

OResults 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°	2017/6/19	11:45	12:00	16.6	16.6	Sand	7.5Y 2/2	Freshwater clam	3.5	>3.5
J-1(Bottom layer)						10.6						

<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	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°	2017/6/19	11:45	6.8	0.5	1.5	10.4	11.0	0.06	0.9	<1	0.6	0.0012	0.0090	-
J-1(Bottom layer)					6.9	0.5	1.3	10.3	11.1	0.06	0.6	<1	0.4	N.D.(0.0012)	0.0081	0.00059

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°	2017/6/19	12:00	7.1	287	30.1	2.0	2.4	2.716	0.2	1.5	46.1	49.1	0.7	2.4	0.24	4.8	28	220	0.17

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°	2017/6/19	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	35	3.6	Mature fish	Obscure digesta	Viscera removed	34.9	4.9	30	0.25
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	6	1.5	Mature fish	Obscure digesta	Viscera removed	30.9	3.9	27	0.45
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	6	2.9	Mature fish	Japanese smelt, Common prawn, Baetidae, Ephemerellidae	Viscera removed	55.2	7.2	48	0.11
					Vertebrata	Osteichthyes	Perciformes	Actinopterygii	<i>Channa argus</i>	Snakehead	2	2.2	Immature fish	Pseudogobio esocinus, Frog	Viscera removed	30.4	3.4	27	0.41
					Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	0.92	Mature fish	Pseudogobio esocinus	Viscera removed	29.4	3.4	26	-
					Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.26	-	-	-	25.2	3.2	22	-
J-1 (south lakeside)	Within the lake and around the Oninuma	37.4203°	140.1008°	2017/6/19	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.022	-	-	-	N.D.	N.D.(1.7)	N.D.(1.5)	-
					Algae/plant	Dicotyledoneae	Nymphaeales	Nymphaeaceae	<i>Nuphar japonicum</i>	Cow lily	-	0.33	-	-	-	1.4	N.D.(0.27)	1.4	-
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	133	0.047	Juvenile, Imago	-	-	7.1	N.D.(1.6)	7.1	-
					Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn	499	0.31	Juvenile, Imago	-	-	8.6	1.1	7.5	-
					Mollusca	Gastropoda	Architaenioglossa	Viviparidae	<i>Bellamya chinensis laeta</i>	Mud-snail	16	0.060	Imago	-	Molluscos part	8.5	1.3	7.2	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	10	2.0	Mature fish	Obscure digesta	Viscera removed	31.5	3.5	28	0.27
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Pale chub	17	0.24	Immature fish, Mature fish	-	-	8.76	0.96	7.8	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Pseudogobio esocinus</i>	Pseudogobio esocinus	60	0.68	Immature fish, Mature fish	-	-	9.28	0.78	8.5	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	80	0.43	Immature fish	-	-	17.4	2.4	15	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	Carassius auratus langsdorffii	5	1.5	Mature fish	Obscure digesta	Viscera removed	13.7	1.7	12	0.45
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	12	1.5	Immature fish, Mature fish	Obscure digesta	Viscera removed	20.0	2.0	18	0.38
					Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	12	0.036	Immature fish	-	-	1.0	N.D.(1.1)	1.0	-
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	2	0.73	Immature fish, Mature fish	Japanese smelt	Viscera removed	49.5	6.5	43	-
					Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Seema	3	0.21	Immature fish	Goby, Stictochironomus pictulus (Pupa stage)	Viscera removed	0.92	N.D.(0.44)	0.92	-
					Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	1	1.6	Mature fish	Obscure digesta	Viscera removed	61.1	7.1	54	0.27
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Gymnogobius urotaenia</i>	Goby	7	0.085	Immature fish	-	-	18.3	2.3	16	-
Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	0.90	Mature fish	Obscure digesta	Viscera removed	36.5	4.5	32	-					
Vertebrata	Amphibia	Anura	-	-	-	69	0.039	Larva (Tadpole)	-	-	31.9	3.9	28	-					
Vertebrata	Amphibia	Anura	Ranidae	<i>Rana rugosa</i>	Wrinkled Frog	8	0.061	Imago	-	-	3.2	N.D.(0.91)	3.2	-					
Vertebrata	Amphibia	Anura	Ranidae	<i>Rana porosa porosa</i>	Tokyo Daruma pond frog														
Vertebrata	Amphibia	Caudata	Salamandridae	<i>Cynops pyrrhogaster</i>	Cynops pyrrhogaster	18	0.080	Imago	-	-	1.1	N.D.(0.77)	1.1	-					

*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.