

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

<Location C along the Uda River: Samples collected>

Items	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	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	Odor	Contaminants	Water depth (m)	Transparency (cm)
C-1	37.795533°	140.745700°	2013/10/9	8:30	8:44	17.8	17.8	Sand gravel	2.5Y3/3	None	Pebbles	0.44	>50
C-2	37.771083°	140.727767°		9:32	9:40	18.0	18.0	Sand sediment	2.5Y3/3	Soil	Plant	0.26	>50
C-3	37.779100°	140.804100°		10:36	—	18.7	—	—	—	—	—	0.32	>50
C-4	37.769233°	140.844217°		11:19	11:34	19.6	19.6	Sand	2.5Y4/3	None	None	0.28	>50
C-5	37.764433°	140.860283°		12:58	13:05	20.5	20.6	Sand	2.5Y4/4	Faint fish	None	0.39	>50
C-6	37.776467°	140.887567°		13:41	13:49	20.0	19.9	Sand	2.5Y4/4	None	None	0.38	>50

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

Items	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)
	Latitude	Longitude	Date	Time												
C-1	37.795533°	140.745700°	2013/10/9	8:30	7.4	<0.5	2.0	9.3	10.9	0.06	0.7	2	1.4	0.016	0.036	—
C-2	37.771083°	140.727767°		9:32	7.2	0.6	4.0	7.6	9.6	0.05	1.6	10	4.1	0.065	0.14	—
C-3	37.779100°	140.804100°		10:36	8.0	<0.5	2.5	9.0	10.0	0.06	1.1	2	1.7	0.063	0.14	—
C-4	37.769233°	140.844217°		11:19	7.7	<0.5	2.0	10.0	9.4	0.05	1.0	<1	0.7	0.017	0.035	0.0011
C-5	37.764433°	140.860283°		12:58	7.9	<0.5	2.2	9.7	9.5	0.05	0.9	1	0.9	0.013	0.034	—
C-6	37.776467°	140.887567°		13:41	8.0	<0.5	2.2	10.4	10.5	0.06	1.0	<1	0.6	0.013	0.025	—

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

Items	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _{Ni/Fe} (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm ³)	Grain size distribution						Median grain diameter (mm)	Maximum grain diameter (mm)	Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
	Latitude	Longitude	Date	Time							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) (%)					
C-1	37.795533°	140.745700°	2013/10/9	8:44	7.1	383	18.6	1.9	2.810	46.8	33.5	15.6	2.7	0.4	1.0	1.9	19	250	530	—	
C-2	37.771083°	140.727767°		9:40	6.8	255	35.7	6.4	5	2.783	16.7	20.9	30.3	11.5	5.9	14.7	0.54	19	590	1,400	—
C-4	37.769233°	140.844217°		11:34	7.2	240	25.5	2.3	1	2.742	4.9	27.0	55.9	8.2	1.2	2.8	0.60	9.5	450	1,000	1.1
C-5	37.764433°	140.860283°		13:05	7.0	355	26.1	2.2	1	2.723	5.9	23.5	62.2	4.6	1.6	2.2	0.63	9.5	280	650	—
C-6	37.776467°	140.887567°		13:49	7.4	385	23.0	2.0	<1	2.733	2.5	31.0	56.4	6.6	1.3	2.2	0.64	4.75	250	540	—

Note) N.D. means to be below the detection limit.

<Location C along the Uda River: Analysis items Aquatic organisms>

Location	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Note		Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)	
	Latitude	Longitude										Growth stage	Stomach contents				
C-6	37.776467°	140.887567°	2013/10/12	Algae/plant	—	—	—	—	Attached algae	—	0.050	—	—	97	210	—	
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	25	0.012	Larva	—	—	9.4	21	—
				Arthropod	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	112	0.041	Larva	—	—	8.1	17	—
				Arthropod	Malacostraca	Decapoda	Procambarus	<i>Procambarus clarkii</i>	Red swamp crawfish	5	0.085	Imago	—	—	11	26	—
				Arthropod	Malacostraca	Decapoda	Atyidae	<i>Atyidae</i>	Freshwater shrimp	894	0.14	Imago	—	—	16	34	—
				Arthropod	Malacostraca	Decapoda	Grapsidae	<i>Eriocheir japonica</i>	Japanese mitten crab	9	0.29	Imago	—	—	15	36	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Pseudogobio esocinus</i>	Pseudogobio esocinus	12	0.081	2-year-old fish	Some (details unknown)	—	4.9	11	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Nipponocypris temminckii</i>	Dark chub	45	0.24	3-year-old fish	Some (details unknown)	—	6.8	16	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	1	0.029	2-year-old fish	None	—	18	45	—
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	R. fluviatilis	13	0.084	Mature fish	Some (details unknown)	—	43	100	—
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp.</i>	R. sp. CB	34	0.094	Mature fish	Some (details unknown)	—	19	45	—
				Vertebrata	Amphibia	Anura	Ranidae	<i>Rana japonica</i>	Japanese Brown Frog	4	0.032	Imago	—	—	5.7	12	—
				Coarse particulate organic matters	—	—	—	—	—	—	—	CPOMs(fallen leaves)	—	1.6	—	—	160

Note 1) When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.

Note 2) For species with stomach contents as indicated in the note column, all stomach contents were removed for conducting the analysis.

Note 3) Underlined names in the English name column indicate species largest in number in the respective samples.

Note 4) A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.

Note 5) N.D. means to be below the detection limit.