Occurrence of the parasitoid *Anastatus sp.* in eggs of *Leptoglossus zonatus* under the maize in Brazil

Carlos Henrique Marchiori

**ABSTRACT**

The objective of this study was to report, for the first time in Brazil, the occurrence of the parasitoid *Anastatus sp.* (Hymenoptera: Eupelmidae) in eggs of *Leptoglossus zonatus* (Hemiptera: Coreidae) on maize (*Zea mays* L.) in Itumbiara County, State of Goiás, Brazil (18°25’S; 49°13’W). Percent parasitism was 6.9%.

Key words: *Anastatus*, *Zea mays*, *Leptoglossus zonatus*, crop pest, parasitoid.

**RESUMO**

O objetivo dessa nota é registrar a primeira ocorrência, no Brasil, do parasitóide *Anastatus sp.* (Hymenoptera: Eupelmidae) em ovos de *Leptoglossus zonatus* (Hemiptera: Coreidae) em cultivar de milho em Itumbiara, Estado de Goiás (18°25’S; 49°13’W). A porcentagem de parasitismo foi de 6,9%.

already been found in Mexico, Central and South America and occurs mainly from December to April (ZUCCHI et al., 1993).

The objective of this scientific study was to report, for the first time in Brazil, the occurrence of the parasitoid Anastatus sp. parasitizing eggs of L. zonatus.

The experiment was carried out at the College of Agronomy Farm, located in Itumbiara County, State of Goias, Central Brazil (18°25’S; 49°13’W). Samples were obtained in a 44 m x 22 m maize (Zea mays L.) field plot, where 50 ears of maize (cultivar Dekalb 601) were randomly harvested, individualized in plastic bags and taken to the laboratory of the Instituto Luterano de Ensino Superior (Lutheran Institute of Superior Teaching) for Hemiptera eggs collection. The presence of eggs (egg masses oviposited on a straight line) was verified on each single ear of maize. In order to obtain parasitoids, each egg mass was placed near a small piece of maize leaf sheath inside a glass flask that was maintained in the laboratory, at room temperature, until emergence of parasitoids and/or nymphs of the insect pest.

Samplings were weekly performed from December 2001 to February 2002. Percent parasitism was computed by using the following formula: P=(parasitized eggs/total eggs) x 100. Seventy-two eggs of L. zonatus were collected in January 15 of 2002, from which five parasitoids of the genus Anastatus (Hymenoptera: Eupelmidae) emerged. The prevalence of parasitism observed was 6.9%. The use of chemicals in controlling crop pests may result in increased production costs as well as in damages to the environment and to human health. TORRES et al. (1996) indicated the occurrence of Anastatus spp. in eggs of Podisus nigrispinus (DALLAS) (Heteroptera: Pentatomidae) collected in plantations of Eucalyptus sp. in the State of Minas Gerais, Brazil. JONES (1993) also reported parasitism of the genera Anastatus on eggs of L. zonatus in Arizona (EUA).

The identification of natural enemies by the basic research may become an important alternative in the control of this pest. The groups of parasitoids that occur on maize could be selected for future studies aiming their use as agents of biological control of maize insect pests (HANSON & GAULD, 1995).

These results contribute to the knowledge of the parasitoids occurring in the State of Goias. This is the first report of the occurrence of Anastatus sp. parasitizing immature stages of L. zonatus in Brazil.

ACKNOWLEDGMENTS

I would like to thank Dr. Marcelo Teixeira Tavares, from the Universidade do Espirito Santo (Espirito Santo University), State of Espirito Santo, identified the parasitoid specie.

REFERENCES


