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REVISION OF THE SUBGENUS BRUNEHALDIA
VERCAMMEN-GRANDJEAN, 1956
DESCRIPTION OF TWO NEW SPECIES
(TROMBICULIDAE : ACARINA) ¹
BY
P. H. VERCAMMEN-GRANDJEAN and M. KOLEBINOVA ².

Brunehaldia V.-G., 1956 was erected as a genus for the North African species brunehaldi (1). Later, in 1960, it was considered by the same author as a subgenus of Euschoengastia Ewing, 1938 (2). The subgeneric type Euschoengastia (Brunehaldia) brunehaldi is redescribed below.

In 1952, Dr. Harry Hoogstraal sent to our colleague Col. Robert Traub two specimens of a second species collected on an Acomys from Egypt. We want to thank Dr. Traub for his generosity in allowing us the pleasure of studying that interesting species, obviously related to brunehaldi but much larger. It is described here under the name of Euschoengastia (Brunehaldia) aegypti n. sp.

Moreover, the second author (Kolebinova) collected in 1961, from an Apodemus from Bulgaria, a third species, much smaller than brunehaldi. It is described under the name of Euschoengastia (Brunehaldia) bulgarica n. sp.

The subgenus Brunehaldia Vercammen-Grandjean, 1956.

SGT/Brunehaldia brunehaldi Vercammen-Grandjean, 1956.
D : SIF = 7B.S-B-3-2111.0000 ³.

Euschoengastia of medium size, Ip = 570 to 910. Scutum sparsely punctate, shaped like that of many Euschoengastia, with prominent postero-margin, SB well

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2. Respectively : Research Parasitologist, the G. W. Hooper Foundation, University of California Medical Center, San Francisco, California, 94122, U. S. A. and Research Parasitologist, the Zoological Institute with Museum at the Bulgarian Academy of Sciences, Sofia, Boul. Rusky ¹.
3. For the meaning of this and other abbreviations, one should consult Acarologia, 7, Suppl., April 1965, pp. 36-42.

behind the PL line and sensillary bases well apart, in the center of a circular scutal depression and a large crest surrounding that depression anteriorly. Antero-margin biconcave and latero-margin concave. Sensilla fusiform or pyriform densely clothed with barbs or spicules. Scutal setae also densely covered with long and thin barbs; PL >>= AL > AM. Eyes always absent, no infra-cuticular pigment (blind species; probably permanent burrow-dwellers). Body hirsute, its numerous setae being covered with numerous long and thin barbs. Always at least two pairs of humeral alae. fPp = (B)-(B)-(B).B.B. Only two genuala on leg 1 (ga = 2). Coxa 3 with 3 to 5 coxalae (fCx = 1/1/3-5). No mastisetae on leg 3 (= 0000). Subterminala, parasubterminala, and pretarsalae 1 & 2, all nude (ST, pST, PT', PT") = N. Famulus of leg-tarsus 2 (f") inserted slightly before the solenidion (S"). Obvious tendency to strong sclerotization of all legs and gnathosome segments. Galeala copiously branched (Ga = B). Chelicera powerful, cheiostyle with the usual tricuspid cap and a prominent dorso-subapical butting-tooth.

L : N. Africa and S. Europe (Palearctic mediterranean sub-region : Pm).
H : Rodents (Mr).

I — Euschoengastia (Brunehaldia) brunehaldi
(Verckenmen-Grandjean, 1956).

= Brunehaldia brunehaldi Vercammen-Grandjean, 1956 (1).
= Euschoengastia (Brunehaldia) brunehaldi, Vercammen-Grandjean, 1960 (2).

(Pl. 1 & 2, figs. 1 to 6).

a) Hosts : Eliomys mumbianus, Sylvoemus sylvaticus hayi. (Mr).
PT : ears & genital area.
Loc. : Forest of the Nefifik River, 30 Km. N. of Casablanca (Morocco). (Pm).
Type material : Holotype in Museum of Central Africa, Tervuren (Belgium).

b) SIF = 7B.S-B-3-2111.0000 and fPp = (B)-(B)-(B).B.B.
(ST, pST, PT' & PT") = N; fsp = 7/7/7.
fCx = 1/1/3 and fST = 2/2 ; fBT = b. sb. — b. sb. — b. sb.
fD = 2(2H) + 8.12.14.12.8.6.4 = 68
fV = (16.6).16.12.12.16.10.8.6.4 = 102 and NDV = 68 + 102 = 170

1. P stands for "pygosomala" or "pygosomal seta". "Pygosoma" is a neologism proposed by Vercammen-Grandjean to designate the hemispheric surface at the posterior extremity of the opisthosoma. On many occasions, this surface shows special features (often setal differentiations) in nymphal and adult as well as in larval stages. Therefore a precise term was desirable.
Euschoengastia (Bruneholdia)
bruneholdia YG, 1956

Euschoengastia (Bruneholdia)
egypti n.sp.
c Obs. : species of intermediate size (Ip = 733) between aegypti (Ip = 897) and bulgarica (Ip = 596). Body hirsute (NDV = 170), clothed with heavily branched setae (fig. 3); 2 pairs of humeral setae; 3 coxalae 3.

i — Scutum : (fig. 2), punctation conspicuous but sparse. Sensilla fusiform, covered with barbs. No eyes.

ii — Legs : (fig. 4, 5 & 6), powerful. Setation stout, heavily branched; segments with thick walls (very sclerotized). f" before S".

iii — Gnathosome : (fig. 1), very sclerotized and powerful. Galeala branched. Chelostyle with the usual tricuspid cap and a dorso-subapical butting-tooth. Palpotibial claw with 3 sharp prongs.

2 — Euschoengstia (Bruneahaldia) aegypti n. sp.

(Pl. 1 & 2, figs. 7 to 12).

a) Hosts : Acomys cahirinus dimidiatus. (Mr).

PT : ?

Loc. : St. Catherine’s Monastery, Sinai Province, Egypt. (Pm).

Date : 13 November 1952.

Type material : Holotype n° 131152/1 (Hoogstraal n° HH. 7910-7916, Traub n° B-15335) in U. S. Nat. Mus., Washington, D. C.

b) SIF = 7B.S-B-3-2111.0000 and fPp = (B)-(B)-(B).B.B.

(ST, pST, PT’ & PT") = N; fsp = 7/7/7.

fCX = 1/1/4 and fSt = 2/2; fBT = s, sb — s. sb — s. sb.

fD = 2(5H) + 14.16.16.16.14.8.6.4.2 = 96,


AW PW SB ASB PSB SD AP AM AL PL S H D P V pa pm pp Ip
79 89 31 33 19 52 20 46 51 51 68/62 70/60 43 34/31 308 271 318 897
c) Obs. : The largest species known (Ip = 880-910). Body very hirsute (NDV = 192), clothed with very strong and heavily branched setae (fig. 9); 5 pairs of humeralae; 4 coxalae 3.

i — Scutum : (fig. 8), punctation very conspicuous but sparse; sensilla fusiform. No eyes.

ii — Legs : (fig. 10,11 & 12), very powerful with a profuse setation abundantly branched (thin, long barbs); segments with very thick walls.

iii — Gnathosome : (fig. 7), considerably sclerotized; chelicera powerful, strong chelostyle with the usual tricuspid cap and a dorso-subapical butting-tooth. Galeala branched. Palpotibial claw with 3 sharp and long prongs.
Euschoengastia (Brunehaldia) bulgarica n.sp.

13

14

15 16 17 18

E(B) brunealdia (legs)

E(B) aegypti (legs)
Euschoengastia (Brunehaldia) bulgarica n. sp.

(Pl. 1 & 2, figs. 13 to 18).

a) **Host:** *Apodemus sylvaticus, Mus musculus* (Mr.).

**PT:** ears, back, genital area.

**Loc.:** Fields, 5 km N. W. of the town Stara-Zagora, fields near Assenovgrad.


**Type material:** Holotype n° 58 a/32, in the Zoological Institute with Museum at the Bulgarian Academy of Sciences, Sofia.

b) **SIF =** 7B.S-B-3-211.0000 and **fPp =** (B)-(B)-(B).B.B.

(ST, pST, PT' & PT") = N ; fsp = 7/7/7.

fCx = 1/1/3 to 5 and fSt = 2/2 ; fBt = b. sb -- b. sb -- b. sb.

fD = 2(2H) + 8.10.8.6.4.4 = 58,

fV = 6.6.10.10.8.8.6.4.4 = 62 and **NDV** = 58 + 62 = 120.

c) **Obs.:** The smallest species known (Ip = 570-620). Body less hirsute (NDV = 120) than that of *brunehaldi* (NDV = 170) and *aegypti* (NDV = 192), but well clothed with heavily barbed setae as seen in fig. 15; 2 pairs of humeralae ; 3 to 5 coxalae 3 (mean is 4).

i — **Scutum:** (fig. 14), punctation conspicuous but sparse; two eyebrowlike crests delimit anteriorly the two sensillary depressions. Sensilla pyriform, clothed with numerous spicules.

ii — **Legs:** (figs. 16, 17 & 18), strong, heavily branched setation; f" before S".

iii — **Gnathosome:** (fig. 13), narrower than in *brunehaldi*, but well sclerotized and powerful. Chelostyle with usual tricuspid cap and a dorso-subapical butting-tooth. Palpotibial claw bifurcate. Galeala branched.

**REFERENCES**


SUMMARY.

The subgenus Brunehaldia (in the genus Euschoengastia) is revised. The type of the subgenus E. (B.) brunehaldi is redescribed and two new species, E. (B.) aegypti and E. (B.) bulgarica are presented. Brunehaldia seems to be restricted to the palearctic mediterranean zoogeographical subregion (Pm).

RéSUMÉ.


RIASSUNTO


ZUSAMMENFASSUNG.


Editor's Note :

Since this article went to press, a publication of Dr. OTTO KEPKA entitled "Trombiculidae (Acari) aus der Türkei. II" (Z. f. Parasitenkunde 27, 43-63 (1966)) has been received. Dr. KEPKA introduces therein a new species, Euschoengastia (B.) curtinae, that is definitely different in several respects from the species presently described. At the same time he includes in the subgenus Brunehaldia the former Euschoengastia spalaxia RADFORD, 1957.