

# Citizen Science and the Art of Discovery: New Records of Large Coleoptera from Lord Howe Island, July 2018

CHRIS A. M. REID<sup>1</sup>  AND IAN HUTTON<sup>2</sup>

<sup>1</sup>Entomology, Australian Museum Research Institute,  
Australian Museum, 1 William Street, Sydney NSW 2010, Australia

<sup>2</sup>Lord Howe Museum, Middle Beach Road, Lord Howe Island, New South Wales, Australia

**ABSTRACT.** A citizen science event was held on Lord Howe Island, 22–28 July 2018, with the objective of training non-scientist volunteers in basic search methods for large beetles. The survey was conducted to obtain baseline data on the distribution of large beetles prior to the rat eradication programme scheduled to start in 2019. The event was hosted by the Lord Howe Island Museum and voluntary participation was organized through the Lord Howe Island Conservation Volunteers. The event was open to both residents and tourists. Guidance was provided by the two authors. Activities for the volunteers included an introductory talk on the large beetles of the island, four afternoon searches and one night search. An extra day walk was added for some interested local participants. During the remainder of the week the authors conducted their own searches. 13 areas were visited altogether, and the results concerning the large species (1 cm or more in length) are tabulated here. The citizen scientist volunteers found several species not found by the authors. The survey was in mid winter, a generally poor time for beetle activity, but 23 large species were found, all of which are discussed. These include the rediscovery of *Cormodes darwini* Pascoe, 1860 (Cleridae), hitherto considered extinct and last recorded in 1916, and the first record of the genus *Torresita* (Buprestidae) on the island.

## Introduction

Citizen science is a modern term that formally names an activity that has existed for centuries: the help given to scientists by enthusiastic volunteers. The phrase has developed over the last 40 years to mean several different things, with a history best explained on perhaps the most famous citizen science platform of all, Wikipedia (Anonymous, 2018a). Here we follow the definition and objectives laid out by the European Citizen Science Association (Anonymous, 2015), which have also been adopted by the Australian Citizen Science Association (Anonymous, 2018b). The essence is that non-experts provide assistance to experts. However citizen science is, ideally, a two way process in which both scientists and non-scientist citizens gain something from the experience, ideally to the benefit of science and society. In a wide

ranging review of citizen science projects, Kosmala *et al.* (2016) showed that if carefully instituted and monitored a citizen science project can generate just as useful data as a science project without use of non-experts. They noted that, to succeed, citizen science projects should: (a) be replicable; (b) be standardized; (c) have appropriate protocols and data analyses; and (d) include accuracy assessment (Kosmala *et al.*, 2016).

The dominant culture of science rarely accounts for different ways of knowing, and often fails to engage the public. Citizen science emphasizes collaborative intelligence and co-creation to facilitate scientific and community-based solutions. This is particularly important on relatively remote Lord Howe Island, where the travel and accommodation costs are high, which limits the frequency and length of visits to monitor changes. By harnessing the energy of interested residents and visitors, many more observations can be made

**Keywords:** Lord Howe Island; Coleoptera; conservation; citizen science

**Corresponding author:** Chris A. M. Reid [chris.reid@austmus.gov.au](mailto:chris.reid@austmus.gov.au)

**Received:** 21 September 2018 **Accepted:** 14 January 2019 **Published:** 6 March 2019 (online only)

**Publisher:** The Australian Museum, Sydney, Australia (a statutory authority of, and principally funded by, the NSW State Government)

**Citation:** Chris A. M. Reid and Ian Hutton. 2019. Citizen science and the art of discovery: new records of large Coleoptera from Lord Howe Island, July 2018. *Technical Reports of the Australian Museum Online* 28: 1–16. <https://doi.org/10.3853/j.1835-4211.28.2019.1717>

**Copyright:** © 2019 Reid, Hutton. This is an open access article licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original authors and source are credited.

