



## **The Auckland University of Technology Lab for Cephalopod Ecology and Systematics (ALCES): an introduction to the lab with a highlight on two new bottletail squids (Sepiadariidae: Sepioloidea) from New Zealand.**

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The Auckland University of Technology Lab for Cephalopod Ecology and Systematics (ALCES) is a university lab group based in Auckland, New Zealand. As the name suggests, we research cephalopod ecology and systematics focusing on the diversity of squid in the waters surrounding New Zealand. In addition to research outputs, our lab is committed to developing collaborative partnerships with other research institutions, training early-career cephalopod researchers from around the world, and boosting the public's curiosity of cephalopods through science communication. We highlight one of our recent papers from 2022 in which we described two new bottletail squid species (Cephalopoda: Sepiadariidae). Over 600 specimens were examined for morphological characters and genetic samples (n=61) were analysed from viable material. As a result, two new species, *Sepioloidea virgilioi* and *Sepioloidea jaelae* were described. Diagnostic morphological characters include the tentacular club sucker arrangement and hectocotylus structure. Molecular data supported the recognition of these two new taxa, with sampled populations of each of the three available *Sepioloidea* falling within three monophyletic clades following analysis of COI (cytochrome c oxidase subunit I) sequence data.

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