



A new species and further records of quill mites (Acari: Cheyletoidea: Syringophilidae) parasitic on birds (Aves) in England

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Abstract

Four additional species of quill mites of the family Syringophilidae Lavoipierre have now been recorded in England. This includes one new species, *Bubophilus aluconis* **sp. nov.**, which parasitizes the tawny owl *Strix aluco* (Strigiformes: Strigidae). It differs from other species of this genus, *B. ascalaphus* Philips et Norton, 1978 and *B. asiobius* Skoracki et Bochkov, 2002 by the number of chambers in transverse branch of the peritremes (2-3), the length ratio of setae *vi* and *ve* (1:1.6-2), and the lengths of the stylophore and aggenital setae *agI* (180 and 135-145, respectively).

Key words: Acari, Syringophilidae, ectoparasites, quill mites, *Strix aluco*

Introduction

The syringophilid mites are parasites living and reproducing within the quills of the remiges, retrices, coverts and body feathers of birds. They feed on the fluids of the soft tissue of their hosts by piercing the quill wall with their styletiform chelicerae (Kethley 1971; Casto 1974). Whilst some species are monoxenous, others are oligoxenous. The world fauna currently embraces more than 160 species assigned to 36 genera and two subfamilies (Bochkov *et al.* 2004; Skoracki & Sikora 2004). To date, the quill mite fauna in England comprises six species reported from passerine (Passeriformes) bird hosts: 1) *Syringophiloidus minor* (Berlese) from *Passer domesticus* L. (Passeridae) and from *Carduelis chloris* (L.) (Fringillidae), 2) *Syringophilopsis fringilla* (Fritsch) from *Fringilla coelebs* L. (Fringillidae), 3) *Torotrogla modularis* Nattress et Skoracki from *Prunella modularis* (L.) (Prunellidae), 4) *S. kirgizorum* Bochkov *et al.* from *Carduelis chloris* (L.), 5) *S. hirundus* Skoracki from *Hirundo rustica* L. (Hirundinidae), and 6) *Neosyringophilopsis troglodytis* (Fritsch) from *Troglodytes troglodytes* (L.) (Troglodytidae) (summarized in Nattress & Skoracki 2007).

The present paper contains a description of a new species *Bubophilus aluconis* **sp. nov.** which was collected from the greater coverts of *Strix aluco* L. This new species differs from other species of this genus by the number of chambers in transverse branch of the peritremes, the length ratio of setae *vi* and *ve*, and the lengths of the stylophore and aggenital setae *agI*. Additionally, new records of syringophilid mites in the English fauna are added.

Materials and methods

The mite material used in the present study was collected from birds provided by local volunteers and ornithologists. Mites were mounted on micro-slides in a polyvinyl lacto-glycerol medium and examined with phase contrast with a Zeiss Photomicroscope II. Drawings were made with an Olympus BH2 microscope with