

Genetic population structure of two deep-sea amphipod species across three hadal trenches in the Pacific Ocean

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More than one thousand of deep-sea amphipods were collected from three hadal trenches over the course of four sampling campaigns from December 26th 2016 to January 31th 2017 using an autonomous deep-ocean lander vehicle incorporating small baited funnel traps. Detailed descriptions on the sampling were shown on Table 1.

Table 1: Sampling information of the deep-sea amphipods

Sampling site	Location	Depth (m)
Mariana Trench	142.41° E; 11.36°N	10839.23
Matthew Trench	148.87° E; 0.92°N	6990.5
New British Trench (Middle)	152.44° E; 5.86°S	8224.9
New British Trench (East)	153.75° E; 6.32°S	8931.3

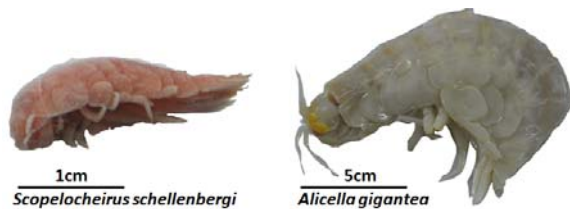


Figure1: Two deep-sea amphipod species

Mitochondrial 16S rRNA and COI markers were used for species identifications. Two deep sea amphipod species were identified by morphological characters and molecular markers (Figure 1). The applicability of the two markers on species identification of the deep-sea amphipods was also explored. Subsequently, genetic population structures of the two deep-sea amphipod species across three hadal trenches were examined. Genetic studies are undertaking.