

O 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					Sediment		Other	
	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°	2015/10/20	10:10	10:26	14.9	13.9	Ooze	7.5Y 3/1	Plant	10.0	>10.0		
I-1(Deep layer)	37.5047°	140.1143°		10:10	-	14.9	-	-	-	-	-	-		
I-2	37.4995°	140.1409°		-	09:51	-	14.1	Ooze	7.5Y 3/1	Plant	-	-		
I-3(Surface layer)	37.5077°	140.0263°		11:18	11:27	15.3	15.0	Sand sediment	7.5Y 4/2	None	6.7	>6.7		
I-3(Deep layer)	37.5077°	140.0263°		11:18	-	15.3	-	-	-	-	-	-		
I-4	37.5160°	140.1092°		-	10:52	-	15.7	Sand gravel	7.5Y 5/3	Chronomus	-	-		
J-1(Surface layer)	37.4203°	140.1008°		09:11	-	14.9	15.6	Sand	7.5Y 5/3	Asian clam	4.0	>4.0		
J-1(Deep layer)	37.4203°	140.1008°		09:11	-	15.0	-	-	-	-	-	-		

< 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)	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)
	Scheduled latitude	Scheduled longitude	Date	Time (water)												
I-1(Surface layer)	37.5047°	140.1143°	2015/10/20	10:10	7.1	0.7	1.8	10.0	11.8	0.06	0.8	2	0.6	0.0028	0.012	-
I-1(Deep layer)	37.5047°	140.1143°		10:10	6.9	-0.5	1.4	9.6	11.7	0.06	0.7	1	0.4	0.0022	0.012	0.00080
I-3(Surface layer)	37.5077°	140.0263°		11:18	7.0	1.0	3.1	9.9	11.4	0.06	1.5	<1	0.6	0.0026	0.011	-
I-3(Deep layer)	37.5077°	140.0263°		11:18	7.0	<0.5	1.6	10.0	11.2	0.06	0.7	<1	0.5	0.0026	0.012	-
I-4	37.4203°	140.1008°		9:11	7.1	1.5	2.6	9.7	11.4	0.06	0.9	2	0.7	0.0033	0.0099	-
J-1(Deep layer)	37.4203°	140.1008°		9:11	7.0	0.8	2.3	9.9	11.3	0.06	0.8	<1	0.7	0.0039	0.011	-

< 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 _{N.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
I-1	37.5047°	140.1143°	2015/10/20	10:26	6.7	162	76.6	9.6	25.3	2.560	0.0	0.5	8.2	44.1	15.3	31.9	0.093	2.0	180	750	0.18
I-2	37.4995°	140.1409°		9:51	6.9	196	69.6	8.1	22.4	2.582	0.0	0.4	1.1	37.5	35.5	25.5	0.039	2.0	120	500	-
I-3	37.5077°	140.0263°		11:27	7.0	242	73.6	10.5	25.3	2.579	0.0	0.2	1.8	19.9	44.8	33.3	0.016	2.0	47	170	-
I-4	37.5160°	140.1092°		10:52	6.7	338	27.0	1.4	1.5	2.772	20.7	14.9	51.9	10.9	0.1	1.5	0.60	19	13	57	-
J-1	37.4203°	140.1008°		9:25	6.9	252	29.0	1.7	2.8	2.671	0.6	4.4	71.6	21.0	0.5	1.9	0.32	4.8	49	220	-

< 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)	Note			Radioactive cesium (Bq/kg-wet)		Sr-90 (Bq/kg-wet)		
		Growth stage	Stomach contents										Measurement site	Cs-134	Cs-137					
I-1 I-2 (north lakeside)	-	37.5047° 37.4995°	140.1143° 140.1409°	2015/10/20	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	135	3.3	Mature fish (2-year-old)	Empty stomach	Viscera removed	-	3.1	17	0.22	
									<i>Pseudogobio esocinus esocinus</i>	Pseudogobio esocinus	91	1.4	Mature fish (1-year-old)	-	-	0.85	4.5	0.33		
									<i>Carassius sp.</i>	Carassius auratus langsdorffii	15	3.7	Mature fish (5-year-old)	Detritus	Viscera removed	9.3	3.7	0.43		
									<i>Carassius sp.</i>	Carassius auratus langsdorffii	278	1.5	Immature fish (0-year-old)	Detritus	Viscera removed	1.2	5.6	0.33		
									<i>Hemibarbus barbus</i>	Hemibarbus barbus	11	0.73	Mature fish (3-year-old)	Detritus	Viscera removed	2.1	7.8	-		
									<i>Salvelinus leucomaenis</i>	Char	3	2.6	Mature fish (4-year-old)	Pond Smelt	Viscera removed	18	75	0.11		
									<i>Micropterus dolomieu dolomieu</i>	Small mouth bass	5	2.1	Mature fish (2-year-old)	Fish	Viscera removed	6.5	26	0.28		
									-	Bottom fallen leaves	-	0.14	-	-	-	-	-	2.3	-	
									-	Plankton (Planktonic algae)	-	0.024	-	-	-	-	-	N.D.(1.8)	N.D.(1.3)	-
									-	Nymphoides peltata	-	0.31	-	-	-	-	-	N.D.(0.34)	0.94	-
J-1 (south lakeside)	-	37.4203°	140.1008°	2015/10/20	Nymphaeales	Dicotyledoneae	Nymphaeaceae	<i>Nymphaeoides peltata</i>	Nymphaeoides peltata	-	-	-	-	-	-	-	-	-		
								<i>Nymphaeoides peltata</i>	Nymphaeoides peltata	-	-	-	-	-	-	-	-	-		
								<i>Nymphaeoides peltata</i>	Nymphaeoides peltata	-	-	-	-	-	-	-	-	-		
								<i>Nymphaeoides peltata</i>	Nymphaeoides peltata	-	-	-	-	-	-	-	-	-		
								<i>Nymphaeoides peltata</i>	Nymphaeoides peltata	-	-	-	-	-	-	-	-	-		
								<i>Nymphaeoides peltata</i>	Nymphaeoides peltata	-	-	-	-	-	-	-	-	-		
								<i>Nymphaeoides peltata</i>	Nymphaeoides peltata	-	-	-	-	-	-	-	-	-		
								<i>Nymphaeoides peltata</i>	Nymphaeoides peltata	-	-	-	-	-	-	-	-	-		
								<i>Nymphaeoides peltata</i>	Nymphaeoides peltata	-	-	-	-	-	-	-	-	-		
								<i>Nymphaeoides peltata</i>	Nymphaeoides peltata	-	-	-	-	-	-	-	-	-		
J-1 (south lakeside)	-	37.4203°	140.1008°	2015/10/20	Arthropod	Insecta	Odonata	Cordulegasteridae	<i>Anotogaster sieboldii</i>	Anotogaster sieboldii	37	0.018	Larva (dragonfly larva)	-	-	-	N.D.(2.4)	2.1	-	
									<i>Anax parthenope julius</i>	Anax parthenope julius	-	-	-	-	-	-	-			
									<i>Anax parthenope julius</i>	Anax parthenope julius	-	-	-	-	-	-	-			
									<i>Anax parthenope julius</i>	Anax parthenope julius	-	-	-	-	-	-	-			
									<i>Anax parthenope julius</i>	Anax parthenope julius	-	-	-	-	-	-	-			
									<i>Anax parthenope julius</i>	Anax parthenope julius	-	-	-	-	-	-	-			
									<i>Anax parthenope julius</i>	Anax parthenope julius	-	-	-	-	-	-	-			
									<i>Anax parthenope julius</i>	Anax parthenope julius	-	-	-	-	-	-	-			
									<i>Anax parthenope julius</i>	Anax parthenope julius	-	-	-	-	-	-	-			
									<i>Anax parthenope julius</i>	Anax parthenope julius	-	-	-	-	-	-	-			
J-1 (south lakeside)	-	37.4203°	140.1008°	2015/10/7	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	1	0.31	Mature fish (4-year-old)	Spirogyra	Viscera removed	5.2	21	-		
									<i>Tribolodon hakonensis</i>	Japanese dace	136	2.9	Mature fish (1-year-old)	-	-	3.7	17	0.18		
									<i>Opsariichthys platypus</i>	Zacco platypus	33	4.8	Mature fish (2-year-old)	-	-	1.7	7.4	-		
									<i>Pseudogobio esocinus esocinus</i>	Pseudogobio esocinus	21	0.31	Mature fish (1-year-old)	-	-	1.7	8.0	-		
									<i>Carassius sp.</i>	Carassius auratus langsdorffii	5	2.1	Mature fish (1-year-old)	-	-	4.0	16	0.48		
									<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	55	0.082	Immature fish/Mature fish	-	-	N.D.(1.2)	1.4	-		
									<i>Hemibarbus barbus</i>	Hemibarbus barbus	4	3.1	Mature fish (5-year-old)	-	-	6.8	29	0.44		
									<i>Salvelinus leucomaenis</i>	Char	1	0.62	Mature fish (3-year-old)	Empty stomach	Viscera removed	14	61	-		
									<i>Oncorhynchus masou masou</i>	Seema	1	0.85	Mature fish (3-year-old)	Empty stomach	Viscera removed	23	90	0.088		
									<i>Gymnogobius arotaenia</i>	Goby	20	0.13	Immature fish/Mature fish	-	-	3.0	14	-		
J-1 (south lakeside)	-	37.4203°	140.1008°	2015/10/20	Vertebrata	Amphibia	Anura	<i>Ranidae</i>	Ranidae	5	0.046	Immature	-	-	-	N.D.(2.0)	2.0	-		
								<i>Ranidae</i>	Ranidae	5	0.046	Immature	-	-	-	-	-			
								<i>Cynops pyrrhogaster</i>	Cynops pyrrhogaster	10	0.040	Immature	-	-	-	-	N.D.(2.8)	2.8	-	

*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 name of the dominant one largest in number is unfolded.

*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 parenthesis show the detection limit.

*9: Activity concentrations include counting errors, but the details are omitted here.