

CONTRIBUTION TO THE RECOGNITION OF CERAMBYCIDAE (COLEOPTERA)

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Abstract — The autor present a description of a new species *Anoplistes* Audinet-Serville, 1934 from Bulgaria. Because of the significant difference from *Paracorymbia maculicornis* (De Geer, 1775) and *Paracorymbia simplonica* (Fairmaire, 1885) the *Paracorymbia ondreji* (Sláma, 1993) is classified as an independant species. A description of *Poecilium pusillum* (Fabricius, 1787) *inopinatum* ssp. n. from Greece is included.

Keywords — taxonomy, description, Cerambycidae, *Anoplistes*, *Stictoleptura*, *Poecilium*, palcarctic region.

Résumé — Contribution à la reconnaissance des Cerambycidae (Coleoptera). L'auteur présente la description d'une nouvelle espèce d'*Anoplistes* Audinet-Serville, 1934 de Bulgarie. En raison de la différence significative entre *Paracorymbia maculicornis* (De Geer, 1775) et *Paracorymbia simplonica* (Fairmaire, 1885), *Paracorymbia ondreji* (Sláma, 1993) est classé comme une espèce indépendante. Une description de *Poecilium pusillum* (Fabricius, 1787) *inopinatum* ssp. n. de Grèce est incluse.

Mots-clés — taxinomie, description, Cerambycidae, *Anoplistes*, *Stictoleptura*, *Poecilium*, région paléarctique.

Introduction

In the text below I present a description of a new species, a new subspecies, and a new status of an earlier described species. Discovery of a cerambycidae from genus *Anoplistes* (earlier *Asias*) from Balkan has been published in literature for many years, but it has not been completely clarified and was even frequently disputed. The Balkan's occurrence of the genus confirms the newly described *Anoplistes balcanicus* n. sp. It is most likely a very rare or very local species. *Stictoleptura ondreji* (Slama) is presented as an independent species, which I consider necessary due to certain dissimilarities. Inclusion of this subspecies under the species *maculicornis* (De Geer) (SLÁMA, 1998) or *simplonica* (Fairmaire) (PESARINI & SABATINI, 2004) was not accurate. The original description and now published photographs support the significant differences between *S. ondreji* and the mentioned species. Taxon *Poecilium inopinatum* ssp. n. found in Greece is different from the nominate form and the

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other described subspecies; therefore I feel it is correct to present it as a separate subspecies.

Materials and methods

The described member of the genus *Anoplistes* from Balkan was found by Czech entomologist Rambousek in Bulgaria at the beginning of the last century. It is the only old specimen, and it was photographed in the original stage of preparation. *Strictoleptura ondreji* (Sláma) was found in the range Parnassós in Greece on blossoms among other specimens. Compared to the original description the documentation of the dissimilarities of this and related species also includes photographs. Several specimens of taxon *Poecilium inopinatum* ssp. n. were raised in wood. For better comparison clarity its description is submitted in a differential diagnosis table form.

Systematics

Anoplistes balcanicus n.sp.

In the following text, I submit a description of the new species *Anoplistes* Audinet-Serville, 1834 coming from southern Europe, Bulgaria. Earlier this genus was identified as *Asias* Semenov-Tjan-Shanski 1914 (LÖBL I. & SMETANA A., 2010). Noted from the Balkan is an occurrence of *Asias ephippium* Stevens et Dalman, 1817 (for example MURAJ, 1960, PANIN & SAVULESCU, 1961, ANGELOV, 1995), and it is mentioned as uncertain (HEYROVSKÝ, 1967, ALTHOF & DANILEVSKY, 1997). I tried to obtain a few imagoes of *Anoplistes* (*Asias*) found in Balkan for comparison to verify the correct determination of the published findings, but I was unable to acquire any imagoes for verification or find where they are stored. According to sources, Dr. B. Gueorguiev from National Museum of Natural History Sofia consulted this matter with Dr. G. Georgiev, and they were also unable to clarify it. Therefore, I cannot express my opinion whether the earlier published Balkan findings of *Asias* were determined correctly as *Asias ephippium*. Unfortunately, I have only one available imago of a female. Since I have not been able to find another piece in several years, I decided to proceed with the description mainly because the imago that I am using for the description of the new species is very different from the species *Asias ephippium* mentioned in literature (now *Anoplistes halodendri ephippium* Stevens & Dalman, 1817).

Type material. Holotypus : ♀ Bulg. Rumelia, Plovdiv, 10. 5. 09 (=10.5.1909), Rambousek (=Igt.), coll. National Museum, Prague.



Figure 1: *Anoplites balcanicus* sp. n.

Description of holotype. Body length female: 11 mm, body width: 2,7 mm.

Caput. The head is short (=approx. 60 % of the length of the pronotum), narrower than the pronotum (=72 %). The dimples on the vertex of the head are similar to the ones on the pronotum, but denser. A narrow deep shiny groove is found only between the antennae. Additionally, dense dimples are present on the sides to the antennae. Clypeus is vibrantly shiny with finer narrow dimples only on the front side. The fine, light-colored head setae is sparse and standing up.

Antennae. The antennae reach to $\frac{3}{4}$ of the length of the elytra. The ratio of segments from 1. to 11. in relationship to the 3. segment of the antennae is: 1. =0,97; 2. =0,22; 3. =1,00; 4. =0,77; 5. =0,90; 6. =0,87; 7. =0,80; 8. =0,72; 9. =0,73; 10. =0,62; 11. =0,60. The 1. antennae segment is very strong, the

strongest in the 2. third = 0,43 % of its length. The first segment's outside back part is visibly rounded and overlaps the joint of the 2. segment. Other segments (from the 4. to 10.) widen from the base with the widest part at the end. From the 3. segment, the outer back ends have a distinct notch creating an angle between 45° to 60° from the outer side to the notch. The dimples of the 1. antennae segment are relatively sparse; spaces between them cover approximately a half of the area of the dimples. From the 2. to 11. segments the dimples are gradually smaller and denser. The 1. segment of the antennae is shiny. The other segments are less shiny, especially from the 5. segment. They gradually become completely matt at the end. The reason for this is gradually finer and denser dotting towards the end of the antennae. On the antennae from the 1. to 4. segments are almost flat laying, mostly strong sharp setae approximately half the length of the whole diameter of the segment. From the 4. segment the antennae have flat lying short setae with isolated longer standing setae, almost bristles. At the end of all segments are long thick sharp bristles. The color of setae is dark, almost black. The color of the 1. and 2. antennae segments is dark brown to black; 3/4 - 4/5 of the basal part of the other segments are brown. The end is dark brown, almost black.

Pronotum. The pronotum is slightly wider than it is long (1,2x), widest in the middle part, slightly narrower on the front side than at the base, with rounded sides. The middle width is 1,24x wider than the base with the front side at 0,83x the width. The edge of the pronotum is nearly parallel without narrowing down. The side protrusion (bump) is almost unnoticeable and only slightly evident. The pronotum is very coarsely dotted (dimpled); spaces between the dots are almost unnoticeable. It is slightly arched. Two bumps exist on the sides from the middle right behind the base. These are dotted just like the area adjacent to the pronotum. There are three other mildly arched bumps in the middle part of the pronotum, one in the middle before the half of the pronotum, the other two from the base immediately past half of the pronotum right by the longitudinal axis. Irregular shiny spots created by sparser dotting exist on these bumps. The pronotum has short, rather flat laying sparse setae, mostly lightly colored. The sides behind the base up to the half of the pronotum have sparse long setae; the length of the setae is two to three times longer than the other setae. The edge of the pronotum at the head has very dense short light colored setae. The color of the pronotum is black.

Scutellum. The scutellum has a shape of a transverse triangle and on the back side bluntly rounded. It is 2x wider than it is long with short light colored setae. The color of the scutellum is black.

Elytrae. The elytrae are widest at the base, then quickly narrowing down and only at the end approximately parallel and of the same width. The elytrae are 2,7x longer than their widest part behind the base, and they are 3,3x longer than the length of the pronotum. Their width at the base is 1,06x bigger than the width of pronotum; in the 2. quarter their width is =1,00 of the length of the

elytrae, in the 3. quarter is =0,97, and in the 4. quarter is =0,99. On the top side they are rather flat with two slightly noticeable longitudinal ribs. At the base the elytrae are relatively densely dotted (dimpled); the dimples are approximately half the amount of those on the pronotum. Towards the back they are gradually smaller; at the end they are almost unnoticeable and the elytrae are only slightly rippled. More pronounced dotting is along the sides of the elytrae than along the seam. The end of the elytrae is rounded. The color of the elytrae is light red; close behind the scutellum begins a black spot that gradually widens to 1/3 of the length of the elytrae, then it continues parallel towards the back and takes up almost 2/3 of the width of each elytra. The last 1/6 of the length of the elytrae is all black. At the base the elytrae have a small humeral spot. The hair of the elytrae on the red area is very short and light colored. The hair on the black area is not very visible against the dark background, but it is not black. At the end of the elytrae the hair is longer (approximately 1,5x), and especially along the outside edges of the elytrae the deep black bristles are generally two times longer.

Legs. The legs are black; the last segment of tarsae is dark brown. Hair on the femora is rather flat laying from fine to coarse and sharp. The whole length of the front legs' tibia has sharp partially standing black hair; the hair on the inside from the second third to half is relatively fine, dense and bright gray. On the tibia of the second and third pair of legs are partially standing sharp black stronger hairs, almost bristles. Their length is approximately half of the diameter at the end of the tibia at the thickest part. Similar stronger black hairs are also on all tarsae.

Distribution. Bulgaria.

Name derivation. The new species was named after the Balkan Peninsula where it was found.

Differential Diagnosis. PAVILŠČIKOV (1940) basically divides species *Asias* (now *Anoplistes*) by antennae into two groups where the main criterion is the thickness and the length of the antennae. The first group, with longer antennae in both males and females, thus far also includes the mentioned species from Balkan *Asias ephippium* (Stev. et Dalm., 1817) and the primarily Siberian species *Asias halodendri* (Pallas, 1776). The new species being described as *Anoplistes balcanicus* is completely different than "*Asias ephippium*" and rather belongs in the second group with shorter antennae in both sexes. In the first group the antennae of females reach slightly past the ends of the elytrae; in the second group they are significantly shorter and reach only past half of the elytrae. Another notably distinct characteristic is a very different ratio of the lengths of the first and the third antenna segments. In the first group the third segment is almost twice longer than the first; in the second group the third

segment is almost as long as the first. The new species that is being described belongs in the second group and is more similar to species *A. forticornis* (Reitter 1901), which lives in Middle Asia and Kazakhstan. The main differentiating feature from this species is an immediately noticeable slender and longer body. The elytrae are noticeably narrower and longer. The sides of the pronotum are almost rounded, unlike *A. forticornis* with sides of the pronotum stretched into an obtuse angle. The pronotum is more sparsely dotted, and it has three shiny spots on the surface. A black spot on the elytra is usually parallel while *A. forticornis* has a black spot more or less in a shape of a drop.

Stictoleptura Ondreji (Sláma, 1993) stat. n.

I described a new taxon from the mountain range Parnassos in Greece under the name *Brachyleptura maculicornis Ondreji* subsp. n. (SLÁMA, 1993). However, PESARINI & SABBADINI (2004, 2007) consider it a subspecies of species *Paracorymbia simplonica* (Fairmaire, 1885), similarly as SAMA (2002). The shift of ssp. *Ondreji* from species *P. maculicornis* (De Geer, 1775) to species *P. simplonica* (Fairmaire, 1885) probably happened solely based on the similar color of the elytrae. They feature *Paracorymbia simplonica* as a separate, but not firmly established species. In my opinion their view about the distinctness of this species is correct. Based on the mentioned publications I revised taxon *Ondreji* and reached the conclusion that this taxon today cannot be considered a subspecies of either of the two mentioned species, because it differs from them a lot more than these species differ between each other. It must have a new status as an independent species. All of the named species are now published under a genus *Stictoleptura* Casey, 1924 (LÖBL & SMETANA, 2010).

My original description unfortunately includes very poor illustrations due to technical reasons. At the time the editor was unable to print out the photographs that I attached to the text, so he only roughly traced them.

The main features for differentiation of ssp. *Ondreji* are published in the original description (SLÁMA, 1993). I believe it is necessary for justification of the new classification of *Stictoleptura (Paracorymbia) Ondreji* to republish the main features that differentiate it from *Stictoleptura (Paracorymbia) maculicornis* and *Stictoleptura (Paracorymbia) simplonica*. At first sight it has a different body build; the elytrae are shorter in ♂♂ on average by 4,9 % and in ♀♀ by 8,6 %. The outsides of clypea are slightly convergent and wide on the front side, not strongly convergent and narrow on the front side. The prosternal projection is wide and slightly cut out at the end, not narrow and deeply cut out. The 8. abdominal sternite is deeply cut out; the outer angles are strongly

extended. The apex of aedeagus is sharper; on *Stictoleptura maculicornis* and *simplonica* it is duller.

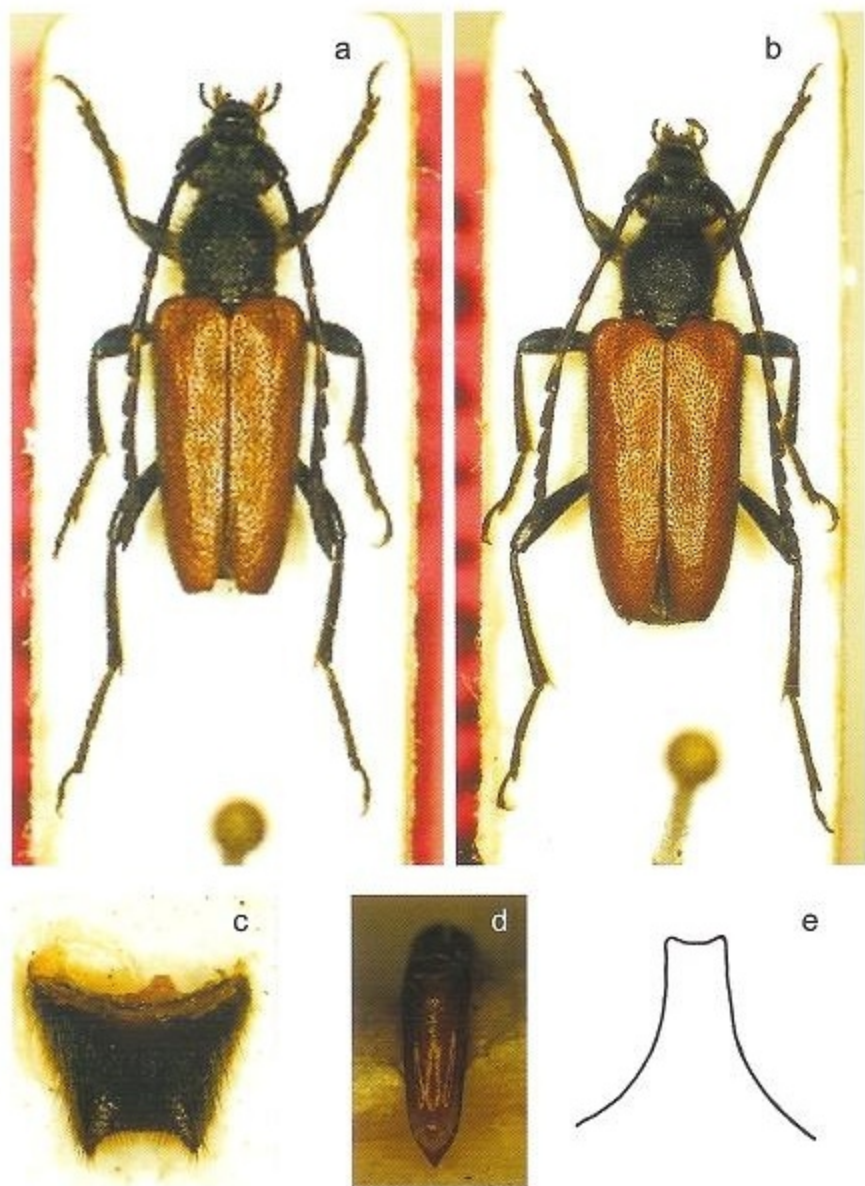


Figure 2 : *Paracorymbia Ondreji* (Sláma), a: ♂, b: ♀, c: abdominal sternite, d: aedeagus, e: prosternal projection.

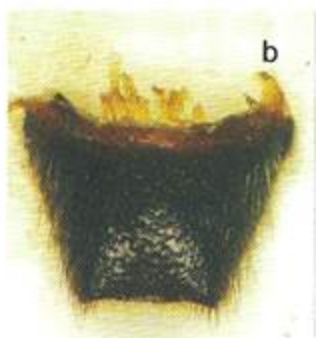
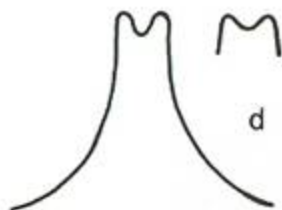


Figure 3: *Paracorymbia maculicornis* (De Geer, 1775), a: ♂, b: abdominal sternite, c: aedeagus, d: prosternal projection.



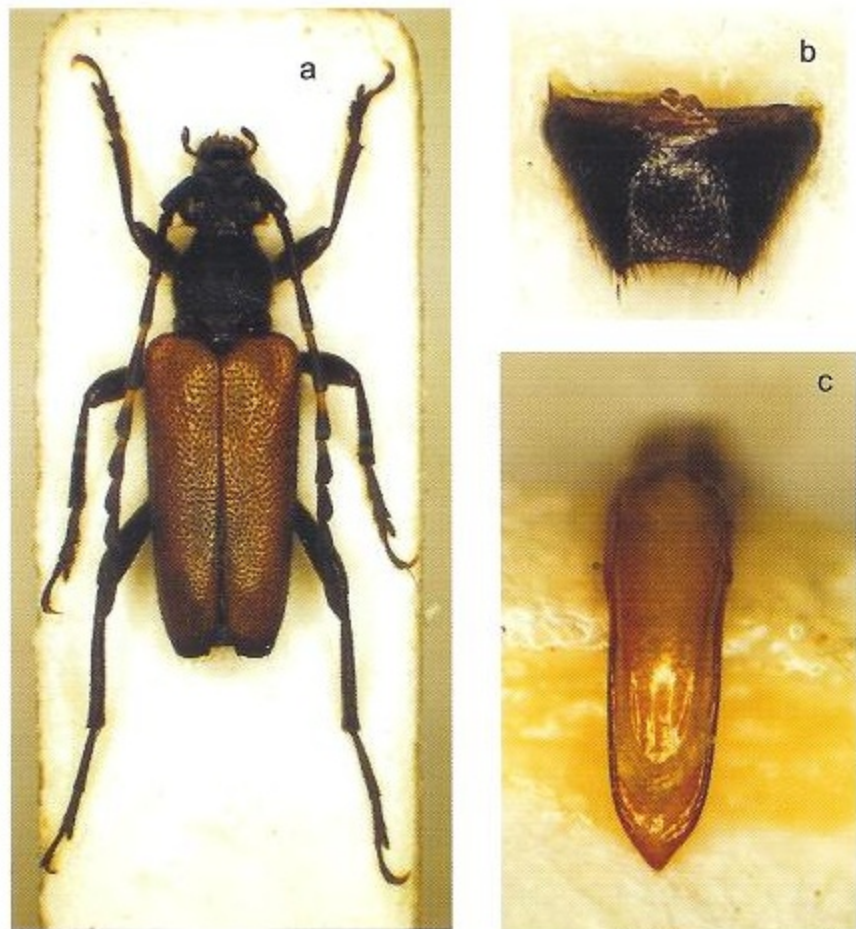


Figure 4: *Paracorymbia simplonica* (Fairmaire, 1885), a: ♂, b: abdominal sternit, c: aedeagus,

***Poecilium pusillum inopinatum* ssp. n.**

In the text presented below, I provided a description of a new subspecies *Poecilium pusillum* (Fabricius, 1787) *inopinatum* ssp. n. from northern Greece in the form of a differential diagnosis. In works by SLÁMA & SLÁMOVÁ (1996 [1995]) and SLÁMA (1998), I quoted this taxon found in Greece as *Poecilium pusillum barbipes* Küster, 1847. After a more detailed study and cultivating more pieces I found out that it is a very similar, but different subspecies. I keep

classing of the taxon *barbipes* Küster as a separate subspecies, as already mentioned in my former work (SLÁMA, 1998) based on its geographic occurrence. Over many years, I had a chance to catch, rear and see in different collections many specimens of the species. I have seen much more than 1000 specimens of the nominate form (having the whole elytra dark) from Spain, France (based on a personal communication, only the nominate form occurs there – P. Berger), Belgium, Germany, Poland (from Zielonka), Sweeden and Bohemia. Plavilstshikov (1940) reported the occurrence in West Ukraine only in the nominate form. As far as the ssp. *barbipes* is concerned, I have seen several tens of specimens only, coming from Moravia, Slovakia (the whole elytra exceptionally yellowish brown) and Hungary. All the specimens had light shoulders. Even in cases of specimens from this area, which were reportedly completely dark, there were inconspicuous small lighter spots on the shoulders. As to my knowledge, its occurrence together with the nominate form is only known from Poland. I received a larger number of specimens (from Rezerwat Jedlnia w Puszczy Kozienickiej, lgt. J. Hilszczanski). This is obviously a site of contact and common occurrence of the two subspecies (2 ex. *pusillum*, 8 ex. *barbipes*, 2 ex. have yellowish brown elytra).

Type material. Holotypus: ♂ Greece, Thesália, Trikala – Kastráki ex. l., 2009, Martinů Ivo lgt., coll. Sláma. Paratypes: 31 specimens from the same locality. 1 ♂ and 6 mostly damaged pieces Graecia, Macc. occ., Grevena, 1991, J. & M. Sláma lgt. Paratypes coll. Sláma, Martinů, Mazal.

Host plant: *Quercus* sp. All the imagines were reared from tree branches.

Distribution: Greece

Name derivation. The name of the new subspecies is derived form a Latin word, which means unexpected.

The head looks matter. Dimples are mostly bigger and the area among them is less straight, frequently even wrinkled and usually less shiny. The gap on the forehead between the eyes is wider. The ratio of the gap to the first antennomere length is of 1.0 to 1.1 in ♂♂ and 1.08 to 1.18 in ♀♀.

The antennae of the male reach the end of elytra or even slightly extend past them. The end of the outer side of the first segment of the antennae slightly extends past rounded joint of the second segment of the antennae. The 4th antennomere of ♂♂ is shorter than the 5th one by 1–6%. The third antennomere of ♀♀ is longer by 8–19% than the fourth one.

The scutum is slightly wider than the long (1.09–1.22). Punctures on the pronotum are larger and usually sparser.

Elytra are mostly shorter and wider in their middle part.

Areas between punctures on elytra are smooth and shining.

In ♂♂, the metatibiae are less considerably bent outward.

Tibiae of both ♂♂ and ♀♀ usually with more or less long setae.

Body black-brown or brown to light brown, the whole abdomen sometimes brown-yellow apically. Antennae as dark or pale brown as tarsi.

Colour of the elytra is more or less dark brown, in the nominate form with no spot on shoulders. In the subspecies barbipes the colour is lighter, with reddish-yellowish-brown spot of various sizes. In rare cases, the elytra can be completely or almost completely yellowish-brown.

Length of the body: 5–11 mm.

The head is shinier. The dimples are smaller and the area among them is straight, smooth and shiny. The gap on the forehead between the eyes is narrower. The ratio of the gap to the first antennomere length is of 0.8 to 0.87 in ♂♂ and 0.95 to 1.01 in ♀♀.

The antennae of the male do not reach the end of the elytra. The end of the outer side of the first segment of the antennae is usually extended beyond the joint of the second antennomere and can be terminated by a sharp, prominent flat area.

The 4th antennomere of ♂♂ is shorter than the 5th one by 8–18%. The third antennomere of ♀♀ is as long as the fourth one.

The scutum is clearly wider than long (1.25–1.28). Punctures on the pronotum are smaller and usually denser.

Elytra are mostly longer and narrower in their middle part.

Areas between punctures on elytra are less smooth and finely wrinkled (Kastraki) to coarsely wrinkled and mat (Grevena).

In ♂♂, the metatibiae are mostly much more considerably bent outward. The bending is less distinct in prothibiae and mesotibiae.

Tibiae of both ♂♂ and ♀♀ usually with very long, sparsely occurring setae.

Body, femora and tibiae black, less frequently black-brown or dark brown, abdomen dark or light brown. Antennae black to dark brown, tarsi almost black, frequently dark brown apically.

Colour of the elytra is darker (more black) than in nominate form, on the shoulders with a darker reddish-brown spot, which can be rarely prolonged up to the middle of the elytra.

Length of the body: 5.5–9 mm.

Table 1 : Elements of comparison between *Poecilium pusillum pusillum* (Fabricius, 1787) and *Poecilium pusillum inopinatum* ssp. n.

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