VADONIA PERSICA SP. NOV. FROM IRAN AND *VADONIA KLICHAI* SP. NOV. FROM GREECE, TWO NEW SPECIES OF THE GENUS *VADONIA* (COLEOPTERA: CERAMBYCIDAE)

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ABSTRACT: The new species *Vadonia persica* sp.nov. comes from Iran, and for the time being, it is endemic to Iran. *Vadonia persica* sp. nov. was compared with the species *Vadonia bicolor* (Redtenbacher, 1850) and *Vadonia instigmata* (Pic, 1890). The new species *Vadonia klichai* sp.nov. comes from Greece, and for the time being, it is endemic to Greece. *Vadonia klichai* sp. nov. was compared with the species *Vadonia insidiosa* (Holzschuh, 1984), *Vadonia mainoldii* (Pesarini-Sabbadini, 2004), *Vadonia unipunctata dalmatina* (J.Müller, 1907), *Vadonia saucia* (Mulsant et Godart, 1855).

KEY WORDS: Coleoptera, Cerambycidae, Lepturinae, *Vadonia*, two new species from Iran and Greece

Vadonia persica sp. nov.

(Figs. 1a-d)

Body: Quite black, including legs and antennae. Abdominal ventrites black, with very short black setae. Setae are parallel and decumbent.

Elytra: Dark black, with very short black setae throughout their length. Setae denser on humeri, moderately erect but short black, only slightly erect setae on outer side of humeri. With four longitudinal costae on each elytron. The first costa is parallel with scutellum sides and then with elytral suture. Further three costae are evenly distributed throughout elytral area from humeri to elytral apex.

Elytral apices considerably divergent at ends, thus leaving large spaces between them. Elytral apices truncate, not rounded. Elytral punctation very fine, indistinct, coarser only around scutellum and humeri. Elytra darker, without considerable shine. In males, elytra 2.4 times longer than wide at humeri. Elytra narrow, rather flattened, not robust. Elytra in 2/3 of specimens without puncture in males as well as females, but in 1/3 of all specimens, there is a minute, nearly indistinct punctures in males as well as females.

Legs: Black tibia with 2 terminal spines in males. Femora with adjacent and short setae. Basal metatarsomere in males 1.35 times longer than metatarsites 2 and 3 combined.

Scutellum: Black, straight on sides, with sharp angle, triangular, as long as wide.

Pronotum: Black, with very dense and coarse punctation. Interspaces between punctures smaller than puncture diameter. Pronotum setation black, erect on middle area, directed outward laterally.

Head: Black, very densely punctate. Intervals between punctures smaller than puncture diameter. On temples with black, long setae.

Antennae: Black, but antennomeres 3 and 4 partially (1/2) dark red and black. Antennae not serrate, in males reaching two thirds elytra length, in females about half elytra length.

Aedeagus: Very characteristic of the species (see the photo). Different from other species from Iran or Turkey. It was compared with species from the same group, such as *Vadonia bicolor* (Redtenbacher, 1850) and *Vadonia instigmata* (Pic, 1890). Aedeagus tip in the new species *Vadonia persica* sp.nov. only gently achieves its apex.

Body size: m*m* 14-15 mm, f*f* 15-16 mm.

The variability in paratypes: 2/3 of males and females with elytra without any black spot at the middle of elytra, but 1/3 of males and females have minute black spot in middle of each elytron.

HOLOTYPUS: m*-Irán-Zagros Mt.,Atashgah-Čaharmahál a Bachtijárí 10.6.2014,lgt. D. Loupanec,coll J. Vartanis (Czechia Republik, Uherský Brod). PARATYPUS: 1 m*,1 f*-Irán-Zagros Mt., Kohgiluyeh and Boyer-Ahmad provincie 30.5.2015 lgt. Dalihod, coll J. Vartanis. 4 m*m*, 3 f*f*-Irán Isfahan-Kolah Ghazi NP 18.7.2016, lgt. Murasty D., coll J. Vartanis.

Differential diagnosis: The new species from Iran, *Vadonia persica* sp. nov. was compared with all the species from Iran and Turkey, where the main character of males are 2 spines on the tibia. In all the male species mentioned, aedeagi were compared and are very characteristic of each species. In the whole genus *Vadonia,* the aedeagus serves as the principal character in the identification of all the known species. In my collection, I have all the species of the genus *Vadonia*. In addition, I also studied the holotype of the species *Vadonia bicolor* (Redtenbacher, 1850). The similar species *Vadonia instigmata* (Pic, 1890) is different in the aedeagus shape as well as in the pronotum which is covered with long, decumbent setae throughout its area, the setation being light. In this species, the elytra are rather yellowish-brown without the black central spot and without black apices of elytra. Setae on elytra are light, very long on humeri and on sides of humeri; they are directed downward. The whole elytra area are covered with light setation. Punctation is very sparse. The body size of males ranged between 15 and 19 mm. The species is rather cylindrical, elytra are not flattened. The species is considered to be endemic to Turkey but it also occurs in northern Iran, at localities southwest of Azerbaijan in the province Takab, near Takht, Suleiman Agh Bolagh 2.200-2.700 m. In addition, it occurs at many locations in Turkey, Hakkari, Diyarbakir, Adiyaman prov. A further similar species was *Vadonia bicolor* (Redtenbacher, 1850) which has its pronotum very sparsely setaceous, nearly bare and bright. On sides, it is very shortly and sparsely setaceous. The setae are light. The pronotum punctation is very sparse, with very long distances between punctures. Antennae are rather dark red. The elytra are without the central spots and without black tips. They are very bright and very sparsely covered with light setae. The setae are very short, humeri and outer sides being rather bare, with only few erect setae on sides. The punctation is very fine and sparse. The body size of males is between 15 and 19 mm. The species occurs

in Iran and was also found in Turkey - Kahta, Nemrut Dagi Mt.2400 m. The new species *Vadonia persica* sp. nov. is very different from the above mentioned species; it is found on different plants of Asteraceae sp. The elytra have a very characteristic shape and the species exerts characteristic setation, colour of setae, shape of elytra and different minor characters, particularly in the aedeagus.

ETYMOLOGY: The new species from Iran, *Vadonia persica* sp. nov. is named after the name of the country Persia (= Iran).

***Vadonia klichai* sp. nov.**

(Figs. 1a-e)

Body: Black including all legs and antennae. Abdominal ventrites black, with decumbent long, grey setae. The setae are parallel.

Elytra: Dark black throughout, without spot. Very finely and densely punctate. Setation of elytra light, with very long and decumbent setae on humeri, and short and light setae in posterior two thirds of elytra. Elytra punctation very dense, intervals between punctures as large as puncture diameter. All paratypes and holotype are quite black, without any other colour.

Legs: Black, very densely setaceous, the setae decumbent. Tibia with two terminal spines in males. Femora with decumbent setae, without any erect setae. Basal metatarsomere of males longer than second and third metatarsomeres combined including the claw.

Scutellum: Black, covered with long, light setae.

Pronotum: Black, spherical, very symmetric, strongly arcuate laterally. Very finely and densely punctate. The setation of pronotum very long, decumbent, light.

Head: Black, with very long, light and decumbent setae. No setae on temples directed outward.

Antennae: Black, with decumbent setae. Not serrate in shape, none of antennomeres dilated outward. Antennae of males rather long, reaching the last quarter of elytra, in females exceeding half of elytra.

Aedeagus: Considerably different from other species (see the photo). Aedeagus tip dilated apically at angle of 45° on both sides, producing the triangular shape in a certain position. The tip reaching immediately the apex, not elongate and narrowed as in other species and thus strongly different from all the above listed species, with which the species was compared, such as *Vadonia unipunctata dalmatina* (Müller, 1907), *Vadonia insidiosa* (Holzschuh, 1984), *Vadonia mainoldii* (Pesarini-Sabbadini, 2004), *Vadonia saucia* (Mulsant-Godart, 1855).

Body size: m*m*14-15 mm, f*f* 15 mm.

Variability: All paratypes were completely black including elytra with exception of a specimen, in which 1/3 of elytra area was yellow. In this specimen,

the elytra are black, with very wide central band surrounding scutellum and extending to the elytral apex. Posterior third of elytra is black. A yellow narrow band starting on outer side of humeri of each elytron is extended on outer side up to 2/3 of elytra. On this yellow band, there is a black point on each elytron.

HOLOTYPUS: m*-Greece, Pindos-National Park Pindu, 8.7.2013, lgt.-coll. J. Vartanis (Czech Republic). PARATYPUS: 2 m*m*,3 f*f*-Greece, Pindos-NP Pindu, 9-10.7.2013, lgt.-coll. J. Vartanis.1 f*- Greece, Korfu island-Ermones 18.6.2016 lgt. J. Steinhofer, coll. J. Vartanis. 1 m*,2 f*f*- Greece, Thessalia-Chaliki 4.7.2015 lgt., coll. J. Klícha (Czech Republic).

Differential diagnosis: The new species *Vadonia klichai* sp. nov. occurs in the southwest part of Greece in the area of Pindos and Thessalia and one specimen was caught on the island Corfu, which is west of continental Greece. The species falls into a group of *Vadonia* species, in which the males have two spines on the tibia and was thus compared with species exerting this character. In addition, its aedeagus is very characteristic, where the tip is strongly dilated on both sides and is in the shape of triangle, thus being very different from other species. All the other species from Greece have the aedeagus tip only narrowed and rounded without any other shapes; this concerns species from the whole group of *Vadonia unipunctata* (Fabricius, 1787) including all the known subspecies occurring in Greece (such as *dalmatina, macedonica*). It was also compared with the species *Vadonia insidiosa* (Holzschuh, 1984) and *Vadonia mainoldii* (Pesarini-Sabbadini, 2004). All the above listed species have different colour of elytra, different setation of the pronotum elytra and other shapes of the aedeagus. Their aedeagus is only arcuate without any swellings or other structural elements. In addition, the new species was also compared with a remote species *Vadonia saucia* (Mulsant-Godart, 1855), which occurs only on Crimea (Russia) and in northern Romania (Tulcea). This species has its aedeagus strongly narrowed and the tip achieves the end very gently; it is swollen at end, but with sharp edges and thus, the aedeagus is very different from the new species. The new species *Vadonia klichai* sp. nov. is endemic to Greece: from continental part of northwest area up to the isle Corfu. The new species *Vadonia klichai* sp. nov. is found on plants *Knautia macedonica* and *Knautia* sp.

ETYMOLOGY: The new species *Vadonia klichai* sp. nov. was named after my colleague and specialist in Cerambycidae Jiří Klícha (Praha, Czech Republic).

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Figure 1. *Vadonia persica* sp. nov., a) male, b) female, c,d) Aedeagus.

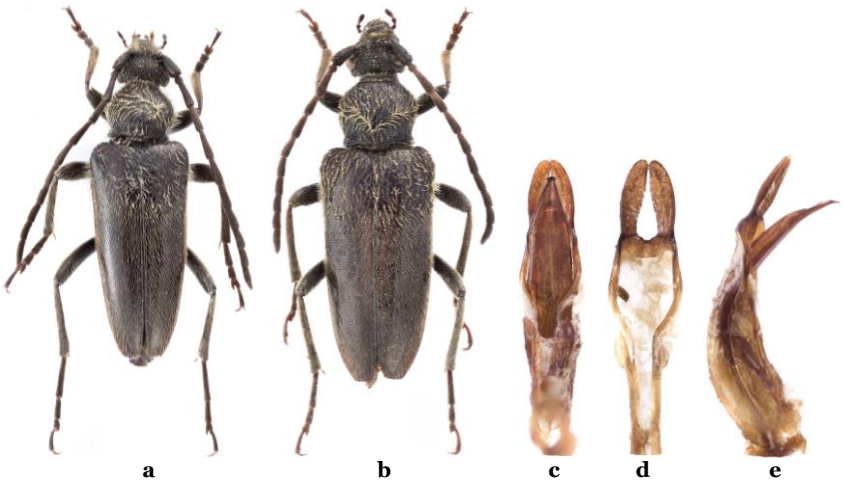

Figure 2. *Vadonia klichai* sp. nov., a) male, b) female, c,d,e) Aedeagus.