

New species of shark identified after unique egg cases found in museum

May 10 2023, by Bob Yirka



Lateral view of *Apristurus ovicorrugatus* n. sp. holotype (CSIRO H 3161-01, adult female 467 mm LT): (a) fresh; (b) preserved. Credit: *Journal of Fish Biology* (2023). DOI: 10.1111/jfb.15415

A team of ichthyologists from CSIRO National Research Collections Australia–Australian National Fish Collection, Hokkaido University and Sorbonne Université, EPHE has discovered a new species of deepwater shark after identifying egg cases found in a museum. In their study, reported in *Journal of Fish Biology*, the group found the shark after discovering unique shark egg cases in two Australian museums.

In 2011, a prior research team came across a unique shark egg case. A search of known shark egg cases came up empty, leaving the species that had laid the egg unidentified. Most [sharks](#) give birth to live young, but a few species, known as oviparous sharks, lay eggs.

In such species, the eggs are housed in protective casings, which are sometimes referred to as "mermaids' purses." Most shark cases also have long tendrils that allow for attaching to rocks or seaweed. The egg cases found in 2011 had unique ridges along their length—they were believed to have come from a species belonging to the *Apristurus* genus. They were also unique in that they had been found attached to coral.



Dorsal view of trawled egg cases of *Apristurus ovicorrugatus* n. sp. (CSIRO H

8056-01); top egg case contained a 68.7 mm late-term embryo. Scale bar = 10 mm. Credit: *Journal of Fish Biology* (2023). DOI: 10.1111/jfb.15415

Approximately a decade later, two more of the egg cases were identified—both housed at the Australian National Fish Collection. That led the research team to look a little deeper—they began searching databases for *Apristurus*-type sharks sighted around the same areas in which the egg cases were found. That led them to a shark that had been misidentified. The research team discovered the misidentified shark had been pregnant when she died, and her body contained a single egg case that matched the three found in the [museum](#).

The group named the new species *Apristurus ovicorrugatu*, after ovi and the corrugated appearance of the egg case. They plan to take a fresh look at other shark specimens in museums to find out if others have been misidentified, starting with examination of egg cases.



Egg case of *Apristurus ovicorrugatus* n. sp. (CSIRO H 9058-01) attached to octocoral (*Thouarella* sp.). Credit: *Journal of Fish Biology* (2023). DOI: [10.1111/jfb.15415](https://doi.org/10.1111/jfb.15415)

More information: William T. White et al, What came first, the shark or the egg? Discovery of a new species of deepwater shark by investigation of egg case morphology, *Journal of Fish Biology* (2023). [DOI: 10.1111/jfb.15415](https://doi.org/10.1111/jfb.15415)

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