

**PHLOIOCOPUS MAGNANII N. SP., A NEW CHECKERED  
BEETLE FROM IRAN (COLEOPTERA: CLERIDAE)**

**Iuri Zappi\***

\* via Lido 78, I-40033 Casalecchio di Reno (BO), ITALY. E-mail: iurizappi@hotmail.com

[Zappi, I. 2014. *Phloiocopus magnanii* n. sp., a new checkered beetle from Iran (Coleoptera: Cleridae). *Munis Entomology & Zoology*, 9 (2): 591-598]

ABSTRACT: *Phloiocopus magnanii* n. sp., a new species of *Phloiocopus* Guérin-Ménéville, 1835, from Iran, is described and figured. *Opilo desertorum* Gerstmeier, 2010 is reported for the first time from Iran and Qatar.

KEY WORDS: Coleoptera, Cleridae, Clerinae, *Phloiocopus*, Iran, new species, *Opilo desertorum*, new country record.

The genus *Phloiocopus* Guérin-Ménéville, 1835 includes about fifty species (Corporaal, 1950), mainly distributed in the Afrotropical and Malagasy regions. Four species are found in the Palearctic region (Löbl & Smetana, 2007), where their distribution is limited to North Africa and the Middle East: *P. andresi* (Schenkling, 1912), *P. arabicus* (Corporaal, 1941), *P. basalis* (Klug, 1842) and *P. tricolor* Guérin-Ménéville, 1835.

The taxonomy of the genus is rather confused due to the many superficial descriptions and the lack of a comprehensive revision. The scientific contributions to this genus during the last few decades have been few, and include the description of a new species from Madagascar (*P. loici* Menier, 2001), the transfer of *P. bayonnei* Chobaut, 1897 to a new genus *Flabellotilloidea* Gerstmeier & Kuff, 1992 and subfamily (Tillinae). Finally, *P. rufus* Pic, 1935 described from Lebanon was recognised as a junior synonym of *P. andresi* (Schenkling, 1912) (Gerstmeier, 1998).

This paper describes and figures a new species of *Phloiocopus* from Iran, reared from the branches of eight different tree species.

### MATERIALS AND METHODS

Morphological observations were undertaken using Meiji EMZ 13 stereo microscopes, with an ocular micrometer for measurements.

The micro-photographs were taken with the Canon MP-E 65mm f/2.8 1-5x Macro Photo lens on a Canon EOS 600D (18.0 MP) digital camera (habitus of adults), with a Reflex Pentax K20D (14.6 MP) digital camera on a Nikon Labophot 1 microscope (all the other images). CombineZM was used to create the stacked images.

Male and female genitalia were macerated in a cold solution of 10% potassium hydroxide for some hours and examined in glycerol.

The following abbreviations are used in the text:

MSNG = Civic Museum of Natural History "G. Doria", Genova, Italy.

CIZ = collection of Iuri Zappi, Casalecchio di Reno, Bologna, Italy.

CDB = collection of Daniele Baiocchi, Roma, Italy.

CGM = collection of Gianluca Magnani, Cesena, Italy.

***Phloiocopus magnanii* n. sp.**

(Figs. 1-12)

**Diagnosis**

A species of *Phloiocopus* of moderate length, with terminal antennal segment in the male longer than the previous five segments together. Body colour predominantly brown, with a pale transverse macula at the centre of the elytra. Pronotum densely punctured, and mostly dull. Elytra with punctation coarse, deep and regular basally, becoming dense and irregular in the apical half.

The new species differs from other *Phloiocopus* of the West Palearctic region, by its elongate and slender body, by the mainly dull pronotal disc with dense and wrinkled punctation, the punctation of the elytra and by the male genitalia.

**Material examined: Holotype** ♂: **Iran**, Fars, Mian Jangal, 40 km N Fasa, 1750 m, 15.V.2005, G. Magnani leg., ex larva *Ficus* sp. emerged 12.VI.2005 (CIZ) {Pre-printed labels}; **Paratypes: Iran**, Fars, Sivand, 30°06'N 52°58'E, 1850 m, 14.V.2005, D. Gianasso leg., ex larva *Pistacia* sp. emerged 1.VIII.2005 (1♀, CIZ); **Iran**, Fars, env. Sivand, 30°05'N 52°53'E, 1800 m, 28.IV.2006, D. Baiocchi leg., ex larva *Ficus* sp. emerged 12.VIII.2006 (1♀, CDB); **Iran**, Fars, Dašt-e Aržan, 29°41'N 51°01'E, 27-29.IV.2006, D. Baiocchi leg., ex larva *Prunus* sp. emerged 6.VI.2006 (1♀, CDB); idem, ex larva *Pistacia* sp. emerged 28.VI.2006 (1♀, CDB); **Iran**, Fars, 2050 m, 7 km W Dašt-e Aržan, 29°38'00"N 51°54'50,7"E, 4-6.V.2008, D. Baiocchi leg., ex larva *Fraxinus* sp. emerged 18.VII.2008 (1♂, CIZ); idem, ex larva *Prunus* sp. emerged VII.2008 (1♀, CDB); idem, ex larva *Fraxinus* sp. emerged VI.2009 (1♂, CDB); idem, ex larva *Acer* sp. emerged 24.III.2011 (1♀, CDB); **Iran**, Fars, 2050 m, 7 km W Dašt-e Aržan, 29°38'00"N 51°54'50,7"E, 1-3.V.2009, D. Baiocchi leg., ex larva *Acer* sp. emerged 2009 (1♂, CDB); idem, ex larva *Prunus* sp. emerged VI.2010 (1♂, CIZ); **Iran**, Fars, Mian Jangal, 40 km NW Fasa, 1750 m, 15.V.2005, G. Magnani leg., ex larva *Prunus* sp. emerged X.2005 (1♀, CGM); **Iran**, Fars, Mian Jangal, 40 km NW Fasa, 1750 m, 18.IV.2006, G. Sama leg., ex larva *Ficus* sp., 25.VII.2006 {Very damaged specimen} (1♀, CIZ); **Iran**, Fars, Mian Jangal, 40 km N Fasa, 1750 m, 29°09'N 53°24'E, 15-16.V.2005, D. Baiocchi leg., ex larva *Ficus* sp. emerged 30.VI.2005 (1♀, CDB); **Iran**, Fars, W Sarvestan, 40 km NW Fasa, Mian Jangal, 1730 m, 29°09'33,7"N 53°24'16,7"E, 18.IV.2006, D. Baiocchi leg., ex larva *Ficus* sp. emerged 6.VII.2006 (1♂ and 1♀, CIZ; 1♀ CDB); idem, ex larva *Pistacia* sp. emerged 4.VII.2006 (1♀, CDB); **Iran**, Fars, W Sarvestan, 40 km NW Fasa, Mian Jangal, 1730 m, 29°09'33,7"N 53°24'16,7"E, 15.IV.2007, D. Baiocchi leg., ex larva *Pistacia* sp. emerged 28.VI.2007 (1♀, CDB); idem, ex larva *Pistacia* sp. emerged 7.VII.2007 (1♂, CIZ); idem, ex larva *Pistacia* sp. emerged 13.VII.2007 (1♀, CIZ); idem, ex larva *Pistacia* sp. emerged 18.VI.2008 (1♀, CIZ); idem, ex larva *Pistacia* sp. emerged 6.VI.2009 (1♂, CDB); **Iran**, Fars, W Sarvestan, 40 km NW Fasa, Mian Jangal, 1730 m, 29°09'33,7"N 53°24'16,7"E, 5.V.2008, D. Baiocchi leg., ex larva *Ficus* sp. emerged 2.VI.2008 (1♀, CDB); idem, ex larva *Ficus* sp. emerged 25.VI.2008 (1♂ CIZ; 1♂ CDB); idem, ex larva *Ficus* sp. emerged 3.VII.2008 (1♂ MSNG); idem, ex larva *Ficus* sp. emerged 9.VII.2008 (1♂, CDB; 1♀ CIZ); idem, ex larva *Ficus* sp. emerged 4.VIII.2008 (1♂, CIZ); idem, ex larva *Ficus* sp. emerged 1.IV.2010 (1♂ and 1♀ CDB; 1♀ MSNG); **Iran**, Fars, W Sarvestan, 40 km NW Fasa, Mian Jangal, 1730 m, 29°09'33,7"N 53°24'16,7"E, 2.V.2009, D. Baiocchi leg., ex larva *Pistacia* sp. emerged 21.VII.2009 (1♂, CDB); idem, ex larva *Prunus* sp. (1♂, CDB); **Iran**, Fars, W Sarvestan, 40 km NW Fasa, Mian Jangal, 1730 m, 29°09'33,7"N 53°24'16,7"E, 7.V.2010, D. Baiocchi leg., ex larva *Pistacia* sp. emerged 6.VII.2010

(1♀, CDB); **Iran**, Kerman, N of Deh Bakri, 29°07'40"N 57°55'99"E, 1825 m, 23-25.V.2011, D. Baiocchi leg., ex larva *Nerium* sp. (1♂, CDB); **Iran**, Kohgiluyeh and Boyer-Ahmad, NW Sisaht, Dena Reserve, 30°52'46,8"N 51°25'12,3"E, 2400 m, 26.IV.2007, D. Baiocchi leg., ex larva *Prunus* sp. emerged 7.VII-26.VII.2010 (1♂ CIZ; 1♂ and 1♀ CDB); **Iran**, Kohgiluyeh and Boyer-Ahmad, NW Sisaht, Dena Reserve, 30°52'46,8"N 51°25'12,3"E, 2400 m, 7.V.2008, D. Baiocchi leg., ex larva *Prunus* sp. emerged 31.V-7.VI.2009 (1♂ and 1♀, CIZ); **Iran**, Kohgiluyeh and Boyer-Ahmad, NW Sisaht, Dena Reserve, 30°52'46,8"N 51°25'12,3"E, 2400 m, 4-5.V.2009, D. Baiocchi leg., ex larva *Prunus* sp. emerged VII.2009 (1♂, CDB); idem, ex larva *Prunus* sp. emerged 20.VI.2010 (1♀, CDB); idem, ex larva *Prunus* sp. emerged III.2011 (1♂, CDB); **Iran**, Kordestan, 22 km N Kamyaran, 34°57'20,6"N 46°58'38,4"E, 1500 m, 8-9.V.2009, D. Baiocchi, leg., ex larva *Crataegus* sp. emerged 11.VII-21.VII.2009 (1♂ and 2♀♀, CDB); **Iran**, Kordestan, 22 km N Kamyaran, 34°57'20,6"N 46°58'38,4"E, 1500 m, 14-15.V.2010, D. Baiocchi leg., ex larva *Crataegus* sp. emerged 17.VI.2011 (1♀, CIZ); **Iran**, Lorestan, 5-15 km SW Dorud, 9/10.V.2002, 1400 m, G. Magnani leg., ex larva *Pistacia* sp. emerged 6.X.2002 (1♀, CIZ); **Iran**, Lorestan, 10-15 km SW Dorud, 30.IV.2007, 1500 m, G. Magnani leg., ex larva *Pistacia* sp. emerged 3.IX.2007 (1♂, CGM); **Iran**, Lorestan, 10-15 km SW Dorud, 2.V.2006, 1500 m, D. Gianasso leg., ex larva *Pistacia* sp. emerged 1.VII.2007 (1♂, CIZ); **Iran**, Lorestan, 10-15 km SW Dorud, 33°13'48"N 49°59'20,8"E, 1500 m, 21-23.V.2005, D. Baiocchi leg., ex larva *Ficus carica* emerged 10.VII.2005 (1♂, CDB); idem, ex larva *Amygdalus* sp. emerged 4.VII.2005 (2♂♂, CDB); idem, ex larva *Pistacia* sp. emerged 22.VII.2005 (1♂, CDB); idem, ex larva *Pistacia* sp. emerged 28.VI.2006 (1♂, CDB); **Iran**, Lorestan, 10-15 km SW Dorud, 33°13'48"N 49°59'20,8"E, 1500 m, 2.V.2006, D. Baiocchi leg., ex larva *Ficus carica* emerged 30.VII.2006 {Mesotibiae, metafemora and metatibiae very strongly curved due to teratology} (1♀, CDB); idem, ex larva *Ficus carica* emerged 4-14.VII.2006 (1♀, CIZ; 2♀♀, CDB); idem, ex larva *Ficus carica* emerged 28.VI.2007 (1♀, CIZ); idem, ex larva *Pistacia* sp. emerged 30.VI-24.VII.2006 (1♂ and 1♀ CIZ; 3♀♀ CDB); **Iran**, Lorestan, 10-15 km SW Dorud, 33°13'48"N 49°59'20,8"E, 1500 m, 30.IV.2007, D. Baiocchi leg., ex larva *Pistacia* sp. emerged 23.VI-26.VII.2007 (4♂♂ and 2♀♀, CDB); idem, ex larva *Pistacia* sp. emerged 17.VI.2008 (1♂, CDB); idem, ex larva *Pistacia* sp. emerged V.2009 (1♀, CIZ); idem, ex larva *Ficus* sp. emerged VII.2007 (1♂, CDB); **Iran**, Lorestan, 10-15 km SW Dorud, 2260 m, 9.V.2008, D. Baiocchi leg., ex larva *Pistacia* sp. emerged 30.VII-6.VIII.2008 (1♂ CIZ; 1♀ CDB).

### Description of the Holotype

*Size* – Length from the clypeus to apex of elytra 8.8 mm.

*Head* – Brown, glossy surface, irregularly punctate on frons but with a conspicuous, irregular rugosity on vertex, with yellow-golden setae; clypeus amber-colored, glossy and smooth; labrum transverse, anteriorly bilobed, amber-colored, glossy with long setae near the base, becoming short nearer the anterior margin; mandibles robust, brown near the base becoming darker near the black teeth; apical segments of labial and maxillary palpi securiform, more elongated, the terminal maxillary palpomeres, more compact the terminal labial palpomeres; head, including eyes, broader than anterior margin of pronotum; large eyes, protruding laterally, coarsely faceted, conspicuously emarginated anteriorly at antennal base and with long erect setae among ommatidia, inter-ocular distance approximately a single eye width; gular process broad.

*Antennae* – 11-segmented, slender, brown, reaching the posterior margin of the pronotum when laid alongside; scape large and curved, small pedicel (as long

as the 1/2 of the scape); antennomeres 3, 4, 5 and 6 long and slender (twice as long as the pedicel); antennomeres 7 and 8 as with the previous but with decreasing length; antennomeres 9 and 10 slightly longer than 8; 11 longer than the previous five together (its length 1/3 of the entire antenna); antennomeres 9 and 10 slightly thicker and truncate; antennomere 11 from the base to the 3/5 of its length straight, then slightly curved and obliquely truncated apical margin; macrosetae long and acuminate from scape to antennomere 10 and present only at the apex of antennomere 11, where they are much shorter; microsetae only distributed on the last three antennomeres (particularly at the apex of 9 and 10 and the whole antennomere 11) (Fig. 3).

*Pronotum* – Brown, slightly longer than wide (length : width ratio 1.16:1); lateral margins slightly sinuate, more constricted posteriorly; vestiture consisting of two types of golden-yellow pubescence (sparse, long, straight setae above a slightly more dense, short setae, strongly curved); surface anterior to subapical transverse glossy depression, with only few and shallow punctures; disc less glossy, darker, conspicuously and irregularly punctate-rugose, with a longitudinal impression medially; central part of pronotal base smooth in longitudinally; procoxal cavities open posteriorly, prointercoxal process expanded.

*Scutellum* – Transverse/elliptic, entirely punctate with golden-yellow, slender, short and strongly curved setae; colour changing from yellow-brown at the center to brown near the margins.

*Elytra* – Elongate, broader than head or pronotum, length : width ratio 2.65:1, initially subparallel, slightly dilated posteriorly, widest at the apical third, apices barely emarginated and pointed; ground colour yellow-brown with a pale transverse fascia in the middle, posterior third of each elytron a little darker; basal part of the elytra up to the pale transverse fascia with rows of well-defined and regular punctures, occasionally with some punctures along the interstices, punctation of the remaining surface of the elytra coarse, deep and irregular; vestiture consisting of two types of golden-yellow pubescence (sparse, long, straight setae above, with dense, short and strongly recumbent setae below).

*Legs* – Long with pale yellowish setae of variable length; protrochanters covered with setae sparser than those covering meso- and meta-trochanters; femora brown, becoming paler towards the base; tibiae slightly curved (especially protibiae) with a carina on each of the ventral and dorsal sides; tibial spur formula 1-2-2, spurs short and straight; tarsi with basitarsus scarcely visible from above (shorter than other tarsomeres), covered by tarsomere 2, tarsomere 3 shorter than 2, 4 shorter than 3, tarsomere 5 slightly longer than 2; pulvilli of basitarsus absent, pulvilli of tarsomeres 2, 3 and 4 developed; claws dilated at the base, without denticle; empodium very small, bisetose.

*Metasternum* – Yellow-brown, with fine punctation denser near the discriminial line, which is smooth and hairless; setae fine, golden-yellow, posteriorly directed.

*Abdomen* – Pale yellow; moderately convex, with 6 visible sternites, scarcely punctate and glossy, covered with fine, scattered, posteriorly oriented, golden-yellow setae. Aedeagus, male pygidium, male sternum VIII, spicular fork, see Figures 5 - 10.

### **Sexual dimorphism**

The female (Fig. 2) differs from the male by the last antennomere which is as long only as the preceding three together (Fig. 4). Length antenna / length body (from apical margin of clypeus to apex of elytra) ratio is on average about 0.31 in males and about 0.24 in females.

Female pygidium, female sternum VIII, see Figures 11 - 12.

### Variability in the paratypes

*Size* – The length from the clypeus to the apex of the elytra is 8.2-13.2 mm in males and 7.1-11.0 mm in females.

The elytral color varies from yellow-brown to lighter or darker brown, with the presence in the middle of a pale transverse fascia, more or less wide.

In some specimens there is a black and elongate macula in the posterior third of each elytron behind the pale transverse fascia (Fig. 2).

**Etymology:** This new species is dedicated to my friend Gianluca Magnani, a specialist of Palearctic Buprestidae beetles and who collected the holotype.

### Comparative notes

*Phloiocopus magnanii* n. sp. is easily distinguishable from other species of the genus *Phloiocopus* living in the Western Palearctic region.

*Phloiocopus tricolor* Guérin-Méneville, 1835 and *Phloiocopus basalis* (Klug 1842) have the head and pronotum black or red brown, the anterior half of elytra red brown, the posterior half black with a straight and yellow transverse spot behind middle. *Phloiocopus tricolor* has a wide distribution: Syria, Saudi Arabia, Yemen, whole Sahara and Oriental Africa. *Phloiocopus basalis* is known from Egypt, Israel, Cyprus and Turkey.

*Phloiocopus arabicus* (Corporaal, 1914) has the head black and pronotum blackish brown. Only the basal quarter of elytra is red brown and the yellow fascia behind middle extends apically and then anteriorly towards the suture. It is known from Saudi Arabia and Yemen.

*Phloiocopus magnanii* n. sp. is closest to *Phloiocopus andresi* (Schenkling, 1912) from which it differs as follows: the body shape more elongated and slender; the punctuation at the base of the head and on the disc of pronotum is much denser; punctuation on the anterior two thirds of the elytra is arranged in 5 or 6 rows of smaller and shallow punctures (in the remaining surface of the elytra the punctuation is irregular) and not in 10 regular longitudinal rows of very coarse and very deep punctures; legs are much narrower; the aedeagus is very different. *Phloiocopus andresi* is found in the Levant and Egypt.

*Phloiocopus magnanii* n. sp. is surprisingly very similar in shape and colour to the recently described: *Opilo desertorum* Gerstmeier, 2010. However, the two are easily distinguishable with the following characters: *Phloiocopus magnanii* n. sp. has longer terminal antennal segment in the male than the preceding five together. The anterior part of the pronotum is smooth at the center with very sparse punctuation. In addition, the punctuation at the base of the elytra is defined in striae. In opposition, in *Opilo desertorum* the last antennomere is a slightly longer than the 10th antennomere. The anterior part of the pronotum is mostly punctate at the center and the punctuation at the base of the elytra is irregular. The aedeagus is very different. *Opilo desertorum* is found in the UAE and Oman, and here is recorded for the first time from Iran (Hormozgan province) and from Qatar {SE Iran, Hormozgan, 10 km S di Minab, 50 m, 18.IV.2007, leg. D. Gianasso, ex larva *Acacia* sp., emerged 1.IV.2011 (1♀, CIZ); Iran, Hormozgan, 10 km S di Minab, 55 m, 18-19.IV.2007, leg. G. Magnani, ex larva *Acacia* sp., emerged 2.VI.2008 (1 ex., CGM); Iran, Hormozgan, 10 km S di Minab, 55 m, 18.IV.2007, leg. D. Baiocchi, ex larva *Acacia* sp., emerged 24.IX.2007 (1♀, CIZ; 1♀, CDB); Iran, Hormozgan, env. Minab, 27°04'N 57°06'E, 80 m, 20-23.IV.2006, leg. D. Baiocchi, ex larva *Acacia* sp., emerged 20.IX.2006 (1♂, CDB); idem,

emerged 23.IX.2006 (1♂, CDB); idem, emerged 29.IX.2006 (1♂, CDB); idem, emerged XI.2006 (1♀, CDB); Iran, Hormozgan, env. Isin, 70 m, 27°19'N 56°16'E, 21.IV.2006, leg. D. Baiocchi, ex larva *Acacia* sp., emerged 29.X.2006 (1 ex., CDB); idem, emerged 2.X.2006 (1♂, CDB); idem, emerged 17.IX.2007 (1♂, CIZ); Iran, Hormozgan, env. Isin, 80 m, 17.IV.2007, leg. D. Baiocchi, ex larva *Acacia* sp., emerged 7.IX.2007 (2 ♂♂, CDB); Iran, Hormozgan, env. Genu, 70 m, 27°26'N 56°19'E, 19-22.IV.2006, leg. D. Baiocchi, ex larva *Acacia* sp., emerged 13.IX.2006 (1♂, CIZ; 1♂, CDB); idem, emerged 2.XII.2006 (1 ex., CDB); Qatar, Jeryan Al Batna, Rawdat Rashid env., 25°10'N 51°15'E, 4.III.2003, leg. G. Sama, ex larva *Acacia tortilis*, emerged 3.IX.2003 (2 exx., CIZ); Qatar, Al Ghuwairiyah env., 26°06'N 51°20'E, 9.III.2003, leg. G. Sama, ex larva *Acacia tortilis*, emerged 21.III.2004 (1 ex., CIZ); Qatar, Al Jemaiyah, W Al Nasraniyah, 25°26'N 51°04'E, 10.III.2003, leg. G. Sama (1 ex., CIZ)}.

### Geographic distribution and ecological notes

*Phloiocopus magnanii* n. sp. is a likely endemic and at present the only *Phloiocopus* species known from Iran and represents the most easterly record of this genus.

All the examined specimens were reared from dead branches of *Acer* sp., *Amygdalus* sp., *Crataegus* sp., *Ficus* sp., *Fraxinus* sp., *Nerium* sp., *Pistacia* sp. and *Prunus* sp., collected in the Iranian provinces of Fars, Kerman, Kohgiluyeh and Boyer-Ahmad, Kordestan and Lorestan.

The larvae and adults of *Phloiocopus magnanii* n. sp. are likely to be predators of xylophagous beetles and corticolous insects.

### ACKNOWLEDGEMENTS

I sincerely thank Ben Brugge (Naturalis Biodiversity Center, Leiden, The Netherlands), Manfred Uhlig and Bernd Jaeger (Museum für Naturkunde, Berlin, Germany), Stephan Blank and Lutz Behne (Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany), who provided much valuable photographs and information about some holotypes belonging to the genus *Phloiocopus*.

I am very grateful to my friends Daniele Baiocchi, Domenico Gianasso, Gianluca Magnani and Gianfranco Sama for allowing me to study their material, and to Augusto Degiovanni for technical assistance in preparation of the photographs.

Special thanks go to Darren J. Mann (Oxford University Museum of Natural History, Oxford, Great Britain) for revising the manuscript.

### LITERATURE CITED

- Corporeal, J. B.** 1950. Pars 23. Cleridae. In: Coleopterorum Catalogus Supplementa. (HINKS W. D., Ed). Uitgeverij Dr. W. Junk, 's-Gravenhage, Netherlands: 373 pp.
- Gerstmeier, R.** 1998. Checkered Beetles. Illustrated Key to the Cleridae and Thanerocleridae of the Western Palaearctic. Buntkäfer. Illustrierter Schlüssel zu den Cleridae und Thanerocleridae der West-Paläarkt. Margraf Verlag. Weikersheim, Germany: 241 pp., 8 pls.
- Löbl, I. & Smetana, A.** 2007. Catalogue of Palaearctic Coleoptera. Vol. 4, Elateroidea, Derodontoidea, Bostrichoidea, Lymexyloidea, Cleroidea, Cucujoidea. Apollo Books, Stenstrup, Denmark: 935 pp.

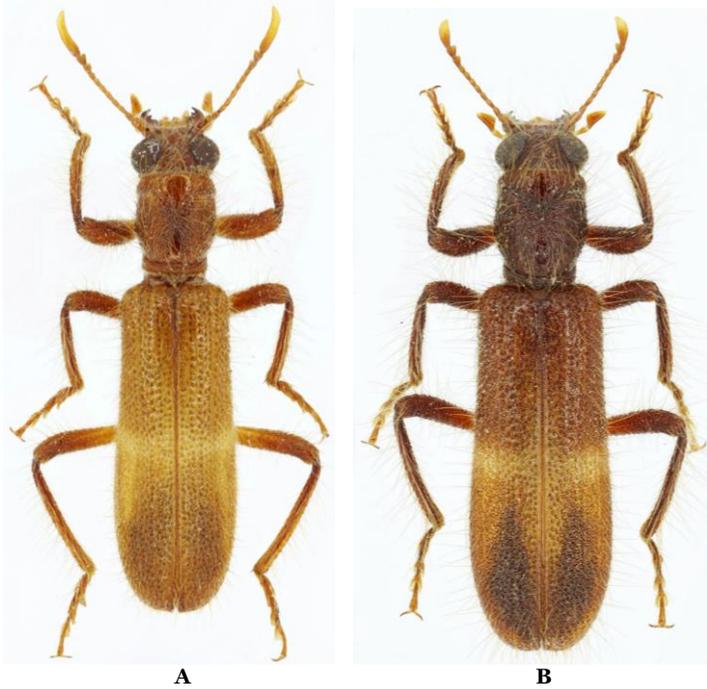


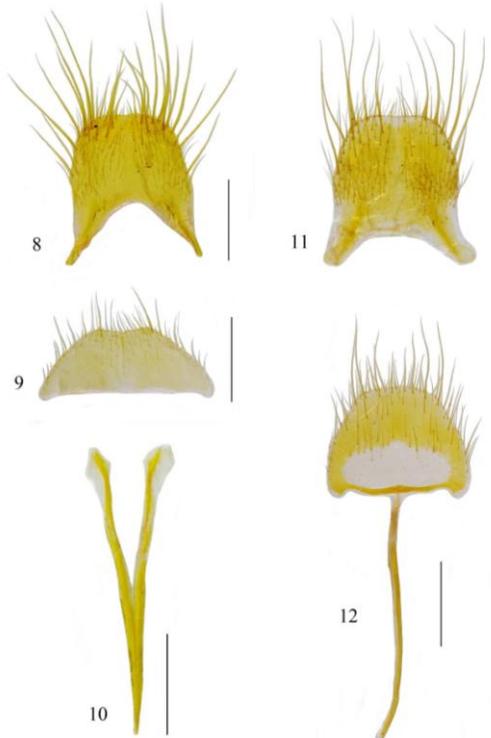
Figure 1. *Phloiocopus magnanii* n. sp., A. Habitus of male holotype (length = 8.8 mm), B. Habitus of female paratype (length = 9.7 mm).



Figures 3-4. *Phloiocopus magnanii* n. sp., (3) left antenna, male; (4) left antenna, female. Scale bars = 0.5 mm.



Figures 5-7. *Phloiocopus magnanii* n. sp., cleared aedeagus of holotype: (5) dorsal view, (6) lateral view, (7) ventral view. Scale bar = 0.5 mm.



Figures 8-12. *Phloiocopus magnanii* n. sp., (8) male pygidium, (9) male sternum VIII, (10) spicular fork, (11) female pygidium, (12) female sternum VIII. Scale bars = 0.5 mm.