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Review of south temperate New World Coelocybinae (Hymenoptera: Pteromalidae)

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Abstract

The Coelocybinae (Hymenoptera: Pteromalidae) of the southern parts of the New World are reviewed. *Ariasina* Heydon **n. gen.** is described for *Ar. adusta* Heydon **n. sp.** and *Ar. gigas* Heydon **n. sp.** Other new species described are *Ambogaster karooi* Heydon **n. sp.**, *Lanthanomyia bockleri* Heydon **n. sp.** and *L. pardos* Heydon **n. sp.** Updated information on distributional records, new host plant information, and a key to all included genera and species of the Coelocybinae of Chile and Argentina are presented.

Key words: Chile, Argentina, *Nothofagus*, *Fuchsia*, gall, Patagonia, Chalcidoidea

Introduction

The Coelocybinae of the New World were reviewed recently by Heydon and Hanson (2005), but since then the amount of coelocybine material available for study from Chile has doubled. Much of this new material was collected by Tomás Cekalovic in the previously under-collected far southern Chile, and through the fogging of specific trees by Elizabeth Arias and her group at the University of California, Berkeley. As a result, our knowledge of this interesting group is considerably more complete. The *Nothofagus* galls that these wasps are associated with will certainly be the subject of numerous ecological studies over time, so the identification of the insects inhabiting these galls are vital.

Coelocybine wasps are also interesting because there are several species that, though morphologically uniform, exhibit distinct color variation. This phenomenon does not seem to occur so distinctly in pteromalids otherwise. For example, *Lanthanomyia bouceki* Heydon from the far south of Chile are distinctly darker than those from elsewhere, and some females of *L. australis* De Santis have a distinct macula on the wing whereas others have none. The taxonomic status of these forms will need dedicated study to resolve, probably by local students. However, with the description of a new genus and five new species, the basic taxonomic framework of this group in the region covered is probably now complete.

Material and methods

Terminology follows that of Gibson *et al.* (1997) except club is used instead of clava. The fine setae covering the body are called microsetae. The length of the scape does not include the radicle. The following abbreviations are used: paratype is PT, the median ocellar diameter is MOD, the oceller–ocular distance is OOL, the posterior ocellar distance is POL, the lateral ocellar line is LOL, the multiporous plate sensilla are MPP sensilla, and the lower ocellar line is LOeL. The gastral tergites are T1–T7, with T1 being the first tergite after the petiole. The antennal segmentation is a bit different from other Pteromalidae because the anelli in the Coelocybinae genera treated herein tend to be quadrate or even elongate. In *Ariasina* Heydon, the second anellus is longer than the first funicular segment. MPP sensilla may or may not be present on the third flagellar segment, but they are usually first found

Diagnosis. Females of *L. tigrata* are small (body length < 2.7 mm) with the microsetae of the body brown and reclinate, but straight (Fig. 21). The body color is variegated with greater or smaller areas of black coloration over a yellow base (Fig. 20). The antenna has the scape broadened, with its anterior edge sharp, and only extending a bit above the top of the scrobes; A1 as long as wide; and the flagellum clavate with the funicular segments variable, but the terminal segments always strongly transverse. The occipital foramen is well below the vertex. The wing membrane is clear. The gaster is about twice as long as wide and about as long as the combined length of the head and mesosoma.

New distribution records (EMEC, MLPA, MNNC, UCDC). CHILE. REGIÓN VIII. Parque Nacional Nahuelbuta, (961m), 37°48.7'S 73°3.9'W, 9.XII.2001 (canopy fogging GT *Nothofagus dombeyi*, Arias–14), 2 ♀. REGIÓN IX: Lonquimay, Las Raíces Tunnel (1033m), 38°33.5'S 71°30'W, 17.XII.2001 (canopy fogging GT, *Nothofagus dombeyi*), 17 ♀; Parque Nacional Huerquehue exit, 39°10.17'S 71°43.59'W, 11.XII.2001 (canopy fogging GT, *Nothofagus dombeyi*, Arias–15), 3 ♀. REGIÓN X: Puerto Haro, Isla Lemuy, 24.I.2000, 2 ♀.

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