

○Results of Radioactive Material Monitoring of Aquatic Organisms (Location F along the Ota River)

< Location F along the Ota River: Samples collected >

Items Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
F-1	○	○	○	—	○	—
F-2	○	○	○	○	○	○
F-3	○	○	○	—	—	—
F-4	○	○	○	—	○	—
F-5	○	○	○	—	—	—
F-6	○	—	○	—	—	—

< Location F along the Ota River: Site measurement item >

Items Locations	Latitude and longitude of the location		Survey date and time			Water		Sediment					Other	
	Latitude	Longitude	Date	Time (water)	Time (sediment)	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Odor	Contaminants	Water depth (m)	Transparency (cm)	
F-1	37.597483°	140.924900°	2013/12/13	7:35	7:40	6.3	6.1	Sand	2.5Y4/4	Faint sediment	Some plant fragments	0.37	>50	
F-2	37.601500°	140.943633°		9:00	8:52	6.9	6.9	Sand	2.5Y3/3	None	Some roots	0.30	>50	
F-3	37.604517°	140.964100°		9:46	9:53	5.2	5.3	Sand	2.5Y4/3	None	Some plant fragments	0.31	>50	
F-4	37.606967°	140.972033°		10:38	10:42	11.4	11.7	Sand	2.5Y4/4	None	None	0.30	>50	
F-5	37.602200°	140.987367°		11:25	11:30	8.3	8.2	Sand	2.5Y4/3	None	None	0.23	>50	
F-6	37.595283°	141.012733°		12:40	—	7.3	—	—	—	—	—	0.74	>50	

< Location F along the Ota River: General survey items/Analysis of radioactive materials Water >

Items Locations	Latitude and longitude of the location		Survey date and time		pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electrical conductivity (mS/m)	Salinity	TOC (mg/L)	SS (mg/L)	Turbidity (FNU)	Cs-134 (Bq/L)	Cs-137 (Bq/L)	Sr-90 (Bq/L)
	Latitude	Longitude	Date	Time												
F-1	37.597483°	140.924900°	2013/12/13	7:35	7.2	-0.5	2.2	12.1	6.2	0.03	1.0	<1	0.4	0.12	0.28	—
F-2	37.601500°	140.943633°		9:00	7.0	-0.5	2.2	12.2	7.3	0.04	1.1	<1	0.6	0.088	0.20	0.0042
F-3	37.604517°	140.964100°		9:46	7.3	-0.5	2.5	12.7	7.4	0.04	1.0	<1	0.5	0.088	0.21	—
F-4	37.606967°	140.972033°		10:38	6.6	-0.5	1.1	8.8	9.1	0.05	0.5	<1	0.3	0.040	0.090	—
F-5	37.602200°	140.987367°		11:25	7.0	-0.5	1.8	11.0	10.1	0.05	0.8	2	0.2	0.057	0.13	—
F-6	37.595283°	141.012733°		12:40	7.1	-0.5	2.9	12.1	103	0.54	1.3	3	1.5	0.063	0.14	—

< Location F along the Ota River: General survey items/Analysis of radioactive materials Sediment >

Items Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _{NHE} (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm ³)	Grain size distribution						Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)			
	Latitude	Longitude	Date	Time							Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)	Silt (0.005-0.075mm) (%)					Clay (Less than 0.005mm) (%)	Median grain diameter (mm)	Maximum grain diameter (mm)
															(%)	(%)						
F-1	37.597483°	140.924900°	2013/12/13	7:40	6.9	189	19.1	1.3	2	2.680	—	37.8	32.9	21.5	4.5	1.7	1.6	1.5	19	2,300	5,600	—
F-2	37.601500°	140.943633°		8:52	6.9	183	17.5	0.8	<1	2.661	—	43.6	43.4	10.9	1.1	0.4	0.6	1.8	9.5	1,500	3,800	0.21
F-3	37.604517°	140.964100°		9:53	6.8	187	20.4	0.8	<1	2.661	—	25.3	33.5	27.7	10.6	1.7	1.2	1.1	19	1,700	4,000	—
F-4	37.606967°	140.972033°		10:42	6.7	234	19.5	0.5	<1	2.666	—	31.9	44.1	20.5	2.8	0.4	0.3	1.5	19	430	1,100	—
F-5	37.602200°	140.987367°		11:30	6.8	212	21.9	0.5	<1	2.673	—	29.1	44.6	23.9	1.3	0.5	0.6	1.4	19	200	480	—
F-6	37.595283°	141.012733°		12:40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Note) N.D. means to be below the detection limit.

< Location F along the Ota River: Survey items: Aquatic organisms >

Location	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Note		Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)		
	Latitude	Longitude										Growth stage	Stomach contents					
F-1	37.597483°	140.924900°	2013/12/12	Algae/plant	—	—	—	—	Attached algae	—	0.075	—	—	1,700	3,900	—		
				Angiospermae	Monocotyledoneae	Poales	Poaceae	<i>Phragmites australis</i>	Common reed	—	0.30	—	—	—	95	210	—	
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	<u>Stenopsyche marmorata</u>	138	0.023	Larva	—	—	430	1,000	—	
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche sauteri</i>	<u>Parastenopsyche sauteri</u>	45	0.023	Larva	—	—	85	210	—	
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes continentalis</i>	<u>Parachauliodes continentalis</u> Weele									
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	<u>Protohermes grandis</u>	114	0.032	Larva	—	—	210	490	—	
				Arthropod	Insecta	Odonata	Cordulidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena									
				Arthropod	Insecta	Odonata	Gomphidae	<i>Asiagomphus melanocephalus</i>	Asiagomphus melanocephalus									
				Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius namus</i>	Davidius namus									
				Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius									
				Arthropod	Insecta	Odonata	Gomphidae	<i>Nihonogomphus viridis</i>	Nihonogomphus viridis									
				Arthropod	Insecta	Odonata	Gomphidae	<i>Onychogomphus viridicostus</i>	Onychogomphus viridicostus									
				Arthropod	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae									
				Arthropod	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzukii</i>	Stylogomphus suzukii									
				Arthropod	Insecta	Odonata	Gomphidae	<i>Anotogaster sieboldii</i>	Sieboldius albardae									
				Arthropod	Insecta	Odonata	Libellulidae	<i>Orthetrum albistylum speciosum</i>	Common skimmer									
				Arthropod	Insecta	Odonata	Aeshnidae	<i>Boyeria maclachlani</i>	Boyeria maclachlani									
				Arthropod	Malacostraca	Decapoda	Ayidae	<i>Ayidae</i>	Freshwater shrimp	173	0.039	Imago	—	—	380	840	—	
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	14	0.020	<u>Yearling fish</u>	Some (details unknown)	—	—	280	650	—
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius</i>	Rhinogobius	10	0.046	Mature fish	—	—	650	1,600	—	
				Coarse particulate organic matters	—	—	—	—	CPOMs (fallen leaves)	—	0.43	—	—	260	620	—		

Note 1) When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.

Note 2) For species with stomach contents as indicated in the note column, all stomach contents were removed for conducting the analysis.

Note 3) Underlined names in the English name column indicate species largest in number in the respective samples.

Note 4) A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.

Note 5) N.D. means to be below the detection limit.