○Results of Radioactive Material Monitoring of Aquatic Organisms (Location G in Lake Hayama)

<Location G in Lake Hayama: Samples collected>

Items / Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
G-1	○	○	○	○	○	○
G-2	○	○	○	-	○	-
G-4	○	○	○	-	○	-

<Location G in Lake Hayama: 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)	Secchi disk depth (m)
G-1(Surface layer)	37.7348°	140.8102°	2021/10/25	10:50	11:05	16.9	12.7	Sediment	7.5Y3/2	Plant pieces	3.4	2.5
G-1(Bottom layer)						12.6						
G-2(Surface layer)	37.7267°	140.8223°		09:30	09:40	17.0	16.9	Sand sediment with gravel	7.5Y3/2	Plant pieces	7.3	3.0
G-2(Bottom layer)						16.8						
G-4	37.7382°	140.8035°		12:20	12:40	11.0	11.0	Sand	7.5Y5/3	None	0.5	>1.0

<Location G in Lake Hayama: 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)	Electric 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 (water)												
G-1(Surface layer)	37.7348°	140.8102°	2021/10/25	10:50	7.2	1.2	3.6	8.5	7.2	0.04	1.7	2	2.0	N.D.(0.0014)	0.013	-
G-1(Bottom layer)					7.2	0.5	3.2	8.6	7.5	0.04	1.7	2	1.5	N.D.(0.0014)	0.0079	0.00067
G-2(Surface layer)	37.7267°	140.8223°		09:30	7.3	<0.5	3.2	8.1	7.6	0.04	1.7	2	1.7	N.D.(0.0015)	0.0098	-
G-2(Bottom layer)					7.2	0.5	3.3	8.2	7.7	0.04	1.9	2	1.7	N.D.(0.0016)	0.014	-
G-4	37.7382°	140.8035°		12:20	7.5	<0.5	2.2	10.8	7.5	0.04	1.0	2	0.8	N.D.(0.0014)	0.0052	-

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

<Location G in Lake Hayama: General survey items/Analysis of radioactive materials Sediment>

Items / Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential $E_{N.H.E}$ (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm^3)	Grain size distribution								Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
	Latitude	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 (0.005-0.075mm) (%)	Clay (Less than 0.005mm) (%)	Median grain diameter (mm)	Maximum grain diameter (mm)			
G-1	37.7348°	140.8102°	2021/10/25	11:05	7.2	187	33.7	6.1	7.9	2.612	2.8	6.7	32.4	19.8	27.1	11.2	0.16	9.5	27	700	1.6
G-2	37.7267°	140.8223°		09:40	7.0	150	25.6	5.2	8.7	2.606	9.3	5.5	13.5	23.1	28.6	20.0	0.083	27	22	580	-
G-4	37.7382°	140.8035°		12:40	7.8	452	26.2	2.6	2.0	2.676	0.1	2.2	39.5	43.2	9.6	5.4	0.21	4.8	9.6	240	-

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

<Location G in Lake Hayama: Analysis items Aquatic organisms>

Locations	Sampling point	Latitude and longitude of the location		Sampling date	Division	Class	Order	Family	Scientific 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	Total	Cs-134	Cs-137	
G-1 G-2 G-3	In the lake	37.7348° 37.7267° 37.7302°	140.8102° 140.8223° 140.8307°	2021/10/25	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.014	-	-	-	2.0	N.D.(2.4)	2.0	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	2	0.99	Mature fish	Obscure digesta	Viscera removed	44	N.D.(2.3)	44	0.78
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Carassius auratus*	Carassius auratus langsdorfii	2	2.7	Mature fish	Obscure digesta	Viscera removed	19	N.D.(1.5)	19	0.93
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Cyprinus carpio*	Common carp	2	2.4	Mature fish	Obscure digesta	Viscera removed	15	N.D.(1.4)	15	0.41
G-4	Inflowing rivers	37.7382°	140.8035°	2021/10/25	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0040	-	-	-	70	N.D.(20)	70	-
					Arthropoda	Insecta	Odonata	Corduliidae	*Macromia amphigena amphigena*	Macromia amphigena	147	0.065	Larva(Dragonfly larva)	-	-	9.8	N.D.(2.7)	9.8	-
					Arthropoda	Insecta	Odonata	Cordulegastridae	*Anotogaster sieboldii*	Anotogester sieboldii									
					Arthropoda	Insecta	Odonata	Gomphidae	*Melligomphus viridicostus*	Melligomphus viridicostus									
					Arthropoda	Insecta	Odonata	Gomphidae	*Sieboldius albardae*	Sieboldius albardae									
					Arthropoda	Insecta	Odonata	Gomphidae	*Davidius sp.*	Davidius									
					Arthropoda	Insecta	Odonata	Gomphidae	*Asiagomphus melaenops*	Asiagomphus melaenops									
					Arthropoda	Insecta	Odonata	Aeshnidae	*Planaeschna milnei milnei*	Planaeschna milnei milnei									
					Arthropoda	Insecta	Megaloptera	Corydalidae	*Parachauliodes sp.*	Parachauliodes	21	0.017	Larva	-	-	5.3	N.D.(2.0)	5.3	-
					Arthropoda	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis									
					Mollusca	Gastropoda	Discopoda	Pleuroceridae	*Semisulcospira libertina*	Semisulcospira libertina	27	0.013	Juvenile,Imago	-	Molluscous part	14	N.D.(2.9)	14	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	60	0.28	Immature fish	-	-	8.2	N.D.(1.3)	8.2	-
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou*	Yamame trout	6	0.068	Immature fish	-	-	13	N.D.(2.5)	13	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius flumineus*	Rhinogobius flumineus	8	0.012	Immature fish,Mature fish	-	-	7.4	N.D.(2.8)	7.4	-
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	*Silurus asotus*	Amur catfish	1	0.90	Mature fish	Empty stomach	Viscera removed	104.2	4.2	100	-

*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 English 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: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40μm-mesh).

*6: 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.

*7: N.D. means to be below the detection limit and figures in parentheses show the detection limit.

*8: Activity concentrations include counting errors, but the details are omitted here.