

Article

A new species of nasal mite of the genus *Rhinonyssus* (Mesostigmata: Rhinonyssidae) from Leningrad Province, Russia

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Abstract

A new species, *Rhinonyssus dobromiri* **sp. nov.**, from the genus *Rhinonyssus* Trouessart, 1894 is described from the avian host the Northern Lapwing, *Vanellus vanellus* L. (Charadriidae), which was collected in Leningrad province, Russia.

Key words: Rhinonyssidae, *Rhinonyssus*, nasal mites, Charadriiformes.

Introduction

Mites of the family Rhinonyssidae are a group of obligate blood-feeding respiratory endoparasites of birds (Pence 1975, Fain 1994, Knee & Proctor 2010). Most species parasitize the nasal cavities, although some occupy the lungs and tracheal tissues (Porter & Strandtmann 1952). Rhinonyssids appear to be transmitted directly from host to host when infested adult birds regurgitate food to their nestlings, or during courtship behavior. Indirect transmission has been reported through water, perches, and other contaminated surfaces (Bell 1996). Investigations of rhinonyssids are important because of the direct damage to their hosts, which has been described as Rhinonyssidosis avium disease (Dimov 2011). In addition, although they are probably not reservoirs and vectors of encephalitis (Winn & Bennington 1959), they do appear to carry *Rickettsia* infections (Spicer, unpublished). Consequently, the importance of these mites to wildlife disease needs to be determined.

The family Rhinonyssidae has an estimated 500 described species (Beaulieu *et al.* 2011) and consists of eight widely recognized genera (Domrow 1969, Pence 1975), although at least 35 genera have been proposed for the family. *Rhinonyssus*, the type genus of the family, currently includes about 30 described species, and is found in birds of the orders Charadriiformes and Podicipediformes. As with other genera in this group, there has been much discussion concerning species delineation. Some authors, such as Strandtmann (1951) and Domrow (1969), have suggested that slight morphological differences among specimens from closely related hosts are not sufficient to warrant species designation, and simply represent intraspecific variation. However, other authors have noted that some of these differences appear to be consistent within a given host species, but vary across host species. Consequently, Fain and Johnston (1966), Pence (1972), and Butenko (1984) have described or recognized separate species from related host species. Along similar lines, genetic data from another rhinonyssid genus, *Ptilonyssus* Berlese & Trouessart, suggests that there is