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Table of contents

Abstract 4
Introduction 4
Methods 5
Key to the male species of *Efferia* from Hispaniola 6
Key to the female species of *Efferia* from Hispaniola 7
Taxa from Hispaniola 8
Efferia alia **sp. nov.** 8
Efferia angusta **sp. nov.** 11
Efferia bullata **sp. nov.** 13
Efferia clava **sp. nov.** 15
Efferia exacta **sp. nov.** 18
Efferia fortis (Walker) 20
Efferia fulvibarbis (Macquart) 23
Efferia haitensis (Macquart) 26
Efferia incisura **sp. nov.** 29
Efferia picea **sp. nov.** 31
Efferia serrula **sp. nov.** 33
Efferia sinuosa **sp. nov.** 35
Efferia spinula **sp. nov.** 38
Efferia suspiciosa **sp. nov.** 40
Efferia woodleyi **sp. nov.** 42
Key to the males of *Efferia* Coquillett from Puerto Rico and the Lesser Antilles 45
Key to the females of *Efferia* Coquillett of Puerto Rico and Lesser Antilles 46
Taxa from Puerto Rico and the Lesser Antilles 47
Efferia forbesi (Curran) 47
Efferia montensis **sp. nov.** 49
Efferia nigrimystacea (Macquart) 52
Efferia portoricensis (Hine) 55
Efferia stylata (Fabricius) 58
Unresolved species 63
Efferia sp. C 63
Acknowledgments 65
References 65

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Abstract

The species of *Efferia* from Hispaniola, Puerto Rico, and the Lesser Antilles are reviewed. Twenty species are recognized including 12 new species from the Dominican Republic: *E. alia* **sp. nov**., *E. angusta* **sp. nov**., *E. bullata* **sp. nov**., *E. clava* **sp. nov**., *E. exacta* **sp. nov**., *E. incisura* **sp. nov.**, *E. picea* **sp. nov.**, *E. serrula* **sp. nov**., *E. sinuosa* **sp. nov**., *E. suspiciosa* **sp. nov**., *E. spinula* **sp. nov**., and *E. woodleyi* **sp. nov**., and 1 from Puerto Rico: *E. montensis* **sp. nov**. Seven previously described West Indian species are recognized: *E. forbesi* (Curran, 1931), *E. fortis* (Walker, 1855), *E. fulvibarbis* (Macquart, 1848), *E. haitensis* (Macquart, 1848), *E. nigrimystacea* (Macquart, 1847), *E. portoricensis* (Curran, 1919), and *E. stylata* (Fabricius, 1775). An unresolved species from Tobago and Trinidad is also reported. All of these belong to the *aestuans* species group. New synonyms include: *E. pachychaetus* (Bromley, 1928) = *E. fulvibarbis* (Macquart, 1848), **syn. nov.**; *E. tortola* (Curran, 1928) = *E. stylata* (Fabricius, 1775), **syn. nov.**; and *Phoneus flavotibius* Bigot, 1878, = *E. fortis* (Walker, 1855), **syn. nov**. *Efferia haitensis* (Macquart, 1848) is removed from synonymy with *E. stylata* (Fabricius, 1775). The male of *E. stylata* is discovered and described. **Lectotypes** are designated for *E. haitensis* and *E. nigrimystacea*. The species is removed from the list of species from Hispaniola. Endemism is high with most species limited to single islands. Only *E. stylata* and *E. forbesi* occurring in Puerto Rico and the Virgin Islands and *E. nigrimystacea* in the Lesser Antilles are more widespread. Hispaniola has the greatest diversity with 15 species whereas Puerto Rico, the British and US Virgin Islands, and the Lesser Antilles have 5. Keys, illustrations of the left wing of selected males, and terminalia of all known species are included. A check-list of the West Indian species of *Efferia*, including an unresolved species from Tobago and Trinidad, is also provided.

Key words: Diptera, Asilidae, West Indies, Efferia, revision

Introduction

Efferia Coquillett is one of the largest Apocleine genera in the Americas with approximately 255 species. However, only 23 species are reported from the West Indies, and of these, 16 are from the Bahamas, Cayman Islands, Cuba, and Jamaica (Scarbrough and Perez-Gelabert, 2008). The remaining 7 species are recorded from Hispaniola, Puerto Rico, and the Lesser Antilles (Martin & Papavero, 1970). All but 2 of the West Indian species were described before 1935, and no revisionary works have been attempted until this one. See Scarbrough and Perez-Gelabert (2008) for a review of the West Indian literature.

The *Efferia* fauna, as is the case of most Diptera in this region, has not been collected and/or studied extensively. Thus, our knowledge of the diversity and distribution of *Efferia* is limited, fragmentary, and confused with misidentifications. The failure to use type specimens by early workers for comparision of unidentified species and the absence of comprehensive keys have contributed to these errors. Additionally, brief descriptions of species, dependency on color patterns of the tomentum and vestiture for diagnosing species, the failure to recognize variations of such characters, and the use of only females for describing new species further contributed to errors. Females, especially isolated ones, are usually extremely difficult to identify.

Hine (1919) divided the genus into 7 species groups. Later, Artigas and Papavero (1997) elevated these and other groups to generic status. Fisher (In Press) rejected their proposal, noting the variability of the characters used by these authors for justifying generic status. He further noted that genitalic morphology offers the most reliable means of separating species. We agree with Fisher's assessment of the genus. All species in this study belong to the aestuans group that is recognized by wing venation (Hine 1919, Wilcox 1966). Thus, the fork of veins R_4 and R_5 occurs beyond the apex of cell d, and R_5 usually joins the costa below, rarely at or slightly above, the wing tip (see Figs. 89–96). Thus far *E. caymanensis* Scarbrough (Scarbrough 1988, Scarbrough & Perez-Gelabert 2008) from Grand Cayman Island is the only species that belongs to the staminea group in the West Indies. The latter is recognized by the fork of R_4 and R_5 occurring before the apex of cell d.

Recent surveys in the Dominican Republic, the Virgin Islands, and Dominica have revealed numerous species and provided significant information that helps to clarify the identity of the earlier described species.