

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. Sejugal 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.

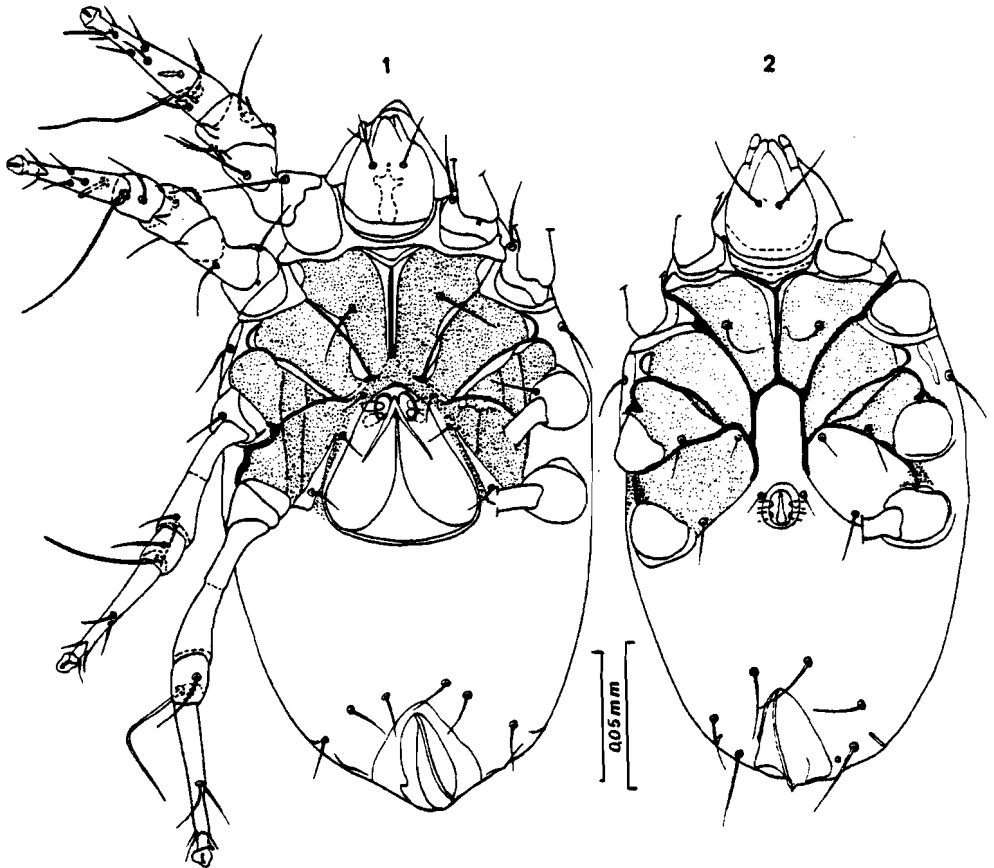


Fig. 1-2 - *Fusacarus tenuipes* sp.n. 1. Female; 2. Male, in ventral view.

Epimerae 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 .

All the legs carry a small apical claw at the end of a well-developed pretarsus. Absence of tendons at the claws. Chaetotaxy of legs (I-IV): Tarsi 10-10-8-8. All tarsi with 3 small apical spines and 5 to 7 thin simple or barbed setae. Tibiae 2-2-1-1 (all barbed setae). Genua 2-2-1-0. Femora 1-1-0-1. Solenidia: tarsus I with a basal $w 1$ rather short and slightly bulbed apically and a longer preapical $w 3$; $w 2$ very short and a little more apical than $w 1$. All the solenidia of tibiae very long. Genu I with 2 very unequal solenidia.

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 Tadmowski (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 (6μ) as the half of solenidion $\omega 1$ (12μ) and situated closer to the base of the tarsus than $\omega 1$.
3. Solenidion of genu I ($\sigma 1$) narrow, subcylindrical and relatively long (10 to 11μ) and situated on a small oval plate which also bears a vestigial $\sigma 2$.

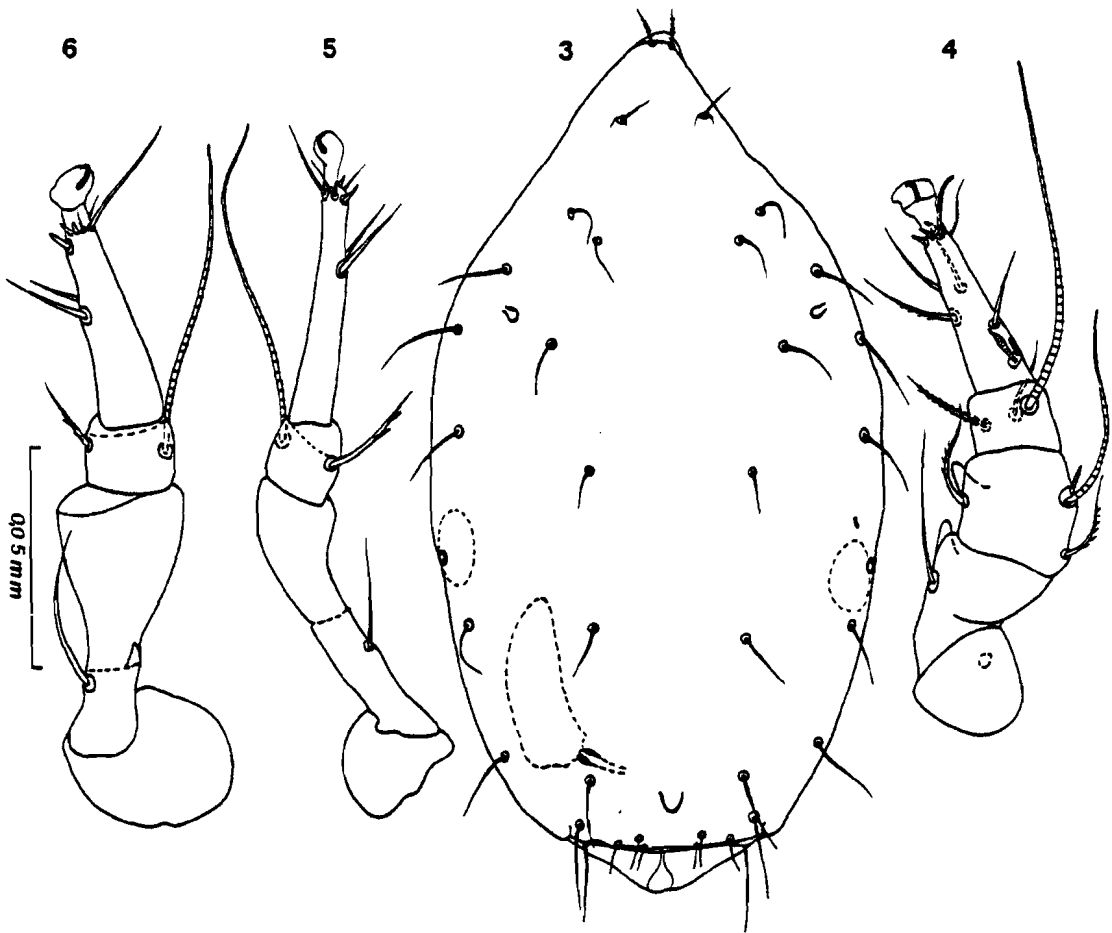


Fig. 3-6 - *Fusacarus tenuipes* sp.n. 3. Female, dorsum; 4. Leg I of female; 5. Leg IV of female. *Fusacarus laminipes* Michael; 6. Leg IV of female.

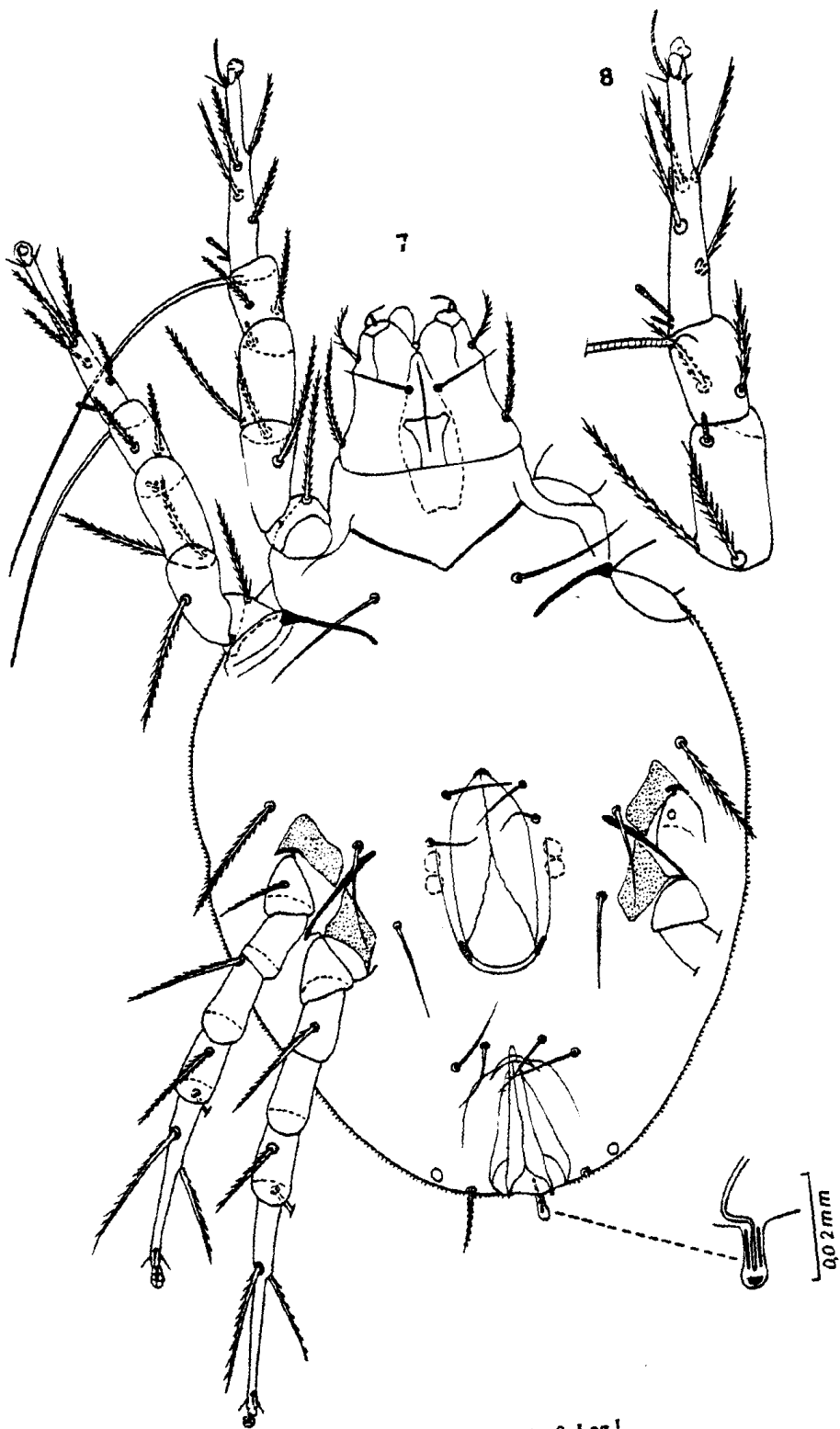


Fig. 7-8 - *Blomia angustivulva* sp.n. 7. Female ventrally; 8. Leg I.

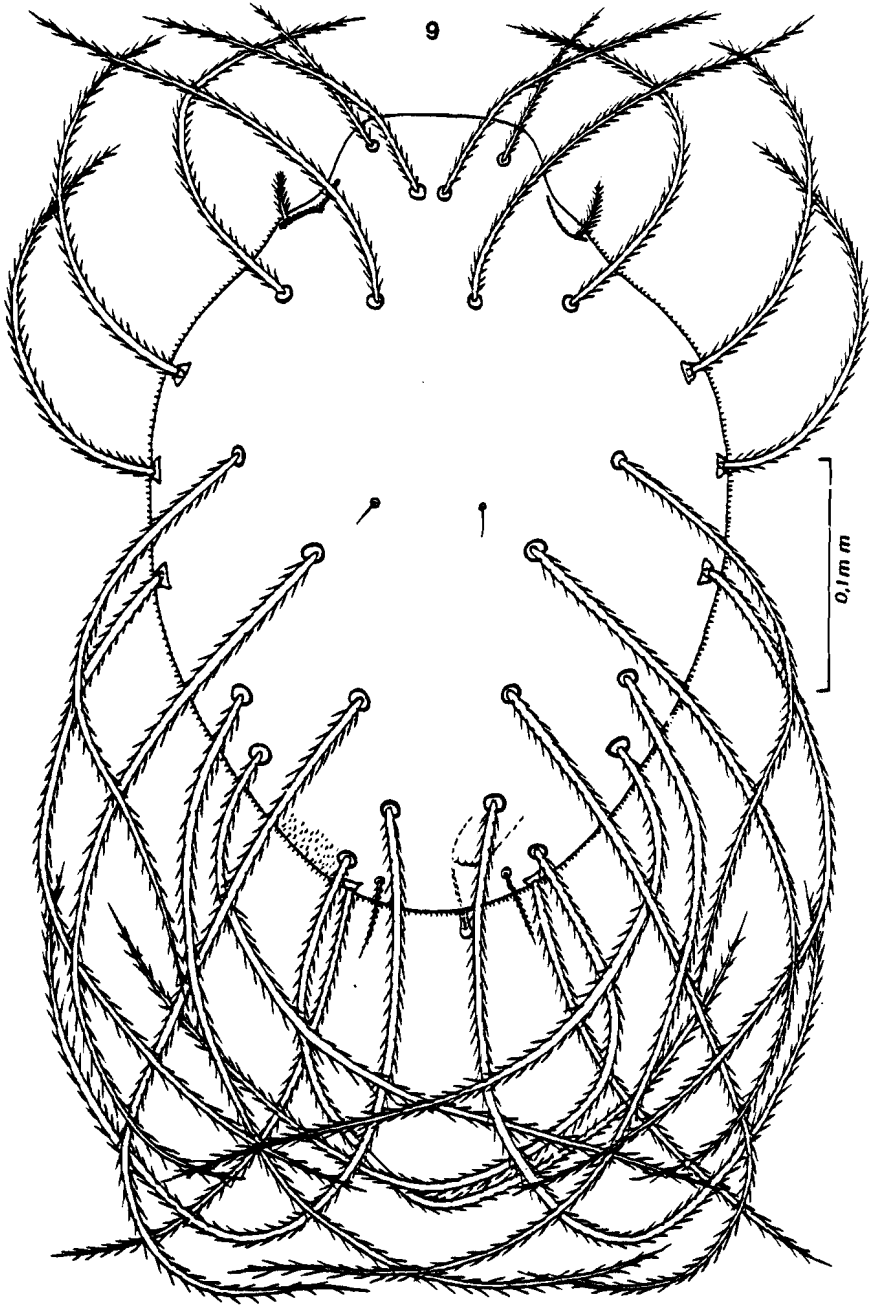


Fig. 9 - *Blomia angustivulva* sp.n. 9. Female, dorsally.

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 μ .
5. Copulatory tube cylindrical, very short (12 μ 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 μ long (idiosoma), and 240 μ wide. Cuticle covered with very numerous and very small pointed elevations. **Dorsum**: all the setae are long and barbate, except the *d2* which are thin, short and bare. Length of setae: *vi* 140 μ ; *ve* 75 μ ; *sci* and *sce* 180 μ ; *d1* 250 μ ; *d3*, *d4*, *d5* and *l5* 300-340 μ .

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 μ long and 36 μ wide. Genital suckers well developed and subcircular. Setae *ga* and *gm* 20 μ long, the *gp*- 39 μ . The *a3*, *a4* and *a5* are 200 μ , 25 μ and 30 μ long respectively. **Legs**: tarsi (I-IV) are 87 μ - 81 μ - 82 μ - 91 μ long respectively. The tibia I is 30 μ long, the genu I 42 μ . 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 μ and 54 μ long respectively and strongly divergent. Solenidia: Tarsus I: *w1* is 12 μ long, thin, cylindrical and very slightly expanded at apex; *w2* very narrow and 6 μ long and situated more basally than *w1*. Solenidion of genu I narrow, cylindrical, 10-11 μ 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

Holotype in the nest of *Otus asio*, Syracuse, N.Y., U.S.A., 12.III.1976.

ACKNOWLEDGMENTS

We thank S. Allen for locating the Screech Owl nest and R. Altieri and A. Stehle for assistance in collecting the nest samples

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ABSTRACT

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