

Ctenophorus spinodomus sp. nov., a New Species of Dragon Lizard (Squamata: Agamidae) from Triodia Mallee Habitat of Southeast Australia

ROSS A. SADLIER^{1,2} , DON COLGAN¹ , CECILIE A. BEATSON²  AND HAL G. COGGER¹

¹ Australian Museum Research Institute,
Australian Museum, 1 William Street, Sydney NSW 2010, Australia

² Outwest Reptile Consulting Services,
Montefiores Street, Wellington NSW 2820, Australia

ABSTRACT. Research into geographic variation in the agamid lizard *Ctenophorus fordi* supports a pattern of regional lineage diversity identified in earlier genetic studies, and provides new information on differences in morphology diagnostic of these lineages. One of the most genetically divergent and morphologically distinctive of these lineages is that consisting of populations from Triodia Mallee habitat of the red sandplains of inland southeast Australia. Populations from this region are the sister lineage to all other “*C. fordi*”, a suite of four genetically regionally discrete lineages distributed across the arid inland of southern Australia. They can be distinguished by a unique black “T” shaped chest pattern in adult males which, in combination with certain features of body proportions and scalation, diagnose the lineage from all other “*C. fordi*”. On the strength of these differences we describe populations belonging to this lineage as a new species, *Ctenophorus spinodomus* sp. nov. This new species is highly restricted in the habitat it occupies, and its ecology tied to a reliance on the presence of *Triodia* hummock grass groundcover (spinifex) for shelter, foraging and social interactions. It appears to be most abundant in areas of extensive and healthy *Triodia* that develop 20–50 years post-burn, and as a consequence too many or too few fires can both have negative impacts on the suitability of hummock grass groundcover for this species. Mallee habitat in southeast Australia is fragmented, and large fires in the smaller isolated areas of habitat could result in loss of suitable habitat for the species, resulting in localized extinction with no opportunity for recruitment. These factors in combination with ongoing loss of habitat place the remaining populations of *C. spinodomus* sp. nov. at a high level of vulnerability.

Introduction

The agamid lizard *Amphibolurus fordi* was described by Storr in 1965 from populations in inland southwest Western Australia as part of a review of the *Amphibolurus maculatus* species group (Storr, 1965). It was named for Julian Ford, accomplished Western Australian naturalist and collector of the holotype, and was initially called Ford’s Dragon. The name *fordi* along with the common

name Mallee Dragon was subsequently applied in a broader geographical sense by Cogger (1975) to include the east Australian populations of what was previously regarded as *Amphibolurus maculatus* (Cogger, 1967). This concept of the species having a broad distribution across the arid interior of southern Australia, from near Kalgoorlie in Western Australia to central-western New South Wales (Cogger, 1975 and subsequent editions) has remained for the past 40 years.

Keywords: Agamidae; dragon lizard; *Ctenophorus*; Triodia Mallee; taxonomy; new species; Eastern Mallee Dragon

Taxonomic registration: (LSID publication) <http://zoobank.org/07502465-79E0-44F2-8A51-EC4F78DE208B>

Corresponding author: Ross A. Sadlier ross.sadlier@bigpond.com

Received: 20 December 2018 **Accepted:** 29 July 2019 **Published:** 28 August 2019 (in print and online simultaneously)

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

Citation: Sadlier, Ross A., Don Colgan, Cecilie A. Beatson, and Hal G. Cogger. 2019. *Ctenophorus spinodomus* sp. nov., a new species of dragon lizard (Squamata: Agamidae) from Triodia Mallee habitat of southeast Australia. *Records of the Australian Museum* 71(5): 199–215.

<https://doi.org/10.3853/j.2201-4349.71.2019.1700>

Copyright: © 2019 Sadlier, Colgan, Beatson, Cogger. 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.

