



The Neotropical genus *Klyngon* Hansson (Hymenoptera: Eulophidae), with new species and biological information

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Abstract

The genus *Klyngon* Hansson is revised and expanded to include 13 species, 11 of which are newly described: *K. albicornis*, *K. aulacis*, *K. brasilense*, *K. copaiiferae*, *K. costalimai*, *K. gibberum*, *K. guimaraesi*, *K. hortense*, *K. pegosoma*, *K. petalon*, *K. serjaniae*. The inclusion of the new species necessitates a change of the morphological definition of the genus and diagnostic characters are modified or abandoned and new characters are introduced. The new species are described and diagnosed and all species are included in a key. The variation in the number of setae on midlobe of mesoscutum, scutellum and submarginal vein is discussed in terms of diagnostic characters for the subfamily, and the consequences of this variation for the identification of the genus with existing keys are highlighted, with a suggested solution to this problem. Biological records are available for 7 of the species, and all records are from unidentified galls, 4 species from *Copaiifera langsdorffii* (Fabaceae), 2 species from *Serjania mexicana* (Sapindaceae), and 1 species from an unidentified liana. *Klyngon* is regarded as a basal group within the tribe Entedonini and the association with galls is here speculated to be a primitive biology for the tribe.

Key words: Chalcidoidea, Entedoninae, Entedonini, *Copaiifera langsdorffii*, *Serjania mexicana*, gall inhabitants, basal lineage, taxonomy, identification key

Introduction

The genus *Klyngon* was described for two new species that do not completely agree with the diagnostic characters seen in most Entedoninae (Hansson 2005). With the addition of 11 new species to this genus, previously comprising only two similar species, the diagnosis of the genus requires alteration. Most character states mentioned in the original description of *Klyngon* need to either be abandoned or modified, and new characters need to be added. The new diagnosis for *Klyngon* is found below. The inclusion of the new species even further confuses the diagnostic characters that generally serve to define the Entedoninae.

The presence of a single pair of setae on the scutellum, two pairs of setae on the midlobe of mesoscutum, two setae on the submarginal vein, and a distinct frontal suture which is well separated from the anterior ocellus are characters that have often been used as diagnostic characters for Entedoninae (La Salle & Schauff 1995; Schauff et al. 1997). However, these characters are all seen to be variable within the genus *Klyngon*: submarginal vein with 1–7 setae, mesoscutum with 1–4 pairs of setae or with 10–16 scattered setae, scutellum with 1–5 pairs of setae or with 12 scattered setae, frontal suture present or absent.

It has already been noted that there is also considerable variation in all of the above characters in the tribe Euderomphalini (LaSalle & Schauff 1994, Hansson & LaSalle 2003). Both Euderomphalini and Entedonini are considered as belonging to the Entedoninae and molecular studies indicate that the Euderomphalini is a monophyletic group that has sister-group status with the Entedonini (Gauthier et al. 2000).

The genus *Klyngon* was also included in the molecular analysis of Eulophidae (Gauthier et al. 2000) as “New Genus B”, and in most analyses it is placed as the most primitive member of the Entedonini. It may be that the characters that have so far been regarded as stable and have been diagnostic for the subfamily