

New species of *Eufriesea* (Hymenoptera: Apidae) from Venezuela

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Abstract: Three new species of *Eufriesea* from Venezuela are described: *E. chaconi* and *E. bare* from amazonic areas and *E. kimimari* from an andean area. Two of these species belong to the *surinamensis* group while the third one is in the *caerulescens* group.

Two of the species here described have been collected from the Amazon area of Venezuela and a third one from an Andean area with amazonic characteristics. The format and terminology is based on Kimsey (1982) and Dressler (1978 a, 1978b, 1982) with slight modifications.

Eufriesea chaconi sp. nov.

Male: body length 19 mm; tongue length 11 mm reaching sternum III.

Head green with golden hues; genae and vertex black covered with black pubescence; labrum as long as wide with a median welt and two sublateral ridges, rounded in lateral view. Clypeus green with golden hues, densely and deeply punctated with large and small punctures; with an unpunctated medial ridge and two sublateral welts.

Thorax: Mesopleura black with black pubescence densely punctated with small round punctures. Scutum dark green becoming darker distad, covered with black hairs. Scutal patches green; tegulae green. Scutellum slightly biconvex, black and densely covered by long black hairs. Legs black with bluish-green hues; midtibiae with anterior felty patch not contiguous with midtibial brush. Hindtibiae

black with a posterior green stripe covered with scattered yellow hairs. Posterior fringe of hairs yellow. Two knobs above spurs.

Abdomen: Tergum I black, covered with black pubescence. Terga II to VII dark green with coppery highlights covered with yellow hairs.

Genitalia: Sternum VIII about as wide as long as far apart (Fig. 1A); sternum IX apically produced into two dorsal points in lateral view (Fig. 1B); gonostylus ventral lobe two thirds as long as dorsal one; gonocoxal lobe half as long as gonostylus (Fig. 1C).

Female: unknown.

Type material: Holotype male, Venezuela, Bolivar, Río Paragua al E. Río Chigua, 425 m, 3-7-VIII-1983; Exp. Instituto de Zoolología Agrícola, al salicilato de Metilo.

The holotype is in Colección Entomológica "Dr. Francisco Fernández Yépez", Museo del Instituto de Zoolología Agrícola, Universidad Central de Venezuela (MIZA-UCV).

This species resembles *E. fallax* but it can be readily separated from it by the shape of the lobes of sternum VIII and the gonocoxal lobes which are quite different from *E. fallax*. It can be grouped with those species of the *surinamensis* group.

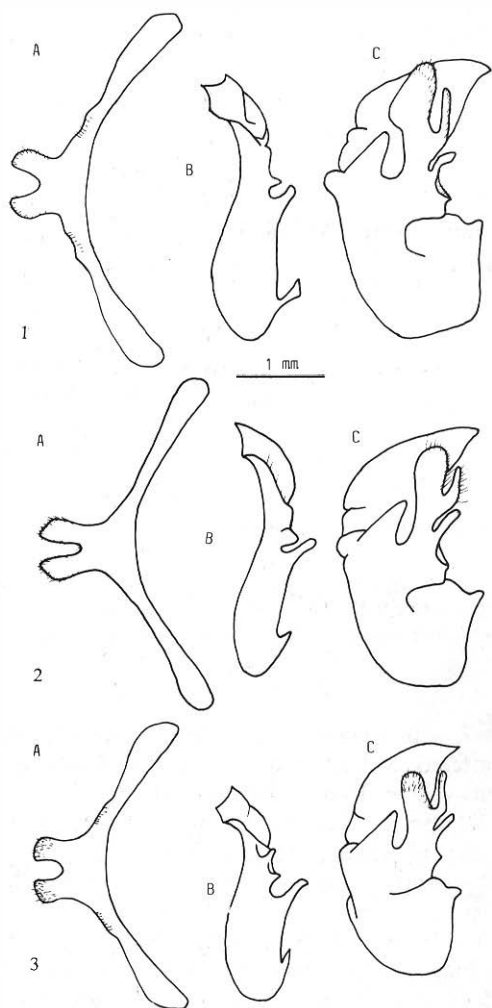


Fig. 1. *Eufriesea chaconi* sp. nov. A: Sternum VIII; B: Sternum IX; C: Genital capsule.

Fig. 2. *Eufriesea kimimari* sp. nov. A: Sternum VIII; B: Sternum IX; C: Genital capsule.

Fig. 3. *Eufriesea bare* sp. nov. A: Sternum VIII; B: Sternum IX; C: Genital capsule.

This species is named after Anibal Chacón who has been a tireless insect collector in the staff of MIZA-UCV.

Eufriesea kimimari sp. nov.

Male: body length 19 mm; tongue length 12 mm, reaching sternum III.

Head green with golden hues; labrum black, 1.4 times wider than long with medial unpunctated welt and two sublateral ridges pointed

in lateral view. Clypeus green with an unpunctated medial ridge and two faint sublateral punctated welts, punctures dense, large and elongated, covered by sparse yellow hairs. Genae and occiput black with bluish highlights, with sparse yellow hairs. Vertex black covered with black hairs.

Thorax: Mesopleura black covered by black hairs, medially with large punctures interspaced with smaller ones and densely punctated with small punctures to the sides. Scutal patches bluish-green covered with yellow and bl. k hairs, rest of scutum black with black hairs. Tegulae blue. Scutellum almost flat and covered with black hairs. Legs black with some green hues; mid-tibiae with brush almost touching anterior felty patch which is half as long as posterior one. Hindtibiae black with a green spot basally.

Adomen: Tergum I black covered with black hairs; tergum II steel blue with yellow hairs; Terga III to VII dark steel green densely covered with yellow hairs.

Genitalia: Sternum VIII lobes twice as long as wide and as wide as far apart (Fig. 2A). Sternum IX apically produced into a single point in lateral view (Fig. 2B). Gonostylus ventral lobe shorter than dorsal one; gonocoxal lobe half as long as gonostylus (Fig. 2C).

Female: unknown

Type material: Holotype male, Rio Frío, Táchira. X-1987. (Venezuela), Col. P. Romero. Al salicilato de metilo.

The holotype has attached a pollinarium of an unidentified species of an orchid in the genus *Stanhopea*.

The holotype is in the Colección Entomológica "Dr. Francisco Fernández Yépez", Museo del Instituto de Zoología Agrícola, Universidad Central de Venezuela (MIZA-OCV).

This very distinctive species belongs to the *surinamensis* group but can be easily distinguished by the coloration of the scutal patches and tergites, and the very distinctive genitalia.

The specific epithet refers to the Kiminarí, an extinct ethnic group that inhabited the surrounding areas of San Cristóbal, Tachira, Venezuela, where this bee was collected.

Eufriesea bare sp. nov.

Male: Body length 17 mm; tongue length 8 mm reaching hind coxae.

Head green with golden highlights. Face and genae all green with golden highlights covered with sparse yellow hairs. Labrum green 1.5 times wider than long with a medial welt and two sublateral ridges pointed in lateral view. Clypeus green with golden highlights with a punctated median welt, depressed at tentorial pits, punctures large and contiguous becoming sparser to the sides. Vertex dark green covered with black hairs.

Thorax: mesopleura green with rounded, large and dense punctures interspaced with smaller ones, covered with yellow hairs. Scutum green with golden and blue highlights; punctures dense and small, denser to the sides and sparser medially. Pubescense of scutum made of short yellow hairs with scattered black hairs. Tegulae green. Scutellum biconvex, green with blue highlights with a fringe of long black hairs distad, punctures large and sparse, medially larger, denser behind. Legs all green with golden highlights, midtibiae with anterior felty patch and tibial brush contiguous. Hindtibiae green with golden hues medially, covered with short yellow hairs. Posterior fringe yellow.

Abdomen: Terga I to III green with golden highlights and covered with short yellow hairs. Terga IV to VII golden-brassy covered with relatively long yellow hairs.

Genitalia: Width of sternum VIII lobes two thirds of their length and as wide as far apart (Fig. 3A). Sternum IX apically produced into two dorsal points in lateral view (Fig. 3B). Gonostylus ventral lobe as long or longer than dorsal one; gonocoxal lobe half as long as gonostylus (Fig. 3C).

Female: unknown.

Type material: Holotype male. San Carlos de Río Negro, Venezuela, T. F. Amazonas. 7-13-XI-1982. col. A. Chacón y G. Yépez G. Al Salicilato de metilo.

Paratypes: 9 males, same data as holotype; 2 males, Venezuela, T.F. Amazonas, Solano, a orillas B. Casiquiare. 9-XI-1988. Col. A. Chacón y G. Yépez G. Al Salicilato de metilo: 1 male, Venezuela, Dpto. Río Negro, 21-23-XI-1984, San Carlos de Río Negro. 1° 55'N, 67° 1'W. Col. E. Osuna y A. Chacón: 1 male. Samariapo, T. F. Amazonas, Venezuela. 11-X-1988. Col., J. M. González. Al Para-di-metoxo-benceno; 7 males, Duicha, cr. Culebra, T. F. Amazonas, Venezuela. 3° 34'N, 65° 55'W. 22-X-1988. Col. J. M. González. Al Para-di-metoxo-benceno; 5 males, Culebra, T. F. Amazonas, Venezuela. 3° 33'N, 65° 55'W. 24-X-1988. Col. J. M. González. Al Para-di-metoxo-benceno; 1 male, Pie de Monte del Duida, T. F. Amazonas. 3° 34'N, 65° 32'W. 26-27-X-1988. Col. J. M. González.

The holotype and twenty paratypes are in the Colección Entomológica "Dr. Francisco Fernández Yépez" Museo del Instituto de Zoología Agrícola, Universidad Central de Venezuela. One paratype is in each of the following institutions and personal collections: American Museum of Natural History, New York; United States National Museum, Washington; British Museum (Natural History), London; R. L. Dressler personal collection, Gainesville, Florida and L. S. Kimsey personal collection, Riverside, California.

This species resembles *E. anisochlora* from Panamá, but it is readily separated from it by its larger size, longer tongue, white posterior fringe on hind tibiae, tergal coloration and by its distinctive genitalia. It belongs to the *caerulescens* group.

The specific epithet refers to the Baré, an indigenous group that inhabits the area where the holotype and twelve of the paratypes were collected.

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RESUMEN

Se describen tres nuevas especies de *Eufriesea* de Venezuela. *E. chaconi* y *E. bare* provienen de áreas amazónicas y *E. kimimari* de la región andina. Dos de estas especies pertenecen al grupo *surinamensis*, mientras que la tercera está en el grupo *caerulescens*.

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