

Taxonomic Assessment of the *Ctenophorus decresii* Complex (Reptilia: Agamidae) Reveals a New Species of Dragon Lizard from Western New South Wales

CLAIRE A. MCLEAN^{1,2*}, ADNAN MOUSSALLI², STEVE SASS^{3,4}, AND DEVI STUART-FOX¹

¹ Department of Zoology, The University of Melbourne, Parkville VIC 3010, Australia

² Sciences Department, Museum Victoria, Carlton Gardens VIC 3053, Australia

³ EnviroKey, PO Box 7231, Tathra NSW 2550, Australia

⁴ Institute for Land, Water and Society, Charles Sturt University, Thurgoona NSW 2640, Australia

mcleanca@unimelb.edu.au

ABSTRACT. We describe a new species of agamid lizard, *Ctenophorus mirrityana* sp.nov. currently known from two disjunct populations in western New South Wales. The species is a member of the *C. decresii* species complex, and was formerly recognized as an outlying population of *C. decresii* due to similarities in dorsal colour pattern and adjacent distributions. Previous work documented deep molecular divergence, across multiple loci, with no genetic admixture between the new species and proximal *C. decresii* populations. We find that the new species differs in morphology from all other members of the species complex and is characterized by distinct male throat and lateral coloration, a small head size relative to snout-vent length, a large number of labial scales, and a lack of tubercular scales. We also identify two geographically structured lineages (*northern* and *southern*) within *C. decresii* as requiring further taxonomic investigation, based on notable genetic and morphological (including colour) divergence. We find that divergence in coloration is associated with genetic and body form differentiation within the *C. decresii* species complex.

MCLEAN, CLAIRE A., ADNAN MOUSSALLI, STEVE SASS, AND DEVI STUART-FOX. 2013. Taxonomic assessment of the *Ctenophorus decresii* complex (Reptilia: Agamidae) reveals a new species of Dragon Lizard from western New South Wales. *Records of the Australian Museum* 65(3): 51–63.

KEYWORDS: Agamidae; Barrier Range; colour variation; *Ctenophorus mirrityana*; reptilian morphology

Ctenophorus is the most diverse Australian genus of agamid lizards, comprising 28 small to moderate sized, dry to arid adapted species (Houston & Hutchinson, 1998; Wilson & Swan, 2010). Within South Australia (SA), the *Ctenophorus decresii* complex consists of four closely related, rock-inhabiting species: *C. decresii* (Duméril & Bibron 1837),

C. fionni (Procter 1923), *C. tjantjalka* Johnston 1992, and *C. vadvappa* (Houston 1974), with *C. rufescens* (Stirling & Zietz 1893) as a sister clade to the group (Melville *et al.*, 2001; Chen *et al.*, 2012). All species are sexually dimorphic with cryptically coloured females and larger, brightly coloured males which perform conspicuous courtship and

* author for correspondence