

○ Results of Radioactive Material Monitoring of Aquatic Organisms (Location H in Lake Akimoto)

< Location H in Lake Akimoto : Samples collected >

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

< Location H in Lake Akimoto :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	Odor	Contaminants	Water depth (m)	Secchi disk depth (m)	
H-1	37.657533°	140.126433°	2013/7/12	10:40	10:50	21.9	14.2	Ooze	5Y5/1	None	Plant	12.5	3.5	
H-2	37.661550°	140.122550°	2013/7/12	—	11:05	—	14.1	Ooze	5Y4/1	None	Plant	6.3	2.9	
H-3	37.665333°	140.132933°	2013/7/12	10:00	10:25	21.9	9.4	Ooze	5Y4/2	None	Plant	21.0	3.6	
H-4	37.655067°	140.118050°	2013/7/12	—	11:20	—	19.7	Ooze	5Y4/1	None	Plant	3.4	3.4	
H-5	37.652333°	140.156833°	2013/7/12	9:20	9:35	21.8	17.1	Sand/sediment	5Y4/1	None	Plant	8.8	3.5	

< Location H in Lake Akimoto: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												
H-1 (Surface layer)	37.657533°	140.126433°	2013/7/12	10:40	7.3	0.8	3.6	8.7	4.7	0.03	1.7	2	1.5	0.0083	0.019	—
H-1 (Deep layer)	37.657533°	140.126433°	2013/7/12	10:40	6.9	0.7	3.2	8.8	4.2	0.03	1.6	1	1.3	0.0096	0.017	—
H-3 (Surface layer)	37.665333°	140.132933°	2013/7/12	10:00	7.3	0.8	3.5	8.4	4.8	0.03	2.1	1	1.2	0.0079	0.016	—
H-3 (Deep layer)	37.665333°	140.132933°	2013/7/12	10:00	6.8	0.8	3.1	8.2	4.2	0.03	1.6	2	1.3	0.0069	0.015	0.0017
H-5 (Surface layer)	37.652333°	140.156833°	2013/7/12	9:20	7.2	1.9	3.2	8.2	4.8	0.03	2.0	2	1.3	0.011	0.023	—
H-5 (Deep layer)	37.652333°	140.156833°	2013/7/12	9:20	7.0	0.8	3.7	8.2	4.1	0.03	1.7	2	1.6	0.0069	0.013	—

< Location H in Lake Akimoto:General survey items/Analysis of radioactive materials Sediment >

Items Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _{NHLE} (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							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)
H-1	37.657533°	140.126433°	2013/7/12	10:50	6.7	68	64.1	9.0	24	2.648	0	0	0.2	0.1	57.6	42.1	0.0067	2	190	390	—
H-2	37.661550°	140.122550°	2013/7/12	11:05	6.7	38	77.3	14.5	51	2.518	0	0.1	0.1	0.2	46.8	52.8	0.0038	2	540	1,100	—
H-3	37.665333°	140.132933°	2013/7/12	10:25	6.6	43	63.9	11.2	29	2.561	0	0.1	0.2	10.7	50.6	38.4	0.011	2	770	1,600	1.6
H-4	37.655067°	140.118050°	2013/7/12	11:20	6.8	48	62.9	9.0	25	2.625	0.6	1.1	2.1	10.4	46.4	39.4	0.012	4.75	380	830	—
H-5	37.652333°	140.156833°	2013/7/12	9:35	6.7	29	55.1	6.8	24	2.684	0	0.1	1.4	32.4	38.3	27.8	0.031	4.75	540	1,200	—

< Location H in Lake Akimoto/Analysis 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					
H-1 H-2 H-3	37.657533° 37.661550° 37.665333°	140.126433° 140.122550° 140.132933°	2013/7/12	Algae/plant	—	—	—	—	Floating algae	—	0.049	—	—	N.D. (<0.96)	1.3	—		
				Angiospermae	Monocotyledoneae	Hydrocharitales	Hydrocharitaceae	<i>Elodea nuttallii</i>	Western Waterweed	—	0.34	—	—	—	—	2.4	4.9	—
				Arthropod	Insecta	Coleoptera	Lampyridae	<i>Luciola cruciata</i>	Japanese firefly	23	0.0012	Imago	—	—	—	N.D. (<22)	N.D. (<21)	—
				Arthropod	Malacostraca	Decapoda	Astacidae	<i>Pacifastacus leniusculus trowbridgii</i>	Signal crayfish	57	2.2	Imago	—	—	—	24	53	8.5
				Mollusca	Gastropoda	Sorbocoencha	Pleuroceridae	<i>Semisulcospira libertina</i>	Semisulcospira libertina	157	0.14	Imago	—	—	—	19	41	—
				Vertebrata	Osteichthyes	Osmeriformes	Osmeridae	<i>Hypomesus nipponensis</i>	Japanese smelt	111	0.49	Mature fish	—	—	—	8.2	17	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Phoxinus lagowskii steindachneri</i>	Amur Minnow	29	0.13	More than 1 year old	—	—	—	5.2	11	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Zacco platypus	35	1.0	Mature fish	—	—	—	17	39	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	35	3.6	Mature fish	Plant fragments, insects	—	—	31	71	—
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius sp.</i>	Carassius	12	2.6	5-year-old fish	Some (details unknown)	—	—	42	94	1.6
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	12	6.1	More than 3 years old	Some (details unknown)	—	—	36	80	1.2
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	1.8	6-year-old fish	Some (details unknown)	—	—	16	35	—
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Trout (Nakatsu River collected individuals)	1	0.048	1-year-old fish	Insects	—	—	13	27	—
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Trout (Lake Akimoto collected individual)	1	0.16	Mature fish	Small fish (Japanese smelt)	—	—	31	61	—
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	2	0.45	Mature fish	Some (details unknown)	—	—	38	75	—
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	11	5.0	More than 3 years old	Small fish (Japanese smelt)	—	—	84	180	1.2
				Vertebrata	Amphibia	Anura	Rhacophoridae	<i>Rhacophorus arboreus</i>	Forest Green Tree Frog	6	0.047	Imago	—	—	—	18	37	—
				Vertebrata	Amphibia	Anura	Rhacophoridae	<i>Rhacophorus schlegelii</i>	Schlegel's green tree frog									
				Vertebrata	Amphibia	Anura	Ranidae	<i>Rana ornativentris</i>	Montane brown frog									
				Vertebrata	Amphibia	Anura	Ranidae	<i>Rana rugosa</i>	Wrinkled Frog									
				Vertebrata	Amphibia	Anura	Bufoinae	<i>Bufo japonicus formosus</i>	Japanese toad	—	—	—	—	—	—	—	—	—
Vertebrata	Amphibia	Caudata	Salamandridae	<i>Cynops pyrrhogaster</i>	Cynops pyrrhogaster	18	0.093	Imago	—	—	—	7.5	16	—				
				Coarse particulate organic matters (CPOMs)	—	—	—	—	CPOMs (fallen leaves)	—	0.36	—	* Relatively new fallen leaves	38	81	—		
				Coarse particulate organic matters (CPOMs)	—	—	—	—	CPOMs (fallen leaves)	—	2.0	—	* Relatively old fallen leaves	80	170	—		

Note 1) A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.

Note 2) N.D. means to be below the detection limit.