

FY2018 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 – 5.5 Bq/kg (dry)

Cs-137: 2.9 – 59 Bq/kg (dry)

Coastal areas

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

Cs-137: ND - 32 Bq/kg (dry)

(3) Surrounding Environment

(a) Soil

Rivers

Cs-134: ND - 130 Bq/kg (dry)

Cs-137: 2.0 - 1,300 Bq/kg (dry)

(b) Ambient dose rate

Rivers

0.03 - 0.08 μ Sv/h

Iwate River (Water) 1/2

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water							Activity concentration(Bq/L)		Remarks		
	Water area	Location	Municipality					General items							Radioactive cesium				
								Water temperature (°C)	Sampling depth (m)	Color	Odor	Transparency (cm)	Electrical conductivity (mS/m)	SS (mg/L)	Turbidity (FNU)	Cs-134		Cs-137	
1	Sakari River Lower Reaches	Sano Bridge	Ofunato City	2018/5/6	Sunny	24.3	0.5	15.2	0.0	Light grayish yellow	None	>100	67.1	1	1.1	<0.84	<0.80		
				2018/11/9	Rain	16.4	0.4	14.3	0.0	Grayish greenish yellow	None	36	77.0	11	8.9	<0.77	<0.88		
2	Kesen River	Aneha Bridge	Rikuzentakada City	2018/5/6	Cloudy	13.8	0.5	11.3	0.0	Light grayish greenish yellow	None	>100	352	<1	0.8	<0.56	<0.99		
				2018/11/10	Cloudy	17.0	0.5	13.2	0.0	Light grayish greenish yellow	None	>100	82.5	3	1.9	<0.85	<0.84		
3	Okawa River	Prefectural border with Miyagi	Ichinoseki City	2018/5/7	Cloudy	16.5	0.3	13.0	0.0	Light grayish yellow green	None	65	12.6	4	4.8	<0.93	<0.84		
				2018/8/14	Sunny	26.3	0.4	20.8	0.0	Greenish yellowish white	None	>100	13.8	2	1.6	<0.60	<0.63		
				2018/11/10	Sunny	18.8	0.4	14.4	0.0	Dark grayish yellow green	None	74	11.2	6	3.3	<0.83	<0.69		
				2019/2/11	Cloudy	2.0	0.4	4.3	0.0	Light grayish yellow	None	>100	12.9	3	1.1	<0.83	<0.80		
				2018/5/5	Sunny	12.3	0.4	11.5	0.0	Light grayish yellow	None	>100	8.7	1	1.2	<0.59	<0.66		
4	Tsuayagawa River	Chiyogahara Bridge		2018/11/10	Sunny	16.4	0.5	13.9	0.0	Light grayish yellow	None	>100	10.2	1	1.1	<0.58	<0.84		
				2018/5/14	Cloudy	17.5	0.6	13.4	0.0	Light grayish yellow green	None	72	11.1	4	3.7	<0.75	<0.84		
5	Kurosawa River	Kawarada Bridge	Kanegasaki Town	2018/11/1	Sunny	13.5	0.7	10.3	0.0	Light grayish yellow	None	>100	9.5	1	1.3	<0.74	<0.66		
				2018/5/14	Sunny	18.8	0.5	10.1	0.0	Yellowish white	None	>100	5.9	2	2.9	<0.73	<0.61		
6	Isawa River	Oago Bridge		2018/8/10	Sunny	28.2	0.4	19.3	0.0	Grayish yellow green	None	36	6.9	10	13	<0.68	<0.69		
				2018/11/1	Sunny	13.1	0.6	11.5	0.0	Light grayish greenish yellow	None	>100	8.6	2	2.8	<0.77	<0.60		
				2019/2/2	Snow	-1.1	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
				2018/5/14	Cloudy	17.0	0.4	9.9	0.0	Light grayish yellow green	None	>100	7.3	3	3.1	<0.69	<0.84		
7	Isawa River	Saijin Bridge	Oshu City	2018/8/10	Sunny	28.7	0.3	21.9	0.0	Grayish yellow green	None	82	10.2	6	4.8	<0.78	<0.84		
				2018/11/1	Sunny	14.3	0.8	13.2	0.0	Light grayish yellow green	None	>100	8.1	3	2.8	<0.79	<0.60		
				2019/2/2	Snow	3.2	0.6	1.5	0.0	Grayish yellow green	None	>100	11.7	1	1.3	<0.58	<0.84		
8	Kitakami River	Fuji Bridge	Oshu City	2018/5/11	Sunny	22.8	0.3	14.2	0.0	Light grayish greenish yellow	None	28	10.1	16	13	<0.60	<0.63		
				2018/8/10	Sunny	33.5	0.3	24.7	0.0	Light grayish yellow	None	68	14.4	7	4.2	<0.58	<0.80		
				2018/11/1	Sunny	14.7	0.3	12.3	0.0	Light grayish yellow green	None	>100	13.3	2	2.1	<0.72	<0.66		
9	Shiratori River	Shiratori Bridge	Oshu City	2019/2/2	Snow	3.6	0.4	4.0	0.0	Grayish yellow	None	>100	25.3	2	2.2	<0.87	<0.75		
				2018/5/11	Sunny	21.9	0.3	14.6	0.0	Light grayish yellow	None	17	8.4	25	23	<0.60	<0.78		
				2018/8/10	Sunny	29.6	0.3	23.7	0.0	Light grayish greenish yellow	None	65	12.1	8	7.2	<0.72	<0.63		
10	Kitakami River System	Koromo River	Koromogawa Bridge	Hiraizumi Town	2018/11/2	Sunny	6.4	0.3	8.6	0.0	Light grayish yellow	None	>100	14.2	1	1.8	<0.72	<0.54	
					2019/2/3	Sunny	6.9	0.4	3.0	0.0	Light grayish yellow	None	>100	17.2	1	1.6	<0.65	<0.80	
					2018/5/11	Sunny	20.5	0.5	13.3	0.0	Light grayish yellow	None	76	10.9	4	3.6	<0.63	<0.79	
					2018/8/7	Rain	18.7	0.6	17.8	0.0	Grayish greenish yellow	None	57	7.3	12	7.7	<0.74	<0.69	
					2018/11/2	Sunny	8.2	0.5	9.6	0.0	Light grayish yellow green	None	>100	10.1	<1	0.9	<0.58	<0.75	
11	Ota River	Hitosuji Bridge		2019/2/3	Sunny	-0.2	0.4	2.0	0.0	Greenish yellowish white	None	>100	11.5	<1	0.7	<0.68	<0.55		
				2018/5/11	Sunny	15.2	0.3	10.6	0.0	Light grayish greenish yellow	None	74	21.8	6	4.5	<0.67	<0.69		
				2018/8/7	Rain	18.7	0.3	19.4	0.0	Grayish greenish yellow	None	65	16.8	11	7.5	<0.76	<0.74		
				2018/11/2	Sunny	13.4	0.3	9.5	0.0	Light grayish yellow	None	>100	22.6	2	1.8	<0.77	<0.54		
				2019/2/3	Cloudy	-0.8	0.3	0.8	0.0	Light grayish greenish yellow	None	>100	26.4	2	2.4	<0.75	<0.80		
12	Iwai River Middle Reaches	Kamino Bridge		2018/5/13	Cloudy	18.7	0.3	12.6	0.0	Light grayish yellow green	None	90	15.7	4	2.6	<0.71	<0.80		
				2018/8/8	Sunny	22.5	0.5	18.8	0.0	Grayish greenish yellow	None	58	10.8	10	5.5	<0.84	<0.75		
				2018/11/2	Sunny	16.3	0.4	10.5	0.0	Light grayish greenish yellow	None	>100	16.2	2	1.7	<0.77	<0.60		
				2019/2/1	Snow	0.4	0.3	3.0	0.0	Light grayish greenish yellow	None	>100	18.7	2	1.5	<0.51	<0.75		
13	Iwai River Lower Reaches	Kozenji Bridge	Ichinoseki City	2018/5/13	Cloudy	17.8	0.4	13.0	0.0	Light grayish yellow green	None	88	17.6	4	2.4	<0.49	<0.61		
				2018/8/7	Rain	20.6	0.4	19.1	0.0	Grayish yellow green	None	32	11.0	17	12	<0.77	<0.63		
				2018/11/3	Sunny	12.4	0.4	9.9	0.0	Light grayish yellow green	None	>100	17.7	2	1.4	<0.56	<0.70		
				2019/2/1	Cloudy	-0.1	0.4	2.6	0.0	Light grayish greenish yellow	None	>100	21.2	2	1.9	<0.78	<0.75		
14	Kitakami River	Chitose Bridge (Kozenji)		2018/5/13	Cloudy	18.9	0.4	12.5	0.0	Grayish greenish yellow	None	36	9.6	12	14	<0.58	<0.80		
				2018/8/7	Rain	20.2	0.5	20.0	0.0	Grayish yellow	None	36	11.0	12	8.7	<0.85	<0.69		
				2018/11/3	Sunny	15.1	0.5	11.3	0.0	Light grayish greenish yellow	None	>100	11.9	1	1.4	<0.60	<0.60		
				2019/2/1	Cloudy	-0.6	0.5	2.2	0.0	Grayish yellow	None	>100	15.5	2	1.7	<0.81	<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	
R i v e r s	15	Sokei River	Unada Bridge	Ichinoseki City	2018/5/12	Cloudy	20.0	0.3	12.8	0.0	Greenish yellowish white	None	82	17.3	3	2.5	<0.45	<0.66
					2018/8/8	Cloudy	29.2	0.4	22.5	0.0	Light grayish yellow	None	92	15.1	5	2.5	<0.54	<0.75
	2018/11/4	Sunny	19.2		0.3	11.6	0.0	Light grayish yellow	None	>100	16.4	<1	0.8	<0.84	<0.70			
	2019/2/11	Sunny	0.1		0.4	3.3	0.0	Greenish yellowish white	None	>100	16.7	1	0.9	<0.62	<0.63			
	16	Sarusawa River	Kannon Bridge		2018/5/12	Cloudy	12.6	0.3	11.2	0.0	Yellow greenish pale gray	None	>100	24.2	<1	0.6	<0.69	<0.70
					2018/8/8	Sunny	23.7	0.6	17.2	0.0	Light grayish greenish yellow	None	>100	18.9	1	1.0	<0.72	<0.84
	17	Satetsu River	Oide Bridge		2018/11/4	Sunny	9.5	0.4	9.4	0.0	Greenish yellowish white	None	>100	29.3	<1	0.3	<0.84	<0.86
					2019/2/11	Sunny	-2.2	0.5	3.7	0.0	Greenish yellowish white	None	>100	28.8	<1	0.4	<0.59	<0.80
	18	Senmaya River Upper Reaches	Miyata Bridge		2018/5/12	Cloudy	15.1	0.4	11.5	0.0	Yellowish white	None	>100	17.2	2	1.3	<0.67	<0.80
					2018/8/8	Sunny	28.3	0.5	17.4	0.0	Light grayish yellow	None	>100	15.2	4	1.8	<0.78	<0.75
	19	Kitakami River System	Kanzaki Bridge		2018/11/4	Sunny	17.9	0.5	11.4	0.0	Greenish yellowish white	None	>100	17.0	<1	0.3	<0.67	<0.54
					2019/2/11	Sunny	0.7	0.4	6.7	0.0	Greenish yellowish white	None	>100	17.5	<1	0.3	<0.73	<0.63
	20	Kitakami River	Kitakamigawa Bridge		2018/5/13	Cloudy	18.9	0.4	13.9	0.0	Greenish yellowish white	None	>100	16.4	2	1.6	<0.74	<0.84
					2018/8/11	Sunny	28.3	0.7	20.4	0.0	Grayish greenish yellow	None	>100	15.2	6	2.5	<0.72	<0.75
	21	Kinomi River	Higuchi Bridge		2018/11/5	Cloudy	10.2	0.4	11.1	0.0	Greenish yellowish white	None	>100	17.1	1	0.6	<0.60	<0.66
					2019/2/12	Snow	0.3	0.5	3.4	0.0	Light grayish greenish yellow	None	>100	17.5	1	0.6	<0.57	<0.80
	22	Kinryu River	Tenjin Bridge		2018/5/12	Cloudy	21.0	0.4	13.6	0.0	Light grayish greenish yellow	None	46	16.2	8	6.5	<0.69	<0.55
					2018/8/11	Cloudy	26.4	0.3	20.8	0.0	Light grayish yellow green	None	96	15.8	6	2.7	<0.63	<0.69
	20	Kitakami River	Kitakamigawa Bridge		2018/11/5	Cloudy	13.3	0.4	11.4	0.0	Light grayish greenish yellow	None	>100	15.7	<1	1.0	<0.80	<0.75
					2019/2/11	Sunny	3.5	0.3	3.1	0.0	Light grayish yellow green	None	>100	16.4	2	1.6	<0.58	<0.84
	21	Kinomi River	Higuchi Bridge		2018/5/8	Cloudy	12.8	0.3	11.8	0.0	Grayish greenish yellow	None	35	11.1	12	13	<0.75	<0.80
					2018/8/11	Sunny	34.5	0.3	23.9	0.0	Light grayish yellow	None	63	12.7	12	6.8	<0.76	<0.84
	22	Kinryu River	Tenjin Bridge		2018/11/5	Cloudy	14.8	0.3	11.8	0.0	Light grayish yellow	None	>100	12.9	2	1.2	<0.60	<0.75
					2019/2/12	Snow	-0.5	0.3	2.5	0.0	Greenish yellowish white	None	>100	15.1	2	1.4	<0.63	<0.87
	21	Kinomi River	Higuchi Bridge		2018/5/8	Rain	12.4	0.4	12.3	0.0	Grayish yellow green	None	46	20.5	10	8.3	<0.54	<0.75
					2018/8/14	Sunny	31.5	0.4	23.8	0.0	Light grayish yellow	None	>100	21.1	4	3.1	<0.85	<0.69
	22	Kinryu River	Tenjin Bridge		2018/11/5	Cloudy	16.6	0.5	12.3	0.0	Greenish yellowish white	None	>100	21.8	<1	1.0	<0.60	<0.75
					2019/2/4	Sunny	9.3	0.5	4.7	0.0	Grayish yellow green	None	53	23.3	8	5.2	<0.78	<0.80
21	Kinomi River	Higuchi Bridge	2018/5/8	Cloudy	12.3	0.3	14.0	0.0	Grayish greenish yellow	None	16	15.1	33	32	<0.47	<0.63		
			2018/8/14	Sunny	33.7	0.3	28.4	0.0	Grayish yellow	None	60	18.2	9	6.8	<0.77	<0.84		
22	Kinryu River	Tenjin Bridge	2018/11/6	Sunny	13.3	0.3	11.5	0.0	Light grayish yellow	None	>100	18.8	5	2.9	<0.76	<0.69		
			2019/2/4	Sunny	9.8	0.3	3.1	0.0	Dark grayish yellow	None	23	18.2	23	13	<0.81	<0.86		

Iwate River (Sediment)2/2

No.	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment																Remarks		
	Water area	Location	Municipality					General items						Grain size distribution(%)						Sediment content		Activity concentration [Bq/kg(dry)]				
								Sediment temperature (°C)	Sample length (cm)	Color	Odor	Coarse gravel	Medium gravel	Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	Density (g/cm ³)	Property	Radioactive cesium				
																						Cs-134	Cs-137		Total	
R i v e r s	15	Sokei River	Unada Bridge	Ihinosaki City	2018/5/12	Cloudy	20.0	0.3	13.4	3	Yellowish brown	None	0.0	13.6	18.5	20.1	41.8	3.9	0.7	1.3	72.8	2.659	Sand/gravel	<6.2	23	23
					2018/8/8	Cloudy	29.2	0.4	22.9	3	Dull yellowish brown	None	0.0	12.7	35.8	34.8	14.7	0.9	0.1	1.0	82.8	2.654	Sand/gravel	<4.6	7.2	7.2
					2018/11/4	Sunny	19.2	0.3	11.5	3	Brown	Faint swamp	0.0	1.8	14.9	40.4	34.3	5.1	1.9	1.6	74.8	2.679	Sand/gravel	<3.4	16	16
					2019/2/11	Sunny	0.1	0.4	3.2	3	Dull yellowish brown	None	0.0	2.4	15.9	35.7	34.9	6.4	0.9	4.0	74.2	2.649	Sand/gravel	<8.1	25	25
		2018/5/12	Cloudy		12.6	0.3	11.4	3	Dull yellowish brown	None	0.0	8.5	16.8	36.9	34.9	0.8	0.8	1.4	76.1	2.753	Sand/gravel	4.8	41	45.8		
		2018/8/8	Sunny		23.7	0.6	17.9	3	Dull yellowish brown	None	0.0	7.7	16.5	35.0	36.8	2.4	0.0	1.5	74.5	2.725	Sand/gravel	4.8	45	49.8		
		2018/11/4	Sunny		9.5	0.4	9.5	3	Dark brown	None	0.0	27.2	31.5	26.2	12.8	0.7	0.7	1.0	87.4	2.752	Sand/gravel	<5.1	23	23		
		2019/2/11	Sunny		-2.2	0.5	3.2	3	Blackish brown	Faint algae	0.0	16.9	16.3	26.6	36.1	1.5	0.1	2.6	75.6	2.735	Sand/gravel	<4.9	49	49		
		2018/5/12	Cloudy		15.1	0.4	11.8	3	Yellowish brown	None	0.0	18.2	51.0	23.9	3.7	2.4	0.3	0.6	88.1	2.681	Gravel/sand	<6.5	11	11		
		2018/8/8	Sunny		28.3	0.5	21.2	3	Olive brown	None	0.0	5.6	28.1	24.2	26.0	12.5	2.3	1.3	77.0	2.667	Sand/gravel	<4.7	11	11		
		2018/11/4	Sunny		17.9	0.5	11.6	3	Dull yellowish brown	Faint swamp	0.0	1.8	28.9	63.7	3.1	0.5	0.4	1.6	84.1	2.671	Sand/gravel	<4.0	3.8	3.8		
		2019/2/11	Sunny		0.7	0.4	5.5	3	Olive brown	None	0.0	8.4	18.7	29.0	29.0	10.5	0.8	3.5	77.4	2.671	Sand/gravel	<4.6	21	21		
	2018/5/13	Cloudy	18.9	0.4	14.3	3	Grayish yellowish brown	None	0.0	11.0	14.6	28.7	39.2	3.7	0.8	2.1	80.5	2.745	Sand/gravel	<6.0	7.6	7.6				
	2018/8/11	Sunny	28.3	0.7	21.2	3	Blackish brown	None	0.0	0.1	0.1	0.9	46.4	37.4	10.3	4.8	71.1	2.706	Sand	<5.8	40	40				
	2018/11/5	Cloudy	10.2	0.4	11.3	3	Dark olive brown	None	0.0	0.0	0.1	0.3	44.4	44.9	6.5	3.8	74.0	2.866	Sand	<4.4	23	23				
	2019/2/12	Snow	0.3	0.5	2.6	3	Olive black	None	0.0	0.0	0.1	0.4	41.5	51.2	2.0	4.8	69.0	2.720	Sand	<5.1	17	17				
	2018/5/12	Cloudy	21.0	0.4	13.8	3	Dark brown	None	0.0	0.0	0.5	12.1	75.7	9.3	0.6	2.0	73.8	2.702	Sand	<5.4	44	44				
	2018/8/11	Cloudy	26.4	0.3	21.1	3	Dull yellowish brown	None	0.0	0.0	0.6	14.8	76.5	5.1	0.7	2.3	72.9	2.642	Sand	<4.4	31	31				
	2018/11/5	Cloudy	13.3	0.4	11.6	3	Dark brown	None	0.0	1.7	12.5	27.2	51.0	3.4	1.4	2.8	73.5	2.706	Sand	<4.1	36	36				
	2019/2/11	Sunny	3.5	0.3	2.8	3	Dark brown	None	0.0	4.7	14.7	20.5	51.7	4.4	0.8	3.1	73.5	2.664	Sand	<4.8	49	49				
	2018/5/8	Cloudy	12.8	0.3	12.2	3	Dark brown	None	0.0	0.0	0.0	0.1	76.7	19.2	2.0	2.0	69.2	2.674	Sand	<6.3	17	17				
	2018/8/11	Sunny	34.5	0.3	24.3	3	Dark brown	Faint swamp	0.0	0.0	0.1	8.7	85.6	3.5	0.1	2.0	76.5	2.634	Sand	<4.1	5.8	5.8				
	2018/11/5	Cloudy	14.8	0.3	12.5	3	Blackish brown	Faint phytoplankton	0.0	18.1	4.9	5.3	66.4	2.2	1.5	1.5	77.1	2.692	Sand/gravel	<4.1	5.3	5.3				
	2019/2/12	Snow	-0.5	0.3	2.7	3	Blackish brown	None	0.0	15.2	1.8	8.5	68.1	3.2	0.8	2.4	74.8	2.638	Sand/gravel	<4.0	12	12				
	2018/5/8	Rain	12.4	0.4	12.6	3	Olive brown	Faint swamp	0.0	4.6	18.5	48.7	24.4	1.5	0.8	1.5	76.8	2.702	Sand/gravel	<4.2	13	13				
	2018/8/14	Sunny	31.5	0.4	23.9	3	Dull yellowish brown	None	0.0	1.2	13.3	47.5	34.9	0.6	0.9	1.7	73.6	2.644	Sand	<4.5	18	18				
	2018/11/5	Cloudy	16.6	0.5	12.7	3	Grayish yellowish brown	None	0.0	17.8	15.2	40.9	23.2	0.2	0.6	1.9	76.5	2.708	Sand/gravel	<3.9	7.7	7.7				
	2019/2/4	Sunny	9.3	0.5	4.7	3	Olive brown	Faint swamp	0.0	13.5	19.6	41.5	22.6	0.3	0.7	1.9	76.6	2.675	Sand/gravel	<4.7	7.1	7.1				
	2018/5/8	Cloudy	12.3	0.3	14.2	3	Blackish brown	Faint phytoplankton	0.0	10.3	34.6	24.9	22.0	5.8	0.5	1.9	80.1	2.678	Gravel/sand	5.5	59	64.5				
	2018/8/14	Sunny	33.7	0.3	29.1	3	Blackish brown	Faint phytoplankton	2.1	27.9	19.9	22.1	25.7	0.7	0.6	1.0	77.1	2.643	Sand/gravel	5.2	48	53.2				
	2018/11/6	Sunny	13.3	0.3	12.1	3	Blackish brown	Faint swamp	0.0	14.3	21.9	24.8	36.0	1.2	0.4	1.5	79.4	2.697	Sand/gravel	3.5	34	37.5				
	2019/2/4	Sunny	9.8	0.3	3.9	3	Blackish brown	None	0.0	27.6	18.2	20.9	29.7	1.4	0.6	1.6	76.8	2.702	Sand/gravel	<5.1	44	44				

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	Sakari River Lower Reaches	Sano Bridge	Ofunato City	2018/5/6	Sunny	24.3	Blackish brown	Faint earth	Loamy	<6.7	44	44	0.04	Blackish brown	Faint earth	Loamy	41	340	381	0.04					
				2018/11/9	Rain	16.4	Blackish brown	Faint earth	Loamy	<6.0	35	35	0.05	Blackish brown	Faint earth	Loamy	18	210	228	0.04					
	2	Kesen River	Aneha Bridge	Rikuzentakada City	2018/5/6	Cloudy	13.8	Blackish brown	Faint earth	Sandy	<7.9	36	36	0.04	Dark brown	Faint earth	Loamy	<0.62	2.4	2.4	0.04				
					2018/11/10	Cloudy	17.0	Dark brown	Faint earth	Sandy	<0.51	2.0	2.0	0.04	Dark brown	Faint earth	Loamy	<2.9	5.2	5.2	0.04				
	3	Okawa River	Prefectural border with Miyagi	Ichinoseki City	2018/5/7	Cloudy	16.5	-	-	-	-	-	-	-	Blackish brown	Faint earth	Loamy	72	500	572	0.06	(Left bank) Soil not exposed			
					2018/8/14	Sunny	26.3	-	-	-	-	-	-	-	-	-	Blackish brown	Faint earth	Loamy	13	120	133	0.05	(Left bank) Soil not exposed	
					2018/11/10	Sunny	18.8	-	-	-	-	-	-	-	-	-	-	Blackish brown	Faint earth	Loamy	23	270	293	0.06	(Left bank) Soil not exposed
					2019/2/11	Cloudy	2.0	-	-	-	-	-	-	-	-	-	-	Blackish brown	Faint earth	Loamy	25	310	335	0.05	(Left bank) Soil not exposed
	4	Tsuayagawa River	Chiyogahara Bridge		2018/5/5	Sunny	12.3	Dark brown	Faint earth	Loamy	41	420	461	0.06	Blackish brown	Faint earth	Loamy	64	640	704	0.07				
					2018/11/10	Sunny	16.4	Blackish brown	Faint earth	Loamy	38	430	468	0.05	Blackish brown	Faint earth	Loamy	16	180	196	0.06				
	5	Kurosawa River	Kawarada Bridge	Kanegasaki Town	2018/5/14	Cloudy	17.5	Dark brown	Faint earth	Loamy	18	210	228	0.04	Dark brown	Faint earth	Loamy	32	260	292	0.04				
					2018/11/1	Sunny	13.5	Dark brown	Faint earth	Loamy	18	170	188	0.04	Blackish brown	Faint earth	Loamy	38	340	378	0.04				
	6	Isawa River	Oago Bridge		2018/5/14	Sunny	18.8	Dark brown	Faint earth	Loamy	<10	81	81	0.04	Blackish brown	Faint earth	Loamy	18	250	268	0.04				
					2018/8/10	Sunny	28.2	Dark brown	Faint earth	Loamy	<6.9	36	36	0.04	Dark brown	Faint earth	Loamy	17	250	267	0.04				
					2018/11/1	Sunny	13.1	Dark brown	Faint earth	Loamy	<6.8	45	45	0.04	Dark brown	Faint earth	Loamy	14	190	204	0.04				
					2019/2/2	Snow	-1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Unable to collect samples due to snow on the ground	
	7	Isawa River	Sajin Bridge	Oshu City	2018/5/14	Cloudy	17.0	Dark brown	Faint earth	Loamy	32	300	332	0.05	Dark brown	Faint earth	Loamy	27	220	247	0.04				
					2018/8/10	Sunny	28.7	Blackish brown	Faint earth	Loamy	18	250	268	0.04	Dull yellowish brown	Faint earth	Loamy	62	630	692	0.04				
					2018/11/1	Sunny	14.3	Dark brown	Faint earth	Loamy	21	230	251	0.04	Dull yellowish brown	Faint earth	Loamy	27	290	317	0.04				
					2019/2/2	Snow	3.2	Dark brown	Faint earth	Loamy	15	180	195	0.03	Blackish brown	Faint earth	Loamy	39	460	499	0.04				
	8	Kitakami River	Fuji Bridge	Oshu City	2018/5/11	Sunny	22.8	Blackish brown	Faint earth	Loamy	27	270	297	0.04	Dull yellowish brown	Faint earth	Loamy	37	290	327	0.07				
					2018/8/10	Sunny	33.5	Blackish brown	Faint earth	Loamy	29	300	329	0.04	Brown	Faint earth	Loamy	26	250	276	0.06				
					2018/11/1	Sunny	14.7	Blackish brown	Faint earth	Loamy	12	150	162	0.04	Dull yellowish brown	Faint earth	Loamy	15	160	175	0.06				
					2019/2/2	Snow	3.6	Blackish brown	Faint earth	Loamy	44	490	534	0.04	Dark brown	Faint earth	Loamy	27	310	337	0.07				
	9	Shiratori River	Shiratori Bridge	Oshu City	2018/5/11	Sunny	21.9	Blackish brown	Faint earth	Loamy	46	470	516	0.07	Blackish brown	Faint earth	Loamy	31	380	411	0.08				
					2018/8/10	Sunny	29.6	Dark brown	Faint earth	Loamy	48	420	468	0.06	Blackish brown	Faint earth	Loamy	26	270	296	0.06				
2018/11/2					Sunny	6.4	Blackish brown	Faint earth	Loamy	26	300	326	0.06	Dark brown	Faint earth	Loamy	30	390	420	0.06					
2019/2/3					Sunny	6.9	Blackish brown	Faint earth	Loamy	44	470	514	0.06	Blackish brown	Faint earth	Loamy	27	290	317	0.06					
10	Kitakami River System	Koromo River	Koromogawa Bridge	Hiraizumi Town	2018/5/11	Sunny	20.5	Dull yellowish brown	Faint earth	Loamy	75	760	835	0.07	Dark brown	Faint earth	Loamy	42	420	462	0.06				
					2018/8/7	Rain	18.7	Yellowish brown	Faint earth	Loamy	45	580	625	0.08	Dark brown	Faint earth	Loamy	27	270	297	0.08				
					2018/11/2	Sunny	8.2	Brown	Faint earth	Loamy	36	310	346	0.05	Dark brown	Faint earth	Loamy	30	280	310	0.06				
					2019/2/3	Sunny	-0.2	Dull yellowish brown	Faint earth	Loamy	55	590	645	0.07	Blackish brown	Faint earth	Loamy	27	340	367	0.06				
11	Ota River	Hitosuji Bridge	Hiraizumi Town	2018/5/11	Sunny	15.2	Blackish brown	Faint earth	Loamy	70	600	670	0.06	Blackish brown	Faint earth	Loamy	81	700	781	0.07					
				2018/8/7	Rain	18.7	Blackish brown	Faint earth	Loamy	52	590	642	0.08	Blackish brown	Faint earth	Loamy	69	720	789	0.08					
				2018/11/2	Sunny	13.4	Blackish brown	Faint earth	Loamy	51	590	641	0.05	Blackish brown	Faint earth	Loamy	67	650	717	0.06					
				2019/2/3	Cloudy	-0.8	Dark brown	Faint earth	Loamy	51	610	661	0.06	Dark brown	Faint earth	Loamy	57	700	757	0.06					
12	Iwai River Middle Reaches	Kamino Bridge	Ichinoseki City	2018/5/13	Cloudy	18.7	Blackish brown	Faint earth	Loamy	68	560	628	0.06	Blackish brown	Faint earth	Loamy	49	380	429	0.05					
				2018/8/8	Sunny	22.5	Blackish brown	Faint earth	Loamy	46	520	566	0.05	Blackish brown	Faint earth	Loamy	24	300	324	0.05					
				2018/11/2	Sunny	16.3	Blackish brown	Faint earth	Loamy	33	350	383	0.07	Blackish brown	Faint earth	Loamy	22	270	292	0.06					
				2019/2/1	Snow	0.4	Blackish brown	Faint earth	Loamy	32	400	432	0.07	Blackish brown	Faint earth	Loamy	24	310	334	0.05					
13	Iwai River Lower Reaches	Kozenji Bridge	Ichinoseki City	2018/5/13	Cloudy	17.8	Dull yellowish brown	Faint earth	Loamy	30	290	320	0.05	Dull yellowish brown	Faint earth	Loamy	43	400	443	0.05					
				2018/8/7	Rain	20.6	Dark brown	Faint earth	Loamy	28	350	378	0.05	Dull yellowish brown	Faint earth	Loamy	25	340	365	0.04					
				2018/11/3	Sunny	12.4	Dark brown	Faint earth	Loamy	21	260	281	0.04	Dark brown	Faint earth	Loamy	32	400	432	0.05					
				2019/2/1	Cloudy	-0.1	Dark brown	Faint earth	Loamy	26	320	346	0.05	Brown	Faint earth	Loamy	22	230	252	0.04					
14	Kitakami River	Chitose Bridge (Kozenji)	Ichinoseki City	2018/5/13	Cloudy	18.9	Dull yellowish brown	Faint earth	Loamy	25	260	285	0.04	Dark brown	Faint earth	Loamy	24	230	254	0.04					
				2018/8/7	Rain	20.2	Dark brown	Faint earth	Loamy	24	220	244	0.05	Dark brown	Faint earth	Loamy	33	380	413	0.05					
				2018/11/3	Sunny	15.1	Dark brown	Faint earth	Loamy	19	220	239	0.04	Dark brown	Faint earth	Loamy	23	310	333	0.04					
				2019/2/1	Cloudy	-0.6	Grayish yellowish brown	Faint earth	Loamy	19	210	229	0.04	Blackish brown	Faint earth	Loamy	24	240	264	0.04					

Iwate River (Surrounding Environment) 2/2

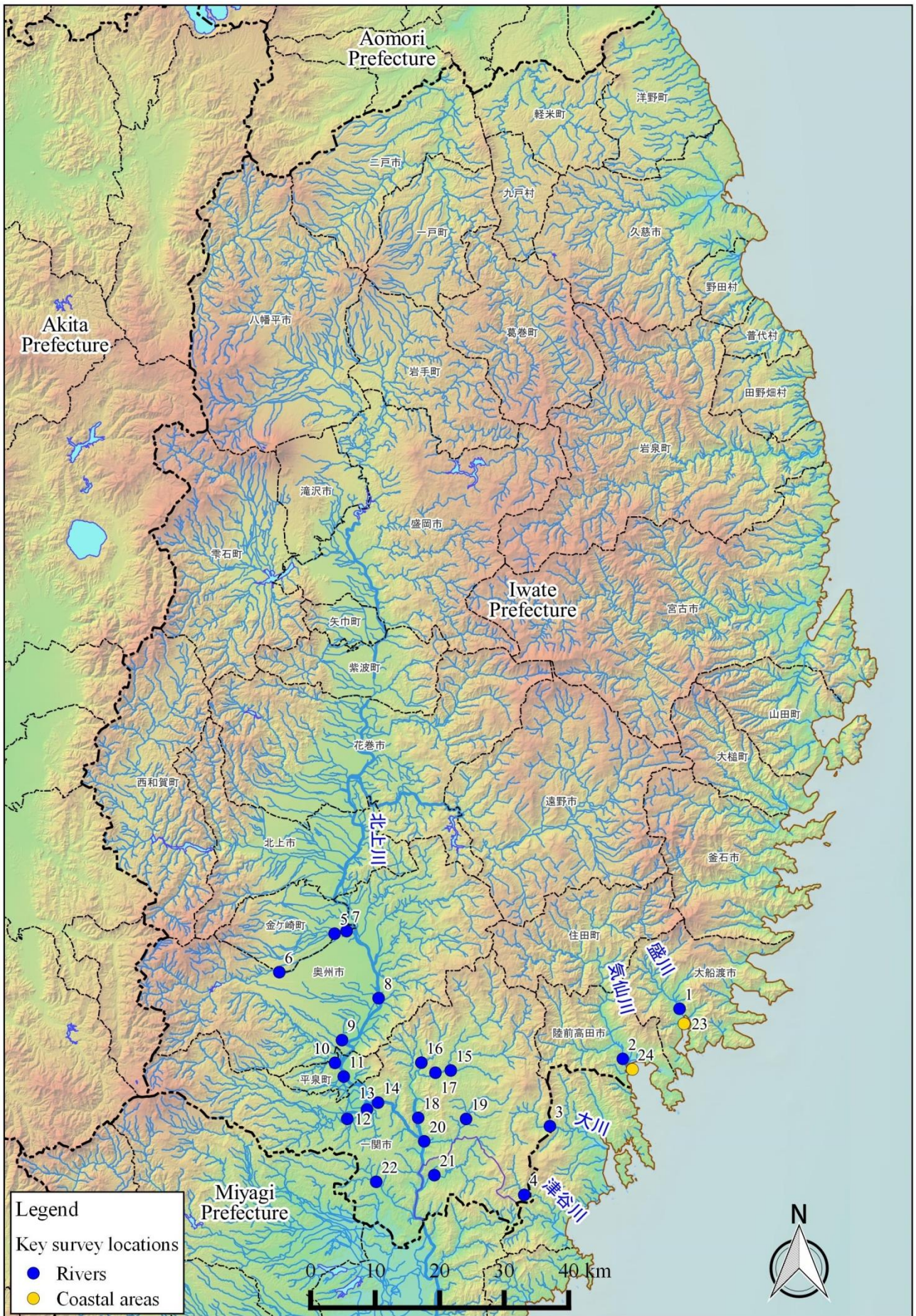
Location				Sampling Date	Weather	Air temperature (°C)	Surrounding Environment (Soil, Air dose)											Remarks				
No.	Water area	Location	Municipality				Left bank					Right bank										
							Color	Odor	Property	Activity concentration [Bq/kg(dry)]			Air Dose (μSv/h)	Color	Odor	Property	Activity concentration [Bq/kg(dry)]					
										Cs-134	Cs-137	Total					Cs-134		Cs-137	Total		
R i v e r s	15	Sokei River	Unada Bridge	Ichinoseki City	2018/5/12	Cloudy	20.0	Blackish brown	Faint earth	Loamy	20	180	200	0.05	Dark brown	Faint earth	Loamy	12	130	142	0.05	
					2018/8/8	Cloudy	29.2	Blackish brown	Faint earth	Loamy	20	200	220	0.05	Dull yellowish brown	Faint earth	Loamy	14	100	114	0.04	
					2018/11/4	Sunny	19.2	Blackish brown	Faint earth	Loamy	<9.4	78	78	0.04	Dark brown	Faint earth	Loamy	11	98	109	0.04	
	16	Sarusawa River	Kannon Bridge	Ichinoseki City	2019/2/11	Sunny	0.1	-	-	-	-	-	-	0.05	Blackish brown	Faint earth	Loamy	21	280	301	0.05	(Left bank)Unable to collect samples due to freeze
					2018/5/12	Cloudy	12.6	Black	Faint earth	Loamy	40	450	490	0.05	Dark brown	Faint earth	Loamy	57	510	567	0.05	
					2018/8/8	Sunny	23.7	Black	Faint earth	Loamy	62	750	812	0.06	Dark brown	Faint earth	Loamy	50	530	580	0.04	
					2018/11/4	Sunny	9.5	Blackish brown	Faint earth	Loamy	22	190	212	0.05	Dark brown	Faint earth	Loamy	45	470	515	0.05	
					2019/2/11	Sunny	-2.2	Blackish brown	Faint earth	Loamy	56	620	676	0.04	Blackish brown	Faint earth	Loamy	32	400	432	0.04	
					2018/5/12	Cloudy	15.1	Dark brown	Faint earth	Loamy	39	470	509	0.05	Dull yellowish brown	Faint earth	Loamy	44	380	424	0.05	
	17	Satetsu River	Oide Bridge	Ichinoseki City	2018/8/8	Sunny	28.3	Dark brown	Faint earth	Loamy	21	260	281	0.04	Blackish brown	Faint earth	Loamy	29	370	399	0.05	
					2018/11/4	Sunny	17.9	Dark brown	Faint earth	Loamy	16	150	166	0.05	Blackish brown	Faint earth	Loamy	22	250	272	0.05	
					2019/2/11	Sunny	0.7	Dark brown	Faint earth	Loamy	25	260	285	0.04	Dark brown	Faint earth	Loamy	53	700	753	0.05	
					2018/5/13	Cloudy	18.9	Grayish yellowish brown	Faint earth	Loamy	58	640	698	0.06	Blackish brown	Faint earth	Loamy	20	320	340	0.07	
					2018/8/11	Sunny	28.3	Dull yellowish brown	Faint earth	Loamy	73	740	813	0.07	Blackish brown	Faint earth	Loamy	58	670	728	0.06	
	18	Kitakami River System	Kanzaki Bridge	Ichinoseki City	2018/11/5	Cloudy	10.2	Blackish brown	Faint earth	Loamy	71	720	791	0.06	Dark brown	Faint earth	Loamy	70	800	870	0.07	
					2019/2/12	Snow	0.3	Blackish brown	Faint earth	Loamy	72	790	862	0.06	Blackish brown	Faint earth	Loamy	34	400	434	0.06	
					2018/5/12	Cloudy	21.0	Grayish yellowish brown	Faint earth	Loamy	37	450	487	0.08	Grayish yellowish brown	Faint earth	Loamy	32	340	372	0.07	
					2018/8/11	Cloudy	26.4	Grayish yellowish brown	Faint earth	Loamy	18	190	208	0.08	Blackish brown	Faint earth	Loamy	65	650	715	0.07	
	19	Semmaya River Upper Reaches	Miyata Bridge	Ichinoseki City	2018/11/5	Cloudy	13.3	Grayish yellowish brown	Faint earth	Loamy	42	470	512	0.08	Grayish yellowish brown	Faint earth	Loamy	23	290	313	0.06	
					2019/2/11	Sunny	3.5	Blackish brown	Faint earth	Loamy	59	730	789	0.07	Blackish brown	Faint earth	Loamy	51	640	691	0.06	
					2018/5/8	Cloudy	12.8	Dark brown	Faint earth	Loamy	26	270	296	0.05	Blackish brown	Faint earth	Loamy	22	260	282	0.06	
	20	Kitakami River	Kitakamigawa Bridge	Ichinoseki City	2018/8/11	Sunny	34.5	Blackish brown	Faint earth	Loamy	33	300	333	0.05	Blackish brown	Faint earth	Loamy	29	400	429	0.07	
					2018/11/5	Cloudy	14.8	Blackish brown	Faint earth	Loamy	34	400	434	0.05	Dark brown	Faint earth	Loamy	49	490	539	0.06	
					2019/2/12	Snow	-0.5	Dark brown	Faint earth	Loamy	12	120	132	0.04	Blackish brown	Faint earth	Loamy	16	190	206	0.05	
					2018/5/8	Rain	12.4	Dull yellowish brown	Faint earth	Loamy	13	120	133	0.04	Blackish brown	Faint earth	Loamy	9.8	110	119.8	0.04	
	21	Kinomi River	Higuchi Bridge	Ichinoseki City	2018/8/14	Sunny	31.5	Olive brown	Faint earth	Loamy	13	130	143	0.04	Dark brown	Faint earth	Loamy	<7.7	74	74	0.04	
					2018/11/5	Cloudy	16.6	Dull yellowish brown	Faint earth	Loamy	11	130	141	0.04	Blackish brown	Faint earth	Loamy	7.8	77	84.8	0.04	
					2019/2/4	Sunny	9.3	Grayish yellowish brown	Faint earth	Loamy	16	190	206	0.04	Blackish brown	Faint earth	Loamy	<8.5	120	120	0.04	
22	Kinryu River	Tenjin Bridge	Ichinoseki City	2018/5/8	Cloudy	12.3	Blackish brown	Faint earth	Loamy	130	1,300	1,430	0.08	Dark brown	Faint earth	Loamy	57	580	637	0.07		
				2018/8/14	Sunny	33.7	Blackish brown	Faint earth	Loamy	46	480	526	0.07	Dark brown	Faint earth	Loamy	44	490	534	0.07		
				2018/11/6	Sunny	13.3	Blackish brown	Faint earth	Loamy	36	410	446	0.08	Dark brown	Faint earth	Loamy	55	630	685	0.07		
				2019/2/4	Sunny	9.8	Blackish brown	Faint earth	Loamy	43	520	563	0.07	Dark brown	Faint earth	Loamy	57	690	747	0.07		

Iwate Coastal(Water) 1/1

	Location			Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Water								Remarks		
								General items						Activity concentration(Bq/L)				
	No.	Water area						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	2018/5/23	Cloudy	21.0	16.8	14.9	0.5	Dark grayish yellowish green	None	5.0	26.6	<1	0.5	<0.65	<0.80
				Deep layer					10.9	15.8	-	None		32.6	<1	0.3	<0.73	<0.92
		Surface layer	2018/11/12	Cloudy	11.7	16.6	14.9	0.5	Dark grayish yellow green	None	6.2	21.3	<1	0.6	<0.67	<0.88		
		Deep layer					17.2	15.6	-	None		31.9	1	0.6	<0.75	<0.80		
	24	Hirota Bay	S-34	Surface layer	2018/5/23	Cloudy	19.0	11.3	14.1	0.5	Dark grayish bluish green	None	7.9	27.8	<1	0.4	<0.47	<0.92
				Deep layer					12.1	10.3	-	None		30.6	1	0.6	<0.77	<0.80
			Surface layer	2018/11/11	Sunny	15.7	10.4	17.2	0.5	Dark grayish yellow green	None	8.7	30.2	<1	0.7	<0.71	<0.84	
			Deep layer					17.6	9.4	-	None		31.6	1	0.8	<0.60	<0.75	

Iwate Coastal (Sediment) 1/1

	Location		Sampling Date	Weather	Air temperature (°C)	Water depth (m)	Sediment																	Activity concentration [Bq/kg(dry)]			Remarks
							No.	Water area	Sediment temperature (°C)	Sample length (cm)	Color	Odor	Grain size distribution(%)								Sediment content (%)	Density (g/cm ³)	Property	Radioactive cesium			
	Coarse gravel	Medium gravel											Fine gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	Cs-134	Cs-137				Total			
Coastal areas	23	Ofunato Bay (A)	S-31	2018/5/23	Cloudy	21.0	16.8	11.0	7	Blackish brown	None	0.0	0.0	0.0	0.4	5.9	15.2	57.8	20.8	46.6	2.625	Silt	<10	32	32		
				2018/11/12	Cloudy	11.7	16.6	17.6	5	Olive black	Faint hydrogen sulfide	0.0	0.0	0.0	1.2	9.6	15.4	51.0	22.9	49.6	2.592	Silt	<8.8	16	16		
	24	Hirota Bay	S-34	2018/5/23	Cloudy	19.0	11.3	13.1	5	Brownish gray	None	0.0	0.1	0.2	0.9	64.5	29.4	1.5	3.4	75.0	2.763	Sand	<0.51	1.0	1.0		
				2018/11/11	Sunny	15.7	10.4	16.5	3	Grayish olive	None	0.0	0.0	0.0	3.5	77.3	15.2	0.1	3.9	74.5	2.722	Sand	<0.50	<0.69	-		



Survey Locations (Iwate Prefecture)