

First record of a dugong (*Dugong dugon* Müller, 1776) in Fiji

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Fig. 1. The vagrant dugong found dead in Fiji on 20 May 2018 (photograph: Vilikesa Karalo).

Dugongs (*Dugong dugon* Müller, 1776) generally occur in shallow coastal waters of the tropical and subtropical Indo-West Pacific, from the eastern coast of Africa in the west to Vanuatu in the east (Marsh and Soltzick 2015). Thus, this first recorded dugong in Fiji (Fig. 1) is probably a vagrant. Vagrant dugongs can cross open oceanic waters, with the longest known migration (over 1000 km in the Indian Ocean) recorded for a solitary 2-m-long male (Hobbs *et al.* 2007).

The dugong, discovered in Fiji on 20 May 2018, was found dead on Kiuva Beach (−18.070S, 178.662W), more than 600 km from the nearest known dugong population. According to the discoverers, the recently deceased individual had two wounds (one dorsal, one ventral) resembling spear wounds. However, the dugong was partially burned at the time of our examination, which occurred the morning after the discovery, and all surface marks were no longer visible. Phone

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Received 28 June 2018

Accepted 21 October 2018

Published online 5 November 2018

interviews were conducted with the *Turaga ni Koro* (village headman) from each of the four villages that share the *qoliqoli* (traditional in-shore fishing ground) after a photograph of the dugong appeared in local newspapers. The *Turaga ni Koro* all confirmed that no fishers reported seeing or spearing a dugong.

The dugong was 13 years old (aged by counting growth layer groups in the tusk, which was prepared according to Marsh 1980), measured 209 cm (total length), and was sexed as female (assessed by distance of genital slit relative to anus and umbilicus based on photographs taken before the animal was burned). The skull is deposited at The University of the South Pacific Marine Collection with accession number 12231.

Dugongs are seagrass community specialists, and our specimens had fragments of seagrass leaves and roots present throughout the digestive system (*Halodule pinifolia* comprised 70% of the 20 cm³ of stomach contents examined, followed by 17% of *Syringodium isoetifolium*). Both seagrass species are common in Fiji and also present in the seagrass meadows adjacent to the beach where the dugong was found. Genetic analysis may assist in assigning the origin of this individual, even though little

genetic data are currently available for dugong populations in the Pacific Islands.

Conflicts of interest

The authors declare no conflicts of interest.

Acknowledgements

We thank Sheenam Chandra for alerting us, Vilikesa Karalo for allowing use of the photograph, Shritika Prakash for accurate field work, Antoine De Ramon N'Yeurt for seagrass identification, and Helene Marsh for assisting with the manuscript. This research did not receive any specific funding.

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