

# MONITORING OF RADIONUCLIDES IN THE BALTIC SEA 2020

## ESTONIA

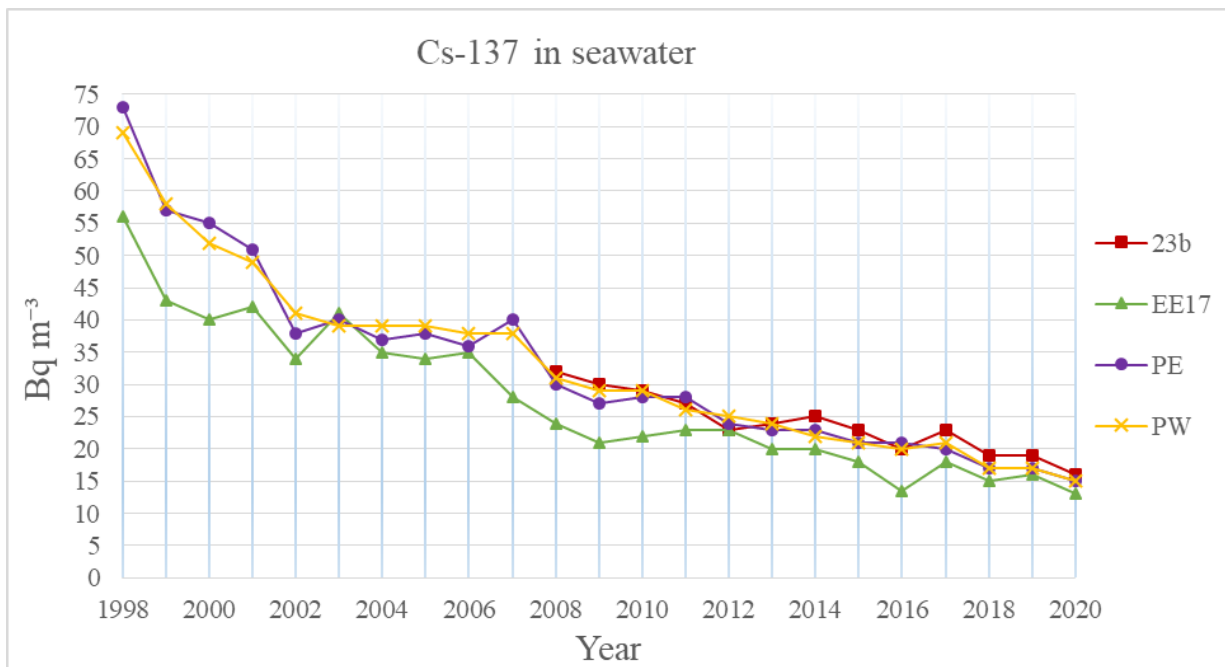
Environmental Board, Climate and Radiation Department

Jana Mihkelson, Eia Jakobson

### 1. Surface sea water

Year	Sampling station	Sampling date	Total depth (m)	Temp (°C)	Salinity (‰)	Cs-137 (Bq m <sup>-3</sup> )	K-40 (Bq m <sup>-3</sup> )
2020	<b>23 b</b> 59°18,3'N 23°17,2' E	01.06.2020	88	10,8	6,1	16±1,5	2180±150
	<b>EE17</b> 59°43,0'N 25°00,9' E	05.06.2020	109	9,9	4,9	13±1,5	1790±130
	<b>PE</b> 59°22,9'N 24°09,3' E	01.06.2020	20	10,8	6,0	15±1,5	2130±150
	<b>PW</b> 59°20,1'N 24°02,1' E	01.06.2020	19	10,8	5,8	15±1,5	2100±150
	<b>N8</b> 59°28,5'N 27°58,7' E	05.06.2020	16	10,8	4,0	10±1,1	1470±110

### Cs-137 concentrations (Bq m<sup>-3</sup>) in surface water in Gulf of Finland 1998-2020



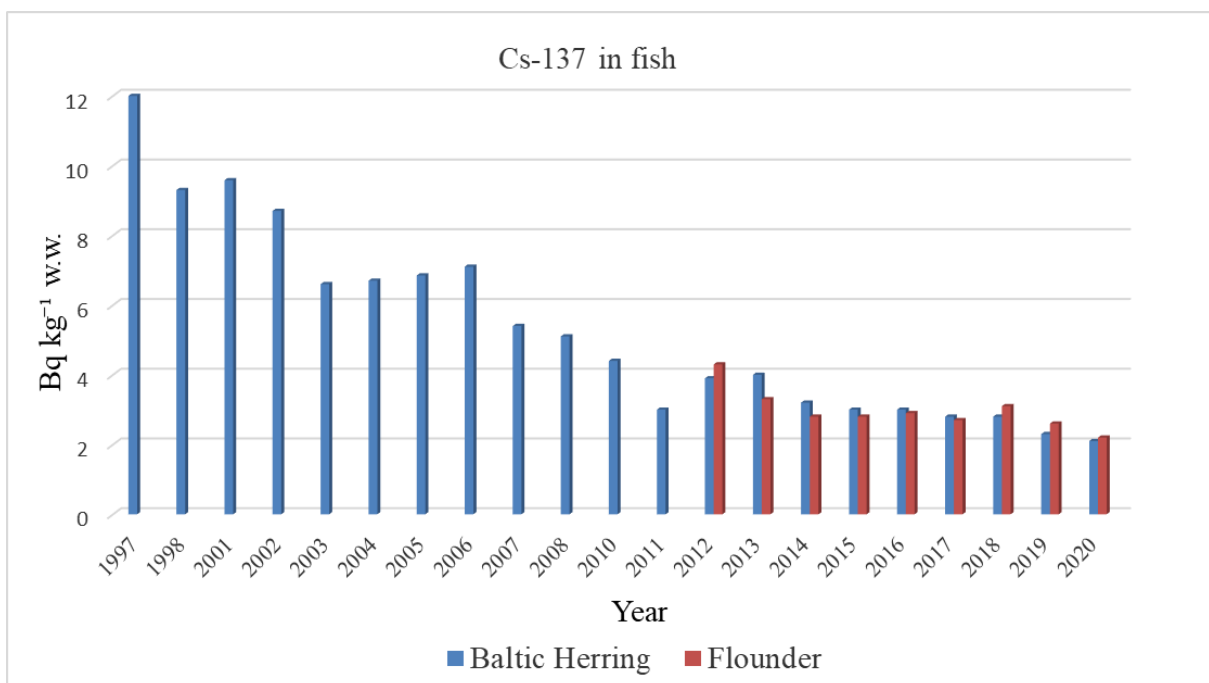
## 2. Aquatic plants: *Fucus vesiculosus*

Year	Sampling station	Sampling date	Dry weight (kg)	Cs-137 (Bq kg <sup>-1</sup> )	K-40 (Bq kg <sup>-1</sup> )
2020	<b>Paldiski</b> 59°21,61' N 24°02,37' E	06.08.2020	0,17	<b>9,1±0,8</b>	<b>603±48</b>
	<b>Sillamäe (Kunda)</b> 59°33,034' N 26°35,255' E	22.10.2020	0,23	<b>8,5±0,7</b>	<b>750±60</b>
	<b>Sillamäe (Kunda)</b> 59°32,825' N 26°39,048' E	22.10.2020	0,23	<b>8,9±0,7</b>	<b>810±60</b>

## 3. Fish

Year	Sampling area	Sampling date	Fish	Wet weight (kg)	Cs-137 (Bq kg <sup>-1</sup> )	K-40 (Bq kg <sup>-1</sup> )
2020	<b>Aseri</b> 59°27,859' N 26°53,292' E	16.09.2020	Baltic herring	1,57	<b>2,1±0,2</b>	<b>102±8</b>
	<b>Paldiski</b> 59°20,41' N 24°03,25' E	06.08.2020	Flounder	1,83	<b>2,2±0,2</b>	<b>96±8</b>

## Cs-137 concentrations (Bq kg<sup>-1</sup> w.w.) in fish in 1997-2020



#### 4. Bottom sediments

Year	Sampling station	Sampling date	Total depth (m)	Core slice depth from surface (cm)	Cs-137 (Bq kg <sup>-1</sup> )	K-40 (Bq kg <sup>-1</sup> )
2020	EE17 59°43,05' N 25°00,98' E	17.08.2020	110	0-2	158±13	830±85
				2-4	167±13	950±85
				4-6	33,0±3,5	1030±85
				6-8	8,0±2,0	970±80
				8-10	2,6±1,1	970±80
				10-12	<2	950±75
				12-14	<2	1050±80
				14-16	<2	1150±85
				16-18	<2	1130±80
				18-20	<2	1140±85

Year	Sampling station	Sampling date	Total depth (m)	Core slice depth from surface (cm)	Cs-137 (Bq kg <sup>-1</sup> )	K-40 (Bq kg <sup>-1</sup> )
2020	23b 59°18,23' N 23°17,12' E	01.06.2020	88	0-2	120±12	1100±140
				2-4	155±13	1000±90
				4-6	171±14	1020±90
				6-8	185±15	980±90
				8-10	193±15	980±90
				10-12	207±16	980±80
				12-14	211±17	970±90
				14-16	220±17	930±80
				16-18	200±16	910±80
				18-20	194±15	910±80