

**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	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>

Items	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°	2021/8/30	14:15	15:00	24.5	24.3	Sand	7.5Y4/3	Corbicula	3.5	>3.5
J-1(Bottom layer)						24.3						

<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		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)												
J-1(Surface layer)	37.4203°	140.1008°	2021/8/30	14:15	7.0	<0.5	1.4	8.7	11.8	0.06	0.8	<1	0.5	N.D.(0.0015)	0.0043	-
J-1(Bottom layer)					7.0	<0.5	1.7	8.6	11.8	0.06	0.9	<1	0.6	N.D.(0.0013)	0.0045	0.00077

(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>

Items	Latitude and longitude of the location		Survey date and time		pH	Redox potential $E_{NHE}$ (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)	
	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°	2021/8/30	15:00	5.8	397	26.3	1.8	2.9	2.691	1.0	2.9	24.7	53.2	14.6	3.6	0.16	9.5	2.4	56	0.16

(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°	2021/8/31	Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena										
					Arthropoda	Insecta	Odonata	Gomphidae	<i>Shaogomphus postocularis</i>	<u>Shaogomphus postocularis</u>	35	0.018	Larva(Dragonfly larva)	-	-	-	1.5	N.D.(2.1)	1.5	-
					Arthropoda	Malacostraca	Decapoda	Cambaridae	<i>Procambarus clarkii</i>	Red swamp crawfish	15	0.032	Juvenile	-	-	-	3.6	N.D.(2.4)	3.6	-
					Arthropoda	Malacostraca	Decapoda	Astacidae	<i>Pacifastacus leniusculus trowbridgii</i>	Signal crayfish	63	0.13	Juvenile,Imago	-	-	-	4.1	N.D.(0.79)	4.1	-
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	95	0.042	Imago	-	-	-	3.3	N.D.(1.8)	3.3	-
					Mollusca	Gastropoda	Architaenioglossa	Viviparidae	<i>Cipangopaludina japonica</i>	Japanese mysterysnail	1	0.0065	Juvenile	-	-	Molluscos part	N.D.	N.D.(5.8)	N.D.(5.0)	-
					Mollusca	Gastropoda	Discopoda	Pleuroceridae	<i>Semisulcospira reiniana</i>	Semisulcospira reiniana	30	0.015	Juvenile,Imago	-	-	Molluscos part	3.2	N.D.(2.8)	3.2	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	12	0.032	Immature fish	-	-	-	3.0	N.D.(1.7)	3.0	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	1	0.021	Mature fish	-	-	-	2.3	N.D.(2.7)	2.3	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Acheilognathus rhombeus</i>	Acheilognathus rhombeus	8	0.030	Immature fish	-	-	-	2.1	N.D.(2.0)	2.1	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	2	0.26	Immature fish,Mature fish	Obscure digesta	-	Viscera removed	5.9	N.D.(2.0)	5.9	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Gnathopogon elongatus elongatus</i>	Gnathopogon elongatus elongatus	3	0.010	Immature fish	-	-	-	2.5	N.D.(2.8)	2.5	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	1	1.5	Mature fish	Obscure digesta	-	Viscera removed	9.2	N.D.(1.5)	9.2	0.45
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Slender bitterling</i>	Slender bitterling	7	0.011	Immature fish,Mature fish	-	-	-	N.D.	N.D.(3.2)	N.D.(2.6)	-
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	16	0.046	Immature fish,Mature fish	-	-	-	1.9	N.D.(1.4)	1.9	-
					Vertebrata	Osteichthyes	Perciformes	Actinopterygii	<i>Channa argus</i>	Snakehead	3	0.023	Immature fish	-	-	-	6.7	N.D.(2.9)	6.7	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Gymnogobius urotaenia</i>	Goby	69	0.56	Immature fish	-	-	-	4.1	N.D.(1.6)	4.1	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius kurodai</i>	Rhinogobius kurodai	18	0.025	Immature fish,Mature fish	-	-	-	3.3	N.D.(2.5)	3.3	-
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	3	0.29	Immature fish	Grasshopper,Fish	-	Viscera removed	8.0	N.D.(1.9)	8.0	-
					Vertebrata	Amphibia	Anura	Ranidae	<i>Rana japonica</i>	Japanese brown frog	7	0.059	Imago	-	-	-	3.0	N.D.(2.7)	3.0	-
Vertebrata	Amphibia	Anura	Glandirana	<i>Glandirana rugosa</i>	Wrinkled frog															
					Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.20	-	-	-	5.5	N.D.(1.8)	5.5	-	
					Algae/plant	Monocotyledoneae	Alismatales	Hydrocharitaceae	<i>Elodea nuttallii</i>	Western waterweed	-	0.28	-	-	-	0.64	N.D.(0.26)	0.64	-	
J-1 (south lakeside)	Within the lake and around the Oninuma	37.4203°	140.1008°	2021/8/30	Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	652	0.28	Juvenile,Imago	-	-	-	5.9	N.D.(1.4)	5.9	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Opsariichthys platypus</i>	Pale chub	2	0.014	Immature fish	-	-	-	7.9	N.D.(3.0)	7.9	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	5	0.059	Immature fish,Mature fish	Obscure digesta	-	Viscera removed	11	N.D.(3.1)	11	-
				2021/8/31	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	9	2.6	Mature fish	Obscure digesta	-	Viscera removed	25	N.D.(1.6)	25	0.51
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	3	2.5	Mature fish	Obscure digesta	-	Viscera removed	27	N.D.(1.1)	27	0.39
				2021/8/30	Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	11	0.059	Immature fish,Mature fish	-	-	-	1.4	N.D.(1.3)	1.4	-
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	1	0.12	Immature fish	Empty stomach	-	Viscera removed	11	N.D.(3.1)	11	-
				2021/8/31	Vertebrata	Osteichthyes	Perciformes	Actinopterygii	<i>Channa argus</i>	Snakehead	10	0.61	Immature fish	Fish	-	Viscera removed	15	N.D.(1.9)	15	-
					Vertebrata	Osteichthyes	Perciformes	Actinopterygii	<i>Channa argus</i>	Snakehead	1	1.7	Mature fish	Japanese smelt	-	Viscera removed	34.2	1.2	33	0.66
				2021/8/30	Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Gymnogobius urotaenia</i>	Goby	43	0.098	Immature fish	-	-	-	5.9	N.D.(1.9)	5.9	-
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	0.50	Mature fish	Obscure digesta	-	Viscera removed	16	N.D.(1.7)	16	-
				2021/8/31	Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	0.81	Mature fish	Obscure digesta	-	Viscera removed	17	N.D.(1.2)	17	-
					Vertebrata	Amphibia	Anura	Lithobates	<i>Lithobates catesbeianus</i>	American bullfrog	1	0.032	Imago	-	-	-	N.D.	N.D.(0.86)	N.D.(0.76)	-
				2021/8/30	Vertebrata	Amphibia	Caudata	Salamandridae	<i>Cynops pyrrhogaster</i>	Cynops pyrrhogaster	3	0.019	Imago	-	-	-	N.D.	N.D.(1.8)	N.D.(1.5)	-

\*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.