○Results of Radioactive Material Monitoring of Aquatic Organisms (Location E along the Niida River)

＜Location E along the Niida River: Samples collected＞

Items / Locations	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	Latitude and longitude of the location		Survey date and time			Water	Sediment				Other	
Locations	Scheduled latitude	Scheduled longitude	Date	Time (water)	Time (sediment)	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Contaminants	Water depth (m)	Transparency(cm)
E-1	37.6609°	140.9115°	2015/12/3	08:05	08:01	8.1	8.2	Sand	2.5Y4/3	None	0.31	>50
E-2a	37.6640°	140.9447°		10:13	10:22	8.6	8.7	Sediment with sand	2.5Y5/4	None	0.48	>50
E-2b	37.6635°	140.9452°		09:48	-	8.5	-	-	-	-	0.45	>50
E-3	37.6444°	141.0018°		13:08	13:13	10.5	10.7	Sand	2.5Y4/3	None	0.25	>50
E-4	37.6485°	140.9630°		11:15	11:21	9.3	9.5	Sand	2.5Y4/4	None	0.55	>50
E-5	37.6652°	140.9169°		09:05	09:00	8.4	8.5	Sand	2.5Y4/4	None	0.25	>50

＜Location E along the Niida 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)	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)
Locations	Scheduled latitude	Scheduled longitude	Date	Time (water)												
E-1	37.6609°	140.9115°	2015/12/3	8:05	7.3	<0.5	2.0	11.8	6.3	0.04	0.8	1	1.1	0.0075	0.031	0.0017
E-2a	37.6640°	140.9447°		10:13	7.3	<0.5	2.1	11.9	6.8	0.04	0.9	1	1.1	0.0073	0.031	-
E-2b	37.6635°	140.9452°		9:48	7.4	<0.5	2.1	11.9	6.8	0.04	0.9	2	1.1	0.0070	0.029	-
E-3	37.6444°	141.0018°		13:08	7.3	0.7	1.9	10.9	8.9	0.05	0.8	1	1.1	0.0073	0.032	-
E-4	37.6485°	140.9630°		11:15	7.4	<0.5	2.1	11.3	7.8	0.04	0.9	2	1.1	0.0082	0.032	-
E-5	37.6652°	140.9169°		9:05	7.4	<0.5	2.2	11.9	6.6	0.04	0.8	3	2.2	0.0095	0.042	-

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

Items	Latitude and longitude of the location		Survey date and time		pH	Redox potential EN.H.E (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm3)	Grain size distribution								Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
Locations	Scheduled latitude	Scheduled 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 (0.005-0.0075mm) (%)	Clay (Less than 0.005mm) (%)	Median grain diameter	Maximum grain diameter			
E-1	37.6609°	140.9115°	2015/12/3	8:01	7.2	400	18.0	0.8	1.2	2.651	34.5	45.1	19.5	0.4	0.3	0.2	1.5	19	130	640	0.17
E-2a	37.6640°	140.9447°		10:22	6.8	350	48.8	7.5	19.5	2.602	1.6	0.4	1.2	41.4	44.6	10.8	0.066	9.5	1400	6100	-
E-3	37.6444°	141.0018°		13:13	6.9	407	19.4	0.9	1.7	2.665	9.4	19.6	60.3	9.5	0.7	0.5	0.60	4.8	90	400	-
E-4	37.6485°	140.9630°		11:21	7.0	425	14.2	0.7	1.2	2.636	0.3	33.0	66.3	0.2	0.1	0.1	0.72	4.8	52	260	-
E-5	37.6652°	140.9169°		9:00	7.0	426	15.5	0.8	1.2	2.648	2.4	35.1	60.3	1.6	0.4	0.2	0.73	4.8	140	630	-

＜Location E along the Niida River: Analysis items Aquatic organisms＞

Location	Sampling point	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species 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	Cs-134	Cs-137	
E-2b	-	37.6635°	140.9452°	2015/12/3	Phycophyta	-	-	-	-	Riverbed Deposits (include algae)	-	0.022	-	-	-	8.4	42	-
					Arthropod	Insecta	Ephemeroptera	Isonychiidae	*Isonychia japonica*	Tirakagerou	159	0.0091	Larva	-	-	28	120	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	Kamimura tibialis	282	0.026	Larva	-	-	3.7	13	-
					Arthropod	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	121	0.031	Larva	-	-	53	250	-
					Arthropod	Insecta	Odonata	Gomphidae	*Melligomphus viridicostus*	Onychogomphus viridicostus	28	0.0081	Larva (dragonfly larva)	-	-	36	140	-
					Arthropod	Insecta	Odonata	Gomphidae	*Sieboldius albardae*	Sieboldius albardae								
					Arthropod	Insecta	Odonata	Corduliidae	*Macromia amphigena amphigena*	Macromia amphigena								
					Arthropod	Insecta	Odonata	Gomphidae	-	Davidius								
					Arthropod	Insecta	Odonata	Gomphidae	*Asiagomphus melaenops*	Asiagomphus melaenops								
					Arthropod	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis	19	0.013	Larva	-	-	7.6	33	-
					Arthropod	Malacostraca	Decapoda	Grapsidae	*Eriocheir japonica*	Japanese mitten crab	20	0.21	Imago	-	-	20	83	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	26	0.097	Immature fish (0-year-old)/Mature fish (1-year-old)	Aquatic insects	Viscera removed	17	66	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Opsariichthys platypus*	Zacco platypus	11	0.055	Immature fish/Mature fish (1-year-old)	Amorphous residue	Viscera removed	16	62	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius fluviatilis*	R. fluviatilis	5	0.015	Immature fish/Mature fish	Simulium japonicum	Viscera removed	29	120	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	R. sp. CB								
					Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.16	-	-	-	35	150	-

*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 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: A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.
*6: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40μm-mesh).
*7: 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.
*8: N.D. means to be below the detection limit and figures in parentheses show the detection limit.
*9: Activity concentrations include counting errors, but the details are omitted here.