



## Article

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### Redescription of the genus *Curiades* Pascoe 1880 (Coleoptera: Curculionidae: Entiminae: Naupactini), a potential mimic of Mutillidae from Brazil

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#### Abstract

The monotypic genus *Curiades* Pascoe 1880 (Curculionidae: Entiminae: Naupactini) is redescribed based on the type species *C. boisduvali* (Boheman 1840), endemic to Río de Janeiro, Brazil. *Curiades boisduvali* shows a characteristic color pattern and vestiture composed of long erect setae that resembles species of *Dasymutilla* Ashmead 1899, a genus of Mutillidae (Hymenoptera) whose wingless females have aposematic colors and painful stings. The similarities between the wasp (model) and the weevil (mimic) suggest a case of Batesian mimicry. The morphological characters of the rostrum and antennae justify a close phylogenetic relationship of *Curiades* and *Platyomus* Sahlberg 1823, even though based on its hairy vestiture the former is superficially more similar to *Trichaptus* Pascoe 1880, another Brazilian naupactine mimic of mutillid wasps. The present contribution includes a redescription of *Curiades* and its only known species, accompanied by habitus photographs, line drawings of genitalia and other diagnostic features.

**Keywords:** Batesian mimicry, morphology, mutillid wasps, Naupactini, weevils

#### Introduction

The broad-nosed weevil tribe Naupactini Gistel (Curculionidae: Entiminae) consists of approximately 65 genera (Alonso-Zarazaga & Lyal 1999) with over 500 species distributed mainly in Central and South America (Wibmer & O'Brien 1986). *Curiades* Pascoe (1880: 420) was transferred from Phyllobiini Schoenherr to Naupactini by Kuschel (in Wibmer & O'Brien 1986), along with the related genus *Platyomus* Sahlberg (see del Río & Lanteri 2010). *Curiades* is a monotypic taxon endemic to Brazil, with the single species *C. boisduvali* (Boheman 1840: 163) distributed along the coastal hills of Rio de Janeiro state at elevations of about 500–700 meters. Adults of this genus resemble wasps of the family Mutillidae, commonly known as “velvet ants” due to their dense pilosity of aposematic colors (red, black, white, silver or gold). They are also known as “cow killers” or “cow ants”, in reference to the painful sting of their flightless females.

*Curiades* most closely mimics species of the genus *Dasymutilla* Ashmead 1899 which are clothed with similar very long and erect hairs. This is probably an example of Batesian mimicry, a form of mimicry in which an unprotected edible species resembles an unpalatable or harmful species and therefore is similarly avoided by predators (Pfennig *et al.* 2001). Another naupactine genus known to mimic mutillid wasps is *Trichaptus* Pascoe 1880, also endemic to Brazil and occurring in Espírito Santo and Minas Gerais states (Lanteri & del Río 2005); however, in this case the weevils resemble species of the genus *Hoplomutilla* Ashmead 1899.

Even though *Curiades* is easily recognized based on its distinct body vestiture, its morphology has not been described in detail. Accordingly, the purpose of this contribution is to redescribe *Curiades*, diagnose its only known species, illustrate the diagnostic features, and to provide some notes on its putative mimicry with Mutillidae.

*Curiades boisduvali* is poorly represented in entomological collections, and likely is a rare species.