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THE GENUS *DIACRITA* GERSTAECKER (DIPTERA, OTITIDAE).

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The following notes on the little-known genus *Diacrita* are the result of an effort to ascertain in what manner a new species here described differs from the two previously described.

Genus *Diacrita* Gerstaecker.

Diacrita Gerstaecker, Stettiner Ent. Ztg. 21: 195, 1860; Loew, Monogr. Dipt. No. Amer. 3: 111, 1873; Hendel, Abh. Zool.-Bot. Ges. Wien 8: 123, 1914; Hendel, Gen. Ins., Fasc. 157, 1914 (genotype, *D. costalis* Gerst.).

Carlottaemyia Bigot, Bull. Soc. Ent. France 1877: 26 (*C. moerens* Bigot = *Diacrita costalis* Gerst.; syn. by Bigot).

The characters cited in the following paragraphs appear to be common to the species and are presented as complementary to the few published descriptions.

Thoracic chaetotaxy: 1 humeral, 2 notopleural, 2 supra-alar, 1 postalar (occasionally duplicate), 2 posterior dorsocentral (anterior much the smaller), 1 prescutellar acrostichal, 1 apical scutellar, 1 lateral scutellar practically dorsal in position, 2 or 3 posterior marginal mesopleural, 1 sternopleural, 0 propleural or stigmatal bristles. A tuft of strong hairs is present in the middle of the propleura and there are a few weak hairs laterally on the prosternum.

A peculiar configuration is visible on both sides of the third antennal joint in the female (cf. figures). The boundaries of the "lobes" seem to be impressed lines rather than sutures. They are scarcely distinguishable in the male. Their contour presents specific differences.

Dark chocolate-brown spots on the mesonotum. They are

called black by Gerstaecker and Loew and are not very conspicuous, especially in the new species. They vary from 4 to 6 presutural (the middle pair frequently lacking), and the single postsutural pair is often almost indistinguishable.

Diacrita aemula Loew, Monogr. No. Amer. Dipt. 3: 114, 1873.

The writer has seen no material which he could refer to *D. aemula*, although he has seen a number of specimens from its type locality, "California." It may be that it and *D. costalis* are conspecific, as Hendel would seem to infer (1914: 123): "Präzise Unterschiede von der vorigen Art (*D. costalis*) kann man aus Loew's Angaben nicht herausfinden. Ich möchte hier nur bemerken, dass es auch Stücke von *D. costalis* Gerst. gibt, deren Allgemeinkolorit ebenfalls ockergelb genannt werden muss. Ebenso zählte ich bei *D. costalis* Gerst. vor der Naht nur fünf schwarze Flecke, wovon der vorderste nur sehr klein war. Auch die zwei Punkte hinter der Quernaht sind manchmal ziemlich klein."

Diacrita costalis Gerstaecker, Stettiner Ent. Ztg. 21: 197, 1860 (a)¹; Bigot, Bull. Ent. Soc. France 1877: 38, cxxxii; Giglio-Tos, Ditteri del Messico, Mem. R. Accad. Sci. Torino 45, 1895; Coquillett, Jour. N. Y. Ent. Soc. 12: 32, 1904 (b); Sturgis, Jour. Ent. Zool. (Pomona) 10: 27, 1918 (c); Cole, Proc. Calif. Acad. Sci. (4) 12: 475, 1923 (d); Enderlein, Mitt. Zool. Mus. Berlin 11: 115, 1924 (e); present paper (0).

Head in profile as in fig. 2a; front strongly sunken, pruinose only medianly, laterally strongly shining. A white-pruinose stripe extends from eye to eye across the parafacials and face, interrupted broadly in the middle of the face and narrowly at both margins of the parafacials. A rather narrow stripe of white pruinosity follows the posterior orbit, interrupted just below middle of eye, and continues downward rather indistinctly to oral margin.

Scutellum shining or faintly pruinose, contrasting with the heavily pruinose mesonotum, with a pair of blackish marks beneath tip.

The following material has been examined. In the United States National Museum—MEXICO: San Luis Potosí, ♀, Aug. 21, 1930 (R. Mundell); Aguas Calientes, ♂, Dec. 1, 1909 (F. C. Bishopp); Chapingo, 2 ♂, Oct. 15, 1937 (L. H. Olmeda); TEXAS: Uvalde, ♀,

¹ The letters in parentheses refer to localities cited and appear on the map, fig. 1.

Jan. 6, 1936, ♂, Nov. 12, 1935 (C. C. Deonier); Sonora, ♂, June 11, 1920 (Bishopp No. 9719); Brownsville, ♀, April (Brooklyn Mus. Colln. Cat. No. 1333); Sinton, ♀, Feb. 7, 1911 (C. T. Atkinson); Knippa, ♂, July 24, 1910 (F. C. Pratt); Sabinal, ♂, March 6, 2 ♂, March 9, 1910 (F. C. Pratt); San Diego, ♀, March 25, 1908 (Jones and Pratt); ARIZONA: Hot Springs, ♀, June 22, 1901 (H. S. Barber); CALIFORNIA: Whittier, ♂, May 28, ♀, June 6, 1931 (Chas. H. Martin); Los Angeles, 3 ♂, 1 ♀, (Colln. Coquillett/CH); San Diego, ♂, Sept. 5, 1919, reared from decaying cactus (F. Psota). In University of Kansas—MEXICO: Gnito, ♀; CALIFORNIA: Whittier, ♂, May 27, ♂, June 5, ♀, June 6, 1931 (Chas. H. Martin); No LABEL: 3 ♂. In Ohio State University—CALIFORNIA: San Diego Co., ♂, July. Total, 20 ♂, 10 ♀.

***Diacrita plana*, n. sp.** Fig. 2b.

Male and female. Length, body and wings, each 7–8 mm.

The greatest differences from *D. costalis* are in the head: the eyes are rounder, the face flatter transversely, and the occiput less swollen. Front flat to gently convex. Whole head pruinose except lower face and below eyes. Approximately the upper half of the face is white-pruinose in entire width. Dark brown orbito-antennal spot very small.

Thorax and abdomen apparently reddish brown under the dense, slightly yellowish, gray pruinosity. Head, humeri, scutellum, hypopygium (♂), ovipositor (♀), and appendages yellow. Head a little darkened on sides of front and upper lateral parts of occiput. Abdomen subshining. Scutellum scarcely less pruinose than mesonotum and lacking the pair of blackish spots beneath that is seen in *D. costalis*.

Color pattern of wings paler than in *D. costalis*, brown rather than blackish, filling humeral and subcostal cells and stigma (although quite dilute in middle of subcostal cell and at base of stigma), filling tip of marginal cell three-fifths of distance to stigma, and filling tips of submarginal and first posterior cells almost as in Loew's figure of *D. aemula*, but the color is practically disjunct at tip of second vein from that in tip of marginal cell. Triangles of brown extend posteriorly from apical third of subcostal cell to a point in first basal cell and from apical half of stigma to second vein. Noticeably lacking is brown coloration posterior to radial stem vein at base of wing and in submarginal cell except for a short distance basally and apically. The remainder of wing is practically hyaline. Stigma slightly longer than half the length of subcostal cell.

Ultimate and penultimate sections of fourth vein equal. Ultimate section of third vein evenly forwardly arcuate in its entire length, except at extreme tip. Fourth vein curving forward

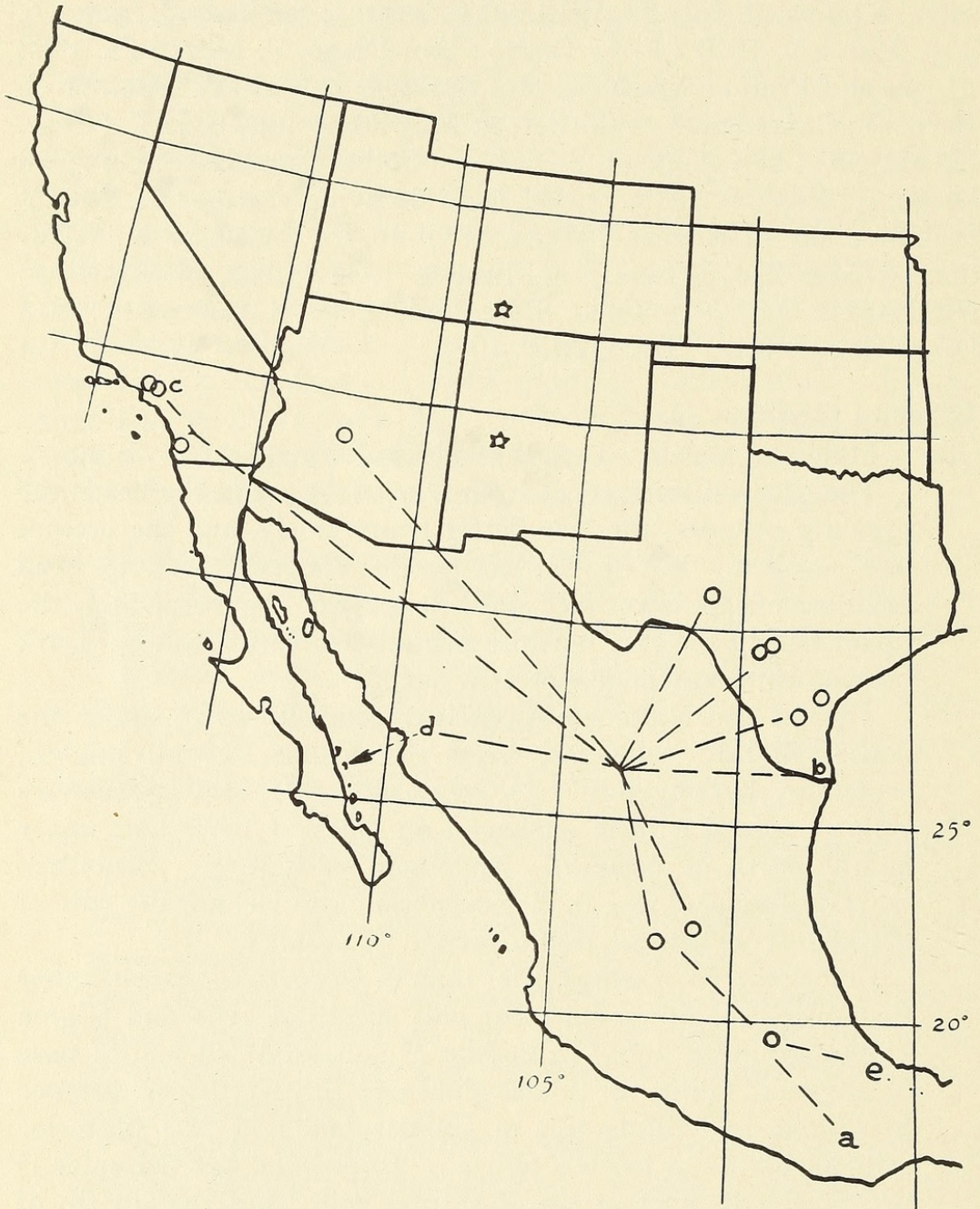


FIG. 1. Distribution of *Diacrita* spp. ★, *D. plana* n. sp.; a-e, o, *D. costalis* Gerst. (see text). *D. aemula* is known only from the type from "California." Under *D. costalis* the Bigot reference cites "Mexico," and the Giglio-Tos locality, Huastec, probably refers to the Huasteca country between San Luis Potosí and Tampico, Mexico.

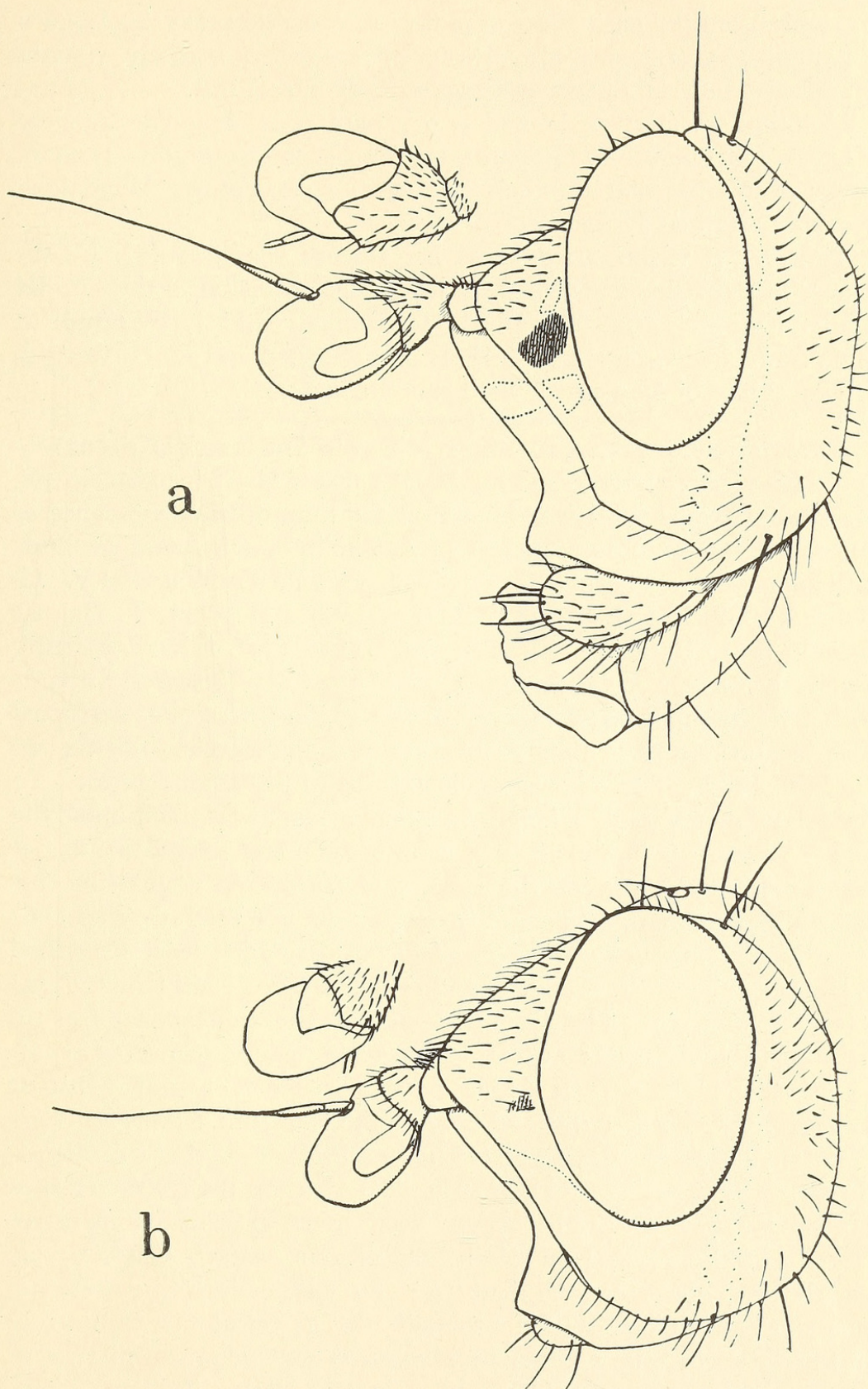


FIG. 2. Profile of heads of *Diacrita* spp., ♀. Dotted lines indicate limits of white-pruinose areas. (a) *D. costalis* Gerst.; (b) *D. plana*, n. sp.

only slightly each side of anterior crossvein (as in Loew's figure of *D. aemula*). Posterior crossvein scarcely sinuate above, but rather gently concaved into discal cell.

Holotype ♂, allotype ♀, and two ♀ paratypes, Magdalena, New Mexico (Strickler); 1 ♀ paratype, Durango, Colorado, June 6, 1899; all in Ohio State University collection, except one Magdalena paratype retained by the author.

The writer wishes to express his sincere thanks to C. F. W. Muesebeck and his colleagues in the Diptera division in the United States National Museum, to C. H. Kennedy and J. F. Knull at Ohio State University, and to H. B. Hungerford and R. H. Beamer at University of Kansas for their many courtesies.

***Cuterebra* Larvae in a Domestic Cat in Indiana (Diptera).—**In 1925 (Jour. Econ. Entom., XVIII, pp. 331–334) Maurice C. Hall summarized what was known at the time of the occurrence of cuterebrid larvae in domestic cats and dogs in North America. Additional cases have been reported since by E. F. Knipling and W. G. Bruce (1937, Ent. News, XLVIII, p. 156) and by H. T. Dalmat (1943, Jour. Parasitol., XXIX, pp. 311–312). I have recently received from Dr. J. H. Sandground, of the Lilly Research Laboratories, three small bot-fly larvae of the genus *Cuterebra*, extracted from a subcutaneous abscess in a cat at Indianapolis, Indiana, on July 30, 1946. These larvae appear to be in the second instar. In the relatively few cases when the particular stage was mentioned, the larvae previously found in cats were also in the second instar. I was unable to determine the species of *Cuterebra* responsible for the Indianapolis infestation. It cannot be referred to either *C. buccata* or *C. cuniculi*, the second instars of which were described and figured by E. F. Knipling and A. L. Brody (1940, Jour. Parasitol., XXVI, pp. 33–43). In most of the published cases of cuterebrid infestations of cats, no specific identification was attempted. H. T. Dalmat (1943, *op. cit.*), however, states that at Ithaca, New York, house cats were infected with *Cuterebra horripilum* Clark. Mr. Dalmat has kindly informed me that this identification was based, not on a bred adult fly, but on the characteristics of the larvae. It would appear that more precise comparative studies of the several larval instars of our eastern Cuterebridae should be made before the identity of the species infecting domestic cats can be definitely settled. We are also as yet almost completely in the dark as to the manner in which cats may acquire this type of parasite.—J. BEQUAERT, Museum of Comparative Zoölogy, Cambridge, Mass.



Steyskal, George C. 1947. "The genus *Diacrita* Gerstaecker (Diptera, Otitidae)." *Bulletin of the Brooklyn Entomological Society* 41, 149–154.

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