



A new species of *Lachesilla* Westwood (Psocoptera: Lachesillidae) in the *andra* group with a proposed classification of the *andra* group

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Abstract

We describe *Lachesilla texana* Mockford and García Aldrete, **n. sp.**, with populations in northeastern Mexico, central and southern Texas, and Great Smoky Mountains National Park, Tennessee. Several minor differences are noted between the Smoky Mountains and the Texas-Mexican populations. We assign the new species to the *andra* group (García Aldrete 1974) and in order to place it within this large and complex species group, we propose a classification of the group with designation of four subgroups based primarily on male external genitalic and paragenitalic structures. Probable apomorphies are noted for each of the subgroups.

Keywords: Psocoptera, Lachesillidae, *Lachesilla*, Mexico, Texas, Tennessee, new species, disjunct distribution

Introduction

Psocoptera from the biological survey of the Great Smoky Mountains National Park (Parker and Bernard, 2006) were sent to ELM for identification. The material included an undescribed species in the large genus *Lachesilla*. Its affinities in the genus became clear only with the recent find of a single male. It has proven to be the same as an undescribed species long known to the authors from central and southern Texas and northern Mexico. The sample from the Smoky Mountains consists currently of only two females and one male. Comparison of this tiny sample with the much larger Texas-Mexican sample reveals several minor differences; however, the similarities are so overwhelming that we have chosen to call all a single species. If, later, more material becomes available from the Smoky Mountains or intervening localities, it may be necessary to revise this opinion.

The new species is assigned to the *andra* group (García Aldrete, 1974), and to clarify the relationships of species within this group, we propose a group classification based primarily on the great diversity of male terminal abdominal structures, supplemented with other structural and color characters of both sexes.

Material and Methods

The description of the new species is based on examination of the Smoky Mountains material plus ten males and 18 females of the Texas-Mexican material. Illustrations were made with the aid of a drawing tube (body parts) and microprojector (wings). Measurements (in microns) were made on slide-mounted parts (except IO/d measurements on whole, unmounted heads) with a filar micrometer. Color descriptions are based on observations through a dissecting microscope with direct light on specimens preserved in 80–95% ethyl alcohol for various periods of time. Photographs were taken with a ProgResTMC10 camera on a dissecting microscope (whole specimen) and on a compound microscope (body parts).