

## Two species of fruit flies, *Anastrepha* (Diptera: Tephritidae), new to Costa Rica\*.

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**Resumen:** Se menciona las diez especies de *Anastrepha* Schiner (Diptera; Tephritidae), previamente registradas para Costa Rica. Se agrega *Anastrepha limae* Stone, asociada con *Passiflora* sp., y *A. pickeli* Lima, encontrada en *Manihot esculenta* Crantz, y características morfológicas para reconocer a los adultos de estas especies.

Probably the first paper on fruit flies of Costa Rica, was that of Picado (1920), in which he described the biology of *Anastrepha striata* Schiner, the guava fruit fly. Stone (1942) adds to the Costa Rican records *A. distincta* Greene, *A. fraterculus* (Wied.), *A. ludens* (Loew), *A. mombinpraeoptans* Señ (= *A. obliqua* Macquart); Steyskal, 1975), *A. montei* Lima, *A. schausi* Aldrich and *A. serpentina* (Wied.). Later Salas (1957) mentions the presence of *A. spatulata* Stone, and Saunders and Salazar (1979) add *A. manihoti* Lima.

We found *A. limae* Stone and *A. pickeli* Lima (both previously reported from Panama) visiting *Passiflora* sp. and *Manihot* spp., respectively.

Three Costa Rican species associated with cassava (*Manihot esculenta* Crantz) are similar in wing venatio and wing spot patterns, *A. montei*, *A. manihoti* and *A. pickeli* (Fig. 1); all these species have Costal and S-bands joined on R4 and R5, and V and S-bands separated or very narrowly connected. The ovipositor of *A. pickeli* is rather thick at the base and gradually tapers off at the apex (Fig. 2A). The macrochaetae of *A. limae* are blackish, the mesoscutum has yellowish mesal and sublateral stripes,

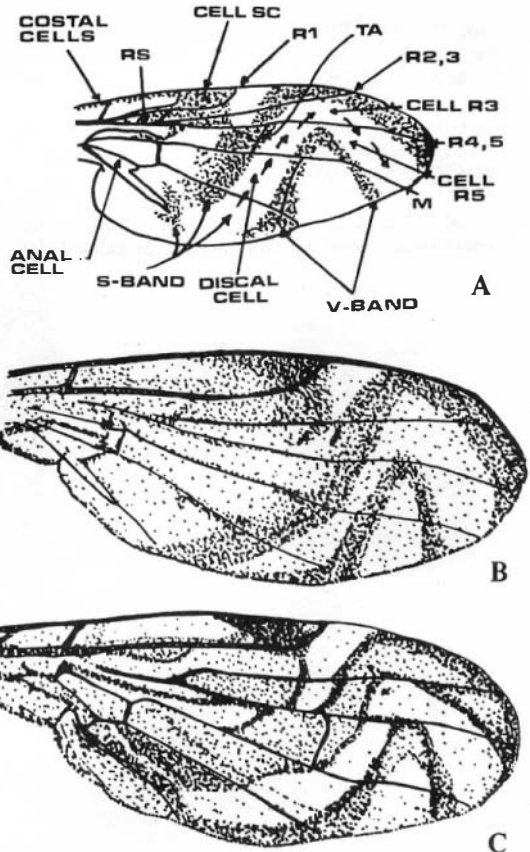


Fig. 1. Generalized wing spot patterns. A: *Anastrepha* sp. (Steyskal 1977). B: *A. pickeli*. C: *A. limae*.

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and the V-band of the wings is joined to the S-band at vein R5 (Fig. 1C). The ovipositor has a narrow oviduct and a pointed tip (Fig. 2B; Steyskal, 1977).

*A. pickeli* was found at the Fabio Baudrit Experimental Station of the Universidad de Costa Rica, Alajuela (640 m), visiting cassava fruits on November 3, 1984.

In Guácimo, Limón Province (110 m) on January 11, 1985, we captured three out of five *A. limae* observed visiting "granada" fruits on a cultivated vine of *Passiflora* sp., between 15:00 and 16:30 hours. The weather was cloudy with a temperature of about 27° C in the shade.

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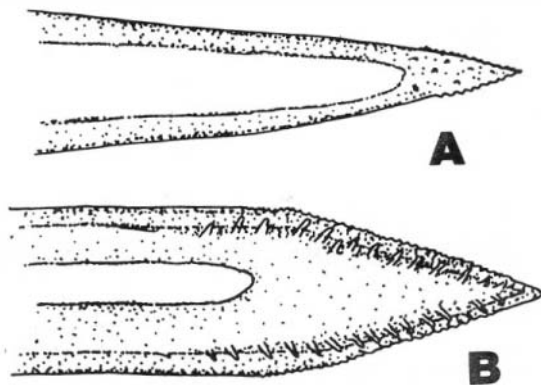


Fig. 2. Ovipositors of *Anastrepha*. A: *A. pickeli*. B: *A. limae*.

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