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NOTA CIENTÍFICA
Temática: Distribución de insectos

UPDATED DISTRIBUTION FOR PANAMA OF *Pygodasis* (*Campsomeris*) *ephippium ephippium* (Say 1837) (HYMENOPTERA: SCOLIIDAE)

DISTRIBUCIÓN ACTUALIZADA PARA PANAMÁ DE *Pygodasis* (*Campsomeris*) *ephippium ephippium* (Say 1837) (HYMENOPTERA: SCOLIIDAE)

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INFORMACIÓN SOBRE EL ARTÍCULO

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Contribución de los autores: Los autores de este trabajo declaran haber participado en la realización de este proyecto de investigación en todas sus etapas, trabajo de campo, la identificación, así como la discusión y el análisis de datos.

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ABSTRACT. The family Scoliidae (Hymenoptera) includes large poisonous wasps that can painfully sting people; However, they are pollinators and parasitoids of Coleoptera larvae. In Cerro Punta, on December 20, 2023, a black wasp with an orange abdomen was found in *Brassica nigra* flowers near crops, so the objective was to identify said insect. The specimen was collected and prepared for observation in the laboratory. Taxonomic keys were reviewed and the collection of the G. B. Fairchild Invertebrate Museum, Universidad de Panamá (MIUP) was consulted. Characteristics such as coloration, wing venation, punctures on the forehead and propodeum, setae on the body and a length of 4 cm, placed it as *Pygodasis* (*Campsomeris*) *ephippium ephippium* (Say 1837); species previously found in Cerro Punta and other locations from Chiriquí and in other provinces like Coclé and Panama. This finding updates the known distribution of the insect for the country.

KEYWORDS: Chiriquí, Coleoptera, Parasitoid, pollinator, sting.

RESUMEN. La familia Scoliidae (Hymenoptera), comprende avispas venenosas de gran tamaño que pueden picar dolorosamente a las personas; sin embargo, son polinizadores y parasitoides de larvas de Coleoptera. En Cerro Punta, el 20 de diciembre de 2023 se encontró en flores de *Brassica nigra* próximas a hortalizas, una avispa negra con abdomen anaranjado, por lo que el objetivo fue identificar dicho insecto. El espécimen fue recolectado y preparado para su observación en laboratorio. Se revisaron claves taxonómicas y se consultó a un especialista con acceso al Museo de Invertebrados G. B. Fairchild, Universidad de Panamá (MIUP). Caracteres como la coloración, venación alar, punturaciones de la frente y propodeo, setas del cuerpo y una longitud de 4 cm, la situaron como *Pygodasis* (*Campsomeris*) *ephippium ephippium* (Say 1837); especie encontrada previamente en Cerro Punta y otras localidades de Chiriquí y en otras provincias como Coclé y Panamá. Este hallazgo actualiza la distribución conocida del insecto para el país.

PALABRAS CLAVE: Chiriquí, Coleoptera, Parasitoide, picadura, polinizador.

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The family Scoliidae (Hymenoptera), is represented by 560 known species around the world, from which 64 are present in America; However, both biology and taxonomy of this taxa requires more studies (Ramírez-Guillén et al., 2022). These large and robust wasps are capable to sting people painfully (Pineda et al., 2002), but they also play an important role in productive agroecosystems by serving as pollinators of wild and cultivated plants, as well as parasitoid of beetle larvae (Coleoptera) (Fernández & Cubillos, 1999; Ramírez-Guillén et al., 2022).

In Cerro Punta, Tierras Altas district, Chiriquí province, Panama (UTM: 17 P 327209, 979062, 1952 msnm), a black and orange big wasp was found visiting wild mustard flowers (*Brassica nigra* [L.], confirmed by a botanist) (Figure 1), near to potato and onion crops. So, the aim of the study was to identify the insect species.

Figure 1. Flowers of *B. nigra* and specimen collected.

The specimen was collected with a glass vial with 70% ethanol, then mounted and prepared for observations with the stereomicroscope at the Laboratory of the Experimental Station in Cerro Punta, Instituto de Innovación Agropecuaria de Panamá (IDIAP). Two taxonomic keys were reviewed (Fernández & Cubillos, 1999; Ramírez-Guillén et al., 2022), images were checked (Iowa State University, 2024) and the access to collection of the G. B. Fairchild Invertebrate Museum, Universidad de Panamá (MIUP) was obtained.

According to the results (Figure 2), characteristics such as infuscated coloration in the wings, presence of a second recurrent vein in the fore wind (VR2), punctures on the forehead (FR) and propodeum (PROP), black setae on the body, orange coloration of the abdominal terga and an approximated length of 4 cm, placed the collected specimen as a female of *Pygodasis* (*Campsomeris*) *ephippium ephippium* (Say 1837) (Hymenoptera: Scoliidae).

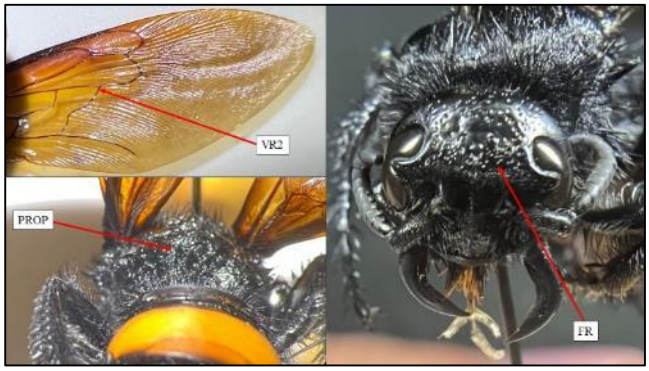

Figure 2. Morphological characteristics of *P. ephippium ephippium*: Second recurrent vein (VR2), punctures in propodeum (PROP) and forehead (FR).

According to the data from the labels of the MIUP specimens (19 in total), *P. ephippium ephippium* was previously collected in Cerro Punta (Parque Internacional de la Amistad) and other locations from Chiriquí province like Silla de Pando, Volcán – Tierras Altas; Santa Clara – Renacimiento and Los Naranjos – Boquete; as well as in other provinces like Coclé and Panama (Figure 3).

After checking STRI (2024) data base, the name *Campsomeris* (*Pygodasis*) *ephippium* is listed, but there is no record nor images to support it. This finding updates the known distribution of *P. ephippium ephippium* for Panama, particularly in the Chiriquí province.

It is necessary to continue studying this and other insect taxa, for a better understanding of ecosystems' complexity and for further posibbilities of application as biological control agentes of important pests such as *Phyllophaga* spp. (Coleoptera: Scarabaeidae).

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Figure 3. Updated distribution for Panama of *P. ephippium ephippium*, according to data from labels of the MIUP specimens (yellow) and the female recently collected from Cerro Punta (red). Map: Google Earth (2024).

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Conflict of interests
We declare that there is no conflict of interests in this information.

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