

**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	○	○	○	-	○	-
F-2	○	○	○	○	○	○
F-3	○	○	○	-	○	-
F-4	○	○	○	-	○	-
F-5	○	○	○	-	○	-
F-6	○	-	○	-	-	-

<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°	2016/5/30	07:53	07:58	17.9	18.0	Sand	2.5Y4/2	None	0.40	>50		
F-2	37.6016°	140.9423°		08:55	09:12	17.8	18.0	Sand	2.5Y4/4	None	0.36	>50		
F-3	37.6045°	140.9636°		10:35	10:47	17.8	17.9	Sand	2.5Y4/6	None	0.65	>50		
F-4	37.6070°	140.9720°		12:22	12:34	16.1	16.3	Sand	2.5Y4/6	None	0.39	>50		
F-5	37.6022°	140.9868°		13:28	13:45	17.9	18.2	Sand	2.5Y4/3	None	0.30	>50		
F-6	37.5953°	141.0123°		14:35	-	19.0	-	-	-	-	0.28	>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°	2016/5/30	07:53	6.9	0.8	2.6	9.9	5.4	0.03	0.9	1	0.9	0.038	0.18	-
F-2	37.6016°	140.9423°		08:55	7.0	0.9	2.6	9.8	6.4	0.04	0.8	1	1.0	0.035	0.17	0.0042
F-3	37.6045°	140.9636°		10:35	7.0	0.7	2.4	9.5	6.6	0.04	0.7	2	0.6	0.028	0.13	-
F-4	37.6070°	140.9720°		12:22	6.9	0.6	1.6	9.5	7.0	0.04	0.4	<1	0.9	0.020	0.092	-
F-5	37.6022°	140.9868°		13:28	6.9	0.7	2.7	10.0	8.4	0.05	0.9	3	1.6	0.019	0.092	-
F-6	37.5953°	141.0123°		14:35	6.9	1.1	5.0	9.0	14.0	0.07	1.7	8	3.9	0.020	0.098	-

<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 <sub>NHLE</sub> (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm <sup>3</sup> )	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)			
											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°	2016/5/30	07:58	7.0	358	19.4	1.0	1.4	2.661	11.8	23.6	55.3	7.3	0.3	1.7	0.64	4.8	400	2200	-
F-2	37.6016°	140.9423°		09:12	6.8	380	18.4	0.7	0.8	2.654	9.0	38.5	44.6	7.0	0.1	0.8	0.81	4.8	170	900	0.27
F-3	37.6045°	140.9636°		10:47	7.0	371	19.6	0.8	1.1	2.653	4.7	34.0	52.2	7.6	0.2	1.3	0.70	9.5	340	1700	-
F-4	37.6070°	140.9720°		12:34	7.0	368	16.3	0.8	1.1	2.655	21.6	39.0	30.9	7.2	0.2	1.1	1.1	9.5	200	1100	-
F-5	37.6022°	140.9868°		13:45	7.0	381	16.1	0.7	1.2	2.661	30.8	39.2	26.1	2.6	0.4	0.9	1.4	9.5	110	520	-

<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	-	37.5975°	140.9252°	2016/5/30	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.020	-	-	-	1320	220	1100	-					
					Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	<i>Macromia amphigena</i>	68	0.025	Larva (Dragonfly larva)	-	-	-	211	31	180	-				
					Arthropoda	Insecta	Odonata	Cordulegastriidae	<i>Anotogaster sieboldii</i>	<i>Anotogaster sieboldii</i>														
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzukii</i>	<i>Stylogomphus suzukii</i>														
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Onychogomphus viridicostus</i>	<i>Melligomphus viridicostus</i>														
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	<i>Sieboldius albardae</i>														
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	<i>Davidius</i>														
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	<i>Asiagomphus melaenops</i>														
					Arthropoda	Insecta	Odonata	Libellulidae	<i>Sympetrum sp.</i>	<i>Sympetrum</i>														
					Arthropoda	Insecta	Odonata	Aeshnidae	<i>Boyeria maclachlani</i>	<i>Boyeria maclachlani</i>														
					Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	<i>Protohermes grandis</i>														
					Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes japonicus</i>	<i>Parachauliodes japonicus</i>	15	0.011	Larva	-	-	-	111	21	90	-				
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	30	0.044	Imago	-	-	-	333	53	280	-				
					Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	72	0.028	Imago	-	-	-	362	62	300	-				
					Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Eriocheir japonica</i>	Japanese mitten crab	1	0.049	Imago	-	-	-	780	130	650	-				
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	4	1.7	Mature fish	Common prawn,Fish	Viscera removed	2860	460	2400	0.16					
					Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus pollux</i>	Japanese fluvial sculpin	2	0.034	Immature fish	-	-	850	150	700	-					
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	5	0.021	Immature fish	-	-	425	75	350	-					
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Pale chub	1	0.013	Immature fish	-	-	600	110	490	-					
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	2.6	Mature fish	Amorphous Residue	Viscera removed	1440	240	1200	3.9					
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Cobitis biwae</i>	<i>Cobitis biwae</i>	11	0.019	Immature fish,Mature fish	-	-	220	40	180	-					
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	4	0.042	Mature fish	-	-	328	48	280	-					
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Lefua echigonia</i>	Lefua echigonia	8	0.017	Immature fish,Mature fish	-	-	283	53	230	-					
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	1	0.012	Immature fish	-	-	395	75	320	-					
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluvialtilis</i>	<i>Rhinogobius fluvialtilis</i>	15	0.024	Immature fish,Mature fish	-	-	532	92	440	-					
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp. CB</i>	<i>Rhinogobius nagoyae</i>														
					Vertebrata	Cephalaspidomorphi	Petromyzontiformes	Petromyzontidae	<i>Lampetra reissneri</i>	Far eastern brook lamprey	6	0.0087	Anmocoetes larva	-	-	66	14	52	-					
						Particulate Organic Matter	-	-	-	-	-	-	Bottom fallen leaves	-	-	-	0.28	-	-	2040	340	1700	-	
					F-3	-	37.6045°	140.9636°	2016/5/30	Vertebrata	Amphibia	Anura	Ranidae	<i>Rana catesbeiana</i>	American Bullfrog	4	0.049	Larva (Tadpole)	-	-	840	140	700	-
					F-5	-	37.6022°	140.9868°	2016/7/9	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	116	2.5	Immature fish,Mature fish	Obscure digesta	Viscera removed	45.7	6.7	39	0.90
									2016/5/30	Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis</i>	Sweetfish	163	1.1	Immature fish	-	-	166	26	140	0.35
									2016/7/9	Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis</i>	Sweetfish	112	1.5	Immature fish,Mature fish	-	-	109	16	93	0.46

\*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.