



<http://dx.doi.org/10.11646/zootaxa.3710.1.4>

<http://zoobank.org/urn:lsid:zoobank.org:pub:36BEB161-20B5-472C-9815-53C86AD647E1>

Feather mites of the genus *Zachvatkinia* Dubinin, 1949 (Astigmata: Analgoidea: Avenzoariidae) from Saudi Arabia: A new species and two new records

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Abstract

Feather mites of the family Avenzoariidae (Acari: Astigmata: Analgoidea) are recorded for the first time in Saudi Arabia. A new avenzoariid species, *Zachvatkinia (Zachvatkinia) repressae* sp. n. (Avenzoariidae: Bonnetellinae), is described from the White-cheeked Tern, *Sterna repressa* Hartert, 1916 (Charadriiformes: Sternidae). The new species belongs to the *sternae* group and is closely related to *Z. (Z.) chlidoniae* Mironov, 1989a. Two more species, *Z. (Z.) dromae* Mironov, 1992 and *Z. (Z.) sternae* (Canestrini & Fanzago, 1876), were collected from the Crab Plover *Dromas ardeola* Paykull, 1805 (Charadriiformes: Dromadidae) and the Sooty Gull *Ichthyophaga hemprichii* (Bruch, 1853) (Charadriiformes: Laridae), respectively. Among the 18 described species of *Zachvatkinia* Dubinin, 1949, including the new species, this is the fifth species recorded from a sternid host. The remaining 13 nominal species are associated with birds of the families Diomedidae, Dromadidae, Hydrobatidae, Laridae, Pelecanoididae, Procellariidae and Stercorariidae. A checklist of world species of *Zachvatkinia* with data on their distribution and type hosts is also provided.

Key words: Astigmata, feather mites, Avenzoariidae, Bonnetellinae, new species, *Zachvatkinia*, Saudi Arabia

Introduction

The feather mite genus *Zachvatkinia* Dubinin, 1949 (Astigmata: Analgoidea: Avenzoariidae: Bonnetellinae) was originally established by Trouessart (1916) under the name *Giebelia* Trouessart, 1916. Since the latter name appeared preoccupied, Dubinin (1949) proposed a replaced name *Zachvatkinia*. This genus currently includes 18 nominal species (Buchholz 1869; Canestrini & Fanzago 1876; Bonnet 1924; Dubinin 1949; Chirov 1978; Mironov 1989a, b, 1991b, 1992; Mironov & Stefan 2013) (Table 1). Mironov (1989b) divided the genus into two subgenera, *Zachvatkinia* and *Rhinozachvatkinia*, on the basis of the structure of their gnathosoma and form of setae *mG* of genua I. The most extensive work on this genus has been done by Mironov (1989a, b, 1991a, b, 1992). Representatives of this genus occur on various avian families of the orders Charadriiformes (Dromadidae, Laridae, Stercorariidae and Sternidae) and Procellariiformes (Diomedidae, Hydrobatidae, Pelecanoididae and Procellariidae) (Table 1).

Including mites, external parasites of wild birds are poorly studied in Saudi Arabia (El-Ahmed *et al.* 2012). Bafort and Fain (1984) reported endoparasitic hypopi of *Phalacrodectes (Peledectes) punctatissimus* Cerny, 1969 and *Pelecanectes apunctatus* Pence & Courtney, 1973 (Sarcoptiformes: Hypoderoidea: Hypoderidae) from the air sacs of the Great White Pelican, *Pelecanus onocrotalus* Linnaeus, 1758 (Pelecaniformes: Pelecanidae) in Dammam, Eastern province. The present study is a first step in surveying the ectoparasite fauna associated with marine birds in Saudi Arabia.