

Richardsmithia — a new genus of Metarbelidae
(Lepidoptera: Cossioidea) from the Republic of Congo

Richardsmithia — новый род Metarbelidae
(Lepidoptera: Cossioidea) из Республики Конго

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КЛЮЧЕВЫЕ СЛОВА: биоразнообразие, фауна, систематика, Африка, северо-западные конголезские равнинные леса, национальный парк Нуабале-Ндоки.

ABSTRACT. The article provides the description of a new monotypic genus, *Richardsmithia* **gen.n.** (Lepidoptera: Cossioidea, Metarbelidae), with its type species *Richardsmithia congolensis* **sp.n.** from the Nouabalé-Ndoki National Park in the Northwestern Congolian Lowland Forest ecoregion. The new genus is closely related to *Janegoodallia* Lehmann, 2014 (type species: *Janegoodallia davenporti* Lehmann, 2014). The article is illustrated with the figures of type specimens and male genitalia of both genera and a distribution map.

РЕЗЮМЕ. В статье описан монотипический род *Richardsmithia* **gen.n.** (Lepidoptera: Cossioidea, Metarbelidae), с *Richardsmithia congolensis* **sp.n.** (типовым видом) из северо-западных конголезских равнинных лесов. Новый род близок к роду *Janegoodallia* Lehmann, 2014 (типовой вид *Janegoodallia davenporti* Lehmann, 2014). Статья проиллюстрирована фото-

графиями типовых экземпляров и изображениями гениталий самцов.

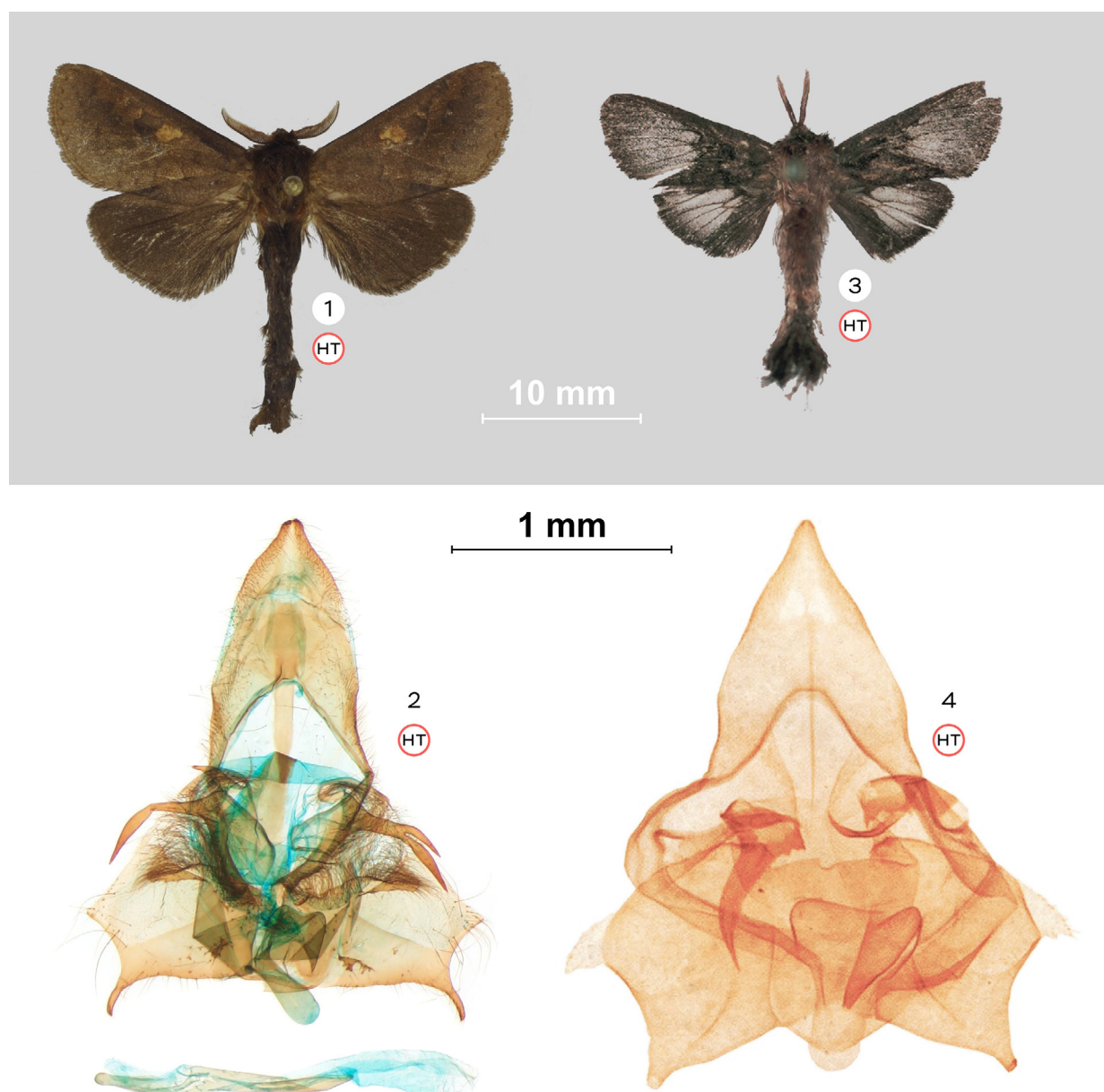
Introduction

The palaeotropical family Metarbelidae (Lepidoptera, Cossioidea) comprises approximately 350 described species. Of these, about 300 species occur in Africa and Madagascar, while around 50 species are documented from South and South-East Asia [Gaede, 1929, 1933; Nieukerken *et al.*, 2011; Lehmann, 2019a; Yakovlev, Zolotuhin, 2020; de Prins, de Prins, 2025]. In recent decades, taxonomic interest in this family has increased, resulting in the descriptions of numerous new taxa [Mey, 2005, 2018; Lehmann, 2008, 2009, 2010a, b, 2011, 2012, 2014, 2019a, b; Lehmann, Rajaei, 2013; Lehmann *et al.*, 2018, 2023; Yakovlev, Zolotuhin, 2020, 2021a, b, c, d, 2022; Yakovlev *et al.*, 2022, 2023, 2025; Lehmann,

Dalsgaard, 2023; Pavlova *et al.*, 2025, 2026a, b]. During the examination of one of the largest collections of African Lepidoptera housed by the African Natural History Research Trust (ANHRT, Leominster, UK), we identified a short series of a distinctive, hitherto undescribed metarbelid that could not be assigned to any of the currently recognised genera. In this paper, we describe this new genus and species.

Material and Methods

The studied specimens in the collections of ANHRT were sampled in the Nouabalé-Ndoki National Park (Republic of Congo) using a light tent illuminated with a 125 W mercury vapour light bulb or actinic and LepiLed light bucket traps. The genitalia were dissected and stained with Eosin red and mounted in Euparal on microscope slides, applying standard preparation methods [Lafontaine, Mikkola, 1987]. The adults were photographed using a Nikon D700 camera with a Nik-



Figs 1–4. Metarbelidae, adult males and male genitalia: 1 — *Richardsmithia congolensis* **sp.n.**, holotype (ANHRT); 2 — *R. congolensis* **sp.n.**, male genitalia (slide Yakovlev/Pavlova 2025/061); 3 — *Janegoodallia davenporti* Lehmann, 2014, holotype, Belgian Congo [Democratic Republic of the Congo], Uele-Paulis [Isiro in Haut-Uele District, Province Orientale], 9 January 1957, leg. Dr. M. Fontaine [Lehmann, 2014]; 4 — *J. davenporti* (genitalia slide number 09/102010 I. Lehmann, Royal Museum for Central Africa, Tervuren) [Lehmann, 2014].

Рис. 1–4. Метарбелиды, взрослые самцы и гениталии самцов: 1 — *Richardsmithia congolensis* **sp.n.**, голотип (ANHRT); 2 — *R. congolensis* **sp.n.**, гениталии самца (слайд Yakovlev/Pavlova 2025/061); 3 — *Janegoodallia davenporti* Lehmann, 2014, голотип, Belgian Congo [Демократическая Республика Конго], Уэле-Павлис [Иси́ро в Верхне-Уэле, Провинция Ориенталь], 9 января 1957, лев. Др. М. Фонтане [Леймман, 2014]; 4 — *J. davenporti*, гениталии самца (слайд 09/102010 I. Lehmann, Royal Museum for Central Africa, Tervuren) [Леймман, 2014].

kor AF-S Micro 105 mm lens. The genitalia preparations were photographed using an Olympus DP74 camera attached to an Olympus SZX16 stereomicroscope at Altai State University (Barnaul, Russia). The morphological terminology used in the description follows Kristensen [2003].

Taxonomic part

Richardsmithia gen.n.

Figs 1–2.

Type species *Richardsmithia congolensis* sp.n. (designated here).

DESCRIPTION. Male. Antenna short, three times shorter than forewing, bipectinate, setae 4 times longer than antenna stem diameter. Forewing dark brown with weakly expressed pattern: discal spot ochreous-yellow, rounded, with jagged margins, poorly expressed oblique brown post-discal band, marginal area with thin c-shaped strokes at radial veins, border thin, ochreous, fringe brown, unicolourous. Hindwing dark brown, unicolourous, border thin, ochreous, fringe brown, unicolourous.

Male genitalia. Uncus dome-shaped, apex semicircular; tegumen elongated, trapezoidal; gnathos arms reduced; scaphium long, lamellar. Valves of complex shape, with special armor, costal edge of valve oblique, outer edge concave, sacculus straight, apically with slightly curved, thin distal process and small proximal crest with jagged edge in medial section of sacculus. Transtilla processes long, needle-like, asymmetrical: two processes on the left (the short one arising closer to costal edge of valve and the long one closer to the medial section of valve), and one long, apically forked process on the right. Medial section of valve (closer to costal edge) with triangular harpe with jagged edge. Juxta lamellar, wide, bilobed, sacculus cylindrical, elongate, apically semicircular. Phallus slightly longer than valve, of medium thickness, almost straight, coecum elongated, apex spoon-shaped, vesica aperture in dorso-apical position, approximately 1/3 of phallus in length, vesica without cornuti.

Female unknown.

DIAGNOSIS. In the shape of the valve, the thin acute asymmetrical transtilla processes and the long cylindrical sacculus, *Richardsmithia* gen.n. is reminiscent of the monotypic genus *Janegoodallia* Lehmann, 2014 (type species *Janegoodallia davenporti* Lehmann, 2014 (Figs 3–4), by original des-



Fig. 5. Distribution map of *R. congolensis* sp.n. (circle) and *J. davenporti* (star).

Рис. 5. Карта распространения *R. congolensis* sp.n. (круг) и *J. davenporti* (звездочка).

ignation). The latter genus is known from a single specimen collected in the northeastern Democratic Republic of Congo [Lehmann, 2014]. Despite the similarities with *Janegoodallia*, the new genus is clearly distinguished by several features:

- a specific pattern on the fore wing with a well-developed ochreous discal spot,
- the absence of the translucent areas on the wings,
- the absence of the membranous part of the valve,
- the presence of a harpe and a crest in the medial section of the sacculus.

COMPOSITION. Monotypic genus.

DISTRIBUTION. Nouabalé-Ndoki National Park, Republic of Congo.

ETYMOLOGY. The new genus is dedicated to Mr. Richard Smith, founder and director of the African Natural History Research Trust, whose efforts in maintaining a research institute and museum, as well as organising extensive entomological surveys in numerous Sub-Saharan countries, made an immense contribution to the knowledge of the taxonomy, biogeography, and phylogeny of Afrotropical insects.

Richardsmithia congolensis sp.n.

Figs 1–2.

MATERIAL. Holotype, male, 1 male, Republic of Congo, Nouabalé-Ndoki National Park, Bomassa Camp, 02°12'36.9" N, 16°11'30.2" E, 6–14.v.2023, 341 m, Dérozier, V., Kirk-Spriggs, A., László, G., Mvouende, S. leg. (ANHRT:2023.6, unique number: ANHRTUK 00339715, slide Yakovlev/Pavlova 2025/061). Paratypes (all in ANHRT): 1 male, Republic of Congo, Nouabalé-Ndoki National Park, Macao Camp, 02°35'42.2" N, 17°10'08.3" E, 15–21.v.2023, 377 m, Dérozier, V., Kirk-Spriggs, A., László, G., Mvouende, S. leg. (ANHRT:2023.6, unique number: ANHRTUK 00323150); 1 male, Republic of Congo, Nouabalé-Ndoki National Park, Mondika Camp, 02°21'50.63" N, 16°16'25.82" E, 27.iv.–06.v.2023, 365 m, Dérozier, V., Kirk-Spriggs, A., László, G., Mvouende, S. leg. (ANHRT:2023.6, unique number: ANHRTUK 00358127).

DESCRIPTION. Male. Length of forewing 13–14 mm. See generic description.

Male genitalia. See generic description.

Female unknown.

Discussion

The genera *Janegoodallia* and *Richardsmithia* gen.n. are distributed within the Congolian Rainforests, a recognised global biodiversity hotspot, specifically in two adjacent ecoregions [Burgess *et al.*, 2004]: the Northeastern Congolian Lowland Forest and the Northwestern Congolian Lowland Forest (Fig. 5). The occurrence of highly specialised endemic genera highlights the ecological distinctiveness of these regions.

Compliance with ethical standards

CONFLICT OF INTEREST: The authors declare that they have no conflict of interest.

Ethical approval: No ethical issues were raised during our research.

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References

- Burgess N., D'Amico Hales J., Underwood E., Dinerstein E., Olson D., Itoua I., Schipper J., Rickkett T., Newman K. (eds.). 2004. Terrestrial ecoregions of Africa and Madagascar: a conservation assessment. World Wildlife Fund (United States), Island Press, Washington, xxiii + 499 pp.
- De Prins J., De Prins W. 2011–2025. Afromoths, an online database of Afrotropical moth species (Lepidoptera). World Wide Web electronic publication <http://www.afromoths.net> [accession date 09 October 2025].
- Gaede M. 1929. 21. Familie: Metarbelidae // A. Seitz (Hrsg.). Die Gross-Schmetterlinge der Erde. Eine Systematische Bearbeitung der bis jetzt bekannten Gross-Schmetterlinge. Die Afrikanischen Spinner und Schwärmer. Stuttgart: Alfred Kernen Verlag. Bd.14. S.501–513.
- Gaede M. 1933. 24. Familie: Indarbelidae // A. Seitz (Hrsg.). Die Gross-Schmetterlinge der Erde. Eine Systematische Bearbeitung der bis jetzt bekannten Gross-Schmetterlinge. Spinner und Schwärmer des indoaustralischen Gebiets. Stuttgart: Alfred Kernen Verlag. Bd.10. S.803–806.
- Hardwick D.F. 1950. Preparation of slide mounts of lepidopterous genitalia // Canadian Entomologist. Vol.82. No.11. P.231–235. <https://doi.org/10.4039/Ent82231-11>
- Kristensen N.P. 2003. Lepidoptera, Moths and Butterflies. Vol.2. Morphology, Physiology, and Development // Handbuch der Zoologie de Gruyter 4. Arthropoda: Insecta. Pt.36. Berlin and New York: Walter de Gruyter. xii + 564 pp.
- Lafontaine J.D., Mikkola K. 1987. Lock-and-key system in the inner genitalia of Noctuidae (Lepidoptera) as a taxonomic character // Entomologiske Meddelelser. Vol.55. P.161–167.
- Lehmann I. 2008. Ten new species of Metarbelidae (Lepidoptera: Cossioidea) from the coastal forests and the Eastern Arc Mountains of Kenya and Tanzania, including one species from two upland forests // Journal of East African Natural History. Vol.97. No.1. P.43–82. <http://dx.doi.org/10.2982/0012-8317>
- Lehmann I. 2009. Six new species of Metarbelidae (Lepidoptera: Cossioidea) from the Eastern Arc Mountains of Tanzania, including one new species from Marenji Forest in southeast coastal Kenya // Journal of East African Natural History. Vol.97. No.2. P.187–206. <http://dx.doi.org/10.2982/0012-8317-97.2.187>
- Lehmann I. 2010a. A new genus of Metarbelidae (Lepidoptera: Cossioidea) from the Afrotropical Region with the description of seven new species // Esperiana Memoir. Vol.5. P.294–321.
- Lehmann I. 2010b. A revision of the genus *Arbelodes* Karsch (Lepidoptera: Cossioidea: Metarbelidae) from southeast-central and southern Africa with the description of thirteen new species. Published by the author, Hamburg & Wismar. 81 p. + 8 b/w pls., 5 colour pls.
- Lehmann I. 2011. The description of a new genus and twenty-three new species of Metarbelidae (Lepidoptera: Cossioidea) from the

- lowland tropical rain forests of the Guineo-Congolian Region with notes on habitats and biogeography. Published by the author, Hamburg. 67 p. + 10 b/w pls., 6 colour pls., 1 coloured map.
- Lehmann I. 2012. Description of a new genus and species of Metarbelidae (Lepidoptera, Cossioidea) from the Albertine Rift region of Tanzania, East Africa // *Norwegian Journal of Entomology*. Vol.59. P.234–240.
- Lehmann I. 2013. Description of two new genera and ten new species of Metarbelidae (Lepidoptera: Cossioidea) from western, north-central and eastern Africa with notes on habitats and biogeography. Hamburg: Published by the author, S&K NEUE Hamburger Digitaldruck + Medien GmbH. 82 pp.
- Lehmann I. 2014. Description of two new genera and two new species of Metarbelidae (Lepidoptera, Cossioidea) from the North-eastern Congolian Lowland Forests Ecoregion (Central Africa) // *Zootaxa*. Vol.3895. No.4. P.570–580. <http://dx.doi.org/10.11646/zootaxa.3895.4.6>
- Lehmann I. 2019a. First revision of the family Metarbelidae Strand, 1909 (Lepidoptera, Cossioidea Leach, 1815) and a phylogeny based on adult morphology of 60 genera from the Afrotropical and Oriental Region. Bonn. 397 pp.
- Lehmann I. 2019b. Description of two new genera and two new species of Metarbelidae (Lepidoptera, Cossioidea) from Nepal and Sumatra (Indonesia), Oriental Region // *Heterocera Sumatrana*. Vol.13. No.2. P.47–72.
- Lehmann I., Dalsgaard Th. 2023. Revision of *Saalmulleria* Mabille, 1891 (Lepidoptera, Metarbelidae) from Madagascar with the description of three new genera and fifteen new species // *Evolutionary Systematics*. Vol.7. P.133–182. DOI 10.3897/evolsyst.7.85204
- Lehmann I., Rajaei H. 2013. Description of a new genus and three new species of Metarbelidae (Lepidoptera: Cossioidea) from East and central Africa, with notes on biogeography // *Bonn zoological Bulletin*. Vol.62. No.1. P.100–110.
- Lehmann I., Roberts M., Mathiu J.M., Butynski T.M. 2018. Undescribed species and genera of Metarbelidae moths (Lepidoptera, Cossioidea) from Lolldaiga Hills Ranch, central Kenya // *Newsletter Lolldaiga Hills Research Programme*, January– February 2018. P.3–4.
- Lehmann I., Zahiri R., Husemann M. 2023. Revision of the *Metarbelodes* Strand, 1909 genus-group (Lepidoptera: Cossioidea: Metarbelidae) with descriptions of two new genera and 33 new species from high elevations of eastern and southern Africa // *Zootaxa*. Vol.5267. 106 pp.
- Mey W. 2005. *Metarbela naumanni* sp. nov. from southern Africa (Lepidoptera, Cossidae: Metarbelidae) // *Entomologische Zeitschrift*. Vol.115. No.1. P.10–12.
- Mey W. 2018. *Dukearbela translucens* gen. nov., spec. nov. – a remarkable taxon from South Africa (Lepidoptera: Metarbelidae) // *Metamorphosis*. Vol.28. P.11–13.
- Mikkola K. 2007. The rise of evasion techniques in lepidopteran taxonomy (Insecta: Lepidoptera) // *SHILAP Revista de Lepidopterologia*. Vol.35. No.139. P.335–345.
- Pavlova P.D., László G.M., Müller G.C., Tujuba T.F., Prozorov A.M., Yakovlev R.V. 2026b. On the taxonomy of *Salagena tessellata* Distant, 1897 with description of a new genus and three new species (Lepidoptera, Cossioidea, Metarbelidae) // *Acta Biologica Sibirica*. Vol.12. P.85–98. <https://doi.org/10.5281/zenodo.18337242>
- Pavlova P.D., Müller G.C., Prozorov A.M., Yakovlev R.V. 2025. *Axel-hausmannia* – a new genus of Metarbelidae (Lepidoptera: Cossioidea) from the equatorial Africa // *Ecologica Montenegrina*. Vol.93. P.36–42. <https://dx.doi.org/10.37828/em.2025.93.3>
- Pavlova P.D., Müller G.C., Prozorov A.M., Yakovlev R.V. 2026a. A new genus of the Family Metarbelidae (Lepidoptera: Cossioidea) from Central and Western Africa // *Far Eastern Entomologist*. Vol.542. P.1–10. <https://doi.org/10.25221/fee.542.1>
- van Nieukerken E.J., Kaila L., Kitching I.J., Kristensen N.P., Lees D.C., Minet J., Mitter C., Mutanen M., Regier J.C., Simonsen T.J., Wahlberg N., Yen S.-H., Zahiri R., Adamski D., Baixeras J., Bartsch D., Bengtsson B.Å., Brown J.W., Bucheli S.R., Davis D.R., De Prins J., De Prins W., Epstein M.E., Gentili-Poole P., Gielis C., Hättenschwiler P., Hausmann A., Holloway J.D., Kallies A., Karsholt O., Kawahara A.Y., Koster S., Kozlov M.V., Lafontaine J.D., Lamas G., Landry J.-F., Lee S., Nuss M., Park K.-T., Penz C., Rota J., Schmidt B.C., Schintlmeister A., Sohn J.-C., Solis M.A., Tarmann G.M., Warren A.D., Weller S., Yakovlev R.V., Zolotuhin V.V., Zwick A. 2011. Order Lepidoptera Linnaeus, 1758 // Z.Q. Zhang (ed.). *Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness*. *Zootaxa*. Vol.3148. No.1. P.212–221. <https://doi.org/10.11646/zootaxa.3148.1.41>
- Yakovlev R.V., Zolotuhin V.V. 2020. Revision of the family Metarbelidae (Lepidoptera) of the Oriental Region. I. Introduction and genera *Encaumaptera* Hampson 1893, *Orgyarbela* gen. nov., and *Hollowarbela* gen. nov. // *Ecologica Montenegrina*. Vol.38. P.84–101. <http://dx.doi.org/10.37828/em.2020.38.11>
- Yakovlev R.V., Zolotuhin V.V. 2021a. Revision of the family Metarbelidae (Lepidoptera) of the Oriental Region. II. Two monotypic genera – *Ghatarbela* gen. nov. and *Micrarbela* gen. nov. – from the Western Ghats and Sri Lanka biodiversity hotspot // *Ecologica Montenegrina*. Vol.42. P.103–108. <http://dx.doi.org/10.37828/em.2021.42.6>
- Yakovlev R.V., Zolotuhin V.V. 2021b. Revision of the family Metarbelidae (Lepidoptera) of the Oriental Region. III. Genus *Stueningeria* Lehmann, 2019 // *Ecologica Montenegrina*. Vol.43. P.16–29 <http://dx.doi.org/10.37828/em.2021.43.2>
- Yakovlev R.V., Zolotuhin V.V. 2021c. Revision of the family Metarbelidae (Lepidoptera) of the Oriental Region. IV. Genus *Tagoria* Yakovlev & Zolotuhin, gen. nov. // *Ecologica Montenegrina*. Vol.43. P.38–43 <http://dx.doi.org/10.37828/em.2021.43.5>
- Yakovlev R.V., Zolotuhin V.V. 2021d. Revision of the family Metarbelidae (Lepidoptera) of the Oriental Region. V. Genus *Marco-poloia* Yakovlev & Zolotuhin gen. nov. from the Taiwan Island and Indo-Burma biodiversity hotspot // *Ecologica Montenegrina*. Vol.44. P.44–52. <http://dx.doi.org/10.37828/em.2021.44.6>
- Yakovlev R.V., Zolotuhin V.V. 2022. Revision of the family Metarbelidae (Lepidoptera) of the Oriental Region. VII. Genus *Aukorbela* Yakovlev & Zolotuhin, gen. nov. from Central Vietnam // *Ecologica Montenegrina*. Vol.50. P.67–70. <https://dx.doi.org/10.37828/em.2022.50.12>
- Yakovlev R.V., de Vos R., Hulsbosch R., Zolotuhin V. 2022. Revision of the family Metarbelidae (Lepidoptera) of the Oriental Region. VIII. Genus *Lutzkobesia* Lehmann, 2019 // *Ecologica Montenegrina*. Vol.52. P.49–52. <https://dx.doi.org/10.37828/em.2022.52.7>
- Yakovlev R.V., Hulsbosch R., Zolotuhin V.V. 2023. Revision of the family Metarbelidae (Lepidoptera) of the Oriental Region. XI. Genus *Psychidarbela* Roepke, 1938 // *Ecologica Montenegrina*. Vol.65. P.51–59. <https://dx.doi.org/10.37828/em.2023.65.7>
- Yakovlev R.V., Hulsbosch R., Ahmad J., Singh N. 2025. Revision of the family Metarbelidae (Lepidoptera) of the Oriental Region. XIII. Genus *Indarbela* Fletcher, 1922 // *Zootaxa* Vol.5661. No.4. P.553–560. <https://doi.org/10.11646/zootaxa.5661.4.5>