

FY2017 Iwate Prefecture Survey Results

[Outline of results]

(1) Water

Rivers

Radioactive cesium (Cs-134, Cs-137): Not detectable at any location

Coastal areas

Radioactive cesium (Cs-134, Cs-137): Not detectable at any location

(2) Sediments

Rivers

Cs-134: ND – 9.2 Bq/kg (dry)

Cs-137: 4.0 – 75 Bq/kg (dry)

Coastal areas

Cs-134: Not detectable at any location (dry)

Cs-137: ND - 15 Bq/kg (dry)

(3) Surrounding Environment

(a) Soil

Rivers

Cs-134: ND - 540 Bq/kg (dry)

Cs-137: 10 - 4,800 Bq/kg (dry)

(b) Ambient dose rate

Rivers

0.04 - 0.11 μ Sv/h

Iwate River (Water) 1/2

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks
	Water area	Location	Municipality					General items							Activity concentration(Bq/L)			
								Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium		
1	Sakari River Lower Reaches	Sano Bridge	Ofunato City	2017/5/11	Sunny	23.3	0.5	17.2	0.0	Light grayish greenish yellow	None	>100	271	2	1.1	<-0.67	<-0.80	
				2017/11/9	Sunny	14.0	0.4	12.3	0.0	Light grayish yellow green	None	>100	500	<1	0.4	<-0.80	<-0.80	
				2017/5/11	Sunny	18.0	0.4	14.2	0.0	Light grayish greenish yellow	None	95	1,240	20	4.4	<-0.72	<-0.88	
				2017/11/9	Sunny	15.0	0.6	12.5	0.0	Light grayish greenish yellow	None	>100	752	1	0.6	<-0.62	<-0.55	
2	Kesen River	Aneha Bridge	Rikuzentakada City	2017/5/10	Rain	13.1	0.3	13.0	0.0	Yellow greenish pale gray	None	81	16.8	4	3.8	<-0.84	<-0.63	
				2017/8/8	Cloudy	23.2	0.6	19.9	0.0	Grayish yellow	None	35	11.0	20	8.4	<-0.86	<-0.69	
				2017/11/11	Sunny	12.8	0.3	11.2	0.0	Light grayish yellow green	None	>100	11.7	2	0.6	<-0.60	<-0.69	
				2018/2/2	Sunny	-2.4	0.3	1.2	0.0	Greenish yellowish white	None	>100	13.2	1	0.6	<-0.74	<-0.96	
3	Okawa River	Prefectural border with Miyagi	Ichinoseki City	2017/5/10	Rain	15.5	0.3	12.9	0.0	Light grayish yellow green	None	>100	12.5	1	1.3	<-0.76	<-0.55	
				2017/11/11	Sunny	12.5	0.4	10.4	0.0	Light grayish yellow	None	>100	9.2	<1	0.4	<-0.55	<-0.61	
				2017/5/3	Sunny	16.2	0.5	11.2	0.0	Grayish greenish yellow	None	55	9.8	5	5.5	<-0.69	<-0.61	
				2017/11/2	Cloudy	16.4	0.8	12.0	0.0	Light grayish yellow green	None	>100	10.4	<1	0.8	<-0.71	<-0.75	
4	Tsuyagawa River	Chiyogahara Bridge	Kanegasaki Town	2017/5/3	Sunny	16.2	0.5	11.2	0.0	Grayish greenish yellow	None	55	9.8	5	5.5	<-0.69	<-0.61	
				2017/11/2	Cloudy	16.4	0.8	12.0	0.0	Light grayish yellow green	None	>100	10.4	<1	0.8	<-0.71	<-0.75	
				2017/5/3	Sunny	21.8	0.5	10.3	0.0	Light grayish yellow green	None	>100	7.0	2	2.7	<-0.91	<-0.96	
				2017/8/2	Sunny	23.2	0.8	24.2	0.0	Grayish yellow green	None	83	7.4	4	3.9	<-0.65	<-0.61	
5	Kurosawa River	Kawarada Bridge	Oshu City	2017/11/2	Cloudy	13.8	0.7	11.3	0.0	Grayish yellow green	None	>100	7.5	4	4.4	<-0.58	<-0.63	
				2018/2/1	Sunny	1.1	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
				2017/5/3	Sunny	24.8	0.5	14.2	0.0	Light grayish yellow green	None	73	7.5	4	5.0	<-0.77	<-0.66	
				2017/8/1	Sunny	27.7	0.5	23.0	0.0	Grayish yellow green	None	95	10.1	5	3.8	<-0.77	<-0.75	
6	Isawa River	Ogo Bridge	Oshu City	2017/11/2	Cloudy	17.0	0.5	12.6	0.0	Light grayish greenish yellow	None	>100	8.2	3	3.0	<-0.79	<-0.75	
				2018/2/1	Sunny	0.1	0.3	3.6	0.0	Light grayish yellow green	None	>100	18.3	1	0.6	<-0.60	<-0.63	
				2017/5/4	Sunny	16.8	0.5	12.7	0.0	Light grayish yellow green	None	45	10.5	10	9.9	<-0.76	<-0.84	
				2017/8/1	Sunny	29.0	0.4	23.7	0.0	Grayish yellow green	None	40	12.0	13	11.0	<-0.60	<-0.66	
7	Sajjin Bridge	Oshu City	Oshu City	2017/11/2	Cloudy	19.5	0.4	12.2	0.0	Light grayish yellow green	None	>100	11.2	3	3.3	<-0.65	<-0.84	
				2018/2/1	Sunny	1.4	0.2	3.7	0.0	Greenish yellowish white	None	>100	16.9	2	1.5	<-0.95	<-0.75	
				2017/5/4	Sunny	26.1	0.3	15.0	0.0	Grayish greenish yellow	None	10	11.1	49	60	<-0.83	<-0.66	
				2017/8/2	Sunny	28.9	0.3	23.8	0.0	Light grayish greenish yellow	None	58	11.0	10	6.1	<-0.64	<-0.69	
8	Kitakami River	Fuji Bridge	Oshu City	2017/11/1	Sunny	15.2	0.4	11.9	0.0	Light grayish yellow green	None	>100	11.5	2	2.2	<-0.74	<-0.75	
				2018/2/4	Sunny	-3.6	0.3	1.1	0.0	Light grayish yellow	None	>100	15.8	1	1.5	<-0.47	<-0.88	
				2017/5/4	Sunny	26.8	0.3	17.3	0.0	Light grayish greenish yellow	None	80	12.1	3	3.7	<-0.74	<-0.80	
				2017/8/2	Sunny	26.0	0.5	22.9	0.0	Yellow greenish pale gray	None	>100	11.3	2	2.0	<-0.73	<-0.70	
9	Shiratori River	Shiratori Bridge	Hiraizumi Town	2017/11/1	Cloudy	16.0	0.6	10.8	0.0	Light grayish greenish yellow	None	>100	8.3	2	1.2	<-0.74	<-0.63	
				2018/2/4	Sunny	1.8	0.3	2.3	0.0	Greenish yellowish white	None	>100	11.4	<1	0.7	<-0.79	<-0.80	
				2017/5/4	Sunny	25.0	0.3	17.3	0.0	Light grayish greenish yellow	None	70	23.2	6	4.7	<-0.77	<-0.78	
				2017/8/2	Sunny	24.5	0.3	22.4	0.0	Yellow greenish pale gray	None	63	20.7	7	4.7	<-0.69	<-0.69	
10	Kitakami River System	Koromo River	Koromogawa Bridge	2017/11/3	Sunny	12.8	0.3	12.1	0.0	Light grayish yellow	None	>100	22.6	3	2.3	<-0.68	<-0.69	
				2018/2/4	Sunny	3.0	0.3	3.1	0.0	Grayish yellow	None	63	47.1	4	3.2	<-0.84	<-0.63	
				2017/5/8	Sunny	16.6	0.5	11.6	0.0	Light grayish yellow green	None	87	13.2	4	2.3	<-0.83	<-0.80	
				2017/8/3	Sunny	23.1	0.5	22.2	0.0	Yellow greenish pale gray	None	>100	15.2	1	1.7	<-0.74	<-0.92	
11	Ota River	Hitosuji Bridge	Hiraizumi Town	2017/11/3	Sunny	21.1	0.5	13.4	0.0	Light grayish yellow green	None	>100	12.3	1	1.2	<-0.70	<-0.80	
				2018/2/6	Cloudy	-3.6	0.3	1.2	0.0	Light grayish yellow	None	>100	18.4	1	0.8	<-0.78	<-0.75	
				2017/5/5	Sunny	18.4	0.3	13.5	0.0	Yellowish white	None	>100	15.1	4	1.7	<-0.77	<-0.69	
				2017/8/3	Sunny	21.0	0.3	22.6	0.0	Yellow greenish pale gray	None	>100	18.8	4	2.4	<-0.60	<-0.48	
12	Iwate River Middle Reaches	Kamino Bridge	Ichinoseki City	2017/11/3	Sunny	16.1	0.5	12.3	0.0	Yellow greenish pale gray	None	>100	13.4	2	1.6	<-0.70	<-0.84	
				2018/2/6	Sunny	0.8	0.4	1.7	0.0	Yellowish pale gray	None	>100	23.2	2	0.9	<-0.76	<-0.75	
				2017/5/5	Sunny	21.2	0.5	13.3	0.0	Light grayish greenish yellow	None	60	9.9	9	8.6	<-0.62	<-0.61	
				2017/8/3	Sunny	25.2	1.0	23.3	0.0	Grayish yellow green	None	75	12.2	6	4.7	<-0.59	<-0.75	
13	Iwate River Lower Reaches	Kozenji Bridge	Ichinoseki City	2017/11/3	Cloudy	13.8	0.7	11.9	0.0	Grayish greenish yellow	None	>100	10.2	4	3.6	<-0.63	<-0.69	
				2018/2/6	Sunny	1.9	0.3	3.3	0.0	Light grayish yellow	None	>100	15.3	2	0.8	<-0.57	<-0.88	
				2017/5/8	Sunny	25.2	1.0	23.3	0.0	Grayish yellow green	None	75	12.2	6	4.7	<-0.59	<-0.75	
				2017/11/3	Cloudy	13.8	0.7	11.9	0.0	Grayish greenish yellow	None	>100	10.2	4	3.6	<-0.63	<-0.69	
14	Kitakami River	Chitose Bridge (Kozenji)	Ichinoseki City	2018/2/6	Sunny	1.9	0.3	3.3	0.0	Light grayish yellow	None	>100	15.3	2	0.8	<-0.57	<-0.88	
				2017/11/3	Cloudy	13.8	0.7	11.9	0.0	Grayish greenish yellow	None	>100	10.2	4	3.6	<-0.63	<-0.69	

Iwate River (Water) 2/2

Location				Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks	
No.	Water area		Location					Municipality	General items								Activity concentration(Bq/L)		
									Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium		
														Cs-134	Cs-137				
R i v e r s	15	Sokei River	Unada Bridge	Ichinoseki City	2017/5/6	Cloudy	17.9	0.3	14.8	0.0	Greenish yellowish white	None	>100	18.8	2	1.7	<-0.70	<-0.92	
					2017/8/6	Cloudy	30.9	0.4	23.7	0.0	Light grayish greenish yellow	None	>100	19.1	3	1.9	<-0.75	<-0.69	
					2017/11/4	Cloudy	14.2	0.4	12.0	0.0	Greenish yellowish white	None	>100	16.0	1	0.9	<-0.80	<-0.75	
					2018/2/5	Sunny	1.5	0.4	3.7	0.0	Greenish yellowish white	None	>100	17.6	<1	0.8	<-0.67	<-0.75	
					2017/5/6	Cloudy	15.3	0.5	13.1	0.0	Greenish yellowish white	None	>100	30.6	<1	0.8	<-0.69	<-0.60	
		16	Sarusawa River		Kannon Bridge	2017/8/6	Sunny	26.6	0.7	18.1	0.0	Light grayish yellow green	None	>100	27.6	<1	0.4	<-0.51	<-0.84
						2017/11/4	Cloudy	11.2	0.5	11.3	0.0	Greenish yellowish white	None	>100	20.6	<1	0.4	<-0.68	<-0.75
						2018/2/5	Sunny	-0.3	0.4	3.8	0.0	Greenish yellowish white	None	>100	27.4	<1	0.3	<-0.69	<-0.92
						2017/5/6	Rain	16.3	0.3	15.1	0.0	Yellow greenish white	None	>100	16.1	1	1.4	<-0.67	<-0.84
						2017/8/6	Sunny	29.4	0.8	19.4	0.0	Light grayish yellow green	None	>100	17.0	2	0.8	<-0.64	<-0.80
		17	Satetsu River		Oide Bridge	2017/11/4	Cloudy	14.0	0.6	11.9	0.0	Yellow greenish white	None	>100	17.0	<1	0.6	<-0.81	<-0.92
						2018/2/5	Sunny	3.5	0.4	6.1	0.0	Yellowish white	None	>100	17.5	<1	0.4	<-0.64	<-0.84
						2017/5/5	Sunny	28.2	0.3	19.5	0.0	Greenish yellowish white	None	>100	18.1	2	1.6	<-0.73	<-0.74
						2017/8/5	Cloudy	27.7	0.7	20.6	0.0	Light grayish yellow green	None	>100	18.7	3	1.8	<-0.62	<-0.63
						2017/11/5	Sunny	12.1	0.8	10.9	0.0	Greenish yellowish pale gray	None	>100	16.3	1	0.7	<-0.65	<-0.55
	18	Kitakami River System	Kanzaki Bridge	2018/2/3	Cloudy	2.8	0.4	3.7	0.0	Greenish yellowish white	None	>100	17.3	2	0.7	<-0.54	<-0.88		
				2017/5/6	Cloudy	17.0	0.3	15.7	0.0	Light grayish greenish yellow	None	64	19.5	7	7.1	<-0.60	<-0.75		
				2017/8/6	Sunny	29.4	0.3	23.4	0.0	Light grayish yellow green	None	>100	18.3	2	1.7	<-0.86	<-0.75		
				2017/11/4	Cloudy	13.6	0.3	12.2	0.0	Light grayish greenish yellow	None	>100	14.7	2	1.8	<-0.76	<-0.75		
				2018/2/3	Snow	0.8	0.4	0.4	0.0	Light grayish yellow green	None	>100	16.3	2	1.3	<-0.81	<-0.80		
	19	Sarusawa River Upper Reach	Miyata Bridge	2017/5/5	Sunny	26.0	0.5	14.6	0.0	Light grayish greenish yellow	None	55	10.3	8	9.0	<-0.71	<-0.70		
				2017/8/5	Sunny	24.7	0.3	22.1	0.0	Yellow greenish pale gray	None	>100	12.8	4	3.4	<-0.60	<-0.55		
				2017/11/5	Sunny	12.5	0.5	11.8	0.0	Light grayish yellow	None	85	11.2	2	2.3	<-0.85	<-0.84		
				2018/2/3	Snow	0.8	0.3	2.3	0.0	Greenish yellowish white	None	>100	15.8	1	1.3	<-0.65	<-0.63		
				2017/5/9	Cloudy	18.8	0.3	17.2	0.0	Light grayish yellow green	None	80	18.7	4	3.2	<-0.73	<-0.75		
	20	Kitakami River	Kitakamigawa Bridge	2017/8/5	Cloudy	25.8	0.6	21.4	0.0	Grayish yellow green	None	92	25.3	4	2.8	<-0.76	<-0.46		
				2017/11/5	Cloudy	13.5	0.4	11.7	0.0	Greenish yellowish white	None	>100	19.2	1	1.5	<-0.66	<-0.75		
				2018/2/2	Sunny	-0.4	0.5	1.5	0.0	Yellowish pale gray	None	>100	22.0	1	1.0	<-0.80	<-0.75		
2017/5/9				Cloudy	19.5	0.3	21.0	0.0	Light grayish greenish yellow	None	53	24.0	9	6.0	<-0.70	<-0.84			
2017/8/4				Cloudy	22.3	0.5	22.7	0.0	Light grayish yellow green	None	67	15.2	7	5.6	<-0.54	<-0.69			
21	Kinomi River	Higuchi Bridge	2017/11/7	Sunny	11.3	0.4	9.2	0.0	Grayish yellow	None	>100	14.0	2	2.2	<-0.83	<-0.80			
			2018/2/2	Sunny	3.6	0.4	1.6	0.0	Light grayish yellow	None	>100	21.0	2	2.6	<-0.81	<-0.63			
			2017/11/7	Sunny	11.3	0.4	9.2	0.0	Grayish yellow	None	>100	14.0	2	2.2	<-0.83	<-0.80			
22	Kinryu River	Tenjin Bridge	2017/11/7	Sunny	11.3	0.4	9.2	0.0	Grayish yellow	None	>100	14.0	2	2.2	<-0.83	<-0.80			
			2017/8/4	Cloudy	22.3	0.5	22.7	0.0	Light grayish yellow green	None	67	15.2	7	5.6	<-0.54	<-0.69			
			2017/11/7	Sunny	11.3	0.4	9.2	0.0	Grayish yellow	None	>100	14.0	2	2.2	<-0.83	<-0.80			

Iwate River (Sediment) 2/2

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment																	Remarks				
	Water area	Location	Municipality					Sediment temperature (°C)	Sample length (cm)	Color	Odor	General items									Sediment content (%)			Activity concentration [Bq/kg(dry)]					
												Coarse gravel	Medium gravel	Fine gravel	Grain size distribution(%)		Fine sand	Silt	Clay	Density (g/cm ³)	Property	Radioactive cesium							
															Coarse sand	Medium sand						Cs-134	Cs-137	Total					
R i v e r	15	Soken River	Unadu Bridge	Ichinosaki City	2017/5/6	Cloudy	17.9	0.3	15.0	3	Yellowish brown	Faint algae	0.0	7.0	13.9	30.3	40.7	3.5	2.0	2.6	74.9	2.677	Sand/gravel	<3.6	26	26			
					2017/8/6	Cloudy	30.9	0.4	23.2	3	Olive brown	Faint swamp	0.0	8.4	21.3	39.7	27.6	0.8	0.9	1.4	83.1	2.682	Sand/gravel	<3.8	14	14			
					2017/1/4	Cloudy	14.2	0.4	12.1	3	Dull yellowish brown	Faint swamp	0.0	6.2	4.8	16.3	68.5	1.5	1.0	1.7	71.7	2.657	Sand/gravel	<4.7	22	22			
		16	Sarusawa River	Kannon Bridge	Ichinosaki City	2018/2/5	Sunny	1.5	0.4	7.6	3	Olive brown	None	0.0	5.0	16.0	35.7	37.1	2.1	0.9	2.3	77.6	2.645	Sand/gravel	<3.9	19	19		
						2017/5/6	Cloudy	15.3	0.5	13.0	3	Dark brown	Faint swamp	0.0	17.8	37.1	30.2	11.1	0.7	1.2	1.9	78.9	2.724	Sand/gravel	4.4	39	43.4		
						2017/8/6	Sunny	26.6	0.7	17.9	3	Olive brown	None	0.0	17.9	25.0	30.2	23.4	1.8	0.1	1.6	78.8	2.836	Sand/gravel	4.6	37	41.6		
	2017/1/4					Cloudy	11.2	0.5	11.6	3	Blackish brown	Faint swamp	0.0	16.2	31.4	24.9	21.9	3.1	1.4	1.2	76.1	2.727	Gravel/sand	6.1	61	67.1			
	2018/2/5					Sunny	-0.3	0.4	3.2	3	Blackish brown	Faint swamp	0.0	11.0	23.0	28.4	29.9	4.0	2.6	1.3	78.8	2.723	Sand/gravel	9.2	75	84.2			
	2017/5/6					Rain	16.3	0.3	15.4	3	Olive brown	Faint algae	0.0	26.7	31.3	20.5	12.8	5.0	1.7	2.0	78.4	2.736	Sand/gravel	<3.3	11	11			
	17	Satetsu River	Odoe Bridge	Ichinosaki City	2017/8/6	Sunny	29.4	0.8	20.4	3	Olive brown	None	0.0	4.5	5.0	28.9	57.1	1.2	1.6	1.8	80.0	2.655	Sand/gravel	<3.7	16	16			
					2017/1/4	Cloudy	14.0	0.6	11.8	3	Dull yellowish brown	None	0.0	14.6	34.3	39.3	8.1	1.7	1.1	1.0	78.8	2.648	Sand/gravel	<3.6	9.5	9.5			
					2018/2/5	Sunny	3.5	0.4	6.3	3	Olive brown	Faint swamp	0.0	4.6	17.4	34.3	27.9	11.1	2.4	2.3	79.5	2.637	Sand/gravel	<4.0	18	18			
			2017/5/5		Sunny	28.2	0.3	19.2	3	Grayish yellowish brown	Faint algae	0.0	17.2	10.3	21.0	43.0	5.9	1.4	1.3	79.1	2.908	Sand/gravel	<3.1	4.5	4.5				
			2017/8/5		Cloudy	27.7	0.7	20.3	3	Blackish brown	Faint sewage	0.0	20.1	3.4	4.7	44.2	24.8	1.1	1.8	73.8	2.991	Sand/gravel	<3.1	7.5	7.5				
			2017/1/5		Sunny	12.1	0.8	11.1	3	Dark grayish yellow	None	0.0	0.2	0.1	1.1	50.1	42.8	2.9	2.9	71.5	2.799	Sand	<4.9	14	14				
	18	Kitakami River System	Kanzaki Bridge	Ichinosaki City	2018/2/3	Cloudy	2.8	0.4	3.6	3	Olive brown	Faint phytoplankton	0.0	10.9	14.6	26.8	39.9	4.9	1.2	1.7	77.4	2.719	Sand/gravel	<3.9	4.9	4.9			
					2017/5/6	Cloudy	17.0	0.3	15.8	3	Brown	None	0.0	1.0	4.0	21.2	68.3	2.8	0.0	2.8	73.5	2.706	Sand	6.0	36	42			
					2017/8/6	Sunny	29.4	0.3	23.6	3	Dull yellowish brown	None	0.0	11.1	52.4	21.1	13.3	1.4	0.0	0.7	90.3	2.675	Gravel/sand	<3.2	18	18			
					2017/1/4	Cloudy	13.6	0.3	12.0	3	Dull yellowish brown	None	0.0	0.0	2.6	28.5	62.0	3.1	2.0	1.9	74.3	2.663	Sand	6.0	51	57.0			
					2018/2/3	Snow	0.8	0.4	1.0	3	Dark brown	None	0.0	0.2	5.2	44.4	55.2	2.3	0.9	1.9	75.2	2.607	Sand/gravel	<5.7	42	42			
					2017/5/5	Sunny	26.0	0.5	14.0	3	Dull yellowish brown	None	0.0	29.4	4.8	1.6	42.4	18.5	0.7	2.5	74.6	2.824	Sand/gravel	<3.8	13	13			
			20		Kitakami River	Kitakamigawa Bridge	Ichinosaki City	2017/8/5	Sunny	24.7	0.3	22.6	3	Blackish brown	None	0.0	19.1	13.5	11.1	51.8	3.7	0.3	0.7	77.5	2.714	Sand/gravel	<3.0	8.6	8.6
								2017/1/5	Sunny	12.5	0.5	12.0	3	Blackish brown	Faint swamp	1.3	24.9	5.0	1.6	49.0	16.2	0.1	2.0	74.4	2.827	Sand/gravel	<5.4	7.2	7.2
								2018/2/3	Snow	0.8	0.3	2.6	3	Blackish brown	None	0.0	15.7	16.0	15.0	47.0	4.3	0.7	1.4	79.2	2.615	Sand/gravel	<4.4	7.3	7.3
								2017/5/9	Cloudy	18.8	0.3	16.8	3	Dark grayish yellow	Faint sewage	0.0	9.8	8.5	32.9	35.8	6.4	3.2	3.5	71.5	2.664	Sand/gravel	<3.9	27	27
								2017/8/5	Cloudy	25.8	0.6	22.2	3	Dark grayish yellow	Faint algae	0.0	17.9	46.0	30.7	4.1	0.2	0.4	0.7	79.4	2.666	Gravel/sand	<3.4	13	13
								2017/1/5	Cloudy	13.5	0.4	11.5	3	Olive brown	Faint swamp	0.0	1.9	3.8	26.0	58.0	7.4	0.1	2.8	75.8	2.699	Sand/gravel	<3.5	10	10
	21	Kinomi River	Higuchi Bridge	Ichinosaki City	2018/2/2	Sunny	-0.4	0.5	2.0	3	Grayish yellowish brown	Faint swamp	0.0	6.9	8.0	36.7	42.2	3.6	0.9	1.7	74.7	2.650	Sand/gravel	<3.2	18	18			
					2017/5/9	Cloudy	19.5	0.3	18.9	3	Dull yellowish brown	Faint algae	0.0	23.3	26.3	25.3	22.9	0.5	0.0	1.5	78.3	2.653	Sand/gravel	6.6	56	62.6			
					2017/8/4	Cloudy	22.3	0.5	22.8	3	Blackish brown	Faint algae	0.0	16.2	25.9	23.7	31.1	0.8	1.2	1.1	78.9	2.646	Sand/gravel	8.6	62	70.6			
22	Kinuyu River	Tenjin Bridge	Ichinosaki City	2017/1/7	Sunny	11.3	0.4	9.4	3	Blackish brown	None	0.0	19.7	34.2	30.7	13.6	0.4	0.1	1.4	79.8	2.680	Gravel/sand	<4.6	40	40				
				2018/2/2	Sunny	3.6	0.4	1.8	3	Blackish brown	Faint swamp	0.0	11.9	28.0	41.3	16.7	0.3	0.6	1.2	77.6	2.630	Gravel/sand	<4.8	38	38				

Iwate River (Surrounding Environment) 1/2

Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)													Remarks				
							Left bank			Radioactive cesium			Air Dose (μSv/h)	Right bank			Radioactive cesium							
No.	Water area	Location	Municipality	Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Color	Odor	Property		Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)							
							Cs-134	Cs-137	Total				Cs-134	Cs-137	Total									
R i v e r s	1	Sakari River Lower Reaches	Sano Bridge	Ofunato City	2017/5/11	Sunny	23.3	Dull yellowish brown	Faint earth	Loamy	5.7	42	47.7	0.06	Dark brown	None	Loamy	49	420	469	0.05			
					2017/11/9	Sunny	14.0	Blackish brown	Faint earth	Loamy	<8.6	47	47	0.06	Dark brown	Faint earth	Loamy	32	290	322	0.06			
	2	Kesen River	Ancha Bridge	Rikuzentakada City	2017/5/11	Sunny	18.0	Dark brown	Faint earth	Loamy	<4.5	19	19	0.05	Dark brown	Faint earth	Loamy	19	120	139	0.05			
					2017/11/9	Sunny	15.0	Blackish brown	Faint earth	Sandy	<7.9	22	22	0.04	Dark brown	Faint earth	Loamy	<6.7	10	10	0.04			
	3	Okawa River	Prefectural border with Miyagi	Ichinoseki City	2017/5/10	Rain	13.1	-	-	-	-	-	-	-	Dull yellowish brown	Faint earth	Loamy	38	310	348	0.08	(Left bank) Soil not exposed		
					2017/8/8	Cloudy	23.2	-	-	-	-	-	-	-	-	-	Blackish brown	Faint earth	Loamy	36	260	296	0.06	(Left bank) Soil not exposed
					2017/11/11	Sunny	12.8	-	-	-	-	-	-	-	-	-	Blackish brown	Faint earth	Loamy	25	240	265	0.05	(Left bank) Soil not exposed
					2018/2/2	Sunny	-2.4	-	-	-	-	-	-	-	-	-	-	Blackish brown	Faint earth	Loamy	20	190	210	0.05
	4	Tsyagawa River	Chiyogahara Bridge		2017/5/10	Rain	15.5	Brown	Faint earth	Loamy	68	520	588	0.08	Dark brown	Faint earth	Loamy	150	1,000	1,150	0.09			
					2017/11/11	Sunny	12.5	Dark brown	Faint earth	Loamy	74	490	564	0.07	Blackish brown	Faint earth	Loamy	130	1,000	1,130	0.08			
	5	Kurosawa River	Kawarada Bridge	Kanegasaki Town	2017/5/3	Sunny	16.2	Dark brown	Faint earth	Loamy	46	350	396	0.05	Dark brown	Faint earth	Loamy	73	480	553	0.05			
					2017/11/2	Cloudy	16.4	Blackish brown	Faint earth	Loamy	36	290	326	0.05	Blackish brown	Faint earth	Loamy	26	260	286	0.05			
	6	Isawa River	Ogo Bridge		2017/5/3	Sunny	21.8	Dark brown	Faint earth	Loamy	28	220	248	0.04	Blackish brown	Faint earth	Loamy	42	260	302	0.05			
					2017/8/2	Sunny	23.2	Dark brown	Faint earth	Loamy	20	130	150	0.05	Blackish brown	Faint earth	Loamy	8.7	70	78.7	0.04			
					2017/11/2	Cloudy	13.8	Dark brown	Faint earth	Loamy	15	150	165	0.04	Dark brown	Faint earth	Sandy	<8.4	37	37	0.04			
					2018/2/1	Sunny	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground
	7	Sajjin Bridge		Oshu City	2017/5/3	Sunny	24.8	Brown	Faint earth	Loamy	54	430	484	0.05	Brown	Faint earth	Loamy	48	350	398	0.05			
					2017/8/1	Sunny	27.7	Dark brown	Faint earth	Loamy	18	170	188	0.05	Dull yellowish brown	Faint earth	Loamy	43	300	343	0.04			
	8	Kitakami River	Fuji Bridge		2017/11/2	Cloudy	17.0	Blackish brown	Faint earth	Loamy	47	400	447	0.05	Dark brown	Faint earth	Loamy	41	280	321	0.04			
					2018/2/1	Sunny	0.1	Blackish brown	Faint earth	Loamy	15	210	225	0.04	Grayish yellowish brown	Faint earth	Loamy	21	140	161	0.04			
					2017/5/4	Sunny	16.8	Dull yellowish brown	Faint earth	Loamy	68	530	598	0.06	Brown	Faint earth	Loamy	71	540	611	0.09			
					2017/8/1	Sunny	29.0	Blackish brown	Faint earth	Loamy	27	160	187	0.05	Dull yellowish brown	Faint earth	Loamy	25	250	275	0.08			
	9	Shiratori River	Shiratori Bridge		2017/11/2	Cloudy	19.5	Blackish brown	Faint earth	Loamy	49	340	389	0.05	Dull yellowish brown	Faint earth	Loamy	35	320	355	0.06			
					2018/2/1	Sunny	1.4	Blackish brown	Faint earth	Sandy	23	210	233	0.04	Dark brown	Faint earth	Loamy	19	210	229	0.06			
					2017/5/4	Sunny	26.1	Brown	Faint earth	Loamy	130	930	1,060	0.09	Brown	Faint earth	Loamy	180	1,300	1,480	0.09			
					2017/8/2	Sunny	28.9	Blackish brown	Faint earth	Loamy	58	490	548	0.07	Dark brown	Faint earth	Loamy	48	410	458	0.07			
	10	Kitakami River System	Koromo River	Koromogawa Bridge	Hirazumi Town	2017/11/1	Sunny	15.2	Blackish brown	Faint earth	Loamy	67	540	607	0.09	Blackish brown	Faint earth	Loamy	58	400	458	0.08		
						2018/2/4	Sunny	-3.6	Dark brown	Faint earth	Loamy	38	440	478	0.06	Blackish brown	Faint earth	Loamy	27	210	237	0.05		
						2017/5/4	Sunny	26.8	Dull yellowish brown	Faint earth	Loamy	150	900	1,050	0.09	Dull yellowish brown	Faint earth	Loamy	74	500	574	0.08		
						2017/8/2	Sunny	26.0	Dark brown	Faint earth	Loamy	91	750	841	0.07	Dark brown	Faint earth	Loamy	55	410	465	0.06		
	11	Ota River	Hitosuji Bridge		2017/11/1	Cloudy	16.0	Dull yellowish brown	Faint earth	Loamy	72	660	732	0.06	Dark brown	Faint earth	Loamy	74	600	674	0.05			
					2018/2/4	Sunny	1.8	Blackish brown	Faint earth	Loamy	29	270	299	0.04	Blackish brown	Faint earth	Loamy	55	450	505	0.05			
					2017/5/4	Sunny	25.0	Dark brown	Faint earth	Loamy	110	710	820	0.08	Dark brown	Faint earth	Loamy	140	960	1,100	0.08			
					2017/8/2	Sunny	24.5	Blackish brown	Faint earth	Loamy	49	360	409	0.07	Dark brown	Faint earth	Loamy	73	620	693	0.07			
	12	Iwate River Middle Reaches	Kamino Bridge		2017/11/3	Sunny	12.8	Blackish brown	Faint earth	Loamy	69	600	669	0.05	Dark brown	Faint earth	Loamy	69	610	679	0.06			
					2018/2/4	Sunny	3.0	Blackish brown	Faint earth	Loamy	89	830	919	0.05	Blackish brown	Faint earth	Loamy	64	530	594	0.06			
					2017/5/8	Sunny	16.6	Dark brown	Faint earth	Loamy	240	1,800	2,040	0.08	Brown	Faint earth	Loamy	71	490	561	0.07			
					2017/8/3	Sunny	23.1	Dark brown	Faint earth	Loamy	92	750	842	0.07	Blackish brown	Faint earth	Loamy	50	410	460	0.05			
	13	Iwate River Lower Reaches	Kozenji Bridge	Ichinoseki City	2017/11/3	Sunny	21.1	Blackish brown	Faint earth	Loamy	100	720	820	0.07	Blackish brown	Faint earth	Loamy	49	480	529	0.06			
					2018/2/6	Cloudy	-3.6	Blackish brown	Faint earth	Loamy	51	520	571	0.05	Blackish brown	Faint earth	Loamy	53	450	503	0.05			
2017/5/5					Sunny	18.4	Brown	Faint earth	Loamy	21	200	221	0.06	Brown	Faint earth	Loamy	20	150	170	0.06				
2017/8/3					Sunny	21.0	Brown	Faint earth	Loamy	24	250	274	0.06	Dull yellowish brown	Faint earth	Loamy	21	220	241	0.05				
14	Kitakami River	Chitose Bridge (Kozenji)		2017/11/3	Sunny	16.1	Dull yellowish brown	Faint earth	Loamy	35	260	295	0.05	Dull yellowish brown	Faint earth	Loamy	39	280	319	0.05				
				2018/2/6	Sunny	0.8	Dark brown	Faint earth	Loamy	47	330	377	0.05	Dull yellowish brown	Faint earth	Loamy	49	410	459	0.05				
				2017/5/5	Sunny	21.2	Dull yellowish brown	Faint earth	Loamy	51	400	451	0.06	Brown	Faint earth	Loamy	74	440	514	0.06				
				2017/8/3	Sunny	25.2	Dull yellowish brown	Faint earth	Loamy	39	320	359	0.05	Dull yellowish brown	Faint earth	Loamy	49	440	489	0.04				
2017/11/3	Cloudy	13.8	Dark brown	Faint earth	Loamy	33	310	343	0.04	Dark brown	Faint earth	Loamy	39	340	379	0.05								
																		2018/2/6	Sunny	1.9	Dark brown	Faint earth	Loamy	19

Iwate River (Surrounding Environment) 2/2

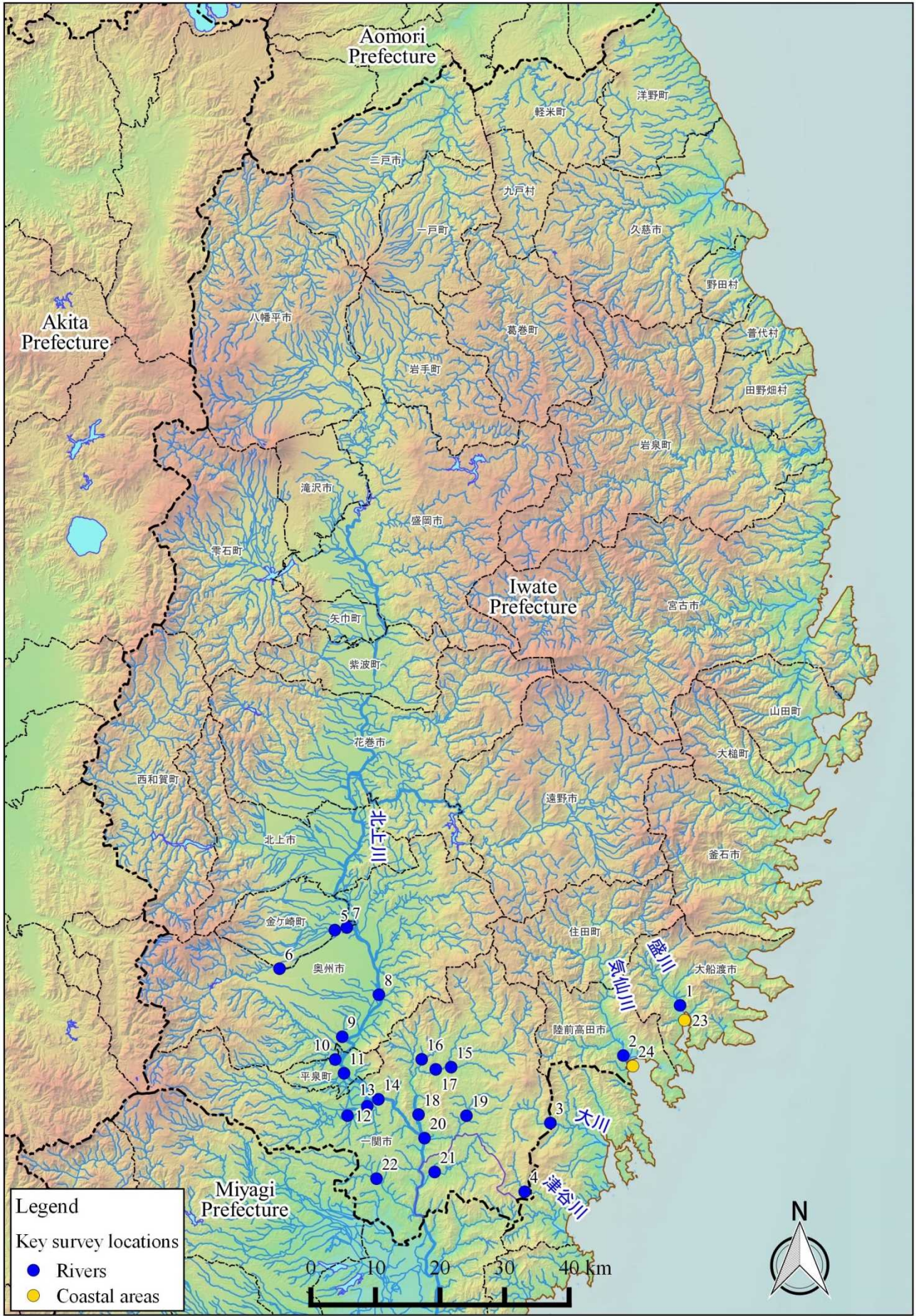
Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment(Soil,Air dose)																Remarks											
No.	Water area	Location	Municipality				Left bank						Right bank																					
							Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property	Radioactive cesium																	
										Cs-134	Cs-137	Total					Cs-134	Cs-137	Total															
R i v e r s	15	Sokei River	Umada Bridge	Ichinoseki City	2017/5/6	Cloudy	17.9	Dark brown	Faint earth	Loamy	65	490	555	0.06	Brown	Faint earth	Loamy	43	250	293	0.06													
					2017/8/6	Cloudy	30.9	Dark brown	Faint earth	Loamy	45	350	395	0.06	Dull yellowish brown	Faint earth	Loamy	27	160	187	0.07													
					2017/11/4	Cloudy	14.2	Blackish brown	Faint earth	Loamy	32	270	302	0.06	Dark brown	Faint earth	Loamy	22	220	242	0.06													
	16	Sarusawa River	Kannon Bridge	Ichinoseki City	2018/2/5	Sunny	1.5	Blackish brown	Faint earth	Loamy	14	150	164	0.04	Dark brown	Faint earth	Loamy	14	100	114	0.04													
					2017/5/6	Cloudy	15.3	Dull yellowish brown	Faint earth	Loamy	60	480	540	0.07	Dull yellowish brown	Faint earth	Loamy	92	790	882	0.07													
					2017/8/6	Sunny	26.6	Dark brown	Faint earth	Loamy	170	930	1,100	0.05	Blackish brown	Faint earth	Loamy	120	680	800	0.06													
	17	Satetsu River	Oide Bridge	Ichinoseki City	2017/11/4	Cloudy	11.2	Blackish brown	Faint earth	Loamy	53	520	573	0.05	Dark brown	Faint earth	Loamy	44	490	534	0.05													
					2018/2/5	Sunny	-0.3	Brown	Faint earth	Loamy	540	4,800	5,340	0.05	Blackish brown	Faint earth	Loamy	49	430	479	0.04													
					2017/5/6	Rain	16.3	Brown	Faint earth	Loamy	94	650	744	0.06	Dull yellowish brown	Faint earth	Loamy	79	490	569	0.07													
	18	Kitakami River System	Kanzaki Bridge	Ichinoseki City	2017/8/6	Sunny	29.4	Dark brown	Faint earth	Loamy	91	690	781	0.06	Dark brown	Faint earth	Loamy	73	580	653	0.06													
					2017/11/4	Cloudy	14.0	Blackish brown	Faint earth	Loamy	47	420	467	0.05	Blackish brown	Faint earth	Loamy	53	400	453	0.05													
					2018/2/5	Sunny	3.5	Dark brown	Faint earth	Loamy	32	440	472	0.04	Blackish brown	Faint earth	Loamy	28	250	278	0.05													
	19	Senmya River Upper Reaches	Miyata Bridge	Ichinoseki City	2017/5/5	Sunny	28.2	Dark grayish yellow	Faint earth	Loamy	190	1,400	1,590	0.09	Dark brown	Faint earth	Loamy	57	500	557	0.09													
					2017/8/5	Cloudy	27.7	Dark brown	Faint earth	Loamy	130	910	1,040	0.08	Blackish brown	Faint earth	Loamy	110	870	980	0.08													
					2017/11/5	Sunny	12.1	Dull yellowish brown	Faint earth	Loamy	96	820	916	0.08	Blackish brown	Faint earth	Loamy	72	700	772	0.08													
	20	Kitakami River	Kitakamigawa Bridge	Ichinoseki City	2018/2/3	Cloudy	2.8	Olive black	Faint earth	Loamy	89	700	789	0.07	Blackish brown	Faint earth	Loamy	60	600	660	0.07													
					2017/5/6	Cloudy	17.0	Dark brown	None	Loamy	130	1,000	1,130	0.10	Dark brown	Faint earth	Loamy	140	1,000	1,140	0.09													
					2017/8/6	Sunny	29.4	Grayish yellowish brown	Faint earth	Loamy	160	810	970	0.08	Grayish yellowish brown	Faint earth	Loamy	54	420	474	0.08													
	21	Kinomi River	Higuchi Bridge	Ichinoseki City	2017/11/4	Cloudy	13.6	Blackish brown	Faint earth	Loamy	98	770	868	0.08	Grayish yellowish brown	Faint earth	Loamy	86	730	816	0.08													
					2018/2/3	Snow	0.8	Brown	Faint earth	Loamy	67	710	777	0.07	Blackish brown	Faint earth	Loamy	41	390	431	0.07													
					2017/5/5	Sunny	26.0	Dull yellowish brown	Faint earth	Loamy	140	940	1,080	0.08	Brown	Faint earth	Loamy	88	690	778	0.08													
	22	Kinryu River	Tenjin Bridge	Ichinoseki City	2017/8/5	Sunny	24.7	Blackish brown	Faint earth	Loamy	44	420	464	0.06	Dark brown	Faint earth	Loamy	68	560	628	0.05													
					2017/11/5	Sunny	12.5	Dark brown	Faint earth	Loamy	81	580	661	0.06	Dark brown	Faint earth	Loamy	61	580	641	0.07													
					2018/2/3	Snow	0.8	Blackish brown	Faint earth	Loamy	16	150	166	0.05	Blackish brown	Faint earth	Loamy	43	400	443	0.07													
	2017/5/9	Cloudy	18.8	Dull yellowish brown	Faint earth	Loamy	28	200	228	0.05	Dull yellowish brown	Faint earth	Loamy	16	130	146	0.05																	
																		2017/8/5	Cloudy	25.8	Brown	Faint earth	Loamy	34	210	244	0.04	Blackish brown	Faint earth	Loamy	11	96	107	0.04
																		2017/11/5	Cloudy	13.5	Blackish brown	Faint earth	Loamy	9.2	100	109.2	0.05	Blackish brown	Faint earth	Loamy	10	110	120	0.04
	2018/2/2	Sunny	-0.4	Dull yellowish brown	Faint earth	Loamy	11	100	111	0.04	Blackish brown	Faint earth	Loamy	7.2	81	88.2	0.04																	
																		2017/5/9	Cloudy	19.5	Blackish brown	None	Loamy	240	1,700	1,940	0.11	Dull yellowish brown	Faint earth	Loamy	110	770	880	0.10
																		2017/8/4	Cloudy	22.3	Dark brown	Faint earth	Loamy	78	550	628	0.10	Dull yellowish brown	Faint earth	Loamy	85	680	765	0.09
2017/11/7	Sunny	11.3	Blackish brown	Faint earth	Loamy	91	740	831	0.10	Dark brown	Faint earth	Loamy	97	790	887	0.09																		
																	2018/2/2	Sunny	3.6	Blackish brown	Faint earth	Loamy	78	750	828	0.06	Grayish yellowish brown	Faint earth	Loamy	44	410	454	0.07	

Iwate Coastal(Water) 1/1

	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water										Remarks
	No.	Water area						General items							Activity concentration(Bq/L)			
								Water temperature (°C)	Sampling depth (m)	Color	Odor	Secchi disk depth (m)	Salinity (‰)	SS (mg/L)	Turbidity (FNU)	Radioactive cesium		
																Cs-134	Cs-137	
Coastal areas	23	Ofunato Bay (A)	S-31	Surface layer	2017/5/22	Sunny	18.6	16.3	14.9	0.5	Dark grayish yellow green	None	3.5	18.4	1	1.1	<0.60	<0.63
				Deep layer					10.1	15.3	-	None		34.1	<1	0.3	<0.79	<0.84
			Surface layer	2017/11/15	Sunny	8.4	16.8	13.3	0.5	Dark grayish bluish green	None	7.2	31.6	<1	0.5	<0.75	<0.80	
			Deep layer					14.7	15.8	-	None		33.0	<1	0.4	<0.74	<0.80	
	24	Hirota Bay	S-34	Surface layer	2017/5/22	Sunny	20.6	10.6	15.8	0.5	Dark grayish yellow green	None	5.3	26.8	<1	0.4	<0.82	<0.69
				Deep layer					11.9	9.6	-	None		33.6	<1	0.3	<0.72	<0.80
			Surface layer	2017/11/15	Sunny	8.6	11.2	13.0	0.5	Dark grayish bluish green	None	7.8	31.0	3	0.7	<0.74	<0.75	
			Deep layer					14.6	10.2	-	None		32.9	7	2.2	<0.47	<0.80	

Iwate Coastal (Sediment) 1/1

	Location		Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment																	Activity concentration [Bq/kg(dry)]			Remarks
							General items										Sediment content (%)	Density (g/cm ³)	Property	Radioactive cesium							
	Sediment temperature (°C)	Sample length (cm)					Color	Odor	Grain size distribution(%)											Cs-134	Cs-137	Total					
									Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay											
Coastal areas	23	Ofumoto Bay (A)	S-31	2017/5/22	Sunny	18.6	16.3	10.5	7	Brownish gray	None	0.0	0.0	0.3	1.3	8.3	13.6	53.6	22.8	45.9	2.664	Silt	<8.1	14	14		
				2017/11/15	Sunny	8.4	16.8	14.7	8	Olive black	Faint hydrogen sulfide	0.0	0.0	0.1	1.5	10.2	14.2	57.4	16.6	45.9	2.612	Silt/sand	<9.9	15	15		
	24	Hirota Bay	S-34	2017/5/22	Sunny	20.6	10.6	12.0	5	Blackish brown	None	0.0	0.1	0.2	2.6	72.1	20.0	1.1	3.9	75.3	2.754	Sand	<0.59	0.57	0.57		
				2017/11/15	Sunny	8.6	11.2	14.4	6	Brownish gray	None	0.0	0.0	0.0	1.0	74.1	21.0	2.1	1.9	73.3	2.743	Sand	<0.77	<0.81	-		



Survey Locations (Iwate Prefecture)