March 28, 2025

Results of ALPS Treated Water Marine Monitoring:
Marine biota survey (tritium in fish) (November 2024)

1. Outline of survey

⑴ Date of sampling

November 6, 2024

⑵ Sampling points

3 sampling points on coastal waters in the Fukushima Prefecture

⑶ Detail of the survey

・The measurements of radioactive material concentration (tritium) in marine biota (fish).

TFWT: Analysis with target lower limit of detection of 0.1 Bq/L.

OBT: Analysis with target lower limit of detection of 0.5 Bq/L.

*A target lower limit of detection means a value that is set for quality control to assure at least the detection up to the value when analysis is conducted. Each actual lower limit of detection differs according to samples, and is equal to or lower than a target lower limit of detection.

2. Outline of results

⑴ Marine biota survey (3 sampling points (9 samples))

Concentrations of TFWT in the marine biota (fish) range from 0.34 Bq/L to 0.74 Bq/L.

Concentrations of OBT in marine biota (fish) correspond to below the lower limit of detection in all samples.

* In this survey, some of the samples collected in small quantities were mixed with multiple fish species (usually one fish species per sample).

(Detailed are attached)

(Maps attached)

Attachment

Analysis results for tritium in marine biota (fish)

Sampling point	Sampling date (yyyy/mm/dd)	Species	Sampling depth (m)	Nuclide	Radioactivity concentration※1,※2	Unit
E-SF1	2024/11/06	*Paralichthys olivaceus*	-	H-3(TFWT)	0.56 ± 0.030	Bq/L
					0.44 ± 0.023	Bq/kg-fresh
				H-3(OBT)	< 0.4	Bq/L
					< 0.05	Bq/kg-fresh
E-SF1	2024/11/06	*Squatina japonica*	-	H-3(TFWT)	0.38 ± 0.019	Bq/L
					0.29 ± 0.014	Bq/kg-fresh
				H-3(OBT)	< 0.3	Bq/L
					< 0.05	Bq/kg-fresh
E-SF1	2024/11/06	*Carcharhinus obscurus*	-	H-3(TFWT)	0.45 ± 0.022	Bq/L
					0.35 ± 0.017	Bq/kg-fresh
				H-3(OBT)	< 0.3	Bq/L
					< 0.05	Bq/kg-fresh
E-SF2	2024/11/06	*Myliobatis tobijei*	-	H-3(TFWT)	0.56 ± 0.030	Bq/L
					0.43 ± 0.022	Bq/kg-fresh
				H-3(OBT)	< 0.4	Bq/L
					< 0.05	Bq/kg-fresh
E-SF2	2024/11/06	*Chelidonichthys spinosus*	-	H-3(TFWT)	0.34 ± 0.018	Bq/L
					0.26 ± 0.013	Bq/kg-fresh
				H-3(OBT)	< 0.3	Bq/L
					< 0.05	Bq/kg-fresh
E-SF2	2024/11/06	Mixed fishes	-	H-3(TFWT)	0.48 ± 0.023	Bq/L
					0.37 ± 0.018	Bq/kg-fresh
				H-3(OBT)	< 0.3	Bq/L
					< 0.05	Bq/kg-fresh
E-SF3	2024/11/06	*Paralichthys olivaceus*	-	H-3(TFWT)	0.74 ± 0.036	Bq/L
					0.57 ± 0.028	Bq/kg-fresh
				H-3(OBT)	< 0.4	Bq/L
					< 0.05	Bq/kg-fresh
E-SF3	2024/11/06	*Okamejei schmidti*	-	H-3(TFWT)	0.72 ± 0.036	Bq/L
					0.56 ± 0.028	Bq/kg-fresh
				H-3(OBT)	< 0.4	Bq/L
					< 0.05	Bq/kg-fresh
E-SF3	2024/11/06	*Squatina japonica*	-	H-3(TFWT)	0.72 ± 0.036	Bq/L
					0.56 ± 0.028	Bq/kg-fresh
				H-3(OBT)	< 0.4	Bq/L
					< 0.05	Bq/kg-fresh

*1 Radioactivity concentrations are presented as radioactivity concentration ± combined standard uncertainty.

*2 Values below detection limit are shown by lower limit of detection (e.g., "<10 Bq/L" indicates a value lower than 10 Bq/L).

(Attachment)

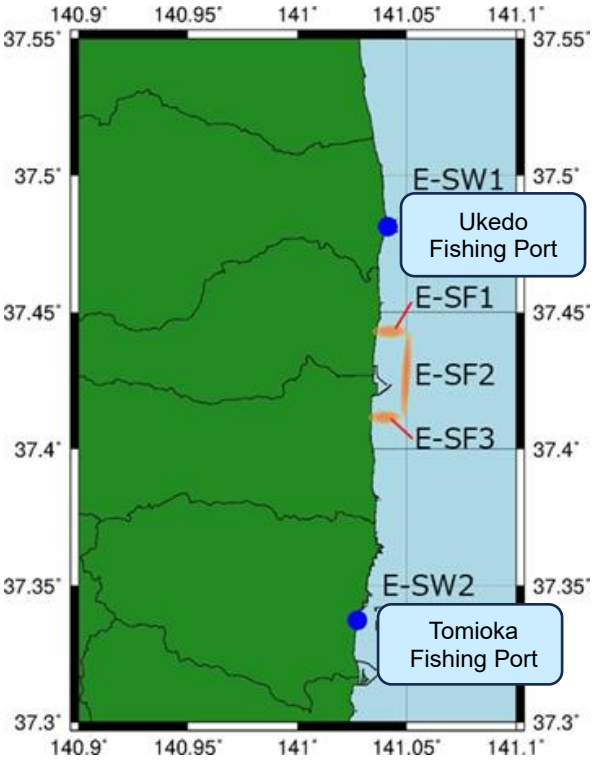

Fig. 1 Sampling points of marine biota (fish and seaweed)