

A SMALL LIZARD STIFLED BY PHORETIC DEUTONYMPHAL MITES (UROPODINA)

BY R. DOMROW *

LETHIFEROUS
PHORESY
UROPODINA
LIZARD

PHORÉSIE
LÉTHIFÈRE
UROPODINA
LÉZARD

INTRODUCTION

Phoresy by modified deutonymphs is common among the Acari, especially the Astigmata (Acaridiae) and Mesostigmata (Uropodina). In the former, the hypopodes (see TREAT, 1975 : 53) are modified either for survival of adverse conditions (*Dauernymphen* in German) or for dispersal (*Wandernymphen*). In the latter, the deutonymphs attach to some larger animal by adhesive anal pedicels. The normal, relatively light, infestation is illustrated in KRANTZ (1978 : 64), but that reported below is massive in the extreme.

It concerns a small lizard, *Lampropholis delicata* (De Vis) (Lacertilia : Scincidae) (Fig. 1), covered over the whole dorsum, sides, limbs and tail by so many hundreds of deutonymphal Uropodina that it was found moribund (Mt Mollo, Queensland, April 1978, F. LITTLE). I thank Dr Valerie DAVIES, Queensland Museum,

ABSTRACT : A small lizard (*Lampropholis delicata*, Scincidae) found moribund carried many hundreds of phoretic deutonymphal uropodine mites. These are figured and described in the genus *Uroactinia*.

RÉSUMÉ : Un petit lézard (*Lampropholis delicata*, Scincidae) a été trouvé, moribond et couvert de plusieurs centaines de deutonymphes phorétiques d'un uropode. Elles sont figurées et décrites dans le genre *Uroactinia*.

Brisbane, for the chance to make this report, and Misses Cobie RUDD and Robyn WILSON for the plates.

Genus *Uroactinia* Sellnick

Uroactinia SELLNICK, 1958 : 274 (type-species *Uropoda consanguinea* Berlese).

Uroactinia sp. (Figs. 1-16)

Deutonymph (phoretic) : Terminology largely after EVANS and TILL (1965). Capitulum concealed in camerostome (Fig. 10) between vertex of idiosoma and basal segments of legs I. Basis (Fig. 5) with setae c barbulate; deutosternum with at least two rows of frank, multiple denticles. Hypostome with setae in two longitudinal rows (KRANTZ, 1978), $h_1 = h_3$, but thicker basally and less barbulate, h_2 longer; epipharynx (Fig. 9) complex; with pair of serrate

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structures internally (Fig. 6) ; cornicles dentate. Epistome (Fig. 8) truncate, with spicules apically and dendritic pattern submarginally. Palpi (Figs. 11-12) with "Fuscuropoda-type" setation (EVANS, 1963, 1964), i.e. 2.5.5.14 (including two dorsodistal tibial rods) ; trochanter with

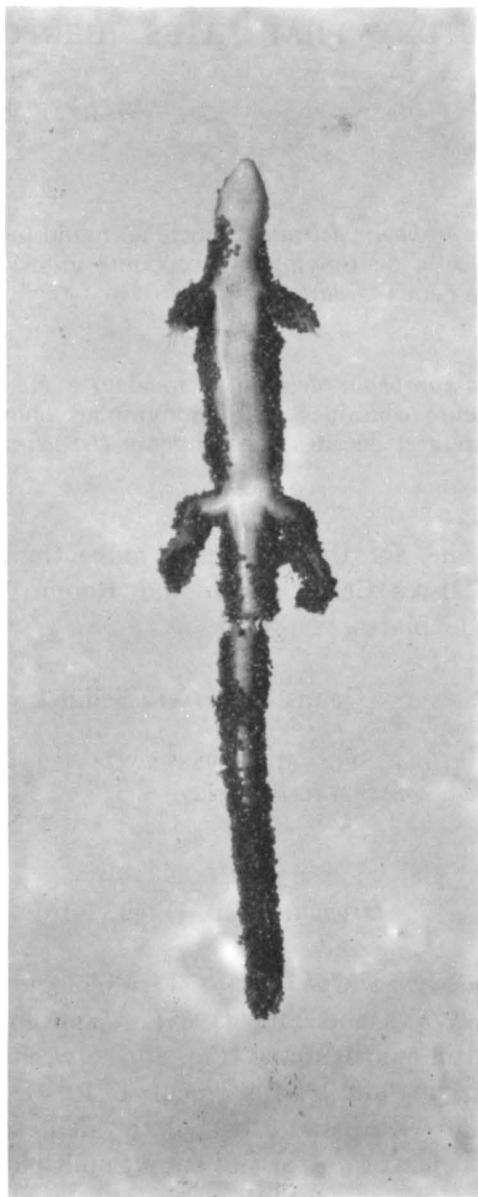


FIG. 1. — *Uroactinia* sp. — Massive infestation of lizard (*Lampropholis delicata*, 83 mm long) by deutonymphs. Ventral view.

both setae long, barbulate ; femur with rounded lobe ventrally ; tibia with one ventral seta strong, barbulate ; tarsus with some simple setae and

terminal rods, claw bifid. Chelicerae (Fig. 4) long, attenuate ; middle segment with more distal articulation ventral, shaft striate at midlength, fixed digit with *Actinia*-like process distally.

Idiosoma 680-770 µm long, 550-625 µm wide ; ovate, with slight vertical prominence. Dorsum (Fig. 2) in form of upturned bowl with narrow rim ; shield apparently entire, without any marginal component, with numerous short, vaguely paired setae and four pairs of complex pores submarginally.

Venter flat (Fig. 3). Tritosternum (Fig. 7) hidden by coxae I, base armed laterally, laciniae three, ciliated. Sternogenital shield with small triangular projection anteromedially ; with eight pairs of setae and about six pairs of pores (one lyriform and one punctae in anterolateral angles etc.). Ventrianal shield with slight antero-median prominence, with six pairs of setae (posteriormost the strongest) and about five pairs of pores (one lyriform, one complex and one punctate in anterolateral angles etc.), analia with two shields each bearing two setae and two pores, anus provided with hyaline adhesive pedicel. Foveae for legs IV complex, with three pairs of pores ; those for legs I-III fused into peritrematal shields, with two pairs of pores at midlength and posterior spine ; peritremes with short posterior extension and reaching forward in sinuous course to level of distal margins of trochanters I. Ventral cuticle with about 14 pairs of short setae.

Legs stout, retractable into foveae. Coxae I (Figs. 10, 13) armed both ventro- and dorso-externally ; trochanters I (Fig. 10) armed internally and with ventrodistal flap ; all femora with longitudinal ventral flange, that on I (Fig. 14) irregularly dentate, those on II-IV (Fig. 16) smooth ; tarsi I (Fig. 13) tactile. Setation (Fig. 13-16) after EVANS (1969, 1972) : coxae 2.2.2.1 ; trochanter 4.4.4.4 ; femora I 1-4/3-1, II 1-4/2-1, III 1-3/1-1, IV 1-4/1-1 ; genua I 1-2/1.2/1-1 ; II 1-2/0.2/1-1 ; III-IV 1-2/0.2/0-1 ; tibiae 1-1/1.2/1-1 ; tarsi -18.18.18 (av₁ on II-IV feathered). All tarsi with caruncle and two claws.

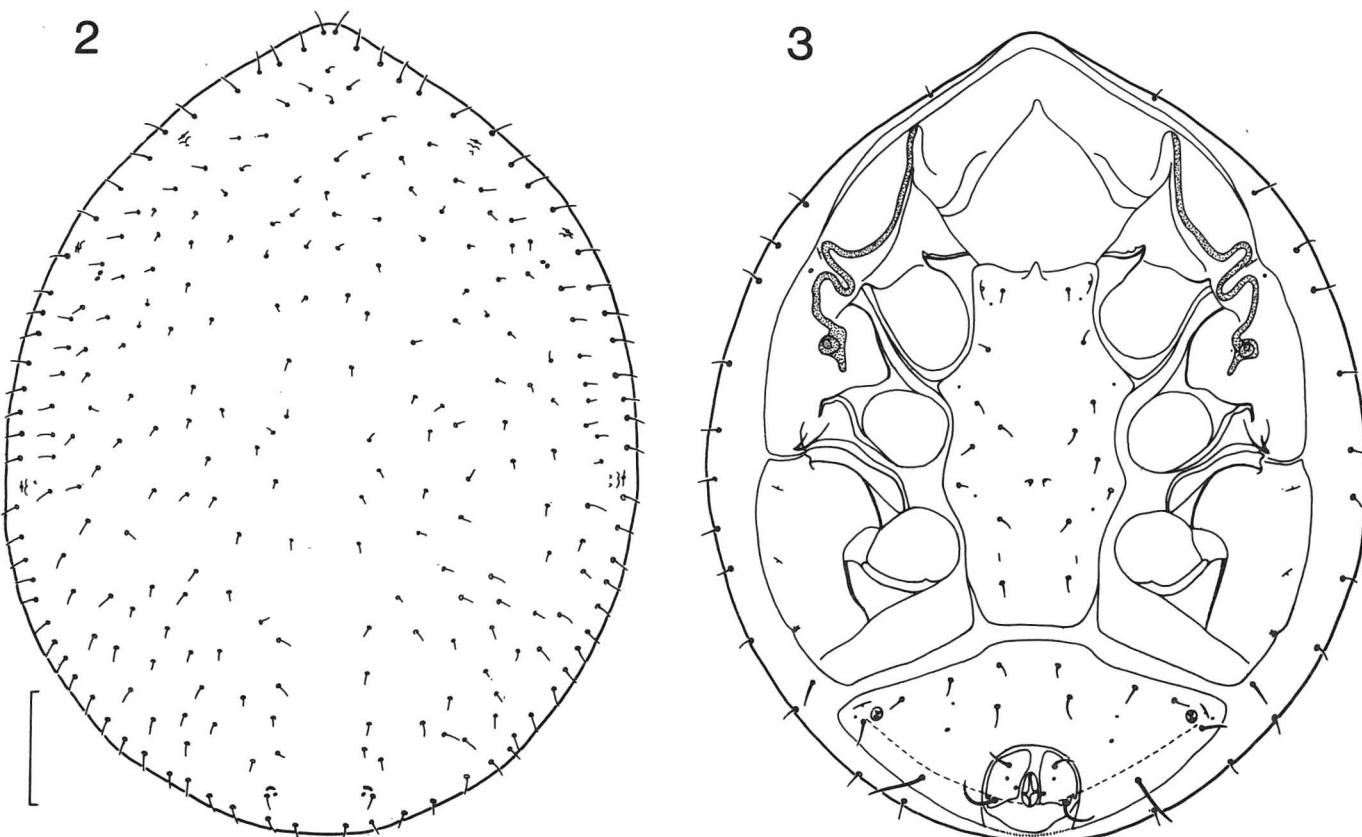


FIG. 2-3. — *Uroactinia* sp. Idiosoma in dorsal and ventral views (scales = 100 μm).

■ NOTES : The indices to Series 16, 18, 19 and 21 provide the key to the maze that is *Acarologie*. They list *Uroactinia* from most land masses, the major entries being HIRSCHMANN and ZIRNGIEBL-NICOL (1964, classification and diagnosis of genus; 1969a, revision of genus; 1969b, illustration of four known species; 1974, critique), ZIRNGIEBL-NICOL (1973, description of above four species) and HIRSCHMANN and HUTU (1974, geographical distribution)¹. These make it clear that some of the many nominal species are inadequately described by modern standards, that some based on immatures may be synonyms of others based on adults, that the fauna is imperfectly sampled etc. In these circumstances, I have described my

specimens fully, but prefer to place them neither in a known species nor in a new one.

Since writing this, my library has received Series 26 of *Acarologie* (but not 22-25); these contain further references to *Uroactinia*.

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1. Additional major references are TRÄGÅRDH (1931, 1952), VITZTHUM (1935), GORIROSSI (1955) and SELLNICK (1958, 1963, 1964).

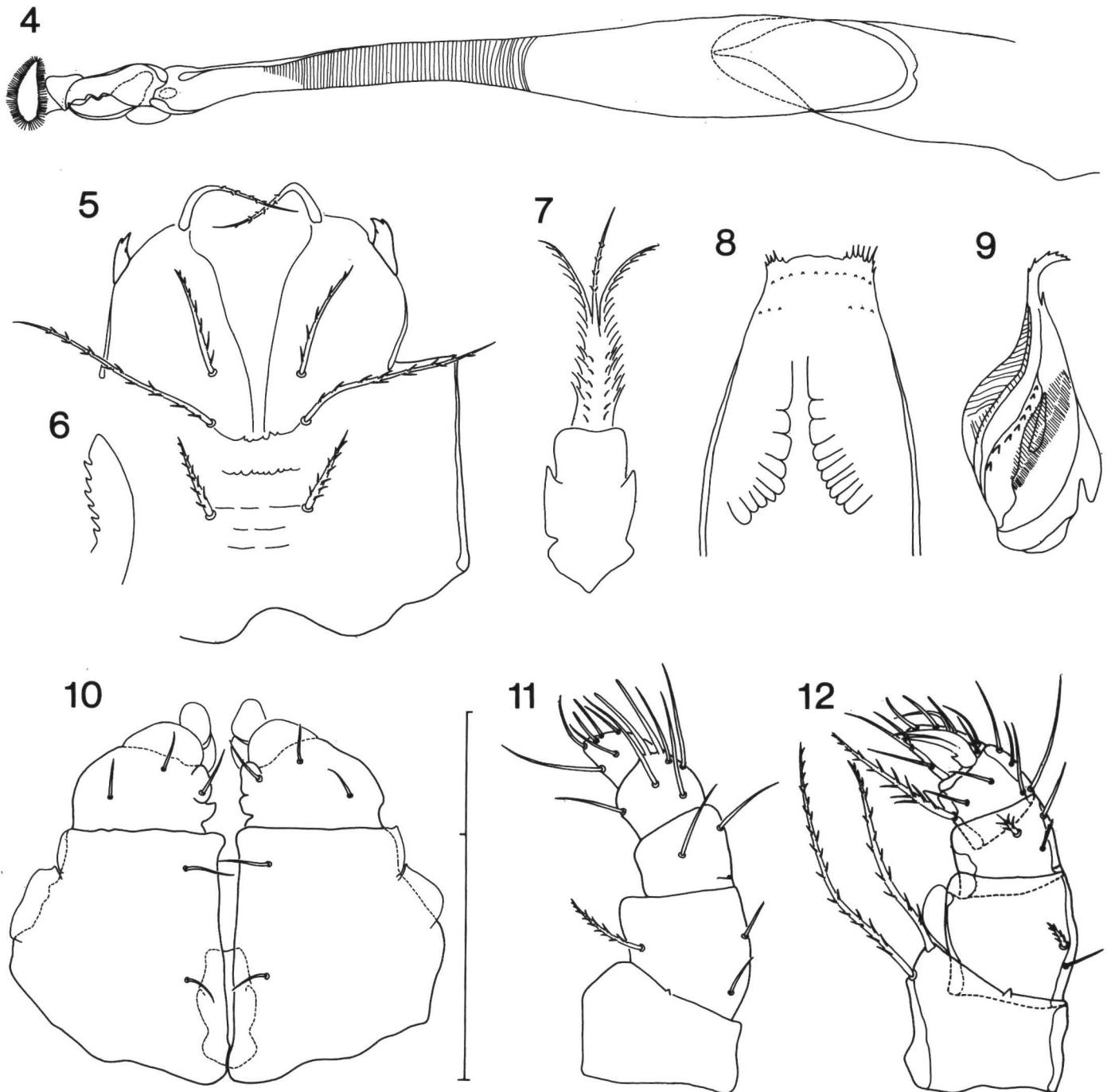


FIG. 4-12. — *Uroactinia* sp. 4) Chelicera in dorsal view ; 5) Basis capituli in ventral view ; 6) One of two serrate structures within basis capituli ; 7) Tritosternum ; 8) Epistome ; 9) Epipharynx ; 10) Coxae-trochanters I showing extent to which capitulum (note tips of palpi) and tritosternum are hidden ; 11-12) Palpi in external and internal views.

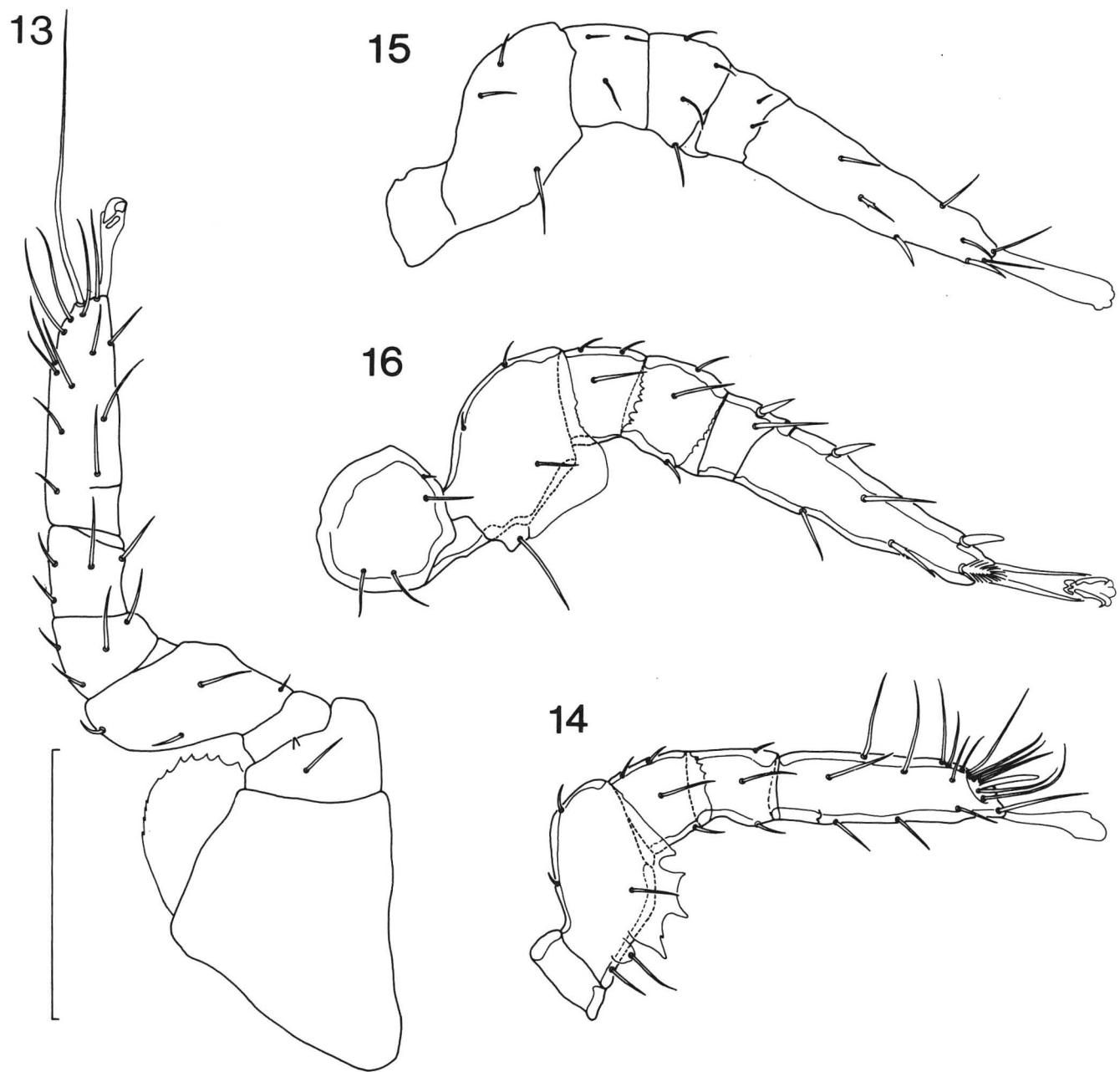


FIG. 13-16. — *Uroactinia* sp. 13) Leg I in posterodorsal view ; 14) Femur-tarsus I in anteroventral view ; 15-16) Femur-tarsus IV in posterodorsal and anteroventral views.

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Corrigenda

Acarologia, **20** : 513 (column 2, footnote relevant to *P. thymanzae* is 20).

N. Z. Jl Zool., **7** : 295 (column 2, line 9, for *j5* read *J5*; before Type Data add Leg setation holotrichous, with one exception : genu IV with *pl* added, predicting state in adult. Femur II without ventral prominence.) ; 297 (Please note : The specimens listed under Other Material of *O. scincorum* were clearly stated not to form part of the type-series in the original ms and should be so treated now, see *I.C.Z.N.*, Art. 72 (b). They are not labelled as types.).