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

<Location F along the Ota River: Samples collected>

Items / 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>

Items / 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°	2016/8/22	08:30	08:40	20.7	21.1	Sand	2.5Y4/2	None	0.55	>50
F-2	37.6016°	140.9423°		09:50	10:00	21.5	22.1	Sand	2.5Y4/4	None	0.45	>50
F-3	37.6045°	140.9636°		10:55	11:15	22.2	22.6	Sand	2.5Y4/6	None	0.68	>50
F-4	37.6070°	140.9720°		13:10	13:25	21.1	19.9	Sand	2.5Y4/6	None	0.57	>50
F-5	37.6022°	140.9868°		14:00	14:10	22.1	21.8	Sand	2.5Y4/3	None	0.68	>50
F-6	37.5953°	141.0123°		15:15	-	23.5	-	-	-	-	0.77	42

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

Items / 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°	2016/8/22	08:30	7.1	0.6	4.3	9.6	5.1	0.03	1.8	5	4.6	0.14	0.72	-
F-2	37.6016°	140.9423°		09:50	6.9	0.6	3.8	9.3	6.1	0.04	1.6	3	2.8	0.080	0.41	0.0038
F-3	37.6045°	140.9636°		10:55	7.0	0.5	3.7	8.0	6.6	0.04	1.4	3	1.8	0.059	0.30	-
F-4	37.6070°	140.9720°		13:10	6.9	<0.5	3.0	8.2	7.2	0.04	1.2	3	1.8	0.041	0.21	-
F-5	37.6022°	140.9868°		14:00	6.9	<0.5	3.7	8.5	7.6	0.04	1.4	6	2.5	0.032	0.17	-
F-6	37.5953°	141.0123°		15:15	6.9	0.7	6.1	7.6	18.2	0.10	2.7	20	11.6	0.034	0.17	-

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

Items / Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential $E_{N.H.E}$	Water content	IL	TOC	Soil particle density	Grain size distribution								Cs-134	Cs-137	Sr-90
	Latitude	Longitude	Date	Time (sediment)		(mV)	(%)	(%)	(mg/g-dry)	(g/cm^3)	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)	(Bq/kg-dry)	(Bq/kg-dry)	(Bq/kg-dry)
F-1	37.5975°	140.9252°	2016/8/22	08:40	7.1	281	17.9	1.0	1.9	2.658	19.5	32.9	40.4	5.2	0.3	1.7	0.90	9.5	320	1800	-
F-2	37.6016°	140.9423°		10:00	7.2	306	14.4	0.6	1.0	2.653	22.4	41.3	34.6	1.4	0.0	0.3	1.1	19	130	630	0.25
F-3	37.6045°	140.9636°		11:15	7.0	298	21.4	1.7	3.7	2.648	13.0	23.1	45.6	14.3	0.4	3.6	0.59	9.5	460	2600	-
F-4	37.6070°	140.9720°		13:25	7.2	328	18.4	0.7	1.0	2.652	16.5	29.2	47.5	5.6	0.0	1.2	0.78	9.5	170	910	-
F-5	37.6022°	140.9868°		14:10	7.1	342	16.5	0.7	1.8	2.661	40.0	24.1	28.6	5.4	0.5	1.4	1.5	9.5	120	820	-

<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°	2016/8/21	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.025	-	-	-	1900	300	1600	-
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	88	0.029	Larva	-	-	389	59	330	-
					Arthropoda	Insecta	Odonata	Corduliidae	*Macromia amphigena amphigena*	Macromia amphigena	38	0.015	Larva (Dragonfly larva)	-	-	249	39	210	-
					Arthropoda	Insecta	Odonata	Cordulegastridae	*Anotogaster sieboldii*	Anotogester sieboldii									
					Arthropoda	Insecta	Odonata	Gomphidae	*Stylogomphus suzukii*	Stylogomphus suzukii									
					Arthropoda	Insecta	Odonata	Gomphidae	*Onychogomphus viridicostus*	Melligomphus viridicostus									
					Arthropoda	Insecta	Odonata	Gomphidae	*Sieboldius albardae*	Sieboldius albardae									
					Arthropoda	Insecta	Odonata	Gomphidae	*Davidius sp.*	Davidius									
					Arthropoda	Insecta	Odonata	Gomphidae	*Asiagomphus melaenops*	Asiagomphus melaenops									
					Arthropoda	Insecta	Odonata	Libellulidae	*Orthetrum albistylum speciosum*	Common skimmer									
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	*Palaemon paucidens*	Common prawn	20	0.033	Imago	-	-	448	78	370	-
					Arthropoda	Malacostraca	Decapoda	Atyidae	*Paratya improvisa*	Freshwater shrimp	155	0.029	Imago	-	-	392	62	330	-
					Arthropoda	Malacostraca	Decapoda	Varunidae	*Eriocheir japonica*	Japanese mitten crab	3	0.055	Imago	-	-	531	81	450	-
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	*Anguilla japonica*	Japanese eel	1	0.0094	Immature fish	Empty stomach	Viscera removed	356	66	290	-
					Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	*Cottus pollux*	Japanese fluvial sculpin	3	0.037	Immature fish	Obscure digesta	Viscera removed	630	100	530	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	8	0.11	Immature fish,Mature fish	Obscure digesta	Viscera removed	315	45	270	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Zacco platypus*	Pale chub	5	0.024	Immature fish	Obscure digesta	Viscera removed	227	37	190	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Nipponocypris temminckii*	Dark chub	1	0.0075	Immature fish	-	-	253	43	210	-
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	*Cobitis biwae*	Cobitis biwae	4	0.0045	Immature fish,Mature fish	-	-	266	46	220	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius fluviatilis*	Rhinogobius fluviatilis	16	0.038	Mature fish	Obscure digesta	Viscera removed	465	75	390	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius sp. CB*	Rhinogobius nagoyae									
					Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.13	-	-	-	86	16	70	-
F-5	-	37.6022°	140.9868°	2016/8/4	Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	*Plecoglossus altivelis*	Sweetfish	48	0.51	Immature fish	-	-	128	18	110	-

*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.