

Analysis Results of Fish  
<Sampled from the Port Area of the Fukushima Daiichi Nuclear Power Station>

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))

- Inequality sign (<: less than) indicates that measurement result is less than the detection limit (ND).
- 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 " $3.1 \times 10^0$ " and equals 3.1, and "3.1E-01" means " $3.1 \times 10^{-1}$ " and equals 0.31.

### Analysis Results of Fish

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

Place of Sampling	Name of Sample (Region)	Date of Sampling	Analysis Item			Analysis Laboratory
			Cs-134 (Bq/kg(Raw))	Cs-137 (Bq/kg(Raw))	Cs (Sum) (Bq/kg(Raw))	

- 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.
- 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 " $3.1 \times 10^{0}$ " and equals 3.1, and "3.1E-01" means " $3.1 \times 10^{-1}$ " and equals 0.31.

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

Place of Sampling	Name of Sample (Region)	Date of Sampling	Analysis Item		Analysis Laboratory
			Sr-90 (Bq/kg(Raw))	Reference Cs (Sum) (Bq/kg(Raw))	

- 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.
- Edible parts (muscles) of fish were used to measure Cs. Whole fish (except for internal organs) including bones were used to measure Sr.
- 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 " $3.1 \times 10^0$ " and equals 3.1, and "3.1E-01" means " $3.1 \times 10^{-1}$ " and equals 0.31.

[Date]

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))	Analysis Laboratory	Name of Sample	Date of Sampling	Reference 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					

・ Seawater is sampled from the surface layer.

・ Inequality sign (<) indicates that measurement result is less than the detection limit (ND).

WHO Guidelines for Drinking-water Quality<sup>\*1</sup>

- Seawater is sampled from the surface layer.
  - Inequality sign (<: less than) indicates that measurement result is less than the detection limit (ND).
  - "-" indicates that the sampling was stopped or samples could not be collected, or the analysis was stopped due to lack of samples.
  - Values are expressed in exponential notation. For example, "3.1E+01" means "3.1×10<sup>1</sup>" and equals 31. Similarly, "3.1E+00" means "3.1×10<sup>0</sup>" and equals 3.1, and "3.1E-01" means "3.1×10<sup>-1</sup>" 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 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.
  - For the evaluation of the analysis results, please refer to the "Status of the Fukushima Daiichi NPS (Daily Report)"(in Japanese only).  
<https://www.tepco.co.jp/press/report/>
- \*1 Guideline level for H-3 in WHO Guidelines for Drinking-water Quality
- Data of T-S2 and T-S7 have already been released.
- \*3 Guideline level for H-3 in WHO Guidelines for Drinking-water Quality
- \*4 Analysis was stopped since sufficient samples did not remain available for re-analysis as required pursuant to the improved procedure, which was revised in August 2022.
- Data of T-S8 has already been released.
  - Data except for H3 of T-S7 have already been released.
  - Samples at T-B1 and T-B2 were collected in June, ahead of schedule, because July was the closed season for bottom trawling.
  - Reason to stop sampling: July was the closed season for bottom trawling.

[Date]

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

## Analysis Results of Seaweed <Fukushima Daiichi Nuclear Power Station>

Place of Sampling	Name of Sample	Date of Sampling	Analysis Item								Analysis Laboratory
			H-3(Bq/L)		H-3(Bq/kg(Raw))		I-129 *1 (Bq/kg(Raw))	Cs-134 *1 (Bq/kg(Raw))	Cs-137 *1 (Bq/kg(Raw))	Cs (Sum) (Bq/kg(Raw))	H-3
			Free Water Tritium	Organically Bound Tritium	Free Water Tritium	Organically Bound Tritium					

- 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, or the analysis was stopped due to lack of samples.
- 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 “ $3.1 \times 10^0$ ” and equals 3.1, and “3.1E-01” means “ $3.1 \times 10^{-1}$ ” and equals 0.31.
- Free Water Tritium means tritium which exists in the tissues of plants and animals as water and is discharged from 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 Analysis was conducted by TEPCO.
- For the evaluation of the analysis results, please refer to the “Status of the Fukushima Daiichi NPS (Daily Report)”(in Japanese only).  
<https://www.tepco.co.jp/press/report/>
- Data except for H-3 have already been released.
- \* Analysis was stopped since sufficient samples did not remain available for re-analysis as required pursuant to the improved procedure, which was revised in August 2022.

# List of Sampling Places

Japanese	English
港湾内(物揚げ場)	Port area (Shallow draft quay)
港湾内(物揚げ場前)	Port area (In front of shallow draft quay)
港湾内(物揚げ場付近)	Port area (Near shallow draft quay)
港湾内(開渠内中央)	Port area (Central part in open channel)
港湾内(開渠内北側)	Port area (Northern part in open channel)
港湾内(開渠内南側)	Port area (Southern part in open channel)
港湾内(港湾口付近)	Port area (Near port entrance)
港湾内(港湾中央付近)	Port area (Near central area in the port)
港湾内(東波除堤付近)	Port area (Near eastern wave breaker)
港湾内(東波除堤北側)	Port area (North of eastern wave breaker)
港湾内(東波除堤南側)	Port area (South of eastern wave breaker)
港湾内(東波除堤内南側)	Port area (Southern part inside of eastern wave breaker)
港湾内(北波除堤)	Port area (Northern wave breaker)
港湾内(北防波堤)	Port area (Northern seawall)
港湾内(北防波堤付近)	Port area (Near northern seawall)
港湾内(北防波堤前)	Port area (In front of northern seawall)
港湾内(南防波堤)	Port area (Southern seawall)
港湾内(南防波堤付近)	Port area (Near southern seawall)
港湾内(南防波堤前)	Port area (In front of southern seawall)
港湾内(シルトフェンス前)	Port area (In front of silt fence)
港湾内( 5・6 号前)	Port area (In front of Units 5-6)
港湾内(1～4号取水路開渠)	Port area (Unit 1-4 intake open channel)
太田川沖合1km付近(T-S1)	Around 1km Offshore of Ota River (T-S1)
小高区沖合3km付近(T-S2)	Around 3km Offshore of Odaka Ward (T-S2)
請戸川沖合3km付近(T-S3)	Around 3km Offshore of Ukedo River (T-S3)
1F 敷地沖合3km付近(T-S4)	Around 3km Offshore of 1F Site (T-S4)
木戸川沖合2km付近(T-S5)	Around 2km Offshore of Kido River (T-S5)
2F敷地沖合2km付近(T-S7)	Around 2km Offshore of 2F Site (T-S7)
熊川沖合4km付近(T-S8)	Around 4km Offshore of Kuma River (T-S8)
小高区沖合15km付近(T-B1)	Around 15km Offshore of Odaka Ward (T-B1)
請戸川沖合18km付近(T-B2)	Around 18km Offshore of Ukedo River (T-B2)
1F敷地沖合10km付近(T-B3)	Around 10km Offshore of 1F Site (T-B3)
2F敷地沖合10km付近(T-B4)	Around 10km Offshore of 2F Site (T-B4)
新田川沖合1km(T-13-1)	1km Offshore of Nida River (T-13-1)
相馬沖合3km(T-22)	3km Offshore of Soma (T-22)
鹿島沖合5km(T-MA)	5km Offshore of Kashima (T-MA)

## List of Sample Names (Region)

(1/3)

Japanese	English
アイナメ(筋肉)	Greenling (muscle)
アカエイ(筋肉)	Stingray (muscle)
アブラツノザメ(筋肉)	Spiny dogfish (muscle)
アメマス(筋肉)	Whitespotted char (muscle)
イシガキダイ(筋肉)	Rock porgy (muscle)
イシガレイ(筋肉)	Stone flounder (muscle)
ウナギ(筋肉)	Eel (muscle)
ウマヅラハギ(筋肉)	Black scraper (muscle)
ウミタナゴ(筋肉)	Temminck's surfperch (muscle)
エゾイソアイナメ(筋肉)	Brown hakeling (muscle)
オオクチイシナギ(筋肉)	Striped jewfish (muscle)
カガミダイ(筋肉)	Mirror dory (muscle)
ガザミ(全体)	Blue crab (whole)
カスザメ(筋肉)	Japanese angel shark (muscle)
カナガシラ(筋肉)	Lepidotrigla microptena (muscle)
カンパチ(筋肉)	Great amberjack (muscle)
キアンコウ(筋肉)	Yellow goosfish (muscle)
キアンコウ(全体)	Yellow goosfish (whole)
キツネマル(筋肉)	Fox jacopever (muscle)
ギンアナゴ(筋肉)	Conger eel (muscle)
クサウオ(筋肉)	Snailfish (muscle)
クジメ(筋肉)	Spotbelly greenling (muscle)
クロアナゴ(筋肉)	Beach conger (muscle)
クロソイ(筋肉)	Black rockfish (muscle)
クロダイ(筋肉)	Black sea bream (muscle)
クロメバル(筋肉)	Sebastes ventricosus (muscle)
ケムシカジカ(筋肉)	Sea raven (muscle)
コノシロ(筋肉)	Gizzard shad (muscle)
コブダイ(筋肉)	Bulgyhead wrasse (muscle)
コモンカスベ(筋肉)	Common skete (muscle)
コモンカスベ(全体)	Common skete (whole)
サクラマス(筋肉)	Cherry trout (muscle)
サケ	Salmon
ショウサイフグ(筋肉)	Takifugu snyderi (muscle)
シログチ(筋肉)	White croaker (muscle)
シロザケ(筋肉)	Chum salmon (muscle)
シロシュモクザメ(筋肉)	Smooth hammerhead (muscle)
シロメバル(筋肉)	Sebastes cheni (muscle)
ジンドウイカ(全体)	Dwarf squid (whole)
スケトウダラ(筋肉)	Alaska pollack (muscle)
スズキ(筋肉)	Sea bass (muscle)
スルメイカ	Japanese common squid
ソウハチ(筋肉)	Pointhead flounder (muscle)
タカノハダイ(筋肉)	Spottedtail morwong (muscle)
タケノコメバル(筋肉)	Jacopever (muscle)
タチウオ(筋肉)	Hairtail (muscle)
チダイ(筋肉)	Crimson sea bream (muscle)
ドチザメ(筋肉)	Banded houndshark (muscle)
トビエイ(筋肉)	Japanese eagle ray (muscle)
トラザメ(筋肉)	Cloudy catshark (muscle)
トラフグ(筋肉)	Tiger puffer (muscle)
ニシン(筋肉)	Herring (muscle)
ニベ(筋肉)	Drumfish (muscle)
ネコザメ(筋肉)	Japanese bullhead shark (muscle)
ババガレイ(筋肉)	Microstomus achne (muscle)
ヒガンフグ(筋肉)	Panther puffer (muscle)
ヒラツメガニ(全体)	Ovalipes punctatus (whole)
ヒラメ(筋肉)	Flatfish (muscle)
ヒラメ①(筋肉)	Flatfish ① (muscle)
ヒラメ②(筋肉)	Flatfish ② (muscle)
ヒレグロ (筋肉)	Blackfin flounder (muscle)
ブリ(筋肉)	Japanese amberjack (muscle)
ホウボウ(筋肉)	Searobin (muscle)
ホシエイ(筋肉)	Pitted stingray (muscle)
ホシガレイ(筋肉)	Spotted halibut (muscle)

ホシザメ(筋肉)	Smooth dogfish (muscle)
ボラ	Striped mullet
ボラ(筋肉)	Striped mullet (muscle)
マアジ(筋肉)	Jack mackerel (muscle)
マアジ(筋肉)	Jack mackerel (muscle)
マアナゴ(筋肉)	Common Japanese conger (muscle)
マイワシ(筋肉)	Sardine (muscle)
マガレイ(筋肉)	Littlemouth flounder (muscle)
マコガレイ(筋肉)	Marbled sole (muscle)
マゴチ(筋肉)	Flathead (muscle)
マサバ	Chub mackerel
マサバ(筋肉)	Chub mackerel (muscle)
マダイ(筋肉)	Red sea bream (muscle)
マダコ	Common octopus
マダラ(筋肉)	Pacific cod (muscle)
マツカフ(筋肉)	Barfin flounder(muscle)
マトウダイ(筋肉)	John dory (muscle)
マフグ(筋肉)	Globefish (muscle)
マルタ (筋肉)	Pacific redfin (muscle)
ミズダコ(筋肉)	Giant Pacific octopus (muscle)
ムシガレイ(筋肉)	Roundnose flounder (muscle)
ムラソイ(筋肉)	Spotbelly rockfish (muscle)
メイトガレイ(筋肉)	Ridged-eye flounder (muscle)
メジナ(筋肉)	Nibbler (muscle)
メジロザメ属(筋肉)	Carcharhinus (muscle)
ヤナギダコ(筋肉)	Chestnut octopus (muscle)
ヤナギムシガレイ(筋肉)	Willow flounder (muscle)
ヤリイカ	Spear Squid
アイナメ(筋肉)No.1	Greenling (muscle) No.1
アイナメ(筋肉)No.2	Greenling (muscle) No.2
アイナメ(筋肉)No.3	Greenling (muscle) No.3
アイナメ(筋肉)No.4	Greenling (muscle) No.4
アイナメ(筋肉)No.5	Greenling (muscle) No.5
アカエイ(全体)No.1	Stingray (whole) No.1
アカメバル(筋肉)No.1	Sebastes inermis (muscle) No.1
アブラツノザメ(筋肉)No.1	Spiny dogfish (muscle) No.1
ウナギ(筋肉)No.1	Eel (muscle) No.1
ウナギ(筋肉)No.2	Eel (muscle) No.2
ウミタナゴ(筋肉)No.1	Temminck's surfperch (muscle) No.1
ウミタナゴ(筋肉)No.2	Temminck's surfperch (muscle) No.2
エゾイソアイナメ(筋肉)No.1	Brown hakeling (muscle) No.1
エゾイソアイナメ(筋肉)No.2	Brown hakeling (muscle) No.2
オウゴンムラソイ(筋肉)No.1	Sebastes nudus (muscle) No.1
ガザミ(全体)No.1	Blue crab (whole) No.1
カナガシラ(筋肉)No.1	Lepidotrigla microptena (muscle) No.1
カンパチ(筋肉)No.1	Great amberjack (muscle) No.1
カンパチ(筋肉)No.2	Great amberjack (muscle) No.2
クサウオ(筋肉)No.1	Snailfish (muscle) No.1
クジメ(筋肉)No.1	Spotbelly greenling (muscle) No.1
クロアナゴ(筋肉)No.1	Beach conger (muscle) No.1
クロソイ(筋肉)No.1	Black rockfish (muscle) No.1
クロソイ(筋肉)No.2	Black rockfish (muscle) No.2
クロダイ(筋肉)No.1	Black sea bream (muscle) No.1
クロメバル(筋肉)No.1	Sebastes ventricosus (muscle) No.1
クロメバル(筋肉)No.2	Sebastes ventricosus (muscle) No.2
ケムシカジカ(筋肉)No.1	Sea raven (muscle) No.1
ケムシカジカ(筋肉)No.2	Sea raven (muscle) No.2
ケムシカジカ(筋肉)No.3	Sea raven (muscle) No.3
ケムシカジカ(筋肉)No.4	Sea raven (muscle) No.4
ケムシカジカ(筋肉)No.5	Sea raven (muscle) No.5
コノシロ(筋肉)No.1	Gizzard shad (muscle) No.1
コノシロ(筋肉)No.2	Gizzard shad (muscle) No.2
コノシロ(筋肉)No.3	Gizzard shad (muscle) No.3
コブダイ(筋肉)No.1	Bulgyhead wrasse (muscle) No.1
コモンカスベ(全体)No.1	Common skete (whole) No.1
コモンカスベ(筋肉)No.1	Common skete (muscle) No.1
シロザケ(筋肉)No.1	Chum salmon (muscle) No.1



シロメバル(筋肉)No.1	Sebastes cheni (muscle) No.1
シロメバル(筋肉)No.2	Sebastes cheni (muscle) No.2
シロメバル(筋肉)No.3	Sebastes cheni (muscle) No.3
シロメバル(筋肉)No.4	Sebastes cheni (muscle) No.4
シロメバル(筋肉)No.5	Sebastes cheni (muscle) No.5
シロメバル(筋肉)No.6	Sebastes cheni (muscle) No.6
スズキ(筋肉)No.1	Sea bass (muscle) No.1
スズキ(筋肉)No.2	Sea bass (muscle) No.2
タケノメバル(筋肉)No.1	Jacopever (muscle) No.1
タチウオ(筋肉)No.1	Hairtail (muscle) No.1
ニシン(筋肉)No.1	Herring (muscle) No.1
ニベ(筋肉)No.1	Drumfish (muscle) No.1
ニベ(筋肉)No.2	Drumfish (muscle) No.2
ニベ(筋肉)No.3	Drumfish (muscle) No.3
ヒラメ(筋肉)No.1	Flatfish (muscle) No.1
ヒラメ(筋肉)No.2	Flatfish (muscle) No.2
ヒラメ(筋肉)No.3	Flatfish (muscle) No.3
ヒラメ(筋肉)No.4	Flatfish (muscle) No.4
ヒラメ(筋肉)No.5	Flatfish (muscle) No.5
ヒラメ(筋肉)No.6	Flatfish (muscle) No.6
ヒラメ(筋肉)No.7	Flatfish (muscle) No.7
ホシガレイ(筋肉)No.1	Spotted halibut (muscle) No.1
ホシザメ(筋肉)No.1	Smooth dogfish (muscle) No.1
ボラ(筋肉)No.1	Striped mullet (muscle) No.1
マアナゴ(筋肉)No.1	Common Japanese conger (muscle) No.1
マアナゴ(筋肉)No.2	Common Japanese conger (muscle) No.2
マアナゴ(筋肉)No.3	Common Japanese conger (muscle) No.3
マコガレイ(筋肉) No.1	Marbled sole (muscle) No.1
マコガレイ(筋肉) No.2	Marbled sole (muscle) No.2
マコガレイ(筋肉) No.3	Marbled sole (muscle) No.3
マコガレイ(筋肉) No.4	Marbled sole (muscle) No.4
マコガレイ(筋肉) No.5	Marbled sole (muscle) No.5
マコガレイ(筋肉) No.6	Marbled sole (muscle) No.6
マコガレイ(筋肉) No.7	Marbled sole (muscle) No.7
マコガレイ(筋肉) No.8	Marbled sole (muscle) No.8
マコガレイ(筋肉) No.9	Marbled sole (muscle) No.9
マコガレイ(筋肉) No.10	Marbled sole (muscle) No.10
マコガレイ(筋肉) No.11	Marbled sole (muscle) No.11
マコガレイ(筋肉)No.1	Marbled sole (muscle) No.1
マコガレイ(筋肉)No.2	Marbled sole (muscle) No.2
マコガレイ(筋肉)No.3	Marbled sole (muscle) No.3
マコガレイ(筋肉)No.4	Marbled sole (muscle) No.4
マコガレイ(筋肉)No.5	Marbled sole (muscle) No.5
マコガレイ(筋肉)No.6	Marbled sole (muscle) No.6
マコガレイ(筋肉)No.7	Marbled sole (muscle) No.7
マコガレイ(筋肉)No.8	Marbled sole (muscle) No.8
マコガレイ(筋肉)No.9	Marbled sole (muscle) No.9
マコガレイ(筋肉)No.10	Marbled sole (muscle) No.10
マコガレイ(筋肉)No.11	Marbled sole (muscle) No.11
マコガレイ(筋肉)No.12	Marbled sole (muscle) No.12
マゴチ(筋肉)No.1	Flathead (muscle) No.1
マゴチ(筋肉)No.2	Flathead (muscle) No.2
マツカワ(筋肉)No.1	Barfin flounder(muscle) No.1
ムシガレイ(筋肉)No.1	Roundnose flounder (muscle) No.1
ムラソイ(筋肉)No.1	Spotbelly rockfish (muscle) No.1
ムラソイ(筋肉)No.2	Spotbelly rockfish (muscle) No.2
ムラソイ(筋肉)No.3	Spotbelly rockfish (muscle) No.3
ムラソイ(筋肉)No.4	Spotbelly rockfish (muscle) No.4

# List of Analysis Laboratories

Japanese	English
九州環境管理協会	Kyushu Environmental Evaluation Association
KANSOテクノス	KANSO TECHNOS CO., LTD.
(株) 化研	KAKEN Co., Ltd.
東京パワーテクノロジー (株)	Tokyo Power Technology Ltd.
東京電力	TEPCO