


1964

New Species of *Proctophyllodes* from Bulgaria (*Sarcoptiformes*, *Analgoidea*)

Warren T. Atyeo

I. D. Vassilev

Follow this and additional works at: <http://digitalcommons.unl.edu/museumbulletin>

 Part of the [Entomology Commons](#), [Geology Commons](#), [Geomorphology Commons](#), [Other Ecology and Evolutionary Biology Commons](#), [Paleobiology Commons](#), [Paleontology Commons](#), and the [Sedimentology Commons](#)

Atyeo, Warren T. and Vassilev, I. D., "New Species of *Proctophyllodes* from Bulgaria (*Sarcoptiformes*, *Analgoidea*)" (1964). *Bulletin of the University of Nebraska State Museum*. 6.

<http://digitalcommons.unl.edu/museumbulletin/6>

This Article is brought to you for free and open access by the Museum, University of Nebraska State at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Bulletin of the University of Nebraska State Museum by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

BULLETIN OF

The University of Nebraska State Museum VOLUME 4, NUMBER 13
SEPTEMBER 1964

Warren T. Atyeo

I. D. Vassilev

New Species of Proctophyllodes from Bulgaria
(*Sarcoptiformes, Analgoidea*)





The University of Nebraska

The Board of Regents

RICHARD E. ADKINS
J. G. ELLIOTT
B. N. GREENBERG, M.D.
VAL PETERSON
CLARENCE E. SWANSON
J. LEROY WELSH
JOSEPH SOSHNIK, *Corporation Secretary*

The Chancellor

CLIFFORD M. HARDIN

The Vice Chancellors

ADAM C. BRECKENRIDGE
ROY GROVES HOLLY
G. ROBERT ROSS
JOSEPH SOSHNIK

Warren T. Atyeo
I. D. Vassilev

New Species of
Proctophyllodes from Bulgaria
(Sarcoptiformes, Analgoidea)

ABSTRACT

New Species of Proctophyllodes from Bulgaria
(Sarcoptiformes, Analgoidea)

WARREN T. ATYEO

I. D. VASSILEV

Two new species of feather mites are described: *Proctophyllodes tenericaulus* from *Turdus viscivorus* L. (Turdidae) and *Galerida cristata* (L.) (Alaudidae) and *Proctophyllodes emberizae* from *Emberiza melanocephala* Scopoli and *E. hortulana* (L.) (Fringillidae).

New Species of Proctophyllodes from Bulgaria
(Sarcoptiformes, Analgoidea)

INTRODUCTION

The species of *Proctophyllodes* to be described were collected as a part of a study of the feather mites of Bulgaria. Additional information concerning this genus in Bulgaria has been published by Vassilev (1959a, 1959b, 1960, 1962).

Proctophyllodes emberizae, new species

Proctophyllodes emberizae, new species, is similar to *P. anthi* Vitzthum, 1922. The species can be separated by the form of the genital organ. In *P. emberizae*, the genital organ is very narrow, lightly sclerotized, and is directed caudally from the genital arch. In *P. anthi*, the genital organ is heavily sclerotized and from the genital arch is directed anteriorly for a short distance before being directed caudally.

MALE (holotype). Length, excluding terminal lamellae, 316 μ ; width at level of lateral idiosomal setae, 155 μ . *Dorsal idiosoma*: Propodosomal shield 75 μ in length, 88 μ in width; lateral margins entire in region of posterolateral pair of setae; without lacunae; distance between posterolateral pair of setae, 57 μ . Subhumeral setae (shortest lateral pair) attenuate, 15.2 μ in length. Hysterosomal shield 175 μ in length, 102 μ in width at anterior border; without lacunae. Terminal lamellae 50 μ in length, 38 μ in width, with pinnate venation. *Ventral idiosoma*: Apodemes well developed; epi-

¹ Department of Entomology, University of Nebraska, Lincoln 3, Nebraska.

² Bulgarische Akademie der Wissenschaften, Zoologisches Institut mit Museum, Sofia, Bulgarien.

merites I U-shaped with the connection broad and weak. Anterior of genital arch to level of anterior articulations of legs IV; genital discs separate; genital organ delicate and extending about half the distance between the tips of the genital arch and the anterior pair of opisthogastric setae; genital sheath without distal bifurcation. Opisthogastric setae in trapezoidal arrangement; opisthogastric shield not divided and bearing the two pairs of opisthogastric setae. Adanal discs circular, each about $23\mu \times 9\mu$ and bearing approximately 26 teeth; without accessory glands.

FEMALE (allotype). Length, including terminal lobes, excluding terminal appendages, 471μ ; width at level of lateral setae, 163μ . Dorsal idiosoma: Propodosomal shield 100μ in length, 115μ in width; lateral margins weakly incised in region of posterolateral pair of setae; without lacunae; distance between posterolateral setae, 76μ . Subhumeral setae attenuate, 20.7μ in length, 3.5μ in width. Hysterosoma with lobes freely articulated and bearing terminal appendages; anterior shield 231μ in length, 108μ in width at anterior border; without lacunae; posterior shield (lobar), 55μ in length; dorsal setae in area of articulation inserted in conjunctiva and separated by 32μ . Hysterosomal lobes normal, internal margins parallel; cleft formed by lobes 38μ in height, 29μ in width; length

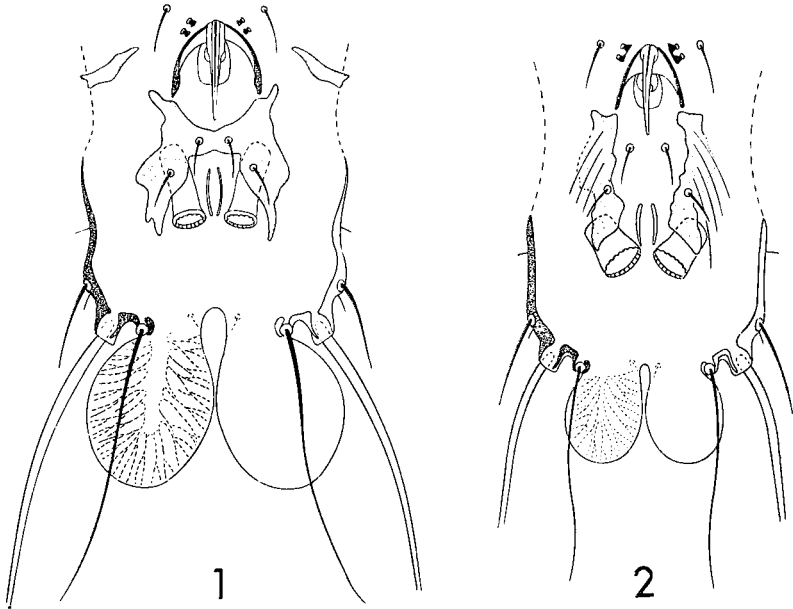


FIG. 1, 2. Male opisthogastric regions of *Proctophyllodes emberizae*, new species (1) and *Proctophyllodes tenericaulus*, new species (2).

of terminal pair of setae approximately half of terminal appendages. *Ventral idiosoma*: Apodemes moderately developed; epimerites I U-shaped with connection weak.

Holotype. Male, taken on *Emberiza melanocephala* Scopoli, 1769 (Fringillidae), at Ognyanovo, District of Pazardgik, Bulgaria, July 11, 1960, by I. D. Vassilev.

Allotype. Female, same data as holotype.

Paratypes. Ten males, three females, same data as holotype.

Location of types. The holotype, allotype, and eight male paratypes are deposited in the Bulgarische Akademie der Wissenschaften, Zoologisches Institut mit Museum, Sofia; two male and three female paratypes are deposited in the University of Nebraska State Museum.

Additional records. Five males, thirteen females from *Emberiza hortulana* (L.), Bulgaria.

Remarks. A number of species of *Proctophyllodes* has been reported from birds of the genus *Emberiza*, however, only *P. anthi*, reported by Vitzthum (1922) is similar to the new species. As *P. anthi* is superficially similar, it may be that Vitzthum's record is based on a misidentification. The species is named *emberizae* as it has been collected from birds of the genus *Emberiza*. The drawing is of the holotype.

Proctophyllodes tenericaulus, new species

The male genital regions of the new species, *Proctophyllodes hipposideros* Gaud, 1953, and *P. leptocaulus* Gaud, 1957, are similar. In these species, the shields posterior to the genitalia (opisthogastric shields) are divided, each shield bears one seta, and the genital organ is fragile and does not extend posteriorly beyond the anterior pair of opisthogastric setae. In *P. tenericaulus*, the distance between the anterior row and posterior row of opisthogastric setae is equal to or greater than the distance between the members of the anterior pair of setae; the genital organ extends to this anterior row. In *P. hipposideros* and *P. leptocaulus*, the distance between the two rows of setae is less than the distance between the anterior pair and the genital organ does not reach the opisthogastric setae.

MALE (holotype). Length, excluding terminal lamellae, 277 μ ; width, at level of lateral idiosomal setae, 130 μ . *Dorsal idiosoma*: Propodosomal shield 75 μ in length, 79 μ in width; lateral margins incised in region of posterolateral pair of setae; without lacunae; distance between posterolateral pair of setae, 51 μ . Subhumeral setae (shortest lateral pair) attenuate, 17.9 μ in length. Hysterosomal

shield 162μ in length, 81μ in width at anterior border; without lacunae. Terminal lamellae 31μ in length, 28μ in width, with pinnate venation. *Ventral idiosoma*: Apodemes moderately developed; epimerites I U-shaped with the connection broad. Anterior of genital arch to level midway between legs III and IV; genital discs separate; genital organ delicate and extending to anterior row of opisthogastric setae; genital sheath without distal bifurcation. Opisthogastric setae in trapezoidal arrangement; opisthogastric region with divided shield bearing posterior pair of opisthogastric setae. Adanal discs circular, each about $15\mu \times 9\mu$ and bearing approximately 18 teeth; without accessory glands.

FEMALE (allotype). Length, including terminal lobes, excluding terminal appendages, 460μ ; width at level of lateral setae, 173μ . *Dorsal idiosoma*: Propodosomal shield 98μ in length, 109μ in width; lateral margins entire or weakly incised in region of posterolateral setae; without lacunae; distance between posterolateral setae, 71μ . Subhumeral setae attenuate, 23.5μ in length. Hysterosoma with lobes freely articulated and bearing terminal appendages; anterior shield 235μ in length, 110μ in width at anterior border; without lacunae; posterior shield (lobar), 39μ in length; dorsal setae in area of articulation inserted on posterior margin of anterior shield and separated by 32μ . Hysterosomal lobes short; internal margins parallel and widely separated; cleft formed by lobes 26μ in height, 32μ in width; terminal pair of setae approximately $\frac{3}{4}$ length of terminal appendages. *Ventral idiosoma*: Apodemes moderately developed; epimerites I U-shaped with the connection broad.

Holotype. Male, taken on *Turdus viscivorus* L. (Turdidae), near Gotse Delchev, District of Gorna Dzhumaya, Bulgaria, October 20, 1960, by I. D. Vassilev.

Allotype. Female, same data as holotype.

Paratypes. Seven males, ten females, same data as holotype.

Location of types. The primary and secondary types are deposited in the Bulgarische Akademie der Wissenschaften, Zoologisches Institut mit Museum, Sofia.

Additional records. Two males, three females, from *Galerida cristata* (L.) (Alaudidae), Bulgaria.

Remarks. The females of this species may exhibit a distinct shortening of the terminal appendages and at the same time, a lengthening of the setae inserted at the bases of these appendages. The allotype female has the terminal setae about three-quarters of the length of the terminal appendages, but a few of the paratype females have the appendages shortened and the terminal setae lengthened. Although this might appear to be differences in the

lengths, *i.e.*, the terminal setae are longer in the paratype females being discussed than in the allotype female. This new species is named *tenericaulus* because of the delicate structure of the male genital organ. The drawing is of the holotype male.

LITERATURE CITED

- Vassilev, I. D. 1959a. Für die Wissenschaft neue Analgesoidea aus Bulgarien. *Comp. rend. Acad. Bulgare Sci.*, 12(3): 243-245.
- . 1959b. Acariens (Analgesoidea) en Bulgarie. *Bulgarian Acad. Sci., Proc. Sec. Biol. Med. Sci.*, 3(2): 7-16.
- . 1960. Feather mites (Analgesoidea) on some birds in Bulgaria. *Bulgarian Acad. Sci., Zool. Inst.*, 9: 431-437.
- . 1962. Study of the species composition, biology, and ecology of feather acari (Analgesoidea) on birds from the environments of Petrich and Gotse Delchev. *Bulgarian Acad. Sci., Bull. Dept. Biol. Sci., Nat. Centers of Disease in Petrich and Gotse Delchev Areas*, pp. 141-166.
- Vitzthum, H. G. 1922. Acarologische Beobachtungen. 6. Reihe. Die Gattung *Proctophyllodes* Robin 1868. *Arch. Naturg.*, (A) 88: 81-82.

THE UNIVERSITY OF NEBRASKA
STATE MUSEUM

Staff

C. BERTRAND SCHULTZ

Director; Curator, Vertebrate Paleontology

WARREN T. ATYEO Curator, Entomology	DONALD C. MARTIN Preparator
ANITA L. BRISKE Asst., Herbarium	FRANCIS MAUPIN Guard
IVAN E. BURR Preparator; Asst. Curator Trailside Museum	KARL F. M. MILLER Asst., Educational Services
BELVA CLEMENT Asst. Curator, Geology	NATHAN L. MOHLER Artist
LOWELL WADE COX Artist	RALPH S. MUELLER Honorary Curator, Health Sciences
C. ROBERT EISELE Field and Research Assoc. Vert. Paleontology	VALERIE NAMMOUR Asst. Curator, Anthropology
J. A. FAGERSTROM Curator, Invertebrate Paleontology	W. WINFIELD RAY Curator, Botany-Herbarium
PHYLLIS JOANN GERMAN Museum Shop, Museum Asst.	HENRY P. REIDER Chief Preparator, Emeritus
WILLIAM N. GILLILAND Consultant, Geology	KENNETH D. ROSE Curator, Health Services
CARL W. GUGLER Asst. Curator, Zoology	E. F. SCHRAMM Curator, Geology, Emeritus
HARVEY L. GUNDERSON Curator, Zoology and Museum Records	MARJORIE SHANAFELT Asst. to the Director, Emeritus
PRESTON HOLDER Curator, Anthropology	THOMPSON M. STOUT Assoc. Curator, Geology
JOHN A. HOWE Curator, Educational Services	LLOYD G. TANNER Assoc. Curator, Vertebrate Paleontology
PAUL A. JOHNSGARD Asst. Curator, Zoology	SAMUEL B. TREVES Assoc. Curator, Geology
GILBERT C. LUENINGHOENER Consultant; Lecturer, Planetarium	NORMA D. WAGNER Secretary to the Director
	H. LLOYD WEAVER Consultant, Botany

Research and Field Associates

I. C. G. CAMPBELL Classical Archaeology	NEWELL F. JOYNER Museum Displays
JOHN F. DAVIDSON Herbarium	WALLACE E. LABERGE Entomology
E. MOTT DAVIS Archaeology	A. L. LUGN Geology
W. D. FRANKFORTER Vertebrate Paleontology	T. C. MIDDLESWART Vertebrate Paleontology
WILFRED J. HANSON Entomology	JOHN M. ROBERTS Anthropology
GEORGE E. JAKWAY Vertebrate Paleontology	CARL F. VONDRA Vertebrate Paleontology
J. KNOX JONES, JR. Zoology	

Museum Consulting Committee

E. F. FROLIK	DWIGHT D. MILLER
S. I. FUENNING	WALTER E. MILTZER
WILLIAM N. GILLILAND	W. WINFIELD RAY
ROSCOE E. HILL	EUGENE C. REED
PRESTON HOLDER	C. BERTRAND SCHULZ, Chairman
ROY G. HOLLY	