

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

< Location E along the Niida River: Samples collected->

Items	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
E-1	○	○	○	○	○	○
E-2a	○	○	○	○	○	○
E-2b	○	○	○	○	○	○
E-3	○	○	○	○	○	○
E-4	○	○	○	○	○	○
E-5	○	○	○	○	○	○

< Location E along the Niida River: Site measurement item->

Items	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)
E-1	2012/10/25	9:00	9:10	37.660933°	140.911450°	11.3	11.6	Sand gravel	2.5Y-4/3	None	small stone	0.15	>50
E-2a	2012/10/25	10:45	11:58	37.664000°	140.944717°	13.0	13.3	Ooze	2.5Y-4/3	None	branch,leaf	0.45	>50
E-2b	2012/10/25	10:28	-	37.663450°	140.945150°	12.1	-	-	-	-	-	0.40	>50
E-3	2012/10/25	13:28	13:43	37.644400°	141.001783°	15.3	15.3	Sand	2.5Y-3/3	None	None	0.35	>50
E-4	2012/10/25	12:42	12:50	37.648467°	140.962950°	14.9	14.2	Sand	2.5Y-3/3	Faint hydrogen sulfide	branch	0.50	>50
E-5	2012/10/25	9:40	9:45	37.665233°	140.916883°	11.0	12.2	Sand gravel	2.5Y-5/1	smelling of the	leaf, Twigs	0.70	>50

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

Items	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												
E-1	2012/10/25	9:00	37.660933°	140.911450°	7.8	<0.5	2.7	11.6	7.0	0.04	1.2	<1	0.9	0.10	0.17	0.0031
E-2a	2012/10/25	10:45	37.664000°	140.944717°	7.4	<0.5	2.6	11.3	7.6	0.04	1.1	<1	1.0	0.097	0.15	-
E-2b	2012/10/25	10:28	37.663450°	140.945150°	7.4	<0.5	2.7	11.7	7.4	0.04	1.3	1	1.1	0.11	0.18	-
E-3	2012/10/25	13:28	37.644400°	141.001783°	7.3	<0.5	2.5	10.5	9.6	0.05	1.1	2	1.0	0.091	0.14	-
E-4	2012/10/25	12:42	37.648467°	140.962950°	7.6	<0.5	2.5	11.2	8.3	0.04	1.1	1	1.0	0.10	0.16	-
E-5	2012/10/25	9:40	37.665233°	140.916883°	7.6	<0.5	2.6	11.8	7.4	0.04	1.2	<1	1.1	0.084	0.14	-

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

Items	Survey date and time		Latitude and longitude of the location		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)		
	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)	Maximum grain diameter (mm)
E-1	2012/10/25	9:10	37.660933°	140.911450°	7.2	367	17.9	0.8	<1	2.658	9.4	57.2	32.5	0.4	0.0	0.5	1.100	9.50	960	1,600	0.34
E-2a	2012/10/25	11:58	37.664000°	140.944717°	7.1	300	58.9	11.2	32	2.557	3.8	2.5	10.7	30.3	18.1	34.6	0.057	9.50	8,400	14,000	-
E-3	2012/10/25	13:43	37.644400°	141.001783°	7.2	366	18.0	1.9	3	2.660	39.2	35.3	16.7	4.4	0.9	3.5	1.600	19.00	620	1,100	-
E-4	2012/10/25	12:50	37.648467°	140.962950°	7.0	384	37.3	3.4	11	2.649	6.7	3.2	42.7	29.2	6.9	11.3	0.260	19.00	2,900	4,900	-
E-5	2012/10/25	9:45	37.665233°	140.916883°	6.7	343	20.0	1.1	1	2.676	13.8	26.7	47.4	9.8	0.1	2.2	0.710	19.00	1,300	2,100	-

< Location E along the Niida 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	
E-1 E-2a E-2b	2012/10/31	37.660933° 37.664000° 37.663450°	140.911450° 140.944717° 140.945150°	Arthropoda	Insecta	Plecoptera	Perlidae	<u>Kamimuria tibialis</u>	Kamimuria tibialis	464	0.025	66	99	—	Larva	—	
				Arthropod	Insecta	Plecoptera	Perlidae	<u>Kamimuria uenoi</u>	Kamimuria uenoi Kohno								
				Arthropod	Insecta	Plecoptera	Perlidae	<u>Neoperla sp.</u>	Neoperla geniculata								
				Arthropoda	Insecta	Plecoptera	Perlidae	<u>Oyamia sp.</u>	Oyamia sp.								
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<u>Stenopsyche marmorata</u>	Stenopsyche marmorata	223	0.043	670	1,100	—	Larva	—	
				Arthropod	Insecta	Trichoptera	Stenopsychidae	<u>Stenopsyche sauteri</u>	Parastenopsyche sauteri								
				Arthropod	Insecta	Odonata	Calopterygidae	<u>Calopteryx atrata</u>	Calopteryx atrata	158	0.049	130	230	—	Larva	—	
				Arthropoda	Insecta	Odonata	Calopterygidae	<u>Calopteryx sp.</u>	Calopteryx								
				Arthropod	Insecta	Odonata	Calopterygidae	<u>Mnais costalis</u>	Mnais costalis								
				Arthropod	Insecta	Odonata	Gomphidae	<u>Asiagomphus melaenops</u>	Asiagomphus melaenops								
				Arthropod	Insecta	Odonata	Gomphidae	<u>Davidius nanus</u>	Davidius nanus								
				Arthropod	Insecta	Odonata	Gomphidae	<u>Davidius sp.</u>	Davidius								
				Arthropod	Insecta	Odonata	Gomphidae	<u>Onychogomphus viridicostus</u>	Onychogomphus viridicostus								
				Arthropod	Insecta	Odonata	Gomphidae	<u>Sieboldius albardae</u>	Sieboldius albardae								
				Arthropod	Insecta	Odonata	Gomphidae	<u>Sinogomphus flavolimbatatus</u>	Sinogomphus flavolimbatatus								
	Arthropod	Insecta	Odonata	Gomphidae	<u>Sylogomphus suzukii</u>	Stylogomphus suzukii											
	Arthropod	Insecta	Odonata	Aeshmidae	<u>Anax parthenope</u>	Anax parthenope											
	Arthropod	Insecta	Odonata	Aeshmidae	<u>Planaeschna milnei</u>	Planaeschna milnei											
	Arthropod	Insecta	Megaloptera	Corydalidae	<u>Parachauliodes continentalis</u>	Parachauliodes continentalis Weele	21	0.017	75	110	—	Larva	—				
	Arthropod	Insecta	Megaloptera	Corydalidae	<u>Protohermes grandis</u>	Protohermes grandis	14	0.20	150	260	—	Adult	—				
	Arthropod	Malacostraca	Decapoda	Grapsidae	<u>Eriocheir japonica</u>	Japanese mitten crab											
					Mollusca	Gastropoda	Sorbeoconcha	Pleuroceridae	<u>Semisulcospira libertina</u>	Semisulcospira libertina	17	0.055	90	140	—	Adult	—
		2012/10/26			Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	<u>Anguilla japonica</u>	Japanese eel	5	1.4	410	690	0.42	Mature fish	Some (details unknown)
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<u>Cyprinus carpio</u>	Common carp	2	0.62	120	200	—	Mature fish	Some (details unknown)
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<u>Tribolodon sp.</u>	Tribolodon	31	0.19	190	320	—	Mature fish/Immature fish	—
		2012/10/31			Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<u>Pseudogobio esocinus</u>	Pseudogobio esocinus	16	0.050	150	270	—	Mature fish/Immature fish	—
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<u>Zacco platypus</u>	Zacco platypus	69	0.40	230	380	—	Mature fish	—
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<u>Oncorhynchus masou</u>	Yamame trout	5	0.10	120	210	—	Mature fish	—	
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<u>Rhinogobius sp.</u>	Rhinogobius	29	0.10	450	770	—	Mature fish	—	
	2012/10/24			Vertebrata	Osteichthyes	Siluriformes	Siluridae	<u>Silurus asotus</u>	Amur catfish	3	1.1	230	370	1.2	Mature fish	Some (details unknown)	
	2012/10/31			Vertebrata	Amphibia	Anura	—	—	Tadpole	15	0.094	630	990	—	Larva	—	
				—	—	—	—	—	CPOM (litter)	—	0.84	340	550	—	—	—	

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