

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

< Location F along the Ota River: Samples collected >

Items	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	Latitude and longitude of the location		Survey date and time			Water temperature (degrees C)	Sediment			Other		
	Scheduled latitude	Scheduled longitude	Date	Time (water)	Time (sediment)		Sediment temperature (degrees C)	Property	Color	Contaminants	Water depth (m)	Transparency (cm)
F-1	37.5975°	140.9252°	2015/6/16	8:22	8:14	18.8	19.0	Sand	2.5Y4/2	None	0.5	>50
F-2	37.6016°	140.9423°		9:22	9:15	19.1	19.1	Sand	2.5Y4/3	Pebbles	0.37	>50
F-3	37.6045°	140.9636°		10:23	10:28	19.6	19.8	Sand	2.5Y4/4	Plant/roots	0.47	>50
F-4	37.6070°	140.9720°		11:12	11:20	18.6	18.8	Sand	2.5Y5/4	Roots	0.45	>50
F-5	37.6022°	140.9868°		12:45	12:40	20.2	20.3	Sand	2.5Y4/6	None	0.26	>50
F-6	37.5953°	141.0123°		13:32	—	22.2	—	—	—	—	0.51	>50

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

Items	Latitude and longitude of the location		Survey date and time		pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electrical conductivity	Salinity	TOC (mg/L)	SS (mg/L)	Turbidity (FNU)	Cs-134 (Bq/L)	Cs-137 (Bq/L)	Sr-90 (Bq/L)
	Scheduled latitude	Scheduled longitude	Date	Time (water)												
F-1	37.5975°	140.9252°	2015/6/16	8:22	7.7	0.6	2.9	9.5	5.1	0.03	1.2	2	1.2	0.051	0.19	—
F-2	37.6016°	140.9423°		9:22	7.4	<0.5	2.7	9.3	5.7	0.03	1	2	0.9	0.061	0.22	0.0033
F-3	37.6045°	140.9636°		10:23	7.5	<0.5	3.4	9.3	5.7	0.03	1.1	4	1.6	0.082	0.30	—
F-4	37.6070°	140.9720°		11:12	7.2	<0.5	2.9	9.2	6.3	0.04	0.9	2	1.2	0.070	0.26	—
F-5	37.6022°	140.9868°		12:45	7.3	<0.5	3.3	9.7	7.3	0.04	1.2	3	1.7	0.049	0.17	—
F-6	37.5953°	141.0123°		13:32	7.1	0.8	5.5	8.5	90.7	0.46	2.4	6	4.5	0.044	0.17	—

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

Items	Latitude and longitude of the location		Survey date and time		pH	Redox potential EN.H.E (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm3)	Grain size distribution							Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)	
	Scheduled latitude	Scheduled longitude	Date	Time (sediment)							Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)	Silt (0.005-0.0075mm) (%)	Clay (Less than 0.005mm) (%)	Median grain diameter				Maximum grain diameter
F-1	37.5975°	140.9252°	2015/6/16	8:14	6.8	485	20.2	1.5	2.6	2.638	24.9	25.9	31.1	13.4	1.8	2.9	0.87	19	2600	10000	—
F-2	37.6016°	140.9423°		9:15	6.9	479	18.5	0.8	1.5	2.633	41.7	41.5	14.7	0.9	0.3	0.9	1.7	19	740	2800	0.27
F-3	37.6045°	140.9636°		10:28	6.8	475	15.7	1	1.7	2.636	30.4	31.7	21.5	12.7	1.6	2.1	1.2	9.5	660	2600	—
F-4	37.6070°	140.9720°		11:20	6.8	478	15.6	0.6	1.3	2.637	36.1	35.9	20.7	6	0.3	1	1.5	9.5	330	1300	—
F-5	37.6022°	140.9868°		12:40	6.9	480	19.9	1.2	1.4	2.628	27.2	31.4	36.1	3	0.3	2	1.1	19	230	890	—

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

Location	Sampling point	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Note	Radioactive cesium (Bq/kg-wet)		Sr-90 (Bq/kg-wet)					
		Latitude	Longitude											Growth stage	Stomach contents		Measurement site	Cs-134	Cs-137		
F-1	—	37.5975°	140.9252°	2015/6/19	Phycophyta	—	—	—	—	Riverbed Deposits (include algae)	—	0.015	—	—	410	1400	—				
					Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Macronomia amphigena	24	0.0076	Larva	—	—	—	120	400	—		
					Arthropod	Insecta	Odonata	Corduliidae	<i>Macronomia amphigena amphigena</i>	Macronomia amphigena	—	—	—	—	—	—	—	—	—	—	
					Arthropod	Insecta	Odonata	Gomphidae	<i>Meligomphus viridicostus</i>	Meligomphus viridicostus	—	—	—	—	—	—	—	—	—	—	
					Arthropod	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae	52	0.028	Larva (dragonfly larva)	—	—	—	—	76	270	—	
					Arthropod	Insecta	Odonata	Gomphidae	<i>Asiagomphus melanoops</i>	Asiagomphus melanoops	—	—	—	—	—	—	—	—	—	—	
					Arthropod	Insecta	Odonata	Aeshnidae	<i>Boyeria maclachlani</i>	Boyeria maclachlani	—	—	—	—	—	—	—	—	—	—	
					Arthropod	Insecta	Megaloptera	Corydalidae	<i>Prothermes grandis</i>	Prothermes grandis	36	0.022	Larva	—	—	—	—	30	110	—	
					Arthropoda	Malacostraca	Decapoda	Ayidae	<i>Paratya improvisa</i>	Freshwater shrimp	138	0.041	Imago	—	—	—	—	130	490	—	
					Arthropod	Malacostraca	Decapoda	Procambarus	<i>Procambarus clarkii</i>	Red swamp crawfish	4	0.020	Imago	—	—	—	—	91	340	—	
					Arthropod	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	7	0.014	Imago	—	—	—	—	110	380	—	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius sp.</i>	Carassius auratus langsdorffii	2	0.015	Mature fish (1-year-old)	Obscure digesta	Viscera removed	57	190	—			
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Cobitis biwaie</i>	Mature fish	6	0.0048	Mature fish	—	—	82	320	—			
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	22	0.10	Mature fish (1.2-year-old)	Obscure digesta	Viscera removed	130	470	—			
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluvialis</i>	R. fluvialis	3	0.0071	Mature fish	—	—	210	720	—			
					Vertebrata	Amphibia	Anura	0	—	Tadpole	28	0.0077	Larva (tadpoles)	Ephemeroptera	—	98	390	—			
					Vertebrata	Amphibia	Anura	Ranidae	<i>Lithobates catesbeianus</i>	American Bullfrog	1	0.16	Imago	—	—	71	290	—			
										Particulate Organic Matter	—	—	—	—	Bottom fallen leaves	—	0.18	—	15	54	—

\*1: Organisms were collected in or around the targeted water areas.

\*2: When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.

\*3: For a sample made of multiple types of aquatic organisms, the name of the dominant one largest in number is underlined.

\*4: Basically, measurement was conducted for all organism samples. Viscera (stomach and bowels) were removed for the measurement when possible so that undigested food and sediments, etc. in the digestive system would be excluded.

\*5: A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.

\*6: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40µm-mesh).

\*7: River bottom materials (incl. algae) are algae, etc. that were scratched off stones with a brush, etc. and may include very fine particles such as inorganic silt and clay.

\*8: N.D. means to be below the detection limit and figures in parentheses show the detection limit.

\*9: Activity concentrations include counting errors, but the details are omitted here.