

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

<Location C along the Uda River: Samples collected>

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>

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°	2017/12/5	08:10	08:22	7.1	7.1	Sand	2.5Y4/1	None	0.30	>50

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

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-6	37.7764°	140.8877°	2017/12/5	08:10	7.3	<0.5	1.7	12.1	10.7	0.06	0.7	<1	0.4	N.D.(0.0011)	0.0037	0.00058

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>

Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _H (H)	Water content	IL	TOC	Soil particle density	Grain size distribution								Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
	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)			
C-6	37.7764°	140.8877°	2017/12/5	08:22	7.6	361	20.8	1.1	1.3	2.723	9.6	29.5	55.4	3.9	1.6		0.71	4.8	20	180	0.54

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°	2017/12/2	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.017	-	-	-	55.2	6.2	49	-
					Arthropoda	Insecta	Ephemeroptera	Ephemeridae	<i>Ephemera japonica</i>	Ephemera japonica	267	0.0087	Larva	-	-	31.8	4.8	27	-
					Arthropoda	Insecta	Ephemeroptera	Ephemeridae	<i>Ephemera strigata</i>	Mont mayfly									
					Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimuria uenoi</i>	Kamimuria uenoi Kohno	504	0.022	Larva	-	-	N.D.	N.D.(2.0)	N.D.(1.7)	-
					Arthropoda	Insecta	Plecoptera	Perlidae	<i>Oyamia lugubris</i>	Oyamia lugubris									
					Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimuria tibialis</i>	<u>Kamimura tibialis</u>									
					Arthropoda	Insecta	Plecoptera	Perlidae	<i>Paragnetina suzukii</i>	Paragnetina suzukii Okamoto									
					Arthropoda	Insecta	Plecoptera	Perlidae	<i>Neoperla sp.</i>	Neoperla									
					Arthropoda	Insecta	Plecoptera	Perlidae	<i>Niponiella limbatella Klapalek</i>	Niponiella limbatella Klapalek									
					Arthropoda	Insecta	Odonata	Cordulegastridae	<i>Anotogaster sieboldii</i>	Anotogaster sieboldii	29	0.0066	Larva (Dragonfly larva)	-	-	8.2	N.D.(5.9)	8.2	-
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae									
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	<u>Davidius</u>									
					Arthropoda	Insecta	Odonata	Epiophlebiidae	<i>Epiophlebia superstes</i>	Epiophlebia superstes									
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	6	0.0074	Imago	-	-	7.0	N.D.(5.9)	7.0	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	17	0.24	Immature fish,Mature fish	-	-	9.6	1.3	8.3	-
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	1	0.047	Immature fish	Empty stomach	Viscera removed	8.0	N.D.(1.4)	8.0	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp. CB</i>	Rhinogobius nagoyae	5	0.019	Mature fish	-	-	11	N.D.(2.6)	11	-

*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.