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Article

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Descriptions of new *Hypotrabala* Holland, 1893 (Lepidoptera: Lasiocampidae: Lasiocampinae: Selenepherini) in the collections of the African Natural History Research Trust, with notes on allied genera and the description of a new genus

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Abstract
The Afrotropical lappet moth genus *Hypotrabala* Holland, 1893 is reviewed utilising specimens housed in the African Natural History Research Trust collections. The synthesis of morphological and DNA analyses has reconciled discrepancies in previous treatments of the genus and *Hypotrabala* is clearly delimited with implications on the nomenclature and taxonomy. The genus *Epitrabala* Hering, 1932 **syn. n.** is synonymised with *Hypotrabala* resulting in the following changes: *Hypotrabala argenteoguttata* (Aurivillius, 1909) **comb. rev.** is revived, *H. horridula* Tams, 1925 **stat. rev.** is removed from synonymy with *Epitrabala nyassana* (Aurivillius, 1909) and two taxa, *H. horridula seydeli* Tams, 1925 **syn. n.** and *Epitrabala argyrostigma* Hering, 1932 **syn. n.** are synonymised with it. *Epitrabala nyassana* is transferred to the genus *Leptometa* (**comb. n.**) as is *Leptometa sanguicincta* **comb. n.** (previously assigned to *Hypotrabala*), while *Hypotrabala odonestioides* Berio, 1937 is excluded from *Hypotrabala* although its generic placement remains uncertain. Based on the structures of the male eighth sternite, *Hypotrabala fontainei* **stat. n.** is raised to species status and a new genus *Megatrabala* **gen. n.** is described for the striking taxon *M. regalis* (Tams, 1953) **comb. n.** Furthermore, 19 new species are described: *H. aurantiaca*, *H. cinereamargo*, *H. exquisita*, *H. extenuata*, *H. giustii*, *H. indefinita*, *H. igneata*, *H. lunda*, *H. lydiae*, *H. magnimacula*, *H. obscura*, *H. ophioglossa*, *H. pallens*, *H. pruinosa*, *H. retorta*, *H. smithi*, *H. tabithae*, *H. tamsi* and *H. volynkini* **spp. n.** Certain incongruencies between the results of the barcode analyses and species concepts in this genus and Lasiocampidae more generally are discussed.

Key words Afrotropics, ANHRT, integrative taxonomy, revived status, new combination, new synonymy.

Introduction

The classification of the Afrotropical lappet moths (Lasiocampidae) remains in a state of disarray for a group that contains some of the largest and most distinctive moths on the continent. The difficulty in ascertaining and matching sexes of insects that display extreme sexual dimorphism may be one reason;

a historic classification built around venation (e.g., Aurivillius 1927), a character that is intrinsically unstable may be another. It is however apparent that in the case of many genera, the actual number of species far outweigh those already described (e.g., Zolotuhin & Prozorov 2010).

The genus *Hypotrabala* was erected to include a single new species, *H. castanea* Holland 1893, a highly distinctive and beautiful lappet moth found in the equatorial forest belt of Africa. Tams (1925) reviewed the genus synonymising *Pehria* Strand, 1910 (a replacement name for *Parameta* Aurivillius, 1909) with *Hypotrabala* and considered six further species to belong to the genus (*Pachymeta argentetoguttata* Aurivillius 1905, *Gonometa brotoessa* Holland, 1893, *Pachymeta guttata* Aurivillius, 1915, *Pachymeta neavei* Aurivillius, 1915, *Metanastria porphyria* Holland, 1893 and *Parameta umbrina* Aurivillius, 1909) whilst describing four new taxa of his own. Aurivillius (1927) in his work on the Lasiocampidae in Seitz's *Die Gross-schmetterlinge der Erde*, reclassified the Afrotropical genera and considered *H. castanea* to be the only member of *Hypotrabala*, reassigning the other taxa to different genera: *brotoessa* to *Gonopacha* Aurivillius, 1927, *porphyria* to *Mallocampa* Aurivillius, 1902, *umbrina* to *Pehria* and the rest to *Pachymetana* Strand, 1912. Hering (1932) described *Epitrabala* Hering, 1932 for a new species *E. argyrostigma* Hering, 1932 allied to *Hypotrabala horridula* Tams, 1925 based on the presence of hairs on the eyes, the absence of which was a character provided by Aurivillius (1927) for *Hypotrabala*. In the Lasiocampidae section of Junk's *Lepidopterorum Catalogus*, Collier (1936) listed two species under *Hypotrabala*: the type species and the then recently-described *H. carnegiei* Tams, 1929 with the remainder of the *Hypotrabala* taxa *sensu* Tams (1925) sitting under *Pachymetana* following Aurivillius (1927). In the most recent review of the genus, Tams (1953) described two further species of *Hypotrabala* from the Democratic Republic of the Congo and illustrated the eighth sternite of eight species he considered to belong to this genus, contrary to Aurivillius' (1927) reclassification and Collier's (1936) catalogue. Several species have since been considered to belong to *Epitrabala* (e.g., Pinhey 1975) and published works conflict with the species content of these genera. *Hypotrabala* was omitted from the tribal classification of Zolotuhin *et al.* (2012) but placed in Selenepherini by Basquin (2023).

As part of an on-going barcoding project of Afrotropical Lepidoptera groups held in the African Natural History Research Trust (ANHRT) collections, a large subset of Lasiocampidae was sampled, the results of which have instigated further investigations into several genera. Through careful consideration and synthesis of morphological and barcode data, numerous new species have been delimited and are described herein.

Materials and Methods

Phylogenetic analyses

DNA barcodes (COI-5P) were obtained by removing tarsal segments from 60 unidentified adult *Hypotrabala* specimens before being submitted to the Canadian Centre for DNA Barcoding (CCDB, Biodiversity Institute of Ontario, University of Guelph). Two allied genera within Selenephrini, *Leptometa* Aurivillius, 1927 and *Mallocampa* Aurivillius, 1902 were selected as outgroup taxa. Sequences were obtained using Single Molecule Real-Time sequencing through the Sequel II (PacBio) pipeline at CCDB (Hebert *et al.* 2018). The resulting sequences were aligned using MUSCLE in MEGA version X (Kumar *et al.* 2018) and genetic distances were calculated using Kimura's two-parameter model (Kimura 1980). Phylogenetic tree searches were performed using Bayesian Inference (BI) and Maximum Likelihood (ML). BI analyses were performed using MrBayes version 3.2.7a (Ronquist *et al.* 2012). Metropolis-coupled Markov chain Monte Carlo (MCMC) analyses were run with four chains (one cold and three heated) for 10,000,000 generations sampling every 100 generations, discarding the first 25% as burn-in. The two runs converged with the standard deviation of split frequencies 0.006. ML analyses were performed using raxmlGUI 2.0 (Edler *et al.* 2021) using a general time reversible model (GTR-GAMMA). Support for clades was evaluated for BI using posterior probabilities and ML using rapid bootstrapping with 1000 replicates. Trees were visualised and annotated in FigTree version 1.4.4 and Adobe Photoshop. The ANHRT unique identifier [ANHRTUK 00000000] and the Barcode of Life Data System (BOLD) sample ID (Ratnasingham & Hebert 2007) are identical.

Morphological analyses
Genitalia were dissected, stained with Eosin red and mounted in Euparal on microscope slides applying standard methods of preparation (Lafontaine & Mikkola 1987). Before the phallus was mounted a dorsal view image was taken. Genitalia were photographed using a Canon EOS 700D mounted on a Wild M3Z stereo microscope. Adults were photographed using a Canon EOS 80D with a Canon 100 mm Macro lens or a Nikon D90 with a Nikkor AF Micro 60 mm lens. All images were edited in Adobe Photoshop. Primary type label data have been transcribed verbatim with "//" denoting a different label and "/" denoting a line break.

Abbreviations used in the text:

ANHRT	African Natural History Research Trust, Leominster, UK
BIN	Barcode Index Number
NHMUK	Natural History Museum, London, UK
NHRS	Naturhistoriska riksmuseet, Stockholm, Sweden
PWD	Pairwise distance
RMCA	Royal Museum for Central Africa, Tervuren, Belgium

Results

Phylogenetic analyses
The phylogenetic inferences based on BI and ML overall recovered similar topologies (the tree inferred from the ML analysis is figured in Fig. 1). *Hypotrabala* sensu Tams (1953), excluding *H. porphyria* (now in the genus *Cryptopacha* Prozorov & Zolotuhin, 2012 – discussed further under the results of the morphological analyses) was recovered as monophyletic with strong support (BS: 93; PP: 100) but paraphyletic with regard taxa later treated as *Epitrabala* (clade A) sensu Pinhey (1975). The species allied to *H. guttata* (*H. retorta* sp. n. + (*H. guttata* + *H. aurantiaca* sp. n.)) formed a well-supported clade (BS: 100; PP: 100) and were recovered as sister to the remaining *Hypotrabala*. In both analyses, *H. lydiae* sp. n. was recovered as sister to *H. smithi* sp. n. + the remaining *Hypotrabala*. In the BI analyses *H. volynkini* sp. n., *H. tabithae* sp. n., *H. exquisita* sp. n. + *H. extenuata* sp. n. and *H. cinereamargo* sp. n. + *H. igneata* sp. n. were recovered as a polytomy, while in the ML analyses, two clades, *H. exquisita* sp. n. + *H. extenuata* sp. n. and *H. cinereamargo* sp. n. + *H. igneata* sp. n., were recovered as sister to each other but with weak support (BS: 38). *Hypotrabala neavei* + *H. lunda* sp. n. was recovered as sister to a poorly resolved clade (A) wherein several morphologically distinct taxa recovered as non-monophyletic in both the BI and ML analyses. The two populations of *H. tamsi* sp. n. from Togo and Cameroon, despite identical phenotype and genital morphology, were recovered paraphyletically whilst the widespread *H. horridula* was recovered as polyphyletic. Moreover, clade B (*H. tamsi* sp. n. + (*H. giustii* sp. n. + *H. horridula*)) was recovered with similarly strong support in the BI analyses (PP: 98) as the monophyletic *H. argenteoguttata* clade C (PP: 99).

Morphological analyses
With the exception of the peculiar *H. dollmani* Tams, 1925, all taxa assigned to *Hypotrabala* and *Epitrabala* share similar external morphology, most notably the presence of a distinct forewing discal spot ringed in black. The majority of taxa have a forewing with variegated patterns of fasciae upon a ground colour ranging from yellow, through orange to dark brown, and a paler, uniform hindwing. In the original description, *Epitrabala* was distinguished from *Hypotrabala* based on the presence of hairs on the eye of the former (Hering 1932) although investigations into the eye of the type species of the latter have revealed the presence of hairs under high magnification. The genitalia are distinctive when compared to other allied genera in Selenepherini (e.g., *Gastroplakaeis* Möschler, 1887, *Leptometa*, *Mallocampa*, *Pachymetana*), and the following combination of characters identify *Hypotrabala*: generally elongate socii and narrow valves, the phallus curved dorsad with a basally-inflated vesica dorsally, often with serrated plates, and the eighth sternite with anterior apodemes and flattened posterior processes or projections. The genital configuration is perhaps most similar to *Cryptopacha* which can be distinguished based on the absence of a basally-inflated vesica and the posterior processes of the eighth sternite which are digitiform and serrate apically.

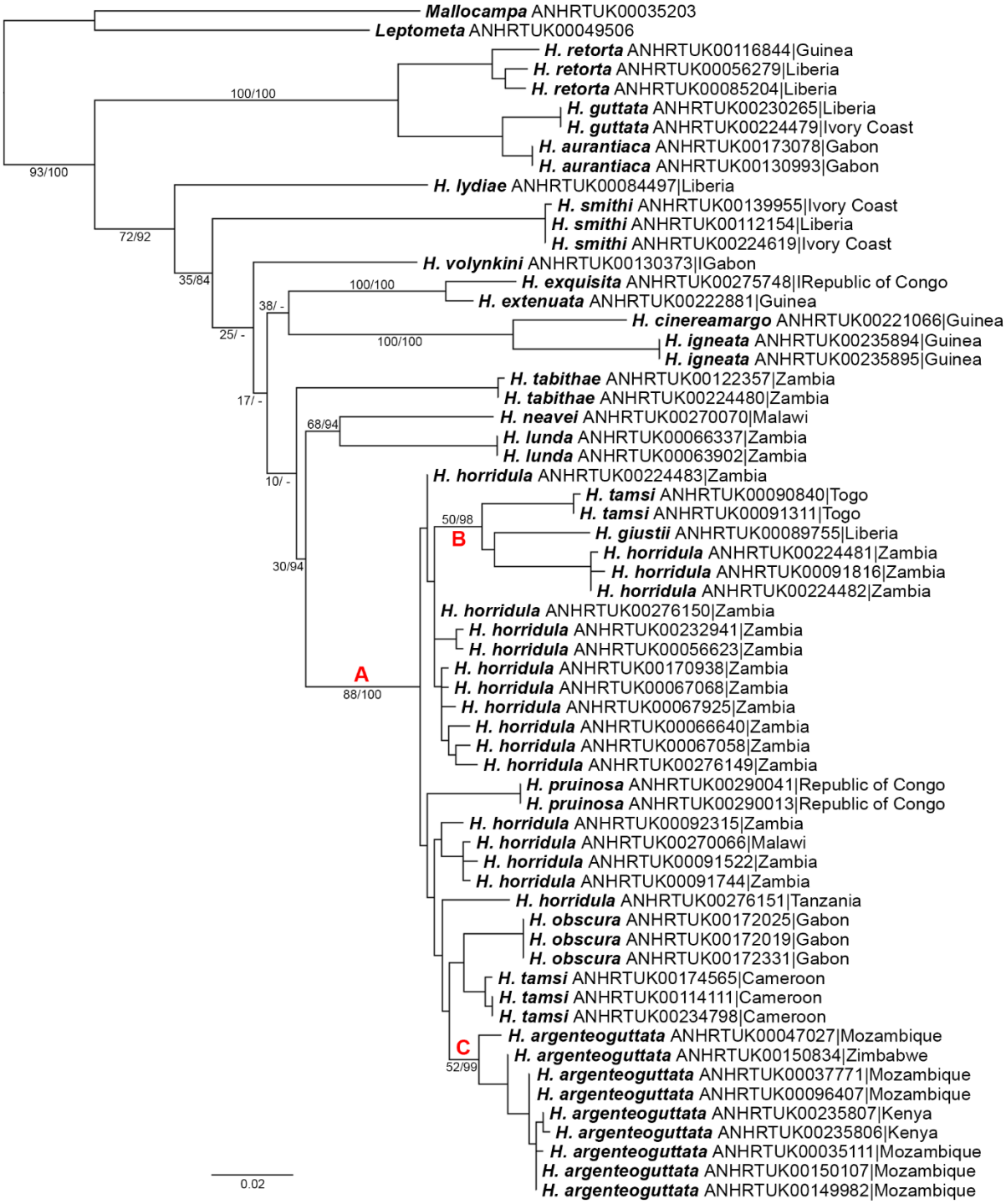


Figure 1. Maximum likelihood tree of *Hypotrabala* species and Selenepherini outgroups based on DNA barcodes. Numbers indicate bootstrap values and posterior probabilities (BS/PP). Scale bar indicates substitution rates per site.

An early proponent of the taxonomic utility of genitalia (Fletcher & Bradley 1981), Tams observed that the sclerotised eighth sternite of the male differed between species and illustrated several as part of his new species descriptions (Tams 1925; 1953) stating that they were an "important aid to identification" (Tams 1953: 74). Many of his illustrations (Tams 1953) are clearly diagnostic of the species but there was a discrepancy with two, *H. horridula* and *Cryptopacha porphyria*. The genital preparation of the *H. horridula* holotype in NHMUK (Fig. 88) is missing the eighth sternite but none of the comparative material studied in ANHRT matched his figure. The same applied to the figure of *C. porphyria* which

is very different to that figured in Takano & László (2022). This discrepancy can however be reconciled if one takes into consideration how Tams (1953) observed the sternite. He stated that this sclerotised sternite could be "readily observed if the scales are carefully removed from the underside of the terminal abdominal segments" (Tams 1953: 74), which highly progressive in his time, is often misleading in practice (current observation). The posterior sections and projections of the eighth abdominal segment can be obscured from view if it is folded in on itself and it appears that what Tams illustrated are in fact sections of the sternite and valves or socii. This is most clearly visible in the *porphyria* figure – if the posterior section of the genital capsule (including the socii) and the anterior section of the eighth sternite (including the apodemes) are amalgamated (see Figs 7 and 9 in Takano & László 2022), the result is not dissimilar to Fig. 11 in Tams (1953).

One complication with Tams' numerous dissections (including some of the types of *Hypotrabala*) in NHMUK is the lack of corresponding slide or vial numbers attached to the specimens (and conversely, the slides and vials lack the name of the species) thus rendering the pairing process impossible (G. Martin, pers. comm.). Moreover, some slides appear to be mislabelled (e.g., a *Hypotrabala* specimen with slide number 160 although labelled as such on the slide has mounted the genital capsule of a *Mallocampa* species and vice versa for slide 161) which may introduce an element of doubt in cases where no further comparative material is available to corroborate or refute the purported identification (such as in the case of *H. dollmani* – see below).

The posterior section of the eighth sternite of *Hypotrabala* can be split into two categories and in this present review the following differentiation is made: those with sclerotised *processes* that protrude out from the abdominal segment such as in *H. guttata* (Fig. 60) and sclerotised *projections* that are an extension of the sclerotised central plate such as in *H. horridula* (Fig. 89). The shape of the sternite and in particular the projections seemed to vary intraspecifically, but nevertheless it was taxonomically informative especially for species with processes, and this character appeared to have evolved independently several times based on the phylogram inferred from barcodes. Accurate identifications are only possible by analysing the genital capsule itself and even then, phenotypically identical taxa such as *H. castanea* and *H. smithi* sp. n. have wildly different genitalia rendering systematic groupings based on such characters uninformative.

In this present paper, the species are grouped according to phenotype although diagnostic comparisons are made between taxa with similar genitalia. Since the majority of the new species are described from a single locality, a section detailing the distribution is omitted as all the examined material is listed in the type series and any statements as to their hypothetical distribution would be conjecture. Very few female specimens are known and due to the sexual dimorphism and variation displayed in this group only barcode-confirmed females have been included in the type series.

Taxonomic implications

In light of the results from the phylogenetic and morphological analyses, numerous nomenclatural and taxonomic changes are enacted. *Epitrabala* is synonymised with *Hypotrabala* and nine species are retained or placed in it; of the remaining valid taxa previously considered to belong to either of the aforementioned genera, two are transferred to *Leptometa*, one is treated as *incertae sedis*, and a new genus is described for another. Further information and reasoning are provided under each of the species in the following section. Additionally, 19 species have been clearly delimited and are described as new to science.

Taxonomy

***Hypotrabala* Holland, 1893**

Hypotrabala Holland, 1893, *Psyche*, 6: 490.

Type species: *Hypotrabala castanea* Holland, 1893 (by original monotypy)

= *Epitrabala* Hering, 1932, *Revue de Zoologie et Botanique Africaines*, 22 (1): 110. **syn. n.**

Species content of genus:

***Hypotrabala argenteoguttata* (Aurivillius, 1909) stat. rev.**
(Figs 41–42, 75)
Pachymeta argenteoguttata Aurivillius, 1909, *Arkiv för Zoologi*, 5 (5): 24.
Type locality: "Süd-Afrika"
One of the species originally placed in *Hypotrabala* by Tams (1925) and transferred to *Pachymetana* by Aurivillius (1927), it has more recently been treated in *Epitrabala* (Pinhey 1975; Vári *et al*. 2002). Based on the similitude of phenotype, genital morphology and barcode data, Tams' (1925) combination is re-established.

***Hypotrabala carnegiei* Tams, 1929**
Hypotrabala carnegiei Tams, 1929, *Annals and Magazine of Natural History*, (10) 3 (14): 155.
Type locality: Cameroon, Efulen
A photograph of the holotype pinned into the drawer of *Hypotrabala* specimens in NHMUK figures a specimen that conforms to the *Hypotrabala* phenotype and suggests that the original generic assignment is correct.

***Hypotrabala castanea* Holland, 1893**
(Figs 14–15, 64)
Hypotrabala castanea Holland, 1893, *Psyche*, 6: 513.
Type locality: Gabon, Ogooué River
The type species of the genus is a highly recognisable, phenotypically distinct insect with a broad longitudinal dark brown band on the forewing. The general ground-plan of the genitalia however differs little from its congeners.

***Hypotrabala dollmani* Tams, 1925**
(Figs 58–59, 90)
Hypotrabala dollmani Tams, 1925, *Annals and Magazine of Natural History*, (9) 16 (95): 557.
Type locality: Zambia, Solwezi
Despite the extensive sampling in north-western Zambia by ANHRT, this species has not been found and is seemingly rare. It is believed to be known only from the male holotype and a pair of paratypes in NHMUK. This taxon is quite unlike any other *Hypotrabala* with straight bilineate antemedial and postmedial fasciae, and lack of a forewing discal spot. The holotype is missing its abdomen and may have been dissected at some stage but lacks a corresponding slide or vial number (Fig. 58). The paratype male has had the right-hand set of wings removed and de-scaled, and it has been dissected as stated in the original description (Fig. 59); the corresponding slide (Fig. 90) conserves a genital capsule of the *Hypotrabala* ground-plan, and the eighth sternite which is not unlike that figured by Tams (1953: Fig. 13). It is assumed that this slide is correctly labelled (see above) with a caveat that dissections of other specimens are needed for confirmation.

***Hypotrabala fontainei* Tams, 1953 stat. n.**
Hypotrabala fontainei Tams, 1953, *Bulletin of the British Museum (Natural History) Entomology*, 3 (2): 75.
Type locality: D.R. Congo, Lusambo
Based on the vastly different eighth sternite of the male as figured in the original description (Tams 1953: Figs 7, 8 and 10), *H. fontainei* (**stat. n.**) is raised to species status.

***Hypotrabala guttata* (Aurivillius, 1915)**
(Figs 5–6, 60)
Pachymeta guttata Aurivillius, 1915, *Arkiv för Zoologi*, 9 (11): 5.
Type locality: Ghana, between the Coast and Kumasi
The holotype male in NHMUK has been dissected and the eighth sternite matches well with Tams' figure (1953: Fig. 9) as well as specimens in ANHRT from Liberia and Ivory Coast. This taxon was treated as a subspecies of *H. horridula* by Joannou & Kühne (2008: Fig. 1185) for the determination of a quite different species of *Hypotrabala* (most probably *H. exquisita* sp. n. described herein).

***Hypotrabala horridula* Tams, 1925 stat. rev.**
(Figs 45–49, 86–89)
Hypotrabala horridula horridula Tams, 1925, *Annals and Magazine of Natural History*, (9) 16 (95): 558.
Type locality: Zambia, Kashitu
= *Hypotrabala horridula seydeli* Tams, 1925, *Annals and Magazine of Natural History*, (9) 16 (95): 559, **syn. n.**
Type locality: D.R. Congo, Elisabethville [=Lubumbashi]
= *Epitrabala argyrostigma* Hering, 1932, *Revue de Zoologie et Botanique Africaines*, 22 (1): 110, **syn. n.**
Type locality: D.R. Congo, Elisabethville [=Lubumbashi]
In the original descriptions of *H. horridula* and its subspecies *seydeli*, Tams (1925) listed only minor differences in wing colour between the two taxa but figured differing eighth sternites (Tams 1925: 559), particularly convincing since they appear to be as different from each other as they do to the eighth sternite of *H. neavei* figured alongside (the discrepancy in Tams' figures of *H. horridula* is discussed above). A slightly different illustration of the eighth sternite of *H. seydeli* is provided later by Tams (1953: Fig. 16) but the general configuration of both is representative of specimens from this region of Central Africa. *Epitrabala argyrostigma* was described from the same locality as *H. seydeli* and in comparing to *H. horridula*, Hering (1932) provided only the smaller size and weakly patterned forewing as diagnostic of his new species. A long series of males from Zambia and Malawi in ANHRT display great variation in size, colour and extent of markings on the forewing upperside, and despite being recovered as polyphyletic in the phylogenetic analyses, the clasping apparatus is consistent and identical to the *H. horridula* holotype in all of the dissected specimens (n=11). Illustrated in Fig. 86 (ANHRTUK 00067068) and Fig. 87 (ANHRTUK 00224481) are the genitalia of two specimens with a PWD of 3.16% and recovered in two BINs (BOLD:AAL9203 and BOLD:AAL9204 respectively) that display no observable differences. Pinhey (1975) considered *H. horridula* to be the male of *Epitrabala nyassana* (Aurivillius, 1909) and synonymised the former with the latter. However, the specimen figured by Pinhey (1975: Plate 29, Fig. 546) as *H. horridula* is misidentified (likely referable instead to *H. lunda* sp. n. described herein) and it is reinstated as a valid species (**stat. rev.**). Based on the similitude of the genitalia and taking into consideration the observed phenotypic variability of the taxon (photographs of both the holotypes of *H. horridula seydeli* and *E. argyrostigma* in RMCA have been examined), it is believed that only one taxon is distributed throughout the Central Zambezian Miombo woodlands and *H. horridula seydeli* (**syn. n.**) and *E. argyrostigma* (**syn. n.**) are here synonymised with *H. horridula*.

***Hypotrabala joiceyi* Tams, 1925**
(Figs 22–23, 80)
Hypotrabala joiceyi Tams, 1925, *Annals and Magazine of Natural History*, (9) 16 (95): 559.
Type locality: Central African Republic, Bangui
The tip of the abdomen of the holotype in NHMUK is missing and was presumably dissected but lacks a corresponding slide or vial number. A specimen matching the holotype from D.R. Congo in ANHRT (Fig. 22) displays a not dissimilar eighth sternite to that figured by Tams (1953: Fig. 15) and is here treated as being conspecific although further material is required for confirmation.

***Hypotrabala neavei* (Aurivillius, 1915)**
(Figs 37–38, 84)
Pachymeta neavei Aurivillius, 1915, *Arkiv för Zoologi*, 9 (11): 6.
Type locality: Malawi, Mt Mulanje
Several syntype male specimens have been dissected in NHMUK and the eighth sternite matches well with that figured in Tams (1925: 559; 1953: Fig. 14).

The following two species are excluded from *Hypotrabala*:

Hypotrabala sanguicincta (Aurivillius, 1901) is transferred to *Leptometa* based on the similarity of the genital capsule to the type species *L. matuta* (Schaus, 1893) as well as barcode data: *Leptometa sanguicincta* (Aurivillius, 1901) **comb. n.**

Epitrabala nyassana (Aurivillius, 1909) was thought to be the female of *H. horridula* by Pinhey (1975) but based only on a photograph of a female syntype in NHRS, it is not a *Hypotrabala* and possibly a female of a *Leptometa* species. Although further research is required to ascertain its precise placement, it is tentatively transferred to *Leptometa*: *Leptometa nyassana* (Aurivillius, 1909) **comb. n.**

The following species is considered *incertae sedis*:

Hypotrabala odonestioides Berio, 1937
Berio (1937) stated that despite the moth looking completely different to the type species of *Hypotrabala*, his new species agreed with all of the characters listed by Aurivillius (1927) for the genus. Based on the original description and type locality of Chikuni in southern Zambia, it almost certainly does not belong in *Hypotrabala*. Since the type specimen has not been studied, no formal nomenclatural changes are made.

A new genus is described for the striking insect *Hypotrabala regalis* Tams, 1953:

***Megatrabala* gen. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:84495382-BE93-4C6A-B28C-C3150022DF79
(Figs 2–4)
Type species: *Hypotrabala regalis* Tams, 1953

Description.
Forewing length: male 34–36 mm; female: 53–54 mm.
Upperside. Ground colour yellow. Antenna bipectinate, brown; the rami shorter in females. Patagium, anterior section of prothorax and two tufts on posterior section of metathorax mahogany in males. Wings yellow, warmer in females; fasciae and markings mahogany. Forewing triangular, elongate; outer margin crenulate, produced at vein M2. Antemedial and postmedial fasciae bilineate, crenulate, interrupted and indistinct. Longitudinal band from base of costa, along the cubital and vein M3 tapering towards margin. Discal spot in males large, ovoid, pearlescent-white edged in mahogany, with a second, smaller more longitudinally elongate spot placed between it and the costa; in females small, reniform, mahogany. Subapical marking triangular, pointed distad, from vein R3 to M2 with darker greyish spots proximally in spaces R5 and M1. Tornal marking triangular, darker proximally. Termen with small lunules between veins giving margin a more crenulate appearance. Hindwing outer margin angled at vein Rs, gently arcuate and crenulate to tornus.

Underside. Ground colour as on upperside but paler in males. Fore- and midleg dark greyish brown, hindleg pale reddish-grey. Forewing fasciae absent. Discal spot weakly shows through from upperside; in males indicated by white scaling proximally. Subapical and tornal markings as on upperside but more diffuse and less well-defined.

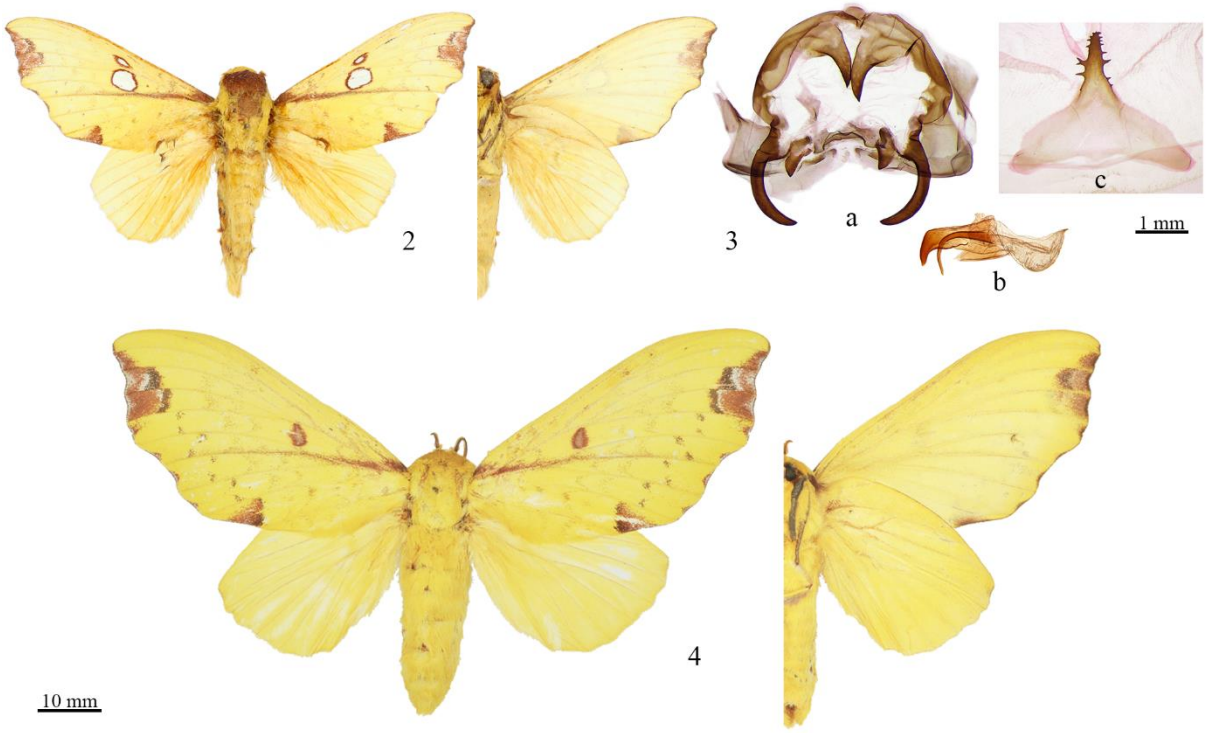
Male genitalia. Uncus relatively short, broad at base, gradually tapered and slightly curved outward, apically pointed. Tegumen short and broad with narrow lateral plate. Valve bilobate, anterior lobe very short, triangular, moderately sclerotised, posterior lobe relatively long, narrow, strongly arched, apically pointed, heavily sclerotised. Juxta very short, relatively broad, anteriorly with shallow, broad depression. Vinculum very wide, medial section narrow ribbon-like with short membranous medial part; lateral plates large, rounded-triangular with slightly arcuate margins. Phallus very short, coecum penis relatively large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus tapered distad, subapically abruptly curved dorsad, apically pointed. Vesica narrow tubular without inflated section, armed with a very long, robust, medially strongly curved, distally tapered, apically pointed cornutus. Eighth sternite with weakly sclerotised, relatively long and broad, somewhat triangular basal plate produced into a single heavily sclerotised, basally broad, distally tapered, elongate posteromedial projection bearing irregular, sharp marginal dentation.

Diagnosis. Both sexes of the type species are highly distinctive and can easily be separated from all known *Hypotrabala* species by their larger size, the yellow ground-colour, the crenulate outer margin of the forewing which is produced at vein M3, the longitudinal band that runs along vein M3 and the triangular subapical and tornal markings. In the males, *Hypotrabala* species possess only a single

rounded or lunulate forewing discal spot lacking the accessory marking. The male genital configuration of *Megatrabala* supports a close relationship to *Hypotrabala* but in the latter, the valve is unilobate lacking the basal lobe, the vesica is inflated and often spherical with dentate crests and the eighth sternite is bilobate or bifurcate with smooth margins.

Derivatio nominis. The new genus derives its name from its large size and affinity to *Hypotrabala*.

Notes. The genus *Megatrabala* is currently considered monobasic containing only *M. regalis* (Tams, 1953) **comb. n.** described from Kapanga in southern D.R. Congo. In the original description of the type species, Tams (1953) illustrated the genitalia and stated that the male genitalia are unlike any other species of *Hypotrabala* in having a single medial process of the eighth sternite. Although it is difficult to ascertain the shape and length of the socii or phallus, the fine quality of the photographic figure from a time when such figures were not commonplace, portrays the eighth sternite accurately (Tams 1953: Fig. 5) when compared with a modern preparation (Fig. 3).



Figures 2–4. *Megatrabala* **gen. n.** *regalis* (Tams, 1953): 2. ♂, Democratic Republic of Congo, Kapanga [NHMUK 010292326]. 3. ♂, *id*., genitalia (a: clasping apparatus, b: lateral view of phallus, c: eighth sternite). 4. paratype ♀, *id*. [NHMUK 010606816].

Description of new species

Hypotrabala magnimacula **sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:6FA3BC27-1203-419D-8E8F-FFE3469BB709
(Figs 7–8, 61)

Holotype ♂ (ANHRT):
"REPUBLIC OF CONGO 352m / Noubale-Ndoki National Park, / Mombongo camp / 02°10'30.7"N, 16°8'37.7"E / 02–07.ii.2023, MV light trap / Bakala, N., M., Dérozier, V., / Kirk-Spriggs, A., László, G. leg. / ANHRT:2023.3 // ANHRTUK / 00366216 // Gen. slide No. / LG 6299 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratype ♂:
REPUBLIC OF CONGO: same data as holotype (1♂ ANHRT).

Description.
Forewing length: holotype: 31 mm; paratype: 30 mm.
Upperside. Ground colour of head and thorax orange, irrorated with brown scales; abdomen salmon. Antenna bipectinate, brown. Forewing angled at apex, outer margin gently arcuate, anal margin convex. Ground colour orange, anal margin edged with dark grey scaling. Antemedial fascia dark brown, bilineate, crenulate, arising perpendicularly from costa, and angled to terminate perpendicularly along anal margin. Discal spot rounded, large, silvery-white and ringed in black, slightly emarginate distally, a little wider than the widest part of the cell. Postmedial fascia dark brown, bilineate, crenulate, the inner of the two more pronounced; arising perpendicularly from the costa, the two lines converge but do not meet and angle strongly at vein R5 terminating along anal margin. Area beyond postmedial fascia irrorated with whitish scales becoming greyer and forming a poorly-defined band running from discal spot to tornus. Subterminal fascia dark grey, roughly parallel with outer margin, strongly indented proximally in spaces M2 and CuA2. Terminal fascia dark grey edged distally with orange, broadest near apex and becoming weakly defined towards tornus, strongly bisected by orange scales along veins. Fringe dark grey. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour salmon becoming darker towards anal fold. Costa with dark grey scaling. Fringe pale salmon. Underside. Ground colour pale ochraceous-salmon, slightly paler towards the anal margins of both wings. Forewing discal spot narrow reniform, white. Terminal fascia as on upperside. Hindwing costal margin with dark grey scaling from base to Sc+R1 vein.

Male genitalia. Socius very long, ca. two-thirds the length of valve, arms gradually tapered to pointed apex, moderately diverging, forming a V-shape with concave medial notch. Tegumen short, moderately broad, inner margin evenly arcuate. Valve relatively long with a longitudinal sclerotised crest medially running from base to tip, narrow basally, slightly tapered in anterior third, gently arched medially, apex truncate-serrate. Juxta with short, rounded posteromedial process. Vinculum narrow ribbon-like medially, with large, elongate-triangular, apically pointed lateral plates with slightly arcuate margins. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus tapered distad, medially curved dorsad, apically pointed. Vesica basally inflated, relatively small, finely scobinate with two moderately long, strongly serrate anterior plates forming a V-shape with slightly arched arms; posterior sclerotisation absent. Eighth sternite with long and narrow curly bracket-shaped anterior apodemes medially produced into a trapezoidal plate continued in two long, narrow, medially slightly dilated, apically pointed, almost parallel, heavily sclerotised posterior processes.

Diagnosis. *Hypotrabala magnimacula* and the subsequent species *H. aurantiaca* are virtually indistinguishable phenotypically from *H. guttata* but they can be easily identified based on the male genitalia. In *H. guttata*, the socii are shorter and broader, the valves are postmedially angled and apically pointed, the serrated longitudinal plates of the vesica are asymmetrical whereby the left plate is ca. 1.5 times longer than the right one, and the posterior processes of the eighth sternite are longer and the basal apodemes broader. *Hypotrabala magnimacula* is most similar to *H. aurantiaca* but in the latter, the socii are considerably shorter and somewhat narrower, the valves are slightly narrower and apically rounded-dentate and the lateral lobes of the vinculum are noticeably shorter, whilst the eighth sternite has markedly shorter posterior processes, a somewhat broader central plate, and narrower and ca. 50% shorter basal apodemes.

DNA divergences. Unavailable.

Derivatio nominis. The new species derives its name from the particularly large forewing discal spot of the holotype.

***Hypotrabala aurantiaca* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:9DE91E8E-9A48-4D58-B00F-29216C3B3B6B
(Figs 9–10, 62)

Holotype ♂ (ANHRT):
"GABON 430m / Mikongo (Rougier), Monts / de Cristal (Secondary foest) / 0°29'47"N, 11°10'42"E / 28.vii-12.viii.2019 MV LightTrap / Albert, J-L., Aristophanous, M., / Bie Mba, J., Dérozier, V., /

Moretto, P. Leg. / ANHRT:2019.17 // ANHRTUK / 00130993 // Gen. slide No. / LG 6301 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratype ♂:
GABON: same data as holotype (1♂ ANHRT).

Description.
Forewing length: holotype and paratype: 28 mm.
Upperside. Ground colour of head and thorax orange, irrorated with brown scales; abdomen ochraceous-salmon. Antenna bipectinate, brown. Forewing angled at apex, outer margin gently arcuate, anal margin convex. Ground colour orange, anal margin edged with dark grey scaling. Antemedial fascia dark brown, bilineate, crenulate, arising perpendicularly from costa, and angled to terminate perpendicularly along anal margin. Discal spot large, silvery-white and ringed in black, slightly emarginate distally, a little wider than the widest part of the cell. Postmedial fascia dark brown, bilineate, crenulate, the inner of the two more pronounced; arising perpendicularly from the costa, the two lines converge but do not meet and angle strongly at vein R5 terminating along anal margin. Area between postmedial and subterminal fascia strongly irrorated with dark grey scales, particularly concentrated in a band stretching from discal spot to tornus. Subterminal fascia dark grey, roughly parallel with outer margin, strongly indented proximally between veins M1 and M2, and CuA1 and CuA2. Terminal fascia dark grey edged distally with orange, broadest near apex and becoming weakly defined towards tornus, strongly bisected by orange scales along veins. Fringe dark grey. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour ochraceous-salmon becoming darker towards anal fold. Costa with dark grey scaling. Fringe pale salmon. Underside. Ground colour pale ochraceous-salmon. Forewing discal spot narrow, white and angled medially. Terminal fascia as on upperside. Hindwing costal margin with dark grey scaling from base to Sc+R1 vein.

Male genitalia. Socius long, ca. half the length of valve, arms narrow at base, gradually tapered to pointed apex, moderately diverging, forming a V-shape with straight medial notch. Tegumen short, moderately broad, inner margin evenly arcuate. Valve relatively long, with a longitudinal sclerotised crest medially running from base to tip, narrow basally, slightly tapered posteriorly, gently arched medially, apex rounded-serrate. Juxta with short, rounded posteromedial process. Vinculum narrow ribbon-like medially, with somewhat triangular, apically rounded lateral plates with slightly arcuate outer and straight inner margin. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus tapered distad, postmedially curved dorsad, apically pointed. Vesica basally inflated, relatively small, somewhat cordate, finely scobinate with two moderately long, strongly serrate and arched longitudinal plates anteriorly forming a crescent; posterior sclerotisation absent. Eighth sternite with relatively short, narrow, curly bracket-shaped anterior apodemes medially produced into a narrow trapezoidal plate continued in two moderately long, narrow, distally tapered, apically pointed, almost parallel, heavily sclerotised posterior processes.

Diagnosis. See under *H. magnimacula* for the distinguishing features between *H. aurantiaca* and *H. guttata*. *Hypotrabala aurantiaca* is phenotypically very similar to *H. magnimacula* but can easily be distinguished by the male genitalia. In the latter, the socii are considerably longer and somewhat broader, the valves are slightly broader and apically truncate-dentate and the lateral lobes of the vinculum are noticeably longer, whilst the eighth sternite has markedly longer posterior processes, a somewhat narrower central plate, and longer basal apodemes.

DNA divergences. The new species has been assigned the BIN BOLD:AAM8670. Intraspecific PWD was 0.0% (n=2) and the interspecific PWD between the new species and *H. guttata* was 1.9%.

Derivatio nominis. The new species derives its name from the orange colouration of the wings.

***Hypotrabala retorta* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:5F8CC931-0162-4955-8D81-876655CC3F27
(Figs 11–13, 63)

Holotype ♂ (ANHRT):

"LIBERIA 700m / Nimba Mountains, Mount Gangra / western slope / 7°33'29.73"N, 8°38'16.4"W / 16-17.iii.2017 Light Trap (250w / blended bulb) & cold cathode UV / light bucket trap / Sáfián, Sz., Simonics, G. Leg. / ANHRT:2017.36 // ANHRTUK / 00056279 // Gen. slide No. / LG 6303 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratypes (3♂♂ 1♀):
GUINEA: Geipa camp, Forêt de Diecké, 435m, 07°26'07.06"N, 08°50'47.87"W, 05–14.iv.2019, leg. S. Sáfián & S. Koivogui (1♀ ANHRT); **LIBERIA**: Mount Gangra summit, Nimba Mountains, 974m, 07°32'45.82"N, 08°38'09.36"W, 17–25.iii.2017, leg. S. Sáfián & G. Simonics (1♂ ANHRT); Foya Proposed Protected Area, 530m, 07°56'36"N, 10°16'36"W, 10–19.xi.2017, leg. M. Aristophanous, S. Sáfián, G. Simonics & L. Smith (2♂♂ ANHRT).

Description.
Forewing length: holotype 28 mm: paratype males: 26–29 mm; paratype female: 42 mm.
Upperside. Ground colour of head and thorax toffee, irrorated with brown scales; abdomen ochraceous-salmon. Antenna bipectinate, brown. Forewing angled at apex, outer margin gently arcuate, anal margin convex. Ground colour toffee slightly darker towards the outer margin, anal margin edged with dark grey scaling. Antemedial fascia dark brown, bilineate, crenulate, indistinct, the outer of the two more pronounced, arising perpendicularly from costa, and angled to terminate perpendicularly along anal margin. Discal spot large, reniform, silvery-white and ringed in black, as wide as the widest part of the cell. Postmedial fascia dark brown, bilineate, crenulate, indistinct, the inner of the two more pronounced; arises perpendicularly from the costa and angled strongly at vein R5 terminating along anal margin. Subterminal fascia roughly parallel with outer margin, indistinct and indicated by dark brown spots of varying sizes between the veins, most notably between veins R4 and M1. Terminal fascia almost invisible. Fringe dark brown. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour buff tinted with pale ochraceous-salmon becoming darker towards anal fold. Costa with dark grey scaling. Fringe pale buff darkening slightly towards the tornus. Underside. Ground colour buff, the abdomen and hindwing slightly paler. Forewing discal spot very narrow and indistinct, white. Terminal fascia dark brown strongly bisected by the ground colour along the veins. Hindwing costal margin with dark grey scaling from base to Sc+R1 vein.

Male genitalia. Socius long, ca. two-thirds the length of valve, arms narrow at base, gradually tapered to pointed apex, almost parallel with moderately broad medial notch. Tegumen very short, strongly dilated to large, rounded inner lobe. Valve partially twisted longitudinally short, relatively broad at base tapered medially, gradually dilated postmedially, abruptly constricted subapically, then abruptly dilated with straight posterior margin, forming a somewhat t-shaped apex; dorsal margin evenly concave, ventral margin almost straight until subapical constriction preceded by abruptly convex and densely setose postmedial section. Juxta with short, pointed posteromedial process. Vinculum narrow ribbon-like medially, with somewhat triangular, apically rounded lateral plates with arcuate margins. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus tapered distad, postmedially curved dorsad, apically pointed. Vesica basally inflated, relatively small, somewhat cordate, finely scobinate with two moderately long, strongly sclerotised non-serrate narrow longitudinal plates basally forming a crescent with arched arms; posterior sclerotisation absent. Eighth sternite with posteromedially enlarged chevron-like plate with relatively long, pointed anterolateral apodemes and two short, narrow, distally tapered, apically pointed, slightly diverging, heavily sclerotised posterior processes.

Female. Ground colour of head and thorax toffee, irrorated with brown scales; abdomen pale buff. Antenna bipectinate, rami shorter than in the male, brown. Forewing pointed at apex, outer margin very gently arcuate and sinuate. Ground colour toffee. Antemedial fascia dark greyish-brown, bilineate, crenulate, arising perpendicularly from costa, and angled to terminate perpendicularly along anal margin. Discal spot large, reniform, dark greyish-brown, as wide as the widest part of the cell. Postmedial fascia dark greyish-brown, bilineate, crenulate, the inner of the two more pronounced; arises perpendicularly from the costa and angled strongly at vein R5 terminating along anal margin. Subterminal fascia roughly parallel with outer margin, indistinct and indicated by dark greyish-brown spots of varying sizes, most notably in spaces R5 and M1; the spots overlay an indistinct band of white scaling arising in space M1 and continuing to the tornus. Terminal fascia dark grey edged distally with

orange, broadest near apex and becoming weakly defined towards tornus, strongly bisected by orange scales along veins. Fringe greyish-brown. Hindwing outer margin evenly arcuate, sharply angled at vein Sc+R1; ground colour pale buff; costa with toffee scaling. Fringe pale buff. Underside. Ground colour toffee, the abdomen and hindwing slightly paler. Forewing slightly ferruginous basally; terminal fascia dark brown most pronounced near apex and tornus, strongly bisected by the ground colour along the veins. Hindwing costal margin with dark grey scaling from base to Sc+R1 vein.

Diagnosis. The distinctive *H. retorta* is easily distinguished from the sympatric *H. guttata* based on features of external habitus and male genitalia. In the latter the ground colour is orange, the discal spot is large and circular, and there is more dark scaling on the forewing. In the male genitalia of *H. guttata*, the socii are broader, the valves are long and apically pointed, the longitudinal plates of the vesica are serrated and the posterior processes of the eighth sternite are twice the length of the central plate.

DNA divergences. The new species has been assigned the BIN BOLD:AAZ7770. Intraspecific PWDs ranged from 0.9–1.7% (n=3) and interspecific PWDs were 5.0–5.3% between the new species and *H. aurantiaca*.

Derivatio nominis. The new species derives its name from the unique twisted valves of the male genitalia.

***Hypotrabala smithi* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:5DBAF442-B95C-4471-B52F-05A3B557D1E0
(Figs 16–17, 65)

Holotype ♂ (ANHRT):
"IVORY COAST 1171m / Mt Tonkoui Peak. / 07°27'15.2"N, 07°38'12.5"W, / 1-8.xi.15. Light Trap. / Aristophanous, M., / Moretto, P., Ruzzier, E., leg. // African Natural History / Research Trust / 2017.16 // ANHRTUK / 00224619 // Gen. slide No. / LG 6315 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratypes (7♂♂):
GUINEA: Nimba Mountains, SMFG concession area, Cité 1 camp, 700m, 07°42'00.47"N, 08°23'58.88"W, 27–30.v.2017, leg. S. Sáfián (1♂ ANHRT); **IVORY COAST**: same data as holotype (1♂ ANHRT); same data as holotype but 12–18.vii.2015 (1♂ ANHRT); Banco National Park, 40m, 05°23'03.8"N, 04°03'11.2"W, 29.xi–05.xii.2019, leg. M. Aristophanous, V. Dérozier, P. Moretto & S. Ouattara (1♂ ANHRT); **LIBERIA**: Foya Proposed Protected Area, 530m, 07°56'36"N, 10°16'36"W, 10–19.xi.2017, leg. M. Aristophanous, S. Sáfián, G. Simonics & L. Smith (2♂♂ ANHRT); Krahn-Bassa Reserve, 7.5km SW Pellokon Town, 140m, 05°39'04"N, 08°39'04"W, 14–20.i.2018, leg. M. Geiser, S. Sáfián & G. Simonics (1♂ ANHRT).

Description.
Forewing length: holotype: 18 mm; paratypes: 17–20 mm.
Upperside. Ground colour of head brown irrorated with straw-yellow; patagia straw yellow with varying amounts of brown irroration; tegula cream with sparse dark scaling; both patagia and tegulae with well-defined darker, often brown margins. Metathorax with a dense patch of pale straw scaling posteriorly; abdomen buff. Antenna bipectinate, brown. Forewing strongly angled at apex, outer margin almost straight. Ground colour straw yellow with a slight golden infusion and a broad longitudinal band, dark brown, from base of costa along space CuA2 to tornal angle. All veins well-defined with dark brown scaling. Antemedial fascia dark brown, bilineate, crenulate, arising perpendicularly from costa, and gently curved to terminate perpendicularly along anal margin. Discal spot ovoid, creamy-white, the width of the cell and ringed in dark brown. Postmedial fascia dark brown, bilineate, crenulate, the inner of the two more pronounced; arises perpendicularly from the costa and angled strongly at vein R5 terminating along anal margin. Subterminal fascia dark brown, arising at the apex and terminating at vein CuA1, broadly following the outer margin; widest and strongly indented from apex to vein M1. Terminal fascia dark brown, bilineate, crenulate, the inner one weakly defined, the space between the outer and the termen filled in with dark brown. Fringe dark brown, short. Hindwing elongate tornally,

outer margin almost straight. Ground colour warm buff becoming darker towards anal fold. Costa with mahogany scaling. Tornal marking dark brown, well-defined, tapered distally extending ca. 3 mm along vein CuA2. Fringe dark brown.

Underside. Ground colour of head and thorax warm buff; forelegs mahogany with buff irroration, mid- and hindlegs buff with some brown speckling. Abdomen buff with some darker brown scaling. Ground colour of forewing golden becoming pale yellow distally and posteriorly with a large area medially of mother-of-pearl like reflection. Antemedial, postmedial and subterminal fasciae marked only along costa and at apex, the remainder indistinctly showing through from upperside. The outer of the bilineate terminal fascia as on upperside. Ground colour of hindwing golden becoming paler distally and posteriorly. Tornal spot less well-marked than on upperside.

Male genitalia. Socius very short, somewhat ear-shaped, broad at base, inner margin straight, outer margin evenly convex, apex pointed; arms situated rather far apart. Tegumen very short, strongly dilated to large, rounded inner lobe. Valve short, narrow at base, gradually tapered to pointed apex, strongly curved in entire length, finely setose dorsally. Juxta without posteromedial process. Vinculum narrow ribbon-like medially, with short, somewhat triangular, apically pointed lateral plates with arcuate margins. Phallus very short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus tapered distad, strongly curved dorsad postmedially, apically pointed. Vesica basally inflated, relatively small, deformed-spherical, densely scobinate with two short, slightly arched, finely serrate narrow longitudinal plates anteriorly and with a small, elongate, moderately dentate sclerotised plate posteriorly. Eighth sternite with narrow, somewhat curly bracket-shaped anterior plate with rounded anterolateral apodemes, posteromedially with two short and narrow, arcuate, converging sclerotisation both produced into short, sclerotised triangular tip.

Diagnosis. The external habitus of *H. smithi* is virtually identical to *H. castanea* but in the latter, the dark forewing longitudinal band on the upperside is broader distally with a greater extent of darker scaling in space CuA2 and on the underside, the band is clearly defined along its entire length. The new species is however easily distinguished based on the male genitalia. In *H. castanea*, the socii are moderately long and digitiform, the valves are twice as long and angled postmedially, the vesica has a larger inflated basal section with longer serrate plates, and the central plate of the eighth sternite is more dilate and somewhat trapezoidal.

DNA divergences. The new species has been assigned the BIN BOLD:AFG5100. Intraspecific PWDs were 0.0–0.2% (n=3) and although there are no barcodes available for its sibling taxon, *H. castanea*, it diverged by 8.2–8.4% from the nearest sample (*H. tamsi*).

Derivatio nominis. The new species is dedicated with great pleasure to Richard Smith, Chairman of the Board of Trustees, ANHRT, for his continued zealous support of taxonomy and Afrotropical entomology.

***Hypotrabala exquisita* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:615842E6-4E89-422E-B032-55DF43D21270
(Figs 18–19, 66)

Holotype ♂ (ANHRT):
"REPUBLIC OF CONGO 352m / Sangha Prov., Noubale-Ndoki / N.P., Ndoki formation camp / (secondary forest) / 02°12'48.5"N, 16°23'45.6"E / 23.vi.2022 MV Light Trap / Dérozier, V. Leg. / ANHRT:2022.9 // ANHRTUK / 00275748 // Gen. slide No. / LG 6307 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratypes (2♂♂):
REPUBLIC OF CONGO: Bomassa camp, Nouabalé-Ndoki NP, 02°12'36.9"N, 16°11'30.2"E, 10–16.x.2022, leg. V. Dérozier, B. Fouka, A. Kirk-Spriggs & H. Takano (1♂ ANHRT); same data but Makao camp, 377m, 02°35'42.2"N, 17°10'08.3"E, 23–29.ix.2022 (1♂ ANHRT).

Description.
Forewing length: holotype: 18 mm; paratypes: 17–18 mm.

Upperside. Ground colour of head and thorax brown, irrorated with pale yellow scales; abdomen buff. Antenna bipectinate, brown. Forewing pointed at apex, outer margin almost straight and gently sinuate. Ground colour golden-brown, irrorated with dark brown scales and an area of mother-of-pearl like reflection medially. Antemedial fascia dark brown, bilineate, crenulate, arising perpendicularly from costa, and angled to terminate perpendicularly along anal margin; the outer of the two broader near the costa. Discal spot narrow ovoid, silvery-white and ringed in dark brown, as wide as the widest part of the cell. Postmedial fascia dark brown, bilineate, crenulate, arising perpendicularly from the costa where it is broadest, and angled strongly at vein R5 forming a large dark patch at vein CuA1 that continues to the tornus. Subterminal fascia dark brown, curved from apex to outer margin at vein CuA2 and interrupted at vein M1, edged with a broad pale yellow band on its outer edge. Terminal area dark brown filling the space left by the subterminal fascia; golden spots indicate termination of veins. Fringe dark grey. Hindwing outer margin arcuate, sinuate. Ground colour warm pale yellow; costa with dark brown scaling. Fringe pale yellow irrorated with dark brown scaling turning dark grey from vein CuA1 to tornus. Underside. Ground colour golden-brown, the abdomen and hindwing warm pale yellow. Forewing paler distally, with a mother-of-pearl reflective patch as on upperside. Discal spot pale, yellow. Postmedial fascia as on upperside but only the broad section from costa to vein R5 pronounced. Subterminal fascia as on upperside but paler and less well-defined. Hindwing costal margin with dark grey scaling from base to Sc+R1 vein.

Male genitalia. Socius relatively short, ca. half the length of valve, broad at base, gradually tapered in basal third, apical third slightly dilated, pointing laterad, inner margin straight, outer margin concave, apex rounded club-shaped, arms situated moderately far apart. Tegumen short, slightly dilated with gently arched inner margin. Valve short, narrow at base, gradually tapered to pointed apex, strongly curved postmedially, lacking setae. Juxta with very short, rounded posteromedial process. Vinculum narrow ribbon-like medially, with short, somewhat triangular, apically rounded lateral plates. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus tapered distad, strongly curved dorsad postmedially, apically pointed. Vesica basally inflated, relatively small, spherical with well-developed conical diverticulum. Inflated section of vesica with three radial serrate plates originating anteriorly, a short continuous serration on the left, a very short interrupted finely serrate plate in the middle and a long continuous serration with sharp teeth reaching the tip of diverticulum on the right side; posterior end of inflated vesica with long, interrupted diagonal serration. Eighth sternite with long and narrow base possessing apically slightly dilated, rounded lateral apodemes, posteromedially with two extremely long, narrow, subapically tapered, apically sharply pointed flexible processes with arms running parallel and very close to each other in basal half, diverging in posterior half.

Diagnosis. This and the subsequent new species are very similar phenotypically and cannot readily be confused with any other species of *Hypotrabala*, although separating these two sibling taxa can be difficult externally. In *H. extenuata* the forewing subterminal fascia is wider and edged with a pale yellow band of equal width on its outer edge, the hindwing has a noticeably rosier hue and most diagnostically, in the male genitalia, the socii are basally isolated and the vesica lacks the conical posterolateral diverticulum.

DNA divergences. The new species has been assigned the BIN BOLD:AFG8531 and is BIN sharing with *H. extenuata*. The interspecific PWD between the two species was 2.0% (n=1) and diverged by 6.0% from the nearest sample (*H. argenteoguttata*).

Derivatio nominis. The new species derives its name from its beautiful and delicate appearance.

***Hypotrabala extenuata* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:76D27E4F-522B-41F7-87E1-F2249FFCD6D8
(Figs 20–21, 67)

Holotype ♂ (ANHRT):
"GUINEA 540-600m / 619km ESE of Conakry, / Nzerekore Region, / Prefecture de Lola, / Ziela env., x.2017 / 7°42'N, 8°21'W / Local collectors Leg. / ANHRT:2020.6 // ANHRTUK / 00222881 // Gen. slide No. / LG 6309 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratypes (2♂♂):
GUINEA: Nimba Mountains, SMFG concession area, Cité 1 camp, 700m, 07°42'02.83"N, 08°23'58.60"W, 16–25.viii.2017, leg. S. Sáfián (1♂ ANHRT); **LIBERIA**: Wologizi Mts., base camp forest, 611m, 08°07'17"N, 09°57'42"W, 20.xi–01.xii.2017, leg. M. Aristophanous, S. Sáfián, G. Simonics & L. Smith (1♂ ANHRT).

Description.
Forewing length: holotype: 18 mm; paratypes: 17–18 mm.
Upperside. Ground colour of head and thorax brown, irrorated with pale yellow scales; abdomen buff. Antenna bipectinate, brown. Forewing pointed at apex, outer margin almost straight and gently sinuate. Ground colour golden-brown, irrorated with dark brown scales and an area of mother-of-pearl like reflection medially. Antemedial fascia dark brown, bilineate, crenulate, arising perpendicularly from costa, and angled to terminate perpendicularly along anal margin; the outer of the two broader near the costa. Discal spot narrow ovoid, silvery-white and ringed in dark brown, as wide as the widest part of the cell. Postmedial fascia dark brown, bilineate, crenulate, arising perpendicularly from the costa where it is broadest, and angled strongly at vein R5 forming a large dark patch at vein CuA1 that continues to the tornus. Subterminal fascia dark brown, curved and broadening from apex to outer margin at vein CuA2 and interrupted at vein M1, edged with a pale yellow band of equal width on its outer edge. Terminal area dark olive-brown filling the space left by the subterminal fascia; golden spots indicate termination of veins. Fringe dark grey. Hindwing outer margin arcuate, sinuate. Ground colour buff with a rosy-hue; costa with dark brown scaling. Fringe pale yellow irrorated with dark brown scaling turning dark grey from vein CuA2 to tornus. Underside. Ground colour golden-brown, the abdomen and hindwing warm pale yellow. Forewing paler distally, with a mother-of-pearl reflective patch as on upperside. Discal spot pale, yellow. Postmedial fascia as on upperside but only the broad section from costa to vein R5 pronounced. Subterminal fascia as on upperside but paler and less well-defined. Terminal area strongly bisected by golden scales along veins. Hindwing costal margin with dark grey scaling from base to Sc+R1 vein.

Male genitalia. Socius relatively short, ca. half the length of valve, broad at base, gradually tapered in anterior third, apical third slightly dilated, pointing laterad, inner margin straight, outer margin convex in anterior half, concave in posterior half, apex rounded club-shaped, arms situated moderately far apart. Tegumen short, relatively broad with gently arched inner margin. Valve very short, narrow at base, gradually tapered to pointed apex, strongly curved dorsad subapically. Juxta with very short, rounded posteromedial process. Vinculum narrow ribbon-like medially, with short, somewhat triangular, apically rounded lateral plates. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus tapered distad, strongly curved dorsad postmedially, apically pointed. Vesica basally inflated, relatively small, spherical, without diverticulum. Inflated section of vesica with three serrate plates originating anteriorly, a long continuous weak serration on the left, a very short interrupted finely serrate plate in the middle and a short continuous serration with sharp teeth on the right side; posterior end of inflated vesica with a long, interrupted diagonal serration. Eighth sternite with narrow curly bracket-shaped base with short, apically rounded anterolateral apodemes, posteromedially with two long narrow, subapically dilated then abruptly tapered, apically sharply pointed flexible processes with arms running parallel and very close to each other in basal half, diverging in posterior half.

Diagnosis. *Hypotrabala extenuata* and *H. exquisita* share very similar phenotypes but in the latter, the forewing subterminal fascia is narrower and edged with a broader pale yellow band on its outer edge, the hindwing lacks a rosy hue while in the male genitalia, the socii are basally fused and the vesica possesses a well-developed conical posterolateral diverticulum.

DNA divergences. The new species has been assigned the BIN BOLD:AFG8531 and is BIN sharing with *H. exquisita*. The interspecific PWD between the two species was 2.0% (n=1) and diverged by 6.4% from the nearest sample (*H. argenteoguttata*).

Derivatio nominis. The new species derives its name from the heavily reduced diverticulum of the vesica.

***Hypotrabala cinereamargo* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:70E12A3C-CDE5-485C-A40B-6218FE1B7BB3
(Figs 24–25, 78)

Holotype ♂ (ANHRT):
"GUINEA 700m / Nimba Mountains, SMFG / concession area (Societé des / Mines de Fer de Guinée), Cité 1 / 7°42'2.83"N, 8°23'58.60"W / 25.viii-05.ix.2017 General Coll. / Sáfián, Sz., Simonics, G. Leg. / ANHRT:2017.36 // ANHRTUK / 00221066 // Gen. slide No. / LG 6310 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratypes (2♂♂):
GUINEA: same data as holotype but 16–25.viii.2017, leg. S. Sáfián (1♂ ANHRT); **SIERRA LEONE**: Gori Hills, 375m, 08°27'47"N, 10°46'17"W, 22–29.ii.2020, leg. G. Kalnoi & V. Sinyaev (1♂ ANHRT).

Description.
Forewing length: holotype: 20 mm; paratypes: 19 mm.
Upperside. Ground colour of head, patagia and prothorax greyish-brown, the head sparsely irrorated with golden scales; tegulae and the rest of the thorax buff irrorated with mahogany scales; abdomen buff. Antenna bipectinate, brown. Forewing pointed at apex, outer margin gently arcuate. Colouration divided into two parts by an irregular line from apex to below the discal spot where it angles to terminate at middle of anal margin, the basal half buff irrorated with dark brown scales and the outer half dark grey. Antemedial fascia mahogany, bilineate, crenulate, arising perpendicularly from costa, and gently angled to terminate perpendicularly along anal margin. CuA vein and especially at base, heavily scaled with mahogany. Discal spot narrow reniform, pale yellow and slightly iridescent, as wide as the widest part of the cell. Postmedial fascia dark brown, bilineate, crenulate, the outer of the two indistinct. Both arise perpendicularly from the costa, angled strongly at vein R5 terminating along anal margin; the outer forms the boundary of the dark outer half of the wing except for between veins M3 and CuA2 where it is indented and the inner line forms the boundary. Subterminal fascia dark grey, paler grey on its outer edge, irregular, broadly parallel to the outer margin, and almost interrupted in spaces M2 and M3 by warm buff patches. Terminal area paler grey. Fringe dark greyish-brown with some yellow irroration especially at the termination of the veins. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour warm buff becoming darker towards anal fold. Costa and a small patch between vein CuA2 and tornus with mahogany scaling. Fringe pale buff becoming mahogany between CuA1 and tornus.

Underside. Ground colour of head and thorax buff; forelegs greyish-brown, mid- and hindlegs buff with mahogany irroration. Abdomen buff with mahogany tufts medially on each segment. Forewing divided into two following outline of the upperside; ground colour of basal half ferruginous-gold becoming paler towards the anal margin; the outer half greyish-brown. Discal spot narrow, pale yellow. Subterminal fascia almost interrupted in space M2. Terminal area strongly bisected by golden scales along veins. Hindwing ground colour warm buff, costal margin with mahogany scaling from base to Sc+R1 vein.

Male genitalia. Socius very short, ca. one-sixth the length of valve, arms broad at base, abruptly tapered in posterior third to pointed triangular apex arising far apart from each other, largely diverging at ca. 180° angle. Tegumen moderately long and rather narrow, inner margin evenly arcuate. Valve very long, narrow basally, gradually tapered to pointed tip, gently curved in posterior half. Juxta with short, rounded posteromedial process. Vinculum narrow ribbon-like medially, with short, rounded-triangular lateral plates with straight margins. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus gradually tapered, curved dorsad, apically pointed. Vesica basally inflated, relatively large, spherical, finely scobinate, anteriorly with two densely serrate, slightly arched longitudinal plates consisting of acute teeth, left arm ca. twice as long as right one; posterior section of inflated vesica with a very long, sharply dentate diagonal serrate plate partly overlapping with left longitudinal serration. Sclerotised plate of eighth sternite anteriorly straight with short thick anterolateral apodemes, posteriorly dilated to two short plates with gently sinuous margin possessing two short and weakly sclerotised posterior projections; posterior plates divided by a shallow depression followed by a very narrow, deep medial incision.

Diagnosis. Both *H. cinereamargo* and *H. igneata* are allied to *H. joiceyi* but in the latter, the buff-coloured patches in the subterminal area are heavily irrorated throughout with dark scales and in the male genitalia, the socii are considerably more robust and broader at base, the valves are shorter and broader, and the juxta is bifurcate. *Hypotrabala cinereamargo* is sympatric with *H. igneata* but the latter can easily be distinguished by the larger forewing discal spot, the mahogany-coloured outer half of the forewing and the weaker irroration of mahogany scales in the basal half. In the male genitalia of *H. igneata* the socii are markedly longer, narrower and digitiform, the valves are shorter, almost straight, subapically tapered and with an apical spine, and both arms of the V-shaped serration of the vesica are equal in length.

DNA divergences. The new species has been assigned the BIN BOLD:ABA0028. The single barcoded specimen had a PWD of 5.3% to *H. igneata*.

Derivatio nominis. The new species derives its name from the grey outer half of the forewing.

***Hypotrabala igneata* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:0F6EA163-572C-45B5-8110-6D7693D4FB8E
(Figs 26–28, 79)

Holotype ♂ (ANHRT):
"GUINEA 870m / Sérédou camp, Forêt Classée / de Ziama / 8°21'14.53"N, 9°19'31.93"W / 24.ii-06.iii.2019 Light Trap, / Blended bulb (250W) / Sáfián, Sz., Simonics, G., / Florczyk, K., Koivogui, S. Leg. // African Natural History / Research Trust / ANHRT:2019.10 // ANHRTUK / 00235894 // Gen. slide No. / LG 6305 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratypes (7♂♂):
GUINEA: same data as holotype (1♂ ANHRT); Massadou campsite, Forêt Classée de Ziama, 541m, 08°20'36.25"N, 09°26'14.70"W, 08–13.iii.2019, leg. S. Sáfián, G. Simonics, K. Florczyk & S. Koivogui (3♂♂ ANHRT); **IVORY COAST**: Taï Research Station (SRET), Taï NP, 174m, 05°50'00"N, 07°20'32"W, 25.iii–17.iv.2017, leg. A. Aristophanous, M. Aristophanous, M. Geiser & P. Moretto (1♂ ANHRT); **LIBERIA**: Foya Proposed Protected Area, 530m, 07°56'36"N, 10°16'36"W, 10–19.xi.2017, leg. M. Aristophanous, S. Sáfián, G. Simonics & L. Smith (1♂ ANHRT); Rosewood Camp, Wologizi Mts., 585m, 08°06'14.9"N, 09°58'27.3"W, 18.xi–1.xii.2018, leg. S. Sáfián & G. Simonics (1♂ ANHRT).

Other material examined:
LIBERIA: Rosewood Camp, Wologizi Mts., 585m, 08°06'14.9"N, 09°58'27.3"W, 18.xi–1.xii.2018, leg. S. Sáfián & G. Simonics (1♀ ANHRT).

Description.
Forewing length: holotype: 20 mm; paratypes: 20–21 mm; probable female: 32 mm.
Male. Upperside. Ground colour of head, patagia and prothorax mahogany, the head irrorated with golden scales; tegulae and the rest of the thorax reddish-buff irrorated with mahogany scales; abdomen buff. Antenna bipectinate, brown. Forewing pointed at apex, outer margin straight. Colouration divided into two parts by an irregular line from apex to below the discal spot where it angles to terminate at middle of anal margin, the basal part golden with a ferruginous-tint and the outer part reddish-mahogany. Antemedial fascia reddish-brown, bilineate, crenulate, arising perpendicularly from costa, and angled to terminate perpendicularly along anal margin. CuA vein heavily scaled with reddish-brown from discal spot to base. Discal spot ovoid, pale yellow, as wide as the widest part of the cell. Postmedial fascia reddish-mahogany, bilineate, crenulate, arising perpendicularly from the costa and angled strongly at vein R5, the outer line disappearing at vein M1 and the inner one at vein M2 before both reappear at vein CuA2. Subterminal fascia indicated by ferruginous-golden patches on its outer edge between veins R5 and M3, the largest in space M2. Fringe reddish-mahogany. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour warm buff becoming more reddish-gold towards anal fold. Costa and a small patch between vein CuA2 and tornus with reddish-mahogany scaling. Fringe pale buff becoming reddish-mahogany between CuA2 and tornus. Underside. Ground colour of head and thorax

warm pale yellow; forelegs mahogany, mid- and hindlegs warm pale yellow with mahogany irroration. Abdomen warm pale yellow with mahogany tufts medially on each segment. Ground colour of forewing golden becoming paler towards the anal margin. Discal spot narrow, pale yellow. Subterminal band well-defined, broadly parallel to the outer margin, interrupted in space M2. Terminal area reddish-mahogany strongly bisected by golden scales along veins. Hindwing ground colour warm buff, costal margin with reddish-mahogany scaling from base to Sc+R1 vein.

Male genitalia. Socius long, ca. half as long as valve, arms very broad at base, abruptly tapered medially, posterior half digitiform with rounded apex, arising far apart from each other, parallel. Tegumen moderately long and broad, inner margin evenly arcuate. Valve very long, narrow basally, tapered subapically to pointed tip, almost straight. Juxta with short but stout pointed posteromedial process. Vinculum narrow ribbon-like medially, with short, rounded-triangular lateral plates. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus gradually tapered, curved dorsad, apically pointed. Vesica basally inflated, relatively large, amorphous with semi-spherical lateral diverticulum on right side, finely scobinate, anteriorly with two sharply serrate slightly arched longitudinal plates consisting of acute teeth, arms of same length; posterior section of inflated vesica with a very long, sharply dentate, interrupted diagonal sclerotisation partly overlapping with left longitudinal serration. Sclerotised plate of eighth sternite anteriorly slightly concave with short thick anterolateral apodemes, posteriorly dilated to two short plates with gently sinuous margin possessing two short, acute, weakly sclerotised posterior projections divided by shallow, narrow concave medial notch.

Female. Upperside. Ground colour of head, patagia and prothorax mahogany, the head irrorated with golden scales; tegulae and the rest of the thorax reddish-buff irrorated with mahogany scales; abdomen warm pale yellow. Antenna bipectinate, rami shorter than in the male, brown. Forewing produced and broadly pointed at apex, outer margin almost straight, sinuate. Ground colour of forewing reddish-mahogany. Basal half of area between vein CuA2 and anal margin warm pale yellow with remnants of crenulate antemedial and postmedial fasciae. Costa with warm pale yellow markings basally and distally expanding into a large spot with mahogany irroration, reaching as far as vein R5 posteriorly and the subterminal area proximally. Discal spot dark brown, narrow rectangle. Short postmedial fascia indicated by yellow lunules between vein R5 and M3. Subterminal fascia indicated by ferruginous-golden patches on its outer edge between veins R5 and M3, the largest in space M2. Fringe reddish-mahogany. Hindwing outer margin evenly arcuate, sharply angled at vein Sc+R1; ground colour warm pale yellow. Costa, outer margin and a patch between vein CuA2 and tornus with diffuse reddish-mahogany scaling. Fringe pale buff becoming reddish-mahogany between CuA2 and tornus. Underside. Ground colour of head and thorax warm pale yellow; forelegs mahogany, mid- and hindlegs warm pale yellow with mahogany irroration. Abdomen mahogany with pale yellow irroration. Ground colour of forewing golden becoming paler towards the anal margin. Discal spot almost invisible. Postmedia fascia ill-defined, mahogany. Subterminal band well-defined, broadly parallel to the outer margin, interrupted in space M2. Terminal area reddish-mahogany strongly bisected by golden scales along veins. Hindwing ground colour warm buff, costal margin with reddish-mahogany scaling from base to Sc+R1 vein.

Diagnosis. See under *H. cinereamargo* for the distinguishing features between *H. igneata* and *H. joiceyi*. *Hypotrabala igneata* is sympatric with *H. cinereamargo* but the latter can easily be separated based on the dark grey outer half of the forewing, the smaller discal spot and the heavy irroration of dark scales in the basal half. In the male genitalia of *H. cinereamargo*, the socii are shorter and triangular, the valves are very long, postmedially slightly arcuate and lacking an apical spine, and the serrated left arm of the vesica is twice as long as the right arm. The female specimen illustrated in Fig. 28 was captured in the same collecting event as a male paratype of *H. igneata* and is believed to be conspecific based on the similar colouration of the habitus. However, since this specimen has not been barcode-confirmed and the female of the sympatric *H. cinereamargo* is unknown, it has been excluded from the type series.

DNA divergences. The new species has been assigned the BIN BOLD:AAZ7769. Intraspecific PWD was 0.0% (n=2) and diverged from *H. cinereamargo* by 5.3%.

Derivatio nominis. The new species derives its name from the flame-coloured basal area of the forewing.

***Hypotrabala volynkini* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:5E930275-4E99-42A8-B0EE-E164AD921012
(Figs 29, 83)

Holotype ♂ (ANHRT):
"GABON 430m / Mikongo (Rougier), Monts / de Cristal (Secondary Forest) / 0°29'47"N, 11°10'42"E / 28.vii-12.viii.2019 MV LightTrap / Albert, J-L., Aristophanous, M., / Bie Mba, J., Dérozier, V., / Moretto, P. Leg. / ANHRT:2019.17 // ANHRTUK / 00130373 // Gen. slide No. / LG 6312 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Description.
Forewing length: holotype: 23 mm.
Upperside. Ground colour of head and patagia mahogany, the outer margin of the patagia highlighted in dark chocolatey-brown; tegulae and the rest of the thorax reddish-mahogany irrorated with pale yellow scales; abdomen buff. Antenna bipectinate, brown. Forewing pointed at apex, outer margin almost straight, gently sinuate. Ground colour of forewing brown, paler in basal quarter, darker and greyer distally. Basal area defined by a line that runs from approximately one-fifth of the way along the costa to the middle of the anal margin. Antemedial fascia dark brown, bilineate, crenulate, indistinct arising perpendicularly from costa, and gently angled to terminate perpendicularly along anal margin. Discal spot ovoid, pearlescent. Postmedial fascia indistinct. Subterminal fascia dark grey, irregular, broadly parallel to the outer margin, with paler reddish-brown patches on its outer edge between veins R5 and M3. Terminal area bisected by pale brown scales along veins. Fringe dark greyish-brown. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour buff becoming darker towards anal fold. Area between costa and Rs vein dark brown. Outer half of wing irrorated with dark brown scales forming an indistinct band from the apex, broadening and becoming better defined to form a patch between vein CuA2 and tornus. Fringe pale buff becoming darker towards the tornus.
Underside. Ground colour of head and thorax buff; forelegs greyish-brown, mid- and hindlegs buff with brown irroration. Abdomen buff with mahogany tufts on each segment. Ground colour of forewing pale brown; more golden in the basal area as on the upperside with an indistinct dark border on its outer edge. Postmedial fascia straight, weakly defined arising approximately three-quarters of the way along the costa and terminating midway along the anal margin meeting the dark border of the basal area. Discal spot ovoid, yellow, slightly wider than the widest part of the cell. Terminal area dark greyish-brown strongly bisected by pale brown scales along veins. Hindwing ground colour warm pale yellow, costal margin with mahogany scaling from base to vein Sc+R1; some mahogany irroration near the outer between vein CuA2 and margin forming an ill-defined patch.

Male genitalia. Socius very long, ca. two-thirds the length of valve, arms digitiform, slightly dilated inwards subbasally, rounded apically, arising close and running parallel to each other. Tegumen moderately long, very narrow, inner margin evenly arcuate. Valve short, very narrow basally, slightly curved and tapered subapically to rounded narrow tip. Juxta with relatively long, pointed posteromedial process. Vinculum narrow ribbon-like medially, with short, rounded-triangular lateral plates. Phallus moderately long, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus gradually tapered, curved dorsad, apically pointed; carina apex with two short but acute teeth. Vesica basally inflated, relatively large, spherical, finely scobinate without anterior serration but with a short posterior serrate crest. Sclerotised plate of eighth sternite anteriorly concave with relatively long, pointed anterolateral apodemes, posteriorly dilated to two short but robust, pointed, distally slightly diverging medial processes.

Diagnosis. *Hypotrabala volynkini* is most similar to *H. lydiae* although the latter is smaller, has a distinctly greyer distal half of the forewing and a paler creamy hindwing. The genitalia however differ considerably; in *H. lydiae*, the socii are much shorter forming a broad V-shape, the tegumen plate is broader, the valves are longer, sigmoidal and distally setose with a long apical spine, the inflated vesica is elongate with a long V-shaped serration, and the posterior processes of the eighth sternite are shorter, thinner and converging. *Hypotrabala volynkini* is found sympatrically with *H. ophioglossa*, and although the habitus is not dissimilar, the male genitalia are considerably different. In the latter species pale orange markings are found basally, anteriorly and subterminally on the forewing, and the ground colour of the hindwing is a warmer buff. In the male genitalia of *H. ophioglossa* the socii are strongly

diverging and apically clubbed, the tegumen plate is much broader, the valves are highly modified, postmedially dilated with a stout apical spine, the phallus is conspicuously short with an uninflated vesica lacking serrate plates and the eighth sternite with a heavily sclerotised, apically bifurcate posterior process.

DNA divergences. The new species has been assigned the BIN BOLD:AAY7258. The single barcoded specimen diverges by 5.9% from the nearest sample (*H. argenteoguttata*).

Derivatio nominis. The new species is dedicated with great pleasure to Anton Volynkin, ANHRT, an Arctiinae specialist whose many revisionary works have shed light on the diversity and biogeography of the Afrotropical fauna.

***Hypotrabala ophioglossa* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:1FF3F0C8-D51B-4FB8-B2B6-F117FC644518
(Figs 30, 71)

Holotype ♂ (ANHRT):
"GABON 430m / Mikongo (Rougier), Monts / de Cristal (Anthropised Forest) / 0°29'47"N, 11°10'42"E / 28.vii-12.viii.2019 House light / Albert, J-L., Aristophanous, M., / Bie Mba, J., Dérozier, V., / Moretto, P. Leg. / ANHRT:2019.17 // ANHRTUK / 00132263 // Gen. slide No. / LG 6287 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Description.
Forewing length: 21 mm.
Upperside. Ground colour of head and thorax mahogany, the head irrorated with paler scales (although difficult to ascertain due to the grease); tegulae and abdomen buff. Antenna bipectinate, brown. Forewing pointed at apex, outer margin gently arcuate. Ground colour mahogany with pale orange markings basally and anteriorly. Antemedial fascia mahogany, bilineate, crenulate, arising perpendicularly from costa, and gently angled to terminate perpendicularly along anal margin. Discal spot reniform, cream, as wide as the widest part of the cell. Postmedial fascia dark brown, bilineate, crenulate, indistinct with only the costal and anal sections visible, leaving what appear as pale orange spots in between the two lines. Subterminal fascia indicated by pale orange patches on its outer edge largest between veins M1 and M3. Fringe dark greyish-brown. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour warm buff becoming darker towards anal fold. Costa and a small patch between vein CuA2 and tornus with mahogany scaling. Fringe pale buff becoming mahogany between CuA1 and tornus. Underside. Ground colour of head and thorax buff; forelegs darker. Abdomen buff with mahogany tufts medially on each segment. Ground colour of wings warm buff. Forewing with mahogany costal and distal margin. Discal spot ovoid, pale yellow. Subterminal band well-defined, broadly parallel to the outer margin, interrupted in space M2. Terminal area strongly bisected by golden scales along veins. Hindwing ground colour warm buff, costal margin with mahogany scaling from base to Sc+R1 vein and around tornus.

Male genitalia. Socius very long, ca. four-fifths the length of valve, arms broad at base, almost straight, gradually tapered, with clubbed apex, arising far from each other, diverging at ca. 100°. Tegumen short, relatively broad, inner margin slightly arched. Valve short, relatively broad at base, medially constricted and curved dorsad, dilated postmedially, tapered apically to thorn-like pointed apex; ventral valve margin with short, rounded process postmedially, broadly rounded subapically; distal half densely covered in long setae on dorsal margin. Juxta with very small, pointed posteromedial process. Vinculum narrow ribbon-like medially, with short, rounded-quadrangular lateral plates. Phallus very short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus gradually tapered, curved dorsad, apically pointed. Vesica not inflated, very small, membranous without cornuti or serrate plate. Sclerotisation of eighth sternite with relatively broad, chevron-like anterior apodemes gradually tapering to pointed apex and a heavily sclerotised, thick, snake tongue-shaped posteromedial process having a V-shaped bifid apex with pointed tips.

Diagnosis. Phenotypically, *H. ophioglossa* superficially resembles *H. joiceyi* but in the latter, the dark and pale halves of the forewing are better-defined. The male genitalia is however quite different;

in the latter, the socii are short and broad, the valves are longer and gently arcuate, and the eighth sternite lacks a sclerotised process. The differences between *H. ophioglossa* and the not dissimilar sympatric *H. volynkini* are outlined in the diagnosis section of the latter.

DNA divergences. Unavailable.

Derivatio nominis. The new species derives its name from the unique shape of the sclerotised eighth sternite which evokes a serpent's forked tongue.

***Hypotrabala lydiae* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:9DB15EC5-AE6C-4D26-9794-A13DDC42556D
(Figs 31–32, 81)

Holotype ♂ (ANHRT):
"LIBERIA 530m / Foya Proposed Protected Area, / Lofa County / 7°56'36"N, 10°16'36"W / 10-19.xi.2017 MV Light Trap / (125w) Aristophanous, M., / Sáfián, Sz., Simonics, G., / Smith, L. Leg. / ANHRT:2017.33 // ANHRTUK / 00378713 // Gen. slide No. / LG 6327 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratype ♂:
LIBERIA: same data as holotype (1♂ ANHRT).

Description.
Forewing length: holotype and paratype: 20 mm.
Upperside. Ground colour of head, patagia and thorax purplish-brown, the outer margin of the patagia and thorax with creamy-white irroration; tegulae purplish-brown with a band of orangey-brown scales medially; abdomen cream. Antenna bipectinate, brown. Forewing pointed at apex, outer margin gently arcuate. Ground colour of forewing purplish-brown, greyer distally. Basal area darker with orangey-red scales extending along space 1A+2A terminating in a small patch on the outer edge of the postmedial fascia. Antemedial fascia dark brown, bilineate, crenulate, indistinct arising perpendicularly from costa, and gently angled to terminate perpendicularly along anal margin. Discal spot ovoid, pearlescent. Postmedial fascia dark brown, crenulate, indistinct. Subterminal area with irroration of darker brown and orangey-brown scales, most noticeable near costal margin. Fringe dark grey. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour cream becoming darker and slightly iridescent towards anal fold. Area between costa and Rs vein purplish-brown. Space 1A with rectangular purplish-brown patch, extending ca. 3 mm from the margin. Fringe cream becoming purplish-brown from CuA1 to tornus.

Underside. Ground colour of head and thorax cream; legs purplish-brown with cream irroration. Abdomen cream with purplish-brown tufts on each segment. Ground colour of forewing purplish-brown; basal area cream encompassing area from approximately midway along costa to midway along anal margin, and including the cream discal spot. Subterminal area with mother-of-pearl like reflection. Terminal area slightly greyer. Hindwing ground colour cream, costal margin with purplish-brown scaling from base to vein Sc+R1.

Male genitalia. Socius moderately long, ca. one-third the length of valve, arms relatively broad at base, gradually tapered to pointed apex, slightly arched laterad, arising far apart from each other, diverging at ca. 80° angle. Tegumen short and broad, inner margin strongly arched. Valve very long, narrow basally, strongly curved ventrad at basal third, gently arched dorsad in posterior two-thirds, tapered subapically to acute, pointed tip. Juxta with short, broad, rounded posteromedial process. Vinculum narrow ribbon-like medially, with short, rounded-triangular lateral plates. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus tapered, gently curved dorsad, apically pointed. Vesica basally inflated, rather large, amorphous, finely scobinate, anteriorly with two long, densely serrate longitudinal plates consisting of fine teeth, forming a V-shape with slightly sigmoidal arms, serration interrupted distally; posterior section of inflated vesica with short, dentate plate connected to left serration. Sclerotised plate of eighth sternite elongate-quadrangular, anteriorly gently concave with short

triangular anterolateral apodemes, posteriorly with two very thin and short, curved posteromedial sclerotisations encompassing a broad V-shaped medial notch.

Diagnosis. *Hypotrabala lydiae* is a quite distinctive species which is most similar to *H. volynkini*, but the latter is larger, the forewing is browner, and the hindwing yellower. In the male genitalia of the latter, the socii are parallel to each other, the tegumen is narrower, the valves are shorter, slightly curved subapically without setae or an apical spine, the vesica is spherical lacking longitudinal serrations and the posterior processes of the eighth sternite are apically sharp and pointed, arising from a trapezoidal basal plate.

DNA divergences. The new species has been assigned the BIN BOLD:AFG6692. The single barcoded specimen differs by 6.8% from the nearest sample (*H. horridula*/*H. pruinosa*).

Derivatio nominis. The new species is dedicated with great pleasure to Lydia Mulvaney (née Smith), ANHRT, a seasoned fieldworker throughout the Afrotropics and a member of the team that collected the two known specimens of this species.

***Hypotrabala tabithae* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:29002537-E9B4-47A5-B2AA-DAC3A185544F
(Figs 33–34, 82)

Holotype ♂ (ANHRT):
"ZAMBIA 1400m / Hillwood, Ikelenge / S11°16'02"; E24°18'59" / 21-28.x.13 Light Trap / leg. Smith,R., Takano,H., / Chmurova,L. & Smith,L. // African Natural History / Research Trust / 2017.10 // ANHRTUK / 00224480 // Gen. slide No. / LG 6319 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratype ♂:
ZAMBIA: same data as holotype but 23–30.xi.2019, leg. M. Bashford, W. Miles, L. Mulvaney & R. Smith (1♂ ANHRT).

Description.
Forewing length: holotype and paratype: 23 mm.
Upperside. Ground colour of head and prothorax orange with brown irroration; tegulae and the rest of the thorax orange with brown and yellow irroration; abdomen warm buff. Antenna bipectinate, brown. Forewing rounded at apex, outer margin gently arcuate. Ground colour of forewing orangey-brown becoming mahogany distally beyond the postmedial fascia. Antemedial fascia mahogany, bilineate, crenulate, arising perpendicularly from costa, and gently curved to terminate perpendicularly along anal margin. Discal spot reniform, silvery-white, the width of the cell and ringed in mahogany; area around spot between antemedial and postmedial fasciae irrorated with mahogany scales. Postmedial fascia mahogany, bilineate, crenulate, the outer of the two indistinct. Both arise perpendicularly from the costa and indented strongly at vein R5 terminating along anal margin; the outer forms the boundary of the dark outer half of the wing. Outer half of wing with paler scales distally, darkest in a broad band running from discal spot to tornus. Subterminal fascia indicated by orangey-brown patches on its outer edge between veins R4 and CuA1, the largest between veins M1 and M3, broadly parallel to the outer margin, indented between veins R5 and M3. Termen with a narrow row of orangey-brown scales. Fringe dark brown. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour warm buff becoming darker towards anal fold. Costa with mahogany scaling. Fringe pale buff.

Underside. Ground colour of head and thorax warm buff; forelegs mahogany with orange irroration, mid- and hindlegs buff. Abdomen warm buff with darker tufts medially on each segment. Ground colour of forewing orangey-brown becoming buff posteriorly. Forewing discal spot narrow chevron-shaped pointed proximad, indistinct, white. Subterminal fascia mahogany, indistinct; terminal fascia mahogany, strongly bisected with orange scales along veins. Hindwing ground colour buff, costal margin with mahogany scaling.

Male genitalia. Socius moderately long, ca. two-thirds as long as length of valve, arms relatively broad at base, gradually tapered to rounded apex, slightly arched inward, arising far apart from each other from a strongly constricted distal and of tegumen, more or less parallel. Tegumen short and

relatively narrow, inner margin arcuate. Valve short, narrow basally, gradually tapered to pointed tip, evenly gently curved dorsad. Juxta with short, broad, rounded posteromedial process. Vinculum narrow ribbon-like medially, with short, triangular lateral plates. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus tapered, curved dorsad, apically pointed. Vesica basally inflated, rather large, spherical, finely scobinate, bearing two sharply serrate parallel, longitudinal plates, a longer one on the left consisting of 9–11 teeth and a very short on the right with 3–4 teeth. Sclerotised plate of eighth sternite with straight anterior margin and short rounded anterolateral apodemes, posteriorly with two acute, moderately long, elongate-triangular processes arising from a quadrangular central plate encompassing a narrow V-shaped medial notch.

Diagnosis. *Hypotrabala tabithae* is similar to *H. ophioglossa* and the sympatric *H. lunda* but can easily be separated based on external and genital morphology. In *H. ophioglossa*, the pale orange markings on the forewings are more reduced and the antemedial and postmedial fasciae are less well-defined, whilst in the male genitalia, the arms of the socii encompass a V-shaped posteromedial gap, the valves are broader, postmedially dilated, strongly setose and armed with a stout apical spine, the vesica lacks serrate plates, and the posterior processes of the eighth sternite are longer, narrower and only apically bifurcate. *Hypotrabala lunda* is a smaller moth with more pointed forewings and brighter orange markings. In the male genitalia, the basal plate of the socii is broad with a narrower gap between the arms, the vesica is less inflated, more elongate with V-shaped serrations, and the posterior processes of the eighth sternite are substantially longer, thinner and divergent.

DNA divergences. The new species has been assigned the BIN BOLD:AAZ7769. Intraspecific PWD was 0.2% (n=2) and diverged by 6.0% from the nearest sample (*H. horridula*).

Derivatio nominis. The new species is dedicated with great pleasure to Tabitha Taberer, ANHRT, a specialist in the Afrotropical Limacodidae and Chrysopolomidae who has undertaken fieldwork in the country from where the new species originates.

***Hypotrabala lunda* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:6BD9D29F-C9F7-4F84-9E59-F55B585E4894
(Figs 35–36, 85)

Holotype ♂ (ANHRT):
"ZAMBIA 1147m / Lukwakwa, West Lunga NP., / (Cryptosepalum forest/Dambo) / 12°39'40"S, 24°26'13"E / 9-15.xi.2018 MV Light Trap / Aristophanous, M., Dérozier, V., / László, G., Oram, D. Leg. / ANHRT:2018.40 // ANHRTUK / 00066337 // Gen. slide No. / LG 6313 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratype ♂:
ZAMBIA: same data as holotype (1♂ ANHRT).

Description.
Forewing length: holotype: 17 mm; paratype 19 mm.
Upperside. Ground colour of head and patagia mahogany, the outer margin of the patagia highlighted in bright orange; tegulae and the rest of the thorax bright orange irrorated with mahogany scales; abdomen warm buff. Antenna bipectinate, brown. Forewing angled at apex, outer margin gently arcuate. Colouration divided into two parts by an indented line from apex to below the discal spot where it angles to terminate at middle of anal margin, the inner part bright orange and the outer mahogany. Antemedial fascia mahogany, bilineate, crenulate, arising perpendicularly from costa, and gently curved to terminate perpendicularly along anal margin. Discal spot reniform, silvery-white, the width of the cell and ringed in mahogany. Postmedial fascia mahogany, bilineate, crenulate, the outer of the two indistinct. Both arise perpendicularly from the costa and indented strongly at vein R5 terminating along anal margin; the inner forms the boundary of the dark outer half of the wing. Outer half of wing becoming paler distally, darkest in a broad band running from discal spot to tornus. Subterminal fascia dark grey, irregular, broadly parallel to the outer margin, with some indistinct orange spots on the outer edge between veins

R5 and M3. Fringe dark brown. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour warm buff becoming darker towards anal fold. Costa with mahogany scaling. Fringe pale buff. Underside. Ground colour of head and thorax warm buff; forelegs mahogany with orange irroration, mid- and hindlegs buff with mahogany irroration. Abdomen warm buff with mahogany tufts medially on each segment. Ground colour of forewing orange becoming buff posteriorly. Discal spot ovoid, buff. Only the costal region of the mahogany antemedial fascia marked. Subterminal fascia mahogany, straighter than on the upperside, indistinct; terminal area mahogany, strongly bisected with orange scales along veins. Hindwing ground colour buff, costal margin with mahogany scaling.

Male genitalia. Socius long, ca. three-quarters the length of valve, arms digitiform with rounded apex, arising relatively far from each other, parallel with posterior section slightly diverging. Tegumen moderately long, very narrow, inner margin almost straight. Valve short, very narrow basally, evenly slightly curved, tapered subapically to pointed apex. Juxta with relatively long, pointed posteromedial process. Vinculum narrow ribbon-like medially, with short, rounded-triangular lateral plates. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus gradually tapered, curved dorsad, apically pointed. Vesica basally inflated, relatively large, finely scobinate, anteriorly with two densely serrate, slightly arched longitudinal plates consisting of fine teeth, left arm ca. twice as long as right one; posterior section of inflated vesica with a very small, dentate diagonal sclerotisation. Sclerotised plate of eighth sternite with slightly sinuous anterior margin and with two extremely long, thin, slightly arcuate distally diverging posteromedial processes.

Diagnosis. The distinctive *H. lunda* is allied to *H. neavei* but the latter is larger, the basal orange colouration of the forewing is darker and more heavily irrorated with dark brown and the hindwing is a warmer buff. In the male genitalia, the socii are shorter and narrower, the tegumen is dilated, the valves are shorter, broader and curved subapically, the vesica is more elongate with longer V-shaped serrate plates and a small subbasal dentate plate, and perhaps most conspicuously the posterior processes of the eighth sternite are half as long, straight and parallel to each other.

DNA divergences. The new species has been assigned the BIN BOLD:AAF4309. Intraspecific PWD was 0.0% (n=2) and diverged from *H. neavei* by 5.8–6.0%.

Derivatio nominis. The new species derives its name from the Lunda people of north-western Zambia, the region from where the type specimens originate.

***Hypotrabala tamsi* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:B4E3D86F-7F1C-4182-B938-CACAA7B2D3E9
(Figs 39–40, 76–77)

Holotype ♂ (ANHRT):
"TOGO 505m / Fazao-Malfakassa National Park / Mare aux crocodiles campsite / (Sudanian Savannah/dry forest) / 8°44'58.8"N, 0°48'51.8"E / 26.viii-7.ix.2018 MV Light Trap / Aristophanous, M., Geiser, M., / Moretto, P., Sanbena, B. Leg. / ANHRT:2018.31 // ANHRTUK / 00090840 // Gen. slide No. / LG 6291 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratypes (4♂♂):
CAMEROON: Wack (La Falaise), 900m, 07°40'16.5"N, 13°33'18.4"E, 02–21.x.2018, leg. S. Sáfián & G. Simonics (3♂♂ ANHRT); **TOGO**: same data as holotype (1♂ ANHRT).

Description.
Forewing length: holotype: 22 mm; paratypes: 21–22 mm.
Upperside. Ground colour of head and thorax mahogany irrorated with pale yellow scales; abdomen buff. Antenna bipectinate, brown. Forewing curved at apex, outer margin gently arcuate. Ground colour of wing orangey-brown irrorated with mahogany scales. Antemedial fascia mahogany, bilineate, crenulate, indistinct arising perpendicularly from costa, and gently angled to terminate perpendicularly along anal margin. Discal spot ovoid, pearlescent, ringed in mahogany; area around spot between antemedial and postmedial fasciae irrorated with mahogany scales. Postmedial fascia mahogany, bilineate, crenulate, indistinct, arising perpendicularly from the costa, gently curved around discal spot,

terminating along anal margin. Area between outer postmedial and subterminal fasciae slate grey darkening towards anal margin. Subterminal fascia slate grey, irregular, broadly running parallel to the outer margin, indented. Terminal area greyish-mahogany, strongly bisected by orange scales along veins. Fringe greyish-mahogany. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour warm buff becoming darker towards anal fold. Costa with orangey-brown scaling.
Underside. Ground colour of head and thorax warm buff; forelegs mahogany with buff irroration, mid- and hindlegs buff with some brown speckling. Abdomen buff with some darker brown scaling. Ground colour of forewing pale brown. Discal spot almost invisible. Postmedial and subterminal fasciae, dark slate, indistinct, the former gently arcuate arising perpendicularly to costa and terminating perpendicularly along anal margin, the latter irregular, broadly parallel to the outer margin. Hindwing ground colour warm buff; costal margin with some mahogany irroration.

Male genitalia. Socius short, ca. one-third the length of valve, arms broad at base, gradually tapered to acutely pointed apex, arising relatively close and parallel to each other. Tegumen moderately long and broad, inner margin evenly arcuate. Valve short, narrow basally, gradually tapered to pointed tip, gently arched. Juxta with very short, rounded posteromedial process. Vinculum narrow ribbon-like medially, with very short, triangular lateral plates. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus slightly dilated medially, tapered distally, curved dorsad, apically pointed. Vesica basally inflated, relatively large, somewhat ovoid, finely scobinate, anteriorly with two densely serrate relatively broad longitudinal plates consisting of sharp teeth, forming a V-shape with slightly curved arms, posterior diagonal dentate plate present, rather small. Sclerotised plate of eighth sternite anteriorly almost straight with thin anterolateral apodemes of variable length, posteriorly slightly dilated to two short sclerotised processes of variable length and width of gap between processes.

Diagnosis. *Hypotrabala tamsi* is reminiscent of *H. argenteoguttata* but the latter is a larger moth, the ground colour of the forewing is golden yellow and the hindwing is buff. In the male genitalia of the latter, the socii are shorter with a narrower gap in between the two arms, the valves are shorter, slenderer and medially slightly arcuate, the posteromedial process of the juxta is larger, the serrate plates of the vesica are straight, and the central plate of the eighth sternite is elongate quadrangular in shape. The West African *H. giustii* is not dissimilar but possesses more pointed forewings and the pale basal half of the forewing is larger and better-defined while the male genitalia are quite different, with the apically rounded socii arising further apart from each other, and the considerably longer, slenderer and subapically curved valves.

DNA divergences. The two populations of the new species fell into two BINs BOLD:ABU9603 (Togo) and BOLD:AFG4526 (Cameroon). Intraspecific PWDs ranged from 0.0–4.0% (n=5) and differed by 1.7% from the nearest samples (*H. horridula*/*H. argenteoguttata*).

Derivatio nominis. The new species is named after Willie Horace Thomas Tams (1891–1980), *officer-in-charge* of the NHMUK Heterocera collection from 1920–1957 and Lasiocampidae specialist who described several species of *Hypotrabala* believing correctly that the genus contained more taxa than just the type species.

***Hypotrabala giustii* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:5318CDDB-78D7-43C9-A94C-C1AE5109A43A
(Figs 43–44, 73)

Holotype ♂ (ANHRT):
"IVORY COAST 95m / Station d'Ecologie de Lamto / (Riverine Forest) / 06°13'2"N, 05°1'32"W / 21-25.xi.2021 MV Light Trap / Moretto, P., Mulvaney, L., / Takano, H. Leg. / ANHRT:2021.8 // ANHRTUK / 00265921 // Gen. slide No. / LG 6295 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratypes (6♂♂):
IVORY COAST: same data as holotype (4♂♂ ANHRT; 1♂ NHMUK); **LIBERIA**: Krahn-Bassa Reserve, 7.5km SW Pellokon Town, 140m, 05°39'04"N, 08°39'04"W, 14–20.i.2018, leg. M. Geiser, S. Sáfián & G. Simonics (1♂ ANHRT).

Description.
Forewing length: holotype: 22 mm; paratypes: 19–22 mm.
Upperside. Ground colour of head and thorax mahogany irrorated with pale orange scales; abdomen buff. Antenna bipectinate, brown. Forewing rounded at apex, outer margin gently arcuate. Ground colour of wing pale orange irrorated with mahogany scales. Antemedial fascia mahogany, bilineate, crenulate, the inner of the two less pronounced, arising perpendicularly from costa, and gently angled to terminate perpendicularly along anal margin. Discal spot reniform, silvery-white and ringed in mahogany. Postmedial fascia mahogany, bilineate, crenulate, the outer of the two indistinct. Both arise perpendicularly from the costa angled strongly at vein R5 terminating along anal margin; the outer forms the boundary of the dark outer half of the wing except for between M3and CuA2 where it is indented and the inner line forms the boundary. Area beyond postmedial fascia grey, turning paler distally. Subterminal fascia charcoal, broadly running parallel to the outer margin, irregular, indented, most strongly defined on its outer edge. Terminal area grey bisected by orange scales along veins. Fringe dark greyish-brown. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour warm buff turning darker towards the anal fold. Costa with brownish scaling. Fringe buff.

Underside. Ground colour of head, thorax and abdomen buff; forelegs brown. Ground colour of both wings buff, hindwing slightly paler. Discal spot ovoid, pale yellow indistinct. Subterminal and terminal fascia as on upperside but less well-defined. Hindwing with mahogany scaling along costa.

Male genitalia. Socius moderately long, ca. one-third the length of valve, arms digitiform with rounded apex, arising far apart from each other, largely diverging at ca. 100° angle. Tegumen moderately long and broad, inner margin arcuate. Valve long, narrow basally, gradually tapered to pointed tip, gently arched dorsad subapically. Juxta with short, pointed posteromedial process. Vinculum narrow ribbon-like medially, with short, truncate lateral plates with straight margins. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus slightly dilated medially, then tapered and curved dorsad, apically pointed. Vesica basally inflated, relatively large, somewhat ovoid, finely scobinate, anteriorly with two densely serrate longitudinal plates consisting of fine teeth, right serration ca. twice as long as left one, conjoined with short posterior diagonal dentate plate. Sclerotised plate of eighth sternite anteriorly evenly concave, posteriorly slightly dilated to two short triangular plates possessing short, converging process-like sclerotisations divided by shallow medial depression.

Diagnosis. *Hypotrabala giustii* is most similar in external habitus to *H. argenteoguttata* but the latter is a larger moth, the ground colour of the forewing is a golden yellow and the hindwing is buff. In the male genitalia of the latter, the socii are shorter and pointed, with a narrower gap in between the two arms, the valves are shorter and medially slightly arcuate. The male genitalia are most similar to *H. pruinosa* and *H. indefinita* but the valves of these two latter species are 15-20% shorter and gently arcuate.

DNA divergences. The new species has been assigned the BIN BOLD:AAF4215. The single barcoded specimen differs by 2.7% from the nearest sample (*H. horridula*).

Derivatio nominis. The new species is dedicated with great pleasure to Alessandro Giusti, Senior Curator of Lepidoptera, NHMUK, who with kindness and grace, has facilitated numerous visits over the years by the senior author to study the Bombycoidea under his care.

***Hypotrabala pruinosa* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:D6DEC439-37BE-497D-AE80-FBF72BB4D27A
(Figs 50–51, 68)

Holotype ♂ (ANHRT):
"REPUBLIC OF CONGO 372m / Sangha Prov., Noubale-Ndoki / National Park, Mbeli camp / (*Gilbertiodendron* forest) / 02°14'23.8"N, 16°23'52.1"E / 1-10.x.2022 MV Light Trap / Dérozier, V., Fouka, B., / Kirk-Spriggs, A., Takano, H. Leg. / ANHRT:2022.14 // ANHRTUK / 00290041 // Gen. slide No. / LG 6285 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratypes (17♂♂):
REPUBLIC OF CONGO: same data as holotype (2♂♂ ANHRT); same data but 24 & 26.vi.2022, leg. V. Dérozier (2♂♂ ANHRT); same data but 14–20.ii.2023, leg. N.M. Bakala, V. Dérozier, A. Kirk-Spriggs & G. László (1♂ ANHRT); same data but Bomassa, 380m, 02°12'25.7"N, 16°11'39.1"E, 18–22.vi.2022, leg. V. Dérozier (3♂♂ ANHRT); same data but Ndoki formation camp, 352m, 02°12'47.7"N, 16°23'45.8"E, 29.ix–01.x.2022, leg. V. Dérozier, B. Fouka, A. Kirk-Spriggs & H. Takano (5♂♂ ANHRT); same data but Mondika camp, 365m, 02°21'50.63"N, 16°16'25.82"E, 07–14.ii.2023, leg. N.M. Bakala, V. Dérozier, A. Kirk-Spriggs & G. László (4♂♂ ANHRT).

Description.
Forewing length: holotype: 25 mm; paratypes: 20–25 mm.
Upperside. Ground colour of head and thorax varying from terracotta to charcoal with differing levels of silvery-white irroration; abdomen varying from pale beige to pale brown. Antenna bipectinate, brown. Forewing pointed at apex, outer margin almost straight and angled at tornus. Ground colour of forewing from terracotta to mahogany with varying degrees of silvery-grey irroration. Antemedial fascia dark brown, bilineate, zigzagged the inner line indistinct arising perpendicularly from costa, and angled to terminate perpendicularly along anal margin. Discal spot reniform, silvery-white and ringed in dark brown; the size of the spot and extent of the silvery-white colouration highly variable. Postmedial fascia dark brown, bilineate, gently crenulate, the inner of the two more pronounced; arises perpendicularly from the costa and angled strongly at vein R5, the crenulation becoming greater and terminating along anal margin. Subteminal fascia dark brown with silvery-grey irroration on both edges, irregular, indented broadly running parallel to the outer margin. Terminal area silvery-grey with veins highlighted in pale brownish-white scaling terminating with spots on the termen. Fringe dark grey.
Hindwing outer margin arcuate, almost angled at vein CuA2, gently crenulate; ground colour varying from pale beige to pale brown, becoming darker towards the anal angle. Costa with identical scaling to forewing. Fringe silvery-grey becoming darker towards the tornus.

Underside. Ground colour of head, thorax and abdomen varying from pale beige to terracotta; forelegs darker matching the ground colour of head and thorax on upperside. Ground colour of wings as on upperside but paler basally and lacking much of the silvery-white irroration. Discal spot narrow chevron-shaped pointed proximad, indistinct, white. Postmedian fascia variable, absent in some specimens but when present, the same colour as on the upperside but straighter lacking crenulations. Subterminal fascia as on upperside but less well-defined. Hindwing costal margin with scaling the same colour as forelegs from base to vein Sc+R1. Arcuate postmedian fascia present in some individuals, the same colour as the forewing underside, broadest at costa and petering out towards anal fold.

Male genitalia. Socius long, ca. half as long as valve, arms digitiform with rounded apex, arising far apart from each other, largely diverging at ca. 120° angle. Tegumen moderately long and broad, inner margin evenly arcuate. Valve relatively long, narrow basally, gradually tapered to pointed tip, gently arched dorsad subapically. Juxta with relatively long, pointed posteromedial process. Vinculum narrow ribbon-like medially, with short, truncate lateral plates with straight margins. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus slightly dilated medially, curved dorsad, apically pointed. Vesica basally inflated, relatively large, somewhat ovoid, finely scobinate, anteriorly with two long, densely serrate longitudinal plates consisting of fine teeth, forming a V-shape with slightly sigmoidal arms; posterior section of inflated vesica with short, dentate diagonal sclerotisation. Sclerotised plate of eighth sternite anteriorly evenly concave, posteriorly dilated to two short, gently arched plates each bearing short posterior sclerotisation of variable width; plates divided by shallow medial depression.

Diagnosis. *Hypotrabala pruinosa* is a very distinctive species that cannot readily be confused with any other species having very broad forewings which are almost right-angled at the tornus. Phenotypically, this species displays a great deal of variation, especially in the extent of the silvery-white scaling but this colouration is always present in the terminal area of specimens. It could perhaps be confused with *H. lydiae*, but the latter has more elongate forewings and the ground colour of the hindwing is a paler cream. In the male genitalia, it is closest to *H. indefinita* but in the latter, the socii and valves are 20% longer, the socii are distally tapered and apically pointed and the posterior projection of the eighth sternite is shorter.

DNA divergences. The new species has been assigned the BIN BOLD:AEH6351. Intraspecific PWD was 0.0% (n=2) and diverged by 2.2% from the nearest sample (*H. horridula*).

Derivatio nominis. The new species is named in reference to the beautifully frosted appearance of the wings which is particularly noticeable in the holotype.

***Hypotrabala indefinita* sp. n.**
https://zoobank.org/urn:lsid:zoobank.org:act:E30FB846-7134-47B6-A26B-C0323DB5742B
(Figs 52–53, 69)

Holotype ♂ (ANHRT):
"SIERRA LEONE 375m / Kono Province, Gori Hills, / Near Giehum / 08°27'47"N, 10°46'17"W / 22-29.ii.2020 / Kalnoi, G., Sinyaev, V. Leg. // ANHRT:2020.14 // ANHRTUK / 00288690 // Gen. slide No. / LG 6324 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratype ♂:
SIERRA LEONE: same data as holotype (1♂ ANHRT).

Description.
Forewing length: holotype 25 mm; paratype: 22 mm.
Upperside. Ground colour of head, thorax and forewings orangey-brown; abdomen and hindwings warm buff. Forewing pointed at apex, outer margin gently arcuate. Forewing irrorated with golden yellow scales basally and anteriorly. Antemedial fascia mahogany, bilineate, crenulate, the inner of the two less pronounced, arising perpendicularly from costa, and gently angled to terminate perpendicularly along anal margin. Discal spot small, reniform, silvery-white and ringed in mahogany. Postmedial fascia greyish-brown, bilineate, the inner of the two crenulate, the outer of the two indistinct. Both arise perpendicularly from the costa the inner angled strongly at vein R5 terminating along anal margin. Area between postmedial and subterminal fascia with heavy brown scaling, becoming darker and greyer at tornus. Subterminal fascia charcoal, broadly running parallel to the outer margin, irregular, indented, most strongly defined on its outer edge. Terminal fascia greyish-brown bisected by orange scales along veins. Fringe dark greyish-brown. Hindwing outer margin arcuate, almost angled at vein CuA2; ground colour turning darker towards the anal fold. Costa with mahogany scaling. Fringe buff becoming dark brown at the tornus.

Underside. Ground colour of head, thorax and abdomen buff; forelegs brown. Ground colour of both wings buff, hindwing slightly paler. Discal spot narrow, creamy-white, indistinct. Postmedial fascia well-defined only at along costa. Subterminal and terminal fascia as on upperside but less well-defined. Hindwing with mahogany scaling along costa.

Male genitalia. Socius long, ca. half the length of valve, arms gradually tapered to pointed apex, arising far apart from each other, largely diverging at ca. 120° angle. Tegumen moderately long and broad, inner margin evenly arcuate. Valve long, narrow basally, gradually tapered to pointed tip, subapically gently arched. Juxta with short, rounded posteromedial process. Vinculum narrow ribbon-like medially, with short, truncate lateral plates with straight margins. Phallus short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus slightly dilated medially, then tapered and curved dorsad, apically pointed. Vesica basally inflated, relatively large, somewhat ovoid, finely scobinate, anteriorly with two densely serrate longitudinal plates consisting of fine teeth, forming a V-shape with slightly sigmoidal arms; posterior section of inflated vesica with short, dentate diagonal sclerotisation. Sclerotised plate of eighth sternite anteriorly slightly concave with relatively long, thin anterolateral apodemes, posteriorly dilated to two short, triangular plates with short posterior sclerotisations of variable width divided by shallow medial depression.

Diagnosis. *Hypotrabala indefinita* is most similar to *H. giustii* but in the latter the ground colour of the forewing is paler and the outer half is darker, whilst in the genitalia, the socii are shorter and broader and the valves are longer and subapically angled. The male genitalia of *H. indefinita* is most similar to the phenotypically distinct *H. pruinosa* but in the latter, the socii are shorter and apically rounded, the valves are slightly shorter and the posterior projection of the eighth sternite is shorter.

DNA divergences. Unavailable.

Derivatio nominis. The new species derives its name from the plain habitus which lacks any definite characters.

***Hypotrabala pallens* sp. n.**

https://zoobank.org/urn:lsid:zoobank.org:act:10AC6B4D-0EC5-4FE9-8C78-E637BDF33044

(Figs 54–55, 70)

Holotype ♂ (ANHRT):

"DRC 2150m / Lobango, Nord-Kivu / 0°19'S 29°12'E / vi.2017 ex. A. Colley / ANHRT:2018.22 // ANHRTUK / 00251753 // Gen. slide No. / LG 6293 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratype ♂:

D.R. CONGO: same data as holotype (1♂ ANHRT).

Description.

Forewing length: holotype: 20 mm; paratype 21 mm.

Upperside. Ground colour of head, thorax and forewing fawn; abdomen and hindwing buff. Antenna bipectinate, brown. Forewing pointed at apex, outer margin gently arcuate; some very sparse black scaling throughout. Discal spot reniform, silvery-white and ringed in black, as wide as cell. Subterminal fascia charcoal, irregular, undulating, broadly running parallel to the outer margin, most strongly defined on its outer edge leaving a weaker 'shadow' proximally. Fringe dark brown. Hindwing outer margin arcuate, almost angled at vein CuA2. Costa with fawn scaling. Fringe buff.

Underside. Ground colour of head, thorax, forelegs and forewing fawn; mid- and hindlegs, abdomen and hindwing buff. Forewing paler posteriorly. Discal spot creamy-white. Submarginal fascia weakly-defined almost invisible, showing through from the upperside. Hindwing costa fawn coloured.

Male genitalia. Socius moderately long, ca. one-third the length of valve, arms digitiform with rounded apex, arising far apart from each other, diverging at ca. 120° angle. Tegumen moderately long and broad, inner margin slightly arcuate. Valve very long, very narrow basally, tapered subapically to pointed tip, curved dorsad in posterior third. Juxta with short, pointed posteromedial process. Vinculum narrow ribbon-like medially, with short, rounded-triangular lateral plates with straight margins. Phallus very short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, tightly attached to juxta; sclerotised section of phallus gradually tapered, curved dorsad, apically pointed. Vesica basally inflated, relatively large, somewhat ovoid, finely scobinate, anteriorly with densely serrate gently arcuate longitudinal plates consisting of fine teeth, left serration ca. twice as long as right one, conjoined with slightly dilated short sclerotised-dentate posterior plate. Sclerotised plate of eighth sternite anteriorly evenly concave with relatively long, thin anterolateral apodemes, posteriorly dilated to two short, triangular plates with short posterior sclerotisations of variable width; plates divided by relatively deep medial depression.

Diagnosis. *Hypotrabala pallens* is easily distinguished from all other congeners based on its small size, pale colouration and lack of antemedial/postmedial fasciae. The male genitalia are most similar to *H. indefinita* but in the latter, the socii are slightly narrower, the valves are shorter and the lateral lobe of the vinculum is not as pointed.

DNA divergences. Unavailable.

Derivatio nominis. The new species derives its name from its distinctive pale appearance.

***Hypotrabala obscura* sp. n.**

https://zoobank.org/urn:lsid:zoobank.org:act:7BC257AD-9F90-4600-A3FB-24BAA861F80D

(Figs 56–57, 72)

Holotype ♂ (ANHRT):

"GABON 10m / Nyonié (Lowland forest) / 0°2'22"S, 9°20'25"E / 23-28.viii.2019 MV Light Trap / Albert, J-L., Aristophanous, M., / Bie Mba, J., Dérozier V., / Moretto, P. Leg. / ANHRT:2019.17 //

ANHRTUK / 00172019 // Gen. slide No. / LG 6331 ♂ / prep. by Gy. M. Laszlo [black border; partially handwritten]"

Paratypes (3♂♂):
GABON: same data as holotype (3♂♂ ANHRT).

Description.
Forewing length: holotype: 22 mm; paratypes: 21–22 mm.
Upperside. Ground colour of head, thorax and forewings chocolatey-brown; abdomen and hindwings greyish-khaki. Antenna bipectinate, brown. Forewing pointed at apex, outer margin gently arcuate; distally paler. Antemedial fascia orangey-brown, bilineate, crenulate, indistinct. Discal spot reniform silvery-white, the width of the cell and ringed in black. Postmedial fascia indicated in one of the paratypes with indistinct orangey-brown spots. Fringe dark greyish-brown. Hindwing outer margin arcuate, almost angled at vein CuA2; darker towards the margins. Costa with greyish-brown scaling. Fringe dark greyish-brown.

Underside. Ground colour as upperside. Forewing paler basally. Discal spot pale brown. Hindwing costa dark greyish-brown.

Male genitalia. Socius relatively short, ca. one-fifth the length of valve, arms gradually tapered to pointed apex, arising far apart from each other, diverging at ca. 120° angle. Tegumen moderately long and broad, inner margin slightly arcuate. Valve very long, narrow basally, tapered subapically to pointed tip, gently curved in posterior third. Juxta with long, robust, rounded posteromedial process. Vinculum narrow ribbon-like medially, with short, rounded-triangular lateral plates. Phallus very short, coecum penis large, as long as sclerotised part of phallus, membranous sack-like, loosely attached to juxta; sclerotised section of phallus gradually tapered, curved dorsad, apically pointed. Vesica basally inflated, relatively large, somewhat ovoid, finely scobinate, anteriorly with two long and thick, densely serrate almost straight longitudinal plates consisting of fine teeth, forming a V-shape; posterior section of inflated vesica with a very small, narrow finely dentate diagonal plate. Sclerotised plate of eighth sternite anteriorly slightly concave with relatively long and thick anterolateral apodemes, posteriorly dilated to two short plates with gently sinuous margin possessing two short posterior sclerotisations divided by shallow medial depression.

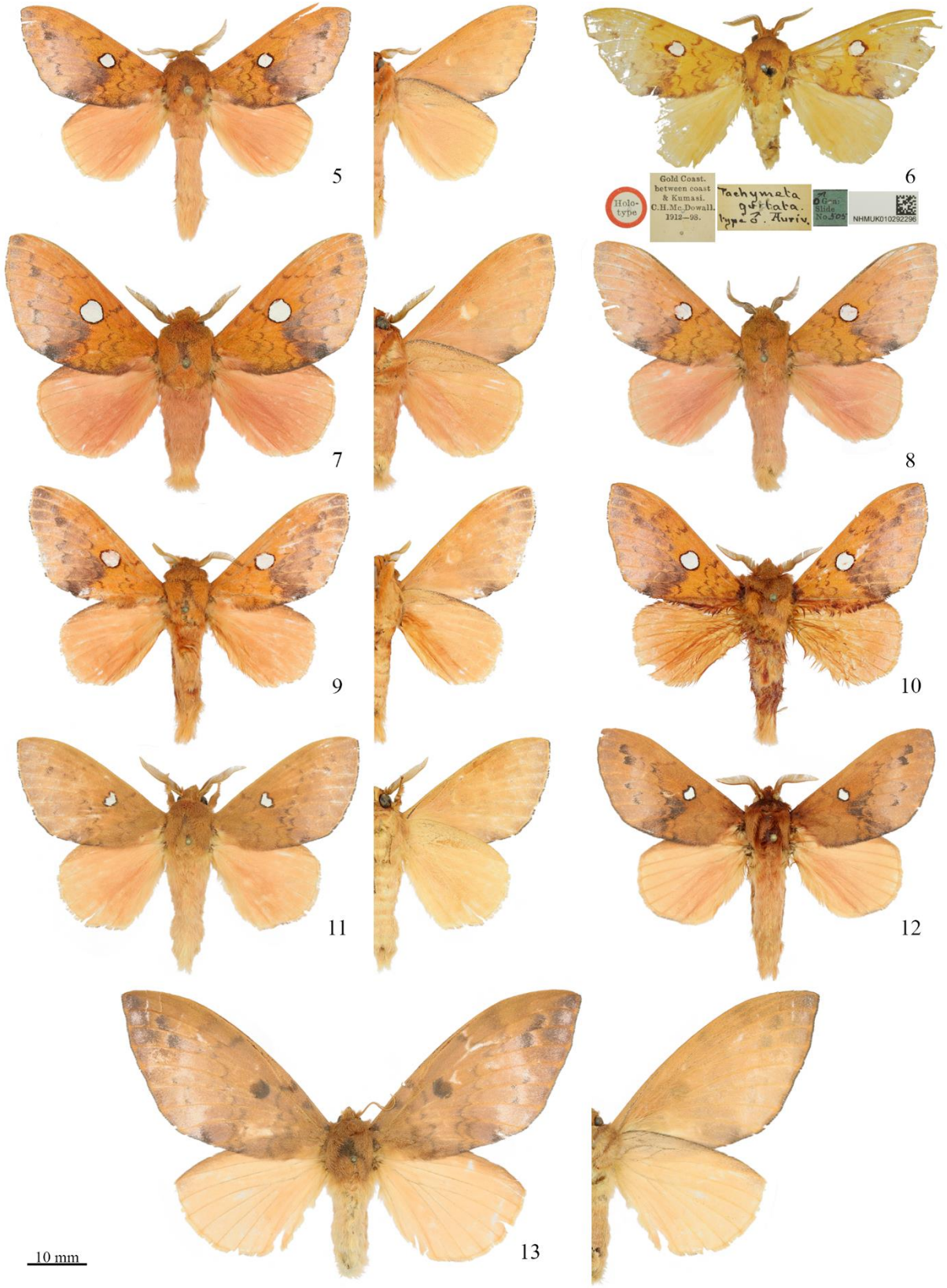
Diagnosis. *Hypotrabala obscura* is a unique species within the genus with uniformly dark brown wings lacking orange or yellow patterning. The male genitalia is most similar to *H. pruinosa* but in the latter, the socii are longer, the posteromedial process of the juxta is shorter, the valves are longer, and the serrate plates of the vesica are shorter. It is also worth noting that the coecum penis of *H. obscura* is loosely connected to the juxta which enables the phallus to be detached easily from the capsule.

DNA divergences. The new species has been assigned the BIN BOLD:AEH6352. Intraspecific PWDs were 0.0% (n=3) and differed by 1.9% from the nearest sample (*H. tamsi*).

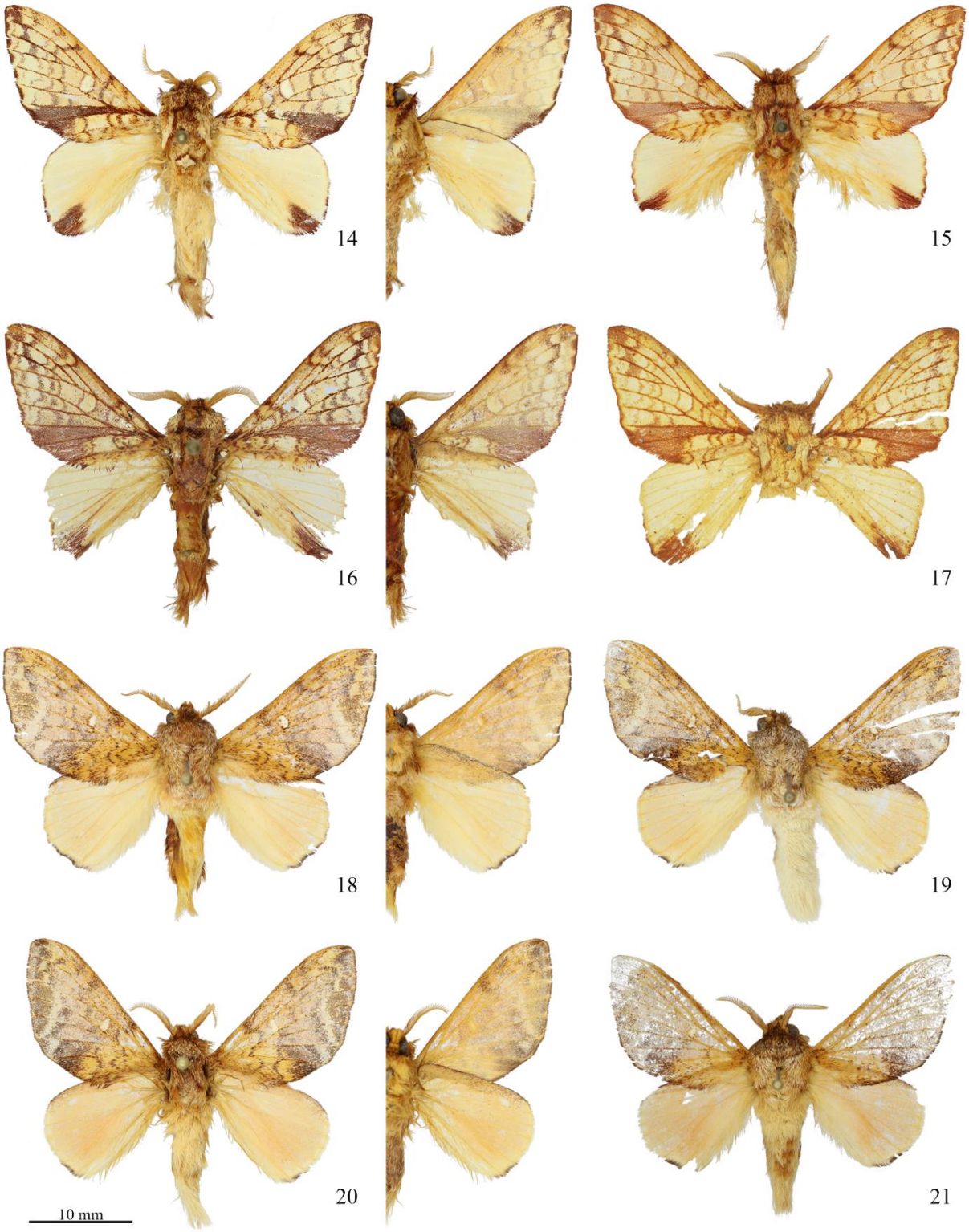
Derivatio nominis. The new species derives its name from its uniquely dark and uniform phenotype.

Discussion and conclusions

Recently-collected material housed in the collections of the African Natural History Research Trust has enabled a thorough review of *Hypotrabala* and its allied genera which are in general poorly represented in museum collections (current observation). A hidden diversity of *Hypotrabala* species has been uncovered as a result of taxonomic analyses integrating morphological and molecular traits. The generic boundary has been delimited with *Epitrabala* now considered a junior synonym of *Hypotrabala*. Furthermore, two taxa have been transferred to an allied genus *Leptometa*, one taxon confidently removed from *Hypotrabala* and considered *incertae sedis*, and a new genus *Megatrabala* established for the distinctive taxon *regalis*. *Hypotrabala* now contains 28 species, more than tripling the number of species previously known.

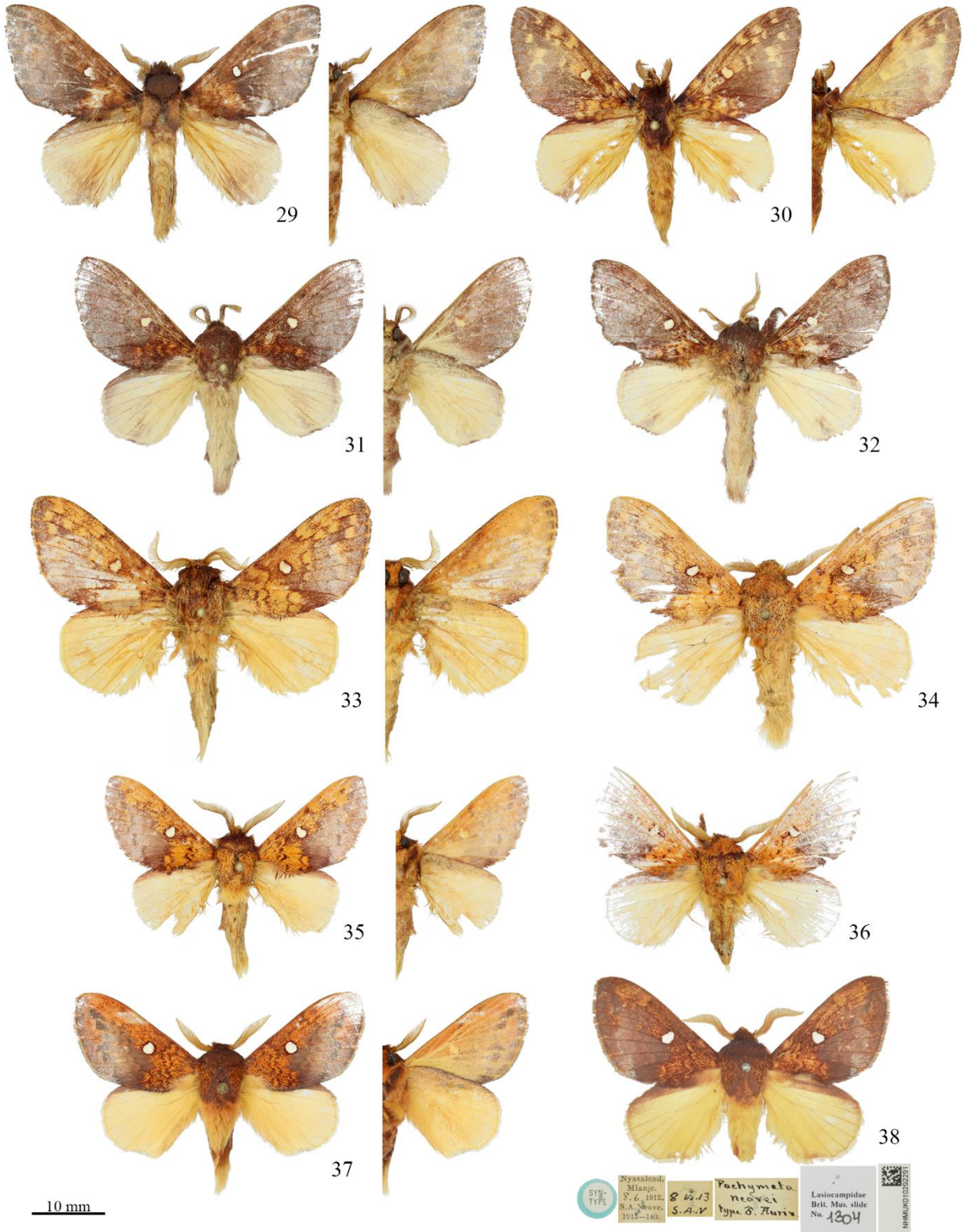


Figures 5–13. *Hypotrabala* species: 5. *H. guttata* (Aurivillius, 1915), ♂, Ivory Coast, Tai NP [ANHRTUK 00024479]. 6. *Id*., holotype ♂ of *Pachymeta guttata* Aurivillius, 1915 [NHMUK 010292296]. 7. *H. magnimacula* **sp. n.**, holotype ♂. 8. *Id*., paratype ♂. 9. *H. aurantiaca* **sp. n.**, holotype ♂. 10. *Id*., paratype ♂. 11. *H. retorta* **sp. n.**, holotype ♂. 12. *Id*., paratype ♂. 13. *Id*., paratype ♀.

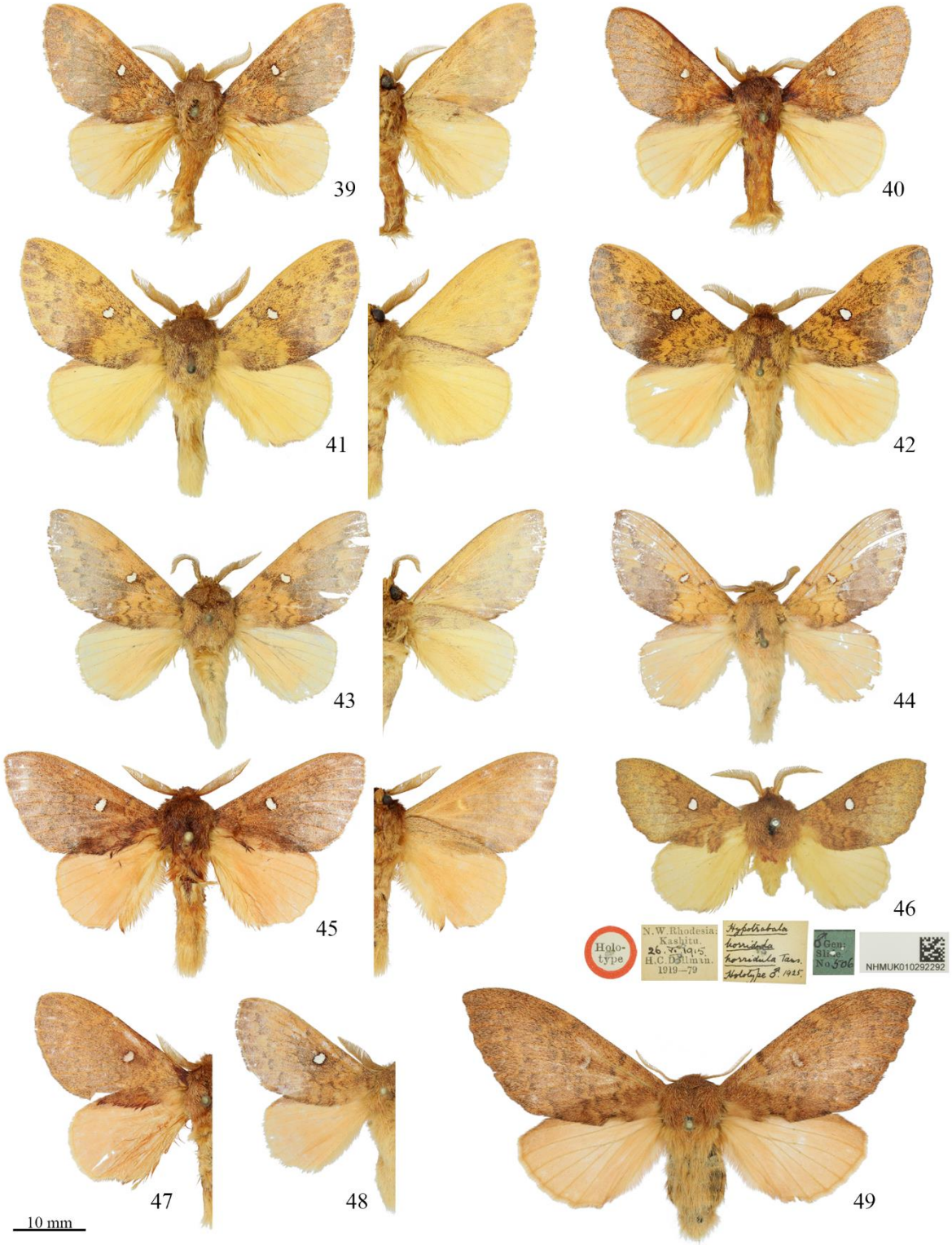


Figures 14–21. *Hypotrabala* species: 14. *H. castanea* Holland, 1893, ♂, Republic of Congo, Nouabalé-Ndoki NP [ANHRTUK 00284967]. 15. *Id*., ♂, Uganda, Kampala [NHMUK 010292297]. 16. *H. smithi* **sp. n.**, holotype ♂. 17. *Id*., paratype ♂. 18. *H. exquisita* **sp. n.**, holotype ♂. 19. *Id*., paratype ♂. 20. *H. extenuata* **sp. n.**, holotype ♂. 21. *Id*., paratype ♂.

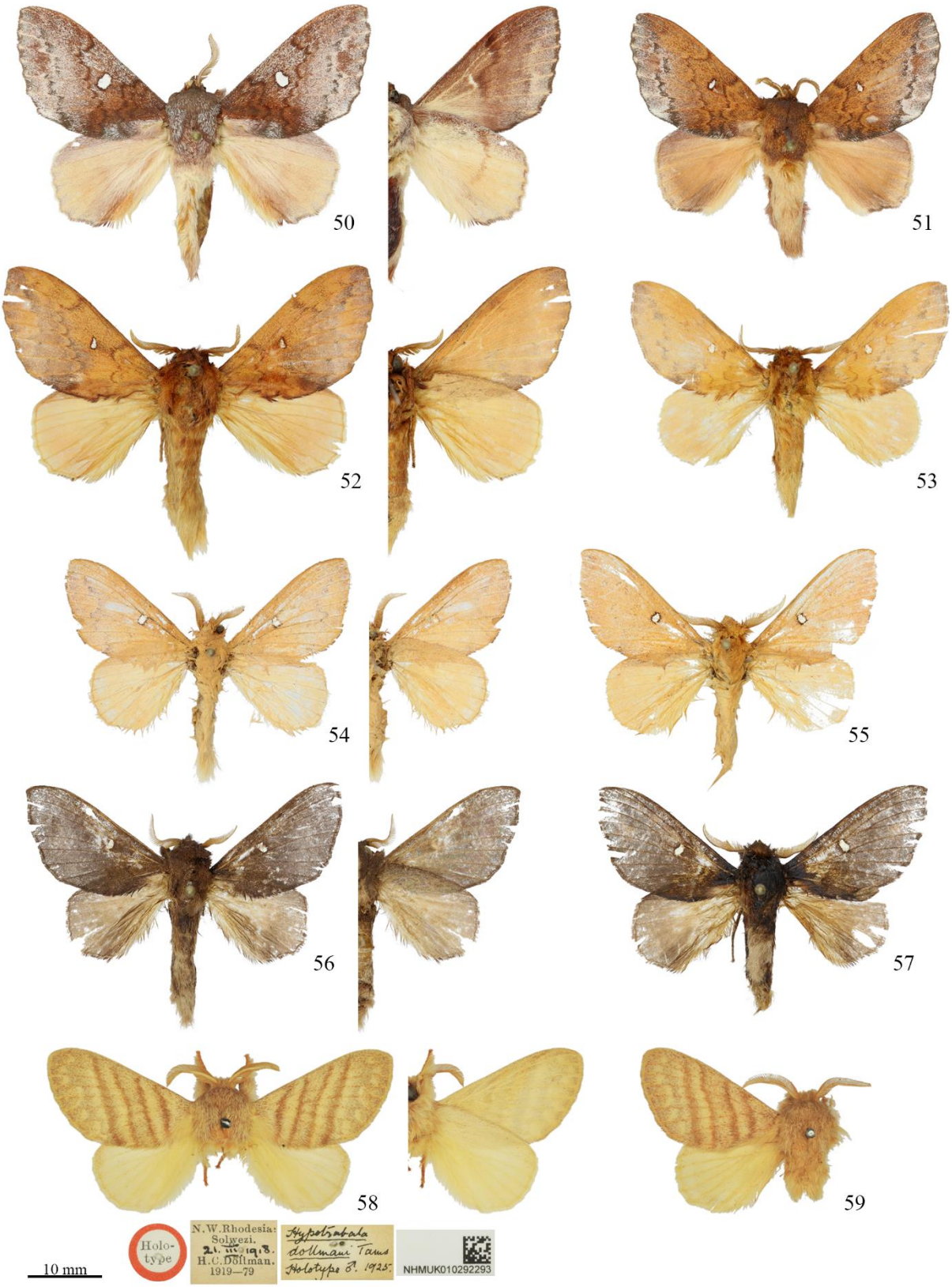
Figures 22–28. *Hypotrabala* species: 22. *H. joiceyi* Tams, 1925, ♂, northeast D.R. Congo [ANHRTUK 00381417]. 23. *Id*., holotype ♂ [NHMUK 0010292290]. 24. *H. cinereamargo* **sp. n.**, holotype ♂. 25. *Id*., paratype ♂. 26. *H. igneata* **sp. n.**, holotype ♂. 27. *Id*., paratype ♂. 28. *Id*., ♀.



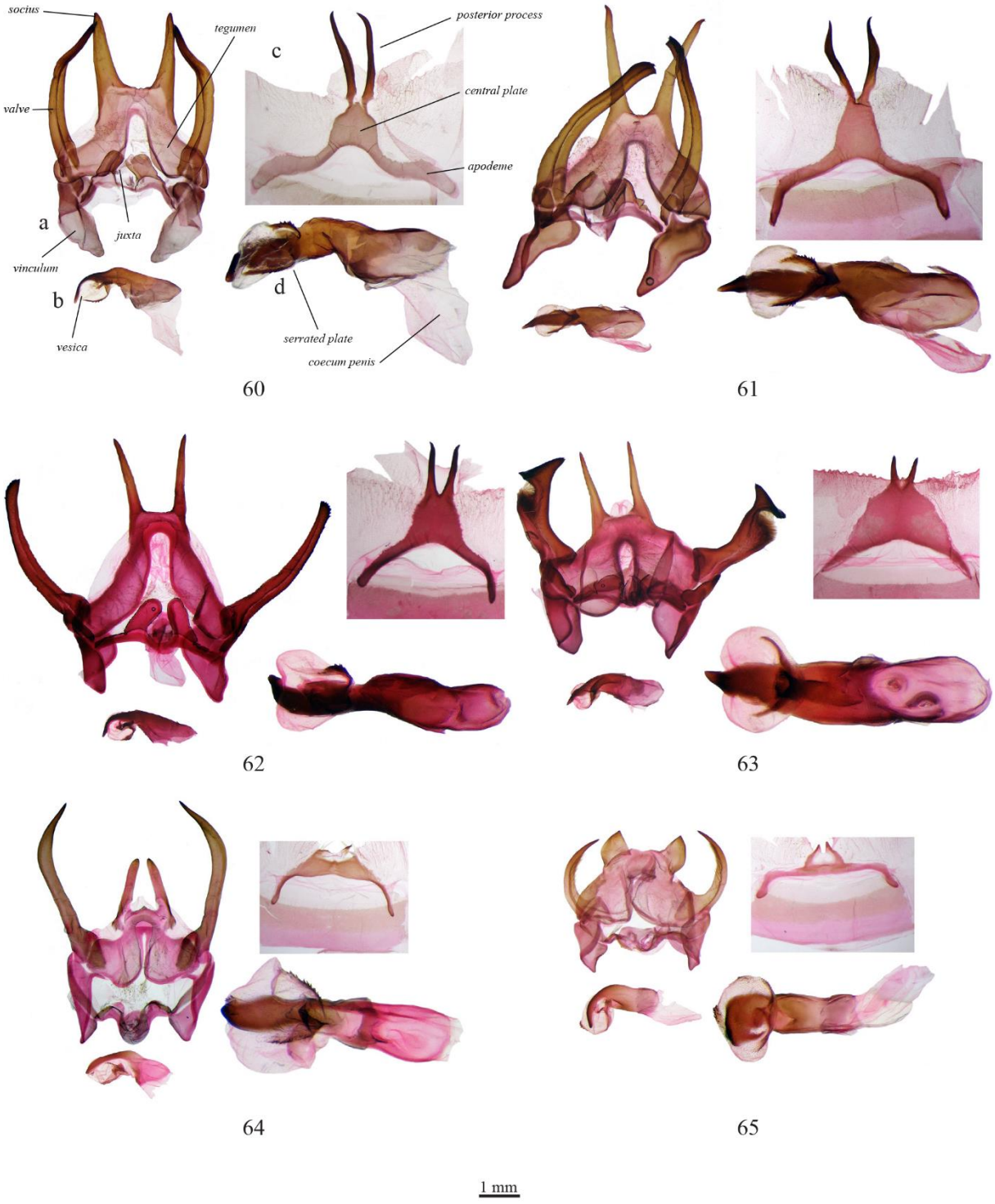
Figures 29–38. *Hypotrabala* species: 29. *H. volynkini* **sp. n.**, holotype ♂. 30. *H. ophioglossa* **sp. n.**, holotype ♂. 31. *H. lydiae* **sp. n.**, holotype ♂. 32. *Id*., paratype ♂. 33. *H. tabithae* **sp. n.**, holotype ♂. 34. *Id*., paratype ♂. 35. *H. lunda* **sp. n.**, holotype ♂. 36. *Id*., paratype ♂. 37. *H. neavei* (Aurivillius, 1915), ♂, Malawi, Mzuzu Wildlife Sanctuary [ANHRTUK 00270070]. 38. *Id*., holotype ♂ of *Pachymeta neavei* Aurivillius, 1915 [NHMUK 0010292291].



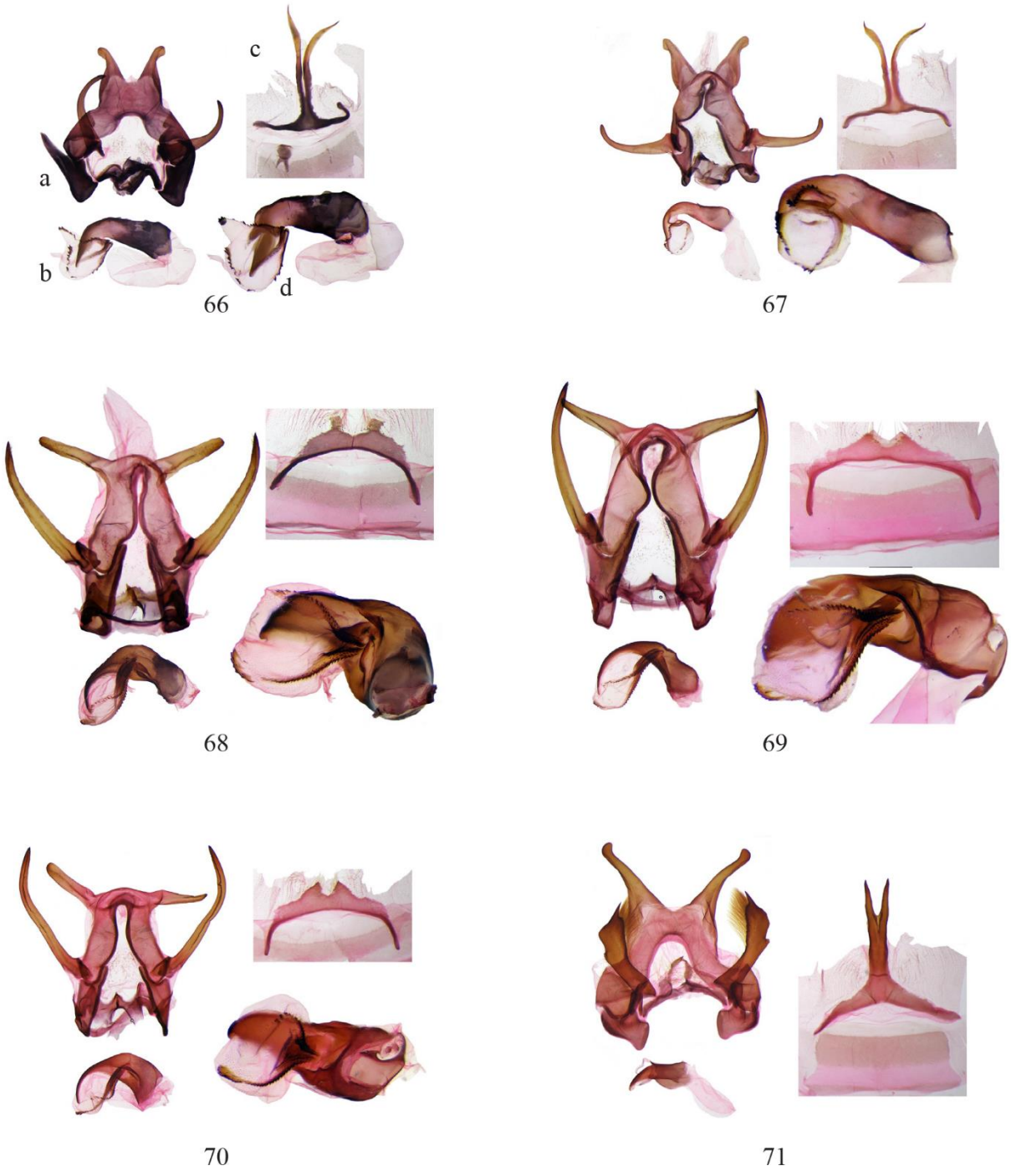
Figures 39–49. *Hypotrabala* species: 39. *H. tamsi* **sp. n.**, holotype ♂. 40. *Id*., paratype ♂. 41. *H. argenteoguttata* (Aurivillius, 1909), ♂, Mozambique, Maputo Special Reserve [ANHRTUK 00035111]. 42. *Id*., ♂, Kenya, Shimba Hills [ANHRTUK 00235806]. 43. *H. giustii* **sp. n.**, holotype ♂. 44. *Id*., paratype ♂. 45. *H. horridula* Tams, 1925, ♂, Zambia, Hillwood [ANHRTUK 00224481]. 46. *Id*., holotype ♂ [NHMUK 010292292]. 47. *Id*., ♂, Zambia, Nyangombe Falls [ANHRTUK 00067068]. 48. *Id*., ♂, Zambia, Lukwakwa [ANHRTUK 00066310]. 49. *Id*., ♀, Zambia, Ntumbachushi Falls [ANHRTUK 00276150].



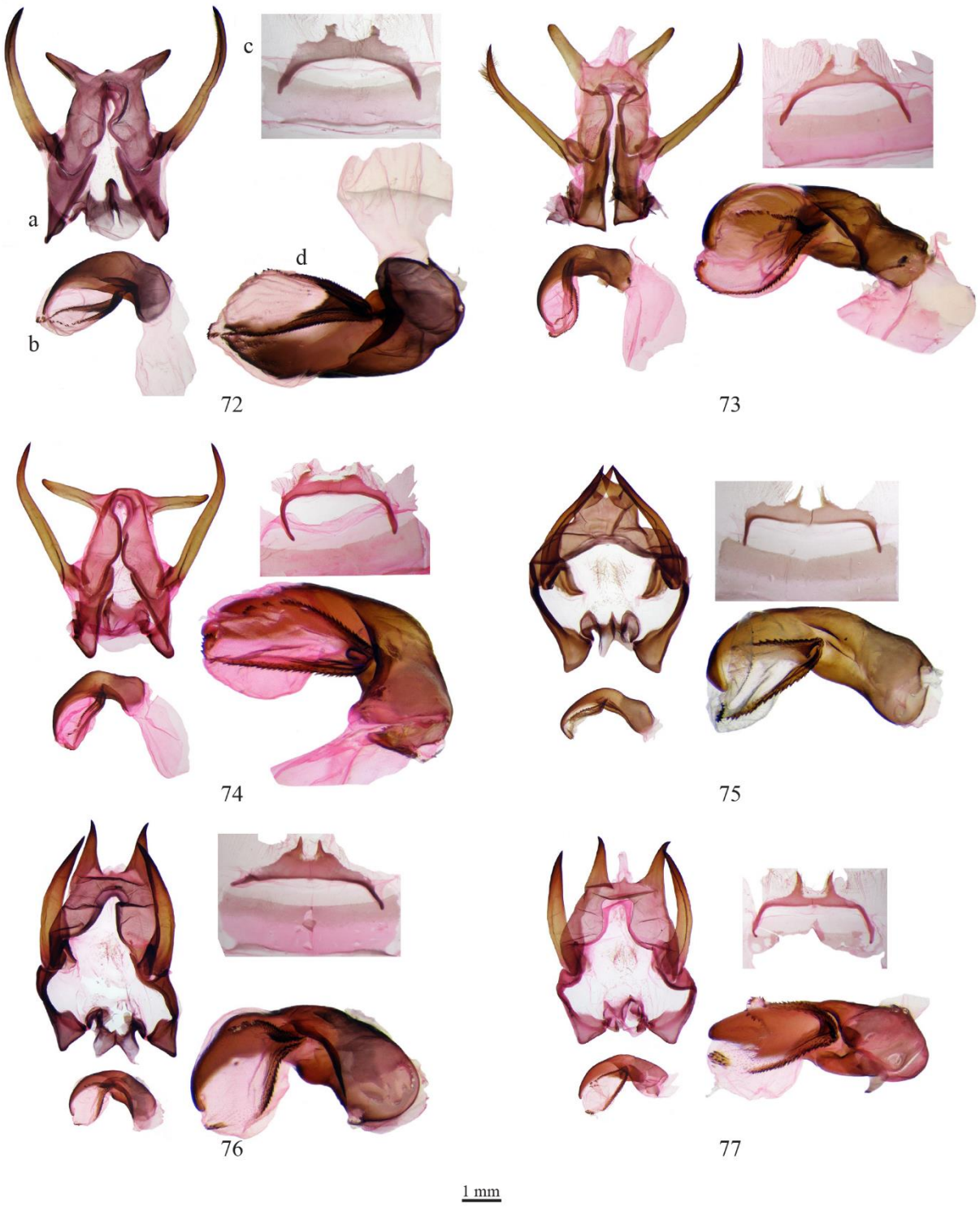
Figures 50–59. *Hypotrabala* species: 50. *H. pruinosa* **sp. n.**, holotype ♂. 51. *Id*., paratype ♂. 52. *H. indefinita* **sp. n.**, holotype ♂. 53. *Id*., paratype ♂. 54. *H. pallens* **sp. n.**, holotype ♂. 55. *Id*., paratype ♂. 56. *H. obscura* **sp. n.**, holotype ♂. 57. *Id*., paratype ♂. 58. *H. dollmani* Tams, 1925, holotype ♂ [NHMUK 010292293]. 59. *Id*., paratype ♂ [NHMUK 010292327].



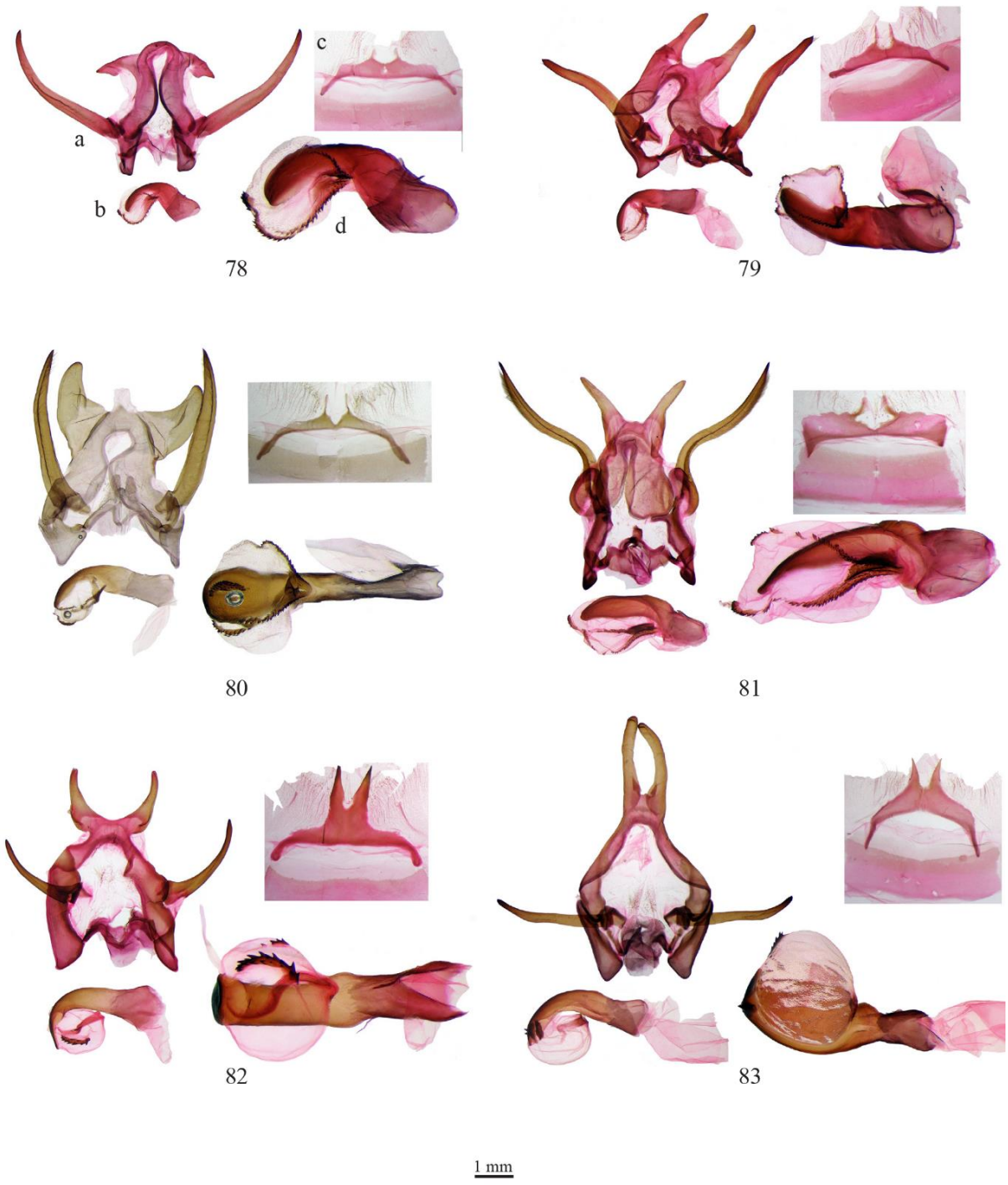
Figures 60–65. Male genitalia of *Hypotrabala* species, a: clasping apparatus, b: lateral view of phallus, c: eighth sternite, d: dorsal view of phallus (a, b, c to scale, d magnified). 60. *H. guttata* (Aurivillius, 1915), Liberia [LG 6298]. 61. *H. magnimacula* **sp. n.**, holotype [LG 6299]. 62. *H. aurantiaca* **sp. n.**, holotype [LG 6301]. 63. *H. retorta* **sp. n.**, holotype [LG 6303]. 64. *H. castanea*, Republic of Congo [LG 6317]. 65. *H. smithi* **sp. n.**, holotype [LG 6315].



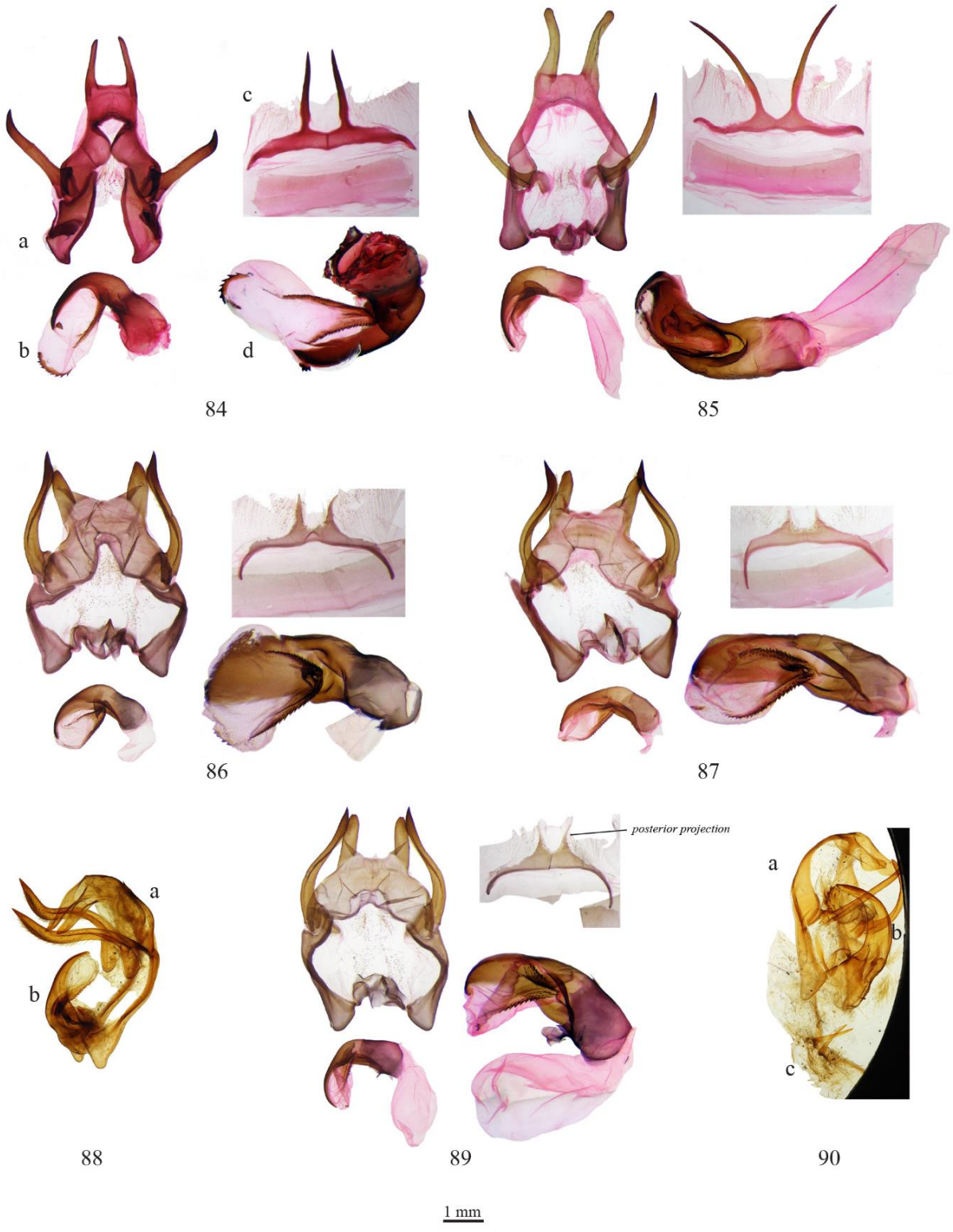
Figures 66–71. Male genitalia of *Hypotrabala* species, a: clasping apparatus, b: lateral view of phallus, c: eighth sternite, d: dorsal view of phallus (a, b, c to scale, d magnified). 66. *H. exquisita* **sp. n.**, holotype [LG 6307]. 67. *H. extenuata* **sp. n.**, holotype [LG 6309]. 68. *H. pruinosa* **sp. n.**, holotype [LG 6285]. 69. *H. indefinita* **sp. n.**, holotype [LG 6324]. 70. *H. pallens* **sp. n.**, holotype [LG 6293]. 71. *H. ophioglossa* **sp. n.**, holotype [LG 6287].



Figures 72–77. Male genitalia of *Hypotrabala* species, a: clasping apparatus, b: lateral view of phallus, c: eighth sternite, d: dorsal view of phallus (a, b, c to scale, d magnified). 72. *H. obscura* **sp. n.**, holotype [LG 6331]. 73. *H. giustii* **sp. n.**, holotype [LG 6295]. 74. *Id*., paratype [LG 6296]. 75. *H. argenteoguttata* (Aurivillius, 1909), Mozambique [LG 6322]. 76. *H. tamsi* **sp. n.**, holotype [LG 6291]. 77. *Id*., paratype, Cameroon [LG 6290].



Figures 78–83. Male genitalia of *Hypotrabala* species, a: clasping apparatus, b: lateral view of phallus, c: eighth sternite, d: dorsal view of phallus (a, b, c to scale, d magnified). 78. *H. cinereamargo* **sp. n.**, holotype [LG 6310]. 79. *H. igneata* **sp. n.**, holotype [LG 6305]. 80. *H. joiceyi* Tams, 1925, D.R. Congo [LG 6349]. 81. *H. lydiae* **sp. n.**, holotype [LG 6318]. 82. *H. tabithae* **sp. n.**, holotype [LG 6319]. 83. *H. volynkini* **sp. n.**, holotype [LG 6312].



Figures 84–90. Male genitalia of *Hypotrabala* species, a: clasping apparatus, b: lateral view of phallus, c: eighth sternite, d: dorsal view of phallus (a, b, c to scale, d magnified). 84. *H. neavei* (Aurivillius, 1915), Malawi [LG 6288]. 85. *H. lunda* **sp. n.**, holotype [LG 6313]. 86. *H. horridula* Tams, 1925, Zambia [LG 6321]. 87. *Id*., Zambia [LG 6325]. 88. *Id*., holotype, Zambia [BM Lasiocampidae 506]. 89. *Id*., Zambia [LG 6340]. 90. *H. dollmani* Tams, 1925, paratype, Zambia [BM Lasiocampidae 193].

The results of the phylogenetic analyses were largely congruent with the species concepts based on morphology with the exception of one poorly resolved clade containing polyphyletic and paraphyletic taxa. This outcome only highlights the dangers of relying solely upon barcode data without due consideration of morphology. There is little doubt that operational taxonomic units such as BINs are of great utility and are often indicative of putative taxa but an over-reliance on clustering algorithms without additional morphological and informed biogeographical evidence can lead to inaccurate delimitations of taxa. The intraspecific PWDs of two morphologically distinct and delimitable taxa attracted particular attention: samples of *H. tamsi* (0.0–4.0%) and *H. horridula* (0.2–4.1%) were each recovered in at least two BINs with large divergences; although the two populations of *H. tamsi* are disjunct, there is no geographical circumscription in the *H. horridula* specimens (samples from both BINs being found sympatrically) and most critically in both taxa, the genital morphology is constant. Some recent descriptions of Afrotropical Lasiocampidae taxa (e.g., Prozorov *et al.* 2024) have been based primarily on barcode divergences, and such 'barcode-gap' approaches can be particularly misleading in this family as the results of the current analyses as well as other genera (Takano, in prep.) have shown.

Records indicate that *Hypotrabala* species are widely distributed throughout sub-Saharan Africa from Sierra Leone in the west to Kenya in the east and Mozambique in the south, inhabiting both open woodland and tropical rainforest habitats. Those taxa associated with the former (e.g., *H. horridula*/*H. argenteoguttata*) appear to be more widely distributed whereas there appears to be a greater diversity in the latter, with no cross-over between the West African and Central African forests. Even from a relatively small dataset such as this, the well-known pattern of species divergences across the two forest blocks (e.g., Takano 2021) may explain the observed differences in the species assemblages but more material needs to be examined to support this hypothesis.

Despite their large size and beautiful colouration, the true diversity of the Afrotropical Lasiocampid fauna remains unclear; but if the results of this present generic review are any indication, a wealth of taxa still await description.

Acknowledgements

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