

## Scientific Note

# Checklist of *Ganaspis* Förster, 1869 species from Brazil, with a new record and redescription of *Ganaspis hookeri* Crawford, 1913 (Hymenoptera: Figitidae)

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**Abstract.** This study provides a checklist of *Ganaspis* Förster, 1869 species recorded in Brazil, including data on their hosts and distribution within the country. Additionally, *Ganaspis hookeri* Crawford, 1913 is recorded for the first time in Brazil (Paraná State) and is redescribed. In Brazil, *Ganaspis* now has five recorded species.

**Keywords.** Tephritidae, Drosophilidae, Eucoilinae, Paraná, parasitoid wasp.

*Ganaspis* Förster, 1869 was proposed by Förster (1869) for the species *Ganaspis mundata* Förster, 1869 described from Europe. To date, all known species of *Ganaspis* are synovigenic, solitary, koinobiont endoparasitoids that attack Diptera larvae (Muscomorpha) of Tephritidae, Lonchaeidae, Drosophilidae, and Sarcophagidae (Crawford 1913; Díaz & Gallardo 1996; Guimarães et al. 2000; 2003; 2004; Costa et al. 2009; Buffington & Forshage 2016; Lue et al. 2017; Gallardo et al. 2022). This genus is one with the greatest specific richness of Eucoilinae (Cynipoidea, Figitidae); it currently has 45 species worldwide, and the highest diversity is recorded in tropical and subtropical regions. In Latin America, it is represented by 17 species, although the richness of the genus is largely undescribed from South America. In Brazil, four species of *Ganaspis* have been recorded: *Ganaspis bilineata* (Kieffer, 1909), *Ganaspis brasiliensis* (von Ihering, 1905), *Ganaspis fulvocincta* Kieffer, 1909, and *Ganaspis pelleranoi* (Brèthes, 1924), the latter being widely distributed in all regions of the country (Gallardo 2025).

Among the species of the Neotropics, *Ganaspis hookeri* Crawford, 1913 was described from Mayaguez (Puerto Rico) based on a few characteristics (e.g., color pattern, cuticle texture of head and thorax, morphology of the antennae, scutellum, propodeum and wings) without any illustration, and perhaps for this reason, only after a century the species was recorded again, in Argentina (Lue et al. 2017). On the other hand, more recently, new diagnostic characters were revealed for the species (Gallardo et al. 2021), but there is still much to reveal about its morphology, as well as its distribution in the Neotropics (Gallardo et al. 2021; Gallardo 2025).

So, here, we provide a checklist of *Ganaspis* recorded in Brazil, including a new record and redescription for *G. hookeri*.

The identification of the specimen was made using the specialized bibliography (Crawford 1913; Gallardo et al. 2021). The analyzed material is deposited in the Entomological Collection of the Museo de La Plata (MLP), Buenos Aires, Argentina.

### Checklist of *Ganaspis* species from Brazil

#### *Ganaspis bilineata* (Kieffer, 1909)

**Distribution.** Neotropical region: Peru (Kieffer 1909) and Brazil in Santa Catarina and São Paulo States (Borgmeier 1935; Gallardo 2025).

**Hosts.** Unknown.

#### *Ganaspis brasiliensis* (von Ihering, 1905)

**Distribution.** Worldwide: Argentina, China, Guadeloupe, Hawaii, Japan, Mexico, North America, Panamá, Philippines, Thailand, Taiwan, South Korea, Uganda (Gallardo et al. 2021), and Brazil in São Paulo (von Ihering 1905) and Santa Catarina States (Borgmeier 1935).

**Hosts.** *Anastrepha acidusa* (Walker, 1849), *Anastrepha fraterculus* (Wiedemann, 1830), *Anastrepha serpentina* (Wiedemann, 1830) (Tephritidae), *Drosophila bauraria* Bock & Wheeler, 1972, *Drosophila eugracilis* Bock & Wheeler, 1972, *Drosophila ficusphila* Kikkawa & Peng, 1938, *Drosophila lutescens* Okada, 1975, *Drosophila melanogaster* Meigen, 1830, *Drosophila montana* Stone, Griffen & Patter, 1942, *Drosophila persimilis* Dobzhansky & Epling, 1944, *Drosophila pulchrella* Tan, Hsu & Sheng, 1949, *Drosophila repleta* Wollaston, 1858, *Drosophila rufa* Kikkawa & Peng, 1938, *Drosophila simulans* Sturtevant, 1919, *Drosophila striata* Malloch, 1927, *Drosophila subobscura* Collin, 1936, *Drosophila subpulchrella* Takamori & Watabe, 2006 and *Drosophila suzukii* (Matsumura, 1931) (Drosophilidae) (Borgmeier 1935; Buffington & Forshage 2016; Daane et al. 2016; Gallardo et al. 2021; Giorgini et al. 2019; Girod et al. 2018a; 2018b; Nomano et al. 2017).

#### *Ganaspis fulvocincta* Kieffer, 1909

**Distribution.** Neotropical region: Brazil in Pará (Kieffer 1909) and Mato Grosso do Sul States (Díaz & Gallardo 1996).

**Hosts.** *Sarcophagula* sp. (Diptera: Sarcophagidae), collected on bovine dung (Díaz & Gallardo 1996).

#### *Ganaspis pelleranoi* (Brèthes, 1924)

**Distribution.** Neotropical region: Argentina, Bolivia, Belize, Brazil, Colombia, Costa Rica, Guatemala, México, Panamá, Perú, El Salvador, Venezuela (Gallardo 2025), and Brazil in Alagoas (Guimarães 2023), Amazonas (Guimarães et al. 1999), Amapá, Espírito Santo, Pará (Guimarães et al. 2000), Bahia (Matrangolo et al. 1998), Goiás (Guimarães et al. 1999), Minas Gerais (Guimarães et al. 2003), Paraíba (Guimarães et al. 2004), Paraná (Guimarães et al. 1999), Roraima (Marsaro Júnior et al. 2010), Rio Grande do Sul (Salles 1996), Rio de Janeiro, Mato Grosso do Sul (Guimarães et al. 1999), São Paulo (Dettmer 1929) and Santa Catarina (De Santis 1980; Guimarães et al. 1999).

**Hosts.** *Ceratitis capitata* (Wiedemann, 1824), *Rhagoletis turpiniae* Hernández-Ortiz, 1993 (Hernández-Ortiz 1993), *Anastrepha ludens* (Loew, 1873), *Anastrepha obliqua* (Macquart, 1835), *Anastrepha serpentina*, *Anastrepha striata* (Schiner, 1868), *Anastrepha distincta* Greene, 1934, *Anastrepha fraterculus*, *Anastrepha amita* Zucchi, 1979, *Anastrepha bahiensis* Lima, 1937, *Anastrepha atrigona* Hendel, 1914, *Anastrepha coronilli* Carrejo & Gonzalez, 1993, *Anastrepha fractura* (Stone, 1942), *Anastrepha sororcula* Zucchi, 1979, *Anastrepha turpiniae* Stone, 1942, *Anastrepha zenildae* Zucchi, 1979 (Tephritidae), *Neosilba pendula* (Bezzi, 1919), *Neosilba zadolicha* Mcalpine & Steyskal, 1982 and *Neosilba* spp. (Lonchaeidae) (De Santis 1980; Díaz & Gallardo 2000; Guimarães et al. 2003; Costa et al. 2009; Ronchi-Teles et al. 2011; De Souza et al. 2012; Dutra et al. 2013). Individuals of this species have been collected along *D. suzukii* (Drosophilidae) from vinegar traps (Gallardo et al. 2022).

### *Ganaspis hookeri* Crawford, 1913

**Redescription. Female.** Coloration with head and mesosoma dark brown, metasoma more distinctly brownish; mandibles and legs uniformly yellowish; antenna yellowish, last three or four flagellomeres dark in color, rest of antenna lighter in color (Fig. 1A). Head in anterior view, subtriangular, higher than wide. Malar sulcus present. Compound eyes glabrous. Ocellar hair patches absent. Occiput diagonally striate. Antenna (Fig. 1A) composed of 11 flagellomeres, pilose, placoidal sensilla present on F7-F11; last antennal flagellomeres conspicuously enlarged compared to adjacent flagellomeres, F1 longer than the scape; F2-F5 subequal in size, almost as wide as long; F6-F11 subequal in size, wider than the previous ones; conspicuous

club with five flagellomeres. Pronotal plate narrow, dorsal margin (in anterior view) marginate. Mesoscutal surface convex. Sculpture on mesoscutum absent, entire surface smooth, shiny, with rows of punctures in position of notauli. Dorsal surface of scutellum areolate, shape of posterior part of scutellum in dorsal view rounded (Fig. 1B). Lateral bars of scutellum short and striate. Scutellar foveae wider than long. Scutellar plate (Fig. 1B) medium size, suboval (squash seed shape), narrow, flat in lateral view, dorsally smooth, coloration lighter, with two large pores on each side and glandular release pit at posterior end. Forewings (Fig. 1A) of normal size, hyaline, apical margin with hair fringe, basal margin lacking hair fringe, with membrane pubescence mostly reduced hair bases, marginal cell closed, longer than broad. Metasoma sessile; base of syntergum (Fig. 1A) with hairy ring present, complete dorsally, remainder of metasoma glabrous. Micropunctures present on posterior part of the metasoma more or less visible.

**Male.** Unknown.

**Material examined.** 1 male (MLP): BRAZIL, Paraná state, Cornélio Procopio municipality, State Park "Mata São Francisco", near to the stream margin, 23°09'20.06"S, 50°34'20.04"W, 18.III.2010, pitfall trap, N.G. Cipola coll. See Chavari et al. (2014) for more information about the locality.

**Hosts.** Diptera, Tephritidae: *Ceratitis cosyra* (Walker, 1849) (Crawford 1913), Drosophilidae: *D. melanogaster* (Bretz et al. 2025). Individuals of this species have been collected along *D. suzukii* from yellow pan traps and from fallen pears (Lue et al. 2017).

**Distribution.** Neotropical region: Puerto Rico (Crawford 1913), Argentina (Lue et al. 2017), and Brazil (new record) in Paraná State.



**Figure 1.** *Ganaspis hookeri* Crawford, 1913 (Hymenoptera: Figitidae), female specimen from State Park "Mata São Francisco" Paraná, Brazil. A. Habitus in lateral view. B. Mesosoma in dorsal view.

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## Authors' Contributions

FE: Conceptualization, Investigation, Methodology, Supervision, Writing - original draft, Writing - review & editing; VAR: Conceptualization, Investigation, Methodology, Writing - original draft, Writing - review & editing; NGC: Conceptualization, Investigation, Methodology, Writing - review & editing.

## Conflict of Interest Statement

The authors declare that there is no conflict of interest.

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