

**OResults of Radioactive Material Monitoring of Aquatic Organisms (Location L off Iwaki City)**

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

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 >

Locations	Items	Survey date and time			Latitude and longitude of the location		Water					Sediment		Other	
		Date	Time (Water)	Time (Sediment)	Latitude	Longitude	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Odor	Contaminants	Water depth (m)	Secchi disk depth (m)	
M-1		2012/11/5	-	8:10	37.173617°	141.078800°	-	17.6	Sand	10Y-3/1	None	Shells	42.0	13.2	
M-2		2012/11/5	8:41	9:06	37.199600°	141.085300°	18.0	17.7	Sand	10Y-3/2	None	Shells	42.0	12.7	
M-3		2012/11/5	-	9:26	37.232417°	141.093517°	-	17.6	Sand	10Y-3/2	None	Shells	42.0	12.3	
M-4		2012/11/5	-	-	37.154650°	141.001550°	-	-	-	-	-	-	-	-	

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

Locations	Items	Survey date and time		Latitude and longitude of the location		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)
		Date	Time	Latitude	Longitude												
M-2 (Surface layer)		2012/11/5	8:41	37.199600°	141.085300°	8.1	<0.5	0.9	7.6	5,240	33.75	1.2	<1	0.2	0.0042	0.0088	—
M-2 (Deep layer)		2012/11/5	8:41	37.199600°	141.085300°	8.1	<0.5	0.9	7.7	5,220	33.73	1.2	1	0.2	0.015	0.025	0.0013

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

Locations	Items	Survey date and time		Latitude and longitude of the location		pH	Redox potential E <sub>NHE</sub> (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm3)	Grain size distribution							Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)	
		Date	Time	Latitude	Longitude							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)
M-1		2012/11/5	8:10	37.173617°	141.078800°	8.1	194	28.2	2.2	1	2.786	—	0.5	1.9	93.9	0.4	3.3	0.150	2.00	110	180	—
M-2		2012/11/5	9:06	37.199600°	141.085300°	8.1	204	26.6	1.9	<1	2.809	—	0.6	2.8	93.2	0.6	2.8	0.160	2.00	120	190	N.D.(<0.24)
M-3		2012/11/5	9:26	37.232417°	141.093517°	8.1	198	28.6	2.0	1	2.795	—	1.4	3.3	89.3	0.7	5.3	0.160	2.00	120	210	—

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

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

Location	Sampling Date	Latitude and longitude of the location		Division	Class	Order	Family	Species name	English name	Population	Sample weight (kg-wet)	Cs-134 (Bq/kg-wet)	Cs-137 (Bq/kg-wet)	Sr-90 (Bq/kg-wet)	Note	
		Latitude	Longitude												Growth stage	Stomach contents
M-1 M-2 M-3 (Hisanohama)	2012/11/5	37.173617°	141.078800°	Echinoderm	Sea Urchin	Sea urchin	Sea urchin	<u>Glyptodidaris crenularis</u>	Tugaruuni	50	2.0	16	26	—	Adult	—
				Vertebrata	Osteichthyes	Marbled rockfish	Gurnard	<u>Chelidonichthys spinosus</u>	Gurnard	5	1.1	2.3	4.4	—	Mature fish	Shrimps, crabs
				Vertebrata	Osteichthyes	Righteye flounder	Righteye flounder	<u>Pleuronectes yokohamae</u>	Marbled sole	5	2.5	14	23	0.24	Mature fish	Sandworm
				Vertebrata	Osteichthyes	Righteye flounder	Flounder	<u>Paralichthys olivaceus</u>	Flounder	5	5.6	21	37	0.085	Mature fish	Small fish, squids
				Vertebrata	Osteichthyes	John dory	John dory	<u>Zeus faber</u>	John dory	2	1.6	8.7	15	—	Mature fish	Empty stomach
				Vertebrata	Cartilage fish	Ray	Skate	<u>Okamejei kenajei</u>	Common Skate	5	1.8	43	75	—	Mature fish	Shrimps, crabs
				Vertebrata	Cartilage fish	Squatiniformes	Squatinidae	<u>Squatina japonica</u>	Change angel shark	—	0.055	2.3	4.5	—	—	—
M-4 (Hisanohama)	2012/11/22	37.154650°	141.001550°	Brown algae	Phaeophyceae	Sea cabbage	Sea cabbage	<u>Eisenia bicyclis</u>	Eisenia bicyclis	—	1.1	3.3	5.4	—	—	—
				Echinoderm	Sea Urchin	Loxechinus	Strongylocentrotus	<u>Strongylocentrotus nudus</u>	Northern sea urchin	41	4.2	4.4	7.7	—	Adult	—
				Mollusca	Gastropoda	Archaeogastropoda	Haliotis asinina	<u>Haliotis discus</u>	Abalone (shell)	10	0.58	6.0	9.6	—	Adult	—
				Mollusca	Gastropoda	Archaeogastropoda	Haliotis asinina	<u>Haliotis discus</u>	Abalone (molluscan body)	10	1.6	1.9	3.2	—	Adult	—

Note) The Japanese name of the underlined, indicating that in the sample is the most harvested species.