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Two new relict *Syncordulia* species found during museum and field studies of threatened dragonflies in the Cape Floristic Region (Odonata: Corduliidae)

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Abstract

Red List assessments often require the verification of records and taxonomy in museum collections and the field. Such research during an assessment of threatened dragonflies in the Cape Floristic Region (CFR) biodiversity hotspot, led to the discovery of two new narrow-range endemic *Syncordulia* species, bringing the known total to four in the genus. The new species, *Syncordulia legator* and *S. serendipator*, are described with emphasis on their identification, ecology and biogeography. Morphological diversity within the genus and the absence of obvious close relatives suggest an ancient and isolated presence in the CFR, emphasizing the uniqueness and conservation importance of the region's endemic odonate fauna.

Key words: Anisoptera, *Syncordulia*, South Africa, conservation, systematics, biogeography, key

Introduction

The Cape Floristic Region (CFR) in South Africa is a globally-significant biodiversity hotspot (Myers *et al.* 2000). It is home to a substantial number of localized, specialist and threatened dragonfly species (Samways 1999; 2006; Grant & Samways 2007; Samways & Grant 2007). Taxonomic verification is a first step towards their conservation. This study relates to the phylogenetically significant dragonfly genus *Syncordulia* (Corduliidae), which is almost entirely endemic to the CFR. Corduliids, as traditionally defined, but excluding macromiines, are much more poorly represented in Africa than in the Holarctic, Neotropics and Australasia. The family may be a paraphyletic assemblage of groups basal to Libellulidae (e.g. May 1995), which is the dominant anisopteran family in Africa today (Kalkman *et al.* 2007). Corduliids were first discovered in the Cape region by Barnard, who described the adults (1933) and larvae (1937) of the new genus *Presba* with the species *P. piscator* and *P. venator*. Lieftinck (1961) found that *P. piscator* was a synonym for *Syncordulia gracilis*, whose origin had remained unknown for over twelve decades. *Presba* thus fell into synonymy with the genus *Syncordulia*, which Selys-Longchamps (1882) had erected for the species described by Burmeister (1839). Because *Syncordulia* species are localized and scarce, collected specimens and even sight records are few. Recent investigations in collections and the field doubled the number of known species in the genus from two to four.

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