

***Afrodiaphanes* a new genus from Africa**

(Coleoptera: Lampyridae: Lampyrini)

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Abstract: A new Lampyrid genus, *Afrodiaphanes*, from South and East Africa is established. *Lampyris marginipennis* Boheman, 1851 is designated as type species. *Afrodiaphanes marginipennis boreus* (Kenya and Uganda), *Afrodiaphanes marginipennis sudanicus* (Sudan) and *Afrodiaphanes marginipennis rwandanesis* (Rwanda) are described as new subspecies.

Zusammenfassung: *Afrodiaphanes* n. gen. aus S- und Ostafrika wird beschrieben. Als Typusart wird *Lampyris marginipennis* Boheman, 1851 festgelegt. *Afrodiaphanes marginipennis boreus* (Kenia, Uganda), *Afrodiaphanes marginipennis sudanicus* (Sudan) und *Afrodiaphanes marginipennis rwandanesis* (Ruanda) werden als neue Subspecies beschrieben.

Material and Acknowledgements

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***Afrodiaphanes* n. gen.**

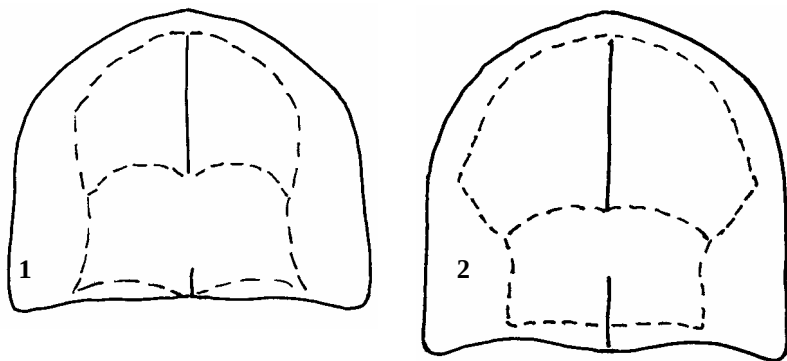
type species: *Lampyris marginipennis* Boheman, 1851

Diagnosis: General characters of Lampyrini, especially those which are closely related to *Diaphanes* Motschulsky, 1853. The pronotum has no

distinct crescentic vitreous spots, at best these spots are very small and obscure. Eyes large, occupying most of the head; mouthparts reduced. Antennae short, thick, and slightly compressed – only with 10 antennomeres. First tarsomere of metatarsus as long as fourth or shorter. Last sternite without any extension.

Discussion: The new genus resembles *Diaphanes* but differs in having only ten antennomeres; the pronotum lacks the large vitreous spots. According to literature *Diaphanes* has the 6th and 7th sternite with luminous areas (original description by MOTSCHULSKY: Les deux avant derniers segment de l'abdomen jaunes ou phosphorescents.). In contrast the male of *Afrodiaphanes marginipennis* (Boheman) has only two very small luminous spots on the last sternite. In *Diaphanes* the first tarsomere of the metatarsus is according the original description two times longer than the 4th ("Premiere article des tarses p. deux fois long que le 4."). *Afrodiaphanes* has the 1st tarsomere as long as the 4th or shorter.

Etymology: *Afrodiaphanes* is compounded from Africa & *Diaphanes*.



Figs. 1–2: Pronotum of 1) *Afrodiaphanes marginipennis marginipennis* and 2) *A. marginipennis boreus* n. ssp.

***Afrodiaphanes marginipennis* (Boheman, 1851) n. comb.**

Lampyrus marginipennis Boheman, 1851

Diaphanes marginipennis: McDermott 1966

Material studied: **S-Africa**: KwaZulu-Natal, Port Natal (= Durban), 29°52'S, 31°00'E, 70 m asl., no date, 2 ♂♂ (MNHUB); Port Afr., no date, 1 ♂ (MNHUB); 5 ♂♂ without any dates (MNHUB).

Original description: LAMPYRIS (LINNÉ) *marginipennis*: oblonga, parum convexa, flavo-testacea, cinereo-sericea; capite, antennis, femoribus apice, tibiis tarsisque fuscis; prothorace amplo, subtiliter, crebre punctulato, tenuiter, versus basin altius carinato, antice intra apicem utrinque vitta angusta, alba, hyalina; elytris fuscis, subtiliter, crebre punctatis, sutura tenuiter margineque nonnihil latius flavis, disco obsolete bicostatis. Long. 17, lat. 6 millim.

Habitat in tractibus fluvii Limpoponis.

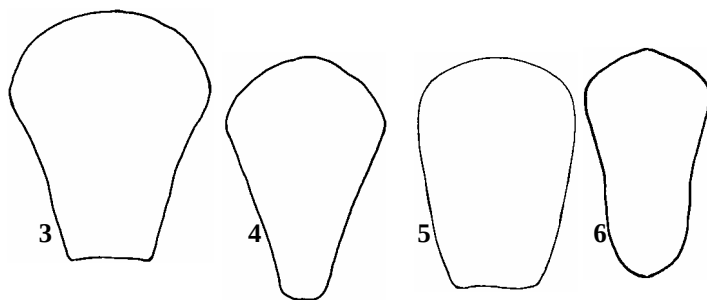
Complementary diagnosis: 16–17 mm. Antennae black, with only 10 antennomeres, short, thick, slightly compressed. 1st antennomere 4.5 longer than 2nd and 1.8 longer than 3rd, 2nd antennomere about ½ as long as 3rd. Palpi brown, tip of last segment usually yellow.

Pronotum broader than long (width : length = 1 : 0.83), the anterior margin is distinctly turned up, vitreous spots very small or absent (fig. 1). Pronotum except of the posterior patch with dense and deep punctures, posterior patch nearly polished (fig. 10). The middle of the pronotum with a distinct ridge which is only interrupted in the front of the posterior patch.

Scutellum yellow and truncated, fig. 3.

Pygidium broad with the posterior margin somewhat bisinuous.

Aedaeagus: compare figs. 7 11, 13.



Figs. 3–5: Scutellum of 3) *Afrodiaphanes m. marginipennis*, 4) *A. m. boreus* **n. ssp.**, 5) *A. m. sudanicus* **n. ssp.** and 6) *A. m. Rwandanesis* **n. ssp.**

Afrodiaphanes marginipennis boreus* **n. ssp.*

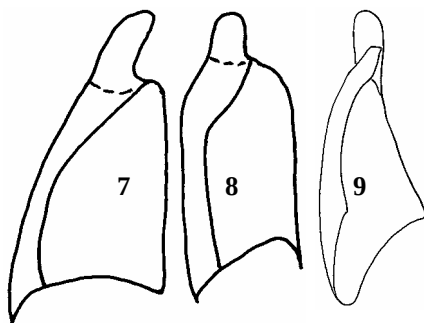
Material studied: Holotypus (♂) **Kenya**: Eastern Coast, Kibwezi, 2°24'S, 37°57'S, 900 m asl., no date, HÜBNER leg. (MNHUB).

Paratypes:

Uganda: Distr. Mbala, Budadiri, 1°10'N, 34°20'E, 1240 m asl., 1 ♂, Th. WAGNER leg. (ZFMK); Nyabyeya, 1°40'N, 31°32'E, 1160 m asl., 3 ♂♂, Th. WAGNER leg. (ZFMK).

Differs from *A. m. marginipennis* by the shape of the pronotum which is as long as broad, and the sides are in the half part straight (fig. 2). The anterior margin of the pronotum is not turned upwards but nearly flat. The apex of the scutellum is not truncated but pointed (fig. 4). The aedaeagus is also somewhat different: the penis (medianlobus) is much more slender (figs. 12, 14).

Etymology: *boreus* (lat.) = northern; that means the subspecies occurs more northern than *A. m. marginipennis*.



Figs. 7–9: Paramere (interior view) of 7) *Afrodiaphanes m. marginipennis*, 8) *A. m. boreus* n. ssp., and 9) *A. m. sudanicus* n. ssp.



Fig. 10: Posterior patch of the pronotum of *Afrodiaphanes m. marginipennis*. The median ridge is interrupted in front of the posterior patch.

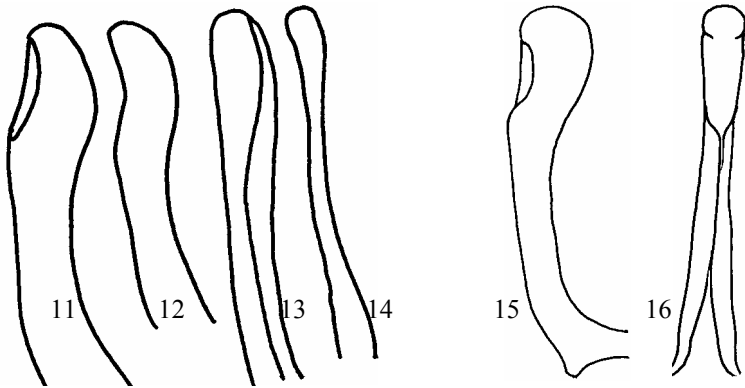
***Afrodiaphanes marginipennis sudanicus* n. ssp.**

Material studied: Holotypus (♂) and Paratype (♂) **Sudan:** Prov. A' Ali An Nil, Malakal, 9°31'N, 31°39'E, 270m asl., 18.–21.09.1957, Göte FORSBERG leg. [MZLU].

Differs from *A. m. marginipennis* and *A. m. boreus* **n. ssp.** by the suture and the lateral margin of the elytra which are except of the apex broad and not narrow yellow brown. Pronotum broader than long (width : length = 1 : 0.83), the anterior margin is slightly turned up. Scutellum with the sides only slightly convergent towards the apex (fig. 5). First and 2nd antennomere lightened.

Aedaeagus: compare figs. 15, 16.

Etymology: named after the Sudan, the native country of the new sub-species.



Figs. 11–16: Medianlobus of the aedaeagus (penis) of 11, 13) *Afrodiaphanes m. marginipennis* (lateral & dorsal view), 12, 14) *A. m. boreus* **n. ssp.** (lateral & dorsal view), 15, 16) *A. m. sudanicus* **n. ssp.** (lateral & dorsal view).

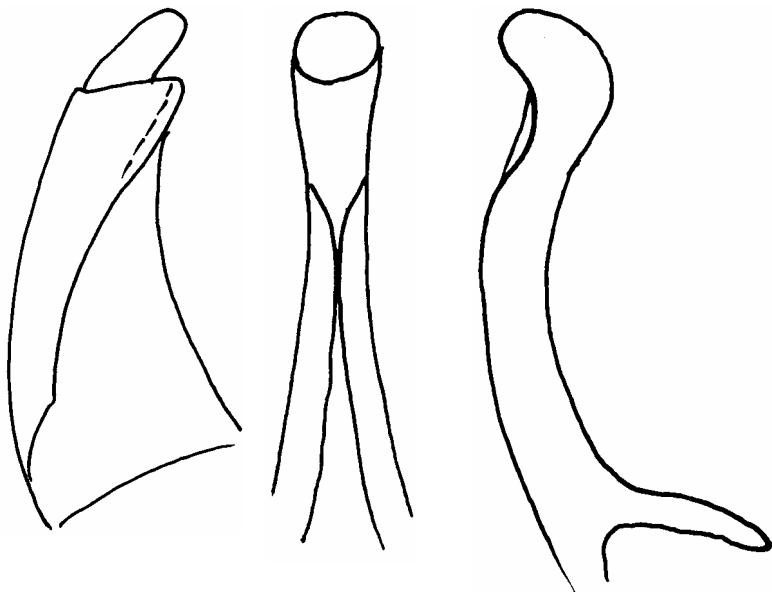
Afrodiaphanes marginipennis rwandanesis* **n. ssp.*

Material studied: Holotypus (♂) **Rwanda**: Mpanga, Ranch Mpanga (between Lac Cyambwe and Lac Mpanga), 1°59'S, 30°1'E, 1600m asl., X.1985, at light, E. FISCHER leg. [ZFMK].

Long: 16.5 mm. Very similar to *A. m. marginipennis* but the posterior patch of the pronotum is reddish brown. Pronotum broader than long (width : length = 1 : 0.88), the anterior margin is distinctly turned up. Scutellum slender and conical with the apex rounded (fig. 6).

Aedaeagus: compare figs. 17–19.

Etymology: named after Rwanda, the native country of the new subspecies.



Figs. 17–19: *Afrodiaphanes m. rwandanesis* **n. ssp.**, 17) paramere, interior view, 18) medianlobus (penis), dorsal view, 19) medianlobus (penis), lateral view.

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