

**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-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-6	37.7764°	140.8877°	2018/6/6	13:10	13:23	19.8	20.2	Sand	2.5Y4/4	None	0.37	>50

<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)	(nS/m)		(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)
C-6	37.7764°	140.8877°	2018/6/6	13:10	7.4	<0.5	2.9	9.2	11.0	0.06	1.3	3	2.8	0.0016	0.014	0.00061

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

<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 <sub>h</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)
C-6	37.7764°	140.8877°	2018/6/6	13:23	7.2	283	17.0	1.8	1.5	2.728	27.6	40.6	28.8	2.3	0.7	1.2	4.8	13	130	0.39

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

<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	The main stream of the Uda River	37.7764°	140.8877°	2018/6/2	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0088	-	-	-	49.0	5.0	44	-	
					Algae/plant	Zygnematomyxaceae	Zygnematales	Zygnemataceae	<i>Spirogyra sp.</i>	Spirogyra	-	0.17	-	-	-	2.5	N.D.(0.42)	2.5	-	-
					Arthropoda	Insecta	Ephemeroptera	Isonychiidae	<i>Isonychia valida</i>	Isonychia valida	330	0.014	Larva	-	-	-	40.9	3.9	37	-
					Arthropoda	Malacostraca	Decapoda	Cambaridae	<i>Procambarus clarkii</i>	Red swamp crawfish	35	0.054	Juvenile, Imago	-	-	-	5.8	N.D.(1.2)	5.8	-
					Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	150	0.031	Juvenile	-	-	-	5.3	N.D.(1.8)	5.3	-
					Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Eriocheir japonica</i>	Japanese mitten crab	9	0.19	Juvenile	-	-	-	13.4	1.4	12	-
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	2	1.1	Mature fish	Empty stomach	Viscera removed	26.9	1.9	25	0.069	
					Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<i>Anguilla japonica</i>	Japanese eel	3	0.90	Immature fish, Mature fish	Japanese mitten Crab	Viscera removed	26.0	3.0	23	0.072	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	1	0.0097	Immature fish	Obscure digesta	Viscera removed	7.7	N.D.(5.8)	7.7	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Candidia temminckii</i>	Dark chub	17	0.069	Immature fish, Mature fish	Obscure digesta	Viscera removed	5.6	N.D.(0.96)	5.6	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Cobitis bivaie</i>	Cobitis bivaie	14	0.040	Mature fish	-	-	-	5.0	N.D.(1.3)	5.0	-
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	34	0.12	Immature fish, Mature fish	-	-	-	4.50	0.50	4.0	-
					Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Plecoglossus altivelis altivelis</i>	Sweetfish	83	1.1	Immature fish, Mature fish	-	-	-	23.2	2.2	21	0.10
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	1	0.16	Immature fish	Common prawn, Plant pieces	Viscera removed	22.0	2.0	20	-	
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Gymnogobius urotaenia</i>	Goby	4	0.040	Immature fish	Ephemeroptera, Plecoptera, Algae, Plant pieces	Viscera removed	15.3	1.3	14	-	
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluvialis</i>	Rhinogobius fluvialis	34	0.059	Immature fish, Mature fish	Ephemeroptera	Viscera removed	13.5	1.5	12	-	
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius nagoyae</i>	Rhinogobius nagoyae	2	0.046	Mature fish	Obscure digesta	Viscera removed	10.5	1.4	9.1	-	
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Tridentiger brevispinis</i>	Dusky tripletooth goby	3	0.017	Immature fish	Obscure digesta	Viscera removed	6.7	N.D.(2.6)	6.7	-	
					Vertebrata	Osteichthyes	Siluriformes	Bagridae	<i>Tachysurus tokiensis</i>	Cut-tailed bullhead	3	0.017	Immature fish	Obscure digesta	Viscera removed	6.7	N.D.(2.6)	6.7	-	
					Vertebrata	Amphibia	Anura	Pelophylax	<i>Pelophylax porosus porosus</i>	Tokyo Daruma pond frog	1	0.013	Imago	-	-	-	N.D.	N.D.(3.0)	N.D.(2.7)	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	-	0.22	-	-	-	87.8	9.8	78	-	

\*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.