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Review of *Chirothrips* and related genera (Thysanoptera: Thripidae) of the Americas, with descriptions of one new genus and four new species

SUEO NAKAHARA[1] & ROBERT G. FOOTTIT[2,3]

[1]*504 Prince George Street, Laurel, Maryland, 20702-4247, USA*
[2]*National Science Program–Environmental Health, Canadian National Collection of Insects*
Agriculture and Agri-Food Canada, K.W. Neatby Building, Room 3048, 960 Carling Avenue, Ottawa, Ontario, KIA OC6, Canada
[3]*Corresponding author. E-mail: Robert.Foottit@agr.gc.ca*

Abstract

The species of *Chirothrips* and related genera occurring in the Americas are reviewed. Seventeen species from the area are retained in *Chirothrips*, 15 species are treated in *Arorathrips*, two species in *Konothrips*, one species in *Oelschlaegera* and one species in the new genus *Unilobothrips*. The generic concepts of the four previously described genera are revised. Four new species, *Arorathrips childersi*, *Chirothrips hemingi*, *Konothrips colei*, and *Unilobothrips cornuatus* are described. *Chirothrips moultoni* Post is synomymized with *C. aculeatus* Bagnall, and *C. spinosus* Moulton with *Arorathrips texanus* (Andre). The following new combinations are proposed: *Arorathrips crassus* (Hinds), *A. crenulatus* (Hood), *A. dorsalis* (Hood), *A. lenape* (Hood), *A. oneillae* (Watts), *A. sericatus* (Hood), *A. texanus* (Andre), *A. vestis* (Hood) and *Oelschlaegeria priesneri* (Hood) (all from *Chirothrips*). *Chirothrips mongolicus* zur Strassen is returned to *Chirothrips* from *Arorathrips*. Identification keys to genera and species, and known distributions of the species, are provided.

Key words: *Arorathrips*, *Konothrips*, *Oelschlaegera*, *Unilobothrips*, new synonyms, new combinations, identification keys, species distribution

Introduction

All *Chirothrips*-related species breed in grasses and sedges. The eggs are deposited inside the florets or embedded in the ovaries (Doull 1956, Riherd 1954). In New Zealand, females of *C. manicatus* normally lay 1 egg per floret (Lewis 1973). Unlike most terebrantians, the larvae have atrophied legs and cannot walk. This stage and the pupal stages are found in the florets. The larvae of *C. falsus* Hood feed on the ovules and destroy the developing caryopses of certain grass species. In florets of other grass species, it feeds on the stigma and anthers (Watts 1965). *Chirothrips* adults feed on seedheads and foliage. Males are wingless and are restricted to plants upon which they developed. Mating occurs on the infested grasses and the macropterous females either remain or migrate to other plants. The adults overwinter in dead florets, stubble and debris (Lewis 1973, Watts 1965). In arid southwestern United States, some species hibernate under the bark of trees and in Spanish moss (Bailey 1957). *Arorathrips mexicanus* (Crawford), *Chirothrips aculeatus* Bagnall, *C. falsus* Priesner, *C. hamatus* Trybom and *C. manicatus* (Haliday) reduce commercial seed production and impede natural reseeding (Bailey 1948, Riherd 1954, Watts 1965).

The *Chirothrips*-like species were all assigned to the cosmopolitan genus *Chirothrips*, until Hood (1954) erected the genus *Agrostothrips* for *guillarmodi*, which he described from South Africa and Uganda. Knechtel (1960) described the monotypic *Ereikethrips* for *calcaratus* Knechtel from Romania. Bhatti (1990) assigned four additional *Chirothrips* species to *Agrostothrips*, one species each to new genera *Afrothripella*, *Longothrips*, *Konothrips* and *Oelschlaegera*, and four species to new genus *Arorathrips*. *Afrothripella* and *Longothrips* are each known only by the female holotype from the Ethiopian Region. Mound and Marullo (1996) treated six *Chirothrips* species known from the Neotropics in *Arorathrips*, and retained seven species in *Chirothrips*. In the latest work on this group for the European species, zur Strassen (2003) treated 15 species in *Chirothrips* and one each in *Agrostothrips* and *Ereikethrips*. Minaei and Mound (2010) placed *Agrostothrips* as a synonym of *Chirothrips*.

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