



New taxonomic status of *Foenomorpha Szépliget* as a subgenus of *Capitonus* Brullé (Hymenoptera: Braconidae: Cenocoeliinae) including a revision of species

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Abstract

Herein I describe 16 new species of *Capitonus* and formally transfer and redescribe the species *Foenomorpha bicolor* Szépligeti, *F. senlura* Braet and Achterberg, and *F. rufa* Braet and Achterberg to *Capitonus* as *Capitonus bicolor*, *C. senlura*, and *C. rufa*, **new combinations**. The following new species are described: *Capitonus bellaptera* Pitz **n. sp.** from Brazil, *C. boringi* Pitz **n. sp.** from South America, *C. catemacoensis* Pitz **n. sp.** from Mexico, *C. flavusassumentum* Pitz **n. sp.** from Argentina, *C. lateventris* Pitz **n. sp.** from Brazil, *C. negrolabiatus* Pitz **n. sp.** from Central and South America, *C. nigrum* Pitz **n. sp.** from South America, *C. robertsonae* Pitz **n. sp.** from Brazil, *C. rondoniaensis* Pitz **n. sp.** from Brazil, *C. sarmientoi* Pitz **n. sp.** from Colombia, *C. seltmannae* Pitz **n. sp.** from Colombia, *C. sharkeyi* Pitz **n. sp.** from Colombia, *C. stramentopetiolus* Pitz **n. sp.** from French Guyana, *C. stramentosura* Pitz **n. sp.** from Central and South America, *C. venezuelaensis* Pitz **n. sp.** from Venezuela, and *C. venustus* Pitz **n. sp.** from South America. A key to species of subgenus *Foenomorpha* is provided.

Key words: parasitoid, wasp, revision, Nearctic, Neotropical

Introduction

Cenocoeliinae contains approximately 70 described species with eight genera currently recognized (van Achterberg 1997; Braet & van Achterberg 2001; Yu *et al.* 2005). Cenocoeliines are cosmopolitan in distribution (van Achterberg 1997; Pitz & Sharkey 2005), but species richness is highest in the neotropics. The few cenocoeliines with known biologies are koinobiont endoparasitoids of mostly wood-feeding coleopteran larvae in Cerambycidae and Curculionidae (Scolytinae) but with some host records of Buprestidae and non-scolytine Curculionidae (Saffer 1982; Shaw & Huddleston 1991). Hosts of cenocoeliine wasps utilize a variety of woody substrates, from tree trunks (Pitz personal observation) to smaller branches and twigs (Shaw 1999), with records from herbaceous stems, fruits, and nuts (Saffer 1982). The subfamily has been largely overlooked in the past, with a large number of species remaining undescribed (van Achterberg 1997; Ent & Shaw 1999).

Capitonus Brullé, 1846 is the most species-rich genus of Cenocoeliinae, with an estimated 50 described species. The genus is speciose in the Neotropical region but some species are found in the southern Nearctic region (Pitz personal observation). The majority of species fitting the description of *Capitonus* are currently recognized as *Cenocoelius* Haliday, 1840 as they have not been formally transferred (Achterberg 1994; Achterberg 1997). Members of *Capitonus* are distinguishable from other cenocoeliines most readily by the ratio of the M+CU to 1M of the hind wing being 1.2–2.1 and in having the vertex posterad the lateral ocelli slightly to deeply concave. The genus was provisionally separated into two subgenera, *Capitonus* and *Iseura* (Achterberg 1994), with the species *Capitonus bifasciatus* Brullé, 1846 and *Capitonus ghilianni* (Spinola, 1853) designated as types respectively. The main purpose of erecting subgenera was to recognize the morphological uniqueness of *C. ghilianni* as this species exhibits a costate and abruptly narrowed first median metasomal tergum (Achterberg 1994).

Historically, *Foenomorpha* Szépligeti, 1904 was recognized as a genus of Cenocoeliinae by Szépligeti (1904), Achterberg (1994) and Braet and Achterberg (2001). Morphological characters used to define the genus were: three blunt tubercles on the ventral margin of the clypeus, a long and narrow first median metasomal tergite, a posteriorly projecting cuticle on the anterior portion of the pronotum usually present, and a groove on the median face of the hind coxa usually absent in females.

Sixteen new and 1 described species of *Foenomorpha* sensu Braet and Achterberg (2001) were included as part of a forthcoming revision of generic limits within Cenocoeliinae using molecular character systems (Pitz *in prep*). These analyses recovered *Foenomorpha* sensu Braet and Achterberg (2001) polyphyletic, composed of a strongly supported clade of 14 species nested within *Capitonus*, with two species independently derived within *Cenocoelius*. Members of the clade recovered within *Capitonus* have distinct morphological characteristics that separate them from the species recovered in *Cenocoelius*. Those in *Capitonus* possess a curl of cuticle on the anterodorsal portion of the pronotum (Fig. 1A) and, with the exception of *Capitonus venustus* Pitz **n. sp.**, the carina associated with the antennal scrobe is absent or truncated and does not reach the lateral ocelli (Fig. 1B). The diagnosable morphological differences between