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Poekilloptera phalaenoides (Hemiptera: Flatidae) on Abarema villosa (Fabales: Fabaceae) in Diamantina, Minas Gerais State, Brazil

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Abarema Pittier (Fabales: Fabaceae) is a genus with 35 species described in the Amazonia and another 15 in other biomes in Brazil including the Cerrado (Barneby & Grimes 1996). The medicinal use of Abarema plants in Brazil is due to their analgesic, anti-inflammatory, and antioxidant actions (Silva et al. 2010; Dias et al. 2013) as well as beneficial effects on skin lesions and some snake bites (Sánchez-Fidalgo et al. 2013; Saturnino-Oliveira et al. 2014). Abarema roots are colonized by nitrifying bacteria, which can improve soil properties (Barrett & Parker 2005; Parker 2015).

Abarema villosa Iganci & M. P. Morim (Fabales: Fabaceae) is a small tree, attaining heights of about 4.0 m, and flowering and fruiting between Nov and May (Iganci & Morim 2012). This plant was described in 2009 from specimens collected in the Espírito Santo, Minas Gerais, and Rio de Janeiro states, Brazil (Iganci & Morim 2009). It occurs in isolated groups due to degradation of its environment resulting from anthropogenic activities, including mining. This plant is considered at risk of extinction (Iganci & Morim 2012).

Poekilloptera phalaenoides L. (Hemiptera: Flatidae) has been reported in Bahia, Goiás, Mato Grosso, Minas Gerais, Pará, Paraíba, Rio de Janeiro, Rio Grande do Sul, Roraima, São Paulo, and Sergipe states, Brazil (Pires et al. 2011). Poekilloptera phalaenoides adults have yellow wings with black spots (Fig. 1A). This insect ingests plant sap and excretes honeydew, which is used as a food source by fungi that, in turn, reduce the rate of photosynthesis of the host plant (de Menezes et al. 2012).

Hundreds of adults and nymphs of P. phalaenoides were observed on 2. A. villosa plants (Fig. 1A) spaced about 1.0 m apart. These plants were in a garden with Cerrado plants in the campus of the Federal University of the Jequitinhonha and Mucuri Valleys (UFVJM) in Diamantina, Minas Gerais State, Brazil (18.3000°S and 43.6000°W; 1,250 masl; average annual rainfall of 1,082 mm; average annual temperature of 19.4 °C). The P. phalaenoides were feeding on the vascular tissues of A. villosa branches, and adults were displaying parental care behavior when observed during the last week of Apr 2015, at the end of the rainy season in Diamantina (Vieira et al. 2010). Powdery whitish filaments were observed terminally at the abdomen of P. phalaenoides nymphs (Fig. 1B). These filaments are composed of hydrophobic wax that provides protection to these insects against contamination by their own excrement (Rakitov & Gorb 2013).

Ten adult P. phalaenoides (sex not determined) were collected with a fabric insect net and brought to the laboratory where they were mounted, labeled, and deposited. The wing morphology of the individuals collected was analyzed and the insects were identified as Poekilloptera phalaenoides L. (Hemiptera: Flatidae) by comparing them with specimens previously identified (de Oliveira & Frizzas 2015) by Dr. Stephen W. Wilson, Department of Agriculture, Central Missouri University, Warrensburg, Missouri, USA. Abarema villosa was identified by Dr. Evandro L. M. Machado, of the Forestry Engineering Department at the UFVJM, Diamantina, Minas Gerais, Brazil, by comparing branch samples collected in Diamantina with dried samples deposited in the UFVJM herbarium, with photographs sent by curators of other herbaria, and with taxonomic descriptions (Iganci & Morim 2009).

Poekilloptera phalaenoides also has been observed in Jun and Jul 2012, during a dry period, on Sclerolobium paniculatum Vogel (Fabales: Fabaceae), a plant used for firewood and coal production, in Sinop, Mato Grosso State, Brazil (Manica et al. 2012), about 2,215 Km from Diamantina (Almeida et al. 2011). This insect also has been reported on Acacia podalyrifolia A. Cunn. (Fabales: Fabaceae) in an urban square in Viçosa, Minas Gerais State, Brazil, about 510 Km from Diamantina, in Oct 2007 (Pires et al. 2011) at the beginning of the rainy season (Freitas et al. 2013). The occurrence of P. phalaenoides on A. villosa at the end of the rainy season in April 2015 in Diamantina corresponds with its occurrence on Mimosa caesalpinieaefolia Bent (Fabales: Fabaceae), used for live fences, in Oct 2011 in Diamantina (de Menezes et al. 2012) at the beginning of the rainy season (Vieira et al. 2010). In Planaltina, Federal District, Brazil, 743 Km from Diamantina, P. phalaenoides was reported on Maprounea gua-
**Summary**

*Abarema villosa* Iganci & M. P. Morim (Fabales: Fabaceae) is a medicinal and ornamental plant in the Cerrado biome of Brazil. *Poekilloptera phalaenoides* L. (Hemiptera: Flatidae) is a polyphagous pest that imbibes plant sap. This insect was observed on *A. villosa* plants in Diamantina, Minas Gerais State, Brazil. *Poekilloptera phalaenoides* uses *A. villosa* plants as a site for shelter, feeding, and reproduction. This is the first report of *A. villosa* as a host of *P. phalaenoides*.

**Key Words:** Auchenorrhyncha; Fulgoroidea; Ingeae; Mimosoideae; pest

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