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Taxonomic changes in the treehopper genera *Helonica* Ball, *Telamona* Fitch, and *Palonica* Ball (Hemiptera: Membracidae: Smiliinae: Telamonini)

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Abstract

Nomenclatural changes within the treehopper tribe Telamonini are made as follows based on an examination of the type material of several species: the genus *Helonica* Ball is a junior synonym of *Telamona* Fitch, **n. syn.**; *Telamona excelsa* (Fairmaire), **n. comb.**, with **n. syn.** *T. unicolor* Fitch; *T. projecta* Butler is **reinstated** from synonymy as a valid taxon for the North American taxa historically placed in *Helonica*; and *Palonica albidorsata* (Fowler) from Mexico, **n. comb.**, is **reinstated** from synonymy based on morphological differences with *T. excelsa* and *T. projecta*. Lectotype designations are clarified for *T. fasciata* and *T. unicolor* based on specimens in the New York State Museum (NYSM). As a result of this work, the tribe Telamonini contains 68 species in 10 genera, the genus *Palonica* contains 7 species, and the genus *Telamona* contains 29 species.

Key words: Auchenorrhyncha, morphology, new combination, synonym

Introduction

Treehoppers in the tribe Telamonini are known for their large size and distinct pronotal projections in comparison to their closest relatives, the Smiliini (Wallace 2011). Prior to this work, the tribe was composed of 67 species in 11 genera (McKamey and Wallace 2015; Wallace 2015). Most species are found in North America (Wallace 2011; Deitz and Wallace 2012), where they feed on sap from various woody hosts, notably from the families Betulaceae, Fagaceae, Juglandaceae, and Salicaceae (Wallace 2014). Ball (1931), in his comprehensive North American taxonomic monograph on the Telamonini, summarized the generic and species diversity of the tribe. Recent studies have examined the tribe's higher level systematics (Wallace 2011), Nearctic diversity (Deitz and Wallace 2012), and biology (host plants and seasonality in Pennsylvania) (Wallace 2008; Wallace and Maloney 2010; Wallace 2014). Taxonomic work has included the first diagnoses of immatures for several species (Wallace 2014), nomenclatural changes (McKamey and Wallace 2015), and a newly described Neotropical telamonine genus, *Mutilifolia* (Wallace 2015). Notably, McKamey and Wallace (2015) assigned *Telamona ruficarinata* Fowler to the genus *Alchisme* Kirkaldy, and reinstated *T. celsa* Goding as a junior synonym of *T. monticola* (Fabricius).

The telamonine genus *Helonica* only contains one species, *H. excelsa* (Fairmaire). Representatives of this species in the United States are distinguished from other telamonines by a characteristic anterior overhanging pronotal lobe (Figs. 1A, E, F) with a convex dorsal pronotal margin. Nevertheless, following an examination by the author of the Telamonini plates and descriptions in Fowler's (1896c, d) *Biologia Centrali-Americanana* for a previous work (McKamey and Wallace 2015), the taxonomic status of *H. excelsa* (Fairmaire) (as *Telamona excelsa*; Fowler 1896c) and *Telamona albidorsata* Fowler (junior synonym of *H. excelsa*), was in question. Fowler's depiction of *Telamona excelsa* was apparently based on the holotype of *Thelia excelsa* Fairmaire, from Mexico, but this specimen differs greatly in appearance from the specimens in the U.S. identified as *H. excelsa* and strongly resembles a common North American species found on *Carya* spp., *Telamona unicolor* Fitch. *Telamona albidorsata* was declared a junior synonym of *H. excelsa* by Ball (1931), but Fowler's illustration bears no resemblance to any specimens of *H. excelsa* (the type material or any specimens collected in the U.S.).

Type specimens of the relevant taxa were examined, supporting the need for taxonomic changes in the genera