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# Ptinomorphus kratkyi sp. nov. - a new species from Europe (Coleoptera: Bostrichoidea: Ptinidae)

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#### Taxonomy, new species, Coleoptera: Ptinidae, Ptinomorphus, Sicily, Europe, Palaearctic Region

Abstract. *Ptinomorphus kratkyi* sp. nov. from Sicily (Italy) is described, illustrated and compared with other Europaean species. The key to all Europaean species of the genus is presented. Two new species-groups were established: *regalis*-group and *imperialis*-group. *Ptinomorphus magnificus angustior* (Pic, 1896) is only synonymous with *Ptinomorphus imperialis* (Linnaeus, 1767), again.

### INTRODUCTION

The genus *Ptinomorphus* Mulsant et Rey, 1868 belongs to the family Eucradinae LeConte, 1861, tribe Hedobiini White, 1982. Tribe Hedobiini White, 1982 contains five genera - *Anhedobia* Nakane, 1963 with two species, genus *Clada* Pascoe, 1887 with almost 60 described species, the genus *Hedobia* with 7 species, the genus *Neohedobia* Fisher, 1919 with only one species and the genus *Ptinomorphus* Mulsant et Rey, 1868 with 17 species. All species are distributed mostly in the Holarctic Region, except of genus *Clada* Pascoe 1887.

The genus *Ptinomorphus* Mulsant et Rey, 1868 contains 17 species - one from the Oriental Region - *Ptinomorphus coomani* (Pic, 1931), three species from the Holarctic Region - *Ptinomorphus angulatus* (Fall, 1905, *P. granosus* (LeConte, 1874) and *P. semivittatus* (Van Dyke, 1923). Other 13 species occur in the Palaearctic Region - 9 in Europe (and neighbouring countries in North Africa and Asia) and 4 in Siberia, Far East, China and Japan - *P. exilis* Kiesenwetter, 1879, *P. fursovi* Toskina, 2001, *P. knizeki* Zahradník, 2013 and *P. tryznai* Zahradník, 2013. A list of Palaearctic species of the genus *Ptinomorphus* Mulsant et Rey, 1868 was given by Zahradník (2007).

### MATERIAL AND METHODS

The genus *Ptinomorphus* Mulsant et Rey, 1868 contains many common species, but also very rare species. I have studied original descriptions of all the Palaearctic, Holarctic and Oriental species (Brisout de Barneville 1861; Duftschmid 1825; Fall 1905; Kiesenwetter 1879; LeConte 1874; Linnaeus 1767; Logvinovskiy 1978; Obenberger 1917; Pic 1896, 1931; Reitter 1880; Toskina 2001; Van Dyke 1923; Zahradník 2013). I have studied all Europaean species (without species described by Toskina) and also other Palaearctic species and three species from North America, too. I have not seen only *P. coomani* (Pic, 1931).

The habitus photograph was made by a digital camera Olympus DP 72 on stereobinocular microscope Olympus SZX 16 using the programme Quick Photo Camera 2.3 and Deep Focus 3.0 for the modification of the picture.

The new species described here is provided with a red, printed label showing the following words: "Holotype" or "Paratype"; on the second white, printed label, there is the text: "*Ptinomorphus/kratkyi* sp. n./P. Zahradník det. Holotype is deposited in Národní muzeum Praha (National Museum Prague) Czech Republic, paratype in author's collection.

## RESULTS

# Ptinomorphus kratkyi sp. nov. (Figs. 1-3)

**Type material**. Holotype ( $\mathcal{S}$ ): Italy-Sicily, Agrigento, Santo Pietro, 3 km SE, 37°04'33'' N, 14°30'36,6'' E, 277 m, 14.iv.2015, J. Krátký lgt. Paratype ( $\mathcal{Q}$ ): the same data as holotype.

**Description.** Male (holotype): Elongate-elliptical, transversally convex with flattened top of elytra, body length 3.0 mm, the greatest width 1.3 mm. Ratio elytra length : elytra width of 1.6.

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Head evenly convex, shining, with large dense punctuation, diameter of puncture the same as distance between punctures, but almost invisible since the surfaces are densely covered with two types of hairs - the first type are long white (almost long scales) concentrated along longitudinal middle od head, inclined forwards; the second type are very long sparse semierect (curved) brown hairs inclined from lateral margin of head to middle. Mandibles with rusty, long, sparse hairs inclined forwards. Eyes large, globular, without hairs. Front 3.2 times wider than width of eye in dorsal view. Antennae filiformes or very slightly serrated, from 3<sup>rd</sup> to 10<sup>th</sup> antennomeres, widest on their ends, consisting of eleven antennomeres, without antennal club (Fig 1). The 1st antennomere robust, twice longer than wide. The 2nd 1.4 times longer than wide, slightly wider then following. The 3<sup>rd</sup> as long as the 2<sup>nd</sup>, and of the same length as the 4<sup>th</sup> and the 5<sup>th</sup>, but twice as long as wide. The 4<sup>th</sup> only 1.5 times longer than wide and the 5<sup>th</sup> 1.8 times longer than wide. The 6<sup>th</sup> antennomere 1.2 times longer than the 5<sup>th</sup> oneand twice longer than wide. The 7<sup>th</sup> also 1.2 times longer than previous antennomere and 2.3 times longer than wide. The 8th antennomere slightly shorter than the 7<sup>th</sup> one (by 1/10), and the 9<sup>th</sup> and the 10<sup>th</sup> antennomeres 1.2 times longer than the 7<sup>th</sup> one, all these three antennomeres twice longer than wide. The 11<sup>th</sup> antennomere is the longest, 1.4 times longer than the 10<sup>th</sup> one and 2.8 times longer than wide. All antennomeres with semierect, long, brown, hairs, on the 1<sup>st</sup> the densest, gradually sparse, the last antennomere almost glabrous.

Pronotum slightly transverse, ratio length : width 0.85, the widest in whole posterior third. Middle of pronotum with longitudinal keel extending from base of pronotum, to almost middle of pronotum, where it is arcuately inclined to margins of pronotum (transversal keel). Surface of pronotum vaguely shining, with very fine and dense punctures almost touching each other, with sparse blunt tubercles, their diameter twice smaller than distance between them. Pubescence recumbent or semierect, sparse (locally thickened), long. Arrangement



of hairs very different. White semierect hairs only on transversal keel inclined to margin of pronotum; in depression on base of pronotum, with rusty hairs inclined backwards. Rusty hairs in anterior part of pronotum inclined partly to middle of pronotum (on longitudinal and transversal axes), the rest inclined more or less forwards or partly also to lateral margins. Scutellum small, almost square-shaped.

Elytra shortly oval, with distinct shoulder, shining, with large, dense punctures, their diameter as large as distance between them. Elytra yellow-brown (almost rusty) in the first third of elytra and in long stripe along suture, tapering towards end, ending at the beginning of the posterior third of elytra. Rest of elytra piceous black. White dense recumbent pubescence arranged in letter "X", at the base of elytra with almost invisible transversal stripe of white pubescence, and end of elytra and lateral margin in middle length of elytra is also covered by white pubescence, all inclined backwards. Other surface covered by short dense grey pubescence inclined backward, in the basal part with rusty pubescence. Elytra without sparse erect hairs. Each elytron with one longitudinal keel (rib) near to lateral margin, visible especially in the second half of elytra.

Legs stout, femora and tibia with recumbent white dense pubescence. Tarsi robust, as long as tibia. The 1<sup>st</sup> tarsomere longest, 1.8 times longer than the 2<sup>nd</sup>. The 3<sup>rd</sup> twice shorter than 2<sup>nd</sup>, as long as wide. The 4<sup>th</sup> transversally, slightly emarginate. The 5<sup>th</sup> as long as wide, rounded trapezoidal. All tarsomeres with sparse, long hairs. Claws long, without teeth.

Metasternum transversally convex, with lateral longitudinal furrow. Surface with white long dense pubescence inclined backwards. All ventrites also with white long dense pubescence inclined backwards. All ventrites of the same length.

Aedeagus asymmetrical, see Fig. 2.

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Female. Without visible sexual dimorphism, the same size and colour as in male.

Differential diagnosis. See the following key.



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## KEY OF EUROPEAN SPECIES

1	Elytra without erected or semierect setae ( <i>regalis</i> -group)
-	Elytra with erect or semierect setae ( <i>imperialis</i> -group)
2	Elytra shorter, only 1.7 times as long as wide (Europe except northern part, Iran, Turkey)
	<i>P. regalis</i> (Duftschid, 1825)
-	Elytra longer, 2 times as long as wide (Sweden) P. sericeus (Toskina, 2001)
3	Setae in rows, semierect
-	Setae in rows, erect
4	Setae arranged in 12 rows; elytra without costae (south-east Europe, east North Africa)
-	Setae arranged only in six or seven rows with more or less visible two costae on each elytron
5	Costae very well visible, spots and stripes consisting of white long recumbent sparser hairs (Caucasus, Crimea,
	Balkan Peninsula, Turkey) P. magnificus (Reitter in Leder, 1880)
-	Costae only slightly visible, spots and stripes of white denser scales (Greece, Turkey, Kirgizstan, south Russia)
	<i>P. tatjanae</i> Logvinovskiy, 1978
6	Erect setae in 12 rows, light (Caucasus, Crimea)
-	Erect setae in six rows
7	Elytra without visible costae (Europe) P. imperialis (Linnaueus, 1767)
-	Each elytron with three costae
8	Costae very well visible, longer species (cca 5 mm) (south Balkan) P. perpulchrus (Obenberger, 1917)
-	Costae visible, but not well, smaller species (cca 3 mm) (Sicily) P. kratkyi sp. nov.

**Name derivation.** Dedicated to the collector of the type material and my friend Jiří Krátký (Pardubice, a well-known specialist in Curculionidae (Coleoptera).

**Note.** Logvinovskiy (1985) synonymized *Ptinomorphus angustior* (Pic, 1896) to *Ptinomorphus imperialis* (Linnaeus, 1767), but Español (1992) synonymized this species also to *Ptinomorphus imperialis* (Linnaeus, 1767). Zahradník (2007) mentioned this species also as synonymous of *Ptinomorphus imperialis* (Linnaeus, 1767). Afterwards Toskina (2001) upgraded the species *Ptinomorphus angustior* (Pic, 1896) to a valid subspecies *Ptinomorphus magnificus angustior* (Pic, 1896).

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