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A revision of the genus *Sierraphytoptus* Keifer 1939 (Eriophyoidea, Phytoptidae)

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Summary

Comparative analysis of the eriophyoid mites of the genus *Sierraphytoptus* Keifer 1939 (= *Fragaricoptes* Roivainen, 1951) (Phytoptidae: Sierraphytoptinae: Sierraphytoptini) living on strawberry (*Fragaria* spp.) found that they are represented by two species: *Sierraphytoptus setiger* (Nalepa, 1894) (= *Phyllocoptes setiger* Nalepa, 1894) and *Sierraphytoptus ambulans* **sp**. **n**. *Sierraphytoptus setiger* forms red galls on the leaves of *Fragaria viridis* Duch., whereas the vagrant species *S. ambulans* causes no visible damage and lives mostly on the lower leave surface of *Fragaria vesca* L. but sometimes on *F. viridis* also. A supplementary description of *S. setiger* from North-West Russia and a key to all species of the tribe Sierraphytoptini are given. A new combination *Austracus taiwanensus* (K.-W. Huang 2006) **comb. n.** (removed from the genus *Sierraphytoptus*) is proposed.

Key words: eriophyoid mites, new species, taxonomy, *Sierraphytoptus setiger, Sierraphytoptus ambulans*

Introduction

The evolution of mites of the superfamily Eriophyoidea is strongly related with the evolution of their host-plants (Sukhareva 1992, 1994; Oldfield 1996; Lindquist & Oldfield 1996; Bagnjuk *et al.* 1998). The family Phytoptidae Murray, 1877 includes the most ancient representatives of Eriophyoidea, which retain the plesiomorphies of more than two setae on the prodorsal shield (*ve* and *sc*) and having the subdorsal seta (*c1*) and solenidion (φ) on tibia I. According to the concept of Sukhareva (1992, 1994) and Bagnjuk *et al.* (1998), this family represents an early evolutionary lineage of eriophyoids on Angiosperm plants and includes equally annulated (subfamilies Phytoptinae Murray, 1877 and Novophytoptinae Roivainen, 1953) and diversely annulated forms (subfamily Sierraphytoptinae Keifer, 1944). The equally annulated phytoptine mites have an elongated worm-like body and a relatively small and rounded prodorsal shield. Critical analysis of the subfamily Phytoptinae and some data concerning morphology and biology of the mites of the genus *Phytoptus* from sedges and endoparasitic mites from the subfamily Novophytoptinae were given in our previous papers (Tchetverikov 2004; Chetverikov & Sukhareva 2007; Petanović *et al.* 2007; Chetverikov *et al.* 2009).

The diversely annulated Sierraphytoptinae are characterized by their compact fusiform body and relatively large prodorsal shield. This subfamily includes about 20 species, grouped in two tribes: Mackiellini Keifer, 1939 (inhabit Arecaceae [palms]) and Sierraphytoptini Keifer, 1944 (Amrine *et al.* 2003; Navia *et al.* 2007), representing the evolutionary lineage of Phytoptidae found on dicotyledonous plants. According to Amrine *et al.* (2003), the tribe Sierraphytoptini includes three monotypic genera — *Neopropilus* Huang, 1992, *Austracus* Keifer, 1944 and *Fragariocoptes* Roivainen, 1951 plus *Sierraphytoptus* Keifer, 1939, with the type species *S. alnivagrans* Keifer, 1939 and *S. taiwanensus* K.-W. Huang, 2006, recently described from Taiwan. Up to now, mites of this tribe were found on plants from four orders: Trochodendrales, Malpighiales, Fagales and Rosales (Sukhareva 1994; Amrine *et al.* 2003; Huang 2006).

Only two species of the tribe Sierraphytoptini [*Fragariocoptes setiger* (Nalepa, 1894) from *Fragaria* spp.

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