

SHORT COMMUNICATION

The second record of *Platyscelio* (Hymenoptera: Scelionidae) in South America

Elijah Talamas¹, Ovidiu Alin Popovici²

 Florida State Collection of Arthropods, Division of Plant Industry, Florida Department of Agriculture and Consumer Services, 1911 SW 34th St Gainesville, Florida 32608, USA
University 'Al. I. Cuza' Iasi, Faculty of Biology, B-dul Carol I, no. 11, RO-700506, Romania

Corresponding author: Ovidiu Alin Popovici (popovici_alin_ovidiu@yahoo.com)

Received 3 October 2021 | Accepted 18 November 2021 | Published 31 December 2021

Citation: Talamas E, Popovici OA (2021) The second record of *Platyscelio* (Hymenoptera: Scelionidae) in South America. Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa" 64(2): 93–96. https://doi.org/10.3897/travaux.64.e76076

Abstract

The presence of *Platyscelio* (Platygastroidea, Scelionidae) in the Neotropical region is confirmed. After a recent record from French Guiana, a second specimen of *Platyscelio* was found in samples from the Republic of Suriname, being a new record for the fauna of this country.

Keywords

Suriname, wasps, Platygastroidea, new record.

Platyscelio Kieffer is among the most distinct and easily recognizable genera of Scelionidae (Platygastroidea) because of its flattened body and the distinctive shape of the antennal scape. Until recently, *Platyscelio* was considered to have a wide distribution in the Palaearctic, Australian, Oriental, and Ethiopian regions (Kieffer 1905, 1910, 1926; Brues 1908, 1922; Mani 1941; Baltazar 1966; Masner 1976; Mani and Sharma 1982; Galloway and Austin 1984; Lê 2000; Rajmohana 2006; Kononova and Kozlov 2008; Taekul et al. 2010). The first record of this genus from the neotropics is stated in Popovici et al. (2018), a female specimen of *Platyscelio africanus* Risbec collected from French Guiana (Saint-Laurent-du-Maroni, Mouthouchi Gite area, 5.3298°N, 54.0674°W).



The singularity of the new record makes it impossible to discern whether the specimen belongs to a stable, local population, or its presence in South America is accidental (e.g. the specimen was transported there by the African air mass that crosses the Atlantic Ocean, or in parasitized eggs hidden on plant foliage shipped from Africa to South America). The perfect condition of the specimen looks like it freshly emerged from the host, an argument for the hypothesis that it might belong to a local population. A counterargument was the absence of *Platyscelio* from South America in



Figure 1. Platyscelio africanus (FSCA 00033030), from Saramacca, Suriname: A habitus, lateral view; B habitus, dorsal view; C mesosoma, detail; D head, detail.

many large museum collections: Canadian National Collection of Insects, Arachnids, and Nematodes, Ottawa, Canada (CNCI); Natural History Museum, London, United Kingdom (NHMUK); Hungarian Natural History Museum, Budapest, Hungary (HNHM); Muséum National d'Histoire Naturelle, Paris, France (MNHN); C.A. Triplehorn Insect Collection, Ohio State University, Columbus (OSUC); Smithsonian Institution, Washington, DC (USNM) or in National Museum (Natural History), Prague, Czech Republic (NMPC). This fact can easily raise doubts concerning our assumption. Is it reasonable to draw a conclusion about the expansion of a species distribution based on only one specimen? Could this specimen be the result of mixing samples in laboratory? So, before the final verdict, the authors have to dissipate any doubts concerning the provenance of the specimen.

The Malaise trap used for collecting the specimen of *Platyscelio* in French Guiana was new and used for the first time, precluding the possibility that the samples were contaminated by specimens from a previous collecting locality. The collectors, C. Manci and C. Sitar are working on Lepidoptera, and they have taken some samples from French Guiana for the first time in their life. Another possibility was that the samples have been contaminated during the work in laboratory, but this possibility was also excluded because of the very strict rules in the laboratory of O. Popovici: never work on more than one sample at a time; before starting sorting a new sample, each tool is very carefully cleaned. After all these possibilities were excluded, the specimen of *Platyscelio* from French Guiana was published as a new record for Neotropics (Popovici et al. 2018), yet the question remains: does *Platyscelio* belong to the local fauna or was it accidentally introduced into the Neotropical fauna?

During a survey of Neotropical Platygastroidea, E. Talamas found the second specimen of *Platyscelio*, *P. africanus* (Fig. 1) in a sample from the Republic of Suriname, a neighboring country of French Guiana. This second record of *Platyscelio* confirms the presence of the genus in the Neotropics and adds to the likelihood that it has an established, native population in the region.

Acknowledgements

Popovici O. was supported, in part, by SYNTHESYS projects (FR-TAF-6379 and HU-TAF-6368) and by PN-III-P4-ID-PCE-2016-0233.

References

Baltazar CR (1966) A catalogue of Philippine Hymenoptera (with a bibliography, 1758–1963). Pacific Insects Monographs 8: 1–488.

Brues CT (1908) Hymenoptera. Fam. Scelionidae. Genera Insectorum 80: 1–59. Brues CT (1922) Parasitic Hymenoptera from the Fiji Islands. Psyche 29: 10–22.

- Galloway ID, Austin AD (1984) Revision of the Scelioninae (Hymenoptera: Scelionidae) in Australia. Australian Journal of Zoology Supplementary Series 99: 1–138.
- Kieffer JJ (1905) Nouveaux Proctotrypides exotiques conservés au Musée Civique de Gênes. Annali del Museo Civico di Storia Naturale "Giacomo Doria" (Genova) 2(2): 9–39. [in French]
- Kieffer JJ (1910) Hymenoptera. Fam. Scelionidae. Addenda et corrigenda. Genera Insectorum 80: 61–112. [in French]
- Kieffer JJ (1926) Scelionidae. Das Tierreich. Vol. 48. Walter de Gruyter & Co., Berlin, 885 pp. [in German]
- Kononova SV, Kozlov MA (2008) Stselionidy Palearktiki (Hymenoptera, Scelionidae). Podsemeistvo Scelioninae. Tovarishchestvo Nauchnykh Izdanii KMK, Saint Petersburg. 489 pp. [in Russian]
- Lê XH (2000) Egg-parasites of family Scelionidae (Hymenoptera). Fauna of Vietnam, vol. 3. Science and Technics Publishing House, Hanoi, 386 pp.
- Mani MS (1941) Serphoidea. Catalogue of Indian Insects 26: 1-60.
- Mani MS, Sharma SK (1982) Proctotrupoidea (Hymenoptera) from India. A review. Oriental Insects 16: 135–258.
- Masner L (1976) Revisionary notes and keys to world genera of Scelionidae (Hymenoptera: Proctotrupoidea). Memoirs of the Entomological Society of Canada 97: 1–87.
- Popovici OA, Masner L, Viciriuc M, Pintilioaie A, Notton DG, Talamas E (2018) New distribution data for some charismatic tramp species of Platygastroidea (Hymenoptera). Zootaxa 4370(1): 001–022.
- Rajmohana K (2006) Studies on Proctotrupoidea and Platygastroidea (Hymenoptera: Insecta) of Kerala. Memoirs of the Zoological Survey of India 21(1): 1–153.
- Taekul C, Johnson NF, Masner L, Polaszek A, Rajmohana K (2010) World species of the genus *Platyscelio* Kieffer (Hymenoptera, Platygastridae). ZooKeys 50: 97–126.