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DESCRIPTION OF A NEW SPECIES OF THE GENUS *ONCOPSIS* (HEMIPTERA: CICADOMORPHA: CICADELLIDAE) FROM GREECE

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Abstract – *Oncopsis krios* – a new species of Macropsinae leafhopper from Mt. Killini in Greece is described. The new species belongs to the *O. alni*-group and differs from *O. alni*, *O. planiscuta*, *O. appendiculata* and *O. tristis* by the combination of coloration and genital characters. An identification key for all European species of the *alni*-group is provided. *O. krios* is reported from *Ulmus* sp. which is a new host plant for *Oncopsis*. Hitherto all known European *Oncopsis* species are associated with Betulaceae.

KEY WORDS: Auchenorrhyncha, Hemiptera, Macropsinae, leafhopper, new species, taxonomy, Greece.

Izvleček – OPIS NOVE VRSTE RODU *ONCOPSIS* (HEMIPTERA: CICADOMORPHA: CICADELLIDAE) IZ GRČIJE

Opisana je *Oncopsis krios* – nova vrsta škržatka iz poddružine Macropsinae z gore Killini v Grčiji. Nova vrsta pripada sorodstvu *O. alni* in se razlikuje od vrst *O. alni*, *O. planiscuta*, *O. appendiculata* in *O. tristis* z vrsto znakov v obarvanosti in obliki spolnih organov. Podan je ključ za vse evropske vrste sorodstva *O. alni*. *O. krios* je bila najdena na brestu (*Ulmus* sp.), ki je nova hranilna rastlina za rod *Oncopsis*. Vse druge znane evropske vrste rodu *Oncopsis* živijo na rastlinah iz družine Betulaceae.

KLJUČNE BESEDE: Auchenorrhyncha, Hemiptera, Macropsinae, škržatki, nova vrsta, taksonomija, Grčija.

Introduction

In the western Palaearctic region the genus *Oncopsis* Burmeister, 1838 (Cicadellidae, Macropsinae) is represented by some 12 species. A total of eight

Oncopsis species have been reported from Europe. Species identification is generally difficult because of few reliable morphological characters. Additionally many *Oncopsis* species are polymorphic concerning the coloration (Claridge & Nixon, 1981, 1986). So far all known European species are associated with Betulaceae (*Alnus*, *Betula*, *Carpinus*, *Corylus*) and can be separated by the shape of the aedeagus into two species groups (Anufriev, 1967): the *flavicollis*-group with an S-shaped aedeagus and the *alni*-group with an evenly curved aedeagus.

Material collected by R. Linnavuori provided an undescribed *Oncopsis* species from Greece belonging to the *alni*-group, which is presented here. Notable is the host plant, which is the first record for an *Oncopsis* species on Ulmaceae.

Material and methods

For the description I follow Ossiannilsson's and Hamilton's (1980) terminology. The type material is deposited in the National Museum of Wales, Cardiff collections (NMWC).

Taxonomy

Genus *Oncopsis* Burmeister, 1838

Type species: *Cicada flavicollis* Linnaeus, 1761; by subsequent designation by Westwood, 1840.

***Oncopsis krios* sp. n.**

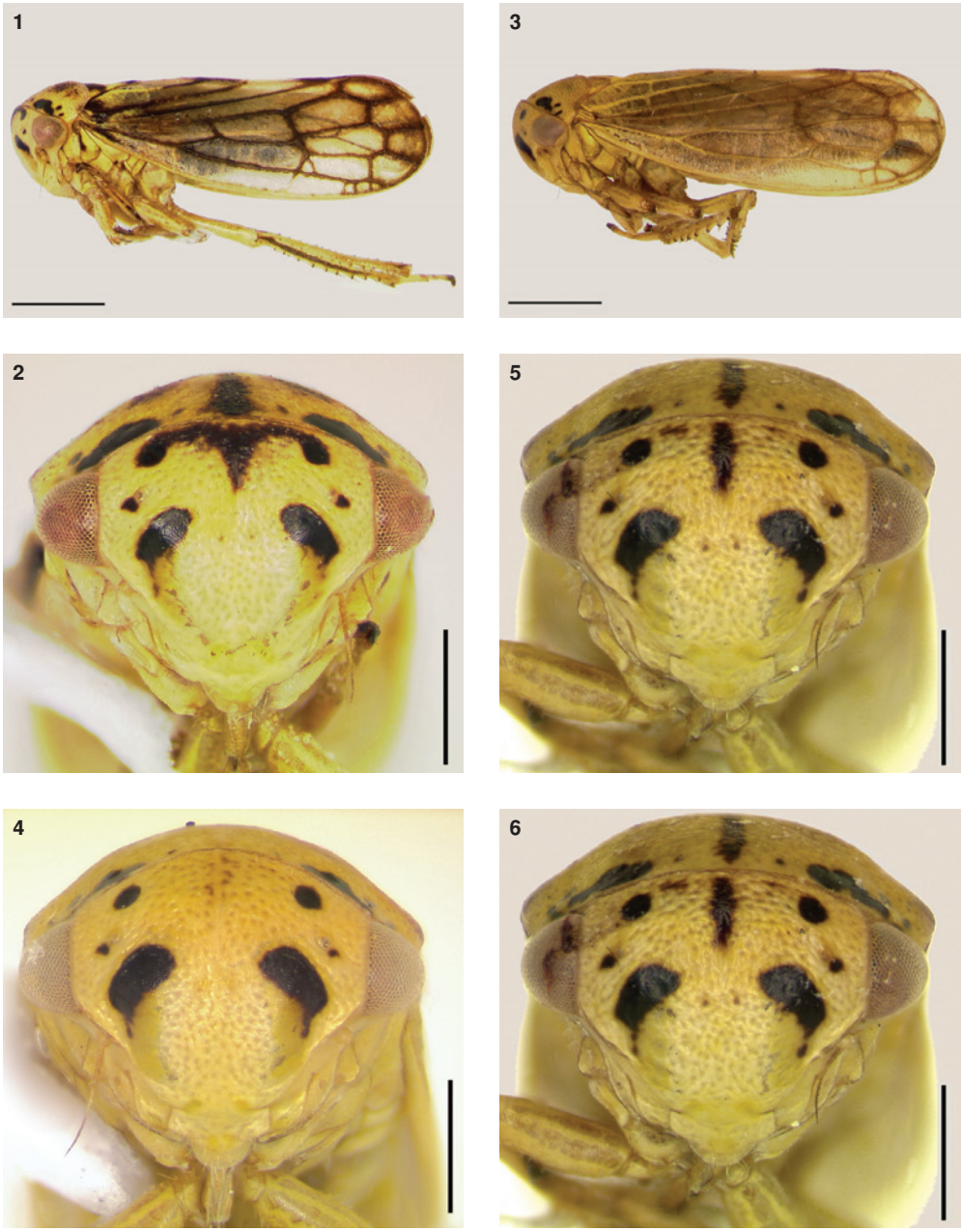
Holotype: ♂, Peloponnesus, Mt. Killini (sometimes spelled as Kyllini), M. S. Trikalon, Greece, 11-13.VI.1990, R. Linnavuori leg. (NMWC).

Paratypes: 12♂, 7♂♀, Peloponnesus, Mt. Killini, M. S. Trikalon, Greece, 11-13.VI.1990, R. Linnavuori leg. (NMWC). 1♂, 1♀ of paratypes deposited in the Natural History Museum, London (BMNH) and 1♂, 1♀ of paratypes deposited in the Zoological Institute, Russian Academy of Sciences, St. Petersburg (ZIN).

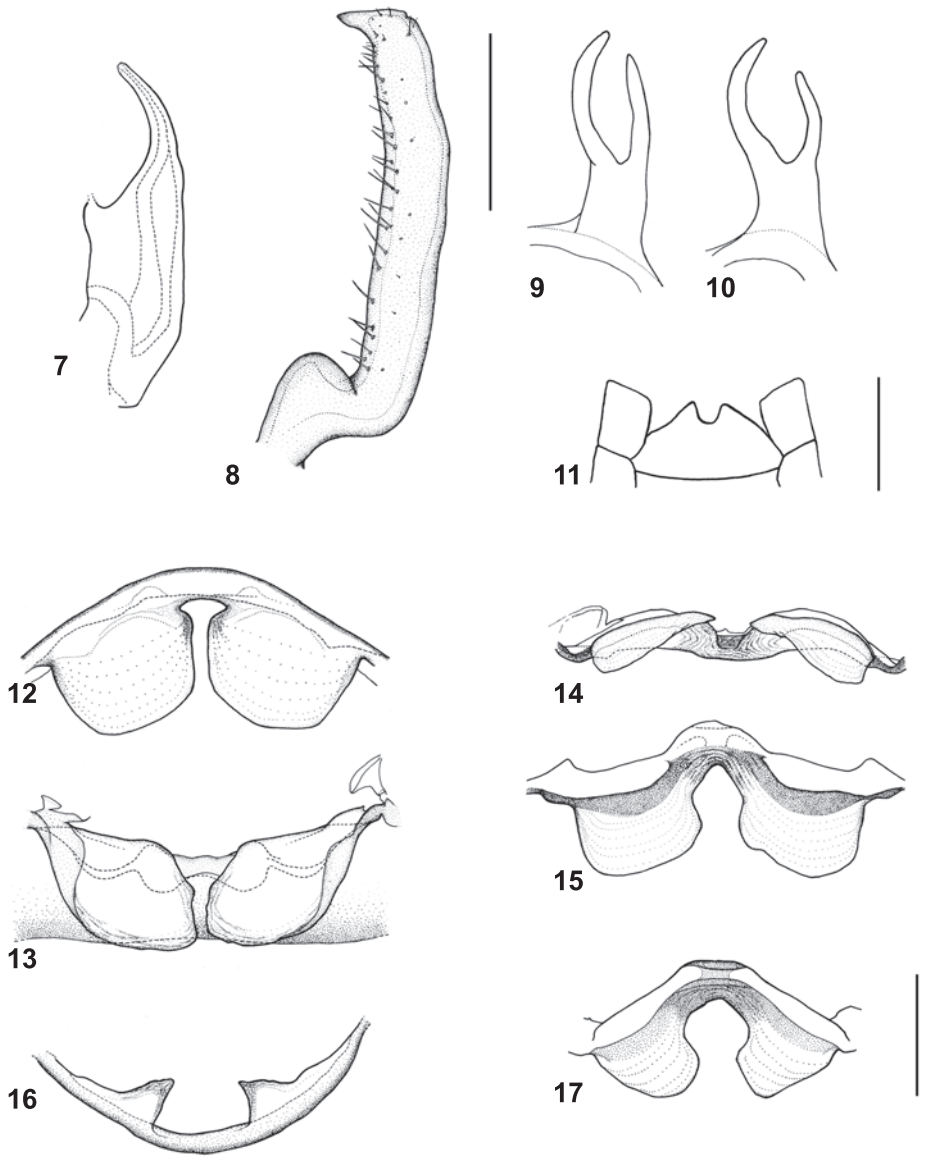
Additional material: 1 intersex (Figs 5-6), same locality and date as holotype and paratypes (NMWC). Intersex individuals within *Oncopsis* are discussed and their terminalia figured by Hamilton (1980).

Note. The host plant is indicated as *Ulmus montana*. This species was often regarded as a subspecies of *Ulmus glabra* Hudson, 1762. As *U. glabra* ssp. *montana* is not listed in Flora Hellenica (Strid & Tan, 1997) the host plant is best treated as *Ulmus* sp.

Description: The general appearance is similar to *Oncopsis* species from the *flavicollis*-group namely *O. flavicollis* Linnaeus, 1761 and *O. carpini* J. Sahlberg, 1871. In lateral aspect the face of both sexes is strongly convex (Figs 1,3). The new described species belongs to the *alni*-group due to its evenly curved outer margin of the aedeagus (Fig. 5).



Figs 1-6: *Oncopsis krios* sp. n., total view. 1 – male in lateral view (paratype); 2 – male in frontal view (paratype); 3 – female in lateral view (paratype); 4 – female in frontal view (paratype); 5 – intersex in lateral view; 6 – intersex in frontal view. Scale bar for figs 1, 3, 5 = 1.0 mm; for figs 2, 4, 6 = 0.5mm.



Figs 7-17: *Oncopsis krios* sp. n., male and female genitalia. 7 – aedeagus from the left; 8 – male left genital style from the left; 9-10 – anal collar appendage of two different males; 11 – female ovipositor in ventral view; 12 – male second tergal apodemes in broadest view; 13 – male second tergal apodemes in ventral view; 14-15 – male first tergal apodemes in different views; 16 – male ventral apodemes in broadest view; 17 – male first dorsal apodemes of another specimen in broadest view. Scale bar for figs 7-10, 12-17 = 0.25 mm; for fig. 11 = 0.5 mm.

Species diagnosis: The here described species differs from *O. appendiculata* Wagner, 1944 and *O. tristis* Zetterstedt, 1838 by the larger body size and the shape of the branches of the anal collar appendages. *O. krios* sp. n. differs from *O. alni* Schrank, 1801 and *O. planiscuta* Thomson, 1870 by the coloration and the shape of the 7th female sternite.

Coloration (Figs 1-4): Male: Body yellow-brownish, abdomen dark brown dorsally, yellow ventraly; wings hyaline with brown veins, commisural border yellow and brown, apical cells infumated; legs yellow-brownish, tibia externally with a brown band; face yellow with two large black discoidal spots, discoidal cross-band always missing, median band short, interocular band not reaching the eyes (Fig. 2). – Female: Body yellow, abdomen yellow-brownish dorsally, yellow ventrally; wings hyaline with yellow-brownish veins; legs yellow without any markings; face yellow with two large black discoidal spots, discoidal cross-band, median band and interocular band missing (Fig. 4).

Male genitalia (Figs 5-8, 9-13): Ventral outline of aedeagus convex and evenly curved (Fig. 5); branches of anal collar appendages of approximately equal length (Figs 7-8); genital style as in Fig. 6. 1st dorsal apodemes quite variable (Figs 12-13, 15); 2nd dorsal apodemes almost as broad as long (Figs 10-11) and only slightly convex, separated by a small gap; 1st ventral apodemes short and angular, clearly separated from each other (Fig. 14).

Female genitalia (Fig. 9): Caudal margin of 7th abdominal sternum convex and with a deep incision between angular corners (Fig. 9); ventral margin of ovipositor in later aspect straight and extending caudally beyond apex of pygofer.

Body length: Males – 4.35-4.65 mm. Females – 4.60-4.80 mm.

Etymology: The species is named after the markings on the male's vertex (Fig. 2). Derived from ancient Greek "κρίως; krios" – ram". In addition the river Krios has its source in Mt. Killini.

Identification key to European *Oncopsis* species (*alni*-group)

1	Males	2
	Females	6
2(1)	Genital style narrow, smaller species. On *Betula*	3
	Genital style broad, larger species. On *Alnus* or *Ulmus*	4
3(2)	Longer branch of anal collar appendage strongly retorse	***appendiculata***
	Longer branch of anal collar appendage moderately curved	***tristis***
4(2)	Branches of anal collar appendage of different length	***alni***
	Branches of anal collar appendage of equal or almost equal length	5
5(4)	Face with broad discoidal cross-band. On *Alnus incana*	***planiscuta***
	Face without discoidal cross-band. On *Ulmus*	***krios* n. sp.**

6(1) Caudal margin of 7th abdominal sternum almost straight or concave. On *Alnus* 7
Caudal margin of 7th abdominal sternum convex. On *Betula* or *Ulmus* 8
7(6) 7th abdominal sternum straight, medially with a slight incision . . . ***planiscuta***
7th abdominal sternum concave, medially without incision . . . . . ***alni***
8(6) 7th abdominal sternum with a deep incision between angular corners. On *Ulmus* . . . . . ***krios* n. sp.**
7th abdominal sternum with a shallow incision. On *Betula* 9
9(8) Ovipositor extending caudally considerably beyond apex of pygofer. . . . . ***appendiculata***
Ovipositor extending caudally only little beyond apex of pygofer . . . . . ***tristis***

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