

NEW NORTH AND CENTRAL AMERICAN SPECIES OF SCIOMYZIDAE

(DIPTERA: ACALYPTRATAE)¹GEORGE C. STEYSKAL, *Grosse Ile, Michigan*

The following descriptions are presented at this time mainly because several of the species are subjects of biological investigations and are therefore in need of names. All of the species are referable to the subfamily Tetanocerinae.

Guatemalia, new genus

Vallar bristles absent; ocellar bristles well developed; hind tibiae with one strong dorsal preapical bristle; mid-frontal stripe broad and long; second antennal segment more than half as long as third segment, arista black-haired; lunule narrowly exposed; mesopleura and sternopleura covered with short hairs, without bristles; pteropleura bare; one fronto-orbital bristle; wings with well developed pattern of bars and spots; male postabdomen very similar to that of *Tetanocera*, almost symmetrical, only aedeagus and tergites 6 and 7 strongly asymmetrical. Closely allied to *Tetanocera* and in general appearance much like *T. valida* Loew, which has two fronto-orbitals and entirely bare mesopleura. No species of *Tetanocera* has been recorded from so far south as is the type species of this genus.

Generitype.—*Guatemalia hubbelli*, new species. Gender feminine. The only other species that may be included in this genus is *Tetanocera straminata* Van der Wulp, from Guerrero, Mexico, but its description is inadequate.

Guatemalia hubbelli Steyskal, new species

(Figures 1 to 4)

Male.—Length of wing, 5.9 to 6.2 mm. Color tawny, except as noted below. All bristles and hairs, including those of arista, black. Squamal fringe pale yellow.

Head: Black spots behind *pvt* bristles, at either side of ocellar triangle, at anterior end of mid-frontal stripe, and laterad of antennal bases; a slender parafrontal black stripe extends from *fo* halfway to anterior margin of front. Mid-frontal stripe broad and concave, extending almost to frontal margin; shining parafrontal stripes very narrow, extending from *vt* to *fo*; front otherwise dull. Face yellowish pruinose. Chaetotaxy: one each of long and strong *vte*, *vti*, *pvt*, and *oc*; one pair of *fo* half as long as *vt*. Hairs of front sparse, a few close to eyes and some in middle of front anterad of end of parafrontal black stripes; hairs of cheeks scarcely extending onto parafacials, very few above level of lower margin of eyes. Antennae with second segment laterally compressed, 0.32 mm. wide by 0.41 mm. long; third segment strongly tapering, slightly concave on upper margin, 0.6 mm. long; arista with dense long hairs. Palpi slender, yellow.

Thorax dull; a broad central brown stripe extends from anterior margin, where it is trifid for a short distance, to tip of scutellum; a pair of sublateral brown

¹Most of the species descriptions included herein are based, wholly or in part, upon specimens collected by Mr. Stuart E. Neff, of Cornell University, in an investigation supported by a research grant (E-743) from the National Institute of Allergy and Infectious Diseases, of the National Institutes of Health, Public Health Service.

stripes extend from mesad of humeri to postalar callus; the dorsal humeral groove is also brown, and the broad upper part of the pleura is brown from anterior face of humeri to hypopleural callus, but a small wedge of yellow is left in upper hind corner of mesopleura. Chaetotaxy: 1 *h*, 1 *sl*, 2 *n*, 1 *sa*, 2 *pa*, all long and strong; 1 long and 1 weak *dc*; 1 weak *acr*. Scattered hairs present over most of mesopleura and sternopleura; prosternum bare. Scutellum flattened above, covered with short hairs and with 2 subequal pairs of marginal bristles.

Legs: All femora and tibiae with black tips; apical tarsal segments blackish. Fore coxae with 3 bristles in apical half; hind coxae with a well developed group of hairs at upper apex. Fore femora with only short and weak bristles below, dorsally with a row of about 6 strong bristles; middle femora with 1 mid-anterior bristle and 1 posterior bristle in apical fifth, with many antero- and posteroventral bristles. Claws and pulvilli a little longer than last tarsal segment.

Wings yellow, with dark brown pterostigma, about 8 spots each in marginal and submarginal cells, both crossveins broadly seamed, 1st posterior cell with 5 or 6 crossbars and a median longitudinal stripe in apical $\frac{3}{4}$, discal cell with 3 or 4 rather faint crooked or bifid bars that extend somewhat posterad of 5th vein. *Ta* at middle of discal cell; *tp* buckled outward in middle to approximately 135° .

Abdomen with broad, subshining brown stripe medially and a pair of rather narrow complete lateral stripes only slightly within lateral margins of tergites. All bristles rather short, those of last segment longest, but still only $\frac{2}{3}$ length of segment. Postabdomen as in figs. 1 to 4; surstyli strongly curved forward, with claw-like tips; cerci and anus well removed from posteroventral margin of epandrium.

Female.—Length of wing, 7.2 mm. Similar to male. Face subshining, a little pitchy at middle of lower margin.

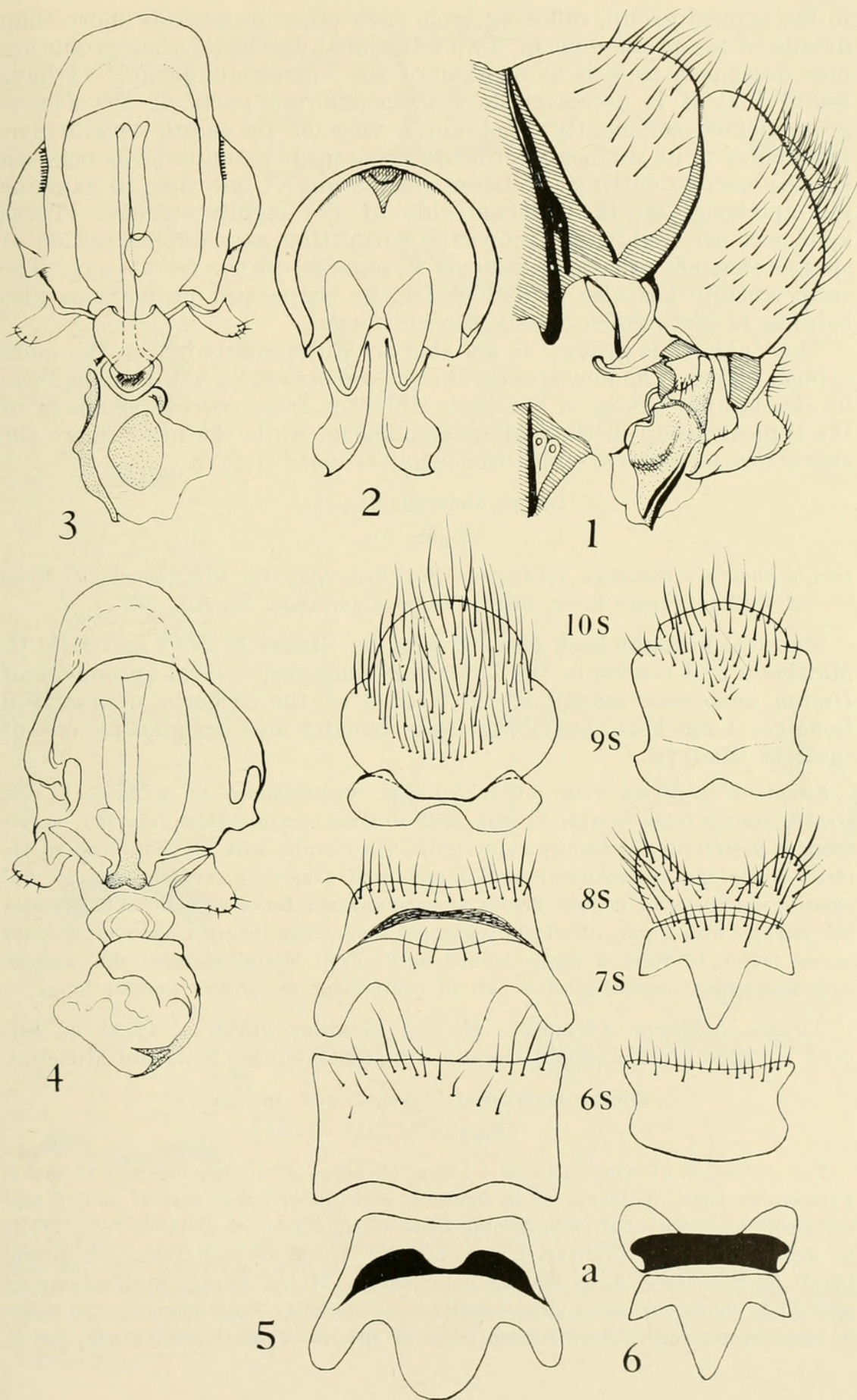
Types.—Holotype and 3 paratypes (males), *Guatemala*: Panajachel, Sololá, 1560 m., April 28, 1956 (T. H. Hubbell), notebook no. 208 ("in low herbage and grass in sunny open part of coffeegrove"); 2 male paratypes, same locality, January 20, 1956 (I. J. Cantrall), notebook no. 4 ("fallow farming plot, including moist areas with *Juncus*, *Cyperus*, and *Tradescantia*"). Allotype, *Guatemala*: Patzún, Chimaltenango, Ruta Nac. 1, km. 90, 6300 ft., August 3, 1958 (Neff and Matthews). All in University of Michigan Museum of Zoology, except 2 male paratypes in my collection and 1 in that of Cornell University.

The name of this species is appreciatively dedicated to one of its collectors, my friend Theodore H. Hubbell, director of the University of Michigan Museum of Zoology.

Genus *Dictya* Meigen

In my recent revision of the American species of this genus (Steyskal, 1954, Ann. Ent. Soc. Am., 47: 511-539), 17 species were assigned

Guatemala hubbelli, new species, male postabdomen: fig. 1, left profile, extended, with tip of right side of fused 6th and 7th sternites; fig. 2, anterior view of epandrium with hypandrial structures removed, showing surstyli and divided 10th sternite; fig. 3, posterior view of hypandrium, aedeagus and associated parts; fig. 4, same, anterior view; *Dictya matthewsi*, new species, fig. 5, sixth to tenth sternites of female; *D. abnormis* Stey., fig. 6, sixth to tenth sternites. a—internal view of seventh and eighth sternites, with apodemes in black.



to the typical group, differing from each other in scarcely more than details of the postabdomen. Two additional species of that group are now described, as well as another of the "abnormis group." I have found that it is necessary to disassociate the parts of the female postabdomen sufficiently to obtain a view of the ninth tergite perpendicular to its surface in order to make proper comparisons between species and, by cutting the lateral membrane of one side, to examine the apodemes on the internal side of the eighth sternite. These apodemes are highly characteristic, permitting easy differentiation of species that are otherwise difficult to separate in the female sex. The sixth sternite has also proved useful, its shape and proportions also helping to distinguish closely similar forms.

The "abnormis group" is not sharply differentiated from the more typical forms. The new species *Dictya matthewsi*, as will be seen from its description below, is but little different from several members of the typical group in the male postabdomen, while the head shows the characters of *abnormis* in a somewhat reduced degree.

***Dictya abnormis* Steyskal**

(Figure 6)

Dictya abnormis Steyskal, 1954, Ann. Ent. Soc. Am., 47: 518 (one male, Head of Piedras Verdes River, Sierra Madre, Chihuahua, Mexico).

Material brought back from Mexico by Stuart E. Neff and Eric G. Matthews and reared in the laboratory included several specimens of *Dictya abnormis*, among which were 3 of the hitherto undescribed females. I am here describing those females and designating one of them as allotype.

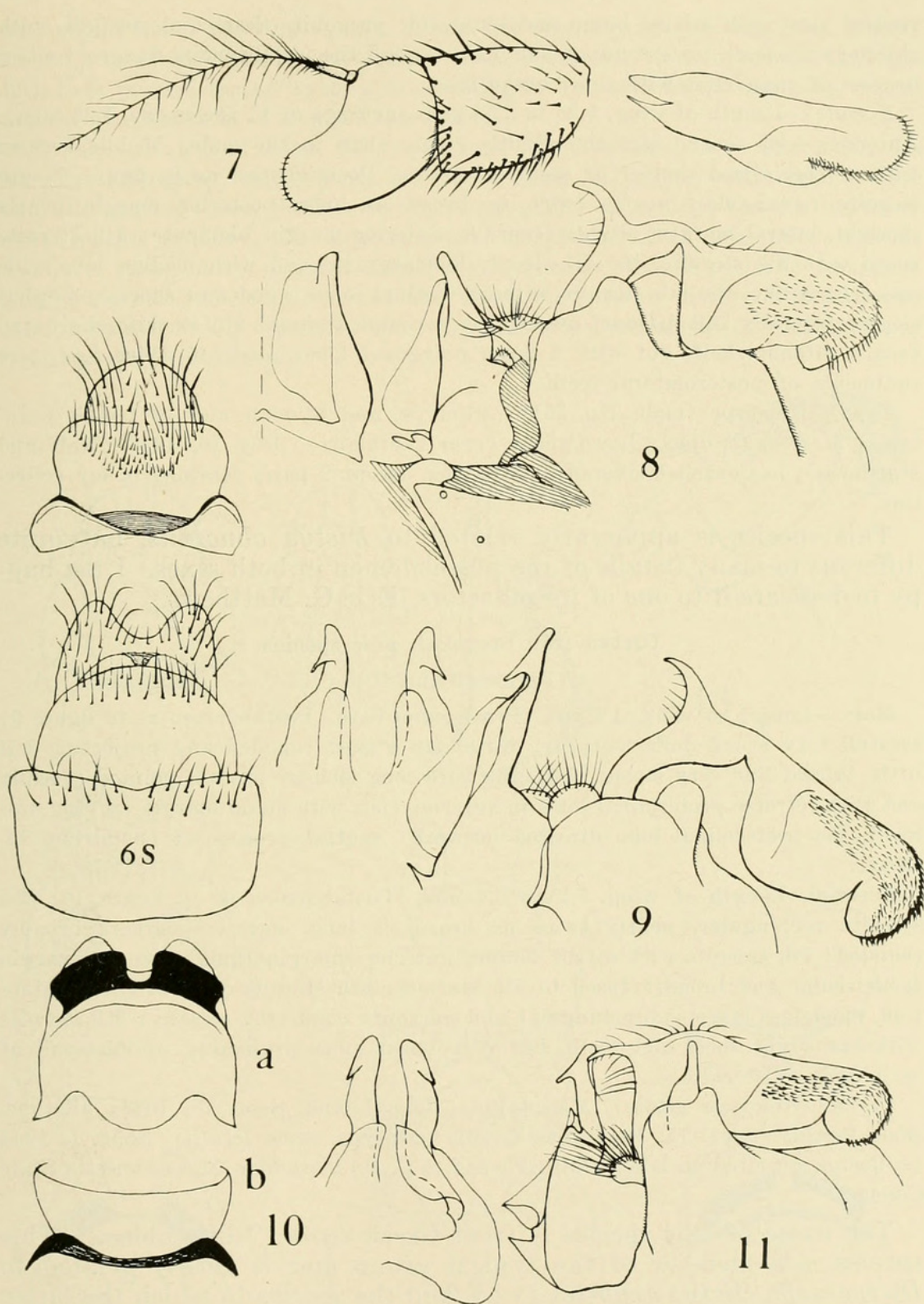
Female.—Length of wing, 4.0 to 5.0 mm. Postabdomen as in figure 6; 6th sternite nearly twice as wide as long, with distinct emarginations laterally, nearly straight posteriorly, and convex anteriorly; 7th sternite with an acute median anterior lobe; the anterolateral angles separated from the median lobe by 90° sinuses, the posterior margin gently arcuate and not fused with the 8th sternite; 8th sternite with a pair of widely separated tongue-like lobes, the apodemes fused across meson to form a single lamina with sharp lateral corners; 9th sternite with basal shelf consisting of a pair of contiguous, roundly arcuate lobes.

Type.—Allotype (female), *Mexico*: 6 miles north of Oaxaca, August 10, 1958 (Neff and Matthews), in United States National Museum.

***Dictya matthewsi* Steyskal, new species**

(Figures 5, 7, 8)

Male.—Length of wing, 4.15 to 4.7 mm. (average of 15 specimens, 4.41 mm.). Prosteronum bare. Antennae as in figure 7, with upper outer half of second segment shining. Dull black parafrontal spots extending $\frac{1}{3}$ of distance from orbits to middle of front. Mid-facial spot $\frac{1}{5}$ the width of medifacies. Presutural bristle approximately $\frac{2}{3}$ as long as notopleurals. Middle femora posteroventrally with 10-12 short and rather stout bristles in apical half. Postabdomen as in figure 8; surstyli not very different from those of species of the typical group, but in



Dictya matthewsi, new species, male: fig. 7, antenna; fig. 8, postabdomen, with ventral view of surstylus and anterior view of half of hypapandrium; *D. iron*, new species: fig. 9, postabdomen of male, with anterior view of pregonites; fig. 10, sixth and succeeding sternites of female (a—internal view of seventh and eighth sternites, with apodemes in black; b—oblique posteroventral view of ninth sternite); *D. neffi*, new species, male: fig. 11, postabdomen, with anterior view of hypandrium.

ventral view with lateral bulge and blunt tip; pregonite short and straight, with obliquely truncate tip extending but little beyond the membranous flange; ventral process of epandrium with short broad lobe.

Female.—Length of wing, 5.05 to 5.55 mm. (average of 11 specimens, 5.23 mm.). Antennae with second segment slightly longer than in the male. Middle femora without specialized shorter or stouter bristles. Postabdomen as in figure 5; 6th sternite rectangular, nearly twice as broad as long, posterior margin nearly straight, lateral margins slightly concave, anterior margin bisinuate; 7th sternite fused with 8th sternite, the 7th deeply biemarginate and with median lobe wide and tongue-like, the 8th sternite without distinct lobes, apodemes short, somewhat sloping laterally and disjunct mesally by a rounded sinus; 9th sternite short and broad, without shelf, but with 2 large polygonal lobes, each of which has mere rudiments of posterolateral teeth.

Type.—Holotype (male, No. 3518), allotype, and 14 male and 10 female paratypes, *Mexico, Chiapas*: Las Cruces (near Cintalapa), July 16, 1958 (Neff and Matthews), in Cornell University collections, except 2 pairs retained in my collection.

This species is apparently related to *Dictya abnormis*, but quite different in many details of the postabdomen in both sexes. I am happy to dedicate it to one of its collectors, Eric G. Matthews.

***Dictya iron* Steyskal, new species**

(Figures 9 and 10)

Male.—Length of wing, 4.6 mm. Prosternum bare. Postabdomen as in figure 9; surstyli very broad dorsoventrally, dorsal tip almost rounded and projecting but little, lateral line very steep; pregonite with long slender process pointed apically and with retrorse preterminal lobe, in anterior view with mesal margin curving outward, the preterminal lobe directed outward; ventral process of epandrium bilobate.

Female.—Length of wing, 5.2 to 5.4 mm. Postabdomen as in figure 10; 6th sternite rectangular, nearly twice as broad as long, anterior corners broadly rounded; 7th sternite with rather shallow anterior emarginations, posterior margin semicircular and broadly fused to 8th sternite; 8th sternite with deep emargination, apodemes large, subrectangular and narrowly connected mesally; 9th sternite with but slight shelf and teeth, but with basal lobes projecting well laterad of main body of sternite.

Types.—Holotype (male), *Mississippi*: Horn Island, Sept. 13, 1944; allotype, same locality, Sept. 11, 1944; one female paratype, same locality, Sept. 1, 1944 (collector not cited on label); all returned to C. P. Alexander, Massachusetts State College.

The name of this species is from Greek *eirōn*, "dissembler." This species is a member of the typical group and is closely related to *Dictya neffi*, *Dictya oxybeles* (v.i.), and the species to which the latter is compared.

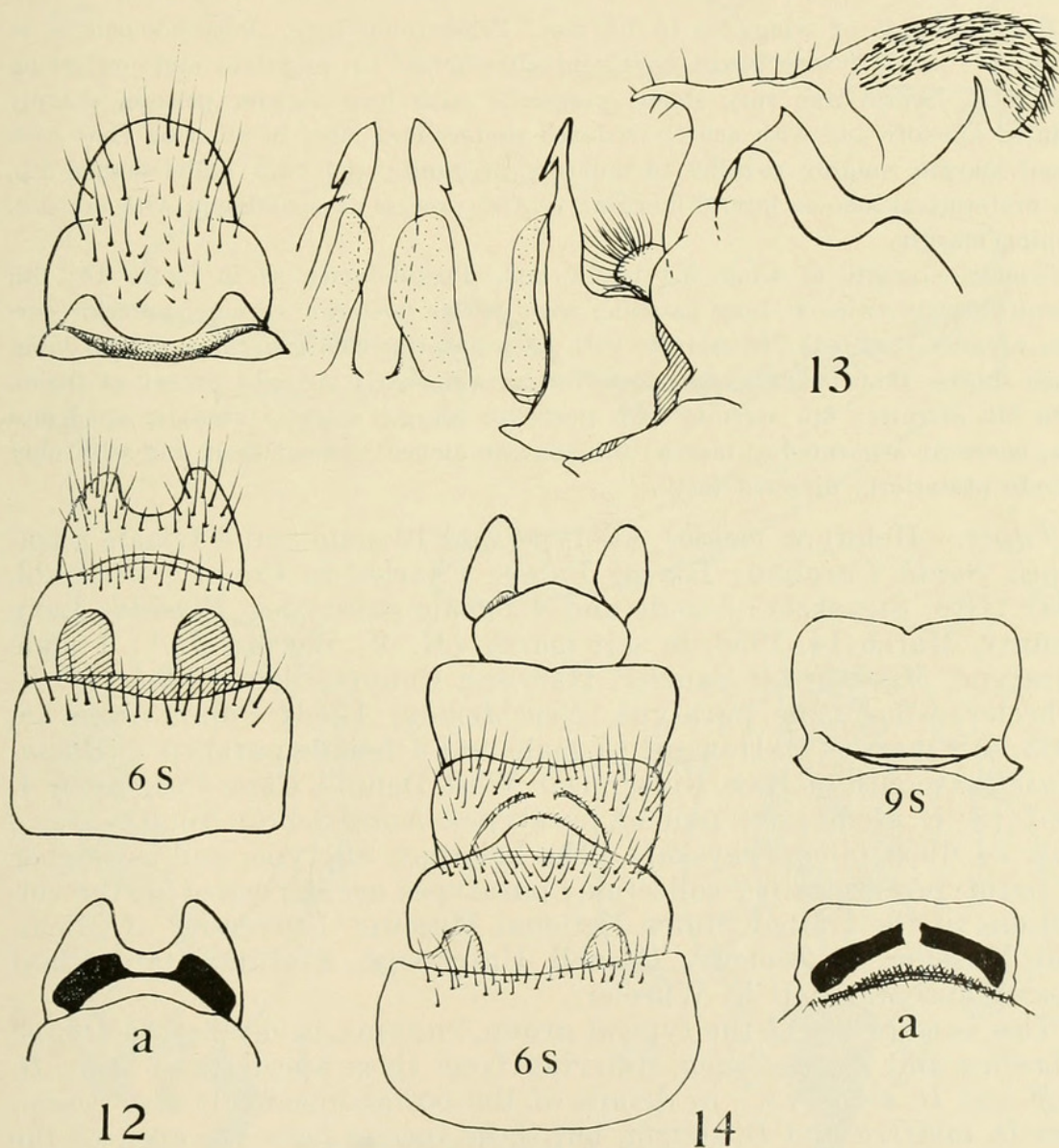
***Dictya neffi* Steyskal, new species**

(Figures 11 and 12)

Male.—Length of wing, 4.3 to 4.95 mm. (average of 8 specimens, 4.62 mm.). Prosternum bare. Postabdomen as in figure 11; surstyli moderately broad, dorsal

tip rounded and projecting a little, lateral line steep; pregonite with long, bluntly tipped process with retrorse preterminal lobe, in anterior view curved outward and then back inward, the preterminal lobe ending in line with lateral margin; ventral process of epandrium with small short lobe.

Female.—Length of wing, 5.2 to 5.3 mm. Postabdomen as in figure 12; 6th sternite rectangular, nearly twice as wide as long, all sides nearly straight; 7th and 8th tergites fused, the 7th deeply biemarginate anteriorly, the 8th with posterior margin rounded, with large rounded emargination that is as wide as deep; apodemes rather short, disjunct mesally by a space as wide as posterior emargination of sternite; 9th sternite broad and short, the anterior margin with a narrow shelf, a pair of widely separated and very short lobes, and a pair of well developed but short and blunt teeth.



Dictya neffi, new species, female: fig. 12, sixth and succeeding sternites; *D. oxybeles*, new species: fig. 13, male postabdomen, with anterior view of pregonites; fig. 14, female sixth and succeeding sternites. a—internal view of eighth sternite, showing apodemes in black.

Type.—Holotype (male, no. 3519), allotype, and 1 male paratype, *Guatemala*: Patzún, Chimaltenango, Ruta Nac. 1, km. 90, August 3, 1958 (Neff and Matthews); 6 male and 2 female paratypes, Guatemala City, July 21, 1958 (Neff and Matthews), in Cornell University collections, except 2 male and 1 female paratypes retained in my collection.

I am pleased to dedicate this species to one of its collectors, Stuart E. Neff. The species is a member of the closely related group including *Dictya iron*, *D. oxybeles* (v.i.), and the species with which the latter is compared.

***Dictya oxybeles* Steyskal, new species**

(Figures 13 and 14)

Male.—Length of wing, 5.1 to 7.0 mm. Prosternum bare. Postabdomen as in figure 13; surstyli very broad dorsoventrally, dorsal tip angulate and projecting but little, lateral line very steep; pregonite with long slender process sharply pointed apically and with acutely reflexed preterminal lobe, in anterior view with mesal margin roughly parallel to opposite pregonite and with bullet-shaped tip, the preterminal lobe on lateral margin; ventral process of epandrium with crenate, sloping margin.

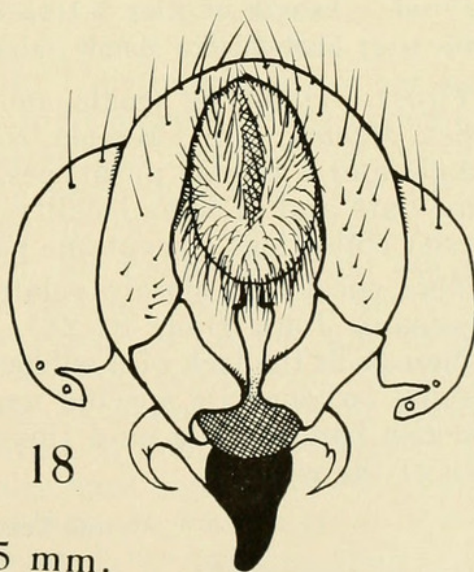
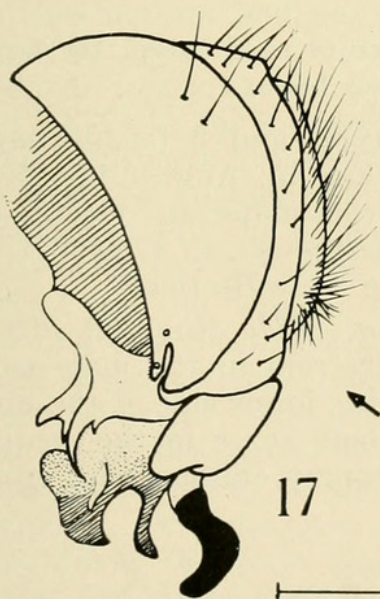
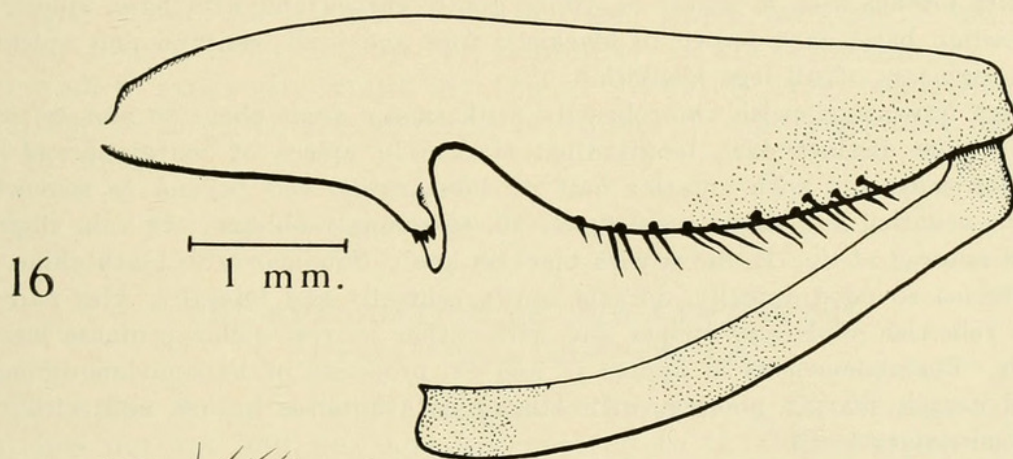
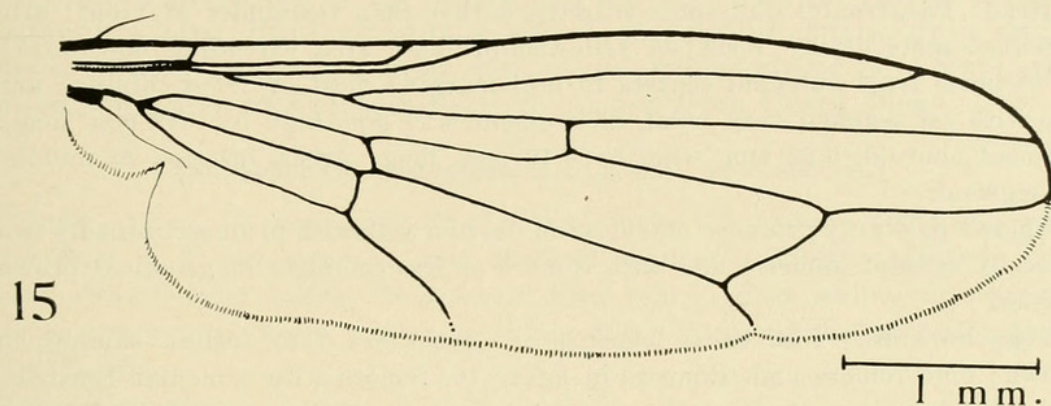
Female.—Length of wing, 5.1 to 6.2 mm. Postabdomen as in figure 14; 6th sternite nearly twice as long as wide, with square posterior corners, anterior corners broadly rounded; 7th sternite with deep anterior emarginations, lateral lobes much shorter than median lobe, posterior margin nearly straight except at fusion with 8th sternite; 8th sternite with posterior margin slightly sinuate, apodemes low, narrowly separated at meson; 9th sternite almost without shelf and with only minute posteriorly directed teeth.

Types.—Holotype (male), allotype, and 10 male and 4 female paratypes, *South Carolina*: Isle of Palms, Charleston County, June 23, 1957 (Geo. Steyskal); 5 male and 4 female paratypes, *Florida*: Levy County, March 14, 1958, in salt marsh (H. V. Weems, Jr.); 1 male paratype, *Mississippi*: Saucier, Harrison County, Sept., 1954 (M. R. Wheeler); one male paratype, *New Jersey*: Leeds Point, June 18, 1953, salt marsh (E. Homan); 7 male and 4 female paratypes, *Massachusetts*: mouth of Bass River, near West Dennis, Cape Cod, Sept. 4, 1957 (S. E. Neff); one pair of paratypes, *Nova Scotia*: Smiths Cove, July 24, 1955 (Geo. Steyskal). The holotype, allotype, and a number of paratypes are in my collection; paratypes are deposited in the collections of the United States National Museum, University of Michigan Museum of Zoology, Cornell University, Florida State Plant Board, and Marshall R. Wheeler.

This is a species of the typical group, running in my key to *Dictya atlantica* and *D. mexicana*, differing from those species and from *D. neffi* and *D. iron* (v.s.) in details of the postabdomen. It also resembles *D. lobifera* and *D. stricta*, but those species have the apex of the pregonite in anterior view quite narrow. The name is from Greek *oxybelēs*, "sharp-pointed."

The Isle of Palms material was taken in a shallow channel cut in sand, connecting with the ocean, and filled with a little sea-water, much

vegetation, small crabs, and snails; the Florida and Massachusetts specimens were taken in "salt marsh"; and the Nova Scotian specimens were taken on the broad tidal flats for which that region is famous. Apparently *D. oxybeles* is restricted to a saline habitat.



0.5 mm.

Sepedon haplobasis, new species, male: fig. 15, wing; fig. 16, hind femur and tibia; fig. 17, postabdomen, lateral view; g. 18, same, view in direction of arrow in fig. 17.

Sepedon haplobasis Steyskal, new species

(Figures 15 to 18)

Male.—Length of wing 4.6 to 5.5 mm. (average of 7 specimens, 5.1 mm.). Color in general tawny.

Head: Parafrontal dull spots scarcely darker than remainder of front; orbito-antennal spots black; V-shaped yellowish-pruinose area extending downward 0.8 of distance from antennal sockets to oral margin; most of front shining; antennae with 1st segment very small, 2d segment 0.20 mm. high by 0.48 mm. long, 3d segment obovoid, 0.24 mm. wide by 0.40 mm. long; arista inserted at middle of 3d segment.

Thorax pale gray-pruinose on sides, on dorsum yellowish-pruinose, broadly brown laterally (except humeri) and with 6 more or less complete longitudinal brownish stripes.

Legs brownish; fore tibiae blackish in apical $\frac{1}{4}$; fore femora shining, dark brown; hind femora and tibiae as in figure 16, femora with a median constriction and a bifid process, of which the anterior branch bears 2 or 3 short stout spinules, and with piceous area in apical $\frac{1}{3}$, tibiae gently curved and with base, apical $\frac{1}{6}$, and median band dark brown to blackish; fore and hind basitarsi and apical 2 tarsal segments of all legs blackish.

Wings brown, yellowish anterobasally, with smoky areas about *ta* and *tp*, with more or less distinct dark longitudinal streaks in apices of marginal and 1st posterior cells, and with anterior half of submarginal cell beyond *tp* somewhat darker; venation and shape as in figure 15, *tp* strongly oblique, 4th vein slightly curved anterad at tip. Halteres with blackish knob. Squamae with black ciliae.

Abdomen rounded apically, dorsum brown centrally and laterally, with pair of broad yellowish sublateral stripes and with rather narrow yellow-pruinose lateral margin. Postabdomen as in figures 17 and 18, processes of hypandrium strongly curved mesad, sharply pointed, with bimucronate anterior branch and with two small subsidiary teeth.

Female.—Length of wing 5.1 to 5.9 mm. Similar to male, except for sexual characters; hind femora simple; abdomen unicolorous brown.

Types.—Holotype (male, no. 3520), allotype, and 2 female paratypes, *Mexico*: D.F., Mexico, route no. 190, km. 15, August 12, 1958; 9 male and 7 female paratypes, all reared from material collected on same date and in same locality (Neff and Matthews), in Cornell University collections, except one pair retained in my collection.

This species is closely related to *Sepedon bifida* Steyskal (1950, Wasmann Jour. Biol., 8: 28), differing therefrom in the male most obviously in the lack of a subbasal prong on the lower side of the hind femora (whence its specific name) and in both sexes in the median blackish band on the hind tibiae and the strongly oblique hind cross-vein of the wings.

Genus **Teutoniomyia** Hennig

Hennig, 1952, Beiträge z. Ent., Deut. Ent. Inst., 2 (3): 609.

The type, and until now, only, species of *Teutoniomyia* was described as *T. plaumanni* from a single pair (of which the male at least

was poorly preserved) from Nova Teutonia, Santa Catarina, Brasil. The genus appears to be related to *Dictyacium*. I have in my collection 4 topotypical specimens, also poorly preserved, from which I can add only the following to Hennig's excellent description: Wings 1.18 to 1.2 mm. wide by 2.2 to 2.4 mm. long; halteres (1 spm.) dark brown; prosternum bare; hind coxae bare above; mesonotal central gray stripe at least as wide as the brownish stripes on either side of it. I have also a single specimen of a closely related species from Costa Rica:

***Teutoniomyia costaricensis* Steyskal, new species**

Female.—Wing 1.3 mm. wide by 2.6 mm. long, the hyaline spots somewhat larger than in *T. plaumanni*, a few of them confluent. Tibiae uniformly dark brown, without paler bands. Mesonotum with central gray stripe very narrow, much narrower than brown stripes on either side of it; only one posterior dorso-central bristle.

Male.—Unknown.

Type.—Holotype (female), *Costa Rica*: Farm La Caja, 8 km. west of San Jose, August 5, 1945 (H. Schmidt), in my collection.

I wish to especially thank my friend Stuart E. Neff, who, although qualified to describe the material he collected, has graciously allowed me to do so.

THE APPLICATION OF THE NAME SYENE

(HYMENOPTERAS ICHNEUMONIDAE)

The name *Syene* is an available generic name in the Ichneumonidae, but has not yet had any species referred to it. The purpose of this paper is to give it a genotype and to assign it to synonymy.

Syene was proposed by Vollenhoven in 1878 (Tijdschr. voor Ent. 21: LXXVI) for a genus near "*Pimpla*," distinguished by having a deep transverse groove in front of the hind margin of the abdominal tergites. No further characters were given and no species specifically mentioned, but the paper in which the name appeared dealt principally with the Javanese Ichneumonidae in the Leiden Museum. In 1958 I saw the ichneumonid material in the Leiden Museum but did not find any specimens labeled *Syene*. In 1959, Dr. J. van der Vecht made a second search for specimens of *Syene* in Leiden, and he also could find none. This leaves only the original description for identification of the genus involved. Several Javanese genera of Ephialtinae, particularly of the tribe Ephialtini, will fit Vollenhoven's description. Of these, it is nomenclaturally most convenient to consider that *Syene* should be the same as *Echthromorpha*. *Cryptus notulatorius* Fabricius, 1804 is hereby designated the type of *Syene*, and *Syene* Vollenhoven is synonymized with *Echthromorpha* Holmgren 1868.—HENRY TOWNES, *Museum of Zoology, University of Michigan, Ann Arbor*.



Steyskal, George C. 1960. "New North and Central American species of Sciomyzidae (Diptera: Acalyptratae)." *Proceedings of the Entomological Society of Washington* 62, 33–43.

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