

○ Results of Radioactive Material Monitoring of Aquatic Organisms (Locations M off Iwaki City)

< Location M off Iwaki City (Hisanohama): Samples collected >

Items Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
M-1	—	—	—	—	○	—
M-2	○	○	○	○	○	○
M-3	—	○	—	—	○	—
M-4	—	—	—	—	—	—

< Location M off Iwaki City (Hisanohama): Site measurement item >

Items 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	Odor	Contaminants	Water depth (m)	Secchi disk depth (m)	
M-1	37.173483°	141.078583°	2013/10/31	—	8:08	—	18.0	Sand	2.5Y3/2	None	Shell fragments	—	—	
M-2	37.199467°	141.085133°		9:25	9:52	18.2	17.7	Sand	2.5Y3/1	None	Shell fragments	43.7	5.9	
M-3	37.232133°	141.093083°		—	—	10:11	—	17.1	Sand	7.5Y4/1	None	Shell fragments	—	—
M-4	37.154650°	141.001550°		—	—	—	—	—	—	—	—	—	—	

< Location M off Iwaki City (Hisanohama): General survey items/Analysis of radioactive materials Water >

Items Locations	Latitude and longitude of the location		Survey date and time		pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electrical 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												
M-2 (Surface layer)	37.199467°	141.085133°	2013/10/31	9:25	8.1	0.6	1.0	8.5	4,960	32.40	1.0	1	1.3	0.011	0.030	—
M-2 (Deep layer)	37.199467°	141.085133°	2013/10/31	8:49	8.1	0.7	1.2	7.7	5,250	33.46	1.1	3	1.3	0.0059	0.013	0.00089

< Location M off Iwaki City (Hisanohama): General survey items/Analysis of radioactive materials Sediment >

Items Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _{NHLE} (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm ³)	Grain size distribution						Median grain diameter (mm)	Maximum grain diameter (mm)	Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
	Latitude	Longitude	Date	Time							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) (%)					
M-1	37.173483°	141.078583°	2013/10/31	8:08	7.9	264	25.0	1.6	<1	2.815	0	0.2	1.7	92.9	2.7	2.5	0.15	2	140	290	—
M-2	37.199467°	141.085133°		9:52	8.1	266	27.5	2.1	2	2,781	0.5	0.5	2.4	86.9	5.3	4.4	0.15	4.75	45	120	N.D. (<0.15)
M-3	37.232133°	141.093083°		10:11	8.1	268	24.7	2.0	<1	2,775	1.5	0.9	3.3	88.4	3.1	2.8	0.17	4.75	35	99	—

Note) N.D. means to be below the detection limit.

< Location M off Iwaki City (Hisanohama) Survey items Aquatic organisms >

Location	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Note		Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)
	Latitude	Longitude										Growth stage	Stomach contents			
M-1 M-2 M-3 (Hisanohama)	37.173483°	141.078583°	2013/10/31	Vertebrata	Osteichthyes	Marbled rockfish	Gurnard	<i>Lepidotrigla microptera</i>	Searobin	23	1.9	Mature fish	Small shrimps	1.4	3.0	—
								<i>Paralichthys olivaceus</i>	Flounder	2	1.4	3-year-old fish	None	2.4	5.7	—
								<i>Parurostictes yokohamae</i>	Marbled sole	2	1.4	4-year-old fish	None	6.4	15	—
								<i>Okamejei kenjoi</i>	Common Skate	5	3.1	Mature fish	Small shrimps	6.4	39	0.29
								<i>Eryonis japonica</i>	Crimson sea-beam	5	1.1	4-year-old fish	Crustacean fragments	3.0	5.4	—
								<i>Zeus faber</i>	John dory	4	1.5	Mature fish	Small fish	0.55	1.5	—
M-4 (Hisanohama)	37.154650°	141.001550°	2013/10/31	Phaeophyceae	Sea cabbage	—	<i>Eisenia bicyclis</i>	Eisenia bicyclis	—	—	0.55	—	—	0.60	1.2	—
							<i>Loxochinus</i>	Northern sea urchin	10	0.97	Imago	—	1.5	3.6	8.5	
							<i>Strongylocentrotus nudus</i>	—	—	—	—	—	—	—	—	
							<i>Haliotis asinina</i>	Haliotis asinina	5	0.49	Imago	—	0.71	1.7	—	

- Note 1) When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.
 Note 2) For species with stomach contents as indicated in the note column, all stomach contents were removed for conducting the analysis.
 Note 3) Underlined names in the English name column indicate species largest in number in the respective samples.
 Note 4) A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.
 Note 5) N.D. means to be below the detection limit.