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## A NEW SPECIES OF THE GENUS *PLAGIOCEPHALUS* (DIPTERA, ULIDIIDAE) FROM CENTRAL AMERICA

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**A New Species of the Genus *Plagiocephalus* (Diptera, Ulidiidae) from Central America.** Kameneva E. P. — *Plagiocephalus intermedius* Kameneva, sp. n. from Costa Rica is described. It differs from two other species by shorter eye stalks and pattern, venation and shape of the wing in male and head coloration and wing venation in female. A key to species of the genus *Plagiocephalus* Wiedemann is provided. The lectotype of *Achias lobularis* Wiedemann is designated.

**Key words:** Diptera, Ulidiidae, Central America, new species.

**Новый вид рода *Plagiocephalus* (Diptera, Ulidiidae) из Центральной Америки.** Каменева Е. П. — Описан *Plagiocephalus intermedius* Каменева, sp. n. из Коста-Рики, который отличается от других видов рода более короткими стебельками глаз, а также рисунком, жилкованием и формой крыла самца и окраской головы и жилкованием крыла самки. Приведена таблица для определения видов рода *Plagiocephalus* Wiedemann. Обозначен лектотип *Achias lobularis* Wiedemann.

**Ключевые слова:** Diptera, Ulidiidae, Центральная Америка, новый вид.

### Introduction

*Plagiocephalus* Wiedemann is a peculiar genus of the family Ulidiidae. Males of all species have stalked eyes (fig. 1). The genus has been revised by Steyskal (1963, 1964, 1968). However, while treating material of collection of the Instituto Nacional de Biodiversidad (Santo Domingo, Costa Rica), some uncommon specimens certainly belonging to this genus attracted my attention. The study of numerous additional material (including types) from the museums listed below, as well as descriptions and figures of nominal species ever assigned to *Plagiocephalus* (including already synonymized), has shown that a series of specimens from Costa Rica (both males and females) belonging neither to *Plagiocephalus lobularis* Wiedemann nor *P. latifrons* (Hendel) represents a new undescribed species. Also, while preparing the catalogue of the family Ulidiidae of the World, some nomenclatural inconsistencies needed correction were noted in previous publications.

This study is based upon material deposited in the following collections: BMNH — Museum of Natural History, London; DEI — Deutsche Entomologisches Institut, Zentrum für Agrarlandschafts- und Landnutzungsforschung, Eberswalde, Germany; HMNH — Hungarian Natural History Museum (Termeszettudományi Múzeum), Budapest; INBio — Instituto Nacional de Biodiversidad, Santo Domingo, Heredia, Costa Rica; INBio OET — material possessed by the “OET” Project deposited in INBio; MLUH — Institut für Zoologie, Martin-Luther-Universität Halle-Wittenberg, Halle-am-Saale, Germany; MTD — National Museum of Zoology (Staatliches Museum für Tierkunde), Dresden, Germany; NHMLA — Natural History Museum of Los Angeles County, USA; NHMW — Natural History Museum of Vienna (Naturhistorisches Museum Wien); UG — Department of Environmental Biology, University of Guelph (Canada); USNM — United States National Museum of Natural History, Washington, D. C.; ZMHB — Museum of Natural History of the Humboldt University in Berlin (Museum für Naturkunde der Humboldt-Universität zu Berlin); ZMUC — Zoologisk Museum, Universitets Copenhagen, Denmark.

Morphological terminology follows J. F. McAlpine (1981).

### *Plagiocephalus* Wiedemann, 1830

Wiedemann, 1830: b: 12; Westwood, 1849: 235; Osten Sacken, 1881: 478; Hendel, 1911: 4, 52; Cresson, 1923: 258; Frey, 1926: 47; Carrera, 1950: 261; Aczél, 1951: 421; Steyskal, 1963: 511; 1964: 400; 1968: 54.21.

- Type species: *Plagiocephalus lobularis* Wiedemann, 1830: 15 (by monotypy).  
*Stylophthalmyia* Frey, 1926: 45 (synonymized by Steyskal, 1963).  
 Type species: *Stylophthalmyia fascipennis* Frey, 1926: 46 (by original designation).  
*Ophryoterpnomyia* Hendel, 1936: 76 (synonymized by Carrera, 1950).  
 Type species: *Terpnomyia latifrons* Hendel, 1909 a: 18 (by original designation).  
*Paragoniaeola* Blanchard, 1938 a: 370 (synonymized by Aczél, 1951).  
 Type species: *Paragoniaeola tanycephala* Blanchard, 1938 a: 371 (by original designation).  
*Eupterocerina* Blanchard, 1938 b: 91 (synonymized by Steyskal, 1968).  
 Type species: *Eupterocerina conjuncta* Blanchard, 1938 b: 91 (by original designation).  
*Willineria* Blanchard, 1951: 32 (synonymized by Steyskal, 1964).  
 Type species: *Willineria orfilai* Blanchard, 1951: 32 (by original designation).  
*Plagiocephala*: Macquart, 1843: 213; Loew, 1873: 26; Hendel, 1909 b: 47 (unjustified emendation).  
*Plagiocephalas*: Frey, 1926: 47 (error).

**Diagnosis.** Head transverse in both sexes, its shape sexually dimorphic: in males, strongly widened head with stalked eyes and frons much wider than long, while in females, only moderately widened (at least most twice as wide as long). Body brownish to black with pattern of sparsely yellowish-grey microtrichose spots and bands; mesonotum with brown microtrichose pattern, without dots at bases of setulae; proepisternal seta well-developed; 1 supraalar and 2 dorsocentral setae. Wing hyaline with dark banded pattern; vein  $R_1$  setulose in apical half, in male not bowed posteriorly;  $R_{2+3}$  almost straight; R-M at apical 2/5 of discomedial cell; cell bcu with short postero-apical lobe. Abdominal tergites 3–5 subequal long in both sexes. Male genitalia: phallus bare, extremely elongated; ejaculatory apodeme with apical portion at least as long as its fan-like portion, elliptic epandrium similar to that in *Rhyparella* Hendel and *Dasy-metopa* Loew: medial surstylus bears 2 equal subapical prenisetae in *P. latifrons* (Hendel). Abdominal sternites of females 4–6 without apodemes; tergite 6 short, hidden under tergite 5, with several short marginal setulae; aculeus long and narrow; cercal unit elongate oval.

#### Key to species of *Plagiocephalus*

##### Таблица для определения видов *Plagiocephalus*

1. Face wholly pale yellow or brownish; eyes stalked; wing sometimes lobate (males) ..... 2  
 — Face with large black spot between antennae; eyes not stalked, wings of normal outline (females) ..... 4
2. Wing with three scallop-like lobes at base of posterior margin; crossband running through vein R-M widely connected with oblique subbasal band (fig. 1, 2) ..... *lobularis* Wiedemann  
 — Wing of normal outline; crossband through vein R-M at most barely touching oblique subbasal band..... 3
3. Eye span (< 7,1 mm) almost equal to length of body or wing; vein R-M proximally of  $R_1$  apex (fig. 1, 3) ..... *intermedius* Kameneva, sp. n.  
 — Eye span (> 7,9 mm) much greater than length of body or wing; vein R-M at level of  $R_1$  apex (fig. 1, 1) ..... *latifrons* Hendel
4. Parafacial between antenna and eye distinctly blackened (fig. 2, 4); vein R-M at level of  $R_1$  apex (fig. 2, 1) ..... *latifrons* Hendel  
 — Parafacial between antenna and eye yellow (fig. 2, 5); vein R-M proximally of vein  $R_1$  apex (fig. 2, 2–2, 3) ..... 5
5. Crossband running through vein R-M well connected with oblique subbasal band (fig. 2, 2) ..... *lobularis* Wiedemann  
 — Crossband running through vein R-M not or barely touching oblique subbasal band (fig. 2, 3) ..... *intermedius* Kameneva, sp. n.

#### *Plagiocephalus lobularis* (Wiedemann, 1830) (fig. 1, 2; 2, 2)

Wiedemann, 1830 a: 555; Macquart, 1835: 260 (*Achias*); Wiedemann, 1830 b: 15; Westwood, 1849: 235; Frey, 1926: 47; Carrera, 1950: 262; Aczél, 1951: 422; Hennig, 1952: 616; Steyskal, 1963: 512; 1968: 54.21 (*Plagiocephalus*); Macquart, 1843: 213; Hendel, 1909 b: 47 (*Plagiocephala*). — *Paragoniaeola tanycephala* Blanchard, 1938 a: 371 (synonymized by Aczél, 1951). — *Eupterocerina conjuncta* Blanchard, 1938 b: 91 (synonymized by Steyskal, 1968). — *Ophryoterpnomyia zikani* Capoor, 1954: 205 (synonymized by Steyskal, 1963). — *Plagiocephalus latifrons*: Carrera, 1950: 265 (?misidentification; see Steyskal, 1963).

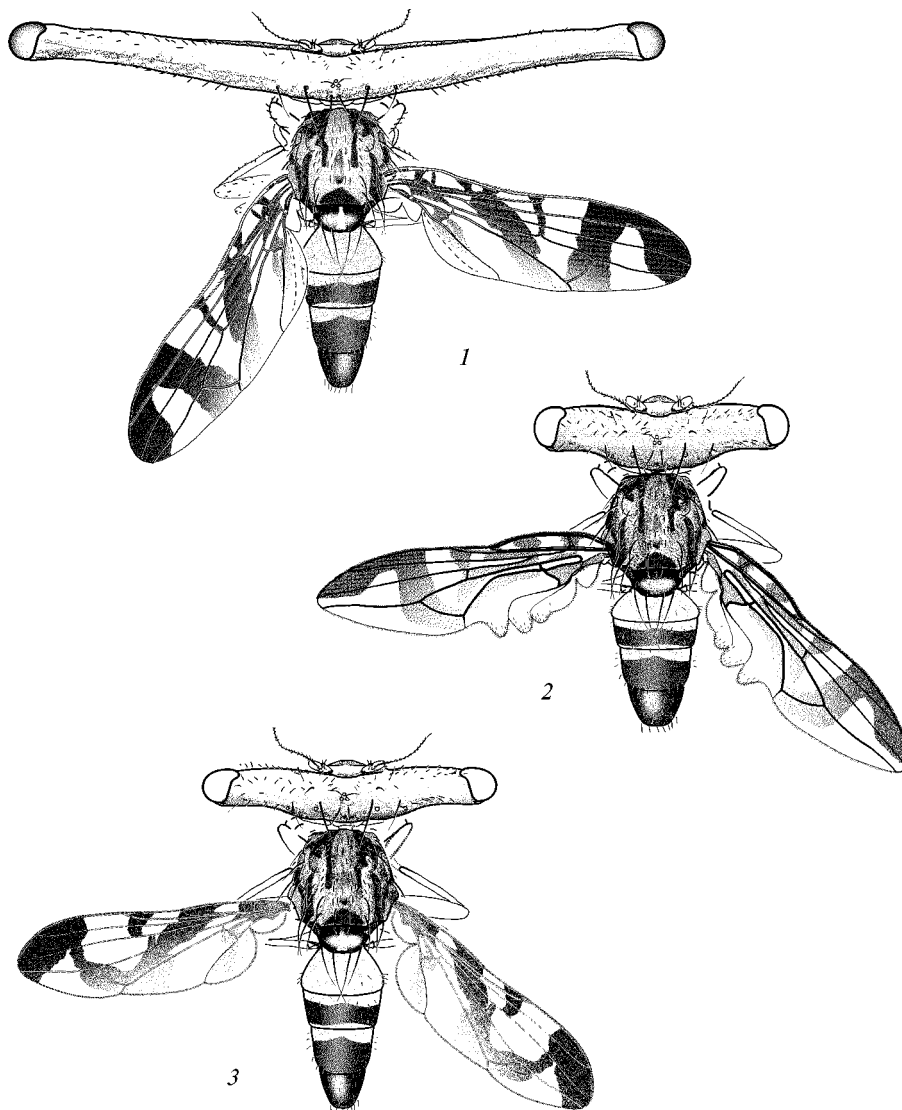


Fig. 1. *Plagiocephalus*, male, total view, dorsally: 1 — *P. latifrons*; 2 — *P. lobularis*; 3 — *P. intermedius*.

Рис. 1. *Plagiocephalus*, самец, общий вид дорсально: 1 — *P. latifrons*; 2 — *P. lobularis*; 3 — *P. intermedius*.

Material. Type. Lectotype (here designated): ♂ *P. lobularis* / Wied. / Brazils / Lund", "Mus. Westerm.", "Syntype / *Achias lobularis* / Wiedemann / 1830 / des. V. Korneyev / XII.2003" (ZMUC).

Non-type. BRAZIL: Santa Catharina, "Bez. Humboldt / W. Ehrhardt / vend.", 1.11.1910, ♂ (DEI); ibidem, "Nova Teutonia", 10.05.1954, ♀, 11.08.1955, ♀ (Plaumann) (ZMHB); ibidem, Nova Teutonia, 27°11' B, 52°23' L, 24.10.1936, ♂ (Plaumann) (Whittington det.) (BMNH); San Paulo, Santos, 24.01.94, ♂ (MLUH); "Maracau / M. Grosso", 02.1937, ♀; Rio de Janeiro, 10.1938, 11 ♀ (Shannon) (USNM); PARAGUAY: Hohenau, 250 m, 25.10.1907, ♀ (DEI); ibidem, 25, 26.10.1907, 2 ♀ (MTD); ARGENTINA: Misiones, Iguazu, 4–10.10.1927, ♂ (Shannon) (USNM).

Comments. This species is well known from complete descriptions including excellent figures (male: Wiedemann, 1830 b; Blanchard, 1938 a; female: Blanchard, 1938 b; Capoor, 1954; both sexes: Carrera, 1950). Female terminalia were studied and briefly described and figured by Capoor (1954: 207). Revised distributional range includes southeastern and southern Brazil, Paraguay and Argentina. *P. lobularis* differs from other species of the genus by the following characters: crossband running through vein R-M well connected with oblique subbasal band and vein R-M proximally of vein R<sub>1</sub> apex in both sexes; wing of male with three scallop-like lobes at base of posterior

margin; the eye span in male less than in *P. latifrons*; parafacialium of female between antenna and eye completely yellow.

Dr. Valery Korneyev kindly examined the Wiedemann's collection at the ZMUC on my request, but has not found any specimens of this species. Instead, there was a male specimen in the general collection, which fits well the original description (Wiedemann, 1830 a) and figure (Wiedemann, 1830 b) in position of certain pale spots and other individual features. It belonged to Lund's collection and was collected in Brazil, as it was originally noted in the description. As this species was described from an unknown number of males (one male? more?), we considered the specimen depicted by Wiedemann and now deposited in the ZMUC collection a syntype. According to my own observations, there are no additional specimens of this species from Wiedemann's collection neither in Vienna nor in Frankfurt. Herewith, I designate it as the lectotype of *Achias lobularis* Wiedemann to avoid further uncertainty.

***Plagiocephalus latifrons* (Hendel, 1909) (fig. 1, 1; 2, 1, 4)**

Hendel, 1909 a: 18; 1909 b: 31; pl. 2, fig. 30, 31 (*Terpnomyia*); Hendel, 1936: 76 (*Ophryoterpnomyia*); Aczél, 1951: 421; Steyskal, 1963: 512; 1964: 400; 1968: 54.21 (*Plagiocephalus*). — *Stylophthalmyia fascipennis* Frey, 1926: 46 (synonymized by Steyskal, 1963). — *Willineria orfilai* Blanchard, 1951: 32 (synonymized by Steyskal, 1964).

**Material Type.** Syntypes of *Terpnomyia latifrons*: 4 ♀: “Bolivia - Mapiro / 21.I.03 / S. Carlos 800 m”, “*Terpnomyia latifrons* / det. F. Hendel”, “Cotypus”; Bolivia - Mapiro / 5.III.03 / Sarampioni 700 m”, “*Terpnomyia latifrons* / det. F. Hendel”, “Cotypus”; “Peru - Urubambafl. / 10.IX.03 / Umahuankilia”, “*Terpnomyia latifrons* / det. F. Hendel”, “Cotypus” [Garlepp] (Coll. Schnuse) (MTD); “Peru - Urubambafl. / 13.IX.03 / Umahuankilia”, “*Terpnomyia latifrons* / det. F. Hendel”, “Paratype”, “Coll. Hendel” [Garlepp] (NHMW).

**Non-type.** MEXICO: Chiapas, Cacahcatan, 30.08.1967, 3 ♀ (Sancae); GUATEMALA: Escuinta: Pafin, 1992, ♂, ♀ (Lopez); SALVADOR: “La Union”, “GRS”, 25.01.1957, ♂, 2 ♀; “Santa Tecla”, ♀; HONDURAS: La Ceiba, 7.04.1916, ♀; NICARAGUA: Masaya, La Concha, 7.02.1961, ♂ (USNM); COSTA RICA: Alajuela: San Ramon, Angeles, R. B. San Ramon, 1100 m, 23.01–23.02.1995, ♀ (Carballo); Fca San Gabriel, 2 km SW Dos Rios, 600 m, 05.1989, ♀ (GNP Biodiv. Survey); Puesto Quebradon, Guatuzo, P. N. Tenorio, 300 m, 05.1989, ♀ (Rodrigues) (INBio); Volcan Tenorio, Bijagua Biol. Sta., 700 m, 20.06.2000, ♀ (Buck) (UG); San Mateo, Higuito, ♀; Cartago: La Suiza, 2 ♀ (AL Melander Collection) (Schild) (USNM); Heredia: Est. Biol. La Selva, 50–150 m, 1.04.1993, 2.03.1993, 1.07.1993, 3 ♀ (INBio OET); Guanacaste: Tierras Morenas, 700 m, 01.1994, 2 ♂, 3 ♀; ibidem, 685 m, 09.1993, ♂; ibidem, 02.1994, ♂ (Rodrigues); Guan. PNSR, Bosque Humedo, 300 m, 5–6.04.1997, ♂ (Zumbado); ibidem, 07.1999, 2 ♀ (Sullivan, Perez); ibidem, 11.1999, ♀ (Janzen); Limon: A. C. Amistad, R. B. Hitoy Cerere, Valle de la Estrella, 300 m, 13.05–15.06.1994, 5 ♀ (Carballo); ibidem, 140 m, 17.06–17.07.1999, 2 ♀ (Umafia); Sendero Bobocara, 140 m, 17.06–17.07.1999, ♀ (Umafia); 300 m, 11.10–11.11.1999, ♀ (Umafia); ibidem, 17.02–17.03.2000, ♀ (Umafia); Valle del Selencio, Sendero Toma de Agua, 100–140 m, 05–06.2000, ♀ (Umafia); (INBio); Estrella Valley, Pandora, 28.03.1984, 4 ♀ (Manley) (UG); Puntarenas: Coto Brus, Est. Pittier, Rio Gemelo, 700 m E de la Estacion, 1600 m, 8–19.09.1997, ♂ (Moraga); P. N. Manuel Antonio, Quepos, 80 m, 10.1993, ♂ (Varela); 50 m R. B. Carara, Est. Quebrada Bonita, 09.1989, ♀ (Zuniga); Osa: Golfito, P. N. Corcovado, Sendero a Rio Claro, 1–100 m, 17.06–4.09.1991, ♀ (Saborio); ibidem, Sendero a Sirena, 100 m, 15.05–15.06.2000, ♀ (Azofeifa); ibidem, Est. Sirena, 1–100 m, 06.1990, ♀ (Maass); Rancho Quemado, 200 m, 01.1991, ♀ (Quesada) (INBio); Golfito, 22.07.1957, 2 ♀ (Truxal, Menke) (NHMLA); Piedras Blancas, 24 km W, 200 m, 11.1990, ♀ (Hanson) (USNM); PANAMA: Barro, Colorado Isl., 01–03.1944, ♂ (Zetek); ibidem, 10–17.05.1964, ♂ (Duckworth); El Cermeno, 12.1939–01.1940, ♂ (Zetek); TRINIDAD: Simpla., Akima - Blanchisseuse Rd., 20.07.1975, ♂ (Price); VENEZUELA: Lara, 4 km NW of La Pastora, 2–3.03.1978, ♂ (Hoppner); T. F. Amaz., Cerro de la Neblina, Basecamp, 140 m, 21–29.02.1984, ♀ (Davis, McCabe); ibidem, 10–20.02.1985, ♀ (Spangler, Fäitoute, Steiner) (USNM); BRAZIL: “Unt. Amaz. Taperinha b. Santarem”, “*Ophryoterpnomyia latifrons* / det. F. Hendel”, “*Ophryoterpnomyia latifrons* / det. F. Hendel”, 1–10.07.1927, 2 ♀, 11–20.07.1927, 7 ♀ (Zerny) (NHMW); Para, Belem, 10.1969, ♀ (Aitken); Ecuador: Past. Prov., Santa Clara, 30.06.1976, ♀ (Turner); Tung., Banos (39 km S E), 25.01.1976, ♀ (Spangler) (USNM); Peru: Vilcanota, “latifrons / det. F. Hendel”, 3 ♀ (HMNH); Urubambafl., Umahuankilia, 17.09.1903, ♀ [Garlepp] (Coll. Lichtwardt) (DEI); ibidem, 17.09.1903, 2 ♀; ibidem, 12, 15, 16.09.1909, 3 ♀; Meshagua, 10, 30.09.1903, 2 ♀ [Garlepp] (Coll. Schnuse) (MTD); Iquitos, 03–04.1931, ♀ (Shannon); 80 km NE Iquitos on Rio Yanamo (1 km upriver from Rio Amazon, 15–26.07.1995, ♂ (Levis) (USNM); BOLIVIA: Songo, “latifrons / det. F. Hendel”, ♀ (HMNH); Mapiro, S. Carlos, 800 m, 11.01.1903, ♀ [Garlepp] (Coll. Schnuse) (MTD); PARAGUAY: Depto Alto Parana, 14–16.04.1986, ♀ (Pogue, Solis) (USNM).

Comments. The original description of the female (Hendel, 1909 a) is quite complete and needs no addition; the male was described by Frey (as *Stylophthalmyia fascipennis* Frey, 1926) and Blanchard (as *Willineria orfilai* Blanchard, 1951), including excellent figures. The male postabdomen was briefly described and figured by Steyskal (1963).

*P. latifrons* differs from other species of the genus by the following characters: wing of normal outline, without lobes posteriorly in both sexes; vein R-M at level of R<sub>1</sub> apex and crossband through vein R-M in both sexes at most barely touching oblique sub-basal band; eye span of male (8.0–15.3 mm) greater than in other species; parafacium of female between antenna and eye distinctly blackened.

Prior to this study, *P. latifrons* was known only from Bolivia, Peru, Guatemala, Salvador, Honduras, Nicaragua, Costa Rica, Panama (Steyskal, 1963, 1968) and northern Brazil (Hendel, 1936). Now, it is recorded for the first time from Mexico, Trinidad, Venezuela, Ecuador and Paraguay.

***Plagiocephalus intermedius* Kameneva, sp. n. (fig. 1, 3; 2, 3, 5)**

Material. Type. Holotype ♂: Costa-Rica: Puntarenas: Monteverde, San Luis, Buen Amigo, 1000–1350 m, 09.1994, ♂ 3224 (Fuentes); Paratypes 3 ♂, 17 ♀: Costa-Rica: Cartago: A. C. Amistad, P. N. Tapanti, 1150 m, 01.1994, ♂ (Mora); Guanacaste: Rio San Lorenzo, Tierras Morenas, Z. P. Tenorio, 1050 m, 01.1993, ♀ (Rodriguez); P. N. Guanacaste: Est. Cacao, 07.1989, ♀ (GNP Biod. Sur.); ibidem, SW side Volcan Cacao, 1000–1400 m, 11–12.1989, ♀ (Blanco, Chaves); ibidem, Lado SO Volcan Cacao, 800–1600 m, 12–17.07.1993, ♀ (Fuentes); Puntarenas: Monteverde, San Luis, Buen Amigo, 100–1350 m, 09.1994, ♀; ibidem, 11.1994, ♂; ibidem, 25.11–10.12.1996, ♂ (Fuentes); Est. Pittier, Sendero Pittier, 1670 m, 26.06.1995, ♀ (Angulo); ibidem, 21.06–4.07.1995, 2 ♀ (Moraga); ibidem, 25.0–4.07.1995, 3 ♀ (Zumbado); ibidem, 1700 m, 3.07.1995, 2 ♀ (Zumbado); Buenos Aires, Est. Altamira, Sendero Los Gigantes, 1450 m, 4.0–3.02.2000, 4 ♀ (Rubi) (INBio).

Description. Male (fig. 1, 3). Head strongly transverse with eyes moderately stalked (distance across eyes 3.0–7.0 mm), reddish-yellow, with dorsolateral portions of occiput, posterior portion of frons and ocellar triangle brown to black. Frons 0.13–0.2 as long as wide and 6.3–10.8 as wide as eye, with many black setulae. Head length: height: width ratio = 1.5 : 2.0 : 10. Vertical, postocellar, ocellar and orbital setae not shorter than in females, at most as long as flagellomere 1 wide; frontal setae not expressed. All setae and setulae of the head are black. Scapus and pedicel uniformly yellow, without darker marks, flagellomere 1 light yellow, 1.8 times longer than wide. Arista brown, 3.5–4.1 times longer than flagellomere 1, with very short lightly pubescence. Face white microtrichose without dark spots. Palpus not extending beyond anterior oral margin, pale yellow, with black setulae at apex. Proboscis capitate, reddish-yellow with brown and black setulae.

Thorax brownish black, sparsely yellowish-grey microtrichose, with antepnotum, postpronotal lobes, scutellum, subscutellum and mediotergite mostly subshining brown. Mesonotum with brown microtrichose pattern, without dots at bases of setulae. One supraalar seta, two dorsocentrals, prsc setae present. Scutellum dull sparsely grey microtrichose medially, with median white stripe apically and on under side, darker on sides, with 4 long setae. Anepisternum and katepisternum uniformly yellowish-grey microtrichose, without dark spots at bases of setulae. All setae and setulae of the thorax brown to black.

Wing of ordinary outline; costal vein between vein Sc and vein R<sub>1</sub> apices unmodified, almost straight. Basicostal cell brown only in apical 1/3, costal cell brown in basal 1/5 and in apical 3/5, with little hyaline spot before its brown end. Pterostigma 5–7 times as long as wide, hyaline to yellow on basal half and brownish on apical. R<sub>3</sub> vein setulose only on apical half (11–13 black setulae). R<sub>2+3</sub> vein almost straight, slightly sinuate, and as R<sub>4+5</sub> vein bare. Wing pattern hyaline with 3 brownish-grey



Fig. 2. *Plagiocephalus*, female: 1-3 — wing: 1 — *P. latifrons*; 2 — *P. lobularis*; 3 — *P. intermedius*; 4-5 — head: 4 — *P. latifrons*; 5 — *P. intermedius*.

Рис. 2. *Plagiocephalus*, самка: 1-3 — крыло: 1 — *P. latifrons*; 2 — *P. lobularis*; 3 — *P. intermedius*; 4-5 — голова: 4 — *P. latifrons*; 5 — *P. intermedius*.

crossbands. Basal crossband restricted to grey spot from basicostal cell to basad of br cell and apicad of bcu cell, with dm cell and basal bcu cell widely hyaline. Brown sub-basal crossband from apicad of costal cell widely and obliquely crossing wing in RS bifurcation almost to posterior margin of wing and crossing dm-cu vein to connected with big brown spot on the apex of wing. Pterostigmal crossband reduced to little brown spot above vein  $R_{4+5}$  (in one specimen clearly connected with R-M vein). R-M vein far before end of  $R_1$  vein. Postero-apical lobe of bcu cell very short, not exceeding BM-Cu vein level. Upper calypter slightly longer than lower calypter, white, with white fringe. Halter white.

Legs unmodified, moderately setulose (setae and setulae black); fore (including coxae) and mid legs yellow; hind tibia yellow to brown, hind femora brown and hind tarsi yellow.

Abdomen dark brown and uniformly black setulose; tergite 1-2 sparsely grey microtrichose, tergites 3 and 4 with narrow grey microtrichose areas at anterior and posterior margins; tergite 5 without grey microtrichose, shorter than tergite 4. Male genitalia not examined.

Female similar to male, except head unmodified, slightly widened (fig. 2, 5). Head length: height: width ratio = 1.0 : 1.2 : 2.0. Face white microtrichose, with black microtrichose spot between bases of antennae and 2 horizontal elongate shining brown spots medially of antennal grooves. Parafacial between antenna and eye completely yellow. Gena white microtrichose, with C-shaped brown microtrichose marks. Frontal vitta black setulose and white microtrichose, with 2 brown spots above antenna. Scapus and pedicel uniformly reddish yellow, flagellomere 1 reddish yellow, slightly darkened on apical half. Wing (fig. 2, 3): pterostigmal crossband wedge-like always covering R-M vein, but not or barely touching oblique subbasal fascia. Abdominal tergite 5 with nar-

row grey microtrichose areas at anterior and posterior margins; slightly shorter than tergite 4. Tergite 6 small, exposed, without grey microtrichose, with 4–5 short marginal setulae. Tergo-sternite 7 brown, black setulose, slightly longer than tergites 3–6 together. Oviscape black, not shorter than four preceding tergites together. Aculeus long and narrow; cercal unit elongate oval. Spermathecae not examined.

Measurements (length in mm). Male. Body 4.5–5.8, wing 4.7–6.1. Female. Body (with oviscape) 7.5–9.6, wing 5.0–6.5, oviscape dorsally 2.2–2.5, aculeus 2.2–2.8.

Comments. The new species is known only from Costa Rica. It differs from other species of the genus by combination of the following characters: the eye span in male less than in *P. latifrons*, like in *P. lobularis*; wing venation like in *P. lobularis*: the vein R-M proximally of the vein R<sub>1</sub> apex, but the pattern of wing similar to *P. latifrons*: the crossband through vein R-M in both sexes at most barely touching oblique subbasal band; the wing of male of normal outline, without posterior lobes, like in *P. latifrons*; the parafacialium of female between antenna and eye completely yellow, like in *P. lobularis*.

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- Aczél M. L. Catálogo de la subfamilia americana "Pterocallinae" (Dipt., Acalypt. Otitidae) // Acta Zoologica Lilloana. — Tucuman : Republica Argentina. — 1951. — **11**. — P. 397–433.
- Blanchard E. E. Descripciones y anotaciones de dípteros argentinos // Anales de la Sociedad Científica Argentina. — 1938 a. — **126**, N 5. — P. 345–386.
- Blanchard E. E. Seis nuevas especies de Otitidos argentinos // Revista Argentina de Entomología. — 1938 b. — **1**, N 3. — P. 85–96.
- Blanchard E. E. Un extraordinario pterocallido de los Yungas // Revista Soc. Entomolog. Argentina. — 1951. — **15**. — P. 32–34.
- Capoor V. N. New species of Ortalidae (Diptera) from Brazil // Revista Brasileira de Entomologia. — 1954. — **2**. — P. 205–214.
- Carrera M. Sobre o genero *Plagiocephalus* Wiedemann, 1830 (Diptera, Otitidae, Pterocallinae) // Papéis Avulsos do Departamento de Zoologia, Departamento de Zoologia, Secretaria da Agricultura. — Brasil: São Paulo, 1950. — **9**, N 17. — P. 259–268.
- Cresson E. T., Jr. A new species of an Achias-like fly from Nicaragua, apparently belonging to the little-known genus *Plagiocephalus* (Diptera, Ortalidae) // Entomol. News. — 1923. — **34**. — P. 257–260.
- Frey R. Eine neue mittelamerikanische Dipteren-Gattung mit gestielten Augen // Notulae Entomologicae. — 1926. — **6**. — P. 44–48.
- Hendel F. Übersicht der bisher bekannten Arten der Pterocalliden (Dipt.) // Deutsche Entomologische Zeitschrift. — 1909 a. — Beiheft. — 84 S.
- Hendel F. Diptera, Fam. Muscaridae, Subfam. Pterocallinae // Genera Insectorum Ed. P. Wytzman. — Fasc. 96. — Bruxelles, 1909 b. — 50 S. + 4 Taf.
- Hendel F. Diptera, Fam. Muscaridae, Subfam. Richardiinae // Genera Insectorum Ed. P. Wytzman. — Fasc. 113. — Bruxelles, 1911 (1910). — 56 S. + 3 Taf.
- Hendel F. Ergebnisse einer zoologischen Sammelreise nach Brasilien, insbesondere in das Amazonas gebiet, ausgeführt von Dr. H. Zerny // Ann. Naturh. Mus. Wien. — 1936. — **47**. — S. 61–106.
- Hennig W. Bemerkenswerte neue Acalypteren in der Sammlung des Deutschen Entomologischen Institutes (Diptera: Acalyptera) // Beiträge zur Entomologie. — 1952. — **2**, N 6. — P. 604–618.
- Loew H. Monographs of the Diptera of North America. [3] // Smithsonian Miscellaneous Collections. — 1873. — **11**[=N 256]. — vii + 351 + XIII pp., 4 pls.
- Macquart J. P. M. Histoire naturelle des Insectes. Dipteres 2 // Librairie Encyclopedique de Roret. Collection des suites a Buffon. — Paris : Roret, 1835. — IV + 703 p.

- Macquart J. P. M.* Dipteres exotiques nouveaux ou peu connus [2(3)] // Mémoires de la Societe Royale des Sciences, de l'Agriculture et des Arts de Lille. — 1843 (1842). — P. 162–460 + 36 pls.
- McAlpine J. F.* Morphology and terminology // Manual of Nearctic Diptera. Vol. 1 / Coords. J. F. McAlpine, B. V. Peterson, G. E. Shewell et al. — Ottawa : Research Branch, Agriculture Canada, 1981. — P. 9–63. — (Monograph of the Biosystematics Research Institute, N 27).
- Osten Sacken C. R.* Enumeration of the Diptera of the Malay Archipelago collected by Prof. Odoardo Beccari, M. L. M. D'albertis and others // Annali del Mus. Civ. di Stor. Nat. di Génova. — 1881. — **16**. — P. 393–492.
- Steyskal G. C.* The genus *Plagiocephalus* Wiedemann (Dipt. Otitidae) // Studia Entomol. — 1963. — **6** [=N 111]. — P. 511–514.
- Steyskal G. C.* The synonymy of *Willineria orfilai* Blanchard (Diptera, Otitidae) // Studia Entomol. — 1964. — **7** [=N 119]. — P. 400.
- Steyskal G. C.* 54. Family Otitidae (Ortalidae; including Pterocallidae, Ulidiidae) // A catalogue of the Diptera of Americas south of the United States / Eds P. E. Vanzolini, N. Papavero. — São Paulo : Departamento de Zoologia, Secretaria da Agricultura, 1968. — **54**. — P. 54.1–54.31.
- Westwood J. O.* XLI. Diptera nonnulla exotica descripta // The Transactions of the Entomological Society of London. — 1847–1849. — **5**. — P. 231–236.
- Wiedemann C.R.W.* Aussereuropäische zweiflügelige Insekten. — Hamm : Schulz, 1830 a. — **2**. — XII + 684 p.
- Wiedemann C. R. W.* Achias, dipterorum genus a Fabricio condituum; illustratum novisque speciebus auctum et conventui physicorum germanorum oblatum. — Kiliae : C. F. Mohr, 1830 b. — 17 p.