

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

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

Items	General items			Radioactive materials			
	Locations	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		Latitude and longitude of the location		Survey date and time			Water		Sediment			Other	
Locations	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)	
I-1 (Surface layer)	37.5047°	140.1143°	2015/6/17	9:43	9:59	18	12.8	Ooze	7.5Y 2/2	Plant	11.5	10.5	
I-1 (Deep layer)				-	10:22	14.6	12.3	Ooze	7.5Y 3/2	Plant	-	-	
I-2	37.4995°	140.1409°		8:56	9:07	18.5	15.6	Ooze	7.5Y 4/1	Freshwater	7.1	4.5	
I-3 (Surface layer)	37.5077°	140.0263°		-	-	18.3	-	-	-	-	-	-	
I-3 (Deep layer)				-	9:32	-	18.1	Sand gravel	7.5Y 5/3	Vallisneria densiflora	-	-	
I-4	37.5160°	140.1092°		-	-	-	-	-	-	-	-	-	
J-1 (Surface layer)	37.4203°	140.1008°	2015/6/18	8:17	8:28	18	17	Sand	7.5Y 5/3	None	4.8	>4.8	
J-1 (Deep layer)				-	-	17.8	-	-	-	-	-	-	

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

Items	Latitude and longitude of the location		Survey date and time		Concentration of inorganic ions and organic matter in water samples (mg/L)											
Locations	Scheduled latitude	Scheduled longitude	Date	Time (water)	pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electrical conductivity (mS/m)	Salinity	TOC (mg/L)	SS (mg/L)	Turbidity (FTU)	Cs-134 (Bq/L)	Cs-137 (Bq/L)	Sr-90 (Bq/L)
I-1 (Surface layer)	37.5047°	140.1143°	2015/6/17	9:43	7	<0.5	1.5	9.3	11.5	0.06	0.7	2	0.9	0.030	0.0092	0.0016
I-1 (Deep layer)				8:56	6.9	<0.5	1.3	8.9	11.6	0.06	0.9	1	0.4	0.0042	0.015	-
I-3 (Surface layer)				8:56	6.9	0.6	1.4	9.4	11.3	0.06	0.7	2	1.4	0.0045	0.013	-
I-3 (Deep layer)				8:17	6.9	0.6	1.2	8.7	11.4	0.06	0.8	<1	0.5	0.0038	0.012	-
J-1 (Surface layer)				8:17	6.9	0.8	1.5	9.6	11.3	0.06	1	1	0.6	0.0043	0.013	-
J-1 (Deep layer)				8:17	6.9	<0.5	1.5	8	11.6	0.06	1.3	<1	0.2	0.0038	0.013	-

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

Items	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/cm ³)	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			
Locations	2015/6/17	37.5047°	140.1143°	9:59	6.9	240	82.4	9.2	15	2.472	0.6	0.6	5.2	33	24.3	36.3	0.042	4.75	120	460	0.21
				10:22	7	202	69.8	9.1	26.5	2.493	0.1	0.3	1	31.2	29.7	37.7	0.023	4.75	120	470	-
				9:07	6.9	183	68.7	10.1	27.8	2.518	0.1	0.3	3.3	32.2	35.4	28.7	0.037	4.75	30	140	-
				9:32	6.5	378	19.5	1.7	2.2	2.691	21.2	13.2	53.5	11.3	0.1	0.7	0.57	19	17	67	-
				8:28	6.9	334	32.6	1.9	3.6	2.642	0.4	4.	64.9	22	3.2	5.5	0.3	4.75	53	230	-
				10:47	6.9	202	69.8	9.1	26.5	2.493	0.1	0.3	1	31.2	29.7	37.7	0.023	4.75	120	470	-
				11:00	7	240	82.4	9.2	15	2.472	0.6	0.6	5.2	33	24.3	36.3	0.042	4.75	120	460	0.21

<Lake Inawashiro (north lakeside) I / Lake Inawashiro (south lakeside) J: 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 (kg-wet)	Growth stage	Note	Radioactive cesium (Bq/kgwet)		
		Latitude	Longitude												Cs-134	Cs-137	
I-1 (north lakeside)	37.5047°	140.1143°	2015/6/17	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	Tribolodon hakonensis	Japanese dace	20	1.0	Mature fish (2-year-old)	Empty stomach	Viscera removed	11	45	
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	Tribolodon hakonensis	Japanese dace	11	1.4	Mature fish (3-year-old)	Obscure digesta	Viscera removed	14	53	
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	Carassius sp.	Carassius auratus langsdorffii	6	2.4	Mature fish (4.5-year-old)	Obscure digesta	Viscera removed	9.2	37	
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	Oncorhynchus masou masou	Seema	1	0.055	Mature fish (1-year-old)	Aquatic insects	Viscera removed	N.D. (1.9)	5.9	
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	Oncorhynchus masou masou	Seema	1	0.17	Mature fish (2-year-old)	Fish, Terrestrial & aquatic insects	Viscera removed	11	42	
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	Oncorhynchus masou masou	Seema	10	3.1	Mature fish (3-year-old)	Terrestrial insects	Viscera removed	15	59	
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	Salvelinus leucomelanus	Char	1	0.074	Mature fish (1-year-old)	Fish	Viscera removed	7.6	30	
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	Salvelinus leucomelanus	Char	10	2.3	Mature fish (2.5-year-old)	Empty stomach	Viscera removed	14	53	
				Vertebrata	Osteichthyes	Siluriformes	Siluridae	Silurus asotus	Asian catfish	1	1.1	Mature fish (10-year-old)	Empty stomach	Viscera removed	19	3	
				Particulate Organic Matter		-		Bottom fallen leaves		-	0.11	-	-	-	5.6	20	
J-1 (south lakeside)	37.4203°	140.1008°	2015/6/17	Phytoplankton	-	-	-	Phytoplankton (Planktonic algae)	-	-	0.036	-	-	N.D. (7.4)	28		
				Angiospermae	Dicotyledoneae	-	-	Menyanthaceae	Nymphaea peltata	-	0.17	-	-	-	N.D. (0.5)	N.D. (0.5)	
				Angiospermae	Dicotyledoneae	Nymphaeales	Nymphaeaceae	Nuphar japonicum	Cow lily	-	0.34	-	-	-	0.54	2.1	
				Arthropod	Insecta	Odonata	Coenagrionidae	Ischnocnemis sieboldii	Antotogester sieboldii	12	0.014	Larva (dragonfly larva)	-	-	N.D. (2.9)	N.D. (2.4)	
				Arthropod	Malacostraca	Decapoda	Palamostreidae	Palamostes pauciseta	Common prawn	16	0.092	Imago	-	-	N.D. (3.6)	8.9	
				Mollusca	Gastropoda	Architaenioglossa	Viviparidae	Cipangopaludina chinensis laeta	Mud-snail	41	0.056	Imago	-	-	Molluscan body	N.D. (1.1)	3.1
				Mollusca	Gastropoda	Subeuthyneacea	Pleuroceridae	Sensuisspira libertina	Sensuisspira libertina	23	0.013	Imago	-	-	Molluscan body	N.D. (4.2)	N.D. (4.1)
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	Phoxinus lagowskii stenodactylus	Amur Minnow	13	0.045	Mature fish (1-year-old)	-	-	N.D. (1.8)	N.D. (2.2)	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	Misgurnus anguillicaudatus	Oriental weatherfish	29	0.084	Mature fish	-	-	N.D. (0.7)	1.9	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	Gymnogobius arotensis	Goby	4	0.011	Mature fish	-	-	7.2	18	-
2015/6/14	-	-	-	Vertebrata	Amphibia	Anura	Ranidae	Glandirana rugosa	Tadpole	10	0.022	Larva (tadpoles)	-	-	4.1	15	
				Vertebrata	Amphibia	Anura	Ranidae	Wrinkled Frog	9	0.074	Imago	-	-	N.D. (0.9)	1.7		
				Vertebrata	Amphibia	Anura	Ranidae	Polyplax porosa porosa	Asian narrow frog	-	-	-	-	-	-		
2015/6/14	-	-	-	Vertebrata	Osteichthyes	Cyprinidae	Schizothoracidae	Cyclocheilichthys apodus	Cyclocheilichthys apodus	10	0.067	Imago	-	-	N.D. (1.6)	2.9	
				Vertebrata	Osteichthyes	Cyprinidae	Cyprinidae	Carassius auratus langsdorffii	Carassius auratus langsdorffii	11	0.066	Mature fish (1-year-old)	-	-	3.2	11	
				Vertebrata	Osteichthyes	Cyprinidae	Cyprinidae	Carassius auratus langsdorffii	Carassius auratus langsdorffii	5	2.0	Mature fish (4.8-year-old)	Empty stomach	Viscera removed	3.8	15	
2015/6/10	-	-	-	Vertebrata	Osteichthyes	Cyprinidae	Tribolodon hakonensis	Japanese dace	12	1.7	Mature fish (2.3-4-year-old)	Obscure digesta	Viscera removed	9.9	41		
				Vertebrata	Osteichthyes	Cyprinidae	Tribolodon hakonensis	Japanese dace	88	2.2	Mature fish (12-year-old)	Obscure digesta	Viscera removed	5.7	21		
2015/6/10	-	-	-	Vertebrata	Osteichthyes	Cyprinidae	Cyprinidae	Pseudophoxinus esocinus	Pseudophoxinus esocinus	28	0.43	Mature fish (12-year-old)	Empty stomach	Viscera removed	2.3	10	
				Vertebrata	Osteichthyes	Cyprinidae	Cyprinidae	Hemibarbus barbus	Hemibarbus barbus	1	0.16	Mature fish (2-year-old)	Obscure digesta	Viscera removed	6.5	25	
2015/6/10	-	-	-	Vertebrata	Osteichthyes	Cyprinidae	Cyprinidae	Hemibarbus barbus	Hemibarbus barbus	4	3.7	Mature fish (4.5-6-year-old)	Obscure digesta	Viscera removed	7.0	27	
				Vertebrata	Osteichthyes	Percliformes	Centrarchidae	Hopliasmbigua dolomieu	Small mouth bass	2	1.7	Mature fish (2.3-year-old)	Empty stomach	Viscera removed	12	44	

*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.

*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.

*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 no better than the detection limit. *Concentrations are expressed above the detection limit.*

*8: N.D. means to be below the detection limit and figures in parentheses show the detection limit.