A NEW SPECIES OF EFFERIA COQUILLETT (DIPTERA: ASILIDAE), STAMINEA SPECIES GROUP, FROM GRAND CAYMAN ISLAND, WEST INDIES

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ABSTRACT

Efferia caymanensis is described as a new species from Grand Cayman Island, West Indies. This species is the first Efferia reported from the Cayman Islands and the first member of the staminea group reported from the West Indies. Illustrations of the terminalia are included.
Resumen

Se describe a Efferia caymanensis como una nueva especie de la isla de Gran Caymán, en las Indias Occidentales. Esta especie es el primer Efferia que se reporta de la Isla Caymán, y el primer miembro del grupo de staminea reportado de las Islas Occidentales. Se incluyen ilustraciones de la terminalia.

While conducting a survey of insects on Grand Cayman Island, West Indies, Dr. Eugene Gerberg of Baltimore, Maryland collected 4 specimens of an asilid that proved to be undescribed. The species belongs to Efferia Coquillett, a large genus restricted to the New World (Hull, 1962). At least 105 species occur in the Nearctic (Wilcox 1966) and 135 in the Neotropics (Martin and Papavero 1970). All of the 16 West Indian species belong to the aedius group, and most are reported from the larger islands, the exceptions being E. caseri (Curran) and E. vaivire (Curran) from the Bimini Islands in the Bahamas (Curran 1953) and E. tortul (Curran) from Tortola Island in the British Virgin Islands (Curran 1928). The two species from the Bahamas (Curran 1953) and E. gossei Farr (Farr 1965) from Jamaica are the most recently described species from the West Indies. None have been reported from the Cayman Islands.

This new species traces to the Efferia staminea species group in available keys (Hine 1919, Wilcox 1966) and is the first member of this group to be reported from the West Indies. This group is characterized by having the fusion of the R4+5 vein being distinctly before the base of the last medial cell, mesonotum with short hairs on the anterior 1/2 and several long bristles on the posterior 1/2, and several strong bristles on the margin of the scutellum. In addition, it differs from the aedius group in that the R5 vein curves forward and meets the costal margin anterior to the wing tip. In the aedius group, this vein curves posteriorly and meets the costal margin behind the wing tip (Hine 1919). The following is presented at this time in order to provide a name for the species in conjunction with the on-going insect survey of the island.

Efferia caymanensis, n. sp.

Figures 1-2

Male.—Body largely reddish, length 17.8 mm excluding terminalia. Face mostly black with pale yellowish pollen, gibbosity red with sparse yellowish pollen, mystax with largely black bristles above but sparsely intermixed and densely bordered by white hairs and short bristles; lower 1/3 of mystax with mostly whitish bristles and 2-3 coarse black bristles laterally. Gena black with yellow-brown pollen grading to black below and numerous black bristly hairs. Width of vertex about two-thirds that of frons just above antenna. Palpus with vestiture mostly black, several white hairs on basal 1/2 ventrally and laterally. Proboscis black with long white hairs below. Antenna mostly black, narrow apices of scape and pedicel and basal 1/3 of stylus reddish; dorsal vestiture of scape and pedicel black, that ventrally and laterally mostly or entirely white; length of stylus subequal to basal 3 antennal segments, flagellum length about 1/2 that of stylus. Occiput mostly grayish polinose with mostly white hairs, large black pollen spot on each side of occiput with several black hairs and 9-11 coarse, black bristles, 4-5 additional thinner black postocular bristles present laterally beyond black polinose spots.

Thorax mostly reddish with yellow to pale yellow pollen; scutum with 2 admedial black longitudinal stripes, narrowly separated their entire lengths, and 2 black lateral spots, posterior spot subtriangular; scutal vestiture black mostly or entirely, hair on anterior 1/2 short, equal to subequal scape length; several bristles on posterior 1/3 becoming increasingly longer and thicker posteriorly. Dorsal hairs of scutellum mostly
Fig 1. *Effuria caymanensis* n. sp., male terminalia, lateral view. Abb: Lp = lower forceps; scale = 1.0 mm. 2. *Effuria caymanensis* n. sp., female terminalia, lateral view. Abb: T8 = tergum 8; scale = 1.0 mm.

Black with sparse white hairs intermixed on basal 1/3; margin of scutellum with 7-8 black bristles and bristly hairs, the bristles about twice length of dorsal hairs. Mesoanepisternum, mesokatepisternum, meron and metaepimeron largely to entirely black; vestiture of mesoanepisternum and katatergite mostly black; mesokatepisternum with only sparse black hairs; pleural vestiture otherwise whitish. Halter yellow.

Wing light yellowish with reddish to reddish brown veins. Costal dilation absent. Vein R5 curving forward and meeting costa well before wing tip; spur of vein R4 almost twice length of basal vein; furcation of vein R4+5 about two-thirds distance between r-m crossvein and base of first medial cell; r-m crossvein at middle of discal cell.

Coxae black anteriorly, reddish elsewhere; fore coxa with abundant thin whitish bristles and 3-4 coarse bristles, one of these black; hind coxa with 4-5 black hairs or weak bristles. Trochanter black ventrally, hind trochanter with 4-5 black bristles. Femora largely reddish, black ventrally except narrow apices; all femora with abundant long whitish hairs ventrally and posteriorly, hair densest and longest below fore femur; anterior and dorsal surfaces of fore and mid femora entirely or mostly with short black hairs, those of dorsal surface of fore femur mixed with long, thin, wavy black hairs; hind femur with 3 bristles anteriorly, 3 subapically and dorsally, 7 anteroventrally and 5 in a cluster baso-posteriorly. Tibiae with narrow apices slightly blackish red, hairs long, thin pale yellow; tarsi, fore and hind tibiae with dense pad of short reddish or slightly orangish hairs ventrally. Tarsi blackish red with black bristles; fore tarsus with several long, thin whitish hairs laterally.

Abdomen reddish with slight blackish tint; terga 1-2 and 6-8 mostly black or blackish pollinose, dark areas on terga 1-6 subtriangular, terga 7-8 with sparse blackish pollen; calli of tergum 1 sparsely and lateral margins of terga 2, 6-8 densely yellow pollinose; remaining areas of terga white pollinose. Lateral margins of terga 1 and 2, narrow apical margin of tergum 2 and terga 3-5 entirely with long white hairs, those on terga 3-5 dense and parted medially; tergum 6 with short white hairs laterally and basally; black pollinose areas of terga 1, 2 and 6-8 mostly or entirely with black hairs, those on terga 1 and 2 long laterally; terga 7-8 with hairs contrastingly short. Tergum 1 with 3-4 coarse black bristles. Sterna white pollinose with white hairs, those on basal 5 dense and long, much shorter and sparser on apical 3 with sparse intermixed black hair.

Terminalia (Fig. 1) reddish with black hairs, surstylus long and slender, widest at or just before middle, with a distinct posteroapical flange. Lower forceps very slender, with an anterior adbasal thumblike process.
Female.—Differs from male as follows: Length 13.8-17.0 mm, excluding terminalia. Stylus 2.1 to 2.5 times length of flagellum. Facial pollen slightly darker yellow than in males; occiput with black pollinose areas much smaller than on male. Hair of scutellum variable, either mostly white or black; pleuron with hair mostly white, sparse black hairs restricted to mesoanepisternum; katepisternite of 1 female without black bristles. Femora or hind coxa with 0-3 black bristles or hairs. Abdominal terga 1-4 with broad triangular black pollinose spots dorsally, remaining areas white with mostly or entirely white hairs; hairs of basal 5 segments much shorter and less abundant than on males. Terga 5-7 with sparse black pollen, lateral margins with dense yellow pollen, hairs mostly black. Ovipositor (Fig. 2) mostly black, sometimes partially reddish; length 5.0 mm, width at middle 1/9 length.

Holotype ♂, Grand Cayman, BWI, E. Foldmans Bay, 8 May, 1970, E. J. Gerberg.


Etymology.—The name *caymanensis* refers to the type locality, Grand Cayman Island.

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**References Cited**


