

Analysis Results of Fish

<Sampled within a 20km Radius of the Fukushima Daiichi Nuclear Power Station> (γ)

(1/6)

Place of Sampling	Name of Sample (Region)	Date of Sampling	Analysis Item		
			Cs-134 (Bq/kg(Raw))	Cs-137 (Bq/kg(Raw))	Cs (Sum) (Bq/kg(Raw))
Around 1km Offshore of Ota River (T-S1)	Blue crab (whole)	2022/9/30	< 3.8E+00	< 4.3E+00	ND
Around 1km Offshore of Ota River (T-S1)	Drumfish (muscle)	2022/9/30	< 3.4E+00	< 3.9E+00	ND
Around 1km Offshore of Ota River (T-S1)	Flatfish (muscle) No.1	2022/9/30	< 3.8E+00	< 3.8E+00	ND
Around 1km Offshore of Ota River (T-S1)	Flatfish (muscle) No.2	2022/9/30	< 5.8E+00	< 5.6E+00	ND
Around 3km Offshore of Odaka Ward (T-S2)	Japanese angel shark (muscle)	2022/9/30	< 3.8E+00	< 3.2E+00	ND
Around 3km Offshore of Odaka Ward (T-S2)	Blue crab (whole)	2022/9/30	< 3.5E+00	< 3.5E+00	ND
Around 3km Offshore of Odaka Ward (T-S2)	Flatfish (muscle) No.1	2022/9/30	< 6.7E+00	< 4.9E+00	ND
Around 3km Offshore of Ukedo River (T-S3)	Japanese angel shark (muscle)	2022/9/7	< 3.7E+00	< 3.6E+00	ND
Around 3km Offshore of Ukedo River (T-S3)	Common skete (muscle)	2022/9/7	< 4.1E+00	< 3.5E+00	ND
Around 3km Offshore of Ukedo River (T-S3)	Flatfish (muscle) No.1	2022/9/7	< 5.1E+00	< 5.4E+00	ND

- Half life of each nuclide: Cs-134 (Approx. 2 years), Cs-137 (Approx. 30 years)
- Inequality sign (<: less than) indicates that measurement result is less than the detection limit (ND).
- Reference value (on and after April 1, 2012): Sum of radioactivity concentrations for Cs-134 and Cs-137: 1.0E+02Bq/kg.
- Analysis was conducted by Tokyo Power Technology Ltd.
- Values are expressed in exponential notation. For example, "3.1E+01" means "3.1×10¹" and equals 31. Similarly, "3.1E+00" means "3.1×10⁰" and equals 3.1, and "3.1E-01" means "3.1×10⁻¹" and equals 0.31.

Analysis Results of Fish

<Sampled within a 20km Radius of the Fukushima Daiichi Nuclear Power Station> (γ)

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Place of Sampling	Name of Sample (Region)	Date of Sampling	Analysis Item		
			Cs-134 (Bq/kg(Raw))	Cs-137 (Bq/kg(Raw))	Cs (Sum) (Bq/kg(Raw))
Around 3km Offshore of Ukedo River (T-S3)	Searobin (muscle)	2022/9/7	< 3.9E+00	< 3.5E+00	ND
Around 3km Offshore of Ukedo River (T-S3)	John dory (muscle)	2022/9/7	< 4.2E+00	< 3.5E+00	ND
Around 3km Offshore of 1F Site (T-S4)	Blue crab (whole)	2022/9/7	< 3.1E+00	< 3.5E+00	ND
Around 3km Offshore of 1F Site (T-S4)	Searobin (muscle)	2022/9/7	< 4.4E+00	< 3.6E+00	ND
Around 2km Offshore of Kido River (T-S5)	Japanese angel shark (muscle)	2022/9/15	< 2.9E+00	< 4.6E+00	ND
Around 2km Offshore of Kido River (T-S5)	Common skete (muscle)	2022/9/15	< 3.3E+00	< 3.0E+00	ND
Around 2km Offshore of Kido River (T-S5)	Flatfish (muscle) No.1	2022/9/15	< 3.8E+00	< 3.8E+00	ND
Around 2km Offshore of Kido River (T-S5)	Flatfish (muscle) No.2	2022/9/15	< 5.3E+00	< 5.6E+00	ND
Around 2km Offshore of Kido River (T-S5)	Searobin (muscle)	2022/9/15	< 3.0E+00	< 3.3E+00	ND
Around 2km Offshore of Kido River (T-S5)	Red sea bream (muscle)	2022/9/15	< 3.6E+00	< 3.7E+00	ND

- Half life of each nuclide: Cs-134 (Approx. 2 years), Cs-137 (Approx. 30 years)
- Inequality sign (<: less than) indicates that measurement result is less than the detection limit (ND).
- Reference value (on and after April 1, 2012): Sum of radioactivity concentrations for Cs-134 and Cs-137: 1.0E+02Bq/kg.
- Analysis was conducted by Tokyo Power Technology Ltd.
- Values are expressed in exponential notation. For example, "3.1E+01" means "3.1×10¹" and equals 31. Similarly, "3.1E+00" means "3.1×10⁰" and equals 3.1, and "3.1E-01" means "3.1×10⁻¹" and equals 0.31.

Analysis Results of Fish

<Sampled within a 20km Radius of the Fukushima Daiichi Nuclear Power Station> (γ)

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Place of Sampling	Name of Sample (Region)	Date of Sampling	Analysis Item		
			Cs-134 (Bq/kg(Raw))	Cs-137 (Bq/kg(Raw))	Cs (Sum) (Bq/kg(Raw))
Around 2km Offshore of 2F Site (T-S7)	Common skete (muscle)	2022/9/15	< 3.5E+00	< 4.1E+00	ND
Around 2km Offshore of 2F Site (T-S7)	Drumfish (muscle)	2022/9/15	< 3.9E+00	< 3.9E+00	ND
Around 2km Offshore of 2F Site (T-S7)	Flatfish (muscle) No.1	2022/9/15	< 3.6E+00	< 3.1E+00	ND
Around 2km Offshore of 2F Site (T-S7)	Flatfish (muscle) No.2	2022/9/15	< 3.6E+00	< 2.9E+00	ND
Around 2km Offshore of 2F Site (T-S7)	Searobin (muscle)	2022/9/15	< 3.5E+00	< 2.8E+00	ND
Around 4km Offshore of Kuma River (T-S8)	Blue crab (whole)	2022/9/13	< 2.7E+00	< 3.5E+00	ND
Around 4km Offshore of Kuma River (T-S8)	Black rockfish (muscle)	2022/9/13	< 3.5E+00	< 3.2E+00	ND
Around 4km Offshore of Kuma River (T-S8)	Common skete (muscle)	2022/9/13	< 4.2E+00	< 3.9E+00	ND
Around 4km Offshore of Kuma River (T-S8)	Drumfish (muscle)	2022/9/13	< 3.6E+00	< 3.3E+00	ND
Around 4km Offshore of Kuma River (T-S8)	Flatfish (muscle) No.1	2022/9/13	< 3.8E+00	< 3.6E+00	ND

- Half life of each nuclide: Cs-134 (Approx. 2 years), Cs-137 (Approx. 30 years)
- Inequality sign (<: less than) indicates that measurement result is less than the detection limit (ND).
- Reference value (on and after April 1, 2012): Sum of radioactivity concentrations for Cs-134 and Cs-137: 1.0E+02Bq/kg.
- Analysis was conducted by Tokyo Power Technology Ltd.
- Values are expressed in exponential notation. For example, "3.1E+01" means "3.1×10¹" and equals 31. Similarly, "3.1E+00" means "3.1×10⁰" and equals 3.1, and "3.1E-01" means "3.1×10⁻¹" and equals 0.31.

Analysis Results of Fish

<Sampled within a 20km Radius of the Fukushima Daiichi Nuclear Power Station> (γ)

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Place of Sampling	Name of Sample (Region)	Date of Sampling	Analysis Item		
			Cs-134 (Bq/kg(Raw))	Cs-137 (Bq/kg(Raw))	Cs (Sum) (Bq/kg(Raw))
Around 4km Offshore of Kuma River (T-S8)	Flatfish (muscle) No.2	2022/9/13	< 4.7E+00	< 3.7E+00	ND
Around 4km Offshore of Kuma River (T-S8)	Searobin (muscle)	2022/9/13	< 3.7E+00	< 3.1E+00	ND
Around 4km Offshore of Kuma River (T-S8)	Red sea bream (muscle)	2022/9/13	< 3.1E+00	< 2.9E+00	ND
Around 15km Offshore of Odaka Ward (T-B1)	Lepidotrigla microptena (muscle)	2022/9/13	< 3.7E+00	< 3.2E+00	ND
Around 15km Offshore of Odaka Ward (T-B1)	Common skete (muscle)	2022/9/13	< 3.3E+00	< 3.7E+00	ND
Around 15km Offshore of Odaka Ward (T-B1)	Takifugu snyderi (muscle)	2022/9/13	< 3.7E+00	< 3.3E+00	ND
Around 15km Offshore of Odaka Ward (T-B1)	Marbled sole (muscle)	2022/9/13	< 3.2E+00	< 3.4E+00	ND
Around 15km Offshore of Odaka Ward (T-B1)	John dory (muscle)	2022/9/13	< 4.2E+00	< 3.8E+00	ND
Around 15km Offshore of Odaka Ward (T-B1)	Roundnose flounder (muscle)	2022/9/13	< 4.3E+00	< 3.6E+00	ND
Around 18km Offshore of Ukedo River (T-B2)	Mirror dory (muscle)	2022/9/13	< 3.5E+00	< 4.3E+00	ND

- Half life of each nuclide: Cs-134 (Approx. 2 years), Cs-137 (Approx. 30 years)
- Inequality sign (<: less than) indicates that measurement result is less than the detection limit (ND).
- Reference value (on and after April 1, 2012): Sum of radioactivity concentrations for Cs-134 and Cs-137: 1.0E+02Bq/kg.
- Analysis was conducted by Tokyo Power Technology Ltd.
- Values are expressed in exponential notation. For example, "3.1E+01" means "3.1×10¹" and equals 31. Similarly, "3.1E+00" means "3.1×10⁰" and equals 3.1, and "3.1E-01" means "3.1×10⁻¹" and equals 0.31.

Analysis Results of Fish

<Sampled within a 20km Radius of the Fukushima Daiichi Nuclear Power Station> (γ)

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Place of Sampling	Name of Sample (Region)	Date of Sampling	Analysis Item		
			Cs-134 (Bq/kg(Raw))	Cs-137 (Bq/kg(Raw))	Cs (Sum) (Bq/kg(Raw))
Around 18km Offshore of Ukedo River (T-B2)	Lepidotrigla microptena (muscle)	2022/9/13	< 3.6E+00	< 4.1E+00	ND
Around 18km Offshore of Ukedo River (T-B2)	Crimson sea bream (muscle)	2022/9/13	< 3.3E+00	< 3.3E+00	ND
Around 18km Offshore of Ukedo River (T-B2)	Jack mackerel (muscle)	2022/9/13	< 3.2E+00	< 3.4E+00	ND
Around 18km Offshore of Ukedo River (T-B2)	Roundnose flounder (muscle)	2022/9/13	< 3.7E+00	< 3.5E+00	ND
Around 10km Offshore of 1F Site (T-B3)	Lepidotrigla microptena (muscle)	2022/9/27	< 3.6E+00	< 3.7E+00	ND
Around 10km Offshore of 1F Site (T-B3)	Common skete (muscle)	2022/9/27	< 3.4E+00	< 3.8E+00	ND
Around 10km Offshore of 1F Site (T-B3)	Takifugu snyderi (muscle)	2022/9/27	< 3.3E+00	< 4.2E+00	ND
Around 10km Offshore of 1F Site (T-B3)	Crimson sea bream (muscle)	2022/9/27	< 3.8E+00	< 4.3E+00	ND
Around 10km Offshore of 1F Site (T-B3)	Searobin (muscle)	2022/9/27	< 3.4E+00	< 3.6E+00	ND
Around 10km Offshore of 1F Site (T-B3)	Smooth dogfish (muscle)	2022/9/27	< 3.2E+00	< 4.0E+00	ND

- Half life of each nuclide: Cs-134 (Approx. 2 years), Cs-137 (Approx. 30 years)
- Inequality sign (<: less than) indicates that measurement result is less than the detection limit (ND).
- Reference value (on and after April 1, 2012): Sum of radioactivity concentrations for Cs-134 and Cs-137: 1.0E+02Bq/kg.
- Analysis was conducted by Tokyo Power Technology Ltd.
- Values are expressed in exponential notation. For example, "3.1E+01" means "3.1×10¹" and equals 31. Similarly, "3.1E+00" means "3.1×10⁰" and equals 3.1, and "3.1E-01" means "3.1×10⁻¹" and equals 0.31.

Analysis Results of Fish

<Sampled within a 20km Radius of the Fukushima Daiichi Nuclear Power Station> (γ)

(6/6)

Place of Sampling	Name of Sample (Region)	Date of Sampling	Analysis Item		
			Cs-134 (Bq/kg(Raw))	Cs-137 (Bq/kg(Raw))	Cs (Sum) (Bq/kg(Raw))
Around 10km Offshore of 1F Site (T-B3)	Red sea bream (muscle)	2022/9/27	< 3.3E+00	< 3.1E+00	ND
Around 10km Offshore of 1F Site (T-B3)	John dory (muscle)	2022/9/27	< 4.1E+00	< 3.8E+00	ND
Around 10km Offshore of 2F Site (T-B4)	Lepidotrigla microptena (muscle)	2022/9/27	< 3.4E+00	< 3.1E+00	ND
Around 10km Offshore of 2F Site (T-B4)	Crimson sea bream (muscle)	2022/9/27	< 2.8E+00	< 3.9E+00	ND
Around 10km Offshore of 2F Site (T-B4)	Smooth dogfish (muscle)	2022/9/27	< 3.3E+00	< 3.2E+00	ND
Around 10km Offshore of 2F Site (T-B4)	Marbled sole (muscle)	2022/9/27	< 3.7E+00	< 3.7E+00	ND
Around 10km Offshore of 2F Site (T-B4)	Red sea bream (muscle)	2022/9/27	< 3.3E+00	< 3.0E+00	ND
Around 10km Offshore of 2F Site (T-B4)	John dory (muscle)	2022/9/27	< 4.0E+00	< 3.8E+00	ND

- Half life of each nuclide: Cs-134 (Approx. 2 years), Cs-137 (Approx. 30 years)
- Inequality sign (<: less than) indicates that measurement result is less than the detection limit (ND).
- Reference value (on and after April 1, 2012): Sum of radioactivity concentrations for Cs-134 and Cs-137: 1.0E+02Bq/kg.
- Analysis was conducted by Tokyo Power Technology Ltd.
- Values are expressed in exponential notation. For example, "3.1E+01" means "3.1×10¹" and equals 31. Similarly, "3.1E+00" means "3.1×10⁰" and equals 3.1, and "3.1E-01" means "3.1×10⁻¹" and equals 0.31.

October 25, 2022

Tokyo Electric Power Company Holdings, Inc.
Fukushima Daiichi D&D Engineering Company

Analysis Results of Fish <Sampled within a 20km Radius of the Fukushima Daiichi Nuclear Power Station> (H-3)

Place of Sampling	Name of Sample (Region)	Date of Sampling	Analysis Item				Reference Cs (Sum) (Bq/kg(Raw))	Name of Sample	Date of Sampling	H-3 (Bq/L)
			H-3(Bq/L)		H-3(Bq/kg(Raw))					
			Free Water Tritium	Organically Bound Tritium	Free Water Tritium	Organically Bound Tritium				
Around 4 km Offshore of Kuma River (T-S8) ^{※1}	Flatfish (muscle)	2022/7/14	8.5E-02	< 2.8E-01	6.6E-02	< 4.2E-02	ND	Seawater	2022/7/13	8.1E-02
							WHO Guidelines for Drinking-water Quality ^{※2}			1.0E+04

- Seawater is sampled from the surface layer.
 - Half life of each nuclide: H-3 (Approx. 12 years), Cs-134 (Approx. 2 years), Cs-137 (Approx. 30 years)
 - Inequality sign (<: less than) indicates that measurement result is less than the detection limit (ND).
 - “-” indicates that the item was not included in the measurement or the sampling was stopped.
 - Values are expressed in exponential notation. For example, “3.1E+01” means “ $3.1 \times 10^{+1}$ ” and equals 31. Similarly, “3.1E+00” means “ 3.1×10^{0} ” and equals 3.1, and “3.1E-01” means “ 3.1×10^{-1} ” and equals 0.31.
 - Reference value (on and after April 1, 2012): Sum of radioactivity concentrations for Cs-134 and Cs-137: 1.0E+02Bq/kg.
 - Free Water Tritium means tritium which exists in the tissues of plants and animals as water, and is discharged from the tissues in the same manner as water.
 - Organically Bound Tritium means tritium which organically bonds with protein etc. in the tissues of plants and animals and is taken into the tissues, and is discharged from the tissues through cellular metabolism.
- ※ 1 Analysed by KAKEN Co., Ltd. or Kyushu Environmental Evaluation Association
- ※ 2 Guideline level for H-3 in WHO Guidelines for Drinking-water Quality
- For the evaluation of the analysis results, please refer to the "Status of the Fukushima Daiichi NPS (Daily Report)" (*Japanese only*).
<https://www.tepco.co.jp/press/report/>
 - Measurement data collected at the sampling places that were added in conjunction with strengthening the monitoring are under examination.