

A new species of *Dirphia* HÜBNER, 1819 ["1816"] from Uruguay and a note about the lectotype of *Dirphia glauca* MABILDE, 1896 (Lepidoptera, Saturniidae, Hemileucinae)

Carlos G. C. MIELKE and Stefan NAUMANN

Carlos G. C. MIELKE, Caixa postal 1206, 84145-000 Carambeí, Paraná, Brazil; cmielke1@uol.com.br

Dr. Stefan NAUMANN¹, Hochkirchstrasse 11, D-10829 Berlin, Germany; sn@saturniidae.com

Abstract: *Dirphia nicolasi* sp. n. from Uruguay, Tacuarembó Department, is described as new. It is compared to its nearest relative, *Dirphia moderata* BOUVIER, 1929, which differs by its wing shape and the male genitalia and originates from a different faunal region. The male holotype is deposited in Collection Padre Jesus Santiago MOURE at Universidade Federal do Paraná, Curitiba, Brazil. The lectotype designation for *Dirphia glauca* MABILDE, 1896 by LEMAIRE (2002) is found to be invalid, and the therein cited lectotype depository is erroneous. The correct depository is Fundação Zoobotânica do Estado do Rio Grande do Sul, Porto Alegre, Brazil.

Key words: Morphology, neotropical, taxonomy, *Dirphia*, new species, incorrect lectotype designation.

Eine neue Art der Gattung *Dirphia* HÜBNER, 1819 [„1816“] aus Uruguay sowie eine Anmerkung zu dem Lectotypus von *Dirphia glauca* MABILDE, 1896 (Lepidoptera, Saturniidae, Hemileucinae)

Zusammenfassung: *Dirphia nicolasi* sp. n. aus Uruguay, Departement Tacuarembó, wird als neu beschrieben. Sie wird mit der nächstverwandten Art, *Dirphia moderata* BOUVIER, 1929, verglichen, die sich durch die Flügelform und die männlichen Genitalstrukturen deutlich unterscheidet und ein Vertreter einer anderen Faunenregion ist. Der männliche Holotypus wird in der Sammlung Padre Jesus Santiago MOURE an der Universidade Federal do Paraná, Curitiba, Brasilien, deponiert. Die von LEMAIRE (2002) vorgenommene Lectotypusdesignations für *Dirphia glauca* MABILDE, 1896 wird als invalide erklärt, und die bei LEMAIRE angegebene Sammlung, in der sich der Lectotypus befinden soll, ist falsch. Er befindet sich vielmehr in der Fundação Zoobotânica do Estado do Rio Grande do Sul, Porto Alegre, Brasilien.

Una nueva especie del género *Dirphia* HÜBNER, 1819 [„1816“] proveniente de Uruguay, así como una anotación respecto al lectotipo de *Dirphia glauca* MABILDE, 1896 (Lepidoptera, Saturniidae, Hemileucinae)

Resumen: *Dirphia nicolasi* sp. n. de Uruguay, Departamento Tacuarembó, se describe como nueva especie. Se compara con la pariente más cercana, *Dirphia moderata* BOUVIER, 1929, que se distingue claramente, tanto por su forma del ala como por sus estructuras genitales, y que es una representante de otra región faunística. El holotipo macho se deposita en la colección Padre Jesus Santiago MOURE de la Universidade Federal do Paraná, Curitiba, Brasil. La designación del lectotipo de *Dirphia glauca* MABILDE, 1896, llevada a cabo por LEMAIRE (2002), se declara inválida. El paradero del lectotipo que indica LEMAIRE es incorrecto ya que dicho lectotipo se halla en la Fundação Zoobotânica do Estado do Rio Grande do Sul, Porto Alegre, Brasil.

Introduction

The senior author received a nice series of specimens of *Dirphia* HÜBNER, 1819 ("1816") via Esteban ABADIE from Uruguay, Tacuarembó Department, which at first impression were identified as *D. moderata* BOUVIER, 1929. This taxon is known to be widespread in northern and western Brazil down to Paraguay and northern Argentina (LEMAIRE 2002: 827) and thereby is a typical representative of the Chaco, Cerrado and Agreste forests, all semiarid or arid forest types (HUECK & SEIBERT 1972). The so far established absence of records of this genus in Uruguay (LEMAIRE 2002, BENTANCUR VIGLIONE 2011, MATTONI & PENCO 2012) and the slightly different phenotype of the series led us to a detailed examination of its external morphology and male genitalia structures which revealed so huge and stabile differences that we intend to describe this population as a new species. It is a faunal element of the Pampas Savannah.

During studies on the genus *Dirphia* we found some errors in the lectotype designation of *D. glauca* MABILDE, 1896, a senior synonym of *D. baroma* (SCHAUS, 1906), in the Hemileucinae revision of LEMAIRE (2002) which we like to correct here, in addition to the description of the new taxon.

Abbreviations

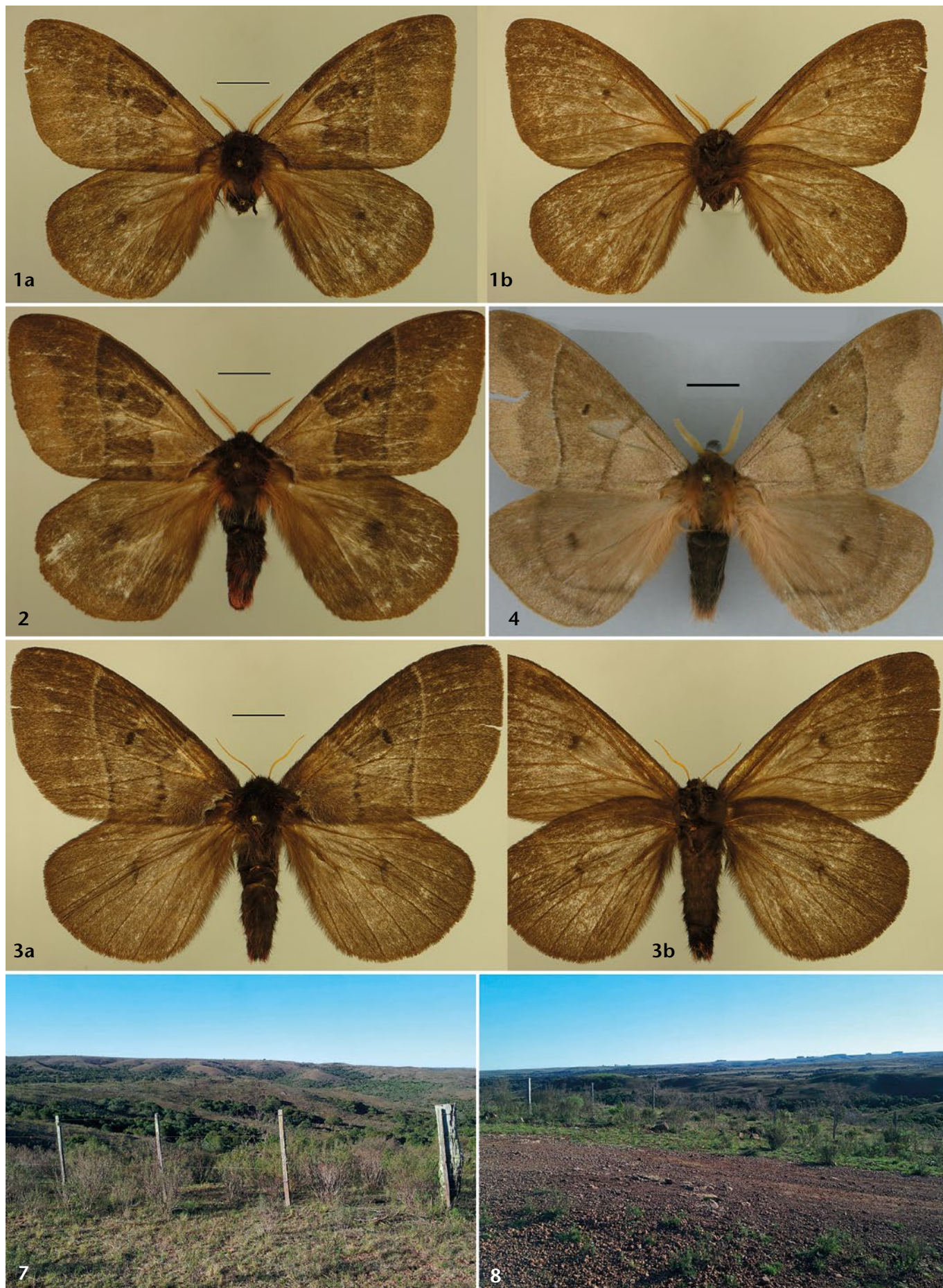
| | |
|------|--|
| CGCM | Collection Carlos G. C. MIELKE, Curitiba, Paraná, Brazil. |
| CEA | Collection Esteban ABADIE, Buenos Aires, Argentina. |
| CSNB | Collection Stefan NAUMANN, Berlin, Germany; now part of the Rainer Seegers Foundation, to be incorporated in ZMHU. |
| DZUP | Collection Padre Jesus S. MOURE, Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Paraná, Brazil. |
| FW | forewing. |
| HT | holotype. |
| HW | hindwing. |
| PT | paratype. |
| SMFL | Naturmuseum Senckenberg, Lepidoptera collection, Frankfurt am Main, Germany. |
| ZMHU | Museum für Naturkunde, Berlin (formerly Zoologisches Museum der Humboldt-Universität), Germany. |

Description of the new *Dirphia* species

Dirphia nicolasi sp. n.

Holotype ♂ (Figs. 1a, 1b): Uruguay, Tacuarembó, 5 km W Valle Edén, xi. 2012, E. ABADIE & PRADA leg.; DZ 15.538;

¹ Research Associate of the Natural History Museum (Museum für Naturkunde, ZMHU), Berlin, Germany.



Figs. 1–3: *Dirphia nicolasi* sp. n. **Fig. 1a:** HT ♂, dorsal view; **Fig. 1b:** HT ♂, ventral view. **Fig. 2:** PT ♂, CGCM, dorsal view. **Fig. 3a:** PT ♀, CGCM, dorsal view; **Fig. 3b:** PT ♀, CGCM, ventral view. — **Fig. 4:** *D. moderata* ♂, Paraguay, Caazapa, Tavai, 26. IX.–5. X. 2008, leg. U. DRECHSEL, CSNB, dorsal view. — Scale bars = 1 cm (i.e., approximately natural size). — **Figs. 7–8:** Overview of the type locality (Uruguay, Tacuarembó Department) of *D. nicolasi* sp. n. — Biotope photos: Pablo WAGNER.

25.658 Col. C. MIELKE; Holotypus, *Dirphia nicolasi* C. MIELKE & S. NAUMANN des. 2014. – The specimen is donated to and deposited in DZUP by C.G.C.M.

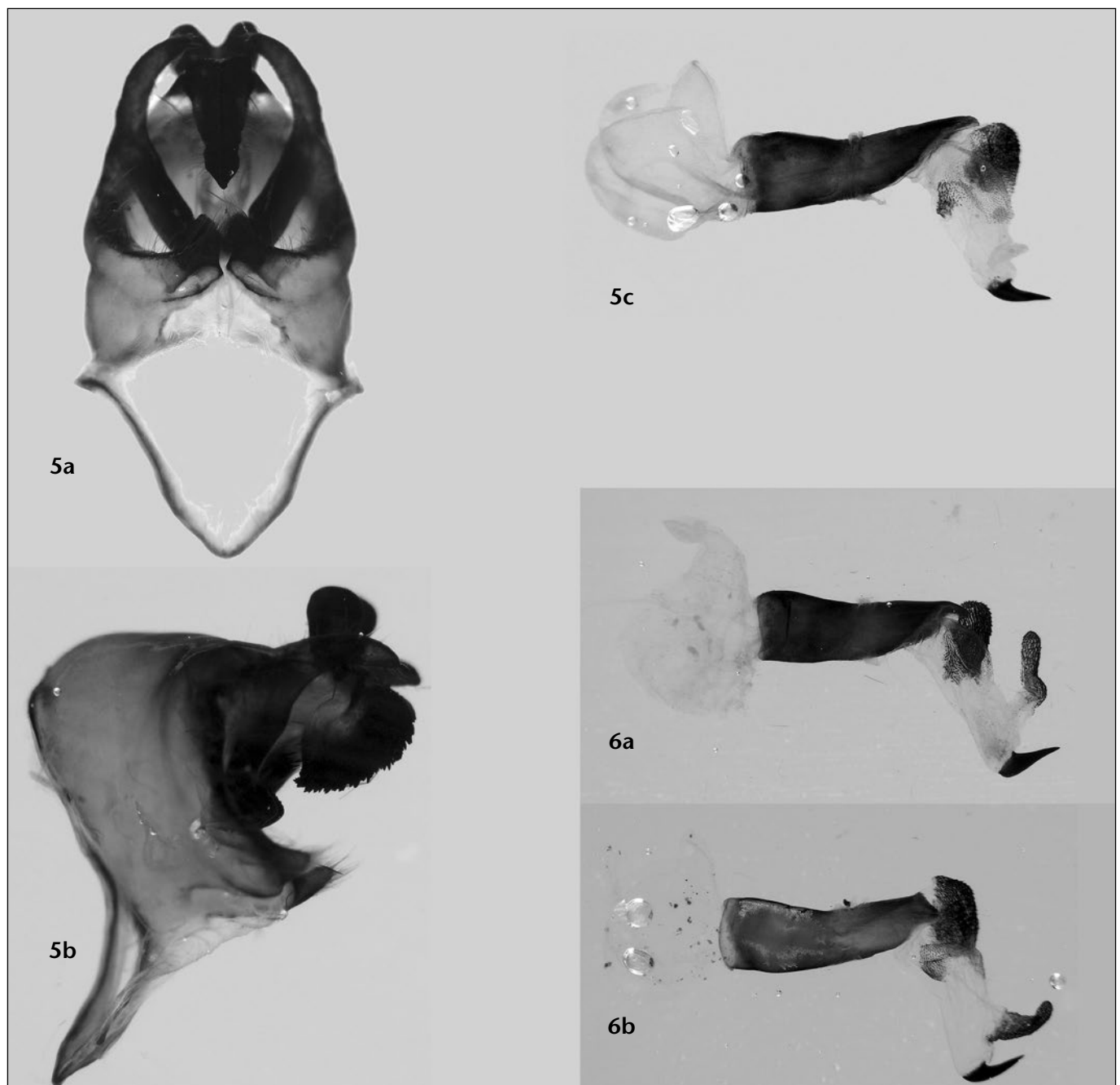
Paratypes (Fig. 2 ♂, Figs. 3a, 3b ♀, in total 9 ♂♂, 2 ♀♀): 9 ♂♂, 2 ♀♀ with the same data as HT, with following depositions: 2 ♂♂, 1 ♀, nos. CGCM 25.690, 25.692, 27.408, CGCM; 1 ♂, no. CGCM 27.291, SMFL; 1 ♂, no. CGCM 27.432, CSNB; 5 ♂♂, 1 ♀♀, CEA.

Etymology. The new species is named after Nicolas WAGNER, son of Pablo WAGNER (Buenos Aires, Argentina), who is a friend of the authors.

♂ (Figs. 1a, 1b, 2). FW length: 40–48 mm; wingspan: 78–90 mm.

Antenna (ca. 38 segments) straw coloured; frons and labial palpus dark brown. Thorax dorsally dark brown interspersed with pinkish scales. Legs dark brown, as well

scarcely interspersed by pinkish scales. FW elongated to moderately elongated, compared to more elongate wings of *D. moderata*; ground colour dull blackish brown. Antemedian area lighter, at its base concolorous with thorax; median area darker, homogenous with central stigma and bordered by an anterior and a posterior light marking, always separated from the ante- and postmedial areas by lines; stigma compound by an anterior and a posterior markings, linked or not, the former variable, light gray or light brown, the second semicircular, dark brown. Antemedial and postmedial lines dark brown, bordered by a gray line, anteriorly and posteriorly, respectively; antemedial line oblique up to M, then slightly sinuate up to inner margin, always parallel to the postmedial line. Postmedial line slightly sinuous. Premarginal area wavy, slightly lighter coloured than



Figs. 5, 6: ♂ genitalia of *Dirphia*. — **Fig. 5:** *D. nicolasi* sp. n., HT; **5a:** GP CGCM, ventral view; **5b:** lateral view; **5c:** phallus lateral view. — **Fig. 6:** *D. moderata*; **6a:** GP CGCM 23758, phallus lateral view; **6b:** GP CGCM 23137, phallus lateral view.

median area; marginal area coloured as the antemedian area. HW dark brown, becoming slightly lighter on the basal area; postmedian area faint, discal spot darker, some pinkish interspersed scales at the base. Ventrally, both wings faintly marked, except the darker stigma in each wing. Abdomen coloured as the thorax, each segment ringed posteriorly with pinkish scales, anal tuft with these scales more concentrated.

♂ **genitalia** (Figs. 5a, b, c). Generally same structure as in *D. moderata* (see LEMAIRE 2002: 1069), but with consistent differences. Vesica bilobed, with an anterior or basal lobe, covered by spiculae, and a posterior one, faintly developed, without spiculae; apical cornutus present (Fig. 5c). The main difference to *D. moderata* is the missing finger-like, strongly sclerotized process of the vesica (Figs. 6a, b: 2 phalli of *D. moderata*) which is never found in *D. nicolasi* sp. n.

♀ (Figs. 3a, 3b). FW length: 50 mm; wingspan: 95 mm. Sexual dimorphism not very well developed, except the shortly bidentate antennae and the bigger and rounder appearance.

Ethology and geographical distribution

All specimens of *D. nicolasi* sp. n. are known from the type locality. All specimens were collected at night with UV lights. As mentioned above, the type locality is located within the Pampas Savannah biome (Figs. 7, 8) in Uruguay, Dep. Tacuarembó.

Diagnosis

D. nicolasi sp. n., in spite of its general similarity to *D. moderata*, can easily be distinguished by the undeveloped and uncovered posterior lobe on the vesica. In the latter, this lobe is finger-like, longer than the cornutus and densely covered by spiculae. The FW of *D. nicolasi* sp. n. is less elongated, giving a more square appearance, and the constant pattern of the ground colour also enhances the determination. *D. nicolasi* sp. n. is, as far as known, endemic to Uruguay.

Notes on *Dirphia baroma* (SCHAUS, 1906)

Dirphia glauca MABILDE, 1896 is handled as senior synonym of *D. baroma* in literature but was overlooked completely for very long time. Caused by this ignorance, the taxon was handled as a *Nomen oblitum* (LEMAIRE 2002: 819) in accordance with the regulations of the ICZN

(1999). O. MIELKE & CASAGRANDE (1999: 228), when dealing with holotypes deposited in Brazil, already designated and figured (in colour) a ♂ as the lectotype of *Dirphia glauca* MABILDE, 1896. So the secondary lectotype designation by LEMAIRE (2002: 819) is invalid according to the regulations of ICZN (1999: article 74.1.1.)

In addition to this, O. MIELKE & CASAGRANDE (1999) mentioned the depository of the lectotype of *D. glauca* as Fundação Zoobotânica do Estado do Rio Grande do Sul, Porto Alegre, Brazil, where the entire MABILDE collection is located. The given deposition of LEMAIRE (2002: 819) as "UFPC" [= DZUP] thereby is also erroneous and should be corrected.

Acknowledgements

We thank Esteban ABADIE (Buenos Aires) for providing us with the material from Uruguay. Dr. Wolfgang A. NÄSSIG (Frankfurt am Main) gave critical comments and helpful suggestions. Peter KÜPPER (Berlin) kindly contributed the Spanish translation of the abstract.

References

- BENTANCUR VIGLIONE, M. G. (2011): Mariposas de Uruguay, Argentina, Brasil y Paraguay. — Maldonado (María Gabriela Bentancur Viglione), 96 pp.
- HUECK, K., & SEIBERT, P. (1972): Vegetationskarte von Südamerika. Mapa de la Vegetación de America del Sur. — Stuttgart (G. Fischer), viii + 71 pp., map.
- ICZN [INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE] (1999): International code of zoological nomenclature. Fourth edition, adopted by the International Union of Biological Sciences. — London (International Trust for Zoological Nomenclature), xxix + 306 pp.
- LEMAIRE, C. [with contributions by F. BÉNÉLUZ & N. TANGERINI] (2002): The Saturniidae of America. Les Saturniidae Américains (= Attacidae), vol. 4, Hemileucinae. — Keltern (Goecke & Evers); part A: [1]–688, part B: [689]–1388; part C: 143 pp, col. pls. 1–126, ES1–ES14, 143 pp. without pagination.
- MATTONI, R., & PENCO, F. (2012): Big moths of Buenos Aires and Southern Uruguay. — Beverly Hills (The Lepidoptera Research Foundation), 35 pp.
- MIELKE, O. H. H., & CASAGRANDE, M. M. (1999): Sobre os tipos de Lepidoptera depositados em museus brasileiros. XXV. Nymphalidae (Charaxinae) descrito por Mário ROSA (suplemento); Zygaenidae por A. M. da COSTA LIMA; Saturniidae (Hemileucinae) por A. MABILDE (suplemento), Castniidae por L. PFEIFFER e Arctiidae (Pericopinae) por Oscar MONTE. — Revista Brasileira Zoologia, Curitiba, 16 (Supl. 1): 227–231.

Received: 22. x. 2014

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Nachrichten des Entomologischen Vereins Apollo](#)

Jahr/Year: 2014

Band/Volume: [35](#)

Autor(en)/Author(s): Mielke Carlos G. C., Naumann Stefan

Artikel/Article: [A new species of *Dirphia* Hübner, 1819 \["1816"\] from Uruguay and a note about the lectotype of *Dirphia glauca* Mabilde, 1896 \(Lepidoptera, Saturniidae, Hemileucinae\) 185-188](#)