

Nota científica**SOME NOTES ON NATURAL HISTORY AND DISTRIBUTION OF *LEPTOSTYLUS GIBBULOSUS* BATES, 1874 (COLEOPTERA: CERAMBYCIDAE)**

Resumen: Se registra a *Sapindus saponaria* como un nuevo hospedero de *Leptostylus gibbulosus*; aunque la distribución de éste se cita desde Texas a Venezuela, su presencia no se había registrado para el Estado de Oaxaca. Se describe brevemente su biología y se contrasta ésta con la de Bruchidae.

In the superfamily Chrysomeloidea, the only true seed feeders are found in the family Bruchidae. However, since 1917 some species of Cerambycidae have been found feeding on various plant seeds. There are, at this time, five genera and nine spermophagous species that feed on seeds of five plant families (Table 1).

Table 1
Records of cerambycid species that feed on seeds.

| Specie | Host | Family Host | Source |
|--|---|----------------|---|
| <i>Ataxia sulcata</i> Fall, 1907 (= <i>Ataxia falli</i> Breuning 1961) | <i>Rhizophora mangle</i> L. | Rhizophoraceae | Craighead 1923. Can. Dept. Agr. Bull., 27(N.S.): 1-239. |
| <i>Baryssinus leguminicola</i> Linell, 1896 (<i>Lophopoeum timbouvae</i> Lamere, 1884) | <i>Enterolobium</i> sp. | Leguminosae | Duffy 1960. Brit. Mus. (Natur. Hist.). 327 pp. |
| <i>Leptostylus gibbulosus</i> Bates, 1874 | <i>Sapindus</i> sp. | Sapindaceae | Vogt 1949. Pan-Pac. Entomol., 25: 175-184 |
| <i>Leptostylus gundlachi</i> Fisher (= <i>Leptostylopsis gundlachi</i> [Fisher, 1925]) | <i>Erythrina fusca</i> Lour. (<i>E. glauca</i>) | Leguminosae | Wolcott 1948. J. Agr. Univ. P. R., 32: 225-416. |
| <i>Leptostylus spermovoratis</i> Chemsak, 1972 | <i>Diospyros</i> sp. | Ebenaceae | Chemsak 1972. Pan-Pac. Entomol., 48: 150-152. |
| <i>Leptostylus terracolor</i> Horn, 1880 (= <i>Leptostylopsis terracolor</i> [Horn, 1880]) | <i>Rhizophora mangle</i> L. | Rhizophoraceae | Craighead 1923. Ibid. |
| <i>Lepturges guadeloupensis</i> Fleutiaux & Salle (<i>Urgleptes guadeloupensis</i> [Fleutiaux & Salle, 1889]) | <i>Acacia</i> sp. | Leguminosae | Wolcott 1948. Ibid. |
| <i>Lepturges spermophagus</i> Fisher (<i>Atrypanius irrorelus</i> Bates, 1885) | <i>Vigna</i> sp. | Leguminosae | Fisher 1917. Proc. Ento. Soc. Wash., 19: 173-174 |
| <i>Paratimia conicola</i> Fisher, 1915 | <i>Pinus attenuata</i> Lemmon | Pinaceae | Craighead 1923. Ibid. Linsley 1962, Pubs. Entomol., 114: 1-292. |
| <i>Paratimia conicola</i> Fisher | <i>Pinus bolanderi</i> Parl. | Pinaceae | Craighead 1923. Ibid. Linsley 1962. Ibid. |

On April 19, 2003, the third author addressed a talk in Oaxaca as part of the course on using alternative products for insect control. He mentioned some plants used to produce soap, such as *Sapindus saponaria* L. to control insects. Some seeds of *S. saponaria* were obtained in Oaxaca and brought them back to Texcoco, Mexico. About

three months later he observed some beetles flying around his home which were determined had emerged from a bag containing the *S. saponaria* seeds.

In 2004 and 2005 more seeds were collected in the vicinity of the city of Oaxaca but no beetles were found in these samples. Then, the following observations come from the original seed collection.

A set of 199 seeds showed 30.1% of damage signs of beetle infestation; there were 139 healthy and 60 with emergence hole. The site of egg deposition and larval entrance was not determined.

Adult emergence (Fig. 1) is apparently accomplished by making a hole with the mandibles in the endocarp (Fig. 2) and the fused mesocarp and exocarp (Fig. 3). The emergence site is more or less a circular hole (Fig. 4) but in some cases the emergence hole is not so regular.

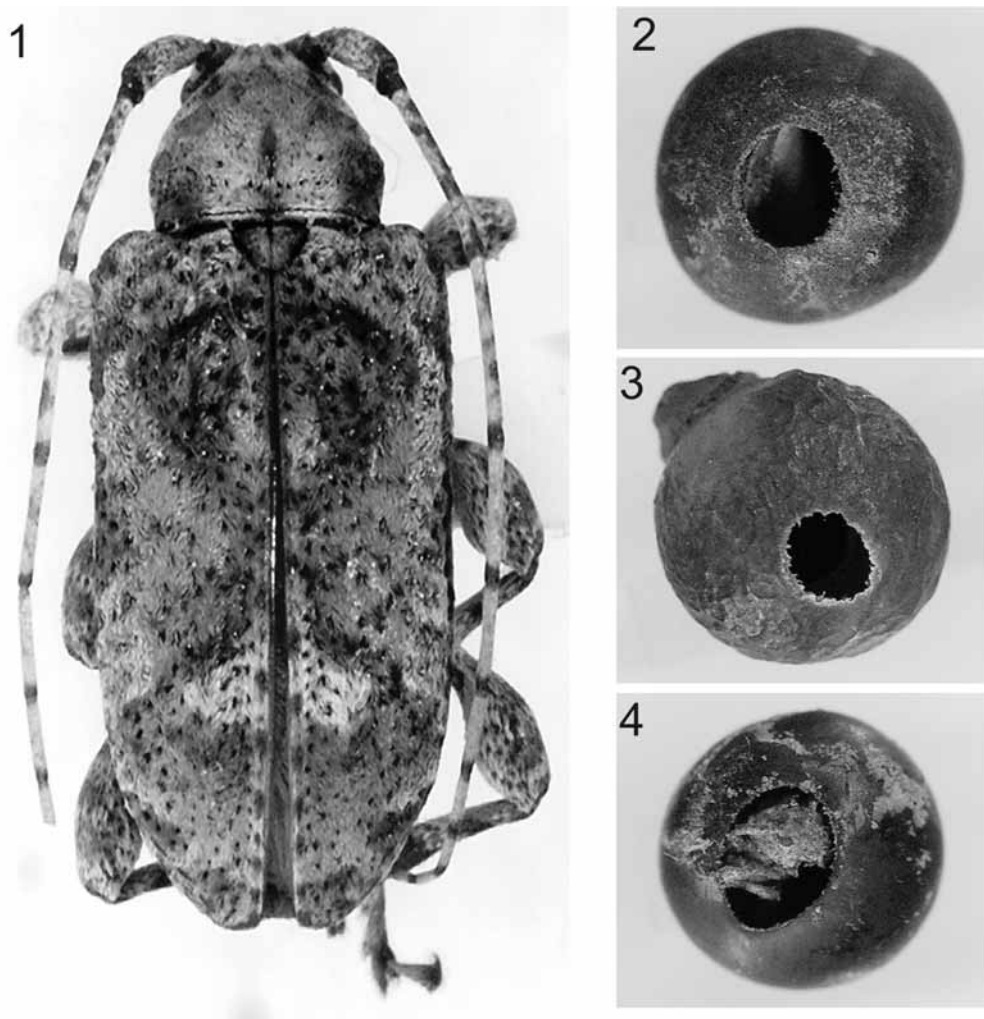
This emergence behavior differs from that of the Bruchidae in that bruchid larvae make a perfect circular emergence hole for the adult to emerge. Adults push off the lid and emerge, leaving a round hole (Romero 2002. *Biodiversidad, taxonomía y biogeografía de artrópodos de México*, 3:513-534). Another difference is that bruchids glue the eggs onto the fruits or pods. In those bruchids which do not glue the eggs, the entrance hole of the larvae can be observed.

An early record of Sapindaceae as a host plant for Cerambycidae was given by Vogt (1949. *Pan-Pac. Entomol.*, 25: 175-184) who stated that *L. gibbulosus* feeds in *Sapindus* sp. seeds. From this note *S. saponaria* constitutes a specific host species record for *L. gibbulosus*. *L. gibbulosus* is cited as occurring from Texas to Venezuela (Linsley & Chemsak 1995. *Pubs. Entomol.*, 114: 1-292), being Oaxaca as a pinpoint record for presence of this species in Mexico.

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Figures 1-4

1. Dorsal view of *Leptostyulus gibbulosus*. 2. Seed of *Sapindus saponaria* showing the emergency hole. 3. Fruit of *Sapindus saponaria* showing the emergency hole. 4. *Leptostyulus gibbulosus* leaving from seed of *Sapindus saponaria*.