



Article

urn:lsid:zoobank.org:pub:23182A4F-FCBE-47A0-A741-2585C017160A

New species of *Anastrepha* (Diptera: Tephritidae), with a key for the species of the *megacantha* clade

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Abstract

Thirteen new species of *Anastrepha* are described and illustrated: *A. anopla* (Brazil, Ecuador), *A. grandicarina* (Brazil, Ecuador, Perú), *A. hadracantha* (Ecuador), *A. haplacantha* (Ecuador), *A. hyperacantha* (Ecuador), *A. inaequalis* (Trinidad), *A. intermedia* (Panamá), *A. lopezi* (Guatemala), *A. macracantha* (Ecuador), *A. magnicurva* (Ecuador, Perú), *A. neogigantea* (Ecuador, Venezuela), *A. peneramosa* (Perú), and *A. stangei* (Venezuela). A key for the species of the *megacantha* clade is provided. *Pouteria buenaventurensis* (Sapotaceae) is reported as a host plant for *A. intermedia*.

Key Words: fruit flies, taxonomy

Introduction

Anastrepha Schiner is the most diverse genus of fruit flies (Diptera: Tephritidae) in the American tropics and subtropics with more than 250 described species (Norrbom *et al.* 1999a, b, 2004a, Norrbom & Korytkowski 2009, 2011). It is also the most economically important genus of fruit flies in this region, including a number of major fruit pests (Norrbom 2004b). Despite its importance, many species remain undescribed, and the native host plant relationships are poorly known. In this paper we describe 13 species to make their names available for an interactive identification system and key being developed for the genus (see Norrbom *et al.* 2012).

Materials and Methods

We follow the morphological terminology of White *et al.* (1999). The names for the wing bands follow Stone (1942) and are shown in Figure 48. Wing length was measured from the base of the costa to the wing apex in cell r_{4+5} ; wing width was measured at the broadest part, distal to the apex of vein R_1 to the margin of cell cu_1 . The position of the apex of vein R_1 is the ratio of the distance from the base of the costa to the apex of vein R_1 divided by wing length. The width of cell r_{4+5} at the level of $dm-cu$ was measured on a line directly anterior to the junction of vein M and $dm-cu$. Its apical width was measured on a line from the apex of vein R_{4+5} and the junction of vein M and the wing margin. The width of the distal part of the S-band was measured perpendicular to the band at the apex of vein R_{2+3} , and the width of cell r_{2+3} was measured along the same line. Oviscape length was measured medially on the ventral side from the concavity in the base to the apex, including the medial lobe. The length of the aculeus tip was measured ventrally from the inner (proximal) margin of the sclerotized part to the extreme apex. See Norrbom *et al.* (2012) for illustrations of these characters.

Label data for all examined specimens will be made available in the New World fruit fly specimen database on the Systematic Entomology Laboratory web site (see www.sel.barc.usda.gov:591/diptera/Tephritidae/TephIntro.html). A USNM barcode label was added to many specimens that previously lacked a barcode label. These labels do not indicate ownership; they are simply unique specimen identifier numbers. In the Type data and Specimens examined sections the barcode number is listed following the depository acronym for each specimen or series.