

FANNIIDAE AND MUSCIDAE (DIPTERA) FROM NICARAGUA.

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RESUMEN

Una lista de especies de Fanniidae y Muscidae de Nicaragua es presentada, habiendo analizado abundante material recientemente colectado mayormente en los departamentos de Granada, Jinotega y Matagalpa. La lista también incluye las especies previamente reportadas en la literatura. Reconocimos en el material examinado tres especies de Fanniidae y 32 de Muscidae, las cuales, junto a aquellas especies registradas en estudios anteriores, totalizan 49 especies de múscidos. Mencionamos 18 nuevos registros de especies y 6 de géneros de Muscidae.

PALABRAS CLAVE: Muscoidea, Región Neotropical, América Central, taxonomía, distribución

ABSTRACT

A list of species of Fanniidae and Muscidae from Nicaragua is presented, comprising the examination of substantial material recently collected mainly from the departments of Granada, Jinotega and Matagalpa. The list also includes the species previously reported in the literature. In the examined material we recognised three species of Fanniidae and 32 of Muscidae, which together those species recorded in earlier studies, totalize 49 muscid species. Eighteen new records of species and 6 of genera are made for Muscidae.

KEYWORDS: Muscoidea, Neotropical region, Central America, taxonomy, distribution.

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INTRODUCTION

The Dipteran muscoid families Fanniidae and Muscidae comprise together about 4800 species worldwide and about 185 genera are currently recognised (CARVALHO *et al.*, 2003, 2005). The Neotropical Muscidae are represented by over 840 species in 84 genera (CARVALHO *et al.*, 2005). De CARVALHO & COURI (2002) and COURI & CARVALHO (2002) compiled and organised the taxonomic knowledge regarding the Neotropical Muscidae, only 10 genera were listed as occurring in Nicaragua. Recent additions were provided by De CARVALHO & NIHEI (2002) and NIHEI (2002): a new genus, *Chaetophaonia* Carvalho & Nihei, 2005 (*Maesia* Carvalho & Nihei, 2002, preocc. Stephens, 1831; De CARVALHO *et al.*, 2005: 102), was described including two new species from Nicaragua (De CARVALHO & NIHEI, 2002), and one species of *Polietina* Schnabl & Dzedzicki, 1911 had been reported (NIHEI, 2002; also NIHEI & De CARVALHO, 2007).

On the other hand, Fanniidae is a small family with about 75 species in two genera in the Neotropics (De CARVALHO *et al.*, 2003). Synopses of *Euryomma* (De CARVALHO & PAMPLONA, 1979) and *Fannia* (ALBUQUERQUE *et al.*, 1981) were published, however, only an undetermined species of *Fannia* has been recorded from Nicaragua (WOKE, 1947; MAES, 2005).

We received a substantial material of Muscoidea from Jean-Michel Maes (Museo Entomologico, Leon, Nicaragua), with the specimens mainly collected from the departments of Granada, Jinotega and Matagalpa. In the present paper, we provide a list of the species identified within this material and complemented with those species previously reported in the literature for Nicaragua.

MATERIAL AND METHODS

The species are listed under subfamily level, and then ordered alphabetically. The collecting data of the examined material is listed in the following format: Department, locality name, number of specimens and gender, date, collector. For each species, major references are indicated as including revisions, descriptions and/or identification keys. Whenever necessary, comments are made about the taxonomic status, morphological variations, etc. The classification follows De CARVALHO *et al.* (2003) and De CARVALHO *et al.* (2005) to Fanniidae and Muscidae, respectively. The abbreviation (**n. rec.**) is included to new records of species.

The examined material is deposited at the Museo Entomologico, Leon, Nicaragua (MEL) and Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Brazil (DZUP).

RESULTS

The examined material comprised a total of 20 Fanniidae and 381 Muscidae specimens, which was identified as three species of Fanniidae and 32 of Muscidae. All the 20 fanniid specimens are females and therefore we were not able to exactly recognise the identity of the species (identified as morphospecies); however, whenever possible we indicated the group or subgroup to which each morphospecies belongs. Eighteen species and six genera of Muscidae are new records for Nicaragua. The muscid species identified here occur in the following departments: Granada (19 species), Jinotega (15), Matagalpa (4), Carazo (1) and Masaya (1). The genera recorded as new for Nicaragua are: *Phaonia* Robineau-Desvoidy, 1830; *Chortinus* Aldrich, 1932; *Hemichlora* Wulp, 1893; *Mydaea* Robineau-Desvoidy, 1830; *Limnophora* Robineau-Desvoidy, 1830 and *Syllimnophora* Speiser, 1923. The complete list of species is presented below (Fanniidae: 3; Muscidae: 49), including also those species previously reported to occur in Nicaragua.

FANNIIDAE

1) *Fannia* sp. 1 – *canicularis*-group *petrocchia*-subgroup

Examined material: *Granada*, Volcan Mombacho, 1 female, 31.iii.1998, J.M. Maes *leg.*
Ref.: ALBUQUERQUE *et al.* (1981).

2) *Fannia* sp. 2 – *obscurinervis*-group

Comments: This is probably a new species but there is no male specimens to allow a conclusive position.
Examined material: *Jinotega*: Peñas Blancas, 1300m, 11 females, 25.vii.1998, J.M. Maes & B. Hernández *leg.*;
Cerro Kilambe, 1520m, 2 females, viii.1997, J.M. Maes & B. Hernández *leg.*; *Granada*, Volcan Mombacho, 1 female, 30.iv.1998, 4 females, 15.xi.1998, J.M. Maes *leg.*
Ref.: ALBUQUERQUE *et al.* (1981).

3) *Fannia* sp. 3 – *heydenii*-group

Material: *Matagalpa*, Fuente Pura, 1 female, 09.ix.1994, J.M. Maes *leg.*
Ref.: ALBUQUERQUE *et al.* (1981).

MUSCIDAE ATHERIGONINAE

1) *Atherigona orientalis* Schiner, 1868

Distribution: Pantropical, widespread over the Neotropical Region and first recorded to Nicaragua (Managua) by MAES & TELLEZ (1988).
Ref.: De CARVALHO & COURI (2002)

MUSCINAE

2) *Haematobia irritans* (Linnaeus, 1758)

Distribution: widespread Neotropical (including west of Andes and Southern South America), Nearctic and Palaearctic regions.
Ref.: De CARVALHO & COURI (2002)

3) *Musca domestica* Linnaeus, 1758

Distribution: cosmopolitan.
Ref.: De CARVALHO & COURI (2002)

4) *Neivamyia* sp.

Comments: *Neivamyia* Pinto & Fonseca, 1930 is a small genus of Stomoxyini with four species occurring on Trinidad, Guyana, Surinam, Colombia, Peru and Brazil (De CARVALHO & COURI, 2002). It was reported to Nicaragua by MAES (2005) without determining the species name and its geographical occurrence.
Ref.: De CARVALHO & COURI (2002)

5) *Neomyia cornicina* (Fabricius, 1781)

Distribution: Mexico, Cuba, Nicaragua (MAES, 2005; as *Orthellia caesarion*), Costa Rica, Brazil; Nearctic and Palaearctic regions, and northwest Oriental region.
Ref.: De CARVALHO & COURI (2002)

6) *Parapyrellia maculipennis* (Macquart, 1846)

Distribution: Mexico, Cuba, Puerto Rico, Jamaica, Dominica, Nicaragua (Boaco; MAES, 2005), Trinidad, Guadeloupe Is., Colombia, Venezuela, Guyana, Peru, Bolivia, Brazil, Paraguay.
Ref.: ALBUQUERQUE & LOPES (1979), De CARVALHO & COURI (2002)

7) *Polietina wulpi* Couri & Carvalho, 1997

Previous records: Volcan Mombacho (Granada), Fuente Pura (Matagalpa), Peñas Blancas (Jinotega) and Sulum (Zelaya) (NIHEI, 2002).

Examined material: the same one examined by NIHEI (2002), but with the following additional material: *Matagalpa*, Fuente Pura, 1 female, 05.xi.1994, J.M. Maes *leg.*; *Granada*, Volcan Mombacho, 4 females, 15.ii.1998, 1 male and 2 females, 16.iii.1998, 1 male and 2 females, 31.iii.1998, 1 male and 4 females, 30.iv.1998, 1 male and 2 females, 15.x.1998, 1 female, 30.x.1998, J.M. Maes *leg.*

Distribution: Mexico, Nicaragua.

Ref.: COURI & De CARVALHO (1997), NIHEI (2002), NIHEI & De CARVALHO (2007)

8) *Sarcopromusca pruna* (Shannon & Del Ponte, 1926)

Comments: NIHEI (2005) presents a discussion on the geographical distributions possibly confused between *S. pruna* and *S. sarcophagina* (Wulp, 1896). Probably the *S. pruna* recognised within the Central American localities are misidentifications of *S. sarcophagina*.

Distribution: Guatemala, Honduras, Nicaragua (Zelaya, Bluefields; WOKE, 1947; and Boaco; MAES, 1992), Costa Rica, Bolivia, Brazil, Paraguay, Argentina.

Ref.: PAMPLONA (1992), NIHEI (2005)

9) *Stomoxys calcitrans* (Linnaeus, 1758)

Distribution: cosmopolitan.

Ref.: De CARVALHO & COURI (2002)

AZELIINAE

10) *Ophyra aenescens* (Wiedemann, 1830)

Distribution: widespread Neotropical (including west of Andes and Southern South America), Nearctic and western Palaearctic regions.

Ref.: PAMPLONA & COURI (1989), De CARVALHO & COURI (2002)

11) *Pseudoptilolepis nigripoda* Snyder, 1949

Previous records: "Nicaragua", locality not provided (MAES, 2005)

Examined material: *Granada*, Volcan Mombacho, 1 female, 30.ix.1998, 1 male and 1 female, 30.x.1998, J.M. Maes *leg.*

Distribution: Nicaragua, Costa Rica, Panama, Venezuela, Brazil.

Ref.: SNYDER (1949a), LOPES & De CARVALHO (1985), SCHÜHLI & De CARVALHO (2005)

12) *P. fulvapoda* Snyder, 1949

Distribution: Nicaragua (Zelaya, Bluefields; LOPES & De CARVALHO, 1985), Venezuela, Brazil.

Ref.: SNYDER (1949a), LOPES & De CARVALHO (1985), SCHÜHLI & De CARVALHO (2005)

13) *P. confusa* Snyder, 1949

Distribution: Nicaragua (MAES, 2005), Costa Rica, Venezuela, Brazil.

Ref.: SNYDER (1949a), SCHÜHLI & De CARVALHO (2005)

14) *Synthesiomyia nudiseta* (Wulp, 1883)

Distribution: widespread over Neotropical region (including west of Andes and Southern South America), pantropical species.

Ref.: De CARVALHO & COURI (2002)

PHAONIINAE

- 15) *Chaetophaonia nicaraguensis* (Carvalho & Nihei, 2002)
Previous records: Cerro Peñas Blancas (Jinotega) and Volcan Mombacho (Granada) (De CARVALHO & NIHEI, 2002).
Examined material: the same examined by De CARVALHO & NIHEI (2002).
Distribution: Nicaragua.
Ref.: CARVALHO & NIHEI (2002)
- 16) *C. hernandezii* (Carvalho & Nihei, 2002)
Previous record: Volcan Mombacho (Granada) (De CARVALHO & NIHEI, 2002).
Examined material: the same examined by De CARVALHO & NIHEI (2002).
Distribution: Nicaragua.
Ref.: De CARVALHO & NIHEI (2002)
- 17) *Dolichophaonia trigonata* (Wulp, 1896)
Previous record: Chontales (De CARVALHO, 1993)
Examined material: *Granada*, Volcan Mombacho, 1 female, 15.xii.1998, J.M. Maes *leg.*
Distribution: Nicaragua.
Ref.: CARVALHO (1993)
- 18) *Dolichophaonia* aff. *spontanea* Carvalho, 1993
Comments: In the identification key of De CARVALHO & COURI (2002) it runs to *D. spontanea* but differs by the yellow legs (dark brown in *D. spontanea*) and the conspicuous spot on dm-cu crossvein.
Examined material: *Matagalpa*, Fuente Pura, 9.ix.1994, J.M. Maes *leg.*; *Granada*, Volcan Mombacho, 1 female, 15.i.1998, 1 female, 30.x.1998, J.M. Maes *leg.*
Ref.: De CARVALHO (1993)
- 19) *Phaonia latinervis* (Stein, 1904)
Examined material: *Granada*, Volcan Mombacho, 1 female, 16.iii.1998, 1 female, 30.v.1998, 1 female, 30.xii.1998, 1 male and 2 females, 18.ii.1999, 1 female, 28.ii.1999, 1 female, 30.v.1999, J.M. Maes *leg.*
Distribution: Nicaragua (**n. rec.**), Peru, Bolivia, Brazil, Argentina.
Ref.: COELHO (2000)
- 20) *Phaonia* aff. *triseta* (Curran, 1931)
Comments: *P. triseta* (Curran) occurs on Ecuador, Peru and Brazil (Coelho, 2000).
Examined material: *Jinotega*, Peñas Blancas, 1300m, 1 female, 25.vii.1998, J.M. Maes & B. Hernández *leg.*; *Granada*, Volcan Mombacho, 2 females, 18.ii.1999, J.M. Maes *leg.*
Ref.: COELHO (2000)

CYRTONEURININAE

- 21) *Chortinus bequaerti* Aldrich, 1932
Examined material: *Jinotega*: Peñas Blancas, 1300m, 1 female, 25.vii.1997, 1 male and 6 females, 25.vii.1998, J.M. Maes & B. Hernández *leg.*; Cerro Kilambe, 1550m, 7 males and 12 females, 10-17.v.1998, J.M. Maes & B. Hernández *leg.*
Distribution: Guatemala, Nicaragua (**n. rec.**), Costa Rica, Panama.
Ref.: ALBUQUERQUE & LOPES (1983)

22) *Cyrtoneurosis gemina* (Wiedemann, 1830)

Previous report: "Nicaragua", locality not provided (MAES, 2005).

Examined material: *Granada*, Volcan Mombacho, 1 female, 30.iii.1998, 1 female, 30.iv.1998, 2 females, 30.x.1998, J.M. Maes *leg.*; Zelaya, Las Americas, 230m, 1 female, 10.vii.1997, J.M. Maes & J. Hernandez *leg.*

Distribution: Mexico, Guatemala, Belize, El Salvador, Nicaragua, Costa Rica, Panama, Colombia, Peru, Venezuela, Brazil, Paraguay.

Ref.: SNYDER (1954, as *geminata*)

23) *C. gluta* (Giglio-Tos, 1893)

Examined material: *Jinotega*, Km 147.5 carr Matagalpa-Jinotega, 1500m, 1 male and 2 females, 18.xii.1994, J.M. Maes *leg.*

Distribution: Mexico, Guatemala, Nicaragua (**n. rec.**), Guyana, Costa Rica, Panama, Venezuela.

Ref.: SNYDER (1954)

24) *C. immunda* (Stein, 1911)

Distribution: Guatemala, Belize, Nicaragua (SNYDER, 1954; as *gemina*), El Salvador, Costa Rica, Panama, Grenada, Trinidad, Colombia, Peru, Venezuela, Guyana, ?Brazil.

Ref.: SNYDER (1954, as *gemina*)

25) *C. maculipennis* (Macquart, 1843)

Examined material: *Granada*, Volcan Mombacho, 1 male, 31.iii.1998, 1 male and 1 female, 15.x.1998, 2 females, 30.x.1998, 1 female, 15.xi.1998, 3 females, 30.xii.1998, J.M. Maes *leg.*

Distribution: Nicaragua (**n. rec.**), Costa Rica, Panama, Guyana, Bolivia, Brazil.

Ref.: SNYDER (1954, as *trita*)

26) *C. neotrita* (Snyder, 1954)

Examined material: *Jinotega*, Peñas Blancas, 1300m, 1 female, 25.vii.1998, Maes & B. Hernandez *leg.*

Distribution: Nicaragua (**n. rec.**), Peru.

Ref.: SNYDER (1954)

27) *C. veniseta* (Stein, 1904)

Previous record: Managua (SNYDER, 1954); "Nicaragua", locality not provided (MAES, 2005).

Examined material: *Carazo*, Bioreserva Cacocente, 2 males and 2 females, 11-13.ix.1992, J.M. Maes, R. Lopez & A. Martinez *leg.*; *Granada*, Volcan Mombacho, 4 males, 31.iii.1998, J.M. Maes *leg.*; Volcan Mombacho, 1220m, 1 female, 15.ii.1998, J.M. Maes *leg.*

Distribution: Mexico, El Salvador, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Trinidad, Guyana, Peru, Bolivia, Brazil, Argentina.

Ref.: SNYDER (1954)

28) *C. rescita* (Walker, 1861)

Previous record: "Nicaragua", locality not provided (SNYDER, 1954; MAES, 2005)

Examined material: *Jinotega*, Km 147.5 carr Matagalpa-Jinotega, 1500m, 1 male, 18.xii.1994, J.M. Maes *leg.*; Zelaya, Las Americas, 230m, 1 male, 10.vii.1997, J.M. Maes & J. Hernandez *leg.*

Distribution: Mexico, Guatemala, Belize, Nicaragua, Costa Rica, Panama, Cuba, Puerto Rico, Trinidad, Colombia, Ecuador, Venezuela, Guyana, Peru, Bolivia, Brazil, Paraguay.

Ref.: SNYDER (1954)

29) *Cyrtoneurina uber* Giglio-Tos, 1893

Distribution: Mexico, Guatemala, El Salvador, Belize, Nicaragua (Managua; SNYDER, 1954 and MAES, 2005), Panama, Grenada, Trinidad, Colombia, Peru, Venezuela, Guyana.

Ref.: SNYDER (1954)

- 30) *C. wulpi* (Snyder, 1954)
 Distribution: Mexico, Nicaragua (Chinandega; SNYDER, 1954 and MAES, 2005), Costa Rica, Panama, Trinidad.
 Ref.: SNYDER (1954)
- 31) *Cyrtoneurosis* aff. *wulpi*
 Examined material: *Jinotega*, Peñas Blancas, 1300m, 1 female, 25.vii.1998, Maes & B. Hernandez *leg.*; *Masaya*, Las Flores, 1 male, date?, J.M. Maes *leg.*; *Granada*, Volcan Mombacho, 1 male, 31.iii.1998, 1 male and 3 females, 30.x.1998, 1 male, 18.ii.1999, J.M. Maes *leg.*; Volcan Mombacho, 1220m, 3 females, 15.ii.1998, J.M. Maes *leg.*
- 32) *Neomuscina atincticosta* Snyder, 1949
 Examined material: *Jinotega*, Cerro Kilambe, 1550m, 1 female, 10-17.v.1998, Maes & B. Hernandez *leg.*
 Distribution: Nicaragua (**n. rec.**), Brazil.
 Ref.: SNYDER (1949b)
- 33) *N. inflexa* (Stein, 1918)
 Examined material: *Granada*, Volcan Mombacho, 3 females, 30.ix.1998, 2 males and 3 females, 30.x.1998, J.M. Maes *leg.*
 Distribution: Nicaragua (**n. rec.**), Brazil.
 Ref.: SNYDER (1949b)
- 34) *Neomuscina* cf. *instabilis* Snyder, 1949
 Examined material: *Granada*, Volcan Mombacho, 1 male, 15.x.1998, J.M. Maes & B. Hernández *leg.*
 Distribution: Nicaragua (**n. rec.**), Panama, Trinidad, Brazil.
 Ref.: SNYDER (1949b)
- 35) *N. macrops* Snyder, 1949
 Examined material: *Granada*, Volcan Mombacho, 1 female, 15.i.1998, 1 female, 15.ii.1998, 1 female, 30.iv.1998, 1 female, 30.v.1998, 2 males, 30.ix.1998, 2 females, 15.x.1998, 1 male, 30.x.1998, 1 female, 30.xii.1998, 2 males, 18.ii.1999, J.M. Maes *leg.*; 1 male, 30.vii.1998, J.M. Maes & B. Hernández *leg.*
 Distribution: Nicaragua (**n. rec.**), Venezuela.
 Ref.: SNYDER (1949b)
- 36) *N. neosimilis* Snyder, 1949
 Examined material: *Jinotega*: Peñas Blancas, 1300m, 1 male, 25.vii.1998, J.M. Maes & B. Hernández *leg.*
 Distribution: Nicaragua (**n. rec.**), Brazil, Paraguay.
 Ref.: SNYDER (1949b)
- 37) *N. nudistigma* Snyder, 1949
 Examined material: *Jinotega*: Cerro Kilambe, 1550m, 5 females, 10-17.v.1998, J.M. Maes & B. Hernández *leg.*; Los Pinares, 1 female, 29.v.1992, J.M. Maes & Pineda *leg.*
 Distribution: Nicaragua (**n. rec.**), Venezuela.
 Ref.: SNYDER (1949b)
- 38) *N. pictipennis nudinervis* (Stein, 1918)
 Previous record: "Nicaragua", locality not provided (MAES, 2005).
 Examined material: *Granada*, Volcan Mombacho, 3 females, 30.v.1998, 1 female, 18.ii.1999, J.M. Maes *leg.*
 Distribution: Mexico, Guatemala, El Salvador, Costa Rica, Nicaragua, Panama, Venezuela, Guyana, Peru.

39) *N. pictipennis pictipennis* (Bigot, 1878)
Examined material: *Granada*, Volcan Mombacho, 2 females, 30.x.1998, 1 female, 28.ii.1999, 1 female, 30.xii.1999, J.M. Maes *leg.*
Distribution: Nicaragua (**n. rec.**), Venezuela, Brazil, Paraguay.

40) *N. sanespra* Snyder, 1949
Examined material: *Matagalpa*, Fuente Pura, 1 female, 9.ix.1994, J.M. Maes *leg.*; *Granada*, Volcan Mombacho, 1 female, 30.vii.1998, J.M. Maes *leg.*
Distribution: Nicaragua (**n. rec.**), Brazil.
Ref.: SNYDER (1949b)

MYDAEINAE

41) *Brontaea* sp.
Comments: Reported to Nicaragua, Rio San Juan, by MAES (2005, as *Gymnodia* sp.).
Ref.: De CARVALHO & PONT (1998)

42) *Hemichlora scordalus* (Walker, 1861)
Examined material: *Jinotega*, Cerro Kilambe, 1550m, 7 males and 5 females, 10-17.v.1998, J.M. Maes & B. Hernández *leg.*
Distribution: Mexico, Guatemala, Nicaragua (**n. rec.**), Costa Rica, Brazil.
Ref.: LOPES (1978)

43) *Mydaea caras* Snyder, 1949
Examined material: *Matagalpa*, Fuente Pura, 1 female, 5.xi.1994, J.M. Maes *leg.*
Distribution: Nicaragua (**n. rec.**), Venezuela.
Ref.: SNYDER (1949a)

COENOSIINAE

44) *Limnophora marginipennis* Stein, 1911
Examined material: *Jinotega*, Peñas Blancas, 13°17N-85°38W, 1300m, 1 female, 25.vii.1998, Maes & B. Hernández *leg.*
Distribution: Nicaragua (**n. rec.**), Peru.
Ref.: LOPES & COURI (1987)

45) *L. minuscula* (Wulp, 1896)
Examined material: *Jinotega*: Km 147.5, carr Matagalpa, 1500m, 1 male, 2 females, 18.xii.1994, J.M. Maes *leg.*
Distribution: Mexico, Nicaragua (**n. rec.**).
Ref.: MALLOCH (1921)

46) *Limnophora* aff. *minuscula*
Comments: This specimens closely resembles *L. minuscula* but the hind femur has one developed anteroventral seta at the apical fourth (two developed setae in *L. minuscula*) and two posterodorsal preapical setae (only one in *L. minuscula*), the dorsal vittae on scutum is more conspicuous and the body size larger.
Examined material: *Jinotega*: Km 147.5, carr Matagalpa, 1500m, 3 females, 18.xii.1994, J.M. Maes *leg.*; Peñas Blancas, 13°17N-85°38W, 1300m, 1 female, 25.vii.1998, Maes & B. Hernández *leg.*; *Granada*, Volcan Mombacho, 1 female, 15.vii.1998, J.M. Maes *leg.*

47) *Spilogona* sp.

Comments: Species of *Spilogona* Schnabl, 1911 are known to Mexico, Colombia, Peru, Bolivia and Argentina (COURI & De CARVALHO, 2002), and it was reported to Nicaragua by MAES (2005). In the tropical areas, its species are associated mainly with high altitudes (COURI & De CARVALHO, 2002). In the examined material, no specimen of *Spilogona* was recognized.

48) *Syllimnophora vittiventris* Malloch, 1934

Examined material: *Jinotega*, Peñas Blancas, 13°17'N-85°38'W, 1300m, 3 females, 25.vii.1998, Maes & B. Hernández leg.; *Granada*, Volcan Mombacho, 1220m, 1 female, 30.i.1998, 4 females, 15.i.1998, 1 male and 3 females, 1115m, 15.ii.1998, J.M. Maes leg.

Distribution: Nicaragua (**n. rec.**), Peru.

Ref.: COURI & De CARVALHO (2002)

49) *Syllimnophora* sp. 1

Comments: These specimens closely resembles *S. vittiventris* Malloch, but differ by the 2 anteroventral setae on hind tibia and the smaller size.

Examined material: *Jinotega*, Peñas Blancas, 13°17'N-85°38'W, 1300m, 2 females, 25.vii.1998, Maes & B. Hernández leg.

Ref.: COURI & De CARVALHO (2002)

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