

## First record of *Bilusius valiko* Logvinenko, 1974 (Hemiptera, Cicadomorpha, Cicadellidae) from Turkey, with redescription of the species

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**Abstract:** The genus *Bilusius* Ribaut, 1942 includes 3 species; 2 are from the Pyrenees and 1 is from the Caucasus (Georgia). This study reports both the genus *Bilusius* and the species *Bilusius valiko* Logvinenko, 1974, which are recorded here for the first time from Turkey. This species is redescribed and figured by examination of specimens collected from northeastern Turkey.

**Key words:** *Bilusius valiko*, redescription, new record, Turkey

### Türkiye'den ilk kayıt olan *Bilusius valiko* Logvinenko, 1974 (Hemiptera, Cicadomorpha, Cicadellidae)'nun yeniden tanımlanması

**Özet:** *Bilusius* Ribaut, 1942 cinsi ikisi Pirene'lerden ve biri Kafkas'lardan (Gürcistan) olmak üzere toplam üç türe sahiptir. Bu çalışma ile hem *Bilusius* cinsi hem de *Bilusius valiko* Logvinenko, 1974 türü Türkiye'de ilk kez kaydedilmiştir. Bu tür Türkiye'nin kuzeydoğusundan toplanan örneklerin incelenmesiyle yeniden tanımlanıp çizimleri yapılmıştır.

**Anahtar sözcükler:** *Bilusius valiko*, yeniden tanımlama, yeni kayıt, Türkiye

The genus *Bilusius* is little known by researchers because it includes only a few species found at high altitudes. In the Palaearctic region, the genus *Bilusius* includes 3 species, namely *Bilusius noualhierii* (Melichar, 1898) and *Bilusius serratus* Ribaut, 1952, which occur on high grasslands in the Pyrenees (France) (Ribaut, 1952; Nast, 1972), and *Bilusius valiko* Logvinenko, 1974, which occurs on

*Rhododendron* sp. at high altitudes in Georgia and South Ossetia (Logvinenko, 1974). Hitherto, there have been no records of the genus *Bilusius* from Turkey.

The aim of the current study was to describe the taxonomic characters of *Bilusius valiko* Logvinenko, 1974, a new record for the Turkish Cicadellidae fauna.

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Specimens of the genus *Bilusius* were collected by sweep net from *Rhododendron* sp. on the Handüzü Plateau, Güneysu, Rize, Turkey, and prepared according to standard methods (Ribaut, 1952). On the basis of the taxonomically important genital structures and body parts, the specimens were confirmed as *Bilusius valiko* Logvinenko, 1974 according to the description of Logvinenko (1974). Based on the examined specimens, the species was redescribed and figured. The specimens are deposited in the collection of the Department of Biology of the Faculty of Arts and Science at Ondokuz Mayıs University, Samsun, Turkey.

**Genus:** *Bilusius* Ribaut, 1942

**Type species:** *Anoterostemma noualhieri* Melichar, 1898

**Species:** *Bilusius valiko* Logvinenko, 1974

**Type locality:** Georgia

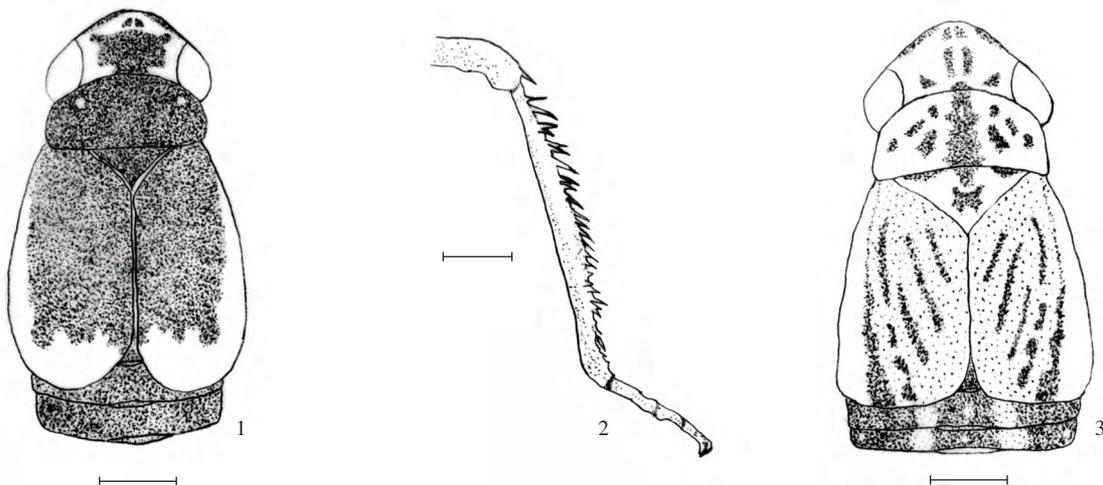
**Material examined:** 10 ♂♂, 17 ♀♀, Handüzü, Güneysu, Rize, Turkey, 1800 m, 22.08.2004; leg. Karavin M.

Brachypterous wings roof-like at rest and reaching third abdominal segment in both sexes. Apical margin of wings ovoid in male and smooth in female. Vertex pentagon-like and anterior margin wide-angled; anterior margin of pronotum concave, posterior margin convex in males and females.

Length ♂ (N = 10):  $\bar{x}$  = 4.04 (min. = 3.98 and max. = 4.09) mm, ♀ (N = 17): 5.10 (4.78-5.58) mm; head width (across eyes) ♂: 1.11 (1.08-1.18) mm, ♀: 1.27 (1.12-1.27) mm; length of vertex ♂: 0.43 (0.39-0.48) mm, ♀: 0.52 (0.37-0.56) mm; pronotum length ♂: 0.49 (0.48-0.52) mm, ♀: 0.57 (0.48-0.59) mm; pronotum width ♂: 1.07 (1.06-1.14) mm, ♀: 1.22 (1.11-1.23) mm; scutellum length ♂: 0.39 (0.31-0.46) mm, ♀: 0.38 (0.34-0.58) mm; length of forewings ♂: 1.60 (1.49-1.68) mm, ♀: 1.49 (1.42-1.59) mm; width of forewings ♂: 1.53 (1.40-1.71) mm, ♀: 1.74 (1.55-1.81) mm.

General coloration of males dark brown with black spots and stripes. Shape and darkness of spots distinct. Vertex with 2 small triangular spots near anterior margin and a large spot medially (Figure 1). Edges of compound eyes brown. Postclypeus partly, anteclypeus entirely spotted. Legs brown, slightly spotted (Figure 2). Entire pronotum and scutellum dark spotted. Females conspicuously brown, shape and darkness of spots not as distinct as in male (Figure 3).

Aedeagus in lateral view: elongate, tubular, curved inward, broadened at the base; backward directed process at the apex; gonophore subapically on dorsal side (Figure 4). Stylus with hook-like process apically (Figures 5 and 6). Genital plates triangular (Figure 7). Pygophore in lateral view, posterior margin smooth,



Figures 1-3. *Bilusius valiko* Logvinenko, 1974: 1) Male dorsal view; 2) Hind leg; 3) Female dorsal view.

ventral margin slightly convex (Figure 8). Posterior margin of females' sternum VII convex, medially collapsed (Figure 9).

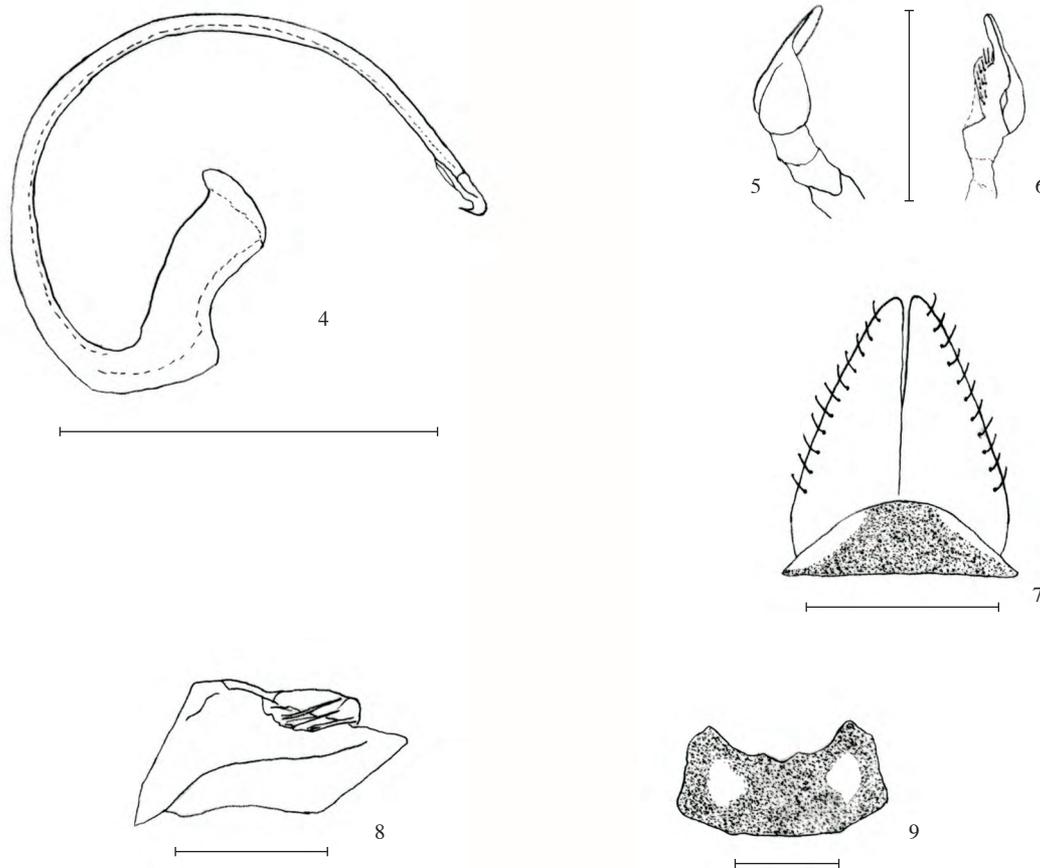
Measurements of body parts not mentioned in Logvinenko (1974) are given. Taxonomic characters of examined specimens very closely approximated those described by Logvinenko (1974). Verification of the specimens was concluded as *Bilusius valiko*, which is recorded for the first time for the Turkish Cicadellidae fauna.

Worldwide Distribution: Georgia (Logvinenko, 1974).

This species is newly recorded for Turkey.

### Acknowledgement

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Figures 4-9. 4) Aedeagus, lateral view; 5) Stylus, ventral view; 6) Stylus, dorsal view; 7) Genital plates, ventral view; 8) Pygophore, lateral view; 9) Sternum VII of female, ventral view (scales: 0.5 mm).

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