

**OResults of Radioactive Material Monitoring of Aquatic Organisms (Location E along the Niida River)**

<Location E along the Niida River: Samples collected>

Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
E-2 a	○	○	○	○	○	○

<Location E along the Niida 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)
E-2 a	37.6640°	140.9447°	2020/12/4	12:55	13:10	8.1	8.4	Sand	10YR3/2	None	0.60	>50

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

Locations	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)												
E-2 a	37.6640°	140.9447°	2020/12/4	12:55	7.5	0.7	2.4	12.6	7.0	0.04	0.8	9	3.4	N.D.(0.0013)	0.012	0.0013

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

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

Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E <sub>NHE</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)	Maximum grain diameter (mm)			

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

<Location E along the Niida 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		
E-2 b	The main stream of the Niida River	37.6635°	140.9452°	2020/12/5	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0072	-	-	-	454	24	430	-	
					Arthropoda	Insecta	Ephemeroptera	Isonychiidae	<i>Isonychia valida</i>	Isonychia valida	349	0.011	Larva	-	-	52	N.D.(12)	52	-	
					Arthropoda	Insecta	Ephemeroptera	Ephemeridae	<i>Ephemera strigata</i>	Mont mayfly	384	0.026	Larva	-	-	165.8	5.8	160	-	
					Arthropoda	Insecta	Plecoptera	Perlidae	<i>Oyamia lugubris</i>	Oyamia lugubris	152	0.014	Larva	-	-	24	N.D.(4.5)	24	-	
					Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimura tibialis</i>	Kamimura tibialis	106	0.0099	Larva	-	-	180	N.D.(12)	180	-	
					Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	120	0.020	Larva(Dragonfly larva)	-	-	13	N.D.(3.6)	13	-	
					Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	130	0.038	Larva	-	-	14	N.D.(2.7)	14	-	
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Melligomphus viridicostus</i>	Melligomphus viridicostus	30	0.020	Imago	-	Molluscous part	13	N.D.(3.7)	13	-	
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius	11	0.013	Immature fish,Mature fish	-	-	21	N.D.(7.1)	21	-	
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	Asiagomphus melaenops	5	0.018	Immature fish,Mature fish	-	-	22	N.D.(3.7)	22	-	
					Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	6	0.014	Imago	-	-	11	N.D.(2.8)	11	-	
					Mollusca	Gastropoda	Discopoda	Pleuroceridae	<i>Semisulcospira libertina</i>	Semisulcospira libertina	-	0.22	Bottom fallen leaves	-	-	70.1	3.1	67	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Acheilognathus melanogaster</i>	Acheilognathus melanogaster	-	-	-	-	-	-	-	-	-	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	Rhinogobius fluviatilis	-	-	-	-	-	-	-	-	-	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius nagoyae</i>	Rhinogobius nagoyae	-	-	-	-	-	-	-	-	-	-
					Vertebrata	Amphibia	Anura	Hylidae	<i>Hyla japonica</i>	Japanese tree flog	-	-	-	-	-	-	-	-	-	-
					Vertebrata	Amphibia	Anura	Glandirana	<i>Glandirana rugosa</i>	Wrinkled frog	-	-	-	-	-	-	-	-	-	-

\*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.