ASTIGMATIC MITES FROM NESTS OF BIRDS OF PREY IN U.S.A.

II. Two new species of the genera *Fusacarus* Michael and *Blomia* Oudemans (Glycyphagidae)

by

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In a previous paper we have described four new species of Glycyphagidae discovered by the junior author in two nests of birds of prey (*Falco sparverius* and *Otus asio*), from Syracuse, N.Y., U.S.A.

We describe here two additional new species, belonging to the genera *Fusacarus* and *Blomia* both in the family Glycyphagidae.

The types of these new species have been deposited in the U.S. National Museum, Washington.

Genus *Fusacarus* Michael, 1903

This genus was represented until now by two species: the first is the type species, *Fusacarus laminipes* Michael, 1903, described from the nests of moles (*Talpa europaea*) in England but found also in U.S.S.R. (Zachvatkin, 1941) and in Belgium (present work). The second species is *F. volantis* Volgin, 1971 reported from the nest of *Pteromys volans* in Southern-Zakaline (U.S.S.R.).

The new species that we describe here was found in the nest of the Screech Owl, *Otus asio*, in Syracuse, N.Y., U.S.A.

It is distinguished from *F. laminipes* (fig. 6) by the following characters: 1) Body much narrower; 2) different shape of posterior legs which are much narrower especially the femora, genua and tarsi; 3) different shape of epimerae in the male: the sternum and the epimerae II, III and IV are fused to a median sclerite in the form of an inverted U; 4) in the female the sternum I is longer and not fused with epimerae II; 5) the much smaller length of dorsal setae.

This new species is distinguished from *F. volantis*, in the female by the following characters: 1) body narrower; 2) posterior legs much narrower; 3) terminal situa-
tion of the anus (ventral in *F. volantis*; 4) presence of a very thin seta on genua III (this seta is a big spine in *F. volantis*; 5) greater length of sternum which is not fused with epimerae II.

Fusacarus tenuipes spec. nov.

**Female** (fig. 1, 3-5): Holotype 273 μ long and 140 μ wide (idiosoma). Dorsum: Cuticle uniformly sclerotized. There is a long tegmen covering completely the gnathosoma. Se jugal furrow absent. All the dorsal setae very thin and not longer than 25 μ. Venter: epimerae I fused in a rather long sternum. Epimerae II free.

Epimerae and epimerites III fused. There is an inverted Y and very close to the sternum anterior part of the vulva. Anus terminal on thin anal setae. Copulatory papilla comes posterior extremity. Anterior legs thinner than posterior legs. Tarsi III-IV 1: 25 μ, genu III 29 μ, tibia III 14 μ. Femur IV 8 μ.

All the legs carry a small apical claw at the end. Absence of tendons at the claws. Chaetotaxy tarsi with 3 small apical spines and 5 to 7 thorax (all barbed setae). Genua 2-2-1-0. Femora 1-1-1-1. Tarsi III-IV 1: 25 μ. Genua 1-1-1-1. Femur IV 8 μ.

**Female** (fig. 2): Allotype 240 μ long (idiosoma). Venter: There is a median sclerite in the sternum and the epimerae II, III and IV are fused small situated at the level of coxae IV and bulging those of the female except that the tarsi are not inserted apically but ventrally in their apical third.

**Habitat**

Holotype and 8 female paratypes, allotype, and 2 protonymphs, from a nest of *Otus a*.

**Genus Blomia Owen**

Van Bronswijk *et al.* (1963 a & b) have reviewed and recognize six species. Recently Fain, Hylander and Van Bronswijk have shown that *Chortoglyphus gracilipes* Banks, 1917 belongs to the genus *Blomia*.

The new species that we describe here is a female. It is clearly distinguished from the characters which to our knowledge are not species.

Fig. 1-2 - *Fusacarus tenuipes* sp.n. 1. Female; 2. Male, in ventral view.
presence of a very thin seta on genua III of the anterior part of the vulva. Anus terminal or subterminal ventral surrounded by very thin anal setae. Copulatory papilla conical situated dorsally at 20-25 μ from posterior extremity. Anterior legs thick, compressed laterally. Posterior legs narrower than anterior legs. Tarsi III-IV 42 μ and 52 μ long respectively. Femur III 25 μ, genu III 29 μ, tibia III 14 μ. Femur IV 30 μ, legs IV 35 μ, tibiae IV 16 μ.

Eptimerae and epimerites III fused. There are no epimerae IV. Vulva in the shape of an inverted Y and very close to the sternum and epimerae II. Genital suckers in the anterior part of the vulva. Anus terminal or subterminal ventral surrounded by very thin anal setae. Copulatory papilla conical situated dorsally at 20-25 μ from posterior extremity. Anterior legs thick, compressed laterally. Posterior legs narrower than anterior legs. Tarsi III-IV 42 μ and 52 μ long respectively. Femur III 25 μ, genu III 29 μ, tibia III 14 μ. Femur IV 30 μ, legs IV 35 μ, tibiae IV 16 μ.

Male (fig. 2): Allotype 240 μ long (idiosoma) and 125 μ wide. Dorsum as in female. Venter: There is a median sclerite in the shape of an inverted U to which the sternum and the epimerae II, III and IV are fused. Anus terminoventral. Genital organ small situated at the level of coxae IV and behind the epimeral sclerite. Legs resembling those of the female except that the tarsi are distinctly shorter and that the pretarsi are not inserted apically but ventrally. The shape of these tarsi is different, they are not regularly attenuated apically as in the female but are chamfered ventrally in their apical third.

Habitat

Holotype and 8 female paratypes, allotype and 9 male paratypes, 2 tritonymphs and 2 protonymphs, from a nest of Otus asio, Syracuse, N.Y., U.S.A., 12 March 1976.

Genus Blomia Oudemans, 1928

Van Bronswijk et al. (1963 a & b) have reviewed the genus Blomia. These authors recognize six species. Recently Fain, Hyland and Tadkowski (in press) have shown that Chortoglyphus gracilipes Banks, 1917 described from Florida, U.S.A., also belongs to the genus Blomia.

The new species that we describe here is represented only by the holotype female. It is clearly distinguished from the seven known species by the following characters which to our knowledge are not shared by any of the other described species.
1. Vulva parallel-sided and very narrow, more than twice as long as wide.
2. On tarsus I the solenidion \( \omega 2 \) is as long (6 \( \mu \)) as the half of solenidion \( \omega 1 \) (12 \( \mu \)) and situated closer to the base of the tarsus than \( \omega 1 \).
3. Solenidion of genu I (sigma I) narrow, subcylindrical and relatively long (10 to 11 \( \mu \)) and situated on a small oval plate which also bears a vestigial sigma 2.

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Fig. 3-6 - *Fusacarus tenuipes* sp.n. 3. Female, dorsum; 4. Leg I of female; 5. Leg IV of female.

Fig. 7-8 - *Blomia angustivulva* sp.n. 7. Female vent...
more than twice as long as wide.
- Leg (6 μ) as the half of solenidion w 1 (12 μ) versus than w 1.
- Subcylindrical and relatively long (10 to which also bears a vestigial sigma 2.

Fig. 7-8 - Blomia angustivalva sp.n. 7. Female ventrally; 8. Leg 1.
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The vi setae paramedian and very close to e. from the ve which are closer to the antero-l.
The vi. The distance ve - ve is 54 µ.
5. Copulatory tube cylindrical, very short (12
at apex. The apex is not cleft.
6. Tarsi III and IV bear in their basal ha.
unequal.

Bliomia angustii

Female (fig. 7-9): Holotype 330 µ l
covered with very numerous and very
setae are long and barbulate, except th
of setae: vi 140 µ; ve 75 µ; sc 300-340 µ.
The supracoxal seta is relatively
epimerae I fused in a V, with intern:
and 36 µ wide. Genital suckers we 20 µ long, the gp 39 µ. The a 3, a
vively. Legs: tarsi (I-IV) are 87 µ -
30 µ long, the genu I 42 µ. Setae
and al. On tarsi III and IV there are
long respectively and strongly di
cylindrical and very slightly ex
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long and situated on a small cir
Habitation

We thank S. Allen for
for assistance in collecti.
4. The $vi$ setae paramedian and very close to each other and inserted relatively far from the $ve$ which are closer to the antero-lateral corner of the idiosoma than to the $vi$. The distance $ve - ve$ is 54 $\mu$.
5. Copulatory tube cylindrical, very short (12 $\mu$ long), rounded and slightly inflated at apex. The apex is not cleft.
6. Tarsi III and IV bear in their basal half two divergent barbed setae slightly unequal.

*Blomia angustivulva* spec. nov.

**Female** (fig. 7-9): Holotype 330 $\mu$ long (idiosoma), and 240 $\mu$ wide. Cuticle covered with very numerous and very small pointed elevations. *Dorsum*: all the setae are long and barbulate, except the $d2$ which are thin, short and bare. Length of setae: $vi$ 140 $\mu$; $ve$ 75 $\mu$; $sc$ and $se$ 180 $\mu$; $dl$ 250 $\mu$; $d3$, $d4$, $d5$ and 15 300-340 $\mu$.

The supracoxal seta is relatively short and almost completely barbed. *Venter*: epimerae I fused in a V, with internal part very poorly sclerotized. Vulva 80 $\mu$ long and 36 $\mu$ wide. Genital suckers well developed and subcircular. Setae $g\ a$ and $g\ b$ 20 $\mu$ long, the $g\ p$- 39 $\mu$. The $a\ 3$, $a\ 4$ and $a\ 5$ are 200 $\mu$, 25 $\mu$ and 30 $\mu$ long respectively. *Legs*: tarsi (I-IV) are 87 $\mu$-81 $\mu$-82 $\mu$-91 $\mu$ long respectively. The tibia I is 30 $\mu$ long, the genu I 42 $\mu$. Setae of legs I-II as in *Blomia tropicalis* van Bronswijk and al. On tarsi III and IV there are in the basal half two barbed setae 36 $\mu$ and 54 $\mu$ long respectively and strongly divergent. *Solenidia*: Tarsus I: $\omega$ I is 12 $\mu$ long, thin, cylindrical and very slightly expanded at apex; $\omega$ II very narrow and 6 $\mu$ long and situated more basally than $\omega$ I. Solenidion of genu I narrow, cylindrical, 10-11 $\mu$ long and situated on a small oval plate which also bears a second vestigial solenidion. Gnathosoma as in the other species of the genus.

**Male**: unknown

**Habitat**


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REFERENCES


ABSTRACT

Two men species of Glycyphagidae are described and figured: Fusacarus tenuipes sp.n. and Blomia angustissima sp.n., both from the nest of Otus asio, in U.S.A.