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Heliothrips haemorrhoidalis and its relatives, with one new species and one new genus (Thysanoptera: Thripidae)

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Abstract

Heliothrips similis **sp.n.** is described as a close relative of the greenhouse thrips, *Heliothrips haemorrhoidalis*. This is the third species recognized here in the Neotropical genus *Heliothrips*. A pest species described from South Africa as *Heliothrips sylvanus* is transferred to a new genus, *Neoheliothrips* **gen.n.,** as *Neoheliothrips sylvanus* (Faure) **comb.n**.

Key words: greenhouse thrips, *Heliothrips*, Neotropics, new species, new genus

Introduction

The greenhouse thrips, *Heliothrips haemorrhoidalis*, is one of the most ubiquitous members of the insect order Thysanoptera. It probably originated, as discussed below, in the southwestern part of the Amazon Basin, but is now known widely around the world, breeding on the leaves of a wide range of plants in many different families (Scott-Brown & Simmonds 2006).The species was first described in 1833 by Bouché as *Thrips haemorrhoidalis*, from specimens damaging leaves of plants in "warmen und kalten Häusen" presumably in Berlin. In 1836, and without any reference to this publication from Germany, the genus *Heliothrips* was erected by Haliday for a new species that he called *adonidum*, based on specimens collected in "hothouses" by Francis Walker, presumably in England. The original specimens of both *adonidum* and *haemorrhoidalis* are considered lost, and to achieve nomenclatural stability Wilson (1975) selected lectotypes for two subsequent subspecies dating from 1891 and 1923 respectively —*haemorrhoidalis abdominalis* Reuter and *haemorrhoidalis angustior* Priesner. The lectotype of *angustior* he further designated as the neotype of both *haemorrhoidalis* and *adonidum*, thus securing the synonymy of those species. Wilson (1975: 146) then stated that his redescription of *haemorrhoidalis* was based on this neotype. However, this is not strictly correct, because the structure of the metascutum in that redescription, and the measurements he provided, are based on a few specimens collected in 1948 near Rio de Janeiro, Brazil. Presumably he used these specimens because they were the best available slide-mounts, and moreover included the rarely seen males. However, these few specimens are structurally distinct from the world-wide species *haemorrhoidalis* as based on the neotype, and they are here described as a new species.

Biogeographically, the three South American *Heliothrips* species are of interest because each seems to be associated with a major refugium of the Quaternary dry period (Haffer 2008), in the Southwest, Southeast, or Atlantic forest to the East of the Amazon basin. In considering this distribution pattern, the systematic position of the South African species, *Heliothrips sylvanus*, needed re-assessment. Based on morphological data it apparently is not sister-group to the South American species of *Heliothrips* (Mound *et al*. 2001), and a new genus is proposed below for this species. Full nomenclatural information for all Thysanoptera is available at ThripsWiki (2015).

Heliothrips Haliday

Only three extant species are here recognized in this genus, although two further names are listed in ThripsWiki

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