

Nota científica
(Short communication)

**NEW HOST RECORD AND GEOGRAPHICAL DISTRIBUTION
OF *OPTATUS PALMARIS* PASCOE 1889
(COLEOPTERA: CURCULIONIDAE) IN MEXICO**

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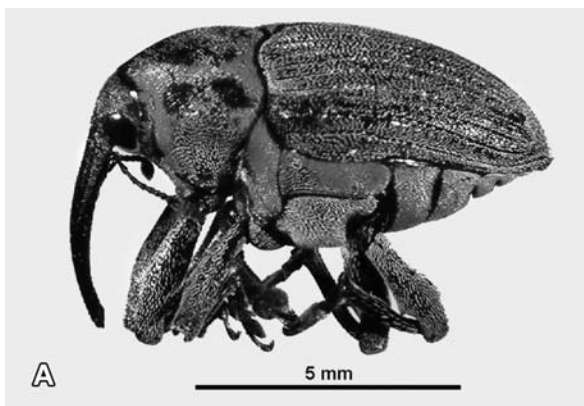
ABSTRACT. The diurnal weevil *Optatus palmaris* Pascoe was found on *Annona muricata* L. (Anonaceae) fruits in Nayarit, Mexico which represents a new plant host record and extends the weevil distribution. Other plant hosts and damages produced are mentioned.

The genus *Optatus* Pascoe 1889 belongs to Optatini tribe (Curculionidae: Baridinae) and groups three endemic species of America (Mexico, Guatemala, Honduras, and Costa Rica) (O'Brien & Wibmer 1982). The geographical distribution of *Optatus palmaris* Pascoe is reported from Mexico (Morelos, Michoacan, and Guanajuato) (Champion 1907; Rebollar & Nava 1996; Salas-Araiza *et al.* 2001). *O. fasciculosus* Champion have been only recorded from sugar apple (*A. squamosa* L.), whereas *O. palmaris* has been found in Michoacan state on ilama (*A. diversifolia* Safford) and cherimoya (*A. cherimola* Mill.) affecting the quality and quantity of fruits (Champion 1907; Rebollar & Nava 1996; Rebollar *et al.* 1997).

In this note, we report that *O. palmaris* was found in Guanajuato, Michoacan, Nayarit (new record) and Oaxaca (new record) states in Mexico feeding on and damaging flowers and fruits of cherimoya (*A. cherimola* Mill) and soursop (*A. muricata* L.) being the last one a new host record of *O. palmaris*. Collection sites were Guanajuato, Comonfort, Neutla, 20°42' 20" LN, 100°50' 20" LW, 1870 masl, 13-VIII-2005, in *A. cherimola* Mill. flowers and fruits, 17 specimens (A. Castañeda-Vildózola col.); Michoacan, Chilchota, 19° 51' 45" LN, 102° 08' 15" LW, 1570 masl, 16-VIII-2000, in *A. cherimola* Mill. fruits, 12 specimens (C. Nava-Díaz col.); Nayarit, Las Varas, 21° 11' 16" LN, 105° 08' 03" LW, 40 masl, 24-V-2006, in *A. muricata* L. fruits, 10 specimens (L. M. Hernández-Fuentes col.); Oaxaca, Reyes Mantecon, San Bartolo Coyotepec, 16° 54' 23" LN, 96° 43' 43" LW, 1510 masl, 28-XI-2006, in *A. cherimola* Mill. fruits, 7 specimens (H. Castro-García col.). Specimens are housed at the Entomological Collection of the Colegio de Posgraduados (CEAM), Montecillo, Texcoco, state of Mexico and Fruit Pest Collection insects of the Fundacion Salvador Sánchez Colín CICTAMEX, S.C. Coatepec Harinas, state of Mexico.

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According to our observations, *O. palmaris* is a diurnal weevil; it was found from 10:00 to 18:00 h on anona fruits. Adults (Fig. 1A) bore soursop and cherimoya fruits to feed and oviposit (Fig. 1B). When fruits were not available, adults fed on cherimoya flowers (but not soursop flowers) producing flower drop. Adults were observed feeding on fruit pedicels, affecting vascular tissue and also producing fruit drop. Clusters of adults were observed on cherimoya fruits, likely due to volatiles (Fig. 1C). Larvae fed on fruit pulp (Fig. 1D) and seeds (Fig. 1E); at the end of the last larval stage, larvae bored their way out of the fruit and pupated in soil. Detailed description of adult may be checked in Champion (1907). Our observations expand distribution, habits and host range of *O. palmaris* and its adaptation to a wide altitude conditions that range from 40 to nearly 2000 meters above the sea level. In Mexico, anonaceae of economical importance such as soursop, cherimoya, ilama, and saramuyo (*A. squamosa* L.) are grown from hot to temperate climates. The ability to feed and oviposit in flowers and fruits of cherimoya, ilama, and soursop from 40 to 2000 masl makes of *O. palmaris* a potential pest problem of anonaceae in Mexico.



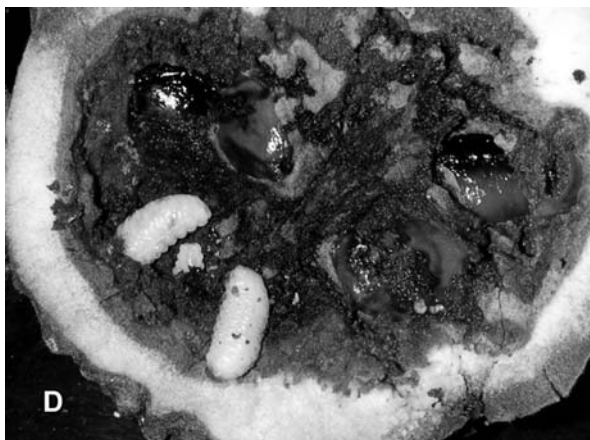


Figure 1. *Optatus palmaris* Pascoe 1889 on cherimoya fruits, A) Adult, B) Adult damaging fruit, C) Clusters of adults on fruit pedicel, D) Larvae feeding on fruit, E) Larvae damaging seed.

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