



<http://dx.doi.org/10.11646/zootaxa.3741.2.6>

<http://zoobank.org/urn:lsid:zoobank.org:pub:156FF18E-0C3F-468C-A5BE-853CAA63C00F>

New Pseudophyllinae from the Lesser Antilles (Orthoptera: Ensifera: Tettigoniidae)

SYLVAIN HUGEL¹ & LAURE DESUTTER-GRANDCOLAS²

¹INCI, UPR 3212 CNRS, Université de Strasbourg; 21, rue René Descartes; F-67084 Strasbourg Cedex.

E-mail: hugels@inci-cnrs.unistra.fr

²Muséum national d'Histoire naturelle, Département systématique et évolution, UMR 7205 CNRS, Case postale 50 (Entomologie), 57 rue Cuvier, F-75231 Paris cedex 05, France. E-mail: desutter@mnhn.fr

Abstract

Two new Cocconitini Brunner von Wattenwyl, 1895 species belonging to *Nesonotus* Beier, 1960 are described from the Lesser Antilles: *Nesonotus caeruloglobus* Hugel, n. sp. from Dominica, and *Nesonotus vulneratus* Hugel, n. sp. from Martinique. The songs of both species are described and elements of biology are given. The taxonomic status of species close to *Nesonotus tricornis* (Thunberg, 1815) is discussed.

Key words: Orthoptera, Pseudophyllinae, Caribbean, Leeward Islands, Windward islands, Dominica, Martinique

Résumé

Deux nouvelles sauterelles Cocconotini Brunner von Wattenwyl, 1895 appartenant au genre *Nesonotus* Beier, 1960 sont décrites des Petites Antilles : *Nesonotus caeruloglobus* Hugel, n. sp. de Dominique, et *Nesonotus vulneratus* Hugel, n. sp. de Martinique. Le chant des deux espèces est décrit et des éléments de biologie sont donnés. Le statut taxonomique des espèces proches de *Nesonotus tricornis* (Thunberg, 1815) est discuté.

Introduction

Cocconotini species occur in most of the Lesser Antilles islands, including small and dry ones such as Terre de Haut in Les Saintes micro archipelago (S. Hugel, unpublished). All but *Sphaeropyga striolata* (Redtenbacher, 1892) belong to *Nesonotus* Beier, 1920. This latter genus has been erected by Beier to include species from the Lesser Antilles previously considered as belonging to *Bliastes* Stål, 1873. Recent field studies on the Lesser Antilles have provided many new Orthoptera species, some of which having being described over the last years (Hugel & Morin 2001, Desutter & Bland 2003, Hugel 2009, Otte & Perez-Gelabert 2009) and others awaiting for descriptions (Hugel & Desutter-Grandcolas in prep.). These field studies also allowed studying basic aspects of sound production and acoustico-vibratory behavior of Pseudophyllinae species from Guadeloupe (Stumpner *et al.*, in press), and the distribution of widespread species (Wetterer & Hugel 2008). In the present article, two new *Nesonotus* species from Dominica and Martinique are described.

Material and methods

Specimens examined. The new taxa are mainly described on specimens recently collected in Martinique and Dominica islands in 2008. All specimens were collected during night by sight using a halogen headlamp and a net. Most of the male specimens were localized by their high pitched song.

Nesonotus from Les Saintes and Marie Galante are clearly distinct from each other, the former being similar to *Nesonotus reticulatus* whereas latter to *Nesonotus caeruloglobus* Hugel, **n. sp.** The *Nesonotus* population from Monts Caraïbes in Guadeloupe would also deserve attention as all available specimens from this locality display a chromatic pattern unusual for *N. reticulatus*. Today, this population should be considered a melanic form of *N. reticulatus*. A similar case of melanic variation occurs for *Salomona redtenbacheri* Brongniart, 1897 (Hugel, 2009) and does not necessarily correspond to a distinct species. These taxonomic issues will be addressed later in a more comprehensive work on Pseudophyllinae from Lesser Antilles.

Acknowledgements

We express our gratitude to the Parc Naturel Régional de la Martinique, particularly Bénédicte Chanteur; the Dominica Forestry, Wildlife & Parks Division, particularly James Arlington and Albert Gallion; the Parc National de Guadeloupe and the Office National des Forêts, particularly Hervé Magnin and Louis Redaud for having allowed the research and the collect of specimens. SH thanks the team of Archbold Tropical Research Center, Springfield Field Station Dominica, particularly Nancy Osler for assistance in Dominica, and the Gensse family for logistic support in Martinique. We thank Karl Questel (Saint Barth) for his comprehensive investigations in Saint Barth. We thank Andrej V. Gorochov (ZISP) for the information on repository of Thunberg's types, Hans Mejlon (ZIUU) for the pictures of *Nesonotus tricornis* type specimen; Susanne Randolph and Harald Bruckner (NHMW) for the pictures of *Nesonotus* specimens.

References

- Beier, M. (1960) Orthoptera Tettigoniidae (Pseudophyllinae II). In: Mertens, R., Hennig, W. & Wermuth, H. (Eds.), *Das Tierreich*. 74, Walter de Gruyter & Co., Berlin, pp. 396.
- Bland, R. & Desutter-Grandcolas, L. (2004) An annotated list of Orthoptera from St. Eustatius and Saba, Dutch West Indies, with descriptions of two new cricket species (Trigonidiidae, Mogoplistidae). *Journal of Orthoptera Research*, 12, 115–126.
[http://dx.doi.org/10.1665/1082-6467\(2003\)012\[0115:aaloo\]2.0.co;2](http://dx.doi.org/10.1665/1082-6467(2003)012[0115:aaloo]2.0.co;2)
- Desutter-Grandcolas, L. & Bland, R.G. (2003) New Hapithini (Orthoptera: Grylloidea: Podoscirtidae: Hapithinae) from the Lesser Antilles. *Transactions of the American Entomological Society*, 129, 47–70.
- Bonfils, J. (1966) Contribution à l'étude des Orthoptéroïdes des Antilles, II. Sur deux espèces nouvelle ou peu connues (Orth. Tettigoniidae, Pseudophyllinae). *Bulletin de la Société Entomologique de France*, 71, 77–83.
- Brunner von Wattenwyl, C. (1895) *Monographie der Pseudophylliden*. K.K. Zoologisch–Botanische Gesellschaft, Wien, 282 pp.
- Hugel S. & Morin D. (2003) Une espèce nouvelle d'Acantheremus de Guadeloupe (Orthoptera : Tettigoniidae : Copiphorinae). *Bulletin de la Société Entomologique de France*, 108, 427–432.
- Hugel S. (2009) Gryllacrididae and Tettigoniidae (Insecta, orthoptera, ensifera) from Espiritu Santo, Vanatu. *Zoosystema*, 31 (3), 525–576.
<http://dx.doi.org/10.5252/z2009n3a10>
- Hugel, S. (2009) Un nouvel *Agraecia* de Martinique et présence de *Agraecia viridipennis* en Guyane française (Orthoptera, Ensifera, Conocephalinae). *Bulletin de la Société Entomologique de France*, 114 (2), 129–140.
- Jin, X. & Kevan, D.K.McE. (1992) Taxonomic revision and phylogeny of the tribe Phisidini (Insecta: Grylloptera: Meconematidae). *Theses Zoologicae*, 18, 1–360.
- Marske, K.A. (2004) *Effects of volcanic ash on the insect food of the Montserrat Oriole Icterus oberi Lawrence, 1880*. Master Thesis, Montana State University, Bozeman, Montana, USA, 178 pp.
- Otte, D. & Alexander, R.D. (1983) The Australian crickets. *Academy of Natural Sciences of Philadelphia Monograph*, 22, 477pp.
- Otte, D. & Perez-Gelabert, D. (2009) *Crickets of the Caribbean. Publications on Orthopteran Diversity*. The Orthopterists Society, 792 pp.
- Rentz, D.C.F. (1985) *A monograph of the Tettigoniidae of Australia. Vol. 1. The Tettigoniinae*. CSIRO, Melbourne, 384pp.
- Stumpner, A., Dann, A., Schink, M., Gubert, S. & Hugel, S. (in press) True katydids (Pseudophyllinae) from Guadeloupe: Acoustic signals and functional considerations of song production. *Journal of Insect Science*.
- Wetterer, J.K. & Hugel, S. (2008) Worldwide spread of the ant cricket *Myrmecophilus americanus*, a symbiont of the longhorn crazy ant, *Paratrechina longicornis*. *Sociobiology*, 52 (1), 157–165.
- Willemsse, C. (1959) *Notes on the genus Salomona Blanchard (Orthoptera, Tettigoniioidea, subfam. Agraecinae)*. *Publicaties van het Natuurhistorisch Genootschap in Limburg II [1958-1959]*; Maastricht, Natuurhistorisch Genootschap in Limburg, 118 pp.