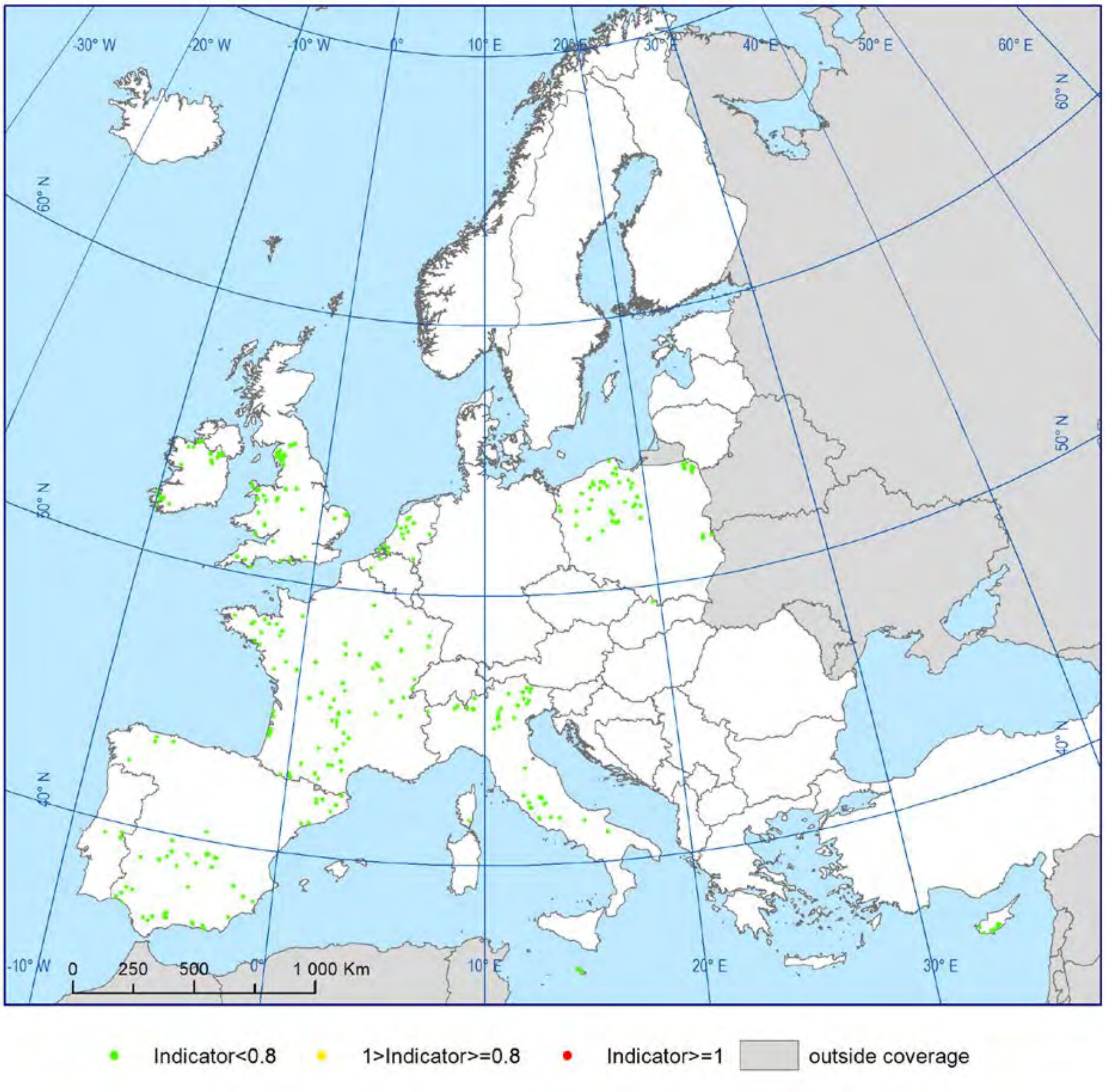


Figure 4.4.2.8d Box plot of data for benzene in lakes.

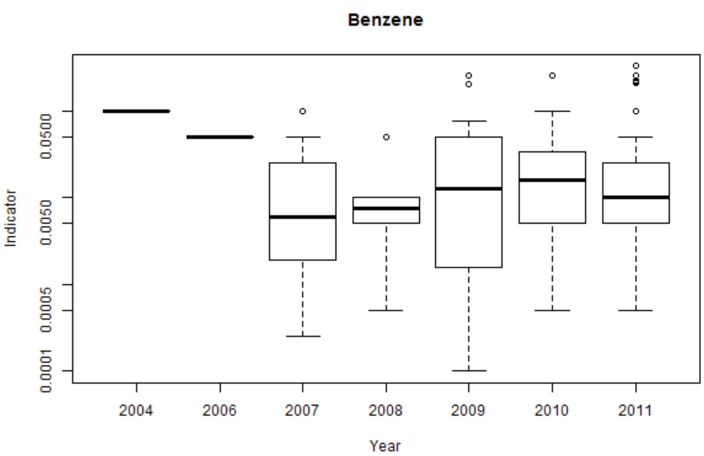


Figure 4.4.2.9a1 Long-term traffic-light indicator and number of stations for cadmium in lakes.

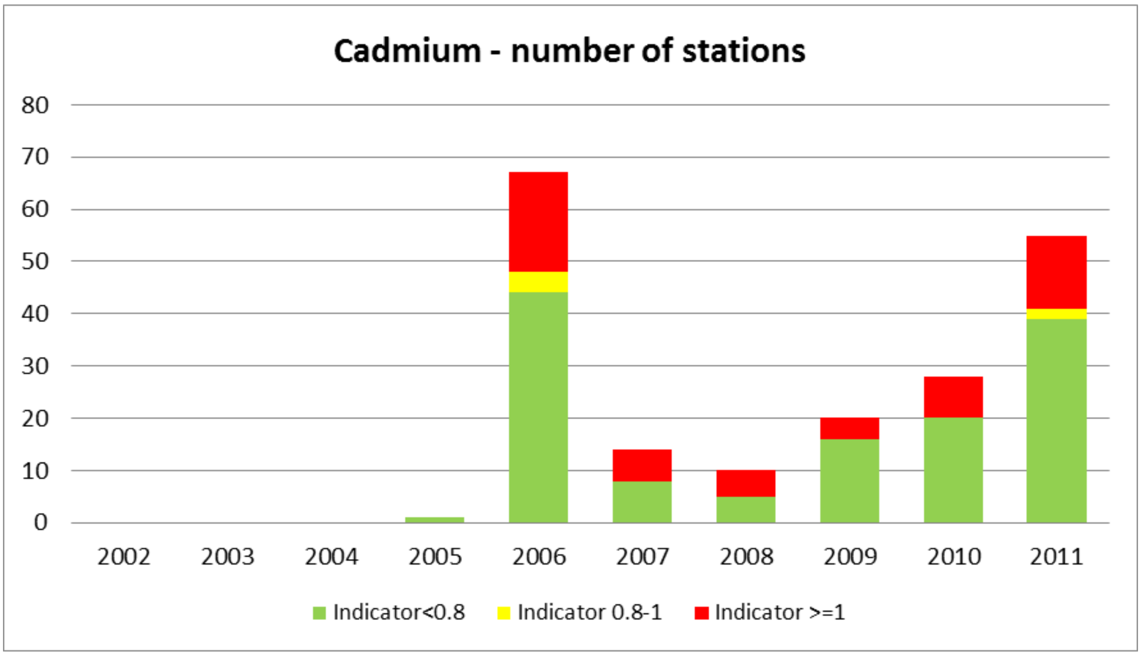


Figure 4.4.2.9b1 Traffic-light indicator for cadmium in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

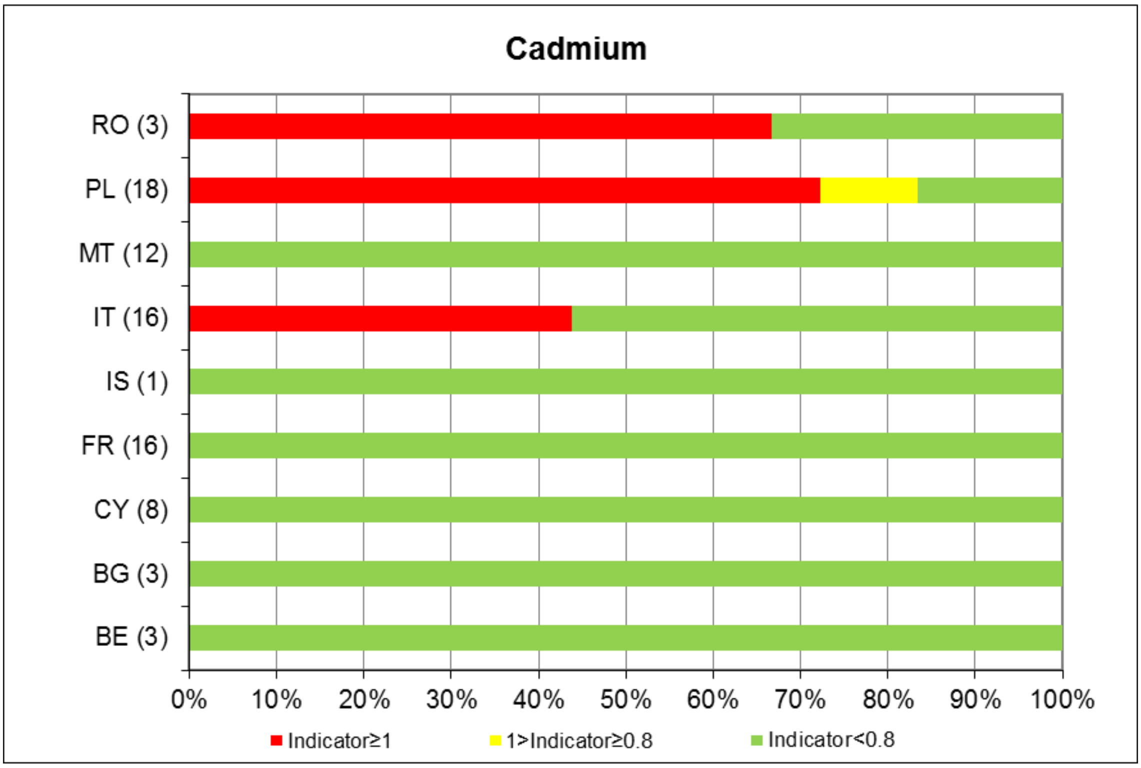


Figure 4.4.2.9c1 Map of traffic-light indicator for cadmium in lakes from 2010–2011.

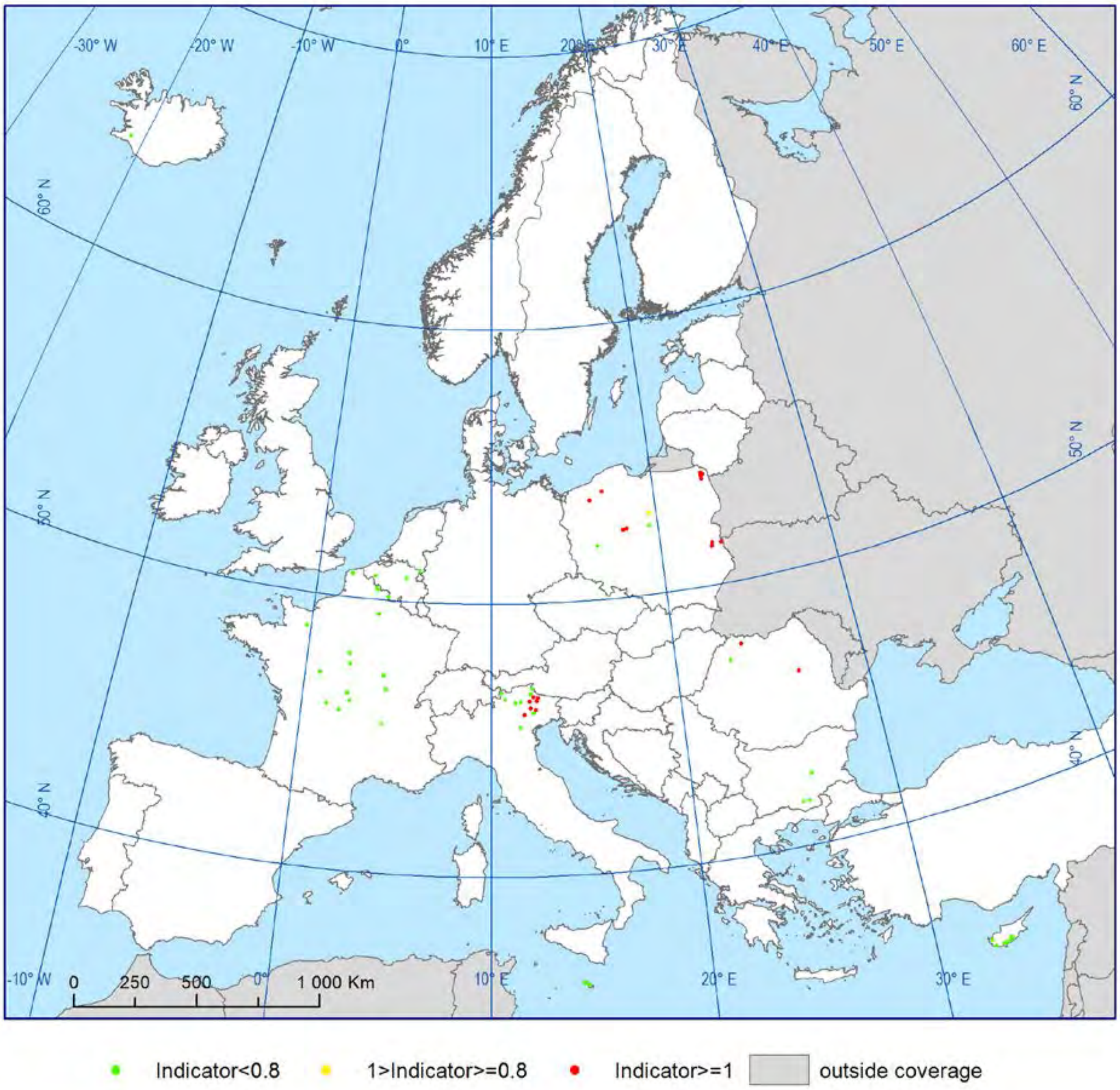


Figure 4.4.2.9d1 Box plot of data for cadmium in lakes.

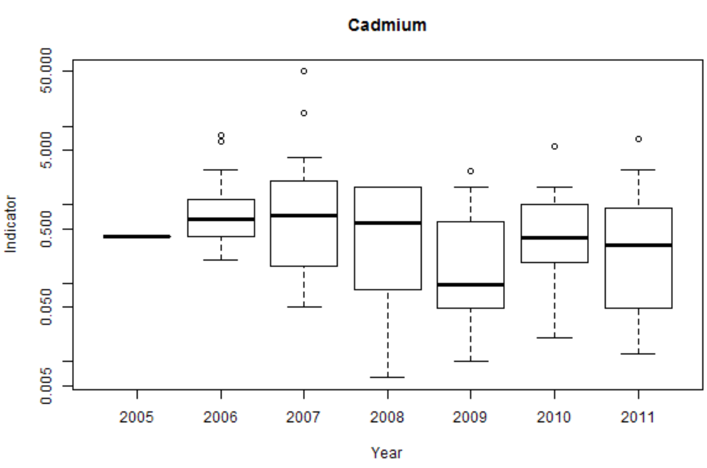


Figure 4.4.2.9a2 Long-term traffic-light indicator and number of stations for cadmium in lakes, no data on water hardness have been reported.

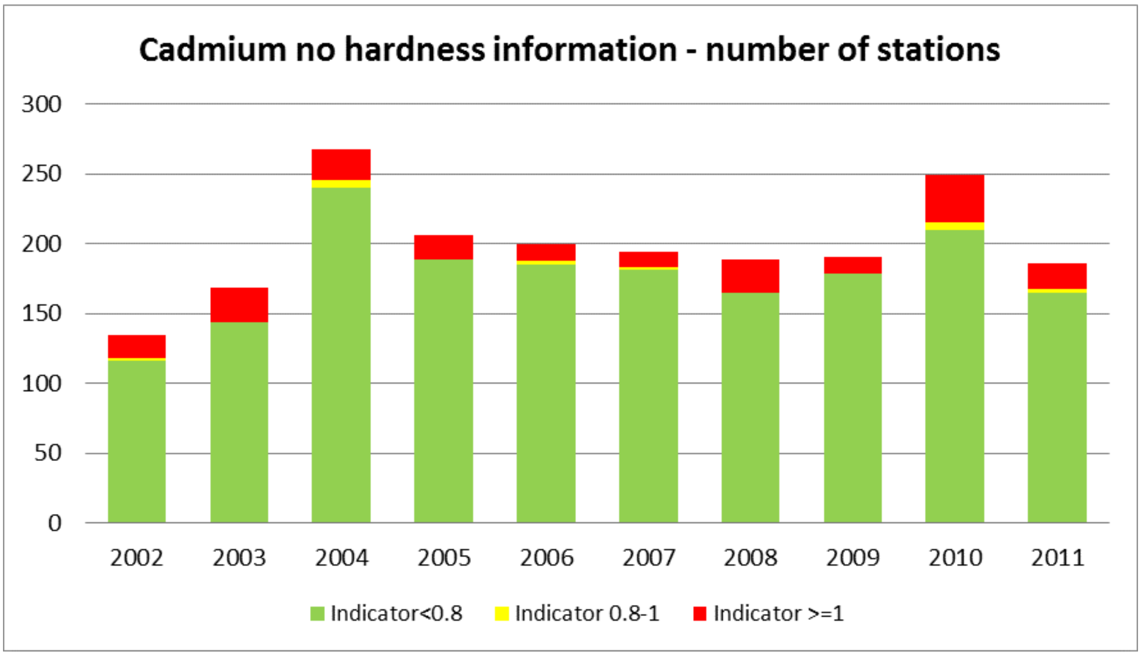


Figure 4.4.2.9b2 Traffic-light indicator for cadmium in lakes from 2010–2011, no data on water hardness have been reported (number of stations per country is shown in parenthesis).

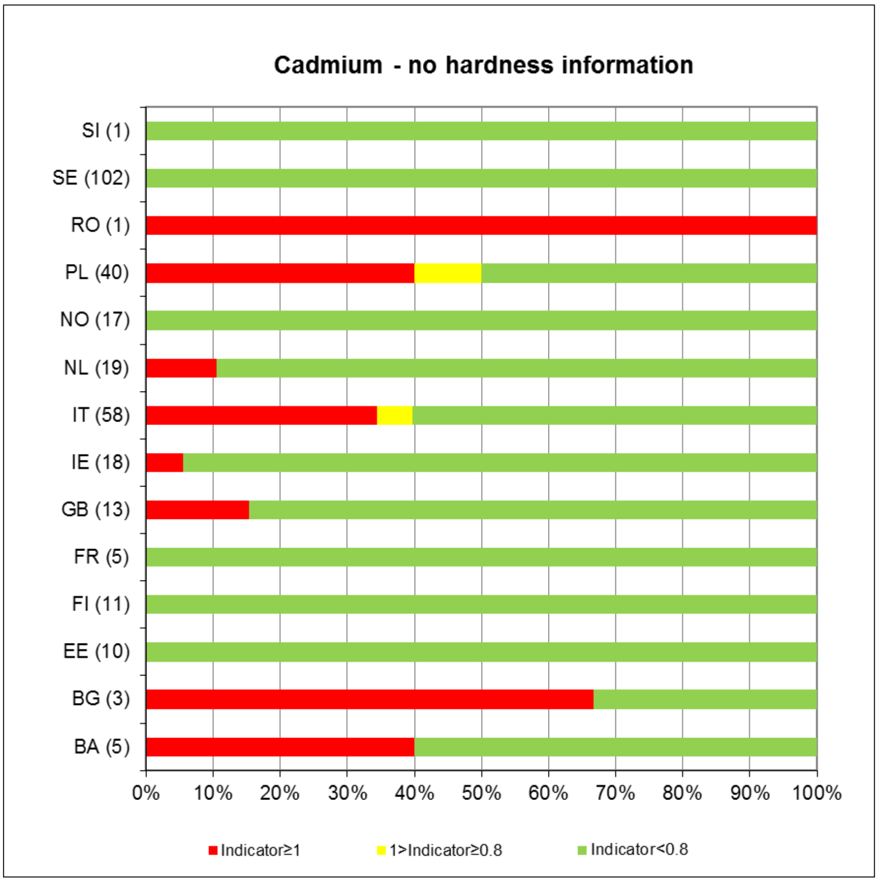


Figure 4.4.2.9c2 Map of traffic-light indicator for cadmium in lakes 2010–2011, no data on water hardness have been reported.

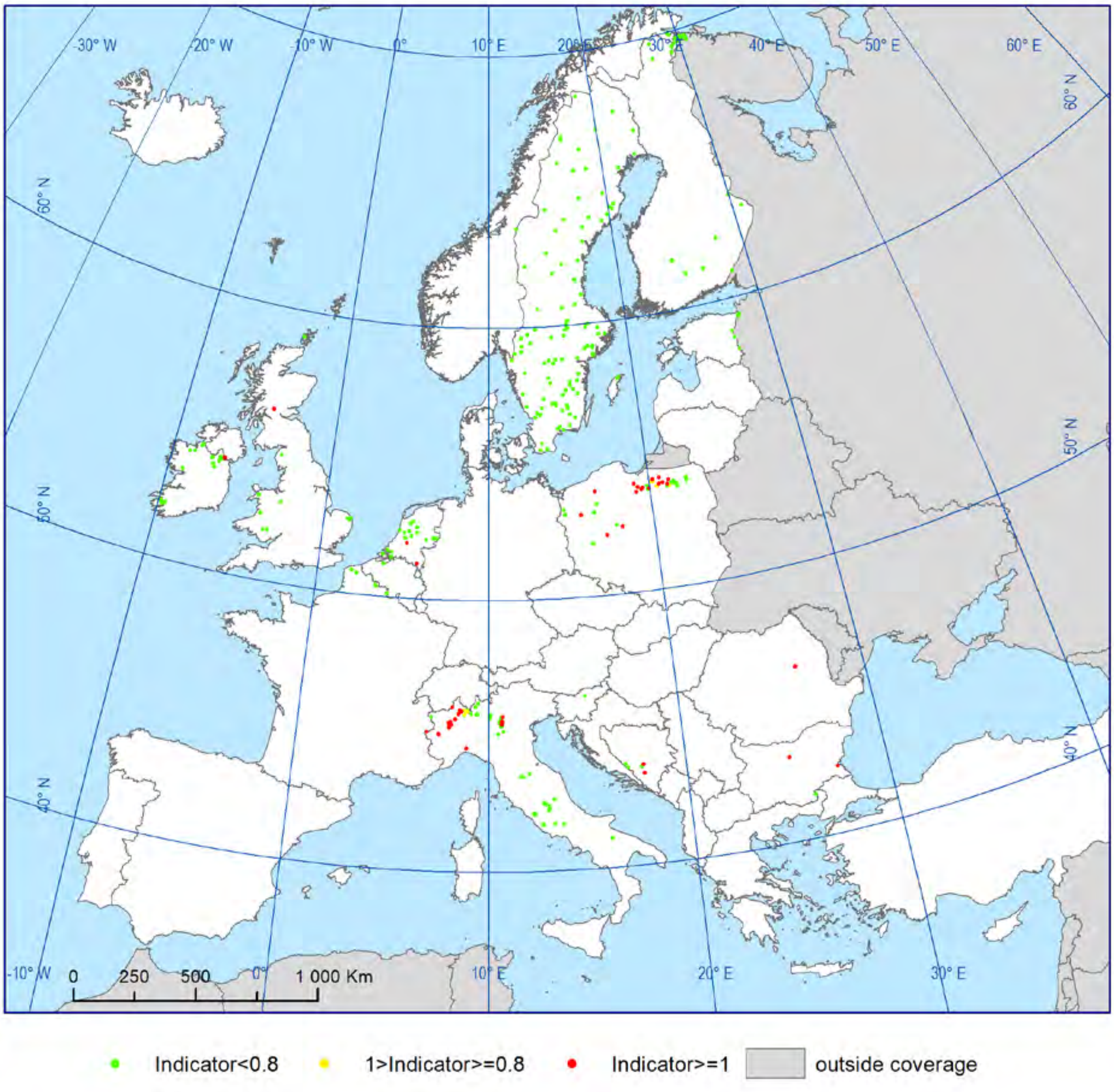


Figure 4.4.2.9d2 Box plot of data for cadmium in lakes, no data on water hardness have been reported.

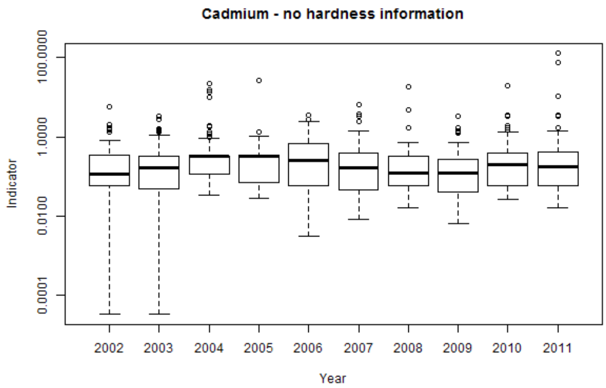


Figure 4.4.2.9a3 Long-term traffic-light indicator and number of stations for dissolved cadmium in lakes.

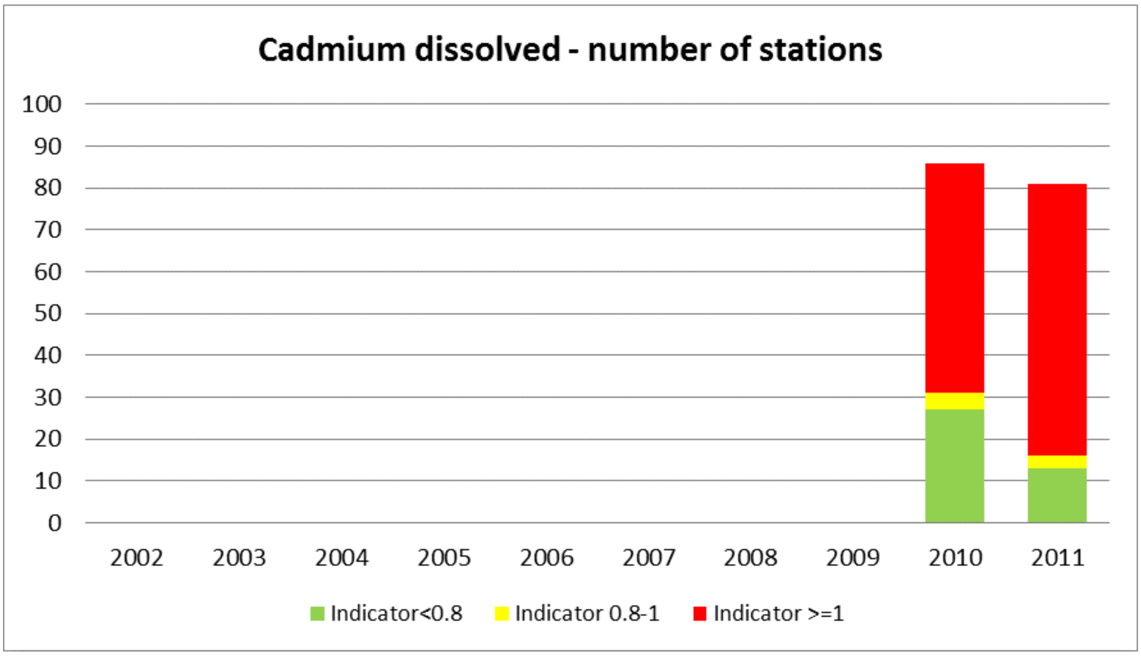


Figure 4.4.2.9b3 Traffic-light indicator for dissolved cadmium in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

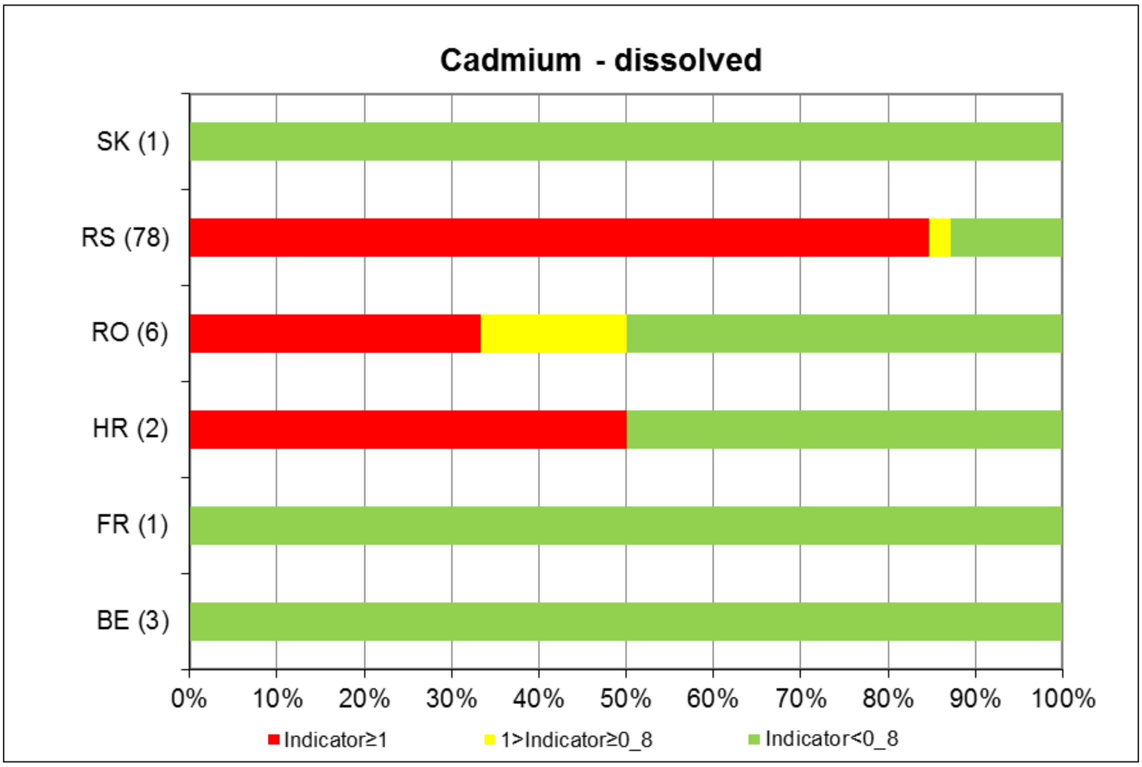


Figure 4.4.2.9c3 Map of traffic-light indicator for dissolved cadmium in lakes from 2010–2011.

Figure 4.4.2.9d3 Box plot of data for dissolved cadmium in lakes.

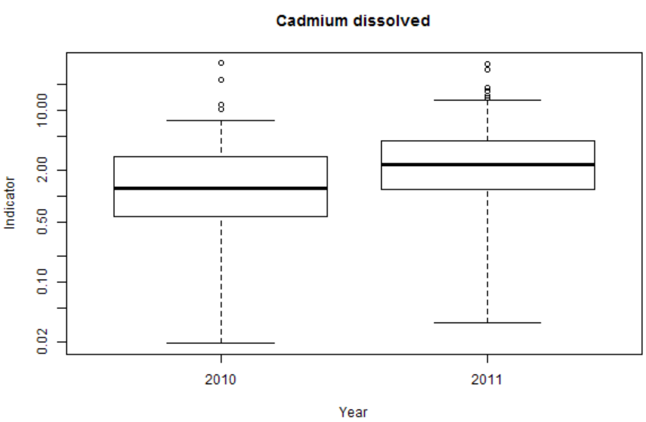


Figure 4.4.2.9a4 Long-term traffic-light indicator and number of stations for cadmium in lakes, reported as dissolved and no information on water hardness.

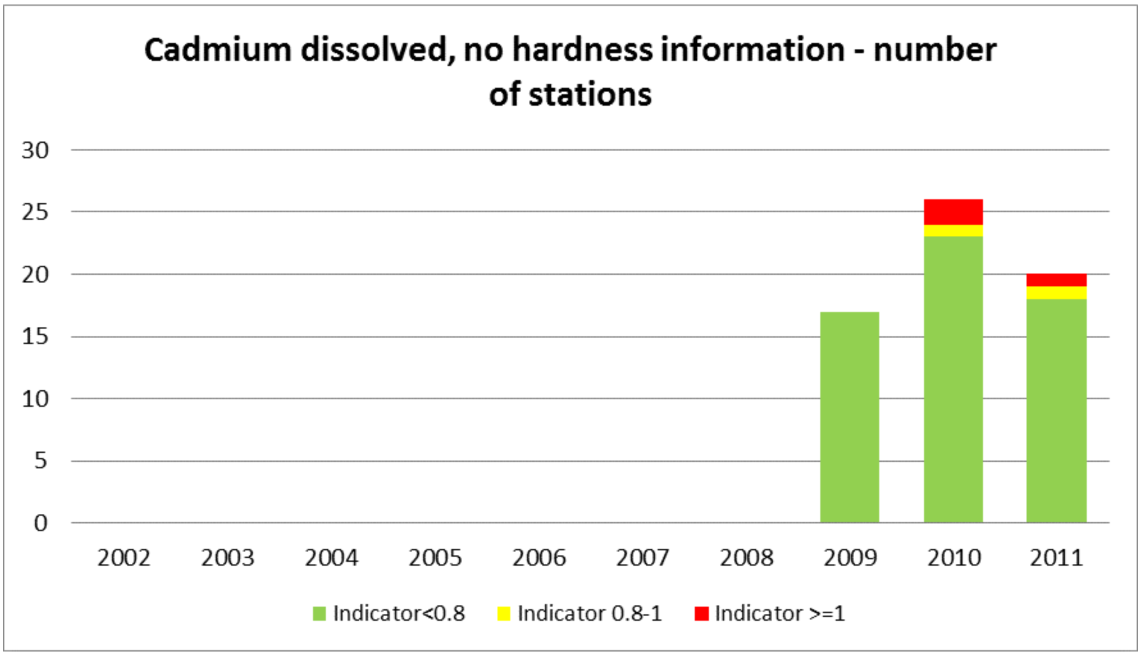


Figure 4.4.2.9b4 Traffic-light indicator for dissolved cadmium in lakes from 2010–2011, no data on water hardness have been reported (number of stations per country is shown in parenthesis).

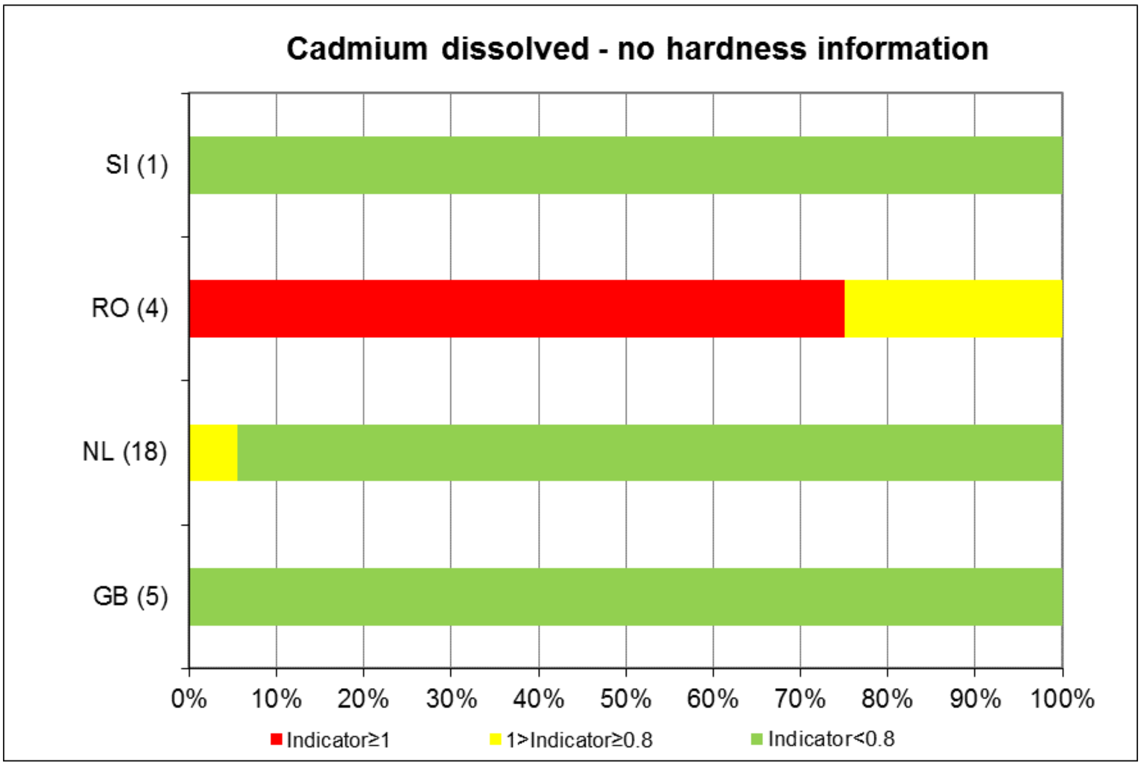


Figure 4.4.2.9c4 Map of traffic-light indicator for dissolved cadmium in lakes from 2010–2011, no data on water hardness have been reported

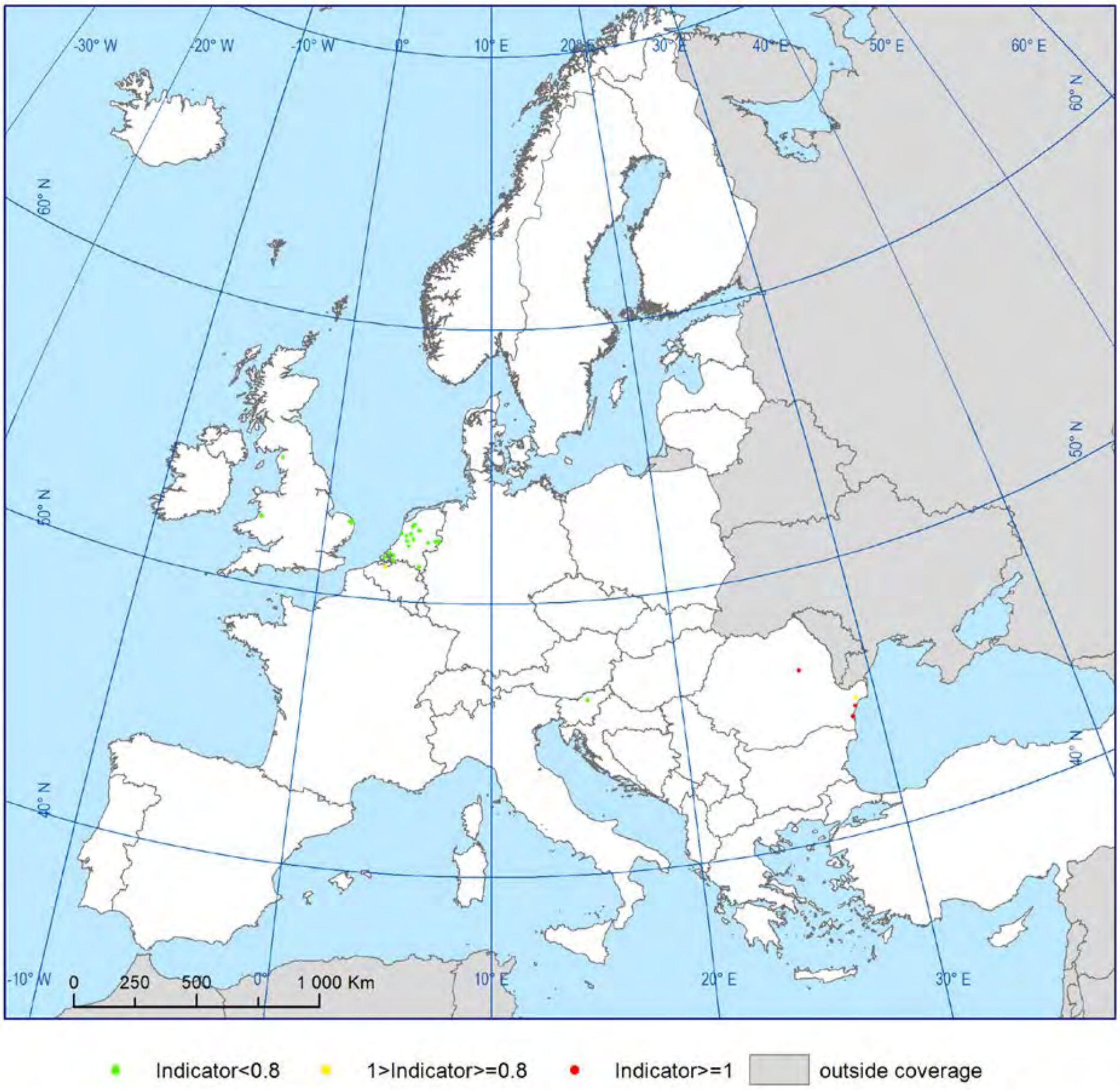


Figure 4.4.2.9d4 Box plot of data for dissolved cadmium in lakes, no data on water hardness have been reported.

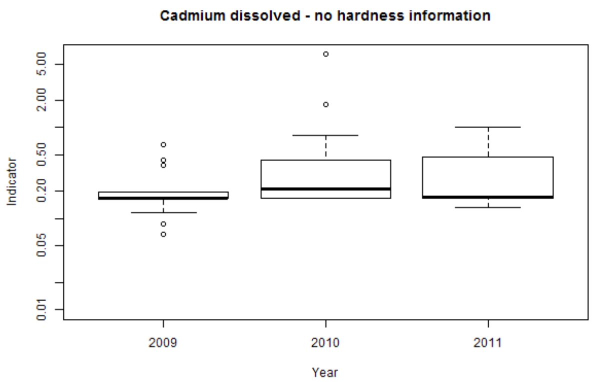


Figure 4.4.2.10a Long-term traffic-light indicator and number of stations for chlorfenvinphos in lakes.

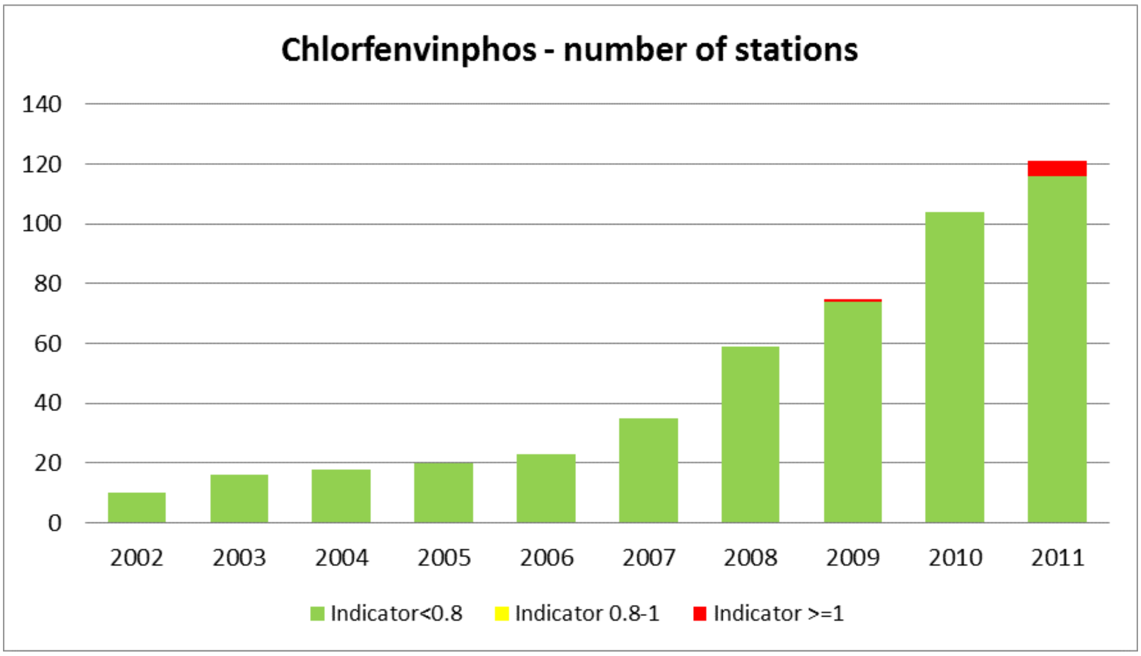


Figure 4.4.2.10b Traffic-light indicator for chlorfenvinphos in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

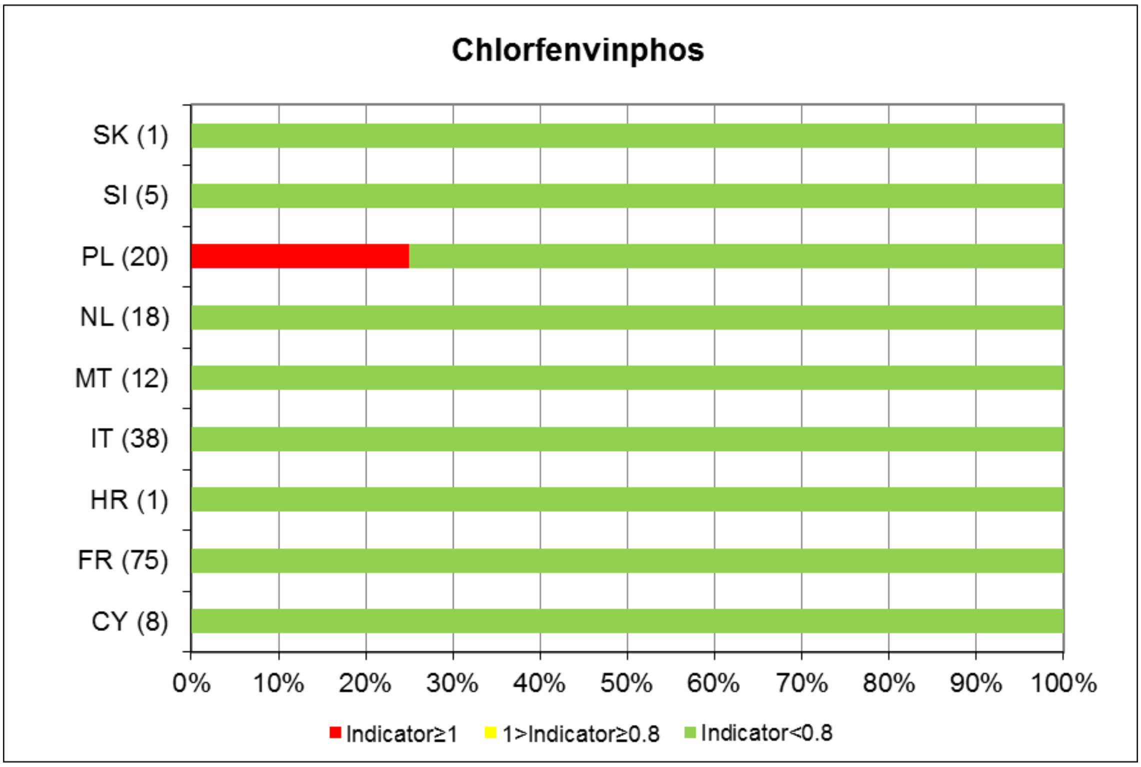


Figure 4.4.2.10c Map of traffic-light indicator for chlorfenvinphos in lakes from 2010–2011.

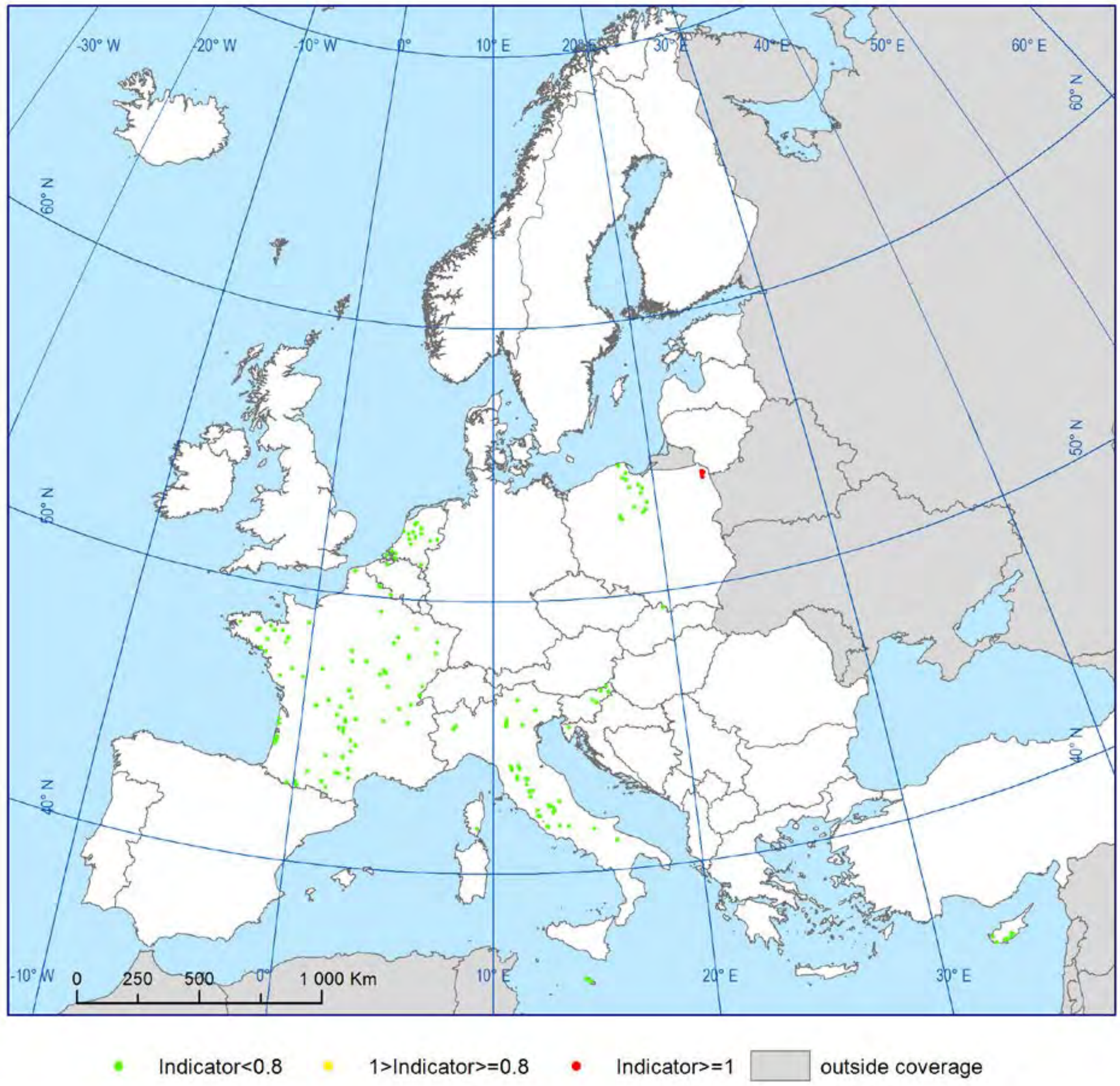


Figure 4.4.2.10d Box plot of data for chlorfenvinphos in lakes.

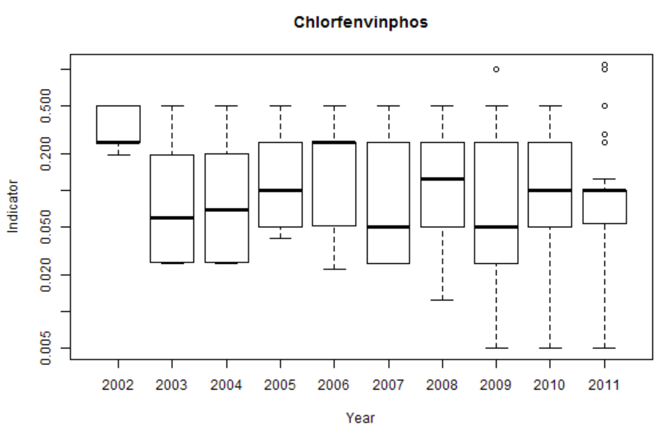


Figure 4.4.2.11a Long-term traffic-light indicator and number of stations for chlorpyrifos in lakes.

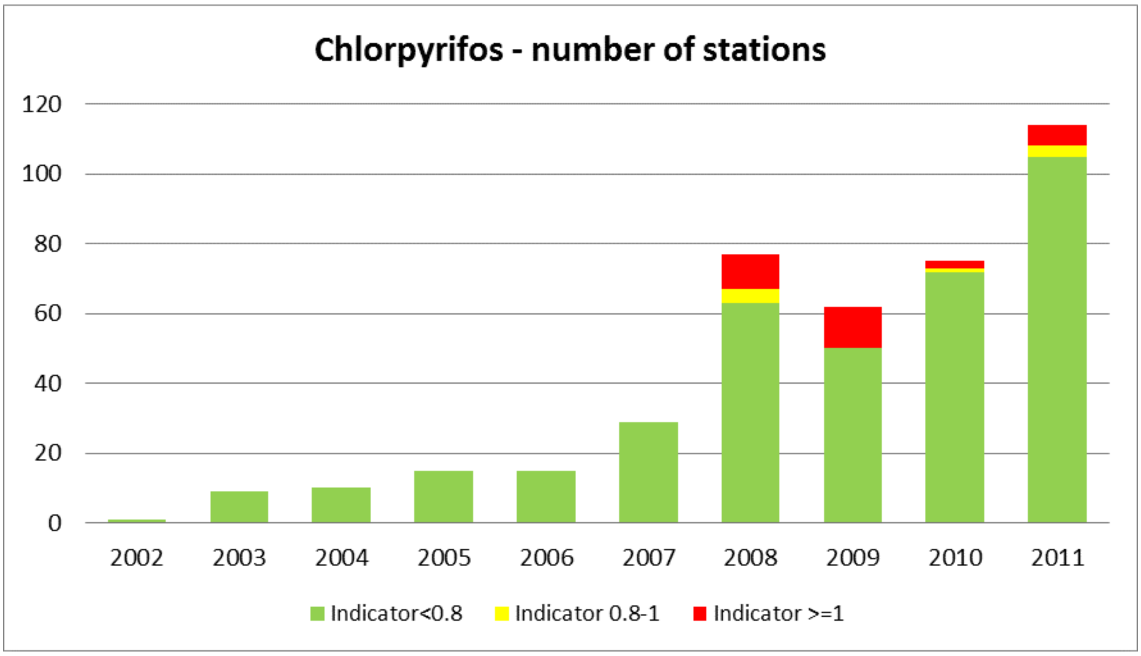


Figure 4.4.2.11b Traffic-light indicator for chlorpyrifos in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

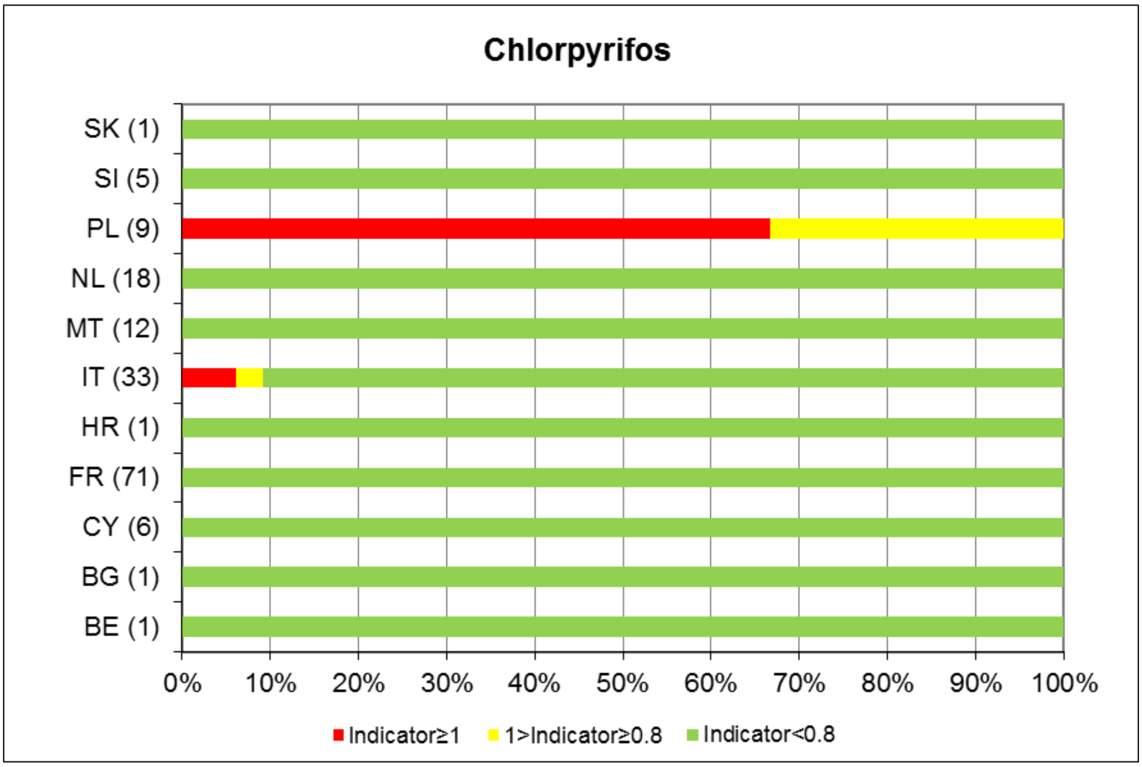


Figure 4.4.2.11c Map of traffic-light indicator for chlorpyrifos in lakes from 2010–2011.

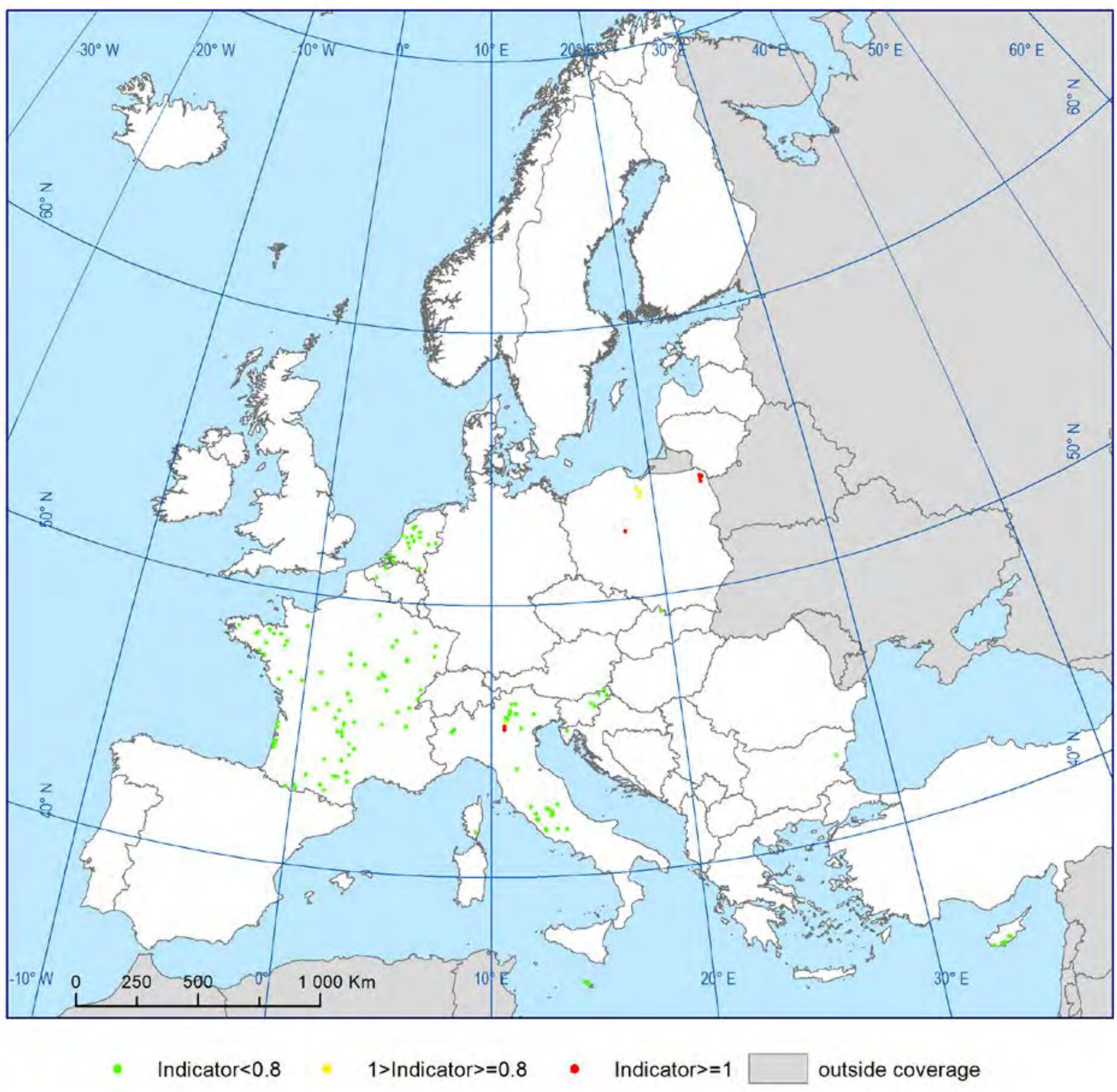


Figure 4.4.2.11d Box plot of data for chlorpyrifos in lakes.

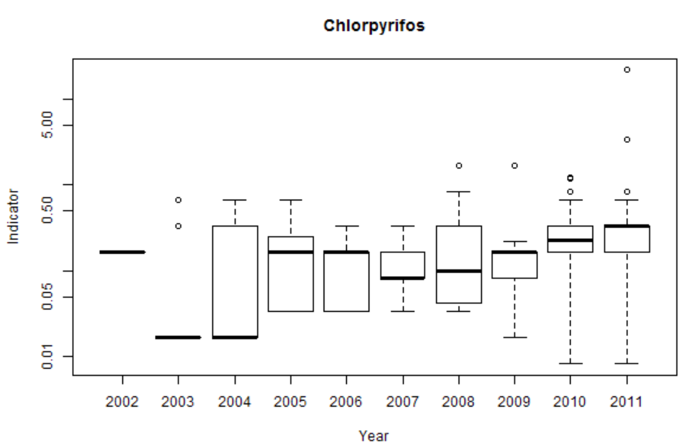


Figure 4.4.2.12a Long-term traffic-light indicator and number of stations for DDT total (p,p'-DDT, o,*p'*-DDT, p,*p'*-DDE, and p,*p'*-DDD) in lakes.

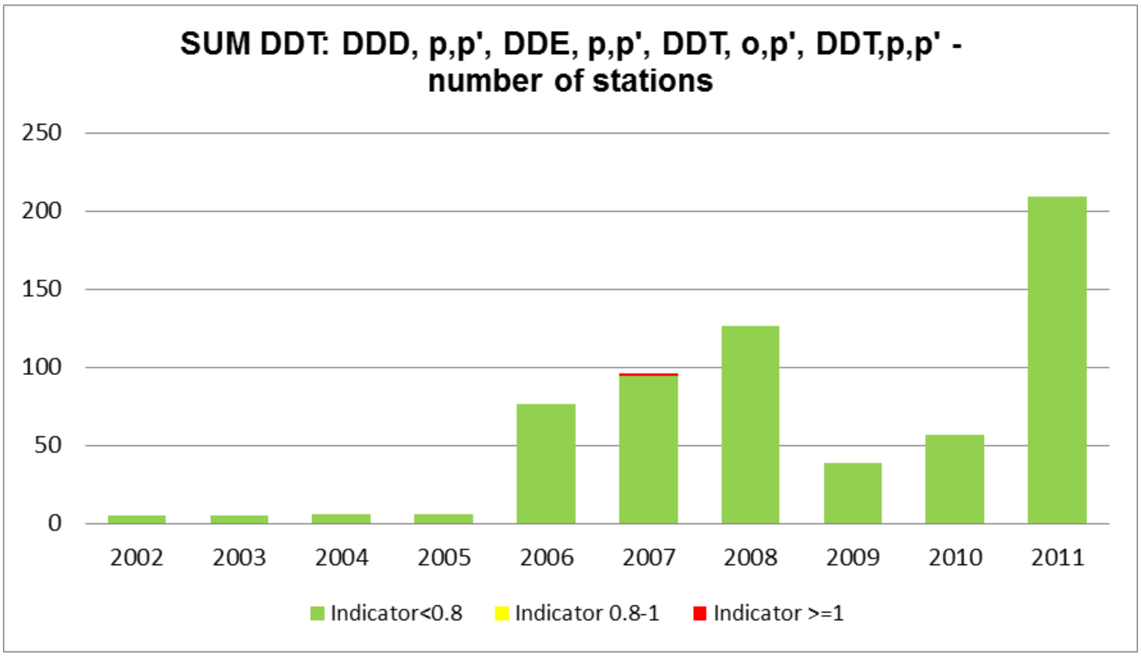


Figure 4.4.2.12b Traffic-light indicator for DDT total (p,p'-DDT, o,*p'*-DDT, p,*p'*-DDE, and p,*p'*-DDD) in lakes from 2010–2011 (number of stations per country is shown in parenthesis)

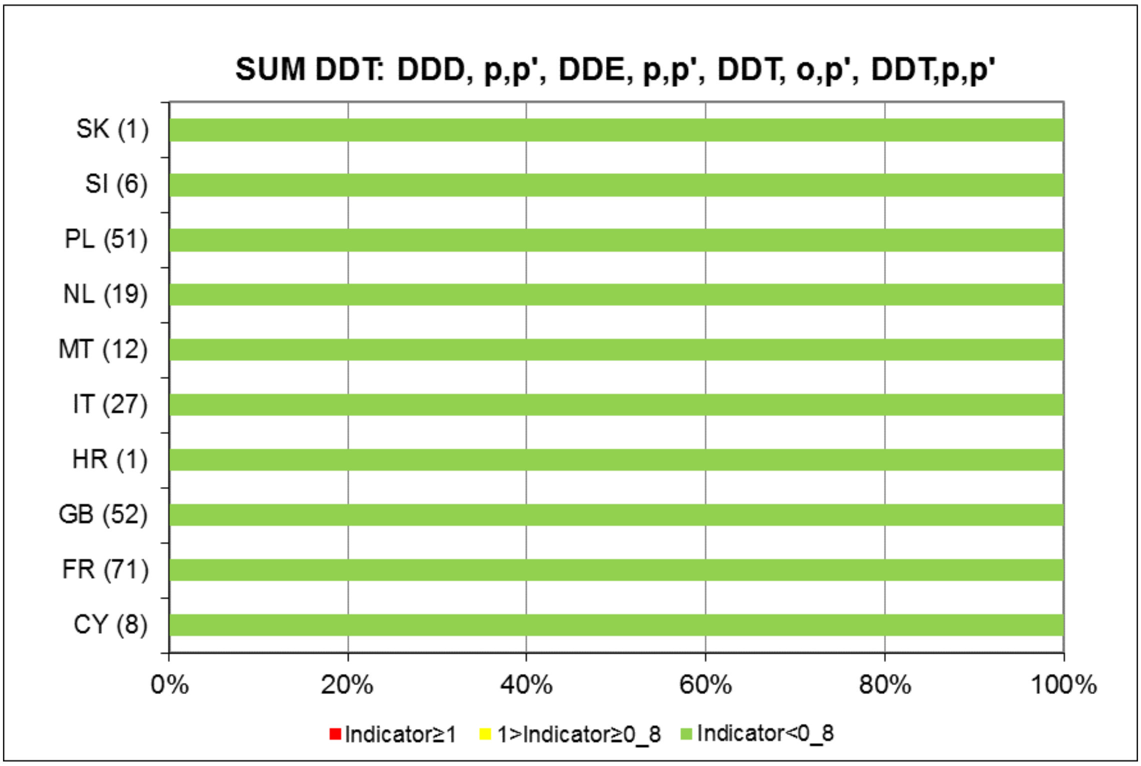


Figure 4.4.2.12c Map of traffic-light indicator for DDT total (p,p'-DDT, o,*p'*-DDT, p,*p'*-DDE, and p,*p'*-DDD) in lakes from 2010–2011.

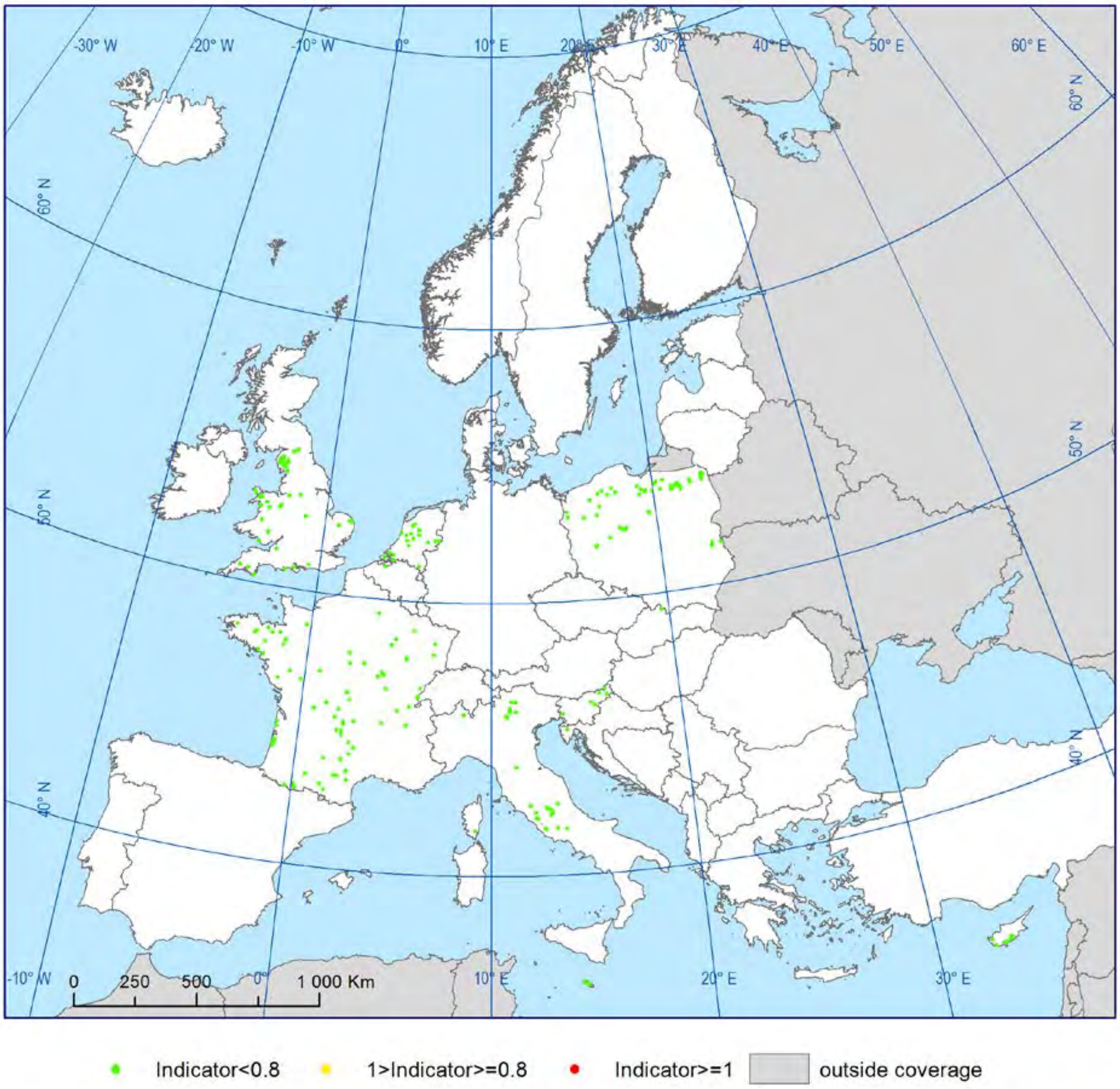


Figure 4.4.2.12d Box plot of data for DDT total (p,p'-DDT, o,*p'*-DDT, p,*p'*-DDE, and p,*p'*-DDD) in lakes.

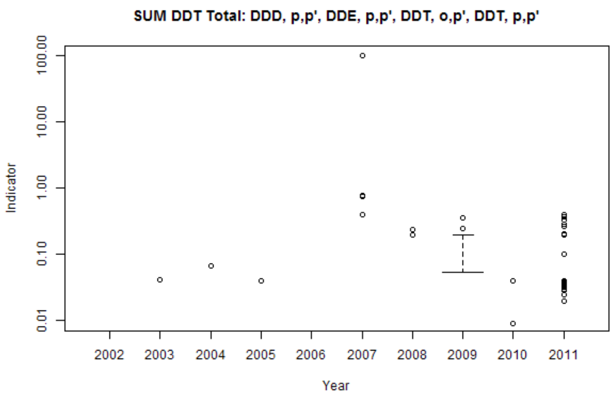


Figure 4.4.2.13a Long-term traffic-light indicator and number of stations for p,p'-DDT in lakes.

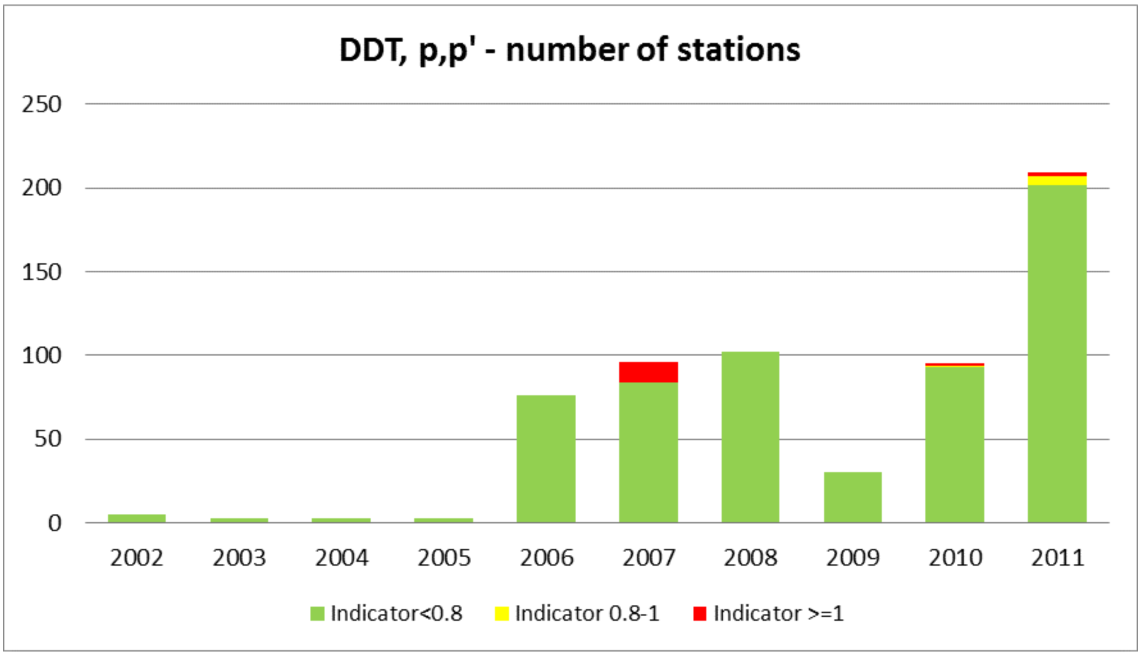


Figure 4.4.2.13b Traffic-light indicator for p,p'-DDT in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

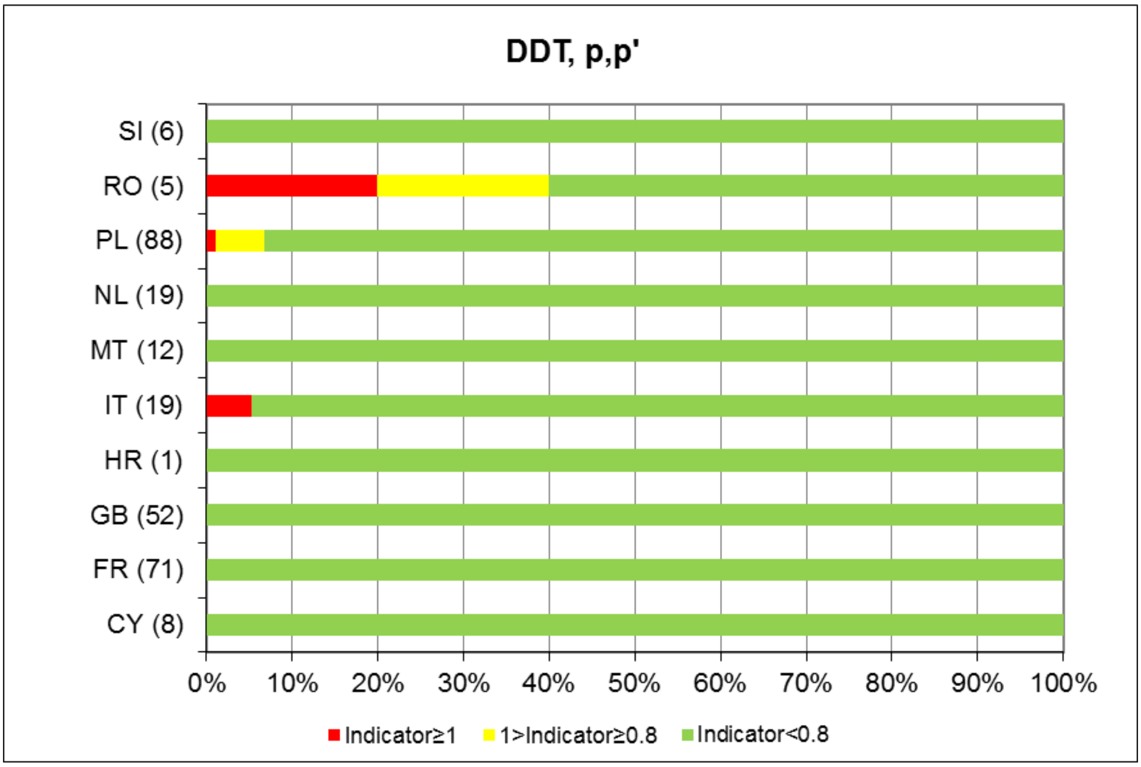


Figure 4.4.2.13c Map of traffic-light indicator for p,p'-DDT in lakes from 2010–2011.

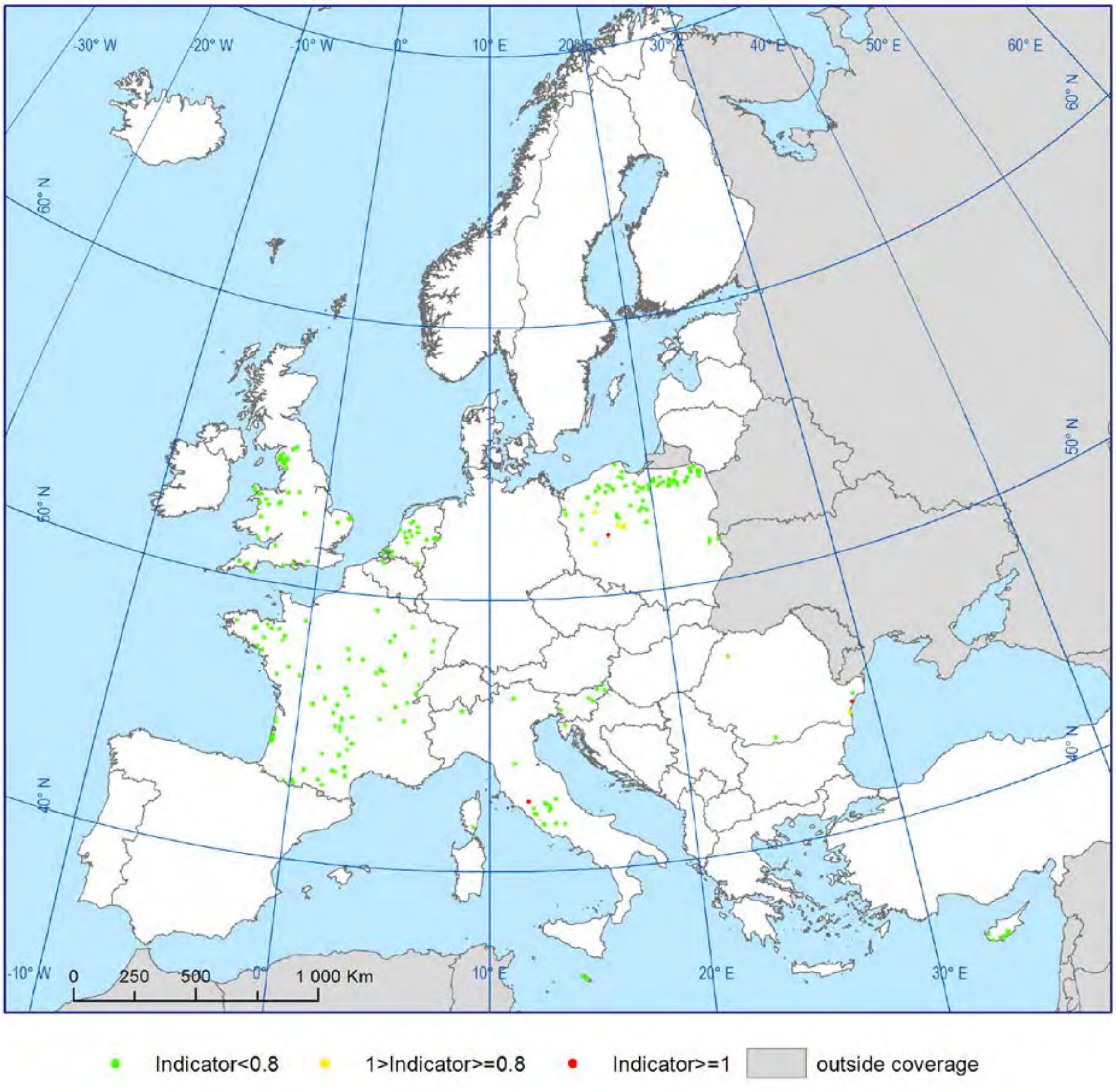


Figure 4.4.2.13d Box plot of data for p,p'-DDT in lakes.

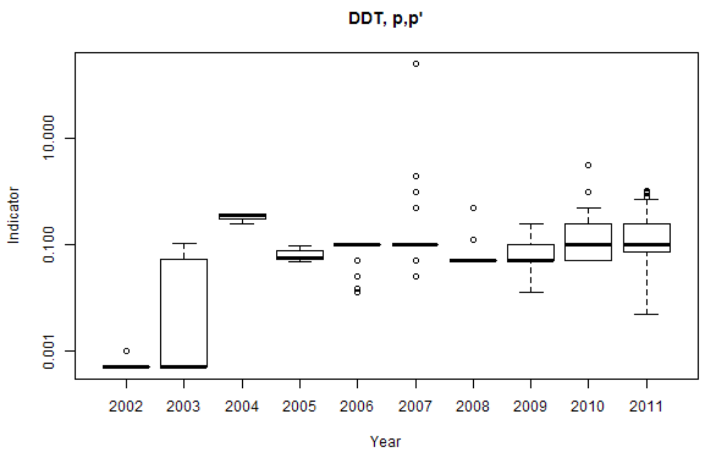


Figure 4.4.2.14a Long-term traffic-light indicator and number of stations for di(2-ethylhexyl) phthalate (DEHP) in lakes.

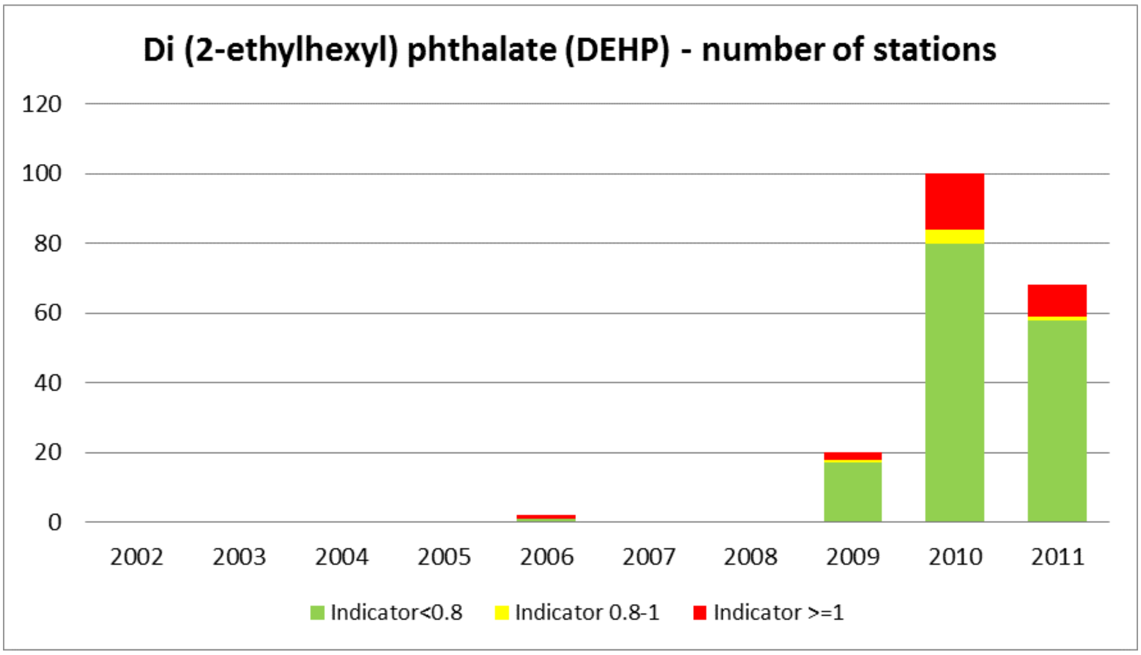


Figure 4.4.2.14b Traffic-light indicator for di(2-ethylhexyl) phthalate (DEHP) in lakes from 2010–2011 (number of stations per country is shown in parenthesis)

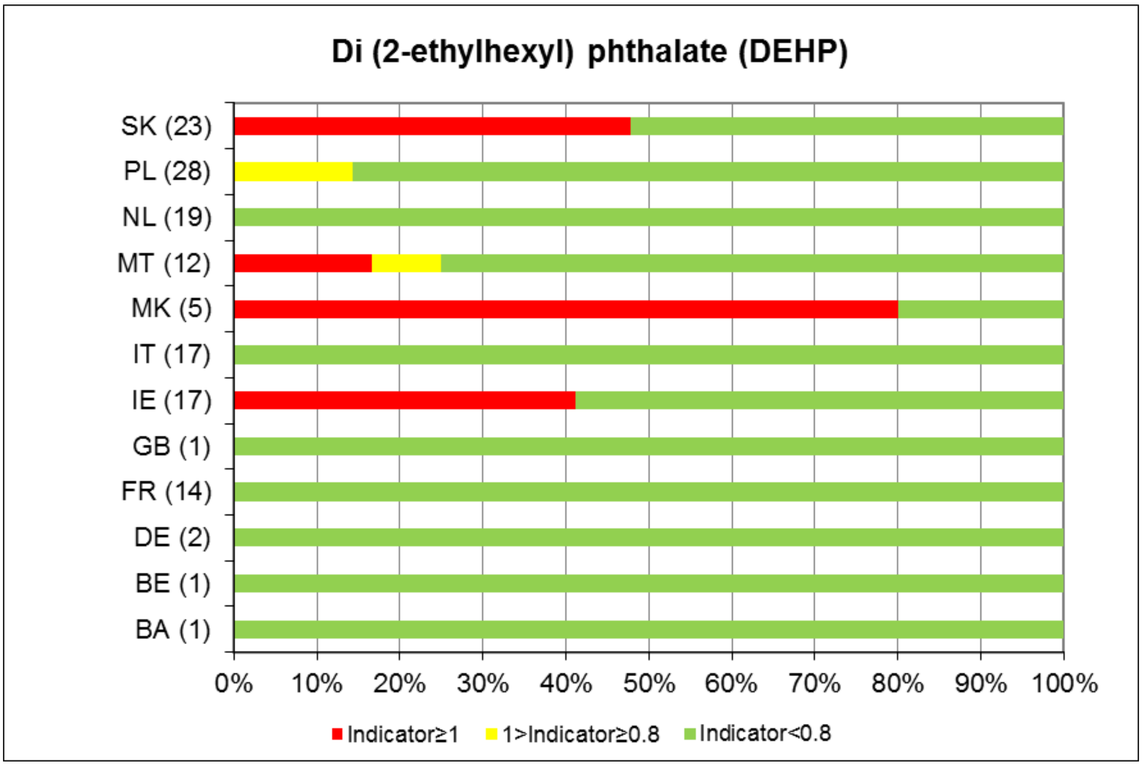


Figure 4.4.2.14c Map of traffic-light indicator for di(2-ethylhexyl) phthalate (DEHP) in lakes from 2010–2011.

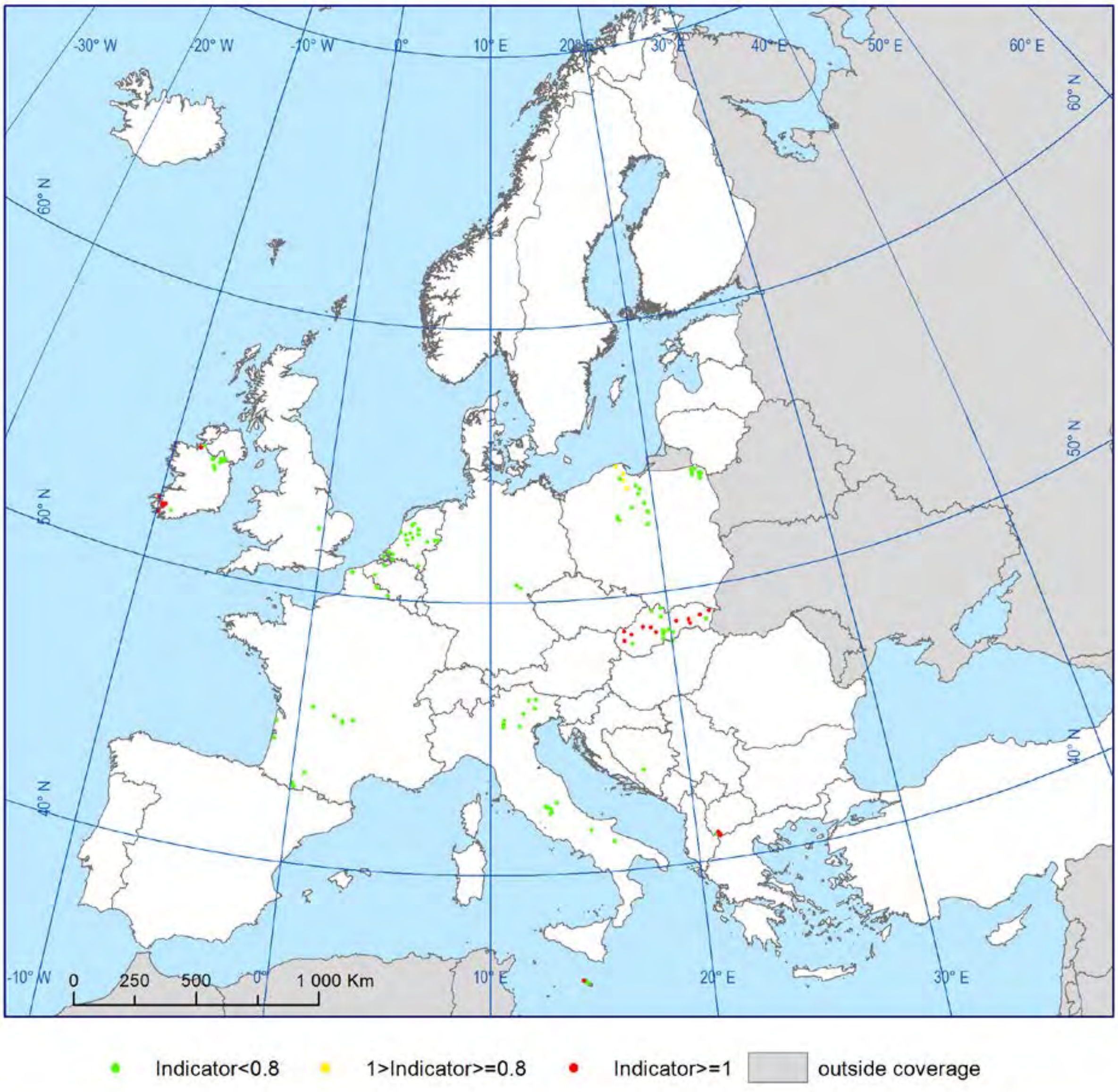


Figure 4.4.2.14d Box plot of data for di(2-ethylhexyl) phthalate (DEHP) in lakes.

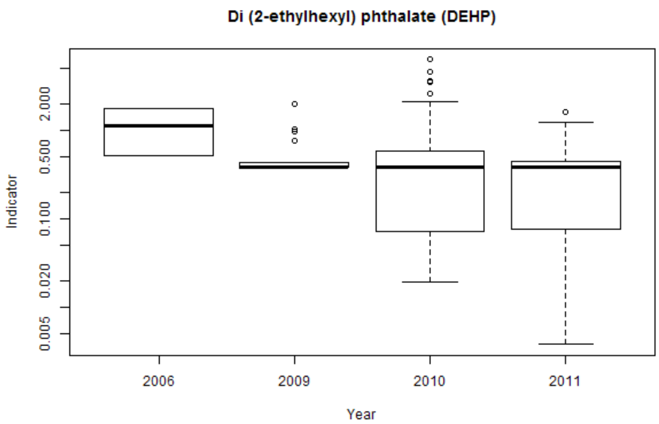


Figure 4.4.2.15a Long-term traffic-light indicator and number of stations for dichloromethane in lakes.

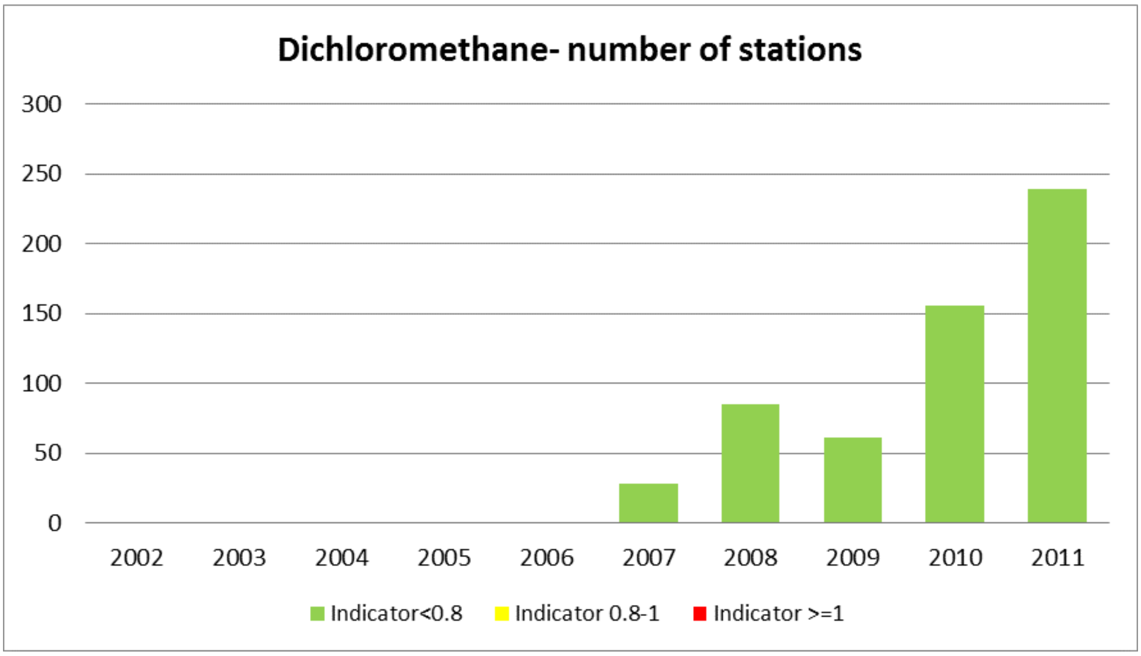


Figure 4.4.2.15b Traffic-light indicator for dichloromethane in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

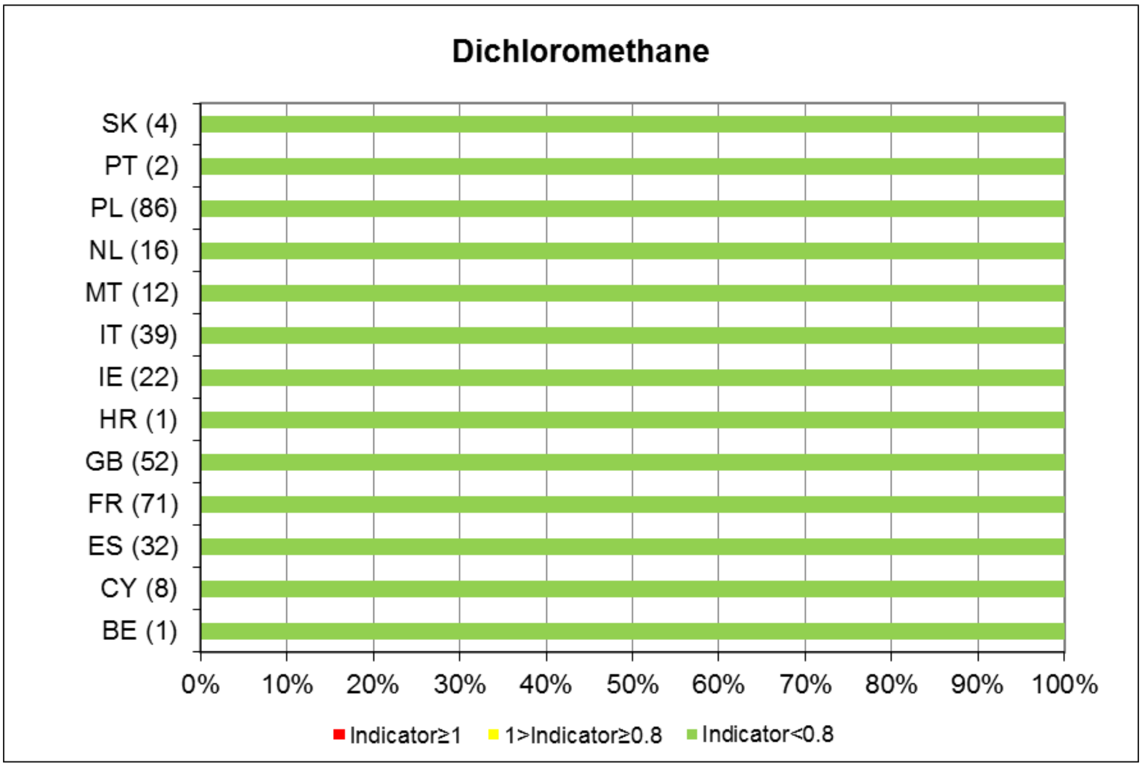


Figure 4.4.2.15c Map of traffic-light indicator for dichloromethane in lakes from 2010–2011.

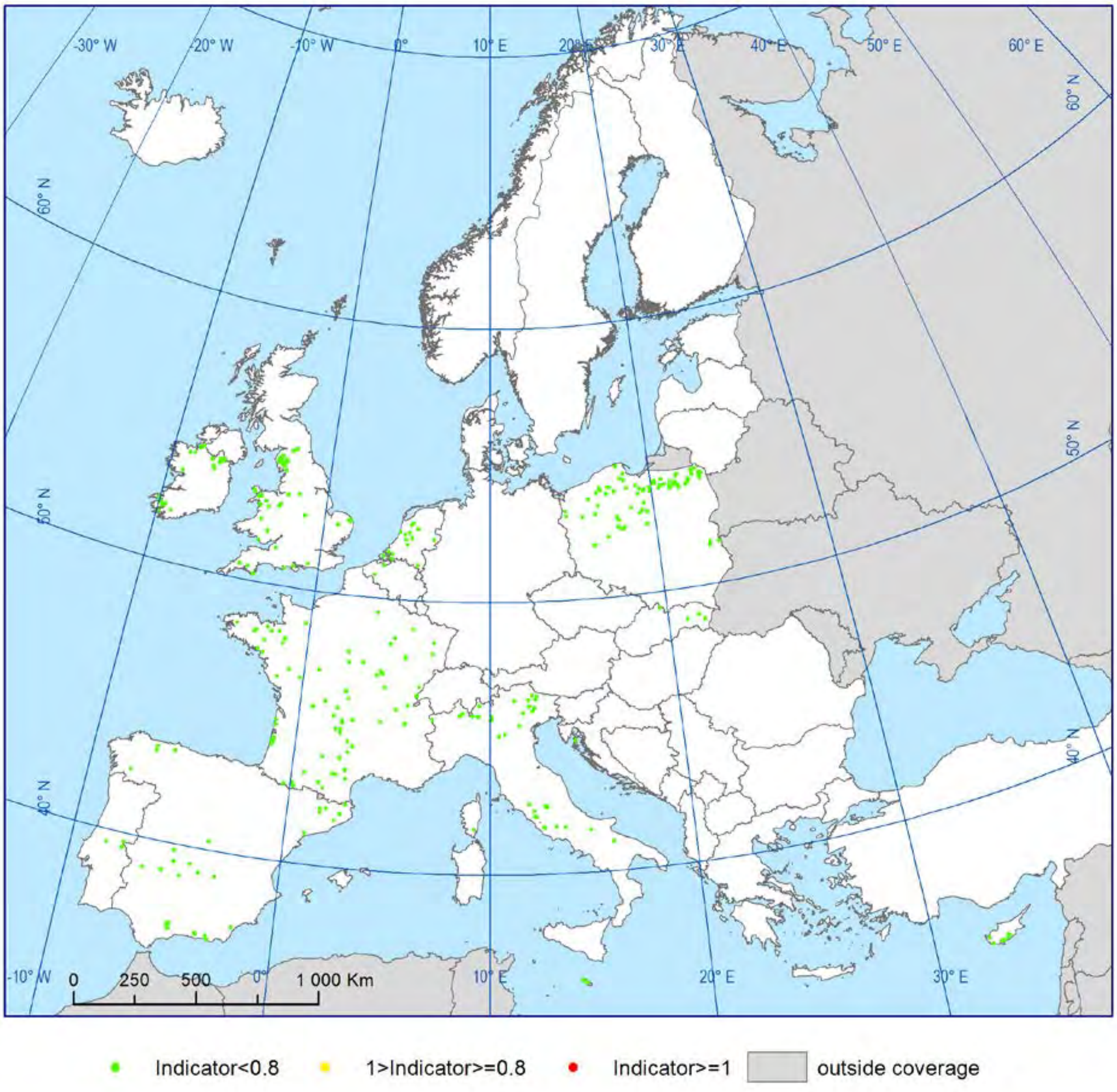


Figure 4.4.2.15d Box plot of data for dichloromethane in lakes.

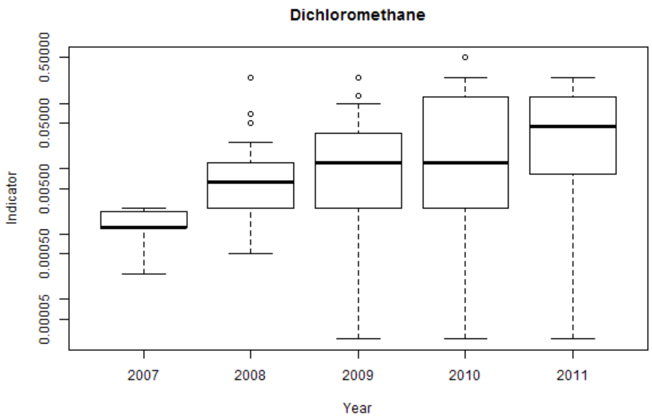


Figure 4.4.2.16a Long-term traffic-light indicator and number of stations for diuron in lakes.

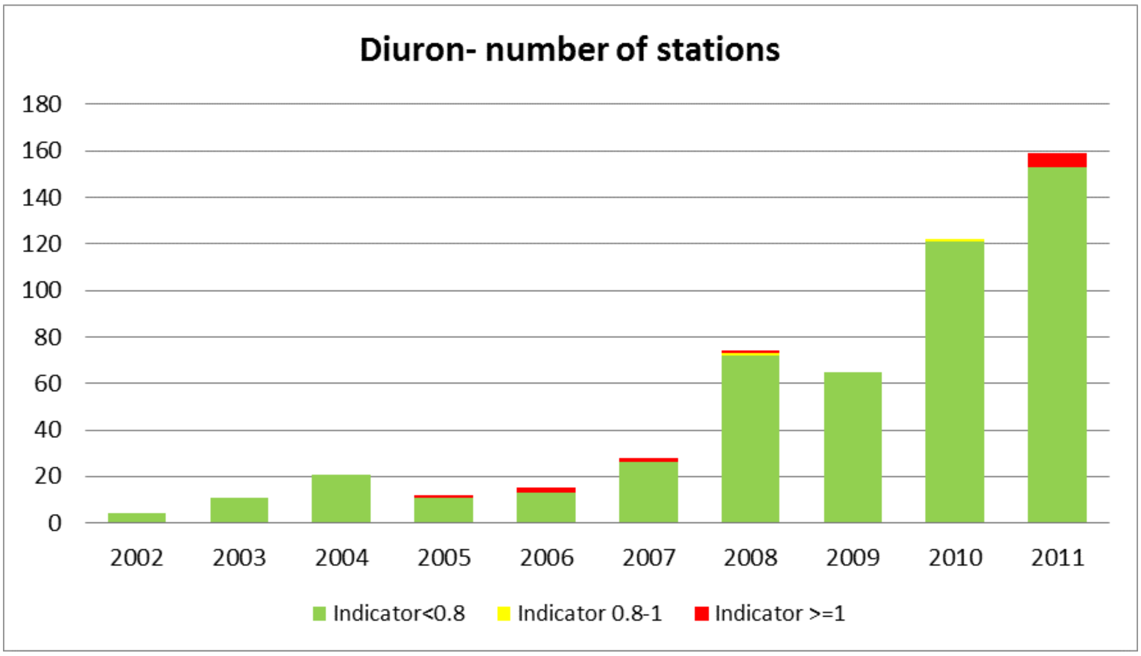


Figure 4.4.2.16b Traffic-light indicator for diuron in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

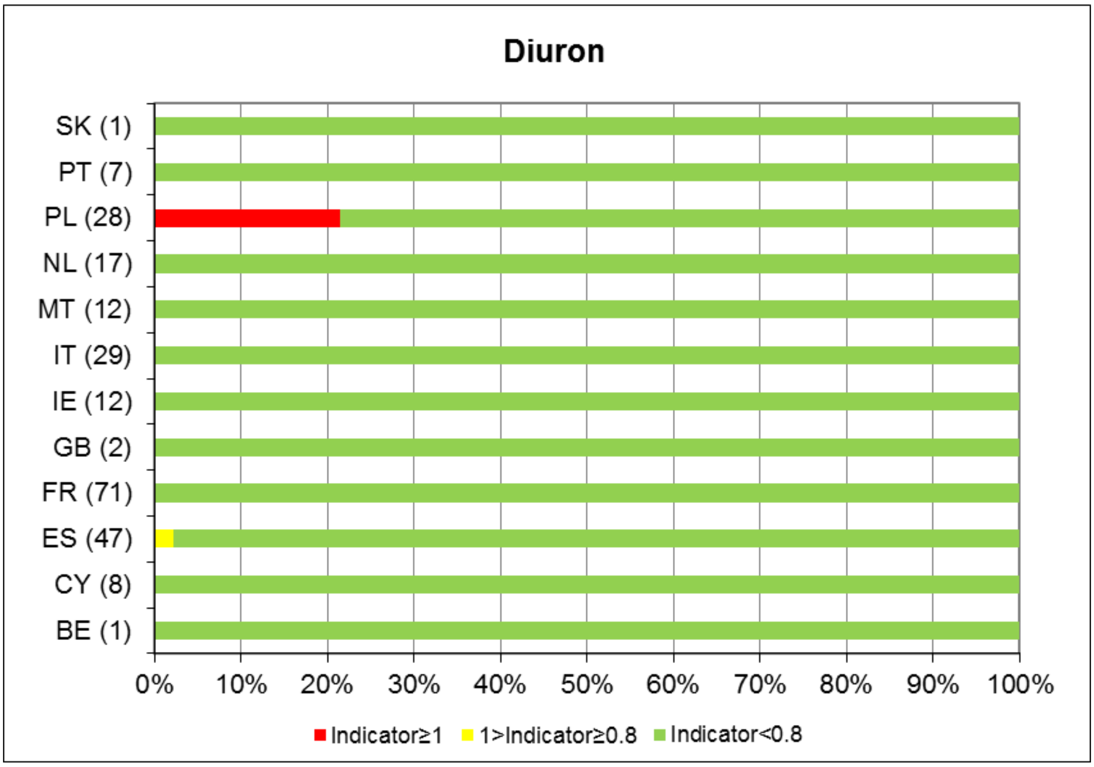


Figure 4.4.2.16c Map of traffic-light indicator for diuron in lakes from 2010–2011.

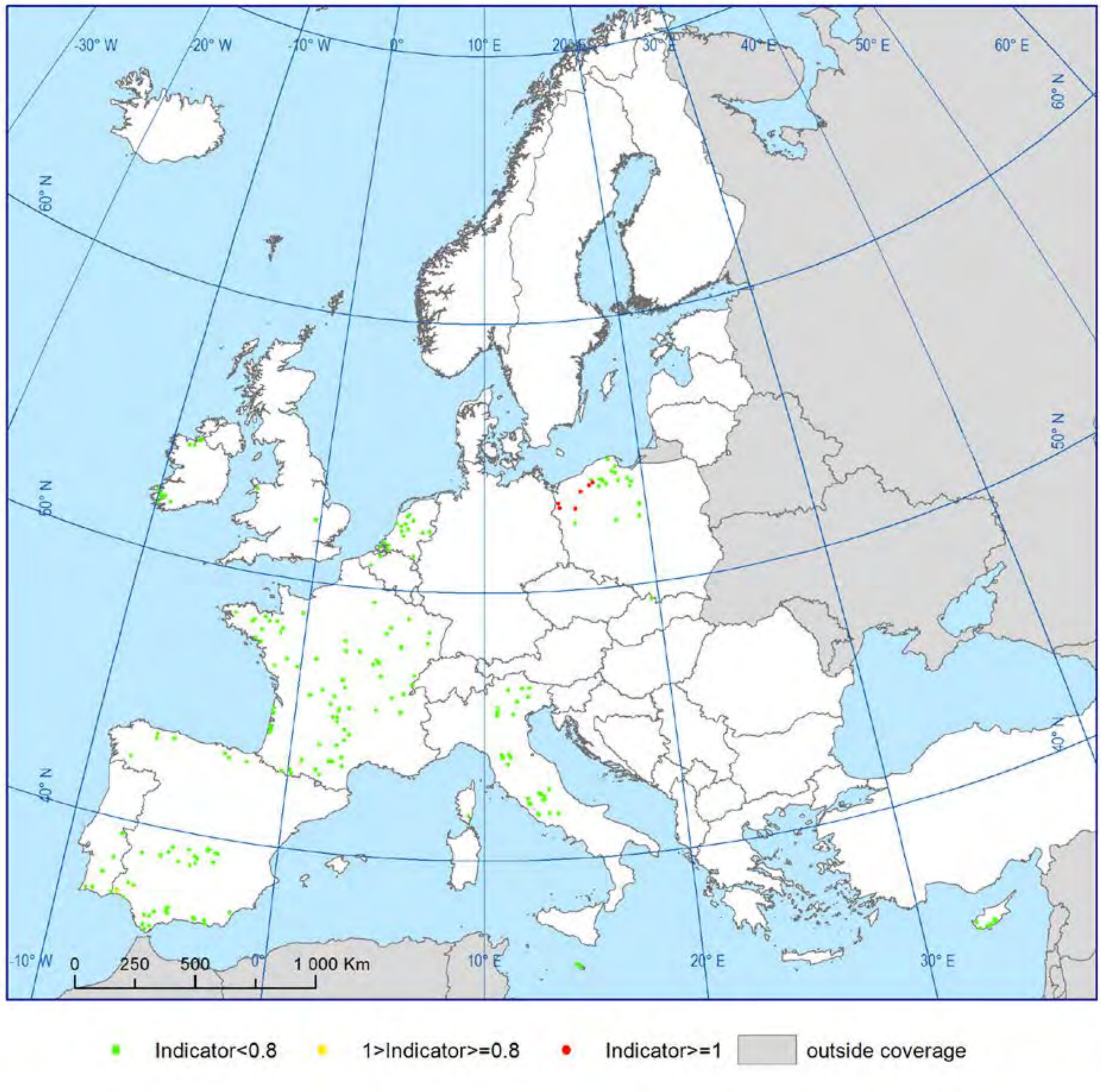


Figure 4.4.2.16d Box plot of data for diuron in lakes.

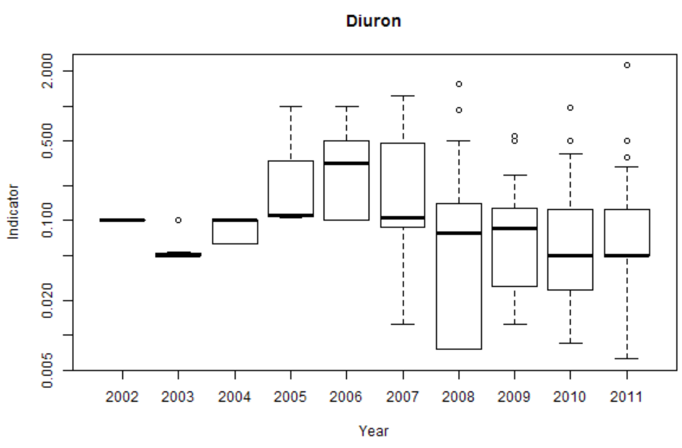


Figure 4.4.2.17a Long-term traffic-light indicator and number of stations for endosulfan in lakes.

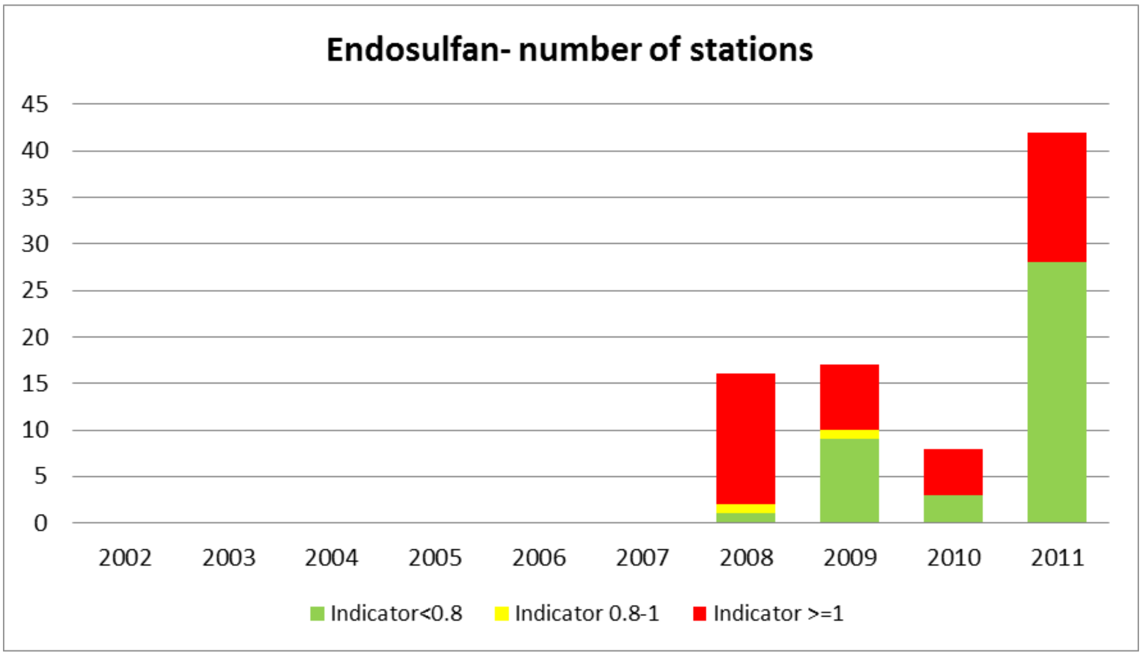


Figure 4.4.2.17b Traffic-light indicator for endosulfan in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

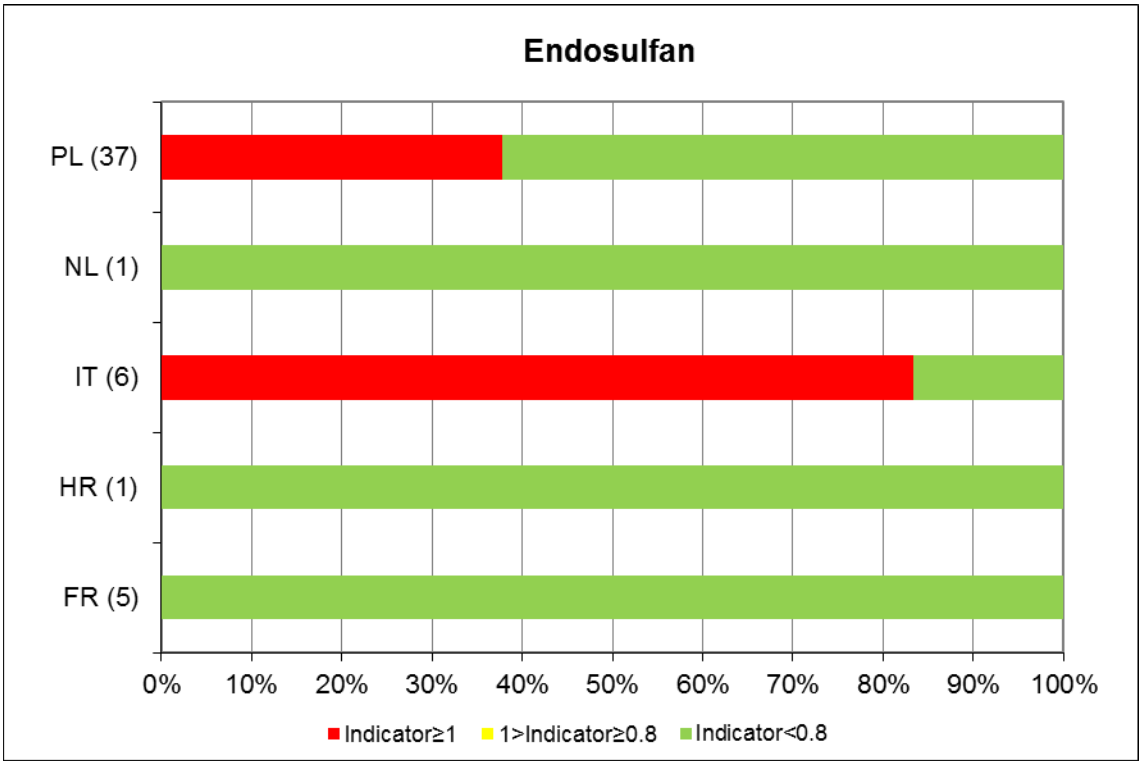


Figure 4.4.2.17c Map of traffic-light indicator for endosulfan in lakes from 2010–2011.

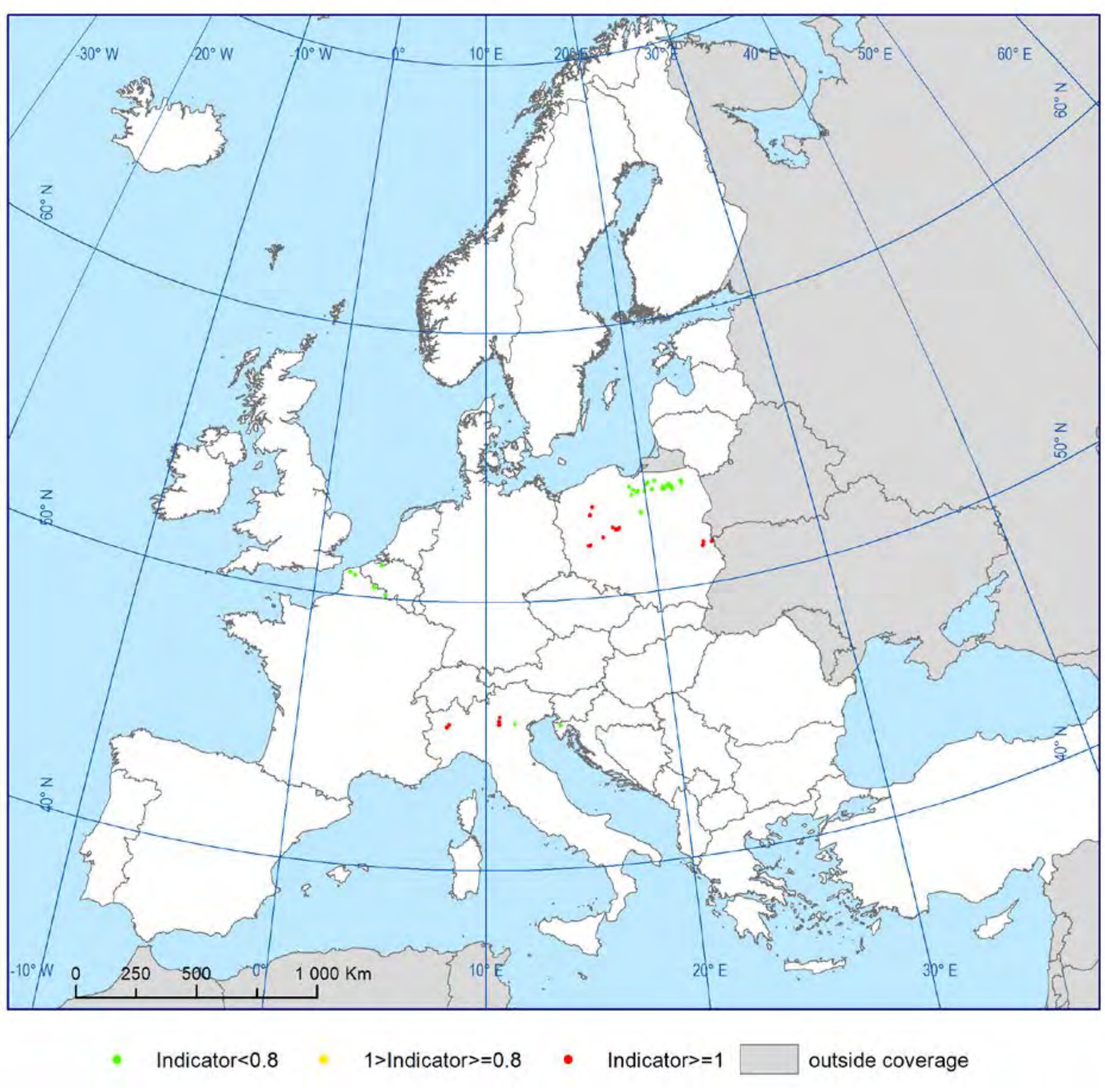


Figure 4.4.2.17d Box plot of data for endosulfan in lakes.

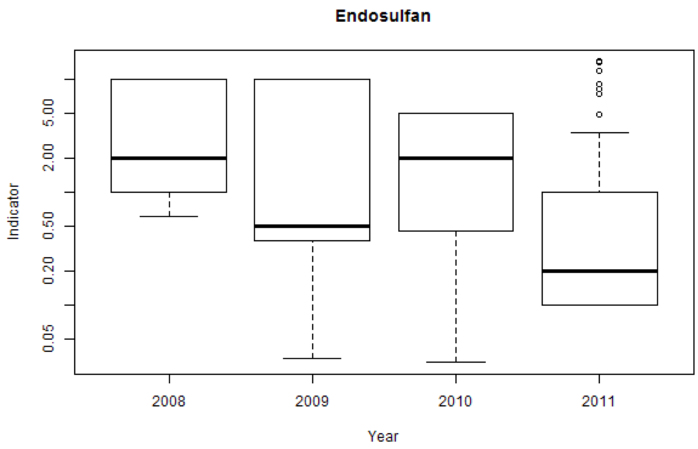


Figure 4.4.2.18a Long-term traffic-light indicator and number of stations fluoranthene in lakes.

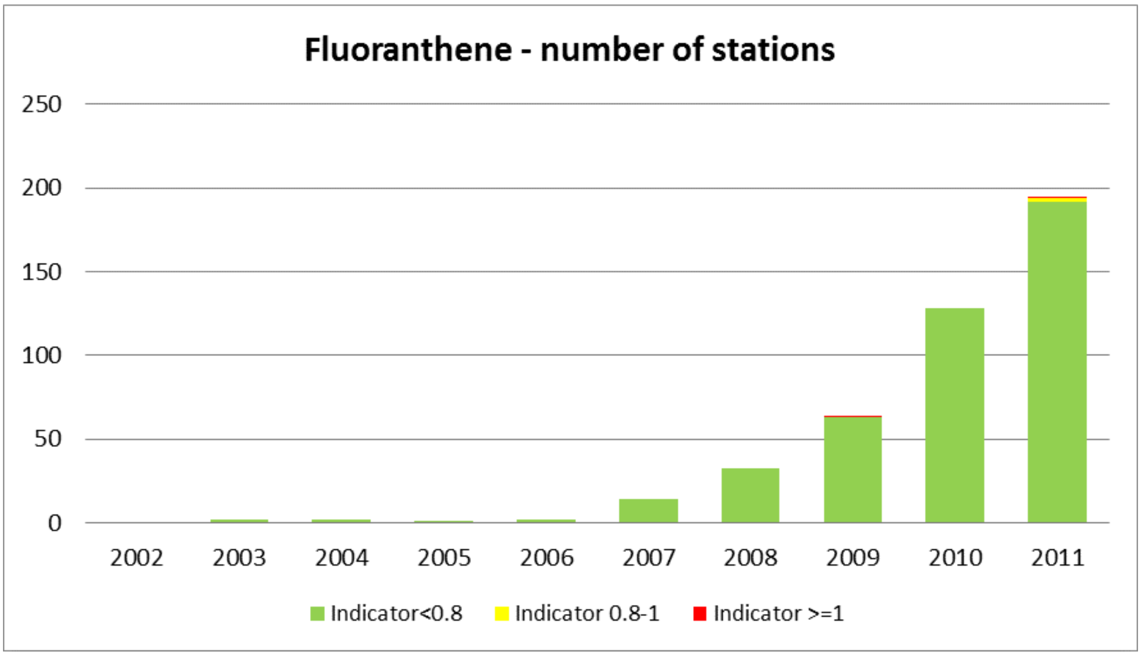


Figure 4.4.2.18b Traffic-light indicator for fluoranthene in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

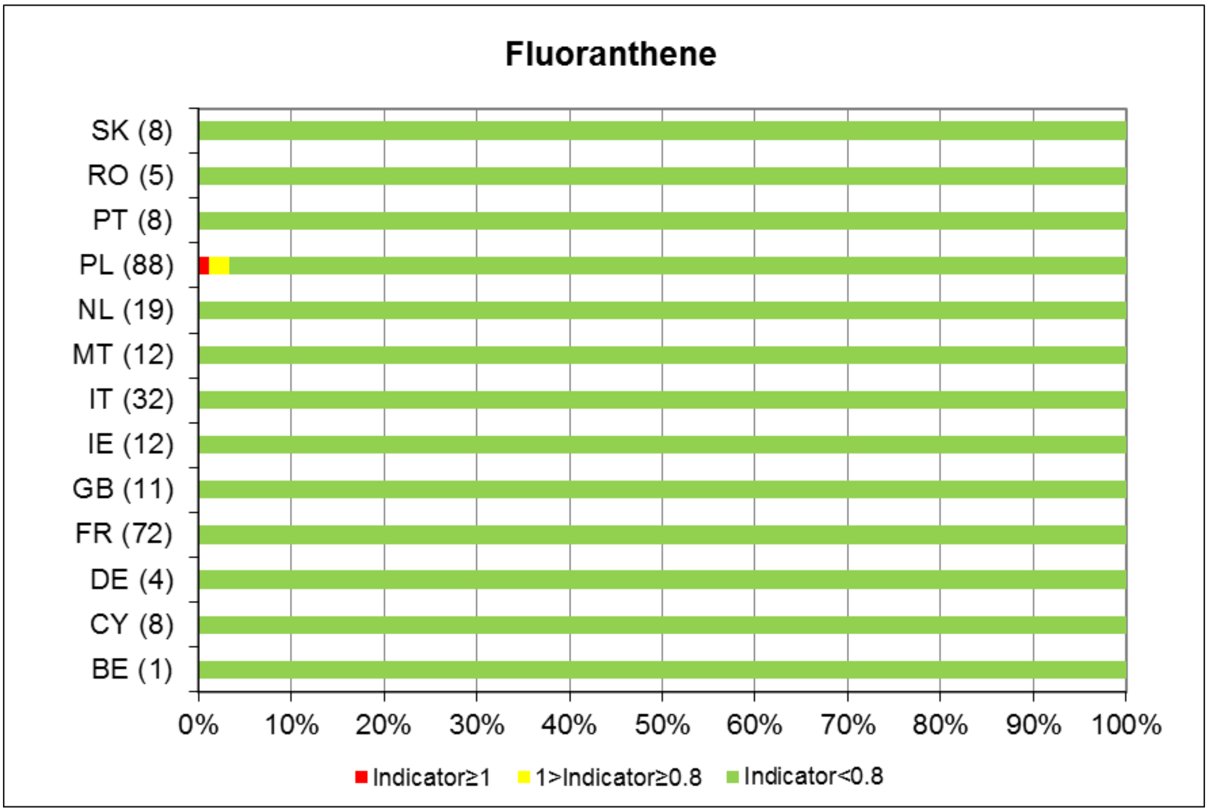


Figure 4.4.2.18c Map of traffic-light indicator for fluoranthene in lakes from 2010–2011.

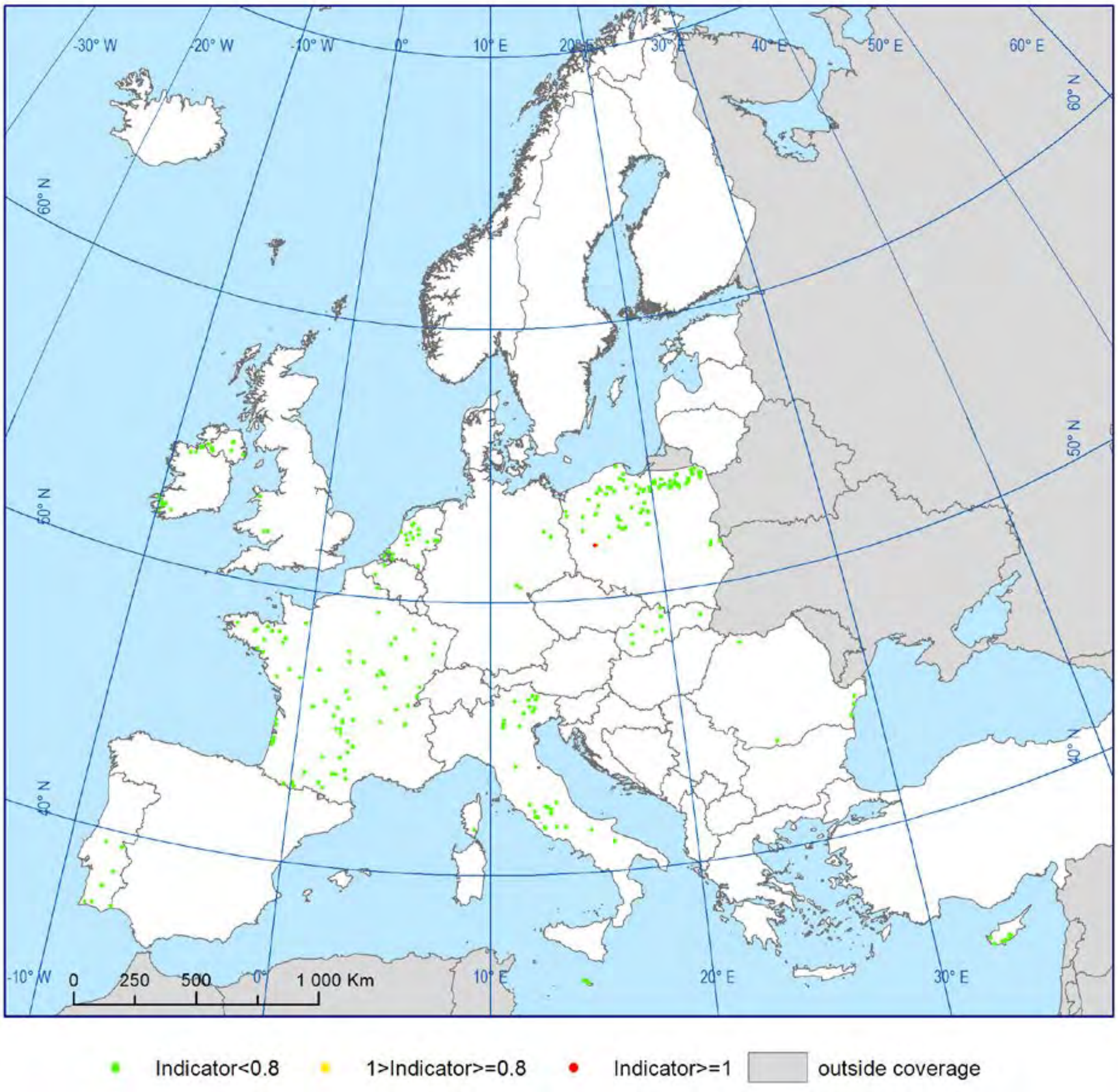


Figure 4.4.2.18d Box plot of data for fluoranthene in lakes.

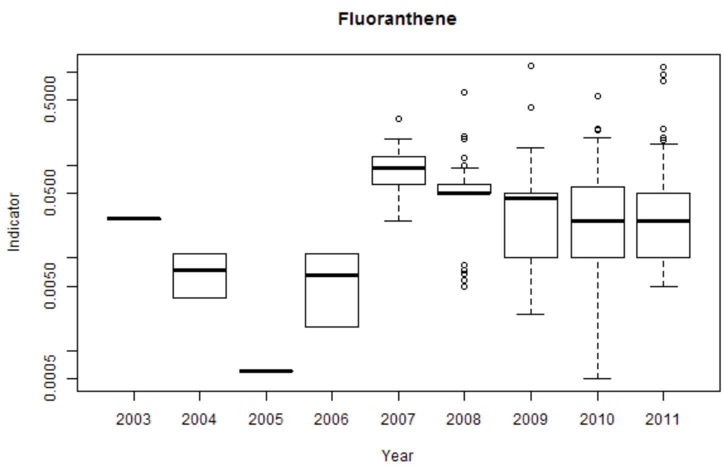


Figure 4.4.2.19a Long-term traffic-light indicator and number of stations for hexachlorobenzene (HCB) in lakes.

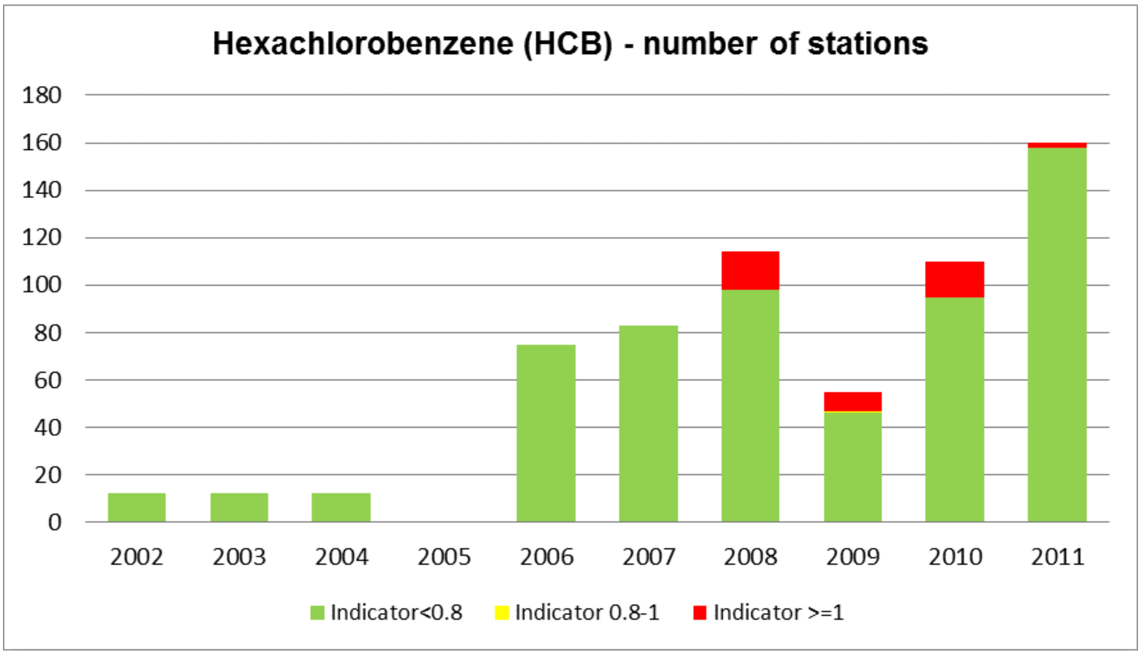


Figure 4.4.2.19b Traffic-light indicator for hexachlorobenzene (HCB) in lakes from 2010–2011(number of stations per country is shown in parenthesis).

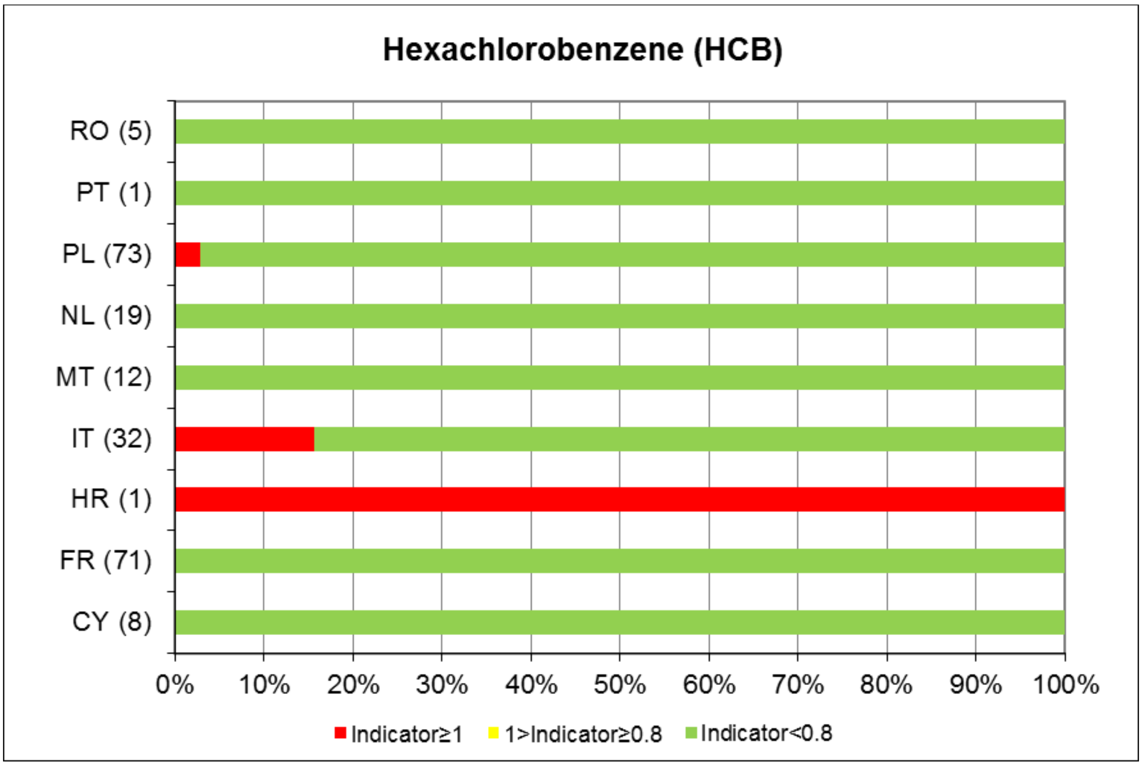


Figure 4.4.2.19c Map of traffic-light indicator for hexachlorobenzene (HCB) in lakes from 2010–2011.

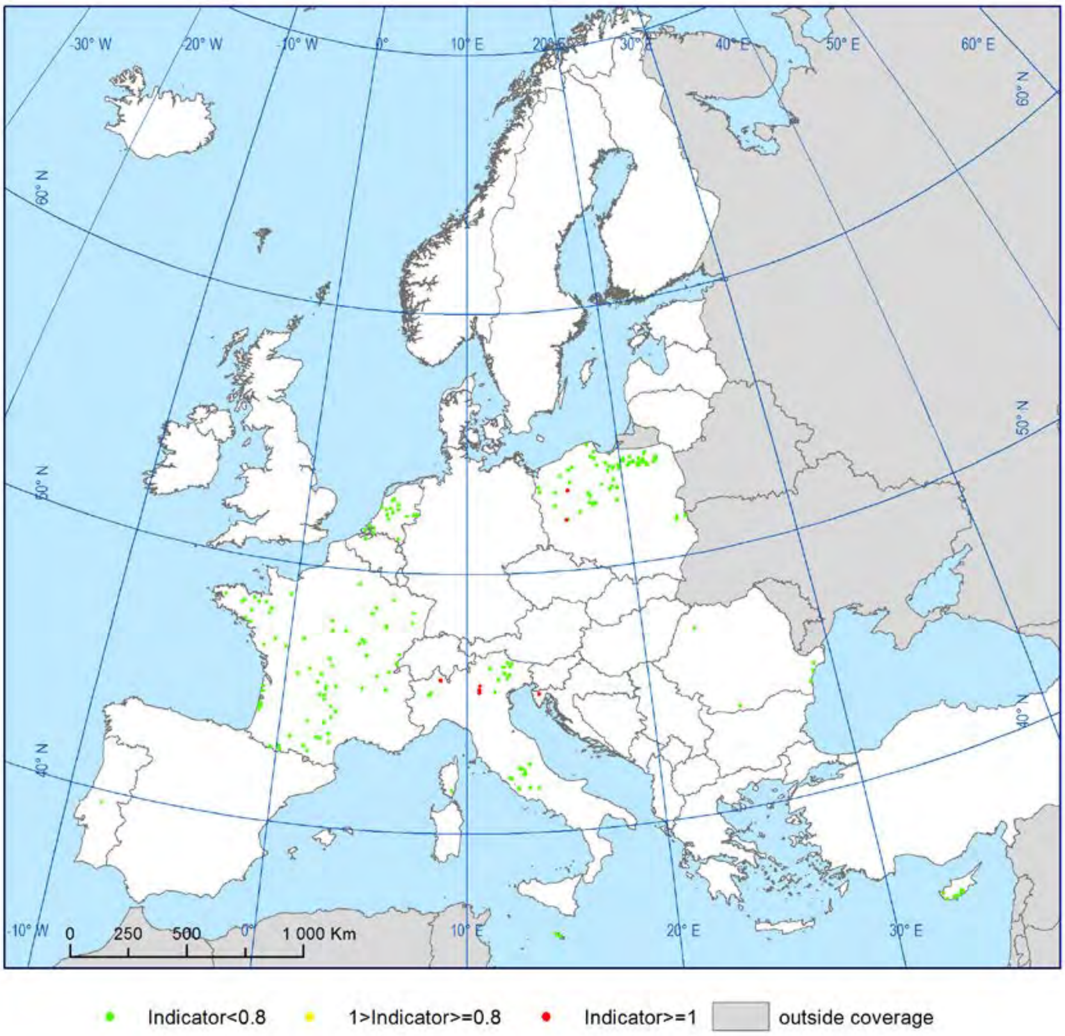


Figure 4.4.2.19d Box plot of data for hexachlorobenzene (HCB) in lakes.

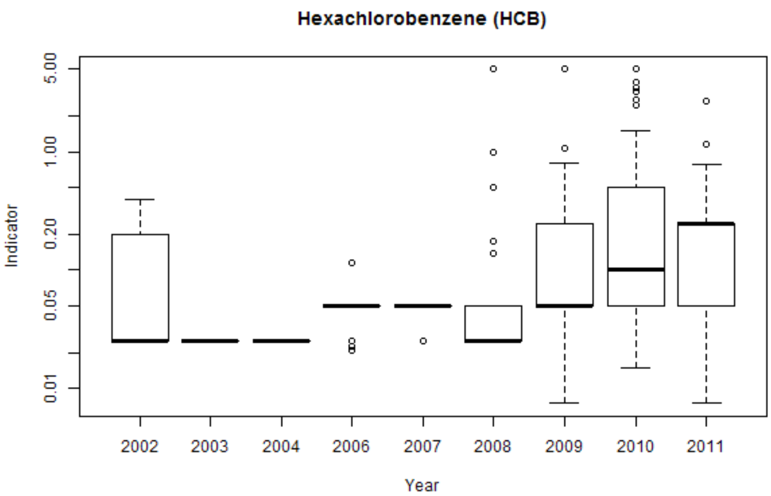


Figure 4.4.2.20a Long-term traffic-light indicator and number of stations for hexachlorobutadiene (HCBD) in lakes.

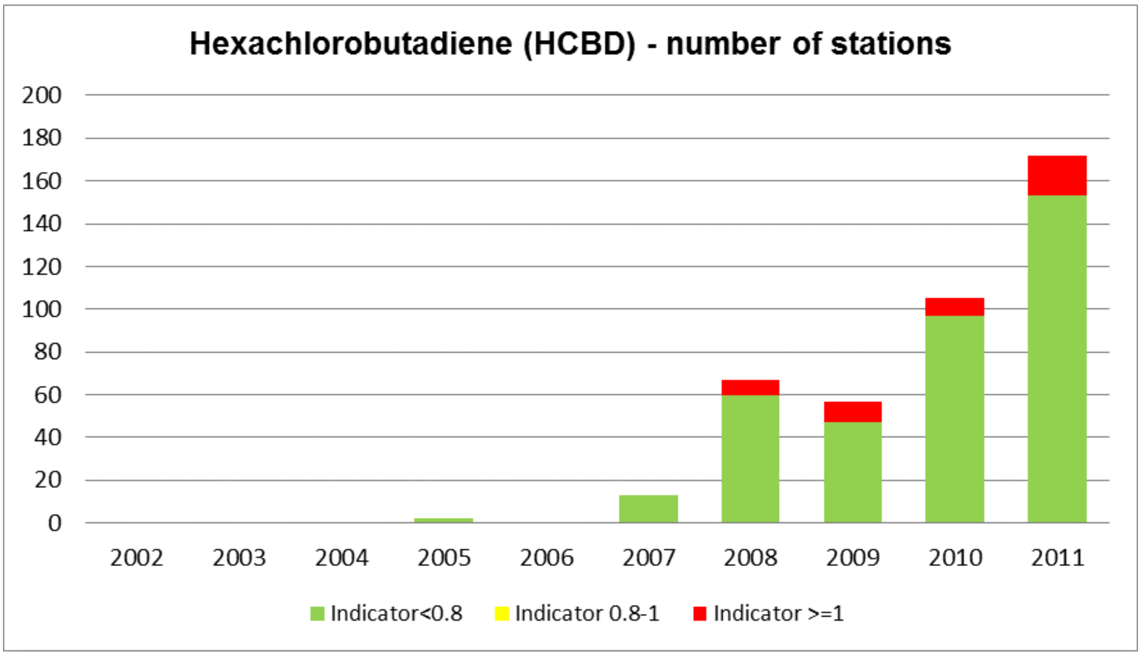


Figure 4.4.2.20b Traffic-light indicator for hexachlorobutadiene (HCBD) in lakes from 2010–2011(number of stations per country is shown in parenthesis).

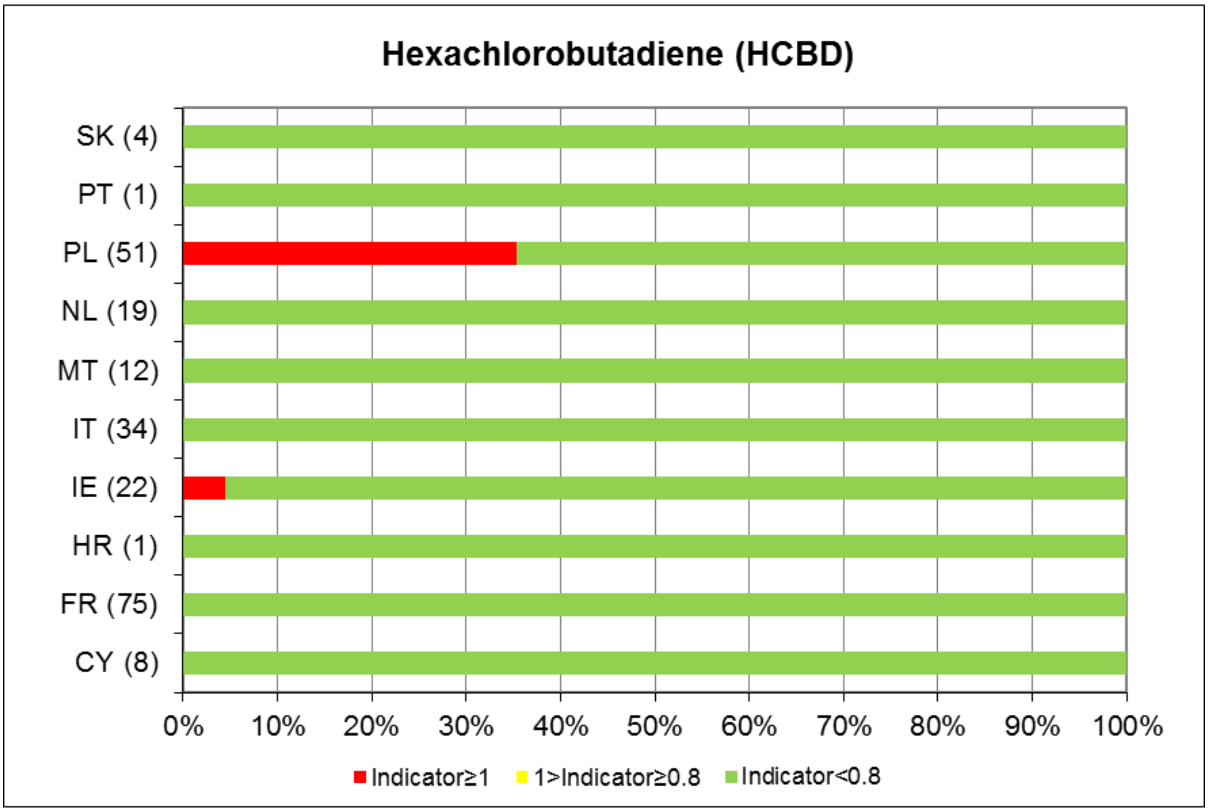


Figure 4.4.2.20c Map of traffic-light indicator for hexachlorobutadiene (HCBD) in lakes from 2010–2011.

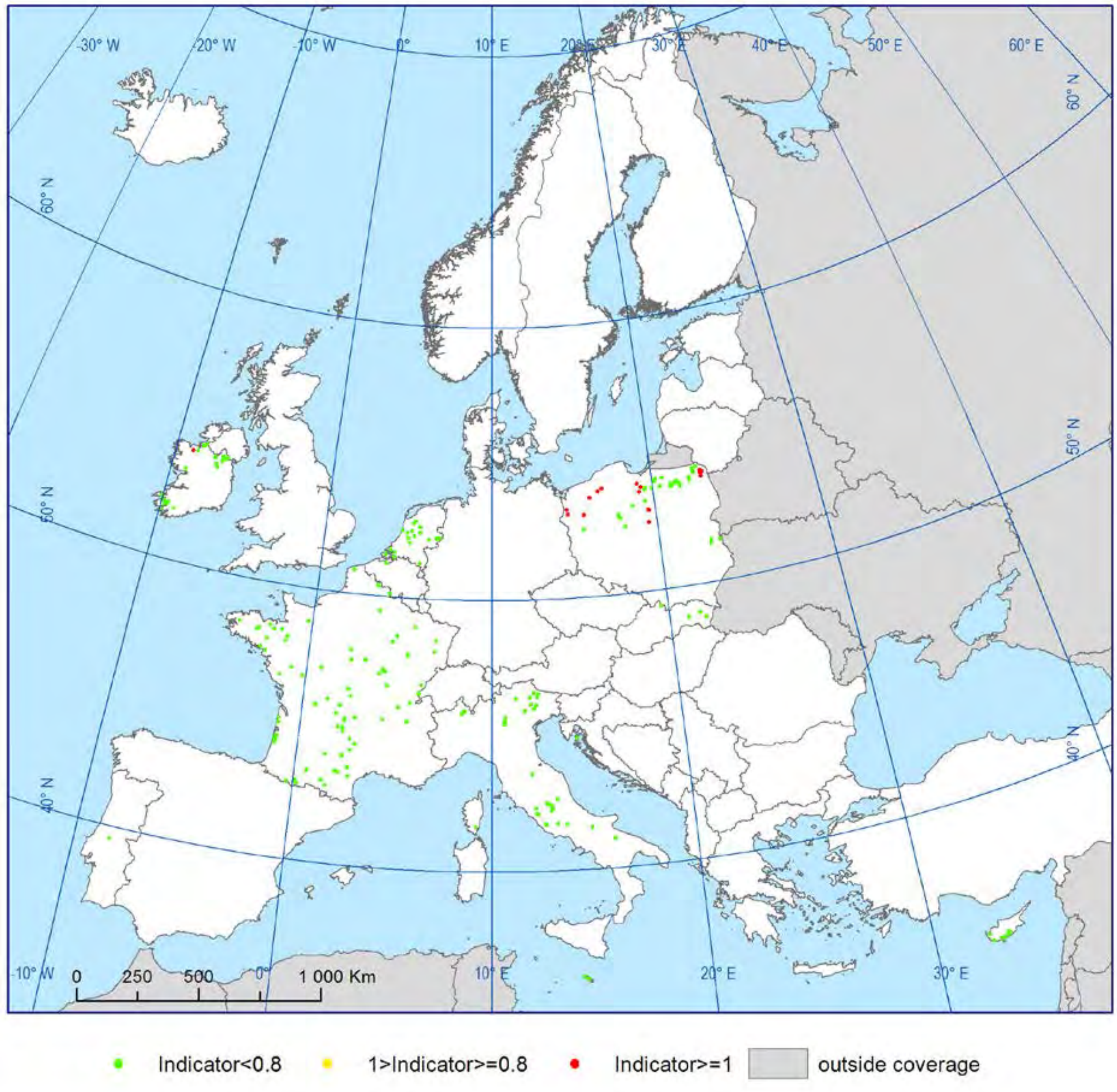


Figure 4.4.2.20d Box plot of data for hexachlorobutadiene (HCBD) in lakes.

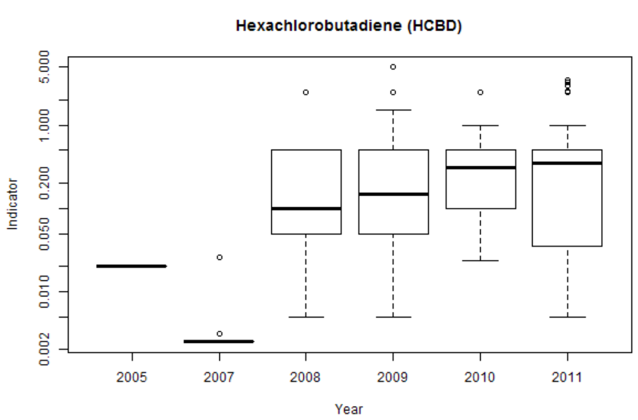


Figure 4.4.2.21a Long-term traffic-light indicator and number of stations for hexachlorocyclohexane (HCH) in lakes. Sum of isomers of the technical mixture (CAS no. 608-73-1) has been calculated.

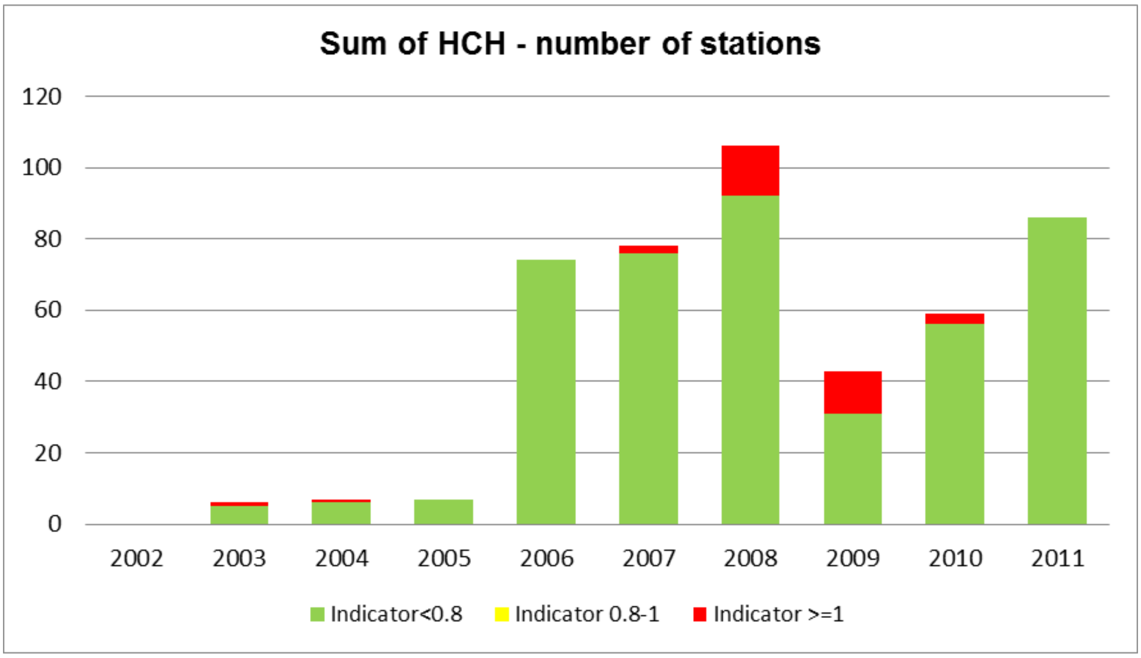


Figure 4.4.2.21b Traffic-light indicator for hexachlorocyclohexane (HCH) in lakes from 2010–2011 (number of stations per country is shown in parenthesis). Sum of isomers of the technical mixture (CAS no. 608-73-1) has been calculated.

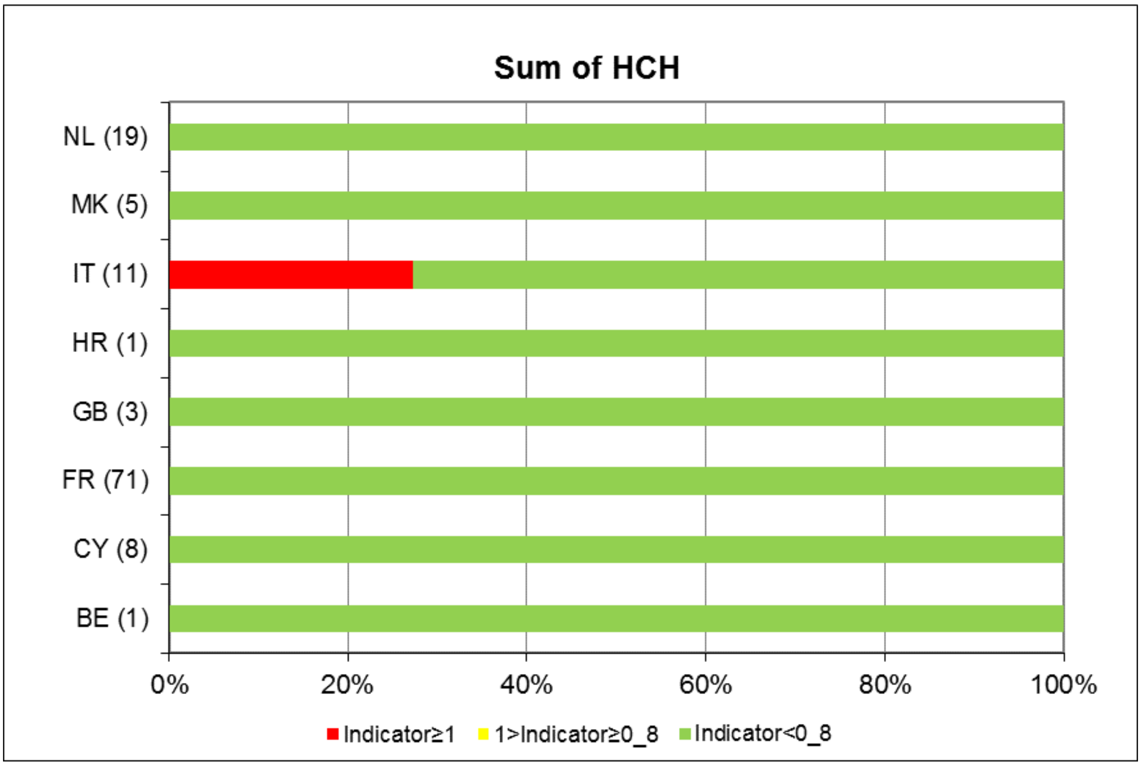


Figure 4.4.2.21c Map of traffic-light indicator for hexachlorocyclohexane (HCH) in lakes from 2010–2011. Sum of isomers of the technical mixture (CAS no. 608-73-1) has been calculated.

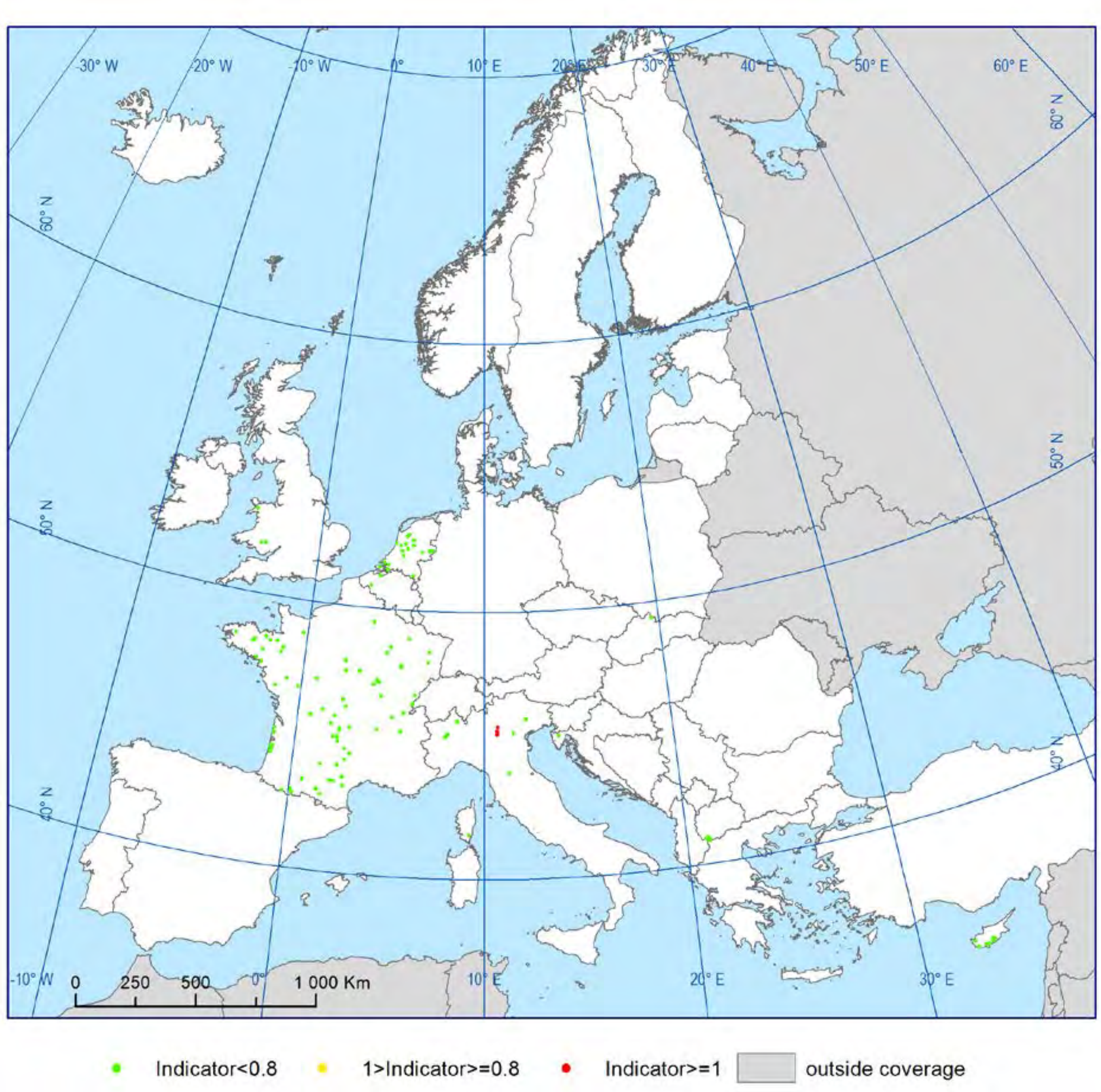


Figure 4.4.2.21d Box plot of data for sum hexachlorocyclohexane (HCH) in lakes. Sum of isomers of the technical mixture (CAS no. 608-73-1) has been calculated.

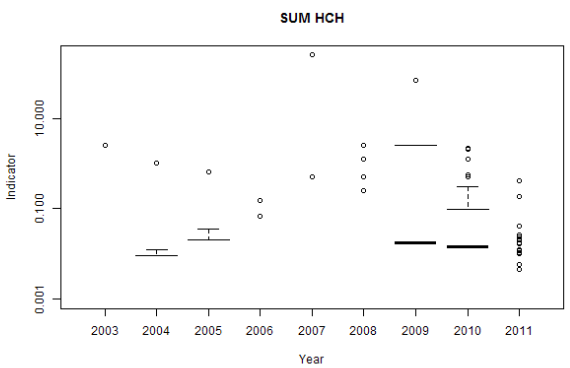


Figure 4.4.2.21a1 Long-term traffic-light indicator and number of stations for hexachlorocyclohexane (HCH) in lakes. γ-HCH ("Lindane", CAS no. 58-89-9), has most likely been reported.

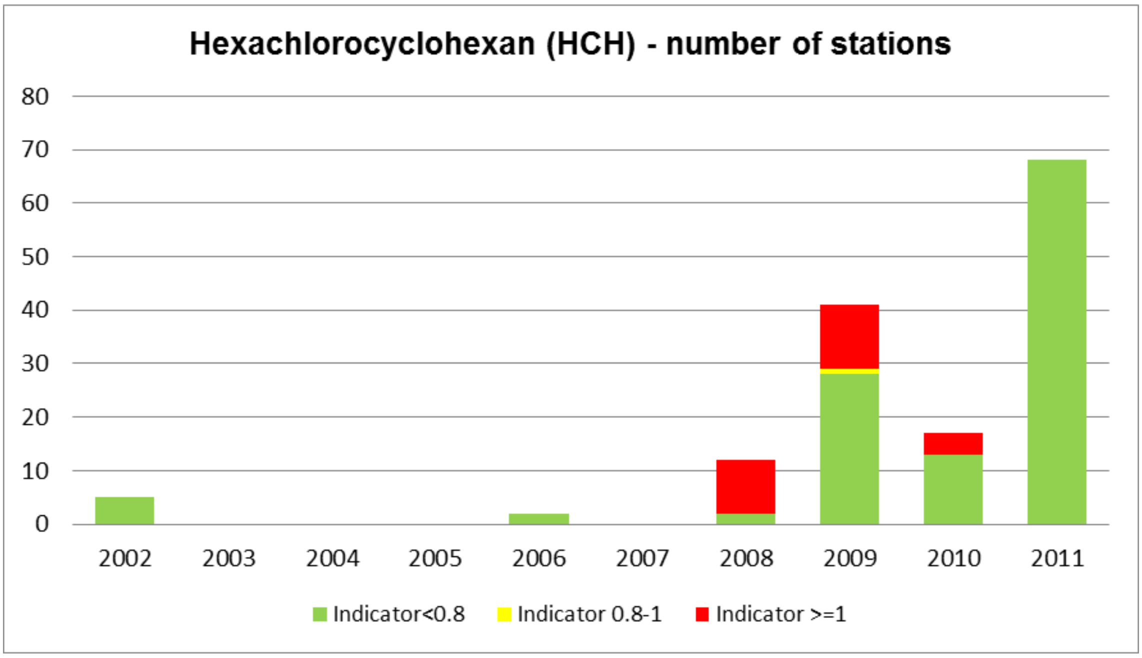


Figure 4.4.2.21b1 Traffic-light indicator for hexachlorocyclohexane (HCH) in lakes from 2010–2011 (number of stations per country is shown in parenthesis). γ-HCH ("Lindane", CAS no. 58-89-9), has most likely been reported.

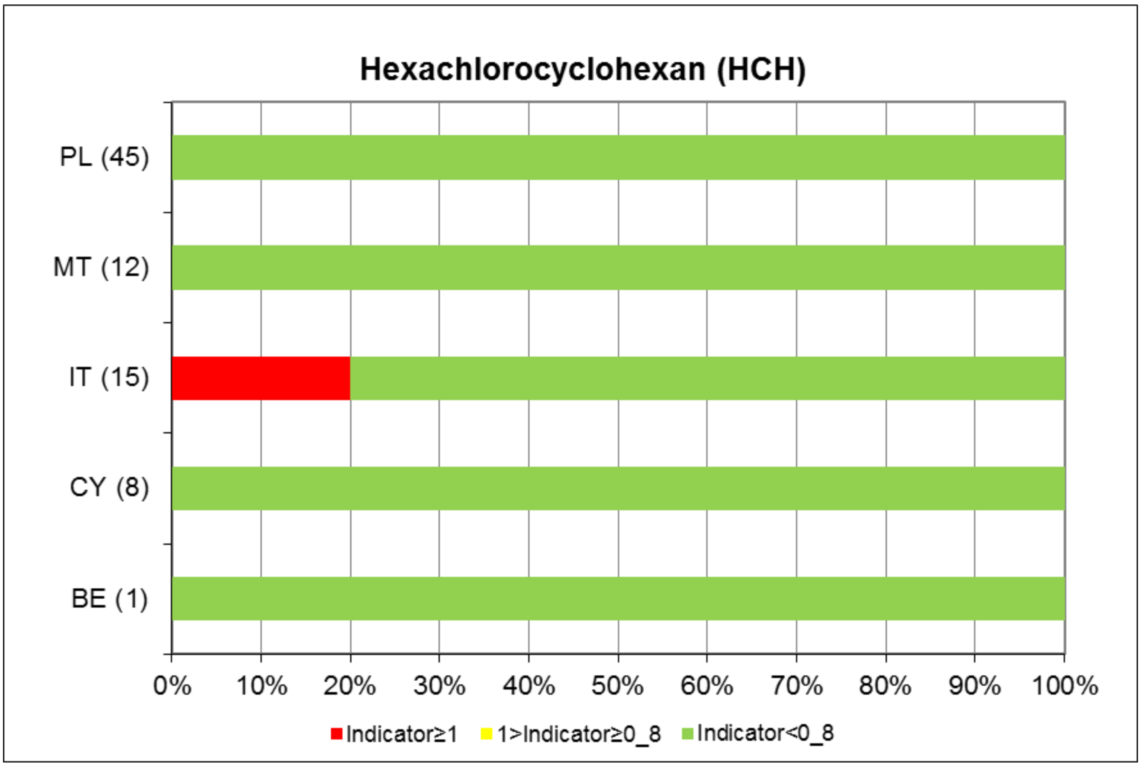


Figure 4.4.2.21c1 Map of traffic-light indicator for hexachlorocyclohexane (HCH) in lakes from 2010–2011. γ-HCH ("Lindane", CAS no. 58-89-9), has most likely been reported.

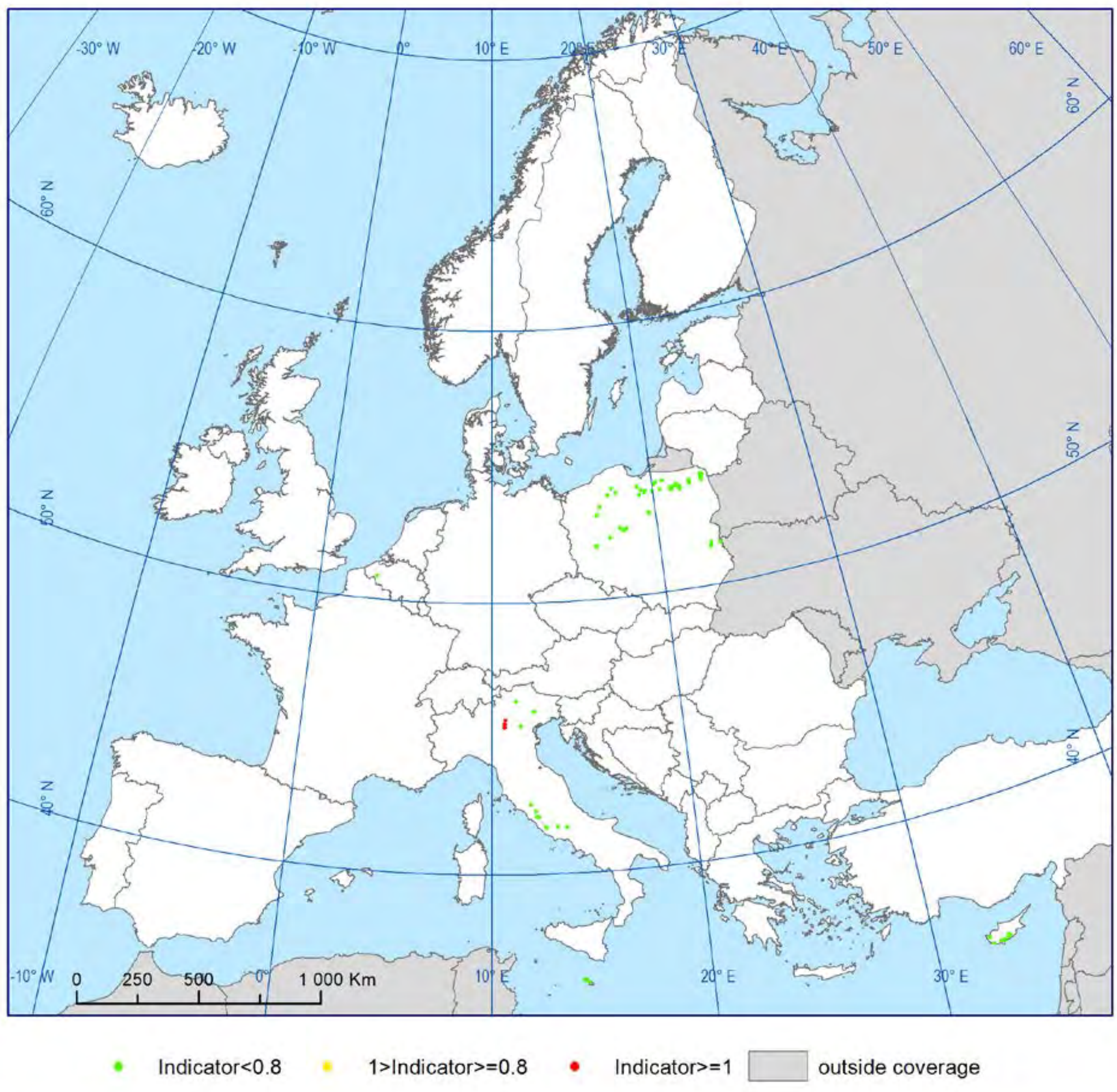


Figure 4.4.2.21d1 Box plot of data for hexachlorocyclohexane (HCH) in lakes. γ-HCH ("Lindane", CAS no. 58-89-9), has most likely been reported.

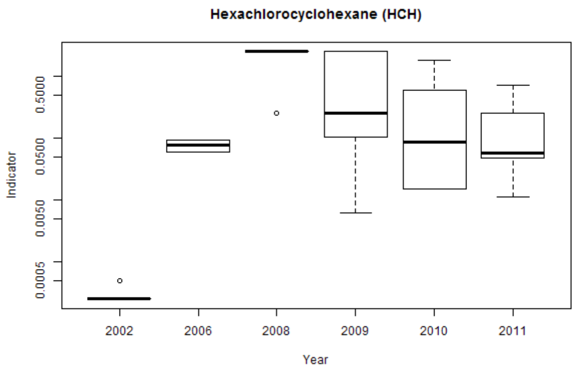


Figure 4.4.2.22a Long-term traffic-light indicator and number of stations for isoproturon in lakes.

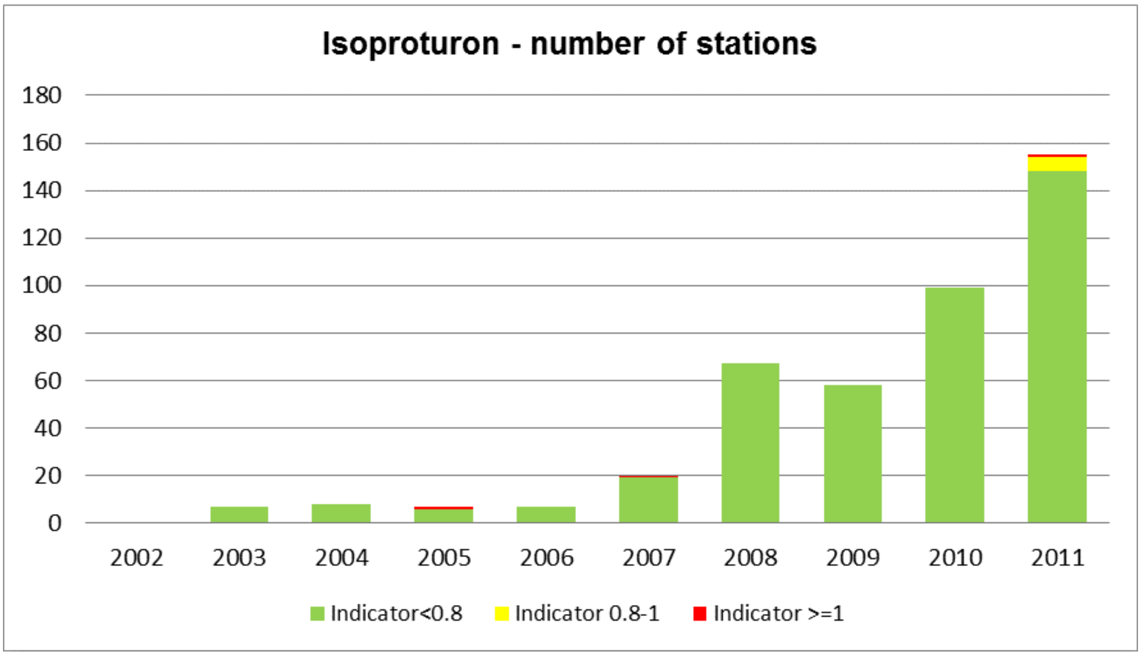


Figure 4.4.2.22b Traffic-light indicator for isoproturon in lakes from 2010–2011(number of stations per country is shown in parenthesis).

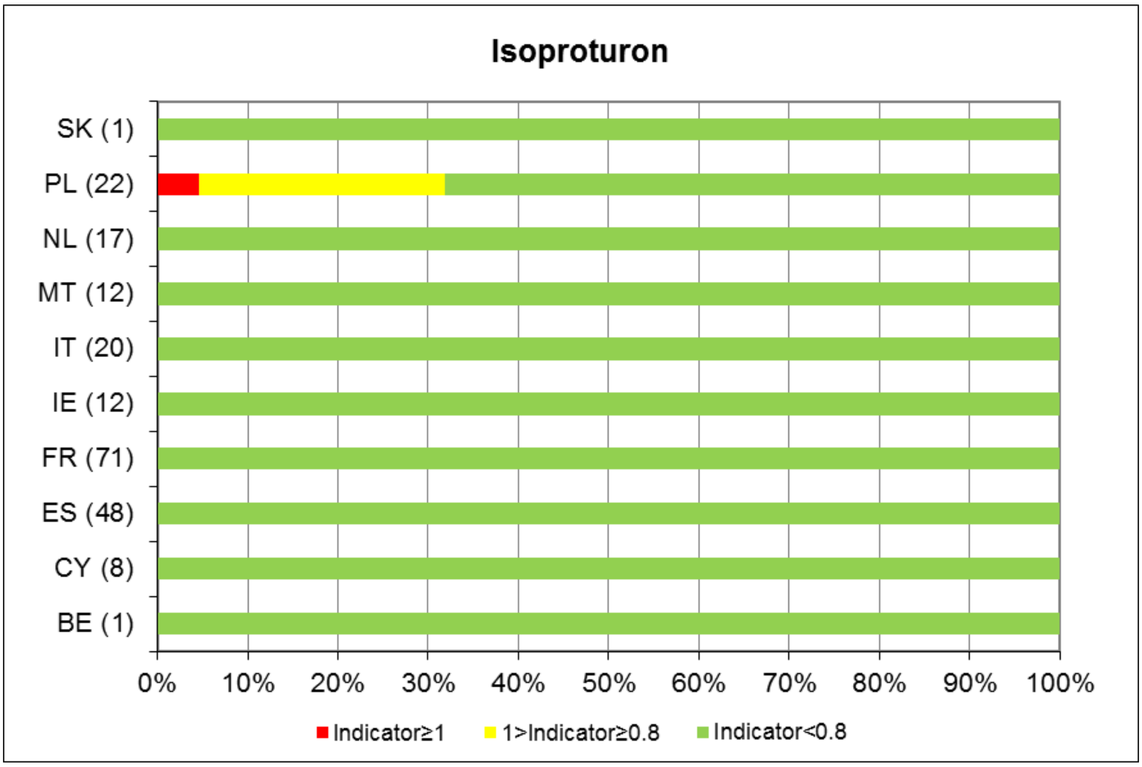


Figure 4.4.2.22c Map of traffic-light indicator for isoproturon in lakes from 2010–2011.

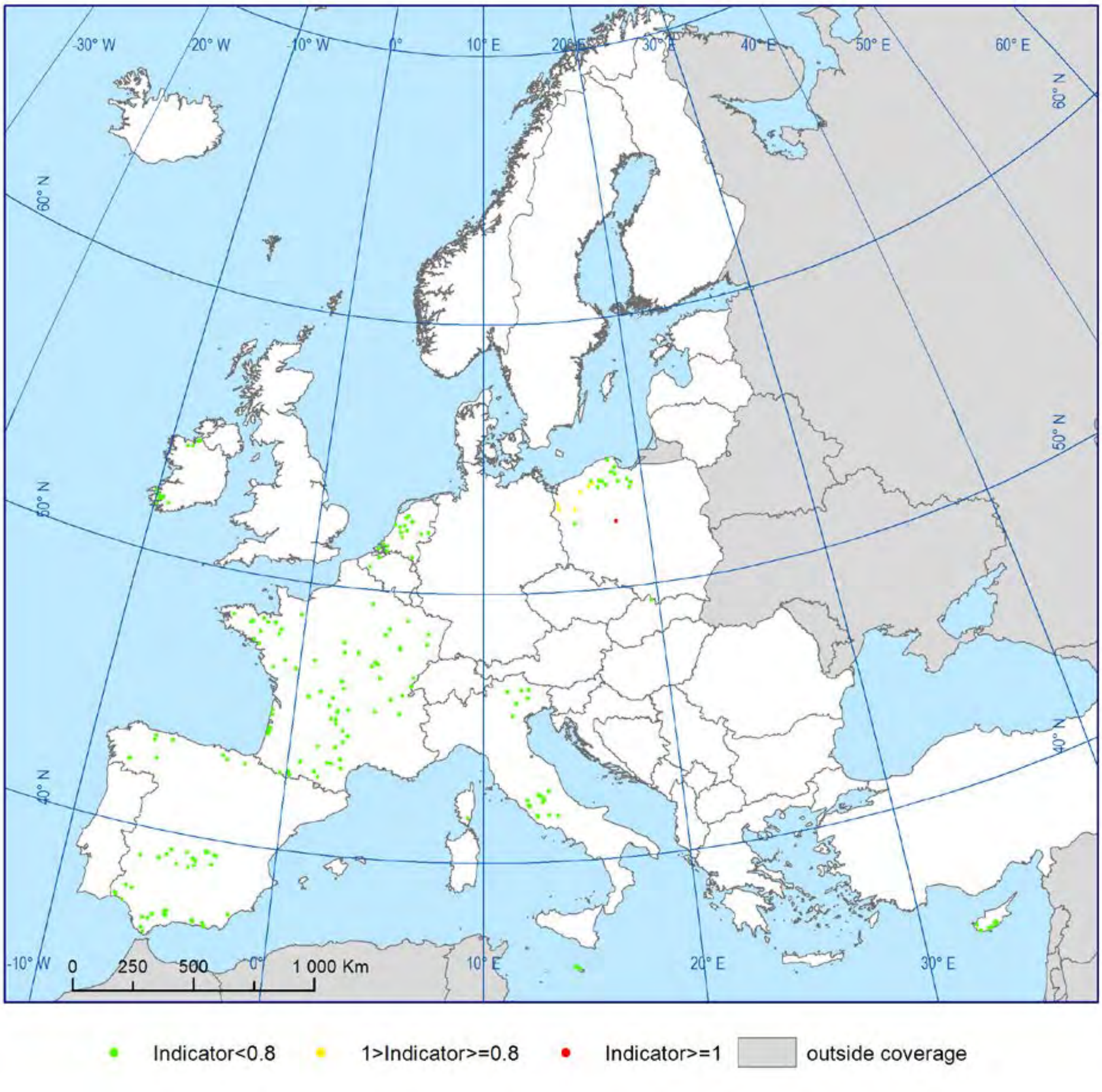


Figure 4.4.2.22d Box plot of data for isoproturon in lakes.

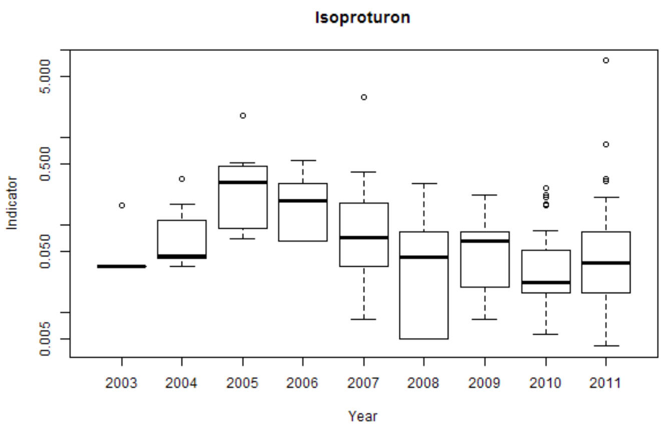


Figure 4.4.2.23a Long-term traffic-light indicator and number of stations for lead and its compounds in lakes.

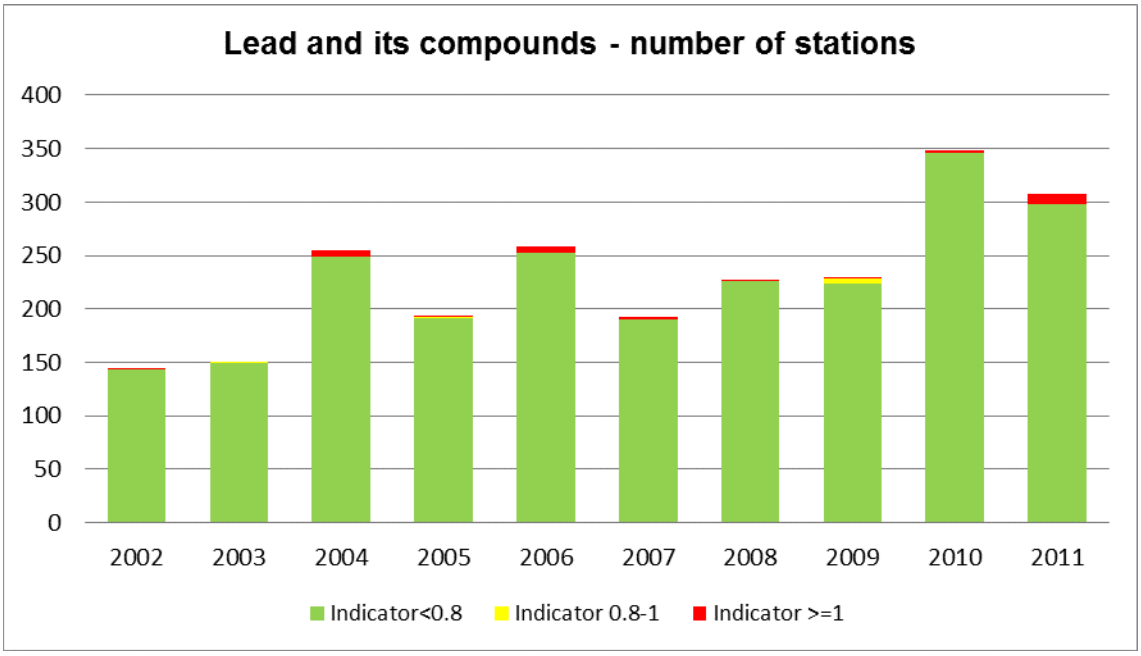


Figure 4.4.2.23b Traffic-light indicator for lead and its compounds in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

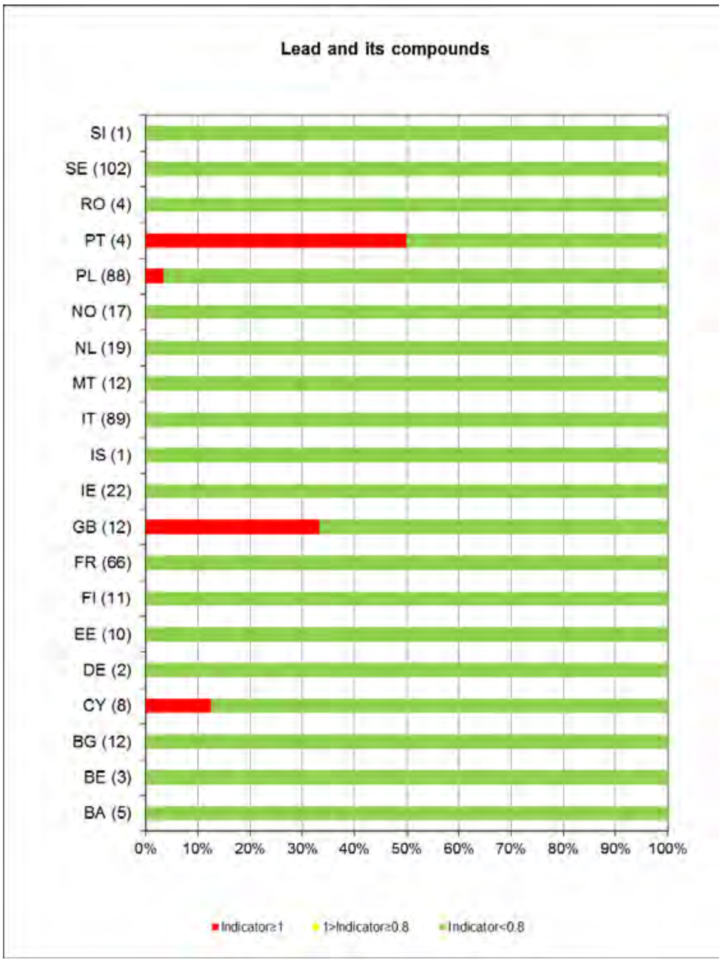


Figure 4.4.2.23c Map of traffic-light indicator for lead and its compounds in lakes from 2010–2011.

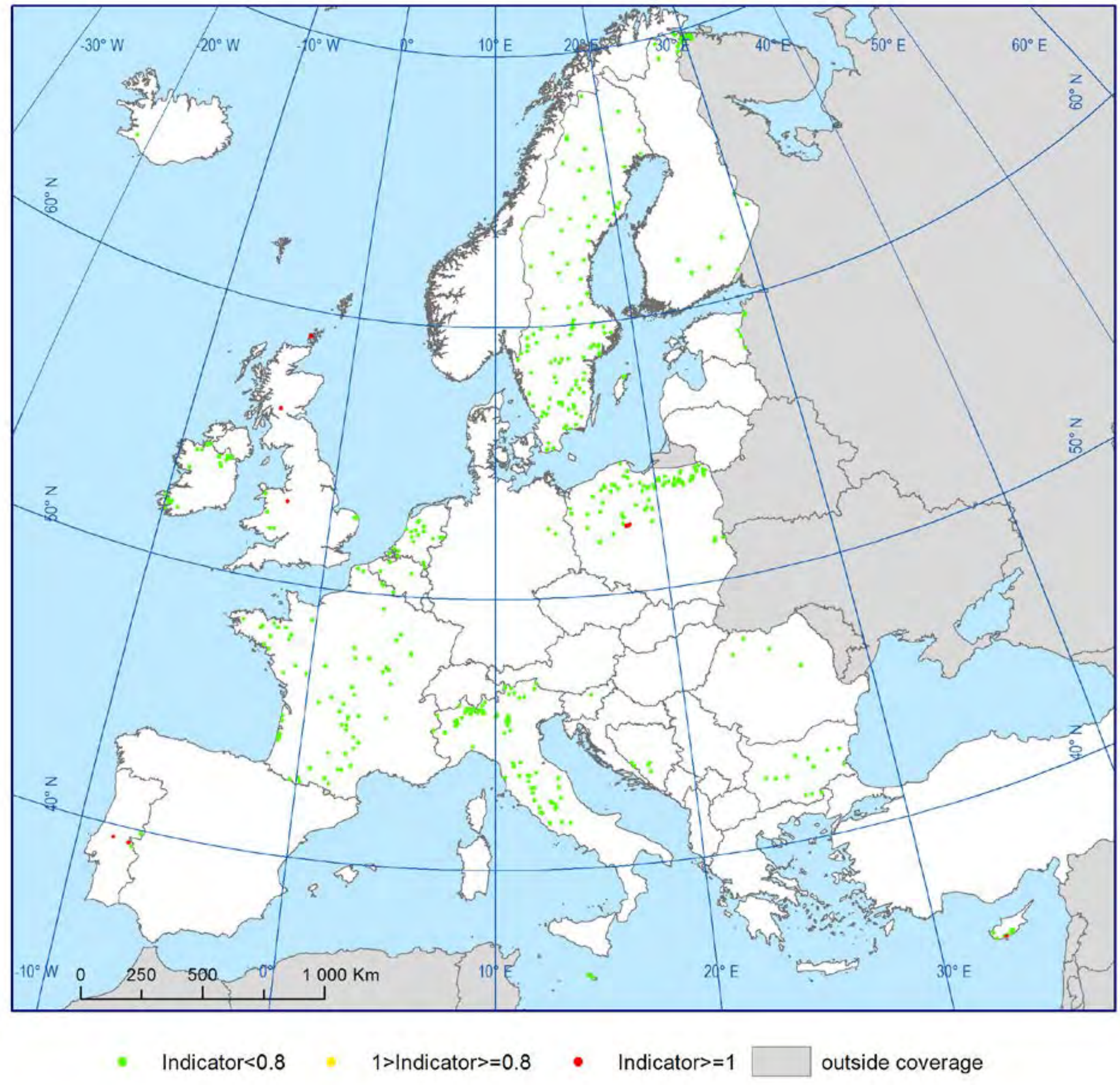


Figure 4.4.2.23d Box plot of data for for lead and its compounds in lakes.

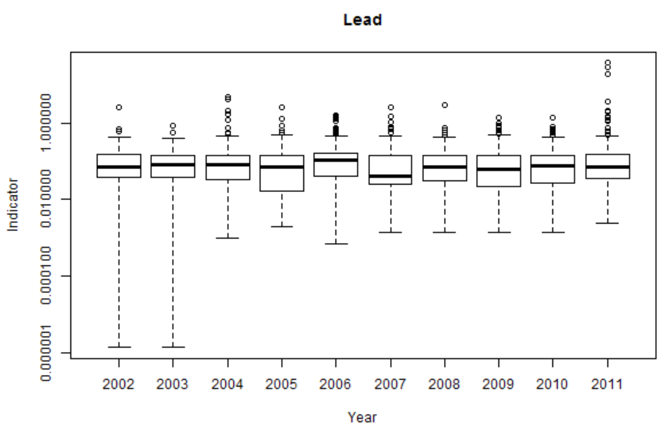


Figure 4.4.2.23a1 Long-term traffic-light indicator and number of stations for dissolved lead in lakes.

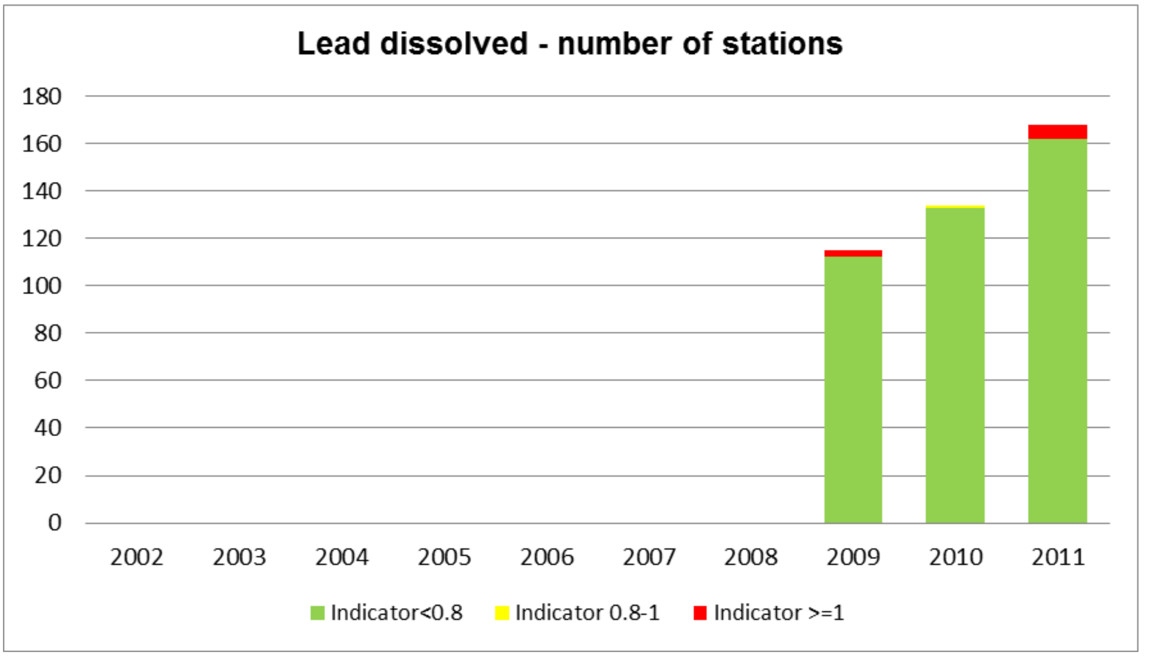


Figure 4.4.2.23b1 Traffic-light indicator for dissolved lead in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

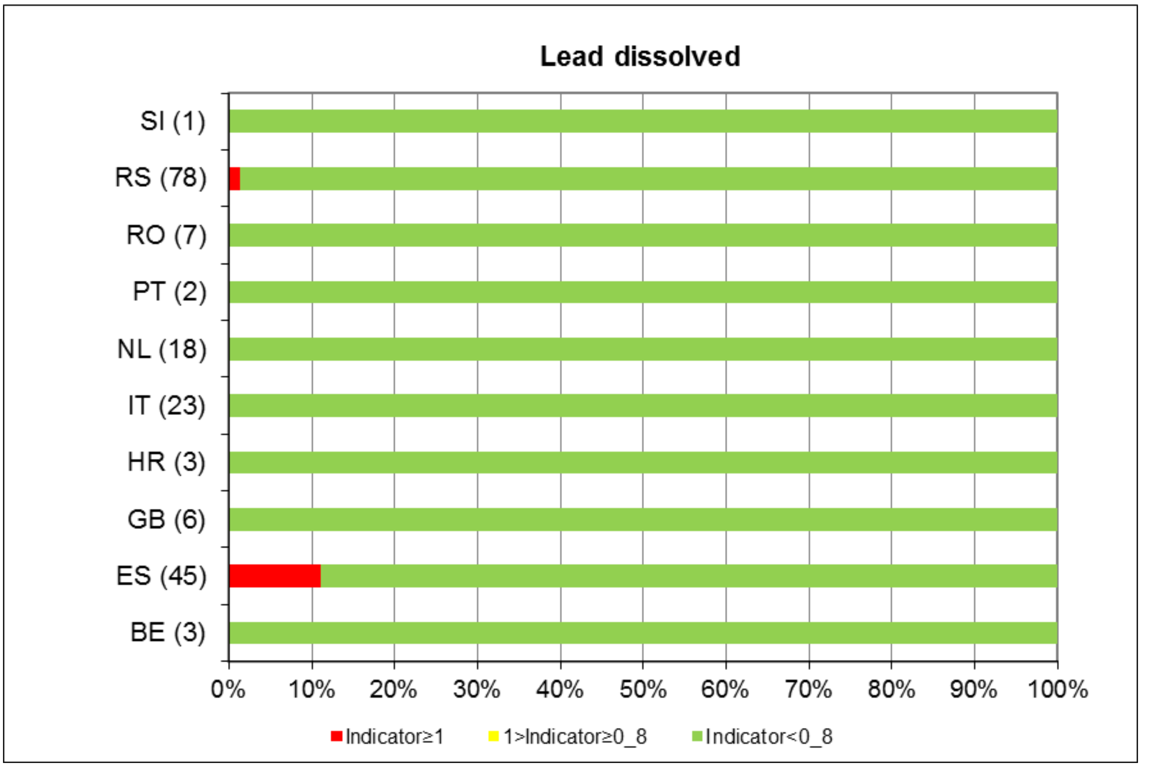


Figure 4.4.2.23c1 Map of traffic-light indicator for dissolved lead in lakes from 2010–2011.

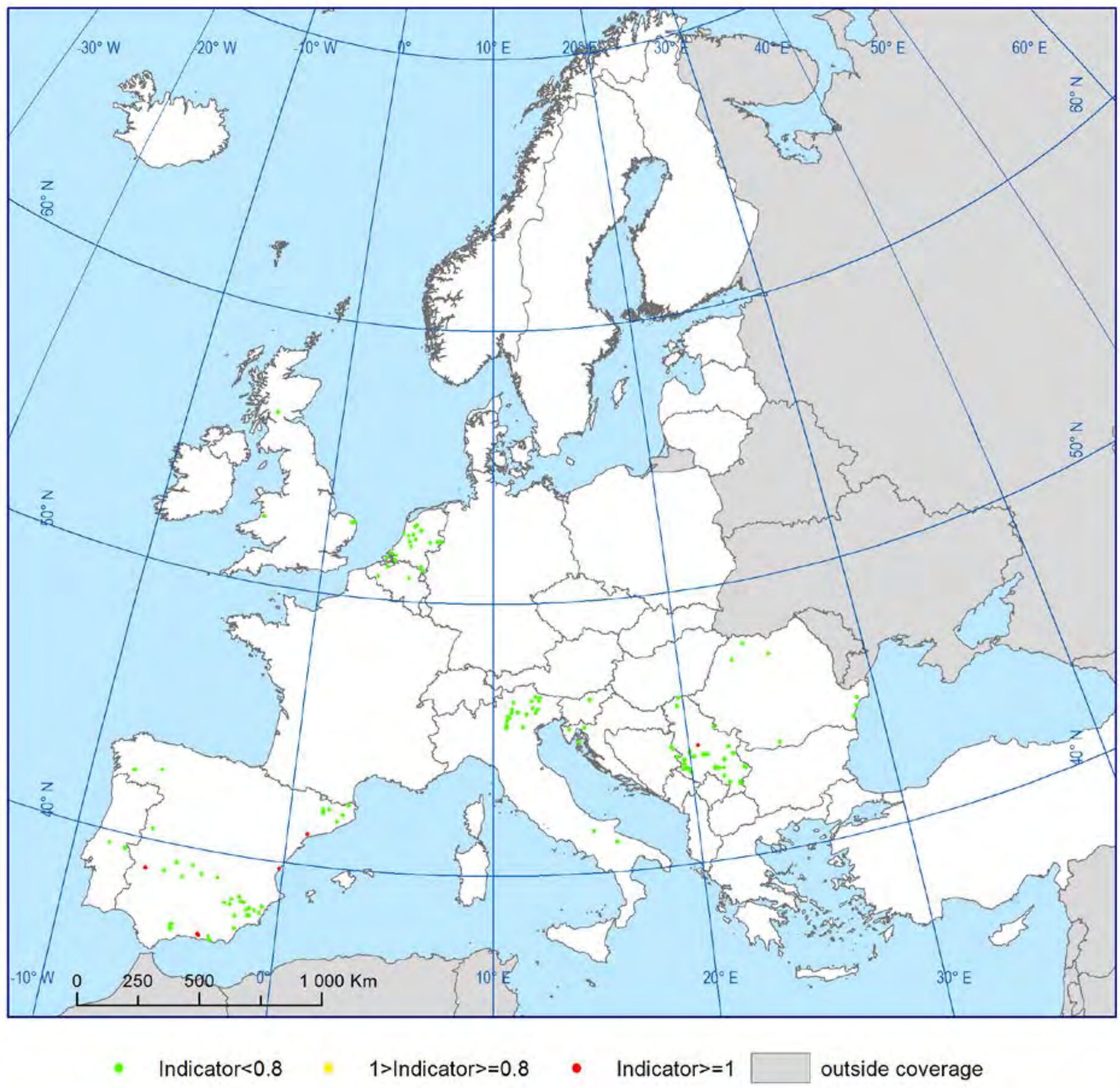


Figure 4.4.2.23d1 Box plot of data for for dissolved lead in lakes.

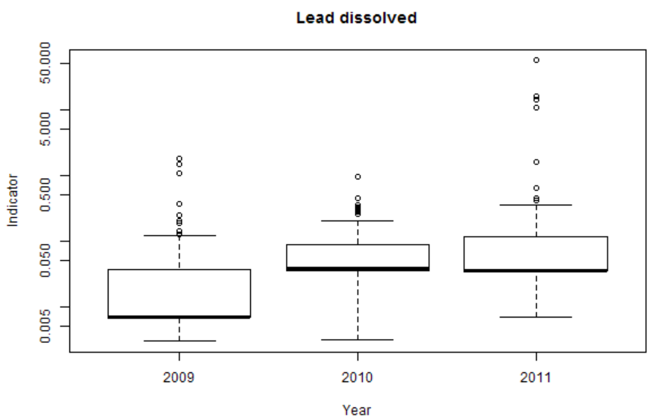


Figure 4.4.2.24a Long-term traffic-light indicator and number of stations for mercury and its compounds in lakes.

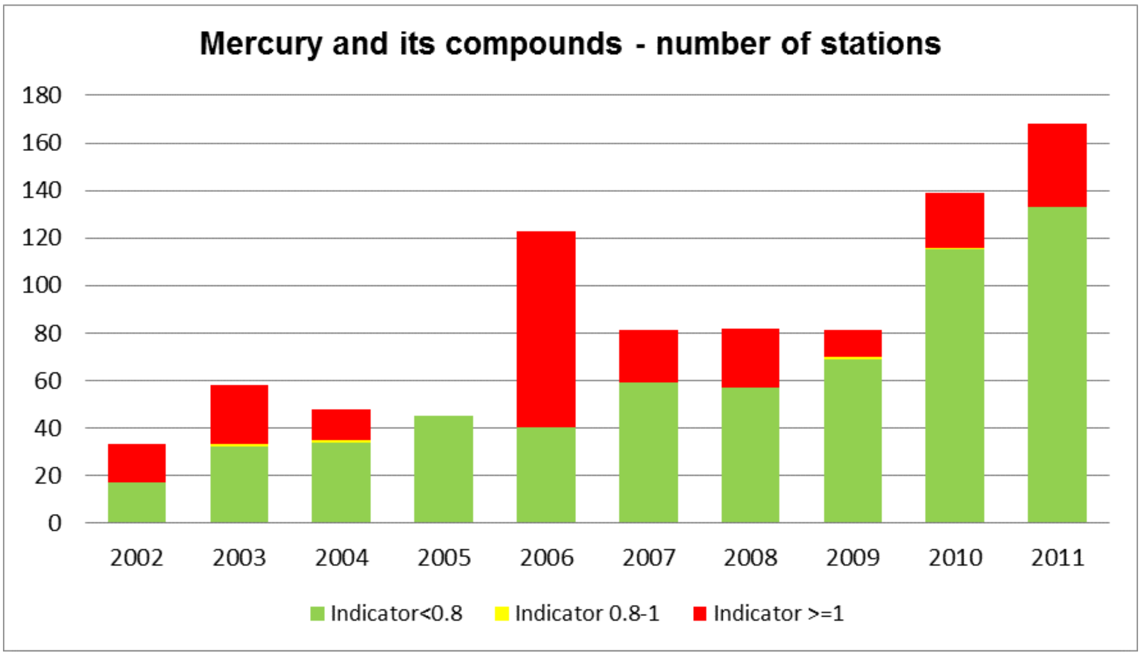


Figure 4.4.2.24b Traffic-light indicator for mercury and its compounds in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

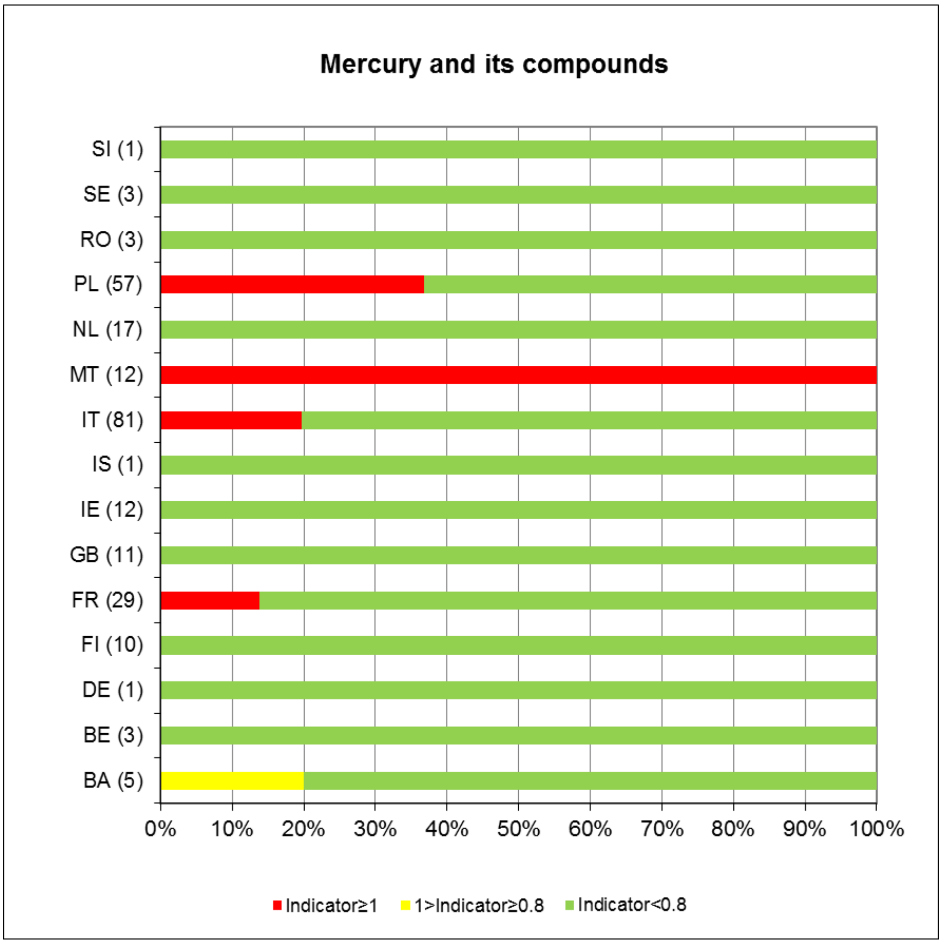


Figure 4.4.2.24c Map of traffic-light indicator for mercury and its compounds in lakes from 2010–2011.

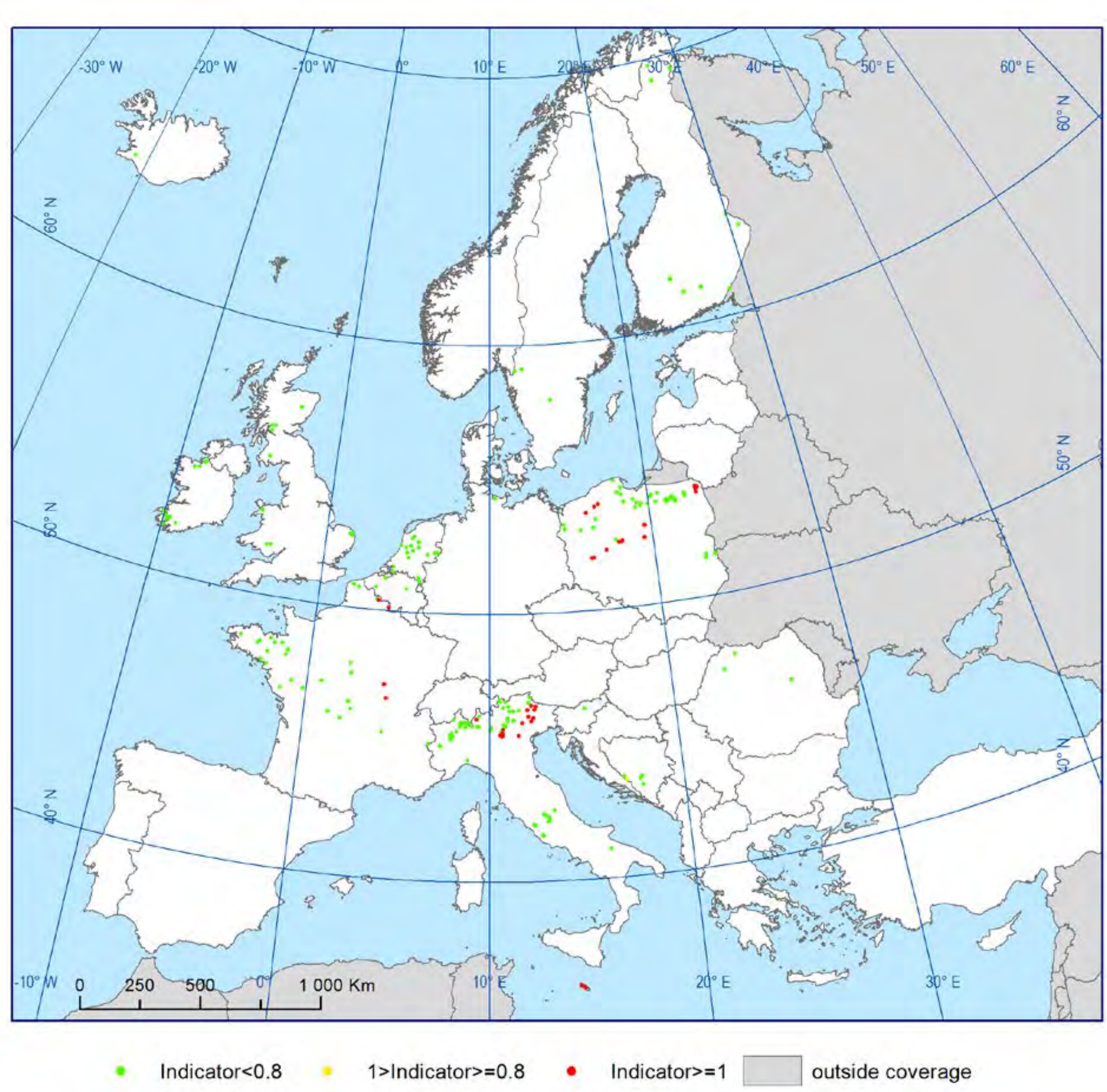


Figure 4.4.2.24d Box plot of data for for mercury and its compounds in lakes.

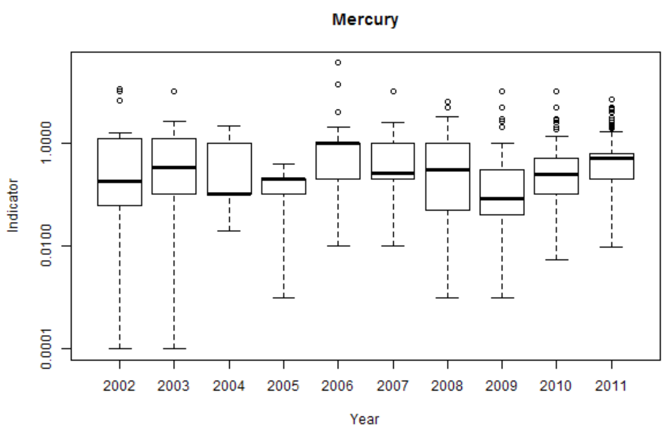


Figure 4.4.2.24a1 Long-term traffic-light indicator and number of stations for dissolved mercury in lakes.

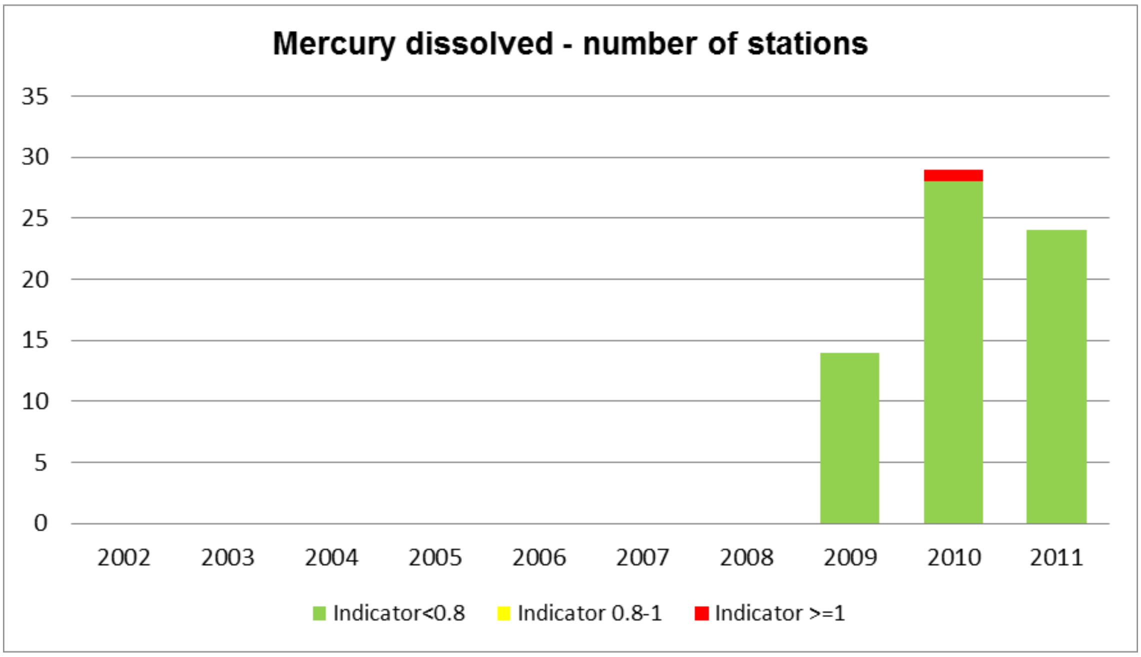


Figure 4.4.2.24b1 Traffic-light indicator for dissolved mercury in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

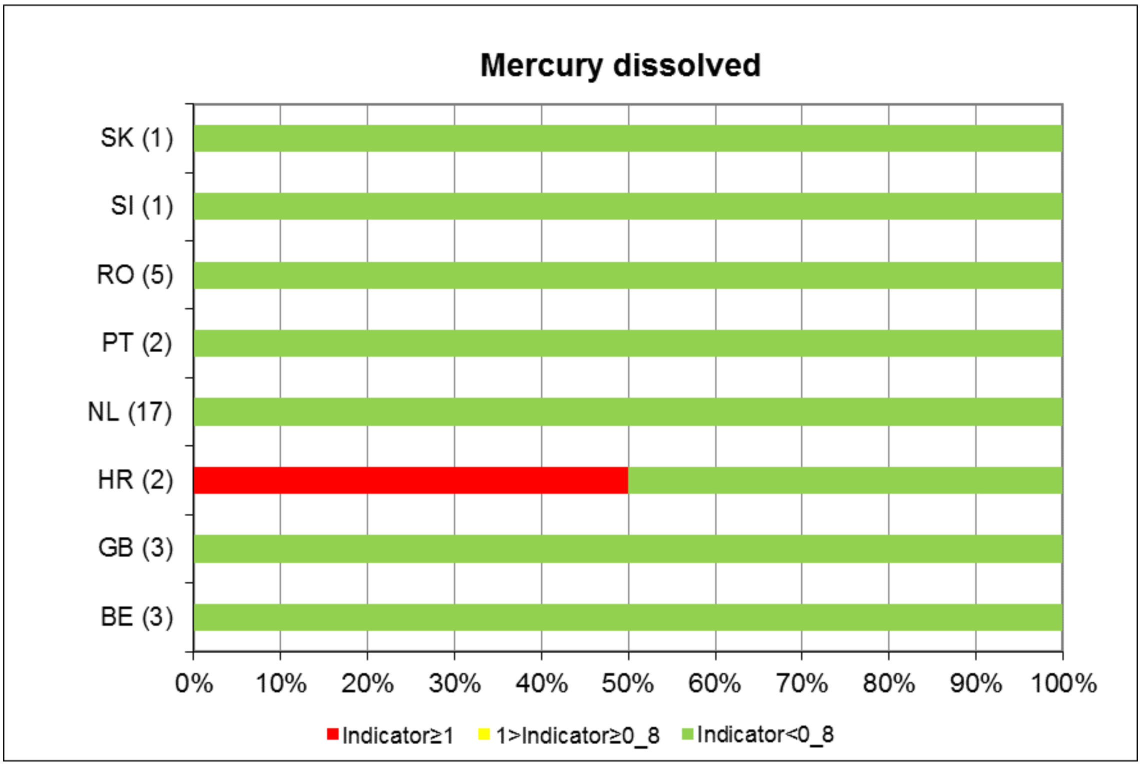


Figure 4.4.2.24c1 Map of traffic-light indicator for dissolved mercury in lakes from 2010–2011.

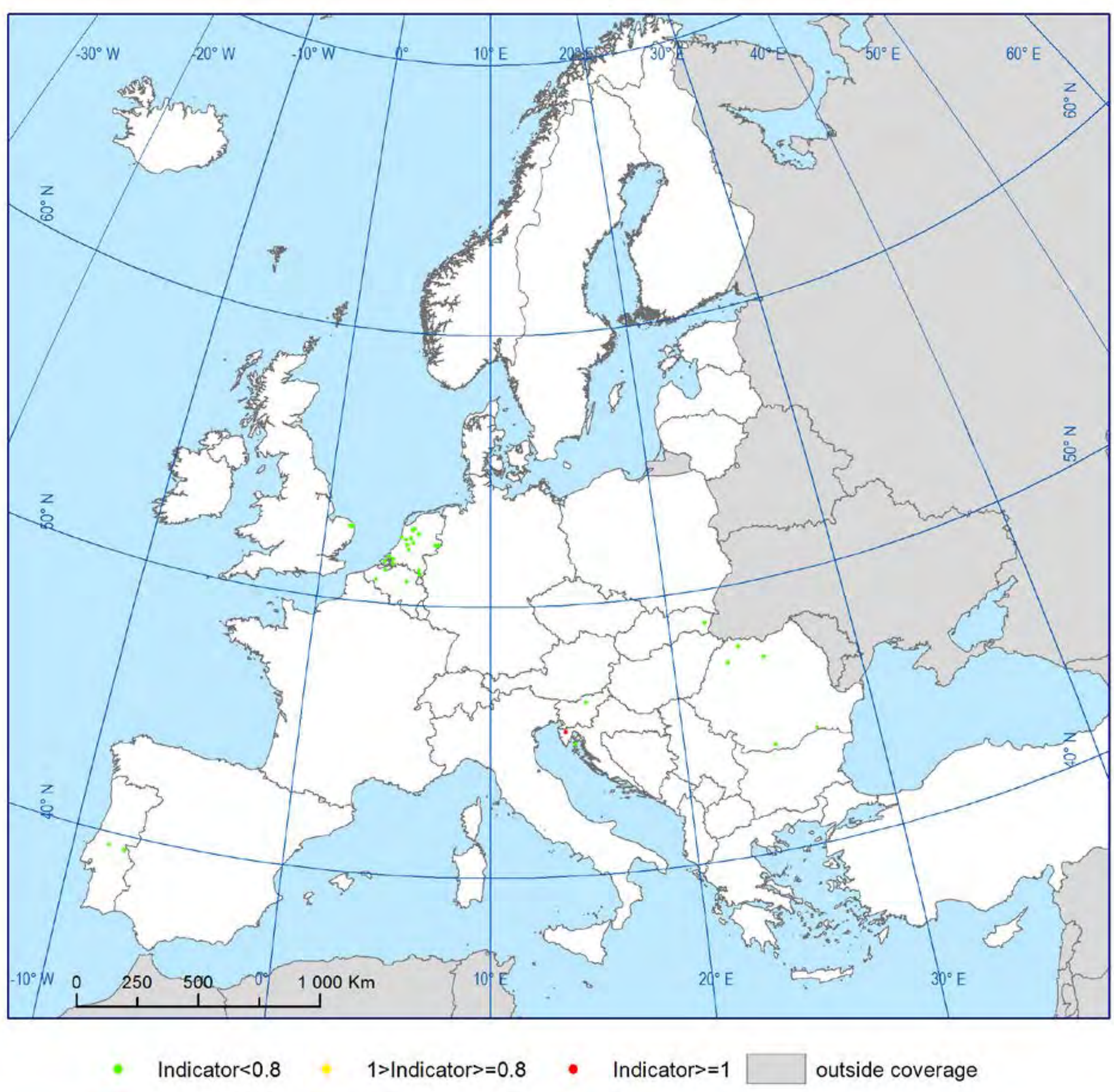


Figure 4.4.2.24d1 Box plot of data for for dissolved mercury and its compounds in lakes.

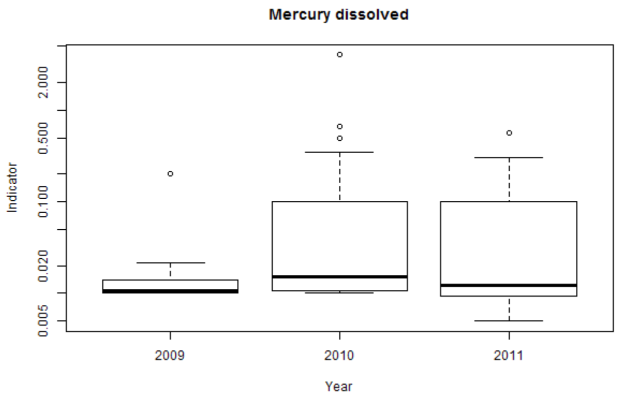


Figure 4.4.2.25a Long-term traffic-light indicator and number of stations for naphthalene in lakes.

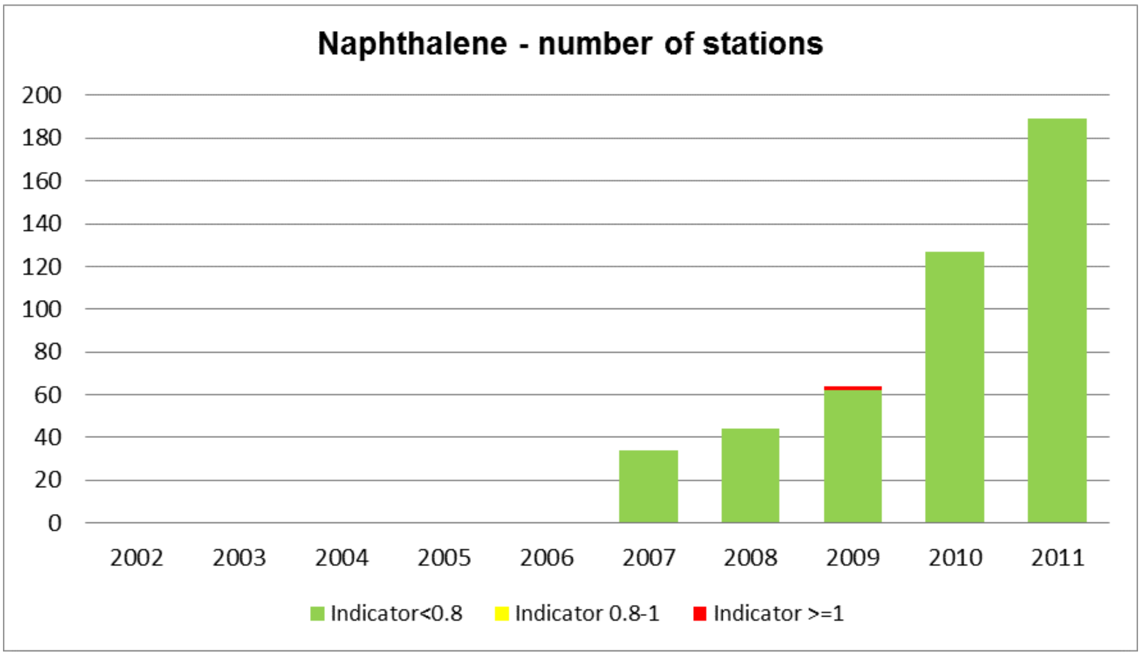


Figure 4.4.2.25b Traffic-light indicator for naphthalene in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

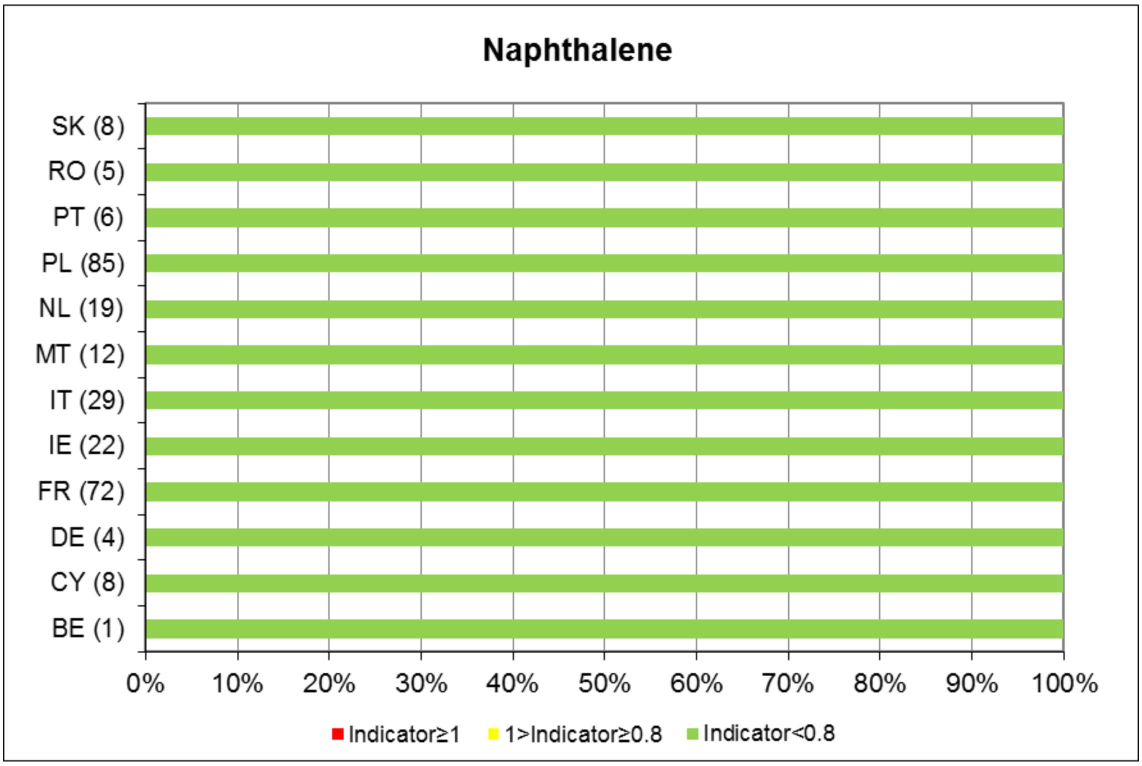


Figure 4.4.2.25c Map of traffic-light indicator for naphthalene in lakes from 2010–2011.

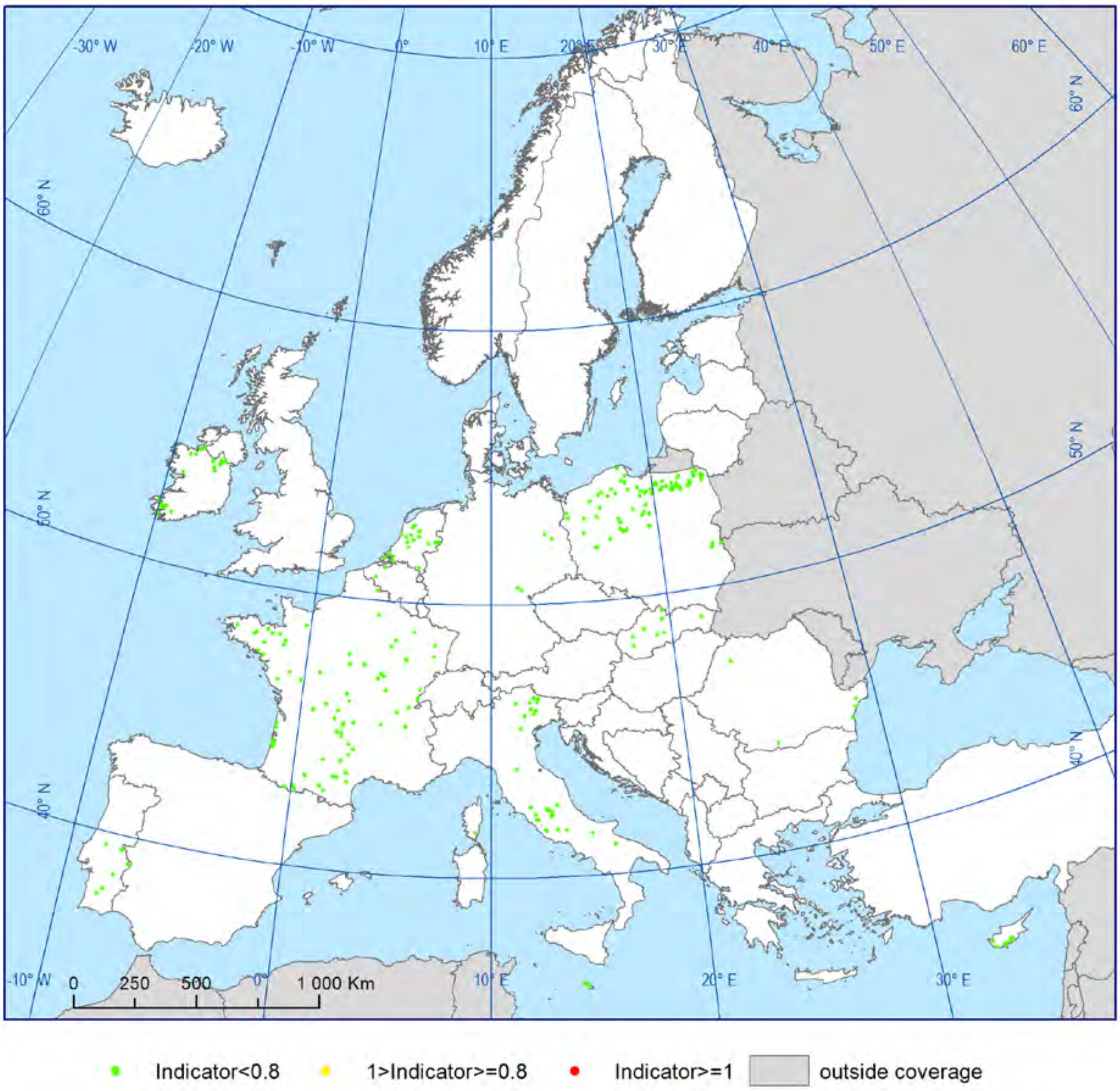


Figure 4.4.2.25d Box plot of data for for naphthalene in lakes.

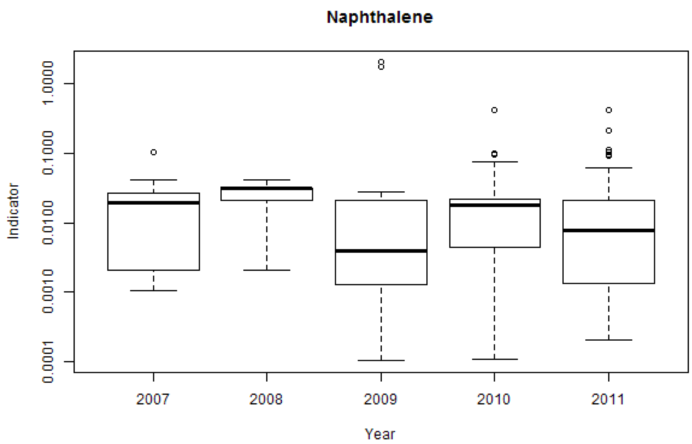


Figure 4.4.2.26a Long-term traffic-light indicator and number of stations for nickel and its compounds in lakes.

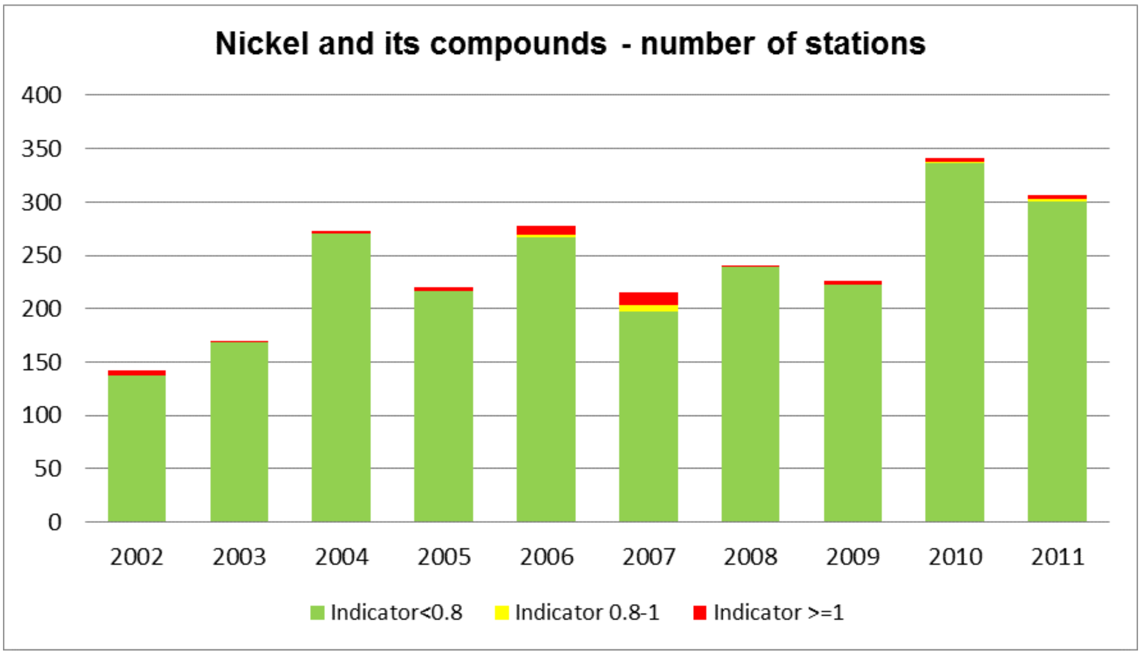


Figure 4.4.2.26b Traffic-light indicator for nickel and its compounds in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

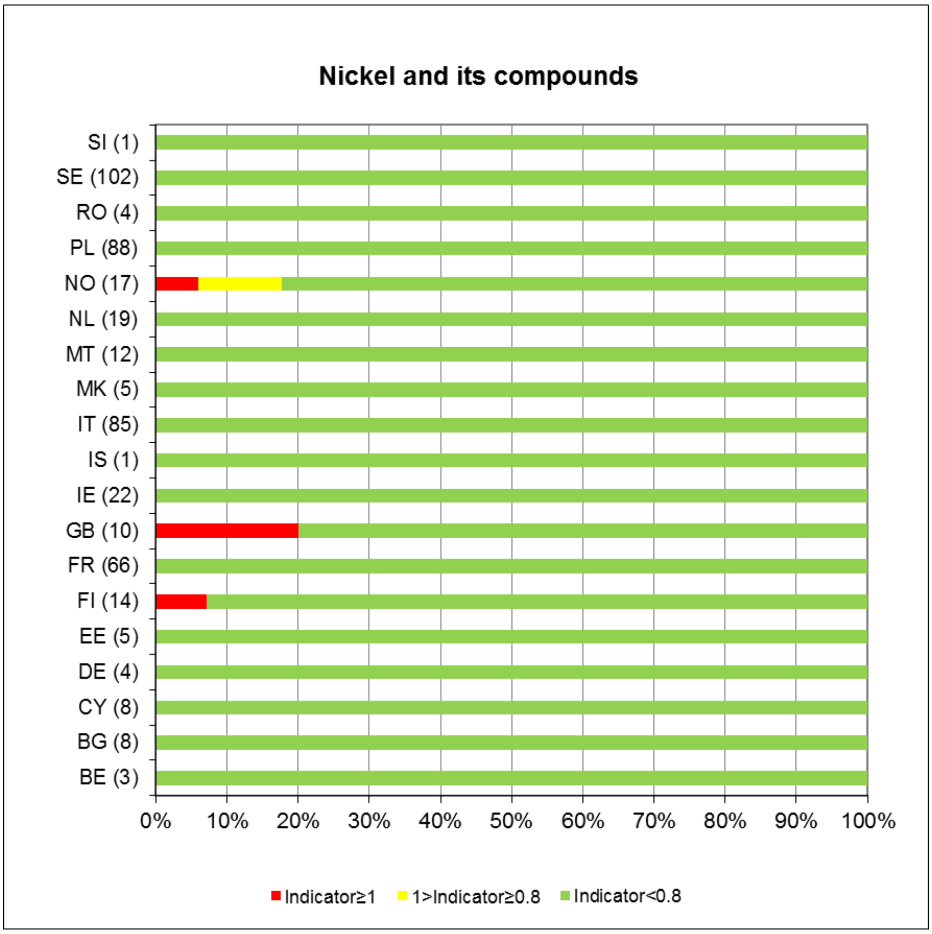


Figure 4.4.2.26c Map of traffic-light indicator for nickel and its compounds in lakes from 2010–2011.

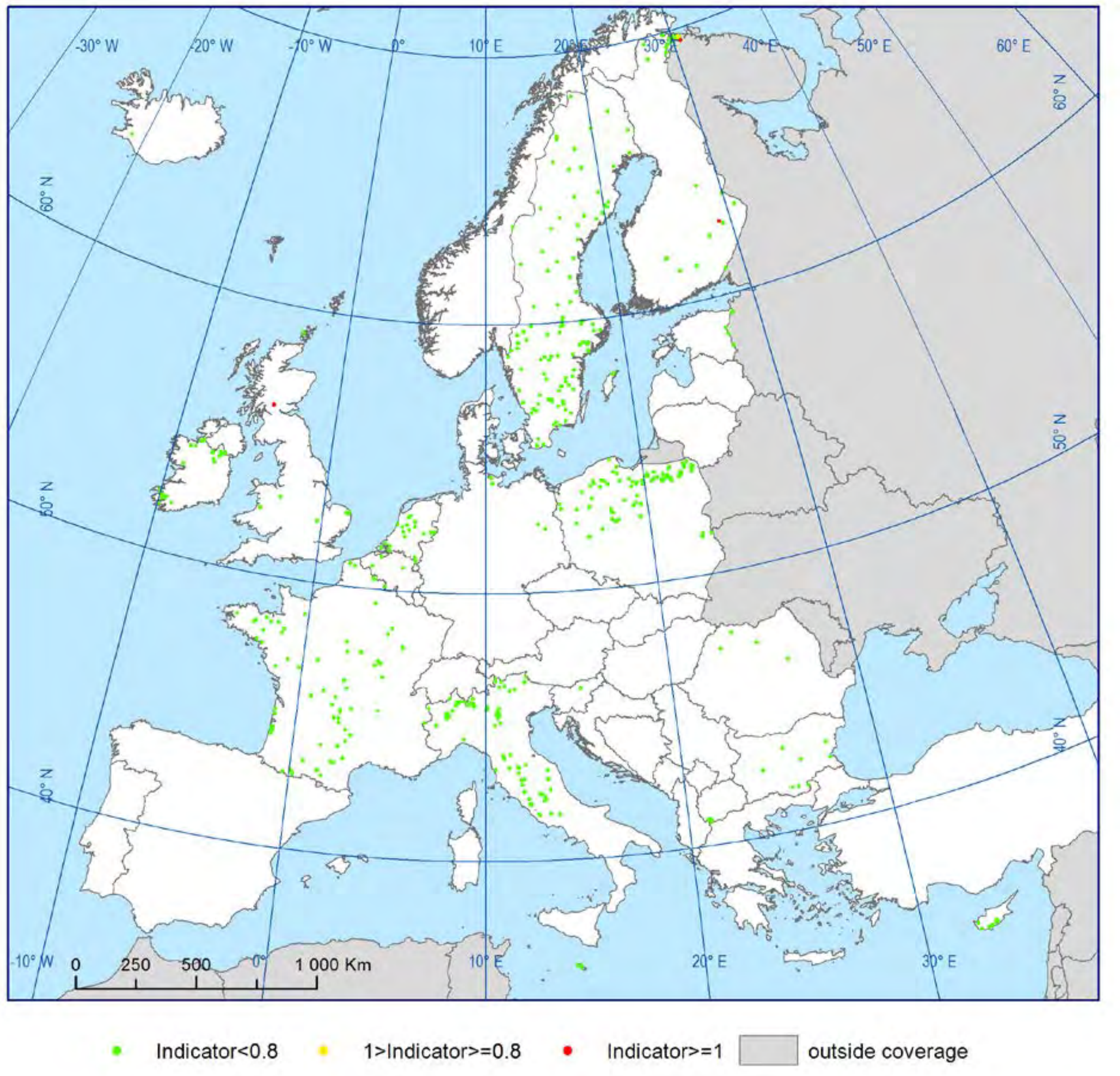


Figure 4.4.2.26d Box plot of data for nickel and its compounds in lakes.

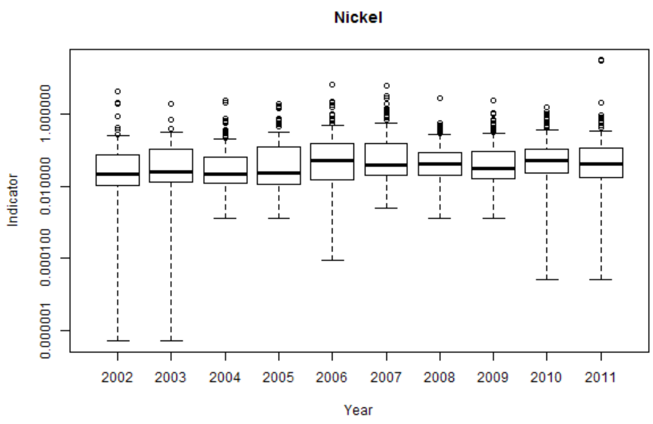


Figure 4.4.2.27a Long-term traffic-light indicator and number of stations for dissolved nickel in lakes.

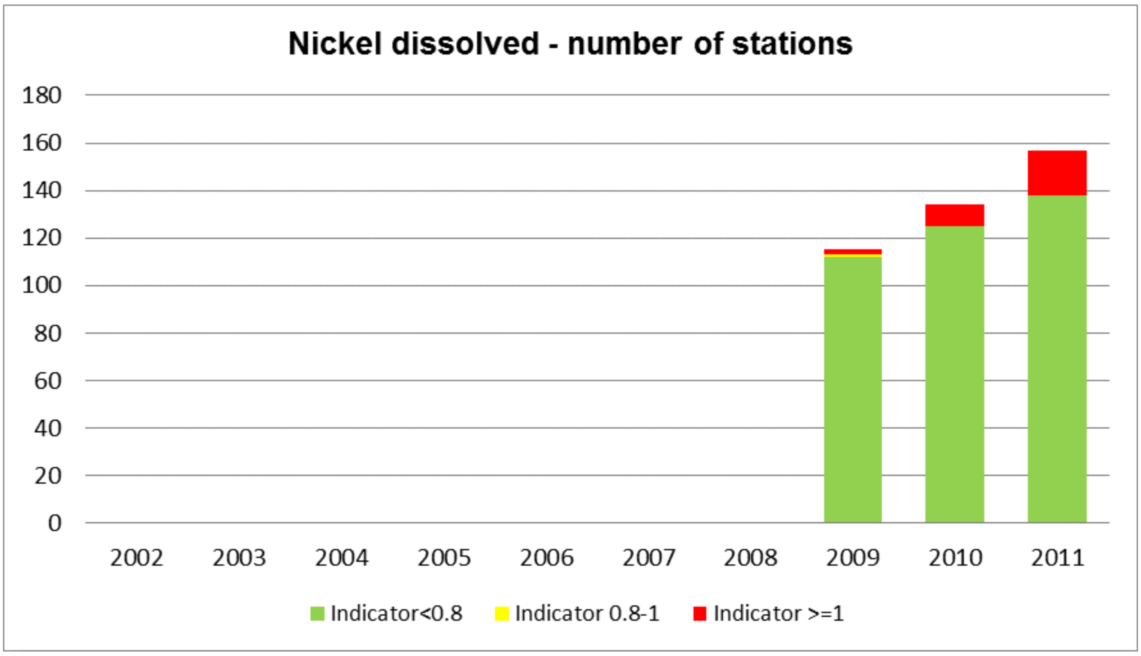


Figure 4.4.2.27b Traffic-light indicator for dissolved nickel in lakes from 2010–2011 (number of stations per country is shown in parenthesis.

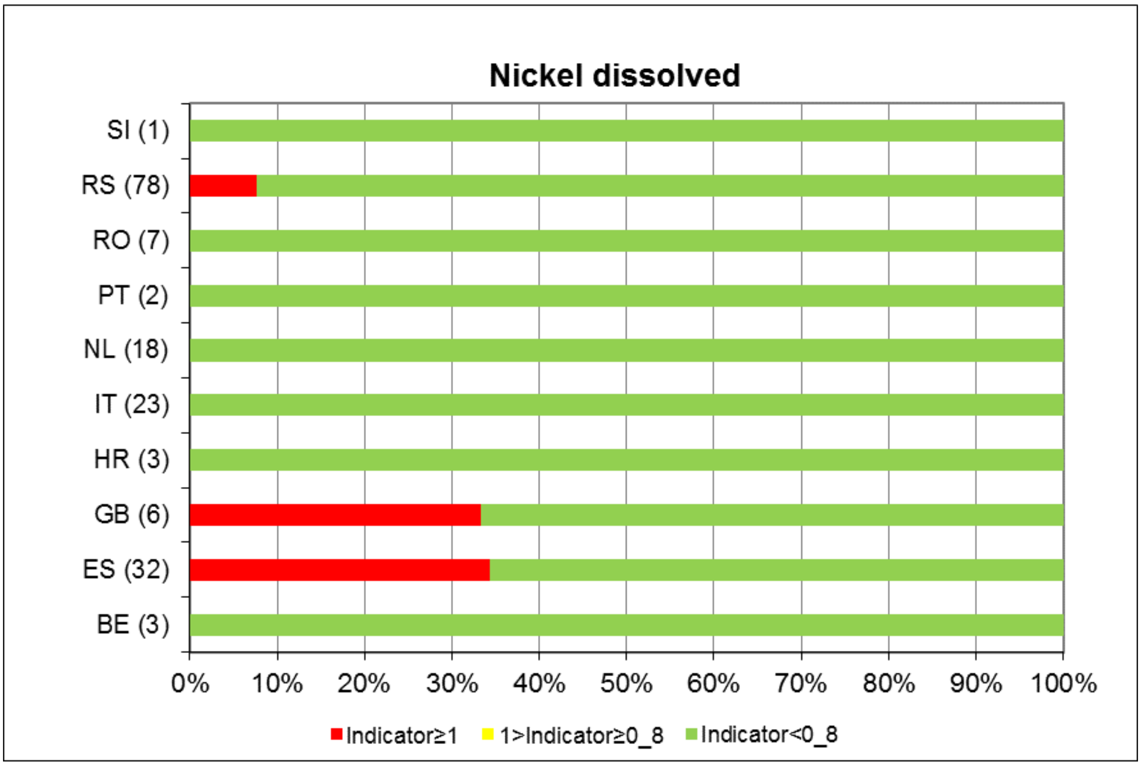


Figure 4.4.2.27c Map of traffic-light indicator for dissolved nickel in lakes from 2010–2011.

Figure 4.4.2.27d Box plot of data for dissolved nickel in lakes.

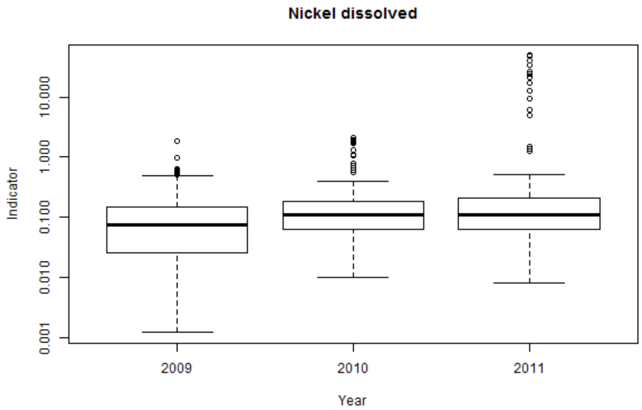


Figure 4.4.2.28a Long-term traffic-light indicator and number of stations for para-tert-octylphenol in lakes.

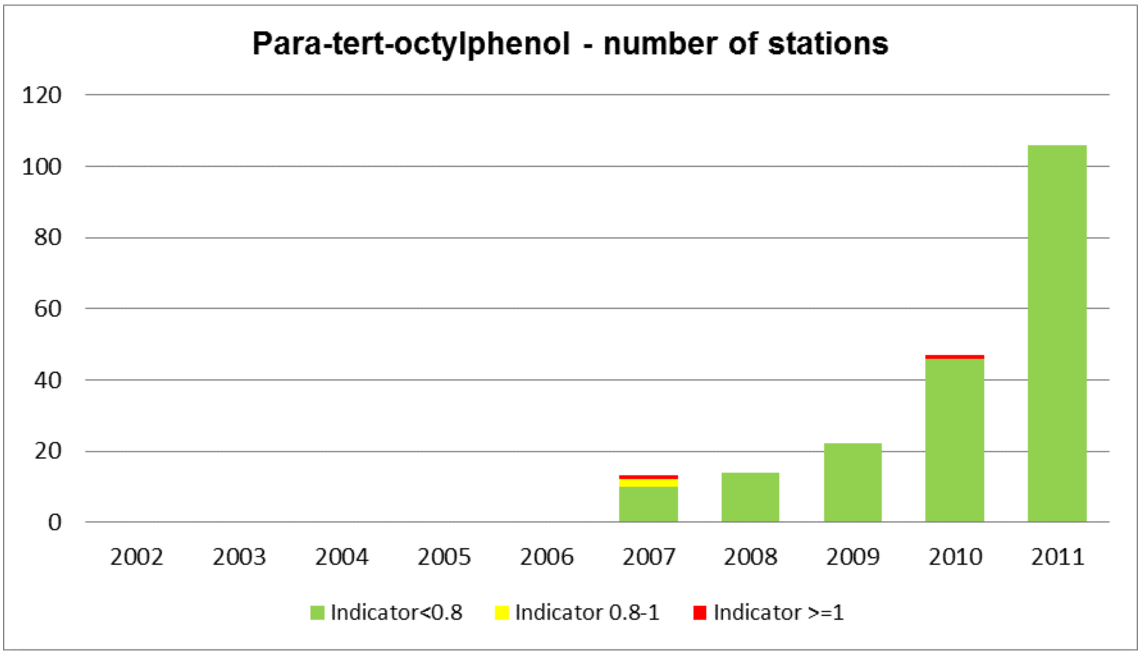


Figure 4.4.2.28b Traffic-light indicator for para-tert-octylphenol in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

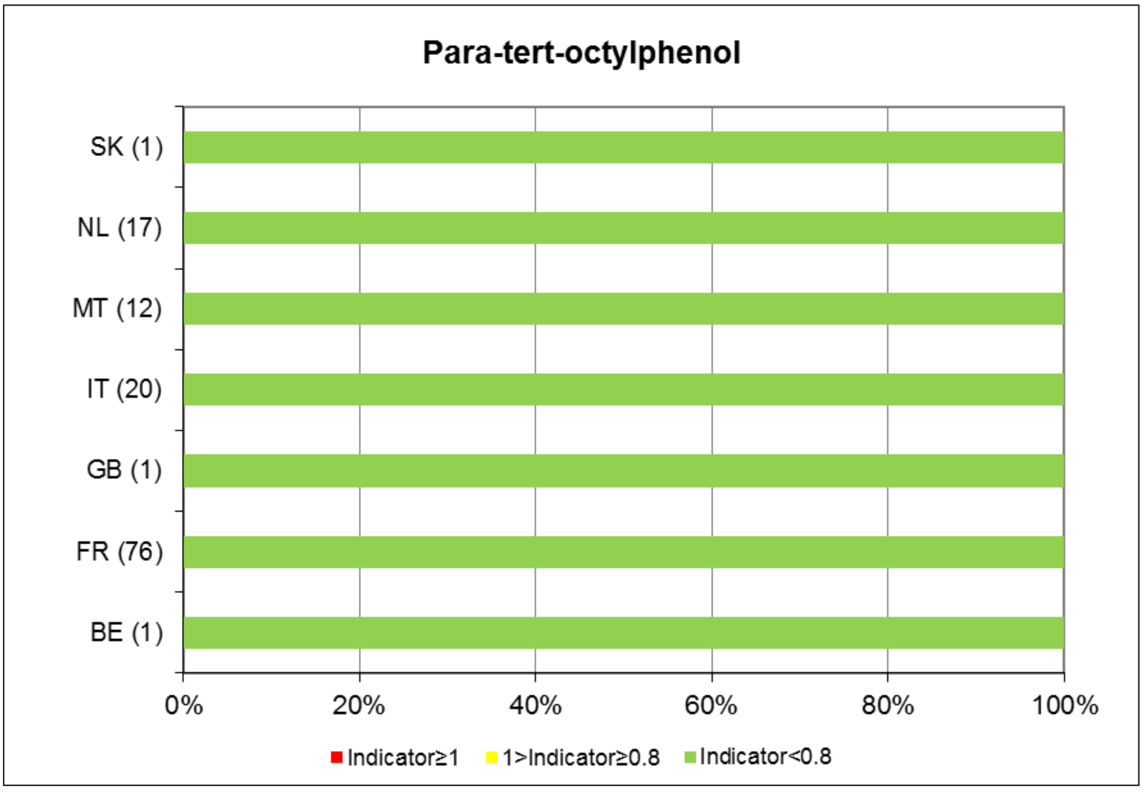


Figure 4.4.2.28c Map of traffic-light indicator for para-tert-octylphenol in lakes from 2010–2011.

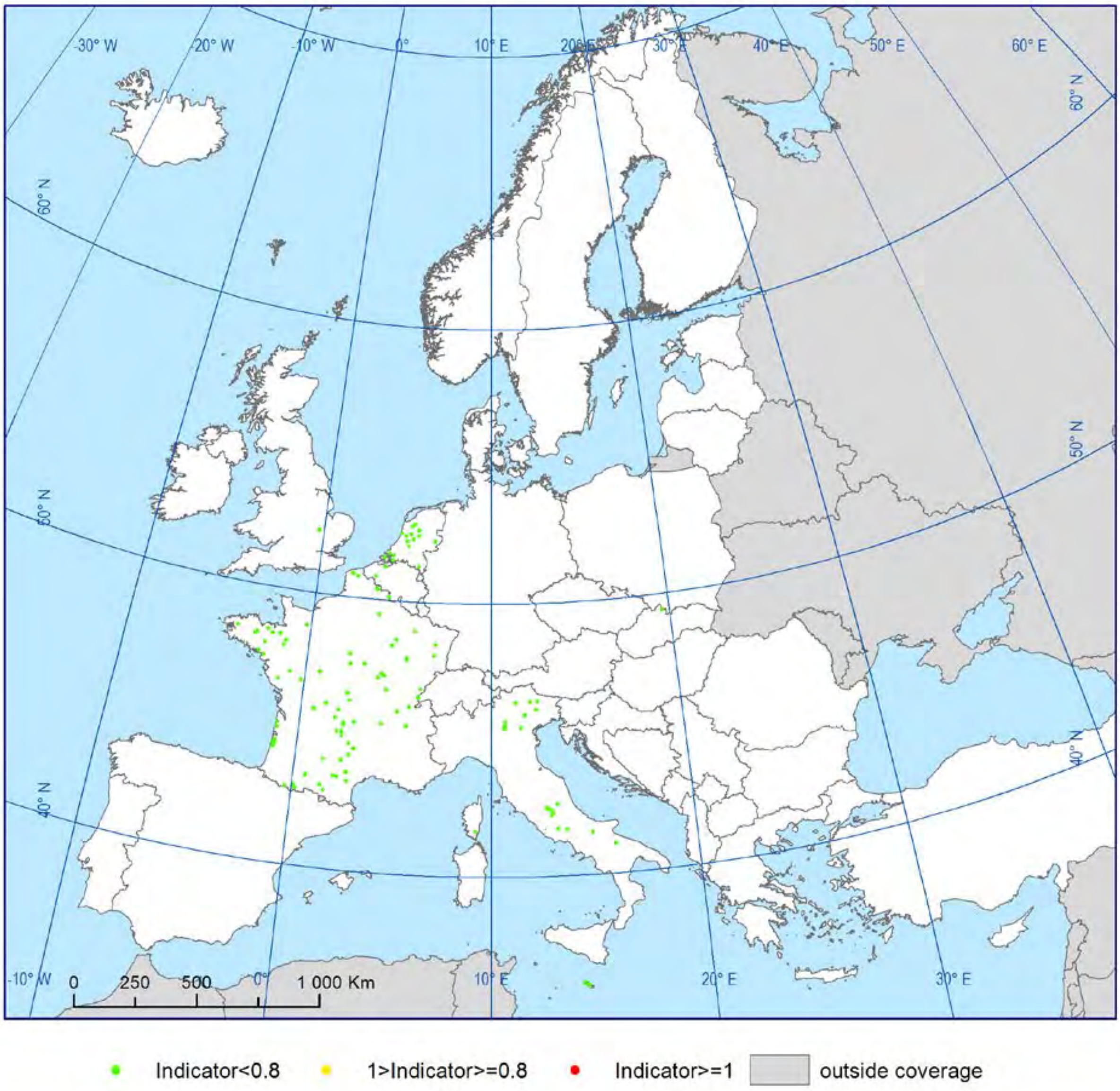


Figure 4.4.2.28d Box plot of data for para-tert-octylphenol in lakes.

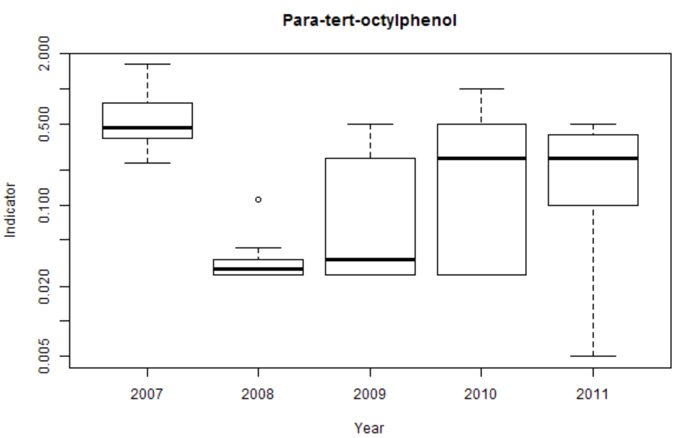


Figure 4.4.2.29a Long-term traffic-light indicator and number of stations for pentachlorobenzene in lakes.

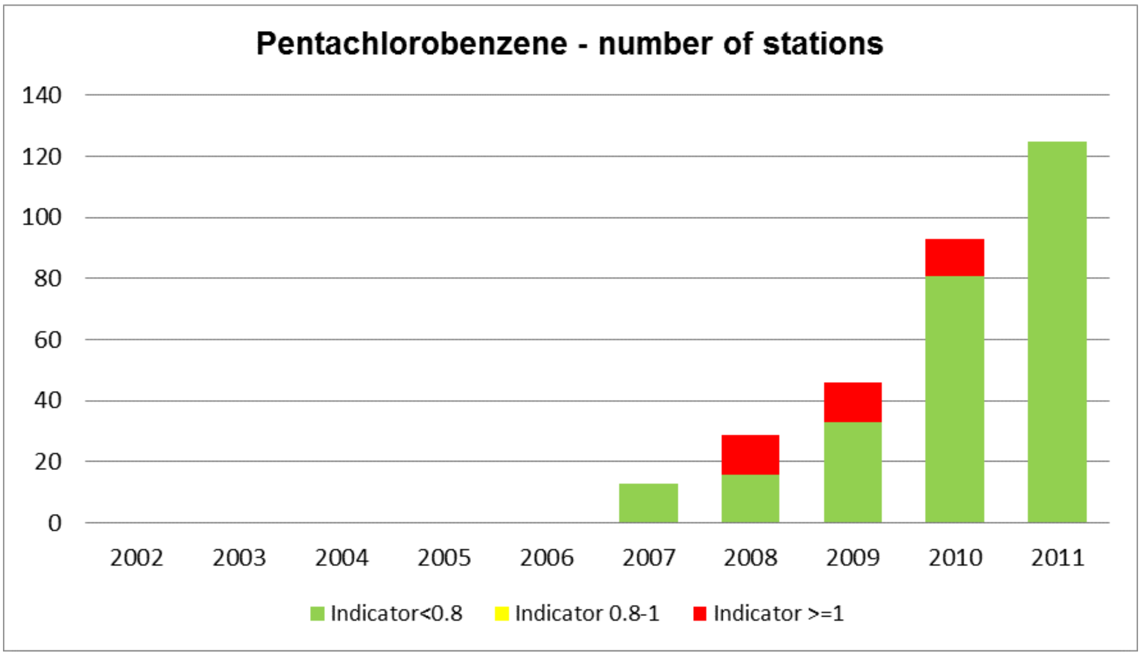


Figure 4.4.2.29b Traffic-light indicator for pentachlorobenzene in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

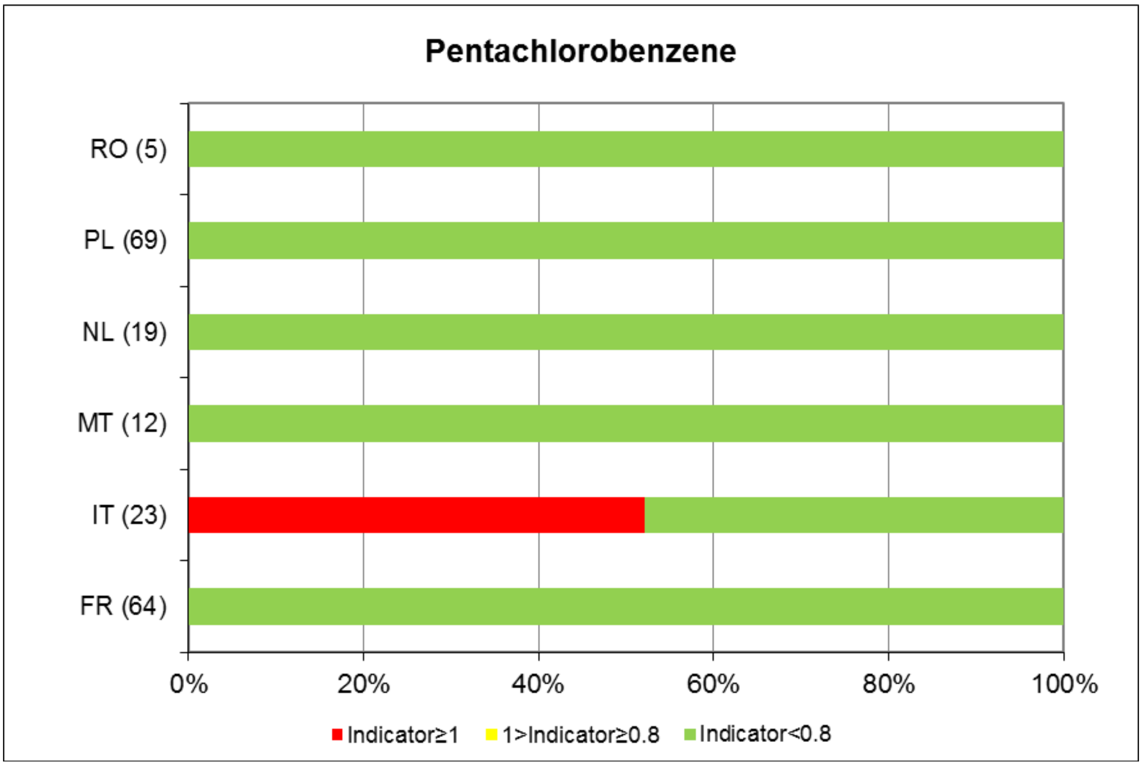


Figure 4.4.2.29c Map of traffic-light indicator for pentachlorobenzene in lakes from 2010–2011.

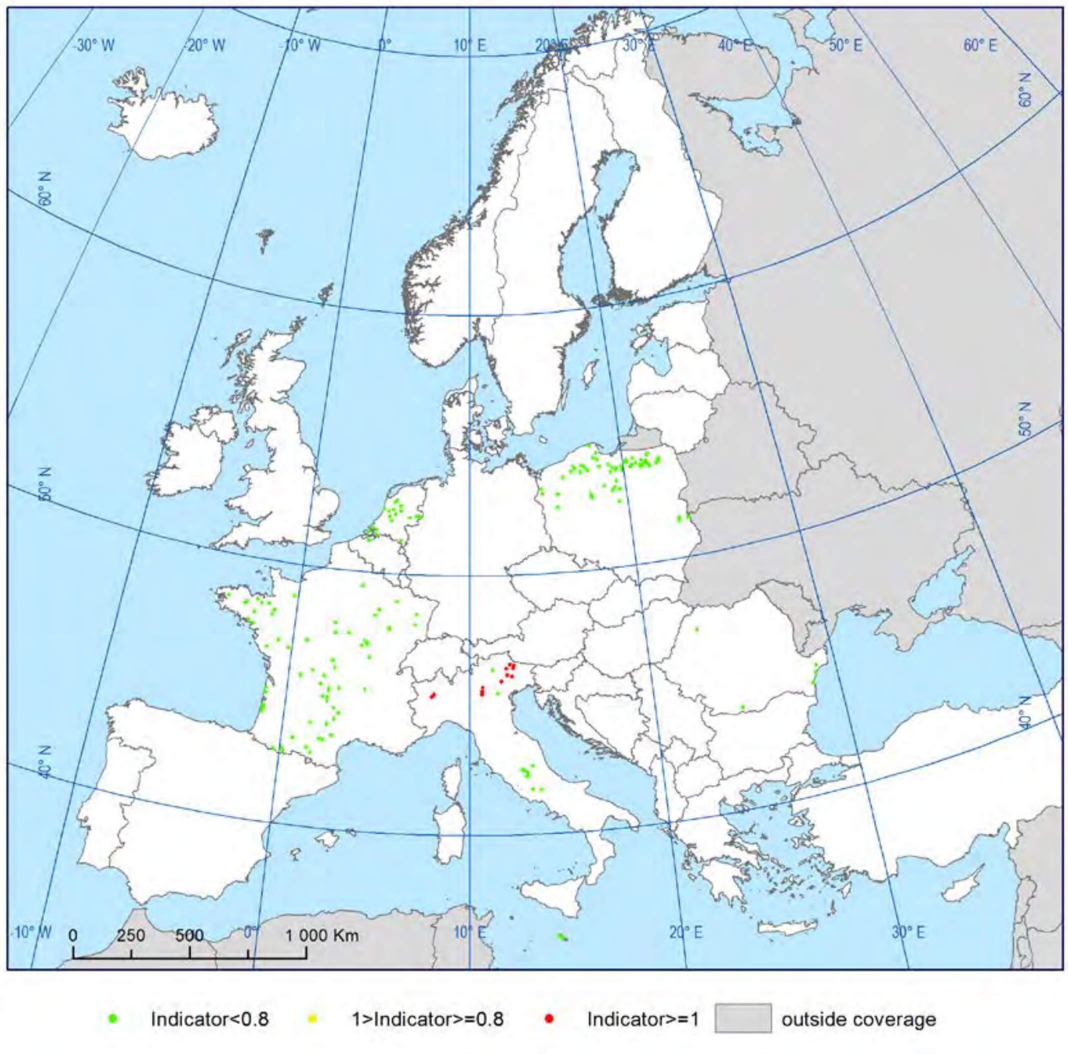


Figure 4.4.2.29d Box plot of data for pentachlorobenzene in lakes.

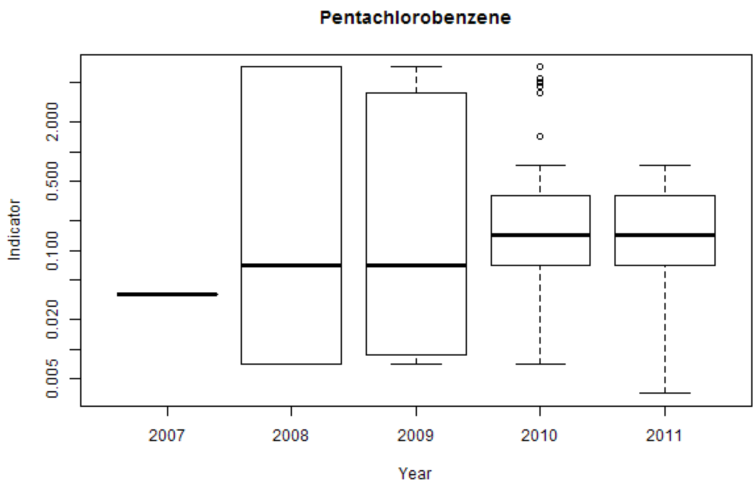


Figure 4.4.2.30a Long-term traffic-light indicator and number of stations for pentachlorophenol in lakes.

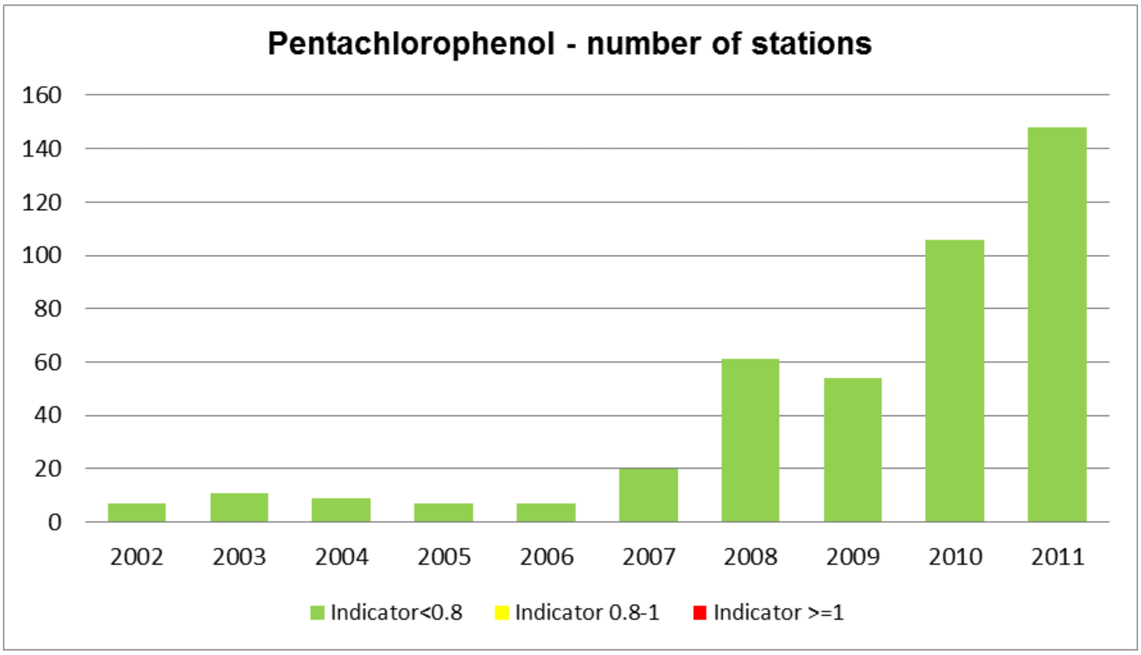


Figure 4.4.2.30b Traffic-light indicator for pentachlorophenol in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

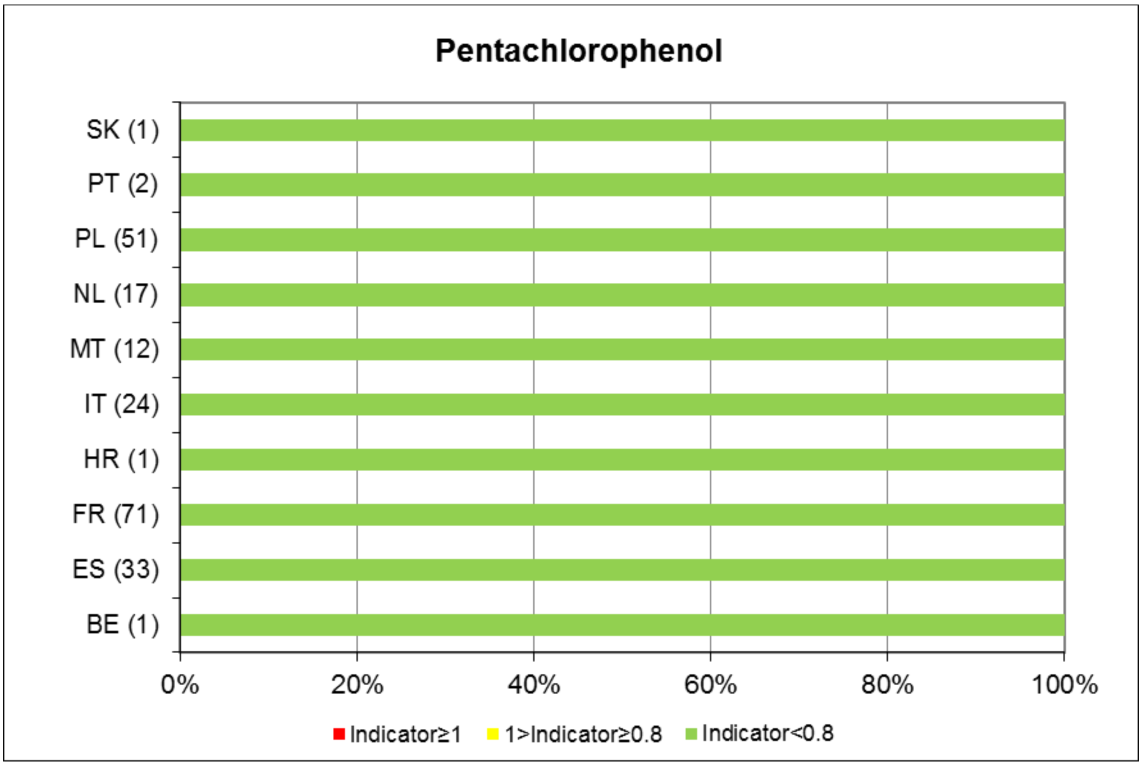


Figure 4.4.2.30c Map of traffic-light indicator for pentachlorophenol in lakes from 2010–2011.

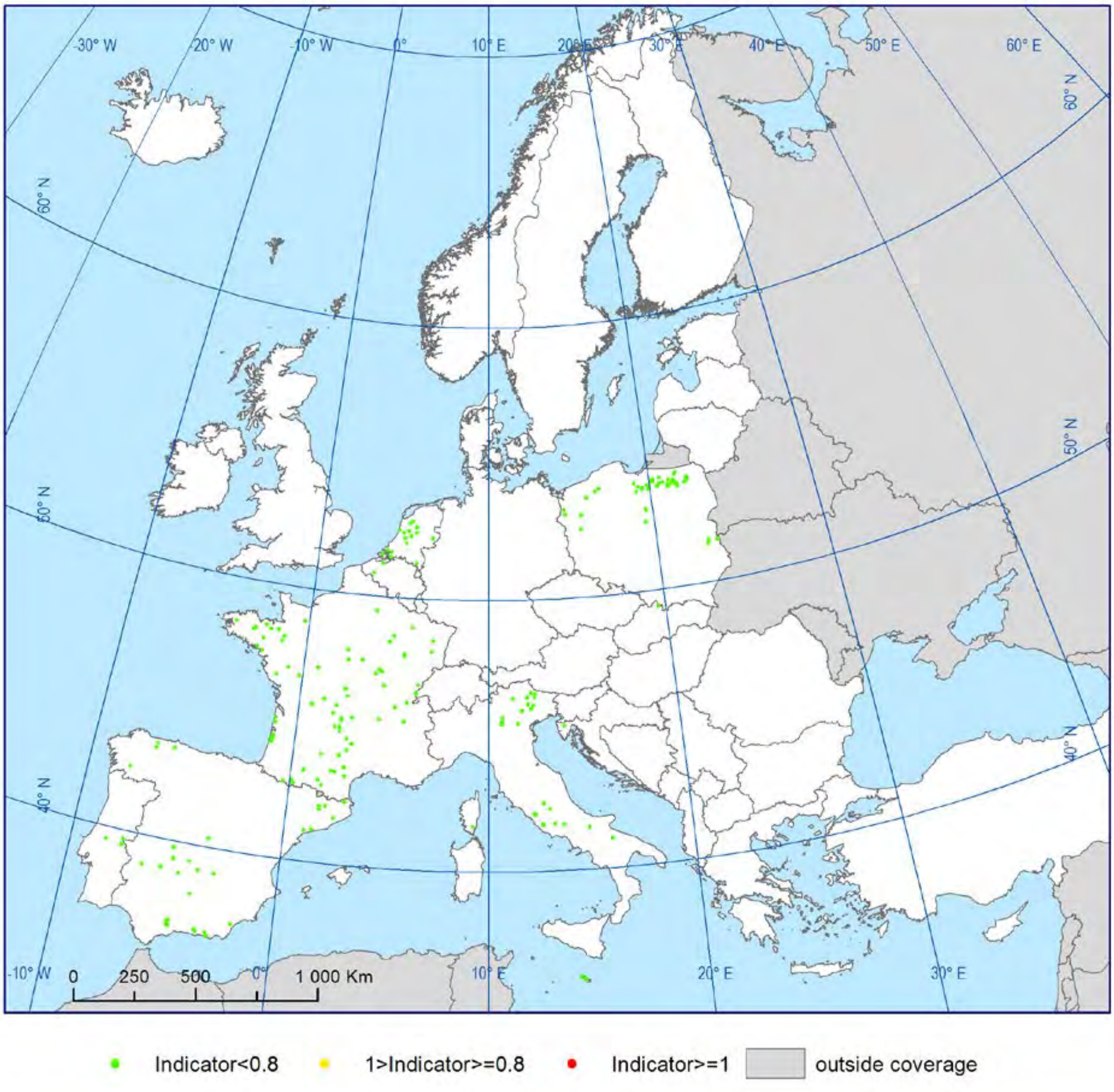


Figure 4.4.2.30d Box plot of data for pentachlorophenol in lakes.

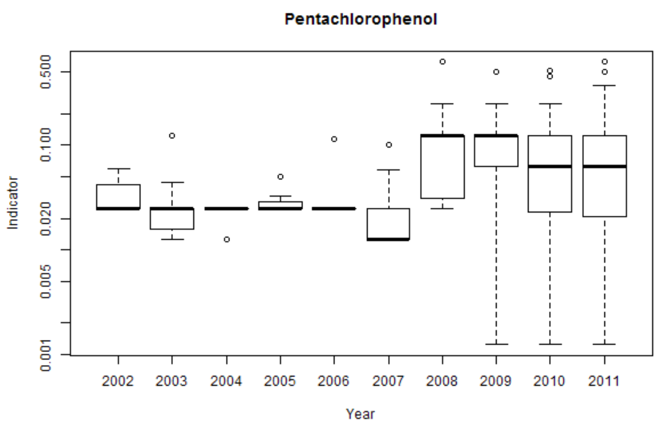


Figure 4.4.2.31a Long-term traffic-light indicator and number of stations for benzo(a)pyrene in lakes.

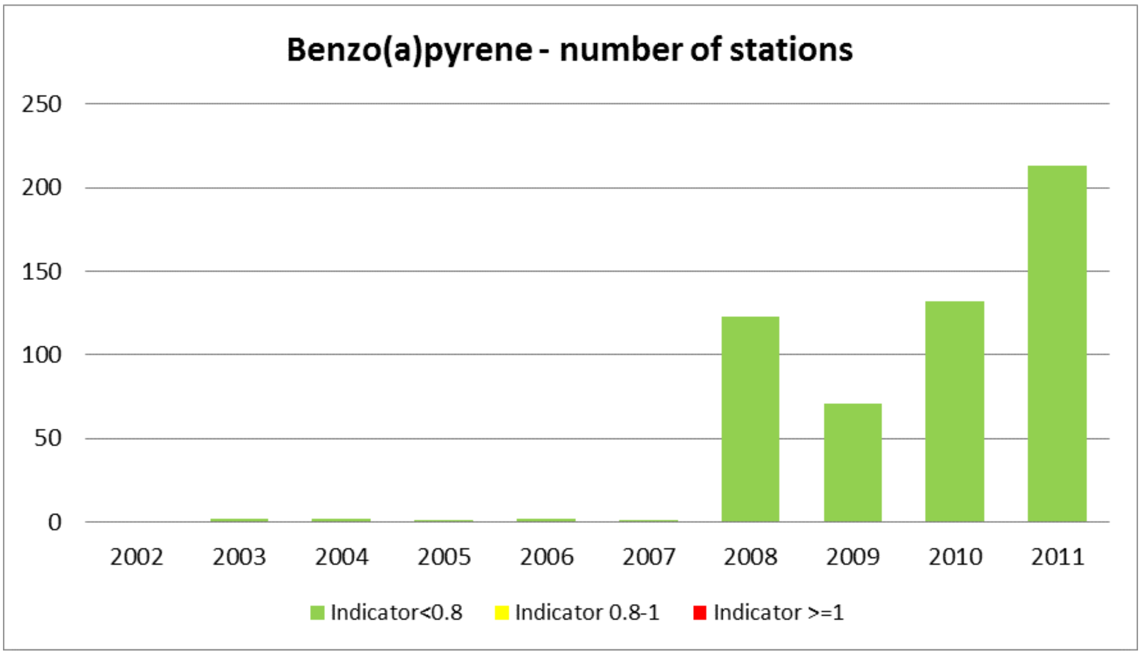


Figure 4.4.2.31b Traffic-light indicator for benzo(a)pyrene in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

Figure 4.4.2.31c Map of traffic-light indicator for benzo(a)pyrene in lakes from 2010–2011.

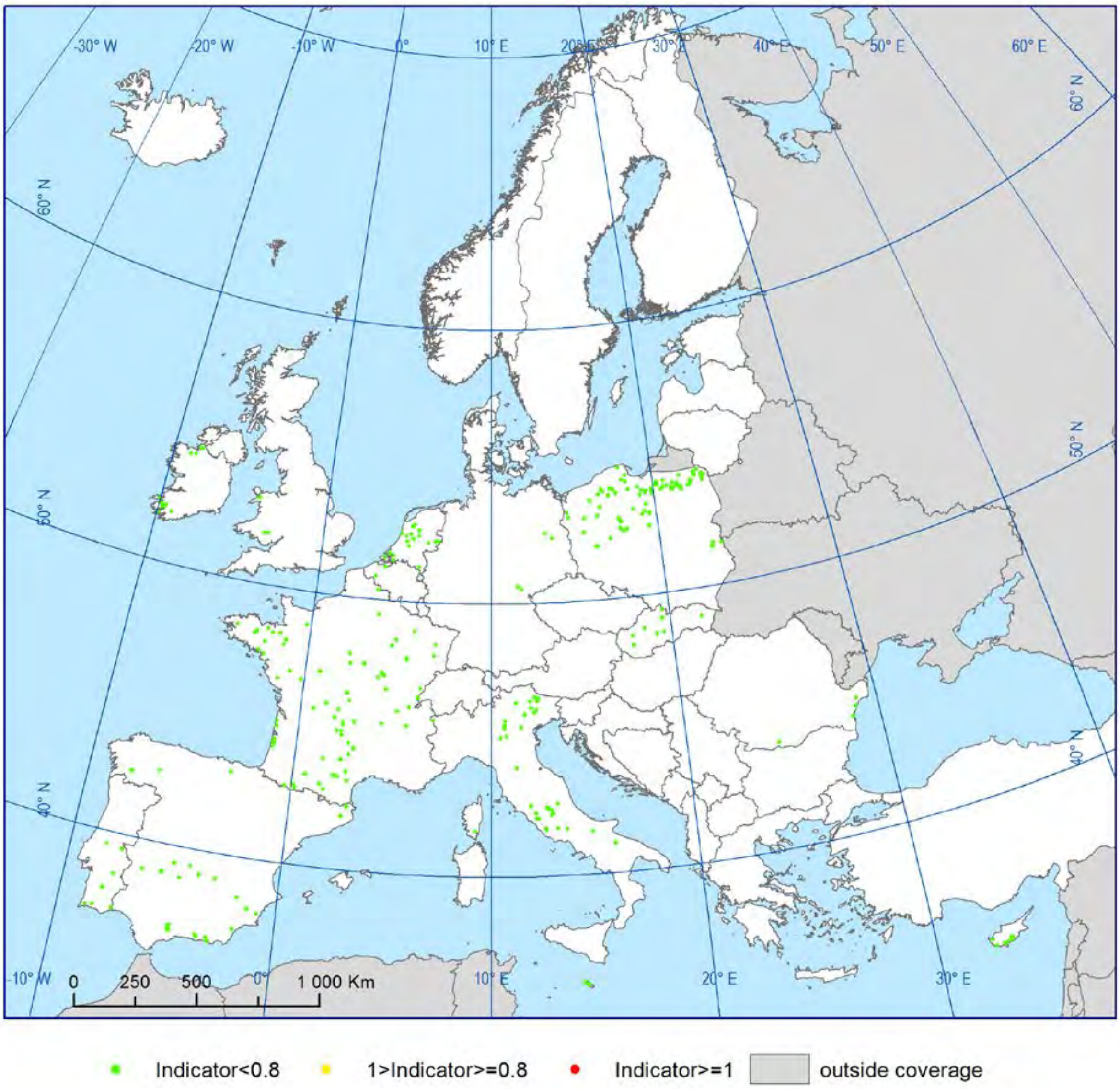


Figure 4.4.2.31d Box plot of data for benzo(a)pyrene in lakes.

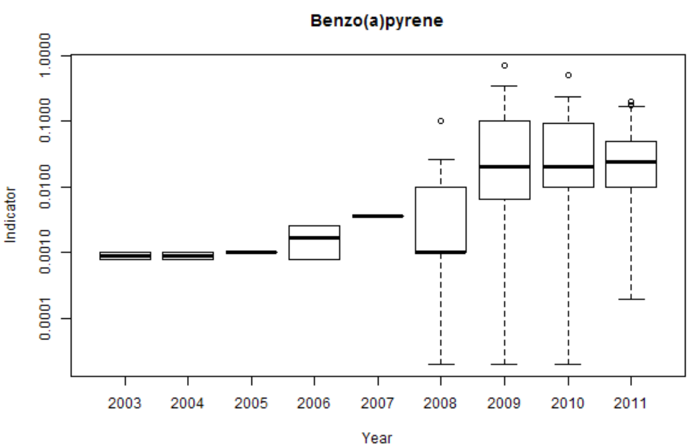


Figure 4.4.2.32a Long-term traffic-light indicator and number of stations for sum of benzo(b)fluoranthene and benzo(k)fluoranthene in lakes.

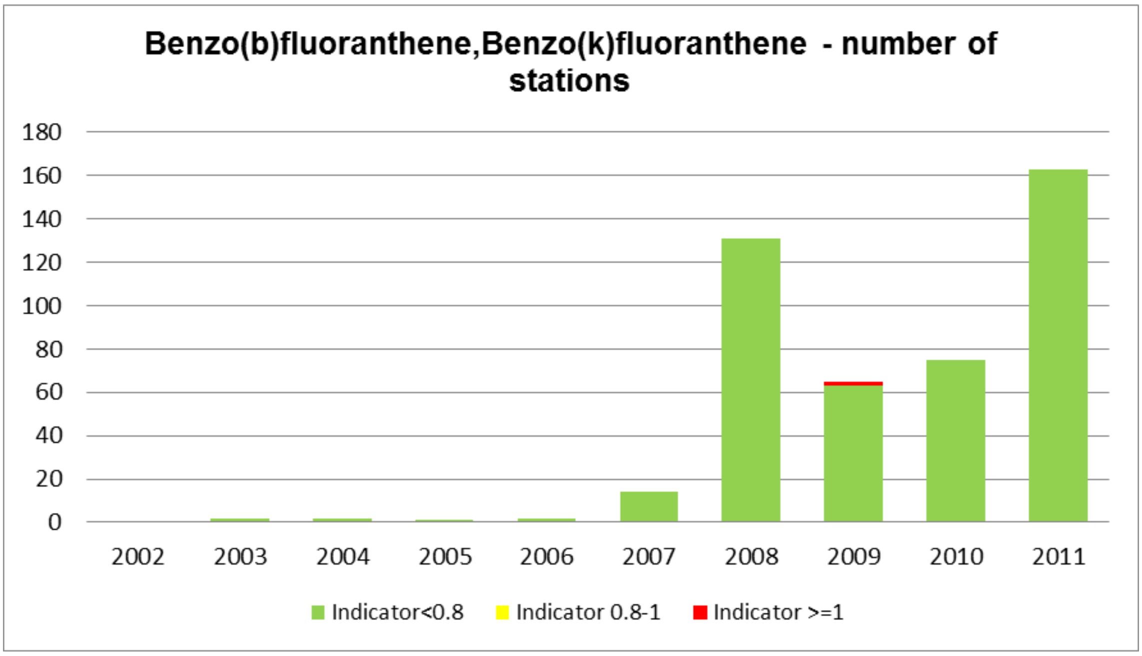


Figure 4.4.2.32b Traffic-light indicator for sum of benzo(b)fluoranthene and benzo(k)fluoranthene in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

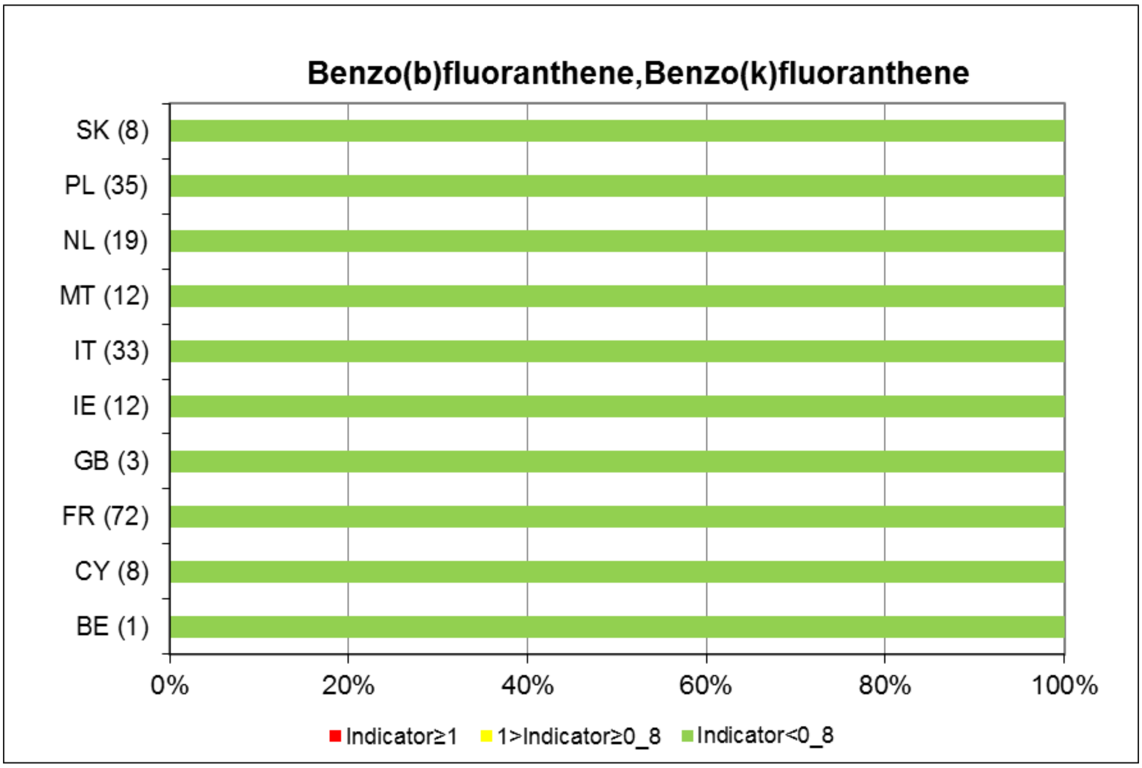


Figure 4.4.2.32c Map of traffic-light indicator for sum of benzo(b)fluoranthene and benzo(k)fluoranthene in lakes from 2010–2011.

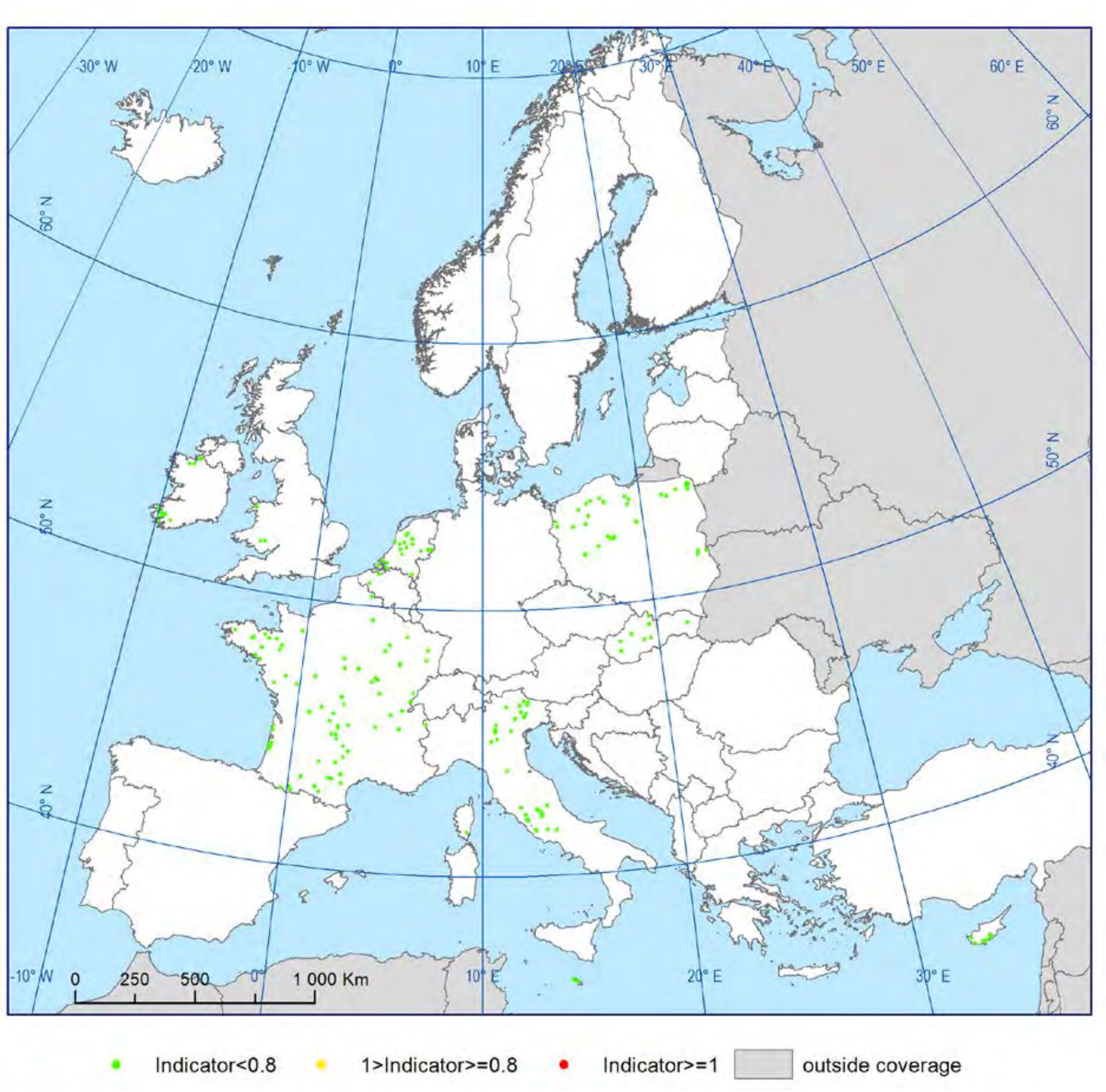


Figure 4.4.2.32d Box plot of data for for sum of benzo(b)fluoranthene and benzo(k)fluoranthene in lakes.

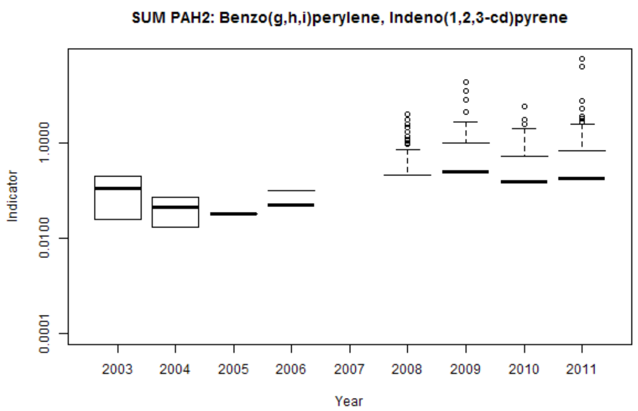


Figure 4.4.2.33a Long-term traffic-light indicator and number of stations for sum of benzo(g,h,i)-perylene and indeno(1,2,3-cd)-pyrene in lakes.

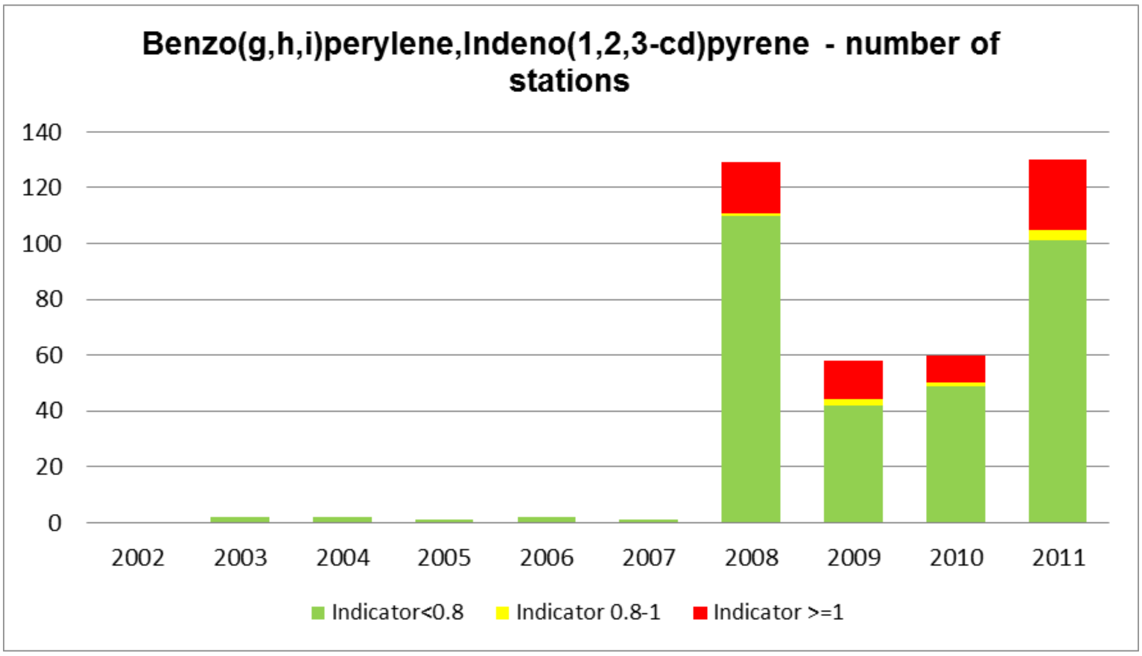


Figure 4.4.2.33b Traffic-light indicator for sum of benzo(g,h,i)-perylene and indeno(1,2,3-cd)-pyrene in lakes from 2010–2011 (numbers of stations per country is shown in parenthesis).

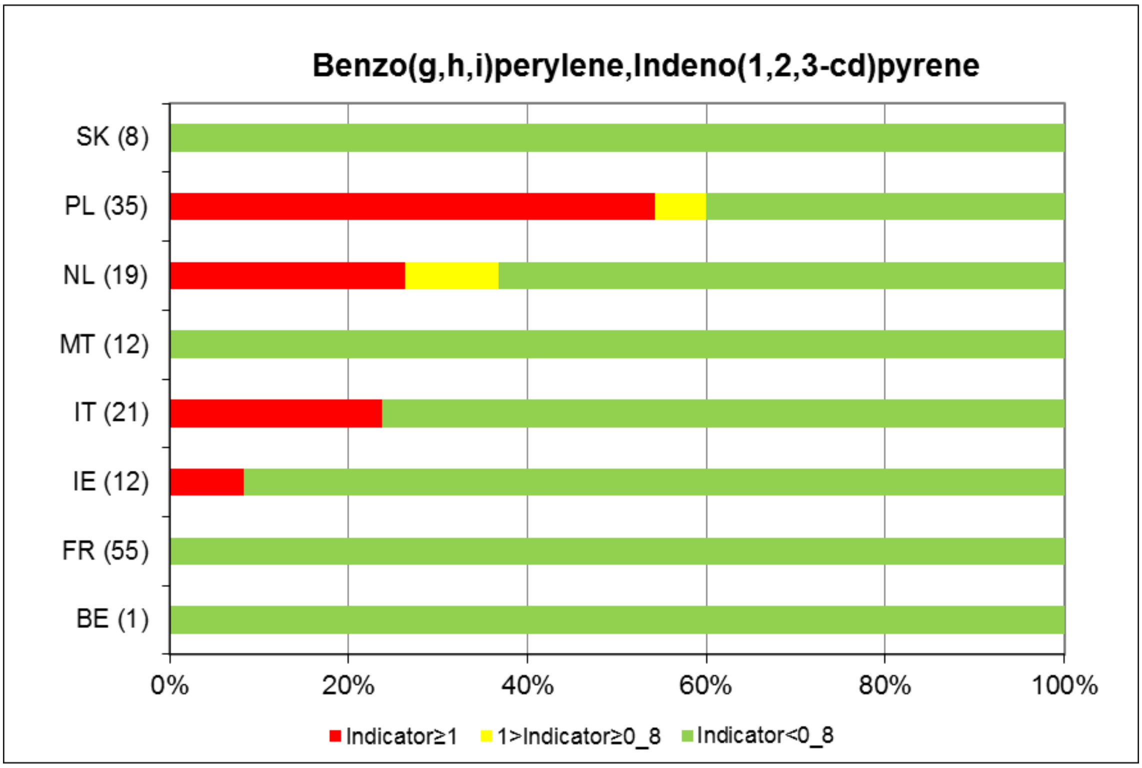


Figure 4.4.2.33c Map of traffic-light indicator for the sum of benzo(g,h,i)-perylene and indeno(1,2,3-cd)-pyrene in lakes from 2010–2011.

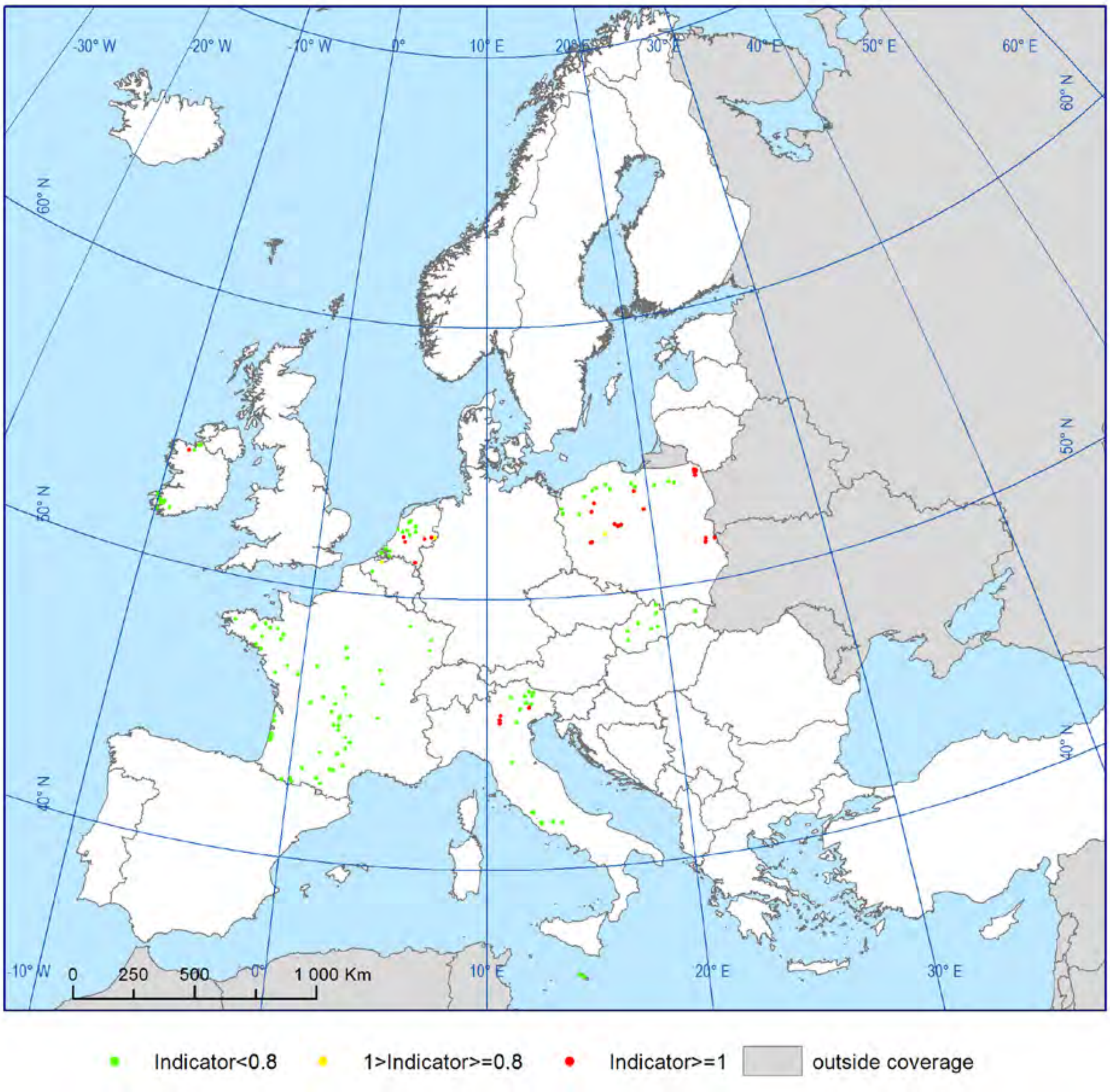


Figure 4.4.2.33d Box plot of data for the sum of benzo(g,h,i)-perylene and indeno(1,2,3-cd)-pyrene in lakes.

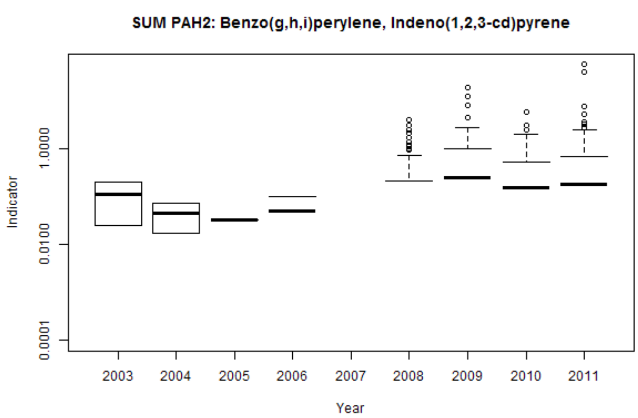


Figure 4.4.2.34a Long-term traffic-light indicator and number of stations for simazine in lakes.

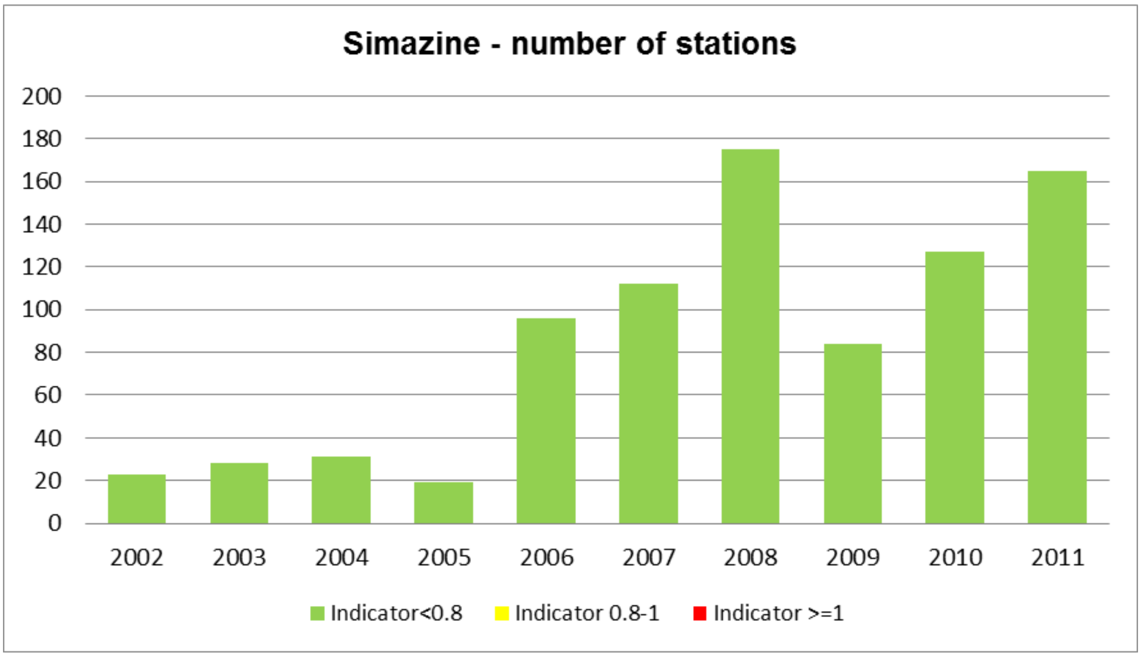


Figure 4.4.2.34b Traffic-light indicator for simazine in lakes from 2010–2011 (number of station per country is shown in parenthesis).

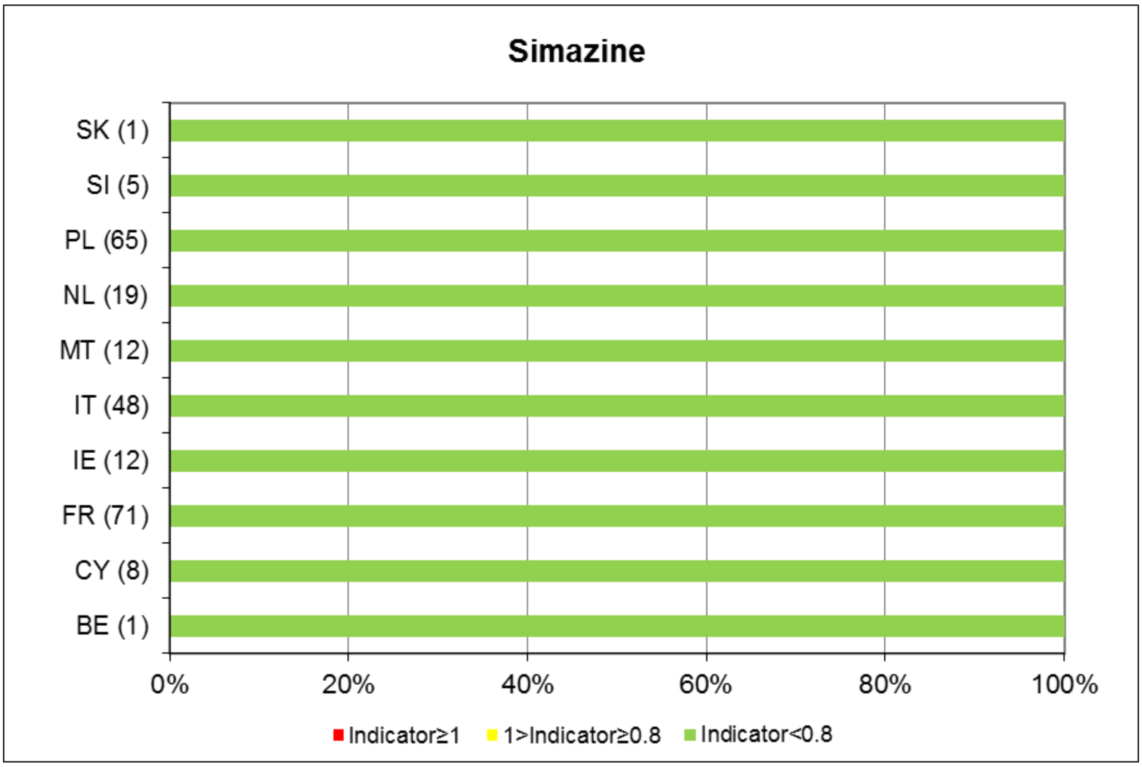


Figure 4.4.2.34c Map of traffic-light indicator for simazine in lakes from 2010–2011.

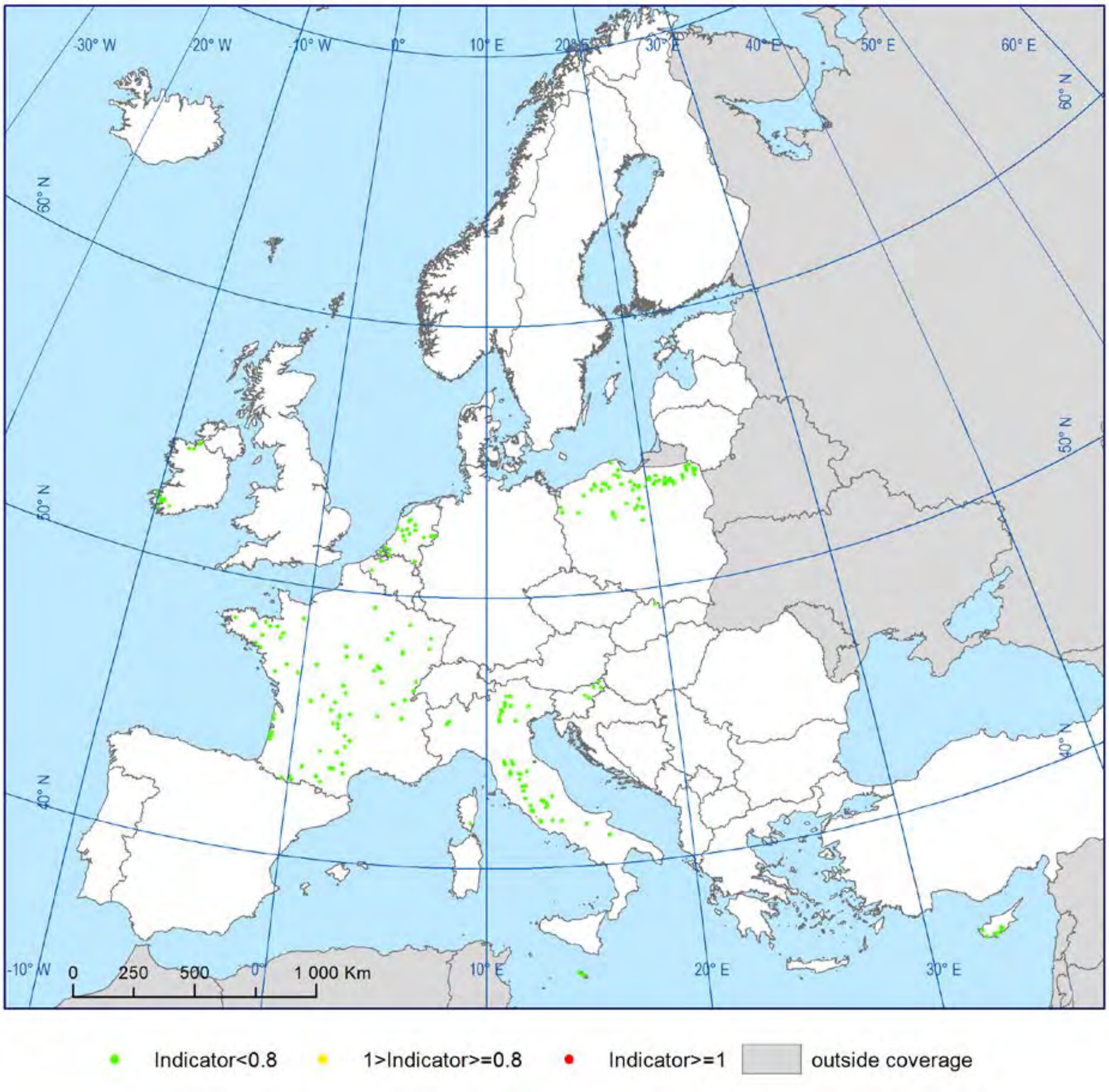


Figure 4.4.2.34d Box plot of data for simazine in lakes.

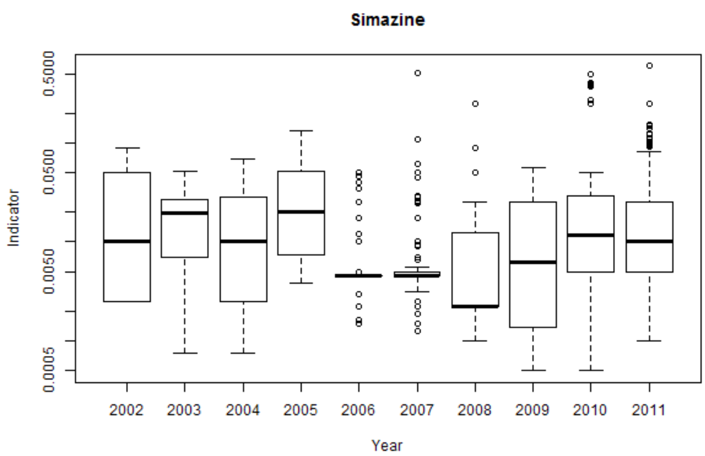


Figure 4.4.2.35a Long-term traffic-light indicator and number of stations for tributyltin-cation in lakes.

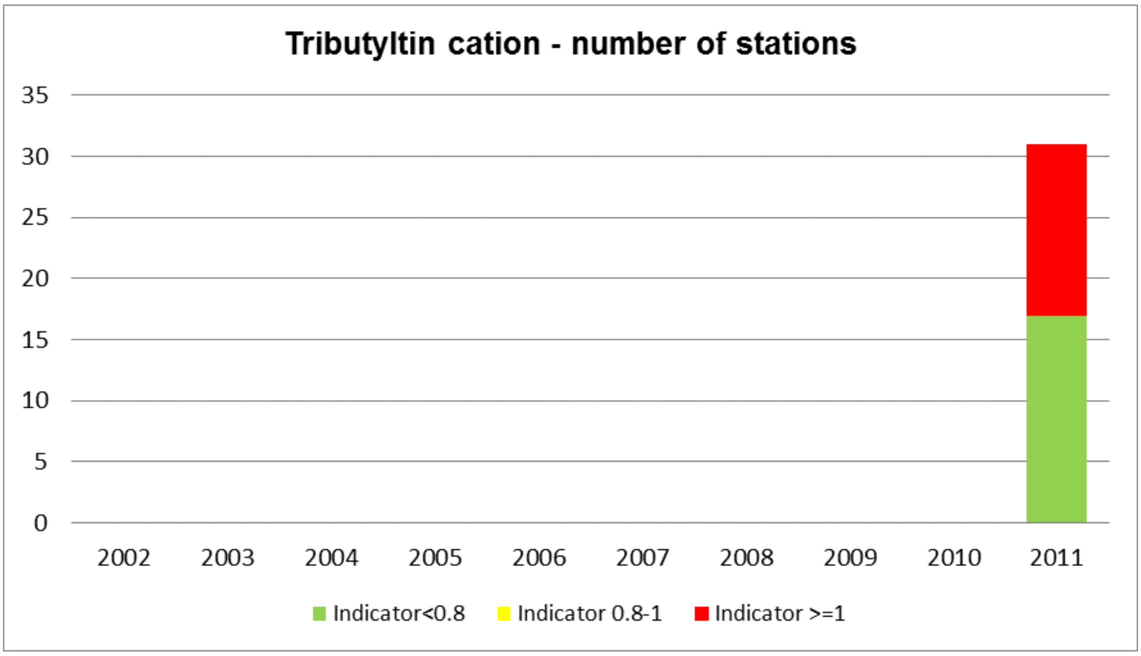


Figure 4.4.2.35b Traffic-light indicator for tributyltin-cation in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

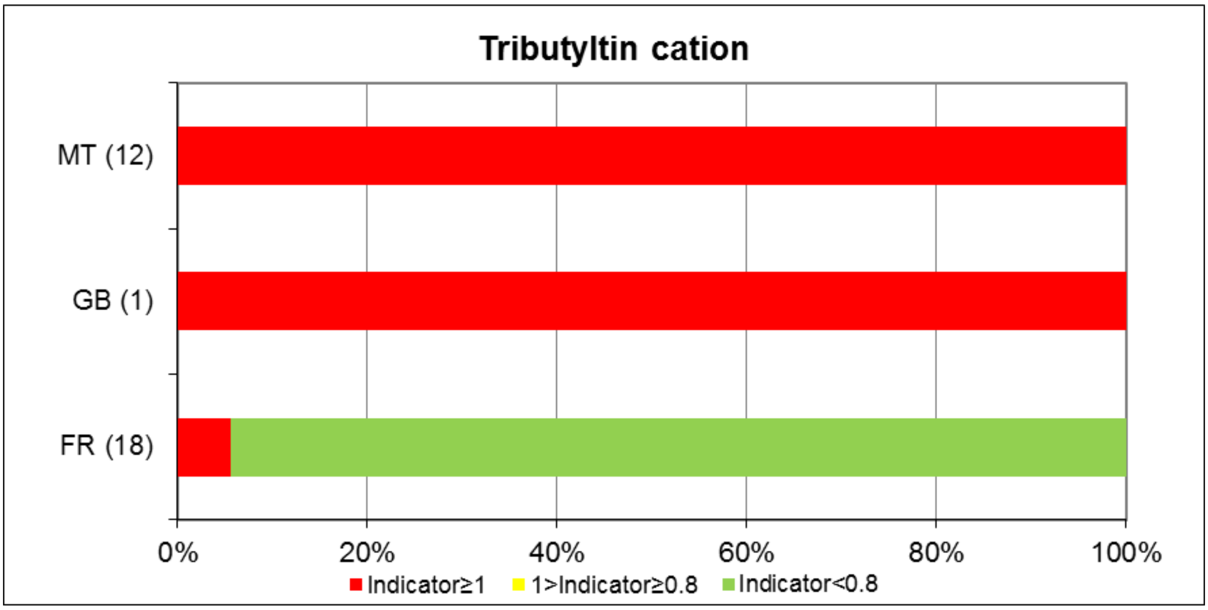


Figure 4.4.2.35c Map of traffic-light indicator for tributyltin-cation in lakes from 2010–2011.

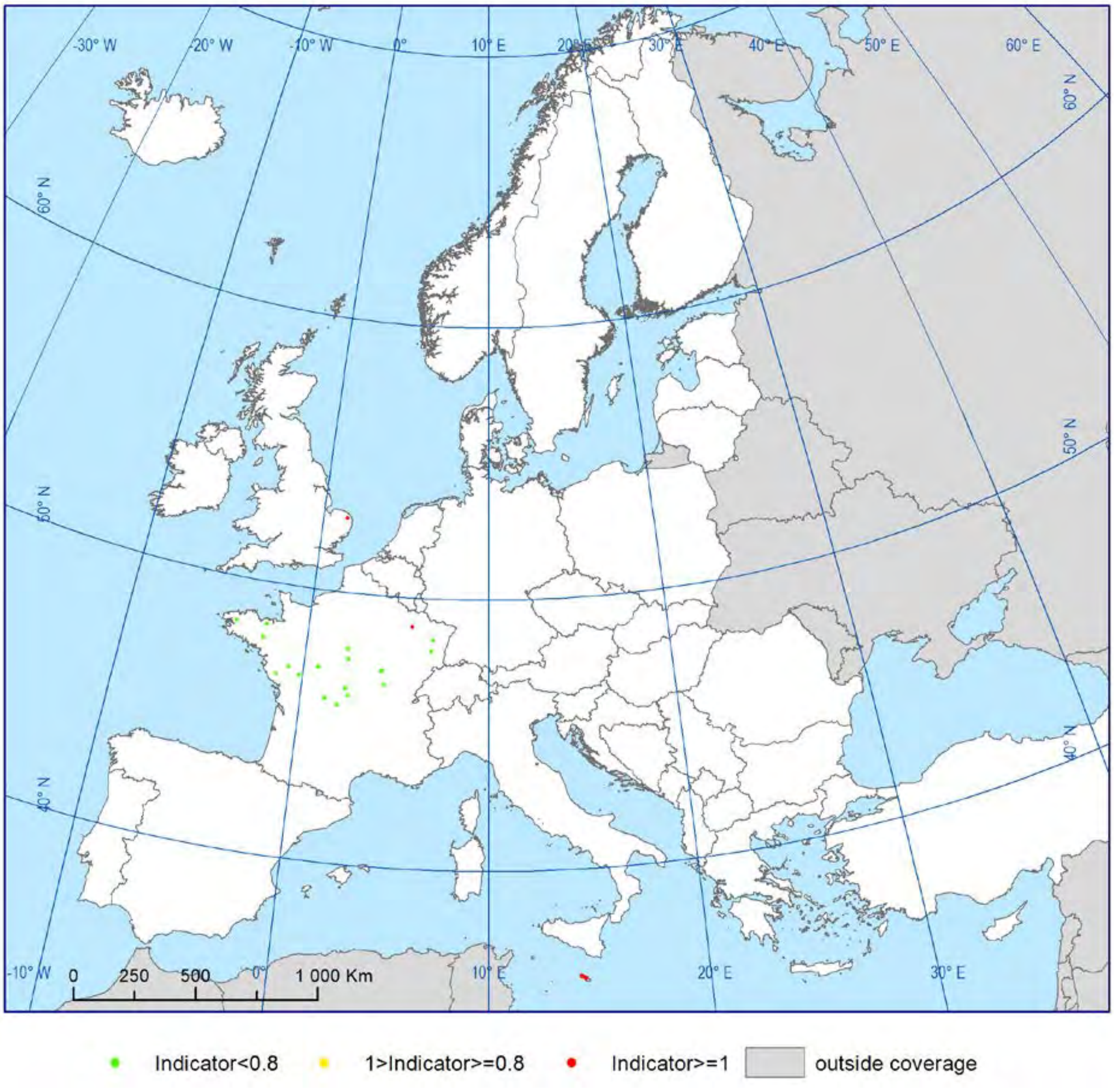


Figure 4.4.2.35d Box plot of data for tributyltin-cation in lakes from 2010–2011.

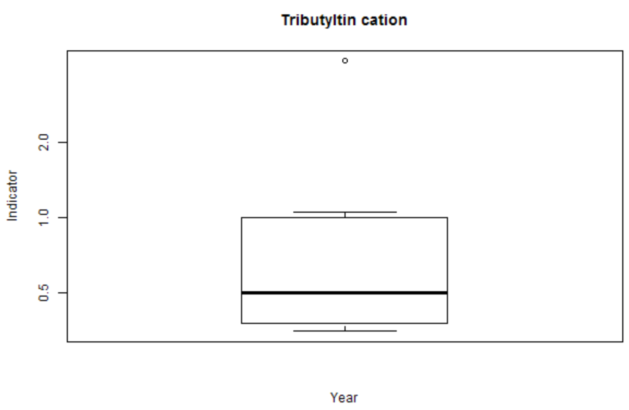


Figure 4.4.2.36a Long-term traffic-light indicator and number of stations for trichloromethane in lakes.

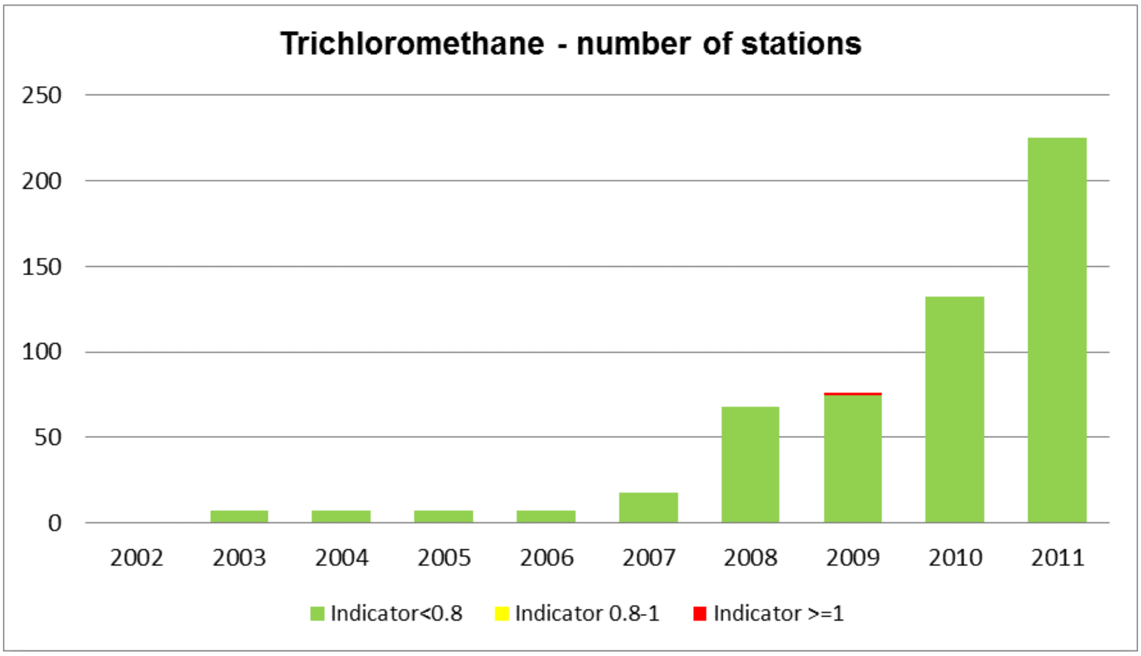


Figure 4.4.2.36b Traffic-light indicator for trichloromethane in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

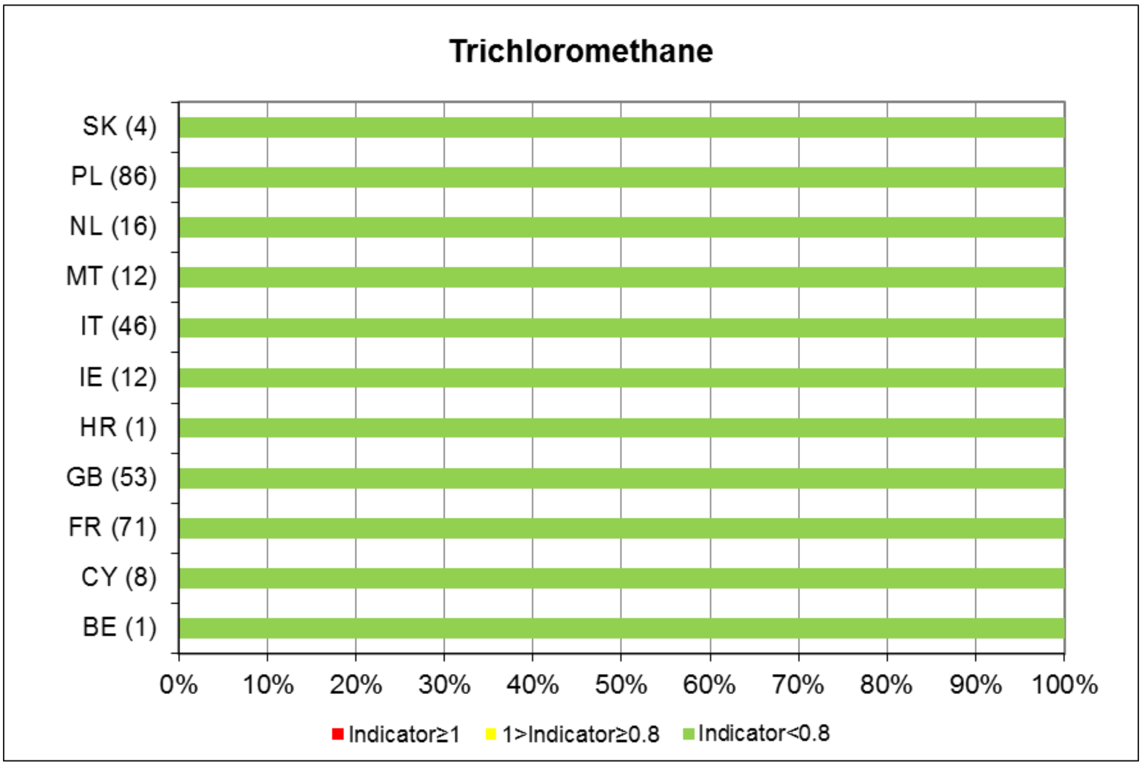


Figure 4.4.2.36c Map of traffic-light indicator for trichloromethane in lakes from 2010–2011.

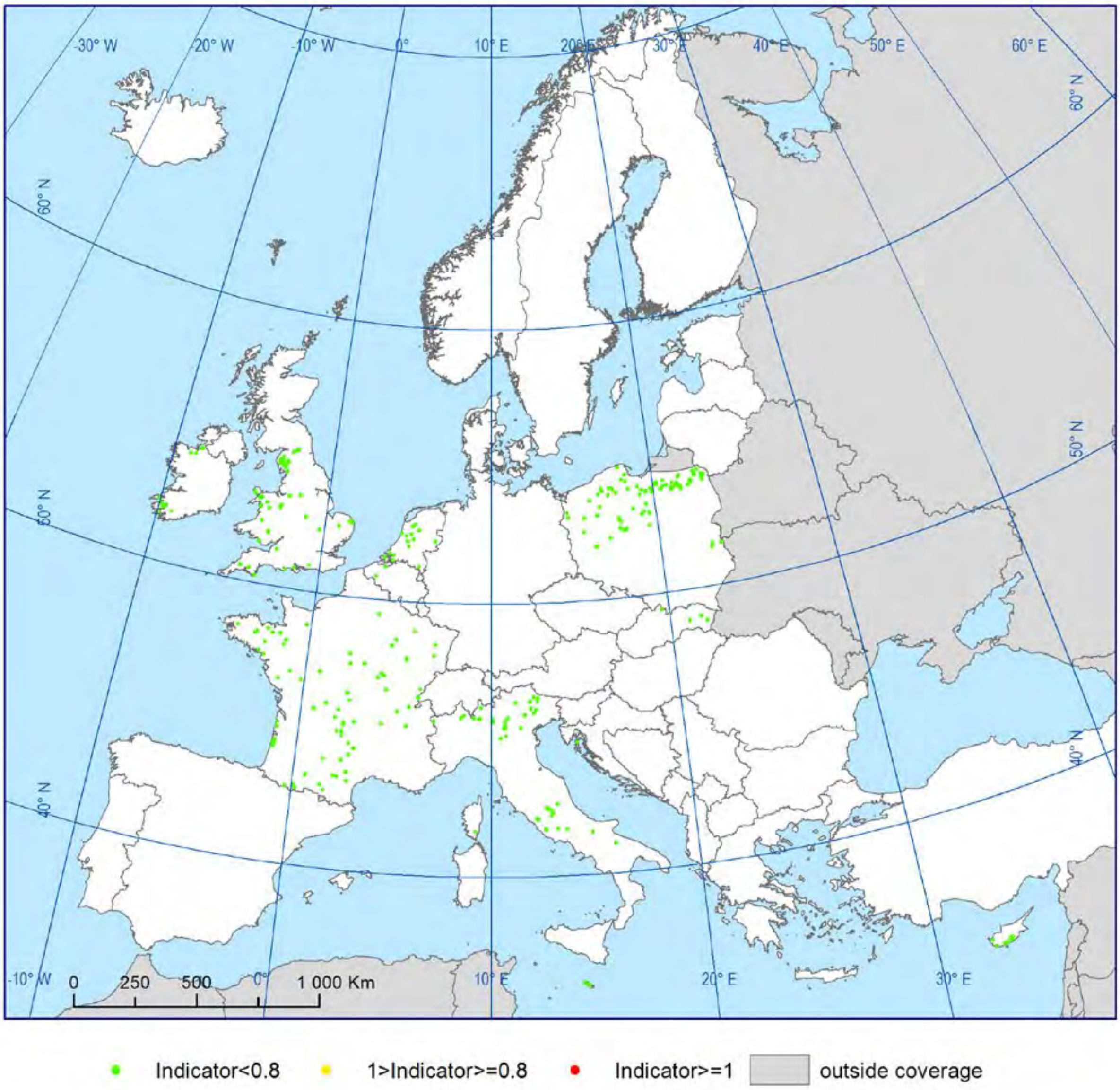


Figure 4.4.2.36d Box plot of data for trichloromethane in lakes.

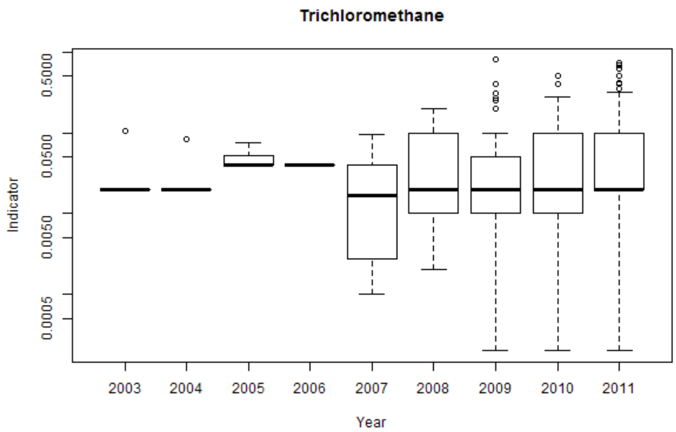


Figure 4.4.2.37a Long-term traffic-light indicator and number of stations for trifluralin in lakes.

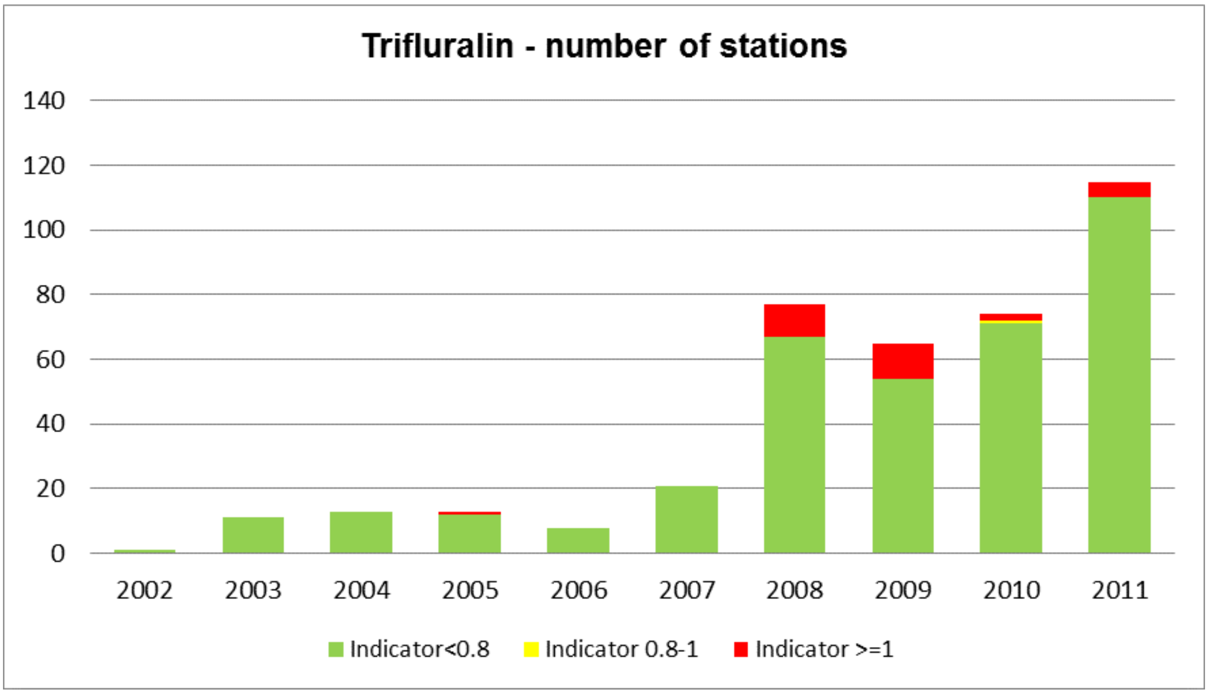


Figure 4.4.2.37b Traffic-light indicator for trifluralin in lakes from 2010–2011 (number of stations per country is shown in parenthesis).

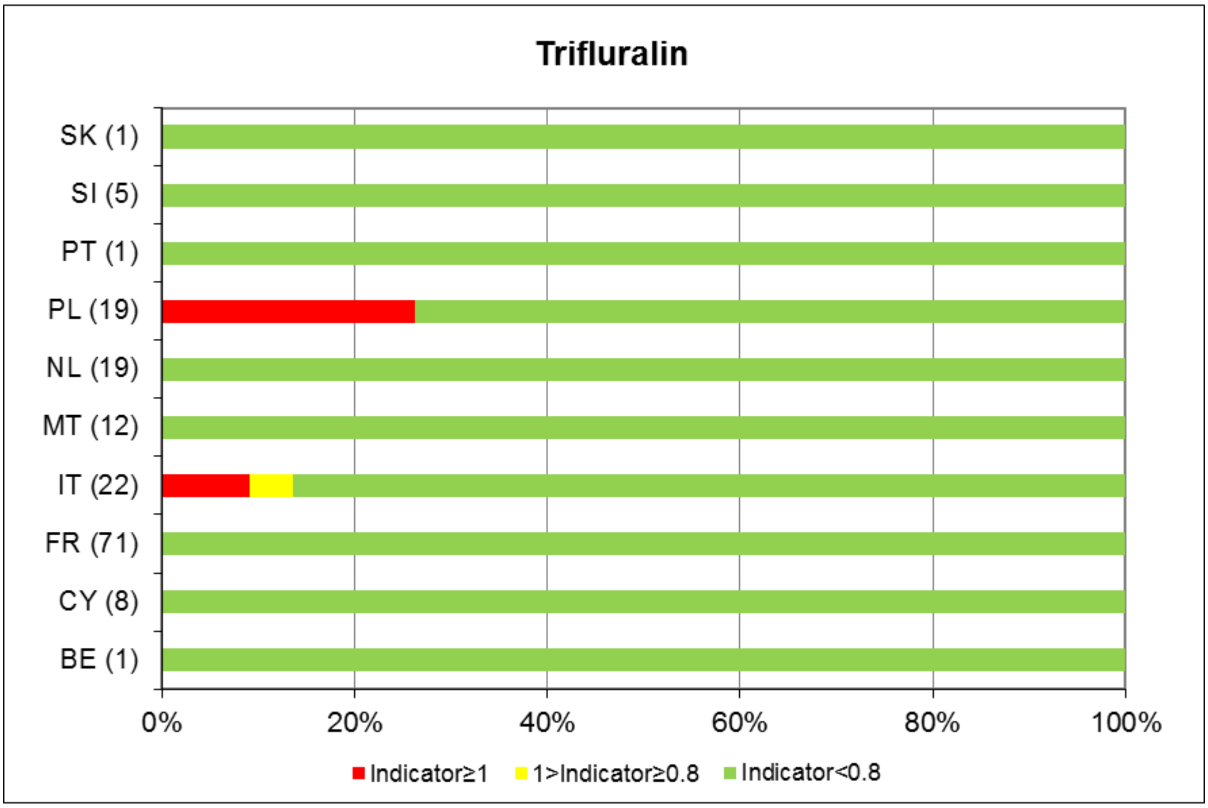


Figure 4.4.2.37c Map of traffic-light indicator for trifluralin in lakes for 2010–2011.

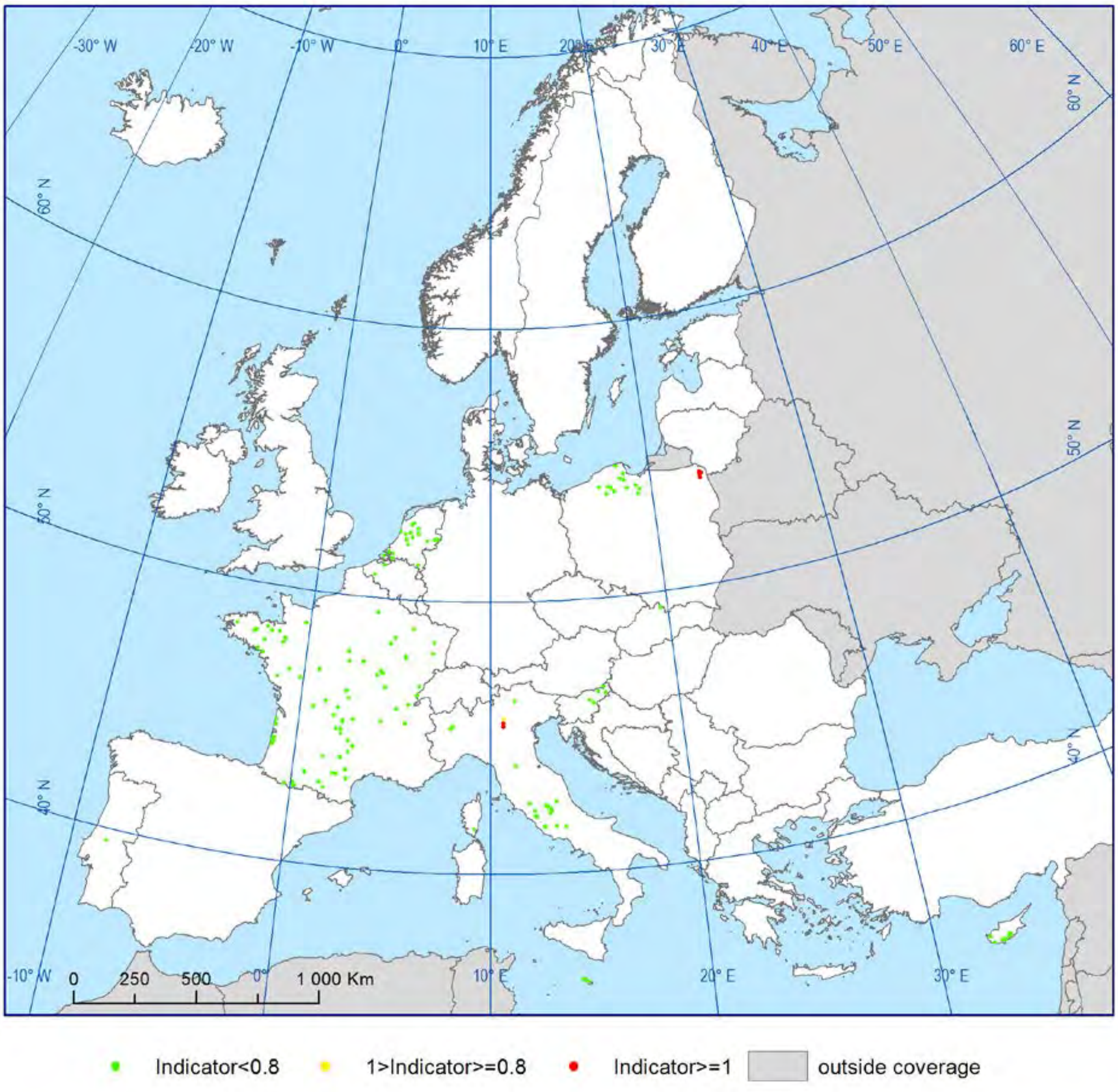
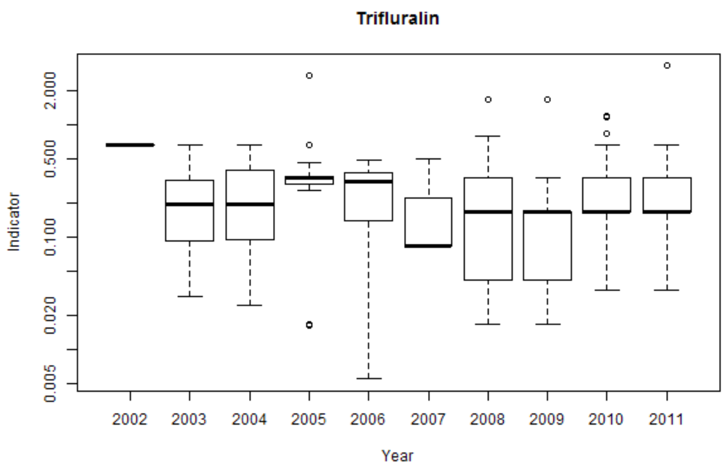


Figure 4.4.2.37d Box plot of data for trifluralin in lakes.



5 Conclusions

Metals, PAHs, pesticides and chlorinated organic compounds are the chemicals threatening the quality of European waters the most. The State of Environment (SoE) groundwater data show that mainly triazine pesticides and their metabolites (atrazine, desethylatrazine), heavy metals and metalloids (lead, arsenic) are the hazardous substances most frequently occurring and exceeding quality standards. In rivers and lakes, concentrations of cadmium, nickel, mercury, lead, and PAH-compounds reported as the sum of benzo(g,h,i)-perylene and indeno(1,2,3-cd)-pyrene were among the compounds that exceeded environmental quality standards (EQS) in most countries. There is a room for an analysis improvement though, since for example the combination of cadmium data with data on water hardness is missing for most countries. For biota from transitional and coastal waters, high concentration levels are particularly seen for DDT and PCBs i.e. persistent substances with high bioaccumulation potential. Despite the fact that new QC procedures for river and lake data have been implemented in order to identify potential unit errors, implementation of additional QC rules assuring better quality of presented data is under development.

6 References

98/83/EC: COUNCIL DIRECTIVE 98/83/EC of 3 November 1998 on the quality of water intended for human consumption (Drinking Water Directive)

2000/60/EC: DIRECTIVE 2000/60/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2000 establishing a framework for Community action in the field of water policy (Water Framework Directive)

2006/118/EC: DIRECTIVE 2006/118/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 December 2006 on the protection of groundwater against pollution and deterioration (Groundwater Directive)

2008/105/EC: DIRECTIVE 2008/105/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council (EQS Directive)

2009/90/EC: COMMISSION DIRECTIVE 2009/90/EC of 31 July 2009 laying down, pursuant to Directive 2000/60/EC of the European Parliament and of the Council, technical specifications for chemical analysis and monitoring of water status (QA/QC Directive)

EEA, 2011: Hazardous substances in Europe's fresh and marine waters. EEA Technical report 8/2011, European Environment Agency, ISBN 978-92-9213-214-9

OSPAR, 2009: CEMP 2008/2009 Assessment of trends and concentrations of selected hazardous substances in sediments and biota. OSPAR Publication Number: 390/2009. ISBN 978-1-906840-30-3.

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Annex

Table 2.1.2 LOQs reported for groundwater throughout Europe in 2002–2011

Substance	Number of various LOQs	lowest LOQ (µg/l)	highest LOQ (µg/l)
1,1,1-trichloroethane	16	0.00002	25
1,1,2,2-tetrachloroethene	17	0.0002	25
1,1,2-trichloroethene	18	0.0002	25
1,2-Dichloroethane	16	0.01	100
2,4-D	14	0.0001	0.14
4-nonylphenol	5	0.01	1
Alachlor	11	0.001	4
Aldrin	17	0.0001	0.1
Alpha-Endosulfan	18	0.00007	0.1
Alpha-HCH	18	0.0001	0.3
Anthracene	13	0.000005	0.04
Arsenic	36	0.0001	1000
Arsenic dissolved	11	0.0003	4
Atrazine	31	0.00002	2
Bentazone	37	0.00001	108
Benzene	13	0.01	25
Benzo(a)pyrene	20	0.0000002	5
Benzo(b)fluoranthene	13	0.000001	0.5
Benzo(g,h,i)perylene	58	0.000001	5
Benzo(k)fluoranthene	54	0.0000003	5
Beta-HCH	14	0.0001	0.3
Cadmium	20	0.0001	7
Cadmium dissolved	18	0.00002	200
Copper	23	0.0004	10000
Copper dissolved	18	0.0005	1000
DDD, p,p'	11	0.0001	0.1
DDE, p,p'	17	0.0001	0.1
DDT, o,p'	24	0.0001	0.3
DDT, p,p'	15	0.0001	0.1
Desethylatrazine	30	0.00005	2
Desisopropylatrazine	32	0.00005	2
Di (2-ethylhexyl) phthalate	7	0.01	5
Dieldrin	18	0.0001	0.1
Dichloromethane	19	0.0001	100
Diuron	54	0.00002	27.5
Endrin	21	0.0001	0.3
Fluoranthene	53	0.000003	5
Gamma-HCH (Lindane)	24	0.00008	0.3
Hexachlorobenzene	19	0.0001	5
Hexachlorobutadiene	22	0.0005	100
Chlorfenvinphos	25	0.0005	1
Chloroalkanes C10-13	3	0.2	10
Chlorpyrifos	16	0.0005	1

Table 2.1.2 continued

Substance	Number of various LOQs	lowest LOQ (µg/l)	highest LOQ (µg/l)
Chromium	20	0.0004	1000
Chromium dissolved	13	0.001	10
Indeno(1,2,3-cd)pyrene	72	0.000009	10
Isodrin	19	0.0001	0.1
Isoproturon	50	0.00002	4
Lead	24	0.0002	10
Lead dissolved	15	0.0002	1000
Linuron	48	0.001	0.2785
MCPA	39	0.001	108
Mecoprop	37	0.00001	108
Mercury	15	0.0001	10
Mercury dissolved	6	0.002	0.3
Naphthalene	29	0.00001	250
Nickel	25	0.0004	5000
Nickel dissolved	14	0.001	50
Para-tert-octylphenol	5	0.02	1
Pentachlorobenzene	14	0.0005	10
Pentachlorophenol	11	0.001	2
Prometryn	21	0.0001	1
Propazine	22	0.00002	2
Simazine	29	0.00005	2
Terbuthylazine	14	0.00001	2
Terbutryn	17	0.0001	2
Tetrachloromethane	12	0.001	25
Trifluralin	40	0.00045	2
Trichloromethane	20	0.00005	25
Zinc	25	0.001	10000
Zinc dissolved	15	0.0005	100

Table 2.1.3 Number of LOQs reported for groundwater by countries in 2002–2011

Country	1,1,1-trichloroethane	1,1,2,2-tetrachloroethene	1,1,2-trichloroethene	1,2-dichloroethane	2,4-D	4-nonylphenol	Alachlor	Aldrin	Alpha-Endosulfan	Alpha-HCH	Anthracene	Arsenic
AL	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	0	0	0	0	0	0	0	0	0
BA	1	1	0	0	0	0	0	0	0	0	0	0
BE	3	4	4	3	4	0	1	1	0	0	4	5
BG	0	7	7	0	2	0	2	4	2	4	0	9
CY	0	1	1	0	0	0	1	0	0	0	0	3
CZ	0	1	1	1	3	0	2	1	1	1	3	3
DE	9	0	0	3	4	0	1	1	1	2	1	10
DK	3	3	3	1	3	0	0	0	0	0	0	2
EE	0	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0	0
FR	8	11	11	14	11	4	10	12	14	14	4	11
GB	8	7	6	6	3	0	0	10	11	9	8	3
GR	0	0	0	0	0	0	0	0	0	0	0	0
HR	1	2	0	3	0	0	2	3	0	3	1	1
HU	0	0	0	0	0	0	0	0	0	0	0	0
CH	2	2	2	0	1	0	1	0	0	0	0	1
IE	0	0	0	0	0	0	0	0	0	0	0	0
IS	0	0	0	2	0	0	0	0	0	0	1	0
IT	7	10	11	9	1	0	6	5	1	3	0	9
LI	0	0	0	0	0	0	0	0	0	0	0	0
LT	0	0	0	0	0	0	0	1	1	1	0	1
LU	0	0	0	0	0	0	0	0	0	0	0	0
LV	0	1	1	1	0	0	0	0	0	0	0	21
ME	0	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0	0
PL	0	0	0	0	0	0	0	1	1	1	1	1
PT	0	0	0	0	0	0	0	0	1	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SI	2	3	3	3	3	0	3	3	3	3	0	3
SK	1	1	2	1	1	1	2	1	0	0	1	2
TR	0	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.3 continued

Country	Arsenic dissolved	Atrazine	Bentazone	Benzene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Beta-HCH	Cadmium	Cadmium dissolved	Copper
AL	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	3	1	0	0	0	0	0	0	0	0	0
BA	0	0	0	0	0	0	0	0	0	1	0	1
BE	0	5	5	4	6	6	6	6	0	7	0	5
BG	0	5	0	0	0	0	0	0	4	8	8	8
CY	0	0	0	0	0	0	0	0	0	2	0	2
CZ	0	3	3	1	3	3	3	3	1	3	0	3
DE	11	9	8	2	2	2	2	2	2	11	15	10
DK	0	2	2	4	0	0	0	0	0	3	0	3
EE	0	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0	0
FR	0	11	10	4	7	6	7	6	11	10	0	11
GB	0	26	30	9	16	5	50	50	9	6	4	4
GR	0	0	0	0	0	0	0	0	0	0	0	0
HR	1	1	0	1	1	1	1	1	3	1	4	1
HU	0	0	0	0	0	0	0	0	0	0	0	0
CH	0	1	5	2	0	0	0	0	0	1	0	1
IE	0	0	0	0	0	0	0	0	0	0	0	0
IS	1	0	0	1	1	1	1	1	0	1	1	1
IT	0	6	4	5	7	2	2	2	1	9	6	4
LI	0	0	0	0	0	0	0	0	0	0	0	0
LT	0	1	0	0	0	0	0	0	1	2	1	1
LU	0	0	0	0	1	1	1	1	0	0	0	0
LV	0	0	0	0	0	0	0	0	0	1	0	8
ME	0	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0	0
PL	0	0	0	0	1	1	1	1	1	2	1	1
PT	0	0	0	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SI	0	2	3	2	0	0	0	0	3	3	0	3
SK	0	1	1	1	2	1	1	1	0	2	0	1
TR	0	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.3 continued

Country	Copper dissolved	DDD, p,p'	DDE, p,p'	DDT, o,p'	DDT, p,p'	Desethylatrazine	Desisopropylatrazine	Di (2-ethylhexyl) phthalate	Dieldrin	Dichloromethane	Diuron	Endrin
AL	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	0	0	3	0	0	0	1	0	0
BA	0	0	0	0	0	0	0	1	0	0	0	0
BE	0	0	1	0	0	5	4	0	1	0	3	1
BG	10	4	4	5	5	1	1	0	5	0	1	4
CY	0	0	0	0	0	0	0	0	0	0	0	0
CZ	0	1	1	1	1	2	2	2	1	2	3	1
DE	11	0	0	1	1	9	8	0	1	14	7	1
DK	3	0	0	0	0	1	2	7	0	0	2	0
EE	0	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0	0
FR	0	8	10	14	12	11	11	3	12	10	12	12
GB	4	0	10	19	7	22	25	1	10	4	50	14
GR	0	0	0	0	0	0	0	0	0	0	0	0
HR	5	3	3	2	3	0	0	1	3	3	0	3
HU	0	0	0	0	0	0	0	0	0	0	0	0
CH	0	0	0	0	0	1	1	0	0	0	2	0
IE	0	0	0	0	0	0	0	0	0	0	0	0
IS	1	0	0	0	0	0	0	0	0	1	0	0
IT	7	2	3	2	3	6	3	0	5	7	1	3
LI	0	0	0	0	0	0	0	0	0	0	0	0
LT	1	0	0	0	0	0	0	0	1	0	0	1
LU	0	0	0	0	0	0	0	0	0	0	0	0
LV	0	0	0	0	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0	0
PL	1	1	1	0	1	0	0	0	1	0	0	1
PT	0	0	0	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SI	0	2	2	2	3	2	2	0	3	3	3	2
SK	0	0	1	0	1	1	1	1	1	1	1	1
TR	0	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.3 continued

Country	Fluoranthene	Gamma-HCH	Hexachlorobenzene	Hexachlorobutadiene	Chlorfenvinphos	Chloroalkanes C10-13	Chlorpyrifos	Chromium	Chromium dissolved	Indeno(1,2,3-cd)pyrene	Isodrin	Isoproturon
AL	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	0	0	0	0	0	0	0	0	0
BA	0	0	0	0	0	0	0	1	0	0	0	0
BE	5	4	4	0	1	0	0	4	1	6	0	3
BG	0	4	5	0	1	0	2	6	0	0	4	0
CY	0	0	0	0	0	0	1	3	0	0	0	0
CZ	3	1	2	3	0	1	3	2	0	3	1	2
DE	2	8	1	1	1	0	1	10	9	1	1	9
DK	0	0	0	0	0	0	0	2	0	0	0	1
EE	0	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0	0
FR	5	13	13	9	10	3	11	6	0	7	15	10
GB	49	15	10	19	23	0	11	6	4	66	10	46
GR	0	0	0	0	0	0	0	0	0	0	0	0
HR	1	3	2	1	2	0	2	1	4	1	3	0
HU	0	0	0	0	0	0	0	0	0	0	0	0
CH	0	0	0	0	0	0	0	1	0	0	0	2
IE	0	0	0	0	0	0	0	0	0	0	0	0
IS	1	0	0	0	0	0	0	0	0	1	0	0
IT	0	1	0	3	0	0	5	9	0	2	0	1
LI	0	0	0	0	0	0	0	0	0	0	0	0
LT	0	1	1	0	1	0	1	0	1	0	0	0
LU	1	0	0	0	0	0	0	0	0	1	0	0
LV	0	0	0	0	0	0	0	1	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0	0
PL	1	1	0	0	1	0	0	1	1	1	0	0
PT	0	1	1	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SI	0	3	2	3	3	0	3	4	0	0	0	3
SK	2	1	1	1	1	0	1	1	0	1	1	1
TR	0	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.3 continued

Country	Lead	Lead dissolved	Linuron	MCPA	Mecoprop	Mercury	Mercury dissolved	Naphthalene	Nickel	Nickel dissolved	Para-tert-octylphenol	Pentachlorobenzene
AL	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	0	0	0	0	0	0	0	0	0
BA	0	0	0	0	0	2	0	0	1	0	0	0
BE	5	0	3	4	1	5	1	4	6	0	0	0
BG	8	8	0	0	0	7	0	0	10	8	0	0
CY	2	0	0	0	0	1	0	0	3	0	0	0
CZ	3	0	2	3	2	2	0	3	2	0	0	1
DE	12	12	3	4	8	3	0	1	12	11	0	0
DK	4	0	1	3	3	2	0	3	2	3	0	0
EE	0	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0	0
FR	7	0	9	10	8	6	0	8	10	0	4	14
GB	5	4	48	30	30	2	0	24	4	4	0	1
GR	0	0	0	0	0	0	0	0	0	0	0	0
HR	1	4	0	0	0	1	5	1	1	4	0	0
HU	0	0	0	0	0	0	0	0	0	0	0	0
CH	1	0	0	1	1	1	0	1	1	0	0	0
IE	0	0	0	0	0	0	0	0	0	0	0	0
IS	1	1	0	0	0	1	1	1	1	2	0	0
IT	12	3	2	1	1	7	0	0	10	2	0	0
LI	0	0	0	0	0	0	0	0	0	0	0	0
LT	2	1	0	0	0	0	0	0	0	2	0	0
LU	0	0	0	0	0	0	0	0	0	0	0	0
LV	7	0	0	0	0	1	0	0	9	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0	0
PL	3	1	0	0	0	1	1	0	2	2	0	0
PT	0	0	0	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SI	3	0	3	3	3	3	0	0	3	0	0	0
SK	2	0	0	1	0	1	0	1	1	0	1	1
TR	0	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.3 continued

Country	Pentachlorophenol	Prometryn	Propazine	Simazine	Terbuthylazine	Terbutryn	Tetrachloromethane	Trifluralin	Trichloromethane	Zinc	Zinc dissolved
AL	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	1	0	0	0	0	0	0	0
BA	0	0	0	0	0	0	0	0	0	1	0
BE	4	1	3	4	4	1	3	4	4	6	0
BG	0	4	5	5	2	4	0	3	0	9	7
CY	0	0	1	1	0	0	0	1	0	0	0
CZ	3	2	0	3	1	0	1	3	2	3	0
DE	1	4	8	8	10	3	3	2	12	12	12
DK	5	0	0	2	1	0	3	0	3	3	3
EE	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0
FR	6	7	8	11	9	7	8	10	10	11	0
GB	6	14	14	18	0	14	8	37	8	3	4
GR	0	0	0	0	0	0	0	0	0	0	0
HR	2	0	0	0	0	0	2	0	3	3	4
HU	0	0	0	0	0	0	0	0	0	0	0
CH	0	0	1	1	1	2	1	0	2	1	0
IE	0	0	0	0	0	0	0	0	0	0	0
IS	0	0	0	0	0	0	0	0	2	1	0
IT	0	3	4	6	6	4	4	6	7	6	7
LI	0	0	0	0	0	0	0	0	0	0	0
LT	0	1	1	1	0	0	0	1	0	1	1
LU	0	0	0	0	0	0	0	0	0	0	0
LV	0	0	0	0	0	0	0	0	1	7	0
ME	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0
PL	0	0	0	0	0	0	0	0	0	1	1
PT	0	0	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0
SI	2	2	3	3	3	1	2	3	3	4	0
SK	1	1	0	1	1	1	2	1	1	2	0
TR	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.4 Number of LOQs reported for groundwater by countries in 2010–2011

Country	1,1,1-trichloroethane	1,1,2,2-tetrachloroethene	1,1,2-trichloroethene	1,2-dichloroethane	2,4-D	4-nonylphenol	Alachlor	Aldrin	Alpha-Endosulfan	Alpha-HCH	Anthracene	Arsenic
AL	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	0	0	0	0	0	0	0	0	0
BA	1	1	0	0	0	0	0	0	0	0	0	0
BE	3	3	4	3	4	0	0	0	0	0	3	3
BG	0	2	2	0	0	0	2	2	1	2	0	5
CY	0	1	1	0	0	0	1	0	0	0	0	1
CZ	0	1	1	1	2	0	1	0	0	1	2	3
DE	9	0	0	2	2	0	0	0	0	0	1	10
DK	1	1	1	0	0	0	0	0	0	0	0	1
EE	0	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0	0
FR	6	8	7	9	11	4	9	12	14	14	3	7
GB	4	3	4	4	3	0	0	6	9	9	5	3
GR	0	0	0	0	0	0	0	0	0	0	0	0
HR	1	2	0	3	0	0	2	3	0	3	1	1
HU	0	0	0	0	0	0	0	0	0	0	0	0
CH	2	1	2	0	1	0	1	0	0	0	0	1
IE	0	0	0	0	0	0	0	0	0	0	0	0
IS	0	0	0	1	0	0	0	0	0	0	1	0
IT	7	10	11	9	1	0	6	5	1	3	0	9
LI	0	0	0	0	0	0	0	0	0	0	0	0
LT	0	0	0	0	0	0	0	0	0	0	0	1
LU	0	0	0	0	0	0	0	0	0	0	0	0
LV	0	0	0	0	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0	0
PL	0	0	0	0	0	0	0	1	1	1	1	1
PT	0	0	0	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SI	2	3	3	2	3	0	2	2	2	2	0	3
SK	1	1	1	1	1	1	1	1	0	0	1	2
TR	0	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.4 continued

Country	Arsenic dissolved	Atrazine	Bentazone	Benzene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Beta-HCH	Cadmium	Cadmium dissolved	Copper
AL	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	3	1	0	0	0	0	0	0	0	0	0
BA	0	0	0	0	0	0	0	0	0	0	0	0
BE	0	4	5	3	5	3	3	3	0	7	0	5
BG	0	1	0	0	0	0	0	0	2	8	0	6
CY	0	0	0	0	0	0	0	0	0	1	0	1
CZ	0	2	2	1	2	2	2	2	1	3	0	2
DE	11	6	8	2	1	1	1	1	0	0	15	0
DK	0	1	2	1	0	0	0	0	0	1	0	1
EE	0	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0	0
FR	0	9	10	4	5	5	7	5	11	10	0	9
GB	0	7	16	4	5	5	5	5	9	3	4	2
GR	0	0	0	0	0	0	0	0	0	0	0	0
HR	1	1	0	1	1	1	1	1	3	0	4	0
HU	0	0	0	0	0	0	0	0	0	0	0	0
CH	0	1	5	1	0	0	0	0	0	1	0	1
IE	0	0	0	0	0	0	0	0	0	0	0	0
IS	1	0	0	1	1	1	1	1	0	0	1	0
IT	0	6	4	5	7	2	2	2	1	9	6	4
LI	0	0	0	0	0	0	0	0	0	0	0	0
LT	0	0	0	0	0	0	0	0	0	0	1	0
LU	0	0	0	0	0	0	0	0	0	0	0	0
LV	0	0	0	0	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0	0
PL	0	0	0	0	1	1	1	1	1	1	1	0
PT	0	0	0	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SI	0	2	3	2	0	0	0	0	2	3	0	2
SK	0	1	1	1	1	1	1	1	0	2	0	1
TR	0	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.4 continued

Country	Copper dissolved	DDD, p,p'	DDE, p,p'	DDT, o,p'	DDT, p,p'	Desethylatrazine	Desisopropylatrazine	Di (2-ethylhexyl) phthalate	Dieldrin	Dichloromethane	Diuron	Endrin
AL	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	0	0	3	0	0	0	1	0	0
BA	0	0	0	0	0	0	0	1	0	0	0	0
BE	0	0	0	0	0	4	4	0	0	0	3	0
BG	0	2	2	2	2	0	0	0	1	0	0	1
CY	0	0	0	0	0	0	0	0	0	0	0	0
CZ	0	1	1	1	1	2	2	2	0	1	2	0
DE	11	0	0	0	0	6	7	0	0	11	6	0
DK	1	0	0	0	0	1	1	1	0	0	0	0
EE	0	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0	0
FR	0	8	10	12	9	11	10	3	12	8	9	10
GB	4	0	6	9	7	6	7	1	7	0	3	9
GR	0	0	0	0	0	0	0	0	0	0	0	0
HR	5	3	3	2	3	0	0	1	3	3	0	3
HU	0	0	0	0	0	0	0	0	0	0	0	0
CH	0	0	0	0	0	1	1	0	0	0	1	0
IE	0	0	0	0	0	0	0	0	0	0	0	0
IS	1	0	0	0	0	0	0	0	0	1	0	0
IT	7	2	3	2	3	6	3	0	5	7	1	3
LI	0	0	0	0	0	0	0	0	0	0	0	0
LT	1	0	0	0	0	0	0	0	0	0	0	0
LU	0	0	0	0	0	0	0	0	0	0	0	0
LV	0	0	0	0	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0	0
PL	1	1	1	0	1	0	0	0	1	0	0	1
PT	0	0	0	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SI	0	2	2	2	2	2	2	0	2	3	3	2
SK	0	0	0	0	1	1	1	0	1	1	1	1
TR	0	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.4 continued

Country	Fluoranthene	Gamma-HCH	Hexachlorobenzene	Hexachlorobutadiene	Chlorfenvinphos	Chloroalkanes C10-13	Chlorpyrifos	Chromium	Chromium dissolved	Indeno(1,2,3-cd)pyrene	Isodrin	Isoproturon
AL	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	0	0	0	0	0	0	0	0	0
BA	0	0	0	0	0	0	0	0	0	0	0	0
BE	4	3	3	0	0	0	0	3	1	3	0	3
BG	0	2	0	0	0	0	2	6	0	0	1	0
CY	0	0	0	0	0	0	1	1	0	0	0	0
CZ	2	1	0	0	0	1	3	2	0	2	0	2
DE	1	5	0	1	0	0	0	10	9	1	0	7
DK	0	0	0	0	0	0	0	0	0	0	0	0
EE	0	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0	0
FR	5	13	13	9	10	3	11	6	0	7	15	10
GB	5	9	6	9	6	0	6	4	4	5	6	2
GR	0	0	0	0	0	0	0	0	0	0	0	0
HR	1	3	2	1	2	0	2	0	4	1	3	0
HU	0	0	0	0	0	0	0	0	0	0	0	0
CH	0	0	0	0	0	0	0	1	0	0	0	1
IE	0	0	0	0	0	0	0	0	0	0	0	0
IS	1	0	0	0	0	0	0	0	0	1	0	0
IT	0	1	0	3	0	0	5	9	0	2	0	1
LI	0	0	0	0	0	0	0	0	0	0	0	0
LT	0	0	0	0	0	0	0	0	1	0	0	0
LU	0	0	0	0	0	0	0	0	0	0	0	0
LV	0	0	0	0	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0	0
PL	1	1	0	0	1	0	0	1	1	1	0	0
PT	0	0	0	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SI	0	2	0	2	3	0	0	3	0	0	0	3
SK	1	1	1	1	1	0	1	1	0	1	1	1
TR	0	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.4 continued

Country	Lead	Lead dissolved	Linuron	MCPA	Mecoprop	Mercury	Mercury dissolved	Naphthalene	Nickel	Nickel dissolved	Para-tert-octylphenol	Pentachlorobenzene
AL	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	0	0	0	0	0	0	0	0	0
BA	0	0	0	0	0	0	0	0	0	0	0	0
BE	4	0	1	4	0	4	1	4	5	0	0	0
BG	7	0	0	0	0	4	0	0	6	0	0	0
CY	1	0	0	0	0	1	0	0	1	0	0	0
CZ	2	0	2	2	0	1	0	3	2	0	0	0
DE	0	11	3	2	7	3	0	1	0	10	0	0
DK	1	0	0	0	2	0	0	1	1	1	0	0
EE	0	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0	0
FR	7	0	9	8	7	5	0	5	10	0	4	14
GB	3	4	2	16	16	1	0	5	3	4	0	0
GR	0	0	0	0	0	0	0	0	0	0	0	0
HR	0	4	0	0	0	0	5	1	0	4	0	0
HU	0	0	0	0	0	0	0	0	0	0	0	0
CH	1	0	0	1	1	0	0	1	1	0	0	0
IE	0	0	0	0	0	0	0	0	0	0	0	0
IS	0	1	0	0	0	0	1	1	0	2	0	0
IT	12	3	2	1	1	7	0	0	10	2	0	0
LI	0	0	0	0	0	0	0	0	0	0	0	0
LT	0	1	0	0	0	0	0	0	0	2	0	0
LU	0	0	0	0	0	0	0	0	0	0	0	0
LV	0	0	0	0	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0	0
PL	0	1	0	0	0	1	1	0	2	2	0	0
PT	0	0	0	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SI	3	0	3	3	3	3	0	0	2	0	0	0
SK	1	0	0	1	0	1	0	1	1	0	1	0
TR	0	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.4 continued

Country	Pentachlorophenol	Prometryn	Propazine	Simazine	Terbuthylazine	Terbutryn	Tetrachloromethane	Trifluralin	Trichloromethane	Zinc	Zinc dissolved
AL	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	1	0	0	0	0	0	0	0
BA	0	0	0	0	0	0	0	0	0	0	0
BE	3	0	1	4	4	0	3	3	3	6	0
BG	0	0	1	1	0	0	0	2	0	9	0
CY	0	0	1	1	0	0	0	1	0	0	0
CZ	0	2	0	2	1	0	1	2	1	3	0
DE	0	2	6	6	7	2	0	1	11	0	11
DK	1	0	0	2	0	0	1	0	1	1	1
EE	0	0	0	0	0	0	0	0	0	0	0
ES	0	0	0	0	0	0	0	0	0	0	0
FI	0	0	0	0	0	0	0	0	0	0	0
FR	5	7	7	11	8	7	7	9	8	7	0
GB	2	7	6	8	0	8	4	8	3	2	4
GR	0	0	0	0	0	0	0	0	0	0	0
HR	2	0	0	0	0	0	2	0	3	3	4
HU	0	0	0	0	0	0	0	0	0	0	0
CH	0	0	1	1	1	1	1	0	1	1	0
IE	0	0	0	0	0	0	0	0	0	0	0
IS	0	0	0	0	0	0	0	0	1	0	0
IT	0	3	4	6	6	4	4	6	7	6	7
LI	0	0	0	0	0	0	0	0	0	0	0
LT	0	0	0	0	0	0	0	0	0	0	1
LU	0	0	0	0	0	0	0	0	0	0	0
LV	0	0	0	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0	0
MK	0	0	0	0	0	0	0	0	0	0	0
MT	0	0	0	0	0	0	0	0	0	0	0
NL	0	0	0	0	0	0	0	0	0	0	0
NO	0	0	0	0	0	0	0	0	0	0	0
PL	0	0	0	0	0	0	0	0	0	0	1
PT	0	0	0	0	0	0	0	0	0	0	0
RO	0	0	0	0	0	0	0	0	0	0	0
RS	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0
SI	0	2	2	2	2	0	2	2	3	3	0
SK	1	1	0	1	1	1	1	1	1	2	0
TR	0	0	0	0	0	0	0	0	0	0	0
XK	0	0	0	0	0	0	0	0	0	0	0

Table 2.1.5 Lowest LOQs reported for groundwater by countries in 2002–2011

Country	1,1,1-trichloroethane	1,1,2,2-tetrachloroethene	1,1,2-trichloroethene	1,2-dichloroethane	2,4-D	4-nonylphenol	Alachlor	Aldrin	Alpha-Endosulfan	Alpha-HCH	Anthracene	Arsenic
AL												
AT												
BA	0.01	0.01										
BE	0.2	0.2	0.2	10	0.02		0.005	0.007			0.002	0.4
BG		0.6	0.6		0.01		0.01	0.006	0.01	0.006		0.5
CY		0.125	0.125				0.05					1
CZ		0.1	0.1	0.1	0.02		0.005	0.002	0.002	0.002	0.002	1
DE	0.006			1.5	0.05		0.02	0.001	0.001	0.005	0.02	0.2
DK	0.02	0.02	0.02	0.02	0.01							0.03
EE												
ES												
FI												
FR	0.5	0.5	0.5	0.5	0.01	0.1	0.01	0.005	0.005	0.005	0.02	0.2
GB	0.1	0.1	0.1	0.5	0.005			0.001	0.001	0.003	0.01	1
GR												
HR	0.1	0.1		1			0.015	0.01		0.01	0.005	0.5
HU												
CH	0.05	0.02	0.05		0.02		0.01					0.5
IE												
IS				1							0.005	
IT	0.01	0.005	0.005	0.01	0.05		0.01	0.005	0.05	0.01		0.1
LI												
LT								0.005	0.004	0.005		1
LU												
LV		0.1	0.1	1								0.3
ME												
MK												
MT												
NL												
NO												
PL								0.002	0.001	0.01	0.004	10
PT									0.02			
RO												
RS												
SE												
SI	0.5	0.06	0.2	0.5	0.02		0.042	0.003	0.003	0.002		1
SK	0.5	1	1	1	0.01	1	0.02	0.025			0.015	1
TR												
XK												

Table 2.1.5 continued

Country	Arsenic dissolved	Atrazine	Bentazone	Benzene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Beta-HCH	Cadmium	Cadmium dissolved	Copper
AL												
AT		0.01	0.04									
BA										0.0006		10
BE		0.01	0.01	10	0.003	0.005	0.005	0.005		0.25		2
BG		0.01							0.006	0.1	0.001	0.5
CY										0.5		5
CZ		0.01	0.02	0.1	0.002	0.002	0.002	0.002	0.002	0.2		2
DE	0.0003	0.01	0.01	1	0.01	0.008	0.005	0.005	0.005	0.02	0.02	0.3
DK		0.01	0.01	0.05						0.004		0.04
EE												
ES												
FI												
FR		0.02	0.01	0.5	0.005	0.005	0.01	0.005	0.005	0.5		1
GB		0.003	0.02	0.1	0.01	0.01	0.01	0.01	0.003	0.1	0.1	1
GR												
HR	0.5	0.02		0.5	0.005	0.005	0.005	0.005	0.01	0.2	0.01	2
HU												
CH		0.05	0.02	0.1						0.2		2
IE												
IS	0.05			0.2	0.005	0.005	0.005	0.005		0.002	0.002	0.1
IT		0.005	0.01	0.01	0.001	0.005	0.005	0.005	0.01	0.02	0.01	1
LI												
LT		1							0.005	0.2	0.3	1
LU					0.002	0.002	0.002	0.002				
LV										0.1		0.7
ME												
MK												
MT												
NL												
NO												
PL					0.01	0.01	0.02	0.01	0.01	1	0.05	2
PT												
RO												
RS												
SE												
SI		0.03	0.009	0.4					0.003	0.1		1
SK		0.02	0.01	0.2	0.005	0.015	0.03	0.015		0.1		2
TR												
XK												

Table 2.1.5 continued

Country	Copper dissolved	DDD, p,p'	DDE, p,p'	DDT, o,p'	DDT, p,p'	Desethylatrazine	Desisopropylatrazine	Di (2-ethylhexyl) phthalate	Dieldrin	Dichloromethane	Diuron	Endrin
AL												
AT						0.01				20		
BA								0.01				
BE			0.014			0.01	0.01		0.007		0.01	0.01
BG	0.003	0.01	0.006	0.01	0.006	0.005	0.005		0.01		0.04	0.01
CY												
CZ		0.002	0.002	0.002	0.002	0.01	0.02	1	0.002	0.1	0.02	0.002
DE	0.06			0.0008	0.0012	0.005	0.01		0.001	0.1	0.02	0.001
DK	0.04					0.01	0.01	0.1			0.01	
EE												
ES												
FI												
FR		0.005	0.02	0.02	0.02	0.01	0.01	0.5	0.005	2	0.02	0.05
GB	1		0.001	0.003	0.001	0.02	0.02	0.2	0.001	2.5	0.025	0.003
GR												
HR	0.6	0.05	0.05	0.002	0.05			0.01	0.05	0.5		0.05
HU												
CH						0.05	0.05				0.05	
IE												
IS	0.1									6		
IT	0.1	0.01	0.01	0.01	0.01	0.005	0.01		0.005	0.04	0.05	0.01
LI												
LT	1								0.005			0.005
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL	0.05	0.001	0.001		0.01				0.001			0.005
PT												
RO												
RS												
SE												
SI		0.002	0.002	0.003	0.003	0.03	0.04		0.003	2	0.03	0.003
SK			0.03		0.025	0.01	0.01	5	0.025	0.1	0.01	0.025
TR												
XK												

Table 2.1.5 continued

Country	Fluoranthene	Gamma-HCH	Hexachlorobenzene	Hexachlorobutadiene	Chlorfenvinphos	Chloroalkanes C10-13	Chlorpyrifos	Chromium	Chromium dissolved	Indeno(1,2,3-cd)pyrene	Isodrin	Isoproturon
AL												
AT												
BA								2				
BE	0.005	0.01	0.01		0.005			1	1	0.009		0.025
BG		0.006	0.001		0.01		0.01	0.2			0.01	
CY							0.05	5				
CZ	0.002	0.002	0.002	10		0.5	0.005	1		0.002	0.002	0.02
DE	0.01	0.002	0.001	0.01	0.01		0.01	0.06	0.001	0.01	0.001	0.02
DK								0.04				0.01
EE												
ES												
FI												
FR	0.01	0.005	0.005	0.005	0.05	6	0.02	1		0.01	0.05	0.02
GB	0.01	0.003	0.001	0.003	0.01		0.002	0.5	0.5	0.01	0.001	0.025
GR												
HR	0.005	0.01	0.01	0.09	0.015		0.015	2	0.6	0.005	0.05	
HU												
CH								2				0.05
IE												
IS	0.005									0.005		
IT		0.1		0.005			0.01	0.01		0.005		0.05
LI												
LT		0.005	0.005		1		1		1			
LU	0.002									0.002		
LV								1.4				
ME												
MK												
MT												
NL												
NO												
PL	0.004	0.01			0.02			3	3	0.02		
PT		0.02	0.02									
RO												
RS												
SE												
SI		0.002	0.001	0.005	0.02		0.003	0.4				0.02
SK	0.003	0.025	0.025	0.1	0.01		0.02	2		0.03	0.0125	0.02
TR												
XK												

Table 2.1.5 continued

Country	Lead	Lead dissolved	Linuron	MCPA	Mecoprop	Mercury	Mercury dissolved	Naphthalene	Nickel	Nickel dissolved	Para-tert-octylphenol	Pentachlorobenzene
AL												
AT												
BA						0.03			0.001			
BE	1		0.02	0.001	0.001	0.1	0.05	0.02	2			
BG	0.2	0.03				0.17			0.5	0.06		
CY	5					0.5			1			
CZ	1		0.02	0.02	0.02	0.1		0.005	2			0.002
DE	0.12	0.05	0.03	0.05	0.01	0.05		0.1	0.4	0.07		
DK	0.025		0.01	0.01	0.01	0.0002		0.05	0.03	0.03		
EE												
ES												
FI												
FR	2		0.02	0.01	0.01	0.5		0.02	2		0.1	0.01
GB	2	2	0.02	0.02	0.02	0.01		0.05	2.5	1		0.0005
GR												
HR	2	0.9				0.1	0.002	0.02	5	0.6		
HU												
CH	1			0.02	0.02	0.5		0.05	2			
IE												
IS	0.01	0.01				0.002	0.002	0.2	0.05	0.05		
IT	0.05	1	0.05	0.05	0.05	0.03			0.1	2		
LI												
LT	1	1								1		
LU												
LV	0.4					0.06			1			
ME												
MK												
MT												
NL												
NO												
PL	10	0.05				0.3	0.3		5	5		
PT												
RO												
RS												
SE												
SI	0.2		0.02	0.02	0.007	0.1			1			
SK	4			0.02		0.1		0.03	2		1	0.025
TR												
XK												

Table 2.1.5 continued

Country	Pentachlorophenol	Prometryn	Propazine	Simazine	Terbuthylazine	Terbutryn	Tetrachloromethane	Trifluralin	Trichloromethane	Zinc	Zinc dissolved
AL											
AT				0.05							
BA										10	
BE	0.02	0.003	0.01	0.01	0.01	0.003	0.2	0.007	10	25	
BG		0.001	0.01	0.01	0.001	0.004		0.01		3	0.25
CY			0.05	0.05				0.045			
CZ	0.025	0.01		0.01	0.01		0.1	0.005	0.1	10	
DE	0.05	0.01	0.005	0.05	0.005	0.01	0.01	0.01	0.003	1	0.01
DK	0.02			0.01	0.01		0.02		0.02	0.5	0.5
EE											
ES											
FI											
FR	0.01	0.02	0.02	0.02	0.01	0.02	0.1	0.005	0.5	2	
GB	0.02	0.005	0.002	0.003		0.004	0.1	0.02	0.1	5	5
GR											
HR	0.015						0.1		0.3	20	0.6
HU											
CH			0.01	0.05	0.05	0.05	0.05		0.05	2	
IE											
IS									1	0.2	
IT		0.01	0.005	0.005	0.005	0.01	0.01	0.005	0.005	1	0.1
LI											
LT		1	1	1				1		3	10
LU											
LV									1	7	
ME											
MK											
MT											
NL											
NO											
PL										3	3
PT											
RO											
RS											
SE											
SI	0.01	0.05	0.037	0.03	0.03	0.05	0.05	0.05	0.1	9	
SK	0.2	0.01		0.02	0.01	0.01	0.2	0.02	0.1	3	
TR											
XK											

Table 2.1.6 Highest LOQs reported for groundwater by countries in 2002–2011

Country	1,1,1-trichloroethane	1,1,2,2-tetrachloroethene	1,1,2-trichloroethene	1,2-dichloroethane	2,4-D	4-nonylphenol	Alachlor	Aldrin	Alpha-Endosulfan	Alpha-HCH	Anthracene	Arsenic
AL												
AT												
BA	0.01	0.01										
BE	0.5	1	2	10	0.05		0.005	0.007			0.04	5
BG		1	1		0.05		0.04	0.01	0.01	0.01		100
CY		0.125	0.125				0.05					1
CZ		0.1	0.1	0.1	0.05		0.005	0.002	0.002	0.002	0.008	1
DE	0.2			3	0.1		0.02	0.001	0.001	0.005	0.02	1000
DK	0.1	0.1	0.1	0.02	0.03							0.05
EE												
ES												
FI												
FR	3	5	10	100	0.14	0.1	4	0.1	0.1	0.1	0.02	1000
GB	25	25	25	50	0.1			0.1	0.1	0.3	0.025	3
GR												
HR	0.1	0.3		5			0.1	0.01		0.01	0.005	0.5
HU												
CH	0.2	0.05	0.2		0.02		0.01					0.5
IE												
IS				1							0.005	
IT	1	1	1	3	0.05		0.1	0.1	0.05	0.1		5
LI												
LT								0.005	0.004	0.005		1
LU												
LV		0.1	0.1	1								1.6
ME												
MK												
MT												
NL												
NO												
PL								0.002	0.001	0.01	0.004	10
PT									0.02			
RO												
RS												
SE												
SI	0.5	0.5	0.5	1	0.05		0.05	0.01	0.04	0.003		3
SK	0.5	1	2	1	0.01	1	0.025	0.025			0.015	1
TR												
XK												

Table 2.1.6 continued

Country	Arsenic dissolved	Atrazine	Bentazone	Benzene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Beta-HCH	Cadmium	Cadmium dissolved	Copper
AL												
AT		0.05	0.04									
BA										0.0006		10
BE		0.05	0.05	10	0.04	0.1	0.1	0.1		2		20
BG		0.05							0.01	7	11	19
CY										0.5		5
CZ		0.02	0.05	0.1	0.008	0.008	0.008	0.008	0.002	2		2
DE	4	0.07	0.07	1	0.01	0.01	0.01	0.01	0.005	2	200	20
DK		0.02	0.1	0.1						0.005		0.1
EE												
ES												
FI												
FR		2	0.1	10	0.015	0.02	0.05	0.015	0.1	5		10000
GB		1.5	108	25	5	0.5	5	5	0.3	2.5	2	500
GR												
HR	0.5	0.02		0.5	0.005	0.005	0.005	0.005	0.01	0.2	0.2	2
HU												
CH		0.05	0.09	0.1						0.2		2
IE												
IS	0.05			0.2	0.005	0.005	0.005	0.005		0.002	0.002	0.1
IT		0.1	0.1	1	0.02	0.01	0.01	0.01	0.01	1	1	10
LI												
LT		1							0.005	0.3	0.3	1
LU					0.002	0.002	0.002	0.002				
LV										0.1		1.9
ME												
MK												
MT												
NL												
NO												
PL					0.01	0.01	0.02	0.01	0.01	1	0.05	2
PT												
RO												
RS												
SE												
SI		0.05	0.05	1					0.004	0.3		5
SK		0.02	0.01	0.2	0.006	0.015	0.03	0.015		1		2
TR												
XK												

Table 2.1.6 continued

Country	Copper dissolved	DDD, p,p'	DDE, p,p'	DDT, o,p'	DDT, p,p'	Desethylatrazine	Desisopropylatrazine	Di (2-ethylhexyl) phthalate	Dieldrin	Dichloromethane	Diuron	Endrin
AL												
AT						0.05				20		
BA								0.01				
BE			0.014			0.05	0.05		0.007		0.05	0.01
BG	30	0.05	0.011	0.05	0.01	0.005	0.005		0.1		0.04	0.01
CY												
CZ		0.002	0.002	0.002	0.002	0.02	0.02	1.5	0.002	1	0.06	0.002
DE	1000			0.0008	0.0012	0.07	0.05		0.001	50	0.07	0.001
DK	0.1					0.01	0.02	1.5			0.02	
EE												
ES												
FI												
FR		0.1	0.1	0.1	0.1	2	0.3	1	0.1	100	4	0.1
GB	20		0.1	0.3	0.1	2	2	0.2	0.1	2.5	27.5	0.3
GR												
HR	3	0.05	0.05	0.003	0.05			0.01	0.05	1.5		0.05
HU												
CH						0.05	0.05				0.05	
IE												
IS	0.1									6		
IT	10	0.05	0.1	0.1	0.1	0.1	0.05		0.1	10	0.05	0.1
LI												
LT	1								0.005			0.005
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL	0.05	0.001	0.001		0.01				0.001			0.005
PT												
RO												
RS												
SE												
SI		0.004	0.004	0.01	0.005	0.05	0.05		0.01	5	0.05	0.005
SK			0.03		0.025	0.01	0.01	5	0.025	0.1	0.01	0.025
TR												
XK												

Table 2.1.6 continued

Country	Fluoranthene	Gamma-HCH	Hexachlorobenzene	Hexachlorobutadiene	Chlorfenvinphos	Chloroalkanes C10-13	Chlorpyrifos	Chromium	Chromium dissolved	Indeno(1,2,3-cd)pyrene	Isodrin	Isoproturon
AL												
AT												
BA								2				
BE	0.1	0.02	5		0.005			4	1	0.1		0.05
BG		0.01	0.015		0.01		0.05	10			0.01	
CY							0.05	5				
CZ	0.008	0.002	0.002	100		0.5	0.03	2		0.008	0.002	0.05
DE	0.01	0.05	0.001	0.01	0.01		0.01	5	3	0.01	0.001	0.07
DK								0.05				0.01
EE												
ES												
FI												
FR	0.02	0.1	1	3	0.1	10	0.1	1000		0.05	0.1	4
GB	5	0.3	0.1	0.3	1		0.2	12.5	10	10	0.1	0.2785
GR												
HR	0.005	0.01	0.01	0.09	0.03		0.03	2	2	0.005	0.05	
HU												
CH								2				0.05
IE												
IS	0.005									0.005		
IT		0.1		0.1			0.1	10		0.01		0.05
LI												
LT		0.005	0.005		1		1		1			
LU	0.002									0.002		
LV								1.4				
ME												
MK												
MT												
NL												
NO												
PL	0.004	0.01			0.02			3	3	0.02		
PT		0.02	0.02									
RO												
RS												
SE												
SI		0.003	0.003	0.3	0.05		0.05	3				0.05
SK	0.005	0.025	0.025	0.1	0.01		0.02	2		0.03	0.0125	0.02
TR												
XK												

Table 2.1.6 continued

Country	Lead	Lead dissolved	Linuron	MCPA	Mecoprop	Mercury	Mercury dissolved	Naphthalene	Nickel	Nickel dissolved	Para-tert-octylphenol	Pentachlorobenzene
AL												
AT												
BA						0.3			0.001			
BE	8		0.025	0.05	0.001	10	0.05	0.5	8			
BG	10	50				2			12	50		
CY	5					0.5			1			
CZ	2		0.02	0.05	0.05	0.1		0.05	2			0.002
DE	10	1000	0.05	0.1	0.1	0.06		0.1	50	20		
DK	0.05		0.01	0.03	0.1	0.0005		0.2	0.1	0.1		
EE												
ES												
FI												
FR	10		0.1	0.1	0.1	1		1	5000		0.2	10
GB	10	40	0.2785	108	108	0.02		250	12.5	20		0.0005
GR												
HR	2	2				0.1	0.3	0.02	5	5		
HU												
CH	1			0.02	0.02	0.5		0.05	2			
IE												
IS	0.01	0.01				0.002	0.002	0.2	0.05	0.05		
IT	10	5	0.1	0.05	0.05	1			10	5		
LI												
LT	2	1								18		
LU												
LV	1.3					0.06			2.6			
ME												
MK												
MT												
NL												
NO												
PL	10	0.05				0.3	0.3		5	5		
PT												
RO												
RS												
SE												
SI	2		0.05	0.05	0.05	0.5			3			
SK	4			0.02		0.1		0.03	2		1	0.025
TR												
XK												

Table 2.1.6 continued

Country	Pentachlorophenol	Prometryn	Propazine	Simazine	Terbuthylazine	Terbutryn	Tetrachloromethane	Trifluralin	Trichloromethane	Zinc	Zinc dissolved
AL											
AT				0.05							
BA										10	
BE	0.1	0.003	0.02	0.05	0.05	0.003	1	0.015	10	50	
BG		0.01	0.05	0.05	0.005	0.015		0.04		20	20
CY			0.05	0.05				0.045			
CZ	0.1	0.05		0.02	0.01		0.1	0.03	1	10	
DE	0.05	0.05	0.07	0.1	0.07	0.05	0.5	0.01	1	10000	100
DK	0.05			0.1	0.01		0.1		0.1	1	1
EE											
ES											
FI											
FR	0.1	0.1	2	2	2	0.1	3	0.1	20	10000	
GB	2	0.5	0.4	1.5		2	25	2	25	25	100
GR											
HR	0.1						0.3		1	20	20
HU											
CH			0.01	0.05	0.05	0.05	0.05		0.5	2	
IE											
IS									1	0.2	
IT		0.1	0.1	0.1	0.1	0.1	1	0.1	1	100	30
LI											
LT		1	1	1				1		3	10
LU											
LV									1	20	
ME											
MK											
MT											
NL											
NO											
PL										3	3
PT											
RO											
RS											
SE											
SI	0.1	0.05	0.05	0.05	0.05	0.05	0.2	0.05	2	20	
SK	0.2	0.01		0.02	0.01	0.01	0.2	0.02	0.1	3	
TR											
XK											

Table 2.1.7 Lowest LOQs reported for groundwater by countries in 2010–2011

Country	1,1,1-trichloroethane	1,1,2,2-tetrachloroethene	1,1,2-trichloroethene	1,2-dichloroethane	2,4-D	4-nonylphenol	Alachlor	Aldrin	Alpha-Endosulfan	Alpha-HCH	Anthracene	Arsenic
AL												
AT												
BA	0.01	0.01										
BE	0.1	0.1	0.1	0.1	0.001						0.0015	0.1
BG		0.6	0.6				0.01	0.006	0.01	0.006		0.5
CY		0.125	0.125				0.05					1
CZ		0.1	0.1	0.1	0.02		0.005			0.002	0.001	0.3
DE	0.0001			1.5	0.02						0.02	0.0003
DK	0.02	0.02	0.02									0.03
EE												
ES												
FI												
FR	0.05	0.1	0.05	0.2	0.0001	0.04	0.01	0.001	0.005	0.005	0.005	0.2
GB	0.1	0.1	0.1	0.1	0.005			0.001	0.001	0.003	0.01	1
GR												
HR	0.1	0.1		0.2			0.015	0.002		0.002	0.005	0.5
HU												
CH	0.05	0.02	0.05		0.02		0.01					0.5
IE												
IS				1							0.005	
IT	0.01	0.005	0.005	0.01	0.05		0.01	0.005	0.05	0.01		0.1
LI												
LT												1
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL								0.002	0.001	0.01	0.004	2
PT												
RO												
RS												
SE												
SI	0.2	0.06	0.1	0.2	0.007		0.007	0.00045	0.00007	0.0005		0.1
SK	0.1	0.1	0.1	0.1	0.01	0.5	0.01	0.0125			0.015	0.5
TR												
XK												

Table 2.1.7 continued

Country	Arsenic dissolved	Atrazine	Bentazone	Benzene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Beta-HCH	Cadmium	Cadmium dissolved	Copper
AL												
AT		0.01	0.04									
BA												
BE		0.003	0.002	0.1	0.0015	0.0015	0.0015	0.0015		0.05		2
BG		0.01							0.006	0.02		0.5
CY										0.5		5
CZ		0.01	0.01	0.1	0.001	0.001	0.001	0.001	0.002	0.02		0.5
DE	0.0003	0.001	0.001	1	0.01	0.008	0.005	0.005			0.0001	
DK		0.01	0.01	0.02						0.004		0.04
EE												
ES												
FI												
FR		0.01	0.01	0.2	0.001	0.001	0.0016	0.001	0.005	0.05		0.15
GB		0.003	0.005	0.1	0.01	0.01	0.01	0.01	0.003	0.1	0.1	1
GR												
HR	0.5	0.02		0.5	0.005	0.005	0.005	0.005	0.002		0.01	
HU												
CH		0.01	0.02	0.05						0.2		1
IE												
IS	0.05			0.2	0.002	0.004	0.003	0.002			0.002	
IT		0.005	0.01	0.01	0.001	0.005	0.005	0.005	0.01	0.02	0.01	1
LI												
LT											0.3	
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL					0.01	0.01	0.02	0.01	0.01	0.05	0.05	
PT												
RO												
RS												
SE												
SI		0.009	0.009	0.2					0.0005	0.01		1
SK		0.01	0.01	0.1	0.0025	0.0075	0.015	0.0075		0.05		1
TR												
XK												

Table 2.1.7 continued

Country	Copper dissolved	DDD, p,p'	DDE, p,p'	DDT, o,p'	DDT, p,p'	Desethylatrazine	Desisopropylatrazine	Di (2-ethylhexyl) phthalate	Dieldrin	Dichloromethane	Diuron	Endrin
AL												
AT						0.01				20		
BA								0.01				
BE						0.005	0.01				0.001	
BG		0.01	0.006	0.01	0.006				0.01			0.01
CY												
CZ		0.002	0.002	0.002	0.002	0.01	0.01	1		0.1	0.01	
DE	0.0005					0.005	0.01			0.0001	0.002	
DK	0.04					0.01	0.01	0.1				
EE												
ES												
FI												
FR		0.005	0.005	0.005	0.005	0.01	0.01	0.1	0.003	0.5	0.01	0.005
GB	1		0.001	0.003	0.001	0.02	0.02	0.2	0.001		0.01	0.003
GR												
HR	0.6	0.05	0.05	0.002	0.05			0.01	0.002	0.05		0.002
HU												
CH						0.01	0.01				0.01	
IE												
IS	0.1									2		
IT	0.1	0.01	0.01	0.01	0.01	0.005	0.01		0.005	0.04	0.05	0.01
LI												
LT	1											
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL	0.05	0.001	0.001		0.01				0.001			0.005
PT												
RO												
RS												
SE												
SI		0.00032	0.00029	0.003	0.00098	0.004	0.04		0.00089	2	0.007	0.00072
SK					0.0125	0.01	0.01		0.0125	0.1	0.01	0.0125
TR												
XK												

Table 2.1.7 continued

Country	Fluoranthene	Gamma-HCH	Hexachlorobenzene	Hexachlorobutadiene	Chlorfenvinphos	Chloroalkanes C10-13	Chlorpyrifos	Chromium	Chromium dissolved	Indeno(1,2,3-cd)pyrene	Isodrin	Isoproturon
AL												
AT												
BA												
BE	0.0015	0.003	0.01					1	1	0.0015		0.001
BG		0.006					0.006	0.2			0.01	
CY							0.05	5				
CZ	0.001	0.002				0.5	0.004	0.5		0.001		0.01
DE	0.01	0.002		0.01				0.001	0.001	0.01		0.002
DK												
EE												
ES												
FI												
FR	0.005	0.005	0.002	0.005	0.01	0.2	0.01	0.2		0.0016	0.005	0.01
GB	0.01	0.003	0.001	0.003	0.01		0.002	0.5	0.5	0.01	0.001	0.01
GR												
HR	0.005	0.002	0.003	0.09	0.015		0.015		0.6	0.005	0.003	
HU												
CH								1				0.01
IE												
IS	0.005									0.003		
IT		0.1		0.005			0.01	0.01		0.005		0.05
LI												
LT									1			
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL	0.004	0.01			0.02			3	3	0.02		
PT												
RO												
RS												
SE												
SI		0.0005		0.001	0.002			0.4				0.008
SK	0.0015	0.0125	0.0125	0.1	0.01		0.01	1		0.015	0.0125	0.01
TR												
XK												

Table 2.1.7 continued

Country	Lead	Lead dissolved	Linuron	MCPA	Mecoprop	Mercury	Mercury dissolved	Naphthalene	Nickel	Nickel dissolved	Para-tert-octylphenol	Pentachlorobenzene
AL												
AT												
BA												
BE	0.1		0.01	0.001		0.05	0.05	0.005	2			
BG	0.2					0.17			0.5			
CY	5					0.5			1			
CZ	0.1		0.01	0.02		0.05		0.005	0.5			
DE		0.0002	0.01	0.02	0.001	0.005		0.1		0.001		
DK	0.025				0.01			0.02	0.03	0.03		
EE												
ES												
FI												
FR	0.2		0.01	0.01	0.01	0.05		0.005	0.2		0.04	0.005
GB	2	2	0.01	0.005	0.005	0.01		0.01	1	1		
GR												
HR		0.9					0.002	0.02		0.6		
HU												
CH	1			0.02	0.02			0.05	1			
IE												
IS		0.01					0.002	0.2		0.05		
IT	0.05	1	0.05	0.05	0.05	0.03			0.1	2		
LI												
LT		1								1		
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL		0.05				0.3	0.3		0.5	0.5		
PT												
RO												
RS												
SE												
SI	0.1		0.009	0.01	0.007	0.015			1			
SK	2			0.01		0.05		0.015	1		0.5	
TR												
XK												

Table 2.1.7 continued

Country	Pentachlorophenol	Prometryn	Propazine	Simazine	Terbuthylazine	Terbutryn	Tetrachloromethane	Trifluralin	Trichloromethane	Zinc	Zinc dissolved
AL											
AT				0.05							
BA											
BE	0.01		0.01	0.003	0.003		0.1	0.002	0.2	2	
BG			0.01	0.01				0.006		1	
CY			0.05	0.05				0.045			
CZ		0.01		0.01	0.01		0.1	0.005	0.1	2	
DE		0.01	0.001	0.002	0.001	0.01		0.01	0.0001		0.01
DK	0.02			0.01			0.02		0.02	0.5	0.5
EE											
ES											
FI											
FR	0.01	0.01	0.01	0.01	0.01	0.001	0.05	0.005	0.2	2	
GB	0.02	0.005	0.002	0.003		0.004	0.1	0.02	0.1	5	5
GR											
HR	0.015						0.1		0.3	0.6	0.6
HU											
CH			0.01	0.01	0.01	0.01	0.05		0.05	1	
IE											
IS									0.3		
IT		0.01	0.005	0.005	0.005	0.01	0.01	0.005	0.005	1	0.1
LI											
LT											10
LU											
LV											
ME											
MK											
MT											
NL											
NO											
PL											3
PT											
RO											
RS											
SE											
SI		0.01	0.009	0.009	0.015		0.05	0.01	0.1	9	
SK	0.1	0.01		0.01	0.01	0.01	0.1	0.01	0.1	1	
TR											
XK											

Table 2.1.8 Highest LOQs reported for groundwater by countries in 2010–2011

Country	1,1,1-trichloroethane	1,1,2,2-tetrachloroethene	1,1,2-trichloroethene	1,2-dichloroethane	2,4-D	4-nonylphenol	Alachlor	Aldrin	Alpha-Endosulfan	Alpha-HCH	Anthracene	Arsenic
AL												
AT												
BA	0.01	0.01										
BE	0.5	0.5	2	0.5	0.025						0.005	4
BG		1	1				0.04	0.01	0.01	0.01		100
CY		0.125	0.125				0.05					1
CZ		0.1	0.1	0.1	0.03		0.005			0.002	0.002	1
DE	0.2			1.5	0.05						0.02	4
DK	0.02	0.02	0.02									0.03
EE												
ES												
FI												
FR	3	2.5	2	10	0.12	0.1	0.1	0.05	0.1	0.1	0.01	10
GB	25	25	25	25	0.1			0.1	0.1	0.3	0.02	3
GR												
HR	0.1	0.3		5			0.1	0.01		0.01	0.005	0.5
HU												
CH	0.05	0.02	0.05		0.02		0.01					0.5
IE												
IS				1							0.005	
IT	1	1	1	3	0.05		0.1	0.1	0.05	0.1		5
LI												
LT												1
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL								0.002	0.001	0.01	0.004	2
PT												
RO												
RS												
SE												
SI	0.5	0.5	0.5	0.5	0.05		0.05	0.003	0.004	0.002		3
SK	0.1	0.1	0.1	0.1	0.01	0.5	0.01	0.0125			0.015	1
TR												
XK												

Table 2.1.8 continued

Country	Arsenic dissolved	Atrazine	Bentazone	Benzene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Beta-HCH	Cadmium	Cadmium dissolved	Copper
AL												
AT		0.05	0.04									
BA												
BE		0.025	0.025	0.25	0.005	0.005	0.005	0.005		1		20
BG		0.01							0.01	5		4
CY										0.5		5
CZ		0.02	0.03	0.1	0.002	0.002	0.002	0.002	0.002	0.2		2
DE	4	0.05	0.05	1	0.01	0.008	0.005	0.005			1	
DK		0.01	0.1	0.02						0.004		0.04
EE												
ES												
FI												
FR		0.1	0.1	1	0.015	0.015	0.015	0.015	0.05	2		10000
GB		0.3	0.1	25	0.5	0.5	0.5	0.5	0.3	0.5	2	2
GR												
HR	0.5	0.02		0.5	0.005	0.005	0.005	0.005	0.01		0.2	
HU												
CH		0.01	0.09	0.05						0.2		1
IE												
IS	0.05			0.2	0.002	0.004	0.003	0.002			0.002	
IT		0.1	0.1	1	0.02	0.01	0.01	0.01	0.01	1	1	10
LI												
LT											0.3	
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL					0.01	0.01	0.02	0.01	0.01	0.05	0.05	
PT												
RO												
RS												
SE												
SI		0.05	0.05	0.5					0.004	0.3		5
SK		0.01	0.01	0.1	0.0025	0.0075	0.015	0.0075		0.25		1
TR												
XK												

Table 2.1.8 continued

Country	Copper dissolved	DDD, p,p'	DDE, p,p'	DDT, o,p'	DDT, p,p'	Desethylatrazine	Desisopropylatrazine	Di (2-ethylhexyl) phthalate	Dieldrin	Dichloromethane	Diuron	Endrin
AL												
AT						0.05				20		
BA								0.01				
BE						0.025	0.025				0.025	
BG		0.05	0.01	0.05	0.01				0.01			0.01
CY												
CZ		0.002	0.002	0.002	0.002	0.02	0.02	1.5		0.1	0.02	
DE	10					0.05	0.05			10	0.05	
DK	0.04					0.01	0.01	0.1				
EE												
ES												
FI												
FR		0.05	0.05	0.05	0.1	0.1	0.1	1	0.05	40	0.1	0.05
GB	20		0.1	0.3	0.1	2	2	0.2	0.1		0.5	0.3
GR												
HR	3	0.05	0.05	0.003	0.05			0.01	0.05	1.5		0.05
HU												
CH						0.01	0.01				0.01	
IE												
IS	0.1									2		
IT	10	0.05	0.1	0.1	0.1	0.1	0.05		0.1	10	0.05	0.1
LI												
LT	1											
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL	0.05	0.001	0.001		0.01				0.001			0.005
PT												
RO												
RS												
SE												
SI		0.004	0.004	0.005	0.005	0.05	0.05		0.004	5	0.05	0.005
SK					0.0125	0.01	0.01		0.0125	0.1	0.01	0.0125
TR												
XK												

Table 2.1.8 continued

Country	Fluoranthene	Gamma-HCH	Hexachlorobenzene	Hexachlorobutadiene	Chlorfenvinphos	Chloroalkanes C10-13	Chlorpyrifos	Chromium	Chromium dissolved	Indeno(1,2,3-cd)pyrene	Isodrin	Isoproturon
AL												
AT												
BA												
BE	0.007	0.01	2					4	1	0.005		0.025
BG		0.01					0.03	10			0.01	
CY							0.05	5				
CZ	0.002	0.002				0.5	0.03	1		0.002		0.02
DE	0.01	0.05		0.01				5	3	0.01		0.05
DK												
EE												
ES												
FI												
FR	0.015	0.1	0.1	1	0.05	10	0.1	10		0.015	0.05	0.1
GB	0.02	0.3	0.1	0.3	1		0.2	5	10	0.5	0.1	0.05
GR												
HR	0.005	0.01	0.01	0.09	0.03		0.03		2	0.005	0.05	
HU												
CH								1				0.01
IE												
IS	0.005									0.003		
IT		0.1		0.1			0.1	10		0.01		0.05
LI												
LT									1			
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL	0.004	0.01			0.02			3	3	0.02		
PT												
RO												
RS												
SE												
SI		0.003		0.04	0.05			3				0.05
SK	0.0015	0.0125	0.0125	0.1	0.01		0.01	1		0.015	0.0125	0.01
TR												
XK												

Table 2.1.8 continued

Country	Lead	Lead dissolved	Linuron	MCPA	Mecoprop	Mercury	Mercury dissolved	Naphthalene	Nickel	Nickel dissolved	Para-tert-octylphenol	Pentachlorobenzene
AL												
AT												
BA												
BE	5		0.01	0.025		2.5	0.05	0.5	5			
BG	6					1			5			
CY	5					0.5			1			
CZ	0.5		0.02	0.03		0.05		0.05	2			
DE		10	0.05	0.05	0.05	0.06		0.1		5		
DK	0.025				0.1			0.02	0.03	0.03		
EE												
ES												
FI												
FR	5		0.1	0.05	0.1	0.5		1	5000		0.1	10
GB	10	40	0.05	0.1	0.1	0.01		0.5	5	20		
GR												
HR		2					0.3	0.02		5		
HU												
CH	1			0.02	0.02			0.05	1			
IE												
IS		0.01					0.002	0.2		0.05		
IT	10	5	0.1	0.05	0.05	1			10	5		
LI												
LT		1								18		
LU												
LV												
ME												
MK												
MT												
NL												
NO												
PL		0.05				0.3	0.3		5	5		
PT												
RO												
RS												
SE												
SI	2		0.05	0.05	0.05	0.2			3			
SK	2			0.01		0.05		0.015	1		0.5	
TR												
XK												

Table 2.1.8 continued

Country	Pentachlorophenol	Prometryn	Propazine	Simazine	Terbuthylazine	Terbutryn	Tetrachloromethane	Trifluralin	Trichloromethane	Zinc	Zinc dissolved
AL											
AT				0.05							
BA											
BE	0.06		0.01	0.025	0.025		0.5	0.01	0.5	20	
BG			0.01	0.01				0.04		20	
CY			0.05	0.05				0.045			
CZ		0.03		0.02	0.01		0.1	0.03	0.1	5	
DE		0.05	0.05	0.05	0.06	0.05		0.01	1		30
DK	0.02			0.1			0.02		0.02	0.5	0.5
EE											
ES											
FI											
FR	0.1	0.05	0.05	0.1	0.1	0.05	3	0.1	5	10000	
GB	2	0.5	0.2	0.3		0.4	25	2	25	10	100
GR											
HR	0.1						0.3		1	10	20
HU											
CH			0.01	0.01	0.01	0.01	0.05		0.05	1	
IE											
IS									0.3		
IT		0.1	0.1	0.1	0.1	0.1	1	0.1	1	100	30
LI											
LT											10
LU											
LV											
ME											
MK											
MT											
NL											
NO											
PL											3
PT											
RO											
RS											
SE											
SI		0.05	0.05	0.05	0.05		0.2	0.05	2	20	
SK	0.1	0.01		0.01	0.01	0.01	0.1	0.01	0.1	1.5	
TR											
XK											

Table 2.1.9 Number of groundwater excluded values in the 2002–2011 period

Substance	BE	BG	DE	FR	GB	HR	IE	IT	LT	PT	Total
1,1,2,2-tetrachloroethene					3						3
1,1,2-trichloroethene					3						3
1,2-Dichloroethane	1			1070	9	8					1088
2,4-D				2							2
Alachlor				1							1
Aldrin				10	4			45			59
Alpha-HCH					2						2
Arsenic		7	2	12			2				23
Arsenic dissolved							2				2
Atrazine				2	8				9		19
Bentazone					14		2				16
Benzene	1			127	468						596
Benzo(a)pyrene	2			48	418		8	3			479
Beta-HCH					1						1
Cadmium		6									6
Cadmium dissolved		11	3								14
Copper				10							10
DDT, o,p'					4						4
Desethylatrazine				3	8						11
Desisopropylatrazine				2	8						10
Dieldrin		1		1500	4	9	6	45			1565
Diuron				2	11						13
Endrin					4						4
Gamma-HCH (Lindane)					4						4
Hexachlorobenzene	16			578							594
Chlorfenvinphos					3				10		13
Chlorpyrifos					2				10		12
Chromium				15							15
Isoproturon				1	9						10
Lead										23	23
Lead dissolved		23	5		1						29
Linuron					12						12
MCPA					15						15
Mecoprop					16		2				18
Mercury	2	15									17
Mercury dissolved							1				1
Nickel			15	34							49
Nickel dissolved		22									22
Prometryn					3				10		13
Propazine				1	3				10		14
Simazine				1	7				10		18
Terbuthylazine				1							1
Terbutryn					4						4
Trifluralin					7				10		17

Table 2.1.10 Number of groundwater excluded values in the 2010–2011 period

Substance	BE	BG	FR	GB	HR	IE	IT	PT	Total
1,1,2,2-tetrachloroethene				1					1
1,1,2-trichloroethene				1					1
1,2-Dichloroethane			12	1	8				21
2,4-D			1						1
Aldrin			1	2			45		48
Alpha-HCH				2					2
Arsenic		6							6
Atrazine				2					2
Benzene				1					1
Benzo(a)pyrene			16	204			3		223
Beta-HCH				1					1
Copper			8						8
DDT, o,p'				2					2
Desethylatrazine				4					4
Desisopropylatrazine				4					4
Dieldrin			1	2	4		45		52
Diuron				1					1
Endrin				2					2
Gamma-HCH (Lindane)				2					2
Hexachlorobenzene	3								3
Chlorfenvinphos				2					2
Chlorpyrifos				2					2
Lead								23	23
Lead dissolved				1					1
Mercury	1								1
Mercury dissolved						1			1
Nickel			5						5
Prometryn				2					2
Propazine				2					2
Simazine				2					2
Terbutryn				2					2
Trifluralin				4					4

Table 2.3.2 LOQs reported for rivers throughout Europe in 2002–2011

Substances	Number of various LODs	Lowest LOD (µg/l)	Highest LOD (µg/l)	Number of various LOQs	Lowest LOQ (µg/l)	Highest LOQ (µg/l)
1,1,2,2-tetrachloroethene	30	0,001	10	56	0,0002	10
1,2-dichloroethane	29	0,001	10	46	0,001	10
4-nonylphenol	8	0,003	0,1	14	0,01	0,3
Alachlor	26	0,00075	0,3	32	0,0003	0,25
Anthracene	39	0,00001	0,05	28	0,0002	0,1
Atrazine	42	0,0005	0,6	67	0,001	0,555
Benzene	29	0,01	10	33	0,005	10
Benzo(a)pyrene	52	0	0,05	40	0	0,05
Cadmium	36	0	0,25	108	0,00001	0,25
Cadmium dissolved	17	0,002	0,2	23	0,007	0,2
Chlorfenvinphos	18	0,00015	0,1	29	0,0005	0,1
Chlorpyrifos	18	0,00005	0,03	27	0,00013	0,03
DDT, p,p'	17	0,00001	0,01	31	0,00001	0,01
Di (2-ethylhexyl) phthalate (DEHP)	22	0,003	1,294	58	0,005	1,3
Dichloromethane	27	0,001	20	43	0,00125	20
Diuron	25	0,001	0,2	34	0,0025	0,2
Endosulfan	5	0,002	0,005	9	0,0005	0,005
Fluoranthene	46	0,00003	0,096	35	0,0002	0,1
Hexachlorobenzene (HCB)	14	0,0001	0,01	31	0,00004	0,01
Hexachlorobutadiene (HCBD)	13	0,0002	0,1	29	0,00006	0,1
Hexachlorocyclohexane (HCH)	13	0,00001	0,015	10	0,0003	0,02
Isoproturon	18	0,0005	0,25	30	0,0003	0,3
Lead	113	0	7	307	0,00001	7
Lead dissolved	26	0,002	2	107	0,007	6
Mercury	41	0	0,05	91	0,00001	0,05
Mercury dissolved	11	0,0016	0,05	17	0,0005	0,05
Naphthalene	50	0,00001	2	45	0,0005	2
Nickel	88	0	20	355	0,00001	20
Nickel dissolved	25	0,001	10	115	0,0037	10
Para-tert-octylphenol	10	0,002	0,1	21	0,005	0,1
Pentachlorobenzene	8	0,0002	0,007	15	0,00005	0,007
Pentachlorophenol	21	0,0005	0,3	32	0,00006	0,4
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin	12	0,00015	0,01	24	0,0001	0,01
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'	19	0,00001	0,025	38	0,00001	0,025
SUM HCH	19	0,00001	0,02	35	0,00001	0,02
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene	41	0,00004	0,029	25	0,0004	0,03
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	24	0,00002	0,002	21	0,00006	0,002
Simazine	28	0,0015	0,5	56	0,0005	1
Tributyltin cation	1	0,0002	0,0002	7	0,00005	0,0002
Trichloromethane	27	0,001	2,5	47	0,0025	2,5
Trifluralin	15	0,0005	0,03	35	0,0001	0,03

Table 2.3.3 Number of various LOQs reported for rivers by countries in 2002–2011

Substances	AL	AT	BA	BE	BG	CH	CY	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE	IS
1,1,2,2-tetrachloroethene	0	0	0	9	0	0	0	0	18	0	0	1	0	9	4	0	4	0	1	0
1,2-dichloroethane	0	3	1	8	0	0	1	4	16	0	0	1	0	11	7	0	3	0	3	0
4-nonylphenol	0	0	1	5	0	0	0	0	0	0	0	1	0	7	0	0	0	0	1	0
Alachlor	0	9	3	4	0	0	2	5	9	0	0	1	1	10	0	0	3	0	1	1
Anthracene	0	1	9	9	0	0	0	0	11	0	0	0	1	6	5	3	4	0	2	0
Atrazine	0	8	6	11	1	0	1	25	15	0	0	0	1	9	16	1	15	0	2	1
Benzene	0	5	1	7	0	0	1	8	18	0	0	1	0	7	6	2	4	0	3	0
Benzo(a)pyrene	0	0	6	8	0	0	0	10	9	0	0	1	1	7	12	0	4	0	2	0
Cadmium	0	11	6	5	3	2	1	12	8	0	4	0	5	9	72	0	12	0	3	2
Cadmium dissolved	0	2	0	4	0	1	0	0	10	0	0	1	0	6	2	0	3	0	0	0
Chlorfenvinphos	0	0	2	1	0	0	1	0	11	0	0	0	1	14	14	0	3	0	1	1
Chlorpyrifos	0	2	2	6	3	0	1	9	7	0	0	0	1	16	3	0	4	0	0	0
DDT, p,p'	0	0	1	2	0	0	2	6	12	0	0	0	1	14	15	0	11	0	0	1
Di (2-ethylhexyl) phthalate (DEHP)	0	2	1	6	0	0	0	0	14	0	0	0	0	9	36	0	0	0	2	0
Dichloromethane	0	4	2	11	0	0	0	0	17	0	0	1	0	8	9	0	3	0	2	0
Diuron	0	3	3	10	0	0	1	2	11	0	0	1	1	8	9	2	1	0	2	0
Endosulfan	0	0	0	2	0	0	0	1	0	0	0	0	0	7	1	0	1	0	0	0
Fluoranthene	0	0	5	10	0	0	0	4	10	0	0	0	1	7	12	3	5	0	3	0
Hexachlorobenzene (HCB)	0	0	1	2	0	0	2	8	11	0	0	0	1	11	13	0	3	0	1	1
Hexachlorobutadiene (HCBD)	0	0	1	4	0	0	1	5	19	0	0	0	1	10	9	0	4	0	2	1
Hexachlorocyclohexane (HCH)	0	0	0	0	0	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0
Isoproturon	0	3	1	10	0	0	1	3	12	0	0	1	1	7	7	2	1	0	2	0
Lead	0	27	6	13	9	2	7	4	0	0	4	0	5	11	198	0	25	1	5	0
Lead dissolved	0	3	0	5	0	1	0	0	12	0	0	1	0	4	84	0	6	0	0	0
Mercury	0	7	1	13	0	2	0	4	9	0	2	0	3	6	44	0	1	0	2	3
Mercury dissolved	0	0	0	7	0	1	0	0	6	0	0	0	0	3	2	0	1	0	0	0
Naphthalene	0	1	3	13	0	0	2	0	21	0	0	0	1	13	5	3	5	0	3	0
Nickel	0	13	6	25	6	1	7	11	0	0	1	0	4	6	209	0	40	1	6	0
Nickel dissolved	0	1	0	4	0	1	0	0	14	0	0	1	0	3	92	0	5	0	0	0
Para-tert-octylphenol	0	0	1	11	0	0	0	0	4	0	0	0	1	9	2	0	0	0	1	0
Pentachlorobenzene	0	1	0	1	0	0	0	0	7	0	0	0	0	9	1	0	1	0	1	0
Pentachlorophenol	0	1	2	6	0	0	0	0	12	0	0	1	0	12	11	0	3	0	1	0
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin	0	1	1	4	3	0	2	4	0	0	0	0	0	11	22	0	7	0	1	1
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'	0	0	1	3	0	0	2	11	0	0	0	0	2	13	15	0	13	0	0	1
SUM HCH	0	0	1	8	4	0	1	8	0	0	0	0	1	15	17	0	8	0	0	1
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene	0	0	7	4	0	0	0	7	0	0	0	0	1	5	7	0	4	0	2	0
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	0	0	2	2	0	0	0	7	0	0	0	0	0	7	0	0	1	0	1	0
Simazine	0	10	5	7	3	0	4	12	12	0	0	0	1	13	16	0	1	0	2	1
Tributyltin cation	0	0	0	0	0	0	0	0	3	0	0	0	0	6	0	0	0	0	0	0
Trichloromethane	0	4	1	12	0	0	1	0	16	0	0	0	0	8	5	0	5	0	1	0
Trifluralin	0	1	1	4	0	0	1	11	10	0	0	0	1	13	20	1	0	0	0	0

Table 2.3.3 continued

Substances	IT	LI	LT	LU	LV	ME	MK	NL	NO	PL	PT	RO	RS	SE	SI	SK	TR	XK
1,1,2,2-tetrachloroethene	36	0	3	2	0	0	0	2	0	0	0	2	0	0	0	3	0	0
1,2-dichloroethane	21	0	0	3	0	0	0	2	0	0	0	0	0	0	1	2	0	0
4-nonylphenol	3	0	0	2	0	0	0	0	0	0	0	1	0	0	3	2	0	0
Alachlor	15	0	0	3	0	0	0	1	0	0	4	3	1	0	5	3	0	0
Anthracene	7	0	0	3	2	0	0	1	0	0	3	3	0	0	4	2	0	0
Atrazine	14	0	0	1	0	0	0	1	0	0	3	5	1	5	5	5	0	0
Benzene	11	0	0	3	2	0	0	3	0	0	1	1	0	0	2	2	0	0
Benzo(a)pyrene	6	0	1	2	2	0	0	2	0	0	4	3	0	0	1	5	0	0
Cadmium	15	0	6	1	11	0	0	2	7	0	2	9	1	38	5	5	0	0
Cadmium dissolved	1	0	0	0	0	0	0	2	0	0	0	6	2	0	3	7	0	0
Chlorfenvinphos	8	0	0	2	0	0	0	2	0	0	1	3	1	0	5	3	0	0
Chlorpyrifos	6	0	0	1	0	0	0	1	0	0	0	3	1	2	4	3	0	0
DDT, p,p'	3	0	2	1	2	0	0	2	0	0	0	3	1	0	3	0	0	0
Di (2-ethylhexyl) phthalate (DEHP)	3	0	0	3	0	0	0	1	0	0	0	0	0	0	3	2	0	0
Dichloromethane	15	0	1	2	0	0	0	2	0	1	0	2	0	0	3	2	0	0
Diuron	11	0	0	2	0	0	0	1	0	0	1	2	1	5	3	4	0	0
Endosulfan	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Fluoranthene	8	0	1	3	2	0	0	2	0	0	2	2	0	0	2	3	0	0
Hexachlorobenzene (HCB)	5	0	1	1	2	0	0	2	0	0	0	3	1	0	5	1	0	0
Hexachlorobutadiene (HCBD)	7	0	0	2	0	0	0	2	0	0	0	2	0	0	4	2	0	0
Hexachlorocyclohexane (HCH)	5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
Isoproturon	6	0	0	2	0	0	0	3	0	0	0	2	1	4	3	3	0	0
Lead	49	0	11	1	23	0	0	3	6	0	6	14	1	43	4	4	0	0
Lead dissolved	7	0	0	0	0	0	0	3	0	0	0	12	3	0	3	4	0	1
Mercury	6	0	5	0	1	0	0	3	5	0	4	7	0	26	4	4	0	0
Mercury dissolved	0	0	0	0	0	0	0	4	0	0	0	6	0	0	3	3	0	0
Naphthalene	14	0	0	3	0	0	0	1	0	0	4	2	0	0	2	2	0	0
Nickel	77	0	2	1	17	0	0	0	6	0	1	16	0	51	1	7	0	0
Nickel dissolved	6	0	0	0	0	0	0	0	0	0	0	12	3	0	2	6	0	1
Para-tert-octylphenol	5	0	0	2	0	0	0	1	0	0	0	1	0	0	3	1	0	0
Pentachlorobenzene	4	0	0	0	0	0	0	2	0	0	0	3	0	0	3	0	0	0
Pentachlorophenol	9	0	1	3	0	0	0	1	0	0	1	0	1	0	3	3	0	0
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin	4	0	2	1	1	0	0	2	0	0	0	0	1	0	5	0	0	0
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'	6	0	2	1	2	0	0	1	0	0	0	0	1	0	3	2	0	0
SUM HCH	5	0	3	2	1	0	0	1	0	0	0	0	1	7	4	2	0	0
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene	8	0	1	4	0	0	0	3	0	0	0	0	0	0	2	2	0	0
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	11	0	0	1	0	0	0	5	0	0	0	0	0	0	0	3	0	0
Simazine	26	0	0	1	0	0	0	1	0	0	0	3	1	3	5	4	0	0
Tributyltin cation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Trichloromethane	25	0	0	2	0	0	0	2	0	0	0	1	0	0	2	3	0	0
Trifluralin	7	0	0	2	0	0	0	1	0	0	0	0	1	1	4	2	0	0

Table 2.3.4 Lowest LOQs (µg/l) reported for rivers by countries in 2002–2011

Substances	AL	AT	BA	BE	BG	CH	CY	CZ	DE	DK	EE	ES	FI
1,1,2,2-tetrachloroethene				0,063					0,0002			1,6	
1,2-dichloroethane		0,1	3	0,039			0,0625	0,025	0,01			1,4	
4-nonylphenol			0,1	0,024								0,1	
Alachlor		0,0015	0,01	0,006			0,025	0,001	0,0003			0,1	0,01
Anthracene		0,005	0,001	0,0005					0,0002				0,0025
Atrazine		0,003	0,01	0,003	0,01		0,025	0,002	0,001				0,005
Benzene		0,015	1	0,025			0,0625	0,025	0,01			5	
Benzo(a)pyrene			0,001	0,001				0,0005	0,0002			0,05	0,005
Cadmium		0,01	0,0006	0,025	0,05	0,01	0,1	0,025	0,01		0,005		0,005
Cadmium dissolved		0,1		0,02		0,02			0,0083			0,029	
Chlorfenvinphos			0,04	0,01			0,025		0,001				0,01
Chlorpyrifos		0,00013	0,004	0,005	0,005		0,0125	0,001	0,0005				0,01
DDT, p,p'			0,01	0,001			0,002	0,0005	0,0001				0,01
Di (2-ethylhexyl) phthalate (DEHP)		0,0125	0,1	0,1					0,05				
Dichloromethane		0,1	0,4	0,063					0,01			10	
Diuron		0,01	0,013	0,006			0,025	0,01	0,005			0,098	0,01
Endosulfan				0,002				0,002					
Fluoranthene			0,003	0,005				0,001	0,0007				0,0025
Hexachlorobenzene (HCB)			0,01	0,001			0,00015	0,0005	0,00004				0,01
Hexachlorobutadiene (HCBD)			0,1	0,001			0,0625	0,001	0,00006				0,01
Hexachlorocyclohexane (HCH)							0,0003						
Isoproturon		0,01	0,1	0,003			0,025	0,01	0,0003			0,075	0,01
Lead		0,02	0,04	0,5	0,05	0,1	0,42	0,2			0,001		0,01
Lead dissolved		0,25		0,1		0,1			0,0083			0,38	
Mercury		0,015	0,04	0,005		0,01		0,025	0,001		0,03		0,001
Mercury dissolved				0,0066		0,01			0,001				
Naphthalene		0,025	0,003	0,005			0,125		0,001				0,0025
Nickel		0,02	0,001	0,3	0,05	0,5	0,1	0,25			1		0,1
Nickel dissolved		1		0,5		0,5			0,0137			0,32	
Para-tert-octylphenol			0,1	0,025					0,005				0,03
Pentachlorobenzene		0,005		0,002					0,00009				
Pentachlorophenol		0,01	0,05	0,01					0,001			0,2	
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin		0,005	0,01	0,001	0,0015		0,0015	0,0005					
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'			0,01	0,001			0,0025	0,0005					0,01
SUM HCH			0,01	0,001	0,001		0,0003	0,0005					0,01
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene			0,001	0,001				0,0005					0,005
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene			0,001	0,001				0,0005					
Simazine		0,0015	0,04	0,003	0,005		0,005	0,002	0,001				0,01
Tributyltin cation									0,00005				
Trichloromethane		0,025	0,4	0,041			0,0625		0,003				
Trifluralin		0,01	0,01	0,002			0,005	0,001	0,0005				0,01

Table 2.3.4 continued

Substances	FR	GB	GR	HR	HU	IE	IS	IT	LI	LT	LU	LV
1,1,2,2-tetrachloroethene	0,025	0,1		0,01		0,5		0,0025		0,1	0,3	
1,2-dichloroethane	0,025	0,05		0,2		0,1		0,005			0,7	
4-nonylphenol	0,02					0,01		0,01			0,02	
Alachlor	0,0025			0,003		0,005	0,01	0,002			0,005	
Anthracene	0,0005	0,006	0,0002	0,001		0,0025		0,0005			0,002	0,014
Atrazine	0,0025	0,0015	0,025	0,0025		0,005	0,01	0,002			0,03	
Benzene	0,005	0,05	0,1	0,114		0,1		0,005			0,3	1
Benzo(a)pyrene	0,0005	0,005		0,005		0,001		0,0005		0,001	0,001	0,0135
Cadmium	0,005	0,005		0,003		0,02	0,00101	0,002		0,00001	0,03	0,02
Cadmium dissolved	0,02	0,056		0,01				0,024				
Chlorfenvinphos	0,0005	0,001		0,015		0,01	0,01	0,001			0,02	
Chlorpyrifos	0,0002	0,002		0,006				0,002			0,02	
DDT, p,p'	0,0005	0,0001		0,00025			0,01	0,002		0,00001	0,01	0,0005
Di (2-ethylhexyl) phthalate (DEHP)	0,025	0,115				0,025		0,005			0,05	
Dichloromethane	0,00125	0,5		0,1		0,1		0,005		0,1	0,3	
Diuron	0,0025	0,01	0,01	0,033		0,015		0,0025			0,02	
Endosulfan	0,0005	0,00156		0,0015								
Fluoranthene	0,0005	0,005	0,0002	0,005		0,0025		0,0005		0,0025	0,002	0,0285
Hexachlorobenzene (HCB)	0,0005	0,0001		0,003		0,005	0,005	0,001		0,0008	0,01	0,0005
Hexachlorobutadiene (HCBD)	0,0025	0,00047		0,01		0,005	0,01	0,0025			0,005	
Hexachlorocyclohexane (HCH)	0,0025							0,0005				
Isoproturon	0,0025	0,01	0,01	0,025		0,015		0,0025			0,01	
Lead	0,1	0,045		0,025	3,9	0,25		0,01		0,00001	0,17	0,2
Lead dissolved	0,05	0,04		0,007				0,5				
Mercury	0,0025	0,0025		0,002		0,025	0,001	0,005		0,00001		0,04
Mercury dissolved	0,015	0,005		0,002								
Naphthalene	0,0005	0,01	0,005	0,005		0,1		0,0005			0,002	
Nickel	0,25	0,13		0,15	0,5	0,25		0,01		0,00001	1,7	1,4
Nickel dissolved	0,5	0,15		0,066				0,5				
Para-tert-octylphenol	0,005	0,05				0,01		0,005			0,02	
Pentachlorobenzene	0,0005	0,001		0,002		0,005		0,0005				
Pentachlorophenol	0,00125	0,005		0,015		0,005		0,01		0,01	0,005	
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin	0,0005	0,0001		0,00025		0,005	0,01	0,001		0,00065	0,01	0,0005
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'	0,0005	0,0001		0,00025			0,01	0,002		0,00001	0,01	0,0005
SUM HCH	0,00025	0,0001		0,00025			0,01	0,0005		0,00001	0,005	0,001
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene	0,0005	0,01		0,005		0,0025		0,0004		0,001	0,003	
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	0,0004			0,0007		0,001		0,00006			0,002	
Simazine	0,0005	0,0015		0,015		0,005	0,01	0,001			0,05	
Tributyltin cation	0,00005											
Trichloromethane	0,015	0,1		0,05		0,5		0,0025			0,3	
Trifluralin	0,0025	0,0001	0,009					0,002			0,005	

Table 2.3.4 continued

Substances	ME	MK	NL	NO	PL	PT	RO	RS	SE	SI	SK	TR	XK
1,1,2,2-tetrachloroethene			0,01				5				0,25		
1,2-dichloroethane			0,01							0,2	0,35		
4-nonylphenol							0,01			0,01	0,05		
Alachlor			0,01			0,005	0,002	0,01		0,007	0,004		
Anthracene			0,01			0,002	0,0099			0,002	0,0025		
Atrazine			0,01			0,05	0,0075	0,005	0,001	0,0045	0,003		
Benzene			0,01			0,67	10			0,1	0,15		
Benzo(a)pyrene			0,005			0	0,0012			0,004	0,001		
Cadmium			0,04	0,005		0,1	0,007	0,1	0,001	0,003	0,025		
Cadmium dissolved			0,04				0,007	0,01		0,01	0,042		
Chlorfenvinphos			0,01			0,015	0,02	0,005		0,001	0,0025		
Chlorpyrifos			0,01				0,0125	0,005	0,001	0,001	0,0025		
DDT, p,p'			0,0001				0,002	0,0025		0,00098			
Di (2-ethylhexyl) phthalate (DEHP)			1							0,1	0,1		
Dichloromethane			0,02		6		6			2	0,25		
Diuron			0,01			0,05	0,035	0,01	0,005	0,007	0,003		
Endosulfan			0,0005										
Fluoranthene			0,005			0,002	0,0099			0,003	0,0022		
Hexachlorobenzene (HCB)			0,0005				0,00075	0,0025		0,001	0,01		
Hexachlorobutadiene (HCBD)			0,005				0,001			0,0005	0,05		
Hexachlorocyclohexane (HCH)										0,001			
Isoproturon			0,01				0,017	0,01	0,005	0,008	0,003		
Lead			0,1	0,005		1,5	0,0073	0,25	0,01	0,006	0,33		
Lead dissolved			0,1				0,0073	0,1		0,05	0,66		1
Mercury			0,001	0,001		0,0001	0,005		0,00058	0,00008	0,003		
Mercury dissolved			0,0005				0,005			0,00166	0,003		
Naphthalene			0,1			0,002	0,015			0,005	0,15		
Nickel				0,05		5	0,0037		0,025	0,5	0,5		
Nickel dissolved							0,0037	0,25		0,1	1		1
Para-tert-octylphenol			0,005				0,015			0,008	0,05		
Pentachlorobenzene			0,00005				0,001			0,001			
Pentachlorophenol			0,1			0,00006		0,1		0,025	0,025		
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin			0,0005					0,0025		0,001			
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'			0,001					0,0025		0,0025	0,0115		
SUM HCH			0,0001					0,0025	0,001	0,0005	0,01		
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene			0,0005							0,004	0,0025		
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene			0,0005								0,001		
Simazine			0,01				0,0125	0,005	0,005	0,009	0,003		
Tributyltin cation										0,0002			
Trichloromethane			0,01				1			0,1	0,9		
Trifluralin			0,01					0,015	0,02	0,005	0,0025		

Table 2.3.5 Highest LOQs (µg/l) reported for rivers by countries in 2002–2011

Substances	AL	AT	BA	BE	BG	CH	CY	CZ	DE	DK	EE	ES	FI
1,1,2,2-tetrachloroethene				1,68					0,5			1,6	
1,2-dichloroethane		1,5	3	8,61			0,0625	10	10			1,4	
4-nonylphenol			0,1	0,083								0,1	
Alachlor		0,05	0,1	0,02			0,03	0,01	0,05			0,1	0,01
Anthracene		0,005	0,1	0,037					0,03				0,0025
Atrazine		0,05	0,1	0,07	0,01		0,025	0,02	0,1				0,005
Benzene		2,5	1	0,48			0,0625	10	10			5	
Benzo(a)pyrene			0,02	0,032				0,002	0,02			0,05	0,005
Cadmium		0,2	0,1	0,2	0,1	0,02	0,1	0,15	0,12		0,1		0,1
Cadmium dissolved		0,2		0,2		0,02			0,1			0,029	
Chlorfenvinphos			0,1	0,01			0,025		0,05				0,01
Chlorpyrifos		0,00025	0,02	0,03	0,03		0,0125	0,01	0,025				0,01
DDT, p,p'			0,01	0,002			0,004	0,01	0,01				0,01
Di (2-ethylhexyl) phthalate (DEHP)		0,025	0,1	0,97					0,5				
Dichloromethane		1,5	2	1,6					10			10	
Diuron		0,025	0,1	0,19			0,025	0,02	0,2			0,098	0,01
Endosulfan				0,004				0,002					
Fluoranthene			0,1	0,093				0,005	0,02				0,0025
Hexachlorobenzene (HCB)			0,01	0,002			0,0003	0,002	0,01				0,01
Hexachlorobutadiene (HCBD)			0,1	0,049			0,0625	0,1	0,1				0,01
Hexachlorocyclohexane (HCH)							0,0006						
Isoproturon		0,025	0,1	0,3			0,025	0,05	0,2			0,075	0,01
Lead		1	3	7	6	0,25	5	3			1		1
Lead dissolved		1		2		0,1			6			0,38	
Mercury		0,05	0,04	0,05		0,05		0,05	0,05		0,05		0,05
Mercury dissolved				0,05		0,01			0,05				
Naphthalene		0,025	0,02	0,258			0,25		2				0,0025
Nickel		1	10	12,8	5	0,5	1,7	1,95			1		1
Nickel dissolved		1		5		0,5			10			0,32	
Para-tert-octylphenol			0,1	0,1					0,03				0,03
Pentachlorobenzene		0,005		0,002					0,005				
Pentachlorophenol		0,01	0,1	0,06					0,15			0,2	
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin		0,005	0,01	0,006	0,01		0,003	0,005					
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'			0,01	0,004			0,005	0,01					0,02
SUM HCH			0,01	0,018	0,01		0,0003	0,002					0,01
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene			0,02	0,01				0,002					0,005
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene			0,002	0,002				0,002					
Simazine		0,05	0,1	0,174	0,02		0,025	0,02	0,1				0,01
Tributyltin cation									0,0002				
Trichloromethane		0,25	0,4	1,38			0,0625		1				
Trifluralin		0,01	0,01	0,007			0,005	0,01	0,03				0,01

Table 2.3.5 continued

Substances	FR	GB	GR	HR	HU	IE	IS	IT	LI	LT	LU	LV	ME
1,1,2,2-tetrachloroethene	2,5	2		0,3		0,5		10		0,2	0,5		
1,2-dichloroethane	10	4,2		5		1		3			5		
4-nonylphenol	0,3					0,01		0,1			0,1		
Alachlor	0,25			0,1		0,005	0,01	0,1			0,25		
Anthracene	0,05	0,1	0,01	0,023		0,033		0,04			0,1	0,028	
Atrazine	0,1	0,244	0,025	0,555		0,05	0,01	0,1			0,03		
Benzene	1	3	1,5	2		1		1			1	2	
Benzo(a)pyrene	0,05	0,05		0,015		0,017		0,01		0,001	0,002	0,027	
Cadmium	0,25	0,149		0,2		0,1	0,002	0,25		0,087	0,03	0,2	
Cadmium dissolved	0,2	0,1		0,2				0,024					
Chlorfenvinphos	0,1	0,08		0,03		0,01	0,01	0,1			0,05		
Chlorpyrifos	0,03	0,012		0,03				0,03			0,02		
DDT, p,p'	0,01	0,01		0,01			0,01	0,01		0,0006	0,01	0,001	
Di (2-ethylhexyl) phthalate (DEHP)	1	1,01				1,3		0,1			0,75		
Dichloromethane	20	3,3		1,5		0,5		10		0,1	10		
Diuron	0,05	0,148	0,025	0,033		0,05		0,14			0,05		
Endosulfan	0,005	0,00156		0,0015									
Fluoranthene	0,05	0,1	0,01	0,021		0,05		0,1		0,0025	0,1	0,057	
Hexachlorobenzene (HCB)	0,01	0,01		0,01		0,005	0,005	0,01		0,0008	0,01	0,001	
Hexachlorobutadiene (HCBD)	0,1	0,03		0,06		0,1	0,01	0,1			0,01		
Hexachlorocyclohexane (HCH)	0,0075							0,02					
Isoproturon	0,05	0,203	0,025	0,025		0,05		0,05			0,02		
Lead	5	6,18		6,8	3,9	5		7		0,98	0,17	1,62	
Lead dissolved	1	4		3				6					
Mercury	0,05	0,042		0,002		0,05	0,002	0,05		0,025		0,04	
Mercury dissolved	0,05	0,01		0,002									
Naphthalene	1	0,405	0,03	0,042		0,5		2			0,024		
Nickel	10	16,8		17,3	0,5	5		20		0,80001	1,7	3	
Nickel dissolved	5	10		3				10					
Para-tert-octylphenol	0,1	0,1				0,01		0,1			0,05		
Pentachlorobenzene	0,006	0,001		0,002		0,005		0,007					
Pentachlorophenol	0,25	0,16		0,1		0,005		0,4		0,01	0,01		
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin	0,01	0,01		0,01		0,005	0,01	0,01		0,003	0,01	0,0005	
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'	0,0224	0,0126		0,015			0,01	0,025		0,0006	0,01	0,001	
SUM HCH	0,02	0,02		0,01			0,01	0,01		0,001	0,00633	0,001	
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene	0,01	0,02		0,015		0,01		0,03		0,001	0,02233		
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	0,002			0,0007		0,001		0,002			0,002		
Simazine	0,1	0,098		0,015		0,05	0,01	1			0,05		
Tributyltin cation	0,0002												
Trichloromethane	2,5	2		1		0,5		2,5			2,5		
Trifluralin	0,03	0,03	0,009					0,03			0,01		

Table 2.3.5 continued

Substances	MK	NL	NO	PL	PT	RO	RS	SE	SI	SK	TR	XK
1,1,2,2-tetrachloroethene		0,02				10				1,05		
1,2-dichloroethane		0,02							0,2	0,5		
4-nonylphenol						0,01			0,052	0,1		
Alachlor		0,01			0,055	0,05	0,01		0,05	0,09		
Anthracene		0,01			0,04	0,012			0,005	0,005		
Atrazine		0,01			0,1	0,035	0,005	0,03	0,05	0,2		
Benzene		0,04			0,67	10			0,2	0,3		
Benzo(a)pyrene		0,01			0,005	0,012			0,004	0,005		
Cadmium		0,05	0,011		0,125	0,2	0,1	0,094	0,05	0,16		
Cadmium dissolved		0,05				0,2	0,0125		0,02	0,2		
Chlorfenvinphos		0,02			0,015	0,035	0,005		0,03	0,007		
Chlorpyrifos		0,01				0,02	0,005	0,003	0,009	0,006		
DDT, p,p'		0,001				0,005	0,0025		0,003			
Di (2-ethylhexyl) phthalate (DEHP)		1							0,5	0,2		
Dichloromethane		10		6		20			5	0,5		
Diuron		0,01			0,05	0,05	0,01	0,03	0,02	0,09		
Endosulfan		0,0005										
Fluoranthene		0,01			0,036	0,01			0,004	0,005		
Hexachlorobenzene (HCB)		0,001				0,002	0,0025		0,005	0,01		
Hexachlorobutadiene (HCBD)		0,01				0,05			0,03	0,1		
Hexachlorocyclohexane (HCH)									0,005			
Isoproturon		0,04				0,02	0,01	0,04	0,02	0,09		
Lead		1	0,01		7	3	0,25	3,42	0,5	5		
Lead dissolved		3				5	0,5		1	2,9		1
Mercury		0,03	0,003		0,001	0,05		0,011	0,025	0,05		
Mercury dissolved		0,03				0,044			0,015	0,05		
Naphthalene		0,1			1	0,0165			0,01	0,3		
Nickel			0,1		5	8		5,8	0,5	4,5		
Nickel dissolved						6	0,6		1	4,48		1
Para-tert-octylphenol		0,005				0,015			0,016	0,05		
Pentachlorobenzene		0,0001				0,002			0,002			
Pentachlorophenol		0,1			0,00006		0,1		0,06	0,1		
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin		0,001					0,0025		0,005			
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'		0,001					0,0025		0,005	0,023		
SUM HCH		0,0001					0,0025	0,01	0,003	0,02		
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene		0,005							0,005	0,005		
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene		0,0009								0,002		
Simazine		0,01				0,05	0,005	0,02	0,05	0,3		
Tributyltin cation									0,0002			
Trichloromethane		0,05				1			2	2,4		
Trifluralin		0,01					0,015	0,02	0,025	0,005		

Table 2.3.6 Number of river samples excluded per substance due to missing coordinates, LOD, LOQ given value 0 or not reported, and LOD,LOQ > EQS. Disaggregated and aggregated data from 2010–2011 reported.

Substance	Values not excluded	Values excluded	Coordinates missing	LOD,LOQ > EQS	LOD,LOQ = 0 or empty	% excluded
1,1,2,2-tetrachloroethene	3453	13	0	13	0	0,4
1,2-dichloroethane	3612	31	0	24	0	0,9
4-nonylphenol	1247	0	0	0	0	0
Alachlor	4151	56	0	56	0	1,3
Anthracene	2797	452	0	448	0	13,9
Atrazine	4018	525	0	525	0	11,6
Benzene	3666	27	0	27	0	0,7
Benzo(a)pyrene	3323	96	0	91	1	2,8
Cadmium	2509	1107	0	1102	5	30,6
Cadmium dissolved	2376	666	0	666	0	21,9
Chlorfenvinphos	3390	346	0	346	0	9,3
Chlorpyrifos	3313	893	0	893	0	21,2
DDT, p,p'	2868	755	0	755	0	20,8
Di (2-ethylhexyl) phthalate (DEHP)	952	113	0	113	0	10,6
Dichloromethane	3252	26	0	26	0	0,8
Diuron	3387	91	0	91	0	2,6
Endosulfan	393	2585	0	687	0	86,8
Fluoranthene	3015	525	0	525	0	14,8
Hexachlorobenzene (HCB)	3015	633	0	633	0	17,4
Hexachlorobutadiene (HCBD)	2206	959	0	959	0	30,3
Hexachlorocyclohexane (HCH)	963	112	0	111	0	10,4
Isoproturon	3290	73	0	73	0	2,2
Lead	2892	921	0	872	5	24,2
Lead dissolved	3734	97	0	93	1	2,5
Mercury	2159	1075	0	1069	6	33,2
Mercury dissolved	1614	921	0	921	0	36,3
Naphthalene	2823	571	0	553	0	16,8
Nickel	2759	891	0	811	9	24,4
Nickel dissolved	3641	62	0	32	1	1,7
Para-tert-octylphenol	2365	34	0	34	0	1,4
Pentachlorobenzene	2084	747	0	747	0	26,4
Pentachlorophenol	2932	227	0	227	0	7,2
Σ Cyclodienes	2991	572	0	572	0	16,1
Σ DDT	3113	119	0	119	0	3,7
Σ HCH	2844	163	0	163	0	5,4
Σ Benzo(b)fluoranthene, Benzo(k)fluoranthene	2858	114	0	108	0	3,8
Σ Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	1627	1335	0	1327	0	45,1
Simazine	4065	340	0	340	0	7,7
Tributyltin cation	594	909	0	909	0	60,5
Trichloromethane	3299	445	0	445	0	11,9
Trifluralin	3229	679	0	679	0	17,4

Table 2.3.7 Number of river samples excluded per country due to missing coordinates, LOD, LOQ given value 0 or not reported, and LOD, LOQ > EQS. Disaggregated and aggregated data from 2010–2011 reported.

Country	All values	Values not excluded	Values excluded	coordinates missing	LOD,LOQ > EQS	LOD,LOQ = 0 or empty	% excluded
AL	16	12	4	0	4	0	25
AT	528	404	124	0	124	0	23,5
BA	497	425	72	0	72	0	14,5
BE	3795	3602	193	0	174	0	5,1
BG	424	408	16	0	16	0	3,8
CH	14	14	0	0	0	0	0
CY	430	398	32	0	19	0	7,4
EE	114	114	0	0	0	0	0
FI	437	406	31	0	23	0	7,1
FR	52422	48125	4297	0	2935	0	8,2
GB	10036	8540	1496	0	1279	0	14,9
HR	1341	1233	108	0	70	0	8,1
IE	971	833	138	0	138	0	14,2
IS	30	28	2	0	2	0	6,7
IT	29932	25048	4884	0	4777	0	16,3
LT	140	140	0	0	0	0	0
LU	76	67	9	0	9	0	11,8
LV	71	58	13	0	7	0	18,3
MK	117	28	89	0	51	0	76,1
MT	324	315	9	0	0	0	2,8
NL	975	946	29	0	15	0	3
NO	379	379	0	0	0	0	0
PL	7198	6135	1063	0	977	0	14,8
RS	2835	2532	303	0	177	0	10,7
SE	523	519	4	0	0	0	0,8
SI	383	368	15	0	6	0	3,9
SK	1315	1047	268	0	225	0	20,4
XK	141	94	47	0	47	0	33,3

Table 2.3.8 LOQs reported for lakes throughout Europe in 2002–2011

Substances	Number of various LODs	Lowest LOD (µg/l)	Highest LOD (µg/l)	Number of various LOQs	Lowest LOQ (µg/l)	Highest LOQ (µg/l)
1,1,2,2-tetrachloroethene	5	0,01	0,063	23	0,001	10
1,2-dichloroethane	7	0,001	0,2	22	0,001	10
4-nonylphenol	3	0,01	0,024	8	0,001	0,3
Alachlor	6	0,001	0,03	23	0,001	0,3
Anthracene	4	0,00025	0,0015	15	0,00003	0,05
Atrazine	6	0,001	0,02	29	0,0005	0,5
Benzene	7	0,01	0,15	22	0,002	5
Benzo(a)pyrene	5	0,0001	0,0015	26	0	0,05
Cadmium	15	0,0015	0,15	27	0,00001	0,2
Cadmium dissolved	3	0,02	0,1	12	0,007	0,2
Chlorfenvinphos	5	0,0025	0,02	21	0,001	0,1
Chlorpyrifos	5	0,003	0,015	14	0,0005	0,03
DDT, p,p'	4	0,00025	0,001	18	0,00001	0,01
Di (2-ethylhexyl) phthalate (DEHP)	1	0,1	0,1	11	0,01	1,3
Dichloromethane	7	0,01	5	21	0,001	10
Diuron	5	0,005	0,1	26	0,001	0,2
Endosulfan	0			3	0,0005	0,0015
Fluoranthene	4	0,001	0,005	20	0,00003	0,05
Hexachlorobenzene (HCB)	4	0,00025	0,001	15	0,00015	0,01
Hexachlorobutadiene (HCBD)	4	0,01	0,0625	17	0,0005	0,1
Hexachlorocyclohexane (HCH)	4	0,00025	0,001	10	0,00001	0,02
Isoproturon	4	0,005	0,1	22	0,001	0,11
Lead	13	0,025	1,51	33	0,00001	7
Lead dissolved	5	0,05	1	11	0,02	5
Mercury	11	0,0003	0,05	23	0,00001	0,05
Mercury dissolved	2	0,005	0,015	11	0,0005	0,05
Naphthalene	5	0,001	0,125	28	0,00026	2
Nickel	9	0,03	5	32	0,00001	20
Nickel dissolved	5	0,05	2,5	10	0,04	5
Para-tert-octylphenol	3	0,01	0,05	10	0,001	0,1
Pentachlorobenzene	2	0,0003	0,001	12	0,00005	0,007
Pentachlorophenol	4	0,001	0,03	14	0,001	0,4
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin	5	0,00025	0,0015	16	0,0001	0,01
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'	3	0,00025	0,001	15	0,00001	0,025
SUM HCH	3	0,00025	0,002	15	0,00001	0,02
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene	5	0,0001	0,0031	14	0,00004	0,02
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	4	0,0001	0,001	11	0,00004	0,002
Simazine	6	0,0025	0,02	26	0,001	0,56
Tributyltin cation	1	0,0002	0,0002	3	0,00005	0,0002
Trichloromethane	7	0,01	0,5	22	0,001	2,5
Trifluralin	6	0,00038	0,015	26	0,0009	0,03

Table 2.3.9 Number of various LOQs reported for lakes by countries in 2002–2011

Substances	AL	AT	BA	BE	BG	CH	CY	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE
1,1,2,2-tetrachloroethene	0	0	0	1	0	0	1	0	0	0	0	1	0	2	0	0	1	0	2
1,2-dichloroethane	0	0	0	0	0	0	1	0	0	0	0	1	0	3	3	0	1	0	2
4-nonylphenol	0	0	0	0	0	0	0	0	0	0	0	1	1	5	0	0	0	0	0
Alachlor	0	0	0	0	0	0	5	0	0	0	0	1	1	5	0	0	1	0	0
Anthracene	0	0	0	1	0	0	0	0	0	0	0	0	0	6	1	0	0	0	1
Atrazine	0	0	0	0	1	0	5	0	0	0	0	0	1	5	9	0	0	0	1
Benzene	0	0	0	0	0	0	1	0	0	0	0	1	0	3	4	0	0	0	4
Benzo(a)pyrene	0	0	0	1	0	0	1	0	2	0	0	1	0	5	2	0	0	0	1
Cadmium	0	0	2	2	1	0	2	0	0	0	1	0	3	5	4	0	3	0	2
Cadmium dissolved	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0
Chlorfenvinphos	0	0	0	0	0	0	2	0	0	0	0	0	1	6	9	0	1	0	0
Chlorpyrifos	0	0	0	0	1	0	1	0	0	0	0	0	1	5	3	0	1	0	0
DDT, p,p'	0	0	0	0	0	0	3	0	0	0	0	0	1	5	3	0	4	0	0
Di (2-ethylhexyl) phthalate (DEHP)	0	0	0	1	0	0	0	0	2	0	0	0	1	2	1	0	0	0	1
Dichloromethane	0	0	0	1	0	0	0	0	0	0	0	1	0	3	1	0	1	0	3
Diuron	0	0	0	2	0	0	2	0	0	0	0	1	1	3	11	0	0	0	1
Endosulfan	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Fluoranthene	0	0	0	2	0	0	0	0	2	0	0	0	0	6	4	0	0	0	1
Hexachlorobenzene (HCB)	0	0	0	0	0	0	4	0	0	0	0	0	1	3	0	0	0	0	0
Hexachlorobutadiene (HCBD)	0	0	0	0	0	0	1	0	0	0	0	0	1	5	1	0	1	0	1
Hexachlorocyclohexane (HCH)	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Isoproturon	0	0	0	1	0	0	1	0	0	0	0	1	1	4	10	0	0	0	1
Lead	0	0	1	2	11	0	5	0	2	0	1	0	4	5	3	0	2	0	2
Lead dissolved	0	0	0	2	0	0	0	0	0	0	0	1	0	0	2	0	2	0	0
Mercury	0	0	1	3	0	0	0	0	1	0	0	0	3	3	6	0	3	0	1
Mercury dissolved	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
Naphthalene	0	0	0	1	0	0	1	0	2	0	0	0	0	9	0	0	0	0	4
Nickel	0	0	3	3	6	0	4	0	2	0	0	0	7	6	8	0	2	0	2
Nickel dissolved	0	0	0	2	0	0	0	0	0	0	0	1	0	0	2	0	2	0	0
Para-tert-octylphenol	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	0
Pentachlorobenzene	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0
Pentachlorophenol	0	0	0	0	0	0	0	0	0	0	0	1	0	4	4	0	1	0	0
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin	0	0	0	0	2	0	2	0	0	0	0	0	1	6	12	0	3	0	0
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'	0	0	0	0	0	0	2	0	0	0	0	0	1	2	5	0	4	0	0
SUM HCH	0	0	0	0	0	0	1	0	0	0	0	0	1	6	5	0	3	0	0
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene	0	0	0	1	0	0	0	0	0	0	0	0	0	5	2	0	0	0	1
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	0	0	0	1
Simazine	0	0	0	2	0	0	5	0	0	0	0	0	1	6	9	0	0	0	1
Tributyltin cation	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
Trichloromethane	0	0	0	1	0	0	1	0	0	0	0	0	0	3	2	0	1	0	2
Trifluralin	0	0	0	0	0	0	2	0	0	0	0	0	1	4	17	0	0	0	0

Table 2.3.9 continued

Substances	IS	IT	LI	LT	LU	LV	ME	MK	NL	NO	PL	PT	RO	RS	SE	SI	SK	TR	XK
1,1,2,2-tetrachloroethene	0	10	0	0	0	0	0	0	4	0	9	0	0	0	0	0	1	0	0
1,2-dichloroethane	0	8	0	0	0	0	0	0	4	0	8	0	0	0	0	0	2	0	0
4-nonylphenol	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0
Alachlor	0	11	0	0	0	0	0	0	2	0	2	3	1	0	0	3	2	0	0
Anthracene	0	6	0	0	0	0	0	0	2	0	7	2	1	0	0	0	1	0	0
Atrazine	0	10	0	1	0	0	0	0	4	0	4	1	0	3	0	2	2	0	0
Benzene	0	9	0	0	0	0	0	0	4	0	7	1	0	0	0	0	2	0	0
Benzo(a)pyrene	0	10	0	0	0	0	0	0	2	0	7	3	1	0	0	0	2	0	0
Cadmium	2	8	0	4	0	4	0	0	1	5	3	0	3	1	4	2	0	0	0
Cadmium dissolved	0	0	0	0	0	0	0	0	3	0	0	0	5	0	0	1	1	0	0
Chlorfenvinphos	0	8	0	0	0	0	0	0	4	0	1	0	0	0	0	2	1	0	0
Chlorpyrifos	0	6	0	0	0	0	0	0	3	0	0	0	0	0	0	2	2	0	0
DDT, p,p'	0	3	0	2	0	0	0	0	3	0	4	0	2	1	0	1	0	0	0
Di (2-ethylhexyl) phthalate (DEHP)	0	3	0	0	0	0	0	0	1	0	4	0	0	0	0	0	1	0	0
Dichloromethane	0	8	0	0	0	0	0	0	6	0	9	1	0	0	0	0	2	0	0
Diuron	0	7	0	0	0	0	0	0	4	0	3	2	0	0	0	0	2	0	0
Endosulfan	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Fluoranthene	0	6	0	0	0	0	0	0	2	0	7	2	1	0	0	0	1	0	0
Hexachlorobenzene (HCB)	0	6	0	0	0	0	0	0	2	0	5	1	1	1	0	0	0	0	0
Hexachlorobutadiene (HCBD)	0	8	0	0	0	0	0	0	5	0	3	1	0	0	0	0	1	0	0
Hexachlorocyclohexane (HCH)	0	5	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
Isoproturon	0	6	0	0	0	0	0	0	6	0	3	0	0	0	0	0	2	0	0
Lead	1	11	0	3	0	4	0	0	2	1	8	3	3	1	2	2	2	0	0
Lead dissolved	0	4	0	0	0	0	0	0	2	0	0	1	4	2	0	1	0	0	0
Mercury	3	6	0	2	0	3	0	0	1	0	2	1	2	1	0	1	0	0	0
Mercury dissolved	0	0	0	0	0	0	0	0	3	0	0	1	3	0	0	1	1	0	0
Naphthalene	0	6	0	0	0	0	0	0	6	0	6	3	1	0	0	0	2	0	0
Nickel	2	13	0	3	0	4	0	0	1	1	7	0	3	0	2	2	1	0	0
Nickel dissolved	0	5	0	0	0	0	0	0	1	0	0	1	4	1	0	0	0	0	0
Para-tert-octylphenol	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
Pentachlorobenzene	0	4	0	0	0	0	0	0	4	0	5	0	1	0	0	0	0	0	0
Pentachlorophenol	0	5	0	1	0	0	0	0	3	0	4	1	0	0	0	0	2	0	0
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin	0	3	0	1	0	0	0	0	2	0	3	0	0	1	0	1	0	0	0
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'	0	5	0	2	0	0	0	0	2	0	1	0	0	1	0	1	2	0	0
SUM HCH	0	4	0	2	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene	0	10	0	0	0	0	0	0	5	0	2	0	0	0	0	0	2	0	0
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	0	7	0	0	0	0	0	0	2	0	1	0	0	0	0	0	2	0	0
Simazine	0	9	0	1	0	0	0	0	3	0	5	0	0	1	0	2	2	0	0
Tributyltin cation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trichloromethane	0	9	0	0	0	0	0	0	5	0	9	0	0	0	0	0	1	0	0
Trifluralin	0	6	0	0	0	0	0	0	3	0	1	1	0	0	0	2	2	0	0

Table 2.3.10 Lowest LOQs (µg/l) reported for lakes by countries in 2002–2011

Substances	AL	AT	BA	BE	BG	CH	CY	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE
1,1,2,2-tetrachloroethene				0,126			0,125					1,6		0,2			0,198		0,1
1,2-dichloroethane							0,0625					1,4		0,2	0,1		0,237		0,1
4-nonylphenol												0,1	0,1	0,04					
Alachlor							0,01					0,1	0,005	0,01			0,015		
Anthracene				0,001										0,0005	0,01				0,033
Atrazine					0,01		0,0025						0,0025	0,005	0,0015				0,05
Benzene							0,0625					5		0,2	0,1				0,05
Benzo(a)pyrene				0,002			0,0025		0,002			0,05		0,0005	0,01				0,017
Cadmium			0,0006	0,025	0,05		0,03				0,1		0,005	0,025	0,008		0,015		0,05
Cadmium dissolved				0,05										0,027	0,1		0,01		
Chlorfenvinphos							0,01						0,005	0,0015	0,005		0,015		
Chlorpyrifos					0,03		0,025						0,005	0,0005	0,001		0,015		
DDT, p,p'							0,002						0,005	0,0014	0,002		0,0001		
Di (2-ethylhexyl) phthalate (DEHP)				0,2					0,1				0,5	0,1	0,2				1,3
Dichloromethane				0,126								10		0,5	3		0,294		0,05
Diuron				0,006			0,02					0,098	0,005	0,005	0,01				0,05
Endosulfan														0,0015					
Fluoranthene				0,005					0,003					0,0005	0,005				0,033
Hexachlorobenzene (HCB)							0,00015						0,005	0,002					
Hexachlorobutadiene (HCBD)							0,0625						0,005	0,02	0,002		0,0309		0,1
Hexachlorocyclohexane (HCH)				0,002			0,0003												
Isoproturon				0,006			0,025					0,075	0,005	0,005	0,02				0,05
Lead			0,01	1	0,05		0,165		3,0125		1		0,005	0,4	0,05		0,4		0,5
Lead dissolved				0,1								0,38			2		1,33		
Mercury			0,01	0,01					0,001				0,001	0,015	0,00005		0,005		0,05
Mercury dissolved				0,01											0,01		0,002		
Naphthalene				0,012			0,125		0,006					0,0005					0,05
Nickel			0,001	1	0,002		0,1		0,5				0,04	0,001	0,13		0,5		0,5
Nickel dissolved				2								0,32			1		2		
Para-tert-octylphenol														0,02	0,05				
Pentachlorobenzene													0,005	0,002					
Pentachlorophenol												0,2		0,02	0,01		0,015		
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin					0,003		0,0015						0,01	0,002	0,0003		0,0001		
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'							0,0025						0,005	0,005	0,002		0,0001		
SUM HCH							0,0003						0,005	0,0025	0,002		0,0001		
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene				0,002										0,0005	0,01				0,01
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene				0,002										0,0004					0,001
Simazine				0,003			0,0025						0,005	0,001	0,0015				0,05
Tributyltin cation														0,00005					
Trichloromethane				0,126			0,0625							0,2	0,05		0,204		0,1
Trifluralin							0,005						0,005	0,0075	0,0009				

Table 2.3.10 continued

Substances	IS	IT	LI	LT	LU	LV	ME	MK	NL	NO	PL	PT	RO	RS	SE	SI	SK	TR	XK
1,1,2,2-tetrachloroethene		0,01							0,005		0,001						0,5		
1,2-dichloroethane		0,01							0,005		0,001						0,25		
4-nonylphenol		0,001							0,3								0,05		
Alachlor		0,002							0,005		0,05	0,01	0,05			0,008	0,004		
Anthracene		0,00003							0,005		0,0001	0,002	0,01				0,005		
Atrazine		0,002		0,5					0,0005		0,005	0,05		0,0045		0,025	0,003		
Benzene		0,025							0,005		0,002	0,2					0,15		
Benzo(a)pyrene		0,00004							0,005		0,00005	0	0,012				0,001		
Cadmium	0,00101	0,01		0,00001		0,02			0,05	0,006	0,0003		0,007	0,1	0,002	0,005			
Cadmium dissolved									0,01				0,007			0,008	0,042		
Chlorfenvinphos		0,001							0,001		0,1					0,025	0,007		
Chlorpyrifos		0,002							0,001							0,005	0,0025		
DDT, p,p'		0,002		0,00001					0,0001		0,001		0,005	0,001		0,002			
Di (2-ethylhexyl) phthalate (DEHP)		0,01							1		0,01						0,2		
Dichloromethane		0,025							0,01		0,001	6					0,25		
Diuron		0,0025							0,001		0,005	0,014					0,003		
Endosulfan									0,0005		0,001								
Fluoranthene		0,00003							0,005		0,0001	0,002	0,01				0,005		
Hexachlorobenzene (HCB)		0,0005							0,0005		0,001	0,005	0,0012	0,0005					
Hexachlorobutadiene (HCBD)		0,002							0,0005		0,01	0,01					0,1		
Hexachlorocyclohexane (HCH)		0,0005		0,00001							0,001								
Isoproturon		0,0025							0,001		0,01						0,003		
Lead	0,05	0,07		0,00001		0,14			0,1	0,01	0,001	1,5	0,02	0,5	0,01	0,5	1		
Lead dissolved		0,5							0,1			5	0,02	0,1		0,2			
Mercury	0,001	0,005		0,00001		0,03			0,001		0,00015	0,0001	0,03	0,05		0,005			
Mercury dissolved									0,0005			0,01	0,005			0,005	0,05		
Naphthalene		0,00026							0,005		0,001	0,002	0,015				0,15		
Nickel	0,02495	0,09		0,00001		0,52			0,5	0,025	1		0,04		0,025	0,5	1		
Nickel dissolved		1							0,5			2	0,04	0,5					
Para-tert-octylphenol		0,001							0,005								0,05		
Pentachlorobenzene		0,0005							0,00005		0,001		0,002						
Pentachlorophenol		0,01		0,01					0,01		0,001	0,1					0,025		
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin		0,001		0,0025					0,0005		0,001			0,001		0,002			
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'		0,002		0,00001					0,0005		0,001			0,001		0,002	0,005		
SUM HCH		0,0005		0,00001					0,0001					0,001			0,02		
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene		0,00004							0,0005		0,0005						0,0025		
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene		0,00004							0,0001		0,002						0,001		
Simazine		0,001		0,5					0,001		0,001			0,0045		0,025	0,003		
Tributyltin cation																			
Trichloromethane		0,015							0,005		0,001						1		
Trifluralin		0,002							0,001		0,01	0,01				0,005	0,0025		

Table 2.3.11 Highest LOQs (µg/l) reported for lakes by countries in 2002–2011

Substances	AL	AT	BA	BE	BG	CH	CY	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HR	HU	IE
1,1,2,2-tetrachloroethene				0,126			0,125					1,6		0,5			0,198		0,5
1,2-dichloroethane							0,0625					1,4		1	1		0,237		0,5
4-nonylphenol												0,1	0,1	0,3					
Alachlor							0,05					0,1	0,005	0,04			0,015		
Anthracene				0,001										0,01	0,01				0,033
Atrazine					0,01		0,05						0,0025	0,03	0,047				0,05
Benzene							0,0625					5		0,5	1,5				0,5
Benzo(a)pyrene				0,002			0,0025		0,003			0,05		0,005	0,011				0,017
Cadmium			0,01	0,05	0,05		0,1				0,1		0,03	0,2	0,1		0,1		0,1
Cadmium dissolved				0,05										0,027	0,1		0,01		
Chlorfenvinphos							0,025						0,005	0,02	0,076		0,015		
Chlorpyrifos					0,03		0,025						0,005	0,03	0,003		0,015		
DDT, p,p'							0,004						0,005	0,01	0,0083		0,005		
Di (2-ethylhexyl) phthalate (DEHP)				0,2					0,5				0,5	0,39	0,2				1,3
Dichloromethane				0,126								10		10	3		0,294		0,5
Diuron				0,012			0,025					0,098	0,005	0,02	0,11				0,05
Endosulfan														0,0015					
Fluoranthene				0,01					0,01					0,01	0,011				0,033
Hexachlorobenzene (HCB)							0,0003						0,005	0,01					
Hexachlorobutadiene (HCBD)							0,0625						0,005	0,1	0,002		0,0309		0,1
Hexachlorocyclohexane (HCH)				0,002			0,0006												
Isoproturon				0,006			0,025					0,075	0,005	0,04	0,11				0,05
Lead			0,01	2	6,5		5		4		1		0,05	5	2		1		1
Lead dissolved				1								0,38			4		2		
Mercury			0,01	0,03					0,001				0,005	0,05	0,01		0,05		0,05
Mercury dissolved				0,01											0,01		0,002		
Naphthalene				0,012			0,125		0,01					0,05					0,5
Nickel			1	4	5		1,5		10				5	5	10		1		1
Nickel dissolved				4								0,32			2		3		
Para-tert-octylphenol														0,1	0,1				
Pentachlorobenzene													0,005	0,005					
Pentachlorophenol												0,2		0,1	0,1		0,015		
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin					0,01		0,003						0,01	0,01	0,007		0,005		
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'							0,005						0,005	0,01	0,0083		0,005		
SUM HCH							0,0003						0,005	0,02	0,004		0,005		
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene				0,002										0,005	0,011				0,01
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene				0,002										0,002					0,001
Simazine				0,006			0,05						0,005	0,02	0,046				0,05
Tributyltin cation														0,0002					
Trichloromethane				0,126			0,0625							0,5	0,1		0,204		0,5
Trifluralin							0,01						0,005	0,02	0,029				

Table 2.3.11 continued

Substances	IS	IT	LI	LT	LU	LV	ME	MK	NL	NO	PL	PT	RO	RS	SE	SI	SK	TR	XK
1,1,2,2-tetrachloroethene		10							0,1		10						0,5		
1,2-dichloroethane		3							0,5		10						0,5		
4-nonylphenol		0,05							0,3								0,1		
Alachlor		0,1							0,01		0,3	0,055	0,05			0,05	0,09		
Anthracene		0,05							0,01		0,02	0,02	0,01				0,005		
Atrazine		0,06		0,5					0,01		0,5	0,05		0,00708		0,05	0,18		
Benzene		1							0,2		5	0,2					0,3		
Benzo(a)pyrene		0,05							0,01		0,01	0,00005	0,012				0,002		
Cadmium	0,002	0,1		0,05		0,1			0,05	0,05	0,1		0,043	0,1	0,01	0,01			
Cadmium dissolved									0,05				0,2			0,008	0,042		
Chlorfenvinphos		0,1							0,02		0,1					0,05	0,007		
Chlorpyrifos		0,03							0,01							0,009	0,006		
DDT, p,p'		0,01		0,0025					0,001		0,01		0,0085	0,001		0,002			
Di (2-ethylhexyl) phthalate (DEHP)		0,1							1		1						0,2		
Dichloromethane		2							10		10	6					0,5		
Diuron		0,2							0,01		0,1	0,05					0,06		
Endosulfan									0,0005		0,001								
Fluoranthene		0,05							0,01		0,02	0,03	0,01				0,005		
Hexachlorobenzene (HCB)		0,01							0,001		0,01	0,005	0,0012	0,0005					
Hexachlorobutadiene (HCBD)		0,1							0,01		0,05	0,01					0,1		
Hexachlorocyclohexane (HCH)		0,02		0,00001							0,005								
Isoproturon		0,05							0,04		0,1						0,09		
Lead	0,05	5		0,6		0,65			0,5	0,01	7	7	0,24	0,5	0,02	1	1,5		
Lead dissolved		5							0,5			5	2	0,5		0,2			
Mercury	0,002	0,05		0,005		0,05			0,001		0,05	0,0001	0,044	0,05		0,005			
Mercury dissolved									0,02			0,01	0,03			0,005	0,05		
Naphthalene		0,1							0,2		2	1	0,015				0,3		
Nickel	0,05	20		1		1,5			0,5	0,025	10		0,9		0,05	1	1		
Nickel dissolved		5							0,5			2	2	0,5					
Para-tert-octylphenol		0,1							0,025								0,05		
Pentachlorobenzene		0,007							0,001		0,007		0,002						
Pentachlorophenol		0,4		0,01					0,1		0,1	0,1					0,05		
SUM Cyclodienes: Aldrin, Endrin, Dieldrin, Isodrin		0,01		0,0025					0,001		0,005			0,001		0,002			
SUM DDT Total: DDD, p,p', DDE, p,p', DDT, o,p', DDT, p,p'		0,025		0,0025					0,001		0,001			0,001		0,002	0,023		
SUM HCH		0,02		0,0025					0,0001					0,001			0,02		
SUM PAH1: Benzo(b)fluoranthene, Benzo(k)fluoranthene		0,01							0,02		0,01						0,005		
SUM PAH2: Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene		0,002							0,0005		0,002						0,002		
Simazine		0,56		0,5					0,01		0,5			0,0045		0,05	0,3		
Tributyltin cation																			
Trichloromethane		1							0,1		2,5						1		
Trifluralin		0,03							0,01		0,01	0,01				0,009	0,005		

Table 2.3.12 Number of lake samples excluded per substance due to missing coordinates, LOD, LOQ given value 0 or not reported, and LOD, LOQ > EQS. Disaggregated and aggregated data from 2010–2011 reported.

Substance	Values not excluded	Values excluded	Coordinates missing	LOD,LOQ > EQS	LOD,LOQ = 0 or empty	% excluded
1,1,2,2-tetrachloroethene	370	2	2	0	0	0,5
1,2-dichloroethane	435	2	2	0	0	0,5
4-nonylphenol	123	0	0	0	0	0
Alachlor	392	8	3	5	0	2
Anthracene	302	100	0	100	0	24,9
Atrazine	298	135	3	132	0	31,2
Benzene	381	2	2	0	0	0,5
Benzo(a)pyrene	345	0	0	0	0	0
Cadmium	518	111	4	107	0	17,6
Cadmium dissolved	213	66	0	59	7	23,7
Chlorfenvinphos	225	54	3	51	0	19,4
Chlorpyrifos	189	178	2	176	0	48,5
DDT, p,p'	304	134	0	134	0	30,6
Di (2-ethylhexyl) phthalate (DEHP)	168	18	0	18	0	9,7
Dichloromethane	395	2	1	1	0	0,5
Diuron	281	1	1	0	0	0,4
Endosulfan	206	33	0	33	0	13,8
Fluoranthene	323	113	0	113	0	25,9
Hexachlorobenzene (HCB)	270	56	1	55	0	17,2
Hexachlorobutadiene (HCBD)	277	33	2	31	0	10,6
Hexachlorocyclohexane (HCH)	85	11	0	11	0	11,5
Isoproturon	254	2	2	0	0	0,8
Lead	656	118	7	109	2	15,2
Lead dissolved	302	8	1	2	5	2,6
Mercury	307	114	3	109	2	27,1
Mercury dissolved	53	204	0	204	0	79,4
Naphthalene	316	61	0	61	0	16,2
Nickel	647	163	7	154	2	20,1
Nickel dissolved	291	6	1	0	5	2
Para-tert-octylphenol	153	1	0	1	0	0,6
Pentachlorobenzene	218	46	0	46	0	17,4
Pentachlorophenol	254	31	2	29	0	10,9
Σ Cyclodienes	208	40	1	39	0	16,1
Σ DDT	266	8	1	7	0	2,9
Σ HCH	145	25	1	24	0	14,7
Σ Benzo(b)fluoranthene, Benzo(k)fluoranthene	238	2	0	2	0	0,8
Σ Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene	190	50	0	50	0	20,8
Simazine	292	43	3	40	0	12,8
Tributyltin cation	31	78	0	78	0	71,6
Trichloromethane	357	56	2	54	0	13,6
Trifluralin	189	146	2	144	0	43,6

Table 2.3.13 Number of lake samples excluded per country due to missing coordinates, LOD, LOQ given value 0 or not reported, and LOD, LOQ > EQS. Disaggregated and aggregated data from 2010–2011 reported.

Country	All values	Values not excluded	Values excluded	coordinates missing	LOD,LOQ > EQS	LOD,LOQ = 0 or empty	% excluded
BA	19	19	0	0	0	0	0
BE	82	77	5	0	3	0	6,1
BG	48	36	12	0	12	0	25
CY	347	321	26	0	18	0	7,5
EE	35	25	10	0	10	0	28,6
FI	88	86	2	0	2	0	2,3
FR	2454	2331	123	0	47	0	5
GB	538	476	62	0	62	0	11,5
HR	50	42	8	0	8	0	16
IE	391	343	48	0	48	0	12,3
IS	8	8	0	0	0	0	0
IT	2224	1819	405	59	324	0	18,2
MK	15	15	0	0	0	0	0
MT	432	420	12	0	0	0	2,8
NL	1321	1269	52	0	17	0	3,9
NO	66	66	0	0	0	0	0
PL	1260	1260	0	0	0	0	0
RS	613	459	154	0	154	0	25,1
SE	526	526	0	0	0	0	0
SI	62	62	0	0	0	0	0
SK	115	108	7	0	6	0	6,1

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ISBN 978-3-944280-53-0