

OCCURRENCE OF *SERGENTOMYA* (*PARROTOMYIA*) *BARRAUDI* (SINTON, 1929) IN MACAU

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Summary:

The presence of phlebotomine sandflies (*Sergentomyia barraudi*) in Macau, a Territory in Southern China under Portuguese administration, is here recorded for the first time.

Nineteen specimens (14 males and 5 females) were examined for the most important features which were shown to agree with known descriptions of the species.

KEY WORDS : phlebotomine sandflies, *Sergentomyia barraudi*, Macau, distribution.

Résumé :

PRÉSENCE DE *SERGENTOMYIA BARRAUDI* (SINTON, 1929) À MACAO
Les auteurs signalent pour la première fois la présence des phlébotomes à Macao, Territoire du Sud de la Chine sous administration portugaise.

Dix-neuf adultes (14 mâles et 5 femelles) ont été capturés dans une grotte artificielle en septembre 1994. Les caractères observés sont conformes à la description de l'espèce *Sergentomyia barraudi* (Sinton, 1929).

MOTS CLÉS : phlébotomes, *Sergentomyia barraudi*, Macao, distribution.

INTRODUCTION

S. barraudi was described by Sinton (1929) and later redescribed by Raynal & Gaschen (1934, 1935), from adults caught in India and Vietnam, respectively.

This species has a wide distribution in the Oriental Region (Lewis, 1978).

In Macau, a Territory in Southern China presently under Portuguese administration, phlebotomine sandflies have not yet been recorded, although *S. barraudi* and *S. indica* are known in near by Hong Kong (Lewis, 1978; Leng & Zhang, 1993), while more than forty species are known in China (Leng & Zhang, 1993).

It is presumed that *S. barraudi* is not responsible for the transmission of leishmaniasis (Killick-Kendrick, 1990).

MATERIAL AND METHODS

Nineteen adults (14 males and 5 females) were caught with an electric aspirator by the last three authors in an artificial cave, in Taipa's island - "trilho da Taipa" - (Macau), and preserved in 70 % ethanol.

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The wings, head and abdomen were cut, separated from the body, mounted on a slide in Berlese's medium (Léger *et al.*, 1983), and observed in light microscopy under Nomarsky contrast.

The identification was based on keys of Lewis (1978) and Lane (1993), and the descriptions by Sinton (1929), Raynal & Gaschen (1934, 1935), Parrot & Clastrier (1952), and Cates & Lien (1970).

The terminology used in this paper is the same as that of Lewis (1978).

RESULTS

The 5 females had : antenna $3 > A4 + A5$, $A3 = 181.4 \pm 11.8 \mu\text{m}$ (mean \pm SD) and $A4 + A5 = 176.8 \pm 4.6 \mu\text{m}$ (mean \pm SD); cibarium with about 60 teeth and a bifid pigmented patch at the tip (Fig. 1a); pharynx with lamp-glass shape; smooth and elliptical spermathecae (Fig. 1b) with a length of $67.5 \pm 2.5 \mu\text{m}$ (mean \pm SD) and a width of $25.4 \pm 1.3 \mu\text{m}$ (mean \pm SD).

In the 14 males, we observed that antenna $3 \geq A4 + A5$, $A3 = 215.6 \pm 12.2 \mu\text{m}$ (mean \pm SD) and $A4 + A5 = 211.1 \pm 10.5 \mu\text{m}$ (mean \pm SD); style with four apical spines and four times as long as thick (Fig. 1c); cibarium with about 16 teeth; aedeagus slender and with rounded tip, not sclerotized (Fig. 1d), and hooked paramere (Fig. 1e).

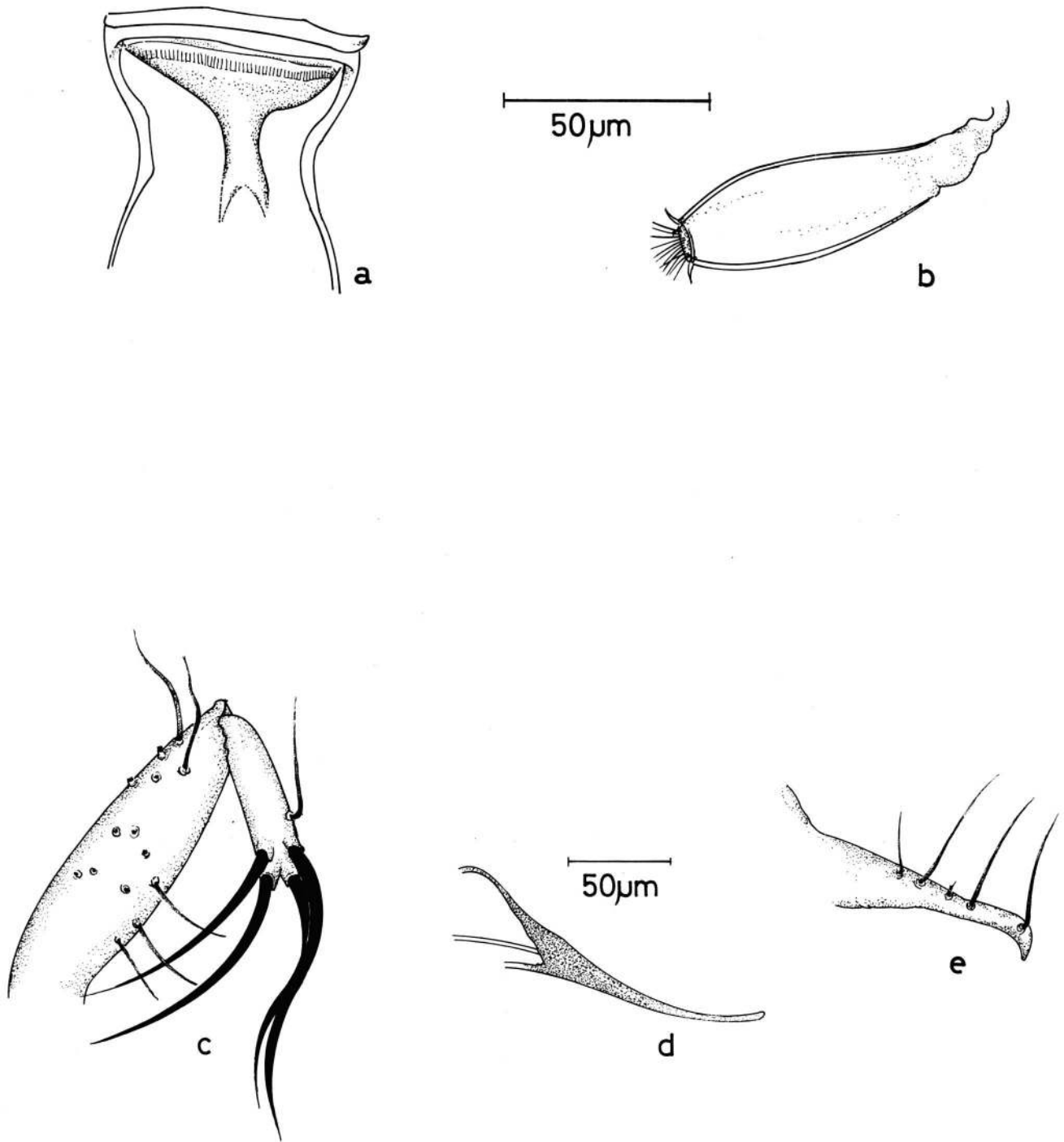


Fig. 1. — *Sergentomyia barraudi* from Macau; a. : cibarium, b. : spermathecae, c. : style, d. : aedeagus, e. : poremere.

DISCUSSION AND CONCLUSION

FEMALES

The presence of an antennal segment A3 longer than A4 + A5, and the value of the ratio between length and width of the spermathecae (2.7) were observed by Sinton (1929), Raynal & Gaschen (1934) and Cates & Lien (1970).

We found about 60 cibarial teeth in our five females, a little more (40-50) than observed by Sinton (*op. cit.*), Raynal & Gaschen (1934) and Parrot & Clastrier (1952), but similar to the values cited by Lewis (1978). The lamp-glass shaped pharynx and a vein R1 shorter than R2 + R3 in the wings, are similar to the observations of Sinton (1929), Raynal & Gaschen (1934) and Cates & Lien (1970).

The bifid shape of the pigmented patch of cibarium in the females, characteristic of this species (Sinton, 1929), was present in our five females.

MALES

The style with four apical spines, with length about four times the width, the hooked paramere, and a cibarium with about 16 teeth, as seen in our 14 males, are also characteristic of *Sergentomyia barraudi* (Sinton, 1929; Raynal & Gaschen, 1934 and Cates & Lien, 1970).

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