

## TWO NEW COMBINATIONS IN NEOTROPICAL *ECCOPSIS* ZELLER, 1852 AND ONE IN *MEGALOTA* DIAKONOFF, 1966 (TORTRICIDAE: OLETHRUETINAE)

**Additional key words:** Afrotropical, Ecuador, Olethreutini, Peru

During continuing studies on the tortricid fauna of the New World tropics, two species described in *Polychrosis* by Meyrick (1917) and subsequently transferred to *Lobesia* Guenée, 1845 by Clarke (1958) were determined to be assigned more appropriately to *Eccopsis* Zeller, 1852, as it is currently defined. *Eccopsis eltundana* Razowski & Wojtusiak, 2008, described from a single female from Ecuador, belongs in *Megalota* Diakonoff, 1966. The purpose of this note is to formally propose these three new combinations.

*Eccopsis arenacea* (Meyrick), **new combination**  
*Polychrosis arenacea* Meyrick, 1917: 23.  
*Lobesia arenacea*: Clarke 1958: 464; Powell et al. 1995: 152; Brown 2005: 407.

*Polychrosis arenacea* was described from Durán [province of Guayas], Ecuador, based on 23 specimens collected in June [probably 1914]. Clarke (1958) designated a lectotype and indicated that 10 of Meyrick's original specimens were missing from the collection of the British Museum of Natural History (BMNH; now The Natural History Museum, London). Clarke transferred the species to *Lobesia*, indicating it was a new combination, but gave no justification for the transfer. Powell et al. (1995) and Brown (2005) followed that assignment.

The forewing pattern of the lectotype of *Polychrosis arenacea* (illustrated by Clarke 1958: 464) is extremely similar to that of *Eccopsis floreana* Razowski & Landry, 2008 (Razowski et al. 2008: figs. 13, 14), described from the Galapagos Islands, Ecuador. Meyrick (1917) indicated that *arenacea* “varies remarkably,” and the same is true of other Neotropical species of *Eccopsis*, including *E. floreana*. The male genitalia of *arenacea* are extremely similar to those of *Eccopsis galapagana* Razowski & Landry, 2008 (Razowski et al. 2008: fig. 43), with a few long spines from the apex of the uncus, digitate socii, and asymmetric valvae, in each species with a dense patch of long setae and a long, slender, rod-like process from the terminal part of the sacculus on the right valva. On the basis of its superficial and morphological similarity to these species of *Eccopsis*, *arenacea* is transferred to *Eccopsis*.

*Eccopsis oxynochla* (Meyrick), **new combination**  
*Polychrosis oxymochla* Meyrick, 1917: 24.  
*Lobesia arenacea*: Clarke 1958: 472; Powell et al. 1995: 152; Brown 2005: 408.

*Polychrosis oxymochla* was described from Lima, Peru, based on 28 specimens collected “8-14” [probably August 1914]. Clarke (1958) designated a lectotype and indicated that 16 of the original specimens were missing from the BMNH collection. He transferred the species to *Lobesia*, identifying it as new combination, but gave no justification for the action. Powell et al. (1995) and Brown (2005) followed that treatment without further comment.

The forewing pattern of the lectotype of *Polychrosis oxymochla* (illustrated by Clarke 1958: 472) is not particularly similar to that of other Neotropical species of *Eccopsis*, but Meyrick (1917) indicated that the species “varies considerably in distinctness of markings,” which is common among Neotropical *Eccopsis*, and some of the paratypes are similar in facies to other New World *Eccopsis*. The male genitalia of *oxymochla* are similar to those of *Eccopsis razowskii* Vargas, 2011 (Vargas 2011: fig. 2), with a patch of long spines from the apex of the uncus, digitate socii, and asymmetric valvae, each valva somewhat divided near the middle by an oblique line separating the baso-anterior portion of the valva from the cucullus. In *Eccopsis razowskii*, each valva bears a short rod-like process, much shorter than that of *E. galapagana* (the latter has the process only on the right valva); however, similar processes are not apparent in *oxymochla*. On the basis of the forewing variation and similarity in male genitalia to other species of *Eccopsis*, *oxymochla* is transferred to *Eccopsis*.

*Megalota eltundana* (Razowski & Wojtusiak),  
**new combination**  
*Eccopsis eltundana* Razowski & Wojtusiak, 2008: 23.

*Eccopsis eltundana* was described from a single female from Loja Province, Ecuador. In facies (Razowski & Wojtusiak 2008: fig. 85) it is dissimilar to other New World species of *Eccopsis* and extremely similar to New World species of *Megalota* (Brown 2009:

figs. 1–24). The forewing pattern of the holotype of *Eccopsis eltundana* is similar to that of the holotype of *Megalota macrosocia* Brown, 2009, described from Pichincha Province, Ecuador, but the latter specimen is considerably more worn and the pattern elements are not clear. The female genitalia of *Eccopsis eltundana* has a small lobe immediately posterad of the ostium and a small signum comprised of a small cluster of short, blunt spines, both features of which are typical of many species in the *submicans* species-group of *Megalota* as defined by Brown (2009). On the basis of the facies and female genitalia, *eltundana* is transferred to *Megalota*.

**Discussion.** *Eccopsis* was proposed by Zeller, 1852, with *E. wahlbergiana* Zeller, 1852 (Type locality: South Africa) as the type species. Brown (2005) included 14 species in the genus, all from the Afrotropical region. Razowski & Wojtusiak (2008) described the first species of *Eccopsis* from the Neotropics (i.e., *E. eltundana* from the mountains of Ecuador), but that species is transferred to *Megalota* above. Razowski et al. (2008) followed with descriptions of two species of *Eccopsis* from the Galapagos Islands, Ecuador, and Vargas (2011) added another from Chile. Vargas (2011) and Gallego et al. (2012) provided information on the early stages of the New World species, which appear to be restricted to Fabaceae. The two new combinations proposed herein expand the known geographic distribution of *Eccopsis* in the New World to include Colombia, Ecuador (including the Galapagos Islands), Peru, and Chile—much of the western portion of South America.

Although New World species of *Eccopsis* (i.e., *galapagana*, *floreana*, *razowskii*, *arenacea*, and *oxynochla*) share many features with Old World members, they differ from Old World species in several characters. Afrotropical species of *Eccopsis* exhibit limited variation in facies (e.g., Aarvik 2004) in contrast to the highly variable forewing pattern of most Neotropical species. Males of Afrotropical species have a conspicuous “subbasal process of the valva” (sensu Brown 2009) which is lacking in New World species; and in most Afrotropical species the male genitalia are considerably more symmetrical compared to

Neotropical species. Hence, it possible that Neotropical species currently assigned to *Eccopsis* require a new genus.

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