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Two new species of Blaberidae (Blattaria) collected in the Santa Lúcia Station, Espírito Santo State, Brazil

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Abstract

This contribution presents two new species belonging to the genera *Audreia* (Shelford, 1910) and *Epilampra* Burmeister, 1838, subfamily Epilamprinae (Blattaria, Blaberidae). The Blaberidae include large and medium-bodied species with a high adaptive capacity. The new taxa were collected in Espírito Santo State and evaluated based on the analysis of subgenital and supranal plates and genital parts, by means of standard dissection techniques, by comparison with specimens of the corresponding genera deposited in the collection of the Museu Nacional and with published descriptions.

Key words: *Audreia*, diversity, *Epilampra*, taxonomy

Resumo

Este trabalho apresenta duas espécies novas pertencentes à subfamília Epilamprinae incluídas, respectivamente nos gêneros *Audreia* (Shelford, 1910), *Epilampra* Burmeister, 1838. Os blaberídeos são caracterizados por incluir indivíduos de grande e médio porte com extensa capacidade adaptativa. Foram os exemplares coletados no Estado do Espírito Santo e avaliados com base na análise das placas e estruturas genitais observadas utilizando-se técnicas tradicionais de dissecação, as quais foram analisadas com base na comparação dos exemplares de *Audreia* e de *Epilampra* da coleção de Blattaria do Museu Nacional e as descrições na literatura.

Palavras-chave: *Audreia*, diversidade, *Epilampra*, taxonomia

Introduction

Blaberidae is the most evolved family among the Blattaria, and are large and medium-bodied species with a high capacity for adaptation. The genitalia and the proventriculum are similar among Blaberidae and show little variation despite some differences in external morphology. All species show 90° rotation of the ootheca and incubate their eggs internally. The male genitalia are uniform and are similar to those of members of Pseudophyllodromiinae (McKittrick, 1964).

Kambhampati (1996) considered the Blaberidae to be a sibling-group of Ectobiidae. Grandcolas (1996) disagreed with McKittrick's decision (McKittrick, 1964) to place the Blattellinae close to the Pseudophyllodromiinae. This interpretation was refuted by Roth (2003).

Roth (2003) defined Blaberidae as cockroaches with short cerci, either segmented and specialized or not, not reaching the posterior margin of the supranal plate; males usually with two similar styles, simple, small, or only one style present, or both absent; genital hook always on the right side, rarely reduced or absent; female with an atrium in which the eggs are internally incubated; usually ovoviviparous, rarely viviparous or without ootheca.

Fisk & Schal (1981) synonymized the genus *Audreia* with the Carinulata Group of *Epilampra*. Lopes *et al.* (2010) reinstated the genus *Audreia* because in comparison with *Epilampra* and *Poeciloderrhis*, members of

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References

- Fisk, F.W. & Schal, C. (1981) Notes on new species of Epilamprinae cockroaches from Costa Rica and Panama (Blattaria: Blaberidae). *Proceedings of the Entomological Society of Washington*, 83 (4), 694–706.
- Grandcolas, P. (1996) The phylogeny of cockroach families: a cladistic appraisal of morpho-anatomical data. *Canadian Journal of Zoology*, 74, 508–527.
<http://dx.doi.org/10.1139/z96-059>
- Gurney, A.B., Kramer, J.P. & Steyskal, G.C. (1964) Some techniques for the preparation, study and storage in microvials of insect genitalia. *Annals of the Entomological Society of America*, 57 (2), 240–242.
- Kambhampati, S. (1996) Phylogenetic relationships among cockroach families inferred from mitochondrial 12S rRNA gene sequence. *Systematic Entomology*, 21, 89–98.
- Lopes, S.M. & Oliveira, E.H. (2000) Espécie nova de *Eublaberus* Hebard, 1919 do Estado de Goiás, Brasil e notas sobre *E. marajoara* Rocha e Silva-Albuquerque, 1972 (Blaberidae, Blaberinae). *Boletim do Museu Nacional, N. S., Zoologia*, 433, 1–5.
- Lopes, S.M., Oliveira, E.H. & Khouri, A. (2010) Reexamination of the five species of Blaberidae deposited in the Entomological Collection of the Museu Nacional/UFRJ, Rio de Janeiro, Brazil. *Zootaxa*, 2683, 66–68.
- McKittrick, F.A. (1964) Evolutionary studies of cockroaches. *Memoirs of the Cornell University Agricultural Experiment Station*, 389, 1–197.
- Mendes, S.L. & Padovan, M. da P. (2000) A Estação Biológica de Santa Lúcia, Santa Teresa, Espírito Santo. *Boletim do Museu de Biologia Mello Leitão (n. ser)*, 11/12, 7–34
- Roth, L.M. (1970) The male genitalia of Blattaria. II. *Poeciloderrhis* spp. (Blaberidae: Epilamprinae). *Psyche*, 77, 104–119.
<http://dx.doi.org/10.1155/1970/37214>
- Roth, L.M. (2003) Systematics and phylogeny of cockroaches (Dictyoptera: Blattaria). *Oriental Insects*, 37, 1–186.
<http://dx.doi.org/10.1080/00305316.2003.10417344>
- Roth, L.M. & Gurney, A.B. (1969) Neotropical cockroaches of the *Epilampra abdomennigrum* complex; a clarification of their systematics (Dictyoptera, Blattaria). *Annals of the Entomological Society of America*, 62, 617–627.