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R. Floriano Peixoto, 2444 – Alto da Boa Vista – 14025-220 Ribeirão Preto, SP  
Tel.: (16) 3620-1251 · Fax: (16) 3621-1991 [www.livrariafunpecrp.com.br](http://www.livrariafunpecrp.com.br) –  
[livros@funpecrp.com.br](mailto:livros@funpecrp.com.br)

# WHO ARE THE REAL POLLINATORS OF GUARANA TREE?

**Autores:** *Cristiane Krug, Marcos Vinicius Bastos Garcia.*

*Instituição:* Embrapa Amazônia Ocidental, Laboratório de Entomologia.

*Contato:* Rodovia AM-010, Km 29, Zona Rural - CEP: 69010-970,

*Caixa Postal 319 - Manaus/AM, Brasil.*

*Email:* cristiane.krug@cpa.embrapa.br

The guarana (*Paullinia cupana* var. *sorbilis* (Mart.) Ducke) is an important and traditional crop in the Amazon region, being a monoecious plant, with male and female flowers on same plant in different branches with spatial and temporal alternating. Although several studies have been conducted focusing the study of potential pollinators and floral biology of guarana, there is still a wide lack of knowledge regarding the pollination biology of this important native species. In regard to floral visitors, there is a gap of observations between 2 am - at the beginning of anthesis, and 6 am - the time when the observations started in previous studies. According to those studies the most effective pollinators species are the stingless bees, due to the number of individuals and behavior in the flowers. In order to evaluate the presence of floral visitors during the time not yet observed, related to the beginning of anthesis, four samples were carried out between 2 and 8 am in two different experimental fields of Embrapa in Amazonas state, in Manaus (26 and 09/27/2011) and Maué (28 and 29/10/2011). In these two sites were observed the species *Megalopta* sp. (Halictidae) and *Ptiloglossa* sp. (Colletidae), both of nocturnal / crepuscular behaviour, visiting in abundance the guarana flowers. *Megalopta* is here registered for the first time as visitors of guarana flowers and collected in both sites whereas *Ptiloglossa* was found only in Manaus. *Megalopta* and *Ptiloglossa* were observed visiting guarana flowers from 3:30 to 5:15am and 04:45 to 6:15am, respectively. Both species actively collected pollen and nectar, but *Megalopta* has a different behaviour, moving slower than *Ptiloglossa* in its activities on flowers. Also was observed the mating behavior in *Ptiloglossa* sp. New research efforts are needed to clarify the pollination biology of guarana, including the effective pollinators and its environmental services.

**Apoio:** EMBRAPA.

**Área:** Biologia da polinização.

**Palavra chave:** *Paullinia cupana* var. *sorbilis* - stingless bees - *Megalopta* - *Ptiloglossa* – pollination.