



## Revision of the species of the New World genus *Augochlora* (Hymenoptera, Halictidae) occurring in the southern temperate areas of its range

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### Abstract

*Augochlora* is a genus of mainly tropical bees, with few representatives in both North and South American temperate areas. In this contribution we present a taxonomic review of the species with southernmost distribution. Only five species occur in central Argentina and Uruguay, between 30° and 40° south latitude: *A. iphigenia* Holmberg, *A. amphitrite* (Schrottky), *A. nausicaa* (Schrottky), *A. phoemonoe* (Schrottky) and *A. daphnis* Smith. The first four species are common elements in the bee assemblages of the area. The fifth species, from Montevideo, Uruguay, is known from the type specimen only. Re-descriptions of all species, as well as illustrations, distributional data, and taxonomic keys are presented. A lectotype is designated for *Augochlora iphigenia* Holmberg, 1886. *Oxystoglossa semiramis* Schrottky, 1911, and *Halictus brochidens* Vachal, 1911, are new synonyms of *A. iphigenia* Holmberg. *Odontochlora thebe* Schrottky, 1909, is a new synonym of *Odontochlora amphitrite* Schrottky, 1909.

**Key words:** Augochlorini, Pampean Region, Argentina, Uruguay, taxonomy

### Introduction

The tribe Augochlorini is exclusive of the New World, with its highest diversity in the tropical areas, both at the generic and specific levels (Michener 2007). Most species of *Augochlora* Smith, which together with *Augochloropsis* Cockerell are the most species-rich genera in the tribe (Moure 2007), are indeed tropical. The genus has a broad distribution, from southern Canada, to the province of Buenos Aires in Argentina. According to Moure (2007), *Augochlora* includes 120 species classified in the nominal subgenus and the subgenus *Oxystoglossella* Eickwort, whereas a further six species has not been assigned to any of the two subgenera. There is no comprehensive revision of the species in the genus to date.

The diversity of *Augochlora* decreases drastically in temperate areas. A single species occurs in southern Canada and in eastern and central United States, while in southern United States five species have been recorded (Moure & Hurd 1987). In Argentina the greatest diversity occurs in two northern regions, the Yungas in the northwest, and the Paranaense forests in the northeast, but the subtropical xeromorphic Chaco region also has an important number of species. In the Pampean region *Augochlora* is represented by a reduced number of species. A similar trend occurs in Brazil, where in the state of Rio Grande do Sul the richest fauna is distributed in the northern parts of the state, whereas in the southern areas, namely the Pampa, Central Depression, Planalto Sul-Riograndense and southern parts of the Coastal Plain, only five or six species are present (Wittmann & Hoffman 1990). The genus is absent in xeric areas, such as the Monte and Patagonian regions in Argentina, in the western Andean areas in Argentina, as well as in Chile.

We have set our study area south of parallel 30° south latitude. Only five species occur in this vast region that includes all Uruguay and central Argentina, between 30° and 40° south latitude: *A. iphigenia* Holmberg, *A. amphitrite* (Schrottky), *A. nausicaa* (Schrottky), *A. phoemonoe* (Schrottky) and *A. daphnis* Smith. The first four species are common elements in the bee assemblages of the studied area, but the fifth species, described from Montevideo, Uruguay, is known in the area from the type specimen only. Additionally, some specimens from southern Brazil were examined.