Species of Eucoilinae (Hymenoptera: Figitidae) collected in Brazil

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Abstract

The objective of this study was to survey the Eucoilinae (Hymenoptera: Figitidae) occurring in the forest area using a Malaise trap and yellow pan traps in Itumbiara, Goiás, Brasil From February to October 2002, 69 specimens of Eucoilinae were collected, being 20 specimens (29.0%) collected using yellow pan traps and 49 specimens (71.0%) Malaise traps. The most collected species using yellow pan traps was: Kleidotoma sp. with 17.6% of the individuals collected. Regarding Malaise, the most collected species were: Rhabdeucoela sp. with 34.6% and Zaeucoila unicarinata Ashmead with 23.1%. Rhabdeucoela sp. It was the most abundant species with 34.7% of the collected individuals.

KEY WORDS: Cynipoidea, parasitoids, Malaise, Minas Gerais, yellow pan traps

Introduction

The Cynipoidea superfamily has about 20,000 species and approximately 75.0% are parasitoids of holometabolic insects (Gauld & Bolton, 1988). Microcinipoids have Diptera, Hymenoptera and Neuroptera larvae as their hosts (Ronquist, 1995).

The Eucoilinae are a subfamily that, although cosmopolitan, is little known and contains about 1000 species and 70 genera worldwide (Nordlander, 1984). They are koinobionts primary endoparasitoids of cyclorrhaphic dipterous larvae, including phytophages, and are found in large numbers around manure, decaying carcasses and Diptera-rich sites in the Neotropical region (Fergunson, 1988; Gauld & Bolton, 1988; Diaz & Gallardo, 1996).

neotropical Eucolinae fauna has not yet been studied.

The objective of this study was to survey the Eucoilinae (Hymenoptera: Figitidae) occurring in the forest area using a Malaise trap and yellow pan traps in Itumbiara, Goiás, Brasil.

**Materials and Methods**

The experiment was carried out at the College of Agronomy Farm, located in Itumbiara, Goiás, Brazil. The Malaise traps were built with fine mesh fabric bands of black cloth that intercept the insects, conducting them through two white fine mesh fabric bands up to the upper part of the apparatus where two 200 ml plastic flasks, connected to each other by a screw cap, were placed. The inferior flask, where the insects fell, contained a fixing liquid Dietrich solution 600 ml 96° ethanol, 300 ml distilled water, 100 ml 40% formaldehyde and 20 ml acetic acid. These flasks were positioned to the North to allow higher insect attraction. Flasks were retrieved every 7 days and the trapped specimens were separated, using a fine mesh sieve, and stored in 70% ethanol until identification. Three Malaise traps were used from February to October 2002.

Sampling was weekly, with 10 yellow pan traps placed at ground level and allocated at random to areas of native vegetation and pastures. A total of five yellow pan traps were placed in the pastures and five in forests. These traps were the spherical yellow plastic bowls approximately 30 cm in diameter and 12 cm height which was deposited a mixture of 2 liters of water, 2 ml of detergent and 2 ml of formaldehyde.

From February to October 2002, 69 specimens of Eucoilinae were collected, being 20 specimens (29.0%) collected using yellow pan traps and 49 specimens (71, 0%) Malaise traps.

The most collected species using yellow pan traps was: *Kleidotoma* sp. with 17.6% of the individuals collected. Regarding Malaise, the most collected species were: *Rhabdeucoela* sp. with 34.6% and *Zaeucoila unicarinata* Ashmead with 23.1%. *Rhabdeucoela* sp. It was the most abundant species with 34.7% of the collected individuals. Probably, this result demonstrates that the species of this genus should be the most important as natural enemies of other insects in Itumbiara, Goiás, Brazil.

The species collected by the yellow basins were: *Dieucoila* sp., *Ganaspis* sp., *Kleidotoma* sp., *Triplasta* sp. and by the Malaise: *Odonteucoila* sp., *Rhabdeucoela* sp., *Prospasicera*
sp., *Steleucoela* sp., *Tropideucoila* sp., *Zaeucoila* sp., *Zauecoila trinagulifera* Kieffer and *Z. uncinatana*.

References


