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A NEW PHYCITINE SPECIES FROM NEW MEXICO (PYRALOIDEA: PYRALIDAE: PHYCITINAE)

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e-mail: cdferris@uwoyo.edu**ABSTRACT.** The new phycitine species *Lipographis unicolor* is described from Catron Co., New Mexico. Adults and genitalia are illustrated.**Additional key words:** *Lipographis unicolor*, New Mexico, Phycitinae, Pyralidae, Pyraloidea

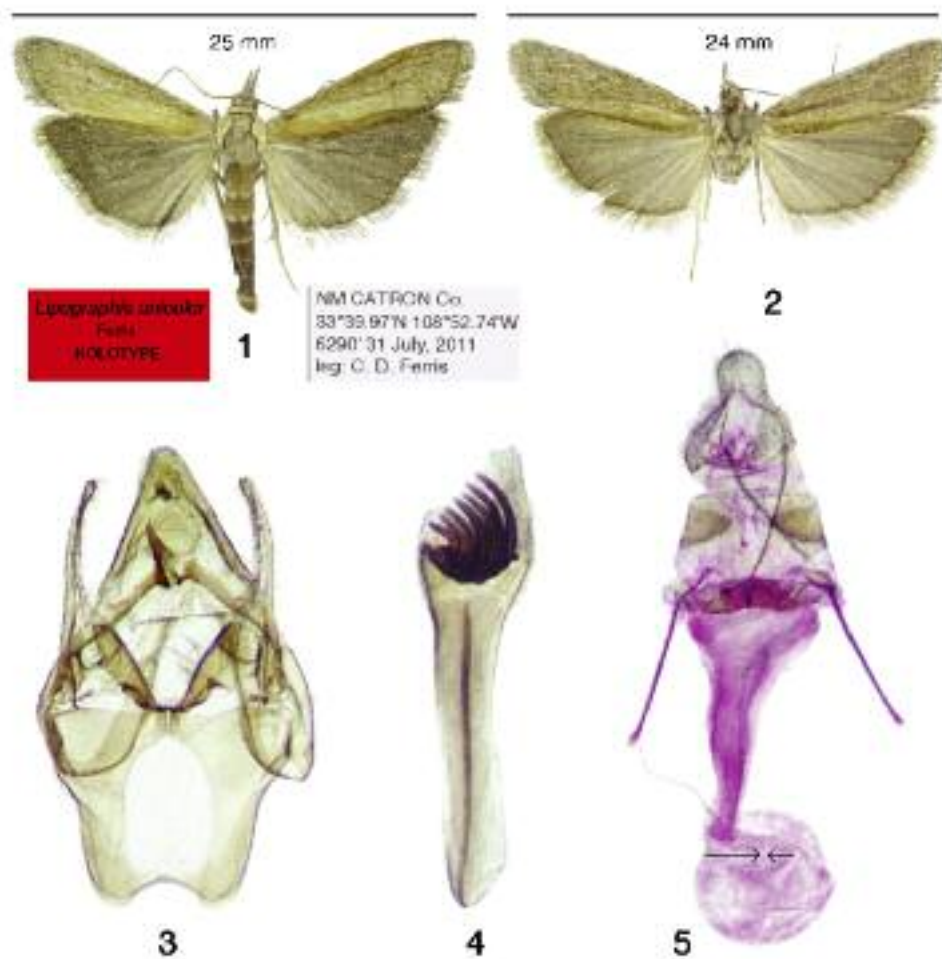
In early August, 2011 I ran UV light traps at a location southwest of Reserve, Catron Co., NM where I had run light traps numerous times in the past. What made 2011 different from previous years was the passage of the massive and destructive Wallow wildfire through the region in June and early July. The area that I visited had not been in the main path of the fire, but was one of many collateral areas of localized fires ignited by airborne burning debris carried by the high sustained winds that persisted through much of the western United States at the time of the fire. The site had sustained total burning of the ground cover and most of the shrubs and scrub oaks, with substantial damage to the crowns of many of the mature ponderosa pine trees. My visit was following the main monsoonal rain period, and dormant seeds had started to sprout (Fig. 7). Moths were surprisingly numerous in my traps considering the fire damage. I found in numbers some species that I had not previously seen in the area (primarily geometrids), and a small series of what looked like a brown crambid that I had never seen before at any location. Subsequent dissection of a male placed the moth in the phycitine genus *Lipographis*, Ragonot. Neunzig (2003) recognized three species in this genus, the adults of which all possess relatively pale and distinctly maculated dorsal forewings: *L. fenestrella* (Packard); *L. truncatella* (Wright); *L. umbrella* (Dyar). The moths in the short series that I collected have uniformly dark golden brown forewings (Figs. 1–2); fresh specimens have a miniscule dark brown dot located about mid-wing. The male genitalia of the three recognized species are quite similar (Heinrich, 1956, figs. 407, 408, 410); Neunzig, 2003, text fig. 92a, b). The female genitalia exhibit greater differences (Heinrich, figs. 896–898); Neunzig illustrated (fig. 92c) only a portion of the female genitalia of *Lipographis fenestrella* (Packard). The male genitalia of the moth that I collected show several differences from the three described species, and the female genitalia show

greater differences. I now propose a new species based on a series of seven males and two females.

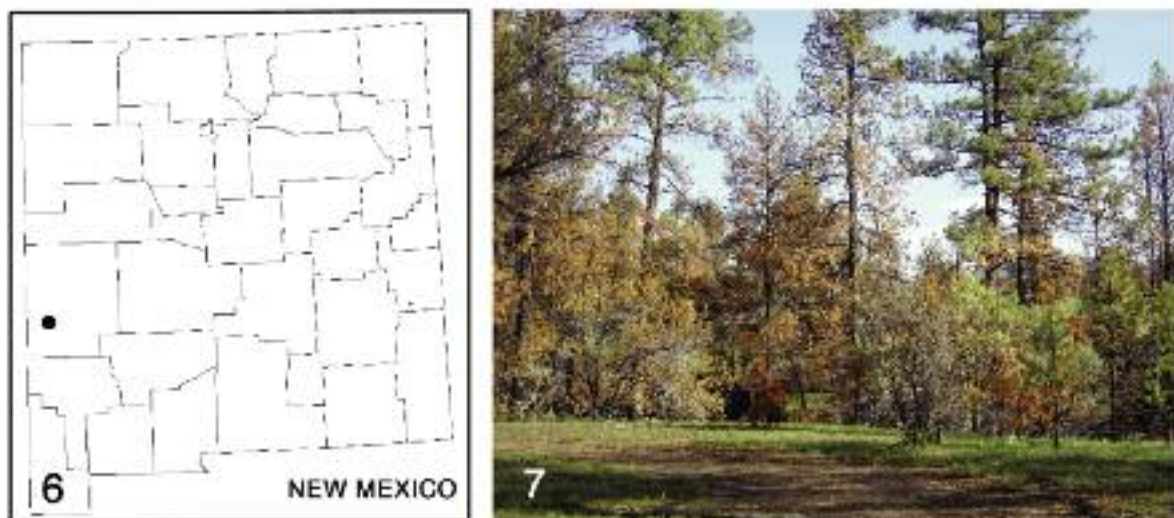
***Lipographis unicolor* Ferris, new species**
(Figs. 1–5)

Diagnosis. The distinctive comb-like cornuti in the aedeagus of the male genitalia (Fig. 4) immediately separate this moth from other members of the Phycitinae and place it in genus *Lipographis*. *L. unicolor* immediately separates from its three paler and clearly maculated congeners by its uniformly dark golden brown forewings and dark brown hindwings.

Description. *Head:* Male antenna with barely visible short sinus, very pale and darker brown speckled; pubescent. Female antenna simple. Haustellum well developed and thickly covered with very pale tan scales. Labial palpi porrect in both sexes, robust, extending approximately 2 mm beyond outer rim of eye, second segment oblique. Maxillary palpi short stout tufts. Ocellus present. Head including frons, palpi, crown, speckled with very pale and darker brown scales, lower and inner portions of labial palpi paler. *Thorax:* Thoracic vestiture similar to head with pronounced pale brown tegulae. Legs nearly white, lightly peppered with pale brown and some darker scales. *Abdomen:* Dorsally brown, ventrally pale tan almost white. *Wings:* Forewing length: males ($n = 7$) 12–13.5 mm, ave. = 12.4 mm; females ($n = 2$) 10.5 mm. Dorsal forewing. Ground color tan, overlaid with numerous brown scales producing a golden brown aspect, especially along the inner margin in the males; females a more uniformly duller brown. In fresh specimens there is a very small spot composed of 6–8 dark brown scales located about midwing vertically and one-third of the wing length from the outer margin. Dorsal hindwing of both sexes uniformly dark brown. Wing fringes pale brownish-tan. Ventral surfaces similar to dorsal wings, but very slightly paler. *Male genitalia* (Figs. 3–4; 2 dissections): Uncus triangular with rounded apex, hoodlike. Apical projection of gnathos with short robust hook. Transtilla absent. Valva about one-half length of genital capsule and very narrow with low pointed lobe at base. Anellus weak with slender arms. Saccus broad and strongly indented. Aedeagus (Fig. 4): Length 0.7 that of genital capsule, broad at apex tapering to base, with sclerotized carina along its full length; vesica armed with comb-like array of 5–7 curved tapered cornuti anchored to a basal plate. *Female genitalia* (Fig. 5, ventral aspect; 2 dissections): Ovipositor lobes basally broad tapering to rounded apex, sparsely hirsute with fine hairs. Apophyses moderately robust and of approximately equal length. Sterigma goblet shaped, broad, open, lightly sclerotized. Ductus bursae a slender weakly scobinate membranous tube tapering from ostium bursae to corpus bursae with



FIGS. 1–5. *Lipographis unicolor*. 1, male holotype with pin labels. 2, female paratype. 3–4, male genitalia. 3, genital capsule, aedeagus removed. 4, aedeagus (enlarged). 5, female genitalia (arrows point to origin of ductus seminalis).



FIGS. 6–7. 6, Distribution map. 7, Type locality habitat on 1 August, 2011 showing recovery and remaining burned vegetation.

length approximately equal to 1.5 times diameter of corpus bursae. Corpus bursae spherical with diameter about equal to width of sterigma; signa absent Ductus seminalis originates from corpus bursae just below junction with ductus bursae, as occurs in many phycitines.

Types. Holotype male (Fig. 1): New Mexico, Catron Co., 33°39.97'N, 108°52.74'W, 6290' (1918m), 31 July, 2011. Deposited in Carnegie Museum, Pittsburgh, PA. Paratypes: 6 m, 2f, same data, in author's collection.

Discussion. In the three previously known species of *Lipographis*, the aedeagus is shorter and broader than in *unicolor* and the sheath lacks a carina. The saccus is not so broad and strongly indented as in *unicolor*. The basal portion of the male antenna in *fenestrella* has a large scale tuft (Neunzig, 2003, text fig. 88b) that is entirely lacking in *unicolor*. The long tapering ductus bursae in *unicolor* differs from the relatively short and nearly uniform diameter ductus bursae found in the other species.

Etymology. The name *unicolor* denotes the nearly uniform brown color of the moths.

Distribution and biology. Known only from the type locality (Fig. 6). Biology remains unknown. The type locality (Fig. 7) is moderately dry oak-conifer forest with *Juniperus*, *Pinus*, and *Quercus* as the principal woody components.

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LITERATURE CITED

- HEINRICH, C. 1956. American moths of the subfamily Phycitinae. United States National Museum Bulletin 207, Smithsonian Institution, Washington, DC. 581 pp.
- NEUNZIG, H. H. 2003. Pyraloidea. Pyralidae (part), Phycitinae (part). In Dominick, R. B., et al., The Moths of America North of Mexico, fasc. 15.5. Allen Press, Inc., Lawrence, Kansas. 338 pp.

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