○Results of Radioactive Material Monitoring of Aquatic Organisms (Location C along the Uda River)

<Location C along the Uda River: Samples collected>

Items / Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
C-1	○	○	○	-	○	-
C-2	○	○	○	-	○	-
C-3	○	-	○	-	-	-
C-4	○	○	○	○	○	○
C-5	○	○	○	-	○	-
C-6	○	○	○	-	○	-

<Location C along the Uda 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)
C-1	37.7953°	140.7459°	2016/5/25	08:05	08:10	14.8	15.1	Sand	10YR4/3	None	0.30	>50
C-2	37.7718°	140.7290°		09:03	09:11	16.1	15.8	Sediment with sand	2.5Y3/3	Plant pieces a little	0.45	>50
C-3	37.7792°	140.8040°		10:12	-	17.9	-	-	-	-	0.43	>50
C-4	37.7687°	140.8443°		11:04	11:08	18.0	18.1	Sand	2.5Y4/4	None	0.40	>50
C-5	37.7646°	140.8603°		13:01	13:08	18.4	18.5	Sand	2.5Y4/4	None	0.47	>50
C-6	37.7764°	140.8877°		13:47	14:00	18.2	17.9	Sand	2.5Y4/4	None	0.31	47

<Location C along the Uda 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)
C-1	37.7953°	140.7459°	2016/5/25	08:05	7.3	<0.5	1.9	10.4	10.1	0.05	0.6	1	0.8	0.0032	0.017	-
C-2	37.7718°	140.7290°		09:03	7.2	0.5	5.1	9.0	10.0	0.05	2.2	4	3.1	0.010	0.049	-
C-3	37.7792°	140.8040°		10:12	7.5	<0.5	2.8	9.4	8.5	0.05	1.1	2	1.1	0.0038	0.021	-
C-4	37.7687°	140.8443°		11:04	7.6	<0.5	2.2	9.8	8.6	0.05	0.8	1	0.7	0.0026	0.015	0.00098
C-5	37.7646°	140.8603°		13:01	7.7	<0.5	1.9	9.8	8.8	0.05	0.8	<1	0.8	0.0039	0.020	-
C-6	37.7764°	140.8877°		13:47	7.7	<0.5	2.8	9.9	10.6	0.06	1.2	6	7.3	0.0079	0.037	-

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

Items / Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential $E_{N.H.E}$ (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)
											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)			
	Latitude	Longitude	Date	Time (sediment)																	
C-1	37.7953°	140.7459°	2016/5/25	08:10	6.9	342	26.9	3.6	2.5	2.782	33.2	48.8	10.8	2.9	1.4	2.9	1.6	9.5	48	270	-
C-2	37.7718°	140.7290°		09:11	7.0	146	46.7	10.2	20.1	2.673	17.8	18.2	21.7	8.4	13.0	20.9	0.44	9.5	110	580	-
C-4	37.7687°	140.8443°		11:08	7.3	337	18.0	1.3	1.8	2.696	27.7	37.6	27.7	5.0	0.5	1.5	1.3	9.5	58	300	0.41
C-5	37.7646°	140.8603°		13:08	7.4	352	14.9	1.3	1.1	2.678	16.0	52.8	28.1	1.7	0.5	0.9	1.1	4.8	36	170	-
C-6	37.7764°	140.8877°		14:00	7.4	362	18.0	1.4	1.2	2.766	21.6	26.0	43.8	6.6	0.6	1.4	0.80	19	33	210	-

<Location C along the Uda 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	
C-6	-	37.7764°	140.8877°	2016/6/2	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.018	-	-	-	147	27	120	-
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	135	0.0045	Larva	-	-	68	14	54	-
					Arthropoda	Insecta	Odonata	Corduliidae	*Macromia amphigena amphigena*	Macromia amphigena	51	0.016	Larva (Dragonfly larva)	-	-	7.2	N.D.(4.4)	7.2	-
					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	*Sinogomphus flavolimbatus*	Sinogomphus flavolimbatus									
					Arthropoda	Insecta	Odonata	Libellulidae	*Sympetrum sp.*	Sympetrum									
					Arthropoda	Insecta	Odonata	Aeshnidae	*Boyeria maclachlani*	Boyeria maclachlani									
					Arthropoda	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis	30	0.014	Larva	-	-	10	N.D.(4.4)	10	-
					Arthropoda	Malacostraca	Decapoda	Atyidae	*Paratya improvisa*	Freshwater shrimp	98	0.029	Imago	-	-	9.3	1.7	7.6	-
					Arthropoda	Malacostraca	Decapoda	Varunidae	*Eriocheir japonica*	Japanese mitten crab	7	0.041	Imago	-	-	15.3	2.3	13	-
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	*Anguilla japonica*	Japanese eel	9	2.0	Immature fish,Mature fish	Fish,Common prawn	Viscera removed	64.5	9.5	55	0.082
					Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	*Cottus reinii*	Sculpin	1	0.0069	Immature fish	-	-	12	N.D.(4.9)	12	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Zacco platypus*	Pale chub	4	0.011	Immature fish	-	-	4.5	N.D.(4.3)	4.5	-
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	*Cobitis biwae*	Cobitis biwae	7	0.022	Mature fish	-	-	8.9	N.D.(2.1)	8.9	-
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	*Misgurnus anguillicaudatus*	Oriental weatherfish	1	0.013	Mature fish	-	-	5.5	N.D.(3.5)	5.5	-
					Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	*Plecoglossus altivelis*	Sweetfish	221	1.7	Immature fish,Mature fish	-	-	60	10	50	0.67
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou*	Seema	1	0.32	Immature fish	Empty stomach	Viscera removed	25.3	3.3	22	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Gymnogobius urotaenia*	Goby	3	0.020	Immature fish	-	-	21.0	3.0	18	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius fluviatilis*	Rhinogobius fluviatilis	22	0.060	Immature fish,Mature fish	-	-	17.0	3.0	14	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius sp. CB*	Rhinogobius nagoyae									
					Vertebrata	Cephalaspidomorphi	Petromyzontiformes	Petromyzontidae	*Lampetra reissneri*	Far eastern brook lamprey	3	0.0064	Ammocoetes larva	-	-	N.D.	N.D.(5.3)	N.D.(4.8)	-
					Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.18	-	-	-	52.1	7.1	45	-

*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.