○Results of Radioactive Material Monitoring of Aquatic Organisms (Location D along the Mano River)

＜Location D along the Mano River: Samples collected＞

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

＜Location D along the Mano 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)
D-1	37.7331°	140.9254°	2015/10/23	9:57	10:18	15.8	16.1	Sand	2.5Y4/4	None	0.25	>50
D-2	37.7095°	140.9566°		11:16	11:37	16.9	17.0	Sand	2.5Y4/4	None	0.29	>50
D-3	37.7051°	140.9623°		13:12	13:27	18.1	17.6	Sand	2.5Y4/2	None	0.65	>50
D-4a	37.7308°	140.9081°		8:35	8:45	13.6	13.5	Sand	2.5Y4/2	None	0.31	>50
D-4b	37.7312°	140.9096°		9:16	-	13.9	-	-	-	-	0.31	>50
D-5	37.7214°	140.8889°		7:42	7:53	12.7	12.9	Sand	2.5Y3/2	None	0.47	>50

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

Items	Latitude and longitude of the location		Survey date and time		pH	BOD	COD	DO	Electrical conductivity	Salinity	TOC	SS	Turbidity	Cs-134	Cs-137	Sr-90
Locations	Scheduled latitude	Scheduled longitude	Date	Time (water)		(mg/L)	(mg/L)	(mg/L)	(mS/m)		(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)
D-1	37.7331°	140.9254°	2015/10/23	9:57	7.6	<0.5	2.3	11.6	9.9	0.05	1.0	<1	0.5	0.0041	0.015	0.0014
D-2	37.7095°	140.9566°		11:16	7.2	0.7	3.0	10.0	11.7	0.06	1.2	<1	1.0	0.0028	0.014	-
D-3	37.7051°	140.9623°		13:12	7.1	0.6	2.6	11.2	12.4	0.07	1.0	<1	0.8	0.0060	0.022	-
D-4a	37.7308°	140.9081°		8:35	7.4	<0.5	2.2	10.2	9.8	0.05	1.0	<1	0.6	0.0053	0.018	-
D-4b	37.7312°	140.9096°		9:16	7.5	<0.5	2.2	10.5	9.8	0.05	1.0	<1	0.7	0.0059	0.024	-
D-5	37.7214°	140.8889°		7:42	7.5	<0.5	2.5	10.5	8.4	0.05	1.1	<1	0.8	0.010	0.045	-

＜Location D along the Mano 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	Water content	IL	TOC	Soil particle density	Grain size distribution								Cs-134	Cs-137	Sr-90
Locations	Scheduled latitude	Scheduled longitude	Date	Time (sediment)		(mV)	(%)	(%)	(mg/g-dry)	(g/cm3)	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	(Bq/kg-dry)	(Bq/kg-dry)	(Bq/kg-dry)
D-1	37.7331°	140.9254°	2015/10/23	10:18	7.5	331	18.9	1.8	2.1	2.691	20.3	16.2	49.2	13.1	0.7	0.5	0.57	9.5	85	340	1.0
D-2	37.7095°	140.9566°		11:37	7.4	339	15.8	1.5	1.3	2.695	30.9	34.9	29.7	3.9	0.3	0.3	1.3	9.5	53	210	-
D-3	37.7051°	140.9623°		13:27	7.4	356	18.5	2.1	2.6	2.665	23.7	18.9	32.7	20.8	2.1	1.8	0.62	9.5	49	180	-
D-4a	37.7308°	140.9081°		8:45	7.5	349	20.0	2.2	2.4	2.685	23.0	34.9	36.2	5.1	0.4	0.4	1.0	9.5	110	440	-
D-5	37.7214°	140.8889°		7:53	7.5	350	18.9	2.0	1.9	2.673	18.7	32.6	43.7	4.6	0.2	0.2	0.88	9.5	37	220	-

＜Location D along the Mano 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	
D-4b	-	37.7312°	140.9096°	2015/10/23	Phycophyta	-	-	-	-	Riverbed Deposits (include algae)	-	0.031	-	-	-	58	250	-
					Arthropod	Insecta	Ephemeroptera	Isonychiidae	*Isonychia japonica*	Tirakagerou	251	0.0092	Larva	-	-	6.5	30	-
					Arthropod	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	136	0.0088	Larva	-	-	25	140	-
					Arthropod	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis	32	0.013	Larva	-	-	8.3	33	-
					Arthropod	Malacostraca	Decapoda	Palaemonidae	*Palaemon paucidens*	Common prawn	9	0.011	Imago	-	-	6.5	34	-
					Arthropoda	Malacostraca	Decapoda	Atyidae	*Paratya improvisa*	Freshwater shrimp	68	0.016	Imago	-	-	10	44	-
					Arthropod	Malacostraca	Decapoda	Grapsidae	*Eriocheir japonica*	Japanese mitten crab	2	0.13	Imago	-	-	39	170	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Phoxinus lagowskii steindachneri*	Amur Minnow	18	0.057	Immature fish/Mature fish (1-year-old)	-	-	6.8	25	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	32	0.96	Mature fish (3-year-old)	-	-	9.8	31	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace (muscular part)	32	0.96	Mature fish (3-year-old)	-	-	8.5	35	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace (inner parts)	32	0.96	Mature fish (3-year-old)	-	-	8.6	33	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Opsariichthys platypus*	Zacco platypus	34	0.17	Mature fish (2-year-old)	-	-	5.2	25	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Gnathopogon elongatus elongatus*	Tamoroko	3	0.0094	Immature fish/Mature fish (1-year-old)	-	-	11	36	-
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	*Misgurnus anguillicaudatus*	Oriental weatherfish	6	0.042	Immature fish/Mature fish	-	-	14	77	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	R. sp. CB	12	0.029	Immature fish/Mature fish	-	-	16	63	-
					Vertebrata	Cephalaspidomorphi	Petromyzontiformes	Petromyzontidae	-	Far eastern brook lamprey	4	0.013	Larva	-	-	9.4	32	-
					Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.20	-	-	-	51	220	-

*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.