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Adaina ipomoeae Bigot and Etienne, 2009, new records for Florida
and the West Indies (Lepidoptera: Pterophoridae)

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Adaina ipomoeae Bigot and Etienne, 2009, new records for Florida and the West Indies (Lepidoptera: Pterophoridae)

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Abstract. Specimens of a recently described pterophorid, *Adaina ipomoeae* Bigot and Etienne, 2009 (Lepidoptera: Pterophoridae), were identified from Grenada, Dominican Republic, and Florida. All are new country records.

Key Words. Pterophorinae, plume moth, Convolvulaceae, Grenada, Dominican Republic.

Introduction

Bigot and Etienne (2009) recently published the results of collecting and rearing of Pterophoridae from Guadeloupe Island. Eleven plume moth species were reported from the island, including *Adaina ipomoeae* Bigot and Etienne, 2009, collected 6 June 2006 and associated with *Ipomoea tiliacea* (Wild) Choisy and *Merremia umbellata* (L.) H. Hall [Convolvulaceae]. Gielis (2011) reported the distribution of *A. ipomoeae* to include Cuba, Jamaica, and Puerto Rico as well as Guadeloupe. Label data were provided for illustrated specimens (adult, male and female genitalia) from Patillas, Puerto Rico; Moneague, Jamaica; and Pinar Rio, Sierra Rosario, Cuba. To these records we presently add specimens from the Dominican Republic, Grenada, and Florida.

Materials and Methods

Specimens examined (6 males, 4 females) are deposited in the first author's collection [DLMC] and the Florida State Collection of Arthropods [FSCA] at the McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, Gainesville. Identifications are based on comparison of male and female genitalia with illustrations by Bigot and Etienne (2009). Genitalia slides were prepared following standard techniques and mounted in Canada Balsam or Euparal. Male genitalia were photographed at the Florida Museum of Natural History with a Zeiss Axiophot transmitted light microscope (40× objective) using Axiocam 3.1 camera software and KS 400 3.0 digital imaging system. Specimens are pinned except for the malaise trap collected material from Grenada that is stored in vials containing 70% isopropyl alcohol.

Material Examined

DOMINICAN REP.: Prov. Barahona, nr. Filipinas, Larimar Mine 20.vi.1992 R. Woodruff, P. Skelley, F. Skillman (1 F) [FSCA]; same data 29.vi.1992 (1 F, slide DM 677) [FSCA]; same data, 30.vi.1992 R. Woodruff, P. Skelley, F. Skillman (1 M, slide DM 672) [DLMC]; same data 5.vii.1992 (1 F) [DLMC]; GRENADA: Par. St. Andrews, Mirabeau 2-6.iii.1990 R.E. Woodruff et al. Malaise Trap (3 M, slides DM 890, 891, 897; 1 F, slide DM 898) [FSCA]; same locality, 29.xi.1989 A. Thomas & J. Telesford, Malaise Trap (1 M, slide DM 892) [FSCA]; USA: FLORIDA: Broward Co. Hollywood 29.x.1972 B. Mather # 071936 (1 M, slide DM 470) [DLMC].



Figure 1. *Adaina ipomoeae* adult male from Florida, specimen labels on right.

Results and Discussion

This species is known from Florida by a single specimen collected by Bryant Mather in 1972. Mather (pers. comm., circa 1994) recalled collecting the specimen at light on a hotel wall while attending a structural materials conference in Hollywood. We include an image of this adult and labels (Fig. 1), and the male genitalia (Fig. 2). The Florida specimen is currently held in the first author's collection [DLMC] and represents a new species record for the Florida fauna, adding to the 32 previously reported species (Matthews 1989, Matthews et al. 1990). *Adaina ipomoeae* is also newly reported for the Dominican Republic as well as Grenada where seven species of Pterophoridae were reported by Woodruff et al. (1998).

Adults have been collected during January, May, June, August, October, and November at the various localities but without enough data to determine seasonality or broods. While other species of Convolvulaceae may be suitable hosts, one of the two known hostplants, *Merremia umbellata* (hogvine) a native throughout the West Indies also occurs in South Florida (Collier, Dade, Monroe counties) as an exotic (Acevedo-Rodríguez and Strong 2010; USDA 2010). Additional surveys in South Florida are necessary to determine if this is an established species or a stray. This species should also be examined as a potential pest on sweet potato, *Ipomoea batatas* (L.) Lam. Although the immature stages were not described, adults were apparently reared by Bigot and Etienne (2009) along with *Hellinsia devriesi* (B. Landry and Gielis), and *Ochyrotica fasciata* Walsingham that are also associated with the same host plants that occur on Guadeloupe Island. Pterophoridae from Florida that also feed on Convolvulaceae include *Emmelina monodactyla* (Linnaeus), *E. buscki* (Barnes and Lindsey), and *P. belfragei* (Fish) (Matthews and Lott 2005, Matthews 2006).

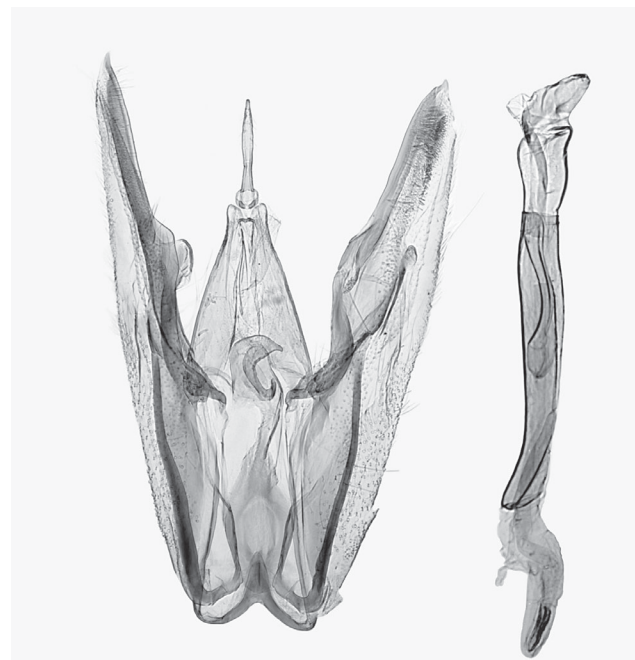


Figure 2. Male genitalia of *Adaina ipomoeae*, aedeagus on right, slide DM 470.

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