



SHILAP Revista de Lepidopterología

ISSN: 0300-5267

ISSN: 2340-4078

avives@orange.es

Sociedad Hispano-Luso-Americana de Lepidopterología
España

Akın, K.; Seven, E.; Çakır, A.
A New Record of the Genus *Lepidogma* Meyrick, 1890 from Turkey
with Description of the Genitalia (Lepidoptera: Pyralidae, Epipaschiinae)
SHILAP Revista de Lepidopterología, vol. 47, no. 188, 2019, October-, pp. 597-600
Sociedad Hispano-Luso-Americana de Lepidopterología
España

Available in: <https://www.redalyc.org/articulo.oa?id=45562243004>

- How to cite
- Complete issue
- More information about this article
- Journal's webpage in redalyc.org

redalyc.org

Scientific Information System Redalyc
Network of Scientific Journals from Latin America and the Caribbean, Spain and
Portugal

Project academic non-profit, developed under the open access initiative

A New Record of the Genus *Lepidogma* Meyrick, 1890 from Turkey with Description of the Genitalia (Lepidoptera: Pyralidae, Epipaschiinae)

K. Akın, E. Seven & A. Çakır

Abstract

Lepidogma wiltshirei Amsel, 1949 is new discovered in the Turkish fauna. The female genitalia of the species are described for the first time, the male genitalia are re-described and, the pictures of the species are illustrated.

KEY WORDS: Lepidoptera, Pyralidae, Epipaschiinae, *Lepidogma wiltshirei*, fauna, Turkey.

Un nuevo registro del género *Lepidogma* Meyrick, 1890 de Turquía con descripción de la genitalia (Lepidoptera: Pyralidae, Epipaschiinae)

Resumen

Lepidogma wiltshirei Amsel, 1949 es nuevo descubrimiento en la fauna turca. Se describe, por primera vez, la genitalia de la hembra, la genitalia del macho se redescubre y se ilustran las imágenes de la especie.

PALABRAS CLAVE: Lepidoptera, Pyralidae, Epipaschiinae, *Lepidogma wiltshirei*, fauna, Turquía.

Introduction

The most distinct external morphological feature of the subfamily Epipaschiinae, which is a subfamily of Pyralidae, is that the 3rd segment of the labial palpi is always upturned and pointed at the apex (SOLIS & MITTER, 1992). This subfamily is known only one species, *Lepidogma tamaricalis* (Mann, 1873) from Europe and with 2 species, *Teliphassa lophotalis* (Hampson, 1900) and *L. tamaricalis* (Mann, 1873) from Turkey (LERAUT, 2014; KOÇAK & KEMAL, 2018). The Pyralidae family belongs to the Pyraloidea superfamily and, number of the known Pyraloidea species in Turkey is 672 (KOÇAK & KEMAL, 2018; AKIN, 2018; AKIN *et al.*, 2018).

Lepidogma wiltshirei was described from Iraq by AMSEL (1949) based on 4 males and 1 female specimens. Drawing of forewing and genital of the male species were presented in the study. Additionally, AMSEL (1949) described morphology of the adult in detail, but expression on the male genitalia was very inadequate, explained just one sentence. And, the female genitalia of *L. wiltshirei* was not mentioned in the study (AMSEL, 1949). Later, AMSEL (1954) presented a figure of the adult male paratype of the species. Moreover, WILTSHIRE (1957) mentioned about the habitat (river banks and islands in the Central plain) and flight periods (May and September) of species. In addition, he estimated that its food-plant could be *Tamarix* (Tamaricaceae), because of the *Tamarix* is the food-plant of *Lepidogma tamaricalis* and for its closely related of *L. wiltshirei*. Afterwards, AMSEL (1961) described *L. hyrcanalis* from Iran and explained the differences from *L. wiltshirei*.

This study aims to contribute to the distribution of *L. wiltshirei*. Besides, male genitalia of it are re-described and, female genitalia are described for the first time.

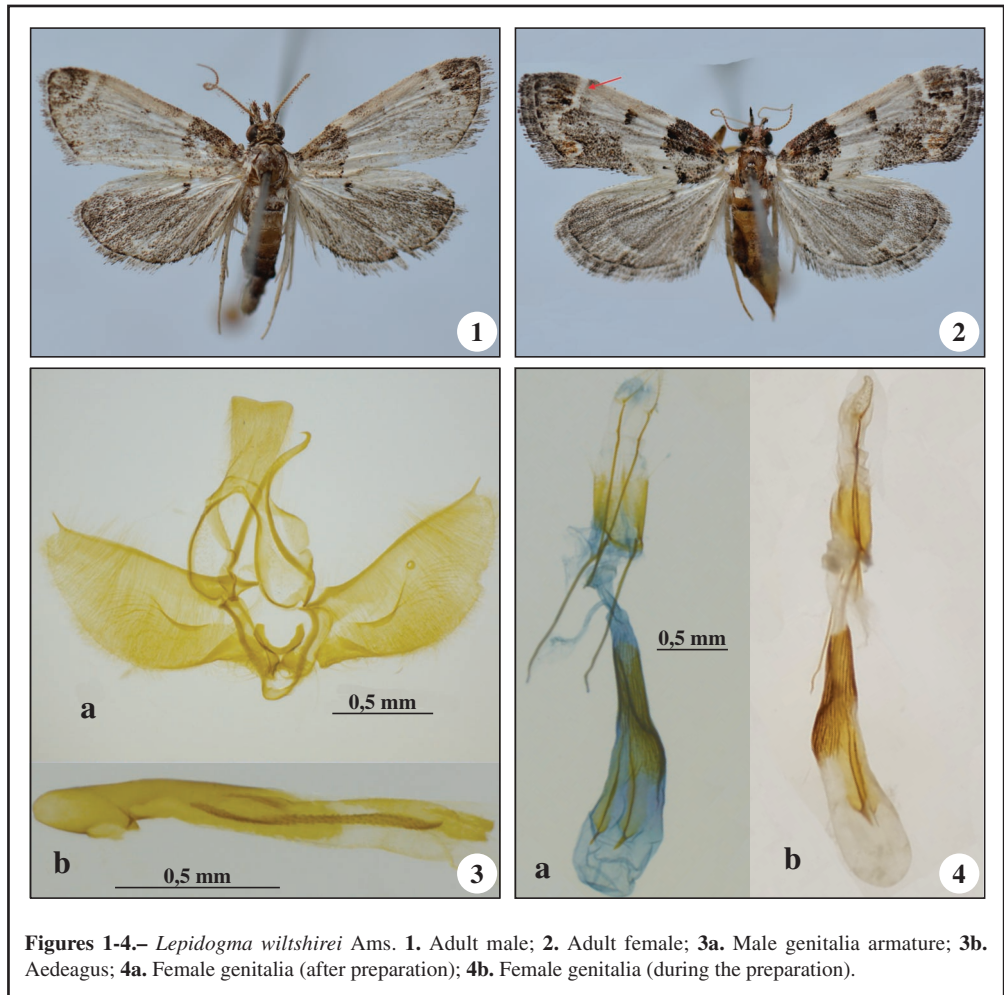
Material and Methods

The materials of study, one male and one female, were collected by using a simple UV light trap. The genitalia were dissected using standard procedures under Olympus SZ61 stereo microscope (ROBINSON, 1976). For genitalia figures, Leica S8APO stereo microscope was used. The adult specimens were photographed with Nikon D7100. For the identification of species, the studies of AMSEL (1949, 1954 and 1961) were used.

Results

Lepidogma wiltshirei Amsel, 1949 (Figs 1-2)

Material examined: Turkey, Elazığ Prov., Maden: 1 ♂, Kısabekir, 860 m, 29-VI-2017; 1 ♀, Sağrılı, 920 m, 23-VII-2017, leg. E. Seven & A. Çakır.



Figures 1-4.– *Lepidogma wiltshirei* Ams. **1.** Adult male; **2.** Adult female; **3a.** Male genitalia armature; **3b.** Aedeagus; **4a.** Female genitalia (after preparation); **4b.** Female genitalia (during the preparation).

Male genitalia (Re-description) (Figs 3a-b): Uncus rectangular, middle part of apex slightly submerged. Gnathos hooked towards apical. Parts of tegumen ellipse. Vinculum V-shaped. Valvae like half-moon, costal reinforcing strip extends beyond cucullus, apical pointed as thorn. Pocket-shaped line towards amidst from the proximal of valvae. Anellus V- to U-shaped. Aedeagus slightly straight and about 1.5 x length of valvae. Phallobase forked. Cornutus slightly spiral, over spined and about 1/2 x length of aedeagus.

Female genitalia (Fig. 4): Papillae anales triangular. Apophyses posteriores nearly equal length with apophyses anteriores. Ostium bursae rounded and ductus seminalis located just below its. Ductus bursae almost 2/3 sclerotized, and this sclerotization progressed to the anterior region of bursa copulatrix. Signa forked and combined with sclerotized structure in the anterior area.

Discussion

In this study, the most striking feature in the diagnosis of *L. wiltshirei*, is the way of access of the external transversal line to costa, as AMSEL (1961) expresses in describing of *L. hyrcanalis*. (Fig. 2). The line reaches slightly outward on *L. tamaricalis* and *L. hyrcanalis*, while reaches inward on *L. wiltshirei* (see red line in Figure 2). And, AMSEL (1961) described of *L. hyrcanalis* as very similar to *L. wiltshirei*. In this study, these species were compared by only external morphologies because of *L. hyrcanalis* was defined based on a single specimen (female) and genital structure of this species was not given.

As a result of this research, *L. wiltshirei* is new recorded in the Pyraloidea fauna of Turkey and it is discovered for the first time after the type-locality. With this study, the number of Pyraloidea species in Turkey has reached 673. The female genitalia of the species have been described for the first time, and the male genitalia have also been re-described.

Acknowledgements

We thank Dr. Ahmet Ömer Koçak (Van, Turkey) for supplying an important publication.

BIBLIOGRAPHY

- AKIN, K., 2018.– *Ceutholopha isidis* (Zeller, 1867), a new Phycitinae record from Turkey (Lepidoptera: Pyraloidea).– *Journal of the Entomological Research Society*, **20**(3): 117-120.
- AKIN, K., SLAMKA, F. & SEVEN, E., 2018.– A new genus and a new species for the Fauna of Turkey with description of genitalia (Lepidoptera: Crambidae).– *SHILAP Revista de lepidopterología*, **46**(182): 251-254.
- AMSEL, H. G., 1949.– On the Microlepidoptera collected by E. P. Wiltshire in Irak and Iran in the years 1935 to 1938.– *Bulletin de la Société Fouad Ier d'Entomologie*, **33**: 271-351.
- AMSEL, H. G., 1954.– Die Microlepidopteren der Brandt'schen Iran Ausbeute IV.– *Arkiv för Zoologi*, **6**(16): 255-326.
- AMSEL, H. G., 1961.– Die Microlepidopteren der Brandt'schen Iran Ausbeute V.– *Arkiv för Zoologi*, **13**(17): 323-445.
- KOÇAK, A. Ö. & KEMAL, M., 2018.– A synonymous and distributional list of the species of the Lepidoptera of Turkey.– *Centre for Entomological Studies, Memoirs*, **8**: 1-487.
- LERAUT, P., 2014.– *Moths of Europe, Pyralids 2*, **4**: 441 pp. NAP ed., Verrières-le-Buisson.
- ROBINSON, G. S., 1976.– The Preparation of slides of Lepidoptera genitalia with special reference to the Microlepidoptera.– *Entomologist's Gazette*, **27**: 127-132.
- SOLIS, M. A. & MITTER, C., 1992.– Review and preliminary phylogenetic analysis of the subfamilies of the Pyralidae (sensu stricto) (Lepidoptera: Pyraloidea).– *Systematic Entomology*, **17**: 79-90.
- WILTSHIRE, E. P., 1957.– *The Lepidoptera of Iraq*: 160 pp. The Minister of Agriculture Government of Iraq.

*K. A.
Bitlis Eren University
Faculty of Arts and Sciences
Department of Biology
TR-13000 Bitlis
TURQUÍA / *TURKEY*
E-mail: kesran@gmail.com

E. S.
Department of Gastronomy and Culinary Arts
School of Tourism and Hotel Management
Batman University
TR-72060 Batman
TURQUÍA / *TURKEY*
E-mail: erdem_seven@hotmail.com

A. Ç.
Hilar Vocational and Technical Anatolian High School
Ergani
TR-21950 Diyarbakır
TURQUÍA / *TURKEY*

*Autor para la correspondencia / *Corresponding author*

(Recibido para publicación / *Received for publication* 8-IV-2019)
(Revisado y aceptado / *Revised and accepted* 15-V-2019)
(Publicado / *Published* 30-XII-2019)