

**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)
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	
	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)
J-1(Surface layer)	37.4203°	140.1008°	2017/10/18	13:50	14:30	16.3	15.4	Sand	7.5Y 6/3	Freshwater clam	3.5	>3.5
J-1(Bottom layer)						15.9						

<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	COD	DO	Electric conductivity	Salinity	TOC	SS	Turbidity	Cs-134	Cs-137	Sr-90
	Latitude	Longitude	Date	Time (water)	(mg/L)	(mg/L)	(mg/L)	(mS/m)	(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)		
J-1(Surface layer)	37.4203°	140.1008°	2017/10/18	13:50	7.6	<0.5	1.7	10.0	10.7	0.06	0.7	<1	0.5	N.D.(0.0012)	0.0084	-
J-1(Bottom layer)					6.9	<0.5	1.8	9.7	10.8	0.06	0.9	<1	0.9	N.D.(0.0012)	0.0077	0.00071

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>NH,E</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)
J-1	37.4203°	140.1008°	2017/10/18	14:30	6.5	394	34.9	2.3	4.4	2.683	0.1	1.4	23.8	66.2	4.6	3.9	0.18	4.8	22	170	0.21

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: 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)	Within the lake and Nagase River	37.5047° 37.4995°	140.1143° 140.1409°	2017/10/19	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	42	2.9	Immature fish,Mature fish	Zooplankton,Aquatic insect	Viscera removed	12.4	1.4	11	0.20	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Pale chub	48	0.87	Immature fish,Mature fish	-	-	4.86	0.46	4.4	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Pseudogobio esocinus</i>	Pseudogobio esocinus	127	1.8	Immature fish,Mature fish	-	-	5.43	0.73	4.7	0.38	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	6	2.9	Mature fish	Algae	Viscera removed	26.4	3.4	23	0.73	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	3	2.6	Mature fish	Freshwater shrimp,Plant pieces	Viscera removed	27.5	3.5	24	0.42	
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	3	1.7	Mature fish	Fish	Viscera removed	44.5	5.5	39	0.11	
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	12	3.0	Immature fish,Mature fish	Gobiidae,Japanese smelt,Shrimp	Viscera removed	24.0	3.0	21	0.20	
				Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	0.79	Mature fish	Small mouth bass	Viscera removed	8.60	0.70	7.9	-		
				2017/10/18	Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.22	-	-	-	7.00	0.90	6.1	-	
J-1 (south lakeside)	Within the lake and around the Oninuma	37.4203°	140.1008°	2017/10/18	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.017	-	-	-	N.D.	N.D.(1.8)	N.D.(1.7)	-	
					Algae/plant	Dicotyledoneae	Nymphaeales	Nymphaeaceae	<i>Nuphar japonicum</i>	Cow lily	-	0.32	-	-	-	1.5	N.D.(0.27)	1.5	-	
					Algae/plant	Dicotyledoneae	Solanales	Menyanthaceae	<i>Nymphoides peltata</i>	Fringed water-lily	-	0.33	-	-	-	1.1	N.D.(0.26)	1.1	-	
					Algae/plant	Monocotyledoneae	Alismatales	Hydrocharitaceae	<i>Elodea nuttallii</i>	Western Waterweed	-	0.13	-	-	-	2.7	N.D.(0.42)	2.7	-	
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	286	0.11	Juvenile,Imago	-	-	-	6.30	0.60	5.7	-
					Mollusca	Gastropoda	Architaenioglossa	Viviparidae	<i>Bellamya japonica</i>	Japanese mysterysnail	15	0.071	Imago	-	Molluscos part	1.6	N.D.(0.98)	1.6	-	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	51	2.1	Immature fish,Mature fish	-	-	13.4	1.4	12	0.25	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Pale chub	179	2.5	Immature fish,Mature fish	Algae	Viscera removed	8.9	1.1	7.8	0.36	
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	10	3.2	Mature fish	Obscure digesta	Viscera removed	16.1	2.1	14	0.49	
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	2	1.2	Mature fish	Pseudogobio esocinus, Rhinogobius,Common prawn	Viscera removed	50.0	5.0	45	-	
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Seema	1	0.81	Mature fish	Empty stomach	Viscera removed	75.7	8.7	67	-	
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	4	1.7	Immature fish,Mature fish	Obscure digesta	Viscera removed	91.7	9.7	82	0.36	
					Vertebrata	Osteichthyes	Perciformes	Actinopterygii	<i>Channa argus</i>	Snakehead	2	0.037	Immature fish	Obscure digesta	Viscera removed	16.9	1.9	15	-	
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius kurodai</i>	Rhinogobius kurodai	19	0.019	Immature fish,Mature fish	-	-	11.8	2.3	9.5	-	
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	0.14	Immature fish	Empty stomach	Viscera removed	5.96	0.76	5.2	-	
					Vertebrata	Amphibia	Anura	-	-	-	3	0.031	Imago	-	-	-	N.D.	N.D.(1.4)	N.D.(1.2)	-

\*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.