New genera and species of Arctiinae from the Afrotropical fauna (Lepidoptera: Arctiidae)

Vladimir V. Dubatolov

Dr. Vladimir V. Dubatolov, Siberian Zoological Museum, Institute of Animal Systematics and Ecology, SB RAS, Frunze street 11, Novosibirsk 91, RUS-630091, Russia; vvdubat@online.irk.ru

Abstract: Based mainly on male genitalia characters and body structure, ten new genera and a subgenus are established in African Arctiinae. Afrowatsonius gen. n., with the type species Aloa marginatus Walker, 1855, includes also A. burgeoni (Talbot, 1928) comb. n., A. fuscomarginalis (Wichgraf, 1921) comb. n., and A. sudanicus (Rothschild, 1933) comb. n. Popoudina gen. n., with the type species Estigmene pamphilia Kiriakoff, 1958, includes P. linea (Walker, 1855) comb. n., P. lemniscata (Distant, 1898) comb. n., P. leighi (Rothschild, 1910) comb. n., and, probably, some other species presently included in Estigmene. Within the genus Popoudina, the subgenus Pseudopopoudina subgen. n. is established for Aloa bifurca Walker, 1855. Detoulgoetia gen. n., with the type species Spilosoma scortillum Wallengren, 1875, includes also L. nigricostum (Holland, 1933) comb. n. Afroalula gen. n. is established for Aloa bifurca Walker, 1855. Detoulgoetia gen. n., with the type species Spilosoma aspersa Marille, 1878, includes also L. nigricostum (Holland, 1933) comb. n. and D. pseudoparsata (Rothschild, 1933) comb. n. Madagascaractia gen. n., with the type species Diacrisia sparsipuncta Hampson, 1901, includes M. madagascariensis (Butler, 1882) comb. n., M. cellularis (de Toulgoët, 1954) comb. n., and, probably, many other species of the Spilosoma group with yellowish forewings and a radial brown pattern interneurally. Pericalla gen. n. is established for Diacrisia melanodysca Hampson, 1907. Afrojanica gen. n., with the type species Pericalla georgiana klostani Gaede, 1923 from Ethiopia, includes also A. melaena (Hampson, 1901) comb. n., and A. melanooides (Rothschild, 1935) comb. n. from Java. A new species, Epilacydes pseudoscalta sp. n., is described from the Ivory Coast, the male holotype is deposited in the Zoological Institute (St.-Petersburg, Russia). Based on the male genitalia, Estigmene scita (Walker, [1865]) and Estigmene bayonii Berio, 1935 are transferred to Epilacydes Butler, 1875 (comb. n.), whereas Anthrea scita Walker, [1865] is removed from Spilosoma Curtis, 1825 and transferred to Binna Walker, [1865] comb. n.

Key words: Tiger moths, new genus, new subgenus, new species, new combination, Afrotopics.

Newe Gattungen und eine neue Art der Arctiinae aus der afrotropischen Fauna (Lepidoptera: Arctiidae)


Introduction

Although the Afrotropical tiger moth fauna (Lepidoptera, Arctiidae) was catalogued by Googer & Watson (1995) about ten years ago, since that time no progress has been accomplished with regard to the supraspecific taxonomy or a classification system of the Arctiinae of this region. Nevertheless, the aforementioned catalogue is complete and contains all currently known specific names, with all type species and their genitalia being figured. Some of the catalogued genera were accompanied with notes such as: “probably none of Afrotropical species currently placed in Estigmene is closely related to acnea, the type species of Estigmene,” or: “of the many Afrotropical species currently placed in Spilosoma, possibly only yemenensis is correctly placed.” Fur-
thermore, for most of such large and complex genera the authors provided species groupings, of which many seemed to deserve a generic status, but no new generic names were established. While studying the genera of Eurasian Arctiinae, I had to investigate some species known from the Afrotropical Region. Among them there were several species which did not belong to the genera to which they were originally assigned. Descriptions of new genera for such species are given below. Besides newly collected material, I have used the collections of the Siberian Zoological Museum of the Institute on Animal Systematics and Ecology, Novosibirsk, Russia (SZMN), the Zoological Institute, St.-Petersburg, Russia (ZIN), and the Manchester Museum of the University of Manchester, UK (MMUM).

In accordance with Kristensen (2003: 103), the term aedeagus (= aedoeagus) is replaced by the more general term phallus.

**Descriptions**

**Afrowatsonius gen. n.**

Type species: *Aloa marginalis* Walker, 1855 (Fig. 1). — Gender: masculine.

Etymology: The generic name consists of two parts: “Afro”, referring to Africa, and the second half derived from the name of the late Dr. Allan Watson (England), the specialist in Arctiinae systematics.

Description. ♂ antennae bipeckinate, with very long branches. Eyes large, hemispherical, naked. Palpi short, porrect. Proboscis short, but reaching the tips of coxal legs. Forewings white, with brown spots, grouped into 5 apical bands, and a medial longitudinal stripe. Hindwings with a few submarginal and a single discal spots. Vesica global, with numerous small broadspinules.

Note on systematics. The new genus strongly differs from *Creatonotos* Hübner, [1819], of which I have studied the type-species *C. gangis* (Linnaeus, 1763), as well as *C. transiens* (Walker, 1855), and *C. leucanioides* (Walk, 1855) (Figs. 27–29). They have the very narrow valves with a process on their inner side and the juxta with a very long apical process. These characters are strictly autapomorphic for the genus and do not occur in Afrowatsonius. *Creataloum arabicum* (Hampson in Walsingham & Hampson 1896), formerly assigned to *Creatanotos*, has two pairs of spurs on the hind tibiae, the global tympanum and quite a different structure of the valve (Fig. 30) (Dubatolov 2004a). Among the Afrotropical genera and species, only *Menegites nivea* KirjakoFF, 1954 displays a somewhat similar ♂ genital structure (Figs. 58–59), i.e. the elongate valves with bifurcated apex. Nevertheless, the uncus of this species is noticeably narrowed towards its base (an apomorphic character), the valve lacks any armature on its inner side, the phallus is straight, and the vesica bears a few fields of long spine-like cornuti. Goelder & Watson (1995) stated that three more species possess a wing pattern somewhat similar to that of *A. marginalis*, namely: *C. burgeonii* (Talbot, 1928) from Zaire, *C. fuscomarginalis* Wichgraf, 1921 and *C. sudanicus* Rothshild, 1933 from Sudan. All of them are here combined with the newly established genus Afrowatsonius. Because only the type species was studied, it is difficult to select autapomorphic characters for the genus; probably these are three small apical processes on the valve and a wrinkled crest arising from the basal membranous hole and running along the costa towards the apex.

Composition. Afrowatsonius marginalis Walker, 1855 comb. n. (Fig. 1), Afrowatsonius burgeonii (Talbot, 1928) comb. n., Afrowatsonius fuscomarginalis (Wichgraf, 1921) comb. n., Afrowatsonius sudanicus (Rothshild, 1933) comb. n.


**Popoudina gen. n.**

Type species: *Estigmene pamphilia* KirjakoFF, 1958 (Figs. 2–3). — Gender: feminine.

Etymology: The genus is named after Mrs. A. Popoudina (Novosibirsk, Russia) whose insect collections from Rwanda were used in the present study.

Description. ♂ antennae bipeckinate with very long branches. Eyes large, hemispherical, naked. Palpi short, stout, porrect. Foretibia medium-long, with two naked, apical claws. Middle tibia with a pair of spurs, hind tibia with two pairs. The vein R₄ on forewings is stalked with R₃+5 (venation type C, Sotavalta 1964). Forewings white, with brown spots, grouped into 5 transversal bands, and a medial longitudinal stripe. Hindwings with a few submarginal and a single discal spots. Tympanum with a small, oval flattened inflation.

♂ genitalia (Fig. 26). Uncus like a moderately narrow triangle. Valves elongate, with three small apical processes, and a wrinkled crest arising from the basal membranous hole and running along the costa towards the apex. Juxta moderately long. Phallus strongly curved near apex, with an apical field of spinules. Vesica global, with numerous small broad spinules.

Notes on systematics. Among the Afrotropical “Estigmene” species with previously described ♂ genitalia, several species belong to the new genus, among them are *Spilosoma linea* Walker, 1855 (Figs. 4–5, 33) and *S. lemniscata* Distant, 1898 (Figs. 6, 35), both from South Africa. By the ♂ genitalia, they differ strongly from
true members of the American genus *Estigmenē* Hübner, [1820] (Figs. 31–32) and are very similar to *Popoudina pamphilia*. Goodger & Watson (1990) stated that *E. dorsalis* (Walker, 1855) from South Africa and *E. griseipennis* (Bartel, 1903) from Angola also belong to the “E. linea” group together with *P. pamphilia*, so they are here also transferred to *Popoudina* gen. n. Most probably, some other Afrotropical “Estigmenē” species may also belong to this genus. Due to the identical tegumen and uncus structures and the elongate finger-like valves (Fig. 78), *Amsacta aliena* Kiriakoff, 1954 is transferred to the new genus as well. So, the most noticeable autapomorphic character for the genus is the uncus structure, which is broad, heavily sclerotized and bifid, with two
or three branches on each side. Among other apomorphic characters which do not occur in Estigmene, there are simple valves without processes and a wide ring of tegumen and vinculum.

Composition. Popoudina pamphilia (Kiriakoff, 1958) comb. n. (Figs. 2–3), Popoudina linea (Walker, 1855) comb. n. (Figs. 4–5), Popoudina lemniscata (Distant, 1898) comb. n. (Fig. 6), Popoudina aliena (Kiriakoff, 1954) comb. n., Popoudina brosi (de Touloquet, 1986) comb. n. [see below!], Popoudina dorsalis (Walker, 1855) comb. n., Popoudina griseipennis (Bartel, 1903) comb. n.

Among these species, P. brosi (Fig. 75) from Tanzania possesses a moderately broad uncus terminated in 3 processes (Fig. 79). Based on the structure of the vinculum, the saccus, the valves, and the phallus, it is very similar to Popoudina gen. n. Thus, I have transferred it to Popoudina, but have decided to establish a new, at present monotypic, subgenus for it:

Pseudopopoudina subgen. n.

Type species: Estigmene brosi de Touloquet, 1986 (Fig. 75).

— Gender: feminine.

Etymology. The generic name consists of two parts: “pseudo”, meaning “false” or “spurious”, and the genus name Popoudina (see above).

Description. Body and wing characters as in Popoudina. The general appearance of the ♂ genitalia is very similar to Popoudina, but the uncus differs significantly, being not bifid but terminated by three processes (Fig. 79). This might be a more plesiomorphic condition for the bifurcated uncus structure of the true Popoudina, but apomorphic to other Arctiinae genera with a simple uncus. – Only one species: Pseudopopoudina (Pseudopopoudina) brosi (de Touloquet, 1986) comb. n.


Notes on Epilacydes Butler, 1875

Among the species assigned to Estigmene by Watson & Goodger (1995), E. scita (Walker, [1865]) (described as Aloa scita Walker, [1865]) (Fig. 7) from West Africa and E. bayonii Berio, 1935 (Fig. 84) are transferred to Epilacydes Butler, 1875 based on their ♂ genitalia structure (Figs. 36, 85). Similar to the type species E. simulans Butler, 1875 (Figs. 69–70), of which the ♂ genitalia were figured by Goodger & Watson (1995), E. scita and E. bayonii have the long hook-like uncus bearing dorsal teeth and two dorsal triangular projections at its base; the valves of the mentioned species are digitate, with an auriculate costal lobe at valvel base. Estigmene unilinnea Rothschild, 1910 from West Africa may also belong to Epilacydes.

In the ZIN collection, I found 2 ♂♂ from the Ivory Coast that are similar to E. scita in their wing pattern, but different in the ♂ genitalia structure. These ♂♂ are treated as a new species:

Epilacydes pseudoscita sp. n. (Figs. 8–9)


Paratype: 1 ♂, same data.

Etymology. The species name consists of two parts: “pseudo”, meaning “false” or “spurious”, and the species name scita (see above).

♂ genitalia (Fig. 37) of the same type as in E. scita: the uncus with subapical angular broadening dorsally, covered with strong spines; lateral broadened projections on the dorsal surface of tegumen which are rounded on top. The costal-basal part of valves with curved process.

Notes on systematics. The new species is very similar to E. scita (Fig. 7) and E. bayonii (Fig. 84), both latter species have the apical stripe broad, whereas in the new species, it consists of two small separate stripes, sometimes fused into an offset position. The apex of the uncus in E. bayonii is nearly straight (Fig. 85), in E. scita (Fig. 36) is hook-like, in both species without a dorsal subapical broadening, and covered with sparse small spines; in E. scita the lateral dorsal broadened projections on the dorsal surface of tegumen are more or less triangular. There is one more species having the same wing pattern, viz. E. unilinea (Rothschild, 1910), figured by Hampson (1920: fig. 62, fig. 16), but it has no dark subapical spots and the basal half of the longitudinal stripe is very narrow and broad distally, whereas in E. scita, E. bayonii, and E. pseudoscita sp. n. it is gradually widened.

The next five new genera were originally recognized by Goodger & Watson (1995) as species groups in the genus Spilosoma Curtis, 1825. Surprisingly, these authors did not establish new taxonomic names for these groups, though stated that their species had not been correctly placed and should be raised to generic status. It should be noted that many other species of this genus which were not grouped by Goodger & Watson (1995), are still incorrectly placed.

In addition to the species for which new genera are descri-
bed below, Spilosoma scita (Walker, [1865]) (described as Anthaea scita Walker, [1865]) (Figs. 10–11) has ♂ genitalia (Figs. 40–41) very similar to those of Binna pencillata Walker, [1865] (Figs. 71–72) in having the very long finger-like valves sparsely covered with rough hairs, the narrow uncus and the elongate juxta with one or two lateral apical processes. Thus, it is better placed in this genus: Binna scita (Walker, [1865]) comb. n.

**Logunovium gen. n.**

Type species: Spilosoma scortillum Wallengren, 1875 (Fig. 12). — Gender: neutral.

Etymology: The genus is named in honour of Dr. D. V. Logunov.

Description. ♂ antennae biepectinate. Eyes large, hemispherical, naked. Palpi short, porrect, not longer than hair-like setae on the frons. Proboscis much longer than palpi, nearly equal to the head diameter. Foretibiae simple, without apical spine. Middle tibia with a pair of narrow spurs equal in length to the tibia’ diameter, hind tibia with two pairs of such spurs. The vein R1 on forewing is stalked with R3+5 (venation type C by Sotavalta 1964). Forewings yellow, with dark costal margin; hindwings light. Tympanum with a small oval flattened inflation.

♀ genitalia (Figs. 44, 60–62). Uncus broadly triangular. Valves elongate, straight or slightly curved. Juxta as long as wide, with quadrangular apical half bearing teeth on each side. Phallus straight, vesica rounded, without cornuti or covered with small spiniculi.

Notes on systematics. Besides the type species from South Africa, the new genus also includes Aloa nigricosta Holland, 1893 from West Africa; its genitalia (Figs. 60–62) figured by Goodger & Watson (1995) have the same type of valves, the juxta with small spines on each side in the apical half, and the same wing pattern with light forewings and dark costa. The two latter characters being autapomorphic for the genus and do not occur in the Spilosoma-Spilarctia genus group. The ♂ genitalia of Spilarctia was described in the southwest Asian monotypic genus Creatalum Dubatolov, 2004, with the type species C. arabicum (Hampson in Walsingham & Hampson 1896), but the latter lacks apical spines on the foretibiae, lacks cornuti on the vesica (Fig. 30), and its tympanum is considerably enlarged. Of the Afrotropical genera, Acantharctia Aurivillius, 1900 (Figs. 56–57) is most similar to the new genus in having apical spines on foretibiae (while in Afrospilarctia the foretibiae are narrow) and the valve structure is of the same type. The ♂ genitalia of Menegites Kiriakoff, 1954 (Figs. 58–59) also resemble those of the new genus in its similar valves structure, but its foretibiae lack apical spines. These three genera are clearly related because they share a number of evidently synapomorphic characters, like narrow and slightly curved valve with a bifurcated apex, and several groups of spine-like cornuti on the vesica. Among them, the new genus and Afrospilarctia are more closely related as having the apical spine on the foretibia. It looks likely that, apart from Acantharctia, the Afrospilarctia species have a very characteristic autapomorphic wing pattern, with yellow forewings with one or more discocellular spots and white hindwings. Other characters which can separate the new genus, are evidently plesiomorphic: absence of apical processes on the juxta and narrow foretibia. Apart from the type species, the new genus also includes Spilosoma dissimilis Distant, 1897 (Figs. 14, 43) from South Africa, and likely other species of this species group as delineated by Goodger & Watson (1995).

Composition. Afrospilarctia lucida (Druce, 1898) comb. n. (Fig. 13), Afrospilarctia dissimilis (Distant, 1897) comb. n. (Fig. 14).

**Afrospilarctia gen. n.**

Type species Euchaetes lucida Druce, 1898 (Fig. 13). — Gender: feminine.

Etymology: The generic name consists of two parts: “Afro”, referring to Africa, and the genus name Spilarctia.

Description. ♂ antennae biepectinate, not longer than 1/3 of the forewing length. Eyes large, hemispherical, naked. Palpi very short, porrect, not longer than dense hair-like setae on the frons. Proboscis slightly longer than head width. Foretibiae narrow, with long narrow apical spine. Middle tibia with a pair of narrow spurs slightly longer than the tibia diameter, hind tibia with two pairs of such spurs. The vein R1 on forewing stalked with R3+5 (venation type C of Sotavalta 1964). Forewings yellow, with black discal dots. Tympanum with a small oval flattened inflation.


Afraloa gen. n.

Type species: Alosa bifurca Walker, 1855 (see: Gaede 1926: fig. 12f bifurca). — Gender: feminine.

Etymology: The generic name consists of two parts: “Afr”, referring to Africa, and the genus name Alosa.

Description. According to Goodger & Watson (1995), wings white or pale yellow, with two brown transverse fasciae on forewings, with strongly angled antemedial fascia.

♂ genitalia (Figs. 63–64) are characteristic. Uncus narrow, laterally flattened. Valves asymmetrical, the left one quadrangular with long and narrow apical processes, the ventral edge of left quadrangular is extended in strong broad processes, ventral edges of both valves covered with dense rough hairs. Phallus straight, apically with a band of sclerotized spines; vesica consists of few lobes, covered with small spines.

Notes on systematics. Based on the ♂ genitalia structure (Figs. 63–64), Afraloa is related to the Oriental Alosa Walker, 1855 (Fig. 45) and to the Indian Micraloa Dubatolov, 2004 (Fig. 46). All these genera evidently show strictly synapomorphic valves structures, they are nearly quadrangular, with a ventral edge covered with dense rough hairs. Micraloa lineola (Fabricius, 1793) has also the quadrangular valves with long apical processes and the narrow uncus (synapomorphic characters shared with Afraloa), but its valves are symmetrical, the uncus is not flattened laterally, without an apical split, the phallus lacks apical teeth, and the vesica is rounded (not lobate). So, apomorphic characters of the new genus are: assymetrical valves, the uncus flattened laterally, and a reverse character — absence of the apical split of the uncus. Goodger & Watson (1995) included three more species in this Spilosoma group with “yellowish white or pale yellow wings, with pattern of brown transverse fasciae in forewing in which the most distinctive feature is the strongly angled antemedial fascia”: Alpenus aurantiaca Holland, 1893, Teracota batesi Rothschild, 1910, and Spilarctia rava Drue, 1898, all from West Africa; unfortunately, their genitalia are not known, and their generic placement must await further study; likely they will also belong to Afraloa.

Composition. Afraloa bifurca (Walker, 1855) comb. n.

Detoulgoetia gen. n.

Type species: Spilosoma aspersa Mabille, 1878 (Fig. 15). — Gender: feminine.

Etymology: The genus is named in honour of Dr. Hervé de Touloget (France, Paris), the specialist in Arctiidae systematics.

Description. According to Goodger & Watson (1995), wings white or yellowish white, speckled with brown dots without order, and with dark discal spots.

♂ genitalia (Figs. 65–66) are characteristic. Uncus narrowly triangular, flattened on its top. Valves broad and broaden toward apex, their ventral edges bear a crest of broad spines. Phallus slightly curved, with lobate vesica, covered with small spiniculi.

Notes on systematics. The type species is known to me only from the description and figures given by Goodger & Watson (1995). Although its wing pattern resembles that of other Spilosoma species, it is not arranged into a characteristic order, as shown in true Spilosoma species. Moreover, the ♂ genitalia have broad valves bearing teeth on their ventral edge (an apomorphic character if comparing with all other Arctiinae genera) and are very distinctive compared either to Spilosoma-Spilarctia species (Figs. 37–38), or to other Spilosomini genera. Goodger & Watson (1995) included two additional species in this Spilosoma group with “white or yellowish white wings speckled with brown and massive valves in the male genitalia,” namely, S. comorensis Rothschild, 1933 and S. pseudosparsata Rothschild, 1933, both from the Comores. Thus, the genus is restricted to Madagascar and the Comores.

Composition. Detoulgoetia aspersa (Mabille, 1878) comb. n., Detoulgoetia comorensis (Rothschild, 1933) comb. n., and Detoulgoetia pseudosparsata (Rothschild, 1933) comb. n.

Madagascarricia gen. n.

Type species: Diacrisia sparsipuncta Hampson, 1901 (= Madagascarricia madagascariensis sparsipuncta) (see Gaede 1926: fig. 12h sparsipuncta). — Gender: feminine.

Etymology: The generic name combined of two parts: Madagascar, from where its species are known, and the genus name Arctia.


♂ genitalia (Figs. 67–68) are also mostly characteristic for the genus: uncus of the type species is large, angulate laterally, flattened on the top, valves short, broad, rounded, with long digitate processes on their ventral side, inwardly-directed.

Notes on systematics. The type species is known to me only by the description and figures given by Goodger & Watson (1995). And, as in the previous genus, its wings also resemble those of Spilosoma species, but the ♂ genitalia differ significantly both from all Spilosoma species, and from other Spilosomini genera. So, the most clear apomorphic character which could separate
Figs. 26–37: Arctiidae ♂ genitalia, from the material studied. Fig. 26: *Afrowatsonius marginalis*, Guinea. Fig. 27: *Creatonotos gangis*, India, Sikkim. Fig. 28: *Creatonotos transiens*, Malay Peninsula. Fig. 29: *Creatonotos leucanioides*, Guinea. Fig. 30: *Creataloum arabicum*, Iran, Baloutchistan. Fig. 31: *Estigmene acrea*, USA, Wisconsin. Fig. 32: *Estigmene albida*, Mexico. Fig. 33: *Popoudina pamphilia*, Rwanda. Fig. 34: *Popoudina linea*, South Africa. Fig. 35: *Popoudina lemniscata*, South Africa. Fig. 36: *Epilacydes scita*, Guinea. Fig. 37: *Epilacydes pseudoscita* sp. n., Ivory Coast. — Genitalia not to the same scale.
Figs. 38–45: Arctiidae ♂ genitalia, from the material studied. Fig. 38: Spilosoma lubricopedum, England. Fig. 39: Spilarctia lutea, England. Figs. 40–41: Binna scita, South Africa, caudal view (40) and lateral view (41). Fig. 42: Afrosilarctia lucida, Rwanda. Fig. 43: Afrosilarctia dissimilis, South Africa. Fig. 44: Logunovium scortillum, South Africa. Fig. 45: Alosa lactinea, China, Hubei. Fig. 46: Micraloa lineola, North India. Fig. 47: Radiarctia jacksoni, Ethiopia. Fig. 48: Radiarctia luteicans scrobilis, South Africa. Fig. 49: Radiarctia rhodesiana, South Africa. Fig. 50: Radiarctia melanochoria, Rwanda. Fig. 51: Pericallia melanodisca, Rwanda. Fig. 52: Pericallia matronula, Russia, Novosibirsk. Fig. 53: Seydelia elliotti, Rwanda. Fig. 54: Epatolmis caesarea, Russia, Chita Province, Dahurian Nature Reserve. Fig. 55: Nebrarctia semiramis, Iran.—Genitalia not to the same scale.
Madagascarricia from other Arctiinae genera, is the presence of a long narrow processus on the ventral side of the valve. Besides *S. madagascariensis* (Butler, 1882), Goedger & Watson (1995) included two more species into this *Spilosoma* group with “whithish wings speckled with brown” and uncus “particularly large, and angulate laterally, and the valve short and broad with a single, inwardly-directed, digitate process”: *Diacrisia cellularis* de Touloquet, 1954 and *Spilosoma femina* Rothschild, 1933, both from Madagascar; thus, the genus is endemic to this island.

**Composition.** Madagascarricia madagascariensis (Butler, 1882) comb. n., Madagascarricia cellularis (de Touloquet, 1954) comb. n., and Madagascarricia femina (Rothschild, 1933) comb. n.

**Radiarctica gen. n.**

*Type species:* *Diacrisia jacksoni* Rothschild, 1910 (Figs. 16-17). — Gender: feminine.

*Etymology:* The generic name consists of two parts: “radi-,” referring to the radiant pattern of forewings, and the genus name *Arcitia*.

**Description.** Antennae bipectinate. Eyes large, oval, strongly convex, naked. Palpi porrect, slightly longer than hair-like setae on the frons. Proboscis longer than the width of head. Foretibiae simple, narrow. Middle tibiae with an apical pair of spurs, hind one with two pairs of spurs, which are equal in length to the tibial diameter. Forewing: vein R2 stalked with R3+5 (venation type C of Sotavalta 1964). Forewings gray, with yellow veins and a radial pattern of brown interneurally, namely, a push-pin-like shape of cornuti and yellowish forewings with a radial pattern of brown interneurally. According to its original description, *Spilosoma sublutescens* Kirkoff, 1958 (Fig. 80–81) from Uganda and Tanzania has quite different ♂ genitalia, with the spinulose branches on the vinculum or the costal part of the valve base and with strong spines on the phallus. Unfortunately, the vesica structure was not studied, so I leave this species provisionally in *Spilosoma*, to which it actually does not belong.

**Composition.** *Radiarctica jacksoni* (Rothschild, 1910) (Fig. 16-17) comb. n., *Radiarctica lutescens* (Walker, 1855) (Fig. 18-19) comb. n., *Radiarctica rhodesiana* (Hampson, 1900) (Fig. 22) comb. n., and *Radiarctica melanochoria* (Hereng, 1932) (Fig. 20-21) comb. n.

**Material studied.** *Radiarctica jacksoni* (Rothschild, 1910):

Ethiopia: 1 ♂, Lisa-baba, 1896, collector’s name illegible (ZIN); 1 ♂, Deru, 24/12. ii. 1898, Dmtirev leg. (ZIN).


**Pericaliella gen. n.**

*Type species:* *Diacrisia melanodisca* Hampson, 1907 (Fig. 23). — Gender: feminine.

*Etymology:* The genus name means “a small Pericaliella”.

**Description.** ♂ antennae bipectinate. Eyes large, oval, strongly convex. Palpi porrect, short, slightly longer than weak hair-like setae on the frons. Proboscis barely visible, probably reduced. Unfortunately, the ♂ studied by me lacks any legs. The forewing vein R2 stalked with R3+5 (venation type C of Sotavalta 1964). Forewing more from a large round, flat sclerotized base (not simply spine-like as in many *Spilosoma* and *Spilarctia* species), and in lacking the apical sclerotization of the phallus, which is very characteristic for all species of this group. So, the autapomorphic characters of the new genus are:
or less broad, yellowish-brown, with a large dark brown discal spot and dark dots. Hindwings yellowish, with small dark discal and few submarginal spots. Tympanum with a small flattened inflation.

♂ genitalia (Fig. 51). Uncus long and narrow, slightly curved, with large bulbous dorsal projection. Valves long and narrow, wand-like. Juxta broad. Saccus triangular. Phallus straight, with small spines on apex, vesica elongate, with very small spinculi.

Note on systematics. The uncus structure with a large bulbous dorsal projection is very unusual for any of the Spilosomini genera, being very similar to that of Pericaliella matronula (Linnaeus, 1758) (Fig. 52). A presence of this curious structure looks to be the main apomorphic character of the genus. Moreover, such narrow wand-like valves do not occur in any of the known Afrotropical Arctiinae genera.

Composition. Pericaliella melanoidea (Hampson, 1907) comb. n. (Fig. 23).

The next pair of curiously similar but geographically isolated species (*kostlani* GAEDÉ, 1923 from Ethiopia and *melena* HAMPSON, 1901 from Java, Indonesia) were assigned to the genus *Seydelia* KIRIACKOFF, 1952 by DE TOULGOËT (1980). Unfortunately, while transferring this pair of species, de Toulgoët (1980) did not compare them to the type species of *Seydelia*. After the revision of the type species of all Arctiinae genera by Wat son et al. (1980) and the examination of the γ genitalia of all Afrotropical species by GOODGER & WATSON (1995), it has become clear that the aforementioned pair of species does not belong to *Seydelia*. A new genus is here established for them.

**Afrojavanica gen. n.**

*Type species:* *Pericallia geometrica kosltni GAEDÉ, 1923* (Fig. 76). — Gender: feminine.

*Etymology:* The genus name consists of two geographic names, Africa and Java, where its two species occur.

*Description.* Based on the figures and descriptions by de Toulgoët (1980), the species of this group have dark forewings with a light longitudinal stripe between veins Cu1+2 and A (Fig. 76–77). There is an additional narrow light postdiscal band, smoothly curved distally from the discal vein, and a very small light subapical spot on the costa. Hindwings light, whitish or yellowish, with a dark discal spot and a row of submarginal spots. Antennae ciliate to bipectinate.

**γ genitalia** (Figs. 82–83). Uncus narrowly triangular, valves elongate, apically tapering and slightly curved inwardly, and with a single secondary process in the middle of its ventral surface, which is directed inwards. Juxta narrowly transverse in *A. kosltni*, or as long as wide in *A. melena*.

*Notes on systematics.* Both species of the genus differ strongly from those of *Seydelia* (Figs. 24–25, 53, 73–74). Two *Seydelia* species with described genitalia, i.e. the type species *S. turlini celsicola* de Toulgoët, 1976 (Figs. 73–74) and *S. ellioti* BUTLER, 1896 (Fig. 53), have the very specialized tegumen broadened dorsally, with a large dorsal flange, the valves simple, elongate and rounded apically, without any processes on their ventral surface, but sometimes with a subapical crest. The presence of this specialization of the tegumen structure, is a strict autapomorphic character of the genus *Seydelia*, and does not occur in *A. kosltni* and its relatives. Among the known Afrotropical genera, non has the γ genitalia of the same type, being similar to those of the new genus, with the elongate tapering valves bearing small processes in the middle of their ventral surface. Among the Eurasian genera, only *Epatolmis BUTLER, 1877* (Fig. 54) and *Nebrarctia* WATSON, 1980 (WATSON et al. 1980) (Fig. 55) possess the elongate valves with short single secondary processes in the middle part on ventral edge, but their wing pattern are quite different. Furthermore, in these genera, the secondary processes are broadly triangular, not as narrow as in *Afrojavanica* species, and the valve is straight apically, not curved inwardly. So, autapomorphic characters of *Afrojavanica* species are: a narrow secondary processus on the inner side of the valve which is curved inward, and a very characteristic forewing pattern. Apart from these two species discussed by de Toulgoët (1980), one more species is to be transferred to the new genus, viz. *Spilosoma melaenoides* ROTHSCCHILD, 1935 from East Java, which is similar to *A. melena* but differs in its smaller size (wing expanse 45 mm), the shorter pectination of its antennae, the yellowish base of its tegulae and its white hindwings. *A. melena* is larger (wing expanse 52 mm), its antennae has the very long pectination, its thorax is uniformly dark, and its hindwings have a yellowish ground.

**Composition.** *Afrojavanica kosltni* (GAEDÉ, 1923) comb. n., *Afrojavanica melena* (HAMPSON, 1901) comb. n., *Afrojavanica melaenoides* (ROTHSCCHILD, 1935) comb. n.

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