REFERENCES

Bergroth, E. (1892). Viaggio di Leonardo Fea in Birmania e regione vicine; Ann. Mus. Civ. St. Nat., Genova, 32: 710-717.

Bergroth, E. (1914). Zur Kenntnis der Gattung Aneurus Curtis (Hemiptera: Aradidae), Ann. Mus. Nat. Hung., 12: 89-108.

- Distant, W. L. (1905). Description of a new species of Aradidae from Ceylon. Entomologist, 38: 194-195.
- Hsiao, T. Y. (1964). Results of the Zoologico-Botanical Expedition to South-West China. Acta Ent. Sinica, 13 (4): 587-605.
- Kormilev, N. A. (1953). Notes on Aradidae from the Eastern Hemisphere (Hemiptera). Verh. Naturf. Ges., Basel, 64 (2): 333-346.
 - Notes on Aradidae from the Eastern Hemisphere (1955).(Hemiptera) VII. Quart. Jour. Taiwan Mus., 8 (3): 177-191.
 - (1968). Aradidae in the Bishop Museum, Honolulu, II (Hemiptera-Heteroptera). Pac. Ins., 10 (2): 249-260.
 - (1970). Aradidae in the Bishop Museum, Honolulu, V (Supplement) (Hemiptera-Heteroptera). Pac. Ins., 12 (4): 701-722.
 - ---- (1972). Aradidae in the Bishop Museum, Honolulu, VI. (Hemiptera-Heteroptera). Pac. Ins., 14 (3): 553-570.

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Zygaena (Zygaena) viciae Dennis & Schiffermüller in Asia Minor (Lep., Zygaenidae): Description of a New Subspecies*

By HUGO REISS AND GÜNTHER REISS

The widely distributed Zygaena viciae Denis & Schiffermüller, typical from the Vienna region, in Austria, was formerly known under the name meliloti Esper, which is now used to represent the subspecies from central and southern Germany, typical from Erlangen, Franconia.

Holik & Sheljuzhko (1957) have established that the records of Zygaena quoted as laphria from the localities Achalzich (Chambobel) 1910, Kulp and Kasikoparan 1901 are Zygaena laphria Freyer, described from the incorrect. cannot be identified with certainty. In the Caucasus, systematic catalogue of Reiss & Tremewan (1967) the name laphria Freyer is therefore placed as a nomen dubium.

According to the most recently collected material it is assumed that in Asia Minor, from Armenia westwards, the

*The order follows the systematic catalogue of Reiss & Tremewan (1967).

PLATE XI

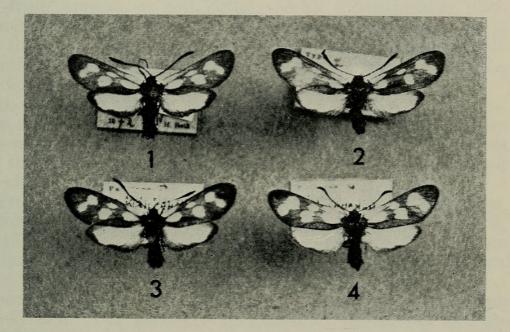
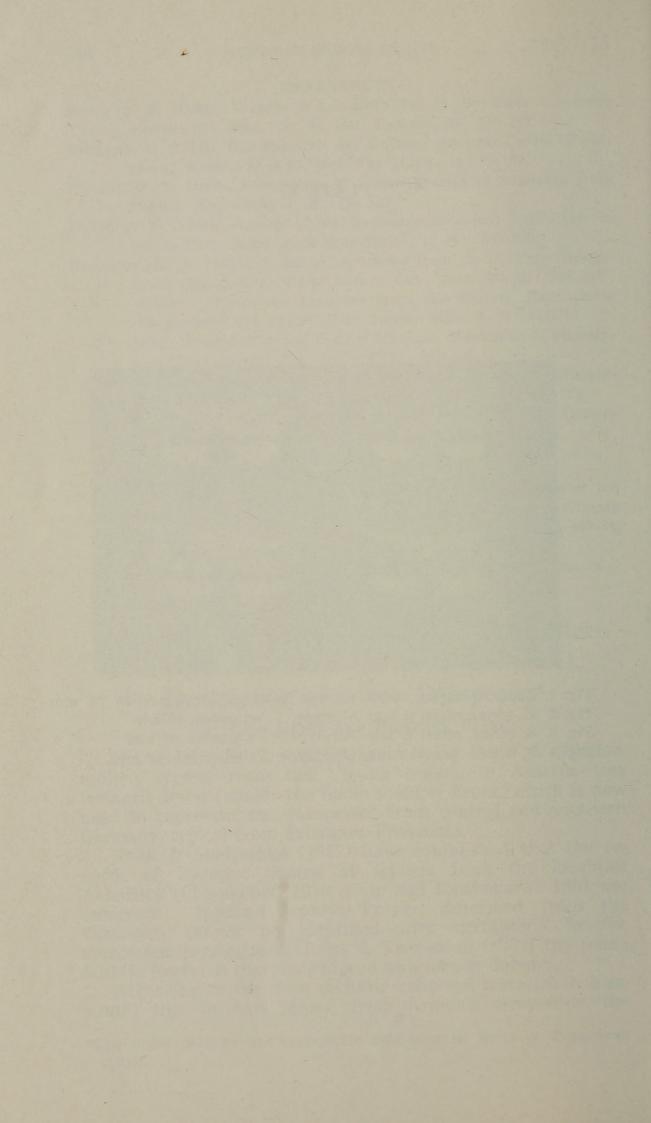


Fig. 1. Zygaena viciae rassei n. ssp. Holotype ♂, wingspan 28 mm
Fig. 2. Z. viciae rassei n. spp. Allotype ♀, wingspan 30 mm
Fig. 3. Z. viciae rassei n. ssp. Paratype ♂, wingspan 29 mm.
Fig. 4. Z. viciae rassei n. ssp. Paratype ♀, wingspan 30 mm.



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almost always five-spotted and mostly red-girdled viciae predominate over the six-spotted races which rarely have a red abdominal belt or girdle, the latter until recently being known under the species name laphria Herrich-Schäffer. Here, laphria Herrich-Schäffer (1851/1852) from Amasia and philomelica Reiss (1935) from Ak-Sehir are treated as subspecies of Zygaena viciae. Biological studies must now follow. Sixspotted races of viciae also occur in the southern Alps and in Italy southwards to Sicily. Of special mention here is the ssp. sicula Calberla (1895) from Mistretta, 1000 m, Sicily, because it has a similar spot formation to the above mentioned races from Asia Minor. Calberla had already noted this similarity.

Unfortunately the types of *laphria* Herrich-Schäffer from Amasia cannot be found. Reiss & Tremewan (1960) figure 1 \heartsuit from Amasia, ex coll. Zeller. Holik & Sheljuzhko (1957) described 3 $\eth \eth \eth$ 5 $\heartsuit \circlearrowright$ from Tokat, leg. Kindermann and 3 $\image \circlearrowright$ from Ak Dagh near Amasia, leg. Staudinger, ex coll. Staudinger. In coll. Reiss are found 1 \circlearrowright , labelled Amasia, and 5 $\circlearrowright \circlearrowright$, 4 $\image \circlearrowright$ paratypes of *philomelica* Reiss.

D. & K. Bernhauer gave us $2 \circ \circ$, labelled N. Turkey, Köse near Erzincan, 1800 m, 18.8.1968. These specimens are very worn and are only of value for their locality data. Spot 6 of the forewing is joined to spot 5; the abdomen is without the girdle or belt.

From Kizilcahaman, north-west of Ankara, 1300-1500 m, we have 1 ♂, 3 ♀♀, 7.1970, leg. Rasse and 14 ♂♂, 7 ♀♀, 15, 16, 18.7.1971, leg. Rasse. These specimens differ from all described races from Asia Minor. Wingspan: 1 & 25 mm, 2 3 3 26 mm, 5 3 3 27 mm, 4 3 3 28 mm, 2 3 3 29 mm, 1 3 30 mm; 1 9 27 mm, 4 9 9 29 mm, 3 9 9 30 mm, 1 9 31 mm $1 \$ $32 \$ mm. The dark ground colour of the thorax and abdomen, and the antennae and the legs, is glossy blue-black. The hairs of the thorax and abdomen are short. The antennae of the \mathcal{P} are more lightly clubbed than in the \mathcal{J} and run to a sharp point. The wing shape is mostly pointed. The dark ground colour of the forewings shows a light blue or bluish green gloss or sheen. Forewing fringes blue-black. The red coloration of the 6 forewing spots and the hindwings is somewhat light, bright carmine red. Spots 1 and 2 are confluent, but may be sometimes separated by the dark vein. Spot 3 is small, usually elongate or in the form of a small short streak. The variably quadrangular spot 4 is larger than spot 3, from which it is separated by the dark ground colour. Only in 2 $\eth \eth$ and 2 $\heartsuit \circlearrowright$ are the enlarged spots 3 and 4 closely adjacent to each other. Spot 5 is smaller than spot 4, and is usually ovoid in shape. The small spot 6, which in no specimen is absent, is isolated in 7 $\sigma\sigma$ and 1 \circ , is narrowly connected to spot 5 in 6 $\sigma\sigma$ and 7 $\varphi\varphi$, and is broadly connected only in 2 $\eth \eth$, 2 $\heartsuit \heartsuit$. The blue-black hindwing border is broad at the apex and the tornus. From the tornus along the inner margin the wing is suffused with



Reiss, H and Reiss, G. 1973. "Zygaena (Zygaena) viciae Dennis & Schiffermuller in Asia Minor (Lep., Zygaenidae): description of a new subspecies." *The entomologist's record and journal of variation* 85, 146–149.

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