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A gelechiid species, new for the fauna of Turkey (Lepidoptera)

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Abstract: A gelechiid species, new for the fauna of Turkey (Lepidoptera). *Misc. Pap.* 163: 1-3, 3 figs. 1 map.

This paper deals with the faunistical occurrence of *Sophronia semicostella* (Hbn.) in Turkey for the first time. Illustrations of adult, male genitalia, habitat, as well as distributional map are added.

Key words: Fauna, Bitlis, Turkey, *Lepidoptera*, *Gelechiidae*.

During the field studies around the Süphan Volcano (Bitlis Province), carried out by the authors in 2015, within the research Project², several gelechiid specimens were captured by the light trap in June. After careful examinations the authors came to the conclusion that they belong to *Sophronia semicostella* (Hbn.) (Piskunov, 1981).

This paper is the second short attempt of the authors on the *Gelechiidae* of Van Lake Basin (Kemal & Koçak, 2015).

The genus *Sophronia* was established by Hübner in 1825 with the type-species, *Tinea illustrella* Hbn., 1796, by monotypy. It is currently classified in the tribus *Anacampsini* of the nominate subfamily. The genus is represented by more than a dozen species in Europe. The following 5 species are known in Turkey³: *consanguinella* H-S., [1855] (Konya, Kahramanmaraş), *finitimella* Rebel, 1905 (Ankara, Kayseri), *humeralis* Denis & Schiff., 1775 (Amasya), *illustrella* Hbn., 1796 (Bursa), and *semicostella* Hbn., [1813] (Bitlis) (present record) (Koçak & Kemal, 2009).

The information on *Sophronia semicostella* (Hbn.) is presented below:

***Sophronia* Hübner, [1825]**

Verz. bekannt. Schmett. 407. Type-species: *Tinea semicostella* Hübner, [1813], by monotypy.

***Sophronia semicostella* (Hübner, [1813])**

Synonyms: *marginella* Thunberg, 1794 *nec* Denis & Schiff., 1775; *semicostella* Hübner, [1813]; *parenthesella* Haworth, [1828].

Original reference: *Tinea semicostella* Hübner, [1813], Samml. eur. Schmett. 8: pl. 59 fig. 396. Type: Europe.

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³ Info-systems of the Cesa: <http://www.cesa-tr.org/Infos.htm>

Range (in code): PT ES FR IT GB BE NL LU DE Bw Bv Nrw CH AT Tr1 PL CZ SK HU RO YU TR DK NO SE FI EE LV LT RU MD UA BY KG 13 13A 13Ab 13Ax (Map 1).

Habitat: Dry, sandy slopes with malacophyllous and tragacanthic steppe (Fig. 1). **Flight:** Nocturnal, in one generation.

Sophronia semicostella is easily distinguishable from the other members of the genus by the following features: Wingspan: 18-20mm. Wings dark brown, on forewing longitudinal pale lines more or less distinct, discal black spots usually developed. Basal part of costa whitish. Apical and outer ciliae as three dark brown fasciae with white interfascial areas. Submarginal dark line pointed at subapical area. Hindwing with long, pale ochreous brown ciliae. Abdominal tergites and sternites almost same size and shape, but chitinous plates of 8th segment highly modified. **Male genitalia:** Tegumen elongated. Uncus short, grooved. Gnathos falciform, sharp. Valva with two parts, one long, well developed, clavate, and the other one short digitate. Saccus short. Aedeagus long strongly developed, normally placed inside cylindrical part of vinculum (Figs. 2, 3).

Material studied: Turkey, Bitlis Province, Adilcevaz, above Aygır village, 1960m 10 6 2015 3♂, 1990m 11 6 2015 2♂ (GP2577♂) M. Kemal & A. Koçak leg. (coll. Cesa).

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References

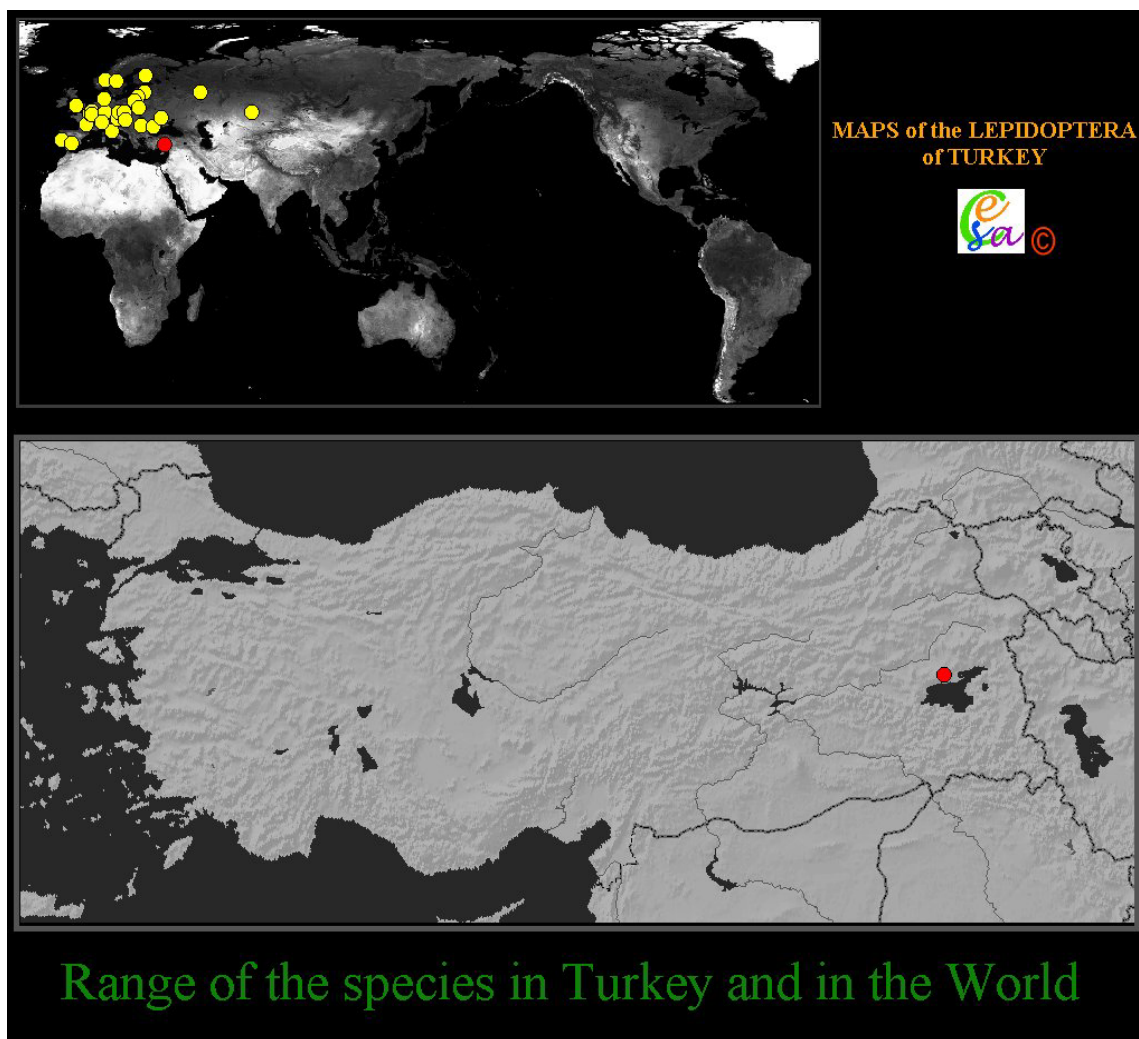
- Kemal, M. & A.Ö. Koçak**, 2015, *Stomopteryx gaesata* (Meyrick), little known species in Van and Bitlis Provinces (Lepidoptera, Gelechiidae). *Cesa News* 104: 1-4, 5 figs.
- Koçak, A.Ö. & M. Kemal**, 2009, Revised checklist of the Lepidoptera of Turkey. *Cent. ent. Stud., Priamus* (suppl.) 17: 1-253.
- Piskunov, V.I.**, 1981, *Gelechiidae* [in] Zagulyaev, A.K. et al., *Opredelitel nasekhomykh Evropeiskoy tchasti SSSR* 4 (2): 649-748, figs. [in Russian]



Fig. 1 – Habitat of *Sophronia semicostella* (Hbn.). East Turkey, Bitlis Prov., dry southern slopes of Süphan Volcano, tragacanthic steppe in the foothills 1960m, on 11 6 2015. M. Kemal (Cesa)



Figs. 2, 3 – Male genitalia with aedeagus removed (lateral view). Abdominal segments with modified 8th chitinous plates (above) (GP2577). Upperside of male (right), M. Kemal (coll. Cesa).



Map 1 – *Sophronia semicostella* Hbn. Red circle denotes new record.

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