

A NEW SPECIES OF *LOBOHALACARUS* FROM AUSTRALIA (CHELICERATA: ACARINA: HALACARIDAE)

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Abstract

Harvey, M.S., 1988. A new species of *Lobohalacarus* from Australia (Chelicerata: Acarina: Halacaridae). *Memoirs of the Museum of Victoria* 49: 363-365.

The first known Australian member of the genus *Lobohalacarus*, *L. bunurong* sp. nov., is described from interstitial waters in the Thomson River, Victoria, and compared with other members of the genus.

Introduction

Freshwater members of the mite superfamily Halacaroidea have been collected infrequently in Australia. The only described species is *Astacopsiphagus parasiticus* K. Viets (Halacaridae). Recent collections with a freeze-corer in the Thomson River by members of the Museum of Victoria have contained a single specimen of the halacaroid genus *Lobohalacarus* K. Viets. While I fully realise the disadvantages of describing a new species on the basis of one specimen, it is considered desirable in this case for several reasons. Firstly, the genus *Lobohalacarus* has not been recorded from Australia before; previous known records are from Europe, Japan, USA, east Africa and South America. Secondly, the Museum of Victoria's large holdings of aquatic mites contains only a single representative of this genus and the likelihood of obtaining further specimens seems small. Thus I have prepared this description to record the genus from Australia for the first time.

The type is lodged in the Museum of Victoria, Melbourne (NMV), and is mounted on a microscope slide in glycerol gel. Terminology follows Newell (1984) except for the patella which is here referred to as the genu.

Halacaridae

Lobohalacarus K. Viets

Walterella Romijn and K. Viets, 1924: 215. Type species *Walterella weberi* Romijn and K. Viets, 1924, by monotypy. Preoccupied in Lepidoptera by *Walterella* Dyar, 1921.

Lobohalacarus K. Viets, 1939: 506. Replacement name for *Walterella* Romijn and K. Viets, 1924.

Diagnosis. Genua I and II approximately same size as telofemur and tibia. Ventral shield entire. Genital acetabula internal.

Remarks. *Lobohalacarus* belongs to a small group of halacarid genera in which the genua I and II are approximately the same length as the tibiae and telofemora. From the other genera of this group, *Lobohalacarus* may be distinguished as follows: from *Halacarus* Gosse and *Anomalohalacarus* Newell by the presence of a complete ventral shield, and from *Astacopsiphagus* by the lack of external genital acetabula.

The genus *Lobohalacarus* currently contains six species: *L. weberi* (Romijn and K. Viets) from Europe, east Africa, Japan and USA; *L. gallicus* (Migot) from France; *L. dolgarae* Green from England; *L. bucharensis* Jankowskaja from USSR; *L. processifer* (Walter) from Peru; and *L. hummelincki* K. Viets from Venezuela. The descriptions of *L. gallicus* and *L. dolgarae* (Migot, 1926; Angelier, 1952, 1965; Green, 1954) indicate that they possess short genua I and II and therefore that they most likely belong to another genus.

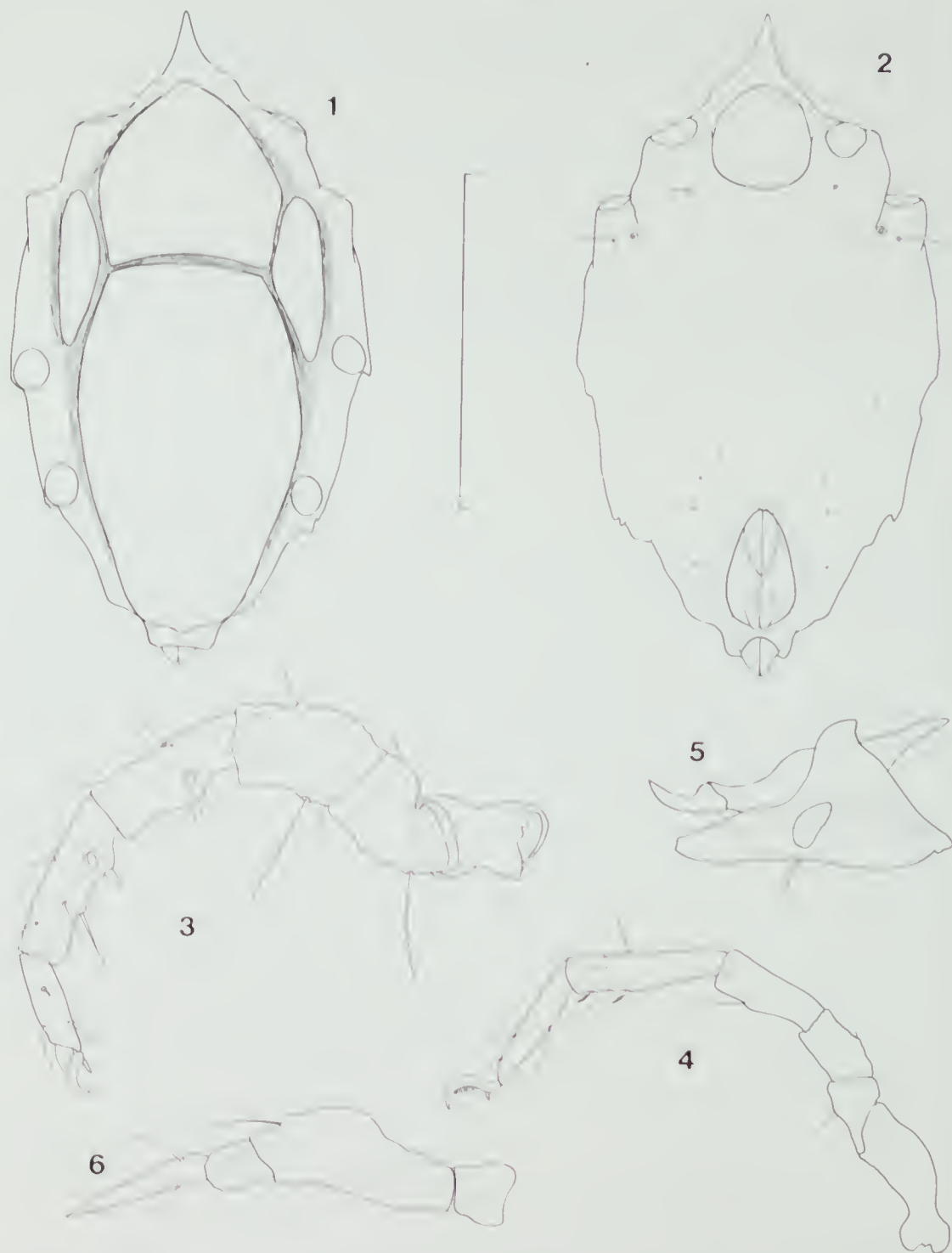
Lobohalacarus bunurong sp. nov.

Figures 1–6

Type material. Holotype female, Thomson River at Forestry Track C6 (Thomson River Study site T21a), Victoria, from frozen core sample 0–10 cm deep, 20 Mar 1986, R. Marchant, NMV K789 (slide).

Diagnosis. Palpal tibiotarsus with two sub-basal setae. Genital field with one pair of acetabula.

Description. Female: colour yellow-brown. Dorsum (Fig. 1) with four platelets, anterodorsal



Figures 1-6. *Loboahalacarus humrong* sp. nov. Holotype female. Fig. 1, dorsal view. Fig. 2, ventral view. Fig. 3, right leg I. Fig. 4, right leg IV. Fig. 5, gnathosoma, lateral view. Fig. 6, left pedipalp. Scale line = 200 μ m (Figs 1, 2), 135 μ m (Figs 3-5), 74 μ m (Fig. 6).

plate 0.91 times as long as broad, posterodorsal plate 1.54 times as long as broad, ocular plate 3.11 times as long as broad; setae not observed; anterior margin with long pointed process. Eyes absent. Ventral shield (Fig. 2) entire, with 8 pairs of setae, longest pair on coxa II. Epimeral pore situated at suture line between coxae I and II. Genital field with one pair of internal acetabula. Anal papillae without setae. Gnathosoma (Fig. 5) with elongate rostrum and one pair of tritrostral setae; chelicerae with long terminal claw. Pedipalps (Fig. 6) inserted laterally on gnathosoma; trochanter without setae; femur elongate with one sub-distal dorsal seta; genu with one stout medial seta; tibi-tarsus with two sub-basal setae. Legs: carpite absent; median claw present, straight in legs I and II, curved in legs III and IV; lateral claws smooth in leg I, pectinate in legs II, III and IV; legs I and II with paired solenidia. Leg I (Fig. 3): thicker than other legs; basifemur and telofemur with long sub-basal ventral setae; genu and tibia each with one pair of stout ventral and medio-ventral setae; tarsus with one slightly thickened medial seta. Leg II: tibia with two thickened ventral serrate setae. Leg III: tibia with one thickened ventral serrate seta. Leg IV (Fig. 4): tibia with two thickened ventral serrate setae.

Dimensions (μm): body 399/222; anterodorsal plate 106/116, posterodorsal plate 214/139, ocular plate 109/35; genital field 73/56; gnathosoma 111; chelicera 120; pedipalp: trochanter 14, femur 46, genu 11, tibi-tarsus 35; leg I: trochanter 59, basifemur 49, telofemur 65, genu 67, tibia 72, tarsus 46; leg IV: trochanter 65, basifemur 30, telofemur 34, genu 46, tibia 66, tarsus 58.

Etymology. The specific epithet is derived from the name of the aboriginal tribe which originally inhabited the region including the type locality (Tindale, 1940), and is to be treated as a noun in apposition.

Remarks. This species differs from other members of the genus as follows: from *L. weberi* and *L. hummelincki* by the presence of only two setae (rather than three) on the palpal tibi-tarsus; and from *L. gallicus* and *L. dolgarae* by the subequal telofemora, genua and tibiae I (rather than genu I being shorter than telofemur I and tibia I). As stated above, the short genu I of *L. gallicus* and *L. dolgarae* indicates that these two species probably belong to another genus. Comparisons with

L. bucharensis and *L. processifer* are not relevant at present because the only known specimens are nymphs and very little is known about ontogenetic changes in halacaroid mites, especially when comparisons between species are being made.

The holotype was taken from a core obtained by freezing the bed of the river as discussed by Marchant and Lillywhite (in press). The type locality was described by Malipatil and Blyth (1982).

Acknowledgements

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