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***Stenonartonia tekoraava* sp. nov. (Hymenoptera: Vespidae: Eumeninae), a new member of a typical Amazonian mimicry ring**

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Abstract

Stenonartonia tekoraava sp. nov., a new species of potter wasp is described from central Amazonia. By size and color pattern, this species falls into the typically Amazonian mimicry ring of the social wasp *Polybia liliacea* (Fabricius) [Vespidae: Polistinae]. Comments are made on the Müllerian mimicry rings as a common phenomenon in Hymenoptera and particularly in the family Vespidae.

Key words: Mimicry rings, species description, Amazonia, Vespidae, potter wasp

Introduction

Müllerian mimicry can be summarized as the phenomenon of superficial similarity (mostly involving size and color pattern) for two or more species with effective secondary defenses (Ruxton *et al.* 2004) and sharing a common (geographical/environmental) area. Although Wilson *et al.* (2012), state Müllerian mimicry rings as an uncommon phenomenon, the contrary statement should be said about vespid wasps, where large portions of geographically and environmentally related fauna show strongly marked mimetic patterns which have been, nevertheless, poorly summarized and mostly cursorily treated in the literature as lists or mere mentions of mimic or similarly colored species. The apple-green social and solitary wasps from Madagascar (briefly treated by Pauly *et al.* 2003), or the jet-black, ivory and orange-red marked solitary wasps from Chile (mentioned by Bequaert & Ruiz 1942) are just two outstanding examples of geographically related mimicry rings. As a single example, a less noted, but nevertheless very important case of a geographically and environmentally related mimicry ring is the fauna of brownish-black and reddish-brown marked social (e.g. *Polybia sericea* (Olivier), *P. chrysothorax* (Lichtenstein), *Mischocyttarus drewseni* Saussure, *M. matogrossensis* Zikán, and *Polistes subsericeus* Saussure) and solitary wasps (e.g. *Montezumia infernalis* (Spinola), *M. nigriceps* (Spinola), *Pachymenes sericeus* Saussure, as well as a number of species in the families Crabronidae, Sphecidae, Apidae, and Pompilidae) living in open and mostly humid areas all across the middle of South America. These and other geographically/environmentally related mimicry rings involving vespid wasps still await for comprehensive summaries, listings and mappings.

One of the most showy color patterns exhibited by South American wasps is that of the relatively large-bodied swarming social wasps *Polybia liliacea* (Fabricius) and *P. striata* (Fabricius). They show a black background with a moderately abundant pattern of yellow markings including very thin pronotal hind margin and metasomal apical bands, largely marked scutellum, metanotum and mid-propodeum and—most notably—a pair of broad submedial mesoscutal lines which normally meet or fuse together at the hind border. Apart from the two above mentioned species, this combination of body size and color pattern is shared by at least the following vespid species: *Mischocyttarus pseudomimeticus* (Schulz), *M. zikaninus* Richards and the “*liliaciosus* form” of *Polistes pacificus* Fabricius [Polistinae], as well as *Montezumia liliacea* Gribodo, *M. liliacea* Gribodo, and *Pseudodynerus garcetei* Hermes [Eumeninae] (Richards 1978; Willink 1982; Hermes 2010). This mimicry ring is mostly restricted to the Amazonian realm.

metanotum. Thoracic sides with downward (except on pronotal sides, where it points upward) semidecumbent to appressed whitish pile. Main area of mesepisternum with moderately long downcurved whitish setae. Sides and upper face of propodeum with a faintly yellowish white appressed pile and with some important erect thin pilosity of same color at limits of concavity behind and below. Propodeal concavity with dense whitish pile, pointing downward though not appressed, mixed with long straight setae of similar color and direction. Metasoma with almost imperceptible, very short and thin fulvous pilosity and extremely short, thin and sparse microsetae. Pilosity becoming whitish and longer ventrally.

Male unknown.

Material examined. Holotype: ♀, BRAZIL: Amazonas: Manaus, Reserva Florestal Adolpho Ducke, Grade do PPBio LO3 (NS4/NS5), 10-16-vii.2010 (*A. Somavilla*) [INPA].

Distribution. Brazil: central Amazonia.

Etymology. The name of this species comes from the Guarani word *tekora'áva* (from the word roots *teko* = personality and *ta'ã* [*ra'ã* in the root form] = to imitate, together with the agentive suffix *va*), meaning imitator or impersonator, in direct allusion to the mimetic character of the color pattern of this wasp.

Conclusions

Based on its peculiar morphology—mainly the lack of a specialized surface on the female vertex—*Stenonartonia tekoraava* **sp. nov.**, is a particularly basal species of the genus, which would well either fall basally into the basalmost *S. occipitalis* group (Garcete-Barrett, unpublished data), or be a sister species to the remainder of the genus. By general appearance and color pattern, it falls into one of the most visually iconic Amazonian Müllerian mimicry rings among the Hymenoptera (the ring containing the quite common Amazonian social wasps *Polybia liliacea* and *P. striata*), and reminds us how commonly extended is the geographically- and environmentally-related mimicry rings in most of this taxonomic order and particularly in the family Vespidae, but at the same time how the matter is still cursory treated, as most of these rings have yet not been thoroughly documented and geographically traced.

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