SCIENTIFIC COMMUNICATION

The first record of the family Cithaeronidae (Araneae, Gnaphosoidea) to the new world

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ABSTRACT. Three females of *Cithaeron praedonius* O.P.-Cambridge, 1872 (Araneae, Gnaphosoidea, Cithaeronidae), the most widespread species of the family, were found in urban areas in Teresina, capital of the state of Piauí, northeast Brazil. This first record of the family Cithaeronidae to the new world is explained by accidental introduction. KEY WORDS. Biogeography; *Cithaeron praedonius*; distribution; Neotropical.

RESUMO. **Primeiro registro da família Cithaeronidae (Araneae, Gnaphosoidea) no Novo Mundo.** Três fêmeas de *Cithaeron praedonius* O.P.-Cambridge, 1872 (Araneae, Gnaphosoidea, Cithaeronidae), a espécie com distribuição mais ampla da família, foram encontradas em áreas urbanas em Teresina, capital do estado do Piauí, nordeste do Brasil. Este primeiro registro da família Cithaeronidae para o novo mundo é explicado por introdução acidental. PALAVRAS-CHAVE. Biogeografia; *Cithaeron praedonius*; distribuição; Neotropical.

Cithaeronidae Simon is a small gnaphosoid family that comprises six species included into two genera, *Cithaeron* O. Pickard-Cambridge, 1872, with five species and the monotypic *Inthaeron* Platnick, 1991 (Platnick 2006). This grouping was proposed by Simon (1893) as a subfamily of the former Drassidae (Gnaphosidae) and received familial status by Caporiacco (1938) who placed it into a superfamily Homalonychiformia, together with the non-gnaphosoid Homalonychidae (Platnick 1991). Platnick (1990) after a survey of gnaphosoid spinneret morphology and its phylogenetic implications affirmed the status of Cithaeronidae as a family of Gnaphosoidea.

Cithaeronids are readily recognized as gnaphosoid spiders by the irregularly shaped, flattened posterior median eyes (Fig. 1), obliquely depressed endites and conical, heavily sclerotized anterior lateral spinnerets. According to Platnick (2002), they are regarded as "lower gnaphosoids" because they retain a distal article on the anterior lateral spinnerets, contrasting with the representatives of the "higher gnaphosoids" (Gnaphosidae, Prodidomidae and Lamponidae) in which such article is missing. The presence of long pseudosegmented tarsi (Fig. 2, see also Platnick 1991: fig. 7) separates cithaeronids from the other lower gnaphosoid families (Ammoxenidae, Gallieniellidae and Trochanteridae). Representatives of the type genus *Ammoxenus* Simon, 1893 also present pseudosegmented leg tarsi, but as all other ammoxenids, they have a reduced, rather than normal, female palpal claw (Platnick 2002).

The family is registered for seventeen old world coun-

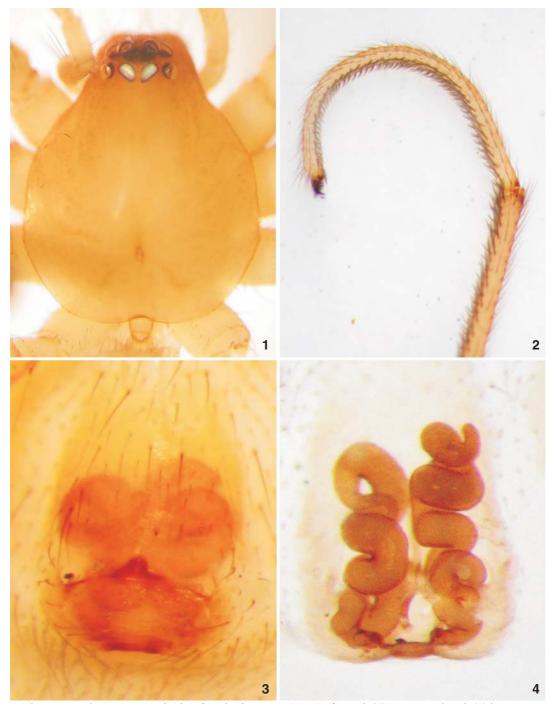
tries. The genus *Inthaeron* is known to occur only in India while *Cithaeron* presents a widespread distribution (Platnick 1991, 2002, Platnick & Gajbe 1994). Cithaeronids are fast moving spiders which hunt actively in the ground during the night and are found in silk retreats during the day. Habitats in which they have been found in the African continent vary from bushveld and humid savanna to riverine forest (Dippenaar-Schoeman & Jocqué 1997, Jocqué & Dippenaar-Schoeman 2006).

Here, we present the first record of a Cithaeronidae species to Neotropical Region. Three adult females of *Cithaeron praedonius* O.P.-Cambridge, 1872 (Figs 1-4), the type-species of the genus, were collected occasionally in synanthropic environment in the city of Teresina, capital of the state of Piauí, northeast Brazil. One female was collected into a table drawer and the second collected on its silk retreat on the underside of a stone bench, both at the campus of the "Universidade Federal do Piauí". The third was collected wandering in the afternoon, inside a house nearly four kilometers apart from the campus, in the "Morada do Sol" neighborhood. The specimens were collected between May 2005 and June 2006, and are deposited in the collections of Museu Paraense Emílio Goeldi (MPEG 5318, MPEG 5319) and Instituto Butantan (IBSP 70223).

PLATNICK (1991) provided a list of four junior synonyms of *Cithaeron praedonius*, stating that such list reflects in part the great variation in the patterns of epigynal duct coiling observed among the few specimens available. This author also stressed that no individual specimen shows identical coiling of

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Figures 1-4. Cithaeron praedonius O.P.-Cambridge, females from Teresina, Piauí, Brazil: (1) carapace, dorsal; (2) leg tarsus II, lateral; (3) epigynum, ventral (MPEG 5318); (4) same, dorsal (IBSP 70223).

the ducts of the right and left sides. Similar variations were observed in the three females here addressed, but the highly coiled epigynal ducts (compared to those of *C. delimbatus*

Strand, 1906, from East Africa) are diagnostic.

Despite its relative rarity, *Cithaeron praedonius* is the most widespread species of the family. It has been reported to North-

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eastern Africa (Libya, Egypt, and Ethiopia), Middle East (Israel, Saudia Arabia and Yemen), India, Malaysia, Singapura (PLATNICK 1991), Greece, Iran, Turkmenistan (PLATNICK & GAJBE 1994) and, most recently, to Australia's Northern Territory (PLATNICK 2002). JOCQUÉ & DIPPENAAR-SCHOEMAN (1997) reported this species also in Ivory Coast, Western Africa, the most occidental record until now. Given the known distribution of *C. praedonius* and the fact that the few specimens from Piauí were collected in anthropogenic environments, the presence of this species in South America is most parsimoniously explained by accidental introduction.

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REFERENCES

Caporiacco, L. di. 1938. Il sistema degli Araneidi. Archivio Zoo-

logico Italiano 25 (Suppl. 4): 35-155.

DIPPENAAR-SCHOEMAN, A.S. & R. JOCQUÉ. 1997. African spiders: an identification manual. Pretoria, Plant Protect Research Institute Handbook, no. 9, 392p.

Jocqué, R. & A.S. Dippenaar-Schoeman. 2006. Spiders families of the world. Belgium, Peteers nv, Royal Museum for Central Africa, 336p.

PLATNICK, N.I. 1990. Spinneret morphology and the phylogeny of ground spiders (Araneae, Gnaphosoidea). American Museum Novitates 2978: 1-42.

PLATNICK, N.I. 1991. A revision of the ground spider family Cithaeronidae (Araneae, Gnaphosoidea). American Museum Novitates 3018: 1-13.

PLATNICK, N.I. 2002. A revision of the Australasian ground spiders of the families Ammoxenidae, Cithaeronidae, Gallieniellidae, and Trochanteriidae (Araneae: Gnaphosoidea). **Bulletin of the American Museum of Natural History 271**: 1-243.

PLATNICK, N.I. 2006. The world spider catalog. Version 7.0. Available on line at: http://research.amnh.org/entomology/spiders/catalog/index.html [Accessed in 13.XI.2006].

PLATNICK, N.I. & U.A. GAJBE. 1994. Supplementary notes on the ground spider family Cithaeronidae (Araneae, Gnaphosoidea). **Journal of Arachnology 22**: 82-83.

SIMON, E. 1893. **Histoire Naturelle des Araignées**. Paris, Encyclopédie Roret, vol. 1, p. 257-483.

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