

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

<Location M off Iwaki City: Samples collected>

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

<Location M off Iwaki City: Site measurement item>

Items	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	Contaminants	Water depth (m)	Secchi disk depth (m)
M-2(Surface layer)	37.1996°	141.0853°	2023/6/17	07:20	07:35	20.1	18.1	Sand with silt	5Y4/2	Shells	41.5	17.0
M-2(Bottom layer)				06:55		16.2						

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

Locations	Items	Latitude and longitude of the location		Survey date and time		pH	BOD	COD	DO	Electric conductivity	Salinity	TOC	SS	Turbidity	Cs-134	Cs-137	Sr-90
		Latitude	Longitude	Date	Time (water)		(mg/L)	(mg/L)	(mg/L)	(mS/m)		(mg/L)	(mg/L)	(FNU)	(Bq/L)	(Bq/L)	(Bq/L)
M-2(Surface layer)		37.1996°	141.0853°	2023/6/17	07:20	8.2	<0.5	1.7	8.2	4850	33.73	1.0	<1	0.5	N.D.(0.0013)	0.0022	-
M-2(Bottom layer)					06:55	7.9	<0.5	1.8	6.0	4910	34.37	0.9	<1	0.9	N.D.(0.0012)	0.0049	0.00083

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

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

Items	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _{NHE} (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm ³)	Grain size distribution								Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)			
	Latitude	Longitude	Date	Time (sediment)							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)						
Locations																								
M-2	37.1996°	141.0853°	2023/6/17	07:35	7.7	344	25.1	2.1	1.0	2.750	0.0	0.6	2.5	91.2	2.1	3.6	0.15	4.8	0.35	14	N.D.(0.14)			

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

<Location M off Iwaki City: Analysis items Aquatic organisms>

Locations	Sampling point	Latitude and longitude of the location		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)
		Latitude	Longitude										Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
M-4	Hisanohama Coastal areas	—	—	2023/6/16	Arthropoda	Malacostraca	Stomatopoda	Squillae	<i>Oratosquilla oratoria</i>	Mantis shrimp	1	0.055	Imago	-	-	N.D.	N.D.(0.75)	N.D.(0.78)	-
					Vertebrata	Osteichthyes	Scorpaeniformes	Scorpaenidae	<i>Sebastes cheni</i>	Japanese black rockfish	6	0.33	Immature fish	-	-	0.86	N.D.(0.22)	0.86	-
					Vertebrata	Osteichthyes	Perciformes	Sebastidae	<i>Sebastes schlegelii</i>	Schlegel's black rockfish	1	0.038	Immature fish	-	-	1.5	N.D.(1.2)	1.5	-
					Vertebrata	Osteichthyes	Tetraodontiformes	Tetraodontidae	<i>Takifugu snyderi</i>	Vermiculated puffer	27	0.27	Immature fish	-	-	0.37	N.D.(0.24)	0.37	-

*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.