

SYSTEMATICS, MORPHOLOGY AND PHYSIOLOGY

New Species in the Genus *Anastrepha* (Diptera: Tephritidae) from Brazil

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Nova Espécie do Gênero *Anastrepha* (Diptera: Tephritidae) no Brasil

RESUMO – *Anastrepha morvasi* n. sp. é descrita com base em exemplares fêmeas coletados em armadilhas tipo McPhail em levantamentos das espécies de moscas-das-frutas conduzidos em Vacaria, Estado do Rio Grande do Sul. Descrição, diagnose e ilustrações dessa nova espécie são elaboradas, e uma chave de identificação para as espécies do grupo *punctata*, incluindo *A. morvasi* n. sp., é apresentada.

PALAVRAS-CHAVE: Insecta, mosca-das-frutas, descrição, grupo *punctata*, *morvasi*.

ABSTRACT – *Anastrepha morvasi* n. sp. is described based on female specimens collected in McPhail traps in a fruit fly survey conducted in Vacaria, State of Rio Grande do Sul. Description, diagnosis and illustrations are provided and a diagnostic key to the species of the *punctata* group, including *A. morvasi* n. sp., is also presented.

KEY WORDS: Insecta, fruit fly, description, *punctata* group, *morvasi*.

Anastrepha morvasi Uramoto & Zucchi n. sp.

Anastrepha n. sp.; Kovalski et al. 1996:32; Kovalski 1997:31, 33.

Description. Female. Mostly yellowish, bristles golden, microtrichia yellowish. **Head:** yellowish except for blackish ocellar tubercle; ocellar bristles small; orbital bristles developed; three pairs of frontal bristles. **Thorax** (Fig. 1): Mesonotum 2.10-2.35 mm long; scu-

tum 1.6-1.8 mm long, entirely covered by yellowish microtrichia; mostly yellowish with a pair of dark brown circular spots close to the posterior margin of scutum; pleura uniformly yellowish; katepisternal bristles much more slender than outer vertical bristles; subscutellum and mediotergite totally yellowish. **Wings** (Fig. 2): Length 5.4 mm; bands yellow to light brown; C-band completely separated from S-band; V-band complete and connected to S-band; vein R₂₊₃ slightly sinuous; vein M slightly curved apically, not reach-

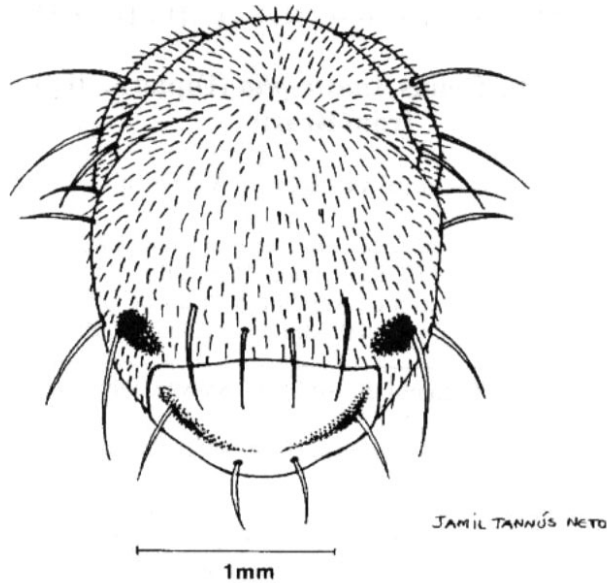


Figure 1. Mesonotum, dorsal view. *A. morvasi* n. sp.

ing S-band ; section of vein M between bm-cu and r-m veins 2.38 times as long as section between r-m and dm-cu; cell bm hyaline. **Abdomen:** tergites uniformly yellowish, 2.02 mm long; syntergosternite 7 1.42 mm long and 0.75 mm wide at the level of spiracles. **Terminalia** (Figs. 3a, 3b): aculeus 0.79 mm long and 0.066-0.067 mm wide; aculeus tip 0.085-0.088 mm long ; serrate part of aculeus 0.076-0.079 mm long with teeth almost imperceptible in more than half of the length of tip.

Diagnosis. *Anastrepha morvasi* is characterized mainly by the length of the aculeus (< 1mm) and by the presence of circular brown spots on the posterior margin of scutum. It is distinct from species of the *punctata* group, which also have a pair of posterior brown spots on the scutum (Norrbon 1985), for presenting a shorter and wider aculeus (approx. 0.07 mm wide in this species and less than 0.04 in the species of the *punctata* group).

Material examined: Holotype. Female Brasil, Rio Grande do Sul: Vacaria (28° 30' S / 50° 56' W, 950 m), Embrapa, McPhail trap, 3.iv.1997, A. Kovaleski (Museu de Zoologia/USP, São Paulo, SP). Paratypes: 2Female, same data as holotype, but 19.iv.1995 (ESALQ, Piracicaba, SP) and 15.ii.1996 (USNM, Washington, D.C.).

Host. Unknown

Male. Unknown

Distribution. Known only from the type locality

Etymology. The species is named after Prof. João Stenghel Morgante and Prof. Aldo Malavasi (Instituto de Biociências/ Universidade de São Paulo) in recognition of their invaluable contributions to the study of fruit flies in Brazil. The specific name is a noun in apposition based on their surnames.

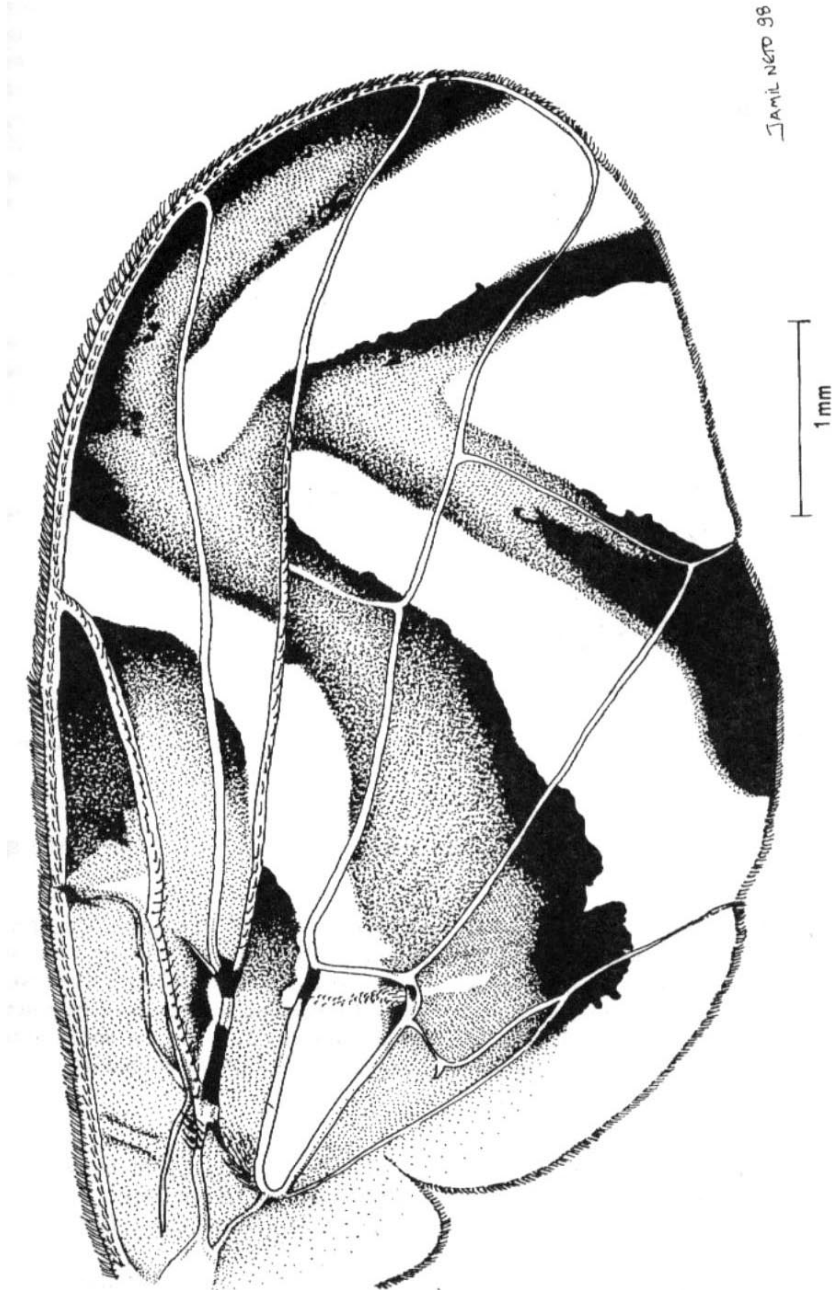


Figure 2. Wing. *A. morvasi* n. sp.

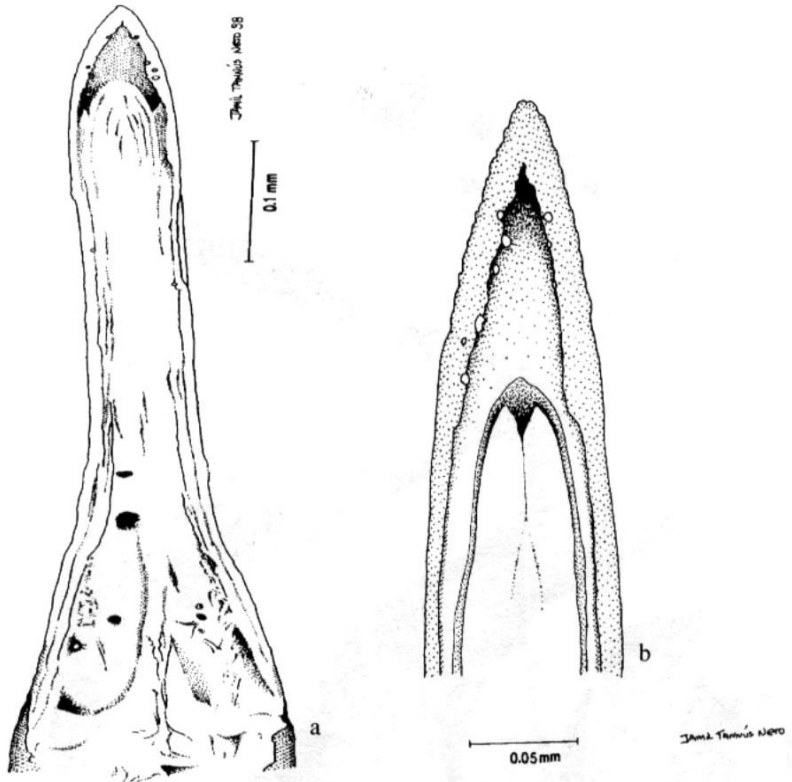


Figure 3. Female terminalia. (a) aculeus; (b) aculeus tip, ventral view. *A. morvasi* n. sp.

Discussion. The specimens of *A. morvasi* were collected in traps in native vegetation and in an apple orchard in Vacaria, RS. Only three females of *A. morvasi* were collected out of more than 9,000 individuals of *Anastrepha* spp. examined in a three year sur-

vey using plastic McPhail traps. This species can be easily distinguished from other species collected in the study area (Kovaleski *et al.* 1996), including the species of the *punctata* group. Probably *A. morvasi* n. sp. belongs to *punctata* group, which is characterized by

- 1- Mesonotum less than 3.5 mm long 2
- 1'- Mesonotum more than 3.5 mm long sp. nr. *luederwaldti*
- 2 - Posterior scutal spots dark brown; syntergosternite 7 less than 2.8 mm long 3
- 2'- Posterior scutal spots faint brown; syntergosternite 7 about 3.0 mm long ... *luederwaldti* Lima
- 3 - Syntergosternite 7 more than 2.3 mm long *aczeli* Blanchard
- 3'- Syntergosternite 7 less than 2.0 mm long 4
- 4 - Aculeus longer than 1.3 mm, V-band and S-band separated *punctata* Hendel
- 4' - Aculeus shorter than 1 mm, V-band and S-band fused *morvasi* n. sp.

having male genitalia with surstyli obliquely oriented, strongly curved and blunt in lateral view (Norrbon 1985). However, as males are unknown, this new species cannot be assigned to *punctata* group reliably. The diagnostic key of Norrbom (1985) that includes the species related to *A. morvasi*, can be modified as follows:

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