○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-3	○	○	○	-	○	-
G-4	-	○	-	-	○	-
G-5	○	○	○	-	○	-

＜Location G in Lake Hayama: Site measurement item＞

Items / Locations	Latitude and longitude of the location		Survey date and time			Water	Sediment				Other	
	Scheduled latitude	Scheduled longitude	Date	Time (water)	Time (sediment)	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Contaminants	Water depth (m)	Transparency (m)
G-1(Surface layer)	37.7321°	140.8127°	2015/12/7	14:20	14:05	9.5	7.9	Sand sediment	7.5Y 4/1	Plant	6.1	3.2
G-1(Deep layer)	37.7321°	140.8127°		14:20		9.5						
G-2	37.7267°	140.8223°		-	11:19	-	7.5	Ooze	7.5Y 4/2	None	-	-
G-3(Surface layer)	37.7302°	140.8307°		10:15	10:35	10.1	10.3	Ooze	7.5Y 4/1	Plant	8.2	3.5
G-3(Deep layer)	37.7302°	140.8307°		10:15		9.9						
G-4	37.7382°	140.8035°		-	08:15	-	5.3	Sand gravel	7.5Y 4/3	Plant	-	-
G-5(Surface layer)	37.7341°	140.8088°		14:40	14:50	9.5	8.5	Ooze	7.5Y 4/1	None	5.6	3.3
G-5(Deep layer)	37.7341°	140.8088°		14:40		9.5						

＜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)	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)
	Scheduled latitude	Scheduled longitude	Date	Time (water)												
G-1(Surface layer)	37.7321°	140.8127°	2015/12/7	14:20	7.3	0.7	3.7	10.4	6.3	0.04	1.8	2	1.6	0.0097	0.041	-
G-1(Deep layer)	37.7321°	140.8127°		14:20	7.3	0.8	3.7	10.7	6.4	0.04	1.8	3	1.8	0.018	0.070	0.0017
G-3(Surface layer)	37.7302°	140.8307°		10:15	7.3	0.8	3.6	10.0	6.4	0.04	1.6	2	1.4	0.018	0.077	-
G-3(Deep layer)	37.7302°	140.8307°		10:15	7.3	0.6	3.6	9.9	6.4	0.04	1.8	2	1.8	0.019	0.077	-
G-5(Surface layer)	37.7341°	140.8088°		14:40	7.3	0.6	3.5	9.9	6.4	0.04	1.5	2	1.7	0.011	0.045	-
G-5(Deep layer)	37.7341°	140.8088°		14:40	7.3	1.0	4.0	10.5	6.4	0.04	1.7	2	2.1	0.011	0.046	-

＜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 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)
	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			
G-1	37.7321°	140.8127°	2015/12/7	14:05	6.5	182	54.2	10.8	32.0	2.482	0.2	0.7	1.3	40.2	37.5	20.1	0.063	9.5	1200	5300	4.3
G-2	37.7267°	140.8223°		11:19	6.7	89	73.5	12.6	40.8	2.397	1.6	3.9	7.2	7.6	33.3	46.4	0.0066	4.8	3900	18000	-
G-3	37.7302°	140.8307°		10:35	6.6	92	59.2	8.7	26.8	2.465	17.6	6.9	11.0	10.7	21.2	32.6	0.051	19	740	3200	-
G-4	37.7382°	140.8035°		8:15	6.6	316	20.0	2.2	3.3	2.633	29.0	18.7	40.0	10.4	1.1	0.8	0.79	27	250	1100	-
G-5	37.7341°	140.8088°		14:50	6.7	119	67.0	15.2	52.8	2.347	0.0	0.3	0.6	7.1	66.6	25.4	0.016	2.0	1800	7800	-

＜Location G in Lake Hayama: 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	Note			Radioactive cesium (Bq/kg-wet)		Sr-90
		Latitude	Longitude										Growth stage	Stomach contents	Measurement site	Cs-134	Cs-137	(Bq/kg-wet)
G-1	In the lake	37.7321°	140.8127°	2015/12/7	Phycophyta	-	-	-	-	Plankton (Planktonic algae)	-	0.016	-	-	-	2.3	12	-
G-2		37.7267°	140.8223°		Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	1	0.60	Mature fish (6-year-old)	Algae	Viscera removed	33	150	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Carassius sp.*	Carassius auratus langsdorfii	1	1.5	Mature fish (12-year-old)	Empty stomach	Viscera removed	44	190	0.85
G-3		37.7302°	140.8307°		Vertebrata	Osteichthyes	Perciformes	Centrarchidae	*Micropterus salmoides*	Largemouth bass	1	1.2	Mature fish (5-year-old)	Empty stomach	Viscera removed	83	350	2.2
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	*Micropterus dolomieu dolomieu*	Small mouth bass	1	0.90	Mature fish (4-year-old)	Empty stomach	Viscera removed	78	340	-
G-4	Inflowing rivers	37.7382°	140.8035°	2015/12/8	Phycophyta	-	-	-	-	Riverbed Deposits (include algae)	-	0.016	-	-	-	92	370	-
					Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	Kamimura tibialis	141	0.0092	Larva	-	-	N.D.(4.7)	9.5	-
					Arthropod	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis	40	0.025	Larva	-	-	6.6	26	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius flumineus*	Rhinogobius flumineus	30	0.022	Immature fish/Mature fish	-	-	12	55	-
					Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.22	-	-	-	6.8	36	-

*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.