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Article · December 2021

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A new species of *Agapanthia* (*Epoetes* Gistel, 1857) close to *A. villosoviridescens* (DeGeer, 1775) from South Europe

MAXIM A. LAZAREV

Abstract

Agapanthia (*Epoetes*) *gazanchidisi*, **sp. nov.** from South Europe (Greece and Bulgaria) is described. The species is very close to *A. villosoviridescens* (DeGeer, 1775); the new species was compared with the holotype of *Cerambyx villosoviridescens* (DeGeer, 1775) and with big series of *A. villosoviridescens* from different parts of its area; distinguishing characters are discussed.

Key words

Coleoptera, Cerambycidae, *Agapanthia*, new species, taxonomy, Europe, Greece, Bulgaria.

Introduction

Agapanthia is one of the most complicated Cerambycidae genera in Europe. Many new taxa were recently described: *A.* (s. str.) *bohemica* Sláma, 2017, *A.* (*Epoetes*) *asphodeli balcanica* Sláma, 2019, *A.* (*E.*) *lopadusae* Rapuzzi & Sparacio, 2017, *A.* (*E.*) *markusi* Rapuzzi, Sama & Kotán, 2013, *A.* (*E.*) *uxoria* Sláma, 2017, *A.* (*Smaragdula*) *izziloi* Rapuzzi, Sama & Kotán, 2013, *A.* (*S.*) *viti* Rapuzzi & Sama, 2012, *A.* (*Synthapsia*) *kirbyi valandovensensis* Sláma, 2015. Now one more species *A.* (*E.*) *gazanchidisi*, **sp. nov.** close to *A.* (*E.*) *villosoviridescens* (DeGeer, 1775) is added to European fauna.

A. (*E.*) *villosoviridescens* (DeGeer, 1775) - the most common European species is widely distributed in Asia too and is characterized by great degree of individual variability. Its elytra can be densely pubescent or nearly glabrous. Several geographical forms can be observed along its huge area. A careful study of several populations traditionally accepted as *A. villosoviridescens* from Bulgaria and Greece makes me to propose a new species described below.

Material and methods

All photographs were taken with Canon PowerShot G10 digital camera equipped with Cannon Zoom lens 5X IS 6.1-30.5 mm 1:2.8-4.5 and microscope AmScope SM745NTP. The illustrations were edited with Adobe Photoshop 7.0 and Helicon Focus 3.20.

Types material studied are deposited in the following collections:

MD - collection of M. Danilevsky (Moscow, Russia)
ML - collection of M. Lazarev (Moscow, Russia)
VG - collection of V. Gazanchidis (Moscow, Russia)
SM - collection of S. Murzin (Moscow, Russia)

Taxonomical part

Family Cerambycidae Latreille, 1802

Subfamily Lamiinae Latreille, 1825

Tribe Agapanthiini Mulsant, 1839

Genus *Agapanthia* Audinet-Serville, 1835

Type species:

Cerambyx cardui Linnaeus, 1767

Subgenus *Agapanthia* (*Epoetes*) Gistel, 1857

Type species: *Saperda asphodeli* Latreille, 1804

Agapanthia (*Epoetes*) *gazanchidisi*, **sp. n.**

Figs 1-5, Map 1

Type material

Holotype (Fig. 1), male, Eastern Greece, Dasochori env. 40°53'48.67"N, 24°48'26.12"E, 5.7.2021, V. Gazanchidis leg. - ML; 21 paratypes; 2 males (VG), 1

female (Fig. 2, ML) with same label; 1 female, Greece, Macedonia, Katerini dist., Paralia, 6.6.1997, J. Macek leg. - SM; 17 paratypes from Bulgaria (MD): 1 female, Tchervenata Stena reserve, 41°54'36"N, 24°52'33"E, 1213 m, 29.6.2014, T. Ljubomirov leg.; 1 female, W Popkralevo vill., 43°59'38"N, 27°20'34"E, 50 m, 13.5.2012, T. Ljubomirov leg.; 1 male, 1 female, N Sudievo, 42°40'35"N, 27°19'27"E, 137 m, 21.5.2012, T. Ljubomirov leg.; 3 males, 4 females, Lozenska Planina Mts., SE German vill., 780 m, 17.6.2004, T. Ljubomirov leg.; 1 female, E Stroumeshnitsa vill., 41°23'N, 23°03'E, 170 m, 16.6.2009, T. Ljubomirov leg.; 1 male, SW Gabrovo vill., 41°52'10"N, 22°56'31"E, 1029 m, 8.6.2012, T. Ljubomirov leg.; 1 female, E Kayazhevo, 42°06'39"N, 26°31'14"E, 99 m, 24.6.2012, T. Ljubomirov leg.; 1 female, Etropolevska Planina Mts., Ravna River riverside, 42°49'N, 23°49'E, 610 m, 6.6.2006, T. Ljubomirov leg.; 1 female, NW Vassil Levsky vill., 43°57'39"N, 27°21'47"E, 125 m, 13.5.2012, T. Ljubomirov leg.; 1 female, Kozhuch, 17.5.1983, J. Ganev leg.

Material used for comparison

Agapanthia villosoviridescens - 1 female, holotype of *Cerambyx villosoviridescens* DeGeer, 1775 preserved in Swedish Museum of Natural History (Stockholm) with No: NHRS-JLKB000073628

Big series of males and females from West Europe, Ukraine, Kazakhstan, European and Siberian Russia - MD, ML & SM.

Diagnosis

Body moderately elongated; head with long black erect setae, with narrow yellow pubescent line between antennae; genae about as long as lower eye lobe; eyes slightly convex, nearly flat, with deep emargination; antennae very thin, black, without setae tufts, in males reaching beyond elytral apices by 5 joints, in females - by 3 joints; 3rd antennal joint slightly lightened basally in Bulgarian specimens; 1st and 2nd joints covered with black pubescence; about three basal fourth of 3rd joint covered with pale fine recumbent pubescence, apical fourth with black pubescence; whole length of 3rd joint with long suberect setae concentrated apically; others joints covered with white pubescence to about half; 3rd antennal joint is the longest, 4th joint shorter than 1st, 5th joint shorter than 4th; prothorax about as long as its basal width, slightly convex laterally; pronotum with dense central and lateral, moderately wide yellow lines, less pronounced in Greek specimens; shining between yellow lines, with numerous erect black setae; pronotal punctation regular, very dense, but not conjugated; scutellum transversely-oval with dense yellow pubescence; elytra in males about 3.1 times longer than wide, in females - 3.0 times, parallel sided; with nearly indistinct, small transverse yellow patches (better developed in Bulgarian specimens) and glabrous in between; with numerous erect black setae diminished apically and sometimes totally disappearing

in posterior elytral half; elytral apices rounded; elytral punctation very dense, partly transversally conjugated; larger than pronotal punctation; legs black, with very dense yellow (partly white-grayish) pubescence; ventral side of the body with very dense yellow and white-grayish pubescence, abdomen segments with scattered glabrous dots; penis (Fig. 3) moderately narrowed and attenuated apically; parameres (Fig. 4) widened basally; body length in males: 10.8-15.8 mm, width: 2.6-3.9 mm; body length in females: 12.4-17.7 mm, width: 3.0-4.9 mm.

Differential diagnosis

New species is characterized by poor development of dorsal pubescence, which is often rather dense in *A. villosoviridescens*; holotype (female) of *Cerambyx villosoviridescens* DeGeer, 1775 (Fig. 6) is fitting well with traditional interpretation of specimens from Central Europe, because of black antennae and densely pubescent spotted elytra. All available specimens of *A. villosoviridescens* have less shining elytra; penis and parameres in *A. villosoviridescens* are much narrower and strongly attenuated. Genital structures of *A. villosoviridescens* were described and figured by Kasatkin (2020).

Distribution

The new species is known from Bulgaria and Eastern Greece.

Biology

The species is connected in Greece with *Melilotus* (Linnaeus) P. Miller, 1754 (Fig. 5). Imagoes were active from May to July.

Etymology

The new species is dedicated to Viktor Gazanchidis (Moscow), who collected the Greece part of the type series.

Acknowledgements

I am very grateful to V. Gazanchidis (Moscow), A. Gusakov (Zoological Museum of the Moscow Lomonosov State University), M. Danilevsky (A.N. Severtsov Institute of Ecology and Evolution of the Russian Academy of Sciences), S. Murzin (Moscow), for providing me with the specimens for study. Enormous material of *Agapanthia* was collected in Bulgaria by Dr. T. Ljubomirov (Bulgarian Academy of Sciences Institute of Biodiversity and Ecosystem Research). My special gratitude to Johannes Bergsten, Docent and Senior Curator of the Department of Zoology in Swedish Museum of Natural History (Stockholm) for supplying me with photos of the holotype of *Cerambyx villosoviridescens* DeGeer, 1775.

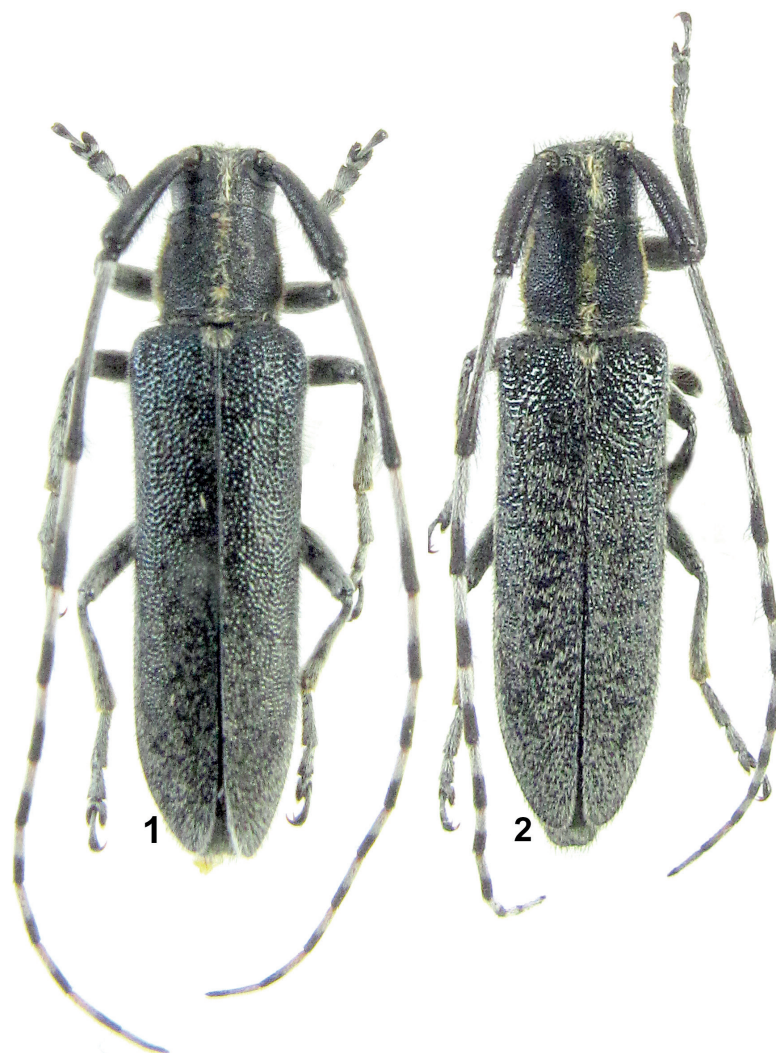
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Figs 1-2. *Agapanthia* (*Epopetes*) *gazanchidisi*, sp. n.: 1 - holotype, Eastern Greece, Dasochori env. 40°53'48.67"N, 24°48'26.12"E, 5.7.2021, V. Gazanchidis leg.; 2 - paratype, female with same label.



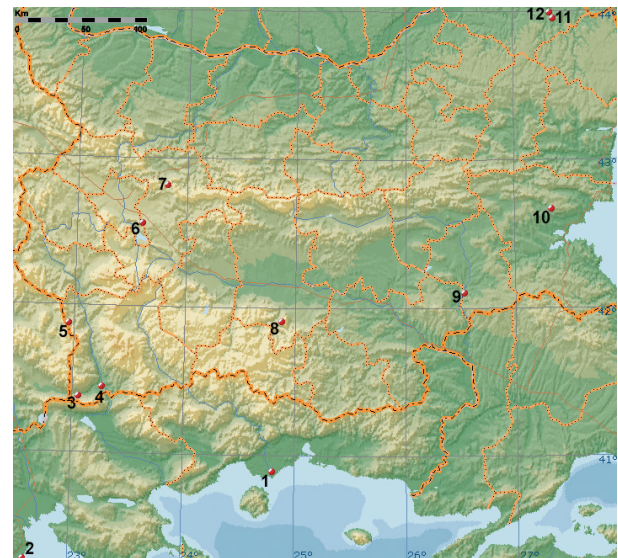
Figs 3-4. *Agapanthia (Epoetes) gazanchidisi*, sp. n.: 3 - penis, specimen from Bulgaria, N Sudievo, 42°40'35"N, 27°19'27"E, 137 m, 21.5.2012, T. Ljubomirov leg.; 4 - parameres, specimen from Bulgaria, Lozenska Planina Mts., SE German vill., 780 m, 17.6.2004, T. Ljubomirov leg.



Fig. 5. *Melilotus* sp. from Eastern Greece, Dasochori env. - food plant of *A. (E.) gazanchidisi*, sp. n. - photo by V. Gazanchidis.



Fig. 6. *A. (E.) villosoviridescens* (DeGeer, 1775) - holotype, female, *Cerambyx villosoviridescens* DeGeer, 1775: A - dorsal view, B - lateral view, C - position of the specimen in the draw, D - set of labels - photographed by J. Bergsten (© 2021 Naturhistoriska riksmuseet). Made available by the Swedish Museum of Natural History (CC-BY 4.0 license).



Map 1. The area of *Agapanthia (Epoetes) gazanchidisi*, sp. n. 1-2. Greece; 3-12. Bulgaria.

1 - Dasochori environs, 40°53'48.67"N, 24°48'26.12"E;
 2 - Macedonia, Katerini district, Paralia; 3 - E Stroumeshnitsa village, 41°23'N, 23°03'E, 170 m; 4 - Kozhuch; 5 - SW Gabrovo village., 41°52'10"N, 22°56'31"E, 1029 m; 6 - Lozenska Planina Mountains., SE German village., 780 m; 7 - Etopolska Planina Mountains., Ravna River riverside, 42°49'N, 23°49'E, 610 m; 8 - Tchervenata Stena reserve, 41°54'36"N 24°52'33"E, 1213 m; 9 - E Kayazhevo, 42°06'39"N, 26°31'14"E, 99 m; 10 - N Sudievo, 42°40'35"N, 27°19'27"E, 137 m; 11 - NW Vassil Levsky village, 43°57'39"N, 27°21'47"E, 125 m; 12 - W Popkralevo village, 43°59'38"N, 27°20'34"E, 50 m.