

**ELLIPSOPUS ORNATUS, A NEW GENUS
AND SPECIES OF ACARIDAE (ACARI) PHORETIC ON
THE BEETLE *BOLITOTHERUS CORNUTUS* (PANZER, 1794)¹**

A. Fain², G.S. Ide³

ABSTRACT: *Ellipsopus ornatus*, n.gen., n.sp., described here is known only from the hypopial stage (heteromorphic deutonymph). It has been found on the elytra and sternites of a beetle, *Bolitotherus cornutus* from U.S.A.

DESCRIPTORS: Acari, Acaridae, hypopus, *Ellipsopus ornatus* n.gen. and n.sp., *Bolitotherus cornutus* (Panzer, 1794).

Ellipsopus, n.gen.

Hypopus: General aspect normal for Acaridae. Palposoma short, bearing two apical solenidia and two lateral setae. Dorsum with two strongly sclerotized and pitted shields. Some dorsal setae, (d2, d3, d4, d5, 15, sci, and sce) broadly lanceolate with apically converging ridges; remainder, (d1, 11, 12, 13, 14, vi, ve, and scx) setiform. Epimera as in *Lackerbaueria* Zachvatkin. Suctorial plate with posterior suckers much larger than anterior; lateral and paramedian conoids situated on transverse line behind the posterior suckers (for nomenclature of these structures, see Fain, 1973, p. 172). Legs short and massive. Claws very strong, sessile.

Type species: *Ellipsopus ornatus* n.sp.

Ellipsopus ornatus n.sp.

(figures 1-4)

• **Hypopus:** Idiosoma elliptical. Holotype 261 μ long and 153 μ wide; three paratypes (length by width) 264 μ x 141 μ ; 255 μ x 150 μ ; 246 μ x 126 μ . Palposoma short; palps not fused. Dorsal shields with dense pitted pattern. Pits in lateral parts of dorsum smaller than those of median area. Sejugal furrow transversely striated. Lyrifissure ia adjacent to d1. Ventrolateral regions of idiosoma bear fine longitudinal striations. Ventral surface of opisthosoma bears two pairs of lyrifissures, (ip and im); oil gland opening just posterior to sejugal groove.

Leg chaetotaxy: trochanters 1-1-1-0; femora 1-1-0-1; genua 2-2-0-0; tibiae 1-1-1-1; tarsus I with famulus rather long, narrow.

Solenidiotaxy: genua 1-1-0-0; tibiae 1-1-1-1; tarsi 2-1-0-0.

¹ Accepted for publication: February 17, 1976

² Prins Leopold Instituut voor Tropische Geneeskunde, Nationalestraat 155, B-2000, Antwerpen, Belgium

³ Entomology Department, Acarology Laboratory, The Ohio State University, Columbus, Ohio 43210

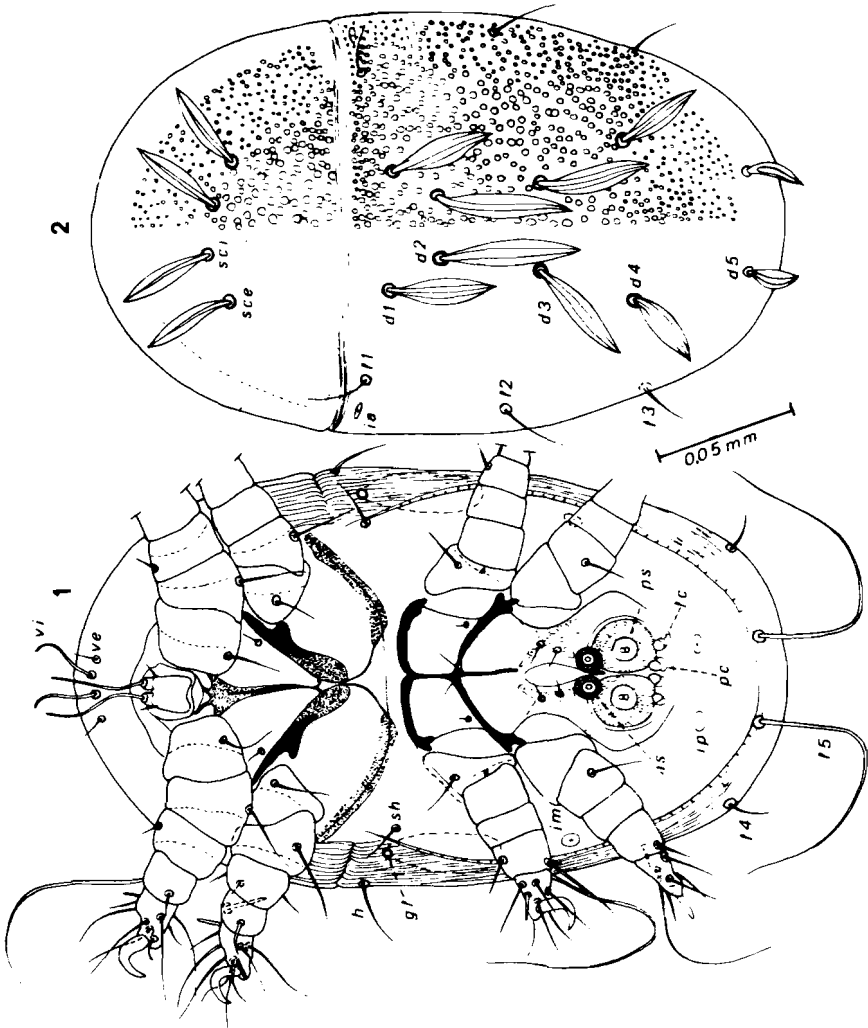


Fig. 1-2. *Ellipsopus ornatus* sp. n. Hypopus in ventral (fig. 1) and dorsal (fig. 2) view. (N.B.: as = anterior sucker; ps = posterior sucker; lc = lateral conoid; pc = paramedian conoid).

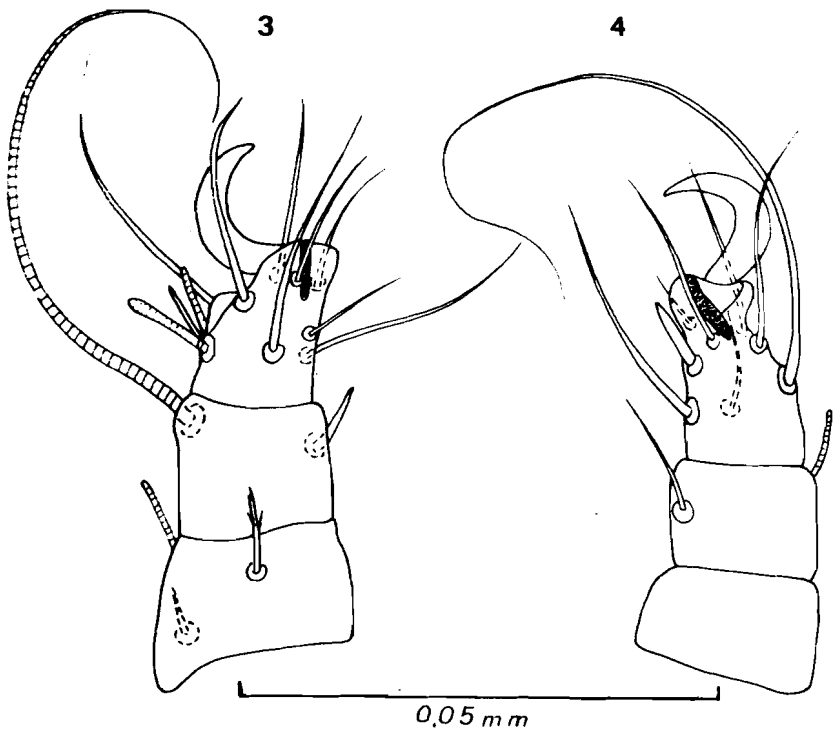


Fig. 3-4. *Ellipsopus ornatus* sp. n. Legs I (fig. 3) and IV (fig. 4).

The types series (holotype and twenty-seven paratypes) was removed from the elytra of *Bolitotherus cornutus* (Panzer, 1794) (Tenebrionidae) collected with a modified Tullgren funnel from an unidentified bracket fungus; Cedar Bog, Champaign Co., Ohio, U.S.A. 9.V.1975 (G.S.I.). The holotype has been deposited in the Systematic Entomology Laboratory, Beltsville, Maryland. Paratypes are in the collections of the authors.

Remarks

In addition to the type host, 173 museum specimens of *B. cornutus* were examined for infestation by *E. ornatus*. Of these, 52, (20 males, 32 females) were found to harbor this mite. The degree of infestation was as low as 1 to so dense that the host's integument was not visible. The mite is characteristically found in the deep puncta of the elytra.

B. cornutus is reported to be a common inhabitant of polypore fungi in forested areas, especially beech-maple, east of the Mississippi River (Liles, 1956). Specimens examined and found to bear *E. ornatus* were collected in Ohio, Kentucky, New York, and Illinois. The other instars of *E. ornatus* will probably be found to live in polypores.

ACKNOWLEDGMENTS

We thank C.A. Triplehorn for permission to examine the material of *B. cornutus* in the OSU Entomological Collection and D.J. Borror for making his personal collection of these beetles available for study. We also thank D.E. Johnston, Acarology Laboratory, The Ohio State University, for his assistance and encouragement during this study.

REFERENCES

- Fain, A. 1973. Notes sur les hypopes des Saproglyphidae (Acarina: Sactroptiformes). III. Le genre *Crabrovidia* Zachvatkin, 1941. Description de 8 especes nouvelles symphorétiques sur les Sphecidae (Hyménoptères). Bull. Ann. Soc. r. Belg. Ent. 109: 153-189.
- Liles, M. Pferrer 1956. A study of the life history of the Forked Fungus Beetle, *Bolitotherus cornutus* (Panzer). Ohio J. Sci. 56(6): 329-337.
- Zachvatkin, A.Z. 1941. Fauna of U.S.S.R. Arachnoidea VI(1) Tyroglyphoidea (Acari) Zool. Inst. Acad. Sci. U.S.S.R. (n. ser.) 28 (English translation, 1959; 573 pp.).

BOOK REVIEW

THE SPHECID WASPS OF THE WORLD – A Generic Revision, R. M. Bohart and A. S. Menke. Univ. of California Press, Berkeley. IX + 695 pp. \$42.50.

This is a monumental worldwide generic revision of the wasp family Sphecidae. As the authors state – it is designed to lay the groundwork for detailed revisions at the generic or tribal levels. They succeed admirably in fulfilling this aim. The introductory sections include behaviour, zoogeography, morphology (with clear illustrations and a glossary of terms used), systematics, evolution, a synonymic catalogue, a key to the subfamilies and an overall key to tribes. Under each subfamily there is, if necessary, a key to the included tribes. Each subfamily discussion includes categories such as – diagnostic characters, systematic characters and evolution. Generic keys are given for each tribe, if needed. For each genus, the diagnosis, zoogeographic range, systematics, biology and a checklist of included species and synonyms are included. A comprehensive literature cited and index close the volume.

It is unfortunate that the price of \$42.50 will take it out of the range of most student budgets.

Selwyn S. Roback