

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	○	○	○	○	○	○

<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°	2018/6/7	09:50	10:10	19.6	19.8	Sand	2.5Y4/4	None	0.38	>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 (nS/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°	2018/6/7	09:50	7.2	<0.5	2.7	9.7	5.2	0.03	1.1	1	0.8	0.015	0.14	0.0035

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 _{SOIL} (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)
F-1	37.5975°	140.9252°	2018/6/7	10:10	7.1	331	19.9	1.6	1.6	2.655	9.7	33.9	45.5	8.4	2.5	0.75	4.8	170	1600	0.69

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°	2018/6/5	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0062	-	-	-	403	43	360	-				
					Algae/plant	Zygnematales	Zygnematales	Zygnematales	<i>Spirogyra sp.</i>	Spirogyra	-	0.35	-	-	-	56.8	5.8	51	-				
					Algae/plant	Monocotyledoneae	Poales	Poaceae	<i>Phragmites australis</i>	Common reed	-	0.10	-	-	-	231	21	210	-				
					Algae/plant	Monocotyledoneae	Najadales	Potamogetonaceae	<i>Potamogeton bertholdii</i>	Small pondweed	-	0.17	-	-	-	46.5	3.5	43	-				
					Arthropoda	Insecta	Ephemeroptera	Isonychidae	<i>Isonychia valida</i>	Isonychia valida	113	0.013	Larva	-	-	144	14	130	-				
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	44	0.014	Larva	-	-	134	14	120	-				
					Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	-	-	-	-	-	-	-	-	-				
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Nihonogomphus viridis</i>	Nihonogomphus viridis	-	-	-	-	-	-	-	-	-				
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzukii</i>	Stylogomphus suzukii	70	0.033	Larva(Dragonfly larva)	-	-	147	17	130	-				
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae	-	-	-	-	-	-	-	-	-				
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melanocephalus</i>	Asiagomphus melanocephalus	-	-	-	-	-	-	-	-	-				
					Arthropoda	Insecta	Odonata	Libellulidae	<i>Orthetrum japonicum</i>	Japanese skimmer	-	-	-	-	-	-	-	-	-				
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Prothemis grandis</i>	Prothemis grandis	44	0.0073	Larva	-	-	79.6	7.6	72	-					
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes japonicus</i>	Parachauliodes japonicus	-	-	-	-	-	-	-	-	-					
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon pascuensis</i>	Common prawn	20	0.029	Imago	-	-	224	24	200	-					
				Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	134	0.038	Juvenile, Imago	-	-	106.2	7.2	99	-					
				Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Eriocheir japonica</i>	Japanese mitten crab	5	0.085	Juvenile	-	-	306	26	280	-					
				Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	2	0.47	Immature fish, Mature fish	Obscure digesta	Viscera removed	641	61	580	-					
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	10	0.029	Immature fish	-	-	371	41	330	-					
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsarichthys platypus</i>	Pale chub	7	0.037	Immature fish	-	-	240	20	220	-					
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius cuvieri</i>	Japanese crucian carp	2	1.9	Mature fish	Obscure digesta	Viscera removed	433	43	390	2.1					
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	Rhinogobius fluviatilis	19	0.067	Mature fish	Diptera(imago), Isonychia japonica, Ephemera cryptomeria	Viscera removed	414	44	370	-					
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.11	-	-	-	709	69	640	-					
				F-5	The main stream of the Ota River	37.6022°	140.9868°	2018/6/5	Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	3	0.87	Immature fish, Mature fish	Obscure digesta	Viscera removed	254	24	230	-
									Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	204	0.35	Immature fish	-	-	90.8	8.8	82	0.31

*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.