

Citizen science sheds light on the cryptic ornate eagle ray *Aetomylaeus vespertilio*

ABSTRACT

1. The ornate eagle ray *Aetomylaeus vespertilio* (Bleeker, 1852) is a rare and Endangered species of eagle ray, with a patchy distribution across the Indo-West Pacific region, for which data are scarce. 2. Citizen science-sourced data from online social media platforms were used to shed light on the distribution and ecology of the ornate eagle ray. 3. A total of 53 reports of *A. vespertilio* were found on Facebook, Instagram, Twitter, and YouTube, including four reports of dead specimens. All live reports occurred in shallow reef or lagoon ecosystems. Two individual *A. vespertilio* specimens were re-sighted in the same general area following initial identification within 9 and 13 months at Ningaloo Reef and at Lady Elliot Island, Australia, respectively, as confirmed through their dorsal spot patterns. One report was at Richard's Bay in South Africa, the southernmost known location for this species in the Indian Ocean (28°S). Live reports were also reported from the Maldives, the Seychelles, Egypt (Red Sea), Philippines, Palau, and elsewhere on the Great Barrier Reef, Australia. 4. Results indicate that citizen-collected data can shed light on the occurrence and distribution of cryptic species, as well as complement monitoring programmes.