

## 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).

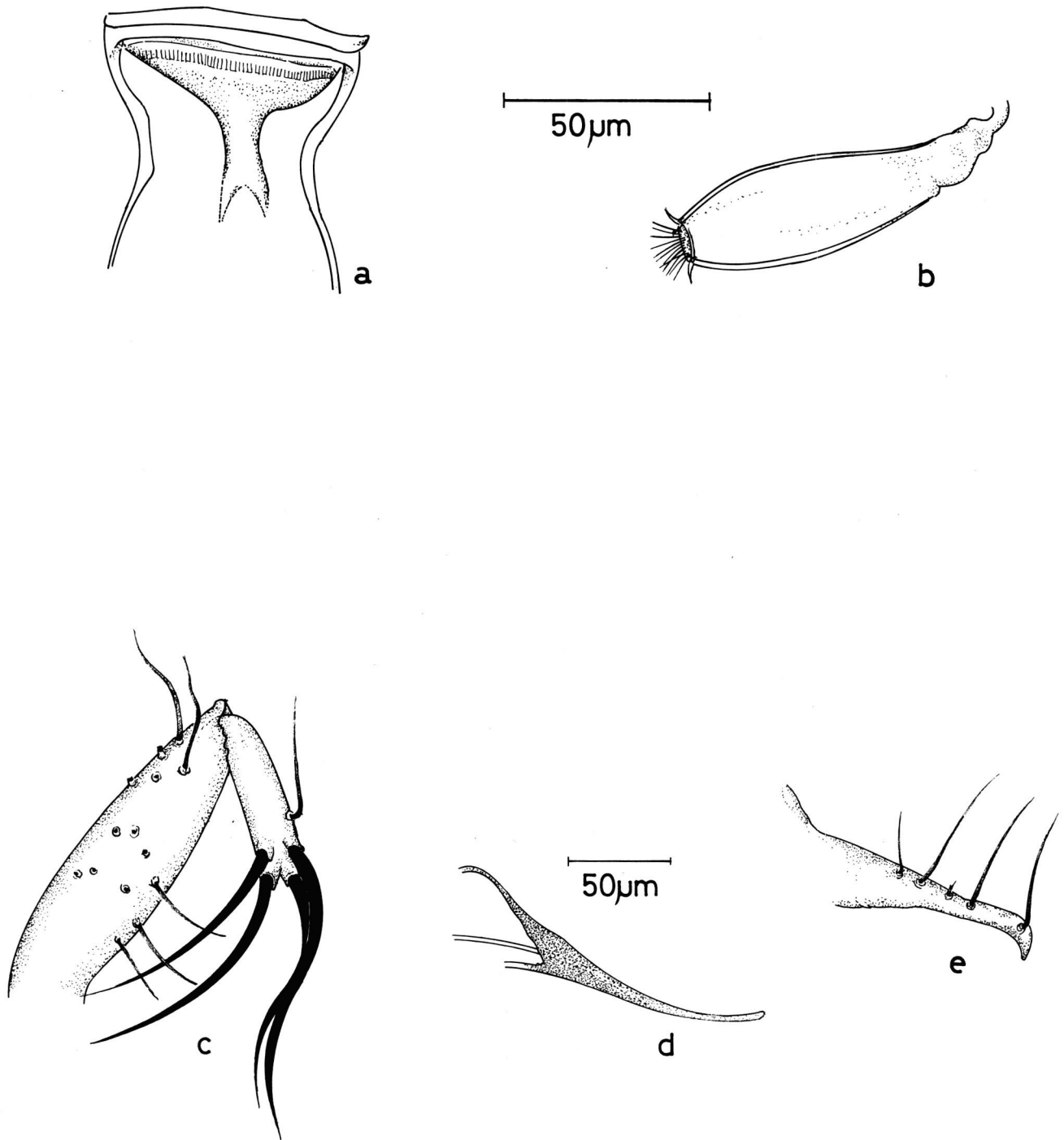


Fig. 1. — *Sergentomyia barraudi* from Macau; a. : cibarium, b. : spermathecae, c. : style, d. : aedeagus, e. : poremere.

## 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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