

LABIDOSTOMMIDAE FROM AUSTRALIA (ACARINA, PROSTIGMATA)  
WITH THE DESCRIPTION OF A NEW SPECIES<sup>1</sup>

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(Communicated by H. Womersley)

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Current investigations on the labidostommid fauna of the Australian realm required the redescription of the type of the Australian species, *Labidostomma adelaideae* Womersley. Through the cooperation of the South Australian Museum, the type specimen plus unidentified specimens were loaned for study. Among the materials received, one new species was discovered which is described herein.

*Labidostomma adelaideae* Womersley, 1935

Ann. Mag. Nat. Hist., 10th ser., 16 (9), pp. 152-153.

The dorsal integumental pattern of this species resembles those of *Labidostomma luteum* Kramer, *L. barbae* Greenberg, and *L. vejdoskyi* Storkán, but is easily distinguished from these species in that *adelaideae* lacks the large gland-like structures ("pustules" of Grandjean, 1942; "Seitenbocker" of Thor, 1931) immediately behind each lateral eye.

*Female*.—Colour in life dark olive-green to greenish black. Length, including gnathosoma, 1004 $\mu$ . *Gnathosoma*.—Chelicera (Fig. 1C): length, 189 $\mu$ ; height, 117 $\mu$ ; median surface with 2-3 short vertical rows of small spicules at bases of fixed digit. Fixed digit with 8-11 subequal teeth slightly larger than 10-13 subequal teeth of movable digit; longest cusp of fixed digit minutely dentate apically. Palpus, 144 $\mu$  in length; gnathosomal base with 3 pairs of setae. *Dorsal idiosoma* (Fig. 1A). Length, 815 $\mu$ ; without anterolateral projections; without large gland-like organs on median lateral surfaces; sensilla minutely branched. *Ventral idiosoma*. Epimera with polygons except: epimeron III with small striated area near median line, epimeron IV with striated areas on medial and lateral thirds. Paragenital region with large striated area as in Fig. 1D. *Legs*. Measurements: tibia I, 185 $\mu$ ; tarsus I, 76 $\mu$ ; pretarsus I, 36 $\mu$ ; tibia IV, 158 $\mu$ ; tarsus IV, 143 $\mu$ ; total lengths of legs (excluding coxae and pretarsi): I, 654 $\mu$ ; II, 523 $\mu$ ; III, 468 $\mu$ ; IV, 611 $\mu$ . Famulus with single dichotomy; solenidia short, extending to insertion of famulus (Fig. 1B).

*Male*.—Unknown.

*Type*.—Female, collected at Morialta Gorge, Adelaide, South Australia, September 2, 1934, by H. Womersley, among hepatics.

*Location of Type*.—The South Australian Museum, Adelaide.

*Remarks*.—A second female collected at Long Gully, Belair, South Australia, in August, 1938, by H. Womersley from moss, was available for study and was found not to deviate from the redescription of the type. All drawings are of the type specimen.

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***Labidostomma womersleyi* n. sp.**

This new species is similar to *L. adelaideae*, but can be distinguished by the lack of striated areas surrounding the genital plates, tarsus IV being longer than tibia IV (rather than shorter), and being slightly smaller in size.

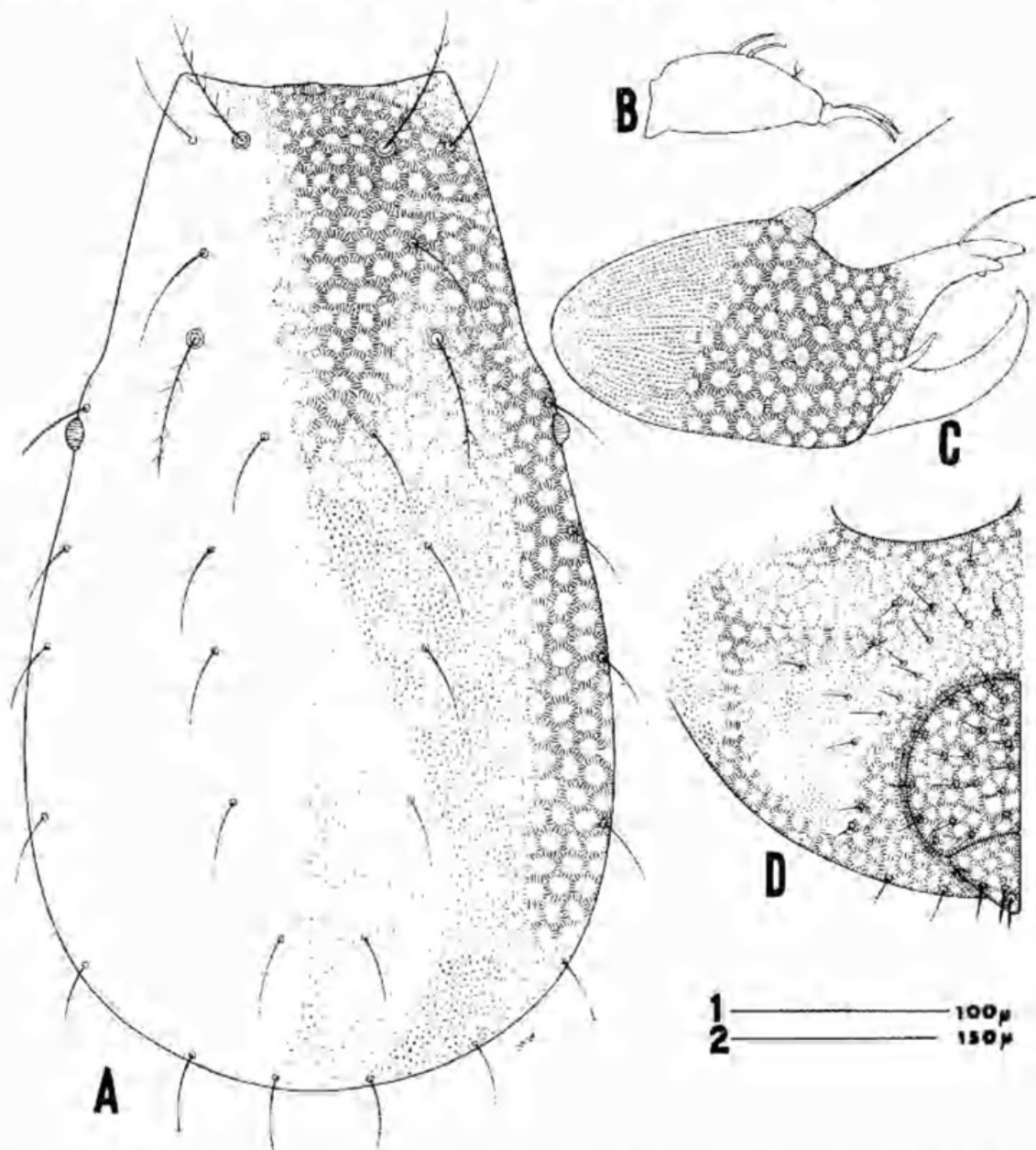


Fig. 1.—*Labidostomma adelaideae* Womersley, 1935, type female. Figs. A and D, scale 1; Figs. B and C, scale 2. A, dorsum of idiosoma; B, tarsus I showing two solenidia and branched famulus; C, lateral aspect of right chelicera; D, ventral aspect of opisthosoma showing paragenital, genital, and anal regions.

**Female.**—Colour in life deep yellow. Length, including gnathosoma, 780 $\mu$ . **Gnathosoma.**—Chelicera (Fig. 2C): length, 170 $\mu$ ; height, 98 $\mu$ ; median surface without spicules. Fixed digit with minute serrations on inner face, much smaller than dentations of movable digit; both cusps of fixed digit minutely dentate apically. Palpus, 102 $\mu$  in length; gnathosomal base with 3 pairs of setae. **Dorsal**

*idiosoma* (Fig. 2A).—Length,  $610\mu$ ; without anterolateral projections; without large gland-like organs behind lateral eyes; sensilla minutely branched. *Ventral idiosoma*.—Epimera with polygons except for striated outer third of epimeron IV. Genital and anal areas as in Fig. 2D. *Legs*.—Measurements: tibia I,  $153\mu$ ; tarsus

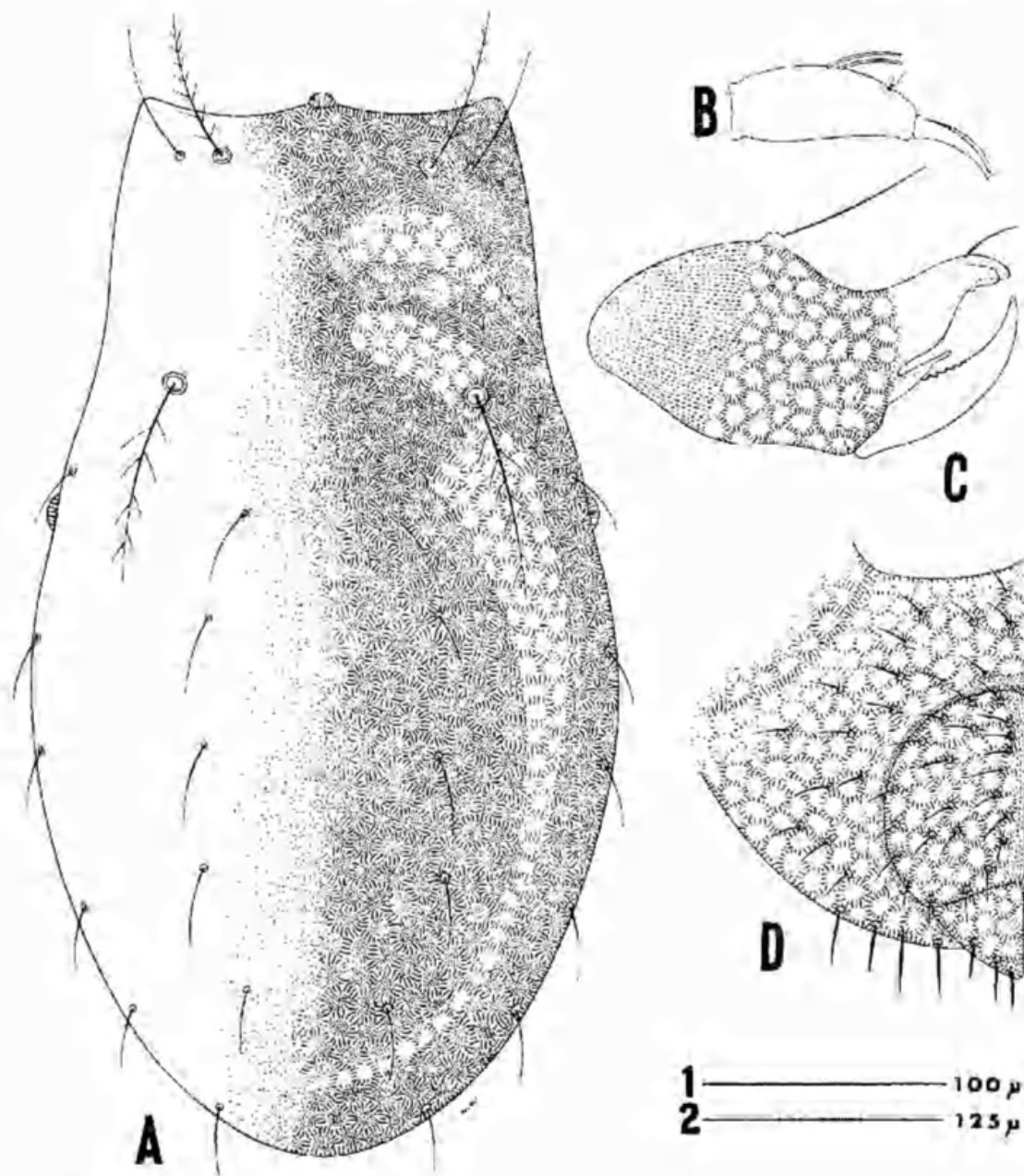


Fig. 2.—*Labidostomma womersleyi*, n. sp., holotype female. Figs. A and D, scale 1; Figs. B and C, scale 2. A, dorsum of idiosoma; B, tarsus I showing two solenidia and branched famulus; C, lateral aspect of right chelicera; D, ventral aspect of opisthosoma showing paragenital, genital and anal regions.

I,  $75\mu$ ; pretarsus I,  $31\mu$ ; tibia IV,  $143\mu$ ; tarsus IV,  $148\mu$ ; total lengths of legs (excluding coxae and pretarsi): I,  $572\mu$ ; II,  $452\mu$ ; III,  $392\mu$ ; IV,  $551\mu$ . Famulus with single dichotomy; solenidia long, extending almost to tip of tarsus I (Fig. 2B).

*Male*.—Unknown.

*Holotype*.—Female, collected at Remarkable Creek, Wilmington, South Australia, altitude 2,000 feet, September 18, 1958, by H. M. Cooper, in moss.

*Location of Type*.—The South Australian Museum, Adelaide.

*Remarks*.—Although the new species is based on a single female, the differentiating characters are unique when compared with those of any known species from the Australian realm. This new species is named in honour of Dr. H. Womersley of the South Australian Museum. All drawings are of the holotype.

#### ACKNOWLEDGMENT

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# **BASSIA UNIFLORA (FVM.)R.BR. (CHENOPODIACEAE) AND ALLIES IN AUSTRALIA**

*BY ERNEST H. ISING*

## **Summary**

An examination of herbarium specimens of *Bassia* Sect. *Anisacantha* Series 1 Anderson (Proc.Linn.Soc.N.S.Wales **48(1923)322**) revealed specifically distinguishing characters of *B. uniflora* ( R.Br.) FvM. and *B. diacantha* ( Nees ) FvM, (The latter name had been treated in the more modern local floras as a synonym of the former.) These two and four new species, *B.burbidgeae*, *B. constricta*, *B. eichleri* and *B. gardneri*, are described. A key for the determination of the species recognized in the series (except *B. anisacanthoides*) is given. Of each species the distribution is illustrated by citation of a selection of the approximately 600 specimens examined from the following herbaria: AD, ADW, BRI, CANB, MEL, NSW, NT, I, PERTH, SYD (symbols as in Index Herbariorum ed. 4), and special features are briefly discussed.



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by ERNEST H. ISING

(Communicated by Hj. Eichler)

[Read 13 October 1960]

## SUMMARY

An examination of herbarium specimens of *Bassia* Sect. *Anisacantha* Series I Anderson (Proc.Linn.Soc.N.S.Wales 48(1923)322) revealed specifically distinguishing characters of *B. uniflora* (R.Br.)FvM. and *B. diacantha* (Nees)FvM. (The latter name had been treated in the more modern local floras as a synonym of the former.) These two and four new species, *B. burbridgeae*, *B. constricta*, *B. eichleri* and *B. gerdharti*, are described. A key for the determination of the species recognized in the series (except *B. anisacanthoides*) is given. Of each species the distribution is illustrated by citation of a selection of the approximately 600 specimens examined from the following herbaria: AD, ADW, BRI, CANB, MEL, NSW, NT, P, PERTH, SYD (symbols as in Index Herbariorum ed. 4), and special features are briefly discussed.

Since Ferdinand von Mueller (Census Austral.Pl. 1(1882)30) transferred the Australian species described in the genera *Chenolea*, *Sclerolaena*, *Anisacantha*, *Echinopsilon*, *Kentropsis*, *Dissocarpus*, *Eriochiton*, *Osteocarpum* and *Coilocarpus* to the genus *Bassia*, he was, in Australia, followed by most of the writers of State Floras and check lists. J. M. Black, for example, in his Flora of South Australia ((1924)188), follows Anderson's "Revision of the Australian species of the genus *Bassia*" (Proc.Linn.Soc.N.S.Wales 48(1923)317-355, t. XXXIV-XXXVI) in this "lumping" trend.

Domin (Bibl.Bot.89(1921)625) pointed out that the circumscription of the genera within the *Chenoleae* (sensu Benth. and Hook.f., Gen.Pl.3/1(1880)46) represents greatest difficulties, and that one may become inclined to lump into one genus all the groups of species which have been described as genera. He, however, regards such a procedure as being not suitable. The unification of *Sclerolaena* and *Anisacantha* he regards as fully justified; the delimitation of the other genera, however, will, in Domin's opinion, be only possible following a thorough monographic study.

Ulbrich in his treatment of *Chenopodiaceae* (in Engler u. Prantl, Natürl. Pflanzenfam. 2nd ed.16c(1934)448,449, 532-540) referred to the Australian species treated in modern Australian State Floras under *Bassia* as belonging to the genera *Austrobassia*, *Sclerolaena*, *Dissocarpus*, *Coilocarpus* and *Sclerobassia*. All these genera are restricted to Australia whereas *Bassia* (sensu Ulbrich) occurs in the Mediterranean area, Orient to Central Asia, Siberia, and one species in Central Europe (naturalized in North America) but is absent from Australia.

Black (Trans.Roy.Soc.S.Austral. 58(1934)175-176) explained the reasons why he did not follow Ulbrich's treatment and retained the generic name *Bassia* for the Australian species in the 2nd edition of his Flora of South Australia ((1948)301-308).

It appears, nevertheless, desirable that the justification of the Australian genera distinguished by Ulbrich be examined carefully and the Australian species referred to *Bassia* by other authors be revised in view of their generic position.



Atyeo, Warren T. and Crossley, D A. 1961. "Lahidostom-midae from AustrMa (Acarina, Prostigmata) with the description of a new species." *Transactions of the Royal Society of South Australia, Incorporated* 84, 83–88.

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