

Range extension of six Neotropical apoid wasps (Hymenoptera: Sphecidae and Crabronidae)

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ABSTRACT: The geographic ranges of six species of apoid wasps are extended: *Chlorion hemiprasinum* (Sichel, 1863), *Podium trigonopsoides* Menke, 1974, *Eremnophila eximia* (Lepeletier de Saint Fargeau, 1845), *Prionyx chilensis* (Spinola, 1851), *Stictia signata* (Linnaeus, 1758) and *Bicyrtes discisus* (Taschenberg, 1870). The paper is based on the examination of the entomological collections of the Museu Nacional-Universidade Federal do Rio de Janeiro and of the Instituto Oswaldo Cruz.

Sphecidae and Crabronidae (Hymenoptera: Apoidea) are worldwide distributed families of solitary apoid wasps (Bohart and Menke 1976; Pulawski 2011). Although both of these families are well represented and conspicuous in the Neotropical Region, they are poorly represented in Brazilian collections, certainly because of the scarcity of hymenopterists in Brazil. Herein notes on range extensions of six Neotropical species of apoid wasps are provided, based on the examination of the entomological collections of the Museu Nacional – Universidade Federal do Rio de Janeiro (MN-UFRJ) of the Instituto Oswaldo Cruz (CEIOC), both of the institutions localised in the Rio de Janeiro (RJ, Brazil). The geographic range of the species was based especially on Amarante (2002).

Family SPHECIDAE

Chlorion hemiprasinum (Sichel, 1863).

In Brazil, *C. hemiprasinum* was cited to the States of Rio Grande do Sul, São Paulo and Mato Grosso (Amarante 2002). Herein it is cited for the first time to the semi-arid biome of the Caatinga, in the western portion of the State of Bahia.

Material examined. Bahia, Barreiras, 1 female, XII.1991, B. Silva (MNRJ).

Podium trigonopsoides Menke, 1974

P. trigonopsoides is a rarely collected species, which was described from the State of Santa Catarina, southern Brazil, (Menke 1974) and was subsequently cited from Argentina (Ohl 1996). Herein the distribution of this species is extended as far north as the States of Minas Gerais and Espírito Santo, in areas of Atlantic Forest from southeastern Brazil.

Material examined. BRAZIL: Espírito Santo, locality of Fazenda Jerusalém (unknown locality), 1 female, 10.XI.1912, J.F. Zikán (CEIOC); Minas Gerais, Mar de Hespanha, 1 male, 19.XI.1910, J.F. Zikán (CEIOC).

Eremnophila eximia (Lepeletier de Saint Fargeau, 1845)
E. eximia was recorded from Brazil, Paraguay and Colombia (Amarante 2002). Herein the occurrence of this species is extended to Bolivia.

Material examined. BOLIVIA, El Carmen, 1 male, II.1955 (MNRJ).

Prionyx chilensis (Spinola, 1851)

Amarante (2002) recorded *P. chilensis* from Brazil, Argentina and Chile and did not include Peru in the geographical range of this species, although there are references of its occurrence in this country (e.g. Willink 1951). Herein the occurrence of *P. chilensis* in Peru is confirmed.

Material examined. PERU, Arequipa (2.200m), 4 females, VII.1955, A. Meza (MNRJ).

Family CRABRONIDAE

Stictia signata (Linnaeus, 1758)

S. signata is widely distributed in Brazil (Amarante 2002), but herein is cited for the first time from the archipelago of Fernando de Noronha (State of Pernambuco, Brazil). This is an interesting record because this archipelago is formed by relatively small islands and it is quite distant from the continent, the major island almost 400 km from the continental landmass.

Material examined. BRAZIL, Pernambuco (Ilha de Fernando de Noronha), 1 female, VIII.1973, O. Roppa leg. (MNRJ); idem, 2 females, V.1991, C.S. Carbonell (MNRJ).

Bicyrtes discisus (Taschenberg, 1870)

B. discisus is widely distributed in South America (Amarante 2005), but herein its distribution is extended to British Guyana.

Material examined. BRITISH GUYANA, Georgetown, 1 female, III.1955, M. Alvarenga (MNRJ).

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LITERATURE CITED

- Amarante, S.T.P. 2002. A synonymic catalog of the Neotropical Crabronidae and Sphecidae (Hymenoptera: Apoidea). *Arquivos de Zoologia* 37(1): 102-139.
- Bohart, R.M. and A.S. Menke 1976. Sphecidae wasps of the world: a generic revision. Berkeley: University of California Press. 665 p.
- Lepeletier de Saint Fargeau, A.L.M. 1845. *Histoire naturelle des Insectes. Hyménoptères. Vol. 3.* Paris : Librairie Encyclopédique de Roret. 646 + 4 p.
- Linnaeus, C. 1758. *Systema Naturae Per Regna Tria Naturae, Secundum Classes, Ordines, Genera, Species, Cum characteribus, differentiis, synonymis, locis. Tomus I.* Editio Decima, Reformata. Stockholm: Laurentii Salvii, Holmiae. 823 p.
- Menke, A.S. 1974. A preliminary review of the agile group of *Podium* Fabricius (Hymenoptera: Sphecidae). *Journal of Washington Academy of Science* 63 (4): 147-153.
- Ohl, M. 1996. The phylogenetic relationships within the Neotropical Podiinae with special reference to *Podium* Fabricius (Hymenoptera: Apoidea: "Sphecidae"). *Deutsche Entomologische Zeitschrift* 43:189-218.
- Pulawski, W.J. 2011. *Catalog of Sphecidae* sensu lato. Electronic Database Accessible at http://www.calacademy.org/research/entomology/Entomology_Resources/Hymenoptera/sphecidae/Genera_and_species_PDF/introduction.htm. Captured on 14 February 2011.
- Sichel, J. 1863. *Sphex hemiprasina* (Nova Hymenopteri species). *Annales de la Société Entomologique de France (Series 4)* 3:23-24.
- Spinola, M. 1851. Orden VII. Himenópteros ; p. 153-572 In C. Gay (ed.). *Historia física y política de Chile segun documentos adquiridos en esta republica durante doce años de residencia en elle i publicada bajo los auspicios del supremo gobierno, Zoología. Tomo sexto.* Paris: Maulde y Renou.
- Taschenberg, E.L. 1870. Die Larridae and Bembecidae des zoologischen Museums der hiesigen Universität. *Zeitschrift für die Gesamten Naturwissenschaften* 36: 1-27.
- Willink, A. 1951. Las especies argentinas y chilenas de "Chlorionini" (Hym., Sphecidae). *Acta Zoologica Lilloana*, 11: 52-225.

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