



*Agenamyia diversa*

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# Boletín 2024-II

Volumen / 1 Publicación / 2

El Grupo de Investigación en Entomología Universidad de la Amazonia GIEUA en el período académico 2024-II realizó ocho publicaciones resaltando la descripción de 11 especies nuevas de insectos, nueve pertenecientes al Orden Diptera, una perteneciente al Orden Hymenoptera y una perteneciente al Orden Hemiptera

GRUPO DE INVESTIGACIÓN EN



Todas las investigaciones publicadas se realizaron en las instalaciones del Laboratorio de Entomología Universidad de la Amazonia -LEUA-



Yardany Ramos Pastrana  
Jean Alexánder Gamboa Tabares  
Ervin Humprey Durán Bautista  
Eric Córdoba Suarez  
María Fernanda Bermúdez Higinio  
Yennifer Andrea Carreño Guevara  
Mónica Lizeth Rivas Quezada

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### Article

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#### A new species of *Agenamyia* Albuquerque (Diptera: Muscidae) from Colombia

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#### Abstract

*Agenamyia* Albuquerque, 1953 is exclusive of the Neotropical region and is a poorly studied group. Here we described one new species from Colombia, namely *Agenamyia diversa* sp. nov. (type-locality: Garzón, Las Mercedes, Parque Natural Regional Cerro Páramo Miraflores), and present an updated identification key to segregate all the species, including color images and illustrations of male terminalia. The distribution of all species from Colombia is mapped.

**Key words:** Diversity, species distribution, Neotropical region, protected areas, taxonomy



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#### A new species of *Alipumilio* Shannon, 1927 (Diptera: Syrphidae), with the description of the male of *A. avisvas* Vockeroth, 1964 and *A. femoratus* Shannon, 1927

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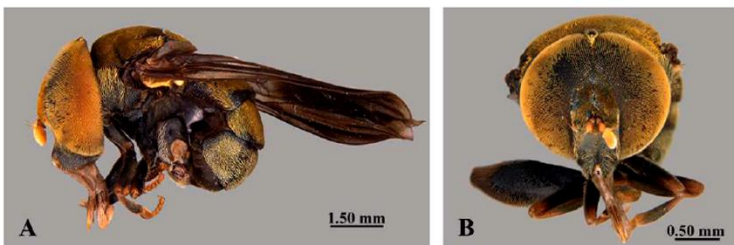
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#### Abstract

*Alipumilio* Shannon, 1927 is a flower fly genus endemic to the New World, comprising five described species. In the present study we describe *Alipumilio aureus* sp. nov. from the Colombian Amazon region. This is the first record of this genus from Colombia. Additionally, the male of *A. avisvas* Vockeroth, 1964 is described from Peru and the male of *A. femoratus* Shannon, 1927 is described from new material collected in Ecuador. Moreover, we provide an identification key to all the *Alipumilio* species and a species distribution map.

**Key words:** hoverflies, Ecuador, Peru, Neotropics, male description, identification key



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#### Three new species of *Apotropina* Hendel, 1907 (Diptera: Chloropidae) of the Colombian Andean-Amazon cloud forest

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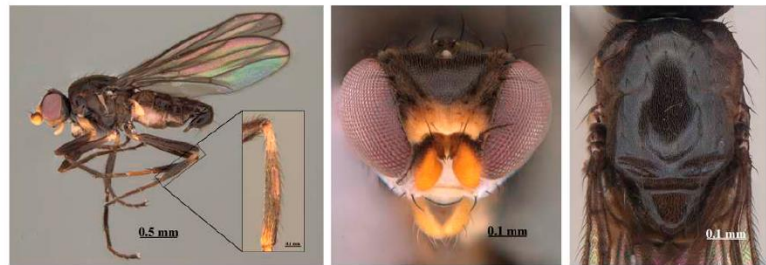
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#### Abstract

The genus *Apotropina* Hendel is poorly known. In Colombia only one species registered. In this study, we describe three new species from Reserva Natural y Ecoturística La Ruidosa, Colombia: *A. longicerci* sp. nov., *A. ruidosa* sp. nov. and *A. similis* sp. nov. The three species are illustrated and identification key and occurrence map for all Colombian species are presented.

**Key words:** Diversity, frit flies, Carnoidea, Neotropical Region, Siphonellopsinae, taxonomy



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#### First record of the genus *Systemus* Loew (Diptera: Dolichopodidae) from Colombia, with description of four new species

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#### Abstract

The genus *Systemus* Loew, 1857 (Dolichopodidae: Medeterinae) is recorded for the first time from Colombia through the description of four new species: *S. bickeli* sp. nov., *S. colombiensis* sp. nov., *S. fuscus* sp. nov. and *S. grossus* sp. nov. and by the record of five previously described species: *S. beatae* Naglis, *S. flavivatus* Naglis, *S. maculipennis* Bickel, *S. naranjensis* Bickel and *S. parkeri* Bickel. A key to the males, high resolution photographs and distribution map of the nine Colombian species are provided.

**Key words:** Colombian Amazon, long-legged flies, Medeterinae, new species



### Intrapuparial development of *Peckia pexata* (Wulp, 1895) (Diptera: Sarcophagidae)

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#### ABSTRACT

Sarcophagidae flies have great forensic importance, since different instars of their larval development are used in the determination of the postmortem interval (PMI) of corpses. However, for many species, intrapuparial developmental data are scarce. Here we analyzed the intrapuparial development of the sarcophagid *Peckia pexata* and describe the chronological and morphological changes that occur during metamorphosis. We reared approximately 330 specimens originating from the Colombian Amazon in the laboratory. Prepupae were identified by size reduction and coloration change. During the first five days of the study, four individuals were sampled every three hours, then every six hours until adult emergence. Specimens were fixed in 96% alcohol, then immersed in Carnoy solution for 24 hours and in formic acid (5%) for 48 hours for dissection and analysis of morphological changes. Four morphological phases of intrapuparial development of *P. pexata* were observed: 1) larva pupa apolysis, which lasted, in average, 9 h; 2) cryptocephalic pupa, 6 h; 3) phanerocephalic pupa, 6.5 h; and 4) pharate adult (transparent eyes, 48 h; yellow eyes, 216 h; pink eyes, 35 h; and red eyes, 52 h). The pharate adult was fully formed at 340 h and adult emergence occurred at 372.5 h or 15.5 days. We also described the formation of the prepupa, the pupariation and the final metamorphosis for the imago and compared it with the known events for *Peckia intermutans*, *Peckia lambens* (Sarcophagidae) and *Lucilia eximia* (Calliphoridae).

**KEYWORDS:** Amazon, Colombia, forensic entomology, immature insects, metamorphosis, postmortem interval



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Research Article

### A new species of *Neotropiconyttus* Kirkaldy (Hemiptera, Reduviidae) in a cacao plantation from the Colombian Napo Province, including a key to species, and taxonomic notes of the genus

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#### Abstract

A new species of the genus *Neotropiconyttus* Kirkaldy, 1909 (Hemiptera: Heteroptera: Reduviidae: Harpactorinae: Harpactorini) is described and illustrated. *Neotropiconyttus armando* Gamboa & Gil-Santana, sp. nov. represents the first record of the genus for the Province of Napo in Colombia, and the first description of a male individual in the genus. The male specimen representing the new species was collected on a leaf of cacao (*Theobroma cacao* L.-Malvaceae). Its remarkable similarity in external coloration and structure with that of the true bug *Monalonion dissimulatum* Distant, 1883 (Hemiptera: Miridae) inhabiting cacao agroforestry systems suggests that the new species could be part of a mimetic complex that incorporates phytophagous and predator bugs. Comments and figures of type specimens of *Neotropiconyttus alboannulatus* (Stål, 1855) and *Neotropiconyttus dama* (Burmeister, 1838), and a key to the species of the genus are also provided.

**Key words:** Assassin bugs, *Graptocleptes*, Heteroptera, *Hiraneis*, identification, Neotropical



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RESEARCH ARTICLE



### A new species of *Ucanoidea* Girault (Hymenoptera, Trichogrammatidae), an egg parasitoid of *Monalonion dissimulatum* Distant (Hemiptera, Miridae)

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#### Abstract

A new species of *Ucanoidea* Girault (Hymenoptera: Trichogrammatidae), *Ucanoidea ricoi* Viggiani, Gamboa & Pérez-Benavides, sp. nov., is described and illustrated. The species is a solitary egg parasitoid of *Monalonion dissimulatum* Distant (Hemiptera: Miridae), the main insect pest on cocoa crops. An identification key for the described *Ucanoidea* species of the world is provided. The new species has a high potential for the biological control of the true bug *M. dissimulatum* in cocoa plantations in the Neotropical region.

#### Keywords

Antennal club, biological control, cocoa, fore wing, genitalia



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ORIGINAL ARTICLE



WILEY

### Land-use changes impact responses of termite functional and taxonomic diversity in the Colombian Amazon

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#### Abstract

Habitat degradation, a common consequence of land-use changes, reduces termite species richness. However, the impact of these changes on functional diversity remains poorly understood. This research aimed to assess the response of the taxonomic and functional diversity of termites in different land uses within the Colombian Amazon. Termites were surveyed in three habitat types (secondary forest, silvopastoral system, and agroforestry system) using a structured sampling design with 36 sampling points. Seven functional traits were measured from 30 individuals (worker caste) per species. We collected 23,140 individuals distributed in 2 families, 7 subfamilies, 50 genera, and 95 species. Results showed higher taxonomic diversity in the secondary forest compared to silvopastoral and agroforestry systems, which were similar. Likewise, the secondary forest presented higher functional species differentiation than the agricultural systems. Furthermore, land-use intensification led to changes in functional traits, with body size increasing in degraded habitats. This research provides significant evidence of the consequences of land use changes on the taxonomic diversity and functional traits of termites, emphasizing the importance of considering functional diversity responses in future research.

**KEYWORDS**  
diversity indexes, functional traits, richness, Termitidae

