Syringophilid mites (Acari: Syringophilidae) of Kazakhstan

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Abstract

Fifteen syringophilid species of eight genera (Acari: Syringophilidae) were recorded from birds in Kazakhstan. Among them, 3 species and 1 genus are new for science: Corvitorotroglus alpha gen. nov. and sp. nov. from Corvus frugilegus (Corvidae), Charadriphilus ralli sp. nov. from Rallus aquaticus (Rallidae), and Syringophiloidus klimovi sp. nov. from Carduelis chloris (Fringillidae). Twelve species and five genera are new for Kazakhstan; new hosts were recorded for eight syringophilid species.

Key words: Acari, Syringophilidae, quill mites, parasites, birds, Kazakhstan

Introduction

Mites of the family Syringophilidae are permanent highly specialized parasites inhabiting quills of bird feathers (Kethley 1970). Taking into consideration the observed high host-specificity of these mites, the family Syringophilidae should be potentially very specious (Kethley & Johnston 1975). To date the syringophilid fauna of many Palaearctic regions has been poorly studied, especially Central Asia where just a few syringophilid species have been recorded (Chirov & Kravtsova 1995; Bochkov & Mironov 1998; Bochkov & Apanaskevich 2001).

In this paper we provide new data about Syringophilidae from Kazakhstan. Prior to this study, the syringophilid fauna of Kazakhstan included only six species from five genera: Syringophiloidus carpodaci Bochkov and Apanaskevich, 2001 from Carpodacus erythrinus (Pallas) (Passeriformes: Fringillidae); Syringophilopsis faini Bochkov and Apanaskevich, 2001 from Sylvia curruca (Linnaeus) (Passeriformes: Sylviidae); Syringophilopsis sturni Chirov and Kravtsova, 1995 from Sturnus vulgaris Linnaeus (Passeriformes: Sturnidae); Niglarobia calidridis Bochkov and Mironov, 1998 from Calidris minuta Leisler; Creagonycha totana (Oudemans, 1904) from Calidris minuta and Philoxanthornea dubinini Bochkov et Mironov, 1998 from Gelochelidon nilotica Gmelin (Charadriiformes: Sternidae) (Bochkov & Mironov 1998). Here we provide records of 15 syringophilid species from eight genera. Among them, three species and five genera are new for science, 12 species and five genera are new for Kazakhstan and new hosts were recorded for eight syringophilid species. The new taxa are described herein and an annotated check-list for all species recorded in Kazakhstan is provided (Table 1).

Material and methods

Birds examined in this study were mostly collected from two localities in Kazakhstan – the Chockpak Ornithological Station and Kyzylkol’ Lake in autumn 2007. The staff of the Chokpak Ornithological Station has the permanent permission from the National Academy of Sciences of the Republic of Kazakhstan for fowling in Kazakhstan. Flight feathers of live birds were examined under a dissecting microscope using 8X