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Contribution to the knowledge of the Afrotropical *Evonima* Walker, 1865 generic complex with description of two new genera and two new species (Lepidoptera: Nolidae, Nolinae)

Gy. M. László

Abstract

The generic assignment of the African taxa of the genus *Evonima* Walker, 1865 is revised. Based on diagnostic characters of the male genitalia structure, a new genus *Vansonima* László, gen. n. is erected for *E. littoralis* (van Son, 1933) and *E. ruhija* Hacker, 2012. A further new genus, *Laetonima* László, gen. n. is established for two undescribed species reminiscent externally of *Evonima*, which are also described here as new to science: *L. smithi* László, sp. n. and *L. camerunica* László. sp. n. Consequently, *E. westafricana* Hacker, 2012 is the only known true *Evonima* species occurring in Africa. The female genitalia of *E. westafricana* is described and illustrated here for the first time. New distribution records of *E. westafricana* and *V. littoralis abyssinica* (Hacker, 2012) are provided together with 14 colour and 9 black and white figures.
KEY WORDS: Lepidoptera, Nolidae, Nolinae, new combination, new record, West Africa, Cameroon, Zambia, Afrotropical region.

Contribución al conocimiento del complejo genérico afrotropical de *Evonima* Walker, 1865, con la descripción de dos nuevos géneros y dos nuevas especies (Lepidoptera: Nolidae, Nolinae)

Resumen

Se revisa la asignación genérica de las taxas africanas del género *Evonima* Walker, 1865. Basándose sobre el diagnóstico de los caracteres de la genitalia del macho, se describe un nuevo género *Vansonima* László, gen. n., para *E. littoralis* (van Son, 1933) y *E. ruhija* Hacker, 2012. Se establece un nuevo género, *Laetonima* László, gen. n., para dos especies no descritas, parecidas externamente a *Evonima*, las cuales se describen aquí como nuevas para la Ciencia: *L. smithi* László, sp. n. y *L. camerunica* László. sp. n. Consecuentemente, *E. westafricana* Hacker, 2012 sólo se conoce como la verdadera especie de *Evonima* que se encuentra en África. Aquí se describe e ilustra, por primera vez, la genitalia de la hembra de *E. westafricana*. Se proporcionan nuevos registros en la distribución de *E. westafricana* y *V. littoralis abyssinica* (Hacker, 2012) junto con 14 figuras en color y 9 en blanco y negro.
PALABRAS CLAVE: Lepidoptera, Nolidae, Nolinae, nueva combinación, nuevo registro, oeste de África, Camerún, Zambia, región afrotropical.

Introduction

The genus *Evonima* Walker, 1865 was established for the Oriental species *E. aperta* Walker, 1865 described from Java and widely distributed in Indochina and the Indonesian Archipelago (figs 1, 2, 15, 21). The genus is rather species rich in South East Asia numbering 18 species (HU *et al.*, 2020). Until

2012 the genus had not been recorded from Africa, when Hacker discovered a new *Evonima* species from Ivory Coast and named it as *E. westafricana* (HACKER *et al.,* 2012) referring to the unexpected occurrence of an *Evonima* in West Africa. *E. westafricana* is indeed similar externally to *E. aperta*, furthermore the male genitalia share the common diagnostic characters, namely the elongate, relatively broad valva with more or less parallel dorsal and ventral margins, the long, straight, rod-like harpe erected in the medial plate of valva, extending slightly over the ventral margin of valva, and the simple, tubular aedeagus lacking carina and cornuti of vesica (figs 15, 16). It is worth noting that all Oriental *Evonima* species share the same structure of male genitalia without noticeable differences, therefore all taxa are distinguished based largely on external morphology.

In their monograph HACKER *et al.* (2012) assigned the South African *Poecilonola littoralis* van Son, 1933 to *Evonima* following the synonymy of the two genera established by POOLE (1989). Nevertheless, they disregarded the fundamental differences between the male genitalia of *E. littoralis* and all other *Evonima*. In the same work, Hacker described a further new *Evonima* species (*E. ruhija* Hacker, 2012) from Uganda based on its habitus undoubtedly reminiscent of *Evonima,* although its genital morphology proved to be strikingly different, standing closer to that of *E. littoralis*. Taking into consideration the constant genitalia configuration in all true *Evonima* species and the extent of fundamental morphological differences between the male genitalia of any sensu stricto *Evonima* species and *E. littoralis* and *E. ruhija*, erecting a distinct genus for the latter two species is well justified and the new genus is described here (*Vansonima* László, gen. n.).

In the course of the identification of the Nolini material housed in the collection of ANHRT, a series of further peculiar specimens somewhat reminiscent of *V. littoralis* have been found from Zambia and Cameroon. The dissection of the specimens revealed that the externally confusingly similar specimens from Zambia and Cameroon belong to two clearly different species and that they belong to an *Evonima*-related but well distinguished, undescribed genus. The new genus (*Laetonima* László, gen. n.) and the two new species are described in this present paper (*L. smithi* László, sp. n. and *L. camerunica* László, sp. n.).

Material and methods

The genital apparatuses were dissected, stained with Eosin red and mounted in Euparal on microscope slides applying standard methods of preparation (LAFONTAINE & MIKKOLA, 1987). Photos of adults were taken using either a Nikon D700 SLR camera equipped with Nikkor AF-S Micro 105 mm lens or a Nikon D90 SLR camera equipped with Nikkor AF Micro 60 mm lens. Genitalia were photographed using a Canon EOS 700D camera mounted on either a Leitz Diaplan or a Lacerta compound microscope.

Abbreviations of the depositories used:

ANHRT - African Natural History Research Trust, Leominster, United Kingdom
HNHM - Hungarian Natural History Museum, Budapest, Hungary
NHMUK (formerly BMNH) - The Natural History Museum, London, United Kingdom
MWM/ZSM - Museum Witt in the Bavarian State Collection of Zoology, Munich, Germany
NHMO - Natural History Museum, Oslo, Norway
TMSA - Ditsong Museum of Natural History (Transvaal Museum), Pretoria, South Africa
LGN, LGNA - genitalia slides of Nolidae prepared by Gyula M. László

Systematics

Genus *Evonima* Walker, 1865
Evonima Walker, 1865. *List Lep. B. M.,* **32**: 505
Type-species: *Evonima aperta* Walker, 1865. *List Lep. B. M.,* **32**: 506, by original designation.

Evonima westafricana Hacker, 2012 (figs 3-6, 16, 22)
Evonima westafricana Hacker, 2012. *Esperiana,* **17**: 218

Type locality: Ivory Coast, Man. Holotype male, in coll. ZSM.

Material examined: Ivory Coast, 1 ♂, 1171 m, Mt. Tonkoui Peak, 07º27'15.2"N, 07º38'12.5"W, 1-8-XI-2015, Light Trap, M. Aristophanous, P. Moretto, E. Ruzzier leg., ANHRT:2017.16, slide No. LGNA 231 (ANHRT). Liberia: 1 ♂, 883 m, Lofa County, Wologizi Mts, Ridge Camp 2, 8º07'20.79"N, 9º56'50.75"W, 22-31-XI-2018, Cold Cathode UV Light Trap (8W), Sz., Sáfián, G. Simonics leg., ANHRT:2018.43 (ANHRT); 1 ♂, Grassfield, Nimba, VIII-IX-1967, A. Forbes-Watson (NHMUK). GABON: 4 ♂♂, 430 m, Mikongo (Rougier), Monts de Cristal (Secondary Forest), 0º29'47"N, 11º10'42"E, 28-VII-12-VIII-2019, LepiLED and Actinic Light Trap, J.-L. Albert, M. Aristophanous, J. Bie Mba, V. Dérozier, P. Moretto leg., ANHRT:2019.17, slide No.: LGNA 997 (ANHRT). Nigeria, 1 ♂, 1 ♀, Oyo State, Gambari Forest, 3-IX-1977, M. A. Cornes; 1 ♀, same site and collector, 23-XII-1978 (NHMUK). Sierra Leone, 1 ♂, B0, Apr. 1969, R. J. Revell, Brit. Mus. 1970-5 (NHMUK). Ghana, 1 ♀, Bunso Arboretum, 6º15'58.03"N, 0º27'45.72"W, 13-14-IX-2010, leg. Sz. Sáfián, slide No.: LGNA 989 (HNHM).

Remark: The species was described from a single male specimen (HACKER *et al.,* 2012). As a result of extensive lepidopterological surveys by the ANHRT in West Africa and the thorough examination of the mixed Heterocera accessions of the NHMUK and HNHM, further specimens of this otherwise rare species have been located and examined allowing for a clearer picture of its distribution. Furthermore, among the examined specimens the earlier unknown female has also been found and its genitalia are illustrated and described here for the first time. *E. westafricana* is the only true *Evonima* species found hitherto in the Afrotropics with the same ground plan of the genitalia morphology as that of its Oriental congeners.

Description of the female genitalia (fig. 22): Papillae anales short, apically rounded, rather quadrangular; apophyses relatively short, thin, posterior and anterior ones are of the same length; 8th tergite very short, ribbon-like; ostium bursae narrow, shallow cup shaped, anthrum very short, heavily sclerotized; ductus bursae short, narrow, membranous; cervix bursae rather heavily sclerotized, forming a small, semi-globular lateral protrusion; corpus bursae elongate, distal half gradually tapered into a tubular distal section, proximal half ovoidal; signum bursae represented by a longitudinally elongate, narrow, scobinated plate.

Genus *Vansonima* László, gen. n. (figs 7-10, 17, 18)
Type species: *Poecilonola littoralis* van Son, 1933
Ann. Transv. Mus., **15**: 201, pl. 8, fig. 6; here designated. Type locality: Natal, Durban

Diagnosis: The external similarity of the species of the new genus suggests a close relationship with *Evonima*, but according to their genitalia morphology they belong to a well separated distinct lineage. As the generally rather diverse coloration and wing pattern of the members of the *Evonima* generic complex do not play a role in generic level delineation, the only distinctive external character of *Vansonima* that is worth mentioning is the considerably more elongate forewing in comparison with that of the other genera of the complex.

The definitive differences between the new genus and *Evonima* are expressed in the configuration of the male genitalia: the valva of *Vansonima* is markedly shorter and broader than that of *Evonima* with a conspicuous, heavily sclerotized, elongate area covered densely with fine setae near the distal end of the ventral margin, a feature that is absent in *Evonima*. In addition, the origin and the shape of the harpe is structurally different in the two genera: in *Vansonima* the short, rounded, somewhat thumb- or finger-like harpe of *Vansonima* originates from a sclerotized medio-distal plate of the valva and connected to the costal margin; whereas the conspicuously elongate, straight, rod-like harpe of *Evonima* projects from the medio-basal membranous area of the valva and connected to the sacculus by a narrow sclerotized slat (cf. figs 15-18). The generic level separation of *Vansonima* and *Evonima* is also supported by the remarkably different configuration of their female genitalia structures, namely the

considerably larger and more robust, heavily sclerotized, strongly modified, goblet-shaped ostium bursae of *Vansonima* compared to the small, simple, narrow V-shaped ostium bursae of *Evonima*, as well as the lack of a conspicuous, heavily sclerotized rounded protrusion of the cervix bursae while it is a common feature in all true *Evonima* species. It is also worth noting the absence of the signum bursae in *Vansonima*, which is present in *Evonima* (cf. figs 21, 22 and p. 220/G in HACKER *et al.,* 2012).

Description of the adult (figs 7-10): Forewing length 8-11 mm. Antenna fasciculate in males, filiform in females. Head relatively large, labial palps medium long, slightly curved dorsad; frons and vertex white or pale greyish; compound eyes moderately large, globular. Thorax whitish or greyish, abdomen brownish. Intraspecific variability limited, all known specimens are rather similar in coloration without noticeable alterations in wing pattern. Sexual dimorphism negligible. Forewing relatively long and narrow, triangular, apically rounded. Forewing ground colour dark greyish with brownish suffusion medially, basal area bright white or pale grey, apical area with a creamy whitish or pale orange-brown dash. Transverse lines poorly visible except postmedial line, which is sharply defined by whitish or pale brownish scales; cilia long, brownish grey. Hindwing pale whitish grey in basal half, gradually darkening towards termen; cilia pale greyish brown. Underside of forewing dark graphite grey in the dorsal two-thirds, pale greyish white in the ventral third; hindwing pale whitish grey with a somewhat darker graphite grey band along dorsal margin; traces of pattern undetectable.

Male genitalia (figs 17, 18): Uncus robust, medially dilated, apically rounded. Tegumen short and narrow. Valva short, relatively broad, apically quadrangular with a conspicuous, heavily sclerotized, elongate subapical area covered densely by minute setae on the ventral margin; costal margin straight, widely sclerotized and scobinated with a rounded smooth-surfaced plate projecting towards the medial plate of valva, serving as a base to the rather short and broad, finger-like harpe; sacculus short and broad, weakly sclerotized; vinculum long and narrow, apically rounded. Aedeagus tubular, relatively short and thin, medially S-curved, coecum penis short and rounded, heavily sclerotized, carinal process absent; vesica with dense scobination.

Female genitalia: As the author of this present paper could not locate a female specimen of *V. littoralis* during his study of the collections of ANHRT, NHMUK and HNHM, the female copulatory organ is not illustrated here. HACKER *et al.* (2012: 220) however, illustrated the female genitalia of *V. littoralis abyssinica* (Hacker, 2012). Based on this illustration, the main distinctive characters of the female genitalia of *Vansonima* can be established as follows: papillae anales pointed, apophyses short and thin, posterior apophysis twice as long as the anterior one; 8th tergite short, medially slightly laced with concave distal and proximal margins; ostium bursae very broad and long, heavily sclerotized, goblet shaped; ductus bursae medium long, distal quarter sclerotized, proximal three-quarters membranous, anterior section with two well-developed bulges; corpus bursae ovoid, without signum bursae.

Etymology: *Vansonima* is a portmanteau word combining the surname of the renowned South African lepidopterist Georges van Son (1898-1967) and the name of the allied genus *Evonima*. Dr van Son was one of the pioneers of African Lepidoptera taxonomy having described numerous Nolidae taxa among others.

Vansonima littoralis littoralis (van Son, 1933), **comb. n.** (figs 7, 8, 17)
Poecilonola littoralis van Son, 1933. *Ann. Transv. Mus*., **15**: 201, pl. 8, fig. 6

Type locality: Natal, Durban. Holotype, male in coll. TMSA.

Material examined: Mozambique, 2 ♂♂, 22 m, Maputo Special Reserve, West Gate, Sand Forest, 26º30'14.2"S, 32º42'59.6"E, 30-V-9-VI-2017 MV and Actinic Light Trap, M. Aristophanous, G. László, W. Miles, A. Vetina leg., ANHRT:2017.26; 1 ♂, same site, 21-22-II-2018, Actinic Light Trap, G. László, J. Mulvaney, L. Smith leg., ANHRT:2018.2 (ANHRT). South Africa, 1 ♂, Durban, G. F. Leigh leg. (NHMUK).

Vansonima littoralis abyssinica (Hacker, 2012), **comb. n.** (figs 9, 10, 18)
Evonima littoralis abyssinica Hacker, 2012. *Esperiana*, **17**: 220

Type locality: Ethiopia, Southern Prov., Mago NP. Holotype, male, in coll. H. Hacker/ZSM.

Material examined: ZAMBIA, 2 ♂♂, 1566 m, Senka Hill, Mukulizi Forest Reserve, Muchinga Province, 09º05'43"S, 32º05'06"E, 1-6-V-2019, MV Light Trap, V. Dérozier, G. László, W. Miles leg., ANHRT:2019.12, slide No.: LGNA 956 (ANHRT).

Remark: *V. littoralis abyssinica* was described from Ethiopia. It is distinguished by its darker coloration and smaller whitish basal area of forewing from the nominate subspecies occurring in Southern Africa (HACKER *et al.,* 2012), without noticeable differences between the male genitalia of the two subspecies. Surprisingly, the specimens collected in NE Zambia (at Mukulizi Forest Reserve, adjacent to the Tanzanian border) agree in external features with those of ssp. *abyssinica*. It is highly likely that the northern subspecies of *littoralis* has an extensive distribution from southern Ethiopia throughout Kenya and Tanzania with the NE Zambian specimens possibly representing its southernmost populations. HACKER (2014) referred two further records of *V. littoralis* from North Mozambique (Pemba) and the Democratic Republic of Congo (Lubumbashi) considering them to be the nominotypical subspecies. Although these specimens have not been examined as part of this present paper, based on the relatively short distance between Mukulizi Forest in NE Zambia and Lubumbashi in SE Congo, the specimens from the latter locality presumably belong to ssp. *abyssinica* rather than to ssp. *littoralis*. Regarding the specimen from Pemba (North Mozambique), its subspecific assignment cannot be demonstrated without thorough examination of the specimen although it is likely that the specimen may be a northern example of the nominate taxon distributed in lowland woodland/thicket habitats along the south-east African coast.

Vansonima littoralis madagassialis (Hacker, 2014), **comb. n.**
Evonima littoralis madagassialis Hacker, 2014. *Esperiana*, **19**: 142

Type locality: Madagascar, Diego Suarez. Holotype, female in coll. NHMUK.

Remark: *Vansonima littoralis madagassialis* was described based on a single female specimen. The author of the present paper could not locate further specimens during his work in the collections of ANHRT, NHMUK, ZSM and HNHM. As the female of the nominate subspecies of *V. littoralis* is still unknown, the taxonomic rank of the Madagascan taxon cannot be verified. The female genitalia illustrated by HACKER (2014: 220) differ markedly from those of *V. littoralis abyssinica* (HACKER *et al.,* 2012: 220) and thus it cannot be ruled out that the Madagascarian taxon is a bona species distinct from *V. littoralis*. To clarify the taxonomic position of *V. littoralis madagassialis*, examination of further material is necessary.

Vansonima ruhija (Hacker, 2012), **comb. n.**
Evonima ruhija Hacker, 2012. *Esperiana*, **17**: 221

Type locality: Uganda, Kabale District, Ruhija. Holotype, ♂, in coll. L. Aarvik/NHMO.

Remark: *Vansonima ruhija* was described from a single specimen; a second specimen collected in Uganda, Western Region later illustrated by HACKER (2014). No further specimens were located in the collections of ANHRT, NHMUK, ZSM and HNHM. The male genitalia of *V. ruhija* were illustrated in fairly good quality in HACKER *et al.* (2012: 221) and though they differ markedly from those of *V. littoralis*, the ground plan suggests a closer relationship to *Vansonima* than to *Evonima*. Therefore, *V. ruhija* is treated here tentatively as the fourth taxon of *Vansonima* until further material becomes available for more thorough studies.

Genus *Laetonima* László, gen. n. (figs 11-14, 19, 20, 23)
Type species: *Laetonima smithi* László, sp. n.; here designated

Diagnosis: The new genus is the third member of the *Evonima* generic complex in Sub-Saharan Africa, distinguished from the other two allied genera by the following characters: the external habitus of *Laetonima* is undoubtedly reminiscent of *Evonima* and *Vansonima* due to its rather variegated coloration, but the species belonging to *Laetonima* have the most extensive whitish basal area of the

forewing that is narrowly fused with a gradually dilated, oblique white band at the tornus, a character which is unique in this generic complex.

In the male genitalia features, *Laetonima* differs from *Evonima* by its considerably narrower valva and its much more robust, heavily sclerotized harpe, which is fused with the saccular process forming a large, trapezoidal or triangular apical saccular lobe, where the dorsal membranous and ventral sclerotized parts of the valva are divided by a narrow medial incision rendering the valva bilobate, whereas the harpe of *Evonima* is conspicuously elongate, straight, rod-like, projecting from the medio-basal membranous area of the valva and connected to the sacculus by a narrow sclerotized slat only, leaving the valval plate undivided. The distinctive characters between *Laetonima* and *Vansonima* are expressed by the much narrower and more elongate uncus and valva in the new genus compared to those of *Vansonima*, and by the fundamentally different origin and configuration of the harpe. In *Laetonima*, the harpe is conspicuously enlarged and fused with the saccular process forming a large, trapezoidal or triangular apical lobe of the sacculus with a narrow incision between the membranous dorsal and sclerotized ventral parts of the valva; the harpe in *Vansonima* the harpe is short, broadly rounded, thumb- or finger-like, originating from a sclerotized medio-distal plate of the valva connected to the dorsal margin only, without conjunction to the sacculus.

Description of the adult (figs 11-14): Forewing length 7.5-8.5 mm in males, 10.5 mm in female. Antenna fasciculate in males, filiform in females. Head relatively large, labial palps medium long, almost straight, inner surface creamy white, lateral and dorsal surface pale brown; frons and vertex bright white; compound eyes moderately large, globular. Thorax, tegulae and collar uniformly bright white, abdomen pale grey. Intraspecific variability limited, all known specimens are rather similar in coloration without noticeable alterations in wing pattern. Sexual dimorphism is moderately expressed in size and hindwing coloration: females considerably larger than males, with uniformly dark grey hindwing, whereas male hindwing white with greyish margin. Forewing relatively short and broad, somewhat triangular, apically rounded. Forewing ground colour greyish brown with an extensive, rounded, bright white basal area, a pale graphite grey postmedian area, a red-brown apical area and with a conspicuous bright white angular dash near tornus. Sub-basal and basal lines deleted; antemedial line fine, dark brown, rather dentate, running along the outer margin of white basal area; medial line interrupted, diffuse, shadow-like, consisting of pale greyish patches; orbicular stigma poorly visible, small and rounded, with raised brownish grey scales; postmedial line fine, interrupted, consisting of diffuse groups of blackish scales, medially angled; subterminal line diffuse, interrupted, shadow-like, consisting of dark red-brown patches in the dorsal half and greyish ones in the ventral half of forewing; terminal line very fine, poorly visible; cilia grey with admixture of blackish scales. Hindwing bright white in basal half, gradually darkening towards outer margin in males, pale grey basally and noticeably darker graphite grey distally in females; cilia creamy white in males, pale graphite grey in females. Underside of forewing dark graphite grey in the dorsal two-thirds, whitish along the ventral margin; underside of hindwing as the upperside, without traces of pattern.

Male genitalia (figs 19, 20): Uncus long and slender, apically pointed and claw-shaped (hooked); tegumen very narrow, elongate; transtillae thin ribbon-like, medially fused; valva medium long, relatively narrow, costal margin heavily sclerotized, apical section of valva broadly rounded, membranous, dorsal half of valva divided from enlarged harpe-sacculus complex; sacculus medium long, rather broad, heavily sclerotized, saccular process more heavily sclerotized fused with harpe, forming a large apical lobe of sacculus; vinculum short and narrow V-shaped. Aedeagus tubular, relatively short and narrow, caecum penis medium long, apically rounded, carinal process short, triangular, weakly sclerotized; vesica without cornuti.

Female genitalia (fig. 23): Ovipositor conical, papillae anales short, quadrangular, apophyses posteriores relatively long, narrow, apophyses anteriores short; 8th tergite relatively long, distal margin evenly concave, proximal margin straight; ostium bursae weakly sclerotized, short and narrow, somewhat cup-shaped, ductus bursae membranous, very short, slightly tapered anteriorly, cervix bursae membranous, unmodified; tubular distal half of corpus bursae narrow, gradually slightly dilated

anteriorly, dilated proximal half of corpus bursae ovoid; signum bursae represented by a poorly visible, very narrow, longitudinal, remarkably finely scobinated area.

Etymology: *Laetonima* is a portmanteau word combining the Latin adjective *"laetus*" meaning colourful and the name of the allied genus *Evonima*. The name refers to the unusually variegated forewing pattern of the species of the genus.

***Laetonima smithi* László, sp. n.** (figs 11, 12, 19, 23)

Holotype: ♂, Zambia, 1460 m, Mutinondo Wilderness Area, Northern Province, 12º27'06"S, 31º17'30"E, 17-20-V-2019, MV Light Trap, V. Dérozier, M. Imakando, G. László, W. Miles leg., ANHRT:2019.12", unique number: ANHRTUK 00100992, slide No.: LGNA 959 (ANHRT). Paratypes: Zambia, 3 ♂♂, 1 ♀, 1566 m, Senka Hill, Mukulizi Forest Reserve, Muchinga Province, 09º05'43"S, 32º05'06"E, 1-6-V-2019, Actinic and MV Light Trap, V. Dérozier, G. László, W. Miles leg., ANHRT:2019.12, unique numbers: ANHRTUK 00082269, 00082336, 00134752, 00134753, slide Nos: LGNA 958 (male), LGNA 960 (female); 1 ♂, 1280 m, Kalungu, North of Isoka, Muchinga Province, 0940'52"S, 3242'50"E, 30-IV-1-V-2019, Actinic Light Trap, V. Dérozier, G. László, W. Miles leg., ANHRT:2019.12, unique number: ANHRTUK 00136148 (ANHRT). 1 ♂, Mbala, 11-12-VI-1974, Locust Control Centre; 1 ♂, same site, 13-14-III-1974, B.M. 1975-92 (NHMUK).

Diagnosis: The diagnostic characters between the new species and the species of *Evonima* and *Vansonima* are discussed under the diagnosis of the new genus *Laetonima*. The distinctive features of the two, known species of the new genus *Laetonima* are given under the diagnosis of the secondly described new species, *L. camerunica*.

Description of the adult (figs 11, 12): The description of the external morphology of the adults of the new species is given under the description of the new genus *Laetonima*.

Male genitalia (fig. 19): Uncus long and slender, apically pointed and claw-like; tegumen very narrow, elongate; transtillae narrow, ribbon like, medially fused; valva medium long, relatively broad and heavily sclerotized basally, narrow and membranous in distal half, apical section of valva slightly dilated and broadly rounded, costal margin heavily sclerotized; dorsal half of valva divided by a short, narrow incision from the enlarged harpe-sacculus complex; sacculus long, very broad, heavily sclerotized, saccular process more heavily sclerotized, fused with harpe, forming a large, more or less trapezoidal apical lobe of sacculus covered by fine scobination; vinculum short and narrow V-shaped. Aedeagus tubular, relatively short and narrow, caecum penis medium long, apically rounded, carina process short, triangular, weakly sclerotized; vesica without cornuti.

Female genitalia (Fig. 23): The description of the female genitalia of the new species is given under the description of the new genus *Laetonima*.

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

Remark: Hacker illustrated two female specimens of *L. smithi* from Malawi and Zimbabwe misidentified as *Meganola angola* (Bethune-Baker, 1911) (HACKER, 2014: 169). The illustrated specimens have the noticeably larger white basal area and the lack of a whitish apical area of the forewing, as well as the much shorter forewing and are undoubtedly *L. smithi*. Hacker did not illustrate however, the male specimen from Nigeria he referred to as *M. angolana*, only its male genitalia which belongs to true *M. angolana*. Had he illustrated the Nigerian male specimen, he would probably have realized that it is not conspecific with the females from Zimbabwe and Malawi.

***Laetonima camerunica* László, sp. n.** (figs 13, 14, 20)

Holotype: ♂, Cameroon, 900 m, North Region, Wack (La Falaise), 07º40'16.5"N, 13º33'18.4"E,

2-21-X-2018, Cold Cathode UV Light Trap, Sz. Sáfián, G. Simonics leg., ANHRT:2018.36", unique number: ANHRTUK 00070218, slide No.: LGNA 957 (ANHRT). Paratype: ♂, with the same data as the holotype, unique number: ANHRTUK 00058483 (ANHRT).

Diagnosis: *L. camerunica* is an allopatric cryptic sister species of *L. smithi* with no detectable external differences between the two taxa. The distinctive characters however, are clearly expressed in the configuration of the harpe-saccular complex of the male genitalia as follows: the dorso-apical process of the harpe-saccular lobe complex of *L. camerunica* is conspicuously more elongate, covered densely by fine, but sharp cornuti apically, whereas the fused harpe-saccular lobe is shorter, more trapezoidal and without cornuti at apex in *L. smithi*.

Description of the adult (figs 13, 14): The external characters of *L. camerunica* are identical with those of *L. smithi* and are given in the description of the new genus *Laetonima*.

Male genitalia (fig. 20): Uncus long and narrow, apically pointed and claw-like; tegumen very narrow, elongate; transtillae narrow, ribbon like, medially fused; valva medium long, relatively broad at base, heavily sclerotized in ventral half, membranous in dorsal half, apically slightly dilated and, broadly rounded, costal margin heavily sclerotized; dorsal half of valva divided by a long, narrow incision from the enlarged harpe-sacculus complex; sacculus very long, rather broad, heavily sclerotized, saccular process more heavily sclerotized, fused with harpe, forming a large, triangular (shark-tail-shaped) apical lobe of sacculus covered densely by short but robust spines apically; vinculum short and narrow V-shaped. Aedeagus tubular, relatively short and narrow, caecum penis medium long, apically rounded, carina process short, triangular, weakly sclerotized; vesica without cornuti.

Female unknown.

Etymology: The new species is named after the country of its type locality, Cameroon.

Discussion

Through the examination of extensive materials found in the collections of ANHRT, HNHM and NHMUK, a new taxonomic concept of the Afrotropical *Evonima* generic complex has been established with the description of two new genera and two new species.

Following the thorough examination of genitalia morphology of *Evonima* species recently collected in different parts of Sub-Saharan Africa, it became clear that the original concept of HACKER *et al.* (2012) and HACKER (2014), namely that all species reminiscent of the Oriental *Evonima* are considered to be true *Evonima*, required revision. The fundamental morphological differences found in the male genitalia of the examined specimens lead to the conclusion that there are three distinct lineages in the Afrotropics. The only true Afrotropical *Evonima* is *Evonima westafricana* Hacker, 2012 apparently widely distributed in West Africa as the new records suggest. A further lineage within the complex with remarkably different male genitalia configuration distributed in Southern and Eastern Africa is the genus *Vansonima* with two valid species, *V. littoralis* (van Son, 1933) and *V. ruhija* (Hacker, 2012), where the former is subdivided into 3 subspecies (*V. littoralis littoralis* (van Son, 1933), known from Southeast Africa; *V. littoralis abyssinica* (Hacker, 2012), distributed in Eastern and Southern Central Africa; and *V. littoralis madagassialis* (Hacker, 2014) known from Madagascar. A third lineage described here as *Laetonima* consists of two allopatric sister species, one from Southern Central Africa (*L. smithi* László, sp. n.) and the other from Central Africa (Cameroon) (*L. camerunica* László, sp. n.).

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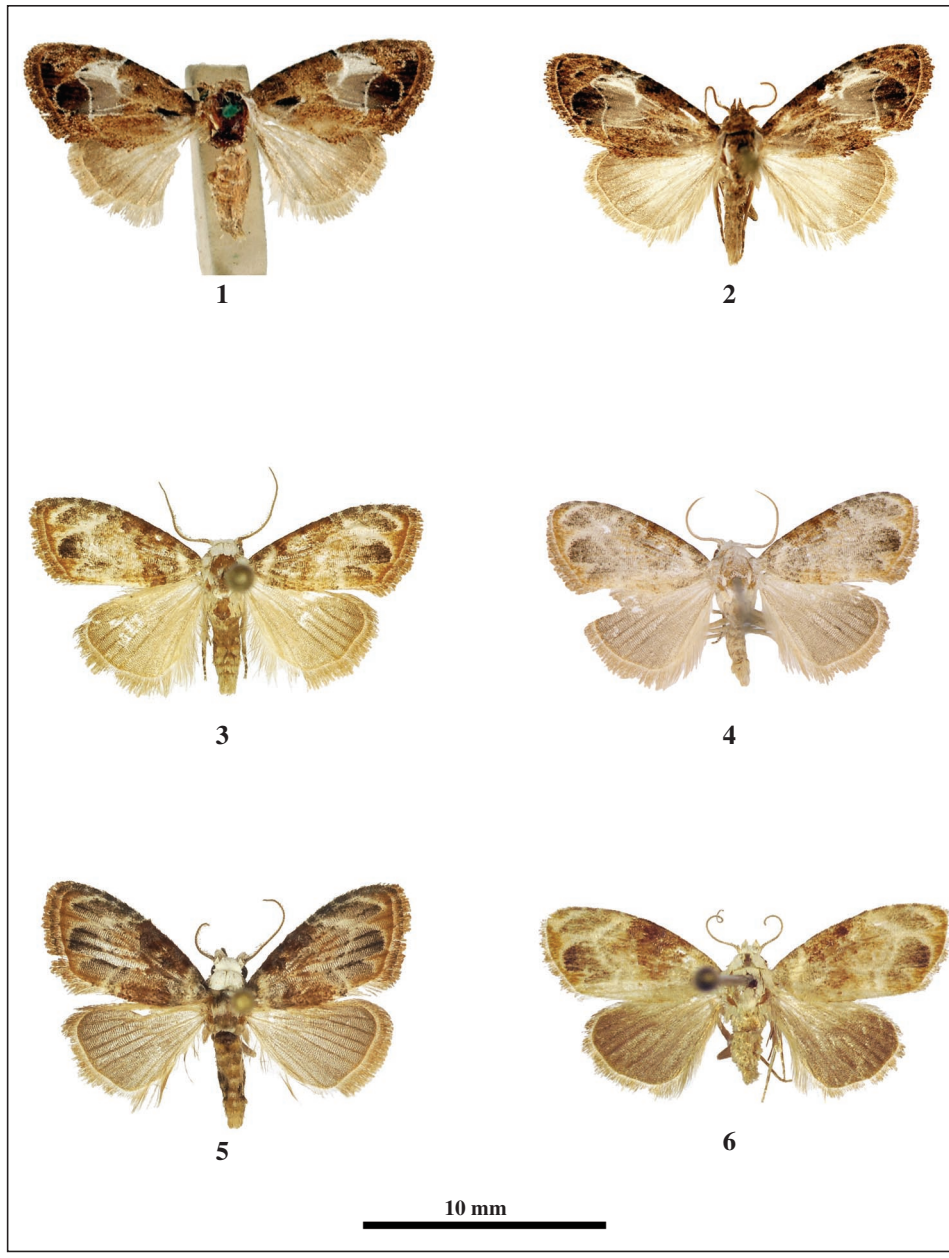
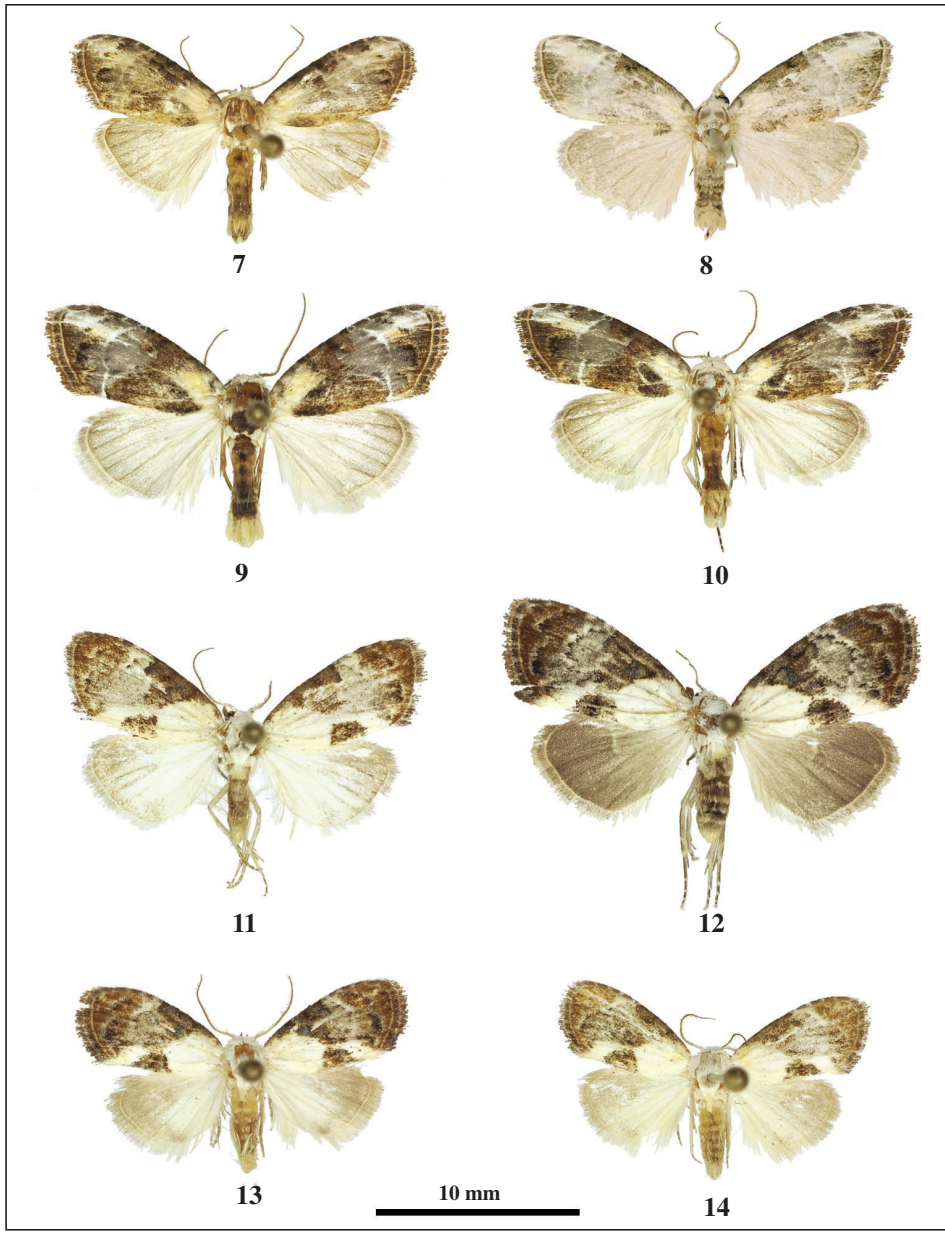
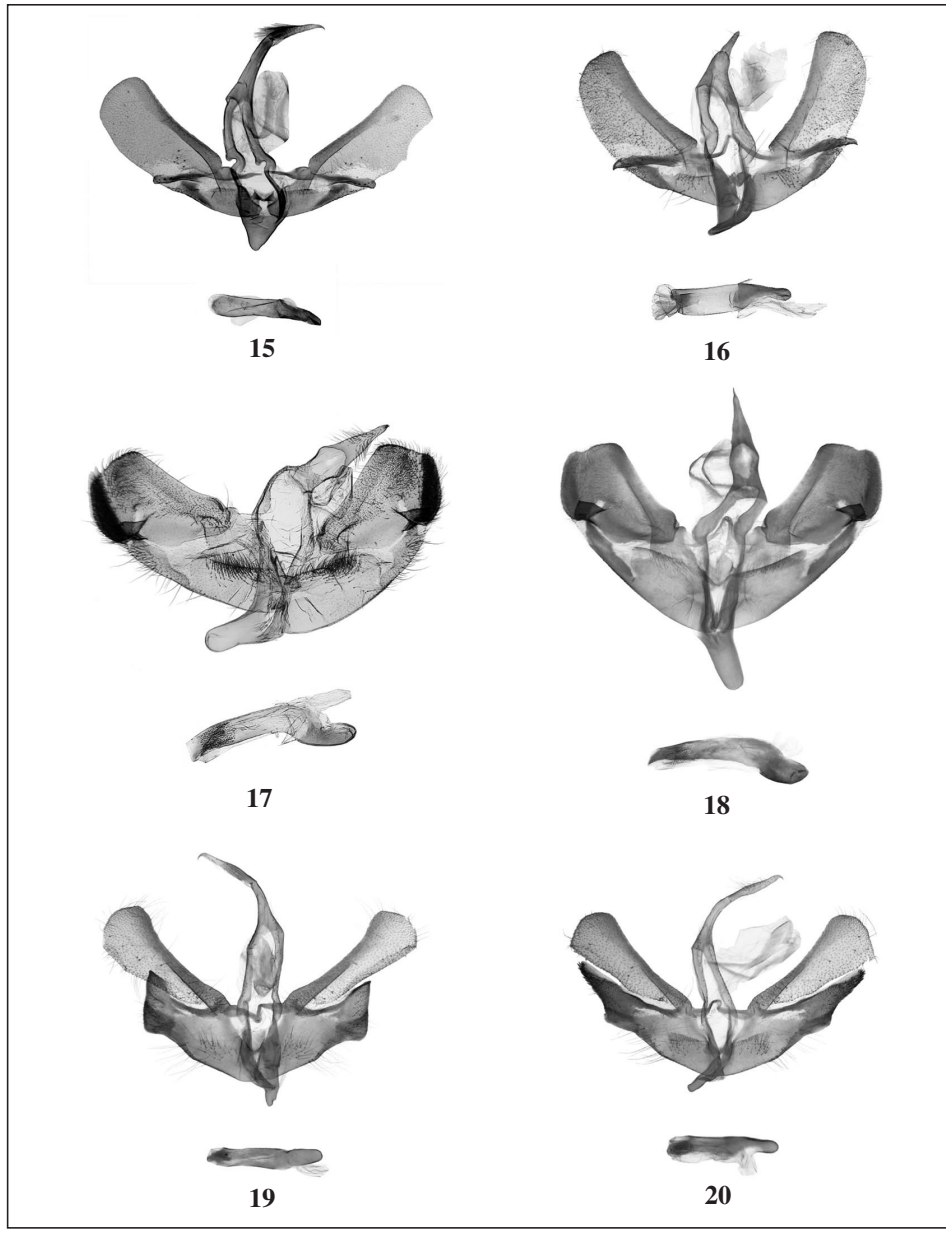


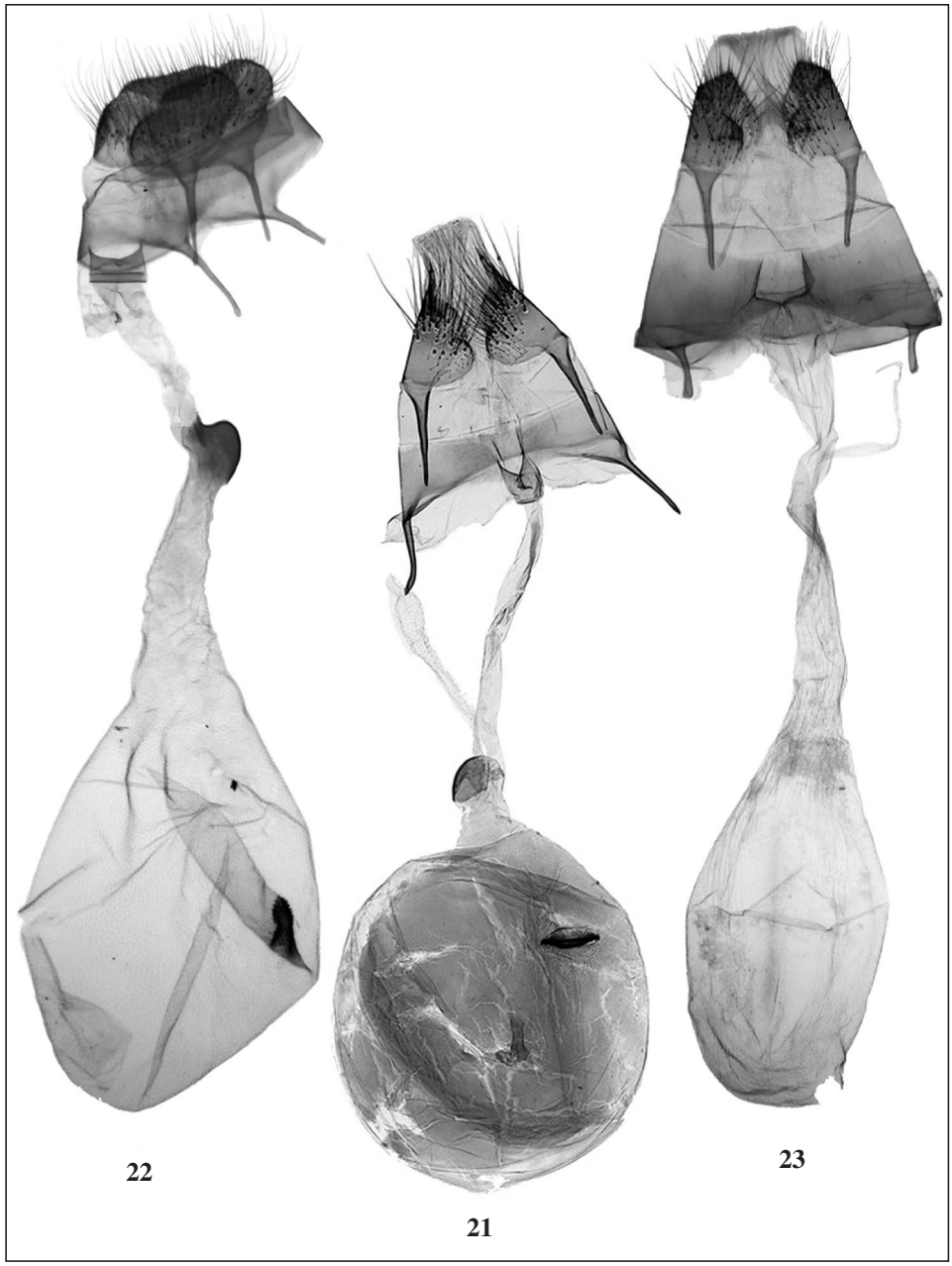
Figures 1-6.– Adults. **1.** *Evonima aperta* Walker, 1865, syntype, ♀, Indonesia, Java (NHMUK); **2.** *E. aperta* Walker, 1865, ♂, Thailand (MWM/ZSM); **3.** *E. westafricana* Hacker, 2012, ♂, Liberia (ANHRT); **4.** *E. westafricana* Hacker, 2012, ♂, Ivory Coast (ANHRT); **5.** *E. westafricana* Hacker, 2012, ♂, Gabon (ANHRT); **6.** *E. westafricana* Hacker, 2012, ♀, Ghana (HNHM).



Figures 7-14.– Adults (all in coll. ANHRT). **7.** *Vansonima littoralis littoralis* (van Son, 1933), ♂, Mozambique; **8.** *V. littoralis littoralis* (van Son, 1933), ♂, Mozambique; **9.** *V. littoralis abyssinica* (Hacker, 2012), ♂, Zambia; **10.** *V. littoralis abyssinica* (Hacker, 2012), ♂, Zambia; **11.** *Laetonima smithi* László, sp. n., holotype, ♂, Zambia; **12.** *L. smithi* László, sp. n., paratype, ♀, Zambia; **13.** *L. camerunica* László, sp. n., holotype, ♂, Cameroon (ANHRT); **14.** *L. camerunica* László, sp. n., paratype, ♂, Cameroon.



Figures 15-20.– Male genitalia. **15.** *Evonima aperta* (Walker, 1865), LGN 396, Thailand (MWM/ZSM); **16.** *E. westafricana* Hacker, 2012, LGNA 997, Gabon (ANHRT); **17.** *Vansonima littoralis littoralis* (van Son, 1933), LGNA 387, Mozambique (ANHRT); **18.** *V. littoralis abyssinica* (Hacker, 2012), LGNA 956, Zambia (ANHRT); **19.** *Laetonima smithi* László, sp. n., holotype, LGNA 959, Zambia (ANHRT); **20.** *L. camerunica* László, sp. n., holotype, LGNA 957, Cameroon (ANHRT).



Figures 21-23.– Female genitalia. **21.** *Evonima aperta* Walker, 1865, LGN 395, Thailand (MWM/ZSM); **22.** *E. westafricana* Hacker, 2012, LGNA 989, Ghana (HNHM); **23.** *Laetonima smithi* László, sp. n., paratype, LGNA 960, Zambia (ANHRT).