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NINE NEW SPECIES OF *LACINIPOLIA* (NOCTUIDAE) FROM ARIZONA, CALIFORNIA AND VICINITY

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ABSTRACT. This article formalizes the taxonomic conclusions of the senior author's 1975 successful doctorate dissertation. The nine new species defined in that 1975 dissertation are here formally described in compliance with the rules of the International Code of Zoological Nomenclature (ICZN). The authors have essentially abstracted the original 447 page dissertation and designated types. The new *Lacinipolia* are: *delongi, aileenae, triplehorni, bucketti, baueri, sharonae, martini, fordi*, and *franclemonti*. The purpose of this paper is simply to make these names available to the scientific community and professional researchers by making them ICZN compliant.

Additional key words. Original dissertation, revision of names, Colorado, Oregon, New Mexico, Texas.

BACKGROUND INFORMATION

In the early 1960's. Lloyd Martin, then Curator of Lepidoptera at the Los Angeles County Museum of Natural History (LACM), began a study of the Noctuid genus *Lacinipolia*. In this study, he identified a number of new species that had been collected in the Southwest and Pacific Coast. At that time he proposed changes to the nomenclature of existing species in this genus. Unfortunately, this work was not completed when he retired and subsequently moved to Prescott, Arizona in 1969.

In the 1970's the senior author was a doctoral candidate at Ohio State University. Selman obtained the loan of Martin's specimens and genitalic slides for the purpose of completing this revision. Selman's doctoral dissertation on the genus *Lacinipolia* was completed in 1975, leading to the granting of a Ph.D. This 447 page document, with numerous drawings and photographs, was too long for regular Journals, and no other method of publication was found. Thus, the information contained has only been available on microfilm reproduction, which does not satisfy ICZN requirements for the publication and validation of taxonomic names.

The lack of properly described names for these easily recognized new species has long been a source of frustration to those who prepare regional lists and Lepidopterists' Society Season Summary inputs. To resolve this problem at long last, the junior author has separated the new species descriptions from dissertation and prepared them for formal publication in this paper. A certain amount of revision was required to make each description stand by itself without reference to other parts of the original study not contained here. The designation of paratypes has extended the range of some species beyond that given in the original paper. All type photographs have been re-done as the originals were unsuitable. Since all types were returned to the LACM and are available to the junior author, this was not a problem.

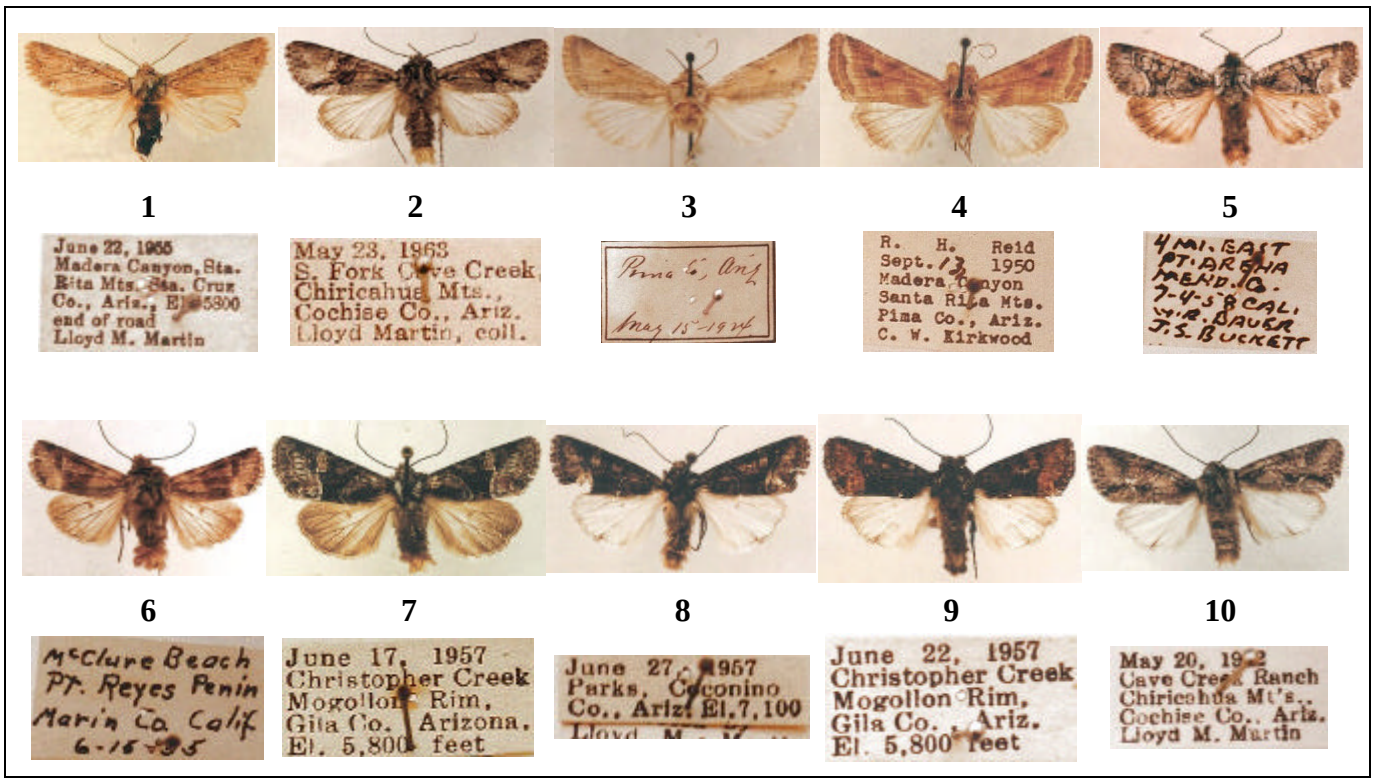
The authors both desire to dedicate this paper to the memory of Lloyd Martin, who provided encouragement and collecting companionship to so many people, and who provided the original study which is the basis of this paper. The manuscript names chosen by Selman have been retained to avoid confusion by those who have long been familiar with these taxa based on the original manuscript. The synonymies and name status changes contained in the revision are not included here. These would require a much more extensive paper, and would thus further delay publication. It is the hope of both authors that a revision of the entire genus may some day be published.

Deposition of type specimens referred to in this paper are: LACM: Los Angeles County Museum of Natural History; USNM: National Museum of Natural History, Smithsonian Institution, Washington, DC.

THE GENUS *LACINIPOLIA*

In 1937, McDunnough erected the genus *Lacinipolia* for a group of related Hadenine species within the genus *Polia*, based on male genitalic characters. In his diagnosis, McDunnough states that these species possess "…a large, very hairy membraneous flap, lightly attached to the median section of the valves near the ventral margin. This flap apparently takes the place of the peniculus, which is well-developed in the true *Polia's* but practically wanting in this group."

The genotype of *Lacinipolia* is *Mamestra illaudabilis* Grote, 1875. In Poole's 1989 Noctuid catalog, 76 species are listed, confined to North, Central and South America. Of these, 58 are found in North America (MONA, 1983 plus Leuschner, 1992). One additional species was described by Mustelin in 2000; this paper adds nine more, so the above totals are increased by ten to 86 and 68 respectively.



Figures 1–10. New *Lacinipolia* species. **Fig. 1.** Paratype ♂: *L. delongi*. **Fig. 2.** Paratype ♂: *L. aileenae.* **Fig. 3.** Holotype ♂: *L. triplehorni.* **Fig. 4.** Allotype ♀: *L. triplehorni.* **Fig. 5.** Paratype ♂: *L. bucketti.* **Fig. 6.** Paratype ♂: *L. baueri.* **Fig. 7.** Paratype ♂: *L. sharonae.* **Fig. 8.** Paratype ♂: *L. fordi.* **Fig. 9.** Paratype ♂: *L. franclemonti.* **Fig. 10.** Paratype ♂: *L. martini.* All photographs by R. Leuschner.

NEW SPECIES DESCRIPTIONS

Lacinipolia delongi Selman and Leuschner, new species.

Description. **Male** (Fig. 1). *Head*: front, gray; palpi, smoky with inner edge and third segment paler; antennae, serrate. *Thorax* and *abdomen*: light gray, concolorous; collar with faint traverse band subapically; many dark scales of the thorax are silvery tipped. *Forewing*: concolorous with thorax and markings somewhat distinct; basal line obsolete, antemedial (AM) line faint, postmedial (PM) line bent outwards around reniform, then straight to inner margin, denticulate on veins; subterminal line vague, marked by pale scales; reniform upright, constricted in the middle, and black outlined; orbicular oblique; claviform long, extending from AM to PM lines, concolorous. *Hindwing*: dull smoky, paler at base with concolorous fringes. **Female**. Similar to male but darker and more contrasting.

Male genitalia. As shown in Figure 11.

Types. All: ARIZONA. *Holotype* ♂: Santa Cruz County, Madera Canyon, Santa Rita Mts., 1770 m., 22 June 1955, leg. Lloyd M. Martin. Genitalia on slide 61-4, L.M.M. *Allotype* ♀: Cochise County, Upper Camp, Pinery Canyon, Chiricauhua Mts., 26 June 1955, leg. Lloyd M. Martin. Genitalia on slide 503 L.M.M. Paratypes: 4♂♂, 1♀. 2♂♂, same data as holotype, leg. L.M. Martin & W. Rees; 1♂, Yavapai County, Prescott, 14 June 1970, leg. R. Leuschner; 1♂, Coconino County, Oak Creek Canyon, 11 July 1988, leg. R. Leuschner. 1♀Cochise Co., Pinery Canyon, 2075 m., 13 August 1964, leg. R. Leuschner. The holotype, allotype, and 1 paratype are in the LACM. One paratype in R. Leuschner collection.

Diagnosis. Superficially similar to *L. prognata*, but males have distinctly serrate antennae, while *prognata* has simple or weakly serrate antennae. The orbicular is oblique in *delongi* and rounded in *prognata*; *delongi* has a basal dash while *prognata* has none.

Distribution. *L. delongi* is known only from Arizona.

Etymology. This taxon is named for Dr. Dwight M. Delong, in recognition of his help during the four years leading to the senior author's doctorate.

Lacinipolia aileenae Selman & Leuschner, new species.

Description. **Male** (Fig. 2). *Head*: palpi, fuscous, much lighter on inner lateral sides; front, luteous with dark bar extending between the eyes; antennae, simple. *Thorax*: admixture of gray, silvery and yellowish scales. *Collar*: same color as thorax, with trace of a transverse median band. *Forewing*: ground color same as thorax, basal line barely traceable, denticulate, antemedial line geminate, pale filled, nearly straight from costa to orbicular, then curved under obicular to inner margin, with an outward tooth at vein 2A; postmedial line geminate, pale filled, sinuate, the outer line obsolescent on upper half, curved inward below reniform; reniform black outlined, incomplete at top, with contrasting pale filling, not constricted at middle; orbicular oblique, with pale filling; claviform long, black outlined, extending from AM to PM line; basal dash long and distinct; subterminal area light below apex to vein Cu2, a dark patch fills the tornal area from vein Cu2 to vein 2A, from PM line to outer margin. *Hindwing*: sordid, gradually paler toward base, veins contrastingly dark; fringe is cream with median wavy band. **Female**. Similar to male, but darker in coloration, causing markings to be more contrasting.

Male genitalia. As shown in Figure 12.

Types. All: ARIZONA, Cochise Co. *Holotype* ♂: South Fork Cave Creek, Chiricauhua Mts., 23 May 1962, leg. L.M. Martin, genitalia on slide 570 L.M.M. *Allotype* ♀: same location as holotype, 21 May 1962, genitalia on slide 572 L.M.M. *Paratypes*: 4♂♂. 3♂♂, same location and data as holotype; 1♂, Cochise Co., 28 April 1992, leg. N. McFarland. The holotype and allotype are deposited in the LACM. Paratypes in LACM and R. Leuschner.

Diagnosis: The horizontal black mark near the tornus of the forewing is quite distinctive, and separates *aileenae* from all other Lacinipolia known to occur in western North America.

Distribution. *L. aileenae* is known only from southern Arizona.

Etymology. *L. aileenae* is named for the senior author's mother, whose financial and moral support through eight years of college were much appreciated.

Lacinipolia triplehorni Selman & Leuschner, new species.

Description. Male (Fig. 3). *Head*: palpi, yellowish brown; antennae, simple, pubescent. *Front, thorax* and *abdomen*: yellowish brown with only a slight sprinkling of a few dark hairs. *Collar*: similar, with trace of a transverse median band. *Forewings*: concolorous with body, marking hardly traceable. *Hindwings*: nearly immaculate with only a trace of yellowish brown scales along outer margin and veins. **Female** (Fig. 4). Much darker than male with most lines traceable. *Forewings*: subterminal line is quite wavy; postmedial line is sinuate, but does not touch the reniform. *Hindwings*: white with yellowish brown along outer margin and veins.

Male genitalia. As shown in Figure 13.

Female genitalia. As shown in Figure 21.

Types. All: ARIZONA. *Holotype* ♂: Pima Co., Babonquivari Mts., 15 May 1924 (no collector), genitalia on slide 639 L.M.M. *Allotype* ♀: Santa Cruz Co., Madera Canyon, 13 September 1950, leg. H.R. Reid, C.W. Kirkwood, genitalia on slide 642 L.M.M. *Paratypes*: 34 specimens. 7, same data as holotype; 15, same data as holotype except (2) 1-15 June 1924, (3) 1-15 September 1923, (10) 15-30 September 1923, leg. O.C. Poling; 2, same as allotype; 2, Santa Cruz Co., Pena Blanca, Oro Blanca Mts., 21-27 September 1963. leg. L. Martin; 5, Cochise Co., Ash Canyon, (3) 23-30 September 1990, leg. N. McFarland, (2) 28 April 1992, leg R. Leuschner; 1, Portal, Chiricahua Mts., 3 June 1964, leg. M. Cazier; 2, Pueblo del Sol. Huachuca Mts., 12 May 1982, leg. R. Wielgus. Holotype and Allotype in LACM; Paratypes in LACM, USNM, and personal collection of R. Leuschner.

Diagnosis. *L. triplehorni* is similar to *L. erecta*, but the male is much lighter - so light that the maculation is hardly traceable. The female of *L. erecta* has a less sinuate subterminal line, and the postmedial line is quite close or touches the lower edge of the reniform, where in *triplehorni* it is distinctly separated. In the male genitalia, the clasper of *triplehorni* is large and robust, where in *erecta* the clasper is thin and narrow.

Distribution. *L. triplehorni* is known only from Arizona.

Etymology. This species is named for Dr. Charles A. Triplehorn, the senior author's graduate advisor.

Lacinipolia bucketti Selman & Leuschner, new species.

Description. Male (Fig. 5). *Head*: palpi, ash gray with third segment lightest; front: ash gray with dark band extending between the eyes; antennae, simple; *Thorax* and *abdomen*: light gray with many scales silvery tipped. *Collar:* ash gray with narrow transverse median band. *Forewings*: light gray with most lines geminate, pale filled, traceable but not contrasting; basal line present; antemedial line oblique to vein Cu-M, then outwardly convex to inner margin with a slight tooth on vein 2A; postmedial line sinuate, denticulate; reniform with dark outline and light silvery filling; orbicular oblique, roundish, with dark outline but filling not contrasting; claviform concolorous with dark outline; subterminal line indicated by a difference in shade only. The median area of the wing is darkest, while basal and subterminal area are silvery, basal dash short but distinct; fringe concolorous. *Hindwings*: uniformly dull luteous, with a lunule at end of discal cell; veins slightly darker; fringe light with a trace of transverse median band. **Female**. Slightly darker overall than male, but median area not contrastingly dark; reniform filled with ground color, not silvery.

Male genitalia. As shown in Figure 14.

Types. *Holotype* ♂: CALIFORNIA: Mendocino Co., 4 miles E. of Point Arena, 5 July 1958, leg. W.R. Bauer, J.S. Buckett, genitalia on slide 61-410 L.M.M. *Allotype* ♀: CALIFORNIA: same location and collector as holotype, 18 July 1958, genitalia on slide 772 L.M.M. *Paratypes*: 40 specimens. CALIFORNIA: 1, same data as holotype; 2, Mendocino Co., Ft. Bragg, 24 August 1973, Leg. R. Leuschner; 6, Del Norte CO., Crescent City, 11 August 1971and 23 August 1962, leg. Leuschner; 21, Humboldt Co., Arcata, Beach Pine Woods, 8-19 July 1972, leg. J.W. Johnson; OREGON: 10, Curry Co., Humbug Mtn. State Park,22 July 1962, leg. R. Leuschner. The holotype and allotype are in the LACM; Paratypes in LACM and personal collection of R. Leuschner.

Diagnosis. *L. bucketti* is quite similar to *L. olivacea*, but has silvery terminal area where *olivacea* does not. From *L. sharonae*, which also has a silvery subterminal area, *bucketti* is separated by being smaller with a median area that is not as dark. In the male genitalia, the clasper of *bucketti* is tapered to a point, while in *sharonae* it is uniformly thick throughout its length.

Distribution. *L. bucketti* has been found in coastal areas of northern California and Oregon.

Etymology. *L. bucketti* is named for Steve Buckett, who collected the types and made significant contributions to the study of western Noctuidae.

Lacinipolia baueri Selman & Leuschner, new species.

Description. Male (Fig. 6). *Head*: front & palpi, light reddish brown; antennae, simple. *Thorax* and *abdomen*: light reddish brown; collar, light brown with trace of median band. *Forewings*: light reddish brown with ordinary lines indicated by shades only – no dark scales, basal line not traceable, antemedial line nearly straight to vein 2A, then inwardly oblique, slightly toothed on some veins; postmedial line sinuate for its entire length, slightly denticulate; subterminal line wavy; reniform upright and indicated largely by the paler filling; orbicular and claviform obsolescent; fringe concolorous. *Hindwings*: same shade as forewing but slightly paler toward the base. **Female**. Slightly darker than the male causing maculation to be more contrasting; reniform more prominent, with white outline; orbicular slightly traceable; basal line stronger and wavy.

Male genitalia. As shown in figure 15.

Types. All: CALIFORNIA. *Holotype* ♂: Marin Co., Point Reyes peninsula, McClure Beach, 15 June 1960, leg. J.S. Buckett, genitalia on slide 61-411 L.M.M. *Allotype* ♀: same location as holotype, 17 June 1958, leg. W.R. Bauer & J.S. Buckett, genitalia on slide 770 L.M.M. *Paratypes*: 6 specimens. 1, same location as holotype 15 June 1955; 4, same location as holotype, 12 July 1956, leg. R. Leuschner; 1, San Luis Obispo Co., Cambria Pines, 20 July 1962, leg. R. Leuschner. Holotype and allotype are in the LACM; paratypes in LACM and collection of R. Leuschner.

Diagnosis. Although the forewing maculation of *L. baueri* is quite similar to several other species in the genus (e.g. *L. olivacea*), the light reddish brown coloration of the forewings, with the lack of any black scales on the ordinary lines, will easily distinguish it.

Distribution. *L. baueri* is found in coastal California from Marin Co. south to San Luis Obispo Co. in isolated conclaves of coastal pines and cypress.

Etymology. *L. baueri* is named for William R. Bauer of Petaluma, CA who, with Steve Buckett, made important collections of moths from coastal and northern California, and was a collecting companion of the junior author.

Lacinipolia sharonae Selman & Leuschner, new species.

Description. Male (Fig. 7). *Head*: front, ash gray with some silvery tipped hairs; palpi, dark ash gray, only slightly lighter inside laterally, but tip of third segment distinctly lightest; antennae, simple, pubescent. *Thorax* and *abdomen:* ash gray with some hairs silvery tipped; collar, basal half with yellowish tinge, above with silvery transverse median band. *Forewings*: concolorous with thorax with overall silvery tinge, lines geminate and pale filled; basal line barely traceable, wavy; antemedial line starts one-third along costa from base, is quite outwardly oblique to vein Cu2, then makes a convex curve to mid-point of inner margin; the median area is darker than the rest of the wing; reniform distinct, contrastingly light, a rounded vertical oblong with thin lines in the center; obicular oval with dark outline but not paler than rest of median area; postmedial line sinuate, first outwardly convex, then concave to inner margin; beyond the median area there is silvery white with dark-lined veins in most specimens, with this silvery area extending to the outer margin in some examples, while in others, it is confined between the PM and subterminal lines; claviform concolorous, dark outlined; basal dash short, broad; fringe concolorous. *Hindwings*: sordid, only slightly lighter toward base, with veins slightly darker; fringe concolorous with traceable median line. **Female.** *Forewings*: distinctly darker than the male, differing in that the median area is lighter, not darker, than the rest of the wing; the reniform has a dark filling followed by pale, then dark, outlines. *Hindwings*: slightly darker with the basal half of the fringe sordid.

Male genitalia. As shown in figure 16.

Types. All: ARIZONA. *Holotype* ♂: Gila Co., Christopher Creek, Mogollon Rim, 1770 m., 22 June 1957, leg. L.M. Martin, R.J. Ford & W.A. Rees, genitalia on slide 61-72 L.M.M. *Allotype* ♀: same location as holotype, 27 June 1957, genitalia on slide 682 L.M.M. *Paratypes*: 7♂♂, 2♀♀. 2♂♂, same data as holotype; 3♂♂, 1♀, Apache Co., Greer, White Mts., 2530 m., 26 June 1968, leg. R. Leuschner; 1♂, Cochise Co., Barefoot Park, 2440 m., 1 July 1992, leg. K.M. Leuschner; 1♂, Cochise Co., Rustler Park, 2590 m., 16 July 1998, leg. R. Leuschner & K. Richers;

1♀, Pima Co., Summerhaven, Catalina Mts., 2500 m., 1 June 1997, leg R. Leuschner. The Holotype and allotype are in the LACM; paratypes are in the LACM and R. Leuschner collection.

Diagnosis. *L. sharonae* is similar *to L. olivacea* and *davena*. The highly oblique AM line with a sharp curve to the inner margin separates *sharonae* from both of these, where the AM line is greatly rounded. *L sharonae* is larger (27-29 mm wingspan) than *olivacea* (23-26 mm). *L davena* has a large light red-brown patch at the tornus which is replaced by a more extensive silvery white area in *sharonae*.

Distribution. Thus far, *L. sharonae* is known only from northern Arizona at elevations above 1700 meters.

Etymology. *L sharonae* is dedicated to the senior author's wife, Sharon A. Selman, whose support was vital to this study.

Lacinipolia fordi Selman & Leuschner, new species.

Description. Male (Fig. 8). *Head*: front, with a dark spot near each eye; palpi, an admixture of cream, brownish and black scales, slightly lighter inside; antennae, simple and pubescent. *Thorax* and *abdomen*: blackish brown with some light gray-tipped scales; collar with a black band across the top. *Forewings*: ground color blackish brown like thorax with silvery tinge; basal line obsolescent, other lines geminate; antemedial line concave on upper half, convex on lower; postmedian line straight, not denticulate; subterminal line broadly waved, indicated by a few pale scales but more so by the difference in the shades of the terminal and subterminal areas, and marked with white scales above anal angle; subterminal area lightest, the silvery tinge especially noticeable; reniform upright, black outlined, silvery filled; orbicular roundish with incomplete black outline, somewhat filled; claviform concolorous, with irregular outline; basal dash indistinct; fringe concolorous. *Hindwings*: white with scattered sordid scales along outer margin and some veins; fringe white, with trace of a dark line. **Female.** *Forewings*: darker than male. *Hindwings*: as in male. The white of the subterminal line at the anal angle and filling on lower portion of postmedial line contrast markedly against the darker background.

Male Genitalia. As shown in figure 17.

Female Genitalia. As shown in figure 22.

Types. *Holotype* ♂: ARIZONA: Gila Co., Christopher Creek, Mogollon Rim, 1770 m., 17 June 1957, leg. L.M. Martin, R.J. Ford & W.A. Rees, genitalia on slide 61-74 L.M.M. *Allotype* ♀: ARIZONA: Coconino Co., Parks, 2165 m., 27 June 1957, leg. L.M. Martin, R.J. Ford, W.A. Rees, genitalia on slide 763 L.M.M. *Paratypes*: 56 specimens. ARIZONA: 1, same data as holotype; 41, same data as allotype; 6, Coconino Co., Fort Meadows, 9 July 1959, leg W.A. Hammer; COLORADO: 7, Teller Co., Florissant, Big Springs Ranch, 19 June – 8 July 1960, 1962, leg. T.C. Emmel. The holotype, allotype and paratypes are in the LACM.

Diagnosis. *L. fordi* and *L. franclemonti* are dark brown species unlike any other species in the genus in North America. *L. fordi* lacks the reddish brown suffusion found on the forewings of *L. franclemonti*.

Distribution. *L. fordi* is found at higher elevations in Arizona and Colorado.

Etymology. *L. fordi* is named for Robert Ford, a frequent collecting companion of Lloyd Martin on trips to Arizona, including the 1957 trip when the types were collected.

Lacinipolia franclemonti Selman and Leuschner, new species.

Description. Male (fig. 9). *Head:* palpi, uniformly dark ash; front, concolorous with palpi, no trace of typical dark spot near the eyes; antennae, simple, somewhat bristled. *Thorax:* dark ash but with overall reddish-brown tinge; collar, with narrow transverse band. *Forewing:* color like thorax but reddish-brown tinge more prominent, especially in subterminal area; most lines blurred but traceable, geminate; basal line obsolescent; antemedial line straight, deeply denticulate, brownish filled; postmedial line dark, slightly convex around reniform, then oblique to inner margin, followed by brown outline, denticulate; subterminal line traceable as a difference in shades, broadly waved, dentate on some veins, ending at anal angle; some veins in subterminal area marked with black scales; reniform upright, kidney shaped, pale followed by dark thin outline, reddish-brown filled; orbicular oval, oblique, otherwise similar to reniform; claviform obsolescent; fringe concolorous with terminal area. *Hindwing:* white with scattered sordid scales along outer margin and veins; fringe white, with fragments of a medial band. **Female.** *Forewings:* slightly darker than male. *Hindwings:* white, with sordid scales at least on distal third, pale at base; fringe with distinct median band.

Male Genitalia. As shown in Figure 18.

Types. All: ARIZONA: *Holotype* ♂: Gila Co., Christopher Creek, Mogollon Rim, 1770 m., 22 June 1957, leg. L.M. Martin, R.J. Ford, & W.A. Rees, genitalia on slide 61-77 L.M.M. *Allotype* ♀: same as holotype, 18 June 1957, genitalia on slide 766 L.M.M. Paratypes: 94 specimens. 93, same data as holotype except 17-22 June 1957; 1, Coconino Co., Oak Creek Canyon, 1525 m., 13 June 1970, leg. R. Leuschner. Holotype and Allotype in LACM. Paratypes in LACM and collection of R. Leuschner.

Diagnosis. *L. franclemonti* is similar only to *L. fordi* in the genus, but *franclemonti* has a reddish brown suffusion which is lacking in *fordi*.

Distribution. *L. franclemonti* has only been found at higher elevations above 1500 m. in Arizona thus far.

Etymology. This new species is named for Dr. J.G. Franclemont, a leading authority on the Noctuidae who provided help to the senior author on numerous occasions.

Lacinipolia martini Selman and Leuschner, new species.

Description. Male (Fig.10). *Head:* front, luteous with dark spot near each eye; palpi, cream suffused with blackish scales on outer lateral sides; antennae, simple, pubescent. *Thorax:* admixture of cream, blackish and brown scales; collar, with prominent black transverse median band. *Abdomen:* darker brown-black than the thorax. *Forewing:* heavily suffused with dark scales with a reddish brown tinge; antemedial line not noticeably dentate except on vein 2A, outwardly oblique from costa to Cu2, then inwardly oblique to inner margin; postmedial line nearly straight for its length, beginning near apex and running obliquely to the inner margin, distinctly dentate; basal line obsolete; reniform upright, not constricted, pale filled; orbicular oval, oblique, pale filled; claviform concolorous, with dark outline; fringe concolorous. *Hindwing:* immaculate. **Female**. *Forewings*: more contrasting than male.

Male Genitalia. The apex of the aedaeagus (base of vesica) is shown in figure 19.

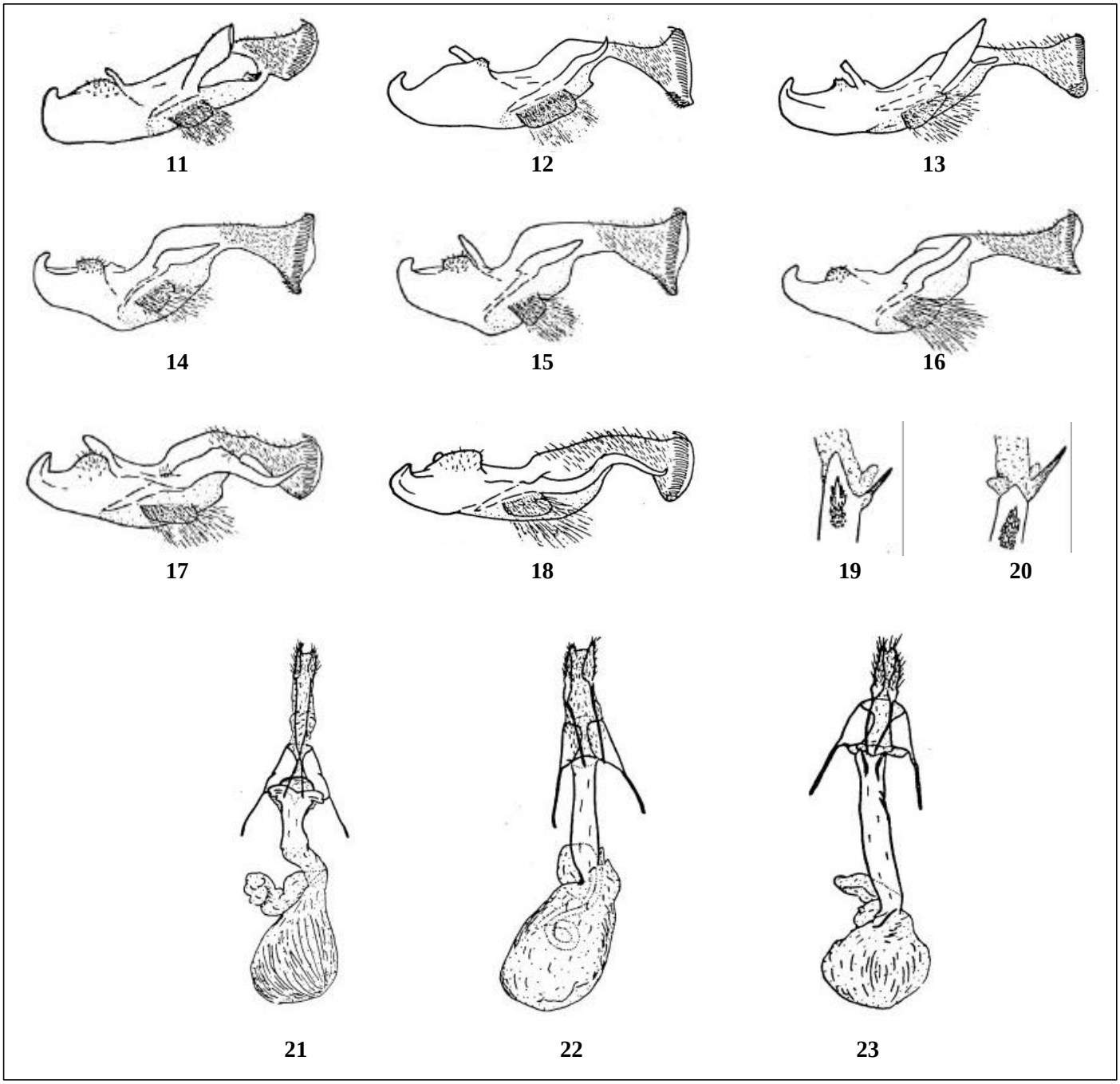
Female Genitalia. As shown in Figure 23.

Types. *Holotype* ♂: ARIZONA: Pima Co., Baboquivari Mts., 23 April 1938, leg. J.A. Comstock, genitalia on slide 61-398 L.M.M. *Allotype* ♀: ARIZONA: Gila Co., Jones Water Camp nr. Seneca, 18 May 1961, leg. R. Reid & W. Rees, genitalia on slide 749 L.M.M. *Paratypes*: 293 specimens. ARIZONA: Pima Co.: 2, same site as holotype, April and November; 9, Sells P.O., 15 April - 10 May 1923; 78, same site as holotype, 1 Sept. - 30 November 1923; 7, Catalina Mts., Peppersauce Cyn., 4 June 1935, leg. J.A. Comstock. Gila Co.: 11, same data as Allotype; 2, Payson, E. Verde R., 26 Oct. 1959, leg. L. Martin, & F. Truxal; 2, Mogollon Rim, 26 June 1957, leg. J.Comstock & W. Rees; 1, Sierra Anche Exp. Sta., 3 June 1956, leg. R. Leuschner & C. Hill. Santa Cruz Co.: 97, Madera Cyn., April - September, leg. L. Martin, C. Kirkwood, T. Davies & R. Leuschner; 9, Oro Blanco Mts., Pena Blanca, 27 May 1963, leg. L. Martin; Maricopa Co.: 3, Wickenburg, 1 June 1959, leg. K. Stange. Cochise Co.: 36, Chiricahua Mts, Cave Creek, May - Sept., leg. Martin, Kirkwood & R. Leuschner; 2, Willcox, 10 May 1993, leg. K.M. Leuschner, 7 Oct.1955, leg. Martin; 3, Dragoon Mts., Cochise Stronghold, 11 Sept. 1958, leg. Menke & Stange; 2, Portal, 3 June 1964, leg. R. Leuschner; 2, Huachuca Mts., Pueblo del Sol, 12 May 1986, leg. R. Wielgus; 1, Ash Canyon, 5 May 1984, leg. Leuschner & McFarland. NEW MEXICO: Eddy Co.: 1, Whites City, 1160 m., 6 Sept.1982, leg. R. Leuschner; 1, Dona Ana Co.: Las Cruces, 3 May 1992, leg. R. Leuschner. TEXAS: Randall Co.: 5, Palo Duro Cyn., 11 May 1961, leg. L. Martin. Jefferson Davis Co.: 18, Davis Mts. St. Pk., 14 May 1962, leg. L. Martin & 8 May 1993, Leg. R. Leuschner; 1, Alpine, 7-15 May 1926. The holotype and allotype are in the LACM; paratypes are in the LACM, NMNH and personal collection of R. Leuschner.

Diagnosis. The base of the vesica of *L. martini* differs from that of *L .quadrilineata* Grote (Fig. 20) in that *martini* has one diverticulum, and the spine at the tip of the aedaeagus is only slightly longer than the aedaeagus is wide. In *quadrilineata*, there are two diverticula and the spine is twice as long. The forewing of male *quadrilineata* has the basal area (out to the diagonally sloping AM line) noticeably paler than the median area, where in *martini* the basal area is only slightly lighter or the same shade as the median area.

Distribution. *L. martini* occurs throughout Arizona, and ranges through New Mexico into West Texas, replacing *L. quadrilineata* which is confined to California and the Pacific Coast.

Etymology. This species is named for the late Lloyd M. Martin, who made the original study of the genus *Lacinipolia* and first recognized all the new species described in this paper.



Figures 11-23. Genitalia of new *Lacinipolia* species. **Fig. 11.** Right valve of ♂ *L. delongi*. **Fig. 12.** Right valve of ♂ *L. aileenae*. **Fig. 13.** Right valve of ♂ *L. triplehorni*. **Fig. 14.** Right valve of ♂ *L. bucketti*. **Fig. 15.** Right valve of ♂ *L. baueri*. **Fig. 16.** Right valve of ♂ *L. sharonae*. **Fig. 17.** Right valve of ♂ *L. fordi*. **Fig. 18.** Right valve of ♂ *L. franclemonti*. **Fig. 19.** Apex of aedaeagus (base of vesica) of ♂ *L. martini*. **Fig. 20.** Apex of aedaeagus (base of vesica) of ♂ *L. quadrilineata*. **Fig. 21.** Genitalia of ♀ *L. triplehorni*. **Fig. 22.** Genitalia of ♀ *L. fordi*. **Fig. 23.** Genitalia of ♀ *L. martini*.

LITERATURE CITED

GROTE, A.R. 1873. Descriptions of Noctuidae Principally From California. Bull. Buffalo Soc. Nat. Hist. Vol. I, pp. 129-155 (P.140, desc. of *L. quadrilineata*).

_____. 1875. Preliminary List of the Noctuidae of California. Canad. Ent., Vol.7, Pp.25-28 (P.27, desc. of *L. illaudabilis*).

HODGES, R.W. et al. 1983. Checklist of the Lepidoptera of America North of Mexico. E.W. Classey, Ltd., London. 284 pp.

LEUSCHNER, R. 1992. An Overlooked Record of *Lacinipolia rodora* (Noctuidae) from the United States. J. Lepid. Soc., Vol. 46, pp. 79-80.

McDUNNOUGH, J. 1937. Notes on North American Noctuid Genera. Canad. Ent., Vol. 69, pp. 40-47.

MORRISON, H.K. 1874. Descriptions of New Noctuidae. Proc. Boston Soc. Nat. Hist., Vol. 17, pp.131-166 (P. 143, desc. of *L. olivacea*).

MUSTELIN, T., R.H. LEUSCHNER, K. MIKKOLA, & J.D. LAFONTAINE. 2000. Two New Genera and Thirteen New Species of Owlet Moths (Noctuidae) Mainly From Southern California. Proc. San Diego Soc. Nat. Hist., No. 36. 18 pp.

POOLE, R.W. 1989. Lepidopterum Catalogus (new series), Fascicle 118: Noctuidae. E.J. Brill, Leiden, The Netherlands. 1314 pp. (in three volumes).

SELMAN, C.L. 1975. Revision of the Genus *Lacinipolia* McDunnough of America North of Mexico (Lepidoptera: Noctuidae). The Ohio State University, Ph.D. in Entomology, 1975.

SMITH, J.B. 1891. Contributions Toward a Monograph of the Noctuidae of Temporate North America: Revision of the Species of *Mamestra*. Proc. USNM, Vol. 14, pp. 197-276 (many now in *Lacinipolia*).

_____. 1901. Notes on *Mamestra olivacea* Morr. and Its Allies. Trans. Am. Ent. Soc. Vol. 27, pp. 230-240 (P. 237, desc. of *L. davena*).

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