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Rigorózní práce

**A review of mites of the genus *Neharpyrhynchus* Fain (Acari :
Harpirhynchidae) – ectoparasites of wild birds, including
description of four new species**

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Školitel: RNDr. František Dusbábek DrSc.

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Anotace:

This study provides a review of the mites of the genus *Neharpyrhynchus* Fain, 1972 (Acari: Harpirhynchidae) that are recorded on European birds, including four described species in this paper as new: *N. bochkovi* n. sp., *N. pari* n. sp., *N. schoenobaenus* n. sp. and *N. spinus* n. sp. Based on external morphology of European species, as well as of the extraeuropean species *N. baile* (Bochkov, Literak and Capek, 2007), *N. squamiferus* (Fain, 1972) and *N. trochilinus* (Fain, 1972), five species groups (i.e., *N. baile* group, *N. hippolae* group, *N. pilirostris* group, *N. plumaris* group and *N. squamiferus* group) are described. The prevalence of bird infestation by individual European *Neharpyrhynchus* species is defined according to recent field examinations in the Czech Republic and on the border between Slovakia and Poland. A key for determining females of all known species is included.

Prohlašuji, že v souladu s § 47b zákona č. 111/1998 Sb., v platném znění souhlasím se zveřejněním své rigorózní práce, a to v nezkrácené podobě – v úpravě vzniklé vypuštěním vyznačených částí archivovaných Přírodovědeckou fakultou – elektronickou cestou ve veřejně přístupné části databáze STAG provozované Jihočeskou univerzitou v Českých Budějovicích na jejich internetových stránkách.

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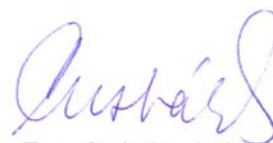
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A REVIEW OF MITES OF THE GENUS *NEHARPYRHYNCHUS* FAIN (ACARI: HARPIRHYNCHIDAE) - ECTOPARASITES OF WILD BIRDS, INCLUDING DESCRIPTION OF FOUR NEW SPECIES

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ABSTRACT - Seven species of the genus *Neharpyrhynchus* Fain, 1972 (Acari: Harpirhynchidae) are recorded on European birds, including four described in this paper as new: *N. bochkovi* n. sp., *N. pari* n. sp., *N. schoenobaenus* n. sp. and *N. spinus* n. sp. Based on external morphology of European species, as well as of the extraeuropean species *N. baile* (Bochkov, Literak and Capek, 2007), *N. squamiferus* (Fain, 1972) and *N. trochilinus* (Fain, 1972), five species groups (i.e., *N. baile* group, *N. hippolae* group, *N. pilirostris* group, *N. plumaris* group and *N. squamiferus* group) are described. The prevalence of bird infestation by individual European *Neharpyrhynchus* species is defined according to recent field examinations in the Czech Republic and on the border between Slovakia and Poland. A key for determining females of all known species is included.

Key words - Acari, Harpirhynchidae, *Neharpyrhynchus*, mites, birds, Czech Republic.

INTRODUCTION

Neharpyrhynchus was established by Fain (1972) as a subgenus of the genus *Harpirhynchus* Megnin, 1878 with type species *Harpirhynchus (Neharpyrhynchus) plumaris* Fritsch, 1954. In 1995, it was elevated to the genus level by Fain (1995). In the same paper, Fain characterized females of the genus by their elongated and sacciform bodies and well-developed dorsal shields. Setae *ve*, *sci* and *sce* are set close to one another. Legs I-II are moderately reduced in size. Legs III have one or two free segments, while legs IV are of just one segment. Both legs III and IV bear long and strong setae. The sexual aperture in the male is situated slightly behind the middle of the dorsal shield. There is a short penis, originating behind the genital aperture. Bochkov *et al.* (1999) in their cladistic analysis of the family Harpirhynchidae recognized three generic groups in the cluster of the subfamily Harpirhynchinae. One of them, the group *Neharpyrhynchus-Metharpyrhynchus* is marked by three synapomorphies: (1) idiosoma elongated, sacciform; (2) setae *vi*

and *ve* (= *ve* and *sci* according to Fain, 1995) in female situated ventrally; and (3) setae *sce* and *h* (= *h* and *sh* according to Fain, 1995) in female short or absent.

Bochkov and Literak (2006) recognized three European *Neharpyrhynchus* species in their review of the European Harpirhynchidae: *Neharpyrhynchus hippolae* Bochkov, 2000; *N. pilirostris* (Berlese and Trouessart, 1889) and *N. plumaris* (Fritsch, 1954), all found on European passeriform birds. Two species from exotic birds that died in the Antwerp Zoo in Belgium during their quarantines were described by Fain (1972). The first, *N. squamiferus* (Fain, 1972), originated from a *Temenuchus pagodarum* (Gmelin, 1789) from India, and the second, *N. trochilinus* (Fain, 1972), from an unidentified hummingbird and from the hummingbird *Chrysolampis moschitus* (L., 1758) originating from South America. The sixth species, *N. baile* (Bochkov, Literak and Capek, 2007), collected from *Turdus leucomelas* Vieillot, 1818 in Brazil, was described recently (Bochkov *et al.*, 2007). *Neharpyrhynchus novoplumaris* (Moss, Oliver and Nelson, 1968) was tentatively synonymized by Fain (1995)