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A NEW MORPHOLOGICAL CHARACTER OF  
SUPERIOR CLASPERS TO DIFFERENTIATE  
*GLOSSINA PALLIDIPES* AUSTEN FROM  
*GLOSSINA LONGIPALPIS* WIEDEMANN  
(DIPTERA: GLOSSINIDAE)

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**Abstract**—A new character discovered on the superior claspers of male *Glossina longipalpis* Wied. is described. This is a ciliated fold in the inner angle of the distal part of the claspers. It is absent in *G. pallidipes* Aust. The authors believe that this character will facilitate the study of the systematics of these species; and they propose to modify the key for the identification of *Glossina*.

**Key Words:** Morphology, male genitalia, *Glossina longipalpis*, *Glossina pallidipes*, West Africa, Central Africa, Kenya

**Résumé**—Les auteurs décrivent un nouveau caractère morphologique sur les cerques du mâle de *Glossina longipalpis* Wied. C'est un pli cilié qui se trouve dans l'angle interne de la partie distale des cerques: il n'existe pas chez *G. pallidipes*. Les auteurs pensent que ce caractère facilitera l'étude de la systématique de ces espèces et proposent de modifier la clé de détermination du genre *Glossina*.

**Mots Clés:** Morphologie, genitalia mâle, *Glossina longipalpis*, *Glossina pallidipes*, Afrique occidentale, Afrique centrale, Kenya

INTRODUCTION

*Glossina pallidipes* Austen and *G. longipalpis* Wiedemann are two closely related species which some authors do not hesitate to consider as subspecies of the same species. Since, as far as they are known, their areas of distribution are clearly separated (Ford and Katondo, 1977), there should be no doubt about the specific identification of the two species collected in a given geographical area. It may happen, however, that specimens of doubtful origin have to be identified (Machado, 1965) and that common morphological characters of these two species may lead to confusion.

The examination of two specimens from Benin (*G. longipalpis*) and some specimens from Kenya (*G. pallidipes*) enabled us to discover a new diagnostic character located on the superior claspers of *G. longipalpis* which facilitates identification of one species from the other. In the course of these studies, specimens of *G. pallidipes* from different areas of Kenya showed morphological variations.

MATERIALS AND METHODS

Four specimens from Benin (Bassila: 9° N/1° 46' E) were mounted in Euparal® after treatment with warm

10% KOH and Marc André's solution. *G. pallidipes* specimens from Meru National Park (headquarters: 0° 12' N/38° 11' N) and Shimba Hills (4° 16' S/39° 23' E) in Kenya were mounted in Paramount® after treatment with 5% KOH solution for 48 hr.

RESULTS AND DISCUSSION

A new character, absent in *G. pallidipes* (Fig. 1), was observed in the inner angle of the distal part of the superior claspers in males of *G. longipalpis* (Fig. 2); a small tongue of crescent-shaped fold which emerges from the surface of the integument. The free margin of this fold bears a number of long flexible setae and a single long stout bristle, implanted close to the margin of the fold. The ciliated fold is clearly outlined in an area of the superior claspers devoid of long bristles, but covered with tiny hairs and provides a positive and specific means of *G. longipalpis* identification.

Two specimens from Toumodi (5° 01' W/6° 33' N), Ivory Coast, examined from the ORSTOM collection, Bondy (France) bore the same ciliated fold. It would be worth investigating whether this character is to be found in all specimens from the entire area of distribution of this species. If so, this new character should be included into the keys of identification. In this respect, it might replace (in Pott's key: Mulligan, 1970) the character described as the tooth of superior claspers of males, which is said to be subterminal in *G. pallidipes* and terminal in *G. longipalpis*. This character is not constant.

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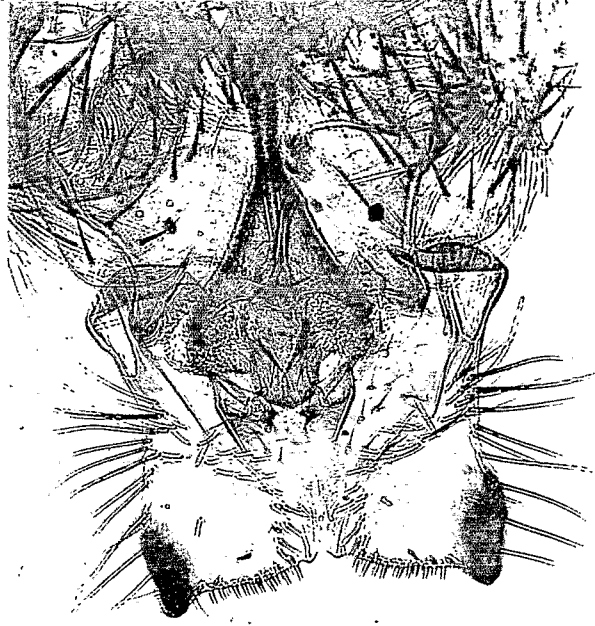


Fig. 1. Superior claspers of *G. pallidipes* from Kenya; specimen from Meru National Park.

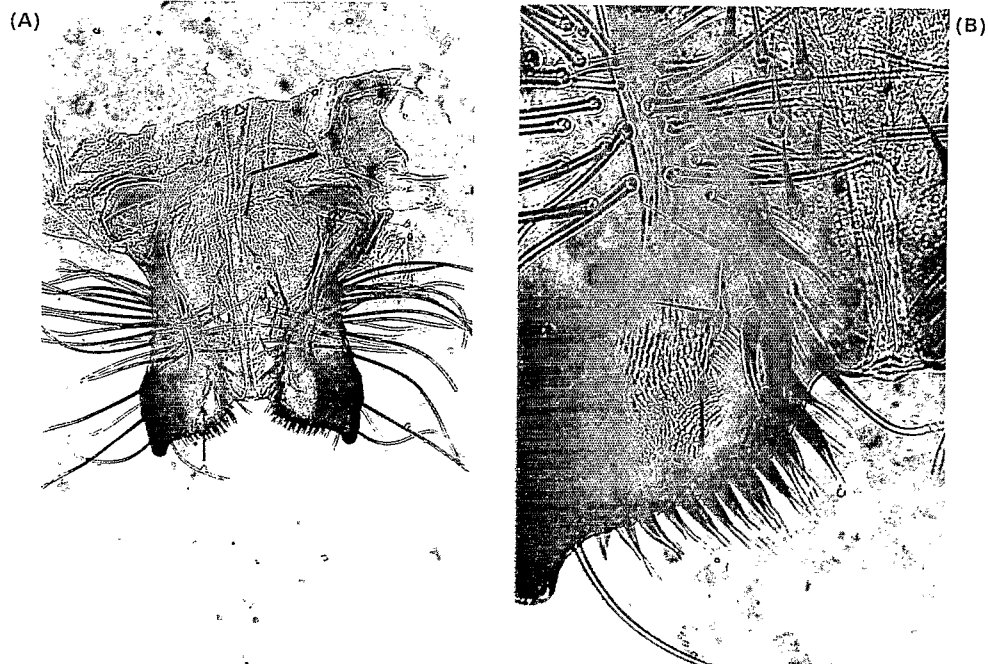


Fig. 2. Superior claspers of *G. longipalpis*; specimen from Bassila, Benin. (A) Whole claspers: the arrow shows the ciliated fold. (B) Detail showing the ciliated fold.

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