

Results of Radioactive Material Monitoring of Aquatic Organisms (Location L off Soma City)

<Location L off Soma City: Samples collected>

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

<Location L off Soma City: 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	Contaminants	Water depth (m)	Secchi disk depth (m)
L-2	37.8155°	140.9763°	2018/8/22	11:55	12:13	23.8	23.8	Sand	5Y3/1	Japanese littleneck a little, Shell fragments	1.4	>1.4

<Location L off Soma City: 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)	Electric 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 (water)												
L-2	37.8155°	140.9763°	2018/8/22	11:55	8.0	1.1	2.2	7.2	4920	32.77	1.4	4	2.2	N.D.(0.0014)	0.013	0.00081

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

<Location L off Soma City: General survey items/Analysis of radioactive materials Sediment>

Items Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _{SCE} (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)			
L-2	37.8155°	140.9763°	2018/8/22	12:13	7.1	282	19.8	1.2	1.5	2.735	1.0	1.8	74.0	18.9	0.4	3.9	0.33	4.8	1.7	15	N.D.(0.13)

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

<Location L off Soma 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		
L-1 L-2 L-3	Matsukawaura Lagoon	37.8210° 37.8155° 37.8217°	140.9610° 140.9763° 140.9765°	2018/8/26	Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.0096	-	-	-	N.D.	N.D.(3.0)	N.D.(3.1)	-	
					Amelida	Polychaeta	-	-	<i>Polychaeta</i>	Polychaeta	124	0.019	Juvenile, Imago	-	-	6.4	N.D.(2.9)	6.4	-	
					Arthropoda	Malacostraca	Mysida	Mysidae	<i>Mysidae</i>	Mysidae	-	0.033	Imago	-	-	0.89	N.D.(1.2)	0.89	-	
					Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Hemigrapsus sp.</i>	Hemigrapsus	95	0.13	Juvenile, Imago	-	-	2.3	N.D.(0.58)	2.3	-	
					Arthropoda	Malacostraca	Decapoda	Portunidae	<i>Portunus trituberculatus</i>	Japanese blue crab	26	0.035	Juvenile	-	-	N.D.	N.D.(1.6)	N.D.(1.5)	-	
					Mollusca	Bivalvia	Veneroida	Veneridae	<i>Ruditapes philippinarum</i>	Japanese littleneck	30	0.068	Imago	-	-	Molluscous part	2.3	N.D.(0.78)	2.3	-
					Vertebrata	Osteichthyes	Scorpaeniformes	Platycephalidae	<i>Platycephalus sp.</i>	Flathead	10	0.0078	Immature fish	-	-	-	N.D.	N.D.(4.0)	N.D.(3.8)	-
					Vertebrata	Osteichthyes	Perciformes	Sparidae	<i>Acanthopagrus schlegelii</i>	Japanese black porgy	3	0.011	Immature fish	-	-	-	N.D.	N.D.(3.7)	N.D.(3.6)	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Acanthogobius flavimanus</i>	Yellowfin Goby	3	0.012	Immature fish	-	-	-	N.D.	N.D.(3.5)	N.D.(3.4)	-
					Vertebrata	Osteichthyes	Perciformes	Mugilidae	<i>Mugil cephalus cephalus</i>	Flathead mullet	20	0.35	Immature fish	-	-	-	14.5	1.5	13	-
					Vertebrata	Osteichthyes	Belontiiformes	Belontiidae	<i>Strongylura anastomella</i>	Needlefish	1	0.24	Immature fish	Empty stomach	Viscera removed	4.7	N.D.(0.61)	4.7	-	

*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.