○ Results (water)

Locations				2021 December Survey											
		Latitude	Longitude	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)
Abukuma River System	A-1(Surface layer)	37.6210°	140.5218°	7.5	1.3	3.2	12.0	18.6	0.09	1.3	8	7.1	N.D.(0.0015)	0.0081	0.00089
	A-1(Bottom layer)	37.6210°	140.5218°	7.4	1.2	3.3	11.9	18.8	0.09	1.2	10	7.0	N.D.(0.0015)	0.0073	-
	A-2	37.5673°	140.3946°	7.3	<0.5	2.4	12.1	9.7	0.05	0.9	1	1.5	N.D.(0.0014)	0.0054	-
	B-2	37.8121°	140.5058°	7.3	0.8	2.8	12.1	16.3	0.08	1.1	4	3.5	N.D.(0.0015)	0.0047	-
	B-3	37.8182°	140.4679°	7.3	0.6	2.7	12.3	9.0	0.05	1.1	3	1.7	N.D.(0.0014)	0.0025	-
Uda River	C-6	37.7764°	140.8877°	7.5	0.7	3.0	12.1	9.0	0.05	1.1	5	3.4	N.D.(0.0016)	0.0086	0.00066
Mano River	D-4 a	37.7308°	140.9081°	7.3	<0.5	3.0	11.4	10.1	0.05	1.5	4	4.5	N.D.(0.0015)	0.015	0.00097
Niida River	E-2 a	37.6640°	140.9447°	7.3	<0.5	3.1	12.5	6.8	0.04	1.1	5	4.2	N.D.(0.0017)	0.053	0.0012
Ota River	F-1	37.5975°	140.9252°	7.2	<0.5	2.8	11.6	6.2	0.04	1.4	2	2.7	0.0023	0.070	0.0026
Lake Hayama (Mano Dam)	G-1(Surface layer)	37.7348°	140.8102°	7.2	0.6	3.6	10.0	7.8	0.04	1.4	2	1.3	N.D.(0.0015)	0.026	-
	G-1(Bottom layer)	37.7348°	140.8102°	7.3	<0.5	3.3	9.7	7.8	0.04	1.5	1	1.2	N.D.(0.0016)	0.028	0.00075
	G-2(Surface layer)	37.7267°	140.8223°	7.4	<0.5	3.2	9.4	7.8	0.04	1.4	1	1.3	N.D.(0.0014)	0.0097	-
	G-2(Bottom layer)	37.7267°	140.8223°	7.3	<0.5	3.2	9.5	7.8	0.04	1.4	1	1.4	N.D.(0.0014)	0.011	-
	G-4	37.7382°	140.8035°	7.4	<0.5	2.7	11.5	7.7	0.04	1.4	<1	1.0	N.D.(0.0017)	0.017	-
Lake Akimoto	H-1(Surface layer)	37.6575°	140.1264°	7.4	0.5	3.0	10.1	5.5	0.03	1.2	2	1.5	N.D.(0.0014)	0.0087	-
	H-1(Bottom layer)	37.6575°	140.1264°	7.1	0.5	3.2	9.1	5.7	0.03	1.3	2	2.3	N.D.(0.0014)	0.0090	0.0018
	H-2(Surface layer)	37.6616°	140.1226°	7.3	<0.5	3.1	10.5	5.5	0.03	1.2	1	1.4	N.D.(0.0016)	0.015	-
	H-2(Bottom layer)	37.6616°	140.1226°	7.2	<0.5	2.9	10.5	5.5	0.03	1.2	1	1.6	N.D.(0.0013)	0.0067	-
Lake Inawashiro	J-1(Surface layer)	37.4203°	140.1008°	6.8	<0.5	1.6	11.0	11.9	0.06	0.7	<1	0.2	N.D.(0.0015)	0.0044	-
	J-1(Bottom layer)	37.4203°	140.1008°	6.8	<0.5	1.9	10.9	12.1	0.06	0.8	1	0.8	N.D.(0.0013)	0.0045	0.00076
Off the mouth of the Abukuma River (Sea Area in front of the mouth of the Abukuma River)	K-3(Surface layer)	38.0458°	140.9518°	8.0	0.5	1.6	8.9	4720	31.90	1.1	5	4.5	N.D.(0.0014)	0.0052	-
	K-3(Bottom layer)	38.0458°	140.9518°	8.0	0.6	1.5	8.4	4940	33.70	1.1	14	5.4	N.D.(0.0015)	0.0073	0.00091
Off Soma City (Matsukawaura)	L-2	37.8155°	140.9763°	8.0	<0.5	1.7	9.4	4590	31.04	1.2	2	1.4	N.D.(0.0017)	0.0061	0.0013
Off Iwaki City (Hisanohama)	M-2(Surface layer)	37.1996°	141.0853°	8.0	<0.5	1.3	8.5	4970	33.95	0.9	3	0.6	N.D.(0.0015)	0.0052	-
	M-2(Bottom layer)	37.1996°	141.0853°	8.0	<0.5	1.2	8.2	4990	33.99	0.8	2	0.4	N.D.(0.0013)	0.0026	0.00097
Ukedo River	N-1	37.4998°	140.9835°	7.1	0.7	3.2	11.1	7.6	0.04	1.3	5	4.5	0.0039	0.12	0.0025
	N-2	37.5070°	140.9456°	7.3	0.6	2.8	11.5	6.6	0.04	1.2	4	3.8	0.0034	0.12	-
	N-3	37.4754°	140.9598°	7.3	<0.5	2.7	11.7	7.6	0.04	1.2	8	6.4	N.D.(0.0015)	0.031	-
Tomioka River	O-1	37.3547°	140.9780°	7.4	<0.5	2.2	11.3	8.5	0.05	0.9	8	7.5	N.D.(0.0016)	0.027	0.00082
	O-2	37.3624°	140.9612°	7.5	0.6	2.1	11.6	7.7	0.04	0.9	9	8.8	0.0017	0.042	-

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

○ Results (sediments)

Locations				2021 December Survey																
										Grain size distribution										
		Latitude	Longitude	pH	Redox potential $E_{N.H.E}$ (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm^3)	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)	Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
Abukuma River System	A-1	37.6210°	140.5218°	7.3	17	45.9	9.3	28.0	2.600	0.0	0.1	3.2	20.9	53.6	22.2	0.027	2.0	20	530	0.35
	A-2	37.5673°	140.3946°	7.0	414	24.4	1.7	2.1	2.700	8.9	40.3	38.9	4.9	3.1	3.9	0.83	9.5	2.8	95	-
	B-2	37.8121°	140.5058°	7.4	435	25.6	1.2	1.3	2.710	0.0	1.5	77.9	12.7	4.7	3.2	0.39	2.0	3.0	66	-
	B-3	37.8182°	140.4679°	7.6	419	18.6	1.1	1.2	2.650	27.4	33.0	28.1	4.2	1.9	5.4	1.1	19	1.9	44	-
Uda River	C-6	37.7764°	140.8877°	7.8	432	13.2	0.9	1.2	2.730	34.0	33.4	21.5	3.4	4.0	3.7	1.3	9.5	1.4	45	0.27
Mano River	D-4 a	37.7308°	140.9081°	7.8	349	19.5	1.8	2.4	2.690	34.4	42.0	10.7	3.4	4.9	4.6	1.5	19	3.5	130	0.55
Niida River	E-2 a	37.6640°	140.9447°	7.5	416	18.5	1.2	1.9	2.650	3.7	24.1	60.5	5.2	2.5	4.0	0.62	9.5	12	290	0.19
Ota River	F-1	37.5975°	140.9252°	7.6	380	17.2	0.7	1.1	2.640	25.2	37.0	26.1	4.1	2.8	4.8	1.1	9.5	5.9	190	0.28
Lake Hayama (Mano Dam)	G-1	37.7348°	140.8102°	7.3	208	34.1	5.0	13.3	2.680	4.1	5.8	35.1	21.5	21.9	11.6	0.20	9.5	20	570	1.7
	G-2	37.7267°	140.8223°	7.0	128	51.5	12.0	33.2	2.570	0.1	0.1	0.5	4.4	56.2	38.7	0.0095	4.8	86	2300	-
	G-4	37.7382°	140.8035°	7.6	338	23.0	2.6	1.6	2.720	1.7	4.9	37.7	39.9	8.6	7.2	0.22	9.5	7.4	250	-
Lake Akimoto	H-1	37.6575°	140.1264°	6.8	85	56.1	9.9	35.1	2.540	0.0	0.0	0.2	0.7	56.3	42.8	0.0066	2.0	83	2300	1.1
	H-2	37.6616°	140.1226°	6.9	53	66.9	14.1	48.2	2.430	0.0	0.0	0.1	0.0	35.3	64.6	0.0023	2.0	60	2000	-
Lake Inawashiro	J-1	37.4203°	140.1008°	6.9	138	23.0	1.8	2.4	2.820	4.2	4.3	43.5	43.6	0.3	4.1	0.26	9.5	1.8	32	N.D.(0.15)
Off the mouth of the Abukuma River (Sea Area in front of the mouth of the Abukuma River)	K-3	38.0458°	140.9518°	7.7	33	32.8	4.8	6.7	2.670	0.0	0.0	1.2	42.8	46.1	9.9	0.064	2.0	4.8	140	N.D.(0.15)
Off Soma City (Matsukawaura)	L-2	37.8155°	140.9763°	7.8	56	20.8	1.3	1.2	2.710	1.7	2.2	56.7	31.9	2.5	5.0	0.29	19	0.63	17	N.D.(0.13)
Off Iwaki City (Hisanohama)	M-2	37.1996°	141.0853°	7.8	336	24.2	1.9	1.0	2.740	1.3	0.8	2.7	86.8	4.5	3.9	0.15	4.8	0.60	16	N.D.(0.12)
Ukedo River	N-1	37.4998°	140.9835°	7.3	121	31.1	3.9	9.9	2.600	0.8	6.4	39.5	34.2	12.6	6.5	0.23	4.8	200	6100	0.45
	N-2	37.5070°	140.9456°	7.3	447	9.9	0.7	1.2	2.640	9.1	39.2	37.2	9.0	0.9	4.6	0.81	9.5	80	2300	-
	N-3	37.4754°	140.9598°	7.3	455	5.8	0.9	1.4	2.640	4.0	26.7	53.9	10.0	2.1	3.3	0.59	9.5	36	1100	-
Tomioka River	O-1	37.3547°	140.9780°	7.4	408	24.9	1.9	7.9	2.670	12.7	13.0	38.4	20.0	10.2	5.7	0.39	19	17	560	0.35
	O-2	37.3624°	140.9612°	7.7	418	29.5	2.5	2.8	2.680	0.1	1.0	44.0	43.8	5.5	5.6	0.23	4.8	24	740	-

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

○ Results (aquatic organisms)

Location		Sampling point	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)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Abukuma River System	A-1	The main stream of the Abukuma River	2021/12/2	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0026	-	-	-	61	N.D.(13)	61	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	*Nemacheilus toni*	Stone loach	14	0.079	Immature fish	-	-	2.7	N.D.(0.92)	2.7	-
	A-2	Harase River	2021/12/1	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0052	-	-	-	120	N.D.(8.9)	120	-
				Arthropoda	Insecta	Ephemeroptera	Ephemeridae	*Ephemera strigata*	Mont mayfly	509	0.030	Larva	-	-	24	N.D.(1.7)	24	-
				Arthropoda	Insecta	Plecoptera	Perlidae	*Oyamia lugubris*	Oyamia lugubris	258	0.063	Larva	-	-	3.6	N.D.(1.1)	3.6	-
				Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	Kamimura tibialis									
				Vertebrata	Amphibia	Caudata	Salamandridae	*Cynops pyrrhogaster*	Cynops pyrrhogaster	5	0.031	Imago	-	-	16	N.D.(2.4)	16	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.22	-	-	-	43	N.D.(1.7)	43	-
	B-3	Surikami River	2021/12/9	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.021	-	-	-	52	N.D.(6.1)	52	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	294	0.081	Larva	-	-	4.1	N.D.(1.9)	4.1	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	6	0.023	Immature fish	-	-	3.5	N.D.(3.0)	3.5	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Cyprinus carpio*	Common carp	1	1.5	Mature fish	Obscure digesta	Viscera removed	4.4	N.D.(1.3)	4.4	0.41
Uda River	C-6	The main stream of the Uda River	2021/12/5	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0029	-	-	-	72	N.D.(11)	72	-
				Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria uenoi*	Kamimuria uenoi Kohno	163	0.014	Larva	-	-	N.D.	N.D.(2.1)	N.D.(2.2)	-
				Arthropoda	Insecta	Plecoptera	Perlidae	*Oyamia lugubris*	Oyamia lugubris									
				Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	Kamimura tibialis									
				Arthropoda	Insecta	Plecoptera	Perlidae	*Paragnetina suzukii*	Paragnetina suzukii Okamoto									
				Arthropoda	Insecta	Plecoptera	Perlidae	*Neoperla sp.*	Neoperla									
				Arthropoda	Insecta	Megaloptera	Corydalidae	*Parachauliodes sp.*	Parachauliodes	14	0.0081	Larva	-	-	N.D.	N.D.(4.5)	N.D.(3.6)	-
				Arthropoda	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius sp.*	Rhinogobius	24	0.028	Immature fish,Mature fish	-	-	4.4	N.D.(2.5)	4.4	-

*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.

Location		Sampling point	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)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Mano River	D-4 b	The main stream of the Mano River	2021/12/5	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.015	-	-	-	140	N.D.(5.8)	140	-
				Arthropoda	Insecta	Ephemeroptera	Ephemeridae	*Ephemera strigata*	Mont mayfly	154	0.0089	Larva	-	-	24	N.D.(3.5)	24	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	82	0.013	Larva	-	-	29	N.D.(2.4)	29	-
				Arthropoda	Insecta	Odonata	Corduliidae	*Macromia amphigena amphigena*	Macromia amphigena	50	0.012	Larva(Dragonfly larva)	-	-	5.5	N.D.(3.8)	5.5	-
				Arthropoda	Insecta	Odonata	Gomphidae	*Sieboldius albardae*	Sieboldius albardae									
				Arthropoda	Insecta	Odonata	Gomphidae	*Davidius sp.*	Davidius									
				Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	*Anguilla japonica*	Japanese eel	1	0.42	Mature fish	Empty stomach	Viscera removed	14	N.D.(1.3)	14	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	22	0.48	Immature fish,Mature fish	-	-	9.0	N.D.(1.4)	9.0	-
	D-5	The main stream of the Mano River	2021/12/1	Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou*	Yamame trout	4	0.082	Immature fish	-	-	11	N.D.(3.3)	11	-
Niida River	E-2 b	The main stream of the Niida River	2021/12/2	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0046	-	-	-	290	N.D.(22)	290	-
				Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	Kamimura tibialis	202	0.016	Larva	-	-	14	N.D.(4.2)	14	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	204	0.037	Larva	-	-	155.2	5.2	150	-
				Arthropoda	Malacostraca	Decapoda	Varunidae	*Eriocheir japonica*	Japanese mitten crab	24	0.24	Juvenile	-	-	40.5	1.5	39	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	Rhinogobius nagoyae	4	0.013	Mature fish	-	-	21	N.D.(5.5)	21	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.23	-	-	-	71.3	2.3	69	-
Ota River	F-1	The main stream of the Ota River	2021/12/6	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0088	-	-	-	312	12	300	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	521	0.093	Larva	-	-	124.0	4.0	120	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	3	0.093	Immature fish,Mature fish	-	-	77	N.D.(3.1)	77	-
	F-5	The main stream of the Ota River	2021/12/5	Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus keta*	Salmon	1	2.0	Mature fish	Empty stomach	Viscera removed	0.54	N.D.(0.29)	0.54	0.042

*1: Organisms were collected in or around the targeted water areas.

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*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.

Location		Sampling point	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)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Lake Hayama	G-1 G-2 G-3	In the lake	2021/12/4	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.020	-	-	-	N.D.	N.D.(1.8)	N.D.(1.5)	-
			2021/12/1	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	2	0.65	Mature fish	Obscure digesta	Viscera removed	50.7	1.7	49	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Carassius auratus*	Carassius auratus langsdorfii	1	1.7	Mature fish	Obscure digesta	Viscera removed	24	N.D.(1.4)	24	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Cyprinus carpio*	Common carp	1	1.3	Mature fish	Obscure digesta	Viscera removed	27	N.D.(1.5)	27	-
			2021/12/4	Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	*Hypomesus nipponensis*	Japanese smelt	25	0.012	Immature fish	-	-	14	N.D.(5.6)	14	-
			2021/12/1	Vertebrata	Osteichthyes	Perciformes	Centrarchidae	*Micropterus dolomieu*	Small mouth bass	1	1.1	Mature fish	Obscure digesta	Viscera removed	103.5	3.5	100	-
	G-4	Inflowing rivers	2021/12/4	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0030	-	-	-	120	N.D.(12)	120	-
				Arthropoda	Insecta	Ephemeroptera	Isonychiidae	*Isonychia valida*	Isonychia valida	159	0.0051	Larva	-	-	29	N.D.(6.1)	29	-
				Arthropoda	Insecta	Ephemeroptera	Ephemeridae	*Ephemera strigata*	Mont mayfly									
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	127	0.0093	Larva	-	-	63	N.D.(6.1)	63	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	84	0.19	Immature fish	-	-	9.8	N.D.(1.4)	9.8	-
Lake Akimoto	H-1 H-2 H-3	In the lake	2021/12/1	Arthropoda	Malacostraca	Decapoda	Astacidae	*Pacifastacus leniusculus trowbridgii*	Signal crayfish	6	0.43	Imago	-	-	13	N.D.(1.8)	13	-
				Mollusca	Bivalvia	Unionoida	Unionidae	*Sinanodonta woodiana*	Chinese pond musse	2	0.61	Imago	-	Molluscous part	2.2	N.D.(0.96)	2.2	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	10	2.4	Mature fish	Obscure digesta	Viscera removed	38	N.D.(1.3)	38	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Cyprinus carpio*	Common carp	1	1.4	Mature fish	Obscure digesta	Viscera removed	14	N.D.(1.3)	14	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Hemibarbus barbus*	Hemibarbus barbus	2	1.7	Mature fish	Obscure digesta	Viscera removed	36.9	1.9	35	1.2
				Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	*Hypomesus nipponensis*	Japanese smelt	44	0.14	Immature fish,Mature fish	-	-	5.5	N.D.(1.3)	5.5	-
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou*	Yamame trout	4	0.29	Immature fish,Mature fish	Empty stomach	Viscera removed	14	N.D.(1.4)	14	-
Lake Inawashiro	I-1 I-2 (north lakeside)	Within the lake and Nagase River	2021/12/3	Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.22	-	-	-	2.4	N.D.(0.65)	2.4	-
	J-1 (south lakeside)	Within the lake and around the Oninuma	2021/12/3	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.018	-	-	-	N.D.	N.D.(1.6)	N.D.(1.4)	-
				Vertebrata	Amphibia	Caudata	Salamandridae	*Cynops pyrrhogaster*	Cynops pyrrhogaster	5	0.021	Imago	-	-	N.D.	N.D.(1.6)	N.D.(1.4)	-

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Location		Sampling point	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)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Off the mouth of the Abukuma River	Surrounding water area off the mouth of the Abukuma River	Sea area in front of the Abukuma River Estuary	2021/12/4	Vertebrata	Osteichthyes	Scorpaeniformes	Triglidae	*Chelidonichthys spinosus*	Gurnard	4	0.65	Immature fish,Mature fish	Obscure digesta	Viscera removed	N.D.	N.D.(0.25)	N.D.(0.25)	-
Off Soma City	L-1 L-2 L-3	Matsukawaura Lagoon	2021/12/5	Arthropoda	Malacostraca	Decapoda	Alpheidae	*Alpheidae*	Alpheidae	34	0.024	Juvenile	-	-	2.6	N.D.(1.8)	2.6	-
				Arthropoda	Malacostraca	Decapoda	Varunidae	*Hemigrapsus sp.*	Hemigrapsus	38	0.043	Juvenile	-	-	1.4	N.D.(0.92)	1.4	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Tridentiger trigonocephalus*	Chameleon goby	48	0.034	Immature fish	-	-	N.D.	N.D.(0.92)	N.D.(0.87)	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Acentrogobius virgatulus*	Acentrogobius virgatulus									
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Favonigobius gymnauchen*	Favonigobius gymnauchen									
Off Iwaki City	M-1 M-2 M-3	Offshore of Hisanohama	2021/12/14	Vertebrata	Osteichthyes	Pleuronectiformes	Paralichthyidae	*Paralichthys olivaceus*	Bastard halibut	1	1.4	Mature fish	Empty stomach	Viscera removed	0.48	N.D.(0.25)	0.48	-

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Location		Sampling point	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)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Ukedo River	N-1	The main stream of the Ukedo River	2021/12/8	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0053	-	-	-	1125	25	1100	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	23	0.0057	Larva	-	-	400	N.D.(17)	400	-
				Arthropoda	Malacostraca	Decapoda	Varunidae	*Eriocheir japonica*	Japanese mitten crab	12	0.011	Juvenile	-	-	120	N.D.(11)	120	-
				Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	*Anguilla japonica*	Japanese eel	1	0.24	Mature fish	Empty stomach	Viscera removed	237.6	7.6	230	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	23	0.16	Immature fish,Mature fish	-	-	135.4	5.4	130	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Cyprinus carpio*	Common carp	1	5.2	Mature fish	Obscure digesta	Viscera removed	443	13	430	2.4
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou*	Yamame trout	1	0.035	Immature fish	-	-	40	N.D.(5.5)	40	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	Rhinogobius nagoyae	20	0.017	Immature fish,Mature fish	-	-	110	N.D.(6.2)	110	-
				Vertebrata	Osteichthyes	Siluriformes	Siluridae	*Silurus asotus*	Amur catfish	1	0.0070	Immature fish	-	-	99	N.D.(15)	99	-
				Vertebrata	Amphibia	Anura	Lithobates	*Lithobates catesbeianus*	American bullfrog	8	0.045	Larva(Tadpole)	-	-	265.7	5.7	260	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.25	-	-	-	144.0	4.0	140	-
	N-2	The main stream of the Ukedo River	2021/12/8	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.011	-	-	-	1463	63	1400	-
				Arthropoda	Insecta	Ephemeroptera	Isonychiidae	*Isonychia valida*	Isonychia valida	207	0.0077	Larva	-	-	165.8	5.8	160	-
				Arthropoda	Insecta	Ephemeroptera	Ephemeridae	*Ephemera strigata*	Mont mayfly	152	0.0050	Larva	-	-	502	22	480	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	145	0.018	Larva	-	-	348.6	8.6	340	-
				Arthropoda	Insecta	Odonata	Gomphidae	*Melligomphus viridicostus*	Melligomphus viridicostus	72	0.018	Larva(Dragonfly larva)	-	-	78	N.D.(6.2)	78	-
				Arthropoda	Insecta	Odonata	Gomphidae	*Sieboldius albardae*	Sieboldius albardae									
				Arthropoda	Insecta	Odonata	Gomphidae	*Davidius sp.*	Davidius									
				Arthropoda	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis	64	0.054	Larva	-	-	49	N.D.(4.2)	49	-
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	*Palaemon paucidens*	Common prawn	37	0.033	Imago	-	-	135.6	5.6	130	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	16	0.14	Immature fish,Mature fish	-	-	187.1	7.1	180	-
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou*	Yamame trout	1	0.025	Immature fish	-	-	154.5	4.5	150	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	Rhinogobius nagoyae	6	0.012	Immature fish,Mature fish	-	-	190	N.D.(8.8)	190	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius kurodai*	Rhinogobius kurodai									
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.23	-	-	-	185.5	5.5	180	-
	N-3	The main stream of the Takase River	2021/12/8	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0047	-	-	-	440	N.D.(20)	440	-
				Arthropoda	Insecta	Ephemeroptera	Ephemeridae	*Ephemera strigata*	Mont mayfly	343	0.026	Larva	-	-	73	N.D.(5.3)	73	-
				Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	Kamimura tibialis	63	0.0059	Larva	-	-	5.5	N.D.(5.1)	5.5	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	*Stenopsyche marmorata*	Stenopsyche marmorata	146	0.037	Larva	-	-	48	N.D.(3.3)	48	-
				Arthropoda	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis	15	0.015	Larva	-	-	11	N.D.(3.3)	11	-
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	*Palaemon paucidens*	Common prawn	20	0.015	Juvenile,Imago	-	-	23	N.D.(8.5)	23	-
				Vertebrata	Osteichthyes	Scorpaeniformes	Cottidae	*Cottus reinii*	Sculpin	7	0.056	Immature fish	-	-	13	N.D.(3.6)	13	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	3	0.026	Immature fish	-	-	86	N.D.(6.4)	86	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	*Nemacheilus toni*	Stone loach	62	0.26	Immature fish	-	-	15	N.D.(1.2)	15	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	Rhinogobius nagoyae	18	0.020	Immature fish,Mature fish	-	-	29	N.D.(5.3)	29	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.23	-	-	-	165.4	5.4	160	-

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Location		Sampling point	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)
												Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
Tomioka River	O-1	The main stream of the Tomioka River	2021/12/6	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0041	-	-	-	240	N.D.(17)	240	-
				Arthropoda	Insecta	Ephemeroptera	Isonychiidae	*Isonychia valida*	Isonychia valida	602	0.022	Larva	-	-	48	N.D.(5.3)	48	-
				Arthropoda	Insecta	Odonata	Corduliidae	*Macromia amphigena amphigena*	Macromia amphigena	20	0.010	Larva(Dragonfly larva)	-	-	9.7	N.D.(3.5)	9.7	-
				Arthropoda	Insecta	Odonata	Gomphidae	*Stylogomphus suzukii*	Stylogomphus suzukii									
				Arthropoda	Insecta	Odonata	Gomphidae	*Sieboldius albardae*	Sieboldius albardae									
				Arthropoda	Insecta	Odonata	Gomphidae	*Davidius sp.*	Davidius									
				Arthropoda	Insecta	Odonata	Gomphidae	*Sinogomphus flavolimbatus*	Sinogomphus flavolimbatus									
				Arthropoda	Insecta	Odonata	Gomphidae	*Asiagomphus melaenops*	Asiagomphus melaenops									
				Arthropoda	Insecta	Odonata	Aeshnidae	*Boyeria maclachlani*	Boyeria maclachlani									
				Arthropoda	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis	33	0.017	Larva	-	-	5.5	N.D.(4.8)	5.5	-
				Arthropoda	Malacostraca	Decapoda	Atyidae	*Paratya improvisa*	Freshwater shrimp	53	0.013	Juvenile,Imago	-	-	25	N.D.(6.1)	25	-
				Arthropoda	Malacostraca	Decapoda	Varunidae	*Eriocheir japonica*	Japanese mitten crab	18	0.18	Juvenile	-	-	22	N.D.(1.8)	22	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	17	0.12	Immature fish	-	-	26	N.D.(2.4)	26	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Candidia temminckii*	Dark chub	6	0.051	Immature fish,Mature fish	-	-	57	N.D.(3.4)	57	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	*Cobitis biwae*	Cobitis biwae	4	0.016	Immature fish,Mature fish	-	-	11	N.D.(4.6)	11	-
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou*	Yamame trout	9	0.29	Immature fish	Empty stomach	Viscera removed	37.3	1.3	36	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius fluviatilis*	Rhinogobius fluviatilis	2	0.012	Mature fish	-	-	21	N.D.(4.1)	21	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	*Rhinogobius nagoyae*	Rhinogobius nagoyae									
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.24	-	-	-	21	N.D.(1.6)	21	-
	O-1 b	The main stream of the Tomioka River	2021/12/6	Vertebrata	Osteichthyes	Anguilliformes	Anguillidae	*Anguilla japonica*	Japanese eel	2	0.31	Immature fish,Mature fish	Empty stomach	Viscera removed	67.6	3.6	64	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	142	1.2	Immature fish,Mature fish	-	-	30	N.D.(1.6)	30	0.32
	O-2	The main stream of the Tomioka River	2021/12/6	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.0041	-	-	-	452	22	430	-
				Arthropoda	Insecta	Ephemeroptera	Isonychiidae	*Isonychia valida*	Isonychia valida	247	0.012	Larva	-	-	25	N.D.(4.3)	25	-
				Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria uenoi*	Kamimuria uenoi Kohno	246	0.024	Larva	-	-	2.5	N.D.(2.0)	2.5	-
				Arthropoda	Insecta	Plecoptera	Perlidae	*Oyamia lugubris*	Oyamia lugubris									
				Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria tibialis*	Kamimura tibialis									
				Arthropoda	Insecta	Plecoptera	Perlidae	*Kamimuria quadrata*	Kamimuria quadrata									
				Arthropoda	Insecta	Megaloptera	Corydalidae	*Protohermes grandis*	Protohermes grandis	55	0.038	Larva	-	-	10	N.D.(3.1)	10	-
				Arthropoda	Malacostraca	Decapoda	Palaemonidae	*Palaemon paucidens*	Common prawn	8	0.012	Imago	-	-	11	N.D.(5.8)	11	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	*Tribolodon hakonensis*	Japanese dace	70	0.17	Immature fish	-	-	21	N.D.(1.8)	21	-
				Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	*Cobitis biwae*	Cobitis biwae	3	0.016	Mature fish	-	-	11	N.D.(4.6)	11	-
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	*Oncorhynchus masou*	Yamame trout	9	0.21	Immature fish	Empty stomach	Viscera removed	25	N.D.(1.2)	25	-
				Vertebrata	Amphibia	Anura	Ranidae	*Rana japonica*	Japanese brown frog	2	0.020	Imago	-	-	299.4	9.4	290	-
				Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.22	-	-	-	42	N.D.(1.7)	42	-

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