○ Results of Radioactive Material Monitoring of Aquatic Organisms (Location 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	37.173883°	141.078817°		—	8:14	—	20.2	Fine sand	5Y4/1	None	Shell fragments	—	—
M-2	37.199633°	141.084750°	2013/9/11	8:58	9:20	22.4	21.8	Fine sand	7.5Y4/1	None	Shell fragments	42.9	15.0
M-3	37.232417°	141.093383°		—	9:52	—	21.8	Fine sand	7.5Y4/2	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	COD	DO	Electrical conductivity	Salinity	TOC	SS	Turbidity	Cs-134	Cs-137	Sr-90
	Latitude	Longitude	Date	Time		(mg/L)	(mg/L)	(mg/L)	(mS/m)		(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)
M-2 (Surface layer)	37.199633°	141.084750°	2013/9/11	8:58	8.2	<0.5	1.3	8.0	5,080	33.20	1.2	<1	0.4	0.0085	0.021	—
M-2 (Deep layer)				8:43	8.1	<0.5	1.4	7.6	5,240	33.58	1.1	2	0.7	0.0077	0.015	0.0013

＜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_{NHE}	Water content	IL	TOC	Soil particle density	Grain size distribution								Cs-134	Cs-137	Sr-90
											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	Maximum grain diameter			
	Latitude	Longitude	Date	Time		(mV)	(%)	(%)	(mg/g-dry)	(g/cm3)	(%)	(%)	(%)	(%)	(%)	(%)	(mm)	(mm)	(Bq/kg-dry)	(Bq/kg-dry)	(Bq/kg-dry)
M-1	37.173883°	141.078817°		8:14	8.1	234	26.3	2.0	1	2.773	0.2	0.3	2.3	92.0	2.5	2.7	0.16	4.75	58	140	—
M-2	37.199633°	141.084750°	2013/9/11	9:20	8.0	275	26.0	2.2	<1	2.784	1.0	0.9	3.8	89.6	1.9	2.8	0.16	4.75	58	130	N.D.(<0.21)
M-3	37.232417°	141.093383°		9:52	8.0	266	27.4	2.4	1	2.771	0	0.7	2.0	90.0	2.9	4.4	0.16	2	61	120	—

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	Cs-137	Sr-90
	Latitude	Longitude										Growth stage	Stomach contents	(Bq/kg-wet)	(Bq/kg-wet)	(Bq/kg-wet)
M-1 M-2 M-3 (Hisanohama)	37.173883° 37.199633° 37.232417°	141.078817° 141.084750° 141.093383°	2013/9/11	Echinoderm	Sea Urchin	Sea urtin	Sea urtin	*Glyptocidaris crenularis*	Tugaruuni	35	1.3	Imago	—	6.9	16	6.0
				Vertebrata	Osteichthyes	Marbled rockfish	Fat greenling	*Hexagrammos otakii*	Fat greenling	8	4.7	2-year-old fish	Small prawns	8.9	20	0.16
				Vertebrata	Osteichthyes	Marbled rockfish	Gurnard	*Chelidonichthys spinosus*	Gurnard	6	1.3	2-year-old fish	Crustacean fragments (small crabs)	2.2	4.9	—
				Vertebrata	Osteichthyes	Righteye flounder	Righteye flounder	*Pleuronectes yokohamae*	Marbled sole	8	4.8	Mature fish	Some (details unknown)	6.1	13	0.11
				Vertebrata	Osteichthyes	Righteye flounder	Flounder	*Paralichthys olivaceus*	Flounder	5	4.7	1-year-old fish	Some (details unknown)	1.5	2.6	0.040
				Vertebrata	Cartilage fish	Skate	Skate	*Okamejei kenojei*	Common Skete	5	2.6	Mature fish	Crustacean fragments (small crabs)	26	58	0.24
				Vertebrata	Osteichthyes	John dory	John dory	*Zeus faber*	John dory	3	3.0	Mature fish	Small prawns, squid	1.6	3.7	N.D.(<0.019)
				Vertebrata	Cartilage fish	Sandbar shark	Banded houndshark	*Mustelus manazo*	Starspotted smooth-hound	4	3.9	Mature fish	Crustacean fragments (small crabs)	2.8	6.0	0.029
M-4 (Hisanohama)	37.154650°	141.001550°	2013/9/5	Brown algae	Phaeophyceae	Sea cabbage	Sea cabbage	*Eisenia bicyclis*	Eisenia bicyclis	—	1.2	—	—	0.50	1.1	—
				Echinoderm	Sea Urchin	Loxechinus	Strongylocentrotus	*Strongylocentrotus nudus*	Northern sea urchin	30	3.1	Imago	—	1.5	3.3	—
				Mollusca	Gastropoda	Archaeogastropoda	Haliotis asinina	*Haliotis discus*	Abalone(shell)	12	0.60	Imago	—	5.0	11	—
				Mollusca	Gastropoda	Archaeogastropoda	Haliotis asinina		Abalone(molluscan body)		1.8			0.75	1.1	—

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.