Attention editor/chief of staff **11 March 2025**

New deep-sea barnacle discovery included in Global Ocean Census

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A newly described deep-sea barnacle is providing clues about a potential codependent relationship in our oceans.

Amigdoscalpellum calicicolum, discovered 900 metres below the surface in the Bay of Plenty, New Zealand, appears to have an unusually close relationship with cup corals (*Caryophyllia diomedeae*).

Unlike most deep-sea barnacles, which attach to any available hard surface, this species may have an affinity for living coral polyps, a behaviour that suggests a more complex ecological role than previously recognised in its family.

The specimens were originally collected in 2012 by the National Institute of Water and Atmospheric Research (NIWA) during a survey of seamounts and undersea volcanoes. WA Museum Curator of Aquatic Zoology (Crustacea and Worms), Dr Andrew Hosie, formally identified the species, with his research recently published in the *Journal of Crustacean Biology* highlighting characteristics that make this barnacle unique.

Unlike many of its relatives, *Amigdoscalpellum calicicolum* embeds itself in the living tissue of the coral. As the coral grows, it forms around the barnacle, leaving scars on the coral's skeleton when the barnacle is removed.

While not yet confirmed, this raises the possibility that it is more than just incidental attachment and potentially a symbiotic relationship, where both species influence each other's growth and survival.

Dr Hosie said the orientation of the barnacle, combined with the way the coral physically grows around it, suggests a deeper reason for attaching.

"To even commence such an attachment, the larvae must bypass the coral's stinging tentacles, which is a risky manoeuvre, suggesting a selective advantage. Otherwise, why take the risk?"

Dr Hosie used micro-CT imaging, a non-invasive technique of studying internal structures in 3D without dissection, to better characterise the species and DNA sequencing confirmed the barnacle as genetically distinct from its known relatives. Its name, *calicicolum*, means "cup dweller," a nod to its unusual preference for settling on the rim of cup corals.

The new discovery is one of the over 800 species newly discovered as part of the *Ocean Census*, a global initiative aiming to identify 100,000 new marine species within the next

decade. Its inclusion ensures data about this species is freely available, contributing to global efforts to understand and protect marine biodiversity.

Interview opportunities are available upon request. Media release and images (full res on request) via our website: https://visit.museum.wa.gov.au/about/media/new-deep-sea-barnacle-discovery-included-global-ocean-census

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About The Ocean Census

The Nippon Foundation-Nekton Ocean Census is the world's largest mission to accelerate the discovery of ocean life. Despite covering over 70% of our planet, the ocean remains one of the least explored ecosystems, with only 240,000 marine species officially documented—while millions more remain undiscovered.

The Ocean Census is revolutionising species discovery, accelerating the pace at which new marine life is identified and studied.

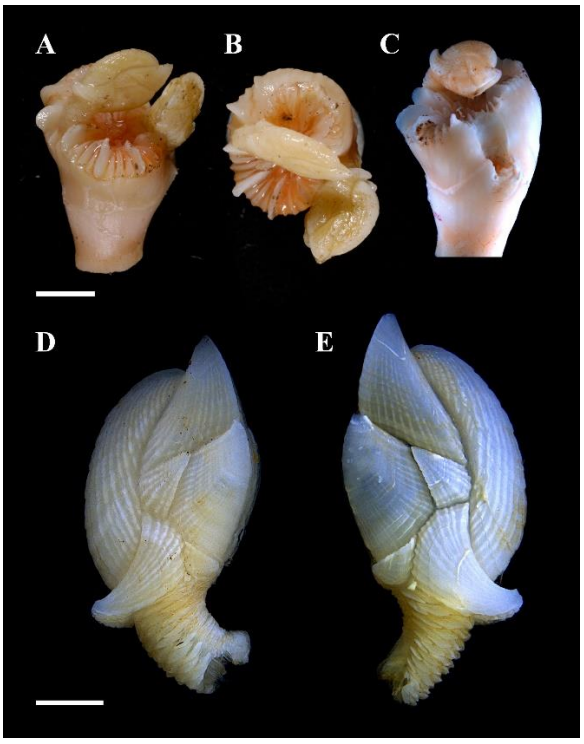
Launched in April 2023 by The Nippon Foundation and Nekton, Ocean Census is a global alliance uniting philanthropy, government, business, science, media, and civil society. At its core, the Science Network unites scientists from hundreds of institutions worldwide to lead the discovery of ocean life.

All discoveries are registered in the Ocean Census Biodiversity Data Platform, ensuring that scientists, conservationists, and policymakers worldwide have open access to critical marine biodiversity data. Endorsed by the UN Ocean Decade, the Ocean Census is more than a research programme—it is a bold mission to find life in our universe, right here on our planet

This week, *The Ocean Census* revealed 866 newly discovered marine species, including *Amigdoscalpellum calicicolum*.

For more information, visit: https://oceancensus.org/press-release-the-ocean-census-discovers-over-800-new-marine-species/

Image Credits:

	Holotype and paratype of *Amigdoscalpellum calicicolum* attached to host coral, *Caryophyllia diomedeae* (A, B). Attachment scar on host after removal of paratype (C). Holotype, left lateral view (D). Paratype, right lateral view (E).
	Holotype of *Amigdoscalpellum calicicolum.*
[Attached Video] 	CT scans and rotating 3D model of *Amigdoscalpellum calicicolum*.