

## A new species of *Orycteroxenus* Zachvatkin from *Cryptotis n. nigrescens* (Acarina: Sarcoptiformes: Glycyphagidae)

By

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**ABSTRACT:** A description and illustration of the hypopial nymph of *Orycteroxenus panamensis*, n. sp., are provided. This mite parasitizes the shrew *Cryptotis nigrescens nigrescens*. The genus *Orycteroxenus* Zachvatkin is reported from Middle America for the first time.

The hypopes of an undescribed *Orycteroxenus* species were discovered by one of us (F. S. L.) during studies of *Cryptotis nigrescens nigrescens* preserved in alcohol at the Museum of Natural History, Vienna. Because of poor preservation of these mites, E. Méndez collected 26 additional hypopes from specimens of the same host housed in the Gorgas Memorial Laboratory collection.

Mites of the genus *Orycteroxenus* Zachvatkin, 1941, are parasitic on certain species of the mammalian orders Insectivora and Rodentia. Species have been described from Africa, Europe and North America. The new species described in this paper is the first recorded from Middle America. The distribution of its host, *Cryptotis nigrescens nigrescens* (Insectivora: Soricidae) is restricted to cloud forest habitats of Costa Rica and Panama (CHOATE, 1).

*Orycteroxenus panamensis*, n. sp.

(Figs. 1-5)

**DIAGNOSIS:** This new species differs from *O. dispar* (Michael, 1886), *O. soricis* (Oudemans, 1915), *O. micropotamogalei* (Fain, 1967), *O. soricis obionensis* Fain, 1969, *O. canadensis* Fain et al., 1971 and *O. minor* Fain et al., 1974, by having internal scapular setae in front of external scapular setae. It

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is distinguishable from *O. potamogalei* (Fain, 1967) and *O. liberiensis* Fain *et al.*, 1974, mainly by strong sclerotization at the opening of the dorsal glands.

**HYPOPUS (Holotype):** With the generic characteristics of *Orycteroxenus* Zachvatkin, 1941. Length, 280  $\mu$ ; measurement of 10 paratypes, 236  $\mu$  (225-280); width, 184  $\mu$ ; in paratypes, 160  $\mu$  (155-184).

**VENTER (Fig. 1):** Epimerae I fused in Y-shape, epimera II-IV free. Epimerites oriented towards epimerae III, but not fused with them. Epimerae IV with lateral protuberances like in *O. micropotamogalei*, *O. liberiensis* and *O. minor*, but not clearly distinct in all specimens. Palposoma with 2 pairs of setae and 2  $\mu$  long solenidia alpha. Vertical internal setae lying ventrally. Genital opening with 2 pairs of oval-shaped genital suckers beneath covering valvae. These last structures provided with short, faint, genital median setae. Anal aperture with 2 ring-shaped, vestigial anal setae. Pilicolous organ with 2 pairs of strong, sclerotized opistosomal hooks. External clasper with 16-17 ridges, internal clasper with 12-13 ridges.

**DORSUM (Fig. 2):** Cuticle moderately sclerotized, without punctation. Sejugal furrow distinct, running ventrally along epimerites II. Posterior opistosomal furrow separating an almost round, caudally concaved opistosoma shield having stronger sclerotization.

**CHAETOTAXY OF IDIOSOMA:** Present are *v i*, *v e*, *sc i*, *sc e*, *h*, *sb*, dorsals 1-5, laterals 1-5. With exception of stronger, 6  $\mu$  long, *d 5*, the remaining setae are very short (2-3  $\mu$ ) and thin.

Opening of dorsal glands between *l 2* and *l 3* with characteristic strong sclerotization. An additional pore is present between *h* and *l 1*.

**LEGS (Fig. 3-5):** Legs I and II with slightly curved single-pointed claws, 10-12  $\mu$  in length; legs III and IV with short, straight, double-pointed claws.

CHAETOTAXY OF LEGS:	Tarsi	8 — 8 — 8 — 8
	tibiae	2 — 2 — 1 — 1
	genua	2 — 2 — 1 — 0
	femora	1 — 1 — 0 — 1
	trochanteres	1 — 1 — 1 — 0

**SOLENIOTAXY:**

Tarsi	2 — 1 — 0 — 0
tibiae	1 — 1 — 1 — 1
genua	1 — 1 — 0 — 0

**MEASUREMENTS OF SOLENDIA:** omega 2, 9  $\mu$ ; omega 3, 5  $\mu$ ; epsilon, 5  $\mu$ ; phi I, 32  $\mu$ ; sigma, 4  $\mu$ ; phi II, 18  $\mu$ ; phi III, 21  $\mu$ ; phi IV, 2  $\mu$ .

**TYPE MATERIAL:** Holotype and series of paratypes from the following sources: 3 specimens of *Cryptotis n. nigrescens* (J. A. Allen, 1895), preserved in alcohol at the Museum of Natural History, Vienna (Coll. N<sup>o</sup> 14554-6); from

Cerro Punta (elev. 2700 m), Chiriquí Province, Panamá; E. Graetz. One alcohol preserved specimen of the same host; Río Indio, Changuinola, Bocas del Toro Province, Panamá; August, 1968; R. Hinds. One alcohol preserved specimen of the same host; Ojo de Agua (elev. 1510 m), Distrito Renacimiento, Chiriquí Province, Panamá; 3 April 1973, R. Hartmann. The last two shrews are deposited at the Gorgas Memorial Laboratory collection. All mites were attached to ventral hairs of the hind legs.

DEPOSITION OF TYPES: Holotype deposited at the U. S. National Museum of Natural History, Washington, D. C. Paratypes are deposited in the following institutions: Rijksmuseum van Natuurlijke Historie, Leiden; British Museum (Natural History), London; Institut de Médecine Tropicale Prince Leopold, Antwerpen; Naturhistorisches Museum, Vienna; Zoologisches Museum, Hamburg; Museum d'Histoire Naturelle, Paris; Gorgas Memorial Laboratory, Panamá, and Zoologisch Laboratorium, Katholieke Universiteit, Nijmegen.

#### REMARKS

This species is only known from the hypopial stage.

#### RESUMEN

Se presenta una descripción e ilustraciones del estado hypopial de *Orycteroxenus panamensis*, n. sp. Este ácaro parasita la musaraña *Cryptotis nigrescens nigrescens*, cuya distribución está limitada a ciertas áreas de selvas nubladas en Panamá y Costa Rica. Este artículo constituye el primer informe de la presencia del género *Orycteroxenus* Zachvatkin en el Istmo Centroamericano.

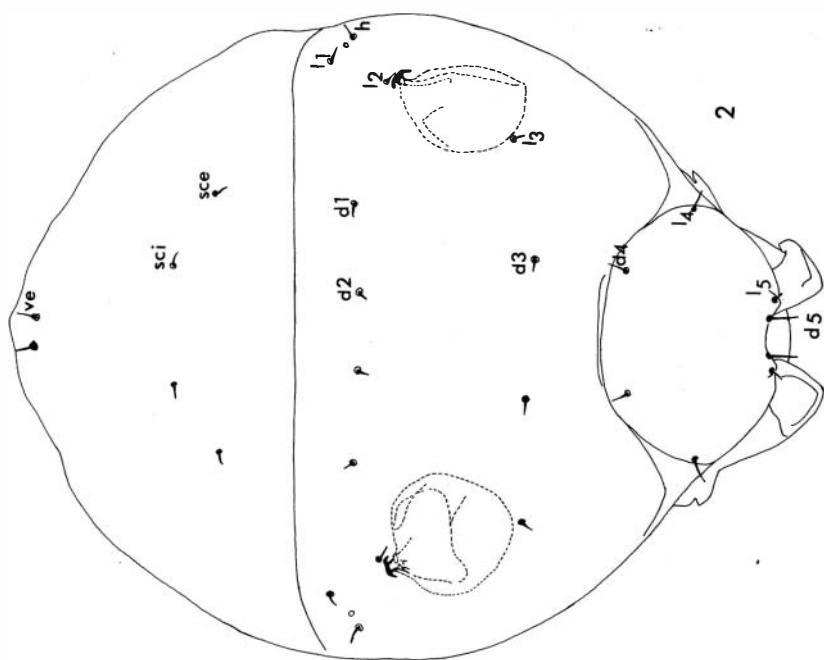
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Fig. 1. *Orycteroxenus panamensis*, n. sp.

Ventral view of holotype.

Fig. 2. Dorsal view of holotype.



Figs. 3-5. *Orycteroxenus panamensis*, n. sp.

Segments tarsu-genu in dorsal view of  
legs I (3), III (4), and IV (5).

