

Three new species of genus *Orycteroxenus* ZACHVATKIN 1941 (Acarina: Sarcoptiformes: Glycyphagidae).

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With 15 illustrations and 1 table.

Abstract: Three new *Orycteroxenus* sp. are described from two American and one African soricid hosts; the known taxa of the genus are keyed to subspecies.

In his study on phoretic hypopi from mammals FAIN (1969) revised the known species and described a new subspecies. Since than 6 new taxa have been described of this group (FAIN et al. 1971, 1974; FAIN & LUKOSCHUS 1974; CAMERIK et al. 1975).

Examining alcohol preserved mammals in museum collections one of us (F. S. L.) could find new species of the genus *Orycteroxenus* ZACHVATKIN 1941. The mites were found attached to hairs of hosts, partly anchored with opisthosomal hooks in follicles. *O. notiosorex* n. sp. is closely related to *dispar* (MICHAEL 1886), *aequatorialis* n. sp. to *pygidialis* FAIN & LUKOSCHUS 1974, and *mexicanus* n. sp. to *soricis ohioensis* FAIN 1969. The new species are only known from the hypopial stage. Because of scattered papers a key to the hypopi of genus is given. — All measurements are in μm .

***Orycteroxenus notiosorex* n. sp.**

Holotype: in Forschungsinstitut Senckenberg, Frankfurt a. M., SMF pA. 17.1976.1, from *Notiosorex crawfordi* COUES 1877, near Pruria, Mexico, 9. VIII. 1937, leg. O. WAGNER. **Host** in collection of Forschungsinstitut Senckenberg, Frankfurt a. M., SMF 12167.

Paratypes: from same host and locality SMF pA. 18.-39.1976; further 38 paratypes in US. National Museum of Natural History, Washington, D. C.; The Acarology Laboratory, Ohio State University, Columbus, Ohio; Field Museum of Natural History, Chicago; Muséum National d'Histoire Naturelle, Paris; British Museum (Natural History), London; Zoologisches Museum, Hamburg; Institute of Parasitology, Academy of Science, Prague; Institut de Médecine Tropicale Prince Léopold, Antwerpen; Department of Zoology, Catholic University Nijmegen.

Hypopus (holotype): with the characteristics of genus. Sclerotization of idiosoma faible. Length 195 μm , in 10 paratypes measured ϕ 198 (189-201), width 130, in paratypes ϕ 135 (118-148).

Venter (Fig. 1.): Epimerae I-IV free (in all 60 paratypes). Palposoma two-lobed with short solenidia alpha and two pairs of setiform hairs. Pilicolous organ broad and strongly developed, surpassing posterior border. Pilicolous valves with strong posterior and anterior lateral hooks, further smaller hooks formed by epimerae IV. Outer claspers with 15 ridges, inner claspers with 13 ridges.

Legs of medium size, forelegs somewhat stronger than hind legs. Chaeto-



Fig. 1. *Orycteroxenus notiosorex* n. sp., holotype venter.

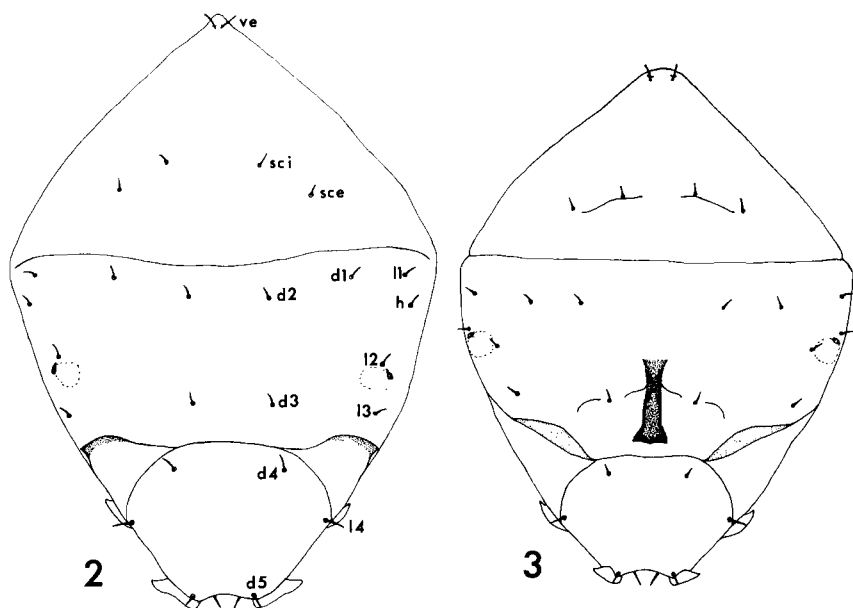


Fig. 2-3. Dorsum of 2) *Orycteroxenus notiosorex* n. sp. and of 3) *Orycteroxenus mexicanus* n. sp.

taxy like in *O. dispar* unusual: tarsi 6-6-8-8, tibiae 2-2-1-1, genera 2-2-1-0, femora 1-1-0-1, trochanters 1-1-1-0.

Solenidiotaxy: tarsi 2-1-0-0, tibiae 1-1-1-1, genera 1-1-0-0, famulus not observed. Forward protrusions on trochanters and femora III and IV absent. Shape of setae in fig. 5-7. Measurements in table I.

Dorsum (Fig. 2.): Sejugal and posterior furrow distinct. Lateral edges of posterior furrow arising hook-like from dorsal surface. Chaetotaxy of idiosoma normal. Sc i in front of sc e. All hairs short and setiform. Supracoxals very tiny, only to be observed in squashed preparations. Measurements in table I.

***Orycteroxenus mexicanus* n. sp.**

Holotype: in Muséum National d'Histoire Naturelle, Paris, from *Blarina mexicana* COUES 1877 (now *Cryptotis mexicana*), near Coluco, Mexico, XI. 1907, leg. DIGUET. Host in collection of Muséum National d'Histoire Naturelle, Paris, MNHN 1911-769. SK

Paratypes: from same host and locality SMF pA. 43.-44. 1976; 5. 1977; further 22 paratypes in Washington, Columbus, Chicago, London, Hamburg, Prague, Antwerpen and Nijmegen.

Hypopus (holotype): of pale yellow colour with the characteristics of genus. Length 201 μm , in 10 paratypes measured ϕ 201 (195-206), width 159, in paratypes ϕ 153 (148-159).



Fig. 4. *Orycteroxenus mexicanus* n. sp., holotype venter.

Venter (Fig. 4.): Epimerae I fused in Y-shape, epimerae and epimerites IV form almost closed coxal fields IV. Lateral hooks are present in coxal region IV, posterior and anterior dorsally and ventrally on pilicolous valves. Protrusions on femora and trochanters III and IV absent. Pilicolous organ surpassing posterior border. Outer claspers with 15-16, inner claspers with 13-14 ridges.

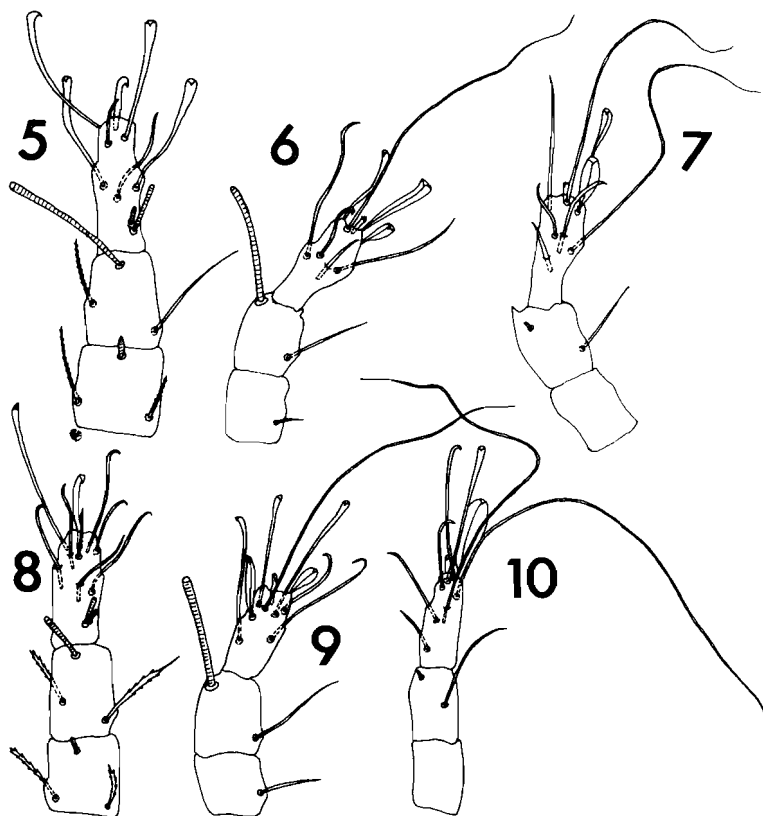


Fig. 5-7. *Orycteroxenus notiosorex* n. sp. — 5) leg I. — 6) leg III. — 7) leg IV.

Fig. 8-10. *Orycteroxenus mexicanus* n. sp. — 8) leg I. — 9) leg III. — 10) leg IV.

Legs with chaetotaxy and solenidiotaxy like in *O. notiosorex*, however with 8 tarsal setae. Shape of setae in fig. 8-10, measurements in table I.

Dorsum (Fig. 3.): Opisthosoma and median part of metapodosoma somewhat stronger sclerotized with small white spots. Idiosomatal setae short, setiform and in normal position. Sc i almost on level of sc e. Supracoxal setae very tiny and also in squashed preparations indistinct. Dorsal glands between h and l 2. Measurements in table I.

***Orycteroxenus aequatorialis* n. sp.**

Holotype: in MNHN Paris, from *Crocidura aequatorialis* (PUCHERAN 1855) [either *Crocidura flavescens* (I. GEOFFROY 1827) or *C. odorata* (LECONTE 1857)], Mt. de Brazza near Brazzaville, Congo. Host in collection of Muséum National d'Histoire Naturelle, Paris, MNHN 1886-168. — Second host MNHN 1886-148 with unpublished and invalid species name "*Crocidura aequinoxialis*" from same locality.

Table 1. Measurements of new *Orycteroxenus* species in μm .

	<i>notiosorex</i>				<i>mexicanus</i>				<i>aequatorialis</i>			
v e, v i	6	4			6	7			4	5		
sc e, sc i	4	4			6	5			4	4		
dorsals 1-5	4	5	5	4	4	5	5	4	4	5	4	5
laterals 1-5	4	4	5	6	11	6	6	7	8	5	5	4
humural	5				6				4			
intern, extern												
palposoma setae	7	9			6	8			6	6		
solenidion alpha	2				3				3			
trochanter setae I, II	6	6			7	7			5	5		
femoral setae I, II	21	20			17	18			10	10		
omega 1, 3	8	4			7	4			9	4		
phi I, II, III, IV	19	13	20	2	10	9	20	2	28	13	8	2
sigma I, II	4	4			4	4			4	4		
tarsus I, II, III, IV												
length	20	18	18	18	22	18	16	15	22	21	18	20
claws I, II, III, IV	10	10	5	5	14	14	6	6	11	11	5	5
length claspers												
intern, extern	16	32			16	28			20	28		
number ridges												
intern, extern	13	15			13-14,	15-16			9-10,	10		

Paratypes: from same hosts and locality SMF pA. 40.-42.1976; 6.1977; further 31 paratypes in Washington, Columbus, Chicago, London, Hamburg, Prague, Antwerpen and Nijmegen.

Hypopus: (holotype) of pale yellow colour. Cuticle stronger sclerotized than in previous species with scattered white small spots. Length 210 μm , in 10 paratypes measured ϕ 216 (207-224), width 153, in paratypes ϕ 150 (142-165).

Venter (Fig. 11.): All epimerae free (in some paratypes epimerae I touch without fusion). Palposoma without distinct bilobed border. Contrary to the related species *O. pygidialis*, palposoma setae short and simple. Valves of elongated pilicolous organ strongly sclerotized with soft terminal protrusion and strong posterior and anterior lateral hooks.

Legs with chaetotaxy and solenidiotaxy like in *O. mexicanus*, however famulus distinct. Shape of setae in fig. 13-15, measurements in table I.

Dorsum (Fig. 12.): Sejugal and posterior furrow distinct. Opisthosoma in caudal part strongly sclerotized, with pointed postero-lateral protrusions carrying dorsals 5. Idiosomal setation short, simple and in normal position. Dorsal glands near laterals 2. Measurements in table I.

Key to the hypopi of genus *Orycteroxenus*:

1. tarsus I with 6 setae 2
- tarsus I with 8 setae 3

2. sc i behind level of sc e, phi III about 1/2 of tarsus III *dispar* (MICHAEL 1886).
 — sc i in front of sc e, phi III of tarsus length *notiosorex* n. sp.
 3. trochanter III with forward directed protrusion 4
 — trochanter III without protrusion 8
 4. tibial setae III and IV simple, femur IV without protrusion
 — tibial setae III and IV modified, femur IV with protrusion 5

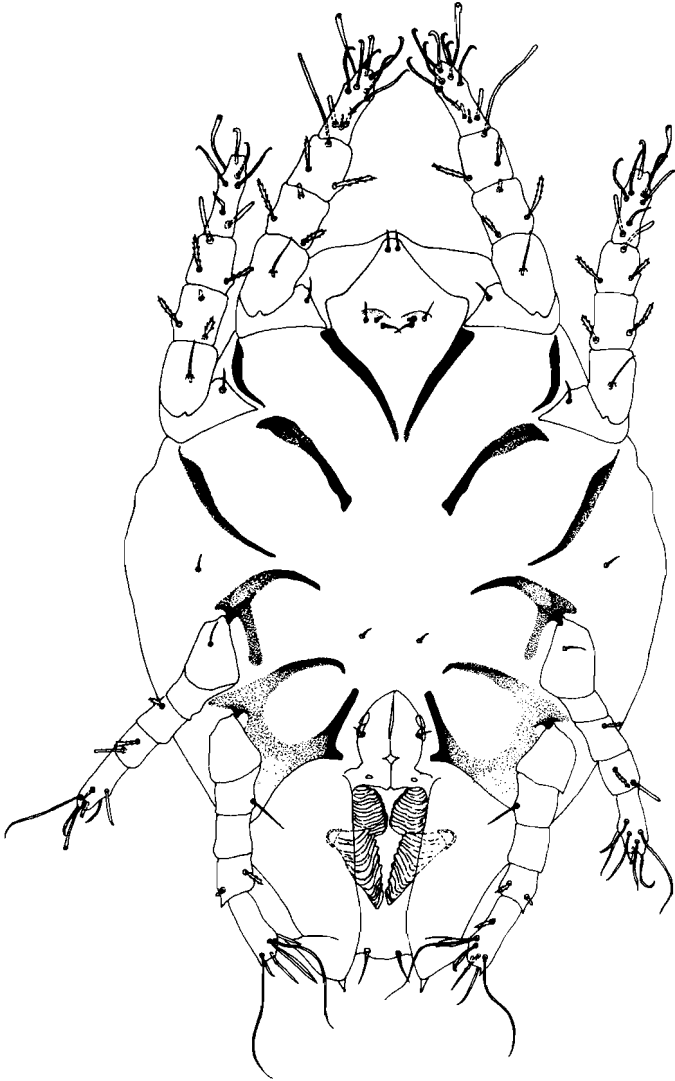


Fig. 11. *Orycteroxenus aequatorialis* n. sp., holotype venter.

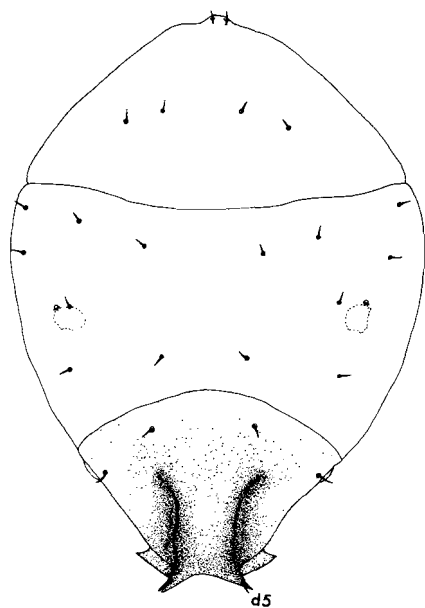


Fig. 12. *Orycteroxenus aequatorialis* n. sp., holotype dorsum.

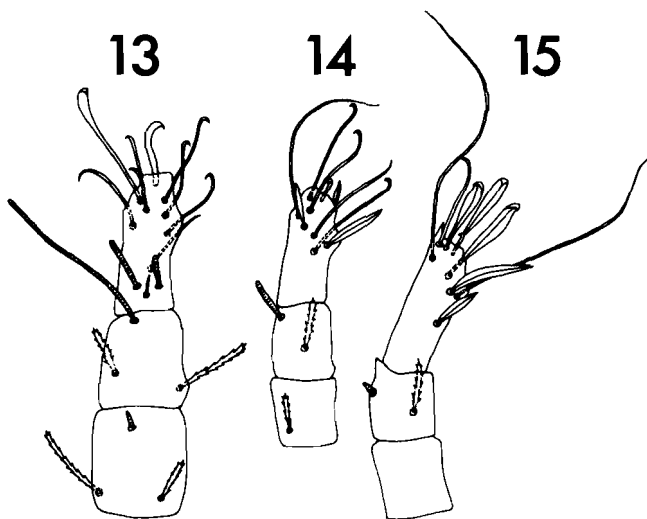


Fig. 13-15. *Orycteroxenus aequatorialis* n. sp. — 13) leg I. — 14) leg III. — 15) leg IV.

5. posterior furrow incomplete with lateral triangular projections, sc i behind level of sc e 6
 — posterior furrow complete, sc i in front of sc e 7
6. body length less than 180 μm *minor* FAIN, LUKOSCHUS & RACK 1974.
 — body length more than 200 μm *micropotamogalei* (FAIN 1967).
7. without postero-lateral hooks on clasping valves, setae on genu III and tibiae III and IV broad, dentate *potamogalei* (FAIN 1967).
 — with postero-lateral hooks on valves, tibial and genual setae small and barbed *liberiensis* FAIN, LUKOSCHUS & RACK 1974.
8. opisthosoma with pointed caudal prolongations, pilicolous organ elongate 9
 — opisthosoma without prolongations, pilicolous organ broad 11
9. epimerae I free, palposomal setae simple and short *aequatorialis* n. sp.
 — epimerae I fused in V-shape, palposomal setae barbed and long 10
10. sc i on level of sc e, tarsi III and IV shorter than I and II
 *pygidialis camerounensis* FAIN & LUKOSCHUS 1974.
 — sc i in front of sc e, tarsi of same length *p. pygidialis* FAIN & LUKOSCHUS 1974.
11. epimerae I widely separated *canadensis* FAIN et al. 1971.
 — epimerae I in V- or Y-shape 12
12. dorsal glands with remarkable strongly sclerotized opening
 *panamensis* CAMERIK, LUKOSCHUS & MENDEZ 1975.
 — no remarkable sclerotizations in dorsal glands 13
13. phi I and III of about same length, femoral setae I and II about 10 μm
 *soricis ohioensis* FAIN 1969.
 — phi III much longer than phi I, femoral setae about 17 μm *mexicanus* n. sp.

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