Zootaxa 3578: 43–68 (2012)
www.mapress.com/zootaxa/
Copyright © 2012 · Magnolia Press

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

urn:lsid:zoobank.org:pub:18937D02-65F0-44D4-B65A-C0DD468ED33A

New eriophyoid mites (Acari: Prostigmata: Eriophyoidea) in Britain: one new genus, four new species, 19 new records and two incursions

DANIEL R. L. PYE
The Food and Environment Research Agency, Sand Hutton, York, YO41 1LZ, United Kingdom (e-mail: daniel.pye@fera.gsi.gov.uk)

Abstract

One new genus and four new species of eriophyoid mites from Britain are described and illustrated: *Novophytoptus aculeatus* **n. sp.** (Phytoptidae) from *Juncus squarrosus* L. (Juncaceae); *Tegnacus unicornutus* **n. gen. & n. sp.** (Eriophyidae) from *Carpinus betulus* L. (Betulaceae); *Calacarus pusillus* **n. sp.** (Eriophyidae) from *Calluna vulgaris* (L.) Hull (Ericaceae); and *Brevulacus extensus* **n. sp.** (Diptilomiopidae) from *Quercus robur* L. (Fagaceae). Digital micrographs are also provided for each new taxon. Furthermore, 19 eriophyoid species are confirmed or recorded in Britain for the first time: one species in the family Phytoptidae, *Trisetacus ehmanni* Keifer from *Pinus sylvestris* L. (Pinaceae); 13 species belonging in the family Eriophyidae, *Abacarus acutatus* Sukhareva and *Aceria eximia* Sukhareva from *Calamagrostis epigeios* (L.) Roth (Poaceae), *Acaricalus hydrophylli* Keifer from *Ilex aquifolium* L. (Aquifoliaceae), *Aceria exigua* (Liro) from *C. vulgaris*, *Acaricalus rubrifoliae* Labanowski and *Glyptacus fagineae* Carmona from *Q. robur*, *Aculus cytisi* Labanowski from *Cytisus scoparius* (L.) (Fabaceae), *Anthocoptes transitionalis* Hodgkiss from *Acer pseudoplatanus* L. (Sapindaceae), *Calepitrimerus buxi* Petanović from *Buxus sempervirens* L. (Buxaceae), *Calepitrimerus crataegi* Malandraki, Petanović & Emmanouel from *Crataegus monogyna* Jacq. (Rosaceae), *Neotegonotus fastigatus* (Nalepa) from *Acer campestre* L. (Sapindaceae), *Phyllocoptes abaenus* Keifer from *Prunus spinosa* L., and *Platyphytoptus sabinianae* Keifer from *Pinus nigra* J.F. Arnold; five species belonging in the family Diptilomiopidae, *Brevulacus reticulatus* Manson from *Q. robur* and *Quercus cerris* L., *Cheiracus ornatus* (Farkas) from *Fagus sylvatica* L. (Fagaceae), *Quadracus urticarius* (Canestrini & Massalongo) from *Urtica dioica* L. (Urticaceae), *Rhinophytoptus bagdasariani* Shevtchenko & Pogosova from *Ulmus procera* Salisb. (Ulmaceae), and *Rhyncaphytoptus amplus* Keifer from *Acer pseudoplatanus* L. Two species are also recorded here in Britain as incursions, *Tumescoptes trachycarpi* Keifer on *Trachycarpus fortunei* (Hook.) H. Wendl. (Arecaceae) from a commercial plant nursery site, and *Aceria gilloglii* on *Pleioblastus distichus* (Mitford) Nakai [=*Arundinaria pygmaea* (Miq.) Asch. & Graebn. var. *disticha* (Mitford) C.S. Chao & Renvoize] (Poaceae) from a botanical garden. Collection details, distribution records and host symptoms are given for each species. The practice of publishing records solely identified from gall morphology and host association is also discussed.

Key words: Phytoptidae, Eriophyidae, Diptilomiopidae, gall mites, taxonomy, plant pest

Introduction

Eriophyoid mites (Acari: Eriophyoidea) are amongst the most economically important groups of phytophagous mites. As well as containing many economically damaging pest species, this group also has high potential for producing biocontrol agents of plant weeds due to their high host specificity (Skoracka *et al.* 2010; Smith *et al.* 2010). Furthermore, eriophyoid mites also have a great potential to become adventive species, mainly due to their size and difficulty of detection (Navia *et al.* 2010). It is important, therefore, to provide accurate national records to provide essential baseline data from which faunistic changes due to factors such as international trade and climate change can be monitored and accurately assessed (de Lillo & Skoracka 2010).

This current study presents 25 recent findings of new eriophyoid mites in Britain: one new genus and four new species are described and illustrated; 19 species are recorded or confirmed in Britain for the first time; and two incursions are recorded from a commercial plant nursery site and a botanical garden. Collection details and, where relevant, distribution records are given for each species, and digital micrographs are provided for each new taxon. The practice of publishing records solely identified from gall morphology and host association is also discussed.

Accepted by D. Knihinicki: 25 Oct. 2012; published: 10 Dec. 2012