

Genus	Vol. 20(2): 243-248	Wrocław, 15 VII 2009
-------	---------------------	----------------------

Description of two new species of *Agriotes* ESCHSCHOLTZ of the  
*Agriotes nuceus*-group from Turkey with chorological notes  
(Insecta: Coleoptera: Elateridae)

GIUSEPPE PLATIA<sup>1</sup>, RAINER SCHIMMEL<sup>2</sup> & DARIUSZ TARNAWSKI<sup>3</sup>

<sup>1</sup>Via Molino Vecchio, 21/A, 47043 Gatteo (FC) Italia, e-mail: pinoplatia@tele2.it

<sup>2</sup>Wiesenstrasse 6, D-66957 Vinningen, Germany, e-mail: rainer.schimmel@gmx.de

<sup>3</sup>Department of Biodiversity and Evolutionary Taxonomy, Zoological Institute, University of Wrocław,  
Przybyszewskiego 63-77, 51-148 Wrocław, Poland, e-mail: elater@biol.uni.wroc.pl

ABSTRACT. *Agriotes doboszi* n. sp. and *A. borowieciorum* n. sp. belonging to the *Agriotes nuceus* group are described from Turkey. *Agriotes syriacus* PLATIA & GUDENZI, 1997, described from Syria, is recorded for the first time from Turkey.

Key words: entomology, taxonomy, new species, new distributional records, Coleoptera, Elateridae, *Agriotes*, Turkey.

#### INTRODUCTION

The species of *Agriotes* of the *nuceus* group can be distinguished by the supran-tennal carinae reaching the anterior margin of frons, the prosternal sutures only briefly furrowed at apical extremity and the longer antennae, normally surpassing the apices of posterior angles of pronotum, sometimes by several articles, and in two species, as an exception, by twelve articles.

With the descriptions of the two new species, the number of known species of this group amounts to 36 (PLATIA & GUDENZI 1997; PLATIA 2003), distributed from Greece to Turkey (24 species), Lebanon, Syria and Iraq. The females of all the species are undescribed and seem to be very rare; during many years of study, among hundreds of male specimens of various species, only recently have we examined a female (impossible to determine without a male specimen) from the south of Turkey (CATE coll., Wien). The examination of the sclerotic plates of bursa copulatrix gives us the confirmation

that this group of species belongs to *Agriotes* ESCHSCHOLTZ, as in the past some authors included these species in the genus *Ectinus* ESCHSCHOLTZ.

#### MATERIAL AND METHODS

Body measurements: Body length is measured along the midline from the anterior margin of the frons to the apex of the elytra; the width is measured across the broadest part of the entire beetle.

Pronotal measurements: The pronotal length is measured along the midline; the width at the broadest part, which is most usually at the hind angles.

Abbreviations: The names of institutions, museums and private collections containing the studied material are abbreviated as follows:

CPG	PLATIA coll., Gatteo (Italy);
CSV	SCHIMMEL coll., Vinningen (Germany);
CTW	TARNAWSKI coll., Wrocław (Poland).

#### DESCRIPTION OF NEW SPECIES

##### *Agriotes doboszi* n. sp.

(Figs. 1–3)

#### LOCUS TYPICUS

Turkey: İçel province, Aydinlar (Avgadi) env., N of Erdemli.

#### TYPE MATERIAL

Holotype ♂ - Turkey: İçel prov., Aydinlar (Avgadi) env., N of Erdemli (36°45'N, 34°08'E), 1380 m, 31 VII-2 VIII 2006, R. DOBOSZ, ex Upper Silesian Museum (USMB). Bytom (CTW). 11 Paratypes ♂ - (3) same data as HT; (8) İçel Prov., Aydinlar (Avgadi) env., N of Erdemli (36°42'N, 34°10'E), 1020 m, 3-4 VIII 2006, R. DOBOSZ, ex Upper Silesian Museum (USMB) Bytom (CPG; CSV; CTW).

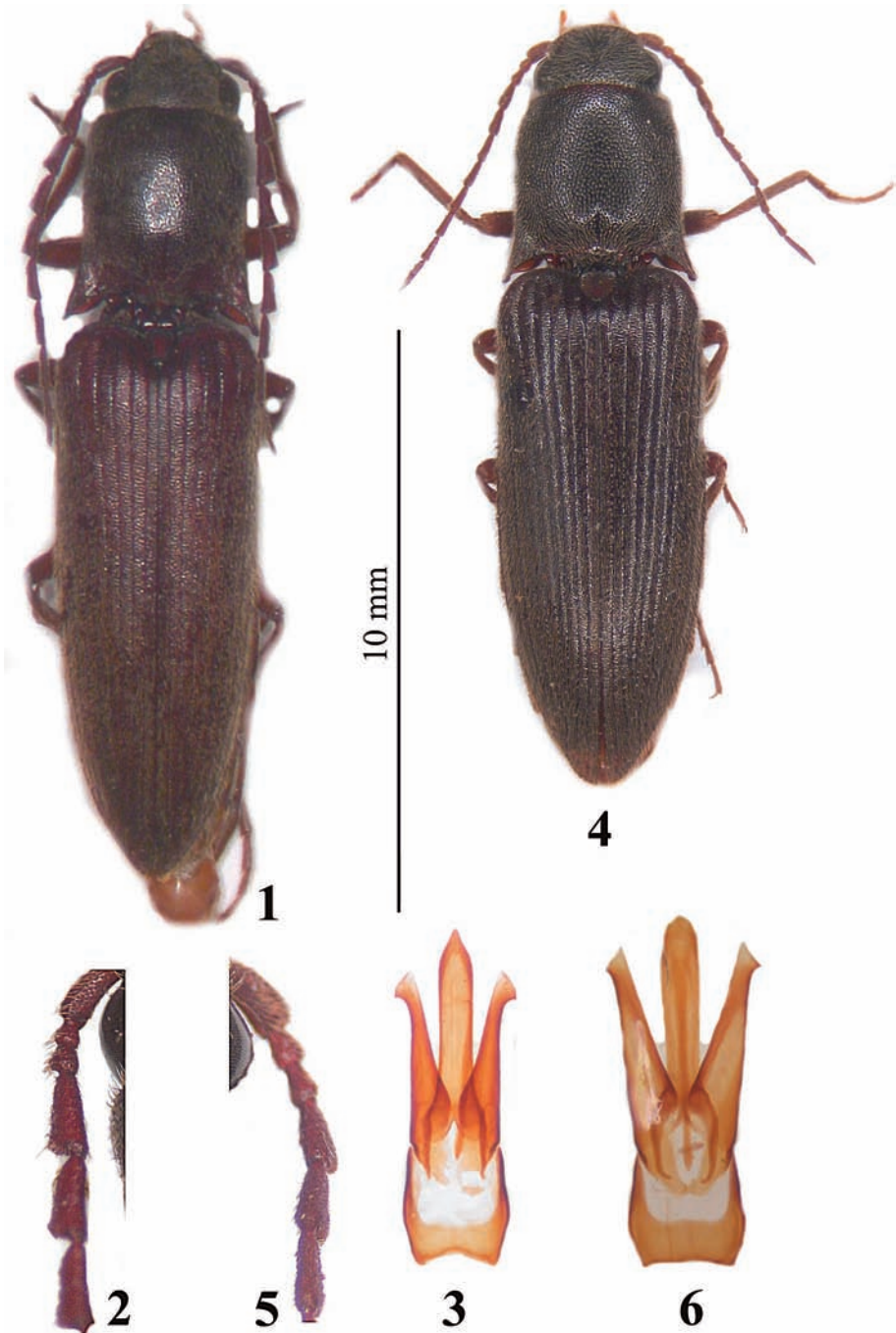
#### DIAGNOSIS

Male. Moderately shiny; unicoloured blackish with reddish shadings to (more rarely) entirely dark ferruginous with blackish shadings; antennae and legs dark ferruginous; covered with dense, recumbent, yellow-golden vestiture.

#### DESCRIPTION

Head with eyes narrower than anterior margin of pronotum; frons moderately convex on vertex, gently impressed anteriorly; anterior margin nearly straight, supraantennal carinae raised, reaching the anterior margin; punctures coarse, umbilicate, with very short intervals or contiguous.

Antennae exceeding the apices of posterior angles of pronotum by 1-1.5 articles, serrated from fourth; second article subcylindrical, as long as wide or just longer; third



1-3. *Agriotes doboszi* n. sp.: 1 – habitus, 2 – antennomeres 1-6, 3 – aedeagus; 4-6. *Agriotes borowieciorum* n. sp.: 4 – habitus, 5 – antennomeres 1-6, 6 – aedeagus

subconical, a little longer than wide and longer than second; second and third articles, taken together, as long as fourth; fourth-seventh triangular, less than twice longer than wide; eighth-tenth slenderer, more than twice longer than wide; last one longer than the penultimate, subellipsoidal, moderately constricted before the apex.

Pronotum 1.12x wider than long, widest at apices of posterior angles; regularly convex, with a narrow, smooth, mid-longitudinal impressed line at basal sloping; sides arcuate to subparallel, moderately dilated at anterior third, sinuate before the posterior angles, the latter acute, diverging with a well-visible, short carina directed inwards and subparallel to the very fine at base, obsolete at center, more evident at anterior third, lateral margins; punctures rather uniformly distributed, less coarse and finer than frontal punctures; on the disc deep, simple or slightly umbilicate with very short intervals, sometimes gradually denser towards the sides, becoming clearly umbilicate at the extremities.

Scutellum shield-like and moderately convex, densely and finely punctured. Elytra just wider than base of pronotum and 3x longer; sides subparallel for about two-thirds of their length, then gradually tapering at apex; apices rather acute and moderately divaricate at the extremities; striae well-marked and punctured; interstriae subconvex, with dense punctures and rough surface.

Aedeagus as in the fig. (length 1.56 mm).

Female unknown.

Size. Length 12.5-13.8 mm; width 3.37-4.0 mm.

#### DIFFERENTIAL DIAGNOSIS

A species resembling *Agriotes lizleri* PLATIA, 2003 in general shape and size, it can be distinguished by the darker colour and less slender second antennal article, normally as long as wide or just longer.

#### ETYMOLOGY

The species is dedicated to the collector, R. DOBOSZ.

#### DISTRIBUTION

Turkey: İçel province.

### *Agriotes borowieciorum* n. sp.

(Figs. 4–6)

#### LOCUS TYPICUS

Turkey: Kahraman Maraş prov., 50 km S of Göksun.

#### TYPE MATERIAL

Holotype ♂- Turkey: Kahraman Maraş prov., 50 km S of Göksun (37°44'N, 36°42'E), 750 m, 28 VII 2006, R. DOBOSZ, ex Upper Silesian Museum (USMB) Bytom (CTW). 3 Paratypes ♂ - same data as Ht (CPG; CSV; CTW).

## DIAGNOSIS

Unicoloured dark ferruginous with blackish shadings on head, pronotum, base of elytra; antennae and legs ferruginous; covered with dense, recumbent, yellow-golden vestiture.

## DESCRIPTION

Head with eyes narrower than anterior margin of pronotum; frons moderately convex on vertex, gently impressed anteriorly; anterior margin nearly straight, supraantennal carinae raised, reaching the anterior margin; punctures coarse, umbilicate, with very short intervals or contiguous.

Antennae serrated from fourth article, surpassing the apices of posterior angles of pronotum by about three articles; second and third articles globous, as long as wide, taken together much shorter than fourth; fourth-tenth triangular, about 2.5x longer than wide; last very slender, longer than the penultimate, with subparallel sides, asymmetrically constricted at the apical third.

Pronotum as long as wide, widest at apices of posterior angles, convex, abruptly sloping at sides, gradually at base, with a trace of short mid-longitudinal impressed line; sides moderately concave at middle, dilated at anterior third, sinuate before the posterior angles, the latter long, acute and diverging; carina short, well-visible, subparallel to the fine and complete lateral margins; puncturation rather uniformly distributed; punctures on disc deep, simple, with very short shiny (shagreened in a specimen) intervals; at sides the punctures become a little denser.

Scutellum shield-like, moderately convex, densely and finely punctured. Elytra just wider than base of pronotum and 3.1x longer; sides subparallel for about two-thirds of its length, then gradually tapering at apex; apices rather acute, just divaricate at the extremities; striae well-marked and punctured; interstriae subconvex, with dense punctures and rough surface.

Size. Length 13.7-16 mm; width 3.5-4 mm.

Aedeagus as in fig. (length 1.56 mm).

Female unknown.

## DIFFERENTIAL DIAGNOSIS

A species similar to *Agriotes furlani* PLATIA, 2003 in general shape, colour and size, it can be distinguished by the longer antennae with second and third article globose, taken together much shorter compared to fourth, and the following very slender.

## ETYMOLOGY

The species is dedicated to the collectors of much material that we have studied, L. & M. L. BOROWIEC.

## DISTRIBUTION

Turkey: Kahraman Maraş province.

*Agriotes syriacus* PLATIA & GUDENZI, 1997

## MATERIAL EXAMINED

4 ♂ - Turkey: Adiyaman prov., Nemrut Dagi N. P., Cesme Pension, 1390 m, 27-28.VII.2004, R. DOBOSZ, at light; Adiyaman, prov., N of Besini, 25 km E of Golbasi, 745 m, 18.VI.2005, R. DOBOSZ (CTW).

Described from Syria. New to Turkey.

## ACKNOWLEDGEMENTS

We would like to express our sincere thanks to Prof. Dr. L. BOROWIEC and Mr. R. DOBOSZ for providing material to study, and Mr. J. TARNAWSKI (Wrocław) for proof-reading the English of this paper. This paper was supported by scientific grant of the Zoological Institute, University of Wrocław, 1018/IZ/2006.

## REFERENCES

- PLATIA, G., 2003. Descrizione di otto nuove specie di *Agriotes* del gruppo *nuceus* FAIRMAIRE della Turchia con chiave di determinazione alle specie note (Insecta, Coleoptera, Elateridae).— *IL NATURALISTA VALTELLINESE. Atti Mus. civ. Stor. Nat. Morbegno*, **14**: 13-28.
- PLATIA, G., GUDENZI, I., 1997. Contributo alla conoscenza degli *Agriotes* del gruppo *nuceus* di Siria e Iraq (Coleoptera, Elateridae). *Bol. Soc. Entomol. Ital.*, **128**(3): 201-211.