

## A new species of the genus *Paranovelsis* Casey, 1900 from the Czech Republic (Coleoptera: Dermestidae: Attageninae)

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**Taxonomy, new species, Coleoptera, Dermestidae, Attageninae, *Paranovelsis*, Moravia, Czech Republic**

**Abstract.** The new species *Paranovelsis moravicus* sp. nov. from Moravia, Czech Republic is described, illustrated and compared with *Paranovelsis punctatus* (Scopoli, 1772). The new species differs in the shape of antennae and male genitalia and in the number and arrangement of the elytral and pronotal white spots.

### INTRODUCTION

The genus *Paranovelsis* Casey, 1900 currently contains 15 species from the Nearctic and Neotropical Regions (Zahradník & Háva 2014, Háva 2015). In the Palaearctic Region, the genus is represented by seven species (formerly belonging to the genus *Attagenus* Latreille, 1802) divided into two species groups designated here: *P. pantherinus* group and *P. punctatus* group. The new species described in the present paper belongs to the *P. punctatus* species complex. The species complex is characterized by characters mentioned below.

### MATERIAL AND METHODS

The following measurements were made:

total length (TL) - linear distance from anterior margin of pronotum to apex of elytra.

elytral width (EW) - maximum linear transverse distance.

In the list of type material, a double slash (//) separates different labels.

Type material deposited in:

JHAC Jiří Háva, Private Entomological Laboratory & Collection, Únětice u Prahy, Prague-west, Czech Republic.

The nomenclature and zoogeography follow Háva (2015).

Specimens of the presently described species are provided with red, printed labels with texts as follows: „HOLOTYPE (or PARATYPE), *Paranovelsis moravicus* sp. nov. J. Háva det. 2017”

### TAXONOMY

#### 1. Species group *P. punctatus*

**Diagnosis.** The species group is characterized as follows: elytra unicolorous, without reddish cuticular fasciae or spots, antennae composed with 11 antennomeres, pronotum with 3-7 white, circular, isolated spots.

Included species: *Paranovelsis punctatus* (Scopoli, 1772), *P. hyrcanus* (Zhantiev, 2009) and *P. moravicus* sp. nov.

## 2. Species group *P. pantherinus*

**Diagnosis.** The species group is characterized as follows: elytral cuticula bicolorous (black or dark brown with reddish or light brown fasciae or spots), covered by bi- or tri-colorous setation.

Included species: *Paranovelsis incognitus* (Háva, 2003), *P. hadesi* (Kadej & Háva, 2014), *P. jelineki* (Háva, 2004), *P. maculatus* (Kalík, 2006), *P. pantherinus* (Ahrens, 1814) and *P. quadricolor* (Sumakov, 1907).

### *Paranovelsis moravicus* sp. nov.

(Figs. 1-6)

**Type locality.** Czech Republic, South Moravia, Pohansko, Floodplain of Lower Morava/Dyje.

**Type material.** Holotype ♂: „Czech Republic, South Moravia, Pohansko, Floodplain of Lower Morava/Dyje, Flight intercept trap, Š. Vodka/D. Hauck/L. Čížek leg.“ // „JMLFIT 123, *Quercus*, 25.iv.-16.v.2012, 48°42.54.788'N 16°54.45.980'E“, (JHAC). Paratypes (1 ♂): the same data as holotype, (JHAC); (1 ♀): the same data as holotype but JMLFIT 84, *Quercus*, (JHAC); (1 ♂): „Czech Republic, South Moravia, Lanžhot, NPR Cahnov-Soutok (7367), 22.iv.-23.v.2015, T. Loskotová & J. Brestovanský lgt.“ // „pasivní nárazová past [passive impact trap], *Quercus*“ // „C-S V.2015, Past č.11“, (JHAC).



Figs. 1-6. *Paranovelsis moravicus* sp. nov.: 1- habitus of male; 1a- white setation on pronotum and elytron; 2- antennae of male; 3- antenna of female; 4- wing; 5- male genitalia; 6- abdomen.

**Description.** Male. Body: TL 3.9 mm, EW 1.7 mm; elongate and oval (Fig. 1), slightly convex; dorsally and ventrally black and brown, matt; dorsum covered with short and erect, brown and white setation; thoracic underside with comparatively long and recumbent, black setation; visible abdominal ventrites with recumbent, yellowish brown setation, sparser than that on thoracic surface.

Head coarsely punctate and covered by brown setation. Palpi dark brown. Frontal median ocellus present. Eyes with median margin complete. Antennae composed of 11 antennomeres; antennomeres II-VIII dark brown; I, IX-XI black, all with short, brown setation, antennal club compact with 3 antennomeres (Fig. 2).

Pronotum coarsely punctate covered by brown setation with three white spots (two small spots postero-laterally) (Fig. 1a). Hypomeron matt with small punctures.

Scutellum small and triangular, matt, with rounded apex, without setation.

Elytra coarsely punctate on humeri and with one small humeral bump, other parts coarsely punctate, covered by brown setation. Each elytron with three small, white, circular spots from individual setation (Fig. 1a). Epipleuron black, very short, with short yellowish brown setae.

Metathoracic wing as in Fig. 4.

Prosternum without "collar", mouthparts free. Prosternal process very short and broad. Meta- and mesosternum finely punctate discally, laterally coarsely punctate, with yellowish brown recumbent setation.

Abdomen dark brown, with five visible abdominal ventrites, each ventrite laterally with small depressions, covered by recumbent, yellowish brown setation (Fig. 6).

Legs dark brown, covered with comparatively short and thick, yellow setation, tibia with lateral spines. Tarsi brown moderately long.

Male genitalia: parameres narrow, median lobe narrow (Fig. 5), total length 0.4 mm.

Tab. 1. Table of differentiating characters.

species	antennae of male	pronotal white spots	elytral spots	male genitalia	head	eyes
<i>P. punctatus</i> (Scopoli, 1772)	black, terminal antennomere oval	7 (two very large spots postero-laterally)	9-10	parameres very broad, median lobe broad forming spots	head covered by black setae and white setae at about anterior 1/3	with median margin emarginate
<i>P. hyrcanus</i> (Zhantiev, 2009)	black, terminal antennomere longly triangular	7 (two very large spots postero-laterally)	9	parameres narrow, median lobe narrow; tip of median lobe narrow	head covered by black setation	with median margin complete
<i>P. moravicus</i> sp. nov.	antennomeres II-VIII dark brown, I, IX-XI black, terminal antennomere shortly triangular	3 (two small spots postero-laterally)	3	parameres narrow, median lobe narrow; tip of median lobe broad	head covered by brown setation	with median margin complete

**Female.** Externally similar to male, but differs by the shape of antennae (Fig. 3).

**Variability.** Males: measurements: TL 3.5-3.9 mm, EW 1.7-1.8 mm. Female: TL 3.7 mm, EW 1.7 mm.

**Differential diagnosis.** The new species belongs to *P. punctatus* species complex and looks visually similar to *P. punctatus* (Scopoli, 1772) and *P. hyrcanus* (Zhantiev, 2009) but differs from them by the characters mentioned in the following table.

**Etymology.** Toponymic, after the region Moravia in Czech Republic.

**Distribution.** The species is described from south Moravia, Czech Republic.

### *Paranovelsis punctatus* (Scopoli, 1772)

(Figs. 7-11)

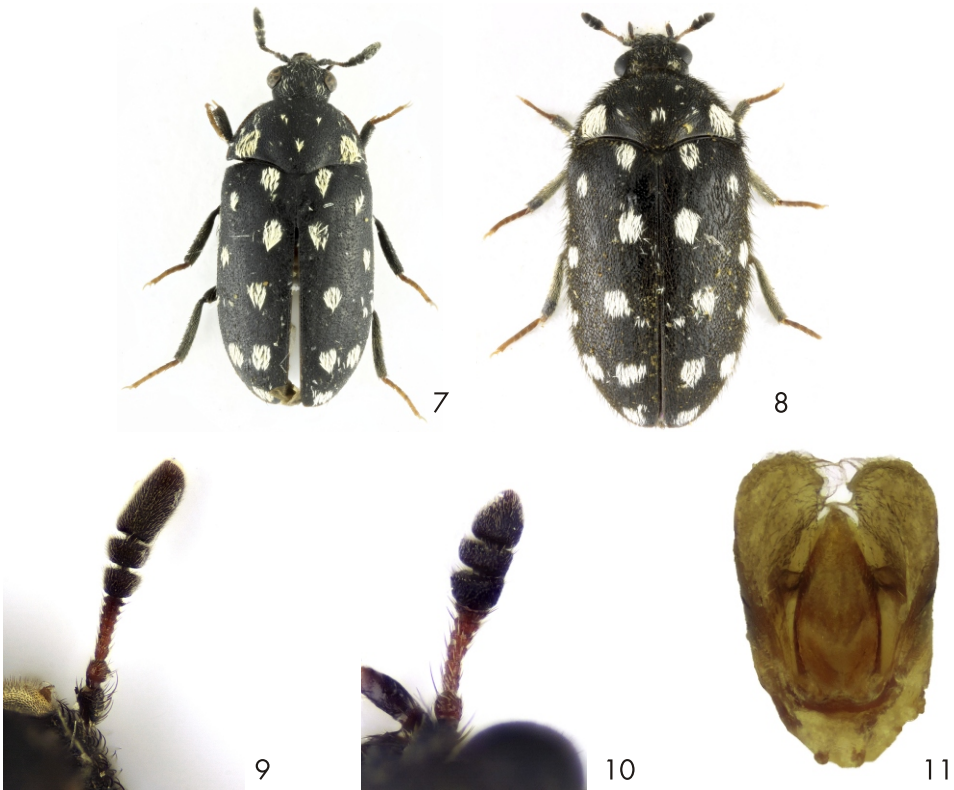
*Dermestes punctatus* Scopoli, 1772: 87.

*Dermestes vigintiguttatus* Fabricius, 1775: 56; Schönherr, 1808: 89 (as synonym).

*Dermestes quadripunctatus* Fuesslin, 1775: 4; Fabricius, 1781: 64 (as synonym).

*Attagenus subdiurnus* Gistel, 1857: 5; Háva, 2007: 57 (as synonym).

**Material examined:** 118 specimens from Austria, Czech Republic, France, Germany, Hungary, Italy, Slovakia and Switzerland.



Figs. 7-11. *Paranovelsis punctatus* (Scopoli, 1772): 7- habitus of male; 8- habitus of female; 9- antenna of male; 10- antenna of female; 11- male genitalia.

**Distribution.** Species known from Austria, Azerbaijan, Croatia, Czech Republic, Denmark, France, Germany, Hungary, Italy (incl. Sicily), The Netherlands, Poland, Romania, Serbia, Slovakia, Spain, Sweden, Switzerland, Ukraine, W. Russia (Háva 2007, 2011, 2015).

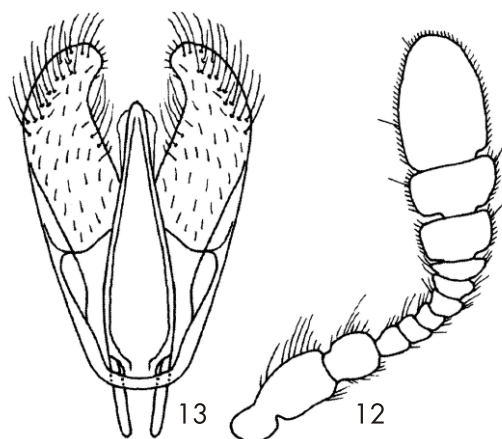
***Paranovelsis hyrcanus* (Zhantiev, 2009)**

(Figs. 12-13)

*Attagenus hyrcanus* Zhantiev, 2009: 1402.

**Material examined:** Iran, Gilan Pr., 30 km SW of Asalem, 1633 m, 2.vi.2003, S. Kadlec lgt., 1 ♂, 1 ♀, (JHAC).

**Remarks.** The species is very similar to *Paranovelsis punctatus* (Scopoli, 1772) but differs from it by the structure of antennae and male genitalia and eyes with complete median margin.



Figs. 12-13. *Paranovelsis hyrcanus* (Zhantiev, 2009): 12-antenna of male; 13-male genitalia.

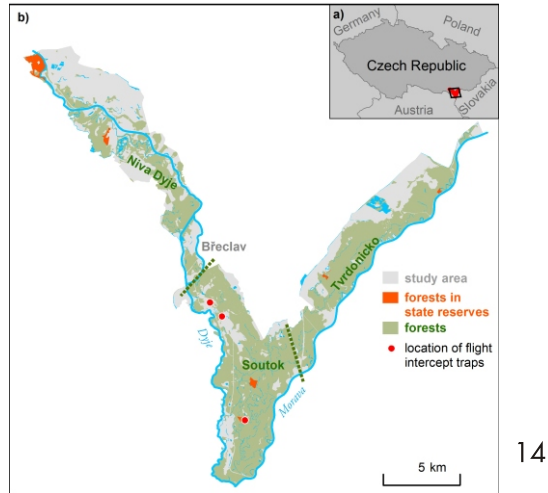
**Distribution.** Species known from Azerbaijan (Zhantiev 2009) and Iran (Háva et al. 2015).

#### REMARKS

The three specimens of the new species were caught to flight intercept traps placed on large (140 and 190 cm) pedunculate oaks (*Quercus*) (one healthy, another dying) growing on forest edge (Fig. 15-16).

The area is a part of large track of Pannonian alluvial woodlands found along the lower Morava (March) and Dyje (Thaya) rivers in SE Czech Republic. It is a biodiversity hot-spot for numerous taxa associated with open woodlands, veteran trees, and wetlands (Miklín & Čížek 2014). It comprises a mosaic of commercial oak/ash plantations; and fragments of open and formerly open woodlands and meadows with old (>150 years) trees, mainly oaks.

Anther specimen was caught to a passive impact trap on *Quercus* at the second location of the National Nature Reserve Cahnov-Soutok (Fig. 17-18), ca. 10 km from type locality.



Figs. 15-16. Type locality South Moravia, Pohansko, Floodplain of Lower Morava/Dyje.



Figs. 17-18. Second location: South Moravia, Lanžhot, National Nature Reserve Cahnov-Soutok.

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