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DIOSPYROS DIGYNA (EBENACEAE): A NEW HOST RECORD FOR *BEPHRATELLOIDES ABLUSUS* (HYMENOPTERA: EURYTOMIDAE) IN MEXICO

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The genus *Bephratelloides* Girault (Hymenoptera: Eurytomidae) is composed of 7 species widely distributed in the neotropics (Grissell & Schauff 1990; Grissell & Foster 1996; Chang 1998). Four species, *B. pomorum* (F.), *B. cubensis* (Ashmead), *B. paraguayensis* (Crawford) and *B. petiolatus* Grissell & Schauff, develop strictly in seeds of *Annona* (Magnoliales: Annonaceae) (i.e., *Annona muricata* L., *A. cherimola* Mill., *A. squamosa* L., *A. diversifolia* Saff., *A. reticulata* L. and *A. squamosa* × *A. cherimola*) (Nadel & Peña 1991; Castañeda-Vildózola et al. 2010). *Bephratelloides* are considered to be the main pest of *Annona* spp. in Florida (USA), Mexico and Brazil (Peña & Bennett 1995; Moura et al. 2006; Hernández-Fuentes et al. 2007).

While most *Bephratelloides* develop in *Annona* spp., *B. ablusus* and *B. duguetiphagus* develop in the seeds of *Cymbopetalum mayanum* Lundell and *Duguetia panamensis* Standl. respectively, both Annonaceae (Grissell & Foster 1996; Chang 1998). These records contradict the hypothesis that *Bephratelloides* spp. was restricted to *Annona* (Grissell & Foster 1996; Chang 1998).

Bephratelloides ablusus Grissell & Foster and *B. cubensis* have been recorded in Mexico (Grisell & Foster 1996; Castañeda-Vildózola et al. 2010). *B. ablusus* develop on the seed of *C. mayanum* (Magnoliales: Annonaceae) in Chiapas state, a region close to Central America. This fruit has no commercial value, but is considered a main food source of migratory birds and it may be an alternative host of other species of *Bephratelloides* (Grissell & Foster 1996).

During a technical visit to Tepalcingo, Morelos, México (18°35'N, 98°50'W, 1169 meters above sea level) on 3 Nov 2007, we observed that black sapote (*Diospyros digyna* Jacq.) (Ericales: Ebenaceae) fruits had similar symptoms to those observed in *Annona* fruits damaged by *B. cubensis*. Black sapote, a fruit species native of Mexico and Central America, produces a berry that measures from 5 to 12.5 cm in diam, which has a persistent and prominent calyx (Morton 1987). A hundred black sapote fruits were examined, and 8 fruits showed exit holes. Twenty apparently healthy fruits (around 6 cm in diam) were also collected and taken to "Laboratorio de Parasitología de la Fundación Salvador Sánchez Colín CICTAMEX, S.C" at Coatepec Harinas, México state, México. Fruits were placed individually inside plastic containers (15 × 8 cm), covered with cheese cloth and incubated at 26 ± 2 °C and 60-70% RH.

Fruits were checked on a daily basis. Six days after collection, 2 fruits showed several 1.5 mm exit holes. A total of 26 (19 females and 7 males) *Bephratelloides* emerged. Adults were collected and preserved in 70% ethanol for identification. According to our observations, 4 seeds were able to supply enough food for 26 wasps. The adult Eurytomidae were identified using the taxonomic keys of Grissell & Schauff (1990) and Grissell & Foster (1996) as *Bephratelloides ablusus* Grissell & Foster (Hymenoptera: Eurytomidae) (Figs. 1a and 1b). A detailed description of the species may be found in Grissell & Foster (1996). Specimens were deposited at the Colección Entomológica del Colegio de Posgraduados, located in Montecillo, Texcoco, México.

This is the first report of *B. ablusus* on *Diospyros digyna* (Ericales: Ebenaceae) in Mexico, and provides a new host record for the genus *Bephratelloides* outside Magnoliales (Annonacea). This report extends our knowledge of the host range of the genus *Bephratelloides*.

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SUMMARY

Black sapote *Diospyros digyna* Jacq. (Ericales: Ebenacea) is recorded as a new host of *Bephratelloides ablusus* Grissell & Foster (Hymenoptera: Eurytomidae). This pest has been found in Mex-

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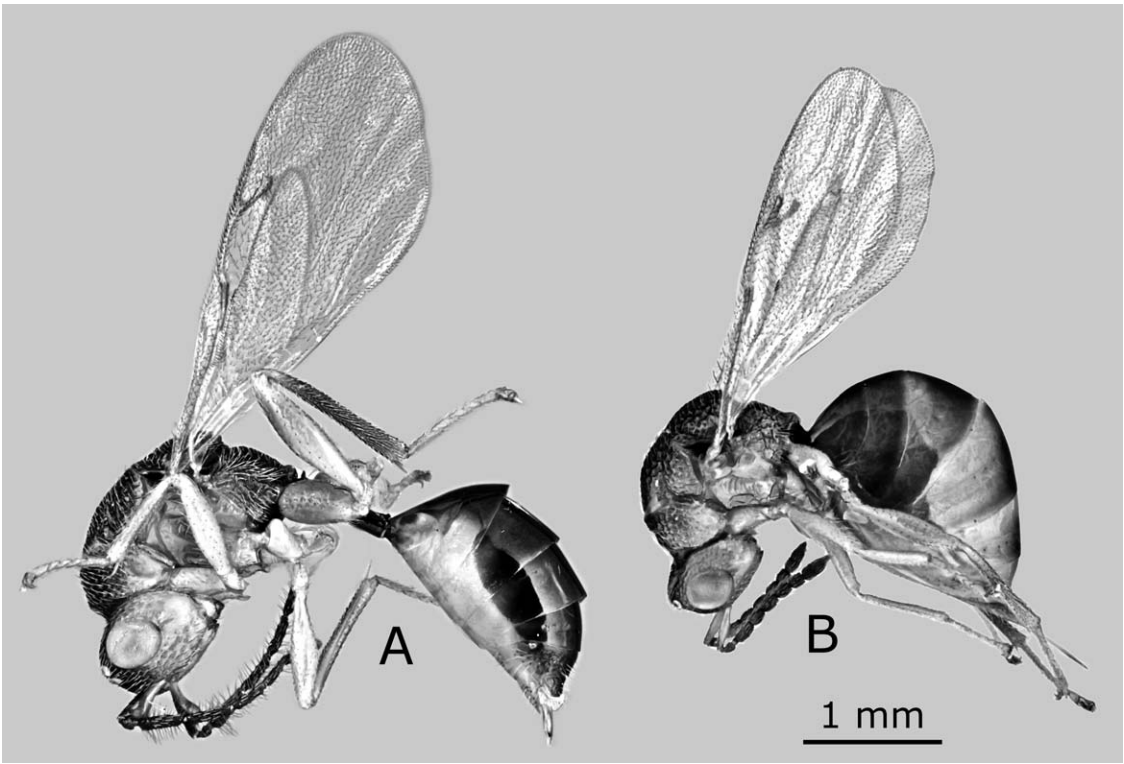


Fig. 1. *Bephratelloides ablusus,* habitus of adult in lateral view (A) Male; (B) Female.

ico, and is generally associated with *Annona* (Magnoliales: Annonaceae). We present evidence that supports the hypothesis that *Bephratelloides* spp. has host species outside the Annonaceae.

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