

**Results of Radioactive Material Monitoring of Aquatic Organisms (Lake Inawashiro (north lakeside) I / Lake Inawashiro (south lakeside) J)**

<Lake Inawashiro (north lakeside) I / Lake Inawashiro (south lakeside) J: Samples collected>

Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
I-1	○	○	○	○	○	○
I-2	-	○	-	-	○	-
I-3	○	○	○	-	○	-
I-4	-	○	-	-	○	-
J-1	○	○	○	-	○	-

<Lake Inawashiro (north lakeside) I / Lake Inawashiro (south lakeside) J: Site measurement item>

Locations	Latitude and longitude of the location		Survey date and time			Water					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)
I-1(Surface layer)	37.5047°	140.1143°	2016/6/5	08:46	09:12	14.6	10.6	Ooze	7.5Y 2/1	Plant pieces	11.4	>11.4
I-1(Bottom layer)						12.6						
I-2	37.4995°	140.1409°		-	08:33	-	11.1	Ooze	7.5Y 4/1	Plant pieces	-	-
I-3(Surface layer)	37.5077°	140.0263°		09:57	10:09	12.5	10.9	Ooze	7.5Y 3/2	None	7.0	>7.0
I-3(Bottom layer)						11.5						
I-4	37.5160°	140.1092°		-	09:27	-	14.1	Sand gravel	7.5Y 5/3	Waterweed	-	-
J-1(Surface layer)	37.4203°	140.1008°		08:00	08:11	15.7	15.2	Sand with gravel	7.5Y 5/3	None	4.0	>4.0
J-1(Bottom layer)						14.7						

<Lake Inawashiro (north lakeside) I / Lake Inawashiro (south lakeside) J: General survey items/Analysis of radioactive materials Water>

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)												
I-1(Surface layer)	37.5047°	140.1143°	2016/6/5	08:46	6.6	<0.5	1.7	10.0	11.9	0.06	0.6	2	0.7	0.0016	0.0097	-
I-1(Bottom layer)					6.6	<0.5	1.4	10.9	11.6	0.06	0.6	1	0.5	0.0019	0.0096	0.00088
I-3(Surface layer)	37.5077°	140.0263°		09:57	6.7	<0.5	1.4	10.9	11.5	0.06	0.5	<1	0.5	N.D.(0.0018)	0.011	-
I-3(Bottom layer)					6.7	<0.5	1.4	11.1	11.7	0.06	0.6	<1	0.5	0.0026	0.011	-
J-1(Surface layer)	37.4203°	140.1008°		08:00	6.7	0.9	2.6	10.3	11.9	0.06	1.3	2	0.7	0.0017	0.010	-
J-1(Bottom layer)					6.7	1.0	2.6	10.3	11.8	0.06	0.9	<1	0.6	0.0018	0.010	-

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

<Lake Inawashiro (north lakeside) I / Lake Inawashiro (south lakeside) J: General survey items/Analysis of radioactive materials Sediment>

Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E <sub>SHLE</sub> (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm <sup>3</sup> )	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)				
I-1	37.5047°	140.1143°	2016/6/5	09:12	6.5	204	86.2	10.5	32.0	2.611	0.0	0.5	3.2	28.4	22.6	45.3	0.0085	2.0	190	870	0.32	
I-2	37.4995°	140.1409°		08:33	6.8	226	70.5	7.6	25.1	2.610	0.0	0.5	2.4	39.7	36.2	21.2	0.048	2.0	86	480	-	
I-3	37.5077°	140.0263°		10:09	6.6	265	63.1	7.5	17.9	2.709	0.0	0.3	14.6	37.5	30.2	17.4	0.092	2.0	17	120	-	
I-4	37.5160°	140.1092°		09:27	6.4	322	19.9	1.4	1.7	2.806	17.6	18.9	53.1	9.9	0.3	0.2	0.63	19	13	69	-	
J-1	37.4203°	140.1008°		08:11	08:11	6.4	276	24.4	1.4	2.4	2.697	4.0	9.0	71.6	14.5	0.4	0.5	0.32	9.5	22	130	-

<Lake Inawashiro (north lakeside) I / Lake Inawashiro (south lakeside) J: 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		
I-1 I-2 (north lakeside)	-	37.5047° 37.4995°	140.1143° 140.1409°	2016/6/5	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	51	1.6	Immature fish, Mature fish	Obscure digesta	Viscera removed	23.0	4.0	19	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	33	3.7	Mature fish	Midge	Viscera removed	36.1	5.1	31	0.28	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	19	3.4	Mature fish	Obscure digesta	Viscera removed	30.3	5.3	25	0.47	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	2	1.8	Mature fish	Empty stomach	Viscera removed	15.5	2.5	13	0.39	
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	6	2.5	Mature fish	Japanese smelt	Viscera removed	58.6	8.6	50	0.13	
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	1	0.16	Mature fish	Obscure digesta	Viscera removed	47.7	7.7	40	-	
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	1	0.60	Mature fish	Empty stomach	Viscera removed	33.5	5.5	28	-	
					Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.20	-	-	-	-	-	31.3	5.3	26
J-1 (south lakeside)	-	37.4203°	140.1008°	2016/6/5	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.018	-	-	-	2.4	N.D.(3.5)	2.4	-	
					Algae/plant	Dicotyledoneae	Nymphaeales	Nymphaeaceae	<i>Nuphar japonicum</i>	Cow lily	-	0.34	-	-	-	-	1.7	N.D.(0.31)	1.7	-
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	65	0.017	Imago	-	-	-	7.7	N.D.(2.4)	7.7	-
					Mollusca	Gastropoda	Architaenioglossa	Viviparidae	<i>Bellamya chinensis laeta</i>	Mud-snail	8	0.043	Imago	-	-	Molluscos part	N.D.	N.D.(1.8)	N.D.(1.4)	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	18	3.3	Mature fish	Midge	Viscera removed	57.2	9.2	48	0.28	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	46	2.8	Mature fish	Obscure digesta	Viscera removed	34.7	5.7	29	0.26	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Pseudogobio esocinus</i>	Pseudogobio esocinus	15	0.20	Immature fish, Mature fish	-	-	12.4	2.4	10	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	1	0.30	Mature fish	Obscure digesta	Viscera removed	31.8	5.8	26	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	4	2.4	Mature fish	Amorphous Residue	Viscera removed	33.1	5.1	28	0.42	
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	15	0.034	Immature fish, Mature fish	-	-	N.D.	N.D.(1.5)	N.D.(1.3)	-	
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	1	1.1	Mature fish	Fish	Viscera removed	101	15	86	0.13	
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Seema	1	1.0	Mature fish	Empty stomach	Viscera removed	59	11	48	0.084	
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	2	1.0	Immature fish, Mature fish	Fish	Viscera removed	48.5	6.5	42	0.26	
					Vertebrata	Amphibia	Anura	Ranidae	<i>Rana rugosa</i>	Wrinkled Frog	12	0.11	Imago	-	-	3.44	0.64	2.8	-	
					Vertebrata	Amphibia	Anura	Ranidae	<i>Rana porosa porosa</i>	Tokyo Daruma pond frog	1	1.1	Mature fish	Fish	Viscera removed	101	15	86	0.13	
					Vertebrata	Amphibia	Caudata	Salamandridae	<i>Cynops pyrrhogaster</i>	Cynops pyrrhogaster	15	0.068	Imago	-	-	4.8	1.0	3.8	-	

\*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.