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Article



## Review of the genus *Haplotropis* Saussure, 1888 (Orthoptera: Pamphagidae), with notes on classification of the subfamilies Pamphaginae and Trinchinae

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## Abstract

A review of the genus *Haplotropis* and a key to tribes of the subfamily Pamphaginae are given. New synonymy is proposed: *Haplotropis* Saussure, 1888 = *Sinohaplotropis* Cao et Yin, 2008, **syn. nov.**; *Haplotropis brunneriana* Saussure, 1888 = *Sinohaplotropis elunchuna* Cao et Yin, 2008, **syn. nov.**; *Haplotropis neimongolensis* Jin, 1994, **syn. nov.**; No-carodeini Bolivar, 1916 = Sulcatini Harz, 1975, **syn. nov.**, = Nocarodesinae Zhang, Yin et Yin, 2003, **syn. nov.**, = Tropidaucheninae Zhang, Yin et Yin, 2003, **syn. nov.**; Pamphagini Burmeister, 1840 = Orchaminae Zhang, Yin et Yin, 2003, **syn. nov.**; Trinchinae Stål, 1876 = Prionopropsinae Zhang, Yin et Yin, 2003, **syn. nov.** 

Key words: Orthoptera, Pamphagidae, Pamphaginae, Trinchinae, taxonomy, synonymy, East Asia

## Introduction

Genus *Haplotropis* was described by Saussure (1888) based on a single female from Amur River. Later Adelung (1910) established new genus *Staurotylus* from North East China. Bey-Bienko (1929) synonymized *Staurotylus* with *Haplotropis* and wrote that "Adelung's mistake was based on the wrong determination of the subfamily, because this author thought that his new *St. mandshuricus* is a member of the subfamily Pamphaginae". Described from Shaanxi province of China genus *Sulcotropis* (Yin & Chou, 1979) was synonymized with *Haplotropis* (Jin, 1994). A new genus closely related to *Haplotropis* was established recently from North East China (Cao & Yin, 2008).

Bolivar was inclined to think that genera *Haplotropis* and *Staurotylus* belong to the subfamily Batrachotetriginae (Bolivar, 1912), therefore did not include these genera in his monograph of the Palaearctic Pamphaginae (Bolivar, 1916).

Uvarov (1943) in his excellent review of the subfamily Pamphaginae recognized nine tribes within this subfamily. He re-examined the diagnostic characters of *Haplotropis* and placed it in the tribe Pamphagini, though noted "*Haplotropis* Saussure 1888 which was redescribed as a Batrachotetriginae, and again under the name *Staurotylus* by Adelung in 1910, who placed it in the Pamphagidae; future studies may show that it belongs to a tribe of its own, but for the time being it is best left in the Pamphagini, with which it agrees in the structure of the vertex, while certainly differing in this respects from the Trinchini".

Dirsh (1975) proposed to divide family Pamphagidae in four subfamilies and mentioned that the subdivision of Pamphaginae on lower taxa is possible, but rather difficult. Harz (1975) divided subfamily Pamphaginae (*sensu* Dirsh) in two tribes, Pamphagini (Krauss' organ present) and Sulcatini (Krauss' organ absent), but don't discuss the position of the *Haplotropis* because this genus is absent in Europe. The Sulcatini is unavailable name according to Article 13.2 of the Code (ICZN, 1999), because it is not based on the genus name. Otte (1994) placed all genera of subfamily to single tribe Pamphagini. Storozhenko & Paik (2007) followed Segreev (1986) again and mistakenly included the genus *Haplotropis* in the subfamily Trinchinae, though Jin (1994) placed genus *Haplotropis* in subfamily Pamphaginae without a definition of the tribe. Zhang, Yin & Yin (2003) ignoring the previous estab-