

Research articleSubmitted: April 19th, 2016 - Accepted: June 10th, 2016 - Published: June 30th, 2016**Notes on the genus *Abantis* Hopffer, 1855 with description of two new species (Lepidoptera: Hesperiiidae, Pyrginae)**Claudio BELCASTRO ^{1,*}, Philippe OREMANS ²¹ Lungotevere di Pietra Papa 21, I-00146 Rome, Italy - belcastroclaudio@yahoo.com² Rue des Jacinthes, B-6110 Montigny, le Tilleul, Belgique - cymothoe@rocketmail.com

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Abstract

The Afrotropical genus *Abantis* Hopffer, 1855 includes about 23 species so far, all quite rare. In Evans' Catalogue of the African Hesperiiidae only 14 species were listed but, apart from a few newly discovered ones, some of the subspecies indicated over there have subsequently been raised to species level, although they look very similar in facies with previously recognised taxa. This article shows the presence of an unrecognised species similar to *A. lucretia* Druce, 1909 in West Africa, namely *A. fabiana* sp. n., and another one similar to both *A. contigua* Evans, 1937 and *A. elegantula* Mabille, 1890 in Central Africa, namely *A. torbeni* sp. n. The rarity in collections of almost all forest-dwelling *Abantis* spp. is reported as connected to their habit of flying high in the forest canopy, but the authors have no conclusive evidence of it. Most *Abantis* are hill-toppers, mud lovers and are attracted by dead animals (fish and turtles), although some of them are also flower-visiting.

Key words: *Abantis*, new species, West Africa, Central Africa.**Introduction**

One of the authors (CB) has particularly been fond of collecting Hesperiiidae out of all other butterfly families through all his life, especially in Africa, and with the aim of getting all the species of *Abantis* Hopffer, 1855, viz. the "Paradise Skippers", the aristocrats of the Hesperiiidae as Torben B. Larsen (2005) indicated. Unfortunately almost all the species are either uncommon or rare, some being exceedingly rare and localised. It took about 40 years of collecting in West-Central Africa for him to put together one hundred specimens representing all the species occurring in the area (except for *A. tanobia* Collins & Larsen, 2005, described from Ghana), which gives an idea of their rarity.

Some of the newly described taxa, as listed by Ackery et al. (1995), have just differently shaped hindwing but still similar genitalia to allies (e.g. *A. bismarcki* Karsch, 1892, *A. arctomarginata* Lathy, 1904, *A. bamptoni* Collins & Larsen, 1994), others just different ground colour or more blackened veins on the hindwing (e.g. *A. nigeriana* Butler, 1901, *A. pseudonigeriana* Usher, 1984) and others slightly different position of forewings spots or missing basal cell spot (e.g. *A. nigeriana* and *A. pseudonigeriana* compared to *A. nigeriana rougeoti* Berger, 1959).

Among the species from West Africa one of the rarely seen and mostly coveted ones, viz. *A. lucretia* Druce,

1909, was spotted by one of us (CB) only three times in West Africa. First, during a visit to Mt Tonkoui, near Man in Ivory Coast (R.C.I.), while walking along a road above the local waterfalls, a couple of them was seen flying fast and resting high on the leaves, 5-6 m above the ground. Only after one year, during one of the subsequent visits to the locality, he was able to collect just one male, preliminarily identified as *A. lucretia*. Another apparently similar specimen was collected one year later in the forest near Bolequin (West R.C.I.). A third specimen was collected in January, 2015 in the upper part of the Ziama mountain forest (Guinea) by one of the collectors appointed. After setting the latter specimen, this was compared to others in his collection, the previous ones from R.C.I., a series from Cameroon and that figured by Larsen (2005), and it became clear that the two specimens collected in the mountains were quite different from others, in particular from the one collected near Bolequin. These two specimens are therefore deemed to represent a new species which is here described as *A. fabiana* sp. n.

The second author (PO) has long dedicated to the study of African Nymphalidae, of which he assembled a large collection, in particular from the Central African forests. He appointed too local collectors to help him getting samples from little explored localities. One of these collectors from North-Kivu sent a number of specimens of a species of *Abantis* which at close examination appeared to be dif-

ferent from both *A. contigua* Evans, 1937 and *A. elegantula* Mabille, 1890, although superficially similar. In the recent past there was the opportunity to show one of the specimen to our common friend Torben B. Larsen (who, very sad to say, is no more with us) who expressed his opinion, shared also by ourselves, that we had discovered a new species in this beautiful genus. This is a reason more to name this species as *A. torbeni* sp. n. to commemorate our lost friend.

***Abantis fabiana* Belcastro sp. n.** (Figs 1–2, 29–30)

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Type locality: Guinea, Seredou, Forêt de Ziama, 1000 m.

Diagnosis and Description

Habitus: Male; wingspan 32 mm. *A. fabiana* is a species that looks intermediate between *A. lucretia* (TL: Cameroun) and *A. bismarcki* Karsch, 1892 (TL: Bismarckburg, Togo). Comparing it with the first species the forewing looks similar in colour and spots: two white cellular spots of similar length, parallel but separated by a thin but conspicuous black line, two white spots in space 2 and 3, while the white apical spots are 3 instead of 4. In addition, in the new species space 3 is smaller and shifted more distally from the other central spots. In *A. lucretia* these spots are placed very close to each other but are separated by the dark veins. At the base of the wing, for about one-fourth of the length, the forewing is heavily dusted with orange scales, only slightly apparent in *A. lucretia*. Spot in space 3 is slightly smaller than in *A. lucretia* but clearly defined. In that species all forewing spots are somehow faded.

The hindwing of the new species is very similar to that of *A. bismarcki*, i.e. instead of being rounded as in *A. lucretia* (length to width is about 1:1) it is extended towards the anal angle, so that length to width is about 3:2. Moreover the black margin, which in *A. lucretia* is 3–4 mm and includes 4–5 white pre-marginal dots at the anal angle, in *A. fabiana* is only about 2 mm and includes numerous (not less than 6) white dots all over the margin.

A. bismarcki can be easily separated from *A. fabiana* by the forewing which has 4 apical spots instead of 3, a large single hyaline spot in the cell, white spots in space 2 and 3, plus a long spot in 1b; the basal fourth of the forewing is completely orange instead of dusted orange.

Female: unknown.

Male genitalia (Figs 29–30): quite different from those of *A. lucretia* (Fig. 31). The valva (and its dorsal process) is most similar to that of *A. bismarcki* (Fig. 32) with the difference that its lower profile is much more angled, although slightly asymmetrical. The uncus is more massive but the pointed apex is smaller and subunci appear spatulated, not pointed as in *A. bismarcki*.

Type material. Holotype ♂, **Guinea**: Seredou, Forêt de

Ziama, 1000 m, Jan 2015, local collector leg., in coll. C. Belcastro (Figs 1–2; forewing length 17 mm); Paratype ♂, **Ivory Coast**: Mt. Tonkoui, 800 m, Mar 1992, C. Belcastro leg., in C. Belcastro's collection (genitalia: Figs 29–30).

Distribution. Africa West of the Dahomey Gap, Liberian sub-region: Guinea & Ivory Coast.

Habitat. Hilly country in presence of good quality forests; collected along forest roads.

Etymology. This beautiful species is named after Fabiana Macri, a fair young lady who has always shown great interest towards the study of butterflies and nature conservation, fiancée with Salvatore, son of Claudio Belcastro.

***Abantis torbeni* Belcastro & Oremans sp. n.**

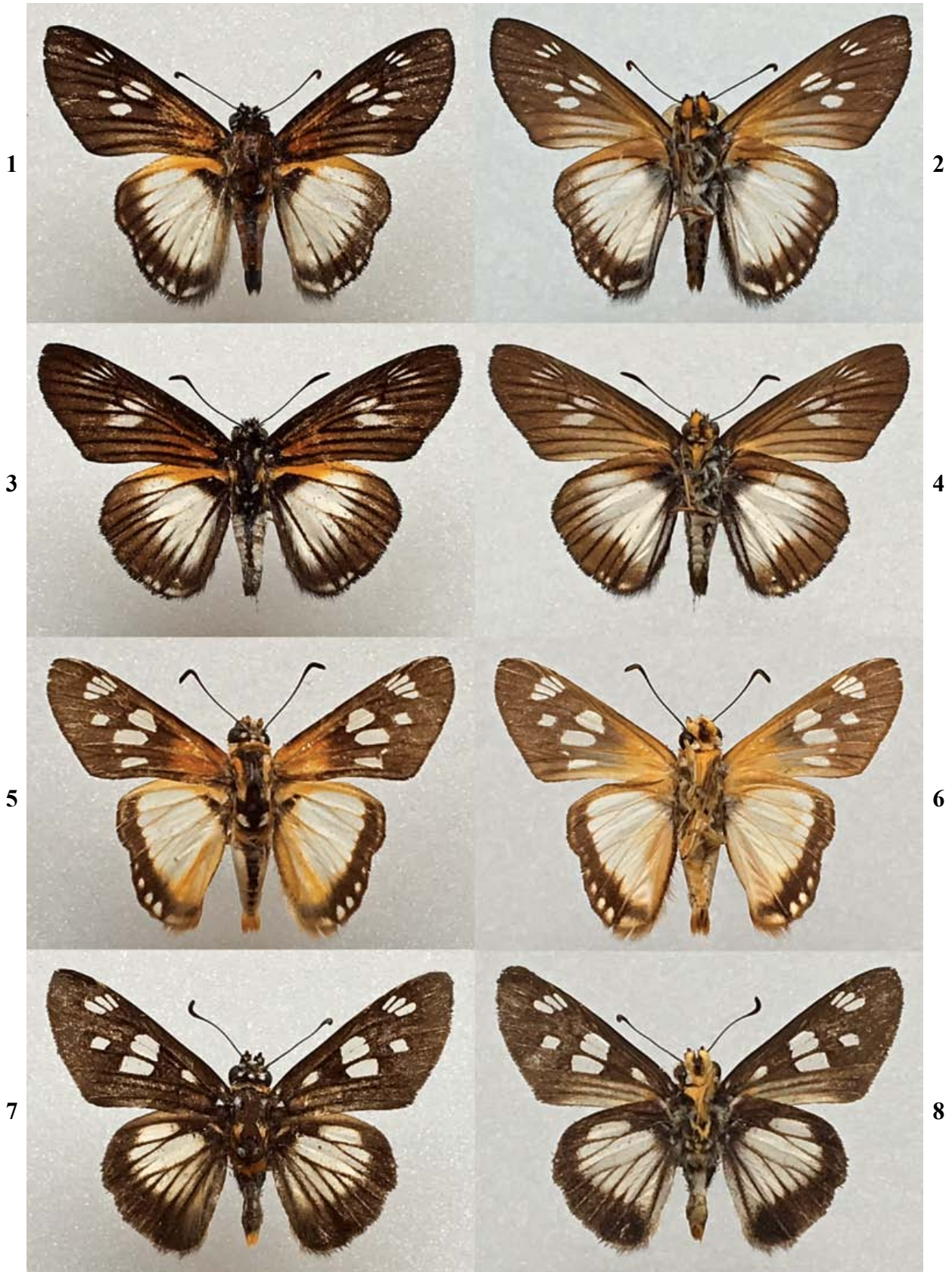
(Figs 9–10, 21–24)

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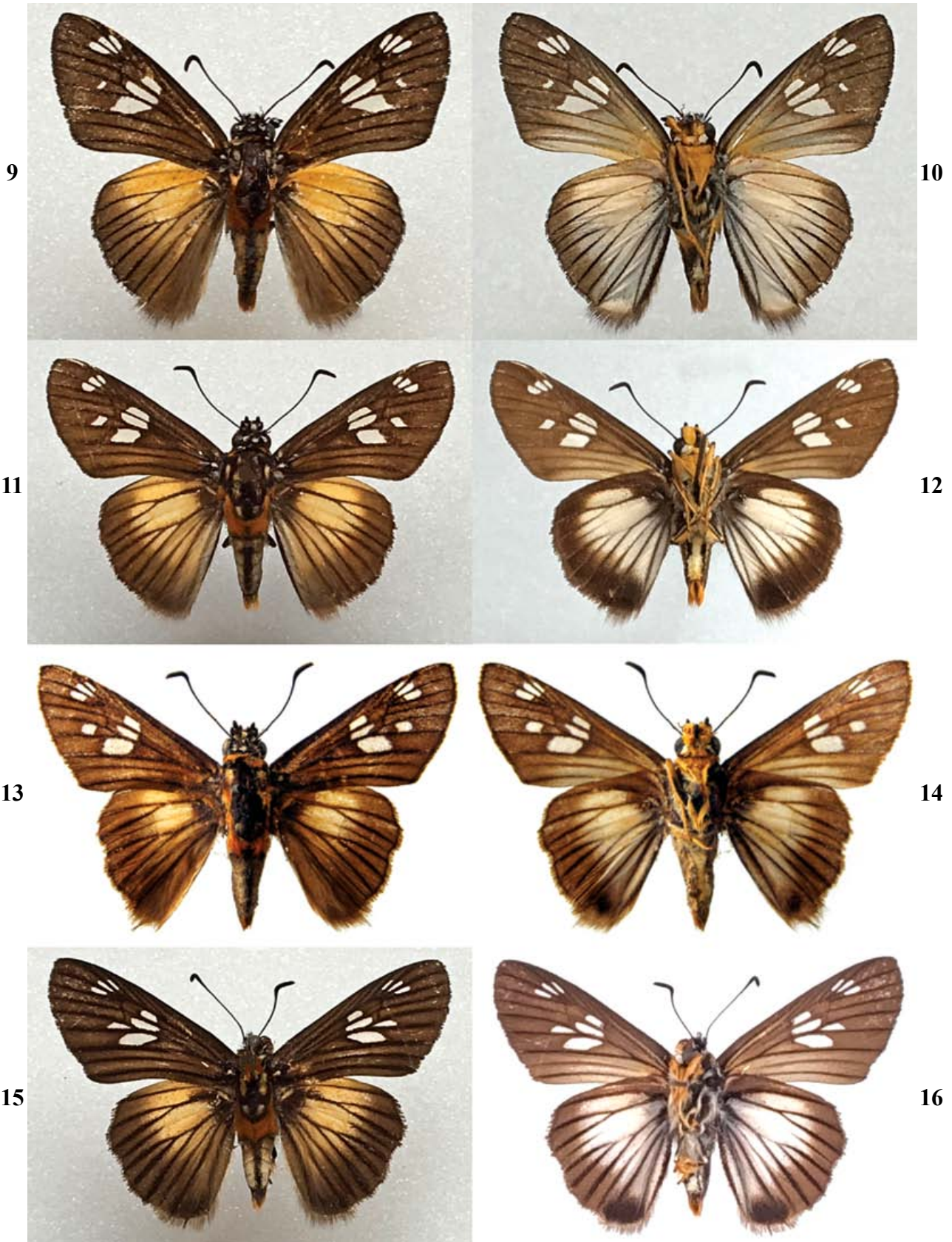
Type locality: Democratic Republic of Congo, North-Kivu, Mambungu.

Diagnosis and Description

Habitus: Male; wingspan 32 mm. *A. torbeni* sp. n. resembles a number of other species of *Abantis* with slight differences in the presence and position of hyaline spots on the forewing and differences also concerning the light sub-basal and discal area on the hindwing, which is surrounded by a wide dark margin all over the anal angle/tornus till the apex. One of the most similar species is *A. contigua*, distributed in Central and East Africa, from which the following differences are noted: the dot in space 3 is separated from the cell spots only by the black vein while in *A. torbeni* dot in space 3 is small and well separated, about 2 mm; for this reason spot 3 does not cover vertically the spot in space 2; on the hindwing, the basal light orange area in *A. torbeni* is wider and reaches the apex; it is surrounded by a dark wide area that extends from the apex towards the tornus and covers also the abdominal fold. In *A. contigua* there is a wider and uniform band that starts from the costa, 3 mm from the apex, and slightly extends towards the tornus but leaves a lighter area towards the abdominal fold. The veins, heavily blackened in *A. contigua*, are not blackened at all in *A. torbeni*. The hindwing underside shows a continuous dark brownish margin in *A. contigua*, with a deep black area in space 1a/1b (so dark as to resemble an androconium were not for its presence also in the female sex). In *A. torbeni* the hindwing underside shows a much narrower dark margin on the white ground-colour which also continues in 1a/1b. A wider basal area of the forewing underside is also similarly white. Another similar species is *A. elegantula* (= ? *maesseni* Miller, 1971) that has the spot in space 2 of the forewing well separated from the cell spots, thus appearing similar to *A. torbeni*, but which shows the same differ-



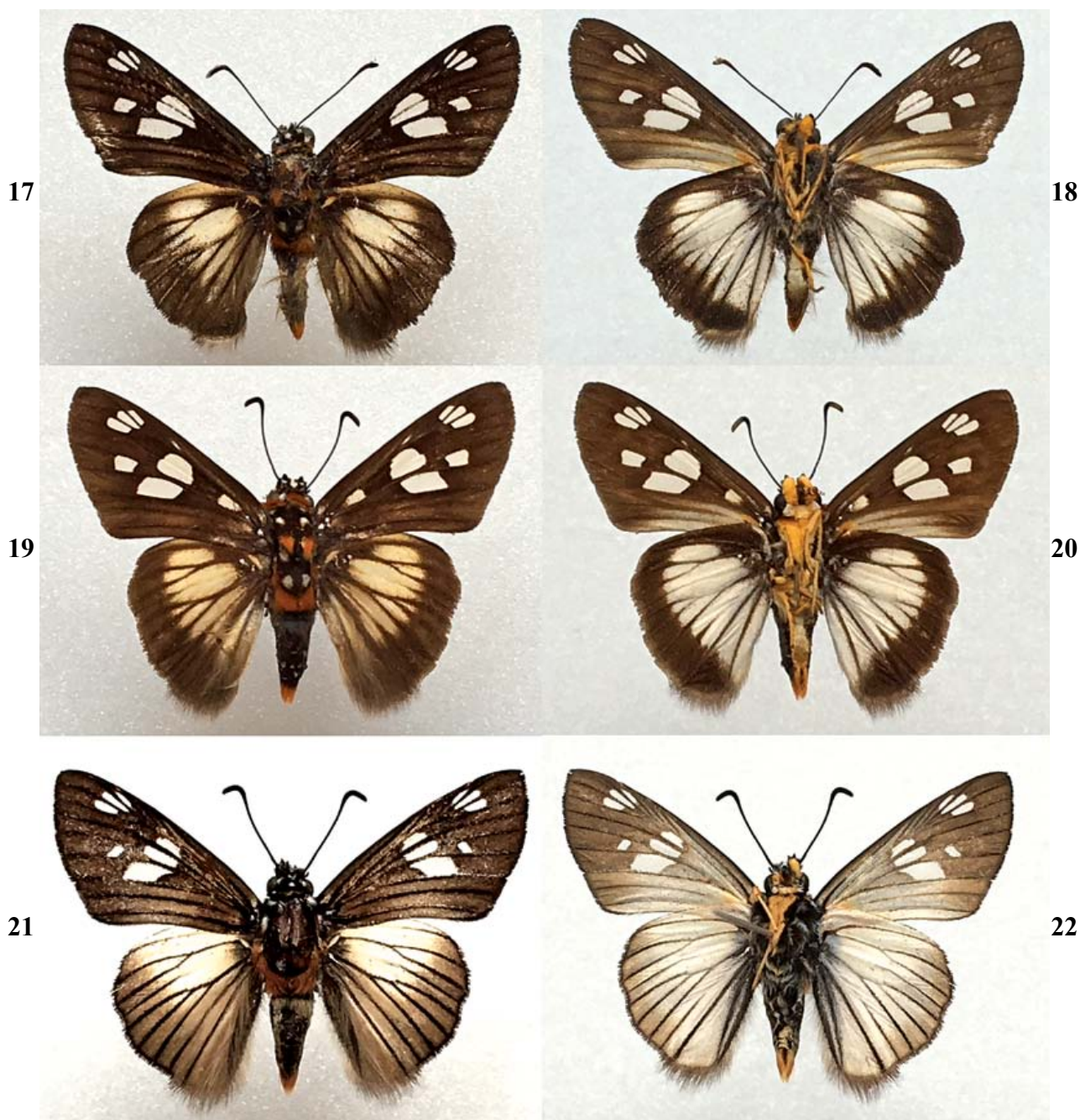
Figs 1-8 – Habitus of *Abantis* spp.: **1, 2**, *A. fabiana* sp. n., Holotype: Guinea, Forêt de Zياما, Jan 2015; **3, 4**, *A. lucretia* Druce, 1909: SE Cameroon, P. N. Lobeke, Oct 2013; **5, 6**, *A. bismarcki* Karsch, 1892: Nigeria, Abuja Airport neighb., 8 Dec 2002; **7, 8**, *A. nigeriana* Butler, 1901: Cameroon, Wak, May 2014.



Figs 9-16 – Habitus of *Abantis* spp.: **9, 10**, *A. torbeni* sp. n., Holotype: D.R.Congo, N Kivu, Mambungu, Feb 2015; **11, 12**, *A. elegantula* f. *maesseni* Miller, 1971: Ghana, Wli Water-falls, 18 Oct 1979; **13, 14**, *A. elegantula* Mabille, 1890: Nigeria; **15, 16**, *A. contigua* Evans, 1937: Cameroon, Bipindi, Oct 2014.

ences of *A. contigua* on the hindwings, both on upperside and underside, with the presence of the same deep black area in space 1a and the continuous regular dark margin. In the plates also the species *A. nigeriana* Butler, 1901 (Figs 7–8) and *A. pseudonigeriana* Usher, 1984 (Figs 19–20) are shown for comparison, as their spots are similarly positioned on the forewing (but the big white spot at the end of the cell is not clearly subdivided into two and there is a second white spot at the base of the cell) and

their hindwing pattern is similar to that of *A. torbeni* (but with white or off-white ground-colour and fully blackened veins on the upperside, plus they have a black margin also in 1a/1b on the underside). They have quite similar genitalia as well. It is also shown *A. rougeoti* Berger, 1959 (Figs 17–18), that we consider a different species from both *A. nigeriana* and *A. pseudonigeriana*, a possibility already put forward by Larsen (2005) and repeated by Vande weghe (2010), which is similar to them but on the forewing lacks

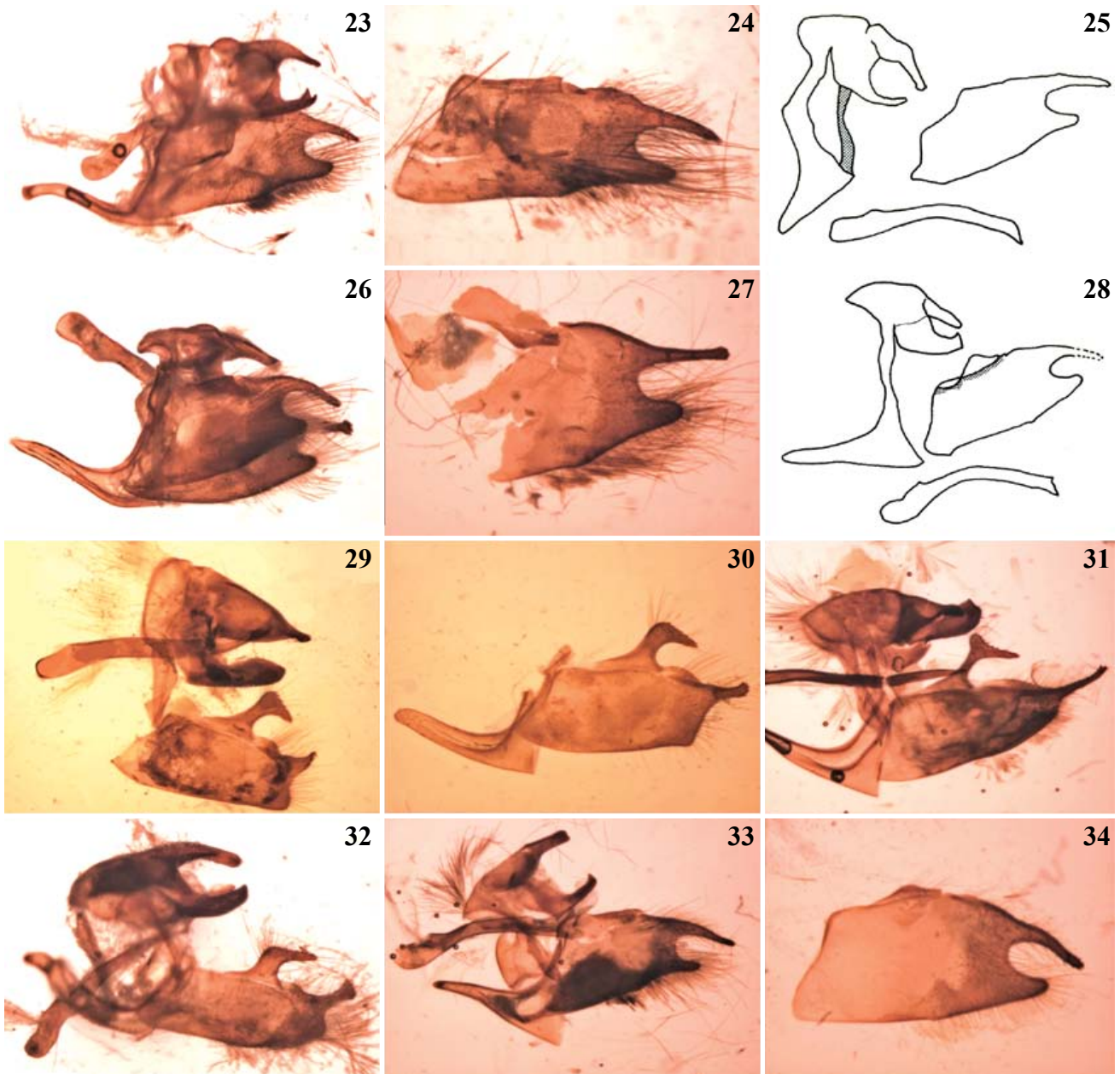


Figs 17-22 – Habitus of *Abantis* spp.: **17, 18**, *A. rougeoti* Berger, 1959: Cameroon, Littoral Region, Mbanga, May 2014; **19, 20**, *A. pseudonigeriana* Usher, 1984: Guinea, P. N. Haut Niger, 13 Oct 2006; **21, 22**, *A. torbeni* sp. n. Paratype, whitish form: D.R. Congo, N Kivu, Lubero, Jan 2015.

the basal cell spot like *A. torbeni*, shows the distal cell spot divided into two by a thin black line and has a much wider black margin on the hindwing. This species, which also has similar genitalia, has been found only in forests, whereas *A. nigeriana* and *A. pseudonigeriana* are known from savannahs and savannah-forest mosaics. In habitus and genitalia configurations *A. rougeoti* appears to be closest to *A. pseudonigeriana*, not yet described when *A. nige-*

riana ssp. *rougeoti* was published. Should the taxa *pseudonigeriana* and *rougeoti* turn out as conspecific the name *rougeoti* would take priority, being the oldest of the two. *Female*: unknown.

Male genitalia: (Figs 23–24): Slightly asymmetrical and similar to those of *A. elegantula*, with thin uncus and pointed slender subunci; valvae ending with quite open concavity between superior and inferior processes as shown by



Figs 23–34 – Male genitalia of *Abantis* spp.: **23**, *A. torbeni* n. sp., Paratype: D.R. Congo, N Kivu, Kanyambia, Feb 2015; **24**, valva of *A. torbeni* n. sp., Paratype; **25**, *A. elegantula* Mabille, 1890: (from L. D. Miller, 1971); **26**, *A. nigeriana* Butler, 1901, Nigeria, Abuja Airport neighb., Nov 2005; **27**, *A. contigua* Evans, 1937, valva, S Cameroon, Kribi-Lolodorf, Mt. Bikoka, Dec 2013; **28**, *A. elegantula* f. *maeseni*: (from L. D. Miller, 1971); **29**, *A. fabiana* sp. n., Paratype, Ivory Coast, Mt. Tonkoui, 1000 m, Mar 1992; **30**, valva: same *A. fabiana* n. sp., Paratype; **31**, *A. lucretia* Druce, 1909: S Cameroon, Kribi-Lolodorf, Mt. Bikoka, Dec 2013; **32**, *A. bismarcki* Karsch, 1892: Cameroon, Ngaundéré, Wak, May 2012; **33**, *A. rougeoti* Berger, 1959, Cameroon, Littoral Region, Mbanga, May 2014; **34**, *A. pseudonigeriana* Usher, 1984: Guinea, P. N. Haut Niger, 20 Oct 2006.

Miller (1971) (Fig. 25). In *A. nigeriana* (Fig. 26) the superior process is much longer than the inferior. In *A. pseudonigeriana* (Fig. 34) the inferior process appears longer than in the previous species and the deriving concavity between the two processes is smaller and narrower. Miller (1971) shows a similar genitalia configuration for his *A. maesseni* (Fig. 28) (treated by Larsen as a seasonal form of *A. elegantula*) but with shorter uncus and more massive subunci. The genitalia of *A. rougeoti* are illustrated on Fig. 33, where the processes of the valva are more similar to those of *A. pseudonigeriana* than to *A. nigeriana*, and uncus and subunci are thicker; the uncus however appears stout, and not hooked like in *A. pseudonigeriana*.

Type material. Holotype ♂: **Democratic Republic of Congo:** North-Kivu, Mambungu, Feb 2015, local collector leg., in Ph. Oremans' collection (Figs 9–10; forewing length 17 mm).

Paratypes, 20 ♂♂: **Democratic Republic of Congo:** Kanyambia, 3 ♂♂, Feb 2015; 2 ♂♂, Mar 2015; 1 ♂, Apr 2015; Maliva, 2 ♂♂, Feb 2015; Lubero, 1 ♂, Jan 2015; Lubango, 3 ♂♂, Jan 2015; Kasuo, 3 ♂♂, Feb 2015; 1 ♂, Mar 2015; Kirima, 1 ♂, Dec 2014; all local collector leg., in Ph. Oremans' collection; Lubero, 1 ♂ (Figs 23–24), Jan 2015; Kanyambia, 1 ♂, Feb 2015; Kasuo, 1 ♂, Feb 2015, all local collector leg., in C. Belcastro's collection.

Remarks

As *A. elegantula* (Figs 11–14) is present with slightly different forms (e.g. *A. elegantula maesseni*: Figs 11–12) all over Subsaharan Africa (Berger 1981; Kielland 1990; Neave 1910) and its type locality is Sierra Leone, where it was never found by one of us (Belcastro 1986) and the present particular specimens have been found only in the mountains of North Kivu (D.R. of Congo), from where several endemics are known, we do not hesitate to share the same view as the late T. B. Larsen's and consider them as representing a new species, although examination of the genitalia did not provide full evidence of distinction from *A. elegantula*. We include pictures of a paratype of *A. torbeni* (Figs 21–22) differing from all other specimens in that it is almost white in ground-colour, which we consider only as light form of the species.

Distribution. Democratic Republic of Congo, North-Kivu.

Etymology. As said above we wish to dedicate this new species to our long-time good and unforgettable friend Torben B. Larsen (1944–2015), who wrote milestone books on butterflies, in particular African ones, such as “Butterflies of Kenya and their Natural History” and “Butterflies of West Africa”, among many others. After his tireless work, collecting by himself, studying both his specimens and those in the collections of all his fellows (all of us, African collectors and professional entomologists, were his friends) and major repository institutions, plus reviewing

all related literature and sharing his views and knowledge with everybody, we have no hesitation in stressing that he will remain forever in our hearth. Our memories go to the time spent together collecting and identifying for entire days and nights. As he was a close friend we prefer to give the new butterfly species his personal name.

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