

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

<Location C along the Uda River: Samples collected>

Locations	Items	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	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°	2020/12/3	11:13	11:26	8.6	8.8	Sand	10YR4/2	None	0.40	>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)	Electric 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 (water)												
C-6	37.7764°	140.8877°	2020/12/3	11:13	7.4	<0.5	1.8	12.1	9.7	0.05	0.8	<1	0.4	N.D.(0.0011)	0.0017	0.00066

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	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _{NHE} (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)						
	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)	Maximum grain diameter (mm)								
C-6	37.7764°	140.8877°	2020/12/3	11:26	7.8	322	18.6	0.9	1.3	2.718	15.9	29.3	51.6	2.7	0.5	0.78	4.8	2.3	57	0.33						

Note) N.D. means to be below the detection limit and *S*_{sample} in parentheses shows the detection limit.

≤Location C along the Uda River: Analysis items Aquatic organisms≥

<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°	2020/12/5		Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0031	-	-	-	50	N.D.(15)	50	-	
						Arthropoda	Insecta	Ephemeroptera	Isonychiidae	<i>Isonychia valida</i>	<i>Isonychia valida</i>	128	0.0073	Larva	-	-	-	10	N.D.(3.8)	10	-
						Arthropoda	Insecta	Ephemeroptera	Ephemeridae	<i>Ephemera strigata</i>	<i>Mont mayfly</i>										
						Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimura tibialis</i>	<i>Kamimura tibialis</i>	201	0.016	Larva	-	-	-	N.D.	N.D.(2.9)	N.D.(2.4)	-
						Arthropoda	Insecta	Plecoptera	Perlidae	<i>Paragnetina sp.</i>	<i>Paragnetina</i>										
						Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	<i>Macromia amphigena</i>	60	0.010	Larva(Dragonfly larva)	-	-	-	5.2	N.D.(4.4)	5.2	-
						Arthropoda	Insecta	Odonata	Cordulegastridae	<i>Anotogaster sieboldii</i>	<i>Anotogester sieboldii</i>										
						Arthropoda	Insecta	Odonata	Gomphidae	<i>Stylogomphus suzukii</i>	<i>Stylogomphus suzukii</i>										
						Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	<i>Sieboldius albardae</i>										
						Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	<i>Davidius</i>										
						Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	<i>Asiagomphus melaenops</i>										
						Arthropoda	Insecta	Odonata	Aeshnidae	<i>Boyeria macalachlani</i>	<i>Boyeria macalachlani</i>										
						Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes sp.</i>	<i>Parachauliodes</i>	15	0.0061	Larva	-	-	-	4.2	N.D.(3.9)	4.2	-
						Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	<i>Protohermes grandis</i>										
						Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus pollux</i>	<i>Japanese fluvial sculpin</i>	1	0.0090	Immature fish	-	-	-	4.5	N.D.(4.0)	4.5	-
						Vertebrata	Amphibia	Anura	-	-	Frog	7	0.0039	Larva(Tadpole)	-	-	-	6.6	N.D.(6.9)	6.6	-
						Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.24	-	-	-	-	2.6	N.D.(0.74)	2.6	-

*1: Organisms were collected in or around the targeted water area

*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.

* Plantae (monocotyledons) is the residue comprising after the filtration of lake water on a separator with a chlorine net (40 µm mesh).

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