



## A revision of the genus *Notodascillus* Carter (Coleoptera: Dascillidae)

ZHENYU JIN<sup>1,2</sup>, ADAM ŚLIPIŃSKI<sup>2</sup> & HONG PANG<sup>1</sup>

<sup>1</sup>State Key Laboratory of Biocontrol and Institute of Entomology, Key Laboratory of Biodiversity Dynamics and Conservation of Guangdong Higher Education Institute, Sun Yat-Sen University, Guangzhou 510275, China.

E-mail: [ahk\\_731@163.com](mailto:ahk_731@163.com); [Lssh pang@mail.sysu.edu.cn](mailto:Lssh pang@mail.sysu.edu.cn)

<sup>2</sup>CSIRO Ecosystem Sciences, Australian National Insect Collection, GPO Box 1700, Canberra, ACT 2601, Australia.

E-mail: [Adam.Slipinski@ento.csiro.au](mailto:Adam.Slipinski@ento.csiro.au)

### Abstract

The Australian species of *Notodascillus* Carter are revised based on examination of available type material and extensive collections. Three very closely related species have been recognised: *N. brevicornis* (Macleay), *N. sublineatus* Carter and *N. iviei* sp. n. Detailed generic and species descriptions, key to the species and distribution data are provided.

**Key words:** Coleoptera, Dascillidae, taxonomy, new species, Australia

### Introduction

Dascillidae are a small and rarely studied family that, jointly with the Rhipiceridae, form the superfamily Dascilloidea among the polyphagan beetles. In the past Dascillidae were defined very broadly and included taxa now recognized as families (e.g., Armatopodidae, Cneoglossidae, Eulichadidae, Brachypsectridae, Psephenidae and Scirtidae) or taxa now placed within other families (e.g., Platydascillinae and *Haematoides* Fairmaire to Byturidae, *Singularodaemon* Pic to Ptilodactylidae, *Pseudokarumia* Pic to Telegeusidae, *Cydistus* to Phengodidae *incertae sedis*, etc.) (Pic 1914; Crowson 1971; Lawrence 2005).

Dascillidae include 9 currently recognized genera (Lawrence 2005, Ivie and Barclay 2011) and about 80 described species divided into two poorly defined subfamilies—a free-living Dascillinae and variously morphologically modified Karumiinae, some of which are apparently associated with subterranean termites. Karumiinae are known from arid and semi-arid regions of western North America, Mexico, Africa, central Asia and temperate South America while Dascillinae inhabit mostly forested areas of the Northern Hemisphere and Australia (Lawrence 2005). The current subfamilial and generic classifications are in need of review, and there remain many undescribed species.

The biology and immature stages of the dascillids are practically unknown (Lawrence 2005). Adults of *Dascillus* Latreille are often collected on foliage or flowers while known larvae of *Dascillus* and *Notodascillus* (Lawrence 1991, 2005; Grebennikov and Scholtz 2004) are soil dwelling and may feed on roots.

The genus *Notodascillus* Carter is the only member of the family Dascillidae in Australia and includes three cryptic species found in higher elevations of the Great Dividing Range along the eastern coast of the continent from north of Newcastle in New South Wales to south of Rockhampton in Queensland. Carter (1935) described *Notodascillus* for *Dascillus brevicornis* Macleay and his new species *N. sublineatus*. He distinguished *Notodascillus* from *Dascillus* by its serrate antennae and subulate or ovoid palps. Although Carter's diagnostic characters are notoriously variable and do not sufficiently distinguish these genera, we believe they are very distinct based on pronotal and genital characters discussed in the diagnosis below. The exact composition of *Dascillus* and other genera of Dascillinae, including *Notodascillus*, is uncertain at the moment, pending generic revision of the family Dascillidae by M.A. Ivie (in preparation).