

# Preliminary study of fungus gnats (Diptera: Mycetophilidae) from the Carmanah Valley, Vancouver Island British Columbia<sup>1</sup>

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## ABSTRACT

The types of *Macrocera unica* Garrett, *Sytemna vernalis* Sherman, *Dziedzickia columbiana* Sherman, *Docosia setosa* Garrett and *Tetragoneura marceda* Sherman have been examined to re-evaluate their identities.

**Key words:** Mycetophilidae, Garrett, Sherman, *Fenderomyia*, *Dziedzickia*, *Sytemna*, *Docosia*, *Megophthalmia*, *Tetragoneura*

## INTRODUCTION

The following study of fungus gnats results from a survey of the old-growth rain forest in the Upper Carmanah Valley by Dr. N.N. Winchester. This undisturbed woodland lies on the west coast of Vancouver Island, British Columbia. Several synonymies and new combinations are treated and one homonym is re-named.

## SYSTEMATICS

### Macrocerini

*Fenderomyia* Shaw, 1948.

In a recent paper, Matile (1997) examined a single specimen of *F. smithi* Shaw. As a result he validated the genus which Coher (1963) had placed as a junior synonym of *Macrocera* Meigen. A series of flies from Vancouver Island verify both Shaw's (1948) and Matile's (1997) proposal. Matile pointed out the value and validity of pleural characteristics in combination with other characteristics noted by Shaw.

The male holotype of *Fenderomyia smithi* is mounted on a slide in the insect collection of the University of Massachusetts, Amherst.

*Fenderomyia unica* (Garrett), 1925 **n. comb.**

*Macrocera unica* Garrett, 1925a:8.

*Fenderomyia smithi* Shaw, 1948:94 **syn. n.**

**Records:** CANADA British Columbia, Vancouver Island, Upper Carmanah Valley, 21 June - 3 July, 1991, 8 males, 57 females; 4 - 15 July, 1991, 3 females; 12- 27 August, 1991, 4 males. Malaise trap, N. Winchester.

The male holotype from eastern British Columbia is more robust than Vancouver Island specimens which are less pigmented. Differences of the male terminalia between the two are in size and robustness only. The abdomen of the female type of *M. unica* is missing.

### Sciophilini

*Sytemna* Winnertz, 1863.

Sherman [1921] described several species of *Dziedzickia* which were transferred to *Sytemna* by Vockeroth (1980). My examination of the holotype of *Dziedzickia*

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*columbiana* Sherman confirms it as a junior synonym of *Sytemna hungarica* (Lundström). In addition the following synonymy is noted.

*Sytemna vernalis* Sherman, [1921].

*Dziedzickia vernalis* Sherman, [1921]:16.

*Sytemna vernalis* (Sherman). Vockeroth, 1980:543.

*Sytemna johannseni* (Sherman), [1921]:17, **syn. n.**

The female terminalia of the types of *Dziedzickia vernalis* Sherman, [1921] and *D. johannseni* Sherman, [1921] are identical with those of a long series of females taken with males of *S. vernalis*.

**Records:** CANADA: British Columbia, Vancouver Island, Upper Carmanah Valley, 21 June - 3 July, 1991, 16 males, 5 females; 4 - 15 July, 1991, 6 males, 2 females; 31 July - 11 August, 1991, 4 males, 2 females; 12 - 27 August, 1991, 11 males, 2 females; 28 August - 9 September, 1991, 5 males, 7 females. Malaise trap, N. Winchester.

Tetragoneurini (Leini)

*Docosia* Winnertz, 1863.

*Docosia columbiana* Coher, **nom. nov.**

*Docosia setosa* Garrett, 1925b:12. Preoccupied by *Docosia setosa* Landrock, 1916:63.

*Docosia columbiana* Coher, **nom. nov.** for *D. setosa* Garrett, 1925b, nec *D. setosa* Landrock, 1916.

I have examined the male holotype. The terminalia has "ventrally a number of long black bristles" as described by Garrett; the female has a somewhat similar comb. The parameres of the male are unique in the genus with longitudinal rather than transverse rows of setulae.

*Megophtalmidia* Dziedzicki, 1889.

*Megophtalmidia marceda* (Sherman), [1921] **n. comb.**

*Tetragoneura marceda* Sherman, [1921]:20.

I have examined the holotype. The male terminalia, pleura and wing venation are typical of the genus *Megophtalmidia*.

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