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## A NEW GENUS AND FIVE NEW SPECIES OF CALIFORNIA TEPHRITIDAE

(Diptera)

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While identifying specimens in a study of the tephritid fauna of California, the authors found the new species and record presented below. *Myoleja unifasciata*, n. sp., is the third North American member of the genus and the first record of the genus in California; *Aciurina trilitura*, n. sp., is the tenth North American and the seventh Californian *Aciurina*; *Procecidochares stonei*, n. sp., is the eighth North American *Procecidochares* and the fifth California one to be described; *Neaspilota wilsoni*, n. sp., the eighth North American and the third California one; *Urophora timberlakei*, n. sp., is the third California species of *Urophora* to be recorded—the species in North America have never been adequately reviewed; and *Cryptotreta*, n. gen., has been erected for *Eurosta pallida* Cole, here recorded for the first time in California and the United States. Where pertinent, new keys to species, or modifications of existing ones, are presented to aid the user in distinguishing the new forms described herein.

The authors wish to extend their sincere thanks to the following institutions, the collections of which were so kindly made available for study (abbreviations used throughout the text are indicated in parentheses): California Academy of Sciences, San Francisco (CAS); California Department of Agriculture, Sacramento (CDA); California Insect Survey, University of California, Berkeley (CIS); University of California, Davis (UCD); University of California, Riverside (UCR); and the U.S. National Museum, Washington, D.C. (USNM). Specimens from the senior author's collection are indicated by (FLB).

### *Myoleja unifasciata* Blanc and Foote, new species

(Fig. 1)

*Male*.—*Head*. Brownish yellow, with face lighter than other parts; about 1.5 times as high as long; eye 2.0 times as high as wide; cheek narrow; frons 1.25 times as long as width at vertex, covered with fine,

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black hairs; lunule shallow; face distinctly widened below, in lateral view receding from antennal base to anterior oral margin. All head hairs black; three of four pairs fine lower fronto-orbitals, with some smaller hairs interspersed among them; two pairs reclinate and slightly diverging upper fronto-orbitals placed distinctly inside the line of lowers; one pair diverging proclinate ocellars about as long as posterior upper fronto-orbitals; hairs along oral margin anterior to genal bristle fairly well developed. Antennae orange yellow, arista distinctly yellow at base. *Thorax*. Subshining and entirely brownish yellow except for a black triangular mark occupying median two-thirds of sternopleuron, a small dark area immediately anterior to halter, and a narrow bright yellow stripe from humerus to wing base. Mesonotum rather densely covered by short but rather stout black setae; dorsocentrals black, placed directly in a line drawn between the supra-alars. Scutellum somewhat lighter yellow than mesonotum, with two well developed pairs scutellars. Halteres yellow. Legs, including coxae, entirely orange-yellow or yellow, with a tendency toward apical darkening of all femora. Wing (fig. 1) wide, rather blunt at tip, heavily infuscated with dark brown and with the following light areas; two in costal cell attaining vein  $sc$ ; a blunt-tipped triangle immediately distad of stigma crossing vein  $R_{2+3}$  and ending upon vein  $R_{4+5}$ ; a subapical arc originating in cell  $R_1$  about halfway between apex of stigma and apex of cell  $R_1$ , following curve of wing tip and ending in apex of cell 2nd  $M_2$ , wider than dark band between it and wing margin; a second arc parallel to the foregoing one, originating upon vein  $R_{4+5}$  and terminating near margin of cell 2nd  $M_2$  proximally; a suggestion of a light spot in distal two-thirds of cell 1st  $M_2$  halfway between veins  $M_{1+2}$  and  $M_3+Cu_1$ , thence in a very narrow streak to subcosta; cell 2nd  $A$  almost entirely hyaline. Stigma about as long as proximal width; vein  $r-m$  connected to vein  $M_{1+2}$  much closer to vein  $m$  than its own length; cell 1st  $A$  drawn to a distinct point apically. *Abdomen*. Dark brown, the first two terga with a tendency toward more yellow than remainder; all terga rather densely clothed with fairly long, black hairs.

*Female*.—Not known.

Types (all California).—*Holotype male*, CONN CREEK, NAPA COUNTY, 23-IV-1949, W. W. Middlekauff (U.S. National Museum No. 65400). Paratypes: Same data as holotype (4♂♂, USNM); hills back of Oakland, 13-V-1951, W. C. Bentinck (1♂, UCD; 5♂♂, CIS); Oakland, 10-V-1937, E. S. Ross (2♂♂, CAS); Santa Monica Mts. with number 310519V1221 (1♂, UCLA); Deer Creek, Tehama County, 6-VI-1949, R. M. Bohart (1♂, UCD).

Discussion.—*M. unifasciata* is easily separated from *nigricornis* (Doane) and *limata* (Coquillett), the only other North American species of *Myoleja*, by the presence of a single costal hyaline wedge in cell  $R_1$  distad of the stigma and by the absence

of a hyaline spot near the apex of cell 1st  $M_2$ . A key to the three known North American species of *Myoleja* is presented below:

1. Only one hyaline costal wedge present in cell  $R_1$  distad of stigma;  
no hyaline spot near apex of cell 1st  $M_2$ .....*unifasciata* Blanc & Foote
- Two hyaline costal wedges present in cell  $R_1$  distad of stigma;  
hyaline spot present near apex of cell 1st  $M_2$ .....2
2. Continuous submarginal hyaline arc occupying cells  $R_3$ ,  $R_5$ , and  
apex of cell 2nd  $M_2$ ; lower fronto-orbitals of male slender and  
sharply pointed.....*limata* (Coquillett)
- No such submarginal hyaline arc in area indicated above; lower  
fronto-orbitals of male enlarged and with blunt apices.....  
.....*nigricornis* (Doane)

***Aciurina trilitura* Blanc and Foote, new species**

(Fig. 2)

*Female*.—*Head*. Distinctly higher than long; in profile cheek 0.30 to 0.35 times as high as eye; frons yellow, about 2.0 times as wide as one eye; length from vertex to lunule about equal to width at vertex; face whitish pollinose, antennal fossae very shallow, in lateral view not concave or noticeably projecting anteriorly at oral margin; antenna 0.45 times as long as face, third segment somewhat angular at antero-apical margin but not projecting into a distinct point. Two or three pairs lower fronto-orbitals; two pairs upper fronto-orbitals, the posterior pair whitish, ocellar as long as longest lower fronto-orbitals; inner vertical dark, outer vertical whitish; post-orbitals entirely white; genal bristle hardly longer or darker than a group of three to ten long, stout, blunt, whitish hairs situated at lower angle of eye. *Thorax*. Mesonotum brown, densely pollinose, without pattern, covered by numerous blunt, thick, white setae separated from each other by distances of less than half the average seta length except in immediate vicinity of bases of notopleural and anterior supra-alar bristles, which are bare; dorsocentrals much closer to suture than to a line between anterior supra-alars; scutellum pollinose, brown to yellow with very slight darkening at extreme base, especially laterally; one pair scutellar bristles; post-scutellum yellowish dorsally, black ventrally, as is middle third of metanotum; lateral third of metanotum and pleural terga yellowish pollinose except sternopleuron, which is mostly black. Legs entirely brownish yellow, shining. Halter reddish yellow, the knob concolorous with stem. Wing (fig. 2) narrow, 2.5 times as long as greatest width; a distinct bulla present in cell  $R_5$ , around which vein  $R_{4+5}$  is distinctly arched; stigma narrow, 5.0 times as long as greatest width; vein r-m separated from vein m by a distance equalling 2.3 times length of vein r-m measured along vein  $M_{1+2}$ ; cell 1st A ending apically in an elongation resembling an equilateral triangle. Pattern with the following hyaline spots: one in cell 1st C; two in cell 2nd C; two, small, in and near extreme base of cell  $R_1$ ; three in cell  $R_1$  distad of stigma, equidistant, at least the center one extending completely across cell and across vein  $R_{2+3}$  to fuse with a smaller, rounded spot in cell  $R_3$ ; one, rounded, at base of apical



third of cell R; one, rounded, in cell 1st  $M_2$  usually touching vein  $M_{1+2}$  distad of vein r-m; one, small, in cell  $R_5$  touching vein  $M_{1+2}$  and crossing it to join an elongate diagonal spot in cell 2nd  $M_2$ , leaving cell  $R_5$  otherwise completely dark; two additional in cell 2nd  $M_2$ , the distal-most large and extending diagonally from vein  $M_{1+2}$  to posterior margin; five of varying size in cell  $Cu_1$ ; three to six, all inconspicuous, occupying cell 2nd A. *Abdomen*. All abdominal terga subshining black, covered with short, fine, brown to black setae; ovipositor sheath swollen on basal half or two-thirds, as long as last four abdominal terga taken together, similarly covered by brown to black setae.

*Male*.—Similar in all respects to female except external genitalia, which are large and shining.

Types (all California).—*Holotype female*, CAMP BALDY ROAD, SAN BERNARDINO COUNTY, 26-VI-1956, A. Menke, Jr., in collection of California Department of Agriculture, Sacramento. Paratypes: Same data as type (2♂♂, CDA; 2♂♂, USNM); Tehachapi, Kern County, 26-V-1958, H. L. Wilson, ex *Chrysothamnus nauseosus* (1♀, CDA; 1♀, USNM); Neenach, Los Angeles County, 28-IV-1959, *Chrysothamnus* (1♂, CDA; 1♀, FLB); Pearblossom, Los Angeles County, 13-V-1956, W. E. Simonds, composite (3♂♂, 5♀♀, CDA); Desert Springs, Los Angeles County, 5-V-1956, J. Powell (1♀, CIS); Victorville, 21-IV-1935 (1♂, CAS); Frazier Park, Kern County, 29-IV-1959, F. L. Blanc, *Chrysothamnus* (1♀, FLB); Lone Pine, Inyo County, 29-IV-1959, R. P. Allen (♂, FLB); Tahoma, Placer County, 6-VI-1949, R. M. Bohart (1♂, UCD).

*Discussion*.—The apical hyaline spot in cell 2nd  $M_2$  of two of the paratype males does not cross vein  $M_{1+2}$  into cell  $R_5$ , leaving the latter entirely without hyaline markings. As far as we are aware, no other *Aciurina* possesses three hyaline spots in cell  $R_1$ ; in this respect *trilitura* strongly resembles species of *Valentibulla* but lacks a hyaline incision at the apex of cell  $R_5$ .

*A. trilitura* is closely related to *trixa* Curran and *maculata* (Cole). It is immediately distinguished from both those species by the presence of three hyaline spots in cell  $R_1$  apicad of the stigma, by the presence in cell 2nd  $M_2$  of three distinct hyaline spots and in cell  $Cu_1$  of five, and by the smaller size of the round hyaline spots in cells R and 1st  $M_2$ .

The only published key to the species is by Bates (1935); it may be amended to include *trilitura* as follows:

9. Wing brown at base.....10

- Wing hyaline from extreme base to humeral cross vein.....11
- 10. Three hyaline spots in cell  $R_1$ ; three hyaline spots in cell  
2nd  $M_2$ .....*trilitura* Blanc & Foote
- Only two hyaline spots in each of these cells.....*maculata* (Cole)
- 11. Cell 2nd  $M_2$  with a large, rounded hyaline spot which occupies  
much of its area, in addition to the subapical band.....*trixa* Curran
- Basal portion of cell 2nd  $M_2$  occupied by two hyaline spots, joined  
or not anteriorly to form an inverted V.....*bigeloviae* (Cockerell)

***Procecidochares stonei* Blanc and Foote, new species**

(Fig. 3)

*Female*.—*Head*. In profile 0.7 times as long as high, face and frons meeting at antennal base at an angle of about 140 degrees; area between anterior margin of eye and frons 0.8 to 1.0 times as wide as third antennal segment; gena about 0.2 times as high as eye, which is not quite half as wide as high; frons yellow to velvet brown, at vertex 1.8 to 2.0 times as wide as one eye, 1.3 times as wide as length from vertex to lunule; lunule as high as its width at antennal base; face yellow to brownish white, pollinose, distinctly concave, but not produced markedly anteriorly at oral margin; antenna yellow to brownish white, pollinose, third segment sometimes rather deep brown along anterior margin and apex, arista brownish black to black, shining. Three pairs lower fronto-orbitals, one pair upper fronto-orbitals, all shining black; genal bristle very slender, situated immediately below lower curvature of eye; all postoculars white. *Thorax*. Pleural tergites mostly shining black, especially the sternopleurite, but with a very light pollinosity on upper half from propleurite to metathorax, which is densely silver pollinose over a black ground color; sternopleural bristle black, most remaining pleural setae rather long and white; lateral third of mesonotum, including humerus, shining black; a thin, silvery pollinose stripe on a shiny black ground color occupying median third of mesonotum from a point immediately behind head to scutoscuteellar suture, with a slight widening at suture and with short, white, blunt setae (sometimes appearing yellowish) as follows: two rows, each two to four bristles wide, one occupying center and one the margin of median pollinose stripe, a patch at suture crossing shining area to lateral margin of mesonotum, four patches immediately anterior to scutoscuteellar suture, and scattered setae on pollinose area behind suture. Dorsocentral bristle situated about halfway between suture and a line between the anterior supra-alars, and located precisely at margin of median pollinose area. Scutellum shining black, bulbous, two pairs scutellar bristles, with four to six short white setae surrounding base of basal-most pair; postscutellum black, darkly pollinose. Halter shaft dark yellow, knob infuscated. Femora of fore, mid, and hind legs dark brown but with yellowish knees, the yellow of fore femur more extensive than that on other legs, remainder of legs brownish yellow. Wing pattern as in fig. 3, stigma about 2.0 times as long as wide, distance between veins r-m and m measured along vein  $M_{1+2}$  about equal

to length of vein r-m; oblique hyaline area from stigma to posterior margin of cell 2nd  $M_2$  nearly always complete. *Abdomen*. Brownish black, each tergum except the first with at least one row of black hairs on posterior half, and white, flattened setae on proximal half, the area covered by white setae increasing on posterior-most terga; terminal tergum 0.3 times as long as preceding. Ovipositor sheath shining brownish black, basal half slightly swollen, as long as all terga, except the first, taken together, but appearing shorter in many specimens.

*Male*.—Similar to female in all respects, but external genitalia dark brown.

Types (all California).—*Holotype female*, SAN YSIDRO, SAN DIEGO COUNTY, 20-I-1948, E. D. Algert (U.S. National Museum No. 65401). Paratypes: Same data as type (1♂, 1♀, CDA; 2♂♂, 1♀ USNM); San Ysidro, 17-III-1949, reared stem of *Viguiera laciniata* (1♀, 2♂♂, CDA; 1♀, 4♂♂, USNM); San Ysidro, 5-III-1948, V. O. Miller, reared ex stem galls *Viguiera laciniata* (3♀♀, 2♂♂, CDA; 3♀♀, 2♂♂, USNM); San Ysidro, coll. 23-I-60, emerged 1-II-60, Ed Algert, ex *Viguiera laciniata* (6♀♀, 11♂♂, CDA); Tracy, San Joaquin County, 25-V-1942, H. W. Graves, collected from alfalfa, CDA No. 42F9 (1♀, CDA); Deep Creek, Mohave, 25-X-1952, Timberlake (1♂, UCR); Oakland, 2-IV-1955, B. Hudson (1, sex not known; CIS).

Discussion.—*P. stonei* is a large species comparable in size to *Procecidochares anthracina* (Doane) and *P. grindeliae* Aldrich. It is distinguished from those two species by its lack of a pre-sutural dorsocentral bristle. In the only published key to the species of the genus (Aldrich, 1929), *stonei* runs to *P. minuta* (Snow), from which it may be separated by the shape of the pollinose mesonotal area containing the pale hairs. In *minuta* this area is strongly constricted at the acrosticals while in *stonei* it is parallel-sided, causing the acrosticals to arise from inside the pollinose area rather than from the adjacent dark, shining surface.

The species is named for Dr. Alan Stone, who first recognized it to be undescribed.

#### ***Neaspilota wilsoni* Blanc and Foote, new species**

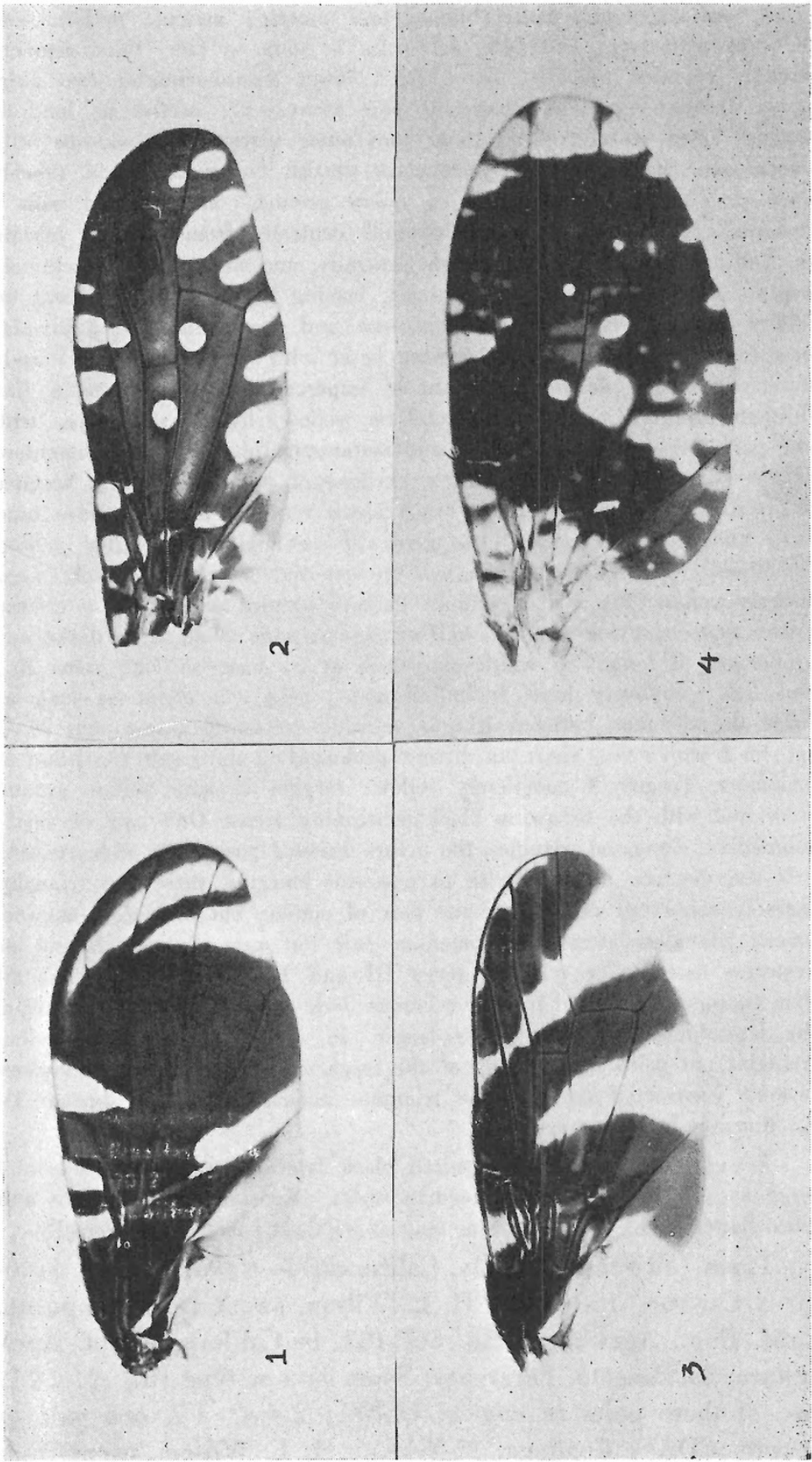
*Male*.—*Head*. Entirely yellow, in profile 1.2 times as high as long; eye 0.80 to 0.85 times as high as head; gena 0.2 times as high as eye, parafacial area scarcely wider than basal diameter and arista; face deeply concave, with oral margin projecting anteriorly to level of junction of face and frons; frons at vertex 1.4 times as wide as eye and 1.2 times as wide as length from vertex to lunule; face in front view nearly parallel-

sided, not expanding noticeably to oral margin; antenna yellow, concolorous with frons and face, 0.7 times as long as face, third segment broadly rounded apically. Three pairs lower fronto-orbitals; two pairs upper fronto-orbitals, the posterior pair convergent; ocellar as long as longest lower fronto-orbital; inner and outer verticals concolorous with ocellar and fronto-orbitals; postoculars whitish but slender and sharply pointed. *Thorax*. Mesonotum with yellow ground color adorned with a tomentose black pattern which extends centrally from anterior margin to, but not including, dorsocentrals centrally, and to a point immediately behind, but not including, acrosticals, leaving a broad yellow band on lateral margin which includes humerus and presutural and supra-alar bristles; entire surface of mesonotum beset with short, white, moderately thickened setae; dorsocentrals almost imperceptibly anterior to a line through anterior supra-alars. Scutellum yellow, lightly tomentose, with two pairs bristles; postscutellum and metanotum black, heavily tomentose except centrally, where a shining black spot appears; pleural tergites principally yellow except for a small black spot immediately above hind coxa and the black lower two-thirds of sternopleuron. Halter yellow, sometimes with diffuse infuscation on external surface of knob. Legs entirely yellow. Wing disk without definite pattern except for a diffuse brown spot occupying proximal half of stigma; none of the veins darkened; proportion of length to width of stigma at its base as 7:3; veins  $R_{2+3}$  and  $R_{4+5}$  completely bare, including node; vein r-m about as long as twice the distance between it and vein m, measured along vein  $M_{1+2}$ ; cell 1st A with a very short but distinct prolongation along vein  $Cu_2 + 2nd\ A$ . *Abdomen*. Tergum I completely yellow; tergum II with yellow ground color and with the following black subshining areas: One pair of small, submedian, elongated triangles, the points directed posteriorly and attaining half the distance from anterior to posterior margins, these two triangles scarcely connected anteriorly; one pair of similar but outwardly skewed, paired triangles lateral to submedian pair but not attaining lateral or posterior margins or tergum; terga III and IV similar to II, but all four triangles connected by a continuous dark area along anterior margin, the lateral-most triangles much larger. In some specimens submedian triangles not connected on any of the terga, and in males with abdomen severely contracted none of the triangles appear to be so; tergum IV 1.5 times as long as tergum III.

*Female*.—As in male, but paired black lateral triangles of abdominal terga usually shorter than submedian ones; ovipositor sheath yellow and when flattened, 1.2 to 1.5 times as long as width at base, viewed dorsally.

Types (all Fresno County, California).—*Holotype male*, JACOLITAS CANYON, 15-V-1956, H. L. Wilson, swept from composite, Calif. Dept. Agriculture No. 56E-183, in California Dept. Agriculture, Sacramento. Paratypes: Same data as type (3 ♂♂, 2 ♀♀, two of these pairs *in copulo*, USNM; 2 ♂♂, 1 ♀, one pair *in copulo*, CDA); Coalinga, 25-V-1956, H. L. Wilson, swept from







composite, Calif. Dept. Agriculture No. 56E-280 (1♂, 1♀, USNM; 1♂, 1♀, *in copulo*, CDA); 15 mi. n. of Coalinga, 28-III-1956, H. L. Wilson, collected from *Coreopsis calliopsidea* blossom (3♂♂, FLB); Coalinga, 21-V-1956, H. L. Wilson, Calif. Dept. Agriculture No. 56E-238-2 (1♀, CDA).

Discussion.—In the excellent key to the known species of *Neaspilota* by Quisenberry (1949), *wilsoni* runs to couplet 8 on account of the lack of darkening upon any of the veins or in any of the cells other than the stigma; the absence of any minute hairs on the anteroventral surface of the hind tibia of the male; and the yellow abdominal hairs. Couplet 8 of that key contains *signifera* (Coquillett) and *brunneostigmata* (Doane). From the former, *wilsoni* is distinguished by the light yellow veins and lack of dark cloud at the base of the costal cell; from the latter, *wilsoni* differs by the lack of anterodorsal setulae on the hind tibia and the distinctive markings upon the abdominal terga.

*N. wilsoni* is named for H. L. Wilson, who has contributed innumerable specimens to tephritid collections from the California fauna, and who collected the type series of this distinctive *Neaspilota*.

#### *Urophora timberlakei* Blanc and Foote, new species

*Female*.—*Head*. Frons, face, parafacial, and gena yellow; post-occipital area entirely shining black; in profile head as high as long; eye 1.2 times as high as wide; distance between anterior margin of eye and face 0.6 times as wide as greatest width of third antennal segment; frons as wide as length from vertex to lunule and 1.4 times as wide as one eye at vertex, scarcely narrowing anteriorly; from front view face narrow, somewhat widened below, almost entirely hidden by the comparatively large antennae, antenna 0.8 times as long as face; from lateral view face projecting strongly anteriorly at anterior oral margin. All head hairs very slender and shining black; two pairs lower fronto-orbitals, one pair upper fronto-orbitals; one pair diverging proclinate ocellars as long as longest lower fronto-orbital; postoculars slender, short, sharply pointed; genal setae anterior to genal bristle very slender and inconspicuous; arista very dark brown or black except at extreme base, which is bright yellow. Mouthparts geniculate, the labellum slender and as long as, or longer than, head. *Thorax*. Mostly dark brown to black and shining except for a tomentose patch on mesonotum occupying central portion of area between anterior margin and suture,

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#### EXPLANATION OF FIGURES

Right wing, species of California Tephritidae. Fig. 1, *Myoleja unifasciata*, Blanc & Foote, fig. 2, *Aciurina trilitura* Blanc & Foote, fig. 3, *Procecidochares stonei*, Blanc & Foote, fig. 4, *Cryptotreta pallida* (Cole).

and extending posterior to insertion of dorsocentral; a narrow, bright yellow stripe, slightly widening behind, beginning on posterior third of humerus and running directly to wing base. Scutellum, postscutellum, and mesothorax concolorous with mesothorax; dorsocentrals in a line drawn between the anterior supra-alars; mesonotum with sparse black setae about one-third as long as dorsocentral; two pairs scutellars. Halter entirely yellow, with black setae on stem. Coxae, trochanters, and basal three-fourths to four-fifths of all femora dark brown to black, remainder of legs brownish yellow to yellow except for a slight darkening on middle third of mid and hind tibia. Wing hyaline, without pattern; costa apicad of stigma and all veins except Sc, R<sub>1</sub>, and portions of M<sub>3</sub>, Cu<sub>1</sub>, and Cu<sub>2</sub> darkened; subcosta somewhat atypical for family in describing a curve toward costa rather than a sharp bend, stigma 0.4 times as wide at base as length; vein R<sub>4+5</sub> completely bare; cell 1st A closed apically without any indication of elongation. *Abdomen*. Concolorous with mesonotum; tergum I shining; remaining terga slightly tomentose, together about as long as tergum I, covered sparsely with setae about as long as those on mesothorax. Ovipositor sheath circular in cross section but collapsed dorsally on basal half or more in type; normally enlarged on basal half; entire sheath as long as last four abdominal terga taken together.

*Male*.—Similar to female in all respects except external genitalia, which are bent beneath abdomen and hidden from dorsal view by abdominal tergum V.

Types (all California)—*Holotype female*, MORONGO VALLEY, SAN BERNARDINO COUNTY, 27-IX-1941, Timberlake, ex *Gutierrezia lucida* (in collection of the University of California, Riverside). Paratypes: Morongo, 29-IX-1944, Timberlake (1♂, USNM); Barstow, 12-IX-1924, Timberlake, ex *Cleomella obtusifolia* (1♂, UCR); Summit of "Yucca V.", 28-IX-1944, Timberlake, ex *Gutierrezia lucida* (1, sex not known, UCR).

Discussion.—*U. timberlakei* is distinctive among all the *Urophora* in having no dark pattern on the hyaline disk of the wing—we therefore have no hesitation in describing it as new in spite of the fact that the genus is badly in need of revision. *Urophora formosa* (Coquillett) is similar in many characters but has wide wing bands and a yellow spot at the center of the scutellum.

We name the species for its collector, P. H. Timberlake, in acknowledgment of the many tephritids he has made available for study.

#### Genus *Cryptotreta* Blanc and Foote, new genus

(Fig. 4)

Diagnosis.—Proboscis normal, not geniculate; third antennal segment

rounded apically; three pairs lower fronto-orbitals; two pairs upper fronto-orbitals, the posterior pair not convergent; postoculars whitish; one pair dorsocentrals, very close to suture and distinctly anterior to a line between the anterior supra-alars; two pairs scutellars; wing with an indistinct bulla; vein m about its own length from vein r-m as measured along vein  $M_{1+2}$ .

Type species.—*Eurosta pallida* Cole (1923:472; fig. 10. Holotype male, San Francisquito Bay, Baja, California, 10-V-1921, E. P. Van Duzee—in the collection of the California Academy of Sciences). Monobasic.

Discussion—The description and wing figure presented by Cole are more than adequate to identify *pallida* among all New World Tephritidae. Cole placed the species doubtfully in *Eurosta* on the basis of the wing characters, but it bears a much closer resemblance to certain species of *Eutreta* in the position of the dorsocentrals, the number and character of the fronto-orbitals, and the habitus. It is not greasy as are so many specimens of *Eurosta* in collections. The distinctive wing does not at all fit the generic pattern of *Eutreta*.

The material studied is a single female from San Ysidro, San Diego County, California, caught in a McPhail trap in a shade tree, 12-IV-1960 by Tom Williams. It bears California Department of Agriculture No. 60D22-22, is in the collection of that institution, and is only the second specimen known. The ovipositor sheath is yellow medially, narrowly black proximally, and with a dark apical ring about as wide as the apical diameter of the sheath. Dorsally the sheath is about 1.5 times as long as tergum V.

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