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A NEW SPECIES OF *DIORYCTRIA* (PYRALIDAE: PHYCITINAE)
FROM MEXICO

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Abstract.—*Dioryctria cuitecensis* n. sp. from the state of Chihuahua is described. A habitus photograph of the male holotype, and drawings of the male and female genitalia of *D. cuitecensis*, and a key to Mexican species of *Dioryctria* are included.

Key Words: taxonomy, *Dioryctria cuitecensis*, *Dioryctria* key

Larvae of all species of *Dioryctria* Zeller (Pyralidae) are associated with conifers. Because pines and their relatives are a common group of trees in many parts of Mexico, numerous species of *Dioryctria* may be expected in this part of North America. As recently as the middle of this century, however, only one species of these phycitines was recorded from the Republic (Heinrich 1956), probably because of limited collecting. Within the last several decades entomologists from the United States and Canada have more extensively light trapped in Mexico, and thereby greatly increased the number of Mexican Lepidoptera in collections. In addition, the Mexican Division of Forest Sciences, in cooperation with the Forest Service of the United States Department of Agriculture, has made a concerted effort to collect and rear cone insects in Mexico (Hedlin et al. 1981, Cibrián-Tovar et al. 1986). As a result, the number of known species of *Dioryctria* in Mexico increased to ten. Recently, the following additional Mexican species in the genus has come to my attention.

Dioryctria cuitecensis, NEW SPECIES
(Figs. 1, 2-4)

Diagnosis.—*D. cuitecensis* is a large, dark, rather uniformly marked species (Fig. 1).

The transverse lines are very obscure, consisting of only a very few white-tipped scales, the discal spot is only slightly paler than the surrounding scales, and the black scales that characteristically accent the transverse lines are for the most part diffuse. The male and female genitalia of *D. cuitecensis* are similar to those of *D. cambiicola* Dyar, a species occurring in the United States, however, the forewing of the latter species has distinct silvery white transverse lines accented with adjacent patches of black, and distinct patches of silvery white scales inside the subbasal scale ridge, on the discal spot, between the discal spot and the postmedial line, and just before the terminal line.

Description.—*Head:* Frons and vertex brown, fuscous or reddish brown. Labial palpus reaching above vertex in both sexes, mostly brown to fuscous with very few white-tipped scales. Maxillary palpus squamous, mostly brown and fuscous. Antenna of male filiform with abundant, short sensilla trichodea. *Collar:* Brown or reddish brown. *Thorax:* Dorsum brown to reddish brown, in part suffused with fuscous or black. *Forewing:* Length 15.5-17.0 mm; above with distinct, strongly raised scales forming subbasal and antemedial patches; postmedial patch of raised scales also present but scales noticeably less elevated than those of



Fig. 1. *Dioryctria cuitecensis*, ♂, Holotype. Scale line = 1.0 mm.

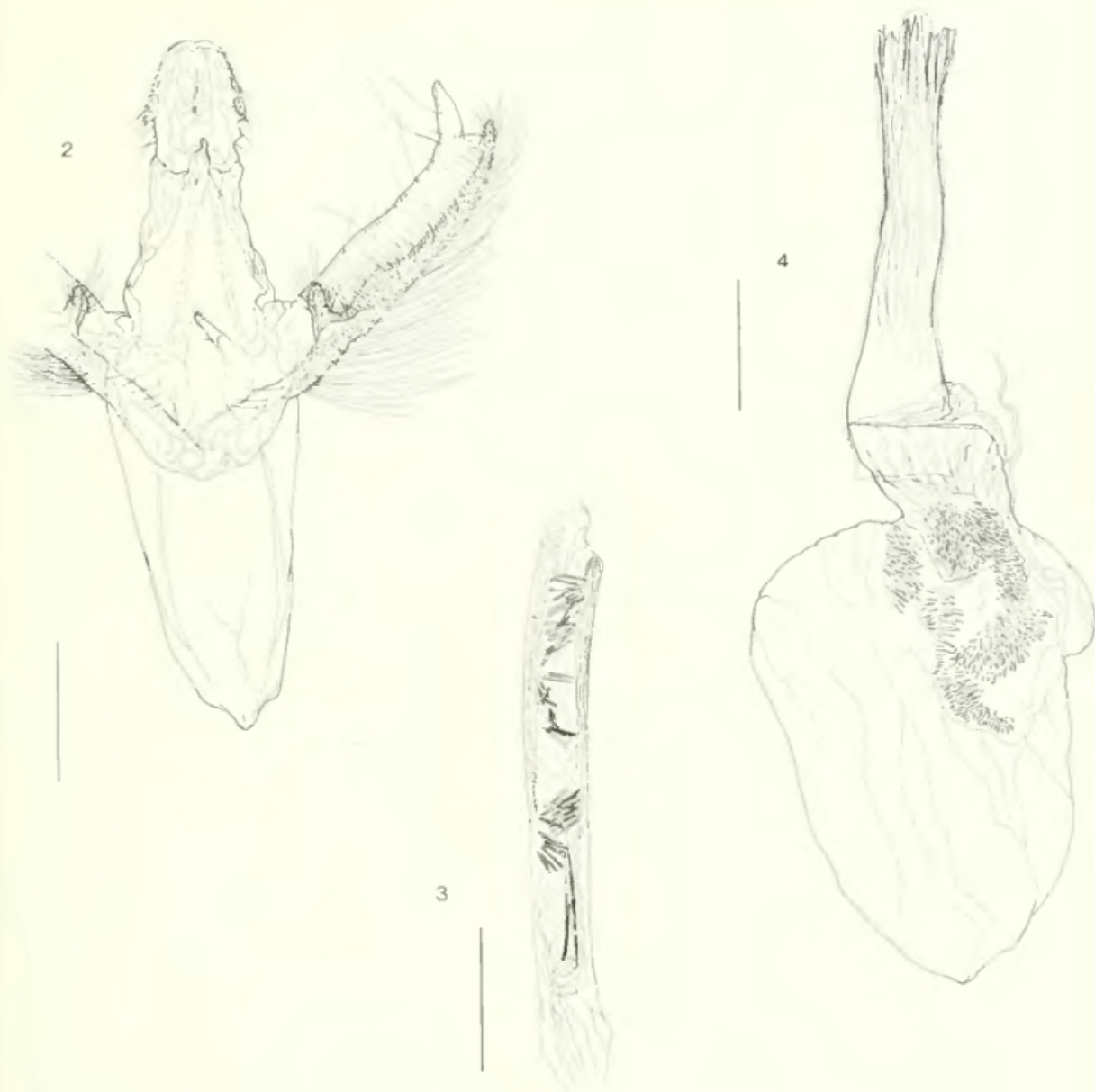
basal patches; additional smaller patches of raised scales at base and at discal spot; ground color brown; antemedial line very obscure, usually consisting of a few pale brown or white-tipped pale brown scales in inner half; postmedial line also very weak; diffuse, indistinct patches of fuscous and black scales in median area and along costa; numerous red, orangish red or reddish brown-tipped scales in basal, subbasal, inner median and terminal area (usually a distinct rust color in basal and subbasal area including the raised subbasal patch of scales); discal spot obscure, only slightly more pale than surrounding scales; terminal line fuscous to black; undersurface of male with short, basal, pale gray subcostal streak. *Hindwing*: Above, dark brownish gray. *Male genitalia*: (Figs. 2, 3) similar to male genitalia of *Dioryctria cambiicola* except juxta of *D. cuitecensis* noticeably smaller than that

of *D. cambiicola*. *Female genitalia*: (Fig. 4) similar to female genitalia of *D. cambiicola*.

Type material.—Holotype male, Cuiteco, Chih, Mex, VIII 27 1969, T. A. Sears, R. C. Gardner, C. S. Glaser, genitalia slide 2090 HHN, deposited in the Bohart Museum of Entomology, University of California, Davis. Paratypes: three females, same collection data as for holotype except IX 3 1969, IX 8 69, genitalia slide 2091 HHN. Paratypes deposited in collections of University of California, Davis, National Museum of Natural History, Washington, D.C. and North Carolina State University, Raleigh.

Distribution and life history.—Known only from southwestern Chihuahua, Mexico. Host plant(s) and behavior of larvae, unknown.

Remarks.—*D. cuitecensis* belongs to the *zimmermani* group of Mutuura and Munroe (1972).



Figs. 2-4. *Dioryctria cuitecensis*. 2, Male genitalia (most of left valva and aedeagus omitted). 3, Aedeagus. 4, Ductus bursae and corpus bursae of female genitalia. Scale lines = 1.0 mm.

KEY TO MEXICAN SPECIES OF *DIORYCTRIA*

- | | | | |
|--|---|--|--------------------------|
| 1. Forewing without raised scales | 2 | as long as, or longer than, length of corpus bursae | 4 |
| - Forewing with raised scales | 5 | 3. Forewing with obvious antemedial line | |
| 2. Forewing with many red or orange scales; valva with distal part blunt and short, at most slightly falcate; ductus bursae with sclerotized part usually shorter than length of corpus bursae | 3 | <i>auranticella</i> (Grote) | |
| - Forewing with only few red or orange scales; valva with distal part distinctly produced apically; ductus bursae with sclerotized part about | | - Forewing without antemedial line .. | <i>rossi</i> Munroe |
| | | 4. Forewing heavily dusted with white (moth appearing mostly gray); male antenna weakly serrate | <i>pinicolella</i> Amsel |
| | | - Forewing lightly dusted with white (moth appearing mostly brown or fuscous); male antenna strongly serrate (appearing almost unipennate) | <i>majorella</i> Dyar |

5. Uncus constricted at base with distinct lateral protuberances; ductus bursae with proximal part distinctly narrower than distal part 6
- Uncus not constricted at base and without lateral protuberances; ductus bursae with proximal part about as wide as, or wider than, distal part 9
6. Valva with dorsal part broad distally (about 4× as wide as more setiferous ventral part); ductus bursae with distal end simple, well separated from proximal spines of corpus bursae 7
- Valva with dorsal part more narrow distally (about 2–2.5× as wide as more setiferous ventral part); ductus bursae with distal end with attached sclerite supporting proximal spines of corpus bursae 8
7. Forewing mostly reddish brown; valva with distal part wide and blunt; ductus bursae with sclerotized part about as long as corpus bursae *erythropasa* (Dyar)
- Forewing with few reddish brown scales; valva with distal part produced into a slender curved hook; ductus bursae with sclerotized part longer than corpus bursae *martini* Mutuura and Neunzig
8. Forewing gray, densely dusted with white and with distinct transverse lines *albovitella* (Hulst)
- Forewing brown, with only very few scales dusted with white and without distinct transverse lines (Fig. 1) *cuitecensis* Neunzig
9. Forewing with narrow, interrupted, black longitudinal line extending most of length of wing (starts near base at CuA₁ and extends through discocellular area); valva with dorsal projection extending well beyond apex of ventral part of valva *cibriani* Mutuura and Neunzig
- Forewing without black longitudinal line extending most of length of wing; valva with dorsal projection barely exceeding apex of ventral part of valva 10
10. Forewing ground color pale gray and with strongly contrasting black subbasal scale ridge, black outer border of antemedial line, black

- inner border of postmedial line, and small black scale ridge following antemedial line; ductus bursae with proximal part bulbous *subtracta* Heinrich
- Forewing ground color brown, without black strongly contrasting scales associated with scale ridges and transverse lines; ductus bursae with proximal part not strongly expanded *durangoensis* Mutuura and Neunzig

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LITERATURE CITED

- Cibrián-Tovar, D., B. H. Ebel, H. O. Yates, and J. T. Méndez-Montiel. 1986. Insectos de conos y semillas de las coníferas de México/Cone and seed insects of the Mexican conifers. U.S. Dept. Agr. Gen. Tech. Rep. SE-40. 110 pp.
- Hedlin, A. F., H. O. Yates, D. Cibrián-Tovar, B. H. Ebel, T. W. Koerber, and E. P. Merkel. 1981. Cone and seed insects of North American conifers. Joint Publication: Environ. Can., Can. For. Service; U.S. Dept. Agr., For. Service; Sec. Agr. Recursos Hidráulicos, Mexico. 122 pp.
- Heinrich, C. 1956. American moths of the subfamily Phycitinae. U.S. Natl. Mus. Bull. 207. 581 pp.
- Mutuura, A. and E. Munroe. 1972. American species of *Dioryctria* (Lepidoptera: Pyralidae) III. Grouping of species: species of the *auranticella* group, including the Asian species, with the description of a new species. Can. Entomol. 104: 609–625.