

***Limnichus mateui* n. sp. (Coleoptera, Limnichidae) from Gabon (Africa)**

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Limnichus mateui n. sp. (Coleoptera, Limnichidae) from Gabon (Africa). – *Limnichus mateui* n. sp. is described from Gabon. The species is characterized by its aedeagus and some external characters. Its affinities can be only tentatively discussed, due to incomplete knowledge on the species of the genus *Limnichus*.

Key words: Coleoptera, Dryopoidea, Limnichidae, *Limnichus mateui* n. sp., Gabon, Afrotropical region.

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Introduction

The genus *Limnichus* Latreille, 1829 is one of the most diversified of the family Limnichidae, with a distribution mainly centred in the Palaearctic, Oriental, Australian and Ethiopian regions (DALLA TORRE, 1911; WINKLER, 1926). The taxonomy of the genus, and in particular that of the Palaearctic species, is still only precariously known, most descriptions being based almost exclusively on external characters. However, the described Ethiopian species of the genus (excluding the species described from Madagascar) are well known since the revision by DELÈVE (1968), who provided detailed descriptions and figures of the aedeagus of all species of which males were available. The examination of the aquatic Coleoptera captured with light traps by Dr. J. Mateu in Gabon led to the discovery of a single male of a new species of *Limnichus*, which is described below.

Results

Limnichus mateui n. sp.

Type locality
Makokou, Gabon.

Type material
Holotype, male (Museu de Zoologia, Barcelona, registration number: 98-1176): "GABON, Makokou, 1-15 V 1971, J. Mateu leg." and with holotype label.

Description
Total length 2.1 mm with the head not included, 2.3 including the head in a natural position. Body shape oval, strongly convex. Dark brown, all the body covered with a dense, short, hydrophobic pubescence. The pubescence may present golden glints or appear almost inconspicuous depending on the orientation of the hairs.

Pronotum trapezoidal, highly transverse, finely bordered on the sides and the anterior margin, where the border is wider. Anterior margin regularly and strongly concave, posterior margin bisinuate on both sides, with a dense and slightly impressed punctation uniformly distributed, similar to that of the head.

Elytra with the maximum width in the middle, apex somewhat pointed, with a double punctuation, one less impressed, similar to that of the pronotum, and a second one formed by larger punctures, well impressed, uniformly distributed on all the surface, but with no recognizable striae. Space between punctures larger than their diameter.

Hind wings normally developed (the type specimen was collected in a light trap, so it can be assumed that it was a good flier).

Antenna with the first segment wider and shorter than the second, quadrangular in shape. Third segment as wide as the second, but much shorter (the length of the 2nd segment is approximately equal to that of the 3rd plus the 4th segments). Segments 5 and 6 subequal, short, quadrangular. Segment 7 very short. Segments 9 to 11 forming a loose club, the last one larger and longer, with the apex somewhat asymmetric. Antenna with a double pubescence, one short and dense, the other formed by long sparse hairs, particularly apparent in the club.

Metasternum with a uniform strong punctuation. Space between punctures with a smooth appearance, with traces of microreticulation. Prosternal and metasternal apophyses and sternites strongly pubescent. Last visible sternite with a semi-circular indentation.

Aedeagus as in figure 1, strongly sclerotised. Phallobase extremely elongated (2.8 times longer than the parameres), slightly twisted and curved towards the right (ventral view), with a basal ring strongly sclerotised and hooked. Struts reaching the base of the phallobase. Parameres strongly widened at the base, with the apex narrow and regularly pointed. Median lobe narrow and with the apex rounded, slightly widened towards the base. In lateral view the median lobe and the parameres form an approximately 45° angle with the phallobase.

Females unknown.

Distribution
So far known only from the type locality.

Etymology
We are very pleased to name this new species after the renowned entomologist Joaquim Mateu, who collected the type.

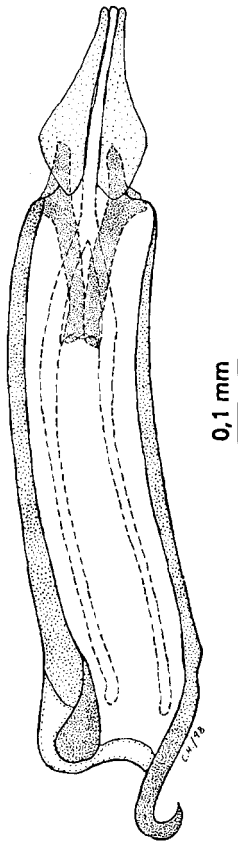


Fig. 1. Male genitalia of *Limnichus mateui* n. sp., ventral view.

Genitalia masculina de *Limnichus mateui* sp. n., vista ventral.

Discussion

As noted in the Introduction, the taxonomy of the species of the genus *Limnichus* is in urgent need of revision, and in consequence the relationships of *L. mateui* n. sp. can only be tentatively discussed. The structure of the aedeagus and the presence of a semicircular indentation in the last visible sternite separates it from all the Palaearctic species of *Limnichus* that we have so far examined (unpublished observations). Among the Ethiopian species, the extremely elongated

phallobase places it close to *L. africanus* Pic, 1923 (Ghana) and *L. waelbroecki* Delève, 1968 (Kinshasa, lake Kivu, possibly Katanga) (see figs. 1 and 3 in DELÈVE, 1968), although in *L. mateui* n. sp. it is longer than in any other known species. The structure of the antenna, and some other external characters (punctuation, total length, etc.) are also characters separating *L. mateui* n. sp. from these two species.

Limnichus rufipes Pic, 1923 (Ivory Coast), only known from the holotype female, is smaller (ca. 1.5 mm, head excluded), has a feebly impressed elytral punctuation, and the disk of the metasternum impunctured (DELÈVE, 1968), all these characters differing from *L. mateui* n. sp. Similarly, *Limnichus atripes* Pic, 1953, described from Somalia, is smaller (1.5-2 mm), black, with greyish pubescence, and with the elytra with a faint punctuation (Pic, 1953). The aedeagus of this species is however unknown.

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Resumen

Limnichus mateui n. sp. (Coleoptera, Limnichidae) del Gabón (África)

Se describe *Limnichus mateui* sp. n. del Gabón. La especie se caracteriza fundamentalmente por la estructura del edeago (fig. 1) (con la base extraordinariamente alargada y los parámetros dilatados en su base), así como por otros caracteres externos (estructura de las antenas, puntuación del metasterno, etc.). Parece próxima a *L. africanus* Pic, 1923 y *L. waelbroecki* Delève, 1968 debido a la elongación de la base del edeago, aunque en *L. mateui* sp. n. ésta es más larga, además de tener una estructura de los parámetros y lóbulo medio diferente. Las relaciones entre las especies del género *Limnichus* son sin embargo difíciles de establecer, debido al estado precario de su taxonomía (y en particular el de las especies paleárticas).

References

- DALLA TORRE, K. W. VON, 1911. Pars 33. Nosodendridae, Byrrhidae, Dermestidae. In: *Coleopterorum Catalogus*: 10-38 (W. Junk & S. Schenkling, Eds.). W. Junk, Berlin.
- DELÈVE, J., 1968. Contribution a l'étude des "Dryopoidea". Les Limnichidae d'Afrique (Coleoptera Limnichidae). *Bull. Ann. Soc. R. Ent. Belg.*, 104: 212-274.
- PIC, M., 1953. Coléoptères nouveaux de l'Afrique Orientale. *Atti Mus. stor. nat. Trieste*, 19: 110-114.
- WINKLER, A., 1926. *Catalogus Coleopterorum regionis palaearticae, Pars 6*. A. Winkler, Wien.
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