

# New data for Pyralidae from Tenerife, La Gomera and Fuerteventura (Canary Islands, Spain) including a new species hitherto known as *Pempeliella ardotiella* (Ragonot, 1887) (Lepidoptera: Pyralidae, Phycitinae)

J. Asselbergs

## Abstract

*Pempeliella canariella* Asselbergs, sp. n., from Tenerife and La Gomera (Canary Islands) is described and pictured together with the male and female genitalia. *Gymnancyla pempeliella* (Ragonot, 1893) is mentioned for the first time from Fuerteventura (Canary Islands). The adult and the male genitalia are pictured.

KEY WORDS: Lepidoptera, Pyralidae, Phycitinae, *Pempeliella canariella*, new species, new record, Canary Islands, Spain.

**Nuevos datos de Pyralidae para Tenerife, La Gomera y Fuerteventura (Islas Canarias, España) incluyendo una nueva especie anteriormente conocida como *Pempeliella ardotiella* (Ragonot, 1887) (Lepidoptera: Pyralidae, Phycitinae)**

## Resumen

Se describe y se representa *Pempeliella canariella* Asselbergs, sp. n., de Tenerife y La Gomera (Islas Canarias) junto con la genitalia del macho y de la hembra. Se menciona por primera vez para Fuerteventura (Islas Canarias) *Gymnancyla pempeliella* (Ragonot, 1893). Se representa el adulto y la genitalia del macho.

PALABRAS CLAVE: Lepidoptera, Pyralidae, Phycitinae, *Pempeliella canariella*, nueva especie, nuevo registro, Islas Canarias, España.

## Introduction

The Lepidoptera fauna of the Canary Islands, (Spain) is still partly insufficiently known. *Pempeliella canariella* Asselbergs, sp. n., from Tenerife and La Gomera was formerly known as *Pempeliella ardotiella* (Ragonot, 1887) (REBEL, 1906; BÁEZ, 1998), which has proven to be a long-held misidentification. Although *P. ardotiella*, distributed in Spain and France, resembles very closely *P. canariella* sp. n., both species can easily be distinguished by the male and female genitalia. *Gymnancyla pempeliella* (Ragonot, 1893) is mentioned from Fuerteventura for the first time.

## Material and methods

An Olympus stereo microscope type VT-II has been used for description of the adults. Genital slides were made with a Beck microscope type CBS and for descriptions and drawings an Olympus microscope type CH2 with drawing tube was used.

## Abbreviations

coll - collection

GP - genital slide

NBDC - Naturalis Biological Diversity Center Leiden

### *Pempeliella canariella* Asselbergs, sp. n. (figs. 1-2)

Material: Holotype ♂, Spain, Canary Islands, Tenerife, Adeje, Barranco del Infierno, 19-29-XI-1977, GP 3886 Asb., leg. A. L. Cox, deposited in NBDC. Paratypes: 1 ♂, Canary Islands, Tenerife, same data as holotype, leg. A. L. Cox; 1 ♂, Tenerife, Las Galetas, 28-XI-1-XII-1977, GP 3958 Asb.; 1 ♂, Tenerife, Los Cristianos, 10-20-III-1980, leg. J. B. Wolschrijn; 1 ♀, La Gomera, Playa de Santiago, 19-V-2000, leg. K. J. Huisman, GP 4727 Asb.

Description: Wingspan 16-22 mm. Head: frons flattened, covered with cone-shaping scales. Chaetosemata present. Labial palps 2x eye, slightly erect, 2nd segment greyish, base brownish, 3rd segment 1/5x 2nd segment; maxillary palps pencil shaped hidden in a groove of the labial palps. Haustellum normally developed. Thorax, patagia and tegulae fuscous. Scape 2x longer than broad; male antennae with sinus and scale brush, flagellum strongly dentate. Female antennae without sinus and filiform. Forewings greyish brown, fuscous above inner margin and between postmedian line and termen. Antemedian line whitish from 1/3 at costa with an outward angle to middle of wing, next with an inward angle to middle of inner margin. Postmedian line whitish from 7/8 at costa with an inward angle to 6/7 on inner margin and dark bordered below costa. Discal points stretched, especially in the female. Outer margin with 6-8 blackish dots. Fringe brownish, then greyish. Hindwings light greyish-brown, darker along veins, apex and outer margin. Fringe brownish, next greyish.

The male genitalia. (fig. 3) Uncus triangular, width 3/5x length, apex slightly flattened, Gnathos 2/5 x uncus slender, tongue-shaped; lateral gnathos components in the middle with an outwardly directed extension. Juxta broadly U-shaped, distal knobs with a few setae. Valvae slender, 5x longer than broad. Vinculum V-shaped with flat base. Culcita with a bilateral scale bush about as long as the valve. Phallus cylindrical, 6/5 x length of valve; vesica with one curved cornutus 2/5 x phallus and a cluster of numerous spinulae.

The female genitalia (fig. 4). Papillae anales reversed-heart-shape provided with numerous setae. Apophyses anteriores as long as apophyses posteriores. 8th segment slightly longer than broad. Colliculum sclerotized, ductus bursae slightly sclerotized distally and with a sclerotized plate proximally. Transition of ductus into corpus bursae narrowed. Bursa almost oval, 9/10 x length of ductus bursae, in distal 1/3 with a broad band of numerous spinulae. The ductus seminalis originates distally on the ductus bursae.

Biology and early stages: Unknown. Adults were captured in March, May and September suggesting 2-3 generations. Flies during winter months, in the spring and in the summer on low slopes in Tenerife (BÁEZ, 1998). This author has illustrated under figure 214 *Pempeliella canariella* sp. n. (as *P. ardosielli*). Hostplant: *Lavandula* sp. (e. I. F. Kasy, leg., 1967), unpublished data [Slamka, in litt.].

Distribution: So far only known from Canary Islands: Tenerife and La Gomera, also from Gran Canaria, leg. Kasy, 1967 [Slamka, in litt.]

Differential diagnosis and discussion: The resemblance between *P. ardosielli* (Rag.) (fig. 5) and *P. canariella* sp. n., and the small variations in colour and wing pattern in both species may prevent a quick and certain identification. However, the forewings of *P. ardosielli* have mostly a blueish-white hue, i. e. slate-colour, and the postmedian line runs less angled from the costa to the inner margin than in *P. canariella* sp. n. The male and female genitalia of *P. ardosielli* (figs. 6-7) are different from those of *P. canariella* sp. n. (figs. 3-4).

*Gymnancyla pempeliella* (Ragonot, 1893) new to the fauna of Fuerteventura (Canary Islands)  
(figs. 8-9)

A male was found in the Canary Islands (Spain), Fuerteventura, Jandia, Barranco Esquinzo, 15-31-X-2005, leg. R. Paas, coll. W. Schmitz, GP 6111 Asb. This species is known from Morocco, Algeria, Tunisia, Egypt, Sinai Desert, Palestine, Jordan, N. E. Arabia, United Arab Emirates, Turkmenistan and Afghanistan (ASSELBERGS, 2007). With this, Fuerteventura has become the western-most finding place for this species.

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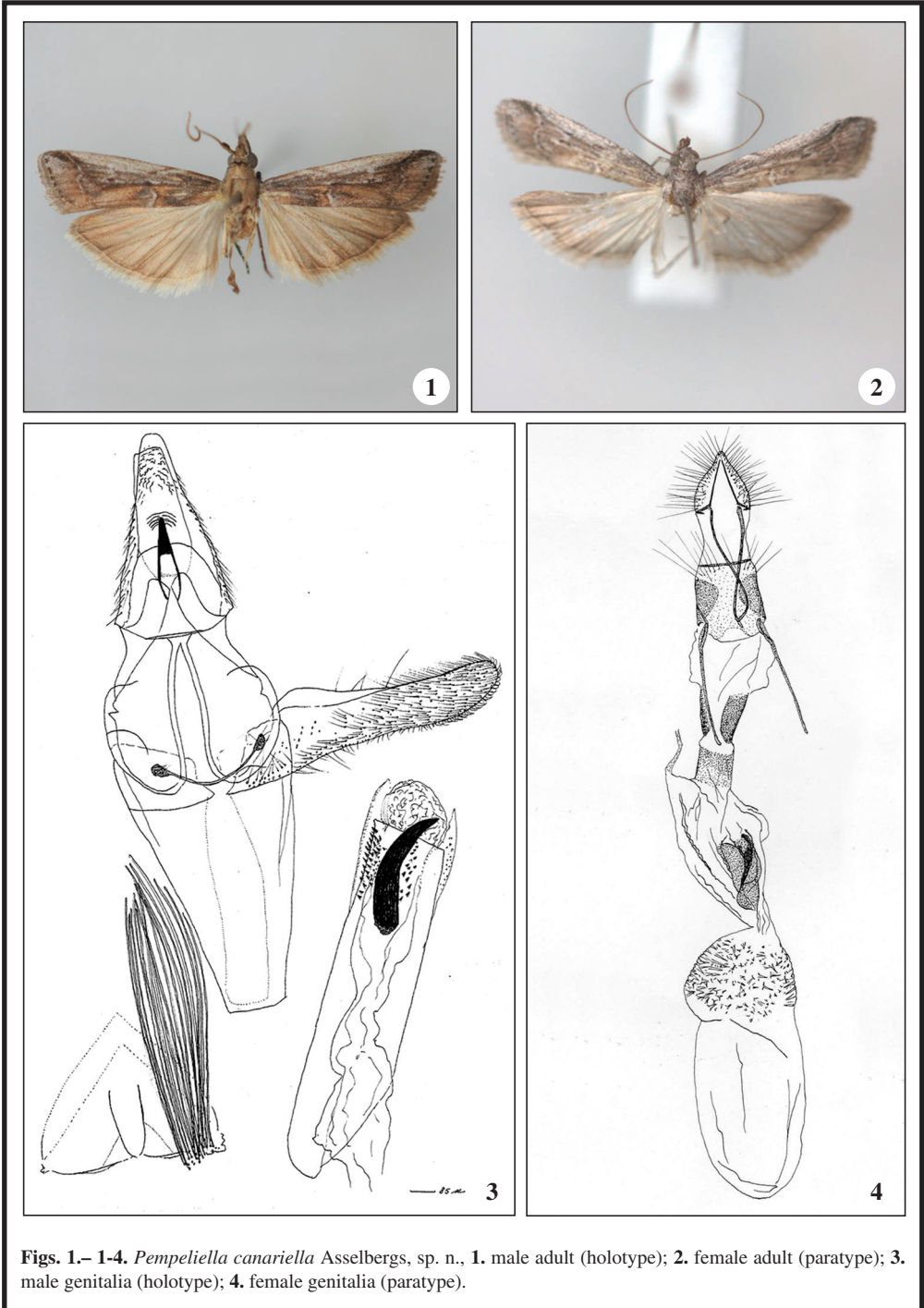
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J. A.  
Neerland, 20  
NL-4614 GD Bergen op Zoom  
PAÍSES BAJOS / THE NETHERLANDS  
E-mail: jef.asselbergs@hetnet.nl  
<https://orcid.org/0000-0003-1220-5428>

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**Figs. 1.– 1-4.** *Pempeliella canariella* Asselbergs, sp. n., **1.** male adult (holotype); **2.** female adult (paratype); **3.** male genitalia (holotype); **4.** female genitalia (paratype).

