



## A new limb-reduced skink (Scincidae: *Lerista*) from the dry rainforest of north Queensland, Australia

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### Abstract

A new limb-reduced skink from the dry rainforest of north Queensland is described as *Lerista rochfordensis* **sp. nov.** It is distinguished from its congeners by forelimb absent with no groove or other indication, hindlimb 5–8% SVL with a single clawed digit, and five supraciliary scales. Its narrow distribution coupled with its apparent reliance on dry rainforest, an endangered habitat, meets the criteria outlined for a Vulnerable listing under the Environment Protection and Biodiversity Conservation Act 1999 (Qld).

**Key words:** *Lerista rochfordensis*, vine thicket, conservation, biogeography

### Introduction

*Lerista* Bell, 1833 is Australia's second most speciose reptilian genus, with 90 described species, closely following the most speciose, *Ctenotus* Storr, 1964, another genus of sphenomorphine skinks, with 100 described species. *Lerista* has been the subject of a number of evolutionary studies associated with limb reduction and digit loss, and the association of these specializations for 'substrate swimming' through sand or other loose substrates such as leaf litter (Greer 1987; 1989; 1990a). Skinner *et al.* (2008) have published a phylogeny for *Lerista* and estimate a date for the emergence of the genus at 13.4 million years. It has been postulated that species diversity within *Lerista* is due to an 'explosive radiation' into arid habitats newly created during the Pliocene (Kendrick, 1988).

More than half of the currently described *Lerista* species (52) are endemic to Western Australia. While WA is undoubtedly an area of high diversity for this genus, this also reflects the amount of taxonomic attention paid to the genus in WA, particularly the efforts of the late Glen Storr. A potential area of unappreciated diversity for *Lerista* is the dry rainforest habitat of north Queensland (sometimes referred to as vine thicket, but see Fensham 1995). Dry rainforest occurs in small, widely dispersed patches throughout the semi-arid regions of north Australia. Vertebrate diversity in north Queensland's dry rainforest is generally considered to be poor and endemism virtually non-existent (Kahn and Lawrie 1987; Stanisic 1999). This contrasts with the invertebrate fauna, several groups of which have been found to exhibit high diversity and endemism, especially when compared to the surrounding habitat (for example, land snails, Stanisic 1999; Scarabaeine beetles, G. Monteith pers. comm.; spiders, R. Raven pers. comm.). Kahn and Lawrie (1987) highlighted two species of *Lerista* which appeared to be strongly associated with dry rainforest; *Lerista vittata* Greer, McDonald and Lawrie, 1983 and *Lerista colliveri* Couper and Ingram, 1992 (cited as *Lerista allanae* (Longman, 1937) but later shown by Couper and Ingram (1992) to be composite with the more widespread, dry rainforest-dependent form described as *L. colliveri* and *Lerista allanae sensu stricto* to be restricted to blacksoil grasslands and possibly extinct (Covacevich *et al.* 1996)). Results of further survey work since that