

**TWO NEW *AGAPANTHIA* AUDINET-SERVILLE, 1835  
SPECIES FROM GREECE (COLEOPTERA: CERAMBYCIDAE)**

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**ABSTRACT:** Two new *Agapanthia* Audinet-Serville, 1835 species from Greece are described and figured. Comparative notes are proposed as well. *Agapanthia izzilloi* n. sp. from Peloponnese belongs to *A. amitina* Holzschuh, 1989 species group. *Agapanthia markusi* n. sp. is close to *A. villosoviridescens* DeGeer, 1775 and it comes from Pindos Mountains.

**KEY WORDS:** Cerambycidae, *Agapanthia*, new species, Greece.

Studying large series of *Agapanthia* collected in Greece, we found two species that evidently belong to new taxon. *Agapanthia* (s. str.) *izzilloi* n. sp. belongs to *A. amitina* Holzschuh, 1989 species group. It is very interesting because the new species is the first record of this group from Europe and it is the most Western species known. *Agapanthia* (*Epopetes*) *markusi* n. sp. is close related with *A. villosoviridescens* DeGeer, 1775 and it is known only from Pindos Mountains.

***Agapanthia* (s. str.) *izzilloi* n. sp.**

(Fig. 1)

**Material examined:** **Holotypus** ♂: **Greece**, Arkadia, S of Scortsinos, 450 m., 2.V.2012, F. Izzillo lgt. (Coll. P. Rapuzzi); **Paratypus:** 5♂♂ and 4♀♀ **Greece**, Arkadia, S of Scortsinos, 450 m., 2.V.2012, F. Izzillo lgt.; 1♀ **Greece**, Lakonia, Hania, 5.V.2012, F. Izzillo lgt.; 1♂ **Greece**, Lakonia, Xirokambi, 1 Km South of Zerpitsa monastery, 4.V.2012, F. Izzillo lgt.; 4♂♂ and 4♀♀ **Greece**, Ahaia, Trapeza, 2.V.2012, F. Izzillo lgt.; 1♀ **Greece**, Ahaia, 25 Km E Kalavryta, 8.V.2012, F. Izzillo lgt.; 1♀ **Greece**, Arkadia, Megalopolis, 1 Km South of Scortsinos, Falaisia, 450 m., 2.V.2012, G.L. Agnoli lgt. (Coll. F. Izzillo, Napoli, Italy; Coll. M. Bollino, Bari, Italy; Coll. G. L. Agnoli, Bologna, Italy; Coll. G. Sama; Coll. P. Rapuzzi).

**Description of the Holotype.**

Length 11 mm, width 3 mm. Body green metallic with blue reflex. Head deep punctured, frons with dense long erect black hairs and dense short recumbent white hairs, denser in the middle, at eyes side and on cheeks. Pronotum a little longer than wide, dense punctured with denser punctures on the middle of the disk, in this area the punctures are smaller than the rest of pronotum. Pubescence made by long black erect hairs. This hairs are denser at sides then on the disk. Scutellum rounded, with dense and very short recumbent white pubescence, denser at the apex. Elytra parallel sides, with dense and deep punctures. The points merge to form wrinkles along the suture. Shoulders with deep carina. Pubescence made by long black erect hairs, longer and denser on the first half and shorter towards the apex. Along the apical side there are very short and dense

white hairs. Legs long, metallic green covered with dense short erect white hairs; there are few longer black erect hairs on tibiae and femora. Antennae long, exceeding elytral apex with the last 6 joints. Scape long, metallic green, near reaching the base of pronotum, covered with dense dark erect hairs, from the 3<sup>rd</sup> to the 12<sup>th</sup> covered with short recumbent white pubescence, denser on the first two thirds to give a ringed aspect to antennae. Third Joint and half of the fourth with metallic reflections, the others are black.

### Variability of the Paratypes

The specimens of the type series show a range of color from the green with some golden reflection (the largest number of specimens), to the blue (rarely), few specimens are double colored: head and pronotum golden-green and elytra more or less blue. One specimen is bronze-green. The range of size is between 7 to 13 mm. among males and from 8 to 12,5 mm. among females.

### Biology

All the specimens were collected on the leaves or flying around the plants of *Psoralea bituminosa* (Linnaeus, 1753) (*Fabaceae*). It is very probably that this plant is the host of the new species.

### Discussion

*Agapanthia* (s. str.) *izzilloi* n. sp. belongs to the homogeneous group of metallic *Agapanthia* where we find: *Agapanthia* (s. str.) *amitina* Holzschuh, 1989 from North Iran, *Agapanthia* (s. str.) *pesarini* Sama & Rapuzzi, 2010 from Southern Turkey, *Agapanthia* (s. str.) *psoraleae* Sama & Rapuzzi, 2010 from Lebanon and *Agapanthia* (s. str.) *gemella* Holzschuh, 1989 from Cyprus. The new species for the large size of body is closer with *A. gemella* but is immediately separable from it by the longer antennae. The antennae ringed in both sexes permit to separate the new species from all other species of this group. It is very interesting to note that the new Taxon is the western most species of a species group widespread from the North-East part of the Mediterranean Sea till the mountains up to the Caspian Sea.

### Etymology

We dedicate the new species with gratitude to Francesco Izzillo from Naples who collected the largest number of specimens of this interesting new species as thanksgiving for the opportunity to study his specimens.

### *Agapanthia (Epoptes) markusi* n. sp.

(Fig. 2)

**Material examined :** **Holotypus** ♂: **Greece**, Ipiros, Joanina pref., 7 Km SW Metsovo, 1360 m., 3.VII.2012, A. Kotán, A. Márkus, P. Nemes, T. Németh lgt. (Coll. P. Rapuzzi); **Paratypes**: 47♂♂ and 67♀♀ **Greece**, Ipiros, Joanina pref., 7 Km SW Metsovo, 1360 m., 3.VII.2012, A. Kotán, A. Márkus, P. Nemes, T. Németh lgt.; 1♂ **Greece**, Varnous Mts., 1450 m., Agios Germanos, 6-8.VII.2010, T. Vrána lgt.; 1♀ **Greece**, Trikala, Katara pass, 25.VI.2010, M. Benelli lgt.; 2♀♀ **Greece**, Ioannina, Metsovo e Grevena, 25.VI.2010, R. Bocchini lgt.; 6♂♂ and 3♀♀ **Greece**, Trikala, Katara pass, 1400-1700 m., 10-15.VII.2010, Padovani & Malmusi lgt.; 7♂♂ and 3♀♀ **Greece**, Florina, Pisoderion, Agios Triados, 1400 m., 28.VI.1982, Osella lgt.; 1♂ idem 1.VII.1984; 1♀ **Greece**, Ioannina, Katara pass, 1650 m., 39°47'48"N 21°13'49"E, 19.VII.2010, I. Zappi lgt.; 1♂ **Greece**, Kastoria,

M. Vernon, 1900 m., 29.VI.1982, Osella lgt; 1♂ **Greece**, Pindos, Peristeri, 1400 m., 12.VII.1984, Osella lgt.; 6♂♂ and 4 ♀♀ **Greece**, Ipiros, Aaos lake, 1-15.VIII.2009, G. & G. Giannini lgt.; 5♂♂ and 5 ♀♀ **Greece**, Ipiros, Milia, 1-18.VIII.2009, G. & G. Giannini lgt.; 3♂♂ and 2 ♀♀ **Greece**, Ipiros, Milia, 1-18.VIII.2009, G. & G. Giannini lgt.; 1♂ and 1♀ **Greece**, Makedonia, pref. Imathia, Mt. Vermio, 6 km W Naussa, 1041m, 27.VI.2012, leg. A. Kotán, A. Márkus, P. Nemes & T. Németh; 1♂ and 1♀ **Greece** Ipiros, pref. Joannina, 2 km W Fourka, 1450m, 4.VII.2012, leg. A. Kotán, A. Márkus, P. Nemes & T. Németh (Coll. Museo Civico di Storia Naturale Verona; Coll. Hungarian Natural History Museum Budapest; Daniel Vit, Zlin, Czech Republic; Coll. G. & G. Giannini, Milano, Italy; Coll. C. Pesarini & A. Sabbadini, Milano, Italy; Coll. B. Bujnik; Coll. G. Sama; Coll. P. Rapuzzi; Coll. A. Kotan).

### **Description of the Holotype.**

Length 16 mm, width 4 mm. Body black with leaden reflections. Head with deep and dense punctures. Pubescence made by long black erect hairs and dense but not homogeneous short pubescence made by short white recumbent hairs, denser between antennae and around eyes. Pronotum as long as width, dense punctured with deep punctures. Pubescence made by long black erect hairs, little denser at sides than on the disk. In the middle only few short recumbent white hairs, denser near the apex and the base but invisible without loop. Scutellum rounded, larger than long and covered with dense and very short recumbent white hairs. Elytra parallel, shortly acuminate towards the apex, dense punctured and covered with long black erect hairs. These hairs are longer and denser on the first two thirds and shorter and rarer towards apex but reaching the apex. Elytra are complete black, only few evanescent white small spots made by short and recumbent ashen hairs, denser near the apex. Legs long, black. Median and hind tibiae with scattered white recumbent hairs, denser on tibiae than on the femora. Antennae long, exceeding elytral apex with the last five joints. Antennae black, with evanescent ring of ash pubescence on the first half from 3<sup>rd</sup> to the 12<sup>th</sup> joint. Scape with medium dense erect black hairs, rarer on the next joints from the third to the fifth and absent on the subsequent joints.

### **Variability of the Paratypes**

The paratypes show sometimes a denser scattered ashy pubescence, only two specimens show this pubescence till the first half. Sometimes the white median strips on pronotum is more or less evident. The range of size is between 12 to 18 mm. among males and from 14 to 18 mm. among females.

### **Discussion**

The species known of *Agapanthia (Epoptes) villosoviridescens* widespread in all the West Palearctic region very probably represents a complex of different species diffuse in all the West Palearctic region. In fact several population from the southern part of its area are quite different from the population from Middle and North Europa. *A. villosoviridescens* was described by DeGeer on the base of specimens without locality, most likely Sweden or Northern Europe. The specimens from Central Italy show a larger body and a dense yellow pubescence, the specimens from Thracian (Greece and Turkey) are bigger with longer antennae and a different color on elytra. We believe that a study of the whole group is necessary to clear this situation.

*Agapanthia (Epoptes) markusi* n. sp. is close related with *A. villosoviridescens* DeGeer, 1775 but it is easy to distinguish by the lead black color

of the body. Pronotum is with a very thin and incomplete median strip, sometimes this stripe is complete missing. The light pubescence is ashy colored in the new specie and yellowish in *villosoviridescens*. Antennae are shorter and only small ringed with ashy pubescence, evidently whitish ringed in *villosoviridescens*. The body is bigger and larger than in *villosoviridescens* and elytral apex is less acuminate. Erect hairs on elytra are denser in the new species than in *villosoviridescens* (Figs. 3 and 4) Apex of paramers are shorter and stouter and show denser pubescence than in *villosoviridescens* (Figs. 5 and 6). Aedeagus and endophallus are similar to *villosoviridescens*.

### Etymology

We dedicate the new species to the late dr. András Márkus, who was the father of dr. András Márkus, who collected the largest number of this interesting species.

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Figure 1. *Agapanthia* (s. str.) *izzilloi* n. sp. (Holotypus male).



Figure 2. *Agapanthia (Epopetes) markusi* n. sp. (Paratypus male and female).



Figure 3. *Agapanthia (Epopetes) markusi* n. sp. (Paratypus male – Lateral view).



Figure 4. *Agapanthia (Epopetes) villosoviridescens* (DeGeer, 1775) (Lateral view).



Figure 5. Paramers of *Agapanthia (Epopetes) markusi* n. sp.



Figure 6. Paramers of *Agapanthia (Epopetes) villosoviridescens* (DeGeer, 1775).