

# First record of *Phloeotribus opimus* Wood (Coleoptera: Curculionidae: Scolytinae) on cultivated *Ficus carica* L. in Morelos, Mexico

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## ABSTRACT

*Phloeotribus opimus* Wood (Coleoptera: Curculionidae: Scolytinae) is reported for the first time from fallen wood of cultivated fig (*Ficus carica* L.) in Morelos, Mexico.

## KEYWORDS

bark beetle, fig tree, host association

## RESUMEN

Se reporta por vez primera a *Phloeotribus opimus* Wood (Coleoptera: Curculionidae: Scolytinae) de madera de higo cultivado (*Ficus carica* L.) en Morelos, México.

## PALABRAS CLAVE

escarabajo descortezador, higo, asociación de huésped

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The cultivated fig tree, *Ficus carica* L. (Moraceae), is a growing crop in Mexico, with 1507.95 ha cultivated, 52.8% of which is cultivated in Morelos (797.5 ha) (SIAP 2018), with a slow but constant surface expansion rate. Surprisingly, data on *F. carica* pests is limited. Reports include shot and stem borers (Bautista et al. 2003, López-Martínez et al. 2015) and Drosophilidae fruit flies (Bautista et al. 2017).

In cultivated fig tree orchards, pruning is a traditional agronomic activity. This practice is conducted for phytosanitary purposes and to induce vegetative growth (Kumar 2014, Maimon 1988). But incorrect wood elimination (figure 1) has a potential consequence: having wood debris acting as a valuable xylophagous and phleophagous reservoir (Siitonen 2001).

While conducting xylophagous studies on cultivated *Ficus* in Morelos, Mexico, many specimens of undetermined scolytinae were collected from fallen pruned branches (figure 1). This allowed us to identify this material at the species level and generate data for technicians and farmers recognition. Until now, none scolytine species have been recorded from cultivated fig trees from Morelos.

Material was preserved and mounted with standard techniques, determined with Wood (1982) keys. Pictures of adult specimens were taken with a DXM 1200C Nikon camera attached to a SMZ 1500 stereomicroscope and edited with image processing software (Image tools 3.0 and Adobe Photo Shop CS6 v13.0 Extended).

All specimens were determined as *Phloetribus opimus* Wood, 1969 (Coleoptera: Curculionidae: Scolytinae), a small bark beetle collected in Mexico and Central America (Atkinson et al. 1986, Wood 1969 and 1982, Wood and Bright 1992).

#### **PHLOETRIBUS OPIMUS WOOD, 1969.**

Material examined: 224 specimens, MEXICO: Xalostoc, Morelos, madera colectada [fallen wood], 28/V/2017, E. De los Santos G., 18.7317 -98.9182, specimens emerged in laboratory on several dates: 29/V/2017, 30/V/2017, 31/V/2017, 1/VI/2017, 6/VI/2017, 8/VI/2017, 9/VI/2017, 10/VI/2017, 16/VI/2017, 17/VI/2017, 19/VI/2017, 20/VI/2017, 23/VI/2017, 25/VI/2017, 4/VII/2017, 25/VII/2017, 26/VII/2017, 27/VII/2017, 8/VIII/2017, 9/VIII/2017, 10/VIII/2017, 11/VIII/2017, 24/VIII/2017, 25/VIII/2017, 26/VIII/2017, 31/VIII/2017, 1/IX/2017, 3/IX/2017, 5/IX/2017, 7/IX/2017, 9/IX/2017, 30/IX/2017, 3/X/2017, 10/X/2017, 15/X/2017, 18/X/2017, 20/X/2017, 25/X/2017, 27/X/2017, 1/XI/2017, 6/XI/2017, 11/XI/2017, 15/XI/2017, 21/XI/2017, 25/XI/2017, 28/XI/2017, 30/XI/2017, 2/XII/2017, 8/XII/2017, 10/XII/2017, 15/XII/2017, 18/XII/2017, 21/XII/2017, 23/XII/2017, 26/XII/2017, 29/XII/2017, 2/I/2018, 5/I/2018, 8/I/2018, 11/I/2018, 16/I/2018, 19/I/2018, 22/I/2018, 26/I/2018, 28/I/2018, 2/II/2018, 6/II/2018, 10/II/2018, 13/II/2018, 17/II/2018, 20/II/2018, 23/II/2018, 26/II/2018, 1/III/2018, 4/III/2018, 10/III/2018, 16/III/2018, 20/III/2018, 27/III/2018, 30/III/2018, 4/IV/2018, 10/IV/2018, 16/IV/2018, 18/IV/2018, 21/IV/2018, 24/IV/2018, 29/IV/2018, 4/V/2018, 8/V/2018, 12/V/2018, 81/V/2018, 26/V/2018, 8/V/2018.

*Phloetribus opimus* (figure 2) is regarded as a potential pest of exotic and native *Ficus* species, with a 2-ramification-horizontal gallery (Atkinson et al. 1986), causing mild damage to branches of living trees (Atkinson et al. 1986). Other host records are uncertain (Wood 1982). Its role as a pest on *F. carica* is still undetermined, but the present report confirms its preference for this host genus. Fallen branches are part of a common bad pruning practice in local cultivated fig trees, which farmers and technicians ought to improve to reduce alternative substrate for this and other wood feeding insects.

On the other hand, this is the first scolytine species recorded from *F. carica* in the country, providing new data on phytophagous fauna associated to this fruit crop. Characterizing local fauna is the best opportunity to develop integrated management strategies.

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Figure 1. Wood debris accumulated in *F. carica* orchards, with symptoms of xylophagous feeding activity.



Figure 2. Male habitus of *Phloeotribus opimus* Wood (Coleoptera: Curculionidae: Scolytinae, lateral view [left], dorsal view [right]).