

A new Hypoderid Mite from the Nest of a Vulture in South Africa

(*Acari, Astigmata*)

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ABSTRACT: *Gypsodectes verrucosus* n. g., n. sp. (Acari: Hypoderidae) represented by a single female is described from the nest of a Vulture *Gyps coprotheres*, from South Africa.

INTRODUCTION

The family Hypoderidae contains, so far, 54 species and 3 subspecies grouped into 21 genera or subgenera. Almost all these species were described from their hypopial stage. The complete life cycle is known for only one species *Hypodectes propus* (Nitzsch, 1861), whose hypopi live under the skin of pigeons and the adults in the nests of these birds (see Fain & Bafort, 1967).

In two other species the life cycle is only partly known. In *Pelecanectes evansi* Fain, 1966 three stages have been described: the hypopus parasitic in a Cormorant and the tritonymph and the male living free in the nest of this bird (Fain & Beaucournu, 1972). In *Frehelectes gaudi* Fain & Beaucournu, 1972 nov. stat., also associated with Cormorants, the hypopus lives in the subcutaneous tissues of the bird; some of these hypopi found free in the nest contained a tritonymph. This tritonymph differs from that of *P. evansi* mainly by the strong reduction of the legs and the gnathosoma.



Fig. 1. — *Gypsodectes verrucosus* n. sp. - Female, in ventral view (1);
Chelicera (1a)

Oconnor (1981) described the female of *Neotytoedectes mexicanus* n.g. and n. sp., from the nest of a Mexican Owl (*Glaucidium* sp.). The hypopial stage is not known, therefore it is possible that this genus is a synonym of *Tytoedectes* Fain, 1966 commonly found in Strigiformes and also recorded from *Glaucidium* sp. from Cuba.

We describe herein a new genus of Hypoderidae, *Gypsodectes*. It is represented by a single female found in the nest of a South African Vulture. It is clearly distinct from *Hypodectes* by the normal aspect of the gnathosoma, the punctate and verrucose structure of the cuticle and the chaetotaxy. It differs from *Neotytoedectes* by the following characters: Cuticle verrucose; sejugal furrow incomplete; absence of dorsal grooves; setae *vi*, *sci*, *d1* to *d4*, *l1* to *l4* short, thick, cylindrico-conical; setae *sc e*, *d5* and *l5* long and flexible; setae *s cx* present; tibia IV with a long spine; vulvar region with a thick horse-shoe shaped sclerite deeply situated.

We include in the genus *Gypsodectes* the species described as *Gabucinia vulturis* Dubinin, 1956 from *Gyps fulvus* from U.S.S.R. and that we had tentatively included in the genus *Neottialges* (see Fain, 1967).

Family **HYPODERIDAE** Murray, 1877

Genus **Gypsodectes** nov. gen.

Definition: Only the female is known. Body of medium size. Cuticle completely punctate and bearing dorsally and laterally numerous irregular verrucosities. In the anterior part of the propodonotum the punctation is more marked and forms an irregular shield. Sejugal furrow incomplete, lacking laterally. Sexual aperture dorsal, close to posterior extremity. Genital suckers very small. Epimeres I fused in a short sternum, the other epimeres free. Epigynium very small and deeply situated. A thick horse-shoe shaped sclerite is present beneath the skin of the vulvar region. Dorsal chaetotaxy complete except that the *ve* are lacking. All these setae are cylindrico-conical and short except *sc e*, *d5* and *l5* which are long and flexible. Seta *h* is cylindrico-conical and longer than *d1* to *d4*. Setae *s cx* very thin. Ventral setae: *cx I*, *cx III*, *sh*, *ga*, *gm*, *gp*, *a1* to *a4*. Setae *a1* are microsetae. Gnathosoma well developed, chelicerae relatively small. Legs: Tarsi ending in an elongate sucker without a claw. Tarsi I to IV with 11-10-9-9 setae respectively. All the tarsi with 3 spines (2

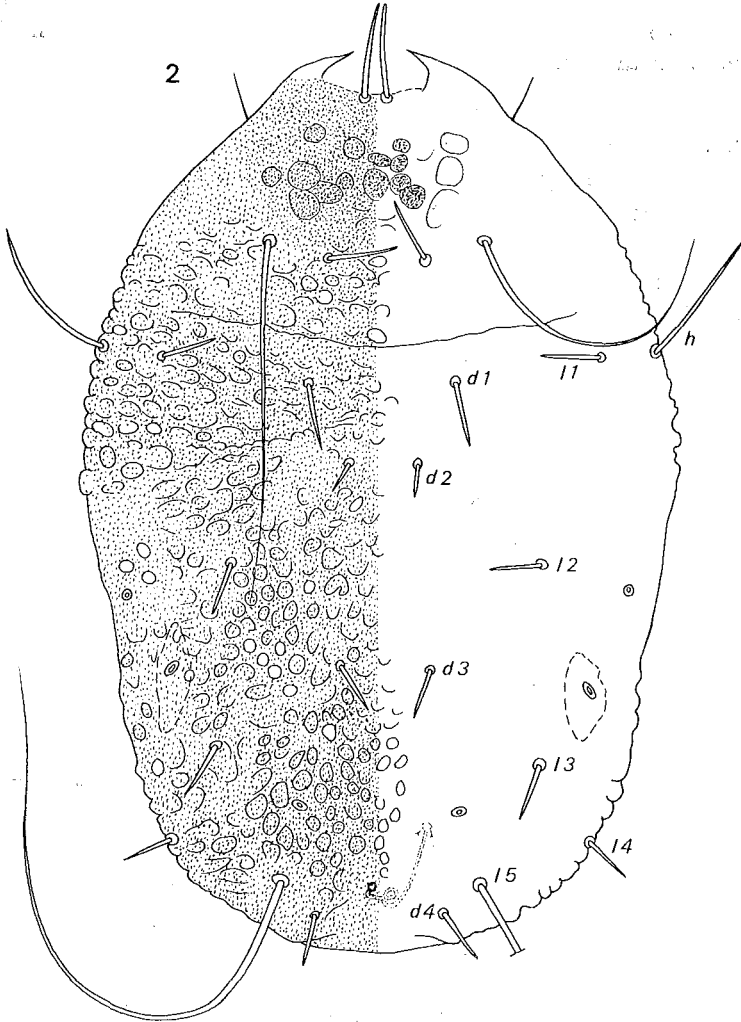
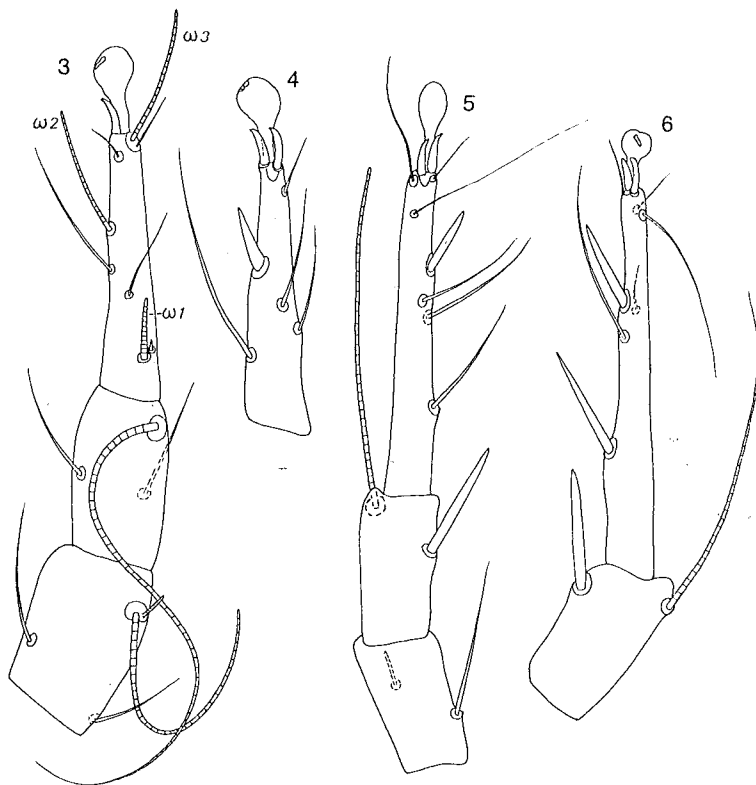


Fig. 2. — *Gypsodectes verrucosus* n. sp. - Female in dorsal view

ventro-apical paraaxial and 1 medio-ventral). Tarsi IV with a spine in the basal third. In addition to these spines the tarsi bear very thin setae (8 on tarsus I, 7 on tarsus II, 6 on tarsus III and 5 on tarsus IV). Tibiae I-II with 2 thin setae. Tibiae III-IV with 1 long spine.

Type species: Gypsodectes verrucosus n. sp.



Figs. 3-6. — *Gypsodectes verrucosus* n. sp. - Female. Leg I in dorsal view (3); tarsus I ventrally (4); leg III ventrally (5); Tarsus and tibia IV laterally (6)

***Gypsodectes verrucosus* nov. spec.**

Female (figs. 1-6): Idiosoma 411 μm long and 270 μm wide. With the characters given for the genus. Chaetotaxy (length in μm): *v.* 45; *sci* 30; *sce* 200; *d* 1 30; *d* 2 18; *d* 3 21; *d* 4 24; *d* 5 300; *l* 1 27; *l* 2 21; *l* 3 27; *l* 4 21; *l* 5 300; *h* 72; *a* 2 15; *a* 3 18; *a* 4 140.

Locality: Holotype and only known specimen female from the nest of a Vulture *Gyps coprotheres*, from Rustenberg, Transvaal, South Africa, 23.VI.1963 (Coll. F. Zumpt). Holotype in the Musée Royal de l'Afrique Centrale, Tervuren; no. 161.464.

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