

OResults 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	○	○	○	○	○	○

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

Items	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	Contaminants	Water depth (m)	Transparency (cm)		
F-1	37.5975°	140.9252°	2021/8/26	08:37	08:57	20.8	21.7	Sand	7.5Y 5/2	None	0.30	>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)	Electric 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 (water)												
F-1	37.5975°	140.9252°	2021/8/26	08:37	7.3	1.4	3.1	9.5	4.8	0.03	1.4	2	1.3	0.0031	0.080	0.0031

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

<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 E _H HE (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 (sediment)							Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)	Silt (0.005-0.075mm) (%)	Clay (Less than 0.005mm) (%)	Median grain diameter (mm)	Maximum grain diameter (mm)			
F-1	37.5975°	140.9252°	2021/8/26	08:57	7.5	489	21.5	1.9	2.2	2.627	1.8	12.1	38.5	35.9	8.3	3.4	0.27	4.8	18	460	0.91

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

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

Locations	Sampling point	Latitude and longitude of the location		Sampling date	Division	Class	Order	Family	Scientific 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	Total	Cs-134	Cs-137		
F-1	The main stream of the Ota River	37.5975°	140.9252°	2021/8/26	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0045	-	-	-	210	N.D.(16)	210	-	
				2021/8/28	Arthropoda	Insecta	Ephemeroptera	Isonychiidae	<i>Isonychia valida</i>	Isonychia valida	84	0.0087	Larva	-	-	-	128.8	8.8	120	-
					Arthropoda	Insecta	Plecoptera	Perlidae	<i>Oyamia lugubris</i>	Oyamia lugubris	77	0.015	Larva	-	-	-	16	N.D.(5.8)	16	-
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	281	0.090	Larva	-	-	-	96	N.D.(3.7)	96	-
					Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	66	0.020	Larva(Dragonfly larva)	-	-	20	N.D.(5.4)	20	-	
					Arthropoda	Insecta	Odonata	Cordulegastridae	<i>Anotogaster sieboldii</i>	Anotogaster sieboldii										
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae										
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius										
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	Asiagomphus melaenops										
					Arthropoda	Insecta	Odonata	Aeshnidae	<i>Boyeria maclachlani</i>	Boyeria maclachlani										
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	69	0.048	Larva	-	-	22	N.D.(3.6)	22	-		
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	29	0.034	Juvenile, Imago	-	-	67	N.D.(4.4)	67	-		
				Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Eriocheir japonica</i>	Japanese mitten crab	23	0.30	Juvenile	-	-	91.5	3.5	88	-		
				2021/8/28	Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	5	2.1	Immature fish, Mature fish	Stenopsyche marmorata, Common prawn	Viscera removed	155.4	5.4	150	0.47	
					Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus pollux</i>	Japanese fluvial sculpin	1	0.035	Immature fish	-	-	43	N.D.(3.5)	43	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	14	0.20	Immature fish	-	-	85.6	2.6	83	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	19	0.11	Immature fish	-	-	52	N.D.(2.6)	52	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Candidia temminckii</i>	Dark chub	22	0.10	Immature fish	-	-	40	N.D.(3.0)	40	-	
Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae		<i>Cyprinus carpio</i>	Common carp	1	0.071	Immature fish	Obscure digesta	Viscera removed	30	N.D.(3.7)	30	-					
2021/8/26	Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	Rhinogobius fluviatilis	6	0.015	Immature fish, Mature fish	-	-	52	N.D.(5.2)	52	-					
	Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius nagoyae</i>	Rhinogobius nagoyae														
	Vertebrata	Cephalaspidomorphi	Petromyzontiformes	Petromyzontidae	<i>Lethenteron reissneri</i>	Far eastern brook lamprey	5	0.019	Ammocoetes(larva)	-	-	16	N.D.(4.8)	16	-					
Coarse Particulate Organic Matter	-	-	-	-	-	Bottom fallen leaves	-	0.25	-	-	-	99.9	2.9	97	-					
F-3	The main stream of the Ota River	37.6045°	140.9636°	2021/8/24	Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus pollux</i>	Japanese fluvial sculpin	1	0.0079	Immature fish	-	-	84	N.D.(6.0)	84	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	6	0.029	Immature fish	-	-	36	N.D.(4.7)	36	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	4.2	Mature fish	Obscure digesta	Viscera removed	125.4	5.4	120	2.5	
F-5	The main stream of the Ota River	37.6022°	140.9868°	2021/8/24	Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	3	0.53	Immature fish, Mature fish	Obscure digesta	Viscera removed	155.0	5.0	150	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	5.8	Mature fish	Obscure digesta	Viscera removed	46	N.D.(1.6)	46	2.5	
					Vertebrata	Amphibia	Anura	Lithobates	<i>Lithobates catesbeianus</i>	American bullfrog	25	0.057	Larva(Tadpole)	-	-	323	13	310	-	

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

*6: 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.

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

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