

•Results 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-1	○	○	○	○	○	○
C-2	○	○	○	○	○	○
C-3	○	○	○	○	○	○
C-4	○	○	○	○	○	○
C-5	○	○	○	○	○	○
C-6	○	○	○	○	○	○

<Location C along the Uda River:Site measurement item >

Locations	Survey date and time			Latitude and longitude of the location		Water		Sediment				Other	
	Date	Time (Water)	Time (Sediment)	Latitude	Longitude	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Odor	Contaminants	Water depth (m)	Transparency (cm)
C-1	2012/11/8	12:57	13:10	37.795333°	140.745917°	12.0	12.2	Sand gravel	2.5Y-2/1	None	Pebbles	0.3	>50
C-2	2012/11/8	13:43	13:53	37.771750°	140.729033°	11.5	11.5	Sediment	2.5Y-2/1	Muddy odor	Plant	0.3	>50
C-3	2012/11/8	11:31	—	37.779183°	140.803967°	—	10.6	—	—	—	—	0.4	>50
C-4	2012/11/8	10:26	10:38	37.768667°	140.844283°	11.0	11.3	Sand gravel	2.5Y-3/3	None	Pebbles, branches	0.3	>50
C-5	2012/11/8	9:29	9:37	37.764600°	140.860300°	11.2	11.0	Sand gravel	2.5Y-3/2	None	Pebbles	0.5	>50
C-6	2012/11/8	8:35	8:40	37.776383°	140.887717°	11.0	11.3	Sand gravel	2.5Y-2/1	None	Pebbles	0.3	>50

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

Locations	Survey date and time		Latitude and longitude of the location		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)
	Date	Time	Latitude	Longitude												
C-1	2012/11/8	12:57	37.795333°	140.745917°	7.6	<0.5	2.0	10.9	10.0	0.05	0.8	<1	0.6	0.029	0.049	—
C-2	2012/11/8	13:43	37.771750°	140.729033°	7.4	0.6	3.7	9.9	9.3	0.08	1.6	3	2.5	0.063	0.10	—
C-3	2012/11/8	11:31	37.779183°	140.803967°	7.6	<0.5	2.5	10.6	8.9	0.05	1.0	1	1.1	0.040	0.065	—
C-4	2012/11/8	10:26	37.768667°	140.844283°	7.7	<0.5	2.1	10.8	9.1	0.05	0.8	<1	0.8	0.022	0.036	0.0014
C-5	2012/11/8	9:29	37.764600°	140.860300°	7.7	<0.5	2.2	11.3	9.2	0.10	0.9	<1	0.8	0.021	0.033	—
C-6	2012/11/8	8:35	37.776383°	140.887717°	7.7	<0.5	2.3	11.0	9.9	0.08	0.9	<1	0.8	0.017	0.028	—

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

Locations	Survey date and time		Latitude and longitude of the location		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)	
	Date	Time	Latitude	Longitude							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-1	2012/11/8	13:10	37.795333°	140.745917°	7.2	323	27.9	4.0	1	2.755	41.3	28.2	22.3	4.1	0.9	3.2	1,500	19.00	3,000	
C-2	2012/11/8	13:53	37.771750°	140.729033°	6.9	137	39.5	7.6	6	2.729	11.8	9.0	26.5	13.8	17.2	21.7	0.220	19.00	1,300	2,400
C-4	2012/11/8	10:38	37.768667°	140.844283°	7.2	362	27.4	2.6	1	2.707	14.0	19.3	46.6	8.6	3.3	8.2	0.600	19.00	730	1,200
C-5	2012/11/8	9:37	37.764600°	140.860300°	7.2	379	23.4	2.2	1	2.709	22.1	29.4	27.5	6.5	5.6	8.9	0.890	19.00	380	690
C-6	2012/11/8	8:40	37.776383°	140.887717°	7.2	402	23.5	2.0	<1	2.723	10.8	24.0	43.3	9.9	3.1	8.9	0.610	19.00	380	690

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

Location	Sampling Date	Latitude and longitude of the location		Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)	Note					
		Latitude	Longitude												Growth stage	Stomach contents				
C-5	2012/1/7	37.764600°	140.860300°	Chlorophyta	Ulvophyceae	Cladophorales	Cladophoraceae	<i>Cladophora</i> sp.	Cladophora	—	0.021	110	190	—	—	—				
	2012/1/6			Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout	8	0.16	38	63	—	Immature fish	—				
C-6	2012/1/6	37.776383°	140.88717°	—	—	—	—	—	CPOM (litter)	—	0.81	36	65	—	—	—				
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimura tibialis</i>	<u>Kamimura tibialis</u>	—	—	—	—	—	—	—	—	—		
				Arthropod	Insecta	Plecoptera	Perlidae	<i>Kamimura uenoi</i>	<u>Kamimura uenoi Kohno</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Plecoptera	Perlidae	<i>Neoperla</i> sp.	<u>Neoperla geniculata</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Acroneriia	Perlidae	<i>Niponiella limbatella</i>	<u>Niponiella limbatella Klapalek</u>	—	—	—	—	—	—	—	—	Larva	—	
				Arthropod	Insecta	Plecoptera	Perlidae	<i>Oyamia lugubris</i>	<u>Oyamia lugubris</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Plecoptera	Perlidae	<i>Paragnetina suzuki</i>	<u>Paragnetina suzuki Okamoto</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Plecoptera	Perlidae	<i>Paragnetina tinclipennis</i>	<u>Paragnetina tinclipennis</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	<u>Stenopsyche marmorata</u>	—	—	—	—	—	—	—	—	Larva	—	
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche sauteri</i>	<u>Stenopsyche sauteri</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Odonata	Cordulidae	<i>Macromia amphigena amphigena</i>	<u>Macromia amphigena</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Odonata	Calopterygidae	<i>Calopteryx atrata</i>	<u>Calopteryx atrata</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Odonata	Calopterygidae	<i>Calopteryx cornelia</i>	<u>Calopteryx cornelia</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Odonata	Calopterygidae	<i>Mnais costalis</i>	<u>Mnais costalis</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius fujiana</i>	<u>Davidius fujiana</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius nanus</i>	<u>Davidius nanus</u>	—	—	—	—	—	—	—	—	—	Larva	—
				Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius</i> sp.	<u>Davidius</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Odonata	Gomphidae	<i>Onychogomphus viridicostus</i>	<u>Onychogomphus viridicostus</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	<u>Sieboldius albardae</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Odonata	Gomphidae	<i>Sinogomphus flavolimbatus</i>	<u>Sinogomphus flavolimbatus</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Odonata	Libellulidae	<i>Epiophlebia superstes</i>	<u>Epiophlebia superstes</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes continentalis</i>	<u>Parachauliodes continentalis Weele</u>	—	—	—	—	—	—	—	—	Larva	—	
				Arthropod	Insecta	Megaloptera	Corydalidae	<i>Protothermes grandis</i>	<u>Protothermes grandis</u>	—	—	—	—	—	—	—	—	—	—	
				Arthropod	Malacostraca	Decapoda	Grapsidae	<i>Eriocheir japonica</i>	<u>Japanese mitten crab</u>	—	—	—	—	—	—	—	—	Adult	—	
				Arthropod	Malacostraca	Decapoda	Atyidae	Atyidae	<u>Freshwater shrimp</u>	—	—	—	—	—	—	—	—	Adult	—	
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Nipponocypris temminckii</i>	<u>Dark chub</u>	—	—	—	—	—	—	—	—	Mature fish	—	
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon</i> sp.	<u>Tribolodon</u>	—	—	—	—	—	—	—	—	Mature fish	—	
Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	<u>R. fluviatilis</u>	—	—	—	—	—	—	—	—	Mature fish	—					

Note) The Japanese name of the underlined, indicating that in the sample is the most harvested species.