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

<Location M off Iwaki City: Samples collected>

Items	Genera	ıl items	Radioactive materials								
Locations	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)					
M-2	0	0	0	0	0	0					

<Location M off Iwaki City: Site measurement item>

Items Latitude and longitude of the location				Survey date and time		Water		Sedi		Other		
Locations	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)	27 1006°	141.08520	2021/7/7	09:05	09:30	20.3	16.0	G 1	5Y3/2	Shell fragments	41.9	11.9
M-2(Bottom layer)	37.1996°	141.0853°	2021////	08:30		14.4	16.8	Sand	313/2	Shell hagments	71.9	11.9

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

Items	Latitude and loca	ongitude of the	Survey dat	te and time	pH	BOD	COD	DO	Electric conductivity	Salinity	TOC	SS	Turbidity	Cs-134	Cs-137	Sr-90
Locations	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°	2021/7/7	09:05	8.0	2.2	1.6	8.1	4740	32.98	1.1	2	0.4	N.D.(0.0014)	0.0029	-
M-2(Bottom layer)		141.0855	2021///	08:30	7.9	1.8	1.0	7.4	4970	33.89	1.0	2	0.5	N.D.(0.0012)	0.0034	0.00091

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		Survey date and time								Grain size distribution										
location		Survey date and time		pH	Redox potential	Water content	IL	TOC	Soil particle	Gravel	Coarse sand	Medium sand	Fine sand	Silt	Clay	Median grain	Maximum	Cs-134	Cs-137	Sr-90	
Tantions	Latitude	Lancituda	Data	Time (sediment)		$E_{N.H.E}$				density	(2-75mm)	(0.85-2mm)	(0.25-0.85mm)	(0.075-0.25mm)	(0.005-0.075mm)	(Less than 0.005mm)	diameter	grain diameter			
Locations	Latitude	Longitude	Date	Time (sediment)		(mV)	(%)	(%)	(mg/g-dry)	(g/cm ³)	(%)	(%)	(%)	(%)	(%)	(%)	(mm)	(mm)	(Bq/kg-dry)	(Bq/kg-dry)	(Bq/kg-dry)
M-2	37.1996°	141.0853°	2021/7/7	09:30	7.7	271	24.3	2.0	1.6	2.748	2.1	0.7	1.7	86.2	4.6	4.7	0.15	9.5	0.85	27	N.D.(0.12)

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>

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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
		Latitude Longitude										Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	(Bq/kg-wet)
				Algae/plant	Phaeophyceae	Laminariales	Laminariaceae	Eisenia bicyclis	Eisenia bicyclis	-	0.32	-	-	-	0.41	N.D.(0.20)	0.41	-
				Algae/plant	Phaeophyceae	Laminariales	Laminariaceae	Saccharina japonica	Japanese tangle	-	0.33	-	-	-	0.25	N.D.(0.24)	0.25	-
	Hisanohama			Algae/plant	Phaeophyceae	Fucales	Sargassaceae	Sargassum horneri	Sargassum horneri	-	0.28	-	-	-	2.4	N.D.(0.26)	2.4	-
M-4	Coastal areas		2021/7/1	Vertebrata	Osteichthyes	Scorpaeniformes	Hexagrammidae	Hexagrammos otakii	Fat greenling	2	0.064	Immature fish	-	-	1.2	N.D.(0.64)	1.2	-
	Coastal aleas			Vertebrata	Osteichthyes	Scorpaeniformes	Scorpaenidae	Sebastes cheni	Rockfish	3	0.12	Immature fish	-	-	0.98	N.D.(0.60)	0.98	-
				Vertebrata	Osteichthyes	Perciformes	Scombridae	Scomber japonicus	Chub mackerel	1	0.027	Immature fish	-	-	N.D.	N.D.(1.5)	N.D.(1.5)	-
				Vertebrata	Osteichthyes	Tetraodontiformes	Tetraodontidae	Takifugu snyderi	Obscure puffer	29	0.32	Immature fish	-	-	1.5	N.D.(0.22)	1.5	-

^{*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.