NOTES ON BIOLOGY AND DISTRIBUTION OF MEXICAN AND CENTRAL AMERICAN SCOLYTIDAE (COLEOPTERA).
I. HYLESININAE, SCOLYTINAE EXCEPT CRYPHALINI AND CORTHYLINI

THOMAS H. ATKINSON AND ARMANDO EQUIHUA MARTÍNEZ

Centro de Entomología y Acarología, Colegio de Postgraduados, Chapingo 56230, México, México

ABSTRACT

New biological and/or geographical distribution data (principally in Mexico) are given for 115 species of Scolytidae in the following genera: Hylurgops, Hylastes, Pseudohylesinus, Dendroctonus, Clytus, Pagiocerus, Phloeotribus, Phloeosinus, Chramesus, Chaetophloeus, Liganthrum, Cnenomyx, Scolytopsis, Scolytus, Pycnandrus, Gymnochilus, Scolytodes, Pseudothysanoe, Thytsanae, Phloeoleptus, Micracis, Micracieilla, Hylocerus, Cactotorus, Ips, Dendroctonus, Coecotrypes, Premnobius, Dryocoetidae, Xylosandrus, Theoborus, and Xyleborus.

For the past several years we have been collecting bark and ambrosia beetles extensively from a wide variety of habitats, mostly in Central Mexico. While most of this effort has been directed towards local faunistic and ecological studies in selected areas, which will be published separately, a large number of collection records have been obtained that are of interest to students of the group due to range extensions, new host associations, or observations on the biology and ecology of these species. Due to the large number of records and species involved, the tribes Cryphalini and Corthylini (Scolytinae) will be treated in a later publication. New host plants and state or country distribution records are indicated. New host plants of polyphagous species in the tribe Xylenborini are not specifically indicated nor are species of Pinus for pine-inhabiting species. Observations are grouped by country, state, and locality; these data are not repeated in subsequent records; records are separated by semicolons. Abbreviations of Mexican state names are those in common use in Mexico (CHIH = Chihuahua, CHIS = Chiapas, COAH = Coahuila, DGO = Durango, GRO = Guerrero, GTO = Guanajuato, HGO = Hidalgo, JAL = Jalisco, MEX = México, MICH = Michoacán, NAY = Nayarit, NL = Nuevo León, OAX = Oaxaca, PUE = Puebla, QRO = Querétaro, QR = Quintana Roo, TAB = Tabasco, TAMPS = Tamaulipas, TLAX = Tlaxcala, VER = Veracruz). Collection numbers are listed where given with a letter prefix (S = Scolytidae, Colegio de Postgraduados; UACHB = Depto. de Bosques, Universidad Autónoma Chapingo; SM = Scolytidae of Morelos, Universidad Autónoma del Estado de Morelos; AB = Armando Burgos S.). Detailed collection data are filed on cards in the UACHB or in notebooks in the insect collection of the Colegio de Postgraduados (all other prefixes). The names of the authors (THA, AEM) are abbreviated when given as collectors. All material cited is deposited in the insect collection of the Centro de Entomología y Acarología, Colegio de Postgraduados.

227
Hylurgops incomptus (Blandford). **MEXICO: CHIH: Area experimental INIF, Cd. Madera, 24-VII-80, 2,360 m, Pinus arizonica, J. Castro C.; MICH (new state): Carr. Patzcuaro-Ario de Rosales, Km 34, 31-X-80, 2,340 m, S-135, THA & AEM; MEX: Carr. Toluca-Morelia, Km 49 (near Villa Victoria), 30-X-80, 2,520 m, P. montezuma, S-124, THA & AEM; HGO: Zacualtipan, 16-X-81, 1,800 m, P. patula, S-177, AEM. GUATEMALA: Momostenango, 11-VII-80, 2,800 m, P. pseudostrobus, F. Jeronimo M.; 14-VII-80, 2,900 m, Pinus sp., F. Jeronimo M.; Totonicapan, 26-VII-80, 2,700 m, P. pseudostrobus, F. Jeronimo M.; Sibila, 4-VII-80, 2,800 m, P. rudis, F. Jeronimo M.; Cajolás, 5-VII-80, 2,550 m, P. rudis, F. Jeronimo M. Wood (1982) listed the locality, Mesa del Huracan, from the state of Chiapas because the state abbreviation on the label was given as "Chs." The locality is actually in the state of Chihuahua.

Hylurgops planirostris (Chapuis). **MEXICO: MICH: Carr. Patzcuaro-Ario de Rosales, Km 32, 31-X-81, 2,360 m, Pinus leiophylla, S-131, THA & AEM; Carr. Patzcuaro-Ario de Rosales, Km 34, 31-X-81, 2,340 m, P. montezuma, S-135, THA & AEM; MEX: Carr. Toluca-Morelia, Km 54 (near Villa Victoria), 30-X-81, 2,520 m, P. montezuma, S-124, THA & AEM; HGO: Zacualtipan, VII-80, 1,900 m, P. patula, M. E. Guerrero & C. Pineda; VER: Cofre de Perote, 7-VI-83, 2,950 m, Pinus sp., S-890, THA & AEM; 5 km W of Acajete, 7-VI-83, 2,150 m, P. patula, S-891, THA & AEM; CHIS: San Cristobal de las Casas, 26-IX-61, H. Bravo M.; 7-VIII-65, A. Ortiz. GUATEMALA: Chiantla, 10-VII-80, 3,160 m, P. rudis, F. Jeronimo M.; Momostenango, 28-VIII-80, 2,450 m, P. pseudostrobus, F. Jeronimo M.

Hylurgops longipennis (Blandford). **MEXICO: HGO (new state): Zacualtipan, 17-IX-80, 1,800 m, Pinus patula, S-177, AEM; 16-X-80, 1,800 m, P. patula, THA; PUE (new state): San Juan Tetla, 27-I-82, 3,390 m, J. Morales O. This species was previously known only from the Valley of Mexico; it is apparently much more widespread in its distribution.

Hylurgops subcostatus alternans (Chapuis). **MEXICO: VER (new state): Cofre de Perote, 6-VI-83, 2,950 m, Pinus sp., S-889, THA & AEM; CHIS: San Cristobal de las Casas, 16-IV-84, 2,740 m, Pinus sp., SM-257, E. Sauce- do C.

Hylastes fulgidus Blackman. **MEXICO: CHIH: Area semillera Madera (near Cd. Madera), 24-VII-80, 2,360 m, Pinus arizonica, J. Castro C.; MICH: No- cuaro, 9-VII-73, Pinus sp., UACHB-120, D. Cibrian T.; Ario de Rosales, 31-X-80, 1,640 m, P. pseudostrobus, S-139, THA & AEM.

Hylastes florii (Eggers). **MEXICO: MEX: Carr. Toluca-Morelia, Km 54, 30-X-80, 2,520 m, Pinus montezuma, S-124, THA & AEM; HGO: Zacualtipan, 16-X-80, 1,800 m, P. patula, S-177, AEM.

Hylastes mexicanus Wood. **MEXICO: MICH (new state): Carr. Patzcuaro-Ario de Rosales, Km 34, 31-X-80, 2,340 m, Pinus montezuma, S-135, THA & AEM.

Hylastes niger Wood. **MEXICO: HGO: Zacualtipan, 16-X-80, 1,800 m, Pinus patula, S-177, AEM.

Hylastes gracilis LeConte. **MEXICO: HGO: Zacualtipan, 16-X-80, 1,800 m, Pinus patula, S-177, AEM; 17-IX-80, 1,800 m, P. patula, M. E. Guerrero & C. Pineda.
THE COLEOPTERISTS BULLETIN 39(3), 1985

Tribe Tomicini

- Pseudohylesinus variegatus (Blandford). MEXICO: MEX: Mexicapa, 6-IV-83, Abies religiosa, J. Morales O.; VER (new state): Cofre de Perote, 8-VI-83, 3,380 m, A. religiosa, S-897, THA & AEM.

- Dendroctonus vitei Wood. MEXICO (new country): CHIS: San Cristobal de las Casas, 12-VIII-80, Pinus micoacana, UACHB-577, D. Cibrian T. This identification was verified by S. L. Wood.


- Dendroctonus approximatus Dietz. MEXICO: COAH (new state): La Siberia (near Arteaga), III-81, Pinus hartwegii, D. Flores F.

- Dendroctonus adjunctus Blandford. MEXICO: COAH (new state): La Siberia (near Arteaga), III-81, Pinus hartwegii, D. Flores F.; VER (new state): Cofre de Perote, 8-VI-83, 3,650 m, P. hartwegii, S-895, THA & AEM. GUATEMALA: Tootonicapan, 13-VII-77, M. Dix; 9-VI-77, P. rudis, M. Dix; 26-VII-80, P. pseudostrobus, F. Jeronimo M.; 13-VII-80, 2,850 m, P. rudis, F. Jeronimo M.; 19-VII-80, 2,900 m, P. ayacahuite, E. Franco; 24-VII-80, 2,600 m, Pinus sp., F. Jeronimo M.; Momostenango, 28-VII-80, 2,450 m, P. pseudostrobus, E. Franco; 17-VII-80, 2,445 m, P. pseudostrobus, F. Jeronimo; Sibilia, 4-VII-80, 2,850 m, P. rudis, E. Franco; 7-IV-80, 2,800 m, P. rudis, F. Jeronimo M.; Cajolas, 5-VII-80, 2,550 m, P. rudis, F. Jeronimo M.; Chiantla, 10-VII-80, 3,160 m, P. rudis, F. Jeronimo M.

- Dendroctonus parallelocol lis Chapuis. MEXICO: MICH: Carr. Patzcuaro-Ario de Rosales, Km 32, 31-X-80, 2,340 m, Pinus montezumae, S-135, THA & AEM; MEX: Carr. Toluca-Morelia, Km 54, 30-X-80, 2,520 m, P. montezumae, S-124, THA & AEM.


Tribe Bothrotermini

- Cnesinus electinus Wood. MEXICO: JAL (new state): El Tuito, 28-V-82, 640 m, Lauraceae, S-706, THA & AEM. GRO (new state): Santa Teresa Pilcaya,
21-II-82, 1,130 m, *Persea americana* (new host), S-324, THA & AEM; Palo Blanco (near Chilpancingo), 22-II-82, 1,200 m, *P. americana*, S-329, THA & AEM.

*Cnesius myelitis* Wood. MEXICO: PUE: Zacapoaxtla, 6-V-81, 1,600 m, *Persea americana* (new host), S-228, THA & AEM.

*Cnesius garrulus* Schodl. MEXICO: PUE (new state): Tepexco, 1-X-82, 1,200 m, cucurbit vine, AB-66, A. Burgos S.

*Cnesius costulatus* Blandford. MEXICO: PUE (new state): Zacapoaxtla, 6-V-81, 1,600 m, *Persea americana* (new host), S-228, THA & AEM.

*Cnesius prominulus* Wood. MEXICO: GRO (new state): Chilapa, 23-II-82, 1,800 m, *Senecio sp.* (new host), S-572, A. Burgos S.

*Cnesius carinatus* Wood. MEXICO: MEX (new state): Mexicapa, 13-II-82, 2,325 m, Compositae, S-314, AEM.

*Cnesius setulosus* Blandford. MEXICO: JAL: Puerto Vaillarta, 6-III-82, 10 m, S-386 and S-387, AEM; GRO (new state): Chilapa, 23-II-82, 1,640 m, *Ardisia revoluta* (new host), S-345, THA & AEM.


Tribe Phloeotribini


*Phloeotribus destructor* Wood. MEXICO: GRO (new state): Chilapa, 23-II-82, 1,800 m, *Prunus serotina*, S-297, THA & AEM; Barranca de Mayuca, 11-VI-57, Oliva A.

*Phloeotribus perniciosus* Wood. MEXICO: MICH: Carr. Patzcuaro-Ario de Rosales, 31-X-80, 2,240 m, *Prunus serotina*, S-137, THA & AEM. The type series of this species was collected from a partially broken off branch (~3 cm diam.) of a live tree. The species is monosynous and constructs biramous horizontal galleries typical of the genus. Young adults move about freely and feed on remnants of phloem under the bark prior to emergence.

*Phloeotribus demessus* Blandford. MEXICO: JAL (new state): El Tuito, 28-V-82, 640 m, *Croton draco* (new host), S-709, THA & AEM. Collected in trunk of felled tree in diameters ranging from 10–40 cm. Galleries are typically biramous and horizontal. As in the case of the previous species, young adults move about freely and feed prior to emergence.

*Phloeotribus furvis* Wood. MEXICO (new country): VER: El Bastonal, 5-VII-80, 800 m, R. M. Murillo.

Tribe Phloeosinini


*Phloeosinus serratus* (LeConte). MEXICO: CHIH: Chorro del Agua, 26-XI-77, *Cupressus sp.*, UACHB-446, D. Gibrian T. This species attacks species of *Juniperus*; the host on the label is probably an error.

Phloeosinus tacubayae Hopkins. MEXICO: MICH (new state): Uruapan, 19-II-80, 1,800 m, Cupressus lindleyi, S-33, THA. GUATEMALA: San Miguel Dueñas, 11-IX-77, Cupressus sp. R. López.

Chramesus exilis Wood. MEXICO: JAL: El Tuito, 28-V-82, 640 m, Smilax sp., S-707, THA & AEM. This species makes biramous galleries in the fibrous outer layers of stems of its host plant, a woody vine. The 2 branches are inclined obliquely upwards and spiral around the stem in opposite directions and are similar to those of Chramesus annectans. The type series was collected in stems ranging in diameter from 1–2 cm.


Chramesus atkinsoni Wood. MEXICO: NL: Cerro Chipinque, 30-I-80, 1,350 m, Carya sp., S-21, THA. The type series of this species was collected in small, broken branches (1–2 cm diam.) of an uncultivated hickory in oak-pine forest. The type series reported by Wood (1981) was inadvertently labeled with Persea sp. as host. The gallery is uniramous and longitudinal.

Tribe Hypoborini

Chaetophloeus lasius Wood. MEXICO: GRO (new state): Cuauhtenango (near Chilapa), 23-II-82, 1,640 m, Rhus sp., S-342, THA & AEM. This species was collected in broken branches of its host ranging from 1–3 cm diam. As is typical for the genus a large nuptial chamber or central “cave” is excavated with 2 or 3 very short egg galleries in which the eggs are very tightly packed. This species is apparently capable of completing more than one generation in the same host material since infested branches held in the laboratory for several months after collection showed recently established, apparently thriving attacks by beetles which had emerged.

Chaetophloeus sulcatus Wood. MEXICO: HGO: El Cardonal, 27-III-81, 2,250 m, Flouricnca resinosa (new host), S-209, THA & AEM. Collected from thicker stems (3 cm diam.) of a small desert composite shrub.

Chaetophloeus minimus Wood. MEXICO: JAL: El Tuito, 28-V-82,1,050 m, Clethra sp. (new host), S-705, THA & AEM.

Chaetophloeus penicillatus (Bruck). MEXICO: HGO (new state): 27-III-81, 2,250 m, Rhus sp., S-207, THA & AEM.

Liparthrum pruni Wood. MEXICO: MICH: Aranza, 10-VII-82, Prunus serotina, S-756, AEM.

Liparthrum mexicanus Wood. MEXICO: JAL: El Tuito, 28-V-82, 640 m, S-720, THA & AEM. Galleries were small “cave” type excavations in the bark of the host (suspected to be a species of Ficus) with egg niches cut into the margins of the chamber. Judging from larval mines several eggs are placed in each niche.

SUBFAMILY SCOLYTIINA

Tribe Scolytini

Cremomyx liratus Wood. MEXICO: GRO (new state): San Juan Tetelcingo, 22-II-82, unidentified shrub of the Euphorbiaceae, S-328, THA & AEM. In small diameter branches of host plant (0.5–1.0 cm). The gallery is transverse.
_Scolytopsis puncticollis_ Blandford. _Mexico_: VER: Mandinga, 12-III-80, _Laguncularia racemosa_, S-47, THA.

_Scolytus mundus_ Wood. _Mexico_: TLAX (new state): Villarreal, 28-I-78, _Abies religiosa_, D. Cibrian T.; Terrenate, II-81, _A. religiosa_, C. Pineda; _Mexico_: Mexicapa, 6-IV-83, _A. religiosa_, J. Morales O.

Tribe Ctenophorini

_Pycnarthrum hispidum_ (Ferrari). _Mexico_: QRO: Queretaro, IV-83, _Ficus_ sp.; VER: Rancho Tepetates (30 km from Veracruz on highway to Jalapa), 12-VI-79, 15 m, _Ficus_ sp., S-43, THA; CHIS: Tapachula, 3-II-81, 250 m, _Ficus_ sp., THA. This species is most commonly found in thick-barked limbs and trunks of _Ficus_ spp.; smaller diameter material is usually infested by _Gymnochilus_ spp. or _Scolytodes_ spp. Frequently the galleries are entirely in the phloem, without coming in contact with the sapwood. In very thick phloem separate gallery systems may be at different depths. The gallery is transverse and biramous. More than one generation may be completed in the same host material if decomposition is not rapid. Occasionally this species is found in injured trees near live tissues.

_Gymnochilus reitteri_ Eichhoff. _Mexico_: JAL: El Tuito, 27-IV-82, 600 m, _Ficus_ sp., S-381, AEM; MICH: Ziririmicuaro, 2-XI-80, 1,350 m, _Ficus_ sp., S-155, THA & AEM. PANAMA: Los Santos, Cerro Canajagua, 4-I-81, 800 m, _Ficus_ sp., THA. This species is commonly found in branches of _Ficus_ spp. ranging in diameter from 3–15 cm. Material of larger diameter is normally occupied by _Pycnarthrum_ spp., smaller diameter by _Scolytodes_ spp. The gallery is biramous and transverse.

_Gymnochilus alni_ Wood. _Mexico_: MICH (new state): Carr. Toluca-Zitacuaro, Km 80, 30-X-80, 2,560 m, _Alnus acuminata_, S-126, THA & AEM. This species makes a biramous gallery in the phloem of alders. The egg galleries are transverse to oblique with respect to the wood.

_Scolytodes glabrescens_ Wood. PANAMA: Los Santos, Cerro Canajagua, 4-I-82, 800 m, petiole of _Cecropia_ sp., S-168, THA. This species was collected in the pith of the basal portion of fallen petioles in a very moist, shaded site.

_Scolytodes maurus_ (Blandford). _Mexico_: VER: Catemaco, 13-VI-79, petioles of _Cecropia_ sp., THA; Coatepec, 13-III-80, 1,000 m, _Cecropia_ sp., S-49, THA. PANAMA: Los Santos, Cerro Canajagua, 4-I-82, 800 m, _Cecropia_ sp., S-168, THA. This species breeds only in the fallen petioles of leaves of _Cecropia_. Galleries are excavated in the pithy center of the petioles and may be found along its entire length, though most commonly in the base. It is the most commonly collected species of _Scolytodes_ in this habit in Mexico and tolerates drier and more exposed conditions than _S. atratus_ and _S. parvulus_, the other 2 species with which it is often associated.

_Scolytodes atratus_ (Blandford). _Mexico_: VER: Catemaco, 13-VI-79, _Cecropia_ sp., THA. PANAMA: Los Santos, Cerro Canajagua, 4-I-82, 800 m, _Cecropia_ sp., THA. As is _S. maurus_, this species is restricted to fallen petioles of _Cecropia_ spp. It also bores in the pith, but is generally restricted to the thicker basal portion, probably due to its larger size. It is less commonly collected than _S. maurus_, although the 2 species are frequently collected in the same petioles; _S. maurus_ appears to be restricted to very shaded, moist sites.

_Scolytodes plumeriae_ Wood. _Mexico_: PUE: Between Cuetzalan and Paso del Jardin, 5-V-81, 550 m, _Plumeria rubra_, S-222, THA & AEM. A small host
THE COLEOPTERISTS BULLETIN 39(3), 1985  233

tree growing on the edge of a coffee farm was heavily infested. From the condition of the branches and old galleries it was apparent that several generations had been completed in the same branches, moving downwards in each subsequent generation, slowly killing the tree. At the time of collection, young adults, tenereal adults, and pupae were found in the portions of the attacked area closest to living tissues. Young but fully pigmented adults seemed to have passed directly from the areas where they developed into the unattacked portions of the branches without having emerged. These made long, basically longitudinal galleries in the phloem. Galleries interconnected in many places and contained many adults of both sexes. No oviposition was apparent. This may represent maturation feeding on the part of the new adults.

Scolytodes clusticaolens Wood. MEXICO: JAL (new state): El Tuito, 28-V-82, 950 m, Chusia salvinii (new host), S-702, THA; MICH: Ario de Rosales, 31-X-80, 1,720 m, Chusia salvinii, THA & AEM.

Scolytodes parvulus Wood. MEXICO: VER: Catemaco, 13-VI-79, Cecropia sp., THA; OAX (new state): La Esperanza, Sierra de Juarez, 6-VII-82, 2,600 m, Cecropia sp., SM-15, E. Martinez F. This is the smallest of the 3 species of Scolytodes that are known from Cecropia petailes in Mexico. Unlike S. maurus and S. atratus, S. parvulus excavates a transverse, biramous gallery in the fibrous tissue immediately beneath the epidermis of the petailes similar to the true bark beetles.

Scolytodes schwarzi (Hopkins). MEXICO: JAL (new state): El Tuito, 6-III-82, 600 m, Ficus sp., S-381, AEM; VER: Mandinga, 6-III-80, sea level, Ficus sp., S-48, THA. This species is found in small shaded-out branches of live trees. It is polygynous and adults excavate radiate galleries, often grooving the wood.

Scolytodes reticulatus (Wood). MEXICO: MICH: La Gallina, 1-XI-80, 1,000 m, Ficus goldmani (new host), S-146, THA & AEM; Ziricucauro, 2-XI-80, 1,350 m, Ficus sp., S-155, THA & AEM. This species is found in shaded-out branches of Ficus spp. and does not appear to attack cut or fallen branches.

Scolytodes tenuis Wood. MEXICO: JAL: Puerto Vallarta, 6-III-82, 10 m, Ficus sp., S-385, AEM; MICH (new state): Ziricucauro, 2-XI-80, 1,350 m, Ficus sp., S-155, THA & AEM. As is the case in the preceding 2 species, S. tenuis is found in twigs of shaded-out branches of Ficus spp.

Tribe Micracini

Pseudepisthysanes furvatus Wood. MEXICO: JAL: 28-V-82, 1,050 m, Phoradendron sp., S-703, THA & AEM. Collected in small dead mistletoe on broken oak branch.

Pseudepisthysanes fimbriatus Wood. MEXICO: PUE: Zacapoxtla, 6-V-81, 2,150 m, Phoradendron sp., S-231, THA & AEM. The type series of this species was collected in a dead mistletoe on a dead oak branch. The galleries were longitudinal, biramous and in the phloem tissues.

Pseudepisthysanes tenellus Wood. MEXICO: MICH: Carr. Patzcuaro-Ario de Rosales, Km 32, 31-X-80, 2,360 m, Psittacanthus sp., S-130, THA & AEM. Collected from mistletoe on dead branch of Crategus mexicanus in branches ranging from 0.5–1 cm diam. in longitudinal biramous galleries.

Pseudepisthysanes yuccavorus Wood. MEXICO: PUE (new state): Oriental, 4-V-81, 2,370 m, leaves of Yucca sp., S-214, THA & AEM.

Pseudepisthysanes perseae Wood. MEXICO: NL: Cerro Chipinque, 30-I-80,
1,350 m, *Carya* sp., S-21, THA. The type series of this species was collected in small (1–2 cm diam.) broken branches of an uncultivated hickory in an oak-pine forest. The galleries are biramous, longitudinal, and in the phloem. Wood (1981) reported the host as *Persea* in his description of the species because of an error in labeling the type series.

*Thysanoes inornatus* Wood. *MEXICO*: JAL: El Tuito, 28-V-82, 1,050 m, *Struthanthus* sp. (new host), S-704, THA & AEM.


*Phloeocleptus atkinsoni* Wood. *MEXICO*: MICH: Uruapan, 17-II-80, 1,600 m, *Persea americana*, S-26, THA. The type series of this species was collected in the bark of dead twigs (0.5–1 cm diam.) on live trees.


*Phloeocleptus caudatus* Wood. *MEXICO*: PUE: Apulco, 6-V-81, 1,600 m, *Persea americana* (new host), S-228, THA & AEM. Attacks were found in shaded-out branches of several trees inspected. Broken branches on the ground, however, had attacks of *Cnemisius* spp., but none by *P. caudatus*.

*Phloeocleptus spicatus* Wood. *MEXICO*: NL: Cerro Chipinque, 30-I-80, 1,300 m, *Persea* sp., S-20, THA.

*Phloeocleptus ardis* Wood. *MEXICO*: NL: Cerro Chipinque, 30-I-80, 1,300 m, *Persea* sp., S-20, THA. This species was collected in the same broken branches as *P. spicatus*, but was found in the larger portions.

*Micracis lignatus* Blackman. *MEXICO*: NL (new state): Cerro Chipinque, 30-I-80, 1,300 m, *Quercus* sp., S-27, THA; JAL (new state): El Tuito, 6-III-82, 1,100 m, *Quercus* sp., S-384, AEM; GRO (new state): Chilapa, 23-II-82, 1,800 m, *Quercus* sp., S-339, THA & AEM.

*Micracis amplinus* Wood. *MEXICO*: MICH (new state): Carr. Toluca-Morelia, Km 197, 3-XI-80, 2,640 m, S-157, THA & AEM; HGO: Zacualtipan, 7-XI-80, 1,800 m, *Quercus* sp., AEM; 7 km east of Tlahuelumpa, 16-X-80, 2,050 m, *Quercus* sp., THA.

*Micracis burgosi* Wood. *MEXICO*: GRO (new state): Chilpancingo, 23-II-82, 1,250 m, trunk of leguminous tree, S-343, THA & AEM.


*Hylocerus dilutus* Wood. *MEXICO*: MICH: Ziririmicuarro, 2-XI-80, 1,350 m, S-154, THA & AEM.

*Hylocerus femineus* Wood. *MEXICO*: MICH: Carr. Patzcuaro-Ario de Rosales, Km 34, 31-X-80, 2,360 m, *Quercus* sp., S-129, THA & AEM. This species was attacking a green, recently cut fence post with attacks concentrated in debarked areas.


*Hylocerus elegans* Eichhoff. *MEXICO*: VER (new state): Rancho Tepetates (near Paso de Ovejas), 12-III-80, 15 m, *Phoradendron* sp. (new host), S-40, THA.

*Hylocerus dissidentis* Wood. *MEXICO*: GRO (new state): Chilapa, 28-II-82, 1,800 m, S-338, THA & AEM.
Tribe Cactopinini

_Cactopinus burgosi_ Wood. MEXICO: PUE: Tepenene, 1-X-82, 1,240 m, _Neobuxbaumia mejia_, AB-70, A. Burgos S. This species was collected in a blackened, decaying (but not deliqescing) portion of cactus in contact with the soil. _Cactopinus granulatus_ Wood. MEXICO: JAL: Autlan, 28-V-82, 80 m, _Pachycereus_ sp., S-497, AEM. The type series was collected in a dried-out, yellowish portion of a rib of a fallen stem of cactus.

Tribe Ipini


Ips lecontei Swaine. MEXICO: CHIH: Ejido El Largo (near Cd. Madera), 23-VIII-80, 2,300 m, Pinus duranguensis; O. Estrada; El Vergel, 14-VIII-80, 2,650 m, P. arizonica, J. Castro C.

Ips confusus Swaine. MEXICO: HGO: El Cardonal, 27-III-81, 2,250 m, Pinus cembroides, S-206, THA & AEM.

Tribe Dryocoetini

Dendrocanthus consimilis Wood. MEXICO: CHIS (new state): Tapachula, 20-IV-83, 100 m, cucurbit vine, SM-141, E. Martinez F. and E. Saucedo C.

Dendrocanthus cucurbitae (LeConte). MEXICO: MICH: Gabriel Zamora, 1-XI-80, 650 m, Luffa acutangula, S-141, THA & AEM; Uruapan, 16-V-81, 1,600 m, Sechium edulis, AEM.

Dendrocanthus declivis (Scpldi). MEXICO (new country): VER: Veracruz, 2-IV-82, 8 m, Luffa acutangula, J. F. Duran.

Dendrocanthus sobrinus Wood. MEXICO: VER: Veracruz, 2-IV-82, 8 m, Luffa acutangula (new host), J. F. Duran.

Dendrocanthus gracilis Wood. MEXICO: MICH (new state): Uruapan, 16-V-81, 1,600 m, Sechium edulis (new host), AEM.

Coccytryx rhizophorae (Hopkins). MEXICO: VER: Mandinga, 12-III-80, Rhizophora mangle, S-46, THA. This species was found in elongating tips of aerial prop roots and hypocotyls of the host plant. When the tips of elongating roots were killed, the plant responded by branching below the point killed. Attacks were never observed in the older, lignified portions of these roots.

Coccytryx cyperi (Beeson). PANAMA (new country): Cd. Panama, 19-XII-80, 15 m, branch of Spondias mombin, S-159, THA; 19-XII-80, 15 m, seed of Mangifera indica, S-162, THA.

Coccytryx carpophagus (Hornung). MEXICO: MICH (new state): La Gallina, 1-XI-80, 880 m, seeds of Sabal pomos (new host), S-144, THA & AEM.

Coccytryx dactylilperda (Fabricius). MEXICO: MICH (new state): Jiquilpan, 26-V-82, 1,550 m, seeds of Phoenix canariensis, S-466, THA & AEM.

Tribe Xyleborini

Premnophius cavipennis Eichhoff. MEXICO: MICH (new state): Patuán, 1-XI-80, 1,300 m, Spondias mombin, S-147, THA & AEM; GRO (new state): Palo Blanco (near Chilpancingo), 22-II-82, 1,200 m, S-330, THA & AEM.

Dryocoetoides capinus (Eichhoff). MEXICO: JAL (new state): Puerto Vallarta, 6-III-82, 10 m, S-388, AEM; El Tuito, 28-V-82, 640 m, Inga sp., S-711, THA & AEM; MICH: Ziririmicuario, 2-XI-80, 1,350 m, Inga sp., S-153, THA & AEM; GRO (new state): Palo Blanco (near Chilpancingo), 22-II-82, 1,200 m, Inga sp., S-330, THA & AEM. This species is mostly encountered in branches from 5–10 cm in diameter, seldom in larger material. The gallery consists of one to several irregularly shaped brood chambers, each of which lies between adjacent growth rings. These chambers are connected by short
radial tunnels. This species requires high humidity and appears to be absent from drier tropical areas.


*Theoborus soliariiceps* (Schedl). **MEXICO**: VER: Rancho Tepetates (near Paso de Ovejas), 11-III-80, 15 m, S-43, THA; TAB (new state): Cardenas, XII-79, *Erythrina sp.*; Boquiaipa, 25-I-82, J. A. Morales. This species restricts its attacks to branches of small diameter (3–5 cm), either in standing trees or in cut or fallen material.


*Xyleborus guatemalensis* (Hopkins). **MEXICO**: PUE (new state): Cuetzalan, 5-V-81, 960 m, *I nga* sp., S-221, THA & AEM.


*Xyleborus spinulosus* Blandford. **MEXICO**: VER: Rancho Tepetates (near Paso de Ovejas), 12-III-80, 50 m, *Mangifera indica*, S-45, THA; Morro de la Mancha, 19-VII-83, *Nectandra* sp., S-922, THA & AEM; GRO (new state): Palo Blanco (near Chilpancingo), 22-II-82, 1,200 m, S-330, THA & AEM. This species has only been collected from host material less than 10 cm in diameter.


*Xyleborus ferrugineus* (Fabricius). **MEXICO**: TAMPS: Cd. Victoria, 12-III-63; VER: Campo Experimental El Palmar, 13-VI-63; 1-IV-68; Santiago Tuxtla, 26-VI-66, A. Ortiz; GRO: Chilpancingo, 23-II-82, 1,230 m, legume tree, S-343. THA & AEM; TAB: Cardenas, XII-79, *Erythrina* sp.; 4-III-81, *Erythrina* sp., J. A. Morales; Huimanguillo, 12-VI-81, *Erythrina* sp., J. A. Morales; Nacaocuca, 4-III-81, *Erythrina* sp., J. A. Morales; CHIS: Cacaohaotan, 2-II-80, 640 m, THA; Tapachula, 3-II-80, 250 m, *Ficus* sp., THA. **SAN SALVADOR**: Puerto La Libertad, 1-VII-66, A. Ortiz. This species and *X. volvulus* are the most widespread species of this genus in tropical and subtropical Mexico. Both tolerate an extremely wide range of hosts and ecological conditions and are of the species most commonly found in urban and agricultural habitats. They are among the few xyleborines found in the tropical deciduous forest.

*Xyleborus affinis* (Eichhoff). **MEXICO**: MICH: Putam, 1-XI-80, 1,300 m, *Spondias momin*, S-147, THA & AEM; PUE: Apulco, 2-V-80, 1,380 m, THA & AEM; TAB: Cardenas, XII-79, *Erythrina* sp., R. Campos; CHIS: Ruinas de Palenque, 7-VII-81, 90 m, *Persea* sp., A. Burgos S; Tapachula, 3-II-80, 250 m, THA. Like *Xyleborus ferrugineus* and *X. volvulus*, this species is extremely common, polyphagous and frequently associated with man-made environments. It differs from them in that its range of environmental tolerance with respect to humidity seems to be much more limited and the species is virtually absent from drier tropical and subtropical areas within Mexico.
Xyleborus volvulus (Fabricius). MEXICO: TAMPS: Cd. Victoria, 17-III-63; NAY: San Blas, 22-III-62; MICH: Putuan, 1-XI-80, 1,300 m, Spondias mombin, S-147, THA & AEM; Ziprimicuoaro, 2-IX-80, 1,350 m, Inga sp., S-153, THA & AEM; VER: Campo Experimental El Palmar, 1-IV-63; 13-VI-60; GRO: Teloloapan, 12-VIII-57; Copala, 5-VII-81, Cocos nucifera; TAB: Cardenas, 4-III-81, Erythrina sp., J. A. Morales; CHIS: Tapachula, 3-II-81, 250 m, THA; Ruinas de Palenque, 26-IV-82, 310 m, A. Burgos S.; Agua Azul, 8-VII-82, 160 m, E. Martinez F.

Xyleborus morulus Blandford. MEXICO: MICH: Putuan, 1-XI-80, 1,300 m, Spondias mombin, S-147, THA & AEM.

Xyleborus intrusus Blandford. MEXICO: MICH (new state): Arío de Rosales, 31-X-80, 1,640 m, Pinus pseudoctobrus, S-139, THA & AEM; MEX: Carr. Toluca-Morelia, Km 54, 30-X-80, 2,520 m, P. montezumae, S-124, THA & AEM; PUE: Puerta, 17-IX-80, 2,200 m, P. leioptyla, S-9, THA; GRO (new state): Chilapa, 23-II-82, 2,040 m, Pinus oocarpa, S-332, THA & AEM; CHIS: San Cristobal de las Casas, 26-IX-61. This species attacks all species of pines growing at low and intermediate altitudes. It is seldom found above 2,500 m.

ACKNOWLEDGMENTS

We thank Emily J. Lott, Instituto de Biología, Universidad Nacional Autónoma de Mexico, and Thomas L. Wendi, Centro de Botanica, Colegio de Postgraduados, for identifications of host plants. We also thank David Cibrian T., Armando Burgos S., Eduardo Saucedo C., and Edgar Martinez F. for permission to cite collection data. This research was wholly supported by the Centro de Entomología y Acarología, Colegio de Postgraduados.

LITERATURE CITED


(Received 12 October 1984; accepted 8 February 1985)

LITERATURE NOTICES


