

## Parasitoids of *Anastrepha* in the Brazilian Amazon

**Ricardo Adaime<sup>1</sup>; Maria do S. M. de Sousa<sup>2</sup>; José Francisco Pereira<sup>1</sup>; Alzira Marques Oliveira<sup>2</sup>; Roberto Antonio Zucchi<sup>3</sup>**

<sup>1</sup>Embrapa Amapá, Caixa Postal 10, 68903-419 Macapá, Amapá, Brazil

<sup>2</sup>Universidade Federal do Amapá, Macapá, Amapá, Brazil

<sup>3</sup>Escola Superior de Agricultura "Luiz de Queiroz", Universidade de São Paulo, Piracicaba, São Paulo, Brazil

### Introduction

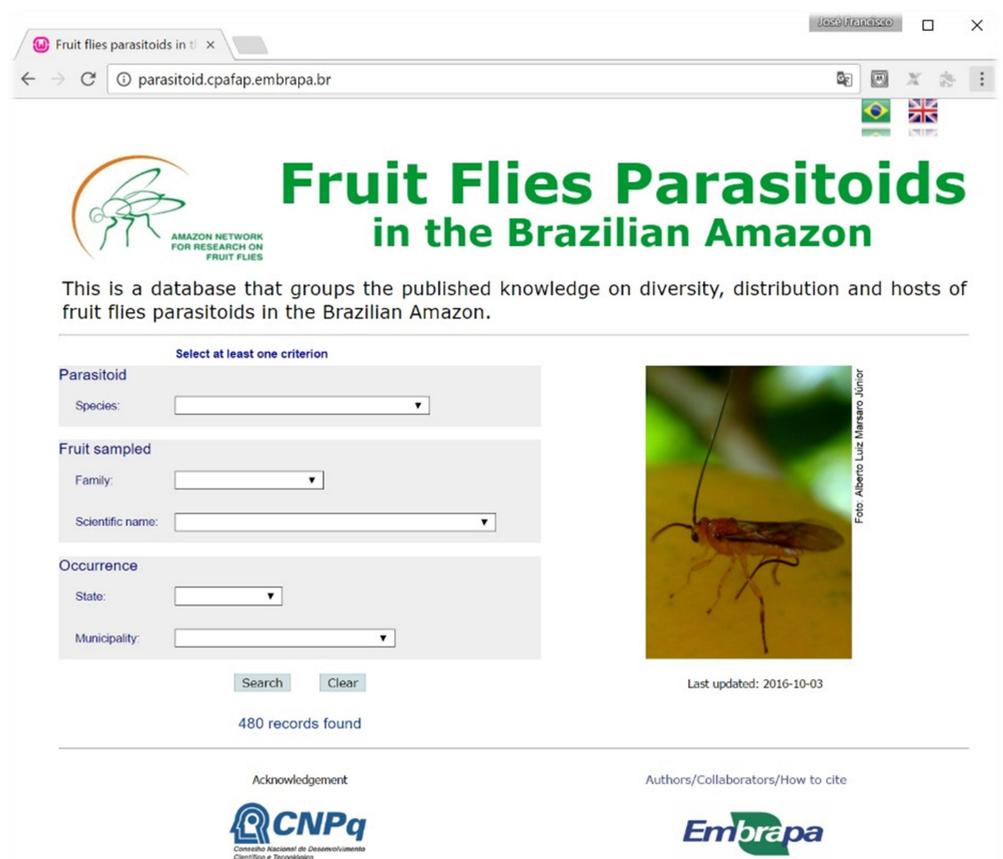
The database "Parasitoids of *Anastrepha* in the Brazilian Amazon" provides easy and accessible information on species of parasitoids of *Anastrepha* spp. and their geographic distribution in the Brazilian Amazon, which includes the states of Acre, Amapá, Amazonas, Mato Grosso, Pará, Rondônia, Roraima, Tocantins and Maranhão.

### Materials and Methods

The database was developed with free software tools, includes a map viewer using the Google Maps API and is available for public access on the Embrapa Amapá website or directly at <http://parasitoid.cpfap.embrapa.br> (Fig. 1).

Its data was sourced from the existing technical and scientific literature. Parasitoid species occurrence, the associated host plants and geographic distribution data were included in the database, with the respective bibliographic references. The database will be updated regularly to add newly published data. From the main page, the occurrence reports for a given parasitoid can be searched using filters.

The results are presented in both table and map format, in which the geographic distribution and original bibliographic reference can be viewed. More than 400 entries were compiled, each corresponding to the occurrence of a parasitoid species in a given location.



**Figure 1.** Main page of the database.

### Results

Twelve species occur in the region, including eight Braconidae [*Asobara anastrephae* (Muesebeck), *Doryctobracon areolatus* (Szépligeti), *Doryctobracon brasiliensis* (Szépligeti), *Doryctobracon crawfordi* (Viereck), *Doryctobracon* sp. 1, *Doryctobracon* sp. 2, *Opius bellus* Gahan, and *Utetes anastrephae* (Viereck)] and four Figitidae [*Aganaspis nordlanderi* Wharton, *Aganaspis pelleranoi* (Brèthes), *Odontosema albinerve* Kieffer, and *Tropideucoila rufipes* Ashmead].

*Doryctobracon areolatus* and *O. bellus* are the most abundant and widely distributed species. The plant species *Spondias mombin* L. (Anacardiaceae), *Geissospermum argenteum* Woodson (Apocynaceae) and *Bellucia egensis* (Mart. ex DC.) Penneys, F.A. Michelangeli, Judd and Almeda (Melastomataceae) are the most notable 'multipliers' of parasitoid species.