

OResults of Radioactive Material Monitoring of Aquatic Organisms (Location K off the mouth of the Abukuma River)

< Location K off the mouth of the Abukuma River: Samples collected >

Locations	General items			Radioactive materials		
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
K-1	-	○	-	-	○	-
K-2	○	○	○	○	○	○
K-3	-	○	-	-	○	-

< Location K off the mouth of the Abukuma River: Site measurement item >

Locations	Latitude and longitude of the location		Survey date and time		Water		Sediment			Other		
	Scheduled latitude	Scheduled longitude	Date	Time (water)	Time (sediment)	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Contaminants	Water depth (m)	Transparency (m)
K-1	38.0457°	140.9282°	2015/10/27	-	09:55	-	17.4	Sand	2.5Y3/2	None	-	-
K-2(Surface layer)	38.0455°	140.9401°		09:10	09:35	16.5	17.4	Fine sand	5Y3/2	Bivalve mussel	16.6	5.2
K-2(Deep layer)	38.0455°	140.9401°		08:50	-	17.5	-	-	-	-	-	-
K-3	38.0458°	140.9518°	-	-	09:15	-	17.7	Fine sand with silt	7.5Y3/1	None	-	-

< Location K off the mouth of the Abukuma River: General survey items/Analysis of radioactive materials Water >

Locations	Latitude and longitude of the location		Survey date and time		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)
	Scheduled latitude	Scheduled longitude	Date	Time (water)												
K-2(Surface layer)	38.0455°	140.9401°	2015/10/27	9:10	8.1	<0.5	1.9	8.1	4240	27.40	1.0	2	1.2	0.0024	0.010	-
K-2(Deep layer)	38.0455°	140.9401°	-	8:50	8.1	0.5	1.2	7.6	5140	33.22	0.9	2	0.7	0.0027	0.0097	0.0011

< Location K off the mouth of the Abukuma River: General survey items/Analysis of radioactive materials Sediment >

Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential EN,H.E (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)
	Scheduled latitude	Scheduled 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 (0.005-0.0075mm) (%)	Clay (Less than 0.005mm) (%)	Median grain diameter	Maximum grain diameter			
K-1	38.0457°	140.9282°	2015/10/27	9:55	7.9	228	20.0	1.5	1.2	2.700	0.1	3.1	55.8	40.4	0.1	0.5	0.28	4.8	8.2	36	-
K-2	38.0455°	140.9401°		9:35	7.5	196	33.8	2.9	2.3	2.700	0.0	0.2	1.6	73.5	15.8	8.9	0.11	2.0	23	83	N.D.(0.16)
K-3	38.0458°	140.9518°		9:15	7.4	30	45.1	5.2	7.5	2.666	0.0	-	0.7	38.7	44.3	16.3	0.064	0.85	70	310	-

< Location K off the mouth of the Abukuma River: Survey items Aquatic organisms >

Location	Sampling point	Latitude and longitude of the location		Sampling Date	Division	Class	Order	Family	Species 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 sit	Cs-134	Cs-137	
Surrounding water area off the mouth of the Abukuma River	-	-	-	2015/10/27	Arthropod	Malacostraca	Decapoda	Portunidae	<i>Portunus trituberculatus</i>	Japanese blue crab	8	2.8	Imago	-	-	N.D.(0.29)	1.0	0.058
					Vertebrata	Osteichthyes	Scorpaeniformes	Hexagrammidae	<i>Hexagrammos otakii</i>	Fat greenling	3	0.29	Mature fish (2-year-old)	Crab, Shrimp	Viscera removed	0.60	1.9	-
					Vertebrata	Osteichthyes	Scorpaeniformes	Platycephalidae	<i>Platycephalus sp.2</i>	Flathead	1	0.14	Mature fish (1-year-old)	Shrimp	Viscera removed	1.1	3.4	-
					Vertebrata	Osteichthyes	Pleuronectiformes	Pleuronectiformes	<i>Kareius bicoloratus</i>	Stone flounder	2	3.5	Mature fish (7-year-old)	Empty stomach	Viscera removed	0.43	1.4	N.D.(0.019)
					Vertebrata	Osteichthyes	Pleuronectiformes	Panuliridae	<i>Pandalichthys olivaceus</i>	Bastard halibut	2	2.6	Mature fish (4-year-old)	Empty stomach	Viscera removed	N.D.(0.39)	1.2	N.D.(0.022)
					Vertebrata	Osteichthyes	Perciformes	Sparidae	<i>Acanthopagrus schlegelii</i>	Japanese black porgy	7	0.15	Immature fish (0-year-old)	Crab, Ragworm	Viscera removed	0.91	3.4	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Acanthogobius flavimanus</i>	Yellowfin Goby	20	0.27	Immature fish/Mature fish (0-year-old)	Ragworm	Viscera removed	1.3	4.3	-

*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 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: A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.

*6: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40µm-mesh).

*7: 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.

*8: N.D. means to be below the detection limit and figures in parenthesis show the detection limit.

*9: Activity concentrations include counting errors, but the details are omitted here.