

○ Results (water)

Locations				2016 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°	7.4	1.9	3.3	12.4	19.5	0.10	1.3	3	2.6	0.0010	0.0069	0.00090
	A-1(Bottom layer)	37.6210°	140.5218°	7.5	2.0	3.2	12.4	19.9	0.10	1.4	3	2.7	0.0026	0.013	-
	A-2	37.5673°	140.3946°	7.5	0.8	2.0	12.7	11.5	0.06	0.7	2	1.0	0.0012	0.0082	-
	B-1	37.7843°	140.4924°	7.6	1.6	3.3	12.8	20.6	0.11	1.3	4	3.3	0.0017	0.0098	-
	B-2	37.8121°	140.5058°	7.6	1.2	3.0	12.6	17.2	0.09	1.2	4	3.0	0.0011	0.0064	-
	B-3	37.8182°	140.4679°	7.6	0.6	2.7	11.8	8.3	0.04	1.2	2	2.2	0.0023	0.011	-
Uda River	C-1	37.7953°	140.7459°	7.7	<0.5	1.3	13.2	9.9	0.06	0.4	<1	0.4	N.D.(0.0014)	0.0092	-
	C-2	37.7718°	140.7290°	7.4	<0.5	2.2	12.3	8.8	0.05	0.9	3	1.4	0.0035	0.020	-
	C-3	37.7792°	140.8040°	7.6	<0.5	1.6	12.2	8.4	0.05	0.6	<1	0.6	0.0017	0.011	-
	C-4	37.7687°	140.8443°	7.6	<0.5	1.6	13.0	8.4	0.05	0.5	<1	0.6	N.D.(0.0014)	0.0062	0.0011
	C-5	37.7646°	140.8603°	7.6	0.7	1.6	13.0	8.5	0.05	0.6	<1	0.6	0.0014	0.0052	-
	C-6	37.7764°	140.8877°	7.7	<0.5	1.7	13.2	9.3	0.05	0.7	<1	0.4	N.D.(0.0014)	0.0060	-
Mano River	D-1	37.7331°	140.9254°	7.6	<0.5	2.1	12.5	8.6	0.05	0.9	<1	0.7	0.0019	0.0093	0.00092
	D-2	37.7095°	140.9566°	7.3	0.7	2.3	10.8	11.7	0.07	0.8	2	2.2	0.0090	0.050	-
	D-3	37.7051°	140.9623°	7.1	0.5	2.1	11.3	12.4	0.07	0.7	2	1.8	0.0024	0.014	-
	D-4 a	37.7308°	140.9081°	7.4	<0.5	1.9	11.3	9.5	0.05	0.9	<1	0.8	0.0019	0.0090	-
	D-4 b	37.7312°	140.9096°	7.5	<0.5	2.2	11.8	9.6	0.05	0.9	<1	1.0	0.0031	0.017	-
	D-5	37.7214°	140.8889°	7.6	<0.5	2.2	11.9	9.0	0.06	1.1	<1	0.9	0.0024	0.012	-
Niida River	E-1	37.6609°	140.9115°	7.7	0.5	2.1	12.9	5.9	0.04	0.7	1	0.9	0.0075	0.040	0.0019
	E-2 a	37.6640°	140.9447°	7.6	<0.5	2.2	13.0	6.6	0.04	0.7	3	1.4	0.0045	0.027	-
	E-2 b	37.6635°	140.9452°	7.5	<0.5	2.1	12.7	6.7	0.04	0.7	2	1.3	0.0070	0.038	-
	E-3	37.6444°	141.0018°	7.4	0.8	2.1	12.0	9.0	0.05	0.7	1	1.0	0.0041	0.022	-
	E-4	37.6485°	140.9630°	7.6	<0.5	2.1	12.5	7.2	0.04	0.7	1	1.1	0.0053	0.031	-
	E-5	37.6652°	140.9169°	7.6	<0.5	2.0	13.0	6.6	0.04	0.7	1	1.0	0.013	0.073	-
Ota River	F-1	37.5975°	140.9252°	7.2	<0.5	1.8	11.5	5.3	0.03	0.7	1	0.8	0.025	0.15	-
	F-2	37.6016°	140.9423°	7.1	<0.5	1.7	11.4	6.0	0.04	0.6	<1	0.6	0.022	0.12	0.0034
	F-3	37.6045°	140.9636°	7.2	0.5	2.0	11.6	6.2	0.04	0.7	2	1.5	0.013	0.070	-
	F-4	37.6070°	140.9720°	6.7	<0.5	1.3	9.8	7.0	0.04	0.4	1	0.6	0.0075	0.044	-
	F-5	37.6022°	140.9868°	7.0	0.5	1.7	10.7	7.7	0.04	0.6	3	1.6	0.013	0.076	-
	F-6	37.5953°	141.0123°	7.0	0.8	3.1	11.4	235.0	1.16	1.5	4	2.5	0.013	0.077	-
Lake Hayama (Mano Dam)	G-1(Surface layer)	37.7321°	140.8127°	7.4	0.9	3.0	10.1	7.0	0.04	1.4	1	1.9	0.0038	0.023	-
	G-1(Bottom layer)	37.7321°	140.8127°	7.3	0.7	2.6	10.5	6.9	0.04	1.3	1	1.5	0.011	0.061	0.0012
	G-3(Surface layer)	37.7302°	140.8307°	7.3	0.9	3.1	9.9	6.9	0.04	1.6	1	1.6	0.0043	0.029	-
	G-3(Bottom layer)	37.7302°	140.8307°	7.3	<0.5	2.9	9.8	6.8	0.04	1.3	1	1.5	0.0036	0.028	-
	G-5(Surface layer)	37.7341°	140.8088°	7.3	0.7	2.9	9.9	6.8	0.04	1.4	2	1.8	0.0039	0.027	-
	G-5(Bottom layer)	37.7341°	140.8088°	7.3	0.8	3.1	10.1	6.8	0.04	1.4	2	1.8	0.0055	0.026	-
Lake Akimoto	H-1(Surface layer)	37.6575°	140.1264°	7.1	0.6	3.3	10.2	5.1	0.03	1.3	2	1.8	0.0034	0.017	-
	H-1(Bottom layer)	37.6575°	140.1264°	7.2	0.8	3.3	10.4	5.2	0.03	1.3	2	2.0	N.D.(0.0016)	0.0093	-
	H-3(Surface layer)	37.6653°	140.1329°	7.2	0.8	3.3	9.8	5.3	0.03	1.3	2	1.9	0.0018	0.0092	-
	H-3(Bottom layer)	37.6653°	140.1329°	7.1	0.8	3.1	10.0	5.3	0.03	1.3	2	2.2	0.0015	0.0069	0.0011
	H-5(Surface layer)	37.6523°	140.1568°	7.2	2.2	3.4	10.5	5.4	0.03	2.6	4	2.0	0.0038	0.020	-
	H-5(Bottom layer)	37.6523°	140.1568°	7.3	0.8	3.2	10.1	5.4	0.03	1.7	3	2.2	0.0021	0.021	-
Lake Inawashiro	I-1(Surface layer)	37.5047°	140.1143°	7.0	<0.5	1.1	10.6	10.5	0.06	0.4	<1	0.5	0.0015	0.010	-
	I-1(Bottom layer)	37.5047°	140.1143°	6.8	<0.5	1.0	10.6	11.0	0.06	0.4	<1	0.5	0.0018	0.010	0.00071
	I-3(Surface layer)	37.5077°	140.0263°	6.9	<0.5	0.9	11.0	10.9	0.06	0.4	<1	0.4	N.D.(0.0015)	0.010	-
	I-3(Bottom layer)	37.5077°	140.0263°	6.8	<0.5	1.0	10.9	10.9	0.06	0.4	<1	0.5	0.0020	0.010	-
	J-1(Surface layer)	37.4203°	140.1008°	6.8	0.6	1.3	11.2	11.1	0.06	0.5	<1	0.5	0.0021	0.0098	-
	J-1(Bottom layer)	37.4203°	140.1008°	6.8	<0.5	1.0	10.5	10.9	0.06	0.4	<1	0.5	0.0018	0.010	-
Off the mouth of the Abukuma River (Sea Area in front of the mouth of the Abukuma River)	K-2(Surface layer)	38.0455°	140.9401°	8.1	0.7	2.4	8.7	4010	32.69	0.9	2	1.5	N.D.(0.0014)	0.0047	-
	K-2(Bottom layer)	38.0455°	140.9401°	8.0	0.5	1.1	8.3	5030	33.79	0.9	2	1.1	N.D.(0.0013)	0.0044	0.00081
Off Soma City (Matsukawaura)	L-2	37.8155°	140.9763°	8.0	0.8	1.0	8.9	4980	33.34	0.9	3	1.4	0.0015	0.0068	0.00087
	L-3	37.8217°	140.9765°	8.0	0.6	1.5	9.0	5010	33.29	0.9	4	1.5	0.0017	0.0075	-
Off Iwaki City (Hisanohama)	M-2(Surface layer)	37.1996°	141.0853°	8.0	<0.5	1.1	8.3	5060	33.95	1.1	2	0.7	N.D.(0.0013)	0.0046	-
	M-2(Bottom layer)	37.1996°	141.0853°	8.0	<0.5	1.1	8.1	5130	33.96	1.4	3	2.4	N.D.(0.0014)	0.0050	0.00071

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-2 Harase River	2016/12/2	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.052	-	-	-	180	30	150	-	
			Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	76	0.018	Larva	-	-	-	26.3	4.3	22	-
			Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	68	0.045	Larva (Dragonfly larva)	-	-	-	17.8	2.8	15	-
			Arthropoda	Insecta	Odonata	Cordulegastridae	<i>Anotogaster sieboldii</i>	<i>Anotogaster sieboldii</i>										
			Arthropoda	Insecta	Odonata	Gomphidae	<i>Onychogomphus viridicostus</i>	Melligomphus viridicostus										
			Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae										
			Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius										
			Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	Asiagomphus melaenops										
			Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Neocaridina sp.</i>	Neocaridina	498	0.13	Imago	-	-	-	16.6	2.6	14	-
			Mollusca	Gastropoda	Discopoda	Pleuroceridae	<i>Semisulcospira libertina</i>	Semisulcospira libertina	29	0.024	Imago	-	Molluscous part	-	16.9	2.9	14	-
			Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Nipponocypris temminckii</i>	Dark chub	28	0.081	Immature fish	Obscure digesta	Viscera removed	-	9.3	1.3	8.0	-
			Vertebrata	Osteichthyes	Cypriniformes	Cobitidae	<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	32	0.022	Immature fish	-	-	-	10.9	1.7	9.2	-
			Vertebrata	Amphibia	Caudata	Salamandridae	<i>Cynops pyrrhogaster</i>	Cynops pyrrhogaster	2	0.017	Imago	-	-	-	20.6	2.6	18	-
	Particulate Organic Matter	-	-	-	-	-	-	0.28	-	-	-	-	26.7	3.7	23	-		
	B-2	The main stream of the Abukuma River	2016/12/8	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	2	3.1	Mature fish	Amorphous Residue	Viscera removed	15.1	2.1	13	-
	B-3 Surikami River	2016/12/2	Algae/plant	-	-	-	-	-	Riverbed Deposits (Include algae)	-	0.039	-	-	-	125	15	110	-
			Arthropoda	Insecta	Ephemeroptera	Ephemeridae	<i>Ephemera sp.</i>	Ephemera	203	0.013	Larva	-	-	-	30.3	4.3	26	-
			Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	272	0.068	Larva	-	-	-	30.5	4.5	26	-
			Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	11	0.0075	Larva	-	-	-	N.D.	N.D.(4.8)	N.D.(4.1)	-
			Arthropoda	Malacostraca	Decapoda	Cambaridae	<i>Procambarus clarkii</i>	Red swamp crawfish	2	0.0083	Imago	-	-	-	9.2	N.D.(4.7)	9.2	-
Vertebrata			Osteichthyes	Scorpaeniformes	Cottidae	<i>Cottus pollux</i>	Japanese fluvial sculpin	7	0.092	Immature fish	Obscure digesta	Viscera removed	-	4.15	0.65	3.5	-	
Vertebrata			Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	4	0.039	Immature fish	Obscure digesta	Viscera removed	-	7.9	1.2	6.7	-	
Vertebrata			Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Pale chub	34	0.53	Immature fish, Mature fish	Obscure digesta	Viscera removed	-	8.21	0.91	7.3	-	
Vertebrata			Amphibia	Anura	-	-	-	-	0.0068	Imago	-	-	-	5.2	N.D.(4.2)	5.2	-	
Particulate Organic Matter			-	-	-	-	-	-	0.28	-	-	-	-	28.8	3.8	25	-	
Uda River	C-6	2016/12/4	Algae/plant	-	-	-	-	-	Riverbed Deposits (Include algae)	-	0.017	-	-	-	188	28	160	-
			Arthropoda	Insecta	Ephemeroptera	Ephemeridae	<i>Ephemera sp.</i>	Ephemera	199	0.0084	Larva	-	-	-	57.4	8.4	49	-
			Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimuria uenoi</i>	Kamimuria uenoi Kohno	74	0.0046	Larva	-	-	-	N.D.	N.D.(8.5)	N.D.(6.9)	-
			Arthropoda	Insecta	Plecoptera	Perlidae	<i>Oyamia sp.</i>	Oyamia										
			Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimuria tibialis</i>	Kamimuria tibialis										
			Arthropoda	Insecta	Plecoptera	Perlidae	<i>Paragnetina sp.</i>	Paragnetina										
			Arthropoda	Insecta	Plecoptera	Perlidae	<i>Neoperla sp.</i>	Neoperla										
			Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	47	0.071	Larva	-	-	-	25.1	5.1	20	-
			Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Protohermes grandis	7	0.0032	Larva	-	-	-	N.D.	N.D.(10)	N.D.(9.7)	-
			Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes japonicus</i>	Parachauliodes japonicus	14	0.011	Imago	-	-	-	8.4	N.D.(3.4)	8.4	-
			Arthropoda	Malacostraca	Decapoda	Palaemonidae	<i>Palaemon paucidens</i>	Common prawn										
			Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Eriocheir japonica</i>	Japanese mitten crab	4	0.23	Imago	-	-	-	16.2	2.2	14	-
			Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	28	0.053	Immature fish	Obscure digesta	Viscera removed	-	13.1	2.1	11	-
			Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Zacco platypus</i>	Pale chub	9	0.0093	Immature fish	Obscure digesta	Viscera removed	-	10	N.D.(4.4)	10	-
			Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Nipponocypris temminckii</i>	Dark chub	6	0.011	Immature fish	Obscure digesta	Viscera removed	-	6.4	N.D.(3.0)	6.4	-
			Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp. CB</i>	Rhinogobius nagoyae	6	0.013	Mature fish	Obscure digesta	Viscera removed	-	15	N.D.(3.5)	15	-
			Particulate Organic Matter	-	-	-	-	-	-	0.26	-	-	-	-	7.5	1.2	6.3	-

*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			
Miano River	D-4b	-	2016/12/7	Algae/plant	-	-	-	Riverbed Deposits (Include algae)	-	0.022	-	-	-	365	55	310	-		
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimuria tibialis</i>	Kamimura tibialis	146	0.014	Larva	-	-	-	4.0	N.D.(2.6)	4.0	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata	276	0.069	Larva	-	-	-	89	11	78	-
				Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena	29	0.0084	Larva (Dragonfly larva)	-	-	-	25.7	4.7	21	-
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Sieboldius albardae</i>	Sieboldius albardae										
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius										
				Arthropoda	Insecta	Odonata	Aeshnidae	<i>Boyeria maclachlani</i>	Boyeria maclachlani	27	0.021	Larva	-	-	-	23.6	3.6	20	-
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	Dobsonfly	27	0.13	Immature fish	-	-	-	16.4	2.4	14	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	1	0.087	Mature fish	Obscure digesta	Viscera removed	-	15.9	1.9	14	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp. CB</i>	Rhinogobius nagoyae	23	0.065	Mature fish	-	-	-	38.1	6.1	32	-
				Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.24	-	-	-	-	20.3	3.3	17	-
D-5	-	2016/12/7	Algae/plant	Zygnematophyceae	Zygnematales	Zygnemataceae	<i>Spirogyra sp.</i>	Spirogyra	-	0.35	-	-	-	63.0	9.0	54	-		
Nida River	E-2b	-	2016/12/8	Algae/plant	-	-	-	Riverbed Deposits (Include algae)	-	0.0061	-	-	-	72	12	60	-		
				Algae/plant	Zygnematophyceae	Zygnematales	Zygnemataceae	<i>Spirogyra sp.</i>	Spirogyra	-	0.34	-	-	-	15.0	2.0	13	-	
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimuria uenoi</i>	Kamimuria uenoi Kohno	239	0.023	Larva	-	-	-	5.8	N.D.(3.1)	5.8	-
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Oyamia sp.</i>	Oyamia										
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimuria tibialis</i>	<u>Kamimuria tibialis</u>										
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Paragnetina sp.</i>	Paragnetina	171	0.026	Larva	-	-	-	185	25	160	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata										
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius										
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	Asiagomphus melaenops	28	0.0058	Larva (Dragonfly larva)	-	-	-	52.7	8.7	44	-
				Arthropoda	Insecta	Odonata	Epiophlebiidae	<i>Epiophlebia superstes</i>	Epiophlebia superstes										
				Arthropoda	Insecta	Odonata	Aeshnidae	<i>Anax parthenope</i>	Anax parthenope										
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	<u>Protohermes grandis</u>	11	0.0091	Larva	-	-	-	36.3	4.3	32	-
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes japonicus</i>	Parachauliodes japonicus	18	0.051	Immature fish	-	-	-	40.9	6.9	34	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace										
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Oncorhynchus masou</i>	Yamame trout										
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius fluviatilis</i>	Rhinogobius fluviatilis	1	0.030	Immature fish	Mayfly	Viscera removed	-	48.1	6.1	42	-
Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius sp. CB</i>	Rhinogobius nagoyae	3	0.014	Mature fish	-	-	-	81	11	70	-				
Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.20	-	-	-	-	85	12	73	-				
Oia River	F-1	-	2016/12/6	Algae/plant	-	-	-	Riverbed Deposits (Include algae)	-	0.018	-	-	-	2950	450	2500	-		
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Oyamia sp.</i>	Oyamia	84	0.0067	Larva	-	-	-	65.0	9.0	56	-
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimuria tibialis</i>	<u>Kamimuria tibialis</u>	188	0.041	Larva	-	-	-	930	140	790	-
				Arthropoda	Insecta	Trichoptera	Stenopsychidae	<i>Stenopsyche marmorata</i>	Stenopsyche marmorata										
				Arthropoda	Insecta	Odonata	Corduliidae	<i>Macromia amphigena amphigena</i>	Macromia amphigena										
				Arthropoda	Insecta	Odonata	Cordulegastridae	<i>Anotogaster sieboldii</i>	Anotogaster sieboldii	49	0.012	Larva (Dragonfly larva)	-	-	-	171	21	150	-
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Nihonogomphus viridis</i>	Nihonogomphus viridis										
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Onychogomphus viridicostus</i>	Melligomphus viridicostus										
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	Davidius	16	0.0050	Larva	-	-	-	94	15	79	-
				Arthropoda	Insecta	Odonata	Gomphidae	<i>Asiagomphus melaenops</i>	Asiagomphus melaenops										
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	<u>Protohermes grandis</u>										
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Parachauliodes japonicus</i>	Parachauliodes japonicus	23	0.053	Immature fish	-	-	-	412	62	350	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace										
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp										
Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.25	-	-	-	-	160	20	140	-				
F-5	-	2016/12/6	Algae/plant	Zygnematophyceae	Zygnematales	Zygnemataceae	<i>Spirogyra sp.</i>	Spirogyra	-	0.069	-	-	-	7.7	1.5	6.2	-		

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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			
Lake Hayama	G-1	In the lake	2016/12/5	Algae/plant	-	-	-	Plankton (Planktonic algae)	-	0.028	-	-	-	2.4	N.D.(1.4)	2.4	-		
	G-2		2016/12/8	Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	2	2.3	Mature fish	Fish	Viscera removed	280	40	240	1.4	
	G-3	Vertebrata		Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	2.2	Mature fish	Fish	Viscera removed	400	60	340	-		
	G-4	Inflowing rivers	2016/12/5	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.017	-	-	-	222	32	190	-	
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimuria uenoi</i>	<u>Kamimuria uenoi Kohno</u>	122	0.010	Larva	-	-	-	4.3	N.D.(3.9)	4.3	-
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Oyamia sp.</i>	<u>Oyamia</u>										
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Kamimura tibialis</i>	<u>Kamimura tibialis</u>										
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Neoperla sp.</i>	<u>Neoperla</u>										
				Arthropoda	Insecta	Plecoptera	Perlidae	<i>Niponiella limbatella Klapalek</i>	<u>Niponiella limbatella Klapalek</u>	66	0.0075	Larva	-	-	-	103	14	89	-
				Arthropoda	Insecta	Megaloptera	Corydalidae	<i>Protohermes grandis</i>	<u>Protohermes grandis</u>	87	0.078	Larva	-	-	-	27.0	4.0	23	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	77	0.050	Immature fish	-	-	-	32.1	5.1	27	-
				Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Rhinogobius flumineus</i>	Rhinogobius flumineus	15	0.024	Immature fish, Mature fish	-	-	-	28.3	4.3	24	-
				Vertebrata	Amphibia	Anura	Ranidae	<i>Rana ornativentris</i>	Montane brown frog	1	0.022	Imago	-	-	-	18.4	2.4	16	-
	Particulate Organic Matter	-	-	-	-	-	Bottom fallen leaves	-	0.24	-	-	-	-	45.5	7.5	38	-		
Lake Akimoto	H-1 H-2 H-3	In the lake	2016/12/1	Arthropoda	Malacostraca	Decapoda	Astacidae	<i>Pacifastacus leniusculus trowbridgii</i>	Signal crayfish	10	0.70	Imago	-	-	-	22.9	3.9	19	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	4	0.73	Mature fish	-	-	-	33.7	4.7	29	-
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Carassius auratus</i>	<u>Carassius auratus langsdorffii</u>	7	0.88	Mature fish	Obscure digesta	Viscera removed	43.8	6.8	37	-	
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Cyprinus carpio</i>	Common carp	1	2.4	Mature fish	Amorphous Residue	Viscera removed	38.5	5.5	33	-	
				Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	2	0.82	Mature fish	Amorphous Residue	Viscera removed	27.3	3.3	24	-	
				Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Hypomesus nipponensis</i>	Japanese smelt	55	0.25	Mature fish	-	-	-	16.8	2.8	14	-
				Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	4	0.87	Mature fish	Japanese smelt	Viscera removed	31.0	4.0	27	-	
				Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Micropterus dolomieu</i>	Small mouth bass	2	1.2	Mature fish	Empty stomach	Viscera removed	58.9	7.9	51	-	
	Vertebrata	Osteichthyes	Siluriformes	Siluridae	<i>Silurus asotus</i>	Amur catfish	1	1.4	Mature fish	Fish	Viscera removed	109	16	93	-				
	H-4	Within the lake and rivers in the vicinity	2016/12/1	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.020	-	-	-	N.D.	N.D.(1.8)	N.D.(1.6)	-	
				Arthropoda	Insecta	Odonata	Corduliidae	<i>Somatochlora uchidai</i>	<u>Somatochlora uchidai</u>	23	0.025	Larva (Dragonfly larva)	-	-	-	22.4	3.4	19	-
				Arthropoda	Insecta	Odonata	Cordulegastridae	<i>Anotogaster sieboldii</i>	<u>Anotogaster sieboldii</u>										
	Arthropoda	Insecta	Odonata	Gomphidae	<i>Davidius sp.</i>	<u>Davidius</u>													
Lake Inawashiro	J-1 (south lakeside)	-	2016/12/3	Algae/plant	-	-	-	Plankton (Planktonic algae)	-	0.031	-	-	-	N.D.	N.D.(1.1)	N.D.(1.2)	-		
			2016/12/2	Mollusca	Gastropoda	Architaenioglossa	Viviparidae	<i>Bellamyia japonica</i>	Japanese mysterysnail	12	0.075	Imago	-	Molluscos part	N.D.	N.D.(0.82)	N.D.(0.82)	-	

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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	-	2016/12/7	Arthropoda	Malacostraca	Decapoda	Portunidae	<i>Portunus trituberculatus</i>	Japanese blue crab	3	1.2	Imago	-	-	2.10	0.40	1.7	-
				Vertebrata	Osteichthyes	Pleuronectiformes	Pleuronectidae	<i>Kareius bicoloratus</i>	Stone flounder	2	2.2	Mature fish	Ragworm	Viscera removed	0.80	N.D.(0.35)	0.80	-
				Vertebrata	Osteichthyes	Pleuronectiformes	Pleuronectidae	<i>Pleuronectes yokohamae</i>	Marbled sole	1	0.99	Mature fish	Ragworm	Viscera removed	2.36	0.46	1.9	-
				Vertebrata	Osteichthyes	Pleuronectiformes	Paralichthyidae	<i>Paralichthys olivaceus</i>	Bastard halibut	1	1.7	Mature fish	Empty stomach	Viscera removed	0.67	N.D.(0.31)	0.67	-
Off Soma City	L-1 L-2 L-3	Matsukawaura	2016/12/8	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.023	-	-	-	7.1	1.6	5.5	-
			2016/12/4	Algae/plant	Chlorophyceae	Ulvales	Ulveae	<i>Ulva pertusa</i>	Ulva pertusa	-	0.34	-	-	-	1.72	0.22	1.5	-
				Annelida	Polychaeta	Phyllodocida	Nereididae	<i>Hediste sp.</i>	Hediste	291	0.15	Imago	-	-	15.1	2.1	13	-
			2016/12/8	Mollusca	Bivalvia	Ostreoida	Ostreidae	<i>Crassostrea gigas</i>	Oyster	30	0.32	Imago	-	Molluscos part	1.40	0.30	1.1	-
Mollusca	Bivalvia	Veneroida		Veneridae	<i>Ruditapes philippinarum</i>	Japanese littleneck	77	0.34	Imago	-	Molluscos part	1.1	N.D.(0.32)	1.1	-			
Off Iwaki City	M-1 M-2 M-3	Offshore of Hisanohama	2016/12/3	Echinodermata	Asteroidea	Forcipulatida	Asteriidae	<i>Asterias amurensis</i>	Northern Pacific seastar	3	0.77	Imago	-	-	N.D.	N.D.(0.25)	N.D.(0.24)	-
				Vertebrata	Osteichthyes	Scorpaeniformes	Triglidae	<i>Chelidonichthys spinosus</i>	Gurnard	2	0.66	Mature fish	Shrimp	Viscera removed	1.63	0.33	1.3	-
				Vertebrata	Osteichthyes	Pleuronectiformes	Pleuronectidae	<i>Pseudopleuronectes herzensteini</i>	Yellow striped flounder	2	0.89	Mature fish	Ragworm	Viscera removed	2.12	0.42	1.7	-
				Vertebrata	Osteichthyes	Pleuronectiformes	Pleuronectidae	<i>Eopsetta grigorjewi</i>	Shotted halibut	3	0.92	Immature fish	Shrimp,Crab	Viscera removed	1.6	N.D.(0.49)	1.6	-
				Vertebrata	Osteichthyes	Pleuronectiformes	Paralichthyidae	<i>Paralichthys olivaceus</i>	Bastard halibut	1	0.95	Mature fish	Empty stomach	Viscera removed	0.53	N.D.(0.35)	0.53	-
				Vertebrata	Osteichthyes	Perciformes	Lateolabracidae	<i>Lateolabrax japonicus</i>	Japanese sea bass	2	3.5	Mature fish	Fish	Viscera removed	3.35	0.55	2.8	0.080
	Vertebrata	Chondrichthyes	Rajiformes	Rajidae	<i>Okamejei kenojei</i>	Common Skete	2	1.6	Immature fish	Shrimp	Viscera removed	4.96	0.66	4.3	-			
	M-4	Hisanohama Coastal areas	2016/12/3	Algae/plant	Phaeophyceae	Fucales	Sargassaceae	<i>Sargassum horneri</i>	Sargassum horneri	-	0.29	-	-	-	6.03	0.93	5.1	-
				Mollusca	Gastropoda	Archaeogastropoda	Haliotidae	<i>Haliotis sp.</i>	Abalone	3	0.45	Imago	-	Molluscos part	0.74	N.D.(0.30)	0.74	-
Echinodermata				Echinoidea	Echinoidea	Strongylocentrotidae	<i>Strongylocentrotus nudus</i>	Northern sea urchin	5	0.71	Imago	-	-	1.2	N.D.(0.22)	1.2	-	

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