SUBSTITUTE NAMES FOR SIX PRIMARY HOMONYMS IN THE FEATHER MITE GENUS *PROCTOPHYLLODES* ROBIN, 1868 (ACARIFORMES: PROCTOPHYLLODIDAE)

Sergey V. Mironov[1, *] and Joel Hallan[2]

[1] Zoological Institute, Russian Academy of Sciences, Saint Petersburg, Russia
[2] Texas Parks and Wildlife Department, Austin, Texas, USA
[*]corresponding author; e-mail: sergei.mironov@zin.ru

ABSTRACT: Six cases of primary homonyms were identified for the species and subspecies names originally given to eleven nominal taxa in the feather mite genus *Proctophyllodes* Robin, 1868 (Proctophyllodidae: Proctophyllodinae). Previously, experts did not recognize these homonyms because identical species-group names have been established in different subgenera of the above genus. Subsequently, nominal taxa bearing a senior homonymic name, as well as both taxa in the homonymic pairs, were transferred to different genera and families. Under the Article 57.4 of the acting ICZN Code, we herein propose substitute names for the following junior homonyms. *Proctophyllodes aphyllus* Gaud and Mouchet, 1957 [preocc.: *Proctophyllodes* (*Alloptes*) *aphyllus* Trouessart, 1885 (Proctophyllodidae: *Monojoubertia*] is renamed to *Proctophyllodes triangularis* nom. n. *Proctophyllodes elegans* Atyeo and Braasch, 1966 [preocc.: *Proctophyllodes* (*Pterocolus*) *elegans* Trouessart, 1887 (Trouessartiidae: *Uniscutalges*)] is renamed to *Proctophyllodes elegantiphyllus* nom. n. *Proctophyllodes euryurus* Atyeo and Braasch, 1966 [preocc.: *Proctophyllodes* (*Alloptes*) *euryurus* Trouessart, 1885 (Alloptidae: *Ceraturoptellus*)] is renamed to *Proctophyllodes eurypygus* nom. n. *Proctophyllodes* (*Pterodectes*) *intermedius* Trouessart and Neumann, 1888 [preocc.: *Proctophyllodes* (*Proctophyllodes*) *intermedius* Trouessart, 1885 (Proctophyllodidae: Pterodectinae: *Pterodectes*, species inquerendum] is renamed to *Anisophyllodes atyeoi* nom. n. (Proctophyllodidae: Proctophyllodinae). *Proctophyllodes minor* Berla, 1959 [preocc.: *Proctophyllodes* (*Alloptes*) *phaetontis minor* Trouessart, 1885 (Alloptidae: *Laminalloptes*)] is renamed to *Platyacarus berlai* nom. n. (Proctophyllodidae: Proctophyllodinae). *Proctophyllodes* (*Alloptes*) *bisetatus minor* Trouessart, 1885: 68 [preocc.: *Proctophyllodes* (*Alloptes*) *phaetontis minor* Trouessart, 1885: 67 (Alloptidae: *Laminalloptes*)], also known under the combination *Alloptes crassipes minor*, is renamed to *Alloptes (Alloptes) dubinini* nom. n. (Alloptidae: Alloptinae).

KEY WORDS: Astigmata, Proctophyllodidae, systematics, taxonomy, primary homonym, substitute name.

DOI: 10.21684/0132-8077-2022-30-1-23-28

INTRODUCTION

The feather mite genus *Proctophyllodes* Robin, 1868 (Proctophyllodidae: Proctophyllodinae), established in the second part of the 19th century, is one of the oldest feather mite genera. With over 184 described species, this is the most species-rich genus among all feather mite families (Atyeo and Braasch 1966; Gaud and Atyeo 1996; Mironov 2012; Mironov *et al*. 2017). In the taxonomic works by Trouessart (1885, 1887), this genus was subdivided into five subgenera (*Alloptes* Canestrini, 1879, *Proctophyllodes* s. str., *Pterocolus* Haller, 1878, *Pterodectes* Robin, 1877 and *Pterophagus* Robin, 1877) and, from the modern taxonomic point of view, included almost all feather mite species of the feather mite families Alloptidae, Falculiferidae, Proctophyllodidae and Trouessartiidae. At the very end of 19th century, all subgenera, other than the nominal one, were removed and elevated to the full generic rank (Canestrini and Kramer 1899). The modern taxonomic borders of the genus *Proctophyllodes* were outlined in the world revision of this genus, and no subgenera are currently recognized within it (Atyeo and Braasch 1966). The latest checklist of the world fauna of this genus was provided by Mironov (2012). Since then, 22 more *Proctophyllodes* species have been described in various publications (Mironov and OConnor 2014; Wang *et al.* 2014; Hernandes *et al*. 2017; Mironov 2017, 2019; Mironov *et al*. 2017; Pedroso and Hernandes 2021; Zhang *et al*. 2021).

In the process of putting together world checklists of various feather mite taxa, we have found six cases of primary homonyms in the feather mite genus *Proctophyllodes*, i.e., cases when identical species-group names (species or subspecies) were initially established within the same genus (Article 57.2 of ICZN 1999). Feather mite experts, who worked over the past hundred years, did not recognize these homonyms because identical names were established within different subgenera of *Proctophyllodes*, and, subsequently, nominal taxa bearing a senior homonymic name, as well as both

taxa with coinciding names in the homonymic pairs, were placed in different genera and even families. However, according to the Article 57.4 of the acting ICZN Code (1999), subgeneric names are irrelevant to homonymy, and identical names proposed for different nominal taxa in different subgenera of the same genus are primary homonyms.

In the present work, following the Article 57.4, we propose substitute names for junior homonyms in six cases of primary homonymy identified in the genus *Proctophyllodes*. We also provide corresponding comments on their original descriptions and type host-associations.

SYSTEMATICS

Family **Proctophyllodidae Trouessart and Mégnin, 1884**

Subfamily **Proctophyllodinae Trouessart and Mégnin, 1884**

Genus ***Proctophyllodes* Robin, 1868**

Proctophyllodes triangularis Mironov and Hallan nom. n.

Proctophyllodes aphyllus Gaud and Mouchet, 1957: 509–510, Figs. 8B, 9A [preoccupied: *Proctophyllodes* (*Alloptes*) *aphyllus* Trouessart, 1885: 65 (presently: Proctophyllodidae: Proctophyllodinae: *Monojoubertia*)]; Gaud and Till 1961: 250; Atyeo and Braasch 1966: 96, Figs. 79, 80.

Proctophyllodes aphyllus Gaud and Mouchet 1957 was described from the Shining Drongo, *Dicrurus atripennis* Swainson, 1837 (Passeriformes: Dicruridae), in Cameroon (Gaud and Mouchet 1957). Further, in the world revision of the genus *Proctophyllodes,* this mite species was redescribed by Atyeo and Braasch (1966) based on a portion of type materials. This name is a junior homonym because it was preoccupied by the older name, *Proctophyllodes* (*Alloptes*) *aphyllus* Trouessart, 1885, which was initially described, without illustration, from the Pine Grosbeak, *Pinicola enucleator* (Linnaeus, 1758) (Passeriformes: Fringillidae), in Europe (Trouessart 1885). Later on, Berlese (1897: Fasc. 82, No. 1) redescribed the species from *Pinicola enucleator* in the content of the genus *Alloptes* Canestrini 1879 (Alloptidae), which has gotten its full generic status by then. Barlese (1897) has also provided this species with illustrations for the first time, based on Trouessart's material. Further, Radford (1953: 213; 1958: 61) moved this species in the newly established genus *Monojoubertia* Radford, 1953 (Proctophyllodidae: Proctophyllodinae). In the revision of the genus *Monojoubertia*, Atyeo and Gaud (1970) reproduced the drawings of *Monojoubertia aphylla* (Trouessart, 1885) made by Berlese (1897), and referred it to a separate species group *aphylla* within the genus, noting that the type specimens have never been located and were apparently lost. The species *Monojoubertia aphylla* remains an enigma for feather mite experts because it has never been recollected from the type host or any other bird.

Etymology. The substitute specific epithet refers to the triangle-shaped terminal lamellae in males.

Proctophyllodes elegantiphyllus Mironov and Hallan nom. n.

Proctophyllodes elegans Atyeo and Braasch, 1966: 209, Figs. 198–200 [preoccupied: *Proctophyllodes* (*Pterocolus*) *elegans* Trouessart, 1887: 146 (presently: Trouessartiidae: *Uniscutalges*)].

Proctophyllodes elegans Atyeo and Braasch 1966, whose males are characterized by having the terminal lamellae of a very peculiar leaf-like shape, was described from the Rufous-bellied Niltava, *Niltava* (=*Muscicapa*) *sundara* Hodgson, 1837 (Passeriformes: Muscicapidae), in Malaya (Atyeo and Braasch 1966). This species name is a junior homonym because it was preoccupied by *Proctophyllodes* (*Pterocolus*) *elegans* Trouessart, 1887, described from the Yellow-rumped Tinkerbird, *Pogoniulus bilineatus leucolaima* (Verreaux, J. and Verreaux, É., 1851) (Piciformes: Lybiidae), in Congo (Trouessart 1887). Subsequently, the species described by Trouessart (1887) was transferred to the family Trouessartiidae, where it was placed in the genus *Allanages* Trouessart, 1887 (Canestrini and Kramer 1899; Gaud and Mouchet 1957). Finally, in a review of selected trouessartiid genera (Orwig 1968), it was included in the genus *Uniscutalges* Orwig, 1968.

Etymology. The substitute epithet, as the initial name, refers to a peculiar shape of the terminal lamellae in males.

Proctophyllodes eurypygus Mironov and Hallan nom.n.

Proctophyllodes euryurus Atyeo and Braasch, 1966: 198, Figs. 189–191 [preoccupied: *Proctophyllodes* (*Alloptes*) *euryurus* Trouessart, 1885: 69 (presently: Alloptidae: Oxyalginae: *Ceraturoptellus*)].

Proctophyllodes euryurus Atyeo and Braasch, 1966 was initially described in the world revision of the genus *Proctophyllodes* from the Eurasian Skylark, *Alauda arvensis* Linnaeus, 1758 (Passeriformes: Alaudidae), based on material from several European countries (England, France and the Netherlands) (Atyeo and Braasch 1966). This species is a junior homonym because it was preoccupied by *Proctophyllodes* (*Alloptes*) *euryurus* Trouessart, 1885, described from the Roseate Spoonbill, *Platalea ajaja* Linnaeus, 1758 (Pelecaniformes: Threskiornithidae), in South America (Trouessart 1885). Further, Peterson and Atyeo (1972) placed the species from the Roseate Spoonbill in the genus *Ceraturoptellus* Černý, 1969 (Alloptidae: Oxyalginae) and provided its detailed redescription.

Etymology. The substitute epithet is a combination of *eurús* (Gr. *wide*) and *pygē* (Gr. *rump*) and refers, as the initial name, to the rounded posterior end of the opisthosoma in males.

Genus *Anisophyllodes* Atyeo, 1967

Anisophyllodes atyeoi Mironov and Hallan nom.n.

Proctophyllodes intermedius Trouessart, 1888: in Poppe 1888: 227, nom. nudum.
Proctophyllodes (*Pterodectes*) *intermedius* Trouessart and Neumann, 1888: 369, Pl. XXV, fig. 10 [preoccupied: *Proctophyllodes* (*Proctophyllodes*) *intermedius* Trouessart, 1885: 78 (presently: Proctophyllodidae: Pterodectinae: *Pterodectes*, species inquerendum)]
Alloptes intermedius: Canestrini and Kramer 1899: 108; Radford 1953: 213, 1958: 148; Atyeo and Braasch 1966: 313.
Pterodectes intermedius: Vitzthum 1922: 53 (part.)
Anisophyllodes intermedius: Atyeo 1969: 153, Figs. 1–3.

Proctophyllodes (*Pterodectes*) *intermedius* Trouessart and Neumann, 1888 was described from the Caribbean Elaenia, *Elaenia martinica* Linnaeus, 1766 (Passeriformes: Tyrannidae), probably from the West Indies ("America") (Trouessart and Neumann 1888). Atyeo (1969) redescribed this species and placed it in a proctophyllodine genus *Anisophyllodes* Atyeo, 1967 (Proctophyllodidae: Proctophyllodinae). This species name is a junior homonym because it was preoccupied by *Proctophyllodes* (*Proctophyllodes*) *intermedius* Trouessart, 1885, described from the Black-and-yellow Broadbill, *Eurylaimus ochromalus* Raffles, 1822 (Passeriformes: Eurylaimidae), in Malacca, Malaysia (Trouessart 1885). In the redescription of *Anisophyllodes intermedius*, in the paragraph on synonymy, Atyeo (1969), while noting that this species was different from *Pr.* (*Pr.*) *intermedius* Trouessart, 1885, did not consider a substitute name necessary. Both in the revision of the genus *Proctophyllode*s (Atyeo and Braasch 1966) and in the generic revision of the subfamily Pterodecteinae (Park and Atyeo 1971), the species from the Black-and-yellow Broadbill was considered under the name *Pterodectes intermedius* (Trouessart, 1885). However, it was treated as an unassigned species, until it has been critically re-examined. This mite has never been re-examined or recollected from the type host so far.

Etymology. The substitute name is given in honor of Prof. Warren T. Atyeo, a world known expert on the systematics of feather mites.

Genus *Platyacarus* Kudon, 1982

Platyacarus berlai Mironov and Hallan nom.n.

Proctophyllodes minor Berla, 1959: 203, Figs. 1–4 [praeoccupied: *Proctophyllodes* (*Alloptes*) *phaetontis minor* Trouessart, 1885: 67 (presently: Alloptidae: Alloptinae: *Laminalloptes*)].
Pterodectes minor: Atyeo and Braasch 1966: 316.
Platyacarus minor: Hernandes and Valim 2014: 190, Figs. 7–9, 10C; Mironov *et al*. 2017: 8, 21.

Proctophyllodes minor Berla, 1959 was described from the Rufous-breasted Leaftosser, *Sclerurus scansor scansor* (Ménétriés, 1835) (Passeriformes: Furnariidae), in Brazil (Berla

1959). Atyeo and Braasch (1966) tentatively referred this species to the genus *Pterodectes* Robin, 1877 (Proctophyllodidae: Pterodectinae). Later on, Hernandes and Valim (2014) placed this species in the genus *Platyacarus* Kudon, 1982 (Proctophyllodidae: Proctophyllodidae) and redescribed it. This species name is a junior homonym because it was preoccupied by an alloptid mite originally described as the subspecies *Proctophyllodes* (*Alloptes*) *phaetontis minor* Trouessart 1885 from the Red-billed Tropicbird, *Phaethon athereus* Linnaeus, 1758 (Phaethontiformes: Phaethontidae), and from other species of tropicbirds by Trouessart (1885). Dubinin (1955) established a new genus *Laminalloptes* Dubinin, 1955 in the family Proctophyllodidae, which included the species from tropicbirds as well as two more species from these avian hosts. Further, Atyeo and Peterson (1967) moved the genus *Laminalloptes* to the family Alloptidae and redescribed its three species once more.

Etimology. The substitute name is given in honor of the Brazilian acarologist H.F. Berla, who described this proctophyllodine species.

Family **Alloptidae Gaud, 1957**
Subfamily **Alloptinae Gaud, 1957**
Genus ***Alloptes* Canestrini, 1879**

Alloptes (Alloptes) dubinini Mironov and Hallan nom. n.

Proctophyllodes (*Alloptes*) *bisetatus minor* Trouessart, 1885: 68 [praeoccupied: *Proctophyllodes* (*Alloptes*) *phaetontis minor* Trouessart, 1885: 67 (presently: Alloptidae: Alloptinae: *Laminalloptes*)].
Alloptes crassipes minor: Berlese 1898: Fasc. 88, No. 7, Figs. 2, 3; Canestrini and Kramer 1899: 113.
Alloptes minor: Dubinin 1952: 244, Fig. 7.

The feather mite subspecies *Proctophyllodes (Alloptes) bisetatus minor* Trouessart, 1885 was described by Trouessart (1885: 68) from three species of auks: *Alca torda* Linnaeus, 1758, *Fratercula arctica* (Linnaeus, 1758) and *Cephus* (=*Uria*) *grille* (Linnaeus, 1758) (Charadriiformes: Alcidae). However, in the same work, Trouessart (1885: 67) described a new taxon with the same subspecific epithet—*Proctophyllodes (Alloptes) phaetontis minor* Trouessart 1885—from tropicbirds (Pelecaniformes: Phaetontidae), which he placed in the same subgenus *Alloptes*. By doing this, Trouessart has created primary homonyms, among which the species mentioned first (page 67 vs. 68), *Pr. (A.) phaetontis minor*, is a senior homonym and *Pr. (A.) bisetatus minor* is a junior one.

Further, both subspecies were moved to the genus *Alloptes* (Alloptidae) (Berlese 1898; Canestrini and Kramer 1899). The mite from auks, *Pr. (A.) bisetatus minor*, was treated in these works as a subspecies of another *Alloptes* species—*Alloptes crassipes minor* (Trouessart, 1885). In the taxonomic review of *Alloptes* species associated with auks, Dubinin (1952) briefly redescribed this mite, elevated it to the full species rank, and fixed the Razorbill, *Alca torda* Linnaeus, 1758, as its type host. As stated above, *Pr. (A.) phaetontis minor* from tropicbirds is presently a full species placed in the genus *Laminalloptes* (Alloptidae) (Dubinin 1955; Atyeo and Peterson 1967; Mironov and Stefan 2016).

Etymology. The substitute name is proposed in honor of the Russian acarologist V.B. Dubinin, who redescribed this species.

ACKNOWLEDGEMENTS

The authors thank R. Bruce Halliday (Australian National Insect Collection, Canberra, Australia) for his useful comments on the cases of homonymy. The study was supported by the Russian Foundation for Basic Research (Grant № 20-04-00500a) issued to SM.

REFERENCES

Atyeo, W.T. 1969. Redescription of *Anisophyllodes intermedius* (Trouessart and Neumann), 1888, new combination (Acarina: Proctophyllodidae). *Journal of the Georgia Entomological Society*, 4: 153–155.

Atyeo, W.T. and Braasch, N.L. 1966. The feather mite genus *Proctophyllodes* (Sarcoptiformes: Proctophyllodidae). *Bulletin of the University of Nebraska State Museum*, 5: 1–354.

Atyeo, W.T. and Gaud, J. 1970. The feather mite genus *Monojourbertia* Radford, 1950 (Analgoidea: Proctophyllodidae). *Entomologische Mitteilungen aus dem Zoologischen Staatsinstitut und Zoologischen Museum, Hamburg*, 4: 145–155.

Atyeo, W.T. and Peterson, P.C. 1967. The feather mite genus *Laminalloptes* (Proctophyllodidae: Alloptinae). *Journal of the Kansas Entomological Society*, 40: 447–458.

Berla, H. F. 1959. Analgesoidea neotropicais. V. Sôbre uma espécie nova de "*Proctophyllodes*" Robin, 1868 e redecriçao de "*Pterolichus varians selenurus*" Trouessart, 1898 (Acarina, Pterolichinae). *Revista Brasileira de Biologia*, 19: 203–206.

Berlese, A. 1882–1903. *Acari, Myriopoda et Scorpiones hucusque in Italia reperta*. Padova and Portici. 101 fasc.

Canestrini, G. and Kramer, P. 1899. Demodicidae und Sarcoptidae. *Das Tierreich*, 7: 1–193.

Dubinin, V.B. 1952. [Feather mite fauna of auks (Alcae) and its features]. *Entomologicheskoe Obozrenie*, 32: 236–253. [In Russian]

Dubinin, V.B. 1955. [New genera and species of feather mites]. *Trudy Zoologicheskogo Instituta Akademii Nauk SSSR*, 18: 248–286. [In Russian]

Gaud, J. and Atyeo, W.T. 1996. Feather mites of the World (Acarina, Astigmata): the supraspecific taxa. *Musée Royal de l'Afrique Centrale, Annales, Sciences Zoologiques*, 277, 1–193 (Pt. 1, text), 1–436 (Pt. 2, illustrations).

Gaud, J. and Mouchet, J. 1957. Acariens plumicoles (Analgesoidea) des oiseaux du Cameroun. I. Proctophyllodidae. *Annales de Parasitologie humaine et comparée*, 32: 491–546.

Gaud, J. and Till, W.M. 1961. Suborder Sarcoptiformes. In: F. Zumpt (Ed.) *The Arthropod Parasites of Vertebrates in Africa South of the Sahara (Ethiopian Region). Vol. 1. Chelicerata*. Publications of the South African Institute for Medical Research, No. 1 (Vol. 9), Johannesburg, pp. 180–325.

Hernandes, F.A. and Valim, M.P. 2014. On the identity of two species of Proctophyllodidae (Acari: Astigmata: Analgoidea) described by Herbert F. Berla in Brazil, with a description of *Lamellodectes* gen. nov. and a new species. *Zootaxa*, 3794(1), 179–200.

Hernandes, F.A., OConnor, B. M., Bauchan, G. R. and Ochoa, R. 2017. A new species of *Proctophyllodes* Robin, 1868 (Acari: Proctophyllodidae) from two tanagers of the genus *Piranga* Vieillot (Passeriformes: Cardinalidae) from North America. *Journal of Natural History*, 51(3): 1–10.

ICZN—International Commission on Zoological Nomenclature. 1999. *International Code of Zoological Nomenclature.* 4th edition. International Trust for Zoological Nomenclature, London. 306 pp.

Mironov, S.V. 2017. Two new feather mites of the genus *Proctophyllodes* Robin (Acari: Proctophyllodidae) from European passerines (Aves: Passeriformes). *Systematic Parasitology*, 94(2): 215–226.

Mironov, S.V. 2019. Two new feather mites of the genus *Proctophyllodes* Robin (Acariformes: Proctophyllodidae) associated with passerines (Aves: Passeriformes) in the Russian Far East. *Acarina*, 27(2): 151–164.

Mironov, S.V., Literak, I., Sychra, O. and Capek, M. 2017. Feather mites of the subfamily Proctophyllodinae (Acari: Proctophyllodidae) from passerines (Aves: Passeriformes) in Costa Rica. *Zootaxa*, 4297(1): 1–105.

Mironov, S.V. and OConnor, B.M. 2014. New Species of the feather mite family Proctophyllodidae (Acariformes: Astigmata) from two species of mockingbirds (Passeriformes: Mimidae) in Eastern North America. *Journal of Medical Entomology*, 51(3): 529–546.

Mironov, S.V. and Stefan, L.M. 2016. On identification of species in the feather mite genus *Laminalloptes* Dubinin, 1955 (Acari: Alloptidae). *Acarina*, 24(1): 77–85.

Orwig, K.R. 1968. The genera and species of the feather mite subfamily Trouessartinae except *Trouessartia* (Acarina: Proctophyllodidae). *Bulletin of the University of Nebraska State Museum*, 8: 1–187.

Park, C.K. and Atyeo, W.T. 1971. A generic revision of the Pterodectinae, a new subfamily of feather mites (Sarcoptiformes: Analgoidea). *Bulletin of the University of Nebraska State Museum*, 9: 39–88.

Pedroso, L.G.A. and Hernandes, F.A. 2021. Two new feather mites of the genus *Proctophyllodes* Robin (Acariformes: Proctophyllodinae) from passerines in Brazil. *Systematic and Applied Acarology*, 26(6): 1081–1096.

Poppe, S.A. 1888. Über parasitische Milben. *Abhandlungen Naturwissenschaftlichen Verein zu Bremen*, 10: 205–240, pl. II.

Radford, C.D. 1953. The mites (Acarina: Analgesidae) living on or in the feathers of birds. *Parasitology*, 42: 199–230.

Radford, C.D. 1958. The host-parasite relationships of the feather mites (Acarina: Analgesoidea). *Revista Brasileira de Entomologia*, 8: 107–170.

Trouessart E.L. (1884) 1885. Note sur le classification des Analgésiens et diagnoses d'espèces et de genres

nouveaux. *Bulletin de la Société d´Etudes Scientifiques d'Angers*, 14: 46–89. (Publ. February, 1885 for year 1884)

Trouessart, E.L. (1886) 1887. Diagnoses d'espèces nouvelles de Sarcoptides plumicoles (Analgesinae). *Bulletin de la Société d´Etudes Scientifiques d'Angers*, 16: 85–156. (Publ. May, 1887 for year 1886)

Trouessart, E.L. and Neumann, G. 1888. Diagnoses d'espèces nouvelles de Sarcoptides plumicoles (Analgesinae). *Bulletin scientifique de la France et de la Belgique*, 19: 325–380, pls. XXII–XXVII.

Vitzthum, H. 1922. Acarologische Beobachtungen. (6. Reihe). *Archiv für Naturgeschichte*, 88: 1–86.

Wang Zi-Ying, Wang Jin-Jun and Su Xiao-Hui. 2014. Four new feather mite species of the genus *Proctophyllodes* Robin (Astigmata: Proctophyllodidae) from China. *Zoological Systematics*, 39(2): 248–258

Zhang Ying, Wang Zi-Ying and Chen Jun. 2021. Two new feather mites of the genus *Proctophyllodes* (Acari: Proctophyllodidae) from passerines of China (Aves: Passeriformes). *Systematic and Applied Acarology*, 26(9): 1665–1675.