

<Marine Life Rearing Log>

9 AM, September 5, 2023

Weather: Sunny

Water temperature: 18.7°C

Flounder and abalone need to be in water that people find cold. Furthermore, since they are kept in a closed system, we must pay attention to the accumulation and purification of waste products and the rise in salinity, and maintain water quality so that there is no difference between the regular seawater tanks and the tanks to which ALPS treated water has been added.

Water quality measurements for marine life rearing			
Water quality data	Guidelines to maintain	Measurement method	Comments
Water Temperature	17-19 °C	Thermocouple method	
Dissolved oxygen	80-100 % (saturation)	Fluorescence method	
Salinity	30-33 %	Refractive index method	32% salinity at start of rearing
pH	7.5-8.1	Glass electrode method	pH was 8.1 at start of rearing but decreased with nitrification (ammonia to nitric acid)
Ammonia	Less than 0.5 mg-N/L	Indophenol blue method	Oxidized into nitric acid through the nitrification of bacteria
Nitrous acid	Less than 0.5 mg-N/L	Naphthyl ethylenediamine method	
Nitric acid	Less than 50 mg-N/L	Zinc reduction method	Discharged into the atmosphere by denitrifying bacteria

Note: In order to maintain consistency between tanks, the water quality in each tank has been kept almost the same except for the tritium concentrations



**October 3, 2022:
ALPS treated water being added**