

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	
	Scheduled latitude	Scheduled longitude	Date	Time (water)	Time (sediment)	Water temperature	Sediment temperature	Property	Color	Contaminants	Water depth (m)	Transparency(c m)		
F-1	37.5975°	140.9252°	2015/10/24	07:48	07:39	15.0	15.0	Sand	2.5Y4/3	None	0.35	>50		
F-2	37.6016°	140.9423°		08:49	08:44	15.9	15.7	Sand	2.5Y4/4	None	0.45	>50		
F-3	37.6045°	140.9636°		10:00	10:13	16.2	16.3	Sand	2.5Y4/3	None	0.80	>50		
F-4	37.6070°	140.9720°		10:56	11:08	17.2	17.5	Sand	2.5Y4/6	None	0.50	>50		
F-5	37.6022°	140.9868°		13:03	12:45	17.8	17.9	Sand	2.5Y4/3	None	0.24	>50		
F-6	37.5953°	141.0123°		13:53	-	17.9	-	-	-	-	0.68	>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)	Electrical conductivity (mS/m)	Salinity	TOC (mg/L)	SS (mg/L)	Turbidity (FNU)	Cs-134 (Bq/L)	Cs-137 (Bq/L)	Sr-90 (Bq/L)
	Scheduled latitude	Scheduled longitude	Date	Time (water)												
F-1	37.5975°	140.9252°	2015/10/24	7:48	7.4	<0.5	2.3	10.2	4.9	0.03	0.9	<1	0.7	0.048	0.20	0.0043
F-2	37.6016°	140.9423°		8:49	7.2	<0.5	2.1	10.0	5.5	0.03	0.9	<1	0.6	0.040	0.17	-
F-3	37.6045°	140.9636°		10:00	7.3	<0.5	2.2	9.9	5.6	0.03	0.8	<1	0.5	0.066	0.27	-
F-4	37.6070°	140.9720°		10:56	6.8	<0.5	1.8	9.9	6.7	0.04	0.7	<1	0.4	0.030	0.12	-
F-5	37.6022°	140.9868°		13:03	7.0	<0.5	2.0	10.0	7.3	0.04	0.8	<1	0.8	0.030	0.13	-
F-6	37.5953°	141.0123°		13:53	7.0	0.5	2.7	10.3	12.4	0.07	1.0	2	1.2	0.029	0.12	-

< 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 EN.H.E (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm3)	Grain size distribution								Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
	Scheduled latitude	Scheduled longitude	Date	Time (sediment)							Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)		Clay (Less than 0.0075mm) (%)	Median grain diameter	Maximum grain diameter			
														Silt (0.0075-0.0025mm) (%)	Silt (0.0025-0.00075mm) (%)						
F-1	37.5975°	140.9252°	2015/10/24	7:39	7.4	384	18.3	1.5	1.3	2.630	6.2	24.3	61.8	6.6	0.6	0.5	0.64	4.8	460	2100	-
F-2	37.6016°	140.9423°		8:44	7.3	382	13.8	0.6	0.9	2.625	11.6	57.7	29.8	0.8	0.1	1.1	4.8	240	1000	0.38	
F-3	37.6045°	140.9636°		10:13	7.3	380	21.9	1.1	1.6	2.621	11.1	8.1	78.1	11.1	1.0	0.6	0.44	4.8	600	2700	-
F-4	37.6070°	140.9720°		11:08	7.4	412	11.2	0.6	0.6	2.629	34.6	38.3	22.6	4.2	0.2	0.1	1.5	9.5	160	780	-
F-5	37.6022°	140.9868°		12:45	7.3	421	19.5	0.8	1.0	2.631	12.4	29.6	32.5	4.4	0.5	0.6	0.74	4.8	160	680	-

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

Location	Sampling point	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Growth stage	Note Stomach contents	Measurement site	Radioactive cesium (Bq/kg-wet)		Sr-90 (Bq/kg-wet)					
		Latitude	Longitude													Cs-134	Cs-137						
F-1	-	37.5975°	140.9252°	2015/10/24	Phycophyta	-	-	-	-	Riverbed Deposits (include algae)	-	0.038	-	-	-	1000	4200	-					
					Arthropod	Insecta	Odonata	Gomphidae	<i>Nihonogomphus viridis</i>	<i>Nihonogomphus viridis</i>	-	-	-	-	-	-	-	-	-	-			
					Arthropod	Insecta	Odonata	Gomphidae	<i>Meligomphus viridicostus</i>	<i>Onychogomphus viridicostus</i>	-	-	-	-	-	-	-	-	-	-	-		
					Arthropod	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	<i>Sieboldius albardae</i>	-	-	-	-	-	-	-	-	-	-	-	-	
					Arthropod	Insecta	Odonata	Aeshnidae	<i>Boyeria maclachlani</i>	<i>Boyeria maclachlani</i>	-	-	-	-	-	-	-	-	-	73	310	-	
					Arthropod	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	<i>Macromia amphigena</i>	-	-	-	-	-	-	-	-	-	-	-	-	
					Arthropod	Insecta	Odonata	Gomphidae	-	<i>Davidius</i>	-	-	-	-	-	-	-	-	-	-	-	-	
					Arthropod	Insecta	Odonata	Gomphidae	<i>Asiagomphus melanops</i>	<i>Asiagomphus melanops</i>	-	-	-	-	-	-	-	-	-	-	-	-	
					Arthropod	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	75	0.11	Imago	-	-	-	-	-	-	110	490	-	
					Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	184	0.029	Imago	-	-	-	-	-	-	21	87	-	
					Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus pollux</i>	Japanese fluvial sculpin	3	0.064	Mature fish	-	-	-	-	-	-	140	600	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakomensis</i>	Japanese dace	30	0.16	Mature fish (3-year-old)	-	-	-	-	-	-	82	330	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakomensis</i>	Japanese dace (muscular part)	30	0.16	Mature fish (3-year-old)	-	-	-	-	-	-	120	500	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakomensis</i>	Japanese dace (inner parts)	30	0.16	Mature fish (3-year-old)	-	-	-	-	-	-	120	510	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Cobitis biwaie</i>	<i>Cobitis biwaie</i>	12	0.020	Immature fish	-	-	-	-	-	-	86	370	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	-	Carassius	3	0.050	Immature fish	-	-	-	-	-	-	88	340	-	
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou masou</i>	Yamane trout	1	0.038	Mature fish (1-year-old)	Terrestrial insects, Aquatic insects	Viscera removed	77	310	-	-	-	-		
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluvialilis</i>	<i>R. fluvialilis</i>	11	0.026	Immature fish/Mature fish	-	-	-	-	-	-	210	860	-	
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Lepomis macrochirus macrochirus</i>	Bluegill	2	0.33	Mature fish (4-year-old)	Shrimp	Viscera removed	330	1400	-	-	-	-		
					Vertebrata	Cephalaspidomorphi	Petromyzontiformes	Petromyzontidae	-	-	7	0.015	Larva/Imago	-	-	-	-	-	-	22	72	-	
					F-4	37.6070°	140.9720°	-	-	-	-	-	-	Bottom fallen leaves	-	0.18	-	-	-	-	110	500	-
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	eel	1	0.095	Mature fish (6-year-old)	Empty stomach	Viscera removed	140	550	-	-	-	-		

*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 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: A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.

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

*7: 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.

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

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