

**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 temperature (degrees C)	Sediment				Other		
	Latitude	Longitude	Date	Time (water)		Time (sediment)	Sediment temperature (degrees C)	Property	Color	Contaminants	Water depth (m)	Secchi disk depth (m)
I-1(Surface layer)	37.5047°	140.1143°	2016/8/18	10:22	10:33	23.8	18.5	Ooze	7.5Y 2/1	Plant pieces	10.8	5.5
I-1(Bottom layer)						23.4						
I-2	37.4995°	140.1409°		-	10:08	-	20.4	Ooze	7.5Y 4/2	Plant pieces	-	-
I-3(Surface layer)	37.5077°	140.0263°		11:13	11:38	24.3	22.4	Ooze	7.5Y 3/2	Freshwater clam	6.7	>6.7
I-3(Bottom layer)						24.1						
I-4	37.5160°	140.1092°		-	10:49	-	24.0	Sand gravel	7.5Y 6/3	Waterweed	-	-
J-1(Surface layer)	37.4203°	140.1008°		09:24	09:40	24.3	24.4	Sand	7.5Y 5/3	None	4.3	>4.3
J-1(Bottom layer)						24.7						

<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°	2016/8/18	10:22	6.6	<0.5	2.4	8.0	11.3	0.07	0.8	1	1.2	0.0022	0.012	-
I-1(Bottom layer)					6.2	0.7	2.2	8.4	11.4	0.07	0.5	2	1.2	0.0018	0.011	0.00088
I-3(Surface layer)	37.5077°	140.0263°		11:13	6.8	<0.5	1.8	8.5	10.9	0.06	0.6	<1	0.7	0.0021	0.010	-
I-3(Bottom layer)					6.8	<0.5	1.9	8.4	11.0	0.06	0.7	1	0.6	0.0016	0.011	-
J-1(Surface layer)	37.4203°	140.1008°		09:24	6.7	0.5	2.1	8.4	10.8	0.06	0.6	<1	0.6	0.0023	0.0095	-
J-1(Bottom layer)					6.7	1.1	2.8	8.2	11.0	0.07	1.1	2	1.0	0.0021	0.0098	-

<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°	2016/8/18	10:33	6.5	327	73.3	7.0	19.3	2.583	0.8	1.3	9.7	47.0	16.4	24.8	0.12	4.8	130	670	0.20
I-2	37.4995°	140.1409°		10:08	6.7	310	68.5	7.6	22.6	2.566	0.0	0.5	1.1	33.4	36.0	29.0	0.036	2.0	83	430	-
I-3	37.5077°	140.0263°		11:38	6.7	302	68.3	9.8	19.8	2.634	0.0	0.2	4.1	26.3	37.1	32.3	0.035	2.0	32	200	-
I-4	37.5160°	140.1092°		10:49	6.7	352	23.6	1.5	1.8	2.780	16.7	20.0	52.0	10.7	0.0	0.6	0.60	19	8.3	60	-
J-1	37.4203°	140.1008°		09:40	7.0	302	32.1	1.7	3.4	2.669	0.8	5.2	68.3	21.7	0.6	3.4	0.31	9.5	37	230	-

<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°	2016/8/18	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	53	3.4	Mature fish	Empty stomach	Viscera removed	29.3	4.3	25	0.26
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	7	0.16	Immature fish, Mature fish	Obscure digesta	Viscera removed	6.69	0.99	5.7	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	7	3.7	Mature fish	Amorphous Residue	Viscera removed	23.6	3.6	20	0.50
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	1	0.39	Mature fish	Empty stomach	Viscera removed	30.3	4.3	26	-
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	1	0.52	Mature fish	Japanese smelt	Viscera removed	69	11	58	-
					Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.21	-	-	-	132	22	110	-
J-1 (south lakeside)	-	37.4203°	140.1008°	2016/8/18	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.034	-	-	-	0.99	N.D.(1.3)	0.99	-
					Algae/plant	Dicotyledoneae	Nymphaeales	Nymphaeaceae	<i>Nuphar japonicum</i>	Cow lily	-	0.34	-	-	-	1.97	0.27	1.7	-
					Algae/plant	Dicotyledoneae	Solanales	Menyanthaceae	<i>Nymphoides peltata</i>	Fringed water-lily	-	1.6	-	-	-	0.78	0.12	0.66	-
					Mollusca	Gastropoda	Architaenioglossa	Viviparidae	<i>Bellamya chinensis laeta</i>	Mud-snail	7	0.020	Imago	-	Molluscos part	2.3	N.D.(2.7)	2.3	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	104	2.3	Immature fish, Mature fish	Obscure digesta	Viscera removed	14.2	2.2	12	0.18
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	8	0.53	Mature fish	Midge	Viscera removed	17.7	2.7	15	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Pale chub	55	0.72	Immature fish, Mature fish	Obscure digesta	Viscera removed	7.6	1.3	6.3	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Pseudogobio esocinus</i>	Pseudogobio esocinus	119	1.4	Immature fish, Mature fish	Obscure digesta	Viscera removed	13.6	2.6	11	0.45
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	7	0.051	Immature fish	-	Viscera removed	7.1	N.D.(1.1)	7.1	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	7	3.4	Mature fish	Amorphous Residue	Viscera removed	21.0	3.0	18	0.53
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	10	0.61	Immature fish	Obscure digesta	Viscera removed	17.3	3.3	14	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	2	2.0	Mature fish	Amorphous Residue	Viscera removed	35.2	5.2	30	0.45
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	24	0.086	Immature fish, Mature fish	-	-	1.9	N.D.(1.1)	1.9	-
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	2	0.030	Immature fish	Obscure digesta	Viscera removed	20.2	3.2	17	-
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	2	2.8	Mature fish	Fish	Viscera removed	131	21	110	0.36
					Vertebrata	Amphibia	Anura	Ranidae	<i>Rana rugosa</i>	Wrinkled Frog	7	0.058	Imago	-	-	N.D.	N.D.(0.86)	N.D.(0.76)	-
					Vertebrata	Amphibia	Anura	Ranidae	<i>Rana porosa porosa</i>	Tokyo Daruma pond frog	7	0.058	Imago	-	-	N.D.	N.D.(0.86)	N.D.(0.76)	-
Vertebrata	Amphibia	Caudata	Salamandridae	<i>Cynops pyrrhogaster</i>	Cynops pyrrhogaster	3	0.015	Imago	-	-	2.5	N.D.(2.6)	2.5	-					

\*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.