

## New records of Psocoptera (Insecta) from French Guiana (North Amazonia)

DILIAN GEORGIEV

*Department of Ecology and Environmental Conservation, University of Plovdiv "Paisii Hilendarski", Tsar Assen Street 24, 4000 Plovdiv, Bulgaria, diliangeorgiev@gmail.com*

**Abstract.** Psocoptera were collected from French Guiana (near Montjoly town and Wayki village) by beating the vegetation between 29.07-05.08.2023. At least 14 species from seven families of Psocoptera were collected. Nine of them were new records for French Guiana (four new records for the New World) and five were already known for this area.

**Key words:** biodiversity, Amazonian region, rainforest.

### Introduction

The papers on the psocid fauna of the Guiana region (North Amazonia) are scarce. For French Guiana only 20 species of Psocoptera are known (Lienhard 2016). Information about this insect group can be found in the works of Enderlein (1919), Eertmoed (1973), New (1973), Mockford (1974, 1993), and García-Aldrete (2000).

In this paper I report some new species records and confirm some old ones on the base of new collections in the area.

### Material and Methods

Psocoptera were collected from French Guiana (near Montjoly town and Wayki village) by beating the vegetation between 29.07-05.08.2023. The specimens were stored in 96% ethanol. The photos (specimens in glycerin) were taken by a camera Canon PowerShot SX500IS through the eyepiece of a light microscope Optika. The species discussed in the paper were considered according to original descriptions. Measurements followed Lienhard (1998). Abbreviations used: D = anteroposterior diameter of the compound eye, IO = shortest distance between compound eyes.

### Results and Discussion

At least 14 species from seven families of Psocoptera were collected. Nine of them were new records for French Guiana (four new records for the New World) and five were already known for this area.

#### Species list (\* - new records)

#### Lepidopsocidae Enderlein, 1903

##### \**Echmepteryx pallida* Smithers, 1965

Material examined: 29.07.2023, scrubs at the estuary of Mahury River, from dry vegetation, N04 51 38.0 W52 15 23.1, 0 m a. s. l., 11 ♀; 30.07.2023, rainforest edge at a plantation clearing, from dry vegetation, N04 53 01.4 W52 14 49.1, 11 m a. s. l., 1 ♀; 31.07.2023, rainforest at the estuary of Mahury River, from dry vegetation, N04 51 55.5 W52 15 10.0, 6 m a. s. l., 1 ♀.

Remark: First record for the New World. The species was known from Australia, Indonesia, Thailand, Christmas Island, Polynesia, Equatorial Guinea, Zanzibar and Kenya (Lienhard 2016, Georgiev 2022, 2023b).

***Echmepteryx falco* (Badonnel, 1949)**

Material examined: 29.07.2023, scrubs at the estuary of Mahury River, from dry vegetation, N04 51 38.0 W52 15 23.1, 0 m a. s. l., 9 ♀; 31.07.2023, rainforest at the estuary of Mahury River, from dry vegetation, N04 51 55.5 W52 15 10.0, 6 m a. s. l., 1 ♀; 01.08.2023, Wayki village, from dry banana (*Musa* sp.) leaves, N04 44 27.8 W52 19 13.6, 8 m a. s. l., 2 ♀; 02.08.2023, E of Rorota Dam, rainforest, from various vegetation, N04 53 21.1 W52 15 09.9, 41 m a. s. l., 2 ♀.

***Proentomum personatum* Badonnel, 1949**

Material examined: 03.08.2023, near Montjoly town, banana plantation, from dry banana leaves, N04 51 33.0 W52 15 46.0, 14 m a. s. l., 2 ♀.

**Pachytroctidae Enderlein, 1904**

**\**Tapinella formosana* Enderlein, 1908**

Material examined: 03.08.2023, near Montjoly town, banana plantation, from dry banana leaves, N04 51 33.0 W52 15 46.0, 14 m a. s. l., 1 ♀.

Remark: First record for the New World. The species was known from India, China, Taiwan, Micronesia and Hawaii (Lienhard 2016).

**\**Tapinella maculata* Mockford & Gurney, 1956**

Material examined: 01.08.2023, Wayki village, from dry banana (*Musa* sp.) leaves, N04 44 27.8 W52 19 13.6, 8 m a. s. l., 5 ♀.

Remark: First record for French Guiana. Known from Jamaica, Guadelupe, USA, Mexico, Belize, Guatemala and Venezuela (Lienhard 2016).

**Caeciliusidae Mockford, 2000**

**\**Maoripsocus africanus* (Ribaga, 1911)**

Material examined: 02.08.2023, E of Rorota Dam, rainforest, from various vegetation, N04 53 21.1 W52 15 09.9, 41 m a. s. l., 2 ♀.

Remark: First record for French Guiana. Known from South Africa, Angola, Congo, Mozambique, Nigeria, Uganda and USA (Lienhard 2016, Georgiev 2023a).

**\**Xanthocaecilius* sp.**

Material examined: 02.08.2023, E of Rorota Dam, rainforest, from various vegetation, N04 53 21.1 W52 15 09.9, 41 m a. s. l., 1 ♂.

Remark: First record of this genus for French Guiana. The unidentified single male specimen has characteristic wing pattern (Fig. 1) and IO/D ratio = 0.54. However, more specimens are needed for sure identification of the species.



**Fig. 1.** Forewing of the *Xanthocaecilius* sp. from French Guiana.

#### **Peripsocidae Roesler, 1944**

##### **\**Peripsocus ferrugineus* Thornton & Wong, 1968**

Material examined: 05.08.2023, yard of Lodges Balourou, from dry leaves of a bush, N04 51 58.6 W52 15 07.1, 15 m a. s. l., 2 ♀.

Remark: First record for the New World. The species was known from Indonesia, Melanesia, Micronesia, Polynesia and Hawaii (Lienhard 2016).

##### ***Peripsocus pauliani* Badonnel, 1949**

Material examined: 05.08.2023, yard of Lodges Balourou, from dry leaves of a bush, N04 51 58.6 W52 15 07.1, 15 m a. s. l., 1 ♀.

#### **Ectopsocidae Roesler, 1944**

##### ***Ectopsocus maindroni* Badonnel, 1935**

Material examined: 29.07.2023, scrubs at the estuary of Mahury River, from dry vegetation, N04 51 38.0 W52 15 23.1, 0 m a. s. l., 3 ♂, 3 ♀; 30.07.2023, rainforest edge at a plantation clearing, from dry vegetation, N04 53 01.4 W52 14 49.1, 11 m a. s. l., 1 ♂, 5 ♀.

##### **\**Ectopsocus ribagai* Enderlein, 1906**

Material examined: 30.07.2023, rainforest edge at a plantation clearing, from dry vegetation, N04 53 01.4 W52 14 49.1, 11 m a. s. l., 1 ♂; 31.07.2023, rainforest at the estuary of Mahury River, from dry vegetation, N04 51 55.5 W52 15 10.0, 6 m a. s. l., 2 ♀; 01.08.2023, Wayki village, from dry banana (*Musa* sp.) leaves, N04 44 27.8 W52 19 13.6, 8 m a. s. l., 2 ♂, 1 ♀; 02.08.2023, E of Rorota Dam, rainforest, from various vegetation, N04 53 21.1 W52 15 09.9, 41 m a. s. l., 2 ♀.

Remark: First record for French Guiana. The species was known from Brazil and Puerto Rico (Lienhard 1916).

##### ***Ectopsocus thibaudi* Badonnel, 1979**

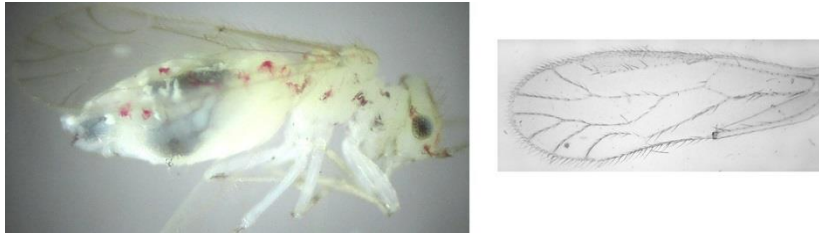
Material examined: 29.07.2023, scrubs at the estuary of Mahury River, from dry vegetation, N04 51 38.0 W52 15 23.1, 0 m a. s. l., 2 ♂, 2 ♀; 30.07.2023, rainforest edge at a plantation clearing, from dry vegetation, N04 53 01.4 W52 14 49.1, 11 m a. s. l., 4 ♀; 31.07.2023, rainforest at the estuary of Mahury River, from dry vegetation, N04 51 55.5 W52 15 10.0, 6 m a. s. l., 1 ♂, 3 ♀.

#### **Pseudocaeciliidae Pearman, 1936**

##### **\**Pseudocaecilius clunialis* Vaughan, Thornton & New, 1991**

Material examined: 02.08.2023, E of Rorota Dam, rainforest, from various vegetation, N04 53 21.1 W52 15 09.9, 41 m a. s. l., 3 ♀; 03.08.2023, near Montjoly town, banana plantation, from dry banana leaves, N04 51 33.0 W52 15 46.0, 14 m a. s. l., 3 ♀.

Remark: First record for the New World. The species was known only from Indonesia (Lienhard 2016).



**Fig. 2.** *Pseudocaecilius clunialis* (female) from French Guiana.

### **Elipsocidae Pearman, 1936**

#### **\**Nepiomorpha* sp.**

Material examined: 31.07.2023, rainforest at the estuary of Mahury River, from dry vegetation, N04 51 55.5 W52 15 10.0, 6 m a. s. l., 1 ♂, 1 ♀.

Remark: First record of this genus for French Guiana.

The finding of many species considered as Oriental in Africa (Georgiev 2022, 2023a, b), and now in South America, calls into question on their origin. Many of them were probably widely transported by the transfer of seedlings for the plantations, fruits, vegetables and other similar products. The actual origin of many tropical species could now be considered as questionable.

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