〇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°		09:49	10:04	8.9	8.9	Sand	2.5Y4/2	None	0.25	>50
D-2	37.7095°	140.9566°		10:56	11:07	9.5	9.6	Sand	2.5Y4/4	None	0.35	>50
D-3	37.7051°	140.9623°	2015/12/4	12:38	12:50	10.7	10.5	Sand	2.5Y4/3	Plant	0.47	>50
D-4a	37.7308°	140.9081°		08:25	08:31	8.1	8.0	Sand	2.5Y4/2	None	0.20	>50
D-4b	37.7312°	140.9096°		09:05	-	8.3	-	-	-	-	0.28	>50
D-5	37.7214°	140.8889°		07:38	07:55	7.9	7.9	Sand	2.5Y3/3	None	0.57	>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 (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)												
D-1	37.7331°	140.9254°		9:49	7.4	<0.5	1.9	12.2	10.7	0.06	0.9	<1	0.5	0.0018	0.0093	0.0011
D-2	37.7095°	140.9566°		10:56	7.2	0.6	2.2	11.0	12.0	0.06	1.1	<1	0.6	0.0028	0.0091	-
D-3	37.7051°	140.9623°	2015/12/4	12:38	7.1	<0.5	1.9	11.2	12.3	0.07	0.9	<1	0.7	0.0057	0.022	-
D-4a	37.7308°	140.9081°		8:25	7.4	<0.5	1.9	10.8	10.0	0.05	1.0	<1	0.5	0.0045	0.018	-
D-4b	37.7312°	140.9096°		9:05	7.5	<0.5	1.9	11.2	9.9	0.05	0.9	<1	0.6	0.0052	0.022	-
D-5	37.7214°	140.8889°		7:38	7.5	<0.5	2.3	11.1	8.4	0.05	1.1	<1	0.5	0.0041	0.020	-

＜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 (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm3)	Grain size distribution						Median grain diameter	Maximum grain diameter	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) (%)					
D-1	37.7331°	140.9254°		10:04	6.9	432	13.3	1.2	1.4	2.692	32.0	45.4	21.4	0.8	0.2	0.2	1.5	9.5	27	150	0.71
D-2	37.7095°	140.9566°		11:07	7.0	442	15.6	1.3	2.9	2.681	33.4	39.4	23.8	2.5	0.5	0.4	1.4	9.5	27	150	-
D-3	37.7051°	140.9623°	2015/12/4	12:50	6.8	444	18.0	1.5	2.0	2.665	18.0	24.1	38.4	16.4	1.4	1.7	0.67	4.8	41	200	-
D-4a	37.7308°	140.9081°		8:31	7.1	452	17.4	1.4	2.7	2.676	31.9	43.0	21.6	2.7	0.5	0.3	1.4	9.5	64	320	-
D-5	37.7214°	140.8889°		7:55	7.2	455	22.0	1.3	1.9	2.655	9.0	24.8	50.3	12.6	1.9	1.4	0.58	4.8	91	360	-

＜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°	2015/12/4	Phycophyta	-	-	-	-	Riverbed Deposits (include algae)	-	0.035	-	-	-	47	190	-
					Arthropod	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	101	0.022	Larva	-	-	18	74	-
					Arthropod	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis	30	0.010	Larva	-	-	5.8	20	-
					Arthropoda	Malacostraca	Decapoda	Atyidae	*Paratya improvisa*	Freshwater shrimp	193	0.036	Imago	-	-	6.0	28	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	30	0.31	Mature fish (2-year-old)	-	-	8.7	35	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace (muscular part)	30	0.31	Mature fish (2-year-old)	-	-	8.6	41	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace (inner parts)	30	0.31	Mature fish (2-year-old)	-	-	8.5	31	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace (bone part)	30	0.31	Mature fish (2-year-old)	-	-	8.4	42	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Gnathopogon elongatus elongatus*	Tamoroko	11	0.049	Mature fish	-	-	3.7	18	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	R. sp. CB	13	0.032	Immature fish/Mature fish	-	-	7.7	33	-
					Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.26	-	-	-	21	91	-

*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.