

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

<Location F along the Ota River: Samples collected>

Locations	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>

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	Contaminants	Water depth (m)	Transparency (cm)
F-1	37.5975°	140.9252°	2017/8/28	14:45	14:53	19.8	19.9	Sand	2.5Y4/6	None	0.38	>50

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

Locations	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°	2017/8/28	14:45	7.4	<0.5	3.1	9.4	5.6	0.03	1.2	2	1.2	0.027	0.19	0.0036

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>

Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _H H ₂ (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°	2017/8/28	14:53	7.0	302	17.7	1.2	2.3	2.664	22.1	36.5	34.3	4.1	0.9	2.1	1.0	9.5	240	1900	0.49

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°	2017/8/20	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0057	-	-	-	196	16	180	-	
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	46	0.010	Larva	-	-	-	200	20	180	-
					Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	20	0.011	Larva (Dragonfly larva)	-	-	-	123	13	110	-
					Arthropoda	Insecta	Odonata	Cordulegastriidae	<i>Anotogaster sieboldii</i>	<i>Anotogaster sieboldii</i>										
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Onychogomphus viridicostus</i>	<i>Meligomphus viridicostus</i>										
					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	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn										
					Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	92	0.014	Juvenile,Imago	-	-	-	238	28	210	-
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	1	0.13	Immature fish	Common prawn	Viscera removed	584	64	520	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	2	0.0031	Immature fish	-	-	-	174	24	150	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Pale chub	6	0.028	Immature fish	-	-	-	223	23	200	-
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Cobitis biwae</i>	Cobitis biwae	4	0.0037	Immature fish,Mature fish	-	-	-	184	24	160	-
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Lefua echigonia</i>	Lefua echigonia	19	0.017	Immature fish,Mature fish	-	-	-	79.0	9.0	70	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	<i>Rhinogobius fluviatilis</i>	6	0.021	Immature fish,Mature fish	-	-	-	493	63	430	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp. CB</i>	Rhinogobius nagoyae										
Vertebrata	Cephalaspidomorphi	Petromyzontiformes	Petromyzontidae	<i>Lampetra reissneri</i>	Far eastern brook lamprey	2	0.0049	Ammocoetes larva	-	-	-	33	N.D.(6.6)	33	-					
	Coarse Particulate Organic Matter	-	-	-	-	-	-	-	Bottom fallen leaves	-	0.24	-	-	-	135	15	120	-		
F-3	The main stream of the Ota River	37.6045°	140.9636°	2017/8/20	Mollusca	Gastropoda	Discopoda	Pleuroceridae	<i>Semisulcospira libertina</i>	Semisulcospira libertina	30	0.0074	Imago	-	-	Molluscan part	206	26	180	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Nipponocypris temminckii</i>	Dark chub	11	0.16	Immature fish,Mature fish	-	-	-	94	11	83	-
F-5	The main stream of the Ota River	37.6022°	140.9868°	2017/8/20	Arthropoda	Malacostraca	Decapoda	Cambaridae	<i>Procambarus clarkii</i>	Red swamp crawfish	1	0.011	Imago	-	-	-	87.4	9.4	78	-
					Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Eriocheir japonica</i>	Japanese mitten crab	2	0.037	Juvenile	-	-	-	168	18	150	-
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	1	0.16	Immature fish	Empty stomach	Viscera removed	309	39	270	-	
					Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis</i>	Sweetfish	20	0.066	Immature fish	-	-	-	193	23	170	-
					Vertebrata	Amphibia	Anura	Ranidae	<i>Rana catesbeiana</i>	American Bullfrog	1	0.13	Imago	-	-	-	32.4	5.4	27	-

*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.