

ASTIGMATIC MITES FROM NESTS OF BIRDS OF PREY
IN U.S.A.III. *Sapracarus tuberculatus* g.n., sp.n.
(Acari, Astigmata, Saproglyphidae)

by

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We describe here a new genus and a new species of a mite found by the junior author in the nest of *Otus asio*, in Syracuse, U.S.A..

This mite is represented by females, tritonymphs, a protonymph and heteromorphic deutonymphs (hypopi). One of these hypopi is in the molting stage and contains a completely developed tritonymph which is morphologically similar to the females found free in the nest.

Sapracarus gen.nov

Definition: Very small mites. *Female* with cuticle soft and verrucous. The setae *vi*, *ve*, *sci*, *sce*, *d1* to *d5*, *l1* to *l5*, *h* and *sh* are present. Legs with a small sucker and without a claw, there is however a very small internal sclerite which is probably the remnant of the claw. *Hypopus:* Cuticle soft, slightly verrucous laterally. All legs without claws or pretarsi. Leg IV reduced, with tarsus bearing 3 long setae. Other tarsi with 3 foliate and one saucer-like setae. Tibiae I-II with one seta. Epimera I fused, other epimera free. Suctorial plate with 2 pairs of subequal suckers. Chaetotaxy of dorsum complete. Palposoma absent, replaced by 2 setae.

Type species: *Sapracarus tuberculatus* sp.n.

Sapracarus tuberculatus spec.nov.

Female (Fig. 1-3): In the holotype the idiosoma is 162 μ long and 81 μ wide. Cuticle soft. *Dorsum:* most of the hysterosoma is verrucous. A shield has not been observed. Dorsal chaetotaxy complete. The *ve* is very thin, the *s cx* is slightly barbed.

Venter: The cuticle is partly verrucous. Epimera I fused in a sternum, other epimera free. Vulvar slit very long. There is a small epigynium. Genital suckers long and narrow and situated posteriorly. Anus ventro-terminal. Legs well developed, with rather long tarsi. All tarsi with a fleshy sucker but without claws. Gnathosoma rather large, with thick palpi and well developed chelicerae.

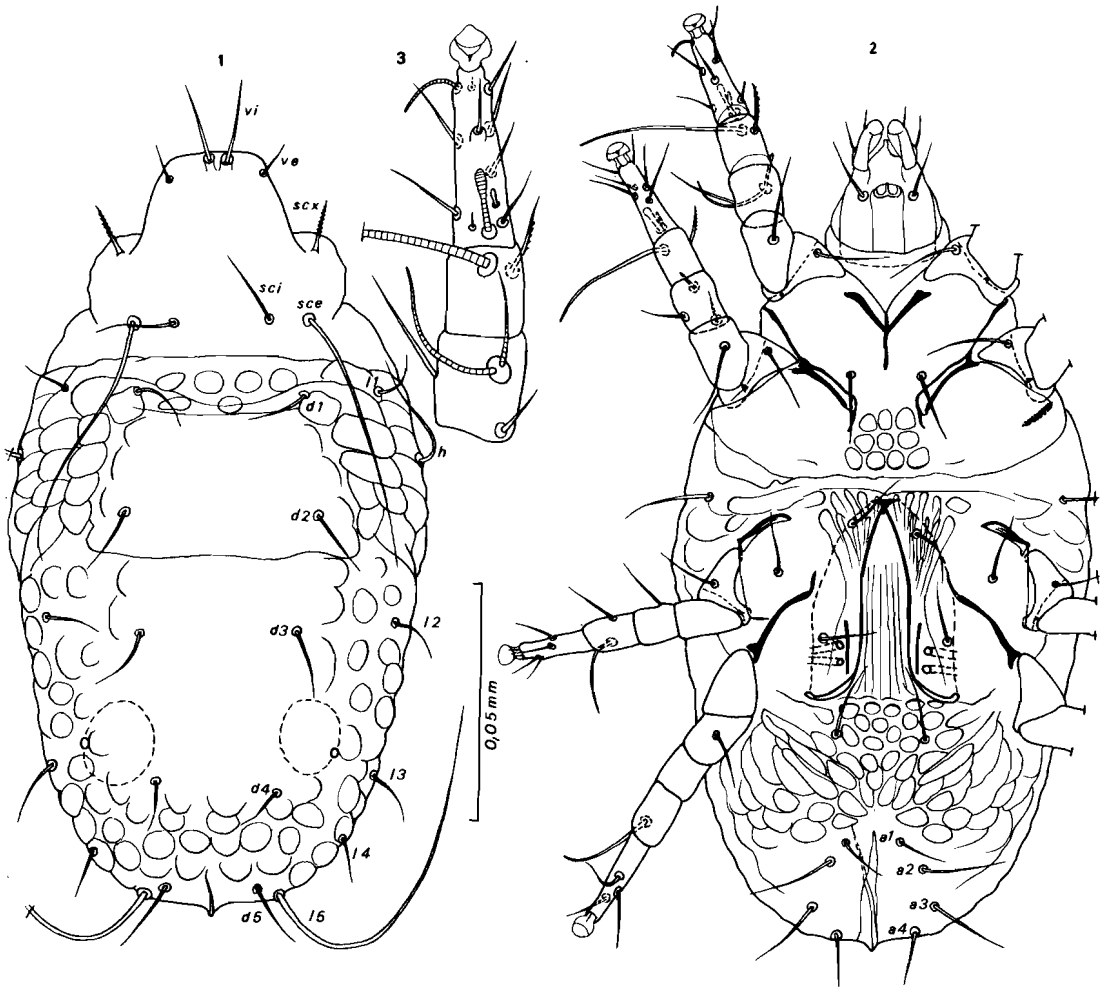


Fig. 1-3 — *Sapracarus tuberculatus* sp.n. Female. Fig. 1: dorsal view. Fig. 2: ventral view. Fig. 3: Leg I dorsally.

Chaetotaxy of legs (I-IV): Tarsi 9-8-4-3. Tibiae 1-1-1-0. Genua 2-2-1-0.
Solenidiotaxy: Tarsus I with solenidia ω 1, ω 3 and a bulbous ϵ . Tibiae I-IV with a solenidion. Genu I with two unequal solenidia.

Tritonymph: it resembles closely the female, except that it has no vulvar slit. The idiosoma is 159 μ long and 78 μ wide.

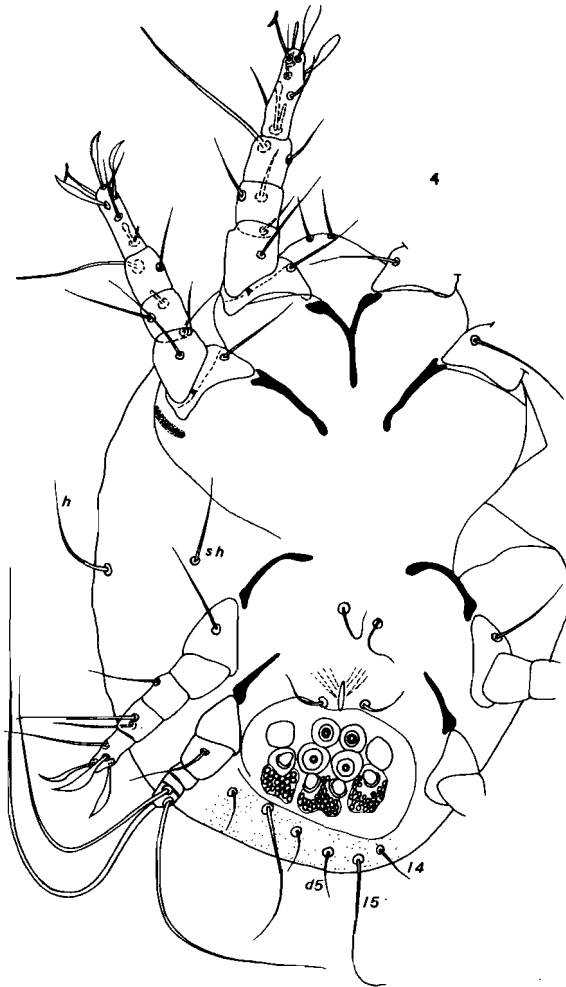


Fig. 4 — *Sapracarus tuberculatus* sp.n. Hypopus in ventral view.

Protonymph: with general characters of the tritonymph except for the chaetotaxy more reduced and the presence of only one pair of genital suckers. Idiosoma 147 μ long and 72 μ wide.

Hypopus (Fig. 4-8): Idiosoma 120 μ long and 85 μ wide. *Dorsum*: cuticle slightly verrucous laterally. Sejugal furrow present. Eyes absent. Setae *vi* and *ve* very small, other setae longer. Legs I-III well developed. Legs IV reduced, with tibia and tarsus very short.

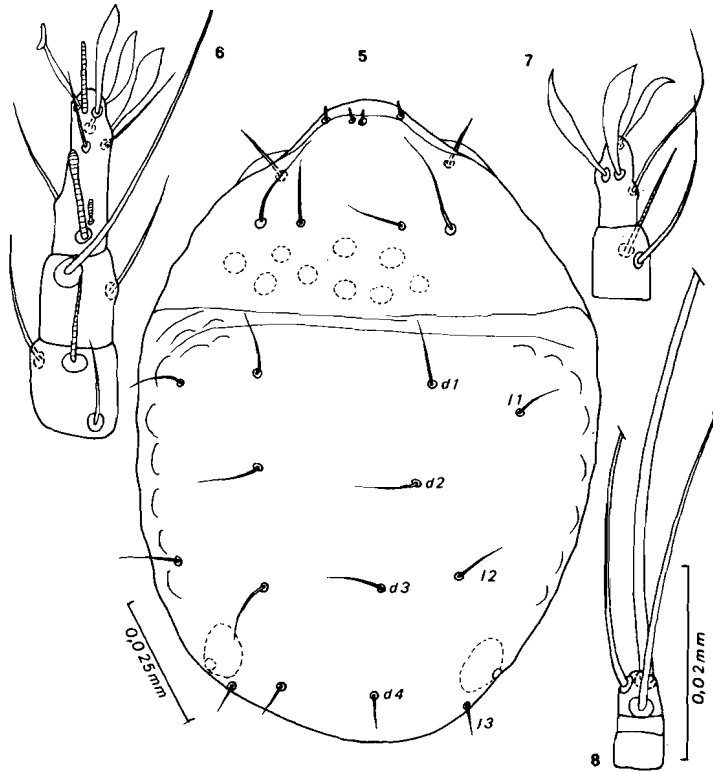


Fig. 5-8 — *Sapracarus tuberculatus* sp.n. Hypopus in dorsal view (5). Legs I (6), III (7) and IV (8).

Habitat

In the nest of *Otus asio*, Syracuse, N.Y., U.S.A. (Coll. J. Philips. 12/III/1976) (Holotype and 5 paratypes female, 2 paratypes hypopi, 2 tritonymphs and 1 protonymph). Types in de U.S. National Museum, Washington.

Systematic position of the genus Sapracarus

From the aspect of the female the genus *Sapracarus* resembles superficially the genus *Nanacarus* Oudemans, 1903. In both genera the tarsi I-IV are devoid of claws and the body is very small. However, by the following characters *Sapracarus* is clearly distinct from this genus:

1. Setae *ve* are present. Absence of a long seta on tarsus IV.
2. Vulva abnormally long and more anterior; a small epignium is present.
3. Cuticle is verrucous.
4. There is a distinct sternum.
5. Presence of an hypopial stage.

The genus *Sapracarus* is intermediate between the Acaridae and the Saprogllyphidae and it is placed provisionally here in the second family in spite of the fact that the *ve* are present.

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ABSTRACT

Sapracarus tuberculatus n.g., n.sp. is described from the nest of *Otus asio*, in Syracuse, N.Y., U.S.A.