

New Species of *Euryglossula* Michener (Apoidea: Colletidae)

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ABSTRACT. Eleven new species of *Euryglossula* Michener are described: *E. aeneocephs*, *E. elizabethae*, *E. eremophilae*, *E. incisa*, *E. kubinensis*, *E. laticeps*, *E. pallida*, *E. pinnulata*, *E. purpurea*, *E. scalaris* and *E. storeyi*. The male of *E. variepicta* Exley is described for the first time. As now understood, the genus *Euryglossula* contains 18 species. New floral records and illustrated identification keys for both sexes of all species of the genus are provided. Variations in some diagnostic features of *Euryglossula* and the taxonomic placement of some species are discussed.

KEYWORDS. Bees; Colletidae; Euryglossinae; *Euryglossula*, new species.

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Clouds of small to minute euryglossine bees are commonly found swarming around *Eucalyptus*, *Corymbia* and other myrtaceous flowers. Many belong to one of three related genera, *Euryglossina* Cockerell, *Euryglossula* Michener and *Pachyprosopis* Perkins, that have the second submarginal cell of the forewing much less than half as long as the first (or absent), and the first abscissa of vein Rs transverse (Michener, 2007). While these features may be a consequence of their small size (Danforth, 1989), recent molecular studies support the idea that they form a monophyletic group (Kayaalp, 2011). The genus *Euryglossula* was separated from *Euryglossina* primarily on the basis of the facial profile of females (Michener, 1965) and the presence of a noticeable fringe across the apical margin of the fifth metasomal sternum of males (Exley, 1968a, 1969).

Occasionally species exhibit characteristics of more than one genus or subgenus. For example: the wings of *Euryglossina narifera* Cockerell and *Euryglossula fultoni* Cockerell have venation patterns approaching that of *Pachyprosopis* (Michener, 1965); *Pachyprosopis trichopoda*

Exley has some features of *P. (Parapachyprosopis)* species and some that would place it in *P. (Pachyprosopula)* (Exley, 1972); and the clypeus of female *Euryglossula variepicta* Exley is reminiscent of that seen in *Euryglossina* species (Exley, 1969).

The new descriptions include some features that support previously proposed generic characteristics and others that demonstrate new types of variation. No attempt has been made to re-examine the boundaries of the genus *Euryglossula*, though the observations do indicate directions that such a re-examination might take.

Terminology, methods and measurements

Previously named species were compared with their published descriptions using numerous specimens, identified by Professor E.M. Exley, including the holotype and allotype of *E. deserti* and of *E. flava*, female paratypes of all other species except *E. chalcosoma* and the male holotype of *Euryglossina claristigma* Rayment, which was synonymised with *Euryglossula chalcosoma* (Exley, 1968a).