



Fur mites of the genus *Schizocarpus* Trouessart (Acari: Chirodiscidae) parasitizing the Eurasian beaver *Castor fiber belorussicus* Lavrov (Rodentia: Castoridae) in NE Poland (Suwałki)

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Abstract

Twenty species of the genus *Schizocarpus* Trouessart, 1896 (Acari: Chirodiscidae) are recorded from six live individuals of the Eurasian beaver *Castor fiber belorussicus* Lavrov (Rodentia: Castoridae) captured by modified fish-traps near Wizajny village (Suwałki, north-eastern Poland). Eight species are described as new: *Schizocarpus heatherae* sp. nov., *S. faini* sp. nov., *S. klompeni* sp. nov., *S. parahumilis* sp. nov., *S. gozdziwski* sp. nov., *S. pseudonumerosus* sp. nov., *S. zurowskii* sp. nov., and *S. testiculatus* sp. nov. Twelve previously described species are as follows: *S. brachyurus* (Dubinina, 1964), *S. capitis* (Dubinina, 1964), *S. curtus* Fain and Lukoschus, 1985, *S. fedjushini* (Dubinina, 1964), *S. insignis* Fain and Lukoschus, 1985, *S. intercalatus* Fain and Lukoschus, 1985, *S. numerosus* (Dubinina, 1964), *S. parvus* (Dubinina, 1964), *S. pygidialis* Fain and Lukoschus, 1985, *S. radiatus* Fain and Lukoschus, 1985, *S. subhexapilis* Fain and Lukoschus, 1985, and *S. subparvus* (Dubinina, 1964). Data on geographical distribution and microhabitats of *Schizocarpus* spp. detected on *C. f. belorussicus* in the Suwałki population are summarized in table format.

Key words: Chirodiscidae, ectoparasitic mites, Eurasian beaver, Poland, *Schizocarpus*, systematics

Introduction

Fur mites of the genus *Schizocarpus* Trouessart, 1896 (Acariformes: Chirodiscidae) are permanent ectoparasites inhabiting the undercoat of beavers (Rodentia: Castoridae) (Bochkov 2010). They are strongly specialized morphologically for living in the fur of hosts (Labrzycka 2006). In these mites, the idiosoma is subcylindrical, the cuticle between coxal fields I and II bears striated membranes, and the two anterior pairs of legs consist of only two articulated segments and have distinctly developed tarsal flaps (Fig. 1).

Forty-eight species of *Schizocarpus* have been described so far from the two extant beaver species, the Eurasian beaver *Castor fiber* Linnaeus and the American beaver *Castor canadensis* Kuhl. More than ten mite species can simultaneously parasitize a host individual where they inhabit different fur zones (Dubinina 1964; Fain *et al.* 1984; Fain & Lukoschus 1985; Fain & Whitaker 1988; Dubinina *et al.* 1993; Bochkov & Dubinina 2011). There are no *Schizocarpus* spp. common to these beaver species. The records of *S. mingaudi* Trouessart, 1896, a common parasite of *C. canadensis*, on the Eurasian beaver are the result of incorrect determination (for old references see Dubinina 1964) or transfers of this mite to *C. fiber* from *C. canadensis* that co-occurred with them in captivity (Bochkov & Dubinina 2011). To date, 30 *Schizocarpus* spp. are known from Eurasian beavers belonging to different allopatric populations (Fain & Lukoschus 1985; Bochkov & Dubinina 2011).

The Eurasian beaver was almost exterminated by the beginning of 1920s and only several relic populations have survived. The descendants of each of these relic populations are currently considered separate subspecies.