

## Overview of polar exhibit tanks and List of the creatures in house

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The Tokyo Sea Life Park has been exhibiting polar creatures since the aquarium opened in 1989. “Arctic and Antarctic Oceans” section contains three exhibit tanks. The water volume for the two tanks is  $0.8 \text{ m}^3$  (tank dimensions:  $112\text{cm} \times 95\text{cm} \times 89\text{cm}$ ) each and the other is  $0.7 \text{ m}^3$  (tank dimensions:  $157\text{cm} \times 95\text{cm} \times 89\text{cm}$ ). The first tank represents the clumps of submerged drifting algae and exhibits *Glyptonotus antarcticus* hide in the seaweed. The second tank can be divided into three parts due to the exhibition of small creatures. The first part of it introduces *Trematomus hansonii* of the Nototheniidae, a significant fish family in Antarctic regions. The second part represents an Antarctic rocky habitat and exhibits *Harpagifer antarcticus*. The third part displays some of the Arctic invertebrates such as *Lebbeus polaris* and *Psolus fabricii*. The third tank is the second Arctic exhibit houses the Arctic Cod, which has a high biomass and supports the Arctic Ocean ecosystem. By exhibiting the Antarctic and Arctic tanks side by side, it gives a good opportunity to compare and to introduce the evolution of fish in the unique Antarctic Ocean. Besides, there are also three holding tanks (water volume of  $1.0 \text{ m}^3$ ,  $1.0 \text{ m}^3$ ,  $2.4 \text{ m}^3$ ). At present, they are home for 69 fish from 15 different species and 678 invertebrates from 26 different species in the exhibition tanks and the holding tanks. *Pagothenia borchgrevinki*, *Harpagifer antarcticus*, *Glyptonotus antarcticus* and the other six species are currently breeding. *Pagothenia borchgrevinki* spawned in 2019 and currently the eggs are kept in a tank. *Harpagifer antarcticus* has been spawning and there are rearing eggs and larval fish. *Glyptonotus antarcticus* released the larvae in 2017 and 2019, and the rearing are in progress. We aim to establish the stable breeding techniques lead to reduce collecting the specimens from the wild.