

An ocean away: Two new encrusting anemones found in unexpected locations

November 29 2012



This is *Neozoanthus caleyi* on the Great Barrier Reef, Australia. Credit: Gary Cranitch

As a result of field work by associate professor James Davis Reimer and two graduate students from the University of the Ryukyus in Okinawa,

Japan has found two new species of encrusting anemones, or colonial [zoanthids](#), in unexpected locations. The species belong to the genus *Neozoanthus*, which was previously known only from a single species in the Indian Ocean. Surprisingly, the new species were found in the Pacific Ocean, in southern Japan and on the Great Barrier Reef, Australia. The study was published in the open access journal [ZooKeys](#).

The only previous species of *Neozoanthus* was described in 1972 from Madagascar, and subsequently it was not seen for almost 40 years, until recent research had ascertained that new Pacific specimens likely belonged to *Neozoanthus* (Reimer et al. 2011, [in the journal Marine Biology](#)). The new study formally describes these new specimens as two species.



This is *Neozoanthus uchina* in Okinawa, Japan. Credit: Masami Obuchi

The members of this genus are small, with individual [polyps](#) no more than 6 mm in diameter, and have red, gray, blue or purple oral discs; all inhabit [coral reef ecosystems](#) in areas with strong currents and some siltation. Both new species and the species from Madagascar contain symbiotic, photosynthetic, single-celled algae that can provide them with [energy from the sun](#).

"We were very surprised in 2008 to discover *Neozoanthus* in the Pacific, in Japan," said Reimer, "and initially thought that perhaps these were very rare." However, further research in southern Japan by graduate students Yuka Irei and Takuma Fujii, co-authors on the new paper, revealed that the Japanese species was locally common. A further surprise came during the Census of Marine Life's [Census of Coral Reef Ecosystems](#) (CReefs) surveys on the [Great Barrier Reef](#) in 2009 and 2010, when similar encrusting anemones were found thousands of kilometers away from both Madagascar and Japan.

"These findings can be explained by the fact that there are very few zoanthid researchers in the world. These species are not particularly hard to find, but there was no one looking for them," Reimer added. "This research demonstrates how little we know about marine biodiversity, even in regions relatively well researched."

More information: Reimer JD, Irei Y, Fujii T (2012) Two new species of *Neozoanthus* (Cnidaria, Hexacorallia, Zoantharia) from the Pacific. *ZooKeys* 246: 69. [doi: 10.3897/zookeys.246.3886](https://doi.org/10.3897/zookeys.246.3886)

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