

◦ 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 >

Items 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 >

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)	Transparency (cm)
I-1	37.50552°	140.11413°	2014/8/27	9:12	9:26	24.2	13.1	Ooze	7.5Y2/2	Plant	8.5	7.6
I-2	37.50045°	140.14112°		—	9:43	—	19.3	Sand/sediment	7.5Y4/1	Plant	—	—
I-3	37.50897°	140.02633°		8:11	8:23	23.9	22.9	Ooze	7.5Y5/3	None	6.8	6.8 (Drifting to the bottom)
I-4	37.51535°	140.10395°		—	8:53	—	23.1	Sand gravel	5Y6/4	Vallisneria denseraculata	—	—
J-1	37.42048°	140.10037°		10:16	10:25	23.6	23.5	Sand	5Y5/3	Freshwater clam	3.5	3.5 (Drifting to the bottom)

< Lake Inawashiro (north lakeside) I / Lake Inawashiro (south lakeside) J: 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												
I-1 (Surface layer)	37.50552°	140.11413°	2014/8/27	9:12	7.5	<0.5	1.7	8.2	10.8	0.06	0.7	2	0.7	0.0047	0.014	—
I-1 (Deep layer)					7.3	<0.5	1.8	7.6	10.8	0.06	0.8	1	0.8	0.0047	0.014	0.00082
I-3 (Surface layer)				7.2	<0.5	2.1	7.3	10.8	0.06	0.8	1	0.9	0.0053	0.014	—	
I-3 (Deep layer)				7.2	1.2	1.9	7.5	10.9	0.06	1.1	1	0.9	0.0049	0.013	—	
J-1 (Surface layer)				37.42048°	140.10037°	10:16	7.2	<0.5	1.9	9.0	10.6	0.06	0.7	2	1.0	0.0052
J-1 (Deep layer)	7.2	<0.5	1.8				7.8	10.6	0.06	0.8	2	1.0	0.0043	0.013	—	

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

Items Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E <sub>NHE</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							Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)		Clay (Less than 0.005mm) (%)				Median grain diameter (mm)	Maximum grain diameter (mm)
														Silt (0.005-0.075mm) (%)	(%)						
I-1	37.50552°	140.11413°	2014/8/27	9:26	6.7	24	78.9	8.2	22.2	2.550	0.0	0.3	6.1	53.1	18.3	0.11	2	300	920	0.38	
I-2	37.50045°	140.14112°		9:43	6.7	6	60.5	6.5	17.8	2.646	0.0	3.1	6.2	49.8	14.4	26.5	0.10	2	160	500	—
I-3	37.50897°	140.02633°		8:23	6.9	54	70.9	10.4	27.3	2.586	0.0	0.3	1.5	18.3	33.0	46.9	0.0684	2	31	120	—
I-4	37.51535°	140.10395°		8:53	6.4	245	24.6	1.5	1.9	2.747	29.0	16.8	42.6	10.8	0.4	0.4	0.75	19	16	64	—
J-1	37.42048°	140.10037°		10:25	7.0	268	34.2	1.8	3.3	2.667	0.4	2.8	71.9	22.7	1.0	1.2	0.31	4.75	62	230	—

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

< Lake Inawashiro (north lakeside) 1 / Lake Inawashiro (south lakeside) J: 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	Measurement site					
I-1 I-2 (north lakeside)	—	37.50552° 37.50045°	140.11413° 140.14112°	R	Coarse particulate organic matters	—	—	—	—	Fallen leaves	Considerable number	0.18	—	—	—	8.0	23	—	
				2014/9/3	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	10	0.11	Immature fish	Some (details unknown)	Viscera removed	4.7	14	—	
				2014/9/21	Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	3	1.2	Mature fish	Some (details unknown)	Viscera removed	12	37	—	
				2014/9/25	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	3	0.22	Immature fish (2-year-old)	Some (details unknown)	Viscera removed	6.4	20	—	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	4	1.9	Mature fish (10-year-old)	Some (details unknown)	Viscera removed	7.6	23	0.55	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	2	1.6	Mature fish (6-year-old)	Crustaceans	Viscera removed	7.8	24	—	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	5	0.66	Mature fish (3-year-old)	Some (details unknown)	Viscera removed	19	60	—	
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Seema	2	0.56	Mature fish (2-year-old)	Fish, insects	Viscera removed	26	75	—	
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	2	1.4	Mature fish	Some (details unknown)	Viscera removed	24	76	—	
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	0.77	Mature fish	Some (details unknown)	Viscera removed	2.1	6.4	—	
J-1 (south lakeside)	—	37.42048°	140.10037°	2014/8/27	Algae/plant	—	—	—	—	Plankton	Considerable number	0.022	—	—	—	1.7	6.1	—	
					Angiospermae	Dicotyledoneae	Nymphaeales	Nymphaeaceae	<i>Nuphar japonicum</i>	Cow lily	Considerable number	1.3	—	—	—	0.89	3.1	—	
					Magnoliophyta	Magnoliopsida	Solanales	Menyanthaceae	<i>Nymphoides peltata</i>	Fringed water-lily	Considerable number	0.85	—	—	—	—	N.D.(0.37)	0.73	—
					Arthropod	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	32	0.014	Imago	—	—	—	5.6	17	—
					Mollusca	Gastropoda	Architaenioglossa	Viviparidae	<i>Bellamya japonica</i>	Japanese mysterysnail	47	0.28	Subadult/Imago	—	—	Molluscan body	7.2	21	—
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	21	0.070	Mature fish	—	—	—	N.D.(1.4)	N.D.(1.1)	—
					Vertebrata	Amphibia	Anura	—	—	Frogs	106	0.047	Larva (tadpoles)	—	—	—	10	29	—
					Vertebrata	Amphibia	Anura	Rana	<i>Rana porosa porosa</i>	Daruma pond frog	4	0.072	Imago	—	—	—	N.D.(0.78)	1.9	—
					2014/9/2	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Pseudogobio esocinus</i>	Pseudogobio esocinus	54	0.91	Mature fish (2-year-old)	Some (details unknown)	Viscera removed	3.3	9.6	—
						Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Pale chub	5	0.082	Mature fish (2-year-old)	Some (details unknown)	Viscera removed	2.0	6.4	—
				Vertebrata		Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	6	0.069	Immature fish (under 1-year old)	Some (details unknown)	Viscera removed	5.7	15	—	
				Vertebrata		Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	1	0.34	Mature fish (3-year-old)	Fish	Viscera removed	1.4	46	—	
				2014/9/4	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	28	0.22	Immature fish (1-year-old)	Some (details unknown)	Viscera removed	1.4	4.4	—	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	25	0.55	Mature fish (2-year-old)	Some (details unknown)	Viscera removed	3.9	13	—	
				2014/9/5	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	13	0.73	Mature fish (3-year-old)	Some (details unknown)	Viscera removed	8.6	24	—	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	16	1.8	Mature fish (3-year-old)	Some (details unknown)	Viscera removed	7.4	23	0.20	
				2014/9/6	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	3	0.29	Immature fish (2-year-old)	Some (details unknown)	Viscera removed	4.5	14	—	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	2	1.5	Mature fish (5-year-old)	Some (details unknown)	Viscera removed	16	52	—	
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	3	1.8	Mature fish (3-year-old)	Fish, aquatic insects	Viscera removed	14	44	0.25		

\*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.