

•Results of Radioactive Material Monitoring of Aquatic Organisms (Location F along the Ota River)

<Location F along the Ota River: Samples collected>

Items Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
F-1	○	○	○	○	○	○
F-2	○	○	○	○	○	○
F-3	○	○	○	○	○	○
F-4	○	○	○	○	○	○
F-5	○	○	○	○	○	○
F-6	○	○	○	○	○	○

<Location F along the Ota River: Site measurement item>

Items 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)
F-1	37.59747°	140.92482°	2014/9/1	9:40	9:34	20.9	21.6	Sand	10YR3/4	Pebbles, plant	0.56	>50.0
F-2	37.60153°	140.94358°		10:40	10:52	20.9	21.1	Sand	10YR4/3	Pebbles	0.45	>50.0
F-3	37.60453°	140.96410°		11:55	12:08	20.9	21.1	Sand	10YR4/6	Pebbles, roots	0.68	>50.0
F-4	37.60703°	140.97215°		13:40	13:50	20.8	20.9	Sand	2.5Y4/4	Roots	0.70	>50.0
F-5	37.60227°	140.98742°		14:40	14:47	20.9	20.9	Sand	2.5Y4/3	None	0.45	>50.0
F-6	37.59543°	140.01253°		15:45	—	—	21.1	—	—	—	—	1.05

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

Items Locations	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)
	Latitude	Longitude	Date	Time												
F-1	37.59747°	140.92482°	2014/9/1	9:40	7.2	0.8	3.1	9.0	5.1	0.03	1.1	2	1.1	0.11	0.31	—
F-2	37.60153°	140.94358°		10:40	7.0	0.7	3.2	9.1	5.4	0.03	1.0	4	1.3	0.13	0.37	0.0038
F-3	37.60453°	140.96410°		11:55	7.0	0.8	3.4	9.0	5.7	0.03	1.1	6	1.3	0.12	0.35	—
F-4	37.60703°	140.97215°		13:40	7.0	0.7	3.5	8.6	5.8	0.04	1.0	6	1.4	0.16	0.45	—
F-5	37.60227°	140.98742°		14:40	6.8	0.8	3.3	9.0	6.3	0.04	1.0	6	1.3	0.14	0.39	—
F-6	37.59543°	140.01253°		15:45	6.9	0.9	4.0	9.0	9.5	0.05	1.4	6	1.7	0.12	0.33	—

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

Items Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E <sub>H</sub> (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm <sup>3</sup> )	Grain size distribution (%)						Median grain diameter (mm)	Maximum grain diameter (mm)	Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
	Latitude	Longitude	Date	Time							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)					
F-1	37.59747°	140.92482°	2014/9/1	9:34	6.6	307	22.6	1.6	2.8	2.667	45.3	28.1	14.0	8.3	2.0	2.3	1.8	19	3,400	10,000	—
F-2	37.60153°	140.94358°		10:52	6.8	293	13.8	0.6	1.4	2.655	57.6	35.3	6.8	0.1	0.1	0.1	2.3	19	1,100	3,400	0.33
F-3	37.60453°	140.96410°		12:08	6.8	304	16.4	0.7	1.5	2.658	52.7	28.0	5.2	0.7	0.5	2.1	19	920	2,800	—	
F-4	37.60703°	140.97215°		13:50	6.7	324	18.0	0.5	1.2	2.657	35.7	36.4	22.8	4.3	0.5	0.3	1.5	9.5	780	2,300	—
F-5	37.60227°	140.98742°		14:47	6.6	326	19.5	0.8	1.6	2.647	18.9	35.9	40.5	3.2	0.7	0.8	0.94	19	390	1,200	—
F-6	37.59543°	140.01253°		15:45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

<Location F along the Ota River: Survey items Aquatic organisms>

Location	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Note			Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)				
	Latitude	Longitude										Growth stage	Stomach contents	Measurement site							
F-1	—	37.59747°	140.92482°	2014/8/31	Algae/plant	—	—	—	River bottom materials (incl. algae)	Considerable number	0.046	—	—	—	130	420	—				
					Angiosperms	Monocots	Poales	Poaceae	<i>Phragmites australis</i>	Common reed	Considerable number	0.17	—	—	—	—	74	240	—		
					Bryopsida	Sphagnopsida	Sphagnales	Sphagnaceae	<i>Sphagnum sp.</i>	Sphagnum	Considerable number	0.25	—	—	—	—	—	1,100	3,300	—	
					Arthropod	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	66	0.015	Larva	—	—	—	—	210	610	—	
					Arthropod	Insecta	Odonata	Corduliidae	<i>Macromia amphigena</i>	Macromia amphigena	—	—	—	—	—	—	—	—	—	—	—
					Arthropod	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	Asiagomphus melaenops	—	—	—	—	—	—	—	—	—	—	—
					Arthropod	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius	—	—	—	—	—	—	—	—	—	—	—
					Arthropod	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Albardae	—	—	—	—	—	—	—	—	—	—	—
					Arthropod	Insecta	Odonata	Gomphidae	<i>Siylogomphus suzukii</i>	Siylogomphus suzukii	—	—	—	—	—	—	—	—	—	—	—
					Arthropod	Insecta	Odonata	Gomphidae	<i>Onychogomphus viridicostus</i>	Onychogomphus viridicostus	—	—	—	—	—	—	—	—	—	—	—
					Arthropod	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	62	0.022	Larva	—	—	—	—	—	63	180	—
					Arthropod	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	12	0.021	Imago	—	—	—	—	—	220	630	—
					Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	236	0.049	Imago	—	—	—	—	—	180	480	—
					Mollusca	Gastropoda	Sorbeoconcha	Pleuroceridae	<i>Semisulcospira libertina</i>	Semisulcospira libertina	18	0.014	Imago	—	—	—	—	—	66	200	—
					Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus pollux</i>	Japanese fluvial sculpin	6	0.011	Immature fish/Mature fish	Some (details unknown)	—	—	—	—	230	640	—
					Vertebrata	Osteichthyes	Osmeriformes	Osmeridae	<i>Plecoglossus atlevis</i>	Sweetfish	3	0.061	Immature fish	Some (details unknown)	—	—	—	—	320	960	—
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Nipponocypris temminckii</i>	Dark chub	15	0.13	Mature fish (2-year-old)	Some (details unknown)	—	—	—	—	110	320	—
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	2	0.025	Mature fish (1-year-old)	Some (details unknown)	—	—	—	—	200	570	—
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Pale chub	2	0.013	Mature fish (1-year-old)	Some (details unknown)	—	—	—	—	73	210	—
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp.</i>	Rhinogobius	10	0.042	Mature fish	Some (details unknown)	—	—	—	—	370	1,100	—
coarse particulate organic matters (CPOM)	—	—	—	—	—	—	—	—	—	—	—	—	—	140	410	—					
									Fallen leaves	Considerable number	0.34	—	—	—	—	—					

\*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 organisms sampled. 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.