New host records for parasitic mites of the family Syringophilidae from accipitriform birds (Aves: Accipitriformes)

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ABSTRACT. Four accipitriform bird species of the family Accipitridae are reported as new hosts for quill mites (Acari: Cheyletoidea: Syringophilidae): Megasyringophilus aquilus Skoracki, Lontkowski and Stawarczyk, 2010 was collected from Hieraaetus pennatus Gmelin, 1788 in France and Spain, and Buteo jamaicensis Gmelin, 1788 in Canada; Peristerophila accipitridicus Skoracki, Lontkowski and Stawarczyk, 2010 was collected from Circaetus gallicus Gmelin, 1788 in France, and Buteo lagopus Pontoppidan, 1763 in Germany.

Key words: Acari, Accipitridae, birds, ectoparasites, quill mites

Introduction

Quill mites are permanent, obligatory, mono- or oligoxenous parasites of birds and they represent a diverse assemblage of several families of mites that have independently invaded the quills of various types of feathers. The Syringophilidae (Prostigmata: Cheyletoidea) are one of the most diverse and common families of quill mites with 334 described species and 60 genera reported from 482 bird species representing 95 families and 24 orders [1,2]. To date, only three species of syringophilids have been collected from five Accipitridae host species: a) Megasyringophilus aquilus Skoracki, Lontkowski and Stawarczyk, 2010 recorded from Accipiter nisus Linnaeus, 1758 from Kazakhstan [3] and on Terathopius ecaudatus Daudin, 1800 [4] from unknown locality in Africa.

This study provides new data about the host ranges of syringophilids associated with accipitriform birds.

Material and Methods

The mite material used in present study was collected from: 1) feathers deposited in the Ornithological Collection of the Bavarian State Collection of Zoology (ZSM), Munich, Germany (for host species Hieraaetus pennatus, Circaetus gallicus and Buteo jamaicensis). All mite specimens have been mounted in the Faure’s or PVA medium and examined using a ZEISS Axioscope compound microscope. Specimen depositories are cited using the following abbreviations: AMU: Adam
Mickiewicz University, Department of Animal Morphology, Poznan, Poland; ZSM: Bavarian State Collection of Zoology, Munich, Germany; CNC: Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, Canada.

Results

Family: Syringophilidae Lavoipierre, 1953
Subfamily: Syringophilinae Lavoipierre, 1953

1. **Megasyringophilus aquilus** Skoracki, Lontkowski and Stawarczyk, 2010


2. **Peristerophila accipitridicus** Skoracki, Lontkowski and Stawarczyk, 2010

**Material examined.** Ex *Circaetus gallicus* Gmelin, 1788 (Accipitriformes: Accipitridae) (*new host*); FRANCE, Poitiers, 20 July 2006, coll. unknown [habitat: quills of body feathers]: 6 females deposited in the AMU, and 2 females in the ZSM. Ex *Buteo lagopus* Pontoppidian, 1763 (Accipitridae) (*new host*); GERMANY, Hannover, 16 March 2004, coll. P. Becker [habitat: quills of body feathers]: 15 females and 2 males deposited in the AMU, and 5 females and 1 male in the ZSM.

**Remarks.** The broad host ranges of *M. aquilus* and *P. accipitridicus*, collected from bird species in five and four genera respectively (Table 1), suggests that these species are possibly common associates of accipitrid hosts, more host species need to be examined to further elucidate the host ranges of these mites. It is possible that the syringophilid species collected by Casto from *Buteo jamaicensis* in the United States (Texas) [5], and determined as *Peristerophila columbae* is actually *P. accipitridicus*. The material collected by Casto needs to be examined in order to confirm the species level identification.

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References

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