

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°	2023/6/9	09:17	09:36	16.5	16.7	Silt with sand	5Y5/2	None	0.33	40

<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	COD	DO	Electric conductivity	Salinity	TOC	SS	Turbidity	Cs-134	Cs-137	Sr-90
	Latitude	Longitude	Date	Time (water)		(mg/L)	(mg/L)	(mg/L)	(mS/m)		(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)
F-1	37.5975°	140.9252°	2023/6/9	09:17	7.3	1.3	5.4	9.6	6.7	0.04	2.1	9	5.8	0.0024	0.12	0.0028

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 _{NHLE} (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°	2023/6/9	09:36	7.1	478	31.3	5.4	4.9	2.660	1.1	2.1	14.9	35.2	31.9	14.8	0.088	4.8	11	490	1.4

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°	2023/6/7	Algae/plant	-	-	-	-	Sediment deposited on riverbed (including algae)	-	0.059	-	-	-	100	N.D.(3.9)	100	-
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Caddisfly	88	0.0071	Larva	-	-	69	N.D.(11)	69	-
					Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Dragonfly	30	0.013	Larva (Dragonfly larva)	-	-	39	N.D.(8.5)	39	-
					Arthropoda	Insecta	Odonata	Cordulegastriidae	<i>Anotogaster sieboldii</i>	Jumbo dragonfly									
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzukii</i>	Dragonfly									
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Dragonfly									
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Dragonfly									
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	Dragonfly									
					Arthropoda	Insecta	Odonata	Libellulidae	<i>Sympetrum sp.</i>	Dragonfly									
					Arthropoda	Insecta	Odonata	Aeshnidae	<i>Boyeria maclochlanii</i>	Jumbo dragonfly									
					Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Dobsonfly	32	0.011	Larva	-	-	15	N.D.(3.0)	15	-
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Lake prawn	141	0.40	Imago	-	-	59.2	1.2	58	-
					Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	242	0.094	Juvenile, Imago	-	-	49	N.D.(2.4)	49	-
					Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Eriocheir japonica</i>	Japanese mitten crab	1	0.010	Juvenile	-	-	91	N.D.(17)	91	-
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	3	1.3	Mature fish	Empty stomach	Viscera removed	72	N.D.(1.5)	72	0.45
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Pseudaspius hakonensis</i>	Japanese dace	7	0.31	Immature fish, Mature fish	-	-	142.8	2.8	140	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale break	18	0.22	Immature fish, Mature fish	-	-	80	N.D.(1.8)	80	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Candidia temminckii</i>	Dark chub	44	0.17	Immature fish, Mature fish	-	-	51	N.D.(2.0)	51	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	3.6	Mature fish	Obscure digesta	Viscera removed	193.3	3.3	190	2.4
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Cobitis sp.</i>	Japanese striped loach	16	0.034	Immature fish, Mature fish	-	-	59	N.D.(7.0)	59	-
					Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Ayu sweetfish	1	0.013	Immature fish	-	-	79	N.D.(20)	79	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	Rhinogobius	7	0.035	Mature fish	-	-	130	N.D.(5.7)	130	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius nagoyae</i>	Rhinogobius									
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Tridentiger brevispinis</i>	Dusky tripletooth goby	1	0.032	Mature fish	-	-	54	N.D.(6.1)	54	-
					Vertebrata	Cephalaspidomorphi	Petromyzontiformes	Petromyzontidae	<i>Lethenteron sp.</i>	Lethenteron	6	0.012	Ammocoetes (larva)	-	-	22	N.D.(3.4)	22	-
					Vertebrata	Amphibia	Anura	-	Amphibia	Frog	53	0.046	Larva(Tadpole)	-	-	69	N.D.(6.0)	69	-
					Vertebrata	Amphibia	Anura	Lithobates	<i>Lithobates catesbeianus</i>	American bullfrog	12	0.20	Larva(Tadpole)	-	-	102.4	2.4	100	-
					Coarse Particulate Organic Matter	-	-	-	-	Water-bottom leaf litter	-	0.25	-	-	-	152.7	2.7	150	-
F-5	The main stream of the Ota River	37.6022°	140.9868°	2023/6/7	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	3.1	Mature fish	Obscure digesta	Viscera removed	30	N.D.(1.2)	30	1.9
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	3.5	Mature fish	Obscure digesta	Viscera removed	30	N.D.(1.2)	30	1.9
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	3.6	Mature fish	Obscure digesta	Viscera removed	36	N.D.(1.4)	36	1.3
					Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Ayu sweetfish	295	1.8	Immature fish	-	-	42.3	1.3	41	0.27

*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.