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A NEW SPECIES OF *LONCOPHORUS* FROM MEXICO (COLEOPTERA: CURCULIONIDAE, ANTHONOMINI) ASSOCIATED WITH *MORTONIODENDRON* (MALVALES: TILIACEAE)

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RESUMEN

Se describe e ilustra la nueva especie mexicana *Loncophorus angusticollis*, asociada con *Mortoniodendron guatemalense* Standley & Steyermark (Malvales: Tiliaceae). La nueva especie parece estar muy cercana a *L. costalimai* Clark, de Brasil.

Palabras clave: especie nueva, *Loncophorus*, Coleoptera.

ABSTRACT

Adults of *Loncophorus angusticollis*, a new species from Mexico associated with *Mortoniodendron guatemalense* Standley & Steyermark (Malvales: Tiliaceae), are described and illustrated. The new species appears to be most closely related to the Brazilian *L. costalimai* Clark.

Key words: new species, *Loncophorus*, Coleoptera.

The anthonomine genus *Loncophorus* Chevrolat contains 13 species distributed from Mexico southward to Argentina (Clark, 1988). Previously known hosts of species of *Loncophorus* are all members of the plant family Bombacaceae (Clark, 1988). The new species described herein is the first member of the genus reported from a member of the related family Tiliaceae. The species is of interest because of its potential importance in ongoing investigations intended to elucidate the relationships of the species of *Loncophorus* to the species of *Anthonomus* assigned to the subgenus *Anthonomorphus* Dietz and to the *Anthonomus grandis* species group (Clark, 1988, Clark & Burke, 1986a).

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Measurements were made according to specifications outlined previously (Clark 1988). Exact label data are cited for types. Separate labels are indicated by brackets ([]), each separate line by a virgule (/).

Loncophorus angusticollis Clark, sp. nov.
Figs. 1-5

Holotype. MEXICO. VERACRUZ: [MEXICO: Veracruz. Est./ Biol. de los Tuxtlas/ 18° 35' N 95°65'W] [28.IV.1991/H.A. Hespenheide] (♂, Instituto de Biología, Entomological collection, Universidad Nacional Autónoma de México, Mexico City, Mexico).

Paratypes (2). MEXICO. VERACRUZ: [México, Ver. Est. Biol. de/ Los Tuxtlas/ Alt. 400 MSNM/20-VIII-85/ O. Andrade] [63-A] [Motoniodendron (sic.) / guatemalense/ Tiliaceae] (1♂, 1♀, C. W. O'Brien collection, Tallahassee, Florida, U.S.A.).

Male (Figs. 1, 2). *Length*: 6.08-6.32 mm. *Width*: 2.48-2.64 mm. *Head*: eyes round, Slightly, evenly convex, separated by distance ca. 0.7 x width of rostrum at base. *Rostrum*: long, slender, slightly, evenly curved, strongly tricarinate proximally; length 0.53-0.57 x total body length; length of distal portion 31-36% of total rostral length. *Pronotum*: narrower basally than elytra at base, distinctly narrowed anteriorly in dorsal view; sparselly, irregularly punctate; interspaces smooth, shining; each punture with one long, narrow, subpustulate fulvous scale. *Elytra*: strongly, evenly convex in lateral view, slightly widened posteriorly from humeri, broadly rounded at apices; interstriae subequal in width, with alternating low, densely punctate sections and slightly raised, smooth, shininh sections, the latter especially long on median portions of interstriae 3-5; low, densely punctate sections glabrous. *Abdomen*. sternum 5 flattened medially, with sparse, narrow, setiform scales. *Pygidium* (Fig. 3): slightly emarginate posteromedially and apicomedially; broadly, shallowly channeled dorsomedially. *Legs*: profemur slender bassally, slightly inflated distally, 1.4 x broader than metafemur, with one large ventral tooth with one deep anteromarginal emargination; metafemur with one, small, uncinate ventral tooth; protibi with well-developed median prominence on inner margin, without preapical spine but with distinct preapical tuft of long setiform scales; protibial uncus slender, curved; metatibia slightly expanded apically; metatibial mucro obsolete. *Genitalia* (Figs. 4, 5): aedeagus subparallel-sided, with apicomedian prominence in dorsal and lateral views; tegmen without parameres, ring not closed dorsally; endophallus unarmed.

Female. *Length*: 6.08 mm. *Width*: 2.44 mm. *Rostrum*: length 0.58 x total body length; length of distal portion 43% of total rostral length.

Plant associations. According to the labels, the paratypes of *L. angusticollis* were collected in association with *Mortoniodendron guatemalense* Standley & Steyermark. These adults are teneral, probably taken directly from their developmental sites or reared and killed soon after ecdysis. Larvae of some of the previously described

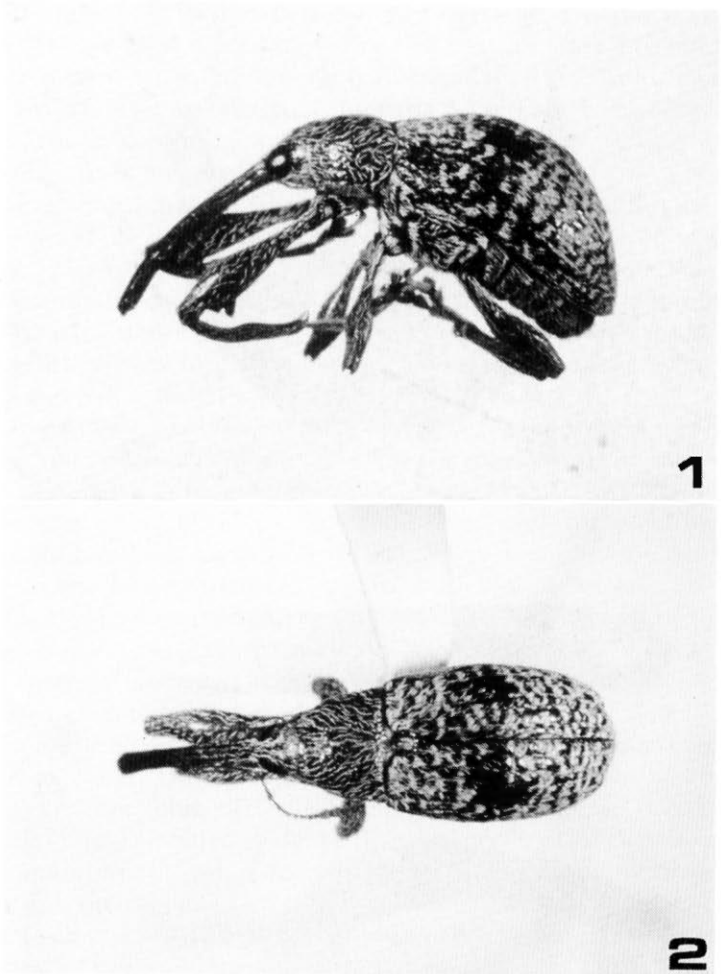

Fig. 1-2 . *Loncophorus angusticollis*, habitus, male, holotype. 1) lateral view; 2) dorsal view.

species of *Loncophorus* are known to develop in seeds or flower buds of their host plants (Clark, 1988). This is probably true as well of *L. angusticollis*.

Relationships. *Loncophorus angusticollis* appears to be most closelly related to *L. costalimai* Clark. Adults of *L. angusticollis* are not "navicular" in body form, but the males have subtrapezoidal mesotrochanters like those of the Loncophorus described by Cbampion (1903) as navicular. The Brazilian *L. costalimai* is the only previously described species that exhibits this combination of "non-navicular" body form and subtrapezoidal mesotrochanters. Adults of the new species are also like *L. costalimai* in not having the prosternum extended downward in front of the

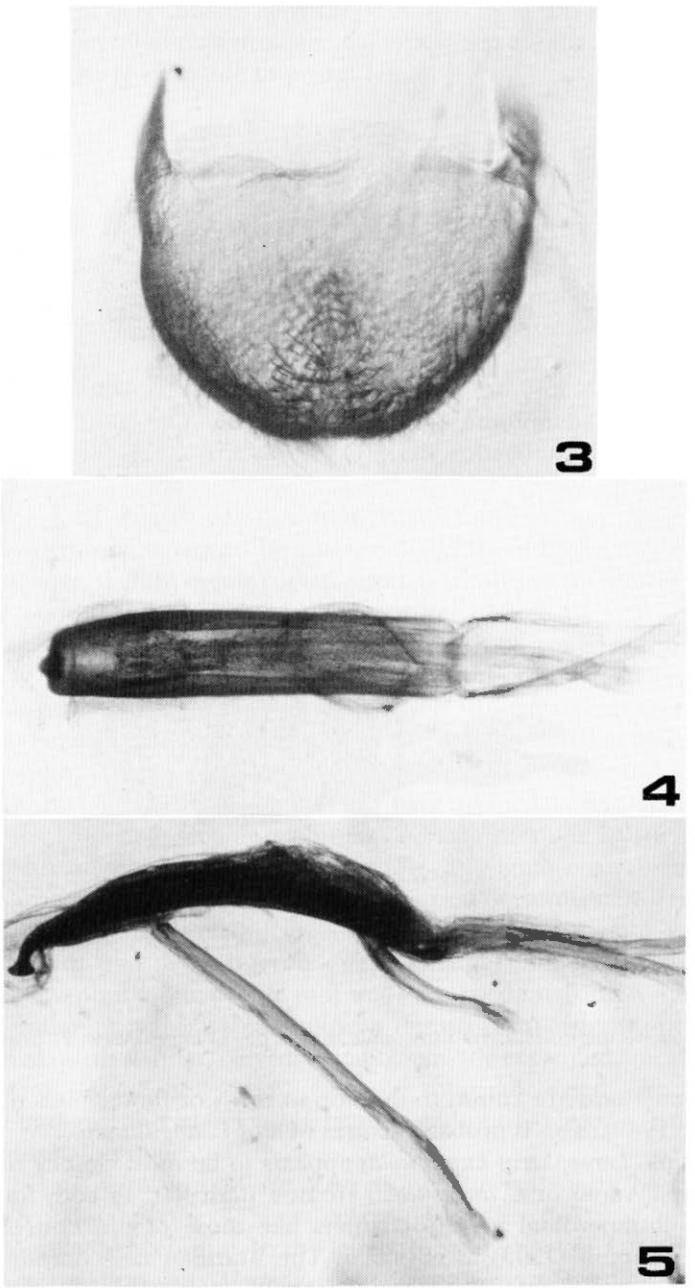

Fig. 3-5. *Loncophorus angusticollis*, male, holotype. 3) pygidium, dorsal view; 4) eadeagus, dorsal view; 5) aedeagus, lateral view.

procoxae and in lacking elytral depressions covered with dense scales, characteristic of most "navicular" *Loncophorus*. They differ from *L. costalimai*, however, in the narrower pronotum, the more evenly distributed elytral vestiture, and in the absence of a discal pustule on elytral interstria 5 (*cf.* Figs. 1, 2 and Clark, 1988, Figs. 17, 18). The apicomedian prominence of the eadeagus of *L. angusticollis* (Fig. 5) in not present in *L. costalimai*.

The host relationships of *L. angusticollis* are of interest from the standpoint of the relationship of the species to the other species of *Loncophorus* and to other anthonomines. Although heretofore reported hosts of the species of *Loncophorus* are all members of the family Bombacaceae (Clark, 1988), the association of *L. angusticollis* with Tiliaceae does not necessarily mark the species as an outsider since the Tiliaceae are placed with the Bombacaceae, Elaeocarpaceae, Malvaceae and Sterculiaceae, in the Order Malvales (Goldberg, 1986).

It seems possible that *Loncophorus*, *Anthonomorphus* and the *A. grandis* group are part of a monophyletic anthonomine lineage restricted to the Malvales. Only one species of Anthonomini, *Lonchophorellus callosus* (Faust), has been reported to be associated with plants in the family Sterculiaceae, and this only from "foliage" and hence a doubtful host association (Clark, 1989). No anthonomines have been reported from the Elaeocarpaceae. Various species of Malvaceae, on the other hand, are hosts of no fewer that 20 species of Anthonomini, most of them in the genus *Anthonomus*. These include the species in the *Anthonomus grandis* group and the species in the *Anthonomus* subgenus *Anthonomorphus*. The species in the *A. grandis* group appear to be restricted to the Malvaceae (Cross et al., 1975, Burke *et al.*, 1986), as are the species of *Anthonomorphus* (Burke, 1964, Burke et al., 1984, Clark & Burke, 1986a). The larvae and pupae of the species of *Anthonomorphus* differ only slightly from those of L. fusiformis and L. santarosae (Clark & Burke, 1986b). Clark (1988) provided evidence that the species of *Anthonomorphus* might belong in a monophyletic group that also includes some of the species assigned to *Loncophorus*, and the *A. grandis* group appears to be closely related to *Anthonomorphus* (Clark & Burke, 1986a). Further considerations of the relationships of these groups to each other should include examination of *L. angusticollis*.

Etymological note. The specific epithet, from the Latin *angustus*, narrow, and *collum*, neck, refers to the narrow pronotum of *L. angusticollis*.

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