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## First record of cricket genus *Caconemobius* (Grylloidea: Nemobiinae) from China with description of a new species

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### Abstract

*Caconemobius* are distributed on widely separated islands in the Pacific area. Wings are absent in these species. They live among the rocks along the seashore, including the Hawaii, Japan and Korea. This genus is presently represented by 14 species worldwide. We found the first species of *Caconemobius* from China on the coast of Guangzhou. One new species, *Caconemobius dibrachiatus* Ma and Zhang, sp. nov., is described and illustrated.

**Key words:** Red List of Threatened Animals, *Paranemobius*, Orthoptera, Shenzhen

### Introduction

For their involvement in coastal ecology and as an indicator of environment quality, species of *Caconemobius* are considered endangered and recorded in the Red List of Threatened Animals (Hoekstra, 1998). *Caconemobius* was established by Kirby (1906) with *Paranemobius schauinslandi* as type species. They are a small cricket species, but slightly larger than normal for members of the Nemobiinae. They possess rather elongate legs, but wings, tympanum on front tibiae, and sometimes, ocelli are absent (Figs. 1 A, B; Figs. 3 A, B). These species are surface dwellers or cave dwellers (Gurney & Rentz, 1978). Surface dwellers live in cracks in rocks and rock surfaces on sea beaches (Fig. 1 C). They are an agile and active species, active at night. Besides crawling on rocks, they are excellent swimmers and can dive for more than 5 minutes (Kim & Kim, 2010). Like other crickets, *Caconemobius* are omnivores. They eat sea slaters, fish and shrimp bodies, and mucus. These species always live together, but use touch communication less (Fig. 1 D).

These species are distributed on widely separated islands in the Pacific (Islands of Hawaii, Japan and Korea) (Eades, Otte, Cigliano, & Braun, 2014; Gurney & Rentz, 1978; Ichikawa, Murai, & Honda, 2000; Kim & Kim, 2010). There are 14 species recorded worldwide with ten species located in the Hawaii archipelago (Eades *et al.*, 2014). Four, *Caconemobius sazanami* (Furukawa, 1970), *Caconemobius takarai* (Oshiro, 1990b), *Caconemobius daitoensis* (Oshiro, 1986) and *Caconemobius akusekiensis* (Oshiro, 1990a), are Asian species distributed in Japan with two of them also recorded in Korea (Eades *et al.*, 2014; Ichikawa *et al.*, 2000; Kim & Kim, 2010; Oshiro, 1986, 1990a, 1990b). Now, we have discovered this genus in China for the first time with one new species described below.

### Material and methods

Identification of species is mainly based on males. Figures of genitalia and body details were produced using a highly sensitive Tucsen TCC-5.0ICE digital camera (Xintu Photonics Co., Ltd, China) and IScapture 2.0 imaging software (same producer as CCD). Dissecting of genitalia was done on dead specimens. The dissecting needle was

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