

<Marine Organism Rearing Log>

9 AM, June 14, 2023

Weather: Rainy

Water temperature: 17.7°C

Based on the preconditions, we calculated the amount of tritium contained in the body fluid of flounder that we rear. The tritium contained in the body fluid of edible parts of 1 kilogram of flounder reared in seawater with a tritium concentration of 1,300 Bq/L is 750 Bq. Tomorrow we will calculate the amount of tritium in the muscle.

The technical term for “tritium in the body fluid” is Tissue Free Water Tritium, which is denoted by FWT.

- Water (body fluid) weight in the edible parts of flounder (total weight:1 kilogram)
= (Total weight) × (Edible portion) × (Water content)
 $1,000[\text{g}] \times 0.75 \times 0.768 = 576[\text{g}]$
- Radioactivity amount of tritium (FWT) in 576 [g] of water (body fluid) in the edible parts is calculated based on the preconditions as follows:
 $1.3[\text{Bq/g}] \times 576[\text{g}] = 748.8[\text{Bq}] \doteq 750[\text{Bq}]$