

***Stenobothrus (Stenobothrodes) eurasius macedonicus* subsp. nov. from
Macedonia (Orthoptera, Acrididae)**

by

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In 1965, the present author, accompanied by his family, collected near Vratnica, a village in Yugoslav Macedonia, five males of a species of *Stenobothrus*, allocated preliminarily under *eurasius* Zubovskii. Attempts to find more material at the same locality in 1966 were poor (two males) and in 1969 (12.VII.) even unsuccessful. However, in 1972 a series of 11 males and 16 females could be collected. After this material was compared both with nominate *eurasius* and its subspecies as well as with other species of *Stenobothrus*, it was apparent that our material did not agree with any of them.

According to some of the hitherto used characters, the differences are important enough to consider the present material as a distinct species. However, I hesitate to do so. Some characters used in specific distinction (for instance fusion of the cubital veins) may vary in some populations to such a degree that they are no longer reliable and, in my opinion, appear to disagree with their, presumed, specific nature. Our material from Vratnica resembles much the *eurasius*-complex. Although the venation of the elytra is quite different, the present material is considered another component of the complex. I propose the name *eurasius macedonicus*.

Distinction of this subspecies from nominate *eurasius* and its previously recognized subspecies is indicated as follows:

- a. Elytron (Fig. 5—7, 9—11): wider (δ 3.0—3.6 mm, η 2.9—3.6 mm), in the male reaching at least the apex of the hind knee; anterior margin distinctly curved; costal area (δ η 0.4—0.5 mm) wider than the praecostal area (δ η 0.3—0.4 mm); medial area wider (δ η 0.9—1.2 mm); cubital veins from more or less fused to narrowly separate. Hind tibia red, orange or yellow (CSSR, Austria, USSR) *eurasius* Zub., *hyalosuperficies* Vor., *slovacus* and *bohemicus* both Maran (key in Maran, 1958).
- b. Elytron (Fig. 8, 12): narrower (δ 2.6—3.0 mm, η 2.4—2.7 mm), in the male reaching not beyond the apex of the hind knee; anterior margin less curved; costal area as wide as the praecostal area (δ η 0.25 mm); medial area narrower (δ η 0.5—0.7 mm); cubital veins narrowly separate. Hind tibia orange red (Macedonia) *macedonicus* subsp. nov.

Stenobothrus (Stenobothrodes) eurasius macedonicus subsp. nov.

(Fig. 1—4, 8, 12, 16)

Material studied: δ holo-, η allo-, 17 δ δ 15 η η paratypes, labelled: Jugoslavija (Macedonia) Vratnica (N. of Tetovo) 700 m, 23.VII.1972 (holo-, allotype, 10 δ 15 η) & 700 m, 1.VIII.1966 (2 δ) & 600 m, 1.VIII.1965 (5 δ), F. Willemse c.s. (author's collection).

Description

δ , f. 1—2. Comparatively robust, especially head and thorax. Antenna slightly shorter than the hind femur, apical segments slightly flattened and widened. Lateral keels of pronotum obtuse-angularly impressed.

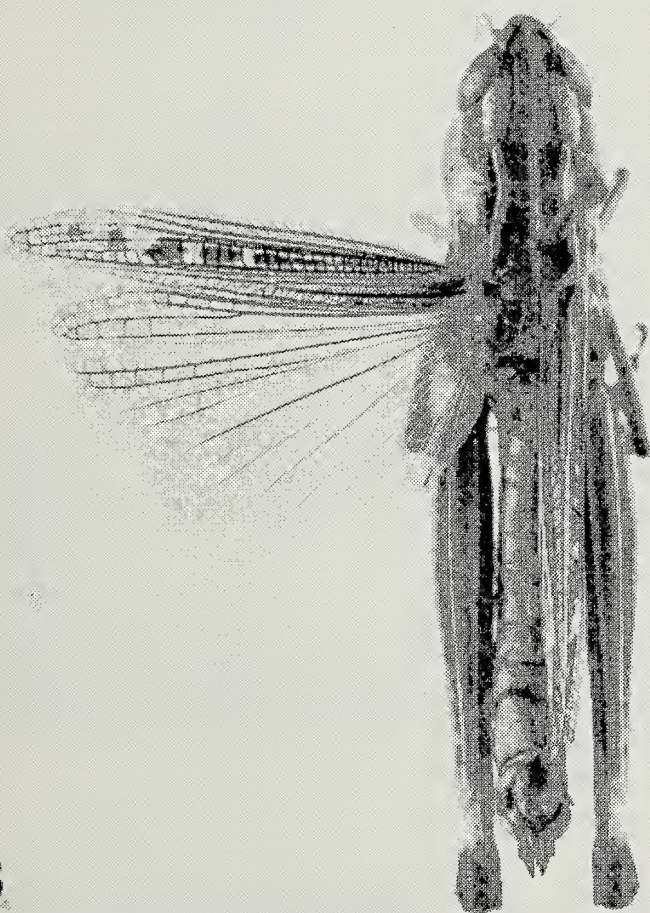
Elytron, fig. 12, reaching not beyond the hind knee, comparatively narrow (2.6—3.0 mm), about 0.22 times as wide as long. Anterior margin fewly curved. Greatest width of the praecostal, costal and subcostal areas almost equal (0.25 mm). Radial vein straight. Medial vein, comparatively, little divergent from the radial vein. Medial area narrow (0.5—0.7 mm), greatest width about equal to the combined width of the costal and subcostal areas, being half the distance between the medial vein and the anterior margin of the elytron. First and second cubital veins parallel, usually separate, in some



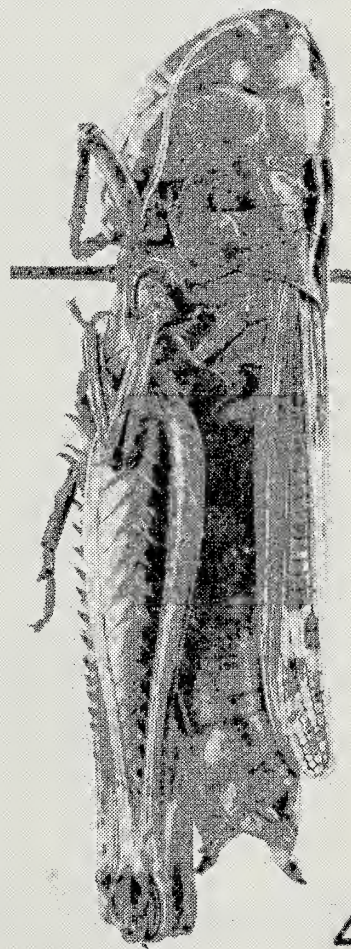
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Fig. 1—4. *Stenobothrus* (*Stenobothrodes*) *eurasius macedonicus* subsp. nov.: 1—2, male (1, holotype, 2, paratype); 3—4, female (3, allotype, 4, paratype).

specimens scarcely touching each other in the middle of their length. First cubital area narrow, but clearly present.

Hind wing with the width just more than half the length, the medial vein unbranched and the medial area slightly wider than the radial area.

Tympanum, abdomen and legs as in the nominate subspecies.

General colour as in nominate subspecies. Antennae straw-yellow or pale brown, apical segments distinctly infusate. Head and thorax olivaceous green or brown. Head with a pair of brown postocular bands. Lateral keels of the pronotum straw-yellow or pale brown, narrowly bordered, on both sides, with velvety black. Abdomen orange red. Elytron brown with a white patch in the apical third and partly infusate between the subcostal and second cubital veins, especially the medial area and the apical part of the radial area. Hind wing with the veins dark brown, the apical cels infusate. Fore and middle legs brown. Hind femur brown, upper areas, usually, olivaceous green, the outer and inner medial areas with dark brown spots along the upper carinulae; praegenicular part straw-yellow. Hind knee and tibial condylus blackish brown. Hind tibia, spines, hind tarsus and claws orange red; tips of spines and claws black.

♀, f. 3—4, as male, but larger. Antenna about half as long as the hind femur. Elytron, fig. 6, comparatively narrow (2.4—2.7 mm), not reaching the tip of the abdomen. Anterior margin almost straight, praecostal and costal areas as in the male. However, subcostal and radial areas narrower. Medial area as in the male, being as wide as the combined width of the praecostal and costal areas, but, unlike in the male, wider than half the distance between the medial vein and the anterior margin of the elytron, due to the narrower subcostal and radial areas. Cubital veins and cubital areas as in the male.

Colouration as in the male, but the hind wing not or very slightly infusate apically, the abdomen more cryptically brownish and the hind tibia less bright orange red.

Measurements (length in mm): body ♂ 15.5—16.5, ♀ 20.0—23.0; pronotum ♂ 3.1—3.3, ♀ 4.1—4.3; elytron ♂ 12.1—12.8, ♀ 13.1—14.5; hind femur ♂ 10.7—11.1, ♀ 13.8—15.2; antenna ♂ 8.6—9.0, ♀ 7.4—8.0.

Distribution and habitat. Only known from the type-locality. This can be reached following the road between Tetovo and Uroševac. From Tetovo, the road runs northwards, along the eastern slopes of the Shar Dagh massif. At about 25 km north of the centre of Tetovo, near the village Vratnica, the road ascends a little. The precise locality is the first group of stony hills at your right, where the road passes a brooklet. The habitat is dry and stony ground with sparse vegetation. *S. eurasius macedonicus* belongs to the early species, which disappear rapidly during the dry summer. It occurs together with *Stenobothrus* (s.str.) *nigromaculatus* (H.S.), *stigmaticus* (Ramb.) and *graecus* Ramme.

Discussion. The described material is characterized by the shape and venation of the tegmina, the length and the slightly clubbed apex of the antennae, the obtuse-angularly impressed pronotal lateral lobes and the red colour of the hind tibia. According to the venation of the hind wing, the material belongs to the subgenus *Stenobothrodes* Tarbinskii, 1948. In this subgenus, as far as I am able to trace, eight species and five additional subspecies are recognized: *eurasius eurasius* Zubovskii, *eurasius hyalosuperficies* Vorontsovskii, *eurasius slovacus* and *eurasius bohemicus* both Maran, *tadzhicus* Mistshenko, *caucasicus* Dovnar-Zapol'skii, *weneri weneri* Adelung, *weneri iranica* and *weneri sviridenkoi* both Ramme, *newskii* Zubovskii, *carbonarius* (Eversman), *rubicundulus* and *cotticus* both Kruseman & Jeekel.

After comparison of descriptions and material of these species and subspecies with our material, the latter belongs to the group of *caucasicus*, *tadzhicus* and *eurasius*. *S. tadzhicus* (studied after a paratypic pair), from Tadzhikistan, differs in the following characters: hind wing, although slightly, completely infusate and venation of the medial area much sparser; elytron wider, anterior margin more curved, medial area wider and cubital veins strongly fused; pronotal lateral keels weakly, arcuately, concave. *S. caucasicus*, from Transcaucasia, has the medial area of the elytron conspicuously wider and differs from our material even more than *tadzhicus*. Evidently, the Vratnica material is most closely related to the *eurasius*-complex. Distinction is noted above. The distribution of the complex, as previously known, is discussed by Maran. The occurrence in Macedonia is rather isolated. Even the occurrence at the type-locality is quite so, as the present author, since 1963, collected material all over Yugoslavia and Greece without having met with the species elsewhere.

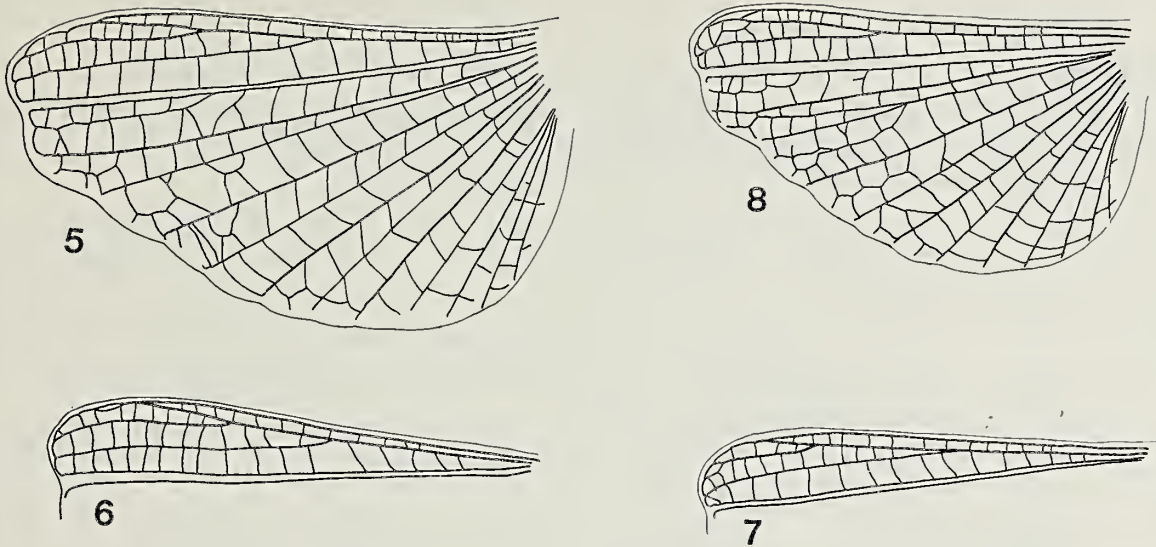


Fig. 5—8. *Stenobothrus* (*Stenobothrodes*) *eurasius* subspecies, male, hind wing: 5, *eurasius* Zub. (label in Russian, Mistshenko det.); 6, *slovacus* Maran (Domica, 9.VIII.1953, paratype); 7, *bohemicus* Maran (Mily, 19.VII.1957); 8, *macedonicus* subsp. nov. (paratype).

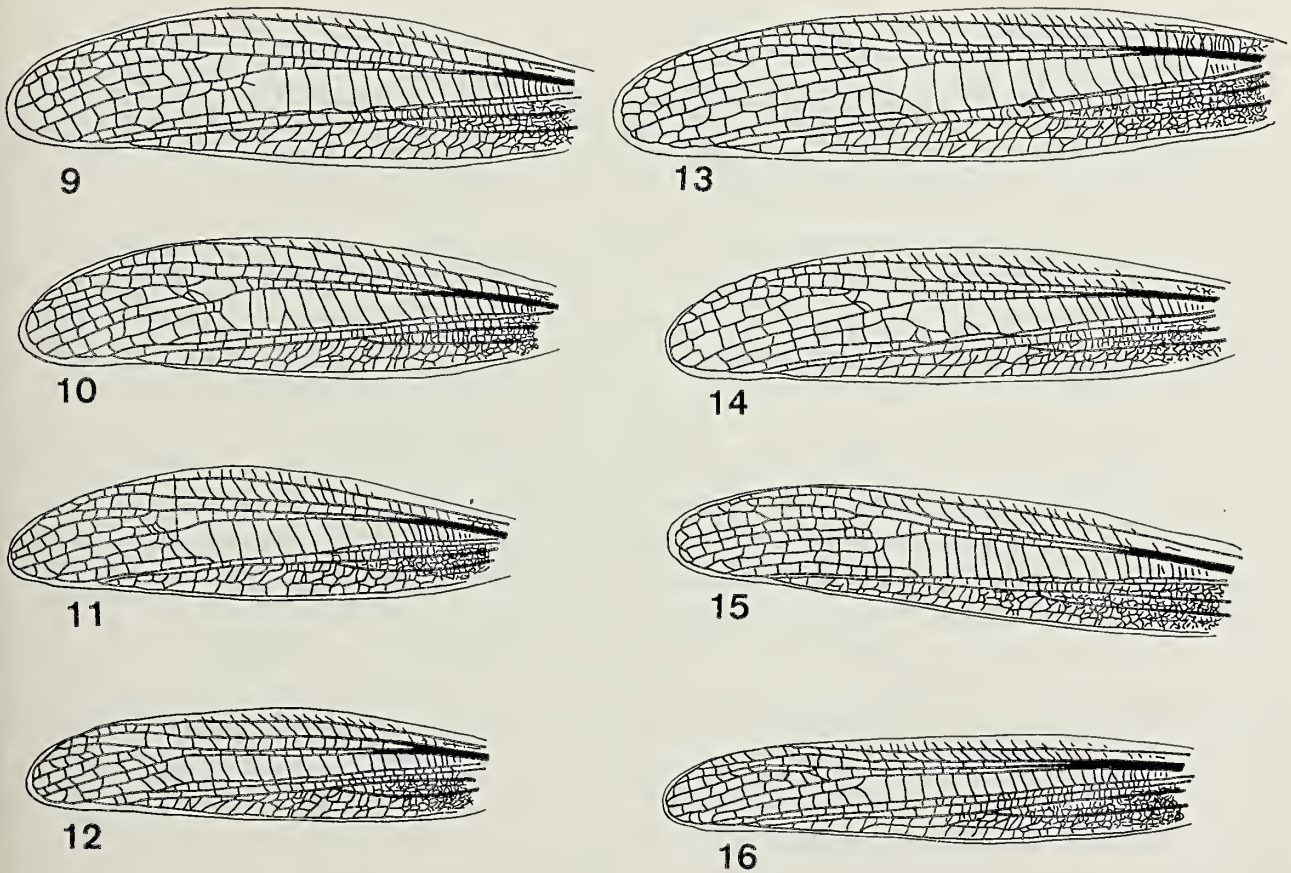


Fig. 9—16. *Stenobothrus* (*Stenobothrodes*) *eurasius* subspecies, elytron: 9—12 male, 13—16 female: 9 & 13, *eurasius* Zub. (label in Russian, Mistshenko det.); 10 & 14, *slovacus* Maran (Domico, 19.VII.1961, topotype); 11 & 15, *bohemicus* Maran (♂ Mily, 19.VII.1957; ♀ Obliík, 4.IV.1956, paratype); 12 & 16, *macedonicus* subsp. nov. (paratype).

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SKUHRAVA, M., & V. SKUHRAVY, GALLMÜCKEN UND IHRE GALLEN AUF WILDPFLANZEN. Die Neue Brehm-Bücherei 314, tweede druk, 1973, A. Ziemsen Verlag, Wittenberg Lutherstadt, 118 pag., 95 fig., prijs 8 Oost Marken.

In 1963 verscheen bij dezelfde uitgeverij de eerste druk van dit deeltje over galmuggen en hun gallen op wilde planten. De tweede druk heeft hier en daar wat uitbreiding ondergaan. Zo is het aantal besproken galmugsoorten van 120 op ruim 200 gebracht. Na aanwijzingen inzake het verzamelen en het opkweken van galmuggen volgt een indeling naar biotopen en plantengezelschappen, aangevuld met beschrijvingen van de gallen en voorzien van gegevens over de biologie en de fenologie van hun verwekkers. In deze druk zijn hierna drie nieuwe hoofdstukken opgenomen. Ze zijn gewijd aan galmuggen van het hooggebergte, aan galmuggen die vanuit het zuiden naar Midden-Europa opdringen en aan bepaalde taxonomische en oecologische problemen die zich bij de galmugstudie kunnen voordoen. Voor het laatste hoofdstuk heeft het door de auteurs verrichte onderzoek naar de soortechtheid van het geslacht *Clinodiplosis* en de oecologie van de op *Pinus* levende *Thecodiplosis brachyntera* model gestaan. Ter afsluiting volgen nog een literatuurlijst, een register van wetenschappelijke en Duitse plantennamen en een index van de behandelde galmugsoorten. Het aantal foto's is van 85 op 95 gebracht, terwijl wederom een aantal goed uitgevoerde pentekeningen en grafische voorstellingen in de tekst zijn verwerkt. Op de thans gebruikte papiersoort komen deze afbeeldingen nog beter tot hun recht. De geplastificeerde omslag geeft het geheel een aantrekkelijk aanzien en het is door zijn bescheiden formaat gemakkelijk overal mee naar toe te nemen. Ondanks dit formaat zijn de auteurs er in geslaagd om over de meest voorkomende galmugsoorten een behoorlijke hoeveelheid wetenschappelijk verantwoorde informatie te verschaffen. De tekst is echter makkelijk leesbaar gebleven en vormt daardoor ook voor de niet-specialist(e) een unieke gelegenheid om zijn (haar) kennis van deze nog zo weinig beoefende tak van wetenschap te vergroten. — W. Nijveldt