

# New species discovered in Antarctica

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Two species of the *Flabegraviera* genus: *Flabegraviera fujiae* (left), the new species discovered in the study, and *Flabegraviera mundata* (right). Scale bar: 1cm.

A team of Japanese scientists has discovered a new species of polychaete, a type of marine annelid worm, 9-meters deep underwater near Japan's Syowa Station in Antarctica, providing a good opportunity to study how animals adapt to extreme environments.

International efforts are currently underway in Antarctica to build long-term monitoring systems for land and coastal organisms from an ecological conservation standpoint. To this end, the accumulation of continent-wide fauna information is essential, but Japan is lagging behind in gathering and analyzing such data around Syowa Station, particularly in regard to coastal [marine life](#).

To address this problem, in 2015 a team of researchers, including Keiichi Kakui, a lecturer at Hokkaido University, and Megumu Tsujimoto, a postdoctoral researcher at Japan's National Institute of Polar Research, started researching marine specimens stored at the institute, as well as newly collected specimens. As a part of this process, they conducted microscopic analyses to examine two annelid worms that scuba divers collected 8-9 meters deep on January 16th, 1981, at Nishinoura near Syowa Station.

The worm found 9 meters deep turned out to be a new, unnamed polychaete - a variety with a thick, gel-like coat and conspicuous, long notochaeta. The team named the [new species](#) *Flabegraviera fujiae*, taking after the icebreaker ship "Fuji" used in the expedition in 1981. The specimen collected 8 meters deep was recognized as *Flabegraviera mundata*, and was deemed to have been collected at the shallowest depth ever recorded for the *Flabegraviera* genus.



Research paper co-author Professor Kentaro Watanabe (in scuba diving gear) and Professor Eiji Takahashi of Yamagata University pictured at Antarctica. Credit: National Institute of Polar Research

"This study is a major step forward in understanding marine life in the coastal region near Syowa Station," says Dr. Keiichi Kakui, "The *Flabegraviera* genus, to which the three species belong, is unique to the Antarctic and considered a good example for studying how polychaetes adapt to [extreme environments](#)."

Now that it has become clear that polychaetes inhabit depths reachable by scuba divers, the researchers hope to conduct experiments using living specimens to gain a deeper understanding of marine life in the

area, helping to create an information infrastructure vis-à-vis local biodiversity.

Provided by Hokkaido University

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