



Three holarctic new species of ptyctimous mites (Acari, Oribatida)

WOJCIECH NIEDBAŁA^{1,3} & JOSEF STARÝ²

¹Department of Animal Taxonomy and Ecology, Adam Mickiewicz University, Umultowska 89, 61-614 Poznań.

E-mail: wojciech.niedbala@amu.edu.pl

²Biology Centre Academy of Sciences of the Czech Republic v.v.i., Institute of Soil Biology, Na sádkách 7, CZ-37005 České Budějovice, Czech Republic. E-mail: jstary@upb.cas.cz

³Corresponding author

Abstract

Three new species of the ptyctimous mite families Synichotritiidae and Phthiracariidae, *Synichotricha reticulata* **sp. nov.** from North Carolina, USA, *Phthiracarus paralaevigatus* **sp. nov.** from Western Slovakia and *Phthiracarus paralongulus* **sp. nov.** from South Bohemia, the Czech Republic are described and figured. All species of the genus *Synichotritia* are presented and their distribution is discussed. Comparison with the most related species of the genera *Synichotritia* and *Phthiracarus* is discussed.

Key words: new species, oribatid, ptyctimous mites, Holarctic, Slovakia, South Bohemia, Smoky Mountains

Introduction

In the year 2009, the first author began the revision and determination of the large collection of ptyctimous mites deposited in glycerol in the Institute of Soil Biology, České Budějovice, Czech Republic, as part of broader investigation of the distribution of ptyctimous mites in the Holarctic Region. Two new species of the genus *Phthiracarus* Perty, 1841 (Phthiracaridae, Phthiracaridae) were identified in soil samples from Central Europe (South Bohemia and Western Slovakia), and one new species of the genus *Synichotritia* Walker, 1965 (Euphthiracaridae, Synichotritiidae) was found in the litter samples from forests of Great Smoky Mountains National Park, USA. The aim of this paper is to give descriptions of these three new species. Types are deposited in the Department of Animal Taxonomy and Ecology, Poznań, Poland (DATE), Institute of Soil Biology BC ASCR, České Budějovice, Czech Republic (ISB) and in Great Smoky Mountains National Park Museum, Gatlinburg, USA (GSMNPM).

Methods

The specimens are preserved in alcohol. For identification the mites were macerated in lactic acid, then mounted on slides in glycerine. Observations, measurements and illustrations were made using a standard light microscope equipped with a drawing attachment. All measurements are given in micrometers. The terminology is based on that of Niedbała (2000).